Appendices

Appendix A

Initial Study, Notice of Preparation (NOP), and NOP Comment Letters

Appendix A.1

Initial Study

LOS ANGELES
DEPARTMENT OF CITY
PLANNING
221 North Figueroa St., Suite 1350
Los Angeles, CA 90012

INITIAL STUDY

1111 Sunset

Case Number: ENV-2018-177-EIR

Project Addresses: 1111 and 1115 West Sunset Boulevard, Los Angeles, CA 90012

Community Plan Area: Central City North

Council District: 1—Gilbert Cedillo

Project Description: The Project proposes to remove the existing vacant buildings on the former Metropolitan Water District headquarters campus within the Project Site that comprise approximately 114,600 square feet to develop up to 778 residential units (including up to 76 restricted affordable housing units), up to 98 hotel rooms, up to 48,000 square feet of office space, and up to 95,000 square feet of general commercial floor area. The proposed general commercial floor area could include up to 20,000 square feet of food and beverage uses associated with a hotel use. The Project would result in 994,982 square feet of floor area.

The proposed uses would be built on a seven-level parking podium, which would be partially below grade, at the lowest depth of 64 feet below grade, and partially above grade. The portions of the parking podium that would be above grade would be wrapped in active uses or landscaped. Above the parking podium, the proposed uses would be provided within four primary structures: two residential towers (Tower A and Tower B), a hotel (the Sunset Building), and a commercial building that could contain office, retail, restaurant, and parking uses (the Courtyard Building). A portion of the commercial floor area would also be provided in three low-rise commercial structures oriented towards Sunset Boulevard and Beaudry Avenue. In addition, low-rise residential buildings would be located throughout the eastern and southern portions of the Project Site at the base of the two residential towers.

The proposed uses would require 1,631 parking spaces in accordance with the Los Angeles Municipal Code (LAMC). An additional 168 parking spaces for the existing Elysian apartment building would be provided within a five-level, partially subterranean parking structure located within the footprint of the proposed Courtyard Building.

Pursuant to the LAMC, the Project would provide a variety of open space totaling 87,525 square feet, including approximately 81,475 square feet of exterior common area and 6,050 square feet of interior common area, of which at least 30,000 square feet would be publicly accessible during specified times.

PREPARED FOR:
City of Los Angeles
Department of City Planning

PREPARED BY:
Eyestone Environmental

APPLICANT:
1111 Sunset Boulevard, LLC.

May 2018

INITIAL STUDY

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Executive Summary

Date: May 21, 2018

Project Title: 1111 Sunset
Environmental Case Number: ENV-2018-177-EIR
Related Cases: CPC-2018-176-DB-BL-VCU-MCUP-SPR, VTT-80315

Project Location: 1111 and 1115 West Sunset Boulevard, Los Angeles, CA 90012
Community Plan Area: Central City North
Council District: 1—Gilbert Cedillo

Lead City Agency: City of Los Angeles Department of City Planning
Staff Contact Name and Address: Jason McCrea, 221 N. Figueroa Street, Suite 1350, Los Angeles, CA 90012
Phone Number: (213) 847-3672

Applicant Name and Address: 1111 Sunset Boulevard, LLC., 11766 Wilshire Boulevard, Suite 1150, Los Angeles, CA 90025
Phone Number: (310) 268-8288

General Plan Designation: General Commercial
Zoning: C2-2D

PROJECT DESCRIPTION:

The Project proposes up to 778 residential units (including up to 76 restricted affordable housing units), up to 98 hotel rooms, up to 48,000 square feet of office space, and up to 95,000 square feet of general commercial floor area (which could include up to 20,000 square feet of food and beverage uses associated with a hotel use). The Project would comprise 994,982 square feet of floor area. The proposed uses would be built on a seven-level parking podium, which would be partially below grade and partially above grade, creating a single building on the Project Site. Above the parking podium, the proposed uses would be provided within four primary structures, including two residential towers, a hotel, and a commercial building that could contain office, retail, restaurant, and parking uses. A portion of the commercial floor area would also be provided in three low-rise commercial structures oriented towards Sunset Boulevard and Beaudry Avenue. In addition, a portion of the proposed residential uses would be provided in low-rise residential buildings (not in the residential towers) scattered throughout the eastern and southern portions of the Project Site at the base of the two residential towers.

The proposed uses would require 1,631 parking spaces in accordance with the requirements of the Los Angeles Municipal Code (LAMC). Parking would be provided in the seven-level parking podium discussed above. An additional 168 parking spaces for the existing Elysian apartment building would be provided within a five-level, partially subterranean parking structure.

The Project would include a variety of open space totaling 87,525 square feet, including approximately 81,475 square feet of exterior common area and 6,050 square feet of interior common area, pursuant to the requirements of the LAMC. Implementation of the Project would require the removal of the existing vacant buildings within the Project Site that together comprise approximately 114,600 square feet. For a detailed description of the Project, refer to Attachment A, Project Description, of this Initial Study.

ENVIRONMENTAL SETTING:
The Project Site is comprised of a 262,437-square-foot lot located at 1111–1115 Sunset Boulevard and a 10,481-square-foot portion of Beaudry Avenue and Sunset Boulevard adjacent to the 1111–1115 Sunset Boulevard lot that would be merged with the 1111–1115 Sunset Boulevard lot. The Project Site is located within the Central City North Community Plan Area of the City of Los Angeles, north of Downtown Los Angeles and northwest of Chinatown. The Project Site is generally bounded by White Knoll Drive to the north, Alpine Street to the east, Beaudry Avenue to the south, and Sunset Boulevard to the west. The vicinity of the Project Site is developed primarily with commercial and residential uses. Specifically, north of the Elysian apartment building located within the Project Site, across White Knoll Drive, are additional multi-family residential uses and an auto repair shop at White Knoll Drive and Sunset Boulevard. Expanses of multi-family residential uses continue east of the Project Site, across Alpine Street. South of the Project Site, across Beaudry Avenue, are commercial uses and a parking structure. West of the Project Site, across Sunset Boulevard, are a motel, a nightclub, and multi-family residential uses. For additional detail, refer to Attachment A, Project Description, of this Initial Study.

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?
No.

Other public agencies whose approval is required (e.g. permits, financing approval, or participation agreement.): Potentially including, but not limited to, the Regional Water Quality Control Board, South Coast Air Quality Management District.

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
- ☐ Agriculture and Forestry Resources
- ☒ Air Quality
- ☐ Biological Resources
- ☒ Cultural Resources
- ☒ Geology / Soils
- ☒ Greenhouse Gas Emissions
- ☒ Hazards & Hazardous Materials
- ☒ Hydrology / Water Quality
- ☒ Land Use / Planning
- ☐ Mineral Resources
- ☒ Noise
- ☒ Population / Housing
- ☒ Public Services
- ☒ Recreation
- ☒ Transportation / Traffic
- ☒ Tribal Cultural Resources
- ☒ Utilities / Service Systems
- ☒ Mandatory Findings of Significance

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.

Jason McCrea	Planning Assistant
PRINTED NAME	**TITLE**
	(213) 847-3672
SIGNATURE	**TELEPHONE NUMBER**

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 Analysis,” as described in (5) below, may be cross referenced).

5) Earlier analysis must 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 whichever 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.

A. Project Description

INITIAL STUDY

Attachment A: Project Description

A. Project Summary

The 1111 Sunset Project (Project) is a new mixed-use development proposed on a 272,918-square-foot (6.27-acre) site comprised of a 262,437-square-foot lot located at 1111–1115 Sunset Boulevard and a 10,481-square-foot portion of Beaudry Avenue and Sunset Boulevard adjacent to the 1111–1115 Sunset Boulevard lot. The 1111–1115 Sunset Boulevard lot and the portions of Beaudry Avenue and Sunset Boulevard to be merged with the 1111–1115 Sunset Boulevard lot are collectively referred to herein as the Project Site. The Project Site is located in the Central City North Community Plan Area of the City of Los Angeles.

The Project proposes to remove the existing vacant buildings within the Project Site that comprise approximately 114,600 square feet to develop up to 778 residential units (including up to 76 restricted affordable housing units), up to 98 hotel rooms, up to 48,000 square feet of office space, and up to 95,000 square feet of general commercial floor area. The proposed general commercial floor area could include up to 20,000 square feet of food and beverage uses associated with a hotel use. The Project would result in 994,982 square feet of floor area. As discussed in further detail below, the Project would allow for an exchange of uses if certain uses are reduced or eliminated.

The proposed uses would be built on a seven-level parking podium, which would be partially below grade and partially above grade. The portions of the parking podium that would be above grade would be wrapped in active uses or landscaping. Above the parking podium, the proposed uses would be provided within four primary structures:[1] two residential towers (referred to herein as Tower A and Tower B), a hotel (referred to herein as the Sunset Building), and a commercial building that could contain office, retail, restaurant, and parking uses (referred to herein as the Courtyard Building). A portion of the commercial floor area would also be provided in three low-rise commercial structures oriented towards Sunset Boulevard and Beaudry Avenue. In addition, low-rise residential buildings would be located throughout the eastern and southern portions of the Project Site at the base of the two residential towers. The proposed uses would require 1,631 parking spaces in accordance with the Los Angeles Municipal Code (LAMC). An additional 168 parking spaces for the existing Elysian apartment building would also be provided within a five-level, partially subterranean parking structure (referred to herein as the Elysian Parking Facility) located within the footprint of the proposed Courtyard Building. The Project would provide a variety of open space totaling 87,525

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[1] While the proposed structures would appear as separate buildings, the proposed structures collectively comprise one building per the City's Building Code due to the unifying subterranean parking.

square feet, including approximately 81,475 square feet of exterior common area and 6,050 square feet of interior common area, pursuant to the LAMC.

B. Environmental Setting

1. Project Location

The Project Site encompasses the addresses at 1111–1115 Sunset Boulevard and portions of Beaudry Avenue and Sunset Boulevard adjacent to 1111–1115 Sunset Boulevard. The Project Site is located within the Central City North Community Plan area of the City of Los Angeles, north of Downtown Los Angeles and northwest of Chinatown. As shown in Figure A-1 on page A-3, the Project Site is generally bounded by White Knoll Drive to the north, Alpine Street to the east, Beaudry Avenue to the south, and Sunset Boulevard to the west.

2. Background and Existing Conditions

a. Project Site Background

As discussed above, the Project Site comprises a 262,437-square-foot lot at 1111–1115 Sunset Boulevard and a 10,481-square-foot portion of Beaudry Avenue and Sunset Boulevard adjacent to the 1111–1115 Sunset Boulevard lot.

The 262,437-square-foot portion of the Project Site is specifically comprised of the 1111 Sunset Boulevard parcel (Parcel B) and an airspace lot (Parcel A) at 1115 Sunset Boulevard. This portion of the Project Site is an oval-shaped site that is currently developed with five buildings (referred to herein as Buildings 1 through 5), as shown in Figure A-2 on page A-4. The 1111–1115 Sunset Boulevard lot was used as the headquarters for the Metropolitan Water District from 1963 to 1993. Buildings 1 through 4, which were completed between 1963 and 1973, were specifically constructed for the Metropolitan Water District. In 1994, the 1111–1115 Sunset Boulevard lot was transferred to Holy Hill Community Church. Holy Hill Community Church provided for the construction of Building 5 as the church's new sanctuary. Construction of Building 5 commenced in 1998. During operation of the 1111–1115 Sunset Boulevard lot by the Holy Hill Community Church, Building 4 located at 1115 Sunset Boulevard remained vacant. The Holy Hill Community Church subdivided the parcel (Parcel A, an airspace parcel) that contained the general envelope of Building 4. In 2011, the Holy Hill Community Church sold Parcel A. The Holy Hill Community Church declared bankruptcy in 2014 and vacated Parcel B (1111 Sunset Boulevard). The four existing buildings within Parcel B at 1111 Sunset Boulevard (Buildings 1, 2, 3, and 5) are currently vacant. Building 4 at 1115 Sunset Boulevard is currently occupied by the Elysian apartments.

b. Existing Project Site Conditions

As shown in Figure A-2 on page A-4, and as discussed above, a portion of the Project Site is currently developed with four vacant structures that are situated generally in the center and along the western area of the lot and the Elysian apartment building situated generally along the northern

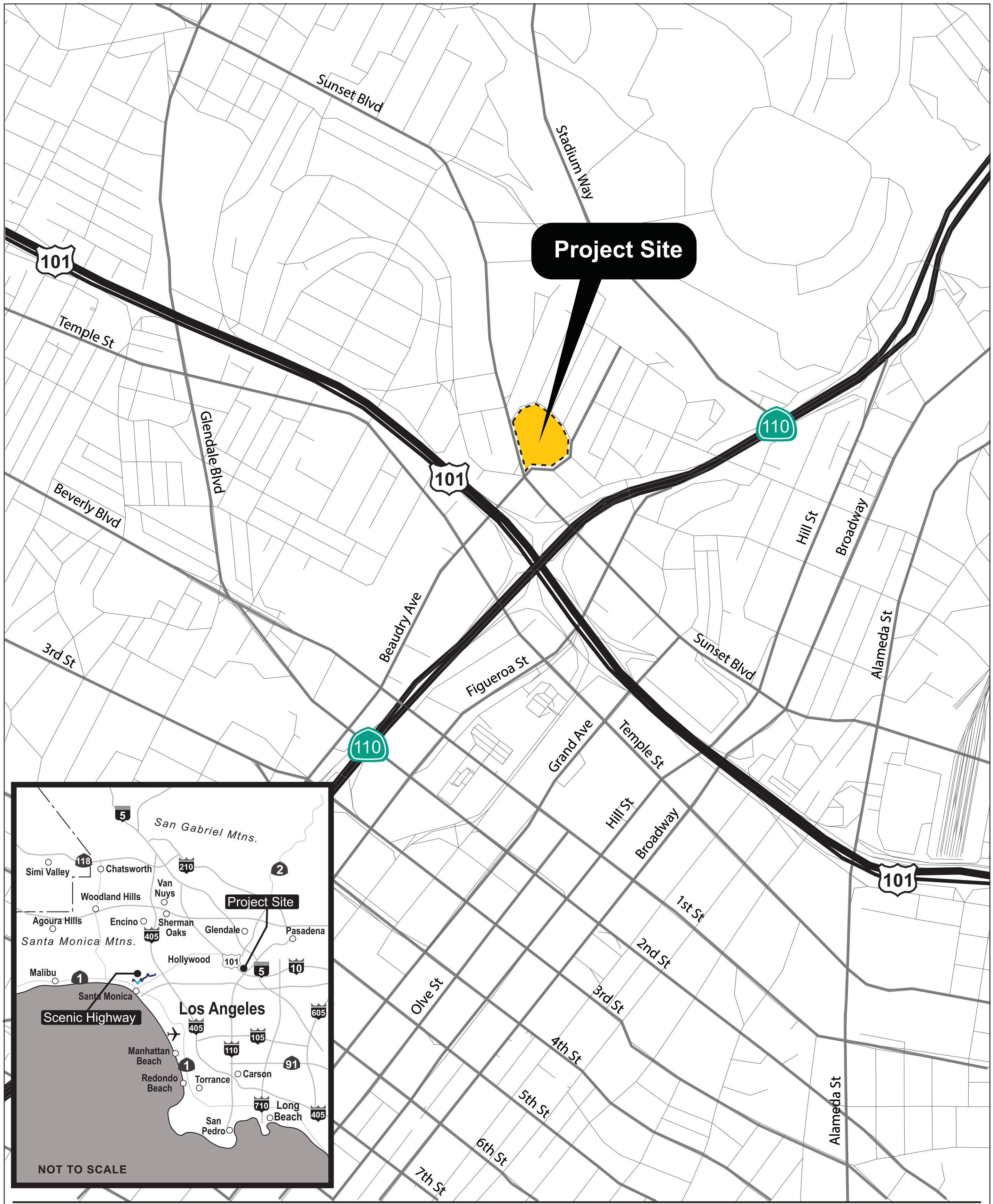
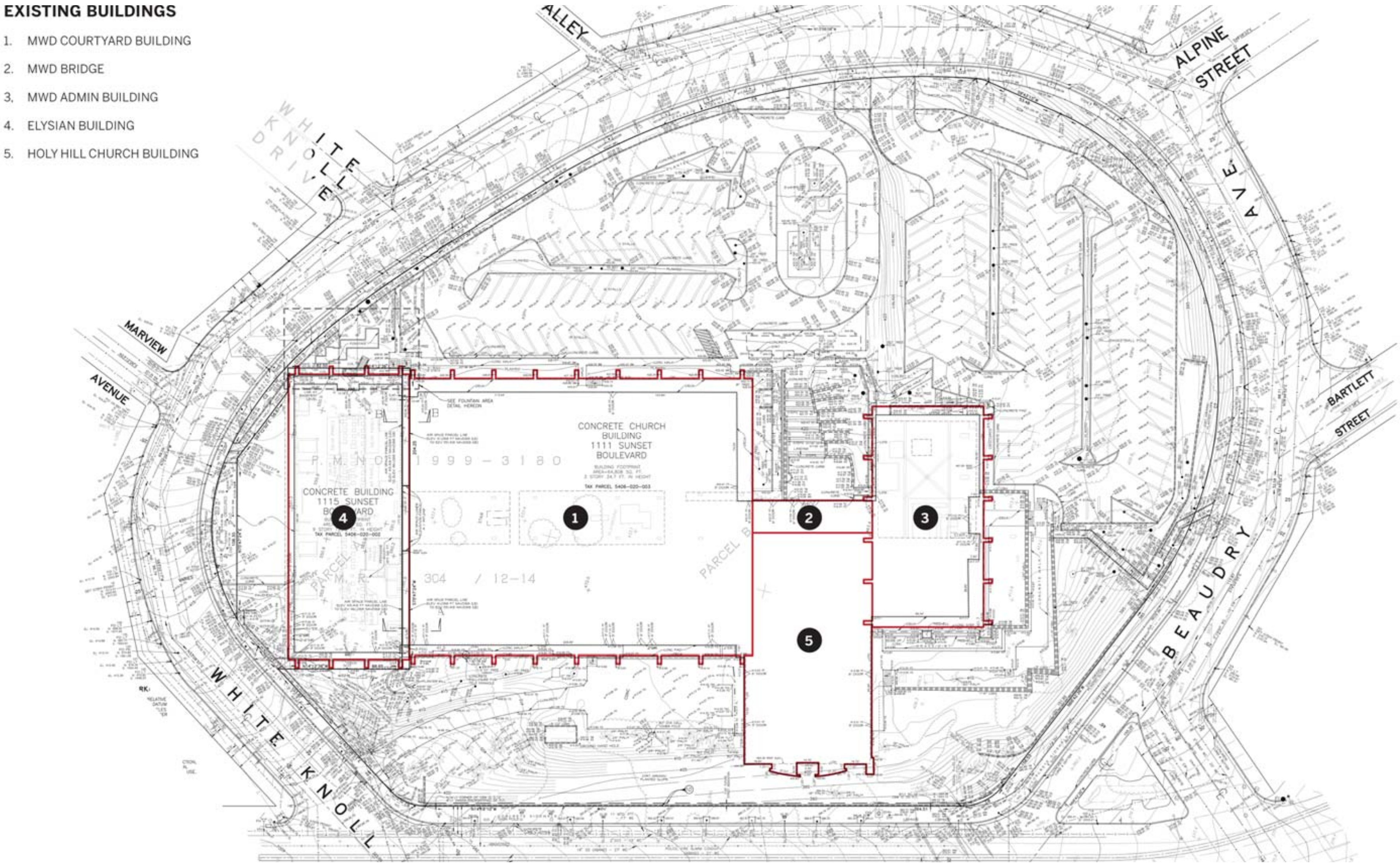


Figure A-1

Project Location Map

Source: Los Angeles County GIS, 2015; Eyestone Environmental, 2018.



EXISTING BUILDINGS

1. MWD COURTYARD BUILDING
2. MWD BRIDGE
3. MWD ADMIN BUILDING
4. ELYSIAN BUILDING
5. HOLY HILL CHURCH BUILDING

Figure A-2

Existing Site Buildings

Source: Skidmore, Owings & Merrill LLP, 2017.

portion of the lot.[2] The existing vacant structures comprise approximately 114,600 square feet and are three stories with an approximate height of 58 feet. The Project Site also includes surface parking and circulation areas generally located on the eastern half of the Project Site. Vehicular access to the Project Site is available at driveways along White Knoll Drive and Alpine Street. The Project Site slopes generally east to west with a grade difference of approximately 51 feet. Unmaintained landscaping, including trees, is dispersed throughout the Project Site.

The 10,481-square-foot portion of Beaudry Avenue and Sunset Boulevard of the Project Site includes part of the Beaudry Avenue frontage extending generally around the south and east portions of the 1111–1115 Sunset Boulevard lot as well as a portion of the street and the existing triangular road separator that divides Beaudry Avenue at Sunset Boulevard. The Beaudry Avenue frontage around the 1111–1115 Sunset Boulevard lot is currently improved with sidewalks and street trees. The traffic island that divides Beaudry Avenue at Sunset Boulevard is paved and landscaped with trees and shrubs that are unmaintained.

c. Land Use and Zoning

The Project Site is located within the planning boundary of the Central City North Community Plan3 area. The Project Site is designated as General Commercial and zoned C2-2D (Commercial zone, Height District 2 with Development Limitation). The zoning of the Project Site does not specify a building height limit, but rather limits the floor area ratio (FAR) to 3 to 1 (Footnote 4 in General Plan Land Use Map) and a permitted density of one unit per 400 square feet of lot area or one guest room per 200 square feet of lot area. The “D” limitation in particular limits the floor area within the Project Site to three times the buildable area of the lot. In addition, no front yard setbacks are required for commercial or residential uses. As illustrated in Figure A-3 on page A-6, the Project Site is also located within a Transit Priority Area as defined by the City.

3. Surrounding Land Uses

The vicinity of the Project Site is developed primarily with commercial and residential uses. Specifically, north of the Elysian apartment building located within the Project Site, across White Knoll Drive, are additional multi-family residential uses and an auto repair shop at White Knoll Drive and Sunset Boulevard. Expanses of multi-family residential uses continue east of the Project Site, across Alpine Street. South of the Project Site, across Beaudry Avenue, are structured parking and commercial uses. West of the Project Site, across Sunset Boulevard, are a motel, a nightclub, and multi-family residential uses. An aerial view of the Project Site and vicinity is provided in Figure A-4 on page A-7.

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[2] There is a Reciprocal Easement Agreement between the owner of the Elysian apartments and the Applicant which defines and controls the relationship between the entities.

[3] The City is currently in the process of updating the Central City North Community Plan.

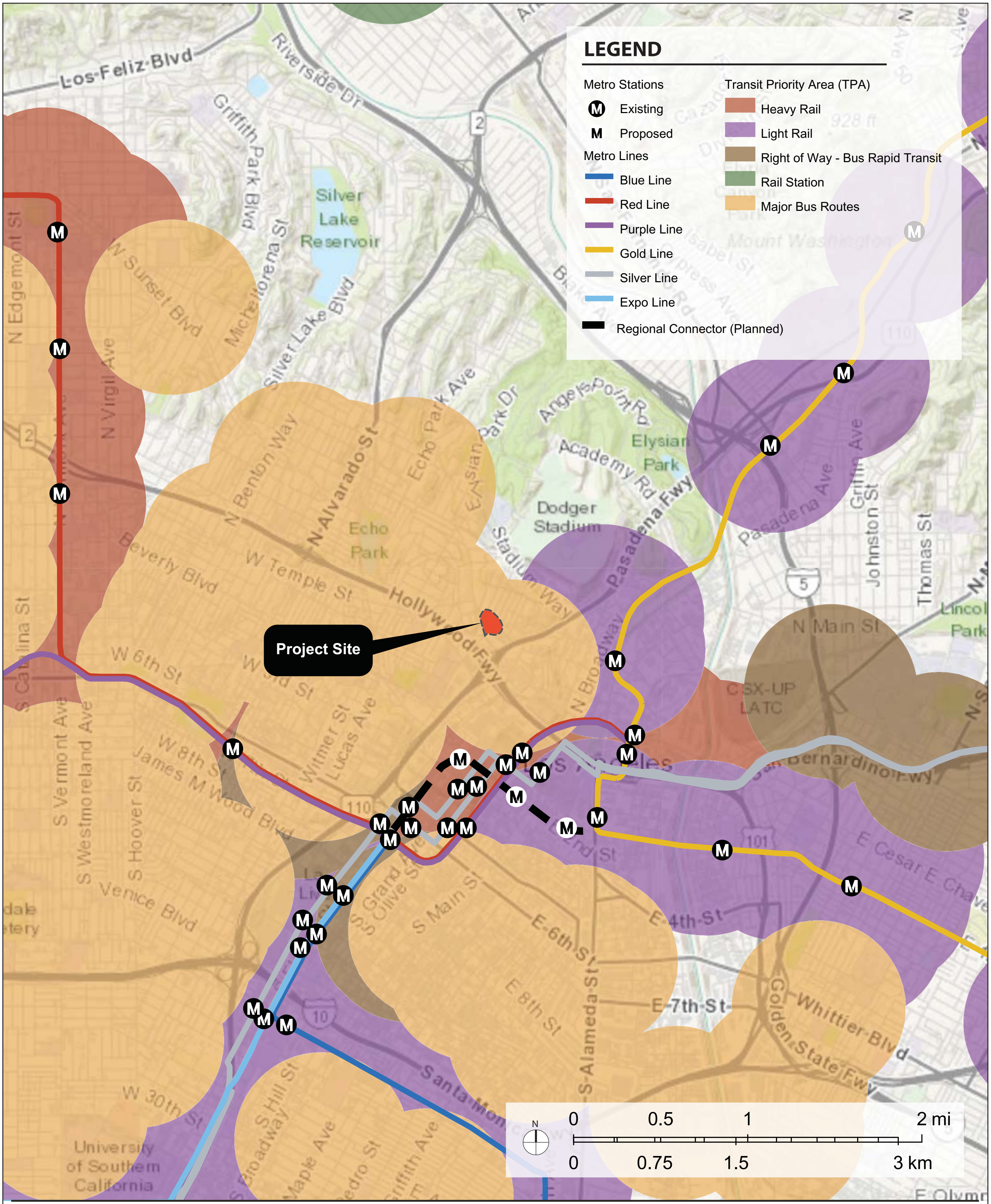

Figure A-3

Location of Project Site within a Transit Priority Area

Source: Los Angeles Department of City Planning, 2018; Eyestone Environmental, 2018.

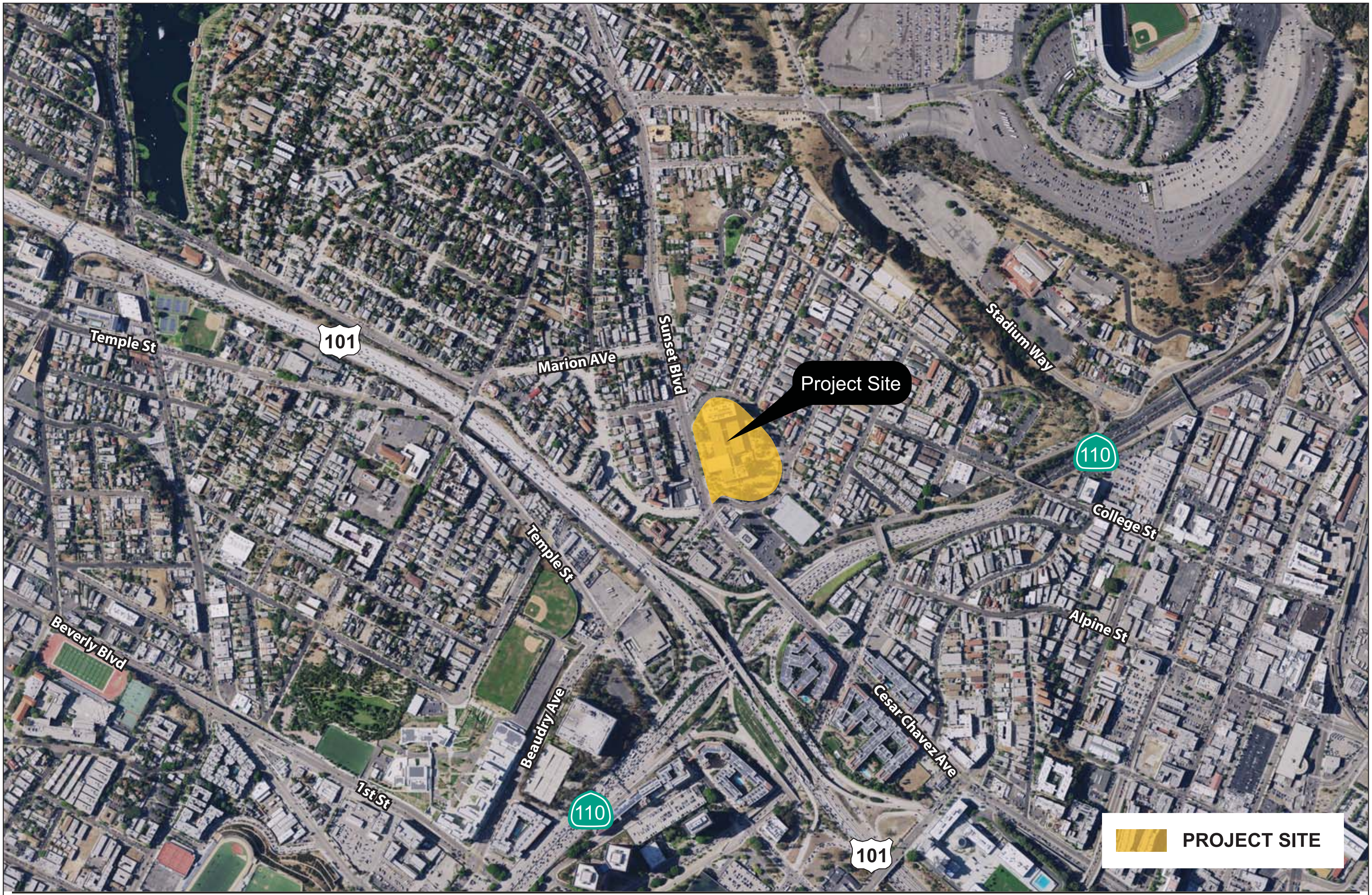

Figure A-4

Aerial Photograph of the Project Site and Vicinity

Source: Apple Maps, 2018; Eyestone Environmental, 2018.

4. Freeways and Transit

As shown in Figure A-1 on page A-3, primary regional access is provided by State Route 110 (SR-110) and the Hollywood Freeway (US-101), which are accessible within less than one mile of the Project Site. Major arterials providing regional access to the Project Site include Sunset Boulevard and Figueroa Street.

Public transit service in the vicinity of the Project Site is currently provided by numerous local and regional bus lines, several of which provide connections to Downtown subway stations. In particular, the Los Angeles County Metropolitan Transit Authority (Metro) provides a bus stop located at Sunset Boulevard and Beaudry Avenue. This stop includes the Metro Bus Line 2/302 that runs east/west along Sunset Boulevard. Metro Rapid 704, which also runs along Sunset Boulevard, has a stop at Sunset Boulevard and Figueroa Street. This line connects Downtown Los Angeles with the City of Santa Monica. Adjacent to the Project Site, Metro Bus Line 4 runs east/west along Sunset Boulevard and primarily east/west along Santa Monica Boulevard. This bus line connects Downtown Los Angeles with West Los Angeles. The Project Site is also located one block from a stop of Metro Bus Line 10 that runs east/west along Temple Street. In addition, the Project Site is near the LADOT Dash Lincoln Heights/Chinatown bus line that connects with the Chinatown Hold Line Station which has connections to Union Station and Downtown Los Angeles.

C. Description of the Project

1. Project Overview

As summarized in Table A-1 on page A-9, the Project proposes to remove the existing vacant structures on the former Metropolitan Water District headquarters campus within the Project Site that comprise approximately 114,600 square feet and develop up to 778 residential units (including up to 76 restricted affordable housing units), up to 98 hotel rooms, up to 48,000 square feet of office space, and up to 95,000 square feet of general commercial floor area (which could include up to 20,000 square feet of food and beverage uses associated with a hotel use). The Project would result in 994,982 square feet of floor area. The proposed uses would require 1,631 parking spaces in accordance with the LAMC. An additional 168 parking spaces for the existing Elysian apartment building would be provided within a five-level, partially subterranean parking structure (Elysian Parking Facility) located within the footprint of the proposed Courtyard Building. The Project would include a variety of open space totaling 87,525 square feet (excluding the Elysian Parking Facility roof deck), including approximately 81,475 square feet of exterior common area and 6,050 square feet of interior common area, pursuant to the LAMC.

The architectural design features a contemporary architectural style with horizontal and vertical articulation. The materials consist of painted metal, glass, aluminum screening, concrete, plaster, and painted portions of the same materials. The two tallest towers feature a slimmer architectural language of grids, while the shortest tower emphasizes horizontal planes with cantilevered eaves at each level. The Courtyard Building references the architecture of the Metropolitan Water District Headquarters building (the Elysian apartment building).

Table A-1
Summary of Floor Area within the Project Site[a]

Land Use	Existing Development	Proposed Development	Floor Area Upon Completion
Residential	110,336 sf (96 units)	776,982 sf (778 units)	887,318 sf (874 units)[b]
Hotel		75,000 sf (98 rm)	75,000 sf (98 rm)
Office		48,000 sf	48,000 sf
Commercial (retail/restaurant)		95,000 sf	95,000 sf
Existing Vacant Buildings	114,600 sf	0 sf	0 sf
Total	**224,936 sf**	**994,982 sf**	**1,105,318**

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du = dwelling units

rm = rooms

sf = square feet

[a] *Square footage is calculated pursuant to the LAMC definition of floor area for the purpose of calculating FAR. In accordance with LAMC Section 12.03, floor area is defined as "[t]he area in square feet confined within the exterior walls of a building, but not including the area of the following: exterior walls, stairways, shafts, rooms housing building-operating equipment or machinery, parking areas with associated driveways and ramps, space for the landing and storage of helicopters, and basement storage areas."*

[b] *Includes existing Elysian apartment building to remain.*

Source: Eyestone Environmental, 2017.

The Project would allow for an exchange of uses if certain uses are reduced or eliminated. In particular, the number of residential units could be up to 827 units if the proposed hotel is not constructed, the number of hotel rooms could be up to 120 rooms with a reduction in the number of residential units to 767 units, and/or the entirety of the proposed office space could be allocated to the residential floor area to provide larger units with no increase in the maximum number of 827 units. Additionally, the Project could include an all-residential development with no hotel, office, or commercial uses. Up to 262 dwelling units could also be permitted as short-term rentals under the City's conditional use permit process. This Initial Study and the Draft EIR to be prepared will evaluate the most conservative scenario to determine the Project's potential impacts, and would consider the maximum impacts of the proposed development scenarios.

2. Design and Architecture

The proposed uses would be built on a seven-level parking podium, which would be partially below grade and partially above grade. The portions of the parking podium that would be above grade would be wrapped in active uses or landscaping. Above the parking podium, the proposed uses would be provided within four primary structures,[4] including two residential structures (Tower A and Tower B), a hotel (the Sunset Building), and a commercial building that could contain office, retail, restaurant, and parking uses (the Courtyard Building). The remaining commercial floor area would be provided in three low-rise commercial structures oriented towards Sunset Boulevard and Beaudry Avenue. In addition, low-rise residential buildings would be located throughout the eastern and southern portions of the Project Site around the base of the two residential towers.

As shown in the conceptual site plan provided in Figure A-5 on page A-11, the proposed residential uses would be concentrated along the eastern and southern boundaries of the Project Site, adjacent to other multi-family residential uses. Specifically, Tower A would be situated along the southern portion of the Project Site while Tower B would be located along the eastern portion of the Project Site. Tower A would include approximately 431 residential units and would comprise approximately 421,000 square feet of floor area, including amenities. Tower A would be up to 49 levels with an approximate height of 572 feet. Tower B would include approximately 262 residential units and would comprise approximately 272,000 square feet of floor area, including amenities. Tower B would be up to 31 levels and approximately 408 feet in height. Tower A and Tower B would be slender in profile and are located on the Project Site to maintain axial views to the Downtown skyline from Beaudry Avenue and White Knoll Drive. As illustrated in Figure A-5, 26 low-rise residential buildings would be dispersed around the base of the two residential towers. The low-rise residential buildings could include two to eight units within each building and range from two to four stories up to 91 feet in height. The low-rise residences would include features such as small yards, front doors facing public spaces, and windows with views to the surrounding streets.

The Sunset Building would be located at the southwestern corner of the Project Site, primarily fronting Sunset Boulevard. The Sunset Building would comprise approximately 95,000 square feet and would include 98 hotel guest rooms, approximately 20,000 square feet of food and beverage uses, 5,800 square feet of lobby/service areas, and 4,200 square feet of meeting space. The Sunset Building would be up to 17 levels and would reach an approximate height of 211 feet. The Sunset Building would be located on the prominent corner of Sunset Boulevard and Beaudry Avenue. This position is both highly visible and well connected to the Sunset Boulevard corridor by public transit and private vehicles at the signaled intersection. The Sunset Building is therefore designed to provide a landmark on Sunset Boulevard and a gateway onto the Project Site, with a dedicated drop-off and pick-up area, water features reminiscent of the former MWD campus and a public stair and elevator with access to landscaped spaces at the center of the Project Site. Adjacent to the Sunset Building would be three low-rise commercial structures that would be oriented towards Sunset Boulevard and Beaudry Avenue. The low-rise commercial structures would be one to three levels up to 64 feet in height. Behind the low-rise commercial structures fronting Sunset Boulevard would be the Courtyard Building. The Courtyard Building would comprise approximately 57,500 square feet and would include approximately 48,000 square feet of office space and 9,500 square feet of commercial space. The Courtyard Building would be three levels with an approximate height of 91 feet. The Courtyard Building would reconstruct many features reminiscent of the Metropolitan Water District buildings, including outboard columns, sun screens, and extended slabs with occupiable outdoor spaces.

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[4] While the proposed structures would appear as separate buildings, the proposed structures collectively comprise one building per the City's Building Code due to the unifying subterranean parking.

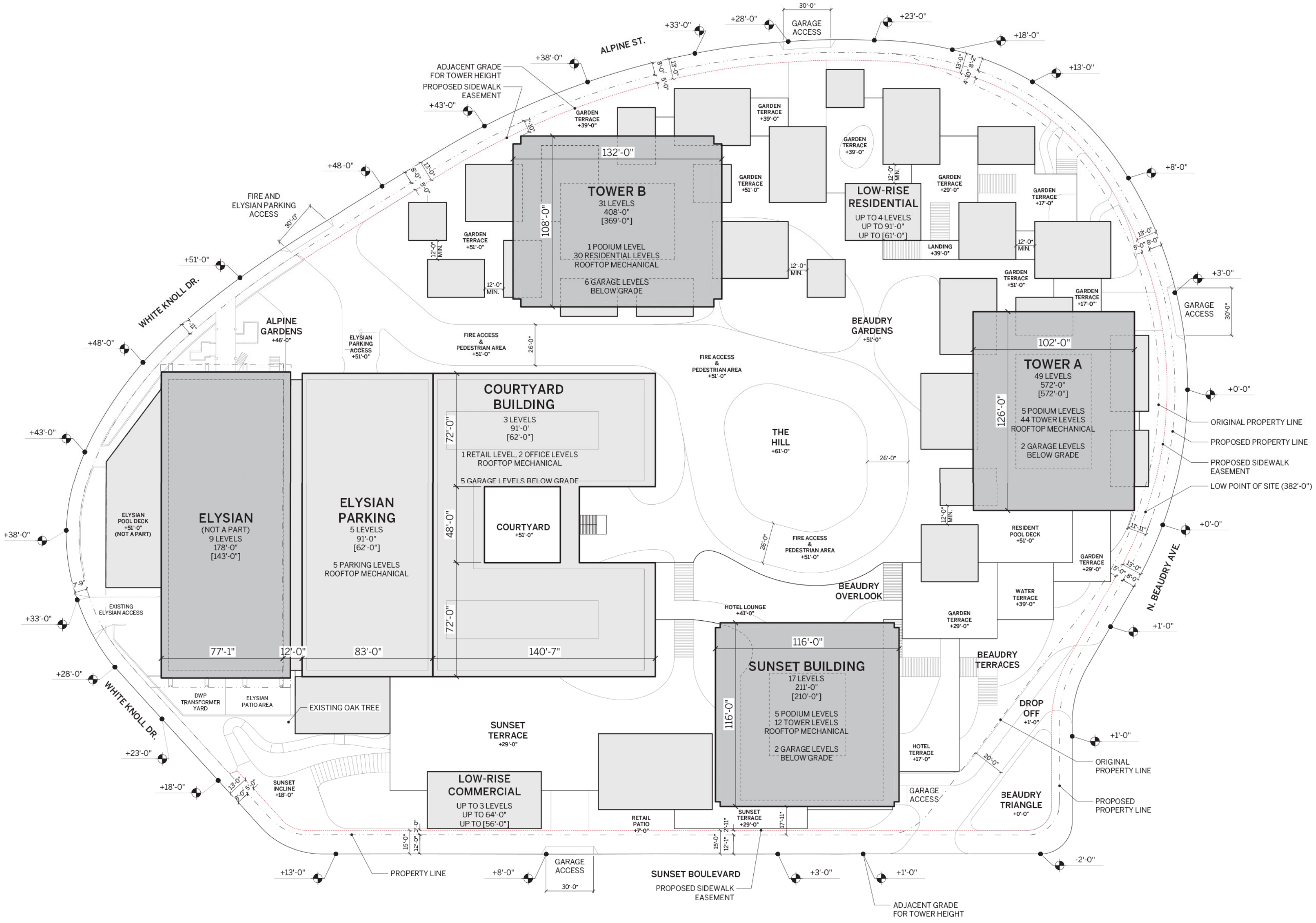

Figure A-5

Conceptual Site Plan

Source: Skidmore, Owings & Merrill LLP, 2017.

The Elysian Parking Facility would be incorporated in the design of the Courtyard Building and include an approximately 12-foot setback from the Elysian apartment building. Residents, staff, and visitors of the Elysian apartment building would directly access the Elysian Parking Facility through up to five pedestrian bridges and through the 12-foot setback. The Elysian Parking Facility would also include a rooftop amenity deck for use by residents of the Elysian apartment building.

The proposed buildings would be integrated via parking, plazas, terraces, landscaping and pedestrian pathways. The Project would be designed in a contemporary architectural style and would feature design elements that would integrate the Project with the surrounding uses. The proposed building materials would consist of various types of glass panels, metal balustrades and screening elements, and plaster. The tower façades would draw upon the character of Los Angeles' mid-century modern architecture to create richly layered, tectonic constructions that are activated by light and accessible to residents in the form of balconies and large operable windows. This layering would also enhance building performance by providing solar shading and increased opportunities for daylight and fresh air.

3. Open Space and Landscaping

The Project would incorporate numerous common and private open space and recreational amenities within the Project Site. As shown in Figure A-6 on page A-13, the Project would provide common open space that would be generally publicly accessible during daytime hours in the form of gardens, courtyards, and terraces. The common open space proposed to be provided within the Project Site would total 87,525 square feet, including approximately 81,475 square feet of exterior common area and 6,050 square feet of interior common area, in accordance with the requirements of the LAMC. As illustrated in Figure A-6, the primary open space amenity would be a 30,000-square-foot courtyard (referred to as The Hill) that would be located at the center of the Project Site. The Hill would include active and passive recreation spaces such as family play features and a lawn with lounge furniture and views to the Downtown skyline. Interior common areas would include resident amenities such as fitness areas, game rooms, lounges and meeting rooms. In addition, a spa and open spaces would be included as part of the hotel. Additional common and private open space areas are provided throughout the Project Site.

4. Access, Circulation, and Parking

Vehicular access to the Project Site would be provided via five driveways surrounding the Project Site, including along White Knoll Drive, Alpine Street, Beaudry Avenue, and Sunset Boulevard. In particular, a dedicated drop-off and pick-up area at the corner of Beaudry Avenue and Sunset Boulevard is proposed as part of the Project, which would provide access, including valet parking, to the hotel use and commercial uses. Access for trash pickup and other freight vehicles would be provided via driveways on Alpine Street, Beaudry Avenue, and Sunset Boulevard.

Pedestrian access would be enhanced along the perimeter of the Project Site and would be provided via new pedestrian walkways from White Knoll Drive, Alpine Street, Beaudry Avenue, and Sunset Boulevard.

Figure A-6
Conceptual Landscape Plan

Source: James Corner Field Operations, 2018.

The commercial uses along Sunset Boulevard would also be accessible from entrances along Sunset Boulevard and Beaudry Avenue.

The proposed uses would require and would provide 1,631 parking spaces in accordance with the requirements of the LAMC. These parking spaces would be located within a seven-level parking podium, which would be partially below grade and partially above grade. The portions of the parking podium that would be above grade would be wrapped in active uses or landscaping. Below grade parking would extend to a maximum depth of 64 feet. An additional 168 parking spaces for the existing Elysian apartment building would also be provided within the Elysian Parking Facility located within the footprint of the proposed Courtyard Building, as previously described above.

In accordance with LAMC requirements, the Project would provide 995 bicycle parking spaces, including 136 short-term spaces and 841 long-term spaces. The Project would also comply with City requirements for providing electric vehicle charging capabilities and electric vehicle charging stations within the proposed parking areas.

5. Lighting and Signage

Proposed lighting would include shielded low to medium output exterior lights adjacent to buildings and along pathways for security and wayfinding purposes. In addition, shielded low to medium output lighting to accent signage, architectural features, exterior artwork or murals, and landscaping elements would be incorporated throughout the Project Site. All exterior lights, including lights on the rooftop, would be directed onto the Project Site and designed to minimize light trespass from the Project Site. New sources of artificial lighting that would be introduced by the Project would also include interior lighting and automobile headlights. The Project would not include electronic signage or signs with flashing, mechanical, or strobe lights. All Project lighting would comply with applicable LAMC lighting standards.

Project signage would include a central identify sign and various general wayfinding and retail signs typically associated with a mixed-use project similar to the Project. The identity sign would be located on Sunset Boulevard and would consist of a building-mounted sign with cutout lettering presenting the Project name and/or address. The Project would have four rooftop identity signs located on the Sunset and Courtyard buildings. Typical of an urban mixed-use center, the Project would include retail signage primarily orienting towards Sunset Boulevard, including monument signs at Sunset Boulevard and Beaudry Avenue and Sunset Boulevard and White Knoll Drive. Due to the continuous changing nature of retail, retail signage could change over time. Other vertical building-mounted signage would be located along Sunset Boulevard, Beaudry Avenue, Alpine Street, and White Knoll Drive to indicate the main residential guest and commercial parking entrances. Awning signs and projecting signs would be used to identify the residential lobby entrances and retail locations at a pedestrian scale. Wayfinding signs would be located at parking garage entrances, elevator lobbies, and residential corridors. Project signage may also include murals on building walls. All Project signs would be designed to complement the architectural design of the proposed buildings. In general, new signage would be architecturally integrated into the design of the buildings and would establish appropriate identification for the proposed uses. Project signage would be illuminated by means of shielded low to medium output external lighting, internal halo lighting, or ambient light.

6. FAR, Density, and Setbacks

As discussed above, the Project Site is designated as General Commercial and zoned C2-2D (Commercial zone, Height District 2 with Development Limitation). The zoning of the Project Site does not specify a building height limit, but rather limits the FAR to 3 to 1. Based on the lot area of the Project Site, equal to 272,918 square feet, the Project Site's by-right floor area is approximately 818,754 square feet. By setting aside 11 percent of the Project Site's base density as Restricted Affordable units at a Very Low-Income level, the Project is entitled to a 35 percent floor area increase permitting approximately 1,105,318 square feet of floor area potential which generates a FAR of 4.05:1. The existing Elysian apartment building's floor area, equal to 110,336 square feet,[5], must be deducted from the Project Site's development potential. Once deducted, the Project's total permitted and proposed floor area will be approximately 994,982 square feet (generating a 3.65:1 floor area ratio).

The permitted density within the Project Site is one dwelling unit per 400 square feet or one guest room per 200 square feet of lot area. Based on the lot area of the Project Site, 683 dwelling units or 1,364 guest rooms are permitted within the Project Site. Dwelling units and guest rooms can be constructed together, but the development ratio for each use affects the other. By setting aside 11 percent of the Project Site's base density as Restricted Affordable units at a Very Low-Income level, the Project can request and is requesting a 35 percent density increase which permits a maximum of 923 dwelling units on the Project Site. Once the existing Elysian apartment building's 96 joint living and work quarter units[6] are deducted from the Project Site's development potential, a total of 827 dwelling units are permitted. As discussed above, the Project proposes 778 dwelling units and 98 guest rooms (98 guest rooms use the same lot area as 47 dwelling units). The Project would allow for an exchange of uses if certain uses are reduced or eliminated. In particular, the number of residential units could be up to 827 units if the proposed hotel is not constructed, the number of hotel rooms could be up to 120 rooms with a reduction in the number of residential units to 767 units, and/or the entirety of the proposed office space could be allocated to the residential floor area to provide larger units with no increase in the maximum number of 827 units. Additionally, the Project could include an all-residential development with no hotel, office, or commercial uses. Up to 262 dwelling units could also be permitted as short-term rentals under the City's conditional use permit process.

Based on the LAMC and Yard Determination issued on November 2, 2017 by the Los Angeles Department of Building and Safety, the Project Site only includes front yards. The C2 zone established that no yards are required in front yards. The Project would provide landscaped buffers where residential uses abut public streets. Generally, the Project's commercial component would be built to the sidewalk.

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[5] The Elysian's apartment building joint-live work units occupy 109,236 square feet based on a Building Permit, No. 08016-10003-11438, issued December 3, 2014. The Elysian's apartment building ground floor commercial restaurant occupies 1,110 square feet per a Ready to Issue stamped plan, dated May 19, 2016, associated with the Winsome CUB case ZA 2015-0825 and not including the patio seating area.

[6] Based on a Building Permit, No. 08016-10003-11438, issued December 3, 2014.

7. Sustainability Features

The Project has been designed and would be constructed to incorporate environmentally sustainable building features and construction protocols required by the Los Angeles Green Building Code and CALGreen. These standards would reduce energy and water usage and waste and, thereby, reduce associated greenhouse gas emissions and help minimize the impact on natural resources and infrastructure. The sustainability features to be incorporated into the Project would include, but would not be limited to high efficiency plumbing fixtures and weather-based controller and drip irrigation systems to promote a reduction of indoor and outdoor water use; Energy Star–labeled appliances; and water-efficient landscape design.

In accordance with CEQA Guidelines Appendix F, the EIR to be prepared for the Project will provide further information as to energy conservation, energy implications, and the energy-consuming equipment and processes that would be used during construction and operation of the Project. Design features of the Project, energy supplies that would serve the Project, and total estimated daily vehicle trips that would be generated by the Project will also be analyzed. In addition, while development of the Project would not be anticipated to cause the wasteful, inefficient, and unnecessary consumption of energy and would be consistent with the intent of Appendix F of the CEQA Guidelines, further analysis of the Project’s consistency with Appendix F will also be provided in the EIR.

8. Anticipated Construction Schedule

Construction of the Project would commence with demolition of the existing buildings. This phase would be followed by grading and excavation for the subterranean parking. Building foundations would then be laid, followed by building construction, paving/concrete installation, and landscape installation. Project construction is anticipated to be completed in 2028. It is estimated that approximately 472,000 cubic yards of export material would be hauled from the Project Site during the demolition and excavation phase. The existing parking structure located south of the Project Site, across Beaudry Avenue, could be used during construction of the Project for staging and construction worker parking.

D. Requested Permits and Approvals

The list below includes the anticipated requests for approval of the Project. The Environmental Impact Report will analyze impacts associated with the Project and will provide environmental review sufficient for all necessary entitlements and public agency actions associated with the Project. The discretionary entitlements, reviews, permits and approvals required to implement the Project include, but are not necessarily limited to, the following:

- Pursuant to LAMC Section 12.22-A,25 a 14-percent Density Bonus to provide an additional 95 units in lieu of 683 base units, for a total of 778 units. The Project would set aside 76 units (11 percent) for Very Low Income Households, would utilize parking option 1, and one On-Menu and one Off-Menu incentive:

  - Pursuant to LAMC Section 12.22-A,25(F), an On-Menu Incentive to permit a 35-percent increase in FAR to permit a 4.05 FAR in lieu of 3.0 FAR permitted by the parcel D limitation, zoned C2-2D.

  - Pursuant to LAMC Section 12.22-A,25(G), a Waiver of Development Standard (Off-Menu) to permit a reduction in the building separation requirements as defined by LAMC Section 12.21- C,2(a).

- Pursuant to LAMC Section 12.32-R,2(e), a request for the removal of a variable width building line, created via ordinance 101,106, effective February 1953.

- Pursuant to LAMC Section 12.24-T and LAMC Section 12.24-W,24(a), Vesting Conditional Use Permit to permit a hotel use and short term/extended stay rentals within 500 feet of an R zone.

  - Pursuant to LAMC Section 12.24-W,1 Master Conditional Use Permit to allow the on-site and off-site sale of a full line of alcoholic beverages in conjunction with the proposed development of a mixed-use project, which would include 75,000 square feet of commercial space and a hotel. Alcohol sales are being requested within the following areas:

  - Commercial: a total of 13 (thirteen) tenant spaces would offer a full line of alcohol for on- and off-site sales;

  - Hotel: a total of seven locations within the hotel would offer full line sales, with a restaurant with outdoor dining for on- and off-site sales.

- Pursuant to LAMC Section 16.05, Site Plan Review for a development project which creates 50 or more dwelling units or guest rooms and over 50,000 square feet of commercial floor area.

- Pursuant to California Government Code Sections 66473.1 and 66474 (Subdivision Map Act) and LAMC Sections 17.00 and 17.15 of Article 7 (Division of Land), approval of a phased Vesting Tentative Airspace Tract Map (Tract No. 80315) which includes a master lot and 17 airspace lots. The Tract request includes the following:

  - A request to vacate and merge portions of Beaudry Avenue into the property;

  - An approximately 5-foot wide sidewalk easement, extending six inches below grade along Alpine Street and portions of White Knoll Drive and Beaudry Avenue. Building structures are permitted below six inches;

  - A reduction from Advisory Agency's Parking Policy to allow parking to be calculated based on LAMC Section 12.22 A.25 (d)(1);

  - A Haul Route approval.

B. Environmental Checklist

INITIAL STUDY

Attachment B: Environmental Checklist

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
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?	☐	☐	☐	☒

Senate Bill 743 [Public Resources Code Section 21099(d)] sets forth new guidelines for evaluating project transportation impacts under CEQA, as follows: “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 significant impacts on the environment.” Public Resources Code Section 21099 defines a “transit priority area” as an area within 0.5 mile of a major transit stop that is “existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.” Public Resources Code Section 21064.3 defines “major transit stop” as “a site containing an existing 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 morning and afternoon peak commute periods.” Public Resources Code Section 21099 defines an “employment center project” as “a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and that is located within a transit priority area. Public Resources Code Section 21099 defines an “infill site” as a lot located within an urban area that has been previously developed, or on 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.

The related City of Los Angeles Department of City Planning Zoning Information File ZI No. 2452 provides further instruction concerning the definition of transit priority projects and that "visual resources, aesthetic character, shade and shadow, light and glare, and scenic vistas or any other aesthetic impact as defined in the City's *L.A. CEQA Thresholds Guide* shall not be considered an impact for infill projects within TPAs pursuant to CEQA"[1] and confirming the application of Senate Bill 743 and Public Resources Code Section 21099 as applicable and as allowed for under the City's *L.A. CEQA Thresholds Guide*.

As described in Attachment A, Project Description, of this Initial Study, the Project is a new mixed-use development that would include up to 778 residential units, up to 98 hotel rooms, up to 48,000 square feet of office space, and up to 95,000 square feet of general commercial floor area. As such, pursuant to Senate Bill 743, the Project is considered a mixed-use residential project. Pursuant to Public Resources Code Section 21099, the Project is also considered an employment center project because it is located on property that is zoned for commercial uses and would include development of a proposed hotel and other commercial uses with a floor area ratio (FAR) no less than 0.75 and that is located within a transit priority area. Specifically, the Project Site is zoned C2-2D (Commercial zone, Height District 2), allowing commercial uses and a FAR of 3:1. In addition, the Project Site is located on an infill site as defined by Public Resources Code Section 21099. Specifically, the Project Site is a lot located within an urban area that has been previously developed. Also pursuant to Public Resources Code Section 21099, the Project Site is within a transit priority area as it is located less than 0.5-mile from several bus lines along Sunset Boulevard, including bus transit service operated by the Los Angeles County Metropolitan Transportation Authority (Metro) and the Los Angeles Department of Transportation (LADOT). In particular, Metro provides a bus stop located at Sunset Boulevard and Beaudry Avenue, adjacent to the Project Site. This stop includes the Metro Bus Line 2/302 that runs east/west along Sunset Boulevard. Metro Rapid 704, which also runs along Sunset Boulevard, has a stop at Sunset Boulevard and Figueroa Street. This line connects Downtown Los Angeles with the City of Santa Monica. Also adjacent to the Project Site, Metro Bus Line 4 runs east/west along Sunset Boulevard and primarily east/west along Santa Monica Boulevard. This bus line connects Downtown Los Angeles with West Los Angeles. The Project Site is also located one block from a Metro Bus Line 10 stop that runs east/west along Temple Street. In addition, the Project Site is near the LADOT Dash Lincoln Heights/Chinatown bus line that connects with the Chinatown Gold Line Station which has connections to Union Station and Downtown Los Angeles. Therefore, the Project Site is located in a transit priority area as defined in Public Resources Code Section 21099. The City's Zone Information and Map Access System (ZIMAS) also confirms the Project Site's location within a transit priority area, as defined in the City's Zoning Information File ZI No. 2452.[2] Thus, any aesthetic impacts that might be identified for the Project would not be considered significant impacts on the environment pursuant to Public Resources Code Section 21099. The following aesthetics discussion is provided for information purposes only. The discussion considers factors from the City's *L.A. CEQA Thresholds Guide*.

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[1] City of Los Angeles Department of City Planning, Zoning Information File ZI No. 2452, Transit Priority Areas (TPAs)/Exemptions to Aesthetics and Parking Within TPAs Pursuant to CEQA.

[2] City of Los Angeles, Zone Information and Map Access System (ZIMAS), http://zimas.lacity.org/, accessed March 5, 2018.

Would the project:

a) Have a substantial adverse effect on a scenic vista?

No Impact. A scenic vista is a panoramic view of a valued visual resource. Based on the *L.A. CEQA Thresholds Guide*, panoramic views or vistas provide visual access to a large geographic area, for which the field of view can be wide and extend into the distance. According to the *L.A. CEQA Thresholds Guide*, panoramic views are typically associated with vantage points looking out over a section or urban or natural areas that provide a geographic orientation not commonly available. Examples of panoramic views include an urban skyline, valley mountain range, the ocean, or other water bodies. For the purposes of this discussion, the focus is on the availability of the panoramic views of the downtown area, i.e., scenic vista of the panorama of the downtown area.

As shown in the site photographs included in Figure B-1 on page B-4 and in Figure B-2 on page B-5, due to the highly urbanized and built out surroundings, publicly available scenic vistas of the downtown area as a whole from public streets and sidewalks adjacent to the Project Site are limited. Specifically, as illustrated in Figure B-1 and in Figure B-2, publicly available scenic vistas in the immediate Project Site vicinity are blocked by trees, intervening development, and changes in slope from the elevated portions of Beaudry Avenue (e.g., generally where Beaudry Avenue and Alpine Street intersect), southeast-south of the Project Site, and along portions of Sunset Boulevard, west of the Project Site. Publicly available scenic vistas that include the Downtown skyline are also available further east of the Project Site along White Knoll Drive and Beaudry Avenue towards Figueroa Terrace. The streets east of the Project Site are at higher elevations, but because of the downslope of the topography towards downtown and intervening development, a panoramic view of the downtown area is, as a whole, not fully available. Publicly available scenic vistas are not available north and east of the Project Site given the existing intervening development (e.g., Elysian apartments and vacant buildings within the Project Site). In addition, there are no panoramic views of other valued visual resources such as a mountain range or the ocean.

As shown in the conceptual site plan included in Figure A-4 in Attachment A, Project Description, of this Initial Study, the proposed development would be contained within the boundaries of the Project Site and would not extend across Beaudry Avenue at Alpine Street such that existing publicly accessible scenic vistas of the Downtown skyline would be obstructed. Similarly, the Project does not propose any development across Sunset Boulevard such that a proposed structure could obstruct existing publicly accessible scenic vistas of the Downtown skyline. Therefore, existing publicly accessible scenic vistas of the Downtown skyline from Sunset Boulevard would remain. Furthermore, while the proposed residential towers would be visible from publicly available scenic vistas of the Downtown skyline that are available further east of the Project Site along White Knoll Drive and Beaudry Avenue towards Figueroa Terrace, the proposed towers would be consistent with the high-rise buildings that encompass the Downtown skyline. In addition, publicly available scenic vistas of the Downtown skyline available further east of the Project Site would be largely preserved.

Overall, the Project would not have a substantial adverse effect on a publicly available scenic vista. Moreover, pursuant to Senate Bill 743, Public Resources Code Section 21099, and Zoning Information File ZI No. 2452, the Project's aesthetics impact would not be considered significant. Therefore, no further evaluation of this topic in the EIR is required.

View of Sunset Boulevard facing northwesterly, taken from the eastern side of Sunset Blvd. on a traffic island at its intersection with Beaudry Avenue.

View of the eastern sidewalk of Sunset Boulevard adjacent to the property site, viewed southwardly from its intersection with White Knoll Dr.

Westerly view adjacent to the Project site along the southern side of White Knoll Drive, taken near its intersection with Marview Avenue.

Northerly view of the intersection between Alpine St. and White Knoll Dr., adjacent to the property site.

Figure B-1

Photographs of Surrounding Project Site Vicinity

Source: Craig Lawson & Co, LLC, 2018.

Southerly view looking down the western side of Beaudry Avenue, adjacent to the Project site.

Southerly view of the intersection between Alpine St. and N Beaudry Ave., adjacent to the property site.

Southwesterly view from the intersection of N Beaudry Ave. and Sunset Blvd., adjacent to the property site.

Northwesterly view of Sunset Blvd. viewed from its intersection with N Beaudry Ave., adjacent to the property site.

Figure B-2

Photographs of Surrounding Project Site Vicinity

Source: Craig Lawson & Co, LLC, 2018.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural feature within a state scenic highway?

No Impact. The Project Site is not located along a State scenic highway. The nearest officially eligible State scenic highway is along the Foothill Freeway (I-210), approximately 12 miles northeast of the Project Site.[3] Therefore, the Project would not substantially damage scenic resources within a State or City-designated scenic highway. Moreover, pursuant to Senate Bill 743 and Zoning Information File ZI No. 2452, the Project's aesthetics impact would not be considered significant. Therefore, no further evaluation of this topic in the EIR is required.

The Project's potential impacts to historical resources are discussed below in Checklist Question V, Cultural Resources.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

No Impact. As discussed in the *L.A. CEQA Thresholds Guide*, adverse visual effects can include the loss of natural features or areas, the removal of urban features with aesthetic value, or the introduction of contrasting urban features into natural areas or urban settings. Based on the *L.A. CEQA Thresholds Guide*, natural features may include, but are not limited to: open space; native or ornamental vegetation/landscaping; topographic or geologic features; and natural water sources. The loss of natural aesthetic features or the introduction of contrasting urban features may have a local impact, or, if part of a larger landscape, may contribute to a cumulative decline in overall visual character. Urban features that may contribute to a valued aesthetic character or image include: structures of architectural or historic significance or visual prominence; public plazas, art or gardens; heritage oaks or other trees or plants protected by the City; consistent design elements (such as setbacks, massing, height, and signage) along a street or district; pedestrian amenities; landscaped medians or park areas; etc.

Existing Aesthetic Environment

Within the Project Site and in the surrounding community, the aesthetic environment reflects a multitude of interspersed low-, mid-, and high-rise structures with commercial and residential uses and associated infrastructure. As shown in Figure B-1 on page B-4 and in Figure B-2 on page B-5, relative to surrounding development, the aesthetic environment is characterized by buildings that vary in age, architecture, height, massing, and materials.

With regard to the Project Site, the aesthetic character is not cohesive given the contrasting uses and building designs. In particular, the high-rise Elysian apartment building, which is operational, is adjacent to a portion of the Project Site that is no longer operational and has been neglected. Specifically, that portion of the Project Site includes four mid-rise buildings that were most

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[3] California Scenic Highway Mapping System, Los Angeles County, www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm, accessed February 22, 2018.

recently used as church facilities. The triangular road divider at Beaudry Avenue at Sunset Boulevard is paved and landscaped with trees and shrubs that are unmaintained and in poor condition. Therefore, the Project Site does not include urban features, such as historical resources, that may contribute to a valued aesthetic character. Natural features, including large expanses of open space, consistent plantings and landscaping, topographic or geologic features, and natural water sources are not present within and surrounding the Project Site. In addition, public plazas, consistent design elements, or pedestrian amenities and landscaped medians of importance are not located within or adjacent to the Project Site.

As provided in the Tree Report included in Appendix IS-1 of this Initial Study, trees considered protected within the City include oak trees indigenous to California but excluding scrub oak trees, Southern California black walnut trees, Western sycamore trees, and California bay laurel trees with a diameter at breast height of four inches or greater. According to the Tree Report, there is one coast live oak tree within the Project Site located generally on the northwestern portion of the Project Site, west of the Elysian apartment building.

Construction

During construction activities for the Project, the visual appearance of the Project Site would be altered due to the demolition of the existing structures and the presence of construction equipment. Some of the activity would be visible from roadways adjacent to the Project Site, as well as to viewers within nearby buildings. However, as is typical of construction sites, temporary construction fencing would be placed along the periphery of the Project Site to screen much of the construction activity from view at the street level, and graffiti would be removed, as needed, from all temporary walkways and construction fencing throughout the Project construction period.

As discussed above, there is one onsite protected oak tree located within the Project Site. There are also 110 non-protected significant onsite trees and 41 street trees adjacent to the Project Site. All existing on- and off-site trees would be removed to accommodate the development of the Project. Based on the Tree Report, the onsite protected oak tree is not an appropriate candidate for transplant due to the age, size, and condition of the tree. In accordance with the requirements of the Urban Forestry Division, removal of the onsite protected oak tree would be replaced with four, minimum 24-inch box size trees. Acceptable species for the replacement trees include native oak, Western sycamore, California black walnut, and California bay laurel. The 110 on-site trees to be removed would be replaced on a 1:1 basis, while the street trees would be replaced on a minimum 2:1 basis.

Overall, while affecting the visual character of the Project Site and surrounding area on a short-term basis, Project construction activities would not substantially alter or degrade the existing visual character or quality of the Project Site and surrounding area. Moreover, pursuant to Senate Bill 743, Public Resources Code Section 21099, and Zoning Information File ZI No. 2452, the Project's aesthetics impact would not be considered significant. Therefore, no further evaluation of this topic in the EIR is required.

Operation

As described above, there is a non-cohesive visual character that is evident throughout the vicinity of the Project Site. The area surrounding the Project Site contains an eclectic mix of buildings that vary in age, architecture, heights, massing, and materials. As illustrated in the Project renderings provided in Figure B-3 through Figure B-5 on pages B-9 through B-11, the Project would create an integrated site with a mix of residential, hospitality, office, and commercial uses within several new structures that would extend above and around a seven-level parking podium and be dispersed across the Project Site. The seven-level parking podium would be partially below grade and partially above grade. The portions of the parking podium that would be above grade would be wrapped in active uses or landscaping such that parking would not be visible from the street or surrounding uses. As shown in the renderings, buildout of the Project would increase the height, density, and mass of on-site structures as compared to existing conditions but would incorporate variations in building planes and other architectural features to reduce the effect of massing and provide a pedestrian scale adjacent to public streets. In terms of the overall change in visual character, the two high-rise residential towers in particular would create the highest degree of contrast relative to the surrounding environment, replacing existing low-rise structures with contemporary high-rise buildings.

Overall, as discussed above, the Project would not substantially degrade the existing visual character or quality of the Project Site or its surroundings, including valued existing features or resources, or introduce elements that would substantially detract from the visual character of the Project area. In addition, the Project would not remove, alter, or demolish elements that substantially contribute to the valued visual character of the neighborhood. Moreover, in accordance with Senate Bill 743, Public Resources Code Section 21099, and Zoning Information File ZI No. 2452, the Project's aesthetics impact would not be considered significant. Therefore, no further evaluation of this topic in the EIR is required.

Shading

As provided in the *L.A. CEQA Thresholds Guide*, the visual character or quality of a site and its surroundings can also be affected by shading cast upon adjacent areas by proposed structures. According to the *L.A. CEQA Thresholds Guide*, facilities and operations sensitive to the effects of shading include: routinely useable outdoor spaces associated with residential, recreational, or institutional land uses (e.g., schools, convalescent homes); commercial uses such as pedestrian-oriented outdoor spaces or restaurants with outdoor dining areas; nurseries; and existing solar collectors. Pursuant to the *L.A. CEQA Thresholds Guide*, the standard of significance for shading is if shadow sensitive uses would be shaded by project-related structures for more than three hours between the hours of 9:00 A.M. and 3:00 P.M. Pacific Standard Time (between early November and early March), or more than four hours between the hours of 9:00 A.M. and 5:00 P.M. Pacific Daylight Time (between early March and early November).[4]

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[4] Timeframes have been adjusted from those specified in the *L.A. CEQA Thresholds Guide* to account for the new Daylight Saving Time period (second Sunday in March through the first Sunday in November), which went into effect in 2007 (per the Energy Policy Act of 2005) to reduce energy consumption. Prior to this change, the spring equinox occurred within Pacific Standard Time and was, therefore, subject to shading analysis between the hours of 9:00 A.M. and 3:00 P.M.

Figure B-3

Project Rendering from Sunset Boulevard and White Knoll Drive

Source: Skidmore, Owings & Merrill LLP, 2018.

Figure B-4

Project Rendering from Alpine Street and Beaudry Avenue

Source: Skidmore, Owings & Merrill LLP, 2018.

Figure B-5

Project Rendering facing Southwest

Source: Skidmore, Owings & Merrill LLP, 2018. .

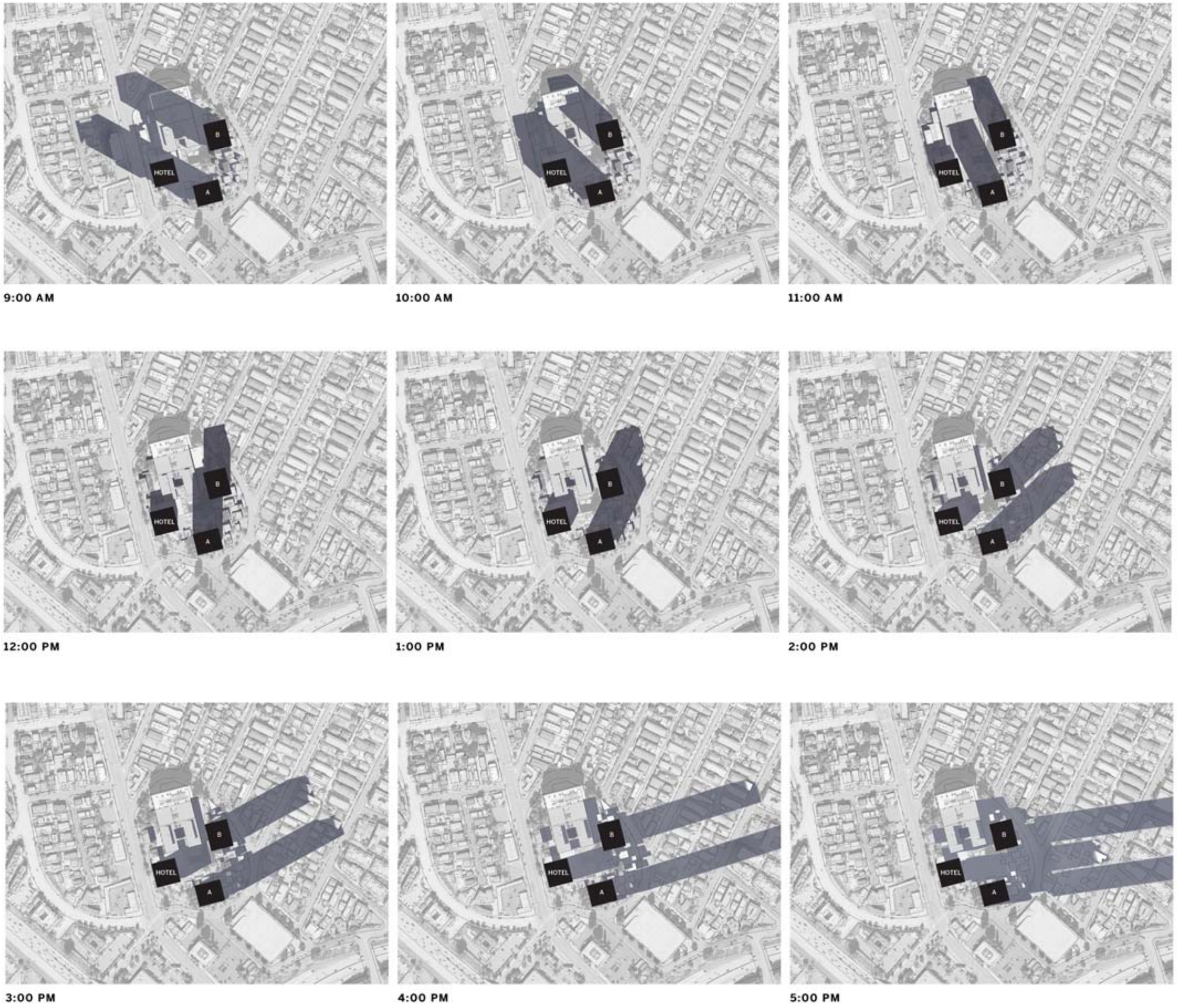
As previously discussed, surrounding uses in the general vicinity of the Project Site include commercial and residential uses. The surrounding residential uses could contain routinely useable outdoor spaces, such as yards and outdoor patios. As shown in the shadow diagrams provided in Figure B-6 through Figure B-9 on pages B-13 through B-16, Project shadows would move generally northwest to east across the surrounding landscape.

As shown in Figure B-6 on page B-13, during the spring equinox at 9:00 A.M., Project shadows would extend across the uses fronting Sunset Boulevard and the auto repair at Sunset Boulevard and White Knoll Drive. By 10:00 A.M., Project shadows would be mostly contained onsite. By 11:00 A.M., Project shadows would begin to extend towards the residential uses to the northeast-east and would continue through 5:00 P.M. Therefore, Project structures would shade potentially routinely useable outdoor spaces such as yards, courtyards, and/or outdoor patios associated with the surrounding residential uses for more than four hours during the spring equinox. However, pursuant to Senate Bill 743, Public Resources Code Section 21099, and Zoning Information File ZI No. 2452, the Project's aesthetic impacts would not be considered significant. Therefore, no further evaluation of this topic in the EIR is required.

As shown in Figure B-7 on page B-14, during the summer solstice, Project shadows would be mostly contained within the Project Site until approximately 1:00 P.M. when shadows would begin to extend towards the residential uses to the east and south. These shadows would continue through 5:00 P.M. Therefore, Project structures would shade potentially routinely useable outdoor spaces such as yards, courtyards, and/or outdoor patios associated with the surrounding residential uses for more than four hours during the summer solstice. However, pursuant to Senate Bill 743, Public Resources Code Section 21099, and Zoning Information File ZI No. 2452, the Project's aesthetic impacts would not be considered significant. Therefore, no further evaluation of this topic in the EIR is required.

As shown in Figure B-8 on page B-15, Project shadows during the fall equinox would be mostly contained onsite until approximately 11:00 A.M., when Project shadows would begin to extend towards the residential uses to the northeast-east and would continue through 5:00 P.M. Therefore, Project structures would shade potentially routinely useable outdoor spaces associated with the surrounding residential uses for more than four hours during the fall equinox. However, pursuant to Senate Bill 743, Public Resources Code Section 21099, and Zoning Information File ZI No. 2452, the Project's aesthetic impacts would not be considered significant. Therefore, no further evaluation of this topic in the EIR is required.

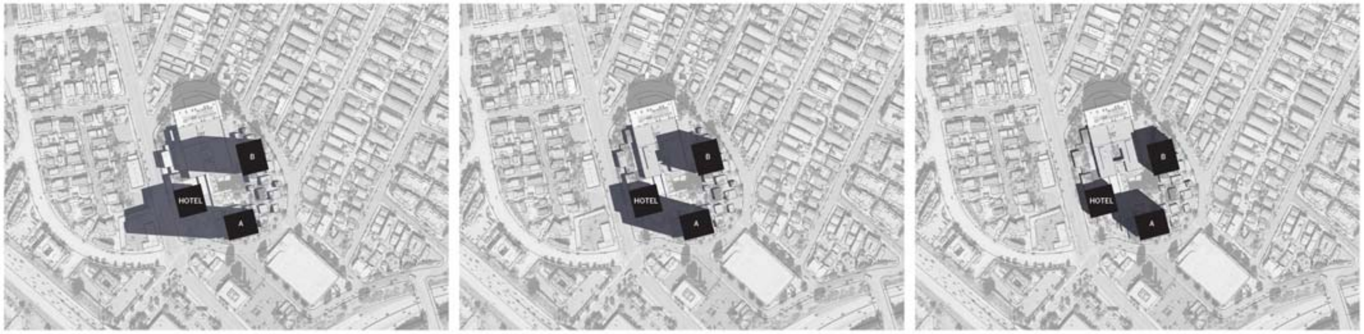
Shadow impacts are typically greatest during the winter months due to the sun's low position in the sky, with the resultant longer shadows stretching roughly from the northwest to the northeast during daytime hours. As shown in Figure B-9 on page B-16, Project shadows would extend across surrounding residential uses from 9:00 A.M. through 3:00 P.M. Therefore, Project structures would shade potentially routinely useable outdoor spaces associated with the surrounding residential uses for more than three hours during the winter solstice. However, pursuant to Senate Bill 743, Public Resources Code Section 21099, and Zoning Information File ZI No. 2452, the Project's aesthetic impacts would not be considered significant. Therefore, no further evaluation of this topic in the EIR is required.



9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM

Figure B-6
Project Shadows—Spring Equinox

Source: Skidmore, Owings & Merrill LLP, 2018. .



9:00 AM

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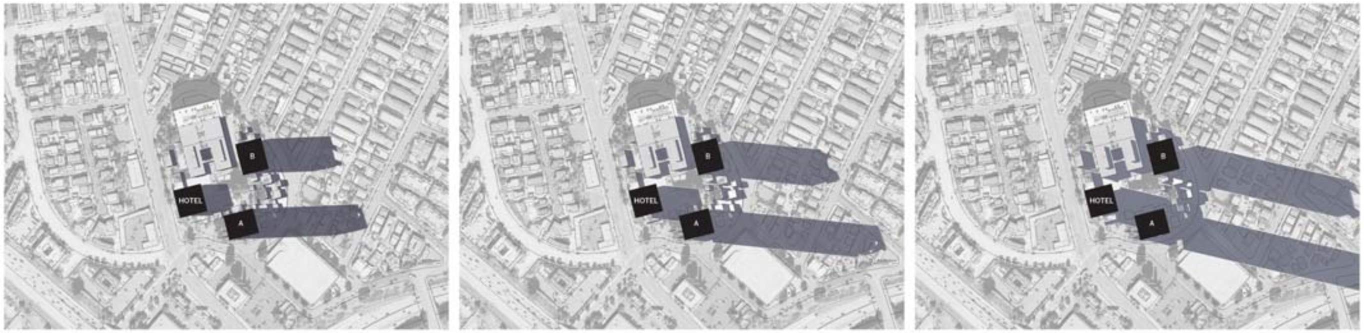


3:00 PM

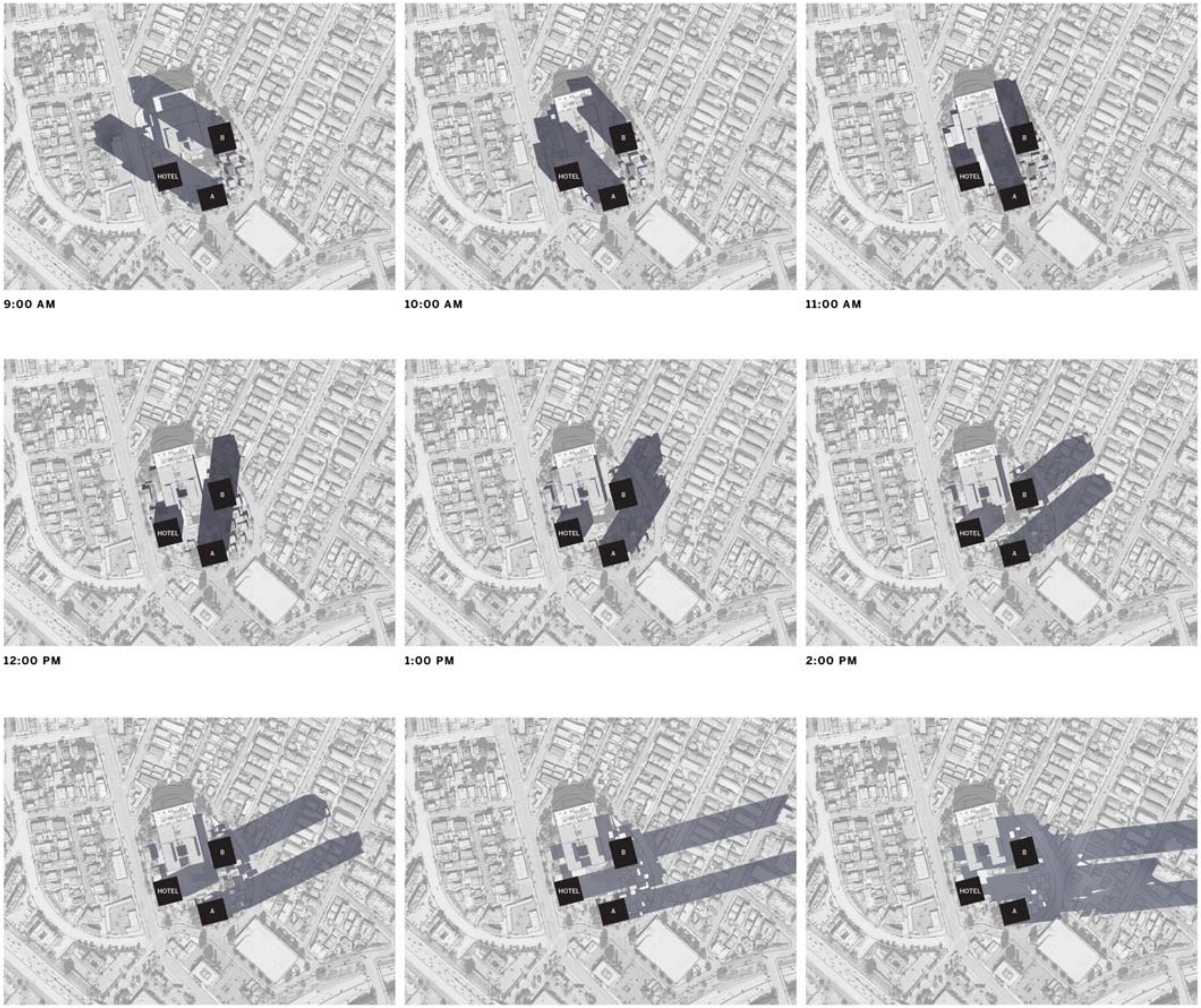
4:00 PM

5:00 PM

Figure B-7

Project Shadows—Summer Solstice

Source: Skidmore, Owings & Merrill LLP, 2018. .

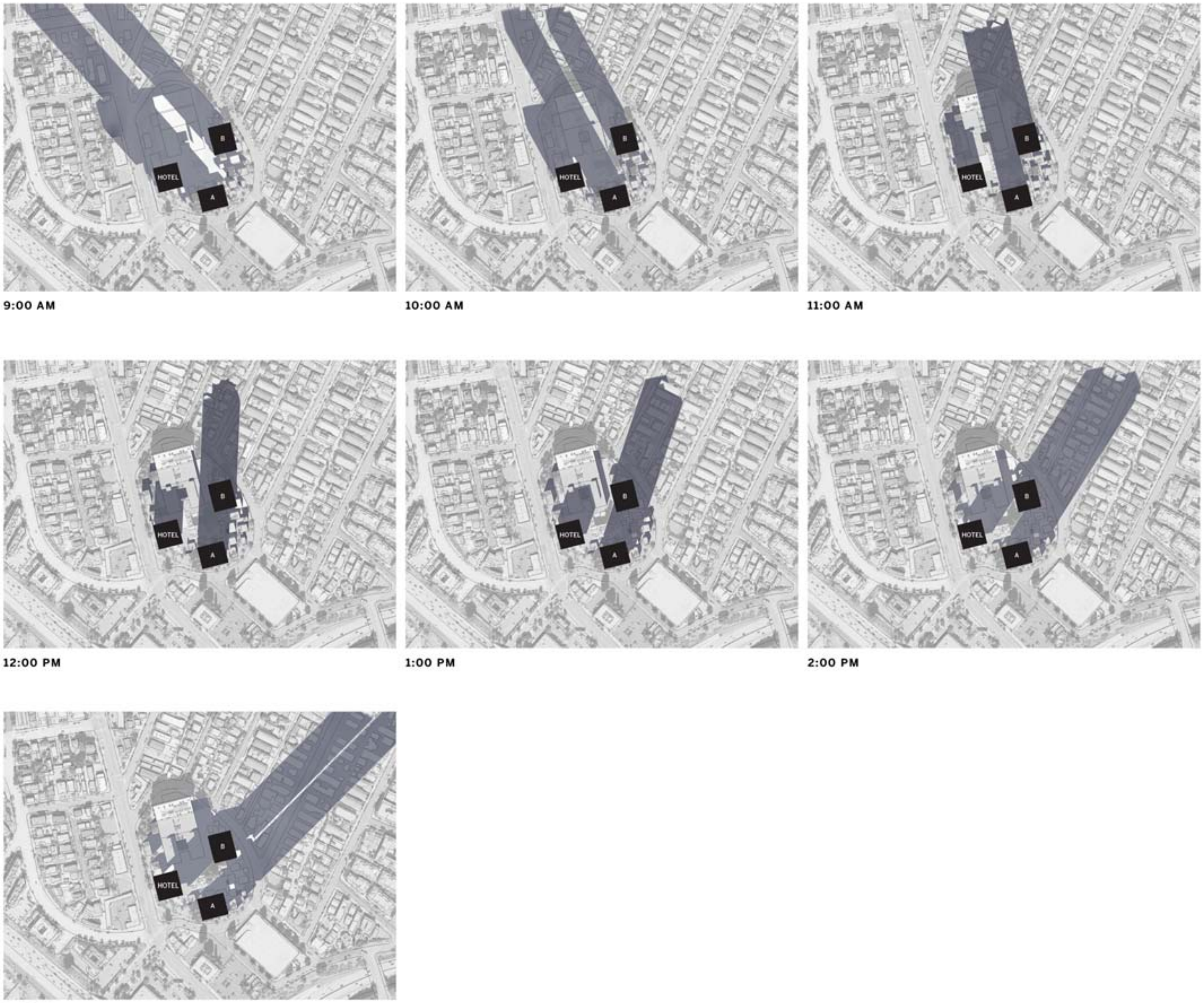


9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM

Figure B-8

Project Shadows—Fall Equinox

Source: Skidmore, Owings & Merrill LLP, 2018.



9:00 AM

10:00 AM

11:00 AM

12:00 PM

1:00 PM

2:00 PM

3:00 PM

Figure B-9

Project Shadows—Winter Solstice

Source: Skidmore, Owings & Merrill LLP, 2018.

d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?

No Impact. As discussed in the *L.A. CEQA Thresholds Guide*, new light sources introduced by a project may increase ambient nighttime illumination levels. Additionally, nighttime spillover of light onto adjacent properties has the potential to interfere with certain functions, including vision, sleep, privacy, and general enjoyment of the natural nighttime condition. The significance of the impact depends on the type of use affected, proximity to the affected use, the intensity of the light source, and the existing ambient light environment. Uses considered sensitive to nighttime light include, but are not limited to, residential, some commercial and institutional uses, and natural areas. Based on the *L.A. CEQA Thresholds Guide*, this discussion considers the following factors from the *L.A. CEQA Thresholds Guide*: 1) the change in ambient illumination levels as result of project sources; and 2) the extent to which project lighting would spill off the project site and affect adjacent light-sensitive areas.

Construction

Lighting needed during Project construction has the potential to generate light spillover to off-site sensitive land uses in the Project Site vicinity, including the residential uses directly north and east of the Project Site. Construction activities would occur in accordance with the provisions of Los Angeles Municipal Code (LAMC) Section 41.40, which limits the hours of construction to between 7:00 A.M. and 9:00 P.M. on weekdays and between 8:00 A.M. and 6:00 P.M. on Saturdays and national holidays, with no construction permitted on Sundays. While the majority of Project construction would occur during daylight hours, there is a potential that construction could occur in the evening hours and require the use of artificial lighting. Outdoor lighting sources, such as floodlights, spot lights, and/or headlights associated with construction equipment and hauling trucks, typically accompany nighttime construction activities. To the extent evening construction includes artificial light sources, such use would be temporary and would cease upon completion of Project construction. Furthermore, construction-related illumination would be used for safety and security purposes only, in compliance with LAMC light intensity requirements. Additionally, as part of the Project, construction lighting would be shielded such that no light source can be seen from adjacent residential properties. Construction lighting, while potentially bright, would be focused on the particular area undergoing work. Accordingly, uses which are not adjacent to the Project construction site would not be anticipated to be substantially affected by construction lighting.

Daytime glare could potentially occur during construction activities if reflective construction materials were positioned in highly visible locations where the reflection of sunlight could occur. However, any glare would be highly transitory and short-term, given the movement of construction equipment and materials within the construction area, and the temporary nature of construction activities. In addition, large, flat surfaces that are generally required to generate substantial glare are typically not an element of construction activities. Furthermore, as previously discussed, temporary construction fencing would be placed along the periphery of the Project Site to screen construction activity from view at the street level from off-site locations. Therefore, there would be a negligible potential for daytime or nighttime glare associated with construction activities to occur.

Based on the above, light and glare associated with temporary Project construction would not substantially alter the character of off-site areas surrounding the Project Site or adversely impact day or nighttime views in the area. Moreover, pursuant to Senate Bill 743, Public Resources Code Section 21099, and Zoning Information File ZI No. 2452, the Project's aesthetics impacts would not be considered significant. Therefore, no further evaluation of this topic in the EIR is required.

Operation

As discussed above, the Project Site is located within a highly urbanized area of the City. Characteristic of an urban area, nighttime lighting in the Project Site vicinity results from numerous types of artificial light sources, including street lights, automobile lights, signage, residential and commercial building lights, and parking facilities. Existing lighting within the Project Site itself includes low to medium output security lighting, vehicle headlights, parking lot lighting, and interior lighting. Glare sources consist of vehicles on the Project Site. The existing structures on the Project Site consist largely of flat façades with windows located along the façades of the Elysian apartment building and along portions of the vacant church buildings; thus, the onsite structures themselves generate some glare.

As previously described, light-sensitive land uses include residential uses, some commercial and institutional uses, and natural areas. In the immediate vicinity of the Project Site, the nearest off-site receptors that are considered sensitive relative to light and glare and have views of the Project Site include existing residential uses that are immediately adjacent to the Project Site to the north and east. Additionally, motorists traveling along roadways in the Project Site vicinity may be sensitive to daytime glare.

The Project would replace the existing vacant buildings and associated surface parking areas on the Project Site with a new integrated, high-density, mixed-use development. As such, the Project would increase light and glare levels emanating from the Project Site. The Project would include lighting from within the buildings' interiors, lighting at the building exterior elevations, lighting from internal driveways and walkways, and limited lighting from the Elysian Parking Facility where there may be openings in the façade treatment. New sources of exterior lighting that would be introduced by the Project would include: shielded low to medium output exterior lighting on the buildings and along pathways for security and wayfinding purposes; shielded low to medium output lighting to accent signage, architectural features, exterior artwork or murals, and landscaping elements; outdoor decorative lights of low to medium output; and interior lighting visible through the windows of the residential, hotel, and commercial uses. Exterior lighting along the public areas would include pedestrian-scale fixtures and elements. Project signage and artwork would be illuminated by means of low to medium output external lighting, internal halo lighting, or ambient light. The Project would not include signs with flashing, mechanical, or strobe lights.

As detailed in the Lighting Memorandum included in Appendix IS-2 of this Initial Study, the proposed lighting sources would be similar to other lighting sources in the vicinity of the Project Site and would not generate artificial light levels that are out of character with the surrounding area. All exterior lighting would be shielded and/or directed toward the areas to be lit within the Project Site to avoid light spillover onto adjacent sensitive uses, and would be dark-sky compliant. Project lighting would also comply with regulatory requirements, including the requirements that are set forth by

CALGreen and Title 24 that stipulate the use of high performance light with appropriate light and glare control according to Backlight, Uplight, and Glare standards. Pursuant to Section 93.0117(b) of the LAMC, exterior light sources other than signage lighting would be designed so that lighting levels produced do not exceed two foot-candles above ambient lighting at the property line of the nearest residential property or light-sensitive receptor. Exterior lighting to highlight the Project's signage and artwork would be shielded or directed toward the areas to be lit to avoid creating off-site glare. In accordance with Section 14.4.4E of the LAMC, lighting used to illuminate Project signage would be limited to a light intensity of three foot-candles above ambient lighting, as measured at the property line of the nearest residentially zoned property. All new street and pedestrian lighting within the public right-of-way would comply with applicable City regulations and would be approved by the Bureau of Street Lighting in order to maintain appropriate and safe lighting levels on both sidewalks and roadways while minimizing light and glare on adjacent properties. In addition, Project illuminated signs would not exceed the prescribed lighting requirements of the LAMC of 3 foot-candles above ambient lighting or the lighting allowances of the California Energy Code and the CALGreen Code (Title 24, Part 6, and Part 11) as detailed in the Lighting Memorandum included in Appendix IS-2 of this Initial Study.

Daytime glare can result from sunlight reflecting from a shiny surface that would interfere with the performance of an off-site activity, such as the operation of a motor vehicle. Reflective surfaces can be associated with window glass and polished surfaces, such as metallic trim. In general, sun reflection that has the greatest potential to interfere with driving occurs from the lower stories of a structure. Sun reflection from the Project would occur during periods in which the sun is low on the horizon and when the point of reflection within the Project Site is in front of the driver, in the direction of travel. The Project would feature a variety of surface materials, including glass, concrete, and aluminum. As part of the Project, glass used in building façades would have high-performance coatings that would not be highly reflective, thereby minimizing glare from reflected sunlight. In addition, windows on the upper levels of the mid-rise and high-rise buildings would include exterior shading elements including overhangs and architectural screens to further reduce glare.

Nighttime glare could result from illuminated signage and artwork, and from vehicle headlights. As described above, Project illuminated signs would not exceed the prescribed lighting requirements of the LAMC, the Energy Code, and the CALGreen Code. Furthermore, while headlights from vehicles entering and exiting certain of the parking levels would be visible during the evening and nighttime hours, such lighting sources would be typical for the area. Thus, nighttime glare would not result in a substantial adverse impact.

Based on the above, with adherence to regulatory requirements, lighting associated with Project operation would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Furthermore, light and glare associated with Project operation would not substantially alter the character of off-site areas surrounding the Project Site and would not result in a substantial adverse change in ambient nighttime levels in close proximity to light-sensitive uses. Moreover, pursuant to Senate Bill 743, Public Resources Code Section 21099, and Zoning Information File ZI No. 2452, the Project's aesthetic impact would not be considered significant. Therefore, no further evaluation of this topic in the EIR is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
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 non-agricultural 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?	☐	☐	☐	☒

Would the project:

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 non-agricultural use?

No Impact. The Project Site is located in an urbanized area of the City. As discussed in the Project Description of this Initial Study, the Project Site is currently developed with four vacant structures mostly recently used as church facilities, the Elysian apartment building, and associated surface parking areas. In addition, the uses surrounding the Project Site include commercial and residential uses. No agricultural uses or operations occur on-site or in the vicinity of the Project Site.

The Project Site and surrounding area are also not mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency Department of Conservation.[5] As such, the Project would not convert farmland to a non-agricultural use. No impacts would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project Site is zoned by the LAMC as C2-2D (Commercial Zone, Height District 2 with Development Limitation), which permits a variety of commercial uses. The Project Site is not zoned for agricultural use. Furthermore, no agricultural zoning is present in the surrounding area. The Project Site and surrounding area are also not enrolled under a Williamson Act Contract.[6] Therefore, the Project would not conflict with any zoning for agricultural uses or a Williamson Act Contract. No impacts would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

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))?

No Impact. As previously discussed, the Project Site is located in an urbanized area and is currently developed with four vacant structures (most recently used as church facilities), the Elysian apartment building, and associated surface parking areas. The Project Site does not include any forest land or timberland. In addition, the Project Site is currently zoned for commercial uses. The Project Site is not zoned for forest land and is not used as forest land.[7] Therefore, the Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland as defined by the Public Resources Code. No impacts would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As previously discussed, the Project Site is located in an urbanized area and does not include any forest land or timberland. Therefore, the Project would not result in the loss or conversion of forest land to non-forest use. No impacts would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

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[5] City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report, http://zimas.lacity.org/, accessed March 5, 2018.

[6] California Department of Conservation, Los Angeles County Williamson Act FY 2015/2016, 2016.

[7] City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report, http://zimas.lacity.org/, accessed March 5, 2018.

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?

No Impact. The Project Site is located in an urbanized area of the City and does not include farmland. The Project Site and surrounding area are not mapped as farmland, are not zoned for farmland or agricultural use, and do not contain any agricultural uses.[8] As such, the Project would not result in the conversion of farmland to non-agricultural use. No impacts would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☒	☐	☐	☐
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?	☐	☐	☒	☐

Would the project:

a) Conflict with or obstruct implementation of the Air Quality Management Plan or Congestion Management Plan?

Potentially Significant Impact. The Project Site is located within the 6,700-square-mile South Coast Air Basin (the Basin). Within the Basin, the South Coast Air Quality Management District

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[8] City of Los Angeles Department of City Planning, Zone Information and Map Access System (ZIMAS), Parcel Profile Report, http://zimas.lacity.org/, accessed March 5, 2018.

(SCAQMD) is required, pursuant to the federal Clean Air Act, to reduce emissions of criteria pollutants for which the Basin is in non-attainment (i.e., ozone, particulate matter less than 2.5 microns in size [$PM_{2.5}$], and lead[9]). The SCAQMD's 2016 Air Quality Management Plan (AQMP) contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the Southern California Association of Governments (SCAG). SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment.[10] With regard to future growth, SCAG has prepared the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016–2040 RTP/SCS), which provides population, housing, and employment projections for cities under its jurisdiction. The growth projections in the 2016–2040 RTP/SCS are based on growth projections in local general plans for jurisdictions in SCAG's planning area.

Construction and operation of the Project may result in an increase in stationary and mobile source air emissions. As a result, development of the Project could have a potential adverse effect on the SCAQMD's implementation of the AQMP. Therefore, the EIR will provide further analysis of the Project's consistency with the SCAQMD's AQMP.

With regard to the Project's consistency with the Congestion Management Program administered by the Metropolitan Transportation Authority (Metro), refer to Response to Checklist Question XVI.b, Transportation/Traffic, below.

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

Potentially Significant Impact. The Project would result in increased air pollutant emissions from the Project Site during construction (short-term) and operation (long-term). Construction-related pollutants would be associated with sources such as construction worker vehicle trips, the operation of construction equipment, site grading and preparation activities, and the application of architectural coatings. During operation of the Project, air pollutants would be emitted on a daily basis from motor vehicle travel, natural gas consumption, and other on-site activities. Therefore, air quality standards could be violated. As such, the EIR will provide further analysis of the Project's construction and operational air pollutant emissions.

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)?

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[9] Partial Nonattainment designation for the Los Angeles County portion of the Basin only.

[10] SCAG serves as the federally designated metropolitan planning organization (MPO) for the Southern California region.

Potentially Significant Impact. As discussed above, construction and operation of the Project would result in the emission of air pollutants in the Basin, which is currently in non-attainment of federal air quality standards for ozone, $PM_{2.5}$ and lead, and State air quality standards for ozone, particulate matter less than 10 microns in size (PM_{10}), and $PM_{2.5}$. Therefore, implementation of the Project could potentially contribute to air quality impacts, which could cause a cumulative impact in the Basin. The EIR will provide further analysis of cumulative air pollutant emissions associated with the Project.

d) Expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. As discussed above, the Project would result in increased short- and long-term air pollutant emissions from the Project Site during construction (short term) and operation (long term). Sensitive receptors located in the vicinity of the Project Site include residential uses. Therefore, the Project could expose sensitive receptors to substantial pollutant concentrations. The EIR will provide further analysis of the Project's potential to result in substantial adverse impacts to sensitive receptors.

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

Less Than Significant Impact. No objectionable odors are anticipated as a result of either construction or operation of the Project. Specifically, construction of the Project would involve the use of conventional building materials typical of construction projects of similar type and size. Any odors that may be generated during construction would be localized and temporary in nature and would not be sufficient to affect a substantial number of people.

With respect to operation of the Project, according to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Project would not involve these types of uses. The Project would include residential, office, hotel, restaurant, and retail uses. In addition, the proposed restaurant uses would comply with SCAQMD Rule 1138 regarding restaurant emissions. On-site trash receptacles would be located in the subterranean parking garage and be contained, located, and maintained in a manner that promotes odor control, and would not result in substantially adverse odor impacts. Construction and operation of the Project would also comply with SCAQMD Rules 401 and 403 regarding visible emissions violations.[11] Construction and operation of the Project would also comply with SCAQMD Rule 402, which states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.[12]

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[11] SCAQMD, Visible Emissions, Public Nuisance, and Fugitive Dust, www.aqmd.gov/home/regulations/compliance/inspection-process/visible-emissions-public-nuisance-fugitive-dust, accessed March 5, 2018.

[12] SCAQMD, Rule 402, Nuisance, www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-402.pdf, accessed March 5, 2018.

Based on the above, the potential odor impact during construction and operation of the Project would be less than significant, and no mitigation measures are required. No further analysis of this topic in the EIR is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
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 Game 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 Game or US 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?	☐	☐	☐	☒

The following analysis is based on the Biological Technical Report prepared for the Project by Glenn Lukos Associates, dated April 2018. The Biological Technical Report is included as Appendix IS-3 of this Initial Study.

Would the project:

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 Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact. The Project Site is located in an urbanized area and is currently developed with four vacant structures, the Elysian apartment building, and associated surface parking areas. Landscaping within the Project Site includes unmaintained ornamental shrubs and trees dispersed throughout the Project Site. Due to the urbanized and disturbed nature of the Project Site and the surrounding areas, and lack of large expanses of open space, species likely to occur on-site are limited to small terrestrial and avian species typically found in developed settings. According to the Biological Technical Report, a habitat assessment for special-status plants found no areas capable of supporting special-status plants. In addition, according to the Biological Technical Report, no special-status animal species occur within the Project Site due to a lack of suitable habitat on the Project Site. Furthermore, the Project Site is not located in or adjacent to a Biological Resource Area as defined by the City of Los Angeles.[13] Additionally, while special-status plants and animals may occur within the study area as identified in the California Native Plant Society Online Inventory of Rare and Endangered Plants of California and the California Natural Diversity Database, based on biological surveys conducted on the Project Site, no special-status plants or animals were found on the Project Site. Therefore, the Project would not have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Impacts would be less than significant, and no mitigation measures are required. No further analysis of this topic in the EIR is required.

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 Game or U.S. Fish and Wildlife Service?

No Impact. The Project Site is located in an urbanized area and is currently developed with vacant structures, the Elysian apartment building, and surface parking. No riparian or other sensitive natural community exists on the Project Site.[14,15] Furthermore, the Project Site is not located in or adjacent to a Biological Resource Area or Significant Ecological Area as defined by the City of Los Angeles or County of Los Angeles.[16] In addition, there are no other sensitive natural communities identified by the California Department of Fish and Game or the US Fish and Wildlife Service.[17,18,19]

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[13] City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, January 19, 1995, P. 2-18-4.

[14] City of Los Angeles Department of City Planning, ZIMAS, Parcel Profile Report, http://zimas.lacity.org/, accessed November 2, 2017.

[15] United States Environmental Protection Agency, NEPAssist, www.epa.gov/nepa/nepassist, accessed November 2, 2017.

[16] City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, January 19, 1995, P. 2-18-4.

[17] California Department of Fish and Wildlife, Biogeographic Information and Observation System (BIOS), www.wildlife.ca.gov/Data/BIOS, accessed November 2, 2017.

Therefore, the Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. No impact would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

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?

No Impact. The Project Site is located in an urbanized area and is currently developed with vacant structures, the Elysian apartment building, and surface parking. In addition, the surrounding area has been fully developed and no water bodies or federally protected wetlands as defined by Section 404 of the Clean Water Act exist on the Project Site or in the vicinity of the Project Site.[20] As such, the Project would not have an adverse effect on federally protected wetlands. No impact would occur, and no mitigation measures are required. Therefore, no further evaluation of this topic in the EIR is required.

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?

Less Than Significant with Mitigation Incorporated. As described above, the Project Site is located in an urbanized area and is currently developed with vacant structures, the Elysian apartment building, and surface parking. In addition, the areas surrounding the Project Site are fully developed and there are no large expanses of open space within and surrounding the Project Site that provide linkages to natural open spaces areas and which may serve as wildlife corridors. Furthermore, the Project Site is not located in or adjacent to a Biological Resource Area or Significant Ecological Area as defined by the City of Los Angeles or County of Los Angeles.[21] As concluded in the Biological Technical Report, the entire study area is surrounded by dense urban development and exhibits no potential as a wildlife corridor.

As discussed in the Biological Technical Report, the Project Site includes groundcover, trees, and shrubs that have the potential to support nesting birds and nesting raptors. Therefore, the on-site trees that would be removed during construction of the Project could potentially provide nesting sites for migratory birds. As provided in the Biological Technical Report, avian surveys conducted during the raptor nesting season did not detect raptor nesting and, as such, nesting raptors are not expected to occur on the Project Site. Notwithstanding, the Project Site supports a number of mature Canary Island pines that exhibit suitable structure for nesting raptors. Therefore, Mitigation Measure BIO-

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[18] California Department of Fish and Wildlife, CDFW Lands, https://www.wildlife.ca.gov/Lands, accessed November 2, 2017.

[19] United States Fish and Wildlife Service, National Wetlands Inventory, www.fws.gov/wetlands/index.html, accessed November 2, 2017.

[20] United States Environmental Protection Agency, NEPAssist, www.epa.gov/nepa/nepassist, accessed November 2, 2017.

[21] City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, January 19, 1995, P. 2-18-4.

MM-1 is provided below to ensure that raptors are protected if found nesting on the Project Site at the time construction activities for the Project commence. With regard to nesting birds, the Project would comply with the Migratory Bird Treaty Act, which prohibits the take, possession, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. To ensure compliance with the Migratory Bird Treaty Act, the Project would implement Mitigation Measure BIO-MM-2, below. In accordance with Mitigation Measure BIO-MM-2, tree removal activities would take place outside of the nesting season (February 1–August 31; February 1–June 30 for Raptors), to the extent feasible. In addition, should vegetation removal activities occur during the nesting season, Mitigation Measure BIO-MM-2 would provide that a biological monitor be present during the removal activities to ensure that no active nests would be impacted. If active nests are found, a buffer would be established until the fledglings have left the nest. With implementation of Mitigation Measure BIO-MM-2, the potential impact would be reduced to less than significant. No further evaluation of this topic in the EIR is required.

BIO-MM-1: If feasible, the removal of vegetation shall occur outside of the raptor nesting season, generally recognized as February 1 to June 30. If vegetation removal must occur during the nesting season, then a qualified biologist shall conduct a nesting bird survey prior to any vegetation removal. If active nests are identified, the biologist shall flag vegetation containing active nests. The biologist shall establish appropriate buffers around active nests to be avoided until the nests are no longer active and the young have fledged. Buffers shall be based on the species identified, but generally will consist of 300 feet for raptors as determined by the Project Biologist. If for some reason, it is not possible to remove all vegetation during the non-nesting season, then vegetation to be removed during the nesting season must be surveyed by a qualified biologist no more than three days prior to removal. If no raptors are found, the vegetation can be removed. If nesting raptors are detected, then removal must be postponed until the fledglings have vacated the nest or the biologist has determined that the nest has failed. Furthermore, the biologist shall establish an appropriate buffer zone where construction activity may not occur until the fledglings have vacated the nest or the biologist has determined that the nest has failed. Similarly, for vegetation being preserved, if construction is to occur during the nesting season, preserved vegetation should be surveyed for the presence of nesting birds. If nesting raptors are detected, the biologist shall establish a 300-foot buffer zone where construction activity may not occur until the fledglings have vacated the nest or the biologist has determined that the nest has failed. If feasible, the demolition shall occur outside of the nesting season, generally recognized as February 1 to June 30 because of the potential for indirect impacts to nearby nests.

If demolition must occur during the raptors nesting season, then a qualified biologist shall conduct a nesting raptors survey prior to any demolition. If active nests are identified, the biologist shall flag active nests and establish appropriate buffers around active nests to be avoided until the nests are no longer active and the young have fledged. Buffers will consist of 300 feet for raptors.

BIO-MM-2: If feasible, the removal of vegetation should occur outside of the nesting season, generally recognized as March 15 to August 15. If vegetation removal must occur during the nesting season, then a qualified biologist shall conduct a nesting bird survey prior to any vegetation removal. If active nests are identified, the biologist shall flag vegetation containing active nests. The biologist shall establish appropriate buffers around active nests to be avoided until the nests are no longer active and the young have fledged. Buffers will be based on the species identified, but generally will consist of 50 feet as determined by the Project Biologist. If for some reason, it is not possible to remove all vegetation during the non-nesting season, then vegetation to be removed during the nesting season must be surveyed by a qualified biologist no more than three days prior to removal. If no nesting birds are found, the vegetation can be removed. If nesting birds are detected, then removal must be postponed until the fledglings have vacated the nest or the biologist has determined that the nest has failed. Furthermore, the biologist shall establish an appropriate buffer zone where construction activity may not occur until the fledglings have vacated the nest or the biologist has determined that the nest has failed. Similarly, for vegetation being preserved, if construction is to occur during the nesting season, preserved vegetation shall be surveyed for the presence of nesting birds. If nesting birds are detected, the biologist shall establish an appropriate buffer zone where construction activity may not occur until the fledglings have vacated the nest or the biologist has determined that the nest has failed.

If feasible, building demolition should occur outside of the avian nesting season, generally recognized as March 15 to August 31 because of the potential for many urban-adapted birds to utilize cavities and other openings of the building. If demolition must occur during the nesting season, then a qualified biologist shall conduct a nesting bird survey prior to any demolition. If active nests are identified, the biologist shall flag active nests and establish appropriate buffers around active nests to be avoided until the nests are no longer active and the young have fledged. Buffers will be based on the species identified, but generally will extend of 50 feet from the nest site.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands)?

Less Than Significant Impact. The City of Los Angeles Protected Tree Ordinance (Chapter IV, Article 6 of the LAMC) regulates the relocation or removal of all Southern California native oak trees (excluding scrub oak), California black walnut trees, Western sycamore trees, and California Bay trees of at least four inches in diameter at breast height. These tree species are defined as "protected" by the City of Los Angeles. Trees that have been planted as part of a tree planting program are exempt from the ordinance and are not considered protected. The City of Los Angeles Protected Tree Ordinance prohibits, without a permit, the removal of any regulated protected tree, including "acts which inflict damage upon root systems or other parts of the tree..." and requires that all regulated protected trees that are removed be replaced on at least a 4:1 basis with trees that are of a protected variety.

As previously discussed, there is one protected oak tree located within the Project Site. The Tree Report included in Appendix IS-1 of this Initial Study also identified 110 non-protected significant onsite trees and 41 street trees located within the proposed construction area. All identified, existing on- and off-site trees within the proposed construction area would be removed to accommodate the development of the Project. Based on the Tree Report, the onsite protected oak tree is not an appropriate candidate for transplant due to the age, size, and condition of the tree. In accordance with the requirements of the Urban Forestry Division, removal of the onsite protected oak tree would be replaced with four, minimum 24-inch box size trees. Acceptable species for the replacement trees include native oak, Western sycamore, California black walnut, and California bay laurel. In addition, the 110 on-site non-protected trees to be removed would be replaced on a 1:1 basis, while the street trees would be replaced on a minimum 2:1 basis. Therefore, with compliance with City requirements regarding tree replacement, impacts would be less than significant, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

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?

No Impact. The Project Site is located in an urbanized area and is currently developed with vacant structures, the Elysian apartment building, and surface parking. As previously described, landscaping within the Project Site consists of unmaintained ornamental trees and shrubs within portions of the Project Site. The Project Site does not support any habitat or natural community.[22,23] No Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plans apply to the Project Site.[24] Thus, the Project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other related plans. No impact would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES: Would the project:				
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?	☐	☒	☐	☐

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[22] City of Los Angeles Department of City Planning, ZIMAS, Parcel Profile Report, http://zimas.lacity.org/, accessed March 5, 2018.

[23] United States Environmental Protection Agency, NEPAssist, www.epa.gov/nepa/nepassist, accessed November 2, 2017.

[24] California Department of Fish and Wildlife, California Regional Conservation Plans, July 2017, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline, accessed November 2, 2017.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

The following analysis is based on the Cultural and Paleontological Resource Evaluation and Impact Assessment (Cultural and Paleontological Resource Assessment) prepared for the Project by Statistical Research, Inc., dated February 2018. The Cultural and Paleontological Resource Assessment is included as Appendix IS-4 of this Initial Study.

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in State CEQA Guidelines §15064.5?

Potentially Significant Impact. Section 15064.5 of the CEQA Guidelines generally defines a historic resource as a resource that is: (1) listed in, or determined to be eligible for listing in the California Register of Historical Resources (California Register); (2) included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code); or (3) identified as significant in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code). In addition, any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register. The California Register automatically includes all properties listed in the National Register of Historic Places (National Register) and those formally determined to be eligible for listing in the National Register.

Based on the age of the existing structures, their association with MWD, and on the merits of their modernist architectural design by William Pereira and Associates, the existing buildings on the Project Site were requested to be nominated as historical resources. Under the Cultural Heritage Ordinance, if the Cultural Heritage Commission elects to undertake review of a nomination request, as they did for the existing former MWD buildings, the Cultural Heritage Commission has 75-days to act on the nomination request or the nomination is deemed denied. On September 15, 2016, upon review of the nomination request, the Cultural Heritage Commission voted 2 to 2. A tie vote is deemed non-action. The 75-day review period expired on October 4, 2016. On October 4, 2016, the nomination application was deemed denied. An evaluation of the Project Site as part of SurveyLA determined that while the Project Site could be significant as a rare complex of 1960s-1970s institutional development and as a work of architect William L. Pereira, the Project Site has undergone substantial modifications over time and further research is needed to determine if the Project Site retains sufficient integrity to convey its significance.[25] Therefore, a detailed evaluation of the Project's potential to result in impacts to historical resources will be provided in the EIR.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines §15064.5?

Less Than Significant with Mitigation Incorporated. Section 15064.5(a)(3)(D) of the CEQA Guidelines generally defines archaeological resources as any resource that "has yielded, or may be likely to yield, information important in prehistory or history." Archaeological resources are features, such as tools, utensils, carvings, fabric, building foundations, etc., that document evidence of past human endeavors and that may be historically or culturally important to a significant earlier community.

As described in detail in the Cultural and Paleontological Resource Assessment included in Appendix IS-4 of this Initial Study, historical maps of the Project Site indicate the Project Site was developed as a park (named Beaudry Park) in 1873. In 1881, Beaudry Park at the Project Site was advertised for sale and was acquired by the Sisters of Charity. The Sisters of Charity built an L-shaped hospital of pressed brick at the Project Site. During the time the Sisters of Charity occupied the Project Site, an oil discovery in 1892 led to an oil drilling boom in City town lots and the Los Angeles City Oil Field was created. The Los Angeles City Oil Field ran in a roughly westerly direction from Elysian Park for a distance of approximately 4.5 miles. The Project Site is located within the East Field portion of the Los Angeles City Oil Field, with the Project Site specifically marking the western extent of the East Field. Based on the Cultural and Paleontological Resource Assessment, wells in the East Field produced satisfactorily at the start but waned quickly, operating only between two and 13 years. Oil drilling on a portion of the Project Site continued through the early 1900s under a 10-year lease that gave the Sisters of Charity rights to oil on their property. In November 1927, the Sisters of Charity moved their hospital to a new facility in the Westlake District. The hospital at the Project Site remained vacant and the hospital was likely demolished between 1932 and 1934. The nurses' residences constructed in 1914, a shrine, and stairs remained on the Project Site until the Project Site was redeveloped by the Metropolitan Water District of Southern California (MWD) in 1959. Specifically, MWD began construction of the MWD Sunset Boulevard Headquarters Campus in 1961 and construction of the buildings was completed in 1963. An additional office tower annex (herein referred to as the existing Elysian apartment building) was later built in 1973. MWD moved from the Project Site in 1993. The Holy Hill Community Church purchased the property in 1994. The Holy Hill Community Church constructed an additional building (Building 5 as identified in Figure A-2 in Attachment A, Project Description, of this Initial Study), which was constructed in 1998. The Holy Hill Community Church vacated the Project Site in 2014. Currently, the church buildings are vacant.

As provided in the Cultural and Paleontological Resource Assessment, based on a records search conducted by the South Central Coastal Information Center (SCCIC), there are five cultural resources mapped by the SCCIC within a quarter mile of the Project Site. One of the five cultural

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[25] City of Los Angeles, Office of Historic Resources. SurveyLA Findings and Reports, Central City North Historic Districts, Planning Districts, and Multi-Property Resources, September 2016, https://preservation.lacity.org/sites/default/files/CentralCityNorth_HistoricDistricts.pdf.

resources includes the Holy Hill Community Church/MWD Complex located within the Project Site. The property was assessed to lack the integrity necessary to be listed in the National Register of Historic Places. The remaining four resources include two historical districts (the Arroyo Seco Parkway District part of which is located approximately 0.2-mile from the Project Site and the 1300 Block of Carroll Avenue District located approximately 0.5-mile from the Project Site), a historical period residence (the Joseph Moffat Rental Cottage) located approximately 230 feet from the Project Site, and a trash deposit containing historical period materials and some potentially prehistoric materials discovered during construction of the E. Manfred Evans Community Adult School located approximately 0.2-mile from the Project Site.

According to the Cultural and Paleontological Resource Assessment, construction of the MWD Sunset Boulevard Headquarters Campus buildings and the Holy Hill Community Church building likely destroyed subsurface remains of historical-period and prehistoric activities within the footprints of the buildings, particularly where basements were excavated. However, there is a potential for the presence of intact archaeological remains outside the current building footprints and throughout the remainder of the Project Site. As discussed in the Project Description of this Initial Study, the Project would require excavations up to 64 feet below grade that could have the potential to disturb previously undiscovered archaeological resources. Therefore, the Project could cause a substantial adverse change in the significance of an archaeological resource. However, with implementation of CUL-MM-1 below, potential impacts to any previously undiscovered archaeological resources would be reduced to less than significant. As such, impacts to archaeological resources would be less than significant with mitigation incorporated.

CUL-MM-1: Prior to the start of Project ground disturbance, including demolition and vegetation removal, a qualified principal archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for Historical Archeology shall be retained to prepare a written Cultural Resource Monitoring and Treatment Plan in accordance with the Secretary of the Interior's Standards for Archaeological Documentation, to reduce potential Project effects on unanticipated archaeological resources unearthed during construction, with an emphasis on potential historical-period materials. The Cultural Resource Monitoring and Treatment Plan shall include the professional qualifications required of key staff, monitoring protocols relative to the varying archaeological sensitivity across the Project Site, provisions for evaluating and treating unanticipated cultural materials discovered during ground-disturbing activities, situations under which monitoring may be reduced or discontinued, and reporting requirements. The Cultural Resource Monitoring and Treatment Plan shall also include a section describing the protocol in the event that unanticipated human remains are discovered during Project construction.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant with Mitigation Incorporated. Paleontological resources are the fossilized remains of organisms that have lived in a region in the geologic past and whose remains are found in the accompanying geologic strata. This type of fossil record represents the primary source of information on ancient life forms, since the majority of species that have existed on earth from this era are extinct. According to the Cultural and Paleontological Resource Assessment included in Appendix IS-4 of this Initial Study, the underlying geologic strata of the Project Site includes sediments of the Puente Formation, Quaternary-age old alluvial deposits, colluvial deposits, and artificial fill.

As explained in the Cultural and Paleontological Resource Assessment, the Puente Formation is a marine unit consisting of siltstones, sandstones, and shales. Paleontological resources are well known from the Puente Formation and have produced remains of marine mammals, fish, sharks, birds, turtles, invertebrates, and plant material. According to a records search of the paleontological specimen and locality records held by the Vertebrate Paleontology Department of the Natural History Museum of Los Angeles (NHMLA), there no vertebrate-fossil localities recorded in the NHMLA paleontology collection records that lie directly within the Project Site. However, several nearby localities were found in sedimentary deposits similar to those underlying the Project Site. The closest comparable vertebrate-fossil locality, LACM 5961, is located roughly 0.85 miles south-southeast of the Project Site, at the intersection of 1st Street and Hill Street. That locality produced a fossil specimen of a deep-sea bristlemouth fish, Cyclothone. An additional 13 fossil localities have been documented in similar Puente Formation deposits within 3.5 miles of the Project Site. The specimens identified in those localities include a wide variety of fossil marine bony fishes and a fossil whale rib.

Quaternary old alluvial deposits are extensively exposed throughout portions of the Los Angeles Basin and date to the middle to late Pleistocene. Paleontologically significant finds of well-preserved large-bodied land mammals have been found within the Pleistocene-age alluvial deposits throughout Los Angeles County, as well as in nearby Orange and Riverside Counties. These deposits have yielded remains of mammoths, mastodons, camels, bison, ground sloths, dire wolves, and American lions, among others. Plant remains, terrestrial invertebrates, and microfossils (especially micromammals) are also known from similar deposits throughout the Los Angeles Basin. Based on these regional discoveries of important paleontological resources, the Quaternary old alluvial fan deposits[26] underlying the Project Site would most likely have similar deposits to other finds in the region and therefore, have high paleontological resource potential.

Colluvium is a type of mass-wasting[27] deposit composed of sediments that were transported by gravity, rain wash, sheetwash, and/or non-channelized flow. These deposits form along the slopes and at the bases of topographic features. The colluvial deposits within the Project Site are likely Holocene to latest Pleistocene in age. This relatively young age means that fossil remains recovered from these deposits would likely have been reworked from older geologic units and thus would lack the stratigraphic context to make them scientifically informative. Therefore, the colluvial deposits underlying the Project Site are assigned low paleontological resource sensitivity.[28]

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[26] Alluvial fan deposits are deposits of gravel, sand, and sediment such as silt that are carried by flowing water.

[27] Mass wasting or mass movement refers to the movement of a large mass of rock, soil, and debris downward due to the pull of gravity.

[28] Cultural and Paleontological Resource Assessment, page 36, Appendix IS-4 of this Initial Study.

Artificial fill materials are deposits presumably derived from prior construction activities and are thus not naturally forming. The maximum depth of fill encountered on the Project Site was approximately 10.5 feet below ground surface.[29] These disturbed fill sediments could potentially contain fossil materials that were unintentionally introduced during earlier excavations. However, such fossil materials would have been removed from their original geologic and stratigraphic contexts and thus would not be of paleontological interest or significance. Artificial fill materials are thus assigned zero paleontological resource sensitivity.

Although no localities have been identified within the Project Site, the known significant fossil finds from the Puente Formation and the richness of nearby localities with similar depositional regimes and geologic ages are indicative of the high fossil sensitivity for this unit. Any excavation into the Puente Formation therefore has the potential to encounter significant vertebrate fossil remains. As discussed in the Project Description of this Initial Study, the Project would require excavations up to 64 feet below grade, which could potentially disturb previously undiscovered paleontological resources. Therefore, the Project could directly destroy a unique paleontological resource. However, with implementation of CUL-MM-2 below, potential impacts to any previously undiscovered paleontological resources would be reduced to less than significant. As such, impacts to paleontological resources would be less than significant with mitigation incorporated.

The Project Site is currently developed with vacant structures, the Elysian apartment building, and surface parking. There are no unique geologic features on the Project Site. Therefore, the Project would not directly or indirectly destroy a unique geologic feature.

CUL-MM-2: The services of a qualified paleontologist shall be retained prior to earthmoving activities associated with the Project in order to develop a site-specific Paleontological Resource Mitigation and Treatment Plan. The Paleontological Resource Mitigation and Treatment Plan shall specify the levels and types of mitigation efforts based on the types and depths of earthmoving activities and the geologic and paleontological sensitivity of the Project Site. If artificial fill, significantly disturbed deposits, or younger deposits too recent to contain paleontological resources are encountered during construction, the Project paleontologist may reduce or curtail monitoring in the affected areas, after consultation with the proponent and the City of Los Angeles. The Paleontological Resource Mitigation and Treatment Plan shall also include a description of the professional qualifications required of key staff, communication protocols during construction, fossil recovery protocols, sampling protocols for microfossils (if required), laboratory procedures, reporting requirements, and curation provisions for any collected fossil specimens.

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[29] Geotechnologies, Inc. Geotechnical Engineering Investigation. October 10, 2017; Revised January 10, 2018. Refer to Appendix IS-5 of this Initial Study.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. The Project Site is located within an urbanized area and has been subject to previous grading and development. No known traditional burial sites have been identified on the Project Site. As discussed in the Cultural and Paleontological Resource Assessment, the likelihood that human remains of historical or prehistoric age are preserved within the Project Site is low. Based on historical research conducted as part of the Cultural and Paleontological Resource Assessment, no references to burials on the property in association with the operation of the Sisters' Hospital (St. Vincent Hospital) were found. Although the disposal of medical waste from surgeries and amputations is sometimes not recorded, the historical research conducted found no indication of such activity. Further, extensive disturbances associated with the construction of the MWD complex have likely removed both historical-period deposits associated with the former hospital as well as any prehistoric deposits that may have existed within the Project Site. The possibility of encountering human interments from the prehistoric era is, therefore, also unlikely. While the uncovering of human remains is not anticipated, if human remains are discovered during construction, such resources would be treated in accordance with state law, including CEQA Guidelines Section 15064.5(e), Public Resources Code Section 5097.98, and California Health and Safety Code Section 7050.5. Specifically, if human remains are encountered, work on the relevant portion of the Project Site would be suspended, and the Los Angeles Department of Public Works (LADPW) as well as the County Coroner would be notified immediately. If the remains are determined by the County Coroner to be Native American, the Native American Heritage Commission (NAHC) would be notified within 24 hours, and NAHC guidelines would be adhered to in the treatment and disposition of the remains. Compliance with these regulatory standards would ensure appropriate treatment of any potential human remains unexpectedly encountered during grading and excavation activities. Therefore, the Project's impact on human remains would be less than significant, and no mitigation measures would be required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS. Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. 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, caused in whole or in part by the project's exacerbation of the existing environmental conditions? Refer to Division of Mines and Geology Special Publication 42.	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
ii. Strong seismic ground shaking caused in whole or in part by the project's exacerbation of the existing environmental conditions?	☒	☐	☐	☐
iii. Seismic-related ground failure, including liquefaction, caused in whole or in part by the project's exacerbation of the existing environmental conditions?	☒	☐	☐	☐
iv. Landslides, caused in whole or in part by the project's exacerbation of the existing environmental conditions?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit 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, caused in whole or in part by the project's exacerbation of the existing environmental conditions?	☒	☐	☐	☐
d. 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 caused in whole or in part by the project's exacerbation of the existing environmental conditions?	☐	☐	☒	☐
e. 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?	☐	☐	☐	☒

In 2015, the California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District* (*CBIA v. BAAQMD*), held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of the project. The revised thresholds are intended to comply with this decision. Specifically, the decision held that an impact from the existing environment to the project, including future users and/or residents, is not an impact for purposes of CEQA. However, if the project, including future users and residents, exacerbates existing conditions that already exist, that impact must be assessed, including how it might affect future users and/or residents of the project. In accordance with Appendix G of the State CEQA Guidelines and the *CBIA v. BAAQMD* decision, the project would have a significant impact related to geology and soils if it would result in any of the following impacts.

The following analysis is based on the Geotechnical Engineering Investigation conducted for the Project Site by Geotechnologies, Inc., dated October 10, 2017, revised January 10, 2018. This report is included as Appendix IS-5 of this Initial Study.

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) 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, caused in whole or in part by the project's exacerbation of the existing environmental conditions? Refer to Division of Mines and Geology Special Publication 42.

Potentially Significant Impact. Fault rupture occurs when movement on a fault deep within the earth breaks through to the surface. Based on criteria established by the California Geological Survey, faults can be classified as active, potentially active, or inactive. Active faults are those having historically produced earthquakes or shown evidence of movement within the past 11,000 years (during the Holocene Epoch). Potentially active faults have demonstrated displacement within the last 1.6 million years (during the Pleistocene Epoch) while not displacing Holocene Strata. Inactive faults do not exhibit displacement younger than 1.6 million years before the present. In addition, there are buried thrust faults, which are faults with no surface exposure. Due to their buried nature, the existence of buried thrust faults is usually not known until they produce an earthquake.

The California Geological Survey establishes regulatory zones around active faults, called Alquist-Priolo Earthquake Fault Zones (previously called Special Study Zones). These zones, which extend from 200 to 500 feet on each side of the known fault, identify areas where a potential surface fault rupture could prove hazardous for buildings used for human occupancy. Development projects located within an Alquist-Priolo Earthquake Fault Zone are required to prepare special geotechnical studies to characterize hazards from any potential surface ruptures. In addition, the City of Los Angeles designates Fault Rupture Study Areas along the sides of active and potentially active faults to establish areas of potential hazard due to fault rupture.

Based on City data, the Project Site is not located within an Alquist-Priolo Earthquake Fault Zone, or within a City-designated Fault Rupture Study Area.[30] However, according to the Geotechnical Engineering Investigation, based on geologic maps, there is an unnamed fault that traverses the western side of the Project Site. While the unnamed fault is not designated as an Earthquake Fault Zone and the unnamed fault is not considered active, further review of the geologic unit underlying the Project Site, including as it relates to the unnamed fault, has been requested by the Los Angeles Department of Building and Safety (refer to Appendix IS-5 of this Initial Study). Therefore, further analysis will be provided in the EIR.

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[30] City of Los Angeles Department of City Planning, ZIMAS, Parcel Profile Report, http://zimas.lacity.org/, accessed March 5, 2018.

ii) Strong seismic ground shaking caused in whole or in part by the project's exacerbation of the existing environmental conditions?

Potentially Significant Impact. The Project Site is located within the seismically active region of Southern California and would potentially be subject to strong ground motion if a moderate to strong earthquake occurs on a local or regional fault. Further analysis of the potential for the Project to cause in part or in whole strong seismic ground shaking will be provided in the EIR.

iii) Seismic-related ground failure, including liquefaction, caused in whole or in part by the project's exacerbation of the existing environmental conditions?

Potentially Significant Impact. Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subjected to high-intensity ground shaking. Liquefaction occurs when three general conditions exist: shallow groundwater; low density, fine, clean sandy soils; and strong ground motion. Effects of liquefaction can include sand boils, settlement, and bearing capacity failures below structural foundations. Neither the City of Los Angeles or the State of California classifies the Project Site as part of a potentially liquefiable area.[31,32] Nonetheless, given the proximity of the Project Site to a fault, further analysis of the Project's potential to exacerbate existing environmental conditions which could result in seismic-related ground failure will be included in the EIR.

iv) Landslides, caused in whole or in part by the project's exacerbation of the existing environmental conditions?

No Impact. Landslides generally occur in loosely consolidated, wet soil and/or rocks on steep sloping terrain. The Project Site is not located in a landslide area as mapped by the State,[33] nor is the Project Site mapped as a landslide area by the City of Los Angeles.[34,35] While the Project Site has a grade difference of approximately 51 feet from the Project Site's eastern portion to the Project Site's western portion, the Project Site is currently mostly paved and developed with four vacant buildings and the Elysian apartment building. Therefore, the Project Site does not currently include expanses of exposed soils which could result in a landslide during a rain event. In addition, the Project would not alter exposed soils on a hill, nor inject water into the soil upslope that could cause a landslide downhill. Therefore, the Project would not exacerbate existing conditions that could cause in whole or in part landslides that would result in the exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death. As such, no impact would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

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[31] City of Los Angeles Department of City Planning, ZIMAS, Parcel Profile Report, http://zimas.lacity.org/, accessed March 5, 2018.

[32] State of California, California Geological Survey, Seismic Hazard Zones. Los Angeles Quadrangle, March 25, 1999.

[33] State of California, California Geological Survey, Seismic Hazard Zones. Los Angeles Quadrangle, March 25, 1999.

[34] Los Angeles General Plan Safety Element, November 1996, Exhibit C, Landslide Inventory & Hillside Areas, p. 51.

[35] City of Los Angeles Department of City Planning, ZIMAS, Parcel Profile Report, http://zimas.lacity.org/, accessed November 2, 2017.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Development of the Project would require grading and excavation and other construction activities that have the potential to disturb existing soils and expose soils to rainfall and wind, thereby potentially resulting in soil erosion. This potential would be reduced by implementation of standard erosion controls imposed during site preparation and grading activities. Specifically, all grading activities would require grading permits from the City's Department of Building and Safety, which would include requirements and standards designed to ensure that substantial soil erosion does not occur. In addition, on-site grading and site preparation would comply with all applicable provisions of Chapter IX, Article 1 of the LAMC, which addresses grading, excavations, and fills. Regarding soil erosion during Project operations, the potential is relatively low since the Project Site would be fully developed and no soils would be left exposed. Therefore, with compliance with applicable regulatory requirements, including the National Pollutant Discharge Elimination System Permit requirements and City grading requirements, impacts regarding soil erosion or the loss of topsoil would be less than significant, and no mitigation measures are required. No further analysis of this topic in the EIR is required.

c) 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, caused in whole or in part by the project's exacerbation of the existing environmental conditions?

Potentially Significant Impact. As discussed above, the Project Site is susceptible to ground shaking. Thus, the potential of the Project to cause in whole or in part a geologic unit to become unstable and potentially result in lateral spreading, subsidence, and collapse will be addressed in the EIR. In addition, as discussed in Checklist Question No. VI(a)(iii), potential liquefaction impacts will also be addressed in the EIR. As discussed above in Response to Checklist Question No. VI(a)(iv) impacts associated with landslides would not occur as part of the Project.

d) 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 caused in whole or in part by the project's exacerbation of the existing environmental conditions?

Less Than Significant Impact. Expansive soils are typically associated with fine-grained clayey soils that have the potential to shrink and swell with repeated cycles of wetting and drying. According to the Geotechnical Engineering Investigation included in Appendix IS-5 of this Initial Study, the onsite geologic materials are in the very low to low expansion range. In addition, the Project would not inject water into the soil that could cause the swelling and drying of water. Therefore, the Project would not be located on expansive soil, which could create substantial risks to life or property cause in whole or in part by the Project's exacerbation of the existing environmental conditions. Thus, impacts would be less than significant, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The Project Site is located within a community served by existing sewage infrastructure. The Project's wastewater demand would be accommodated by connections to the existing wastewater infrastructure. As such, the Project would not require the use of septic tanks or alternative wastewater disposal systems. Therefore, the Project would have no impact related to the ability of soils to support septic tanks or alternative wastewater disposal systems. No impact would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☒	☐	☐	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

Would the project:

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

Potentially Significant Impact. Gases that trap heat in the atmosphere are called greenhouse gases since they have effects that are analogous to the way in which a greenhouse retains heat. Greenhouse gases are emitted by both natural processes and human activities. The accumulation of greenhouse gases in the atmosphere affects the earth's temperature. The State of California has undertaken initiatives designed to address the effects of greenhouse gas emissions, and to establish targets and emission reduction strategies for greenhouse gas emissions in California. Activities associated with the Project, including construction and operational activities, could result in greenhouse gas emissions that may have a significant impact on the environment. Therefore, the EIR will provide further analysis of the Project's greenhouse gas emissions.

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

Potentially Significant Impact. As the Project would have the potential to emit greenhouse gases, the EIR will include further evaluation of project-related emissions and associated emission reduction strategies to determine whether the Project conflicts with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases (e.g., Assembly Bill 32, the City of Los Angeles Green Building Code, and SCAG's RTP/SCS).

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
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 create a significant hazard to the public or the environment caused in whole or in part from the project's exacerbation of existing environmental conditions?	☒	☐	☐	☐
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, caused in whole or in part from the project's exacerbation of existing environmental conditions?	☐	☐	☒	☐

In 2015, the California Supreme Court in *CBIA v. BAAQMD*, held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of the project. The revised thresholds are intended to comply with this decision. Specifically, the decision held that an impact from the existing environment to the project, including future users and/or residents, is not an impact for purposes of CEQA. However, if the project, including future users and residents, exacerbates existing conditions that already exist, that impact must be assessed, including how it might affect future users and/or residents of the project. For example, if construction of the project on a hazardous waste site will cause the potential dispersion of hazardous waste in the environment, the EIR should assess the impacts of that dispersion to the environment, including to the project's residents. In accordance with Appendix G of the State CEQA Guidelines and the *CBIA v. BAAQMD* decision, the Project would have a significant impact related to hazards and hazardous materials if it would result in any of the following impacts.

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Potentially Significant Impact. The majority of the structures within the Project were constructed in approximately 1961, prior to the enactment of laws preventing the use of asbestos-containing materials, polychlorinated biphenyls, and lead based paint. Therefore, these hazardous materials may be present on the Project Site. In addition, construction and operation of the Project could involve the use of potentially hazardous materials. As such, further analysis regarding the Project's transport, use, or disposal of hazardous materials would be provided in the EIR.

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?

Potentially Significant Impact. The majority of the structures within the Project were constructed in approximately 1961, prior to the enactment of laws preventing the use of asbestos-containing materials, polychlorinated biphenyls, and lead based paint. Therefore, these hazardous materials may be present on the Project Site. In addition, construction and operation of the Project could involve the use of potentially hazardous materials. As such, further evaluation of this topic would be provided in the EIR.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Potentially Significant Impact. Schools within a one-quarter mile of the Project Site include Downtown Magnets High School located at 1081 West Temple Street and Betty Plasencia Elementary School located at 1321 Cortez Street. Therefore, given the potential of the Project to emit or handle hazardous materials during construction, further evaluation of this topic will be included in the EIR.

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, caused in whole or in part from the project's exacerbation of existing environmental conditions?

Potentially Significant Impact. Section 65962.5 of the California Government Code requires the California Environmental Protection Agency to develop and update annually the Cortese List, which is a “list” of hazardous waste sites and other contaminated sites. While Section 65962.5 makes reference to the preparation of a “list,” many changes have occurred related to web-based information access since 1992 and information regarding the Cortese List is now compiled on the websites of multiple agencies. A detailed database search will be conducted as part of the EIR. As such, further analysis of this topic will be included in the EIR.

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?

No Impact. The Project Site is not located within an area subject to an airport land use plan or within 2 miles of an airport. The closest airport to the Project Site is the Bob Hope Airport, located approximately 14 miles northwest of the Project Site. Given the distance between the Project Site and Bob Hope Airport, the Project would not have the potential to result in a safety hazard. Therefore, no impact would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

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?

No Impact. The Project Site is not located within the vicinity of a private airstrip. The nearest private airstrip is the Los Alamitos Army Airfield, located approximately 20 miles southeast of the Project Site. Given the distance between the Project Site and the Los Alamitos Army Airfield, the Project would not have the potential to result in a safety hazard. No impact would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Potentially Significant Impact. According to the Safety Element of the City of Los Angeles General Plan, the nearest disaster route to the Project Site is Sunset Boulevard, which is adjacent to the Project Site.[36] Construction and operation of the Project would generate vehicular traffic that would utilize this street. As such, potential impacts associated with emergency response will be further evaluated in the EIR.

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, caused in whole or in part from the project’s exacerbation of existing environmental conditions?

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[36] Los Angeles General Plan Safety Element, November 1996, Exhibit H, Critical Facilities and Lifeline Systems, p. 61.

Less Than Significant Impact. There are no wildlands located in the vicinity of the Project Site. The Project Site is not located within a City-designated Very High Fire Hazard Severity Zone,[37] nor is it located within a City-designated fire buffer zone.[38] Furthermore, the Project would be developed in accordance with LAMC requirements pertaining to fire safety. Additionally, the proposed uses would not create a fire hazard that has the potential to exacerbate the current environmental condition relative to wildfires. Therefore, the Project would not exacerbate existing environmental conditions that would subject people or structures to a significant risk of loss, injury, or death as a result of exposure to wildland fires. Impacts would be less than significant, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
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 pre-existing 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?	☒	☐	☐	☐

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[37] City of Los Angeles Department of City Planning, ZIMAS, Parcel Profile Report, http://zimas.lacity.org/, accessed November 2, 2017. The Very High Fire Hazard Severity Zone was first established in the City of Los Angeles in 1999 and replaced the older "Mountain Fire District" and "Buffer Zone" shown on Exhibit D of the Los Angeles General Plan Safety Element.

[38] City of Los Angeles, Safety Element of the Los Angeles City General Plan, November 26, 1996, Exhibit D, p. 53.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Would the project:

a) Violate any water quality standards or waste discharge requirements?

Potentially Significant Impact. Construction activities associated with the Project would have the potential to result in the conveyance of pollutants into municipal storm drains. In addition, potential changes in on-site drainage patterns resulting from Project operation and the introduction of new land uses could affect the quality and quantity of stormwater runoff. While compliance with regulatory requirements would be expected to address potential water quality impacts, further analysis of this issue will be included in the EIR.

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 pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Potentially Significant Impact. The Project would involve grading across the entire Project Site and excavations up to 64 feet below ground surface. As such, the potential exists for existing percolation of rainwater and irrigation water into the water table to be diminished, which could affect groundwater recharge. In addition, the proposed excavation activities could potentially encounter groundwater. Therefore, further analysis of this topic will be included in the EIR.

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?

Potentially Significant Impact. The Project would involve the demolition of the existing uses, construction of new buildings, and the installation of new landscaped areas, which would have the potential to alter the existing drainage pattern of the Project Site. Therefore, further analysis of this issue will be included in the EIR.

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?

Potentially Significant Impact. The Project would involve the demolition of the existing uses, construction of new buildings, and the installation of new landscaped areas, which would have the potential to alter the existing drainage pattern of the Project Site. Therefore, further analysis of this issue will be included in the EIR.

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?

Potentially Significant Impact. The Project would involve the demolition of the existing uses, construction of new buildings, and the installation of new landscaped areas, which would have the potential to alter the existing drainage pattern of the Project Site and contribute additional runoff. In addition, construction activities associated with the Project would have the potential to result in the conveyance of pollutants into municipal storm drains. Potential changes in on-site drainage patterns resulting from Project operation and the introduction of new land uses could also affect the quality and quantity of stormwater runoff. Therefore, further analysis of this issue will be included in the EIR.

f) Otherwise substantially degrade water quality?

Potentially Significant Impact. As discussed above in Response to Checklist Question IX.a, construction activities associated with the Project would have the potential to result in the conveyance of pollutants into municipal storm drains. In addition, potential changes in on-site drainage patterns resulting from Project operation and the introduction of new land uses could affect the quality and quantity of stormwater runoff. Therefore, further analysis of this issue will be included in the EIR.

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?

No Impact. The Project Site is not located within a 100-year flood hazard area as mapped by the Federal Emergency Management Agency or by the City of Los Angeles.[39,40] Thus, the Project

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[39] Federal Emergency Management Agency, Flood Insurance Rate Map, Panel Number 06037C1628F, effective September 26, 2008.

would not place housing within a 100-year flood hazard area. No impacts would occur, and no mitigation would be required. No further analysis of this topic in the EIR is required.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. As discussed above in Response to Checklist Question IX.g, the Project Site is not located within a designated 100-year flood plain area. Therefore, the Project would not place structures that would impede or redirect flood flows within a 100-year flood plain. No impacts would occur, and no mitigation measures would be required. No further evaluation of this topic in the EIR is required.

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?

Potentially Significant Impact. As discussed above, the Project Site is not located within a designated 100-year flood plain. The Safety Element of the City of Los Angeles General Plan does map the Project Site as being located within a potential Inundation Area.[41] The nearest levee is along the Los Angeles River located approximately 1.2 miles east of the Project Site. The Los Angeles River includes a sunken concrete lined channel; therefore, flooding, including flooding as a result of the failure of a levee or dam is unlikely, particularly given the Project Site's elevation above mean sea level and distance of the Project Site from the Los Angeles River. Notwithstanding, the U.S. Army Corps of Engineers operates and maintains the 22.5-mile stretch of the Los Angeles River between Lankershim Boulevard in Hollywood and Stuart and Grey Road in Downey, which includes the portion nearest to the Project Site. Their maintenance activities include inspection and cleaning of the channel walls and removing vegetation growing in cracks and joints. In addition, the U.S. Army Corps of Engineers has directed repair of damaged embankments and has installed barriers for those portions of the channel that were identified as at greatest risk of flood waters during the 2015/2016 El Nino storm season. With continued inspection, maintenance and flood control activities, the potential for substantial adverse impacts related to inundation at the Project Site due to proximity to the Los Angeles River would be less than significant. However, exposure to flooding onsite as a result of groundwater present in soil conditions is possible, as noted in a letter from the Department of Building and Safety and the geotechnical report. Historically high groundwater is expected to be 20 feet below ground surface and groundwater was encountered at 16 feet below ground surface in soil borings conducted for the geotechnical report. As water was encountered at that depth and the proposed depth of the subterranean parking is 64 feet below ground surface, risk is present. Therefore, further analysis of this issue will be included in the EIR.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly

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[40] City of Los Angeles, Safety Element of the Los Angeles City General Plan, November 26, 1996, Exhibit F, p. 57.

[41] Los Angeles General Plan Safety Element, November 1996, Exhibit G, Inundation & Tsunami Hazard Areas, p. 59.

referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement associated with large, shallow earthquakes. Mudflows result from the downslope movement of soil and/or rock under the influence of gravity.

The Project Site is not located adjacent to or in proximity to the ocean and the Safety Element of the General Plan does not map the Project Site as being located within an area potentially affected by a tsunami.[42] The Los Angeles River is located approximately 1.2 miles east of the Project Site, but includes a sunken concrete lined channel; therefore, inundation as a result of seiche is unlikely, particularly given the Project Site's elevation above mean sea level. As discussed above, the Project Site and surrounding area are fully developed. In addition, the Project Site is not mapped by either the State or the City as being located in an area prone to landslides. As such, the potential for the Project Site to be inundated by mudflows is low. Therefore, no seiche, tsunami, or mudflow events would be expected to impact the Project Site. No impacts would occur, and no mitigation measures would be required. No further evaluation of this topic in the EIR is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
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?	☐	☐	☐	☒

Would the project:

a) Physically divide an established community?

Less Than Significant Impact. As discussed in the Project Description of this Initial Study, the vicinity of the Project Site is developed primarily with commercial and residential uses. Specifically, further north of the Elysian apartment building, across White Knoll Drive are additional multi-family residential uses and an auto repair shop at White Knoll Drive and Sunset Boulevard. Expanses of multi-family residential uses continue east of the Project Site, across Alpine Street. South of the Project Site, across Beaudry Avenue, is structured parking and commercial uses. West of the Project Site, across Sunset Boulevard, is a motel, a nightclub, and multi-family residential uses.

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[42] City of Los Angeles, Safety Element of the Los Angeles City General Plan, November 26, 1996, Exhibit G, p. 59.

The Project would replace the existing vacant structures within the Project Site with a new infill mixed-use project. In addition, while the Project would merge a portion of Beaudry Avenue and Sunset Boulevard adjacent to the Project Site, access would continue to be available through Beaudry Avenue at Sunset Boulevard. In addition, the Project does not propose a freeway or other large infrastructure that would divide the existing surrounding community. Therefore, the Project would not physically divide an established community. Impacts related to the physical division of an established community would be less than significant, and no mitigation measures would be required. No further analysis of this topic in the EIR is required.

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?

Potentially Significant Impact. The Project could potentially conflict with land use plans, policies or regulations that were adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the EIR will provide further analysis of whether the Project conflicts with applicable land use plans, policies, and regulations that were adopted for the purpose of avoiding or mitigating an environmental effect.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. As discussed above in Response to Checklist Question IV, Biological Resources, the Project Site is located in an urbanized area and is currently developed with four vacant structures, the Elysian apartment building, and surface parking. As discussed in the Biological Technical Report included in Appendix IS-3 of this Initial Study, the Project Site does not support any habitat or natural community. No Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plans apply to the Project Site.[43] Thus, the Project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other related plans. No impact would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. Would the project:				
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?	☐	☐	☐	☒

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[43] California Department of Fish and Wildlife, California Regional Conservation Plans, July 2017, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline, accessed November 2, 2017.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

The following analysis is based on the Oil Well Report prepared for the Project by Geosyntec Consultants, dated March 2, 2018. This report is included as Appendix IS-6 of this Initial Study.

Would the project:

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?

No Impact. No mineral extraction operations currently occur on the Project Site. Furthermore, the Project Site is not located within a City-designated Mineral Resource Zone where significant mineral deposits are known to be present, or within a mineral producing area as classified by the California Geologic Survey.[44,45,46] As previously discussed in Checklist Question V, Cultural Resources, the Project Site is located within the Los Angeles City Oil Field. Specifically, the Project Site is located within the East Field portion of the Los Angeles City Oil Field, with the Project Site marking the western extent of the East Field. As described in the Oil Well Report, the Los Angeles City Oil Field is an old oil field and one of the first to be discovered in the Los Angeles Basin. The Los Angeles City Oil Field is east-west trending and is approximately 18,500 feet long and 1,000 feet wide. Based on a historical map from 1903, eight oil well heads were located onsite, including five standard oil wells and three well heads. As discussed in the Cultural and Paleontological Resource Assessment, wells in the East Field produced satisfactorily at the start but waned quickly, operating only between two and 13 years. Oil drilling on a portion of the Project Site continued through the early 1900s under a 10-year lease that gave the Sisters of Charity rights to oil on their property. Oil drilling and extraction on the Project Site has not occurred since then and no producing oil wells exist on the Project Site. Therefore, the Project would not result in the loss of availability of a mineral resource or a mineral resource recovery site. No impact would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

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?

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[44] City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, January 19, 1995. Figure GS-1.

[45] State of California Department of Conservation, California Geologic Survey, Aggregate Sustainability in California, 2012.

[46] City of Los Angeles, Conservation Element of the Los Angeles City General Plan, January 2001, Exhibit A, p. 86.

No Impact. No mineral extraction operations currently occur on the Project Site. Furthermore, the Project Site is not located within a City-designated Mineral Resource Zone where significant mineral deposits are known to be present, or within a mineral producing area as classified by the California Geologic Survey.[47,48,49] As discussed above in Response to Checklist Question XI.a, while the Project Site is located within the Los Angeles City Oil Field, no producing oil wells exist on the Project Site. Therefore, the Project would not result in the loss of availability of a mineral resource or a mineral resource recovery site. No impact would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
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?	☒	☐	☐	☐
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?	☐	☐	☐	☒

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[47] City of Los Angeles, Department of City Planning, Los Angeles Citywide General Plan Framework, Draft Environmental Impact Report, January 19, 1995. Figure GS-1.

[48] State of California Department of Conservation, California Geologic Survey, Aggregate Sustainability in California, 2012.

[49] City of Los Angeles, Conservation Element of the Los Angeles City General Plan, January 2001, Exhibit A, p. 86.

Would the project:

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. During construction activities associated with the Project, the use of heavy equipment (e.g., bulldozers, backhoes, cranes, loaders, etc.) would generate noise on a short-term basis. In addition, because the Project would introduce new uses to the Project Site, noise levels from on-site sources may also increase during operation of the Project. Furthermore, construction and operational traffic attributable to the Project has the potential to increase noise levels along adjacent roadways. Therefore, further evaluation of this topic will be provided in the EIR.

b) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?

Potentially Significant Impact. Construction of the Project could generate groundborne noise and vibration associated with demolition, site grading, other clearing activities, the installation of building footings, and construction truck travel. As such, the Project would have the potential to generate and expose people to excessive groundborne vibration and noise levels during short-term construction activities. No operational vibration impacts are anticipated given the potential Project uses. Therefore, further evaluation of this topic will be provided in the EIR.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. Traffic and human activity associated with the Project, as described above, have the potential to increase ambient noise levels above existing levels. Therefore, further evaluation of this topic will be provided in the EIR.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. As discussed above in Response to Checklist Questions XII.a and XII.b, construction activities associated with the Project would have the potential to temporarily or periodically increase ambient noise levels above existing levels. Therefore, further evaluation of this topic will be provided in the EIR.

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?

No Impact. The Project Site is not located within an airport land use plan or within two miles of an airport. The closest airport to the Project Site is Bob Hope Airport, located approximately 14 miles northwest of the Project Site. Given the distance between the Project Site and Bob Hope Airport, the Project would not expose people residing or working in the Project area to excessive noise levels. Therefore, no impact would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

f) For a project located within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project Site is not located within the vicinity of a private airstrip. The nearest private airstrip is the Los Alamitos Army Airfield, located approximately 20 miles southeast of the Project Site. Given the distance between the Project Site and the Los Alamitos Army Airfield, the Project would not expose people residing or working in the Project area to excessive noise levels. Therefore, no impact would occur, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
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?	☐	☐	☐	☒

Would the project:

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)?

Potentially Significant Impact. The Project would result in the construction of new residential dwelling units. In addition, the Project would introduce new office, hotel, and commercial uses to the Project Site. As such, the Project would introduce residential and daytime population growth in the area. Therefore, further analysis of this topic in the EIR is required.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. As no housing currently exists on the Project Site, the Project would not displace any existing housing necessitating the construction of replacement housing elsewhere. No impacts would occur and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. As no housing currently exists on the Project Site, the development of the Project would not cause the displacement of any persons necessitating the construction of replacement housing elsewhere. No impact would occur and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES. 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:				
a. Fire protection?	☒	☐	☐	☐
b. Police protection?	☒	☐	☐	☐
c. Schools?	☒	☐	☐	☐
d. Parks?	☒	☐	☐	☐
e. Other public facilities?	☒	☐	☐	☐

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:

a) Fire protection?

Potentially Significant Impact. The City of Los Angeles Fire Department provides fire protection and emergency medical services for the Project Site. The Project would increase the building square footage on-site and increase the residential population, which could result in the need for new or physically altered Los Angeles Fire Department facilities, the construction of which could cause significant environmental impacts. Therefore, further analysis of this issue will be included in the EIR.

b) Police protection?

Potentially Significant Impact. Police protection for the Project Site is provided by the City of Los Angeles Police Department. The Project would introduce new residential, commercial, office, and hotel uses to the Project Site that would increase the density at the Project Site, and increase the residential and daytime population in the service area. This could result in the need for additional police services and associated facilities, the construction of which could cause significant environmental impacts. Therefore, the EIR will provide further analysis of this issue.

c) Schools?

Potentially Significant Impact. The Project Site is located within the boundaries of the Los Angeles Unified School District. The Project would include the development of residential uses, which would generate a demand for educational services and school facilities, the construction of which could cause significant environmental impacts. Therefore, the EIR will provide further analysis of this issue.

d) Parks?

Potentially Significant Impact. The development of residential uses as part of the Project would increase the number of residents at the Project Site that could utilize nearby parks and/or recreational facilities, possibly necessitating new parks, the construction of which could cause significant environmental impacts. Thus, the EIR will provide further analysis of this issue.

e) Other public facilities?

Potentially Significant Impact. The development of residential uses as part of the Project would generate a new population that would generate a demand for library services provided by the Los Angeles Public Library, possibly necessitating the construction of new libraries which could cause significant environmental impacts. Therefore, the EIR will provide further analysis of this issue.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☒	☐	☐	☐

a) Would the project Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?

Potentially Significant Impact. The development of residential uses as part of the Project would increase the number of residents at the Project Site that could utilize City parks and/or recreational facilities, possibly resulting in the physical deterioration of those facilities. Thus, the EIR will provide further analysis of this issue.

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?

Potentially Significant Impact. The Project would not include the development of public recreational facilities. However, the Project would increase the number of residents at the Project Site that could utilize nearby recreational facilities, possibly necessitating the construction or expansion of new recreational facilities, which might have an adverse physical effect on the environment. Therefore, the EIR will provide further analysis of this topic.

Additionally, the Project would include development of private open space and recreational amenities associated with its residential component. The potential impacts associated with construction of these facilities will be further analyzed in the EIR for those topics where impacts could be potentially significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC. Would the project:				
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?	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☒	☐	☐	☐

Would the project:

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?

Potentially Significant Impact. The Project proposes development that would result in an increase in daily and peak-hour traffic within the vicinity of the Project Site. In addition, construction of the Project has the potential to affect the transportation system through the hauling of excavated materials and debris, the transport of construction equipment, the delivery of construction materials, and travel by construction workers to and from the Project Site. Once construction is completed, the Project's residents, employees, and visitors would generate vehicle and transit trips throughout the day. The resulting increase in the use of the area's transportation facilities could 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. Therefore, further analysis of this issue will be provided in the EIR.

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?

Potentially Significant Impact. Metro administers the Congestion Management Program, a State-mandated program designed to address the impacts urban congestion has on local communities and the region as a whole. The Congestion Management Program provides an analytical basis for the transportation decisions contained in the State Transportation Improvement Project. The Congestion Management Program for Los Angeles County requires an analysis of any Project that could add 50 or more trips to any Congestion Management Program intersection or more than 150 trips to a Congestion Management Program mainline freeway location in either direction during either the A.M. or P.M. weekday peak hours. Implementation of the Project has the potential to generate additional vehicle trips, which could potentially add more than 50 trips to a Congestion Management Program roadway intersection or more than 150 trips to a Congestion Management Program freeway segment. Therefore, further analysis of this issue will be provided in the EIR.

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?

Less Than Significant Impact. The Project Site is not located within the vicinity of any private or public airport or planning boundary of any airport land use plan. Additionally, the Project does not propose any uses that would increase the frequency of air traffic. The Project would have a maximum height of approximately 572 feet. As such, the Project would be required to comply with applicable Federal Aviation Administration requirements regarding rooftop lighting for high-rise structures. In addition, the Project would be required to comply with the notice requirements imposed by the Federal Aviation Administration for all new buildings taller than 200 feet, and would complete Form 7460-1 (Notice of Proposed Construction or Alteration). With compliance with these regulations, and given the distance between the Project Site and the nearest airport, impacts to air traffic patterns would be less than significant. Therefore, no mitigation measures are required. No further evaluation of this topic in the EIR is required.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Potentially Significant Impact. As previously discussed, the area surrounding the Project Site primarily includes residential and commercial uses. The Project proposes the development of residential, office, hotel, and commercial uses. Therefore, the Project would not introduce incompatible uses to the Project Site or surrounding area. Notwithstanding, given the existing design of the roads surrounding the Project Site, particularly the curvature around the Project Site from Sunset Boulevard to Beaudry Avenue, Alpine Street, and White Knoll Drive, the Project could require the implementation of specific design features to ensure adequate sight distances from proposed driveways. Therefore, further evaluation of this topic in the EIR is required.

e) Result in inadequate emergency access?

Potentially Significant Impact. While it is expected that construction activities for the Project would primarily occur within the Project Site, construction activities could potentially require the partial closure of travel lanes on adjacent streets for the installation or upgrading of local infrastructure. Construction within these roadways has the potential to impede access to adjoining uses, as well as reduce the rate of flow of the affected roadway. The Project would also generate construction traffic, particularly haul trucks, which may affect the capacity of adjacent streets and highways. Therefore, further analysis of this issue in the EIR is required.

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?

Potentially Significant Impact. The Project Site is served by a variety of transit options including numerous bus routes. The development of the Project would also increase demand for alternative transportation modes in the vicinity of the Project Site. Therefore, further analysis of the potential for the Project to conflict with adopted policies, plans, or programs regarding public transit, bicycle facilities, or pedestrian facilities will be provided in the EIR.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRIBAL CULTURAL RESOURCES.				
a. Would the project 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. 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. 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.	☒	☐	☐	☐

Would the project:

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)?

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?

Potentially Significant Impact (a and b). Approved by Governor Jerry Brown on September 25, 2014, Assembly Bill 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 Section 21074, as part of CEQA. Effective July 1, 2015, Assembly Bill 52 applies to projects that file a Notice of Preparation or Notice of Negative Declaration/Mitigated Negative Declaration on or after July 1, 2015. As specified in Assembly Bill 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 tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the request for consultation.

As noted above, the Project would require excavations up to 64 feet below grade. Therefore, the potential exists for the Project to significantly impact a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American Tribe. In **compliance** with Assembly Bill 52, the City notified all applicable tribes on April 20 2018, and the City will participate in any requested consultations for the Project. Further analysis of this topic will be provided in the EIR.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
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?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact. The City of Los Angeles Department of Public Works provides wastewater collection and treatment services for the Project Site. As is the case under existing conditions, wastewater generated during operation of the Project would be collected and discharged into existing sewer mains and conveyed to the Hyperion Water Reclamation Plant in Playa del Rey. Incoming wastewater to the treatment plant initially passes through screens and basins to remove coarse debris and grit. This is followed by primary treatment, which is a physical separation process where heavy solids settle to the bottom of tanks while oil and grease float to the top. These solids, called sludge, are collected, treated, and recycled. The portion of water that remains, called primary effluent, is treated through secondary treatment using a natural, biological approach. Living micro-organisms are added to the primary effluent to consume organic pollutants. These micro-organisms are later harvested and removed as sludge.[50] Treated water from the Hyperion Water Reclamation Plant is discharged through an outfall pipe five miles into the Santa Monica Bay and

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[50] LASAN, Hyperion Water Reclamation Plant, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-hwrp?_adf.ctrl-state=grj40dmqj_1780&_afrLoop=3950078628628745#!, accessed January 30, 2018.

Pacific Ocean.[51] The discharge from the Hyperion Water Reclamation Plant into Santa Monica Bay is regulated by the Hyperion Water Reclamation Plant's National Pollutant Discharge Elimination System Permit issued under the Clean Water Act and is required to meet the Regional Water Quality Control Board's requirements for a recreational beneficial use.[52] Accordingly, the Hyperion Water Reclamation Plant's effluent that is released to Santa Monica Bay is continually monitored to ensure that it meets or exceeds prescribed water quality standards. The City's Environmental Monitoring Division also monitors flows into the Santa Monica Bay.[53]

The wastewater generated by the Project would be typical of residential, office, and commercial uses. No industrial discharge into the wastewater system would occur as part of the Project as no such uses are proposed. As the Hyperion Water Reclamation Plant is in compliance with the State's wastewater treatment requirements, the Project would not exceed the wastewater treatment requirements of the Regional Water Quality Control Board. Therefore, impacts would be less than significant, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

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?

Less Than Significant Impact. As determined in Checklist Question XVIII.a, above, the Project would not cause the wastewater treatment requirements of the Hyperion Water Reclamation Plant to be exceeded. Therefore, the Project would not cause there to be the need for the construction of new water or wastewater treatment facilities or the expansion of such facilities. Impacts would be less than significant, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

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?

Potentially Significant Impact. As discussed in Response to Checklist Question IX.c, above, the Project would involve the demolition of the existing uses, construction of new buildings, and the installation of new landscaped areas, which would have the potential to alter the existing drainage pattern of the Project Site and affect the amount of stormwater runoff. Therefore, further analysis of this issue will be included in the EIR.

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[51] California Regional Water Quality Control Board, Los Angeles Region, Order No. R4-2010-0200, NPDES No. CA0109991, Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for the City of Los Angeles, Hyperion Treatment Plant Discharge to the Pacific Ocean.

[52] California Regional Water Quality Control Board, Los Angeles Region, Order No. R4-2010-0200, NPDES No. CA0109991, Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for the City of Los Angeles, Hyperion Treatment Plant Discharge to the Pacific Ocean.

[53] LASAN, Environmental Monitoring, www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-wp-ec-em?_adf.ctrl-state=xsmd2kqwx_131&_afrLoop=21105064772207683#!, accessed January 30, 2018.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Potentially Significant Impact. LADWP supplies water to the Project Site. The Project would increase the demand for water provided by LADWP. Therefore, further analysis of this issue in the EIR will be provided.

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?

Potentially Significant Impact. The Project would result in increased wastewater generation. As such, the Project would result in increased use of wastewater infrastructure and facilities. Therefore, further analysis of this topic in the EIR will be provided.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. While the Bureau of Sanitation generally provides waste collection services to single-family and some small multi-family developments, private haulers permitted by the City provide waste collection services for most multi-family residential and commercial developments within the City. Solid waste transported by both public and private haulers is either recycled, reused, or transformed at a waste-to-energy facility, or disposed of at a landfill. Landfills within the County are categorized as either Class III or inert waste landfills. Non-hazardous municipal solid waste is disposed of in Class III landfills, while inert waste such as construction waste, yard trimmings, and earth-like waste are disposed of in inert waste landfills.[54] Ten Class III landfills and one inert waste landfill with solid waste facility permits are currently operating within the County.[55] In addition, there are two solid waste transformation facilities within Los Angeles County that convert, combust, or otherwise process solid waste for the purpose of energy recovery.

In 2016, the City of Los Angeles disposed of approximately 2.71 million tons of solid waste at the County's Class III landfills and approximately 44,942 tons at transformation facilities.[56,57] The 2.71

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[54] Inert waste is waste which is neither chemically or biologically reactive and will not decompose. Examples of this are sand and concrete.

[55] County of Los Angeles, Department of Public Works, Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017. The 10 Class III landfills within the County include the Antelope Valley Landfill, the Burbank Landfill, the Calabasas Landfill, Chiquita Canyon Landfill, Lancaster Landfill, Pebbly Beach Landfill, San Clemente Landfill, Savage Canyon Landfill, the Scholl Canyon Landfill, and the Sunshine Canyon City and County Landfill. Azusa Land Reclamation is the only permitted Inert Waste Landfill in the County that has a full solid waste facility permit.

[56] These numbers represent waste disposal, not generation, and thus do not reflect the amount of solid waste that was diverted via source reduction and recycling programs within the City.

[57] County of Los Angeles, Department of Public Works, Solid Waste Information System, Detailed Solid Waste Disposal Activity Report By Jurisdictions by Los Angeles (Reporting Period: January 2016 to December 2016).

million tons of solid waste accounts for approximately 3.17 percent of the total remaining capacity (85.45 million tons) for the County's Class III landfills open to the City as of December 31, 2016.[58,59]

The permitted inert waste landfill serving the County is Azusa Land Reclamation. This facility currently has 56.34 million tons of remaining capacity and an average daily in-County disposal rate of 897 tons per day.[60]

Los Angeles County continually evaluates landfill disposal needs and capacity through preparation of the Los Angeles County Countywide Integrated Waste Management Plan Annual Reports. Within each annual report, future landfill disposal needs over the next 15-year planning horizon are addressed in part by determining the available landfill capacity.[61] Based on the most recent 2016 Countywide Integrated Waste Management Plan Annual Report, the remaining total disposal capacity for the County's Class III landfills is estimated at 103.18 million tons.

Based on the 2016 Countywide Integrated Waste Management Plan Annual Report, the countywide cumulative need for Class III landfill disposal capacity through the year 2031 will exceed the 2016 remaining permitted Class III landfill capacity of 103 million tons. The 2016 Countywide Integrated Waste Management Plan Annual Report evaluated seven scenarios to increase capacity and determined that the County would be able to meet the disposal needs of all jurisdictions through the 15-year planning period with six of the seven scenarios. The scenario involving utilization of permitted in-county disposal capacity only would result in a shortfall. The 2016 Countywide Integrated Waste Management Plan Annual Report also concluded that in order to maintain adequate disposal capacity, individual jurisdictions must continue to pursue strategies to maximize waste reduction and recycling; expand existing landfills; study, promote, and develop alternative technologies; expand transfer and processing infrastructure; and use out of county disposal, including waste by rail. The City's Recovering Energy, Natural Resources and Economic Benefit from Waste for Los Angeles (RENEW LA) Plan sets a goal of becoming a "zero waste" city by 2030. To this end, the City of Los Angeles implements a number of source reduction and recycling programs such as curbside recycling, home composting demonstration programs, and construction and demolition debris recycling.[62] The City of Los Angeles is currently diverting 76 percent of its waste from landfills.[63] The City has adopted the goal of achieving 90 percent diversion by 2025, and zero waste by 2030.

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[58] (2.71 million tons ÷ 85.45 million tons) X 100 = 3.17 percent.

[59] County of Los Angeles, Department of Public Works; Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017, Appendix E-2 Table 1.

[60] County of Los Angeles, Department of Public Works; Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017.

[61] County of Los Angeles, Department of Public Works. Los Angeles County Integrated Waste Management Plan 2016 Annual Report, September 2017.

[62] City of Los Angeles, Solid Waste Integrated Resource Plan FAQ; www.zerowaste.lacity.org/files/info/fact_sheet/SWIRPFAQS.pdf, accessed November 2, 2017.

[63] LA Sanitation, Recycling, www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-r?_adf.ctrl-state=alxbkb91s_4&_afrLoop=18850686489149411#!, accessed November 2, 2017.

The following analysis quantifies the Project's construction and operation solid waste generation.

Construction

The Project Site is currently developed with four vacant structures that together comprise approximately 114,600 square feet, the Elysian apartment building, and associated paved surface parking areas. Pursuant to the requirements of Senate Bill 1374, the Project would implement a construction waste management plan to recycle and/or salvage a minimum of 75 percent of non-hazardous demolition and construction debris. Materials that could be recycled or salvaged include asphalt, glass, and concrete. Debris not recycled could be accepted at the unclassified landfill (Azusa Land Reclamation) within Los Angeles County and within the Class III landfills open to the City. As shown in Table B-1 on page B-67, after accounting for mandatory recycling, the Project would result in approximately 2,752 tons of construction and demolition waste. Given the remaining permitted capacity the Azusa Land Reclamation facility, which is approximately 56.34 million tons, as well as the remaining 85.45 million tons of capacity at the Class III landfills open to the City, the landfills serving the Project Site would have sufficient capacity to accommodate the Project's construction solid waste disposal needs.

As discussed in the Project Description of this Initial Study, the Project would allow for an exchange of uses if certain uses are reduced or eliminated. In particular, the number of residential units could be up to 827 units if the proposed hotel is not constructed, and could include eliminating the proposed commercial and office uses. Additionally, the Project could include an all-residential development with no hotel, office, or commercial uses. Of the potential development options that could occur within the floor area limits of the Project Site, an all residential development would generate the highest construction and demolition waste with approximately 2,765 tons of construction and demolition waste generated. This development option would result in an increase of 13 tons of construction and demolition waste compared to the proposed development and would still be within the capacity of the Azusa Land Reclamation facility and Class III landfills open to the City.

Operation

As shown in Table B-2 on page B-68, upon full buildout, the Project would generate approximately 2,844 tons of solid waste per year. The estimated solid waste is conservative because the waste generation factors used do not account for recycling or other waste diversion measures such as compliance with Assembly Bill 341, which requires California commercial enterprises and public entities that generate four cubic yards or more per week of waste, and multi-family housing with five or more units, to adopt recycling practices. Likewise, the analysis does not include implementation of the City's upcoming Zero Waste LA franchising system, which is expected to result in a reduction of landfill disposal Citywide with a goal of reaching a Citywide recycling rate of 90 percent by the year 2025.[64] The estimated annual net increase in solid waste that would be

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[64] The Zero Waste LA Franchise System would divide the City into 11 zones and designate a single trash hauler for each zone. Source: LA Sanitation, "Zero Waste LA—Franchise," www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-zwlaf;jsessionid=nJABd_CcLHL4DCOkGSCJWv1buV9atyQtoUkP50TwYHe5jczy6OaK!782088041!

(Footnote continued on next page)

Table B-1
Project Demolition and Construction Waste Generation

Building	Size	Generation Rate (lbs/sf)[a,b]	Total (tons)[b]
Construction Waste			
Residential (778 units)	776,982 sf	4.38	1,702
Hotel (98 rooms)	75,000 sf	3.89	146
Office	48,000 sf	3.89	93
Commercial (retail/restaurant)	95,000 sf	3.89	185
Demolition Waste			
Vacant Structures to be Removed	114,600 sf	155	8,882
Total for Construction and Demolition Waste			***11,007***
Total After 75-Percent Recycling			**2,752**

du = dwelling unit

lb = pound

sf = square feet

[a] *U.S. Environmental Protection Agency, Report No. EPA530-98-010, Characterization of Building-Related Construction and Demolition Debris in the United States, June 1998, Table 3, Table 4 and Table 6. Generation rates used in this analysis are based on an average of individual rates assigned to specific building types.*

[b] *Used conversion of 1 pound = 0.0005 tons. Numbers have been rounded.*

Source: Eyestone Environmental, 2017.

generated by the Project represents approximately 0.1 percent of the City's annual solid waste disposal[65] and approximately 0.003 percent of the remaining capacity for the County's Class III landfills open to the City of Los Angeles.[66]

Based on the above, the landfills that serve the Project Site would have sufficient permitted capacity to accommodate the solid waste that would be generated by the construction and operation of the Project. Therefore, impacts would be less than significant, and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

As discussed above, the Project would allow for an exchange of uses if certain uses are reduced or eliminated. Based on the floor area limits of the Project Site and the proposed uses, the development options could generate between approximately 1,844 tons of solid waste per year for an

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NONE?_afrLoop=17071741526736871&_afrWindowMode=0&_afrWindowId=null#!%40%40%3F_afrWindowId%3Dnull%26_afrLoop%3D17071741526736871%26_afrWindowMode%3D0%26_adf.ctrl-state%3Dge1mehnju_4, accessed November 2, 2017.

[65] (2,844 tons per year/2.71 million tons per year) x 100 = ~0.1%

[66] (2,844 tons per year/85.45 million tons per year) x 100 = ~0.003%

Table B-2
Estimated Project Solid Waste Generation

Building	Size	Employee Generation Rate per sf[a]	Estimated No. of Employees	Solid Waste Generation Rate[b]	Total Generation (tons/year)
Existing					
Vacant Former Church Buildings	114,600 sf	N/A[c]	N/A[c]	N/A[c]	0[c]
Total Existing					**0**
Proposed					
Residential	778 du	N/A	N/A	2.23/du/yr	1,735
Hotel	75,000 sf	0.00113	85	3.03 tons/emp/yr	257
Office	48,000 sf	0.00479	230	0.37 tons/emp/yr	85
Commercial (Retail/Restaurant)	95,000 sf	0.00271	257	2.98 tons/emp/yr	767
Total with Implementation of Project					**2,844**
Total Net Increase					**2,844**

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du = dwelling unit

emp = employee

lb = pound

sf = square feet

[a] *Employee Generation Rates from Los Angeles Unified School District Developer Fee Justification Study, March 2017, Table 14.*

[b] *Non-residential yearly solid waste generation factors are from City of Los Angeles Bureau of Sanitation, City Waste Characterization and Quantification Study, Table 4, July 2002. Residential rates are from L.A. CEQA Thresholds Guide.*

[c] *The analysis does not reflect the solid waste generated by the former church use since the buildings are currently vacant.*

Source: Eyestone Environmental, 2018.

all residential development to 2,535 tons of solid waste per year for a development consisting of up to 827 units, 48,000 square feet of office, and 75,000 square feet of commercial space (no hotel use). As provided above, the Project would generate 2,844 tons of solid waste per year, which would be higher than the other development scenarios. Therefore, the landfills that serve the Project Site would also have sufficient capacity to accommodate the solid waste that would be generated by other potential development options.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact. Solid waste management in the State is primarily guided by the California Integrated Waste Management Act of 1989 (Assembly Bill 939), which emphasizes resource conservation through reduction, recycling, and reuse of solid waste. Assembly Bill 939 establishes an integrated waste management hierarchy consisting of (in order of priority): (1) source reduction; (2) recycling and composting; and (3) environmentally safe transformation and land disposal. In addition, Assembly Bill 1327 provided for the development of the California Solid Waste Reuse and Recycling Access Act of 1991, which requires the adoption of an ordinance by any local agency governing the provision of adequate areas for the collection and loading of recyclable materials in development projects. Furthermore, Assembly Bill 341, which became effective on July 1, 2012, requires businesses and public entities that generate four cubic yards or more of waste per week and multi-family dwellings with five or more units, to recycle. The purpose of Assembly Bill 341 is to reduce greenhouse gas emissions by diverting commercial solid waste from landfills and expand opportunities for recycling in California. In addition, in March 2006, the Los Angeles City Council adopted RENEW LA, a 20-year plan with the primary goal of shifting from waste disposal to resource recovery within the City, resulting in "zero waste" by 2030. The plan also calls for reductions in the quantity and environmental impacts of residue material disposed in landfills. In October 2014, Governor Jerry Brown signed Assembly Bill 1826, requiring businesses to recycle their organic waste[67] on and after April 1, 2016, depending on the amount of waste generated per week. Specifically, beginning April 1, 2016, businesses that generate eight cubic yards of organic waste per week were required to arrange for organic waste recycling services. In addition, beginning January 1, 2017, businesses that generate four cubic yards of organic waste per week were required to arrange for organic waste recycling services.

The Project would be consistent with the applicable regulations associated with solid waste. Specifically, the Project would provide adequate storage areas in accordance with the City of Los Angeles Space Allocation Ordinance (Ordinance No. 171,687), which requires that development projects include an on-site recycling area or room of specified size.[68] The Project would also comply with Assembly Bill 939, Assembly Bill 341, Assembly Bill 1826 and City waste diversion goals, as applicable, by providing clearly marked, source-sorted receptacles to facilitate recycling. Since the Project would comply with federal, State, and local statutes and regulations related to solid waste, impacts would be less than significant and no mitigation measures are required. No further evaluation of this topic in the EIR is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. MANDATORY FINDINGS OF SIGNIFICANCE.				
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?	☒	☐	☐	☐

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[67] Organic waste refers to food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

[68] Ordinance No. 171,687, adopted by the Los Angeles City Council on August 6, 1997.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☒	☐	☐	☐

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?

Potentially Significant Impact. As discussed above, the Project is located in a highly urbanized area and does not serve as habitat for fish or wildlife species. No sensitive plant or animal community or special status species occur on the Project Site. However, the Project does have the potential to degrade the quality of the environment or affect important examples of prehistory. Therefore, further evaluation of this topic in the EIR is required.

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)?

Potentially Significant Impact. Located within the vicinity of the Project Site are other past, current, and reasonably foreseeable projects, the development of which, in conjunction with that of the Project, may have cumulative impacts. Impacts of the Project on both an individual and cumulative basis will be addressed in the EIR for the following subject areas: air quality; cultural resources; geology and soils; greenhouse gas emissions; hazards and hazardous materials; hydrology and water quality; land use and planning; noise; population and housing; public services (fire protection, police protection, schools, parks, and other public services); recreation; transportation and traffic; tribal cultural resources; and utilities and service systems (water, wastewater, and energy).

Regarding cumulative aesthetics impacts, related projects would be reviewed on a case-by-case basis by the City to comply with LAMC requirements regarding building heights, setbacks, massing and lighting or, for those projects that require discretionary actions, to undergo site-specific review regarding building density, design, and light and glare effects. Pursuant to Senate Bill 743, Public Resources Code Section 21099, and Zoning Information File ZI No. 2452, the Project's aesthetics impacts would not be considered significant. Given the Project Site's location in a transit priority area, other residential, mixed-use, and employment center development projects located in the vicinity of the Project Site would similarly be anticipated to be located in transit priority areas and therefore qualify for an exemption pursuant to SB 743. Thus, cumulative impacts associated with aesthetics would be less than significant.

With regard to cumulative effects on agriculture/forestry resources, biological resources, and mineral resources, no such resources are located on the Project Site or in the surrounding area. In addition, the Project would have no impact on these resources, and therefore could not combine with other projects to result in cumulative impacts. Therefore, cumulative impacts on these resources would be less than significant.

With regard to utilities and service systems, given the urbanized and built-out nature of most of the City, it is anticipated that other projects would similarly represent a minor percentage of the remaining capacity of the County's Class III landfills open to the City. Also, the demand for landfill capacity is continually evaluated by the County through preparation of the Countywide Integrated Waste Management Plan annual reports. Each annual Countywide Integrated Waste Management Plan report assesses future landfill disposal needs over a 15 year planning horizon. Based on the 2016 Countywide Integrated Waste Management Plan Annual Report, the County anticipates that future disposal needs can be adequately met for the next 15 years (i.e., 2031). The preparation of each annual Countywide Integrated Waste Management Plan provides sufficient lead time (15 years) to address potential future shortfalls in landfill capacity. Furthermore, in future years, it is anticipated that the rate of declining landfill capacity would slow considering the City's goal to achieve zero waste by 2030. Therefore, cumulative impacts with respect to solid waste would be less than significant. No further evaluation of these topics in the EIR is required.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact. Based on the analysis contained in this Initial Study, the Project could result in potentially significant impacts with regard to the following topics: air quality; cultural resources; geology and soils; greenhouse gas emissions; hazards and hazardous materials; hydrology and water quality; land use and planning; noise; population and housing; public services (fire protection, police protection, schools, parks, and other public services); recreation; transportation and traffic; tribal cultural resources; and utilities (water, wastewater, and energy). As a result, these potential effects will be analyzed further in the EIR.

Appendices

Appendix IS-1

Tree Report

PROTECTED TREE REPORT

PREPARED FOR

Palisades Capital Partners

PROPERTY

1111 Sunset Blvd.

Los Angeles, CA 90012

CONTACT

Laura Rodriguez, Eyestone Environmental

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November 03, 2017

PREPARED BY

LISA SMITH, **THE TREE RESOURCE**

REGISTERED CONSULTING ARBORIST #464

ISA CERTIFIED ARBORIST #WE3782

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PROTECTED TREE REPORT

1111 Sunset Blvd.
Los Angeles, CA 90012

SUMMARY

This Tree Report was prepared at the request of the property owner, Palisades Capital Partners, who is preparing to build a mixed-use development.

The subject property is approximately six acres and located in the Central City North area of the city of Los Angeles.

PROTECTED TREES, URBAN FORESTRY DIVISION

This property is under the jurisdiction of the City of Los Angeles and guided by the Native Tree Protection Ordinance No. 177,404. **Protected Trees** are defined by this ordinance as Oaks (*Quercus* sp) indigenous to California but excluding the scrub oak (*Quercus dumosa*); Southern California black walnut (*Juglans californica* var. californica); Western sycamore *(Platanus racemosa)* and California bay laurel (*Umbellularia californica*) trees with a diameter at breast height (DBH) of four inches (4") or greater.

There is one (1) Protected coast live oak *(Quercus agrifolia)* tree on the property. This tree will be significantly impacted by the proposed construction and is recommended for removal and replacement to the satisfaction of the Urban Forestry Division.

NEIGHBOR TREES

I have also inspected the neighboring properties to confirm there are no Protected trees that are adjacent to the construction zone, or in areas of impact.

CITY OF LOS ANGELES STREET TREES, URBAN FORESTRY DIVISION

There are forty-one (41) City of Los Angeles Street Trees adjacent to the subject property. All forty-one (41) trees will be removed and replaced due to the project's sidewalk improvements. Replacement locations and specifications will be determined by the Urban Forestry Division upon completion of the project.

NON-PROTECTED SIGNIFICANT TREES, DEPARTMENT OF CITY PLANNING

The Department of City Planning requires the identification of the location, size, type and condition of all existing trees on the site with a DBH of 8 inches (8") or greater. These trees will be identified as **Non-Protected Significant Trees.**

At this time, I observed one-hundred ten (110) **Non-Protected Significant Trees** on the property. All of these trees will be impacted by construction and are recommended for removal and **replacement** to the satisfaction of the City of Los Angeles Department of City Planning.

ASSIGNMENT

The Assignment included a field observation and inventory of the trees on site. A Tree Location Plot Map is included in Appendix A. Photographs of the subject trees are included in Appendix B.

TREE CHARACTERISTICS AND SITE CONDITIONS

Detailed information with respect to size, condition, species and recommendations are included in the Summary of Field Inspections in Appendix C. The trees are numbered on the Tree Map in Appendix A.

1111 Sunset Blvd, Los Angeles, CA 90012

The subject property is located in the Central City North area of the city of Los Angeles. The property was first developed in 1961 and many of the trees on site appear to date to the original landscaping. The majority of trees inventoried belong to the site's extensive parking lots and medians.

There are three major species on site: Canary Island Pine *(Pinus canariensis)*, Canary Island Palm *(Phoenix canariensis)* and Mexican Fan Palm *(Washingtonia robusta)*.

IMPACT ANALYSIS AND SPECIFIC RECOMMENDATIONS

The proposed construction includes the complete demolition and re-development of the subject property, including the adjacent sidewalks. The scope of the required demolition, excavation, and grading will not allow for the retention of any of the existing trees on site.

Protected Trees

Protected coast live oak tree #93 will be significantly impacted by the grading and new construction. This tree is not an appropriate candidate for transplant, due to a combination of factors, including age, size, and condition. Coast live oak tree #93 is recommended for removal and replacement at a four-to-one (4:1) ratio, minimum 24" box size, to the satisfaction of the Urban Forestry Division. Acceptable species for the replacement trees include native oak, Western sycamore, California black walnut, and California bay laurel. The project landscaping plan indicates four (4) California bay laurel *(Umbellularia californica)* for installation on site and adequately satisfies the replacement tree requirements.

Non-Protected Significant Trees

The scope of the required demolition, excavation, and grading will not allow for the retention of any of the existing trees on site.

The site's unique, significant sloping requires extensive excavation and grading work to support the proposed development project. From its highest to lowest points, the site rises more than 50 feet. Much of this grade exists along the site's street edges, isolating it from functional access points and the public right of way. The proposed project incorporates a partially-subterranean parking garage lined with landscaping and active uses. The garage construction requires excavation to an average approximate depth of 45 feet across the site, and the export of approximately 472,000 cubic yards of earthwork.

Due to a combination of factors, including age, size, and condition, these trees are not appropriate candidates for transplant and are recommended for removal and replacement.

The one-hundred ten (110) Non-Protected Significant Trees on the property will be impacted by construction and are recommended for removal and replacement at a one-to-one (1:1) ratio, minimum 24" box size, to the satisfaction of the City of Los Angeles Department of City Planning.

City of Los Angeles Street Trees

All forty-one (41) City of Los Angeles street trees on the property will be impacted by construction and are recommended for removal.

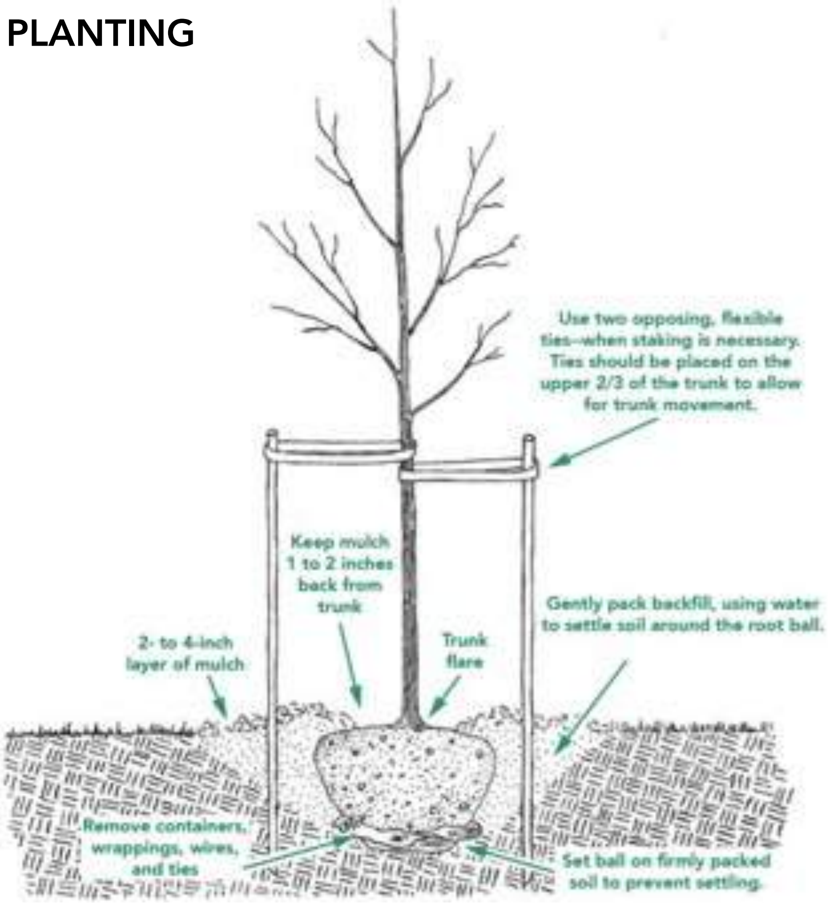
Removing all existing street trees is necessary to provide sidewalk improvements as per the City of Los Angeles' Mobility Plan 2035. Existing sidewalks are under-improved, variously to 8-feet wide along White Knoll Drive, Alpine Street, and Beaudry Avenue, and 12-feet wide along Sunset Boulevard. Mobility Plan 2035 establishes minimum 13- and 15-foot widths for the respective streets. The proposed project incorporates new sidewalks and street trees to create a comfortable pedestrian environment consistent with the Mobility Plan's requirements, including a variously 3- to 5-foot sidewalk easement. Retaining the existing street trees would inhibit the project's public improvements, and create irregular physical conditions along the public street.

A sidewalk easement plan is included in Appendix A. Replacement locations and specifications will be determined by the Urban Forestry Division upon completion of the project.

New tree planting guidelines are provided below.

GENERAL RECOMMENDATIONS

NEW TREE PLANTING



The ideal time to plant trees and shrubs is during the dormant season, in the fall after leaf drop or early spring before budbreak. Weather conditions are cool and allow plants to establish roots in the new location before spring rains and summer heat stimulate new top growth. Before you begin planting your tree, be sure you have had all underground utilities located prior to digging.

If the tree you are planting is balled or bare root, it is important to understand that its root system has been reduced by 90 to 95 percent of its original size during transplanting. As a result of the trauma caused by the digging process, trees commonly exhibit what is known as transplant shock. Containerized trees may also experience transplant shock, particularly if they have circling roots that must be cut. Transplant shock is indicated by slow growth and reduced vigor following transplanting. Proper site preparation before and during planting coupled with good follow-up care reduces the amount of time the plant experiences transplant shock and allows the tree to quickly establish in its new location. Carefully follow nine simple steps, and you can significantly reduce the stress placed on the plant at the time of planting.

NEW TREE PLANTING, continued

1. Dig a shallow, broad planting hole. Make the hole wide, as much as three times the diameter of the root ball but only as deep as the root ball. It is important to make the hole wide because the roots on the newly establishing tree must push through surrounding soil in order to establish. On most planting sites in new developments, the existing soils have been compacted and are unsuitable for healthy root growth. Breaking up the soil in a large area around the tree provides the newly emerging roots room to expand into loose soil to hasten establishment.

2. Identify the trunk flare. The trunk flare is where the roots spread at the base of the tree. This point should be partially visible after the tree has been planted (see diagram). If the trunk flare is not partially visible, you may have to remove some soil from the top of the root ball. Find it so you can determine how deep the hole needs for proper planting.

3. Remove tree container for containerized trees. Carefully cutting down the sides of the container may make this easier. Inspect the root ball for circling roots and cut or remove them. Expose the trunk flare, if necessary.

4. Place the tree at the proper height. Before placing the tree in the hole, check to see that the hole has been dug to the proper depth and no more. The majority of the roots on the newly planted tree will develop in the top 12 inches of soil. If the tree is planted too deeply, new roots will have difficulty developing because of a lack of oxygen. It is better to plant the tree a little high, 1-2 inches above the base of the trunk flare, than to plant it at or below the original growing level. This planting level will allow for some settling.

5. Straighten the tree in the hole. Before you begin backfilling, have someone view the tree from several directions to confirm that the tree is straight. Once you begin backfilling, it is difficult to reposition the tree.

6. Fill the hole gently but firmly. Fill the hole about one-third full and gently but firmly pack the soil around the base of the root ball. Be careful not to damage the trunk or roots in the process. Fill the remainder of the hole, taking care to firmly pack soil to eliminate air pockets that may cause roots to dry out. To avoid this problem, add the soil a few inches at a time and settle with water. Continue this process until the hole is filled and the tree is firmly planted. It is not recommended to apply fertilizer at time of planting.

7. Stake the tree, if necessary. If the tree is grown properly at the nursery, staking for support will not be necessary in most home landscape situations. Studies have shown that trees establish more quickly and develop stronger trunk and root systems if they are not staked at the time of planting. However, protective staking may be required on sites where lawn mower damage, vandalism, or windy conditions are concerns. If staking is necessary for support, there are three methods to choose among: staking, guying, and ball stabilizing. One of the most common methods is staking. With this method, two stakes used in conjunction with a wide, flexible tie material on the lower half of the tree will hold the tree upright, provide flexibility, and minimize injury to the trunk (see diagram). Remove support staking and ties after the first year of growth.

8. Mulch the base of the tree. Mulch is simply organic matter applied to the area at the base of the tree. It acts as a blanket to hold moisture, it moderates soil temperature extremes, and it reduces competition from grass and weeds. A 2- to 3-inch layer is ideal. More than 3 inches may cause a problem with oxygen and moisture levels. When placing mulch, be sure that the actual trunk of the tree is not covered. Doing so may cause decay of the living bark at the base of the tree. A mulch-free area, 1 to 2 inches wide at the base of the tree, is sufficient to avoid moist bark conditions and prevent decay.

TREE MAINTENANCE AND PRUNING

Some trees do not generally require pruning. The occasional removal of dead twigs or wood is typical. Occasionally a tree has a defect or structural condition that would benefit from pruning. Any pruning activity should be performed under the guidance of a certified arborist or tree expert.

Because each cut has the potential to change the growth of the tree, no branch should be removed without a reason. Common reasons for pruning are to remove dead branches, to remove crowded or rubbing limbs, and to eliminate hazards. Trees may also be pruned to increase light and air penetration to the inside of the tree's crown or to the landscape below. In most cases, mature trees are pruned as a corrective or preventive measure.

Routine thinning does not necessarily improve the health of a tree. Trees produce a dense crown of leaves to manufacture the sugar used as energy for growth and development. Removal of foliage through pruning can reduce growth and stored energy reserves. Heavy pruning can be a significant health stress for the tree.

Yet if people and trees are to coexist in an urban or suburban environment, then we sometimes have to modify the trees. City environments do not mimic natural forest conditions. Safety is a major concern. Also, we want trees to complement other landscape plantings and lawns. Proper pruning, with an understanding of tree biology, can maintain good tree health and structure while enhancing the aesthetic and economic values of our landscapes.

Pruning Techniques – From the I.S.A. Guidelines

Specific types of pruning may be necessary to maintain a mature tree in a healthy, safe, and attractive condition.

Cleaning is the removal of dead, dying, diseased, crowded, weakly attached, and low- vigor branches from the crown of a tree.

Thinning is the selective removal of branches to increase light penetration and air movement through the crown. Thinning opens the foliage of a tree, reduces weight on heavy limbs, and helps retain the tree's natural shape.

Raising removes the lower branches from a tree to provide clearance for buildings, vehicles, pedestrians, and vistas.

Reduction reduces the size of a tree, often for clearance for utility lines. Reducing the height or spread of a tree is best accomplished by pruning back the leaders and branch terminals to lateral branches that are large enough to assume the terminal roles (at least one-third the diameter of the cut stem). Compared to topping, reduction helps maintain the form and structural integrity of the tree.

TREE MAINTENANCE AND PRUNING, continued

How Much Should Be Pruned?

Mature trees should require little routine pruning. A widely accepted rule of thumb is never to remove more than one-quarter of a tree’s leaf-bearing crown. In a mature tree, pruning even that much could have negative effects. Removing even a single, large- diameter limb can create a wound that the tree may not be able to close. The older and larger a tree becomes, the less energy it has in reserve to close wounds and defend against decay or insect attack. Pruning of mature trees is usually limited to removal of dead or potentially hazardous limbs.

Wound Dressings

Wound dressings were once thought to accelerate wound closure, protect against insects and diseases, and reduce decay. However, research has shown that dressings do not reduce decay or speed closure and rarely prevent insect or disease infestations. Most experts recommend that wound dressings not be used.

DISEASES AND INSECTS

Continual observation and monitoring of your tree can alert you to any abnormal changes. Some indicators are: excessive leaf drop, leaf discoloration, sap oozing from the trunk and bark with unusual cracks. Should you observe any changes, you should contact a Tree specialist or Certified Arborist to review the tree and provide specific recommendations. Trees are susceptible to hundreds of pests, many of which are typical and may not cause enough harm to warrant the use of chemicals. However, diseases and insects may be indication of further stress that should be identified by a professional.

GRADE CHANGES

The growing conditions and soil level of trees are subject to detrimental stress should they be changed during the course of construction. Raising the grade at the base of a tree trunk can have long-term negative consequences. This grade level should be maintained throughout the protected zone. This will also help in maintaining the drainage in which the tree has become accustomed.

INSPECTION

The property owner should establish an inspection calendar based on the recommendation provided by the tree specialist. This calendar of inspections can be determined based on several factors: the maturity of the tree, location of tree in proximity to high-use areas vs. low-use area, history of the tree, prior failures, external factors (such as construction activity) and the perceived value of the tree to the homeowner.

Assumptions and Limiting Conditions

No warranty is made, expressed or implied, that problems or deficiencies of the trees or the property will not occur in the future, from any cause. The Consultant shall not be responsible for damages or injuries caused by any tree defects, and assumes no responsibility for the correction of defects or tree related problems.

The owner of the trees may choose to accept or disregard the recommendations of the Consultant, or seek additional advice to determine if a tree meets the owner's risk abatement standards.

The Consulting Arborist has no past, present or future interest in the removal or retaining of any tree. Opinions contained herein are the independent and objective judgments of the consultant relating to circumstances and observations made on the subject site.

The recommendations contained in this report are the opinions of the Consulting Arborist at the time of inspection. These opinions are based on the knowledge, experience, and education of the Consultant. The field inspection was a visual, grade level tree assessment.

The Consulting Arborist shall not be required to give testimony, perform site monitoring, provide further documentation, be deposed, or to attend any meeting without subsequent contractual arrangements for this additional employment, including payment of additional fees for such services as described by the Consultant.

The Consultant assumes no responsibility for verification of ownership or locations of property lines, or for results of any actions or recommendations based on inaccurate information.

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Should you have any further questions regarding this property, please contact me at (310) 663-2290.

Respectfully submitted,

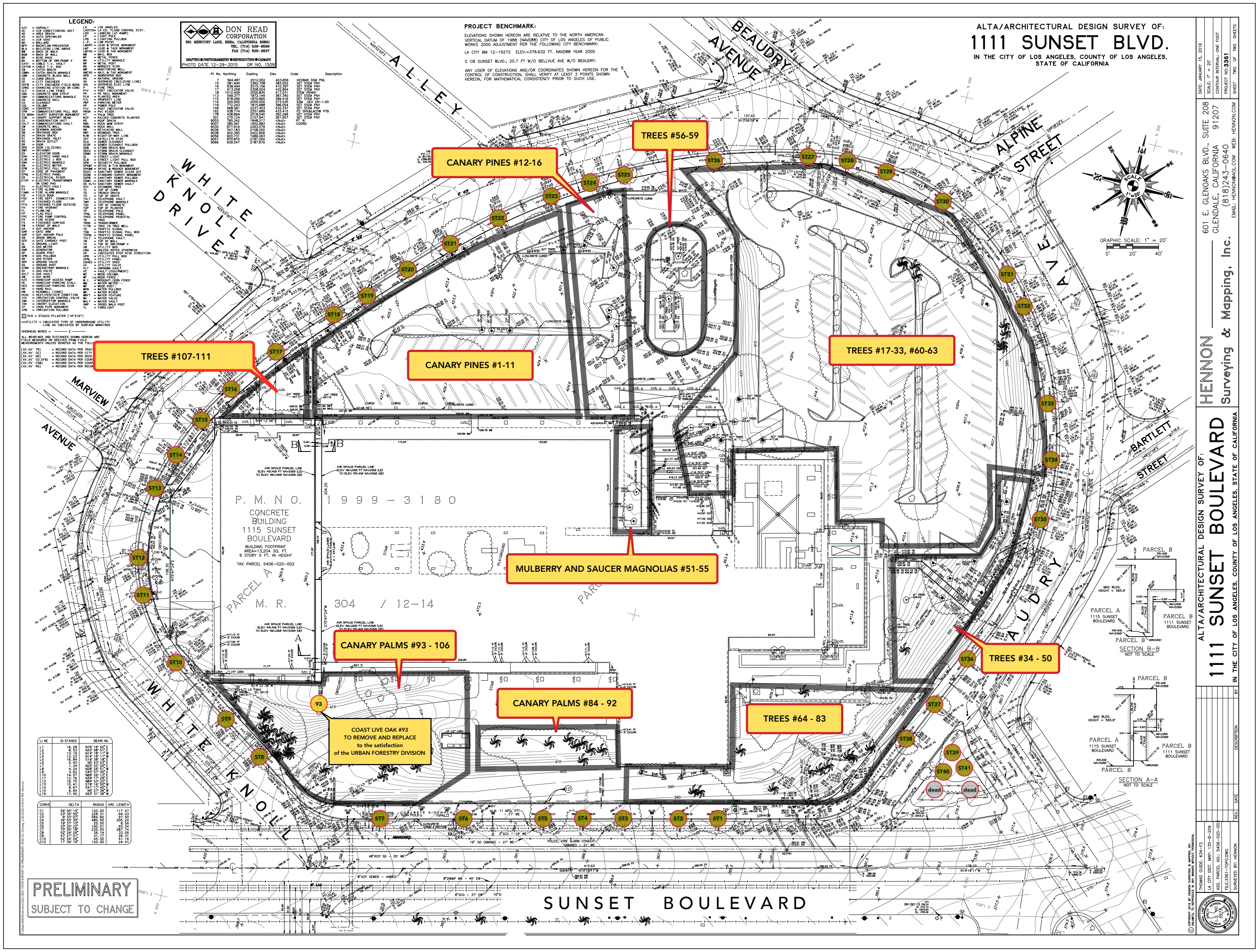
Lisa Smith

Lisa Smith

Registered Consulting Arborist #464
ISA Board Certified Master Arborist #WE3782
ISA Tree Risk Assessor Qualified
American Society of Consulting Arborists, Member

Lisa E. Smith
#464

Appendix A: Tree Locations on Project Survey



PROJECT SUMMARY	
Site Address	**1111 Sunset Blvd, Los Angeles, CA**
Location and/or Specific Plan	**Chinatown**
Project Description	**Mixed Use Development**
Number of Protected Trees on Site	**1**
Number of Protected Tree Removals	**1**

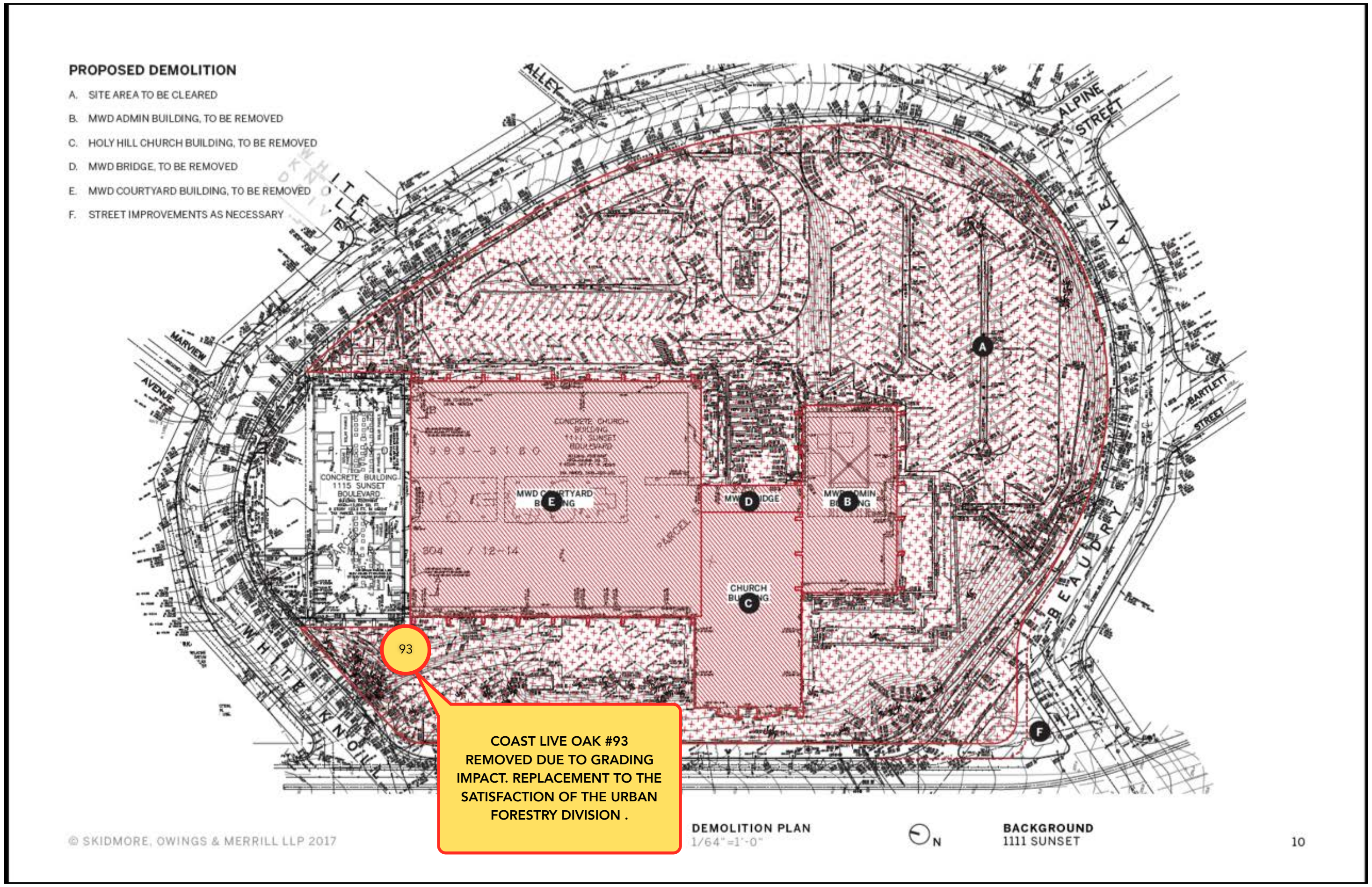
KEY

●	City of Los Angeles Street Tree
■	Non-Protected Private Trees
●	Protected Coast Live Oak Tree
○	Tree Recommended for Removal

SUMMARY OF PROTECTED TREES ON SITE

Tree #	Location	Species	Status	DBH (")	Condition	Retain or Remove
93	Driveway entrance off Sunset Blvd	Coast Live Oak Quercus agrifolia	Protected	11	Fair	REMOVE

Appendix A: Demolition Plan



PROPOSED DEMOLITION

A. SITE AREA TO BE CLEARED

B. MWD ADMIN BUILDING, TO BE REMOVED

C. HOLY HILL CHURCH BUILDING, TO BE REMOVED

D. MWD BRIDGE, TO BE REMOVED

E. MWD COURTYARD BUILDING, TO BE REMOVED

F. STREET IMPROVEMENTS AS NECESSARY

COAST LIVE OAK #93 REMOVED DUE TO GRADING IMPACT. REPLACEMENT TO THE SATISFACTION OF THE URBAN FORESTRY DIVISION .

PROJECT SUMMARY	
Site Address	**1111 Sunset Blvd, Los Angeles, CA**
Location and/or Specific Plan	**Chinatown**
Project Description	**Mixed Use Development**
Number of Protected Trees on Site	**1**
Number of Protected Tree Removals	**1**

KEY

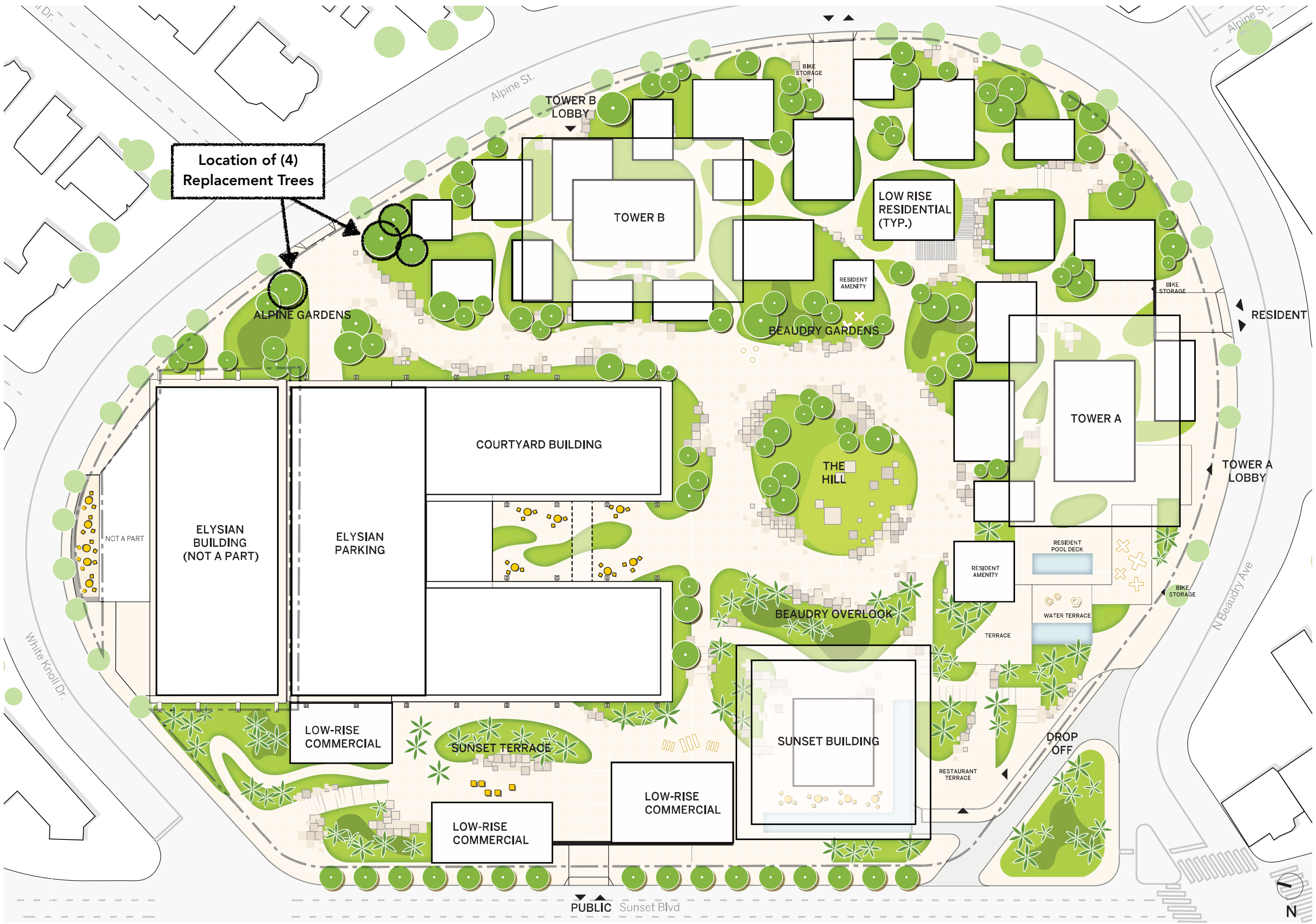
● Protected Coast Live Oak Tree

○ Tree Recommended for Removal

SUMMARY OF PROTECTED TREES ON SITE

Tree #	Location	Species	Status	DBH (")	Condition	Retain or Remove
93	Driveway entrance off Sunset Blvd	Coast Live Oak Quercus agrifolia	Protected	11	Fair	REMOVE

Appendix A: Project Site Plan



SITE PLAN
1111 SUNSET

PROJECT SUMMARY	
Site Address	**1111 Sunset Blvd, Los Angeles, CA**
Location and/or Specific Plan	**Chinatown**
Project Description	**Mixed Use Development**
Number of Protected Trees on Site	**1**
Number of Protected Tree Removals	**1**

SUMMARY OF PROTECTED TREES ON SITE

Tree #	Location	Species	Status	DBH (")	Condition	Retain or Remove
93	Driveway entrance off Sunset Blvd	Coast Live Oak Quercus agrifolia	Protected	11	Fair	REMOVE

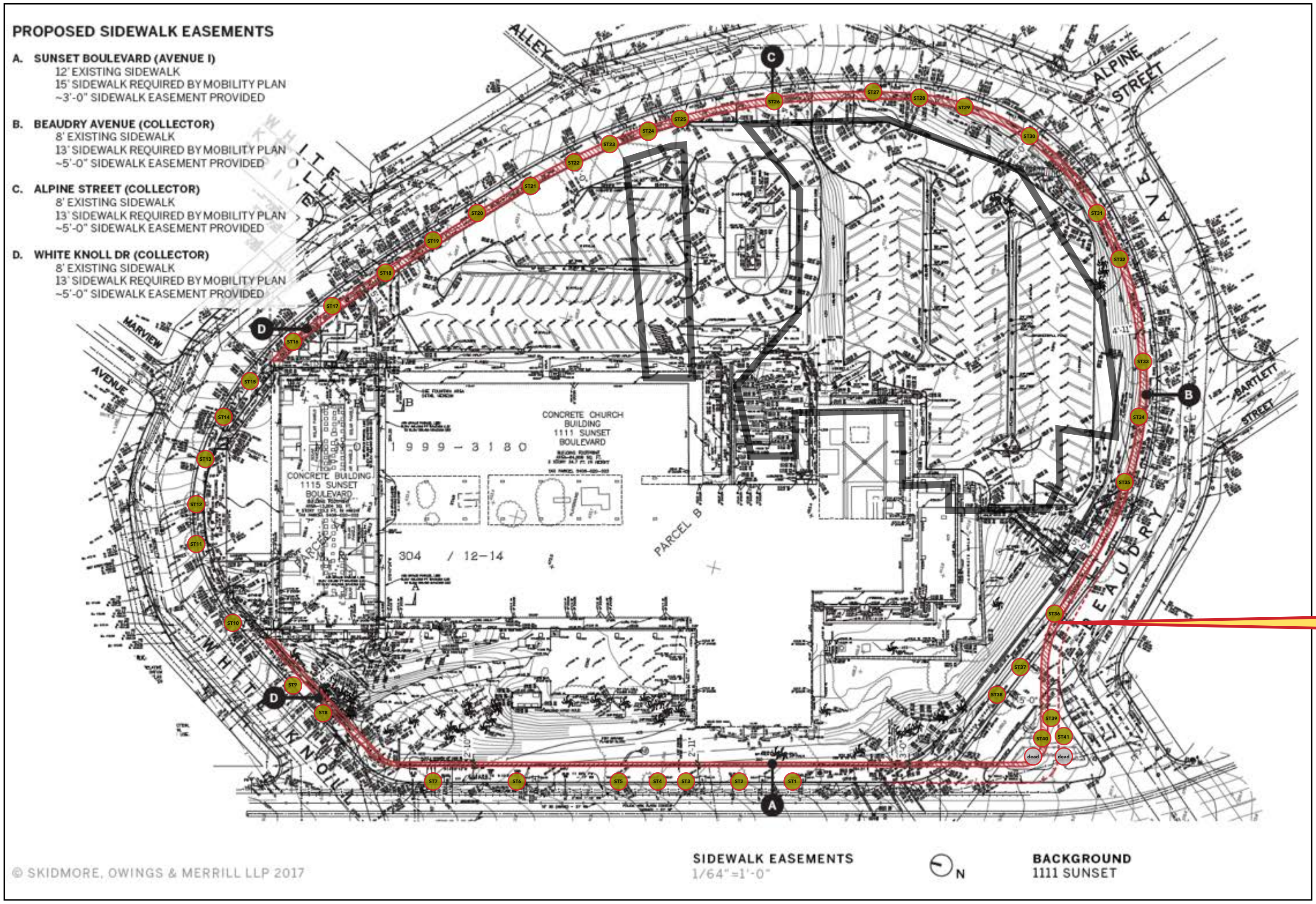
SUMMARY OF REPLACEMENT TREES

	Existing Trees to Be Removed	Replacement Trees
NON-PROTECTED SIGNIFICANT TREES **REPLACED 1:1** **MINIMUM 24" BOX SIZE**	110	110
PROTECTED TREES **REPLACED 4:1** **MINIMUM 24" BOX SIZE**	1	4

PROJECT LANDSCAPING PLAN INDICATES TWO (2) 24" BOX CALIFORNIA BAY LAUREL and TWO (2) 24" COAST LIVE OAK FOR INSTALLATION UPON COMPLETION OF THE PROJECT.

Appendix A: Sidewalk Easement Plan

PROJECT SUMMARY	
Site Address	**1111 Sunset Blvd, Los Angeles, CA**
Location and/or Specific Plan	**Chinatown**
Project Description	**Mixed Use Development**
Number of Protected Trees on Site	**1**
Number of Protected Tree Removals	**1**



PROPOSED SIDEWALK EASEMENTS

A. **SUNSET BOULEVARD (AVENUE I)**
12' EXISTING SIDEWALK
15' SIDEWALK REQUIRED BY MOBILITY PLAN
~3'-0" SIDEWALK EASEMENT PROVIDED

B. **BEAUDRY AVENUE (COLLECTOR)**
8' EXISTING SIDEWALK
13' SIDEWALK REQUIRED BY MOBILITY PLAN
~5'-0" SIDEWALK EASEMENT PROVIDED

C. **ALPINE STREET (COLLECTOR)**
8' EXISTING SIDEWALK
13' SIDEWALK REQUIRED BY MOBILITY PLAN
~5'-0" SIDEWALK EASEMENT PROVIDED

D. **WHITE KNOLL DR (COLLECTOR)**
8' EXISTING SIDEWALK
13' SIDEWALK REQUIRED BY MOBILITY PLAN
~5'-0" SIDEWALK EASEMENT PROVIDED

SIDEWALK EASEMENTS
1/64"=1'-0"

BACKGROUND
1111 SUNSET

SUMMARY OF REPLACEMENT TREES

	Existing Trees to Be Removed	Replacement Trees
CITY OF LOS ANGELES STREET TREES	41	To be determined by UFD upon completion of the project.

KEY

● #	**Street Tree Recommended for Removal**

ALL STREET TREES WILL BE IMPACTED BY THE PROPOSED SIDEWALK EASEMENT.

ALL STREET TREES ARE RECOMMENDED FOR REMOVAL AND REPLACEMENT TO THE SATISFACTION OF THE UFD.

APPENDIX B - PHOTOGRAPHS

PHOTO 1. This photo shows the collection of Canary Island pine trees located in the upper parking lot. These trees appear to be in fair condition, but had previous pruning that removed a large volume of foliage. The new foliage is pushing out extensively on the scaffolding limbs and along the trunks as a they attempt to regain foliage.

PHOTO 2. This photo shows the collection of Canary Island pine trees located in the upper parking lot.

PHOTO 3. This photo shows the current growing conditions of some of the Canary Island pine trees. The lack of dedicated irrigation has caused drought stress on many of these pine trees.

PHOTO 4. This photo shows an additional collection of Canary Island pine trees in the lower (eastern) parking lot.

PHOTO 5. This photo shows the collection of palm trees located in the lower eastern parking lot.

PHOTO 6. This photo shows the coral tree located in the eastern parking lot which has an extensive volume of dead limbs.

PHOTO 7. This photo shows one mulberry tree located in the entrance courtyard.

PHOTO 8. This photo shows the collection of saucer magnolia trees at the front entrance ramp. These trees are declining as they are drought stressed and are being attacked by borers.

PHOTO 9. This photo shows the olive trees in the front driveway which were previously topiaried and not allowed to grow naturally.

PHOTO 10. This photo shows the strawberry tree (*Arbutus*) that is located in the front driveway.

PHOTO 11. This photo shows some of the palm collection located on the south east corner facing Sunset Boulevard and Beaudry.

PHOTO 12. This photo shows the collection of Canary Island date palms located on the western facing portion of the property.

PHOTO 13. This photo shows the one coast live oak (tree #93) located on the property. This tree will be significantly impacted by the proposed construction and will be removed and replaced to the satisfaction of the Urban Forestry Division.

PHOTO 14. This photo shows examples of the jacaranda street trees adjacent to the subject property. The majority of these trees are in poor condition, juvenile, or causing cracking and heaving to the sidewalk.

APPENDIX C - SUMMARY OF FIELD INSPECTION

Rating Code: A = Excellent, B = Good, C = Fair, D = Poor, E = Nearly Dead, F = Dead

Tree #	Location	Species	Status	DBH ″	Height ′	Spread ′	Condition	Comments	Retain or Remove
1	White Knoll Dr Parking Lot, North side of property.	Canary Pine *(Pinus canariensis)*	Non-Protected	18	60	20	FAIR		REMOVE
2		Canary Pine *(Pinus canariensis)*	Non-Protected	20	45	20	FAIR		REMOVE
3		Canary Pine *(Pinus canariensis)*	Non-Protected	24	60	20	FAIR		REMOVE
4		Canary Pine *(Pinus canariensis)*	Non-Protected	29	60	30	FAIR		REMOVE
5		Canary Pine *(Pinus canariensis)*	Non-Protected	20	60	20	FAIR		REMOVE
6		Canary Pine *(Pinus canariensis)*	Non-Protected	15	80	15	POOR		REMOVE
7		Canary Pine *(Pinus canariensis)*	Non-Protected	25	80	20	FAIR		REMOVE
8		Canary Pine *(Pinus canariensis)*	Non-Protected	16	70	20	FAIR		REMOVE
9		Canary Pine *(Pinus canariensis)*	Non-Protected	18	60	10	FAIR	LEANING	REMOVE
10		Canary Pine *(Pinus canariensis)*	Non-Protected	22	80	25	FAIR		REMOVE
11		Canary Pine *(Pinus canariensis)*	Non-Protected	15	70	15	FAIR-POOR		REMOVE
12	Left side of main entrance (with mosaic)	Canary Pine *(Pinus canariensis)*	Non-Protected	21	90	20	FAIR		REMOVE
13		Canary Pine *(Pinus canariensis)*	Non-Protected	30	100	30	FAIR		REMOVE
14		Canary Pine *(Pinus canariensis)*	Non-Protected	30	80	30	FAIR		REMOVE
15		Canary Pine *(Pinus canariensis)*	Non-Protected	20	80	25	FAIR		REMOVE
16		Canary Pine *(Pinus canariensis)*	Non-Protected	22	90	30	FAIR		REMOVE
17	NE Parking Lot	Canary Pine *(Pinus canariensis)*	Non-Protected	20	40	20	FAIR		REMOVE
18		Canary Pine *(Pinus canariensis)*	Non-Protected	23	60	23	FAIR		REMOVE
19		Canary Pine *(Pinus canariensis)*	Non-Protected	18	60	20	FAIR		REMOVE
20		Canary Pine *(Pinus canariensis)*	Non-Protected	16	50	15	FAIR		REMOVE
21		California Fan Palm *(Washingtonia filifera)*	Non-Protected	18	16	NA	FAIR		REMOVE
22		California Fan Palm *(Washingtonia filifera)*	Non-Protected	18	5	NA	FAIR		REMOVE
23		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	20	60	NA	FAIR		REMOVE
24		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	20	60	NA	FAIR		REMOVE
25		Canary Pine *(Pinus canariensis)*	Non-Protected	12	40	15	FAIR-POOR		REMOVE
26		Canary Pine *(Pinus canariensis)*	Non-Protected	16	60	25	FAIR		REMOVE
27		Canary Pine *(Pinus canariensis)*	Non-Protected	16	75	25	FAIR		REMOVE
28		Canary Pine *(Pinus canariensis)*	Non-Protected	18	75	15	FAIR		REMOVE
29		Coral Tree *(Erythrina caffra)*	Non-Protected	21, 15, 18, 18	40	40	FAIR-POOR		REMOVE
30		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR		REMOVE
31		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	40	NA	FAIR		REMOVE
32		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	30	NA	FAIR		REMOVE
33		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR		REMOVE
34	East Lower Planters Adiacent	Canary Pine *(Pinus canariensis)*	Non-Protected	28	80	25	FAIR		REMOVE
35		Canary Pine *(Pinus canariensis)*	Non-Protected	14	70	15	FAIR-POOR		REMOVE
36		Canary Pine *(Pinus canariensis)*	Non-Protected	12	50	10	POOR	ALMOST DEAD	REMOVE
37		Canary Pine *(Pinus canariensis)*	Non-Protected	16	70	20	POOR	EXTENSIVE DEADWOOD	REMOVE
38		Canary Pine *(Pinus canariensis)*	Non-Protected	12	60	10	POOR	ALMOST DEAD	REMOVE
39		Canary Pine *(Pinus canariensis)*	Non-Protected	15	70	10	FAIR-POOR		REMOVE
40		Canary Pine *(Pinus canariensis)*	Non-Protected	15	40	12	FAIR-POOR		REMOVE
41		Canary Pine *(Pinus canariensis)*	Non-Protected	16	50	10	FAIR-POOR		REMOVE

APPENDIX C - SUMMARY OF FIELD INSPECTION

Rating Code: A = Excellent, B = Good, C = Fair, D = Poor, E = Nearly Dead, F = Dead

Tree #	Location	Species	Status	DBH ″	Height ′	Spread ′	Condition	Comments	Retain or Remove
42	Planters Adjacent to Bartlett and Beaudry	Canary Pine *(Pinus canariensis)*	Non-Protected	18	70	20	FAIR-POOR		REMOVE
43		Canary Pine *(Pinus canariensis)*	Non-Protected	20	85	30	FAIR-POOR		REMOVE
44		Canary Pine *(Pinus canariensis)*	Non-Protected	22	80	20	FAIR-POOR		REMOVE
45		Canary Pine *(Pinus canariensis)*	Non-Protected	18	90	30	FAIR-POOR		REMOVE
46		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	5	NA	FAIR-GOOD		REMOVE
47		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	10, 10, 10	5	NA	FAIR-GOOD		REMOVE
48		Canary Pine *(Pinus canariensis)*	Non-Protected	16	70	20	FAIR-POOR		REMOVE
49		Canary Pine *(Pinus canariensis)*	Non-Protected	20	70	20	POOR	DEADWOOD	REMOVE
50		Canary Pine *(Pinus canariensis)*	Non-Protected	20	85	25	FAIR-POOR		REMOVE
51	Planter adjacent to entrance courtyard	Mulberry *(Morus sp)*	Non-Protected	9	20	15	FAIR		REMOVE
52		Saucer Magnolia (Magnolia × soulangeana)	Non-Protected	6, 4, 4, 4,4 3, 2, 5	20	15	FAIR-POOR		REMOVE
53		Saucer Magnolia (Magnolia × soulangeana)	Non-Protected	7, 4, 5, 4, 4	20	15	FAIR-POOR		REMOVE
54		Saucer Magnolia (Magnolia × soulangeana)	Non-Protected	5, 3, 4, 3, 4	20	15	POOR		REMOVE
55		Saucer Magnolia (Magnolia × soulangeana)	Non-Protected	4, 4, 5	10	10	DEAD		REMOVE
56	Motorcourt median of courtyard parking lot	Olive *(Olea europea)*	Non-Protected	6, 5, 4	16	10	POOR		REMOVE
57		Olive *(Olea europea)*	Non-Protected	4, 4, 5	12	8	POOR		REMOVE
58		Strawberry Tree *(Arbutus unedo)*	Non-Protected	10	15	10	FAIR		REMOVE
59		Strawberry Tree *(Arbutus unedo)*	Non-Protected	9	15	10	FAIR		REMOVE
60	Planter by Parking Lot	Saucer Magnolia (Magnolia × soulangeana)	Non-Protected	4, 3, 3, 2, 4, 3, 3, 3, 4, 3, 4	15	15	FAIR		REMOVE
61		Coral Tree *(Erythrina caffra)*	Non-Protected	10	20	10	FAIR		REMOVE
62	Streetside Beaudry	Olive *(Olea europea)*	Non-Protected	10, 10, 4, 2	15	15	POOR		REMOVE
63		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	10	NA	FAIR		REMOVE
64		Canary Pine *(Pinus canariensis)*	Non-Protected	10	30	15	FAIR		REMOVE
65		Canary Palm *(Phoenix canariensis)*	Non-Protected	24	15	NA	GOOD		REMOVE
66		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	8	NA	FAIR-GOOD		REMOVE
67		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	14	15	NA	FAIR-GOOD		REMOVE
68		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	14	8	NA	FAIR-GOOD		REMOVE
69		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	16	NA	FAIR-GOOD		REMOVE
70		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30	NA	FAIR-GOOD		REMOVE
71		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR-GOOD		REMOVE
72		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR-GOOD		REMOVE
73		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR-GOOD		REMOVE

APPENDIX C - SUMMARY OF FIELD INSPECTION

Rating Code: A = Excellent, B = Good, C = Fair, D = Poor, E = Nearly Dead, F = Dead

Tree #	Location	Species	Status	DBH "	Height '	Spread '	Condition	Comments	Retain or Remove
74	Beaudry and Sunset, streetside	Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR-GOOD		REMOVE
75		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR-GOOD		REMOVE
76		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR-GOOD		REMOVE
77		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR-GOOD		REMOVE
78		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR-GOOD		REMOVE
79		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR-GOOD		REMOVE
80		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR-GOOD		REMOVE
81		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR-GOOD		REMOVE
82		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR-GOOD		REMOVE
83		Mexican Fan Palm *(Washingtonia robusta)*	Non-Protected	12	35	NA	FAIR-GOOD		REMOVE
84	Small Parking Lot on Sunset	Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
85		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
86		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
87		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
88		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
89		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
90		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
91		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
92		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
93	Driveway entrance off Sunset Blvd	Coast Live Oak *(Quercus agrifolia)*	Protected	11	35	15	FAIR		REMOVE
94		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
95		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
96		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
97		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
98		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
99		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
100		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
101		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
102		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
103		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
104		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
105		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
106		Canary Palm *(Phoenix canariensis)*	Non-Protected	22	30+	NA	FAIR		REMOVE
107	Northside of property	Canary Pine *(Pinus canariensis)*	Non-Protected	18	70	20	FAIR		REMOVE
108		Canary Pine *(Pinus canariensis)*	Non-Protected	16	60	15	FAIR		REMOVE
109		Canary Pine *(Pinus canariensis)*	Non-Protected	12	60	15	FAIR		REMOVE
110		Canary Pine *(Pinus canariensis)*	Non-Protected	20	70	25	FAIR		REMOVE
111		Canary Pine *(Pinus canariensis)*	Non-Protected	15	45	20	FAIR		REMOVE

APPENDIX C - SUMMARY OF FIELD INSPECTION

Rating Code: A = Excellent, B = Good, C = Fair, D = Poor, E = Nearly Dead, F = Dead

Tree #	Location	Species	Status	DBH ″	Height ′	Spread ′	Condition	Comments	Retain or Remove
ST1	Sunset Blvd	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	10	20	15	Fair		REMOVE
ST2	Sunset Blvd	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	13	25	20	Fair		REMOVE
ST3	Sunset Blvd	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	5	15	10	Poor		REMOVE
ST4	Sunset Blvd	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	11	25	20	Fair		REMOVE
ST5	Sunset Blvd	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	10	20	15	Fair		REMOVE
ST6	Sunset Blvd	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	9	25	15	Fair		REMOVE
ST7	Sunset Blvd	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	9	20	15	Fair-Poor		REMOVE
ST8	White Knoll Dr.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	9	20	15	Fair-Poor		REMOVE
ST9	White Knoll Dr.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	10	25	25	Fair		REMOVE
ST10	White Knoll Dr.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	10	30	20	Fair		REMOVE
ST11	White Knoll Dr.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	8	15	12	Fair-Poor		REMOVE
ST12	White Knoll Dr.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	8	20	15	Fair-Poor		REMOVE
ST13	White Knoll Dr. & Marview Ave.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	8	20	20	Fair-Poor		REMOVE
ST14	White Knoll Dr.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	9	30	20	Fair		REMOVE
ST15	White Knoll Dr.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	8	30	25	Fair		REMOVE
ST16	White Knoll Dr.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	8	25	12	Fair-Poor		REMOVE
ST17	Alpine St. & White Knoll Dr.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	8	30	20	Fair		REMOVE
ST18	Alpine St. & White Knoll Dr.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	8	15	12	Fair-Poor		REMOVE
ST19	Alpine St.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	8	20	20	Fair-Poor		REMOVE
ST20	Alpine St.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	6	15	10	Fair		REMOVE
ST21	Alpine St.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	6	15	8	Fair-Poor		REMOVE
ST22	Alpine St.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	8	30	20	Fair-Poor		REMOVE
ST23	Alpine St.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	6	15	10	Fair-Poor		REMOVE
ST24	Alpine St.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	5	15	15	Fair-Poor		REMOVE
ST25	Alpine St.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	6	20	15	Fair		REMOVE
ST26	Alpine St. & Beaudry Ave.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	8	15	15	Fair-Poor		REMOVE
ST27	Alpine St. & Beaudry Ave.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	8	25	25	Fair		REMOVE
ST28	Beaudry Ave.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	4	10	8	Fair		REMOVE
ST29	Beaudry Ave. & Alpine St.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	2	9	4	Fair-Poor		REMOVE
ST30	Beaudry Ave. & Alpine St.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	10	35	25	Fair-Poor		REMOVE
ST31	Beaudry Ave.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	8	30	25	Fair		REMOVE
ST32	Beaudry Ave.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	9	30	25	Fair-Poor		REMOVE
ST33	Beaudry Ave. & Bartlett St.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	5	12	8	Fair-Poor		REMOVE
ST34	Beaudry Ave. & Bartlett St.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	8	20	14	Fair-Poor		REMOVE
ST35	Beaudry Ave. & Bartlett St.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	2	10	4	Poor		REMOVE
ST36	Beaudry Ave.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	1	12	2	Dead		REMOVE
ST37	Beaudry Ave.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	5	30	12	Poor		REMOVE
ST38	Beaudry Ave.	Jacaranda (*Jacaranda mimosifolia*)	City of LA Street Tree	6	20	15	Fair		REMOVE

APPENDIX C - SUMMARY OF FIELD INSPECTION

Rating Code: A = Excellent, B = Good, C = Fair, D = Poor, E = Nearly Dead, F = Dead

Tree #	Location	Species	Status	DBH "	Height '	Spread '	Condition	Comments	Retain or Remove
ST39	Beaudry Ave. Median Island	Canary Pine (Pinus canariensis)	City of LA Street Tree	16	40	10	Poor		REMOVE
ST40	Beaudry Ave. Median Island	Canary Pine (Pinus canariensis)	City of LA Street Tree	16	40	10	Fair-Poor		REMOVE
ST41	Beaudry Ave. Median Island	Canary Pine (Pinus canariensis)	City of LA Street Tree	20	40	10	Fair-Poor		REMOVE

APPENDIX D - SUMMARY OF DATA

Table 1. Summary of Data - Total Protected Trees On Site

Coast Live Oak (*Quercus agrifolia*)	**1**
Number of Native Coast Live Oak trees to be removed	1
Number of Native Coast Live Oak trees to be minimally impacted by the construction	0
Number of Native Coast Live Oak trees not dead, to be retained, and/or where natural grade is unchanged	0

Total Protected Trees (DBH 4" or greater)	1
Total Protected Trees to be removed	1
Total Protected Trees to be minimally impacted	0
Total Protected Trees to be retained, and/or where natural grade is unchanged	0

Table 2. Schedule of Protected Tree Removals

RECOMMENDATION

Tree #	Location	Species	Status	Condition	Retain or Remove	Reason for Removal
93	Hillside	Coast Live Oak *Quercus agrifolia*	Protected	Fair	Remove	Construction Impact

Table 3. Summary of Tree Replacement

	Existing Trees to Be Removed	Trees to be Planted in Replacement
PROTECTED TREES Replaced 4:1	1	4
CITY OF L.A. STREET TREES	41	Replacement locations and specifications will be determined by the Urban Forestry Division upon completion of the project.
NON-PROTECTED SIGNIFICANT TREES, 8" + DBH Replaced 1:1	110	110

Appendix IS-2

Lighting Memorandum

Lighting Memorandum

1. Introduction:

This document evaluates the proposed lighting for the 1111 Sunset Project (Project) and specifies illuminance levels and uniformity criteria consistent with the applicable lighting regulations set forth below. This document also provides guidance on acceptable luminaire and lamp selections, as well as suggested control system protocols.

The overall goal of the lighting program for the Project is to create a cohesive nighttime luminous environment that is welcoming and harmonious with the character of the neighborhood while enhancing the Project's architectural and landscape expressions and supporting the various nighttime activities onsite.

2. Regulatory Environment

Regulations which apply to lighting within the Project include the Los Angeles Municipal Code (LAMC) and the California Code of Regulations, Title 24. The Project building and site lighting is regulated by various sections of the Los Angeles Municipal Code as well as Title 24. The Project illuminated signs are regulated by the Los Angeles Municipal Code.

2.1. Los Angeles Municipal Code

The City of Los Angeles regulates lighting with respect to building and safety, transportation, and light trespass (i.e., the spillover of light onto adjacent light-sensitive properties). The City also enforces the building code requirements of the California Building Code, The California Green Building Standards Code (CALGreen), and the California Electrical Code.

Exterior lighting, such as streetlights are regulated by the LAMC. Applicable regulations for the Project Site include the following:

- Chapter 1, Article 2, Sec. 12.21 A 5(k). All lights used to illuminate a parking area shall be designed, located and arranged so as to reflect the light away from any streets and adjacent premises.

- Chapter 1, Article 4.4, Sec. 14.4.4 E. No sign shall be arranged and illuminated in such a manner as to produce a light intensity greater than 3 foot-candles above ambient lighting, as measured at the property line of the nearest residentially zoned property.

- Chapter 9, Article 3, Div. 1, Sec. 93.0117(b). No exterior light may cause more than 2 footcandles of lighting intensity or generate direct glare onto exterior glazed windows or glass doors on any property containing residential units; elevated habitable porch, deck, or balcony on any property containing residential units; or any ground surface intended for uses such as recreation, barbecue or lawn areas or any other property containing a residential unit or units.

- Chapter 9, Article 9, Division 5, Sec 99.05.106.8. Comply with lighting power requirements in the California Energy Code, California Code of Regulations, Title 24, Part 6. Meet or exceed exterior light levels and uniformity ratios for lighting zone 3 as defined in Chapter 10 of the California Administrative Code, Title 24, Part 1.

2.2. California Code of Regulations, Title 24

Title 24 of the California Code of Regulations, also known as the California Building Standards Code, consists of regulations to control building standards throughout the State. The following components of Title 24 include standards related to lighting:

California Building Code (Title 24, Part 1) and California Electrical Code (Title 24, Part 3)

The California Building Code (Title 24, Part 1) and the California Electrical Code (Title 24, Part 3) stipulate minimum light intensities for safety and security at pedestrian pathways, circulation ways, and paths of egress. All Project lighting will comply with the requirements of the California Building Code.

California Energy Code (Title 24, Part 6)

The California Energy Code (CEC) stipulates allowances for lighting power and provides lighting control requirements for various lighting systems, with the aim of reducing energy consumption through efficient and effective use of lighting equipment.

Section 130.2 sets forth requirements for Outdoor Lighting Controls and Luminaire Cutoff requirements. All outdoor luminaires rated above 150 watts shall comply with the backlight, up light, and glare “BUG” in accordance with IES TM-15-11, Addendum A, and shall be provided with a minimum of 40% dimming capability activated to full on by motion sensor or other automatic control. This requirement does not apply to street lights for the public right of way, signs or building façade lighting.

Section 140.7 sets forth outdoor lighting power density allowances in terms of watts per area for lighting sources other than signage. The lighting allowances are provided by Lighting Zone, as defined in Section 10-114 of the CEC. Under Section 10-114, all urban areas within California are designated as Lighting Zone 3. Additional allowances are provided for Building Entrances or Exits, Outdoor Sales Frontage, Hardscape Ornamental Lighting, Building Façade Lighting, Canopies, Outdoor Dining, and Special Security Lighting for Retail Parking and Pedestrian Hardscape.

Section 130.3 stipulates sign lighting controls with any outdoor sign that is ON both and day and night must include a minimum 65 percent dimming at night. Section 140.8 of the CEC sets forth lighting power density restrictions for signs.

California Green Building Standards Code (Title 24, Part 11)

The California Green Building Standards Code, which is Part 11 of Title 24, is commonly referred to as the CALGreen Code. Paragraph 5.1106.8 Light pollution reduction, defines all nonresidential outdoor lighting must comply with the following:

- The minimum requirements in the CEC for Lighting Zones 1–4 as defined in Chapter 10 of the California Administrative Code; and

- Backlight, Uplight and Glare (BUG) ratings as defined in the Illuminating Engineering Society of North America’s Technical Memorandum on Luminaire Classification Systems for Outdoor Luminaires (IESNA TM-15-07); and

- Allowable BUG ratings not exceeding those shown in Table A5.106.8 in Section 5.106.83 of the

CALGreen Code (excerpt included in the Appendix); or

- Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

2.3. IESNA Recommended Practices

The Illuminating Engineering Society of North America (IESNA) recommends illumination standards for a wide range of building and development types. These recommendations are widely recognized and accepted as best practices and are therefore a consistent predictor of the type and direction of illumination for any given building type. As noted above, the CEC stipulates that all urban areas in California are designated as Lighting Zone 3. For Zone 3 the IESNA 10th Edition Lighting Handbook Table 26.5 “Recommended Light Trespass Illuminance Limits” lists a Pre-curfew 8 Lux (0.74 footcandles) maximum illuminance measured vertically at the location where trespass is under review, except as required to comply with vertical illuminance requirements for facial recognition in the pedestrian zone at project boundaries.

3. General Lighting Approach and Consistent with Regulatory Requirements:

Proposed lighting would include shielded low to medium output exterior lights adjacent to buildings and along pathways for security and wayfinding purposes. In addition, shielded low to medium output lighting to accent signage, architectural features, exterior artwork or murals, and landscaping elements would be incorporated throughout the Project Site. The Project also proposes up to four rooftop identity signs located on the Sunset and Courtyard buildings (as those terms are used in the Project Description), as well as customarily incidental tenant, informational, monument and identity signage for the commercial uses. The Project would not include electronic signage or signs with flashing, mechanical, or strobe lights.

Proposed lighting would include the use of light sources that appear warm in color, consistent with other residential lighting in the neighborhood. LED technology would be utilized as the primary lighting source, due to its energy efficiency, long life, being easily dimmable, high color rendering (80 CRI or higher) options, and optical control capabilities. These optical control capabilities will allow light levels with soft gradients which would be able to minimize contrast (sudden uncomfortable changes in brightness). Throughout the Project Site, lighting would be directed onto the Project Site and designed to minimize light spill into adjacent properties. Proposed lighting systems would have the capability to adjust to the variation in weeknight vs. weekend usage and dimmable systems would enable adjustment over the course of the evening as usage tapers off. Lighting for interior spaces would be generally shielded and/or diffuse in nature and have no direct-beam lamp source illumination passing out through the windows. In addition, all lights used to illuminate a parking area would be designed, located and arranged so as to reflect the light away from adjacent streets and premises. Cohesive lighting control systems would provide dimmable control of all luminaires, and would include photocells, occupancy sensors, daylight sensors and an astronomical time-clock to enable time-based programmable lighting controls settings to optimize energy conservation and tune lighting to appropriate levels within the neighborhood context and usage patterns, as well as required by code.

In particular, no exterior light would cause more than 2 foot-candles of lighting intensity or generate direct glare onto exterior glazed windows or glass doors on any property containing residential units; elevated habitable porch, deck, or balcony on any property containing residential units; or any ground surface intended for uses, such as recreation, barbecue or lawn areas, or any other property containing a residential unit or units. Additionally, in accordance with the requirements of the LAMC, no sign would be arranged and illuminated in such a manner as to produce a light intensity greater than 3 foot-candles above ambient lighting, as measured at the property line of the nearest residentially-zoned property. Moreover, the overall lighting design would comply with lighting power requirements in the California Energy Code, California Code of Regulations, Title 24, Part 6. Proposed lighting would also meet or exceed exterior light levels and uniformity ratios for lighting zone 3 as defined in Chapter 10 of the California Administrative Code, Title 24, Part 1. In addition, all outdoor luminaires rated above 150 watts would comply with the backlight, up light, and glare "BUG" in accordance with IES TM-15-11, Addendum A, and shall be provided with a minimum of 40 percent dimming capability activated to full on by motion sensor or other automatic control. This requirement does not apply to street lights for the public right of way, signs, murals, or building façade lighting. Overall, the lighting design would comply with outdoor lighting power density allowances in terms of watts per area for lighting sources other than signage, Lighting Zone 3. Both horizontal and vertical light levels would also be considered consistent with recommended practice guidelines established by the Illuminating Engineering Society of North America (IESNA or IES).

4. Light Level Targets and Energy Allowance:

A partial summary of the recommended lighting levels for the 1111 Sunset Blvd Project based on the IESNA Lighting Handbook, 10th Edition (2011) light level recommendations is found below. The lighting specifier should also incorporate best practices found in the applicable IES Recommended Practice (RP) manuals. All recommended light levels are maintained and targeted for the work planes in each specific area of the project. For featured areas such as murals, landscape or accented signage or artwork, the IESNA recommends an illuminance ratio of 10:1 increase from ambient average light levels. Please note that illuminance criteria will require updating as future editions of IESNA Lighting Handbook are released.

Interior:

Location	IESNA Recommended Light Levels (average fc)[1]	Title 24 – 2016 Code (W/sq. ft. allowance)	Control Strategy
Lobby/ Elevator Lobby	10–20fc	0.95 W/sq. ft	Programmable dimming
Parking Garage – general, ramps, and entries/exits during nighttime	1.0fc horiz 0.5fc vert 10:1 max:min	Parking Area: 0.14 W/ sq. ft Dedicated Ramps: 0.3 W/ sq. ft Daylight Adaptation Zones: 0.6 W/ sq. ft	Automated controls, astronomic time clocks, daylight sensors, dimming to be considered
Parking Garage - ramps during daytime	2.0fc horiz 1.0fc vert 10:1 max:min		
Parking Garage – entries/exits during daytime	50fc horiz 25fc vert 10:1 max:min		

Location	IESNA Recommended Light Levels (average fc)[1]	Title 24 – 2016 Code (W/sq. ft. allowance)	Control Strategy
Parking Garage - elevator lobby, pedestrian circulations	1.5fc horiz 0.75fc vert 5:1 max:min		

Exterior:

Location	IESNA Recommended Light Levels (average fc)[1]	Title 24 – 2016 Code (W/sq. ft. allowance)	Control Strategy
Pedestrian Pathways	0.5fc horiz 0.2fc vert 4:1 avg:min	General Hardscape Lighting Allowances, Lighting Zone 3: Area Wattage Allowance: 0.040W/sq. ft. Linear Wattage Allowance: 0.35W/ linear ft. Initial Wattage Allowance: 520W Hardscape Ornamental Lighting Allowance: 0.04W/ sq. ft. Special Security Lighting for Retail and Pedestrian Hardscape Allowance: 0.019W/sq. ft.	Automated controls, astronomic time clocks, intelligent motion sensors, dimming to be considered
Courtyards and Plazas	0.2-0.6fc horiz 0.1-0.2fc vert 4:1 avg:min		
Street and Roadway Lighting	1.2fc (Collector) 1.0fc (Local) 4:1 avg:min	General Hardscape Lighting Allowances, Lighting Zone 3: Area Wattage Allowance: 0.040W/sq. ft. Linear Wattage Allowance: 0.35W/ linear ft. Initial Wattage Allowance: 520W Hardscape Ornamental Lighting Allowance: 0.04W/ sq. ft. Public Streets, Roadways Exempt Luminaires that illuminate the public right of way on a publicly maintained roadway, sidewalk, and bikeway is exempt from Luminaire cutoff requirement per Exception 2, Section 130.2(b)	Automated controls, astronomic time clocks, intelligent motion sensors, dimming to be considered
Entry Canopies (medium to high activity)	0.8-3fc horiz 0.4-1.5fc vert	Lighting Zone 3: 0.408W/ sq. ft.	Automated controls, astronomic time clocks, intelligent motion sensors, dimming to be considered
Main Entries (medium to high activity)	0.8-3.0fc horiz 0.4-1.5fc vert	Lighting Zone 3: 35W per door for luminaires within 20 feet of door	Automated controls, astronomic time clocks, intelligent motion sensors, dimming to be considered
Other Doors (low to medium activity)	1.0fc horiz 0.6-0.8fc vert		
Site Stairways (medium to high activity)	0.6-0.8fc horiz 0.2-0.4fc vert	Exempt per Item 9, Section 140.7(a)	Automated controls, astronomic time clocks, intelligent motion sensors, dimming to be considered
Landscape Lighting	1.0fc vert minimum	Exempt per Item 10, Section 140.7(a)	Automated controls, astronomic time clocks, intelligent motion sensors, dimming to be considered

Appendix IS-3

Biological Technical Report

BIOLOGICAL TECHNICAL REPORT
PROPERTY AT 1111 SUNSET BOULEVARD
CITY OF LOS ANGELES, CALIFORNIA

PREPARED FOR

1111 Sunset Boulevard LLC

PREPARED BY

Glenn Lukos Associates
29 Orchard
Lake Forest, California
(949) 837-0404 ext. 41
Contact: Tony Bomkamp

April, 2018

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1.0 EXECUTIVE SUMMARY

1.1 Background

This document is a Biological Technical Report prepared to satisfy the requirements of the California Environmental Quality Act (CEQA). This report provides the scope, methodology, and the results of habitat assessments and general and focused biological surveys, and the impact assessment and mitigation to reduce the Proposed Project's potential biological impacts to less than significant. General and focused surveys were conducted during field survey in February, March, and April 2018.

The 1111 Sunset Project (Project) is a new mixed-use development proposed on a 6.27-acre site located at 1111-1115 Sunset Boulevard, including a 10,481-square-foot portion of Beaudry Avenue and Sunset Boulevard adjacent to the 1111-1115 Sunset Boulevard site (Project Site). The Project proposes up to 778 residential units (including up to 76 restricted affordable housing units), up to 98 hotel rooms, up to 48,000 square feet of office space, and up to 95,000 square feet of general commercial floor area (which could include up to 20,000 square feet of food and beverage uses associated with a hotel use). The Project would comprise 994,982 square feet of floor area. The proposed uses would be built on a seven-level parking podium, fully obscured and designed partially below grade and partially above grade, creating a single building on the proposed Project Site. Above the parking podium, the proposed uses would be provided within four primary structures, including two residential towers (Tower A and Tower B), a hotel (the Sunset Building), and a commercial building that could contain office, retail, parking and restaurant uses (the Courtyard Building). A portion of the commercial floor area would also be provided in three low-rise commercial structures. In addition, a portion of the proposed residential uses would be provided in low-rise residential buildings scattered throughout the eastern and southern portions of the Proposed Project Site at the base of the two residential towers. The proposed uses would require 1,631 parking spaces in accordance with the requirements of the Los Angeles Municipal Code (LAMC). An additional 168 parking spaces for the existing Elysian apartment building would also be provided within a five-level, partially subterranean parking structure (Elysian Parking Facility) located within the footprint of the proposed Courtyard Building. The Project would include a variety of open space totaling 87,525 square feet. Implementation of the Project would require the removal of the existing vacant buildings within the Proposed Project Site that together comprise approximately 114,600 square feet.

1.2 Scope and Methodology

The scope of this report includes 1) A characterization of biological resources associated with the 6.27-acre site (Study Area), 2) an evaluation of the Study Area for presence or potential presence of state or federally listed endangered species or other special-status species, 3) an evaluation of trees on the site which could serve as nesting habitat for breeding avifauna protected by the Migratory Bird Treaty Act and the California Fish and Game Code and 4) an evaluation of the Study Area for special-status bats. This report also includes a discussion of existing conditions for the Study Area, all methods employed regarding assessment of potential biological resources and general biological surveys, and the documentation of botanical and wildlife resources identified. Methods of study include a review of relevant literature and databases, habitat assessments, general field surveys, and a Geographical Information System (GIS)-based analysis of vegetation communities. As appropriate, this report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the CDFW, and the California Native Plant Society (CNPS). Glenn Lukos Associates, Inc. (GLA) conducted site-specific habitat assessments and general and focused biological surveys within the Study Area February 15, 2018, March 6, 2018, March 29, 2018, April 12, 2018, and April 13, 2018.

1.3 Existing Conditions

The Study Area consists of previously developed land with buildings, existing internal and public roadways, parking areas, sidewalks, a traffic island and areas of landscaped ornamental vegetation including trees, shrubs and former turf. The most common trees include Canary Island pine (*Pinus canariensis*), Mexican fan palm (*Washingtonia robusta*) and Canary Island palm (*Phoenix canariensis*). There are no native vegetation alliances on the Study Area. One native coast live oak was detected and is functioning as an ornamental tree given the developed character of the Study Area.

1.4 Results of Field Studies

1.4.1 Land Use/Land Cover Types

Mapping of the land use/land cover types within the Study Area identified nine different land use/land cover types:
(1) Canary Island Pine
(2) Canary Island Palm
(3) Developed Building
(4) Developed Parking
(5) Developed Roadway
(6) Developed Sidewalk
(7) Mexican Fan Palm
(8) Mixed Ornamental
(9) Turf or Former Turf

1.4.2 Special-Status Plants

A habitat assessment for special-status plants found no areas capable of supporting special-status plants and focused surveys for special-status plants was determined to be unnecessary.

1.4.3 Wildlife Resources

Common reptiles observed were southern alligator lizards (*Elgaria multicarinata*) and Great Basin fence lizard (*Sceloporus occidentalis longipes*). Mammals observed directly or by sign during biological surveys include California ground squirrel (*Otospermophilus beecheyi*), raccoons (*Procyon lotor*), striped skunk (*Mephitis mephitis*), fox squirrel (*Sciurus niger*), and Mexican-free tailed bat (*Tadarida brasiliensis*). Several common bird species were detected within the Study Area. Birds observed during biological surveys include Allen's hummingbird (*Selasphorus sasin*), American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), ash throated flycatcher (*Myiarchus cinerascens*), black phoebe (*Sayornis nigricans*), bushtit (*Psaltriparus minimus*), California scrub-jay (*Aphelocoma californica*), California towhee (*Melozone crissalis*), common raven (*Corvus corax*), Eurasian collared-dove (*Streptopelia decaocto*), European starling (*Sturnus vulgaris*), hooded oriole (*Icterus cucullatus*), house finch (*Haemorhous mexicanus)*, house sparrow (*Passer domesticus*), lesser goldfinch (*Spinus psaltria*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), northern rough-winged swallow (*Stelgidopteryx serripennis*), red-tailed hawk (*Buteo jamaicensis*), rock pigeon (*Columbia livia*), yellow-rumped warbler (*Setophaga coronata*), western bluebird (*Sialia mexicana*), white-crowned sparrow (*Zonotrichia leucophrys*), white-throated swift (*Aeronautes saxatalis*), and unidentifiable parrots or parakeets.

1.4.4 Special-Status Wildlife

No special-status animal species (i.e. state- or federally- listed or CDFW special status) were expected to occur within the Study Area due to a lack of suitable habitat as determined by the literature review and onsite habitat assessments. Nevertheless, surveys were conducted for special-status avifauna and bats, which were determined to have the highest (albeit low) potential to occur on the Study Area. As detailed in the report, no special-status species were detected.

1.5 Proposed Project Impacts to Biological Resources and Mitigation

The proposed project will not result in any significant direct or indirect impacts to special-status biological resources, and as such, no mitigation is required.

The project has potential to impact common species of nesting migratory birds; however, with implementation of the measures outlined herein, impacts would be fully avoided.

2.0 INTRODUCTION

Biologists from GLA conducted surveys of the Study Area to identify the presence of special-status species or habitats capable of supporting special-status species. In addition, focus was given to the potential for nesting avifauna and roosting bats given the substantial number of trees within the Study Area.

Potential impacts (direct and/or indirect) to special-status species and habitats are addressed below for purposes of review under the California Environmental Quality Act (CEQA). In addition, impacts to special-status species listed as threatened or endangered under the federal Endangered Species Act (ESA) are regulated by the U.S. Fish and Wildlife Service (USFWS) and special-status species listed as threatened or endangered by the State of California are regulated by the California Department of Fish and Wildlife (CDFW) pursuant to the State ESA and are addressed below. Wildlife that are assigned other designations by CDFW (i.e., species of special concern, fully-protected species, etc.), and plants given special status by the California Native Plant Society (CNPS) are not granted additional protection, except that impacts to these species generally require evaluation pursuant to CEQA.

2.1 Location of Study Area

The approximately 6.27-acre Study Area consists of previously developed areas containing existing buildings, internal and public roadways, parking areas, sidewalks, a traffic island, and ornamental landscaping that includes various non-native pine trees, palms, and variety of other non-native ornamental trees and shrubs located at 1111 West Sunset Boulevard, Los Angeles, California [Exhibit 1; Regional Map]. The Study Area is located east of West Sunset Boulevard, west of Alpine Street and north of North Beaudry Avenue [Exhibit 2; Vicinity Map]. The Study Area includes the entire site, with the exception of an existing apartment building that is within the site boundaries, but under separate ownership. Elevations within the Study Area range from roughly 382 to 433 feet above mean sea level.

It should be noted that the entire Study Area was subject to mapping of land-use/land cover types and general biological surveys; however, the focused avian surveys were limited to the onsite trees and shrubs, while bat surveys including buildings and trees.

2.2 Existing Conditions

As noted, the Study Area consists of previously developed land with buildings, existing internal and public roadways, parking areas, sidewalks, a traffic island, and areas of landscaped ornamental vegetation including trees, shrubs and former turf. The most common trees include Canary Island pine, Mexican fan palm, and Canary Island palm. There are no native vegetation alliances on the Study Area. One native coast live oak was detected and is functioning as an ornamental tree given the developed character of the Study Area.

2.3 Project Description

The 1111 Sunset Project (Project) is a new mixed-use development proposed on a 6.27-acre site located at 1111-1115 Sunset Boulevard, including a 10,481-square-foot portion of Beaudry Avenue adjacent to the 1111-1115 Sunset Boulevard site. The Project proposes up to 778 residential units (including up to 76 restricted affordable housing units), up to 98 hotel rooms, up to 48,000 square feet of office space, and up to 95,000 square feet of general commercial floor area (which could include up to 20,000 square feet of food and beverage uses associated with a hotel use). The Project would comprise 994,982 square feet of floor area. The proposed uses would be built on a seven-level parking podium, fully obscured and designed partially below grade and partially above grade, creating a single building on the Proposed Project Site. Above the parking podium, the proposed uses would be provided within four primary structures, including two residential towers (Tower A and Tower B), a hotel (the Sunset Building), and a commercial building that could contain office, retail, parking, and restaurant uses (the Courtyard Building). A portion of the commercial floor area would also be provided in three low-rise commercial structures. In addition, a portion of the proposed residential uses would be provided in low-rise residential buildings scattered throughout the eastern and southern portions of the proposed Project Site at the base of the two residential towers. The Proposed Project would require 1,631 parking spaces in accordance with the requirements of the Los Angeles Municipal Code (LAMC). An additional 168 parking spaces for the existing Elysian apartment building would also be provided within a five-level, partially subterranean parking structure (Elysian Parking Facility) located within the footprint of the proposed Courtyard Building. The Proposed Project would include a variety of open space totaling 87,525 square feet. Implementation of the Project would require the removal of the existing vacant buildings within the Proposed Project Site that together comprise approximately 114,600 square feet.

3.0 METHODOLOGY

To adequately identify biological resources, GLA assembled biological data consisting of the following components:

- Performance of land-use/land-cover mapping for the Study Area;
- Performance of site-specific habitat assessments for special-status plants and animals; and
- General and focused biological surveys to evaluate the presence/absence of special-status plant and animal species (or potentially suitable habitat).

The focus of the biological surveys was determined through initial site reconnaissance, a review of the California Natural Diversity Database (CNDDB) [CDFW 2017], the CDFW Special Animals List (CDFW 2016), the California Native Plant Society (CNPS) Online Inventory (CNPS 2016), the USFWS online list of threatened and endangered species for Los Angeles County, other pertinent literature, and knowledge of the region. Land use types within the Study Area were also surveyed on foot and mapped directly onto a 200-scale topographic map. Habitat assessments and focused surveys within the Study Area were conducted on foot, and included the entire ownership.

3.1 Summary of Surveys

The field studies focused on the following primary objectives in accordance with CEQA: (1) general reconnaissance surveys and land-use/land-cover mapping; (2) general botanical surveys and floristic inventory; (3) general wildlife surveys; (4) habitat assessments for special-status plants; (5) habitat assessments for special-status animals; (6) focused surveys for special-status avifauna; and (6) focused surveys for special-status bats. Observations of all plant and wildlife species were recorded during the above-mentioned survey efforts [Appendix A: Floral Compendium and Appendix B: Faunal Compendium]. Table 3-1 provides a summary list of survey dates, survey types and personnel.

Table 3-1. Summary of Biological Surveys for the Property.

Survey Date and Time	Survey Type	Surveying Biologist	Weather
02/15/18 0730-1100	• General Botanical and Wildlife Survey • Special-Status Plant Habitat Assessment • Land-Use/Land-Cover Mapping	J. Ahrens V. Crook	66º F Clear Wind 1-3 mph
03/06/18 1530-1930	• Focused Survey for Special-Status Bats	J. Ahrens S. Cashin	64º F to 75º F Clear Wind 3-6 mph
03/29/18 1700-2033	• Special-Status Bat Surveys	J. Ahrens S. Cashin	69º F Clear Wind 1-3 mph
04/12/18 0720-0850	• Special-Status Avian Surveys	T. Bomkamp V. Crook	55º F Clear Wind 1-3 mph
04/13/18 0750-1000	• Special-Status Avian Surveys	S. Cashin	59º F to 71 º F Clear Wind 0 mph

3.2 Botanical Resources

A site-specific survey program was designed to accurately document the botanical resources within the Study Area, and consisted of five components: (1) a literature search; (2) preparation of a list of target special-status plant species and sensitive vegetation communities that could occur within the Study Area; (3) general field reconnaissance surveys; (4) land-use/land-cover mapping; and (5) habitat assessments for special-status plants.

3.2.1 Literature Search

Prior to conducting fieldwork, pertinent literature on the flora of the region surrounding the Study Area was examined. A thorough archival review was conducted using available literature and other historical records. These resources included the following:

- California Native Plant Society *Online Inventory of Rare and Endangered Plants of California*. Available at: http://www.rareplants.cnps.org/; and

- California Natural Diversity Data Base (CNDDB 2017) for the USGS 7.5' Los Angeles quadrangle, where the Study Area occurs, and the surrounding eight quadrangles

3.2.2 Special-Status Plant Species and Sensitive Vegetation Communities Evaluated for the Study Area

The CNDDB and the CNPS Inventory (CNPS 2016) were initially consulted to determine well-known occurrences of plants and habitats of special concern in the region.

According to the CNDDB (2008), eight special-status habitats occur within the Los Angeles quadrangle and the surrounding quadrangles (Burbank, Pasadena, Mt. Wilson, El Monte, Whittier, South Gate, Inglewood, and Hollywood) including open Engelmann oak woodland, Riversidian alluvial fan sage scrub, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern mixed riparian forest, southern sycamore alder riparian woodland, California walnut woodland, and walnut forest. None of the above-mentioned special-status habitats occur within the Study Area. Additionally, none of the vegetation alliances or land-cover types occurring within the Study Area are considered special-status[1].

Table 3-2 provides a list of special-status plants evaluated for the Study Area through habitat assessments. Species were evaluated based on several factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or near the Study Area, and 2) any other special-status plants that are known to occur within the vicinity of the Study Area, or for which potentially suitable habitat occurs within the Study Area.

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[1] Habitats in California are generally considered special-status when they have either a state ranking of S3or less or global ranking of S3 or less, meaning that there are 50,000 acres or less of such habitats. There is no native vegetation present on site and thus there are no habitats that would have rankings of either G3S3 or lower present on the site. The natural communities list and state and global rankings can be found at http://www.dfg.ca.gov/biogeodata/vegcamp/natural_comm_list.asp.

Table 3-2. Special-Status Plants Evaluated for the Study Area.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Brand’s star phacelia *Phacelia stellaris*	Federal: None State: ST CRPR: 1B.1	Coastal dunes and coastal scrub. Blooming period Mar-May. Elevation range 3-50m.	Does not occur due to a lack of suitable habitat.
Braunton's milk-vetch *Astragalus brauntonii*	Federal: FE State: None CRPR: 1B.1	Chaparral, coastal sage scrub, valley and foothill grassland. Usually carbonate soils. Recent burn or disturbed areas. Blooming period Jan-Aug. Elevation range 4-640m.	Does not occur due to a lack of suitable habitat.
California muhly *Muhlenbergia californica*	Federal: None State: None CRPR: 4.3	Coastal scrub, chaparral, lower montane coniferous forest, meadows and seeps.	Does not occur due to a lack of suitable habitat.
California Orcutt grass *Orcuttia californica*	Federal: FE State: SE CRPR: 1B.1	Vernal pools. Blooming period Apr-Aug. Elevation range 15-660m.	Does not occur due to a lack of suitable habitat.
California saw-grass *Cladium californicum*	Federal: None State: None CRPR: 2B.2	Meadows and seeps, marshes and swamps (alkaline or freshwater).	Does not occur due to a lack of suitable habitat.
Coastal dunes milk-vetch *Astragalus tener* var. *titi*	Federal: FE State: SE CRPR: 1B.1	Coastal bluff scrub, coastal dunes, coastal prairie.	Does not occur due to a lack of suitable habitat.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: None CRPR: 1B.1	Playas, vernal pools, marshes and swamps (coastal salt). Blooming period Feb-Jun. Elevation range 1-1220m.	Does not occur due to a lack of suitable habitat.
Coutler’s saltbush *Atiplex coulteri*	Federal: None State: None CRPR: 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland.	Does not occur due to a lack of suitable habitat.
Davidson's bush mallow *Malacothamnus davidsonii*	Federal: None State: None CRPR: 1B.2	Chaparral, cismontane woodland, coastal sage scrub, riparian woodland. Blooming period Jun-Jan. Elevation range 185-855m.	Does not occur due to a lack of suitable habitat.
Davidson's saltscale *Atriplex serenana* var. *davidsonii*	Federal: None State: None CRPR: 1B.2	Alkaline soils in coastal sage scrub, coastal bluff scrub. Blooming period Apr-Oct. Elevation range 10-200m.	Does not occur due to a lack of suitable habitat.
Gambel's water cress *Nasturtium gambelii*	Federal: Endangered State: Threatened CRPR: 1B.1	Freshwater or brackish marshes and swamps. Blooming period Apr-Oct. Elevation range 5-330m.	Does not occur due to a lack of suitable habitat.
Greata's aster *Aster greatae*	Federal: None State: None CRPR: 1B.3	Chaparral, cismontane woodland in mesic canyons. Blooming period Jun-Oct. Elevation range 300-2010m.	Does not occur due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Internediate mariposa-lily *Calochortus weedii* var. *intermedius*	Federal: None State: None CRPR: 1B.2	Coastal scrub, chaparral, valley and foothill grassland.	Does not occur due to a lack of suitable habitat.
Los Angeles sunflower *Helianthus nuttallii* ssp. *Parishii*	Federal: None State: None CRPR: 1A presumed extinct in CA	Marshes and swamps (coastal salt and freshwater). Historical from Southern California. Blooming period Aug-Oct. Elevation range 10-1675m.	Does not occur due to a lack of suitable habitat.
Lucky morning-glory *Calystegia felix*	Federal: None State: None CRPR: 1B.1	Meadows and seeps, riparian scrub. Sometimes alkaline, alluvial. 30-215 m.	Does not occur due to a lack of suitable habitat.
Many-stemmed dudleya *Dudleya multicaulis*	Federal: None State: None CRPR: 1B.2	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring on clay soils. Blooming period Apr-Jul. Elevation range 15-790m.	Does not occur due to a lack of suitable habitat and soils.
Marsh sandwort *Arenaria paludicola*	Federal: FE State: SE CRPR: 1B.1	Bogs and fens, freshwater marshes and swamps. Blooming period May-Aug. Elevation range 3-170m.	Does not occur due to a lack of suitable habitat.
Mesa horkelia *Horkelia cuneata* ssp. *puberula*	Federal: None State: None CRPR: 1B.1	Chaparral, cismontane woodland, and coastal scrub. Occurring on sandy or gravelly soils. Blooming period Feb-Jul(Sept). Elevation range 70-810m.	Does not occur due to a lack of suitable habitat.
Nevin's barberry *Berberis nevinii*	Federal: FE State: SE CRPR: 1B.1	Chaparral, cismontane woodland, coastal scrub, riparian scrub. Occurs on steep, north-facing slopes or in low grade sandy washes. Blooming period Mar-Jun. Elevation range 274-825m.	Does not occur due to a lack of suitable habitat.
Parish's brittlescale *Atriplex parishii*	Federal: None State: None CRPR: 1B.1	Chenopod scrub, playas, vernal pools. Blooming period Jun-Oct. Elevation range 25-1900m.	Does not occur due to a lack of suitable habitat.
Parish's gooseberry *Ribes divaricatum* var. *parishii*	Federal: None State: None CRPR: 1A Presumed extinct in California	Riparian woodland. Blooming period Feb-Apr. Elevation range 65-300m.	Does not occur as species is presumed extinct.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CRPR: 3.2	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub. Blooming period Apr-Jun. Elevation range 275-1220m.	Does not occur due to a lack of suitable habitat.

Species Name	**Status**	**Habitat Requirements**	**Potential for Occurrence**
Peruvian dodder *Cuscuta obtusiflora* var. *glandulosa*	Federal: None State: None CRPR: 2B. 2	Marshes and swamps (freshwater); wetland	Does not occur due to a lack of suitable habitat.
Plummer's mariposa lily *Calochortus plummerae*	Federal: None State: None CRPR: 1B.2	Granitic, rock soils within chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, valley and foothill grassland. Blooming period May-Jul. Elevation range 100-1700m.	Does not occur due to a lack of suitable habitat.
Prostrate navarretia *Navarretia prostrata*	Federal: None State: None CRPR: 1B.1	Coastal sage scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools. Occurring on mesic soils. Blooming period Apr-Jul. Elevation range 15-700m.	Does not occur due to a lack of suitable habitat.
Robinson's pepper grass *Lepidium virginicum* var. *robinsonii*	Federal: None State: None CRPR: 1B.2	Chaparral, coastal sage scrub. Blooming period Jan-Jul. Elevation range 1-885m.	Does not occur due to a lack of suitable habitat.
Salt spring checkerbloom *Sidalcea neomexicana*	Federal: None State: None CRPR: 2B.2	Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub.	Does not occur due to a lack of suitable habitat.
San Bernardino aster *Symphyotrichum defoliatum*	Federal: None State: None CRPR: 1B.2	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland.	Does not occur due to a lack of suitable habitat.
San Diego button-celery *Eryngium aristulatum* var. *parishii*	Federal: FE State: SE CRPR: 1B.1	Vernal pools, coastal scrub, valley and foothill grassland. San Diego mesa hardpan & claypan vernal pools & southern interior basalt flow vernal pools; usually surrounded by scrub. 15-880 m.	Does not occur due to a lack of suitable habitat.
San Fernando Valley spineflower *Chorizanthe parryi* var. *fernandina*	Federal: Proposed FE State: SE CRPR: 1B.1	Coastal scrub, valley and foothill grassland. Sandy soils. 15-1015 m.	Does not occur due to a lack of suitable habitat.
San Gabriel bedstraw *Galium grande*	Federal: None State: None CRPR: 1B.2	Cismontane woodland, chaparral, broadleaf upland forest, lower montane coniferous forest.	Does not occur due to a lack of suitable habitat.
San Gabriel linanthus *Linanthus concinnus*	Federal: None State: None CRPR: 1B.2	Lower montane coniferous forest, upper montane coniferous forest, chaparral.	Does not occur due to a lack of suitable habitat.

Species Name	**Status**	**Habitat Requirements**	**Potential for Occurrence**
San Gabriel manzanita *Arctostaphylos glandulosa* ssp. *gabrielensis*	Federal: None State: None CRPR: 1B.2	Chaparral. Rocky outcrops; can be dominant shrub where it occurs. 960-2015 m.	Does not occur due to a lack of suitable habitat.
Slender mariposa-lily *Calochortus clavatus* var. gracilis	Federal: None State: None CRPR: 1B.2	Chaparral, coastal scrub, valley and foothill grassland.	Does not occur due to a lack of suitable habitat.
Slender-horned spineflower *Dodecahema leptoceras*	Federal: FE State: SE CRPR: 1B.1	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. 200-765 m.	Does not occur due to a lack of suitable habitat.
Smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CRPR: 1B.1	Valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland. Alkali meadow, alkali scrub; also in disturbed places. 5-1170 m.	Does not occur due to a lack of suitable habitat.
Sonoran maiden fern *Thelypteris puberula* var. *sonorensis*	Federal: None State: None CRPR: 2B.2	Meadows and seeps. Along streams, seepage areas. 60-930 m	Does not occur due to a lack of suitable habitat.
Southern mountain skullcap *Scutellaria bolanderi* ssp. *austromon*	Federal: None State: None CRPR: 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. In gravelly soils on streambanks or in mesic sites in oak or pine woodland. 425-2000 m.	Does not occur due to a lack of suitable habitat.
Southern tarplant *Cantromadia parryi* ssp. *australis*	Federal: None State: None CRPR: 1B.1	Marshes and swamps (margins), valley and foothill grassland, vernal pools. Often in disturbed sites near the coast at marsh edges; also in alkaline soils sometimes with saltgrass. Sometimes on vernal pool margins. 0-975 m.	Does not occur due to a lack of suitable habitat.
Spreading navarretia *Navarretia fossalis*	Federal: FE State: None CRPR: 1B.1	Vernal pools, chenopod scrub, marshes and swamps, playas. San Diego hardpan & San Diego claypan vernal pools; in swales & vernal pools, often surrounded by other habitat types. 15-850 m.	Does not occur due to a lack of suitable habitat.

Federal
FE - Federally Endangered
FT - Federally Threatened
FC – Federal Candidate

State
SE - State Endangered
ST – State Threatened

California Rare Plant Rank (CRPR)
List 1A - Plants presumed extinct in California

List 1B - Plants rare, threatened, or endangered in California and elsewhere.
List 2A - Plants Presumed Extirpated in California, But Common Elsewhere
List 2B - Plants rare, threatened, or endangered in California, but more common elsewhere.
List 3 – Plants about which more information is needed.
List 4 – Plants of limited distribution (a watch list).

Threat Code Extensions
.1 - Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 – Fairly endangered in California (20-80% occurrences threatened)
.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)

3.2.4 General Reconnaissance Surveys and Habitat Assessments

General site-specific surveys of the Study Area were conducted to identify potential habitat for special-status plants as presented in Table 3-2 above, and to establish the accuracy of the data identified from the literature. An aerial photograph and site reconnaissance were used to determine the land-use/land-cover types. The reconnaissance surveys also considered the guidelines adopted by CNPS (Nelson 1984, CNPS 2001).

3.2.5 Land-Use/Land-Cover Mapping

Land-use/Land-cover types within the Study Area were mapped based on the dominant plant species (e.g., Canary Island pine) or land cover (e.g., building or asphalt roads or parking). Land-use/Land-cover types were mapped in the field directly onto a 100-scale (1” =100’) high resolution aerial photograph. Exhibit 3 provides land-use/land-cover types mapping for the Study Area.

3.2.6 Focused Surveys for Special-Status Plants

Based on initial site reconnaissance and literature review, it was determined that the site contained no habitats or land cover types capable of supporting special-status plants and focused surveys were not conducted. A complete list of plant species observed within the Study Area is provided in Appendix A.

3.3 Wildlife Resources

Wildlife species were evaluated and detected during field surveys by sight, call, tracks, nests (when applicable), and scat. Site reconnaissance was conducted in such a manner as to allow inspection of the Study Area by direct observation, including the use of binoculars. Observations of physical evidence and direct sightings of wildlife were recorded in field notes during each visit. A complete list of wildlife species observed within the Study Area is provided in Appendix B. Scientific nomenclature and common names for vertebrate species referred to in this report follow Collins (1997) for amphibians and reptiles, Jones, et al. (1992) for mammals, and AOU Checklist (1998) for birds.

3.3.1 General Surveys

Birds
During each survey within the Study Area, birds were identified as detected. Birds were detected by both direct observation and by vocalizations, and were recorded in field notes.

Mammals
During each survey within the Study Area, mammals were identified as detected. Mammals were detected both by direct observations and by the presence of diagnostic sign (i.e., tracks, burrows, scat, etc.). Bats were detected visually, by direct observation, indirect sign (including urine staining and guano), and by acoustic signature through Wildlife Acoustics Echo Meter Touch 2 bat detectors and Sonobat 4 Bat Call Analysis Software.

Reptiles and Amphibians
During each survey within the Study Area, reptiles and amphibians were identified as detected. All reptiles and amphibian species observed, as well as diagnostic sign, were recorded in field notes.

3.3.2 Special-Status Wildlife Species Evaluated for the Study Area

Table 3-3 provides a list of special-status animals evaluated for the Study Area through habitat assessments and focused surveys. Species were evaluated based on a variety of factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in vicinity of the Study Area, and 2) any other special-status animals that are known to occur within the vicinity of the Study Area, or for which potentially suitable habitat occurs on Study Area.

Table 3-3. Special-Status Animals Evaluated for The Study Area.

Species Name	Status	Habitat Requirements	Potential for Occurrence
American badger *Taxidea taxus*	Federal: None State: None CDFW: CSC	Occurs drier shrub, forest, and herbaceous habitats. Needs open, uncultivated ground and friable soils for digging burrows. Preys on burrowing rodents.	Does not occur due to a lack of suitable habitat.
American peregrine falcon (nesting) *Falco peregrinus anatum*	Federal: None State: None CDFW: CFP	Breeds primarily in woodland, forest, and coastal habitats. Non-breeding habitat occurs in riparian, coastal, and inland wetlands. De-listed as federally-endangered on August 25, 1999. The peregrine falcon has reoccupied most of its historic breeding range in California, including the Channel Islands, the coast and Cascade ranges, and Sierra Nevada. It can inhabit all counties in California throughout the year, except during breeding season.	Does not occur due to a lack of suitable habitat.
Arroyo toad *Anaxyrus californicus*	Federal: FE State: None	Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	Does not occur due to a lack of aquatic habitat.
Bank swallow (nesting) *Riparia riparia*	Federal: None State: ST CDFW: None	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine textured sandy soils near streams, rivers, lakes, or ocean to dig nesting holes.	Does not occur due to a lack of suitable habitat.
Big free-tailed bat *Nyctinomops macrotis*	Federal: None State: None CDFW: CSC	Occurs in low-lying arid areas in Southern California. Roosts in high cliffs or rocky outcrops.	Not detected during focused surveys. Does not occur due to a lack of suitable roosting habitat.
Burrowing owl (Burrow sites and some wintering sites) *Athene cunicularia*	Federal: None State: None CDFW: CSC	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and underpasses.	Not expected to occur due to a lack of open habitat and ground squirrel burrows.
Busck's gallmoth *Carolella busckana*	Federal: None State: None CDFW: None	Coastal sand dunes.	Does not occur due to a lack of coastal dune habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
California glossy snake *Arizona elegans occidentalis*	Federal: None State: None CDFW: CSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California.	Does not occur due to a lack of suitable habitat.
California legless lizard *Anniella* ssp.	Federal: None State: None CDFW: CSC	Contra Costa County south to San Diego, within a variety of open habitats. This element represents California records of Anniella not yet assigned to new species within the *Anniella pulchra* complex.	Does not occur due to a lack of suitable habitat.
Coast (San Diego) horned Lizard *Phrynosoma coronatum* (*blainvillii* population)	Federal: FSC State: None CDFW: CSC	Chaparral and coastal sage scrub	Does not occur due to a lack of suitable habitat.
Coast Range Newt *Taricha torosa torosa*	Federal: None State: None CDFW: None	Wet forests, oak forests, chaparral, and rolling grasslands.	Does not occur due to a lack of suitable habitat.
Coastal California gnatcatcher *Polioptila californica*	Federal: FT State: None CDFW: CSC	Low elevation coastal sage scrub and coastal bluff scrub.	Does not occur due to a lack of suitable habitat.
Coastal whiptail *Aspidoscelis tigris stejnegeri*	Federal: None State: None CDFW: CSC	Open, often rocky areas with little vegetation, or sunny microhabitats within shrub or grassland associations.	Does not occur due to a lack of suitable habitat.
Crotch bumble bee *Bombus crotchii*	Federal: None State: None	Coastal California east to the Sierra-Cascade crest and south into Mexico.	Does not occur due to a lack of suitable habitat.
Hoary bat *Lasiurus cinereus*	Federal: None State: None CDFW: None	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Not detected during focused surveys. Does not occur due to a lack of suitable roosting habitat.
Least Bell's vireo (nesting) *Vireo bellii pusillus*	Federal: FE State: SE CDFW: None	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Not detected during surveys. Does not occur due to a lack of suitable riparian habitat.
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	Federal: None State: None CDFW: CSC	Fine, sandy soils in coastal sage scrub and grasslands.	Does not occur due to a lack of suitable habitat.

Species Name	**Status**	**Habitat Requirements**	**Potential for Occurrence**
Pallid bat *Antrozous pallidus*	Federal: None State: None CDFW: CSC	Habitats with rocky, outcropped areas.	Not detected during focused surveys. Does not occur due to a lack of suitable roosting habitat.
Pocketed free-tailed bat *Nyctinomops femorosaccus*	Federal: None State: None CDFW: CSC	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc.	Not detected during focused surveys. Does not occur due to a lack of suitable roosting habitat.
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: None CDFW: CSC	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Does not occur due to a lack of suitable habitat.
Silver-haired bat *Lasionycteris noctivagans*	Federal: None State: None CDFW: None	Primarily a coastal and montane forest dweller feeding over streams, ponds, and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes and rarely under rocks. Needs drinking water.	Not detected during focused surveys. Does not occur due to a lack of water.
South coast marsh vole *Microtus californicus stephensi*	Federal: None State: None CDFW: CSC	Tidal marshes in Orange, Los Angeles, and southern Ventura Counties	Does not occur due to a lack of coastal marsh habitat.
Southern California legless lizard *Anniella stebbinsi*	Federal: None State: None CDFW: CSC	Generally, south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County.	Does not occur due to a lack of suitable habitat.
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	Federal: None State: None CDFW: WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral.	Not detected during surveys. Does not occur due to a lack of suitable habitat.
Southern grasshopper mouse *Onychomys torridus ramona*	Federal: None State: None CDFW: CSC	Desert scrub habitats with low to moderate shrub cover and friable soils for digging.	Does not occur due to a lack of suitable habitat.
Southern mountain yellow-legged frog *Rana muscosa*	Federal: FE State: SE CDFW: WL	Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino mountains (southern DPS). Northern DPS was determined to warrant listing as endangered, Apr 2014, effective Jun 30, 2014.	Not detected during surveys. Does not occur due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Southwestern willow flycatcher (nesting) *Empidonax traillii extimus*	Federal: FE State: SE CDFW: None	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	Does not occur due to a lack of suitable riparian habitat.
Swainson's hawk *Buteo swainsoni*	Federal: None State: ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees.	Does not occur due to a lack of suitable habitat.
Townsend's big-eared bat *Corynorhinus townsendii*	Federal: None State: None	Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance	Not detected during focused surveys. Does not occur due to a lack of suitable roosting habitat.
Tricolored blackbird *Agelaius tricolor*	Federal: None State: Candidate CDFW: CSC	Prefers wetland and farmland with wetland or riparian components	Does not occur due to a lack of suitable wetland habitat.
Two-striped garter snake *Thamnophis hammondii*	Federal: None State: None CDFW: CSC	Aquatic snake typically associated with wetland habitats such as streams, creeks, and pools.	Does not occur due to a lack of aquatic habitat.
Western mastiff bat *Eumops perotis californicus*	Federal: None State: None CDFW: CSC	Prefers habitat edges and mosaics with trees that are protected from above and open from below with open areas for foraging. Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests.	Not detected during focused surveys. Does not occur due to a lack of suitable roosting habitat.
Western pond turtle *Emys marmorata*	Federal: FSC State: None CDFW: CSC	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons. Abundant basking sites and cover necessary, including logs, rocks, submerged vegetation, and undercut banks.	Does not occur due to a lack of aquatic habitat.
Western spadefoot *Scaphiopus hammondii*	Federal: FSC State: None CDFW: CSC	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Does not occur due to a lack of aquatic habitat.
Western yellow bat *Lasiurus xanthinus*	Federal: None State: None CDFW: None	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Not detected during focused surveys. Does not occur due to a lack of suitable roosting habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Western yellow-billed cuckoo (nesting) *Coccyzus americanus occidentalis*	Federal: None State: SE	Dense, wide riparian woodlands with well-developed understories.	Not detected during focused surveys. Does not occur due to a lack of suitable riparian habitat.
Yellow-breasted chat (nesting) *Icteria virens*	Federal: None State: None CDFW: SSC	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Not detected during focused surveys. Does not occur due to a lack of suitable riparian habitat.
Yellow warbler (nesting) *Setophaga petechia*	Federal: BCC State: None CDFW: SSC	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Not detected during focused surveys. Does not occur due to a lack of suitable riparian habitat.

Federal
FE – Federally Endangered
FT – Federally Threatened
FPT – Federally Proposed Threatened
FSC – Federal Species of Concern

State
SE – State Endangered
ST – State Threatened

CDFW
CSC – California Species of Concern
CFP – California Fully-Protected Species

3.4 Jurisdictional Features

The Study Area was evaluated for the potential presence of (1) Corps jurisdiction pursuant to Section 404 of the CWA; (2) Regional Board jurisdiction pursuant to Section 401 of the CWA, and Section 13260 of the State of California Water Code (CWC); and (3) CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code. There are no aquatic features on the site including streams, lakes, or wetlands of any kind that would be subject to Corps, CDFW or Regional Board jurisdiction.

4.0 RESULTS

As noted in the methods section above, a detailed literature review was conducted prior to performing general surveys and habitat assessments. This section discusses the results of general reconnaissance, vegetation mapping, habitat assessments for special-status plants and wildlife, and focused surveys for special-status plants and wildlife.

4.1 Botanical Resources

The Study Area consists of developed areas and areas with non-native ornamental trees and shrubs and contains no areas of native habitat capable of supporting special-status plants.

4.1.1 Vegetation Mapping

During vegetation mapping of the Study Area, nine different vegetation/land use types were identified. Table 4-1 provides a summary of vegetation types/land uses for the Study Area and the corresponding acreage. A Vegetation Map is attached as Exhibit.[2]

(1) Canary Island Pine
(2) Canary Island Palm
(3) Developed Building
(4) Developed Parking
(5) Developed Roadway
(6) Developed Sidewalk
(7) Mexican Fan Palm
(8) Mixed Ornamental
(9) Turf or Former Turf

Table 4-1. Summary of Vegetation/Land Use Types for The Property.

Vegetation/Land Use Type	Area (Acres)
Canary Island Pine	0.35
Canary Island Palm	0.29
Developed Building	2.19
Developed Parking	1.37
Developed Roadway	0.26
Developed Sidewalk	0.32
Mexican Fan Palm	0.10
Mixed Ornamental	0.59
Turf or Former Turf	0.73
Total Vegetation/Land Use Acreage	**6.20**

Canary Island Pine

The Study Area includes approximately 0.35 acre with a canopy of Canary Island pine. Areas beneath the canopy of Canary Island pine include paved parking areas and roadways as well as a shrub canopy with species including juniper (*Juniper* var.). The trees are located in the upper east parking lot, the lower east parking lot, and the along the

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[2] The 6.20 acres is based on GLA's GIS of the vegetation and land use types of the Study Area. The 6.27 acres is the official acreage of the proposed mixed-use development provided.

western boundary and have been subject to previous pruning that removed a large volume of foliage.

Canary Island Palm
Approximately 0.29 acres of the Study Area in the west and southeast portions are occupied by Canary Island palm ecotones, with species including acacia (*Acacia* sp.), California buckwheat (*Erigonum fasciculatum*), cheesewood (*Pittosporum* sp.), Mexican fan palm, and non-native opuntia (*Opuntia* sp.).

Developed Building
Approximately 2.19 acres of the Study Area consists of developed buildings. Developed Areas include the existing residential structure, four vacant buildings most recently used as church facilities, a former church building, and sidewalks. Landscaping associated with this land-cover type includes palms and other various ornamental and non-native species including acacia, cultivated rose (*Rosa* sp.), Hottentot fig (*Carpobrotus edulis*), Indian hawthorn (*Rhaphiolepis indica*), musky stork's bill (*Erodium moschatum*), Persian ivy (*Hedera colchica*), and smilo grass (*Stipa miliacea*).

Developed Parking
Approximately 1.37 acres of the Study Area is occupied by developed parking lots. This development is in the northeastern and southeastern portions of the Study Area and largely within the Development Area. Parking areas are bounded by ornamental landscaping that includes various non-native pine trees, palms, and variety of other non-native ornamental trees and shrubs, with dominant species including acacia, California fan palm, Canary Island palm, cheesewood, coral tree (*Erythrina caffra*), crimson fountain grass (*Pennisetum setaceum*), Hottentot fig, jade plant (*Crassula ovata*), juniper, pampas grass (*Cortaderia selloana*), Persian ivy, and saucer magnolia (*Magnolia* x s*oulangeana*).

Developed Roadway
Approximately 0.26 acres of the Study Area are occupied by developed roadways consisting of paved roads, and heavily pruned vegetation including aloe ***(****Aloe maculata****)***, bougainvillea (*Bougainvillea spectabilis*), brome (*Bromus* sp.), Canary Island palm, Canary Island pine, Mexican fan palm, musky stork's bill and jacaranda (*Jacaranda mimosifolia).* Developed roadways run throughout the 6.27-acre Study Area.

Developed Sidewalk
Approximately 0.32 acres of the Study Area are occupied by developed sidewalks consisting of concrete pedestrian walkways that surround the property. This area is interspersed with mixed ornamental trees, primarily including jacaranda.

Mexican Fan Palm
The Study Area includes approximately 0.10 acres with a canopy of Mexican fan palm. Areas beneath the canopy of Mexican fan palm include paved parking areas and roadways as well as Indian hawthorn.

Mixed Ornamental

Approximately 0.59 acres of the Study Area are occupied by mixed ornamental. Mixed Ornamental best characterizes much of the vegetation on the site as well in adjacent areas due to the mosaic of non-native ornamental species that have become intertwined. In some instances, species occur in clumps forming a mosaic of small clumps; whereas in other areas, there is a mix of many species including canopy, shrub, and herbaceous layer. Species included in this land-cover type include, agave (*Agave* sp.), carrotwood (*Cupaniopsis anacardioides*), coral tree, common fig (*Ficus carica*), lemon (*Citrus* sp.), Indian hawthorn, Russian olive (*Elaeagnus angustifolia*), saucer magnolia, strawberry tree (*Arbutus unedo*), weeping fig (*Ficus benjamina*), and white mulberry (*Morus alba*).

Turf of Former Turf

The Study Area includes approximately 0.73 acres of turf or former turf that was previously vegetated by turf and now supports non-native grasses and a mix of shrubs including acacia, bougainvillea, and non-native grasses and forbs including brome, cheeseweed (*Malva parviflora)*, cheesewood, crimson fountaingrass, Indian hawthorn, pampas grass, and smilo grass and contains areas of bare ground. These areas are periodically pruned and maintained.

4.1.2 Focused Botanical Surveys

The habitat assessment determined that there was no suitable habitat present within the Study Area for special-status plants and focused botanical surveys were not conducted.

4.1.3 City of Los Angeles Protected Trees

This property is under the jurisdiction of the City of Los Angeles and guided by the Native Tree Protection Ordinance No. 177,404. **Protected Trees** are defined by this ordinance as Oaks (*Quercus* sp.) indigenous to California but excluding the scrub oak (*Quercus dumosa*), Southern California black walnut (*Juglans californica* var. californica), Western sycamore *(Platanus racemosa)*, and California bay laurel (*Umbellularia californica*) trees with a diameter at breast height (DBH) of four inches (4”) or greater. There is one (1) protected coast live oak (*Quercus agrifolia*) tree on the property. This tree will be impacted by the proposed construction and is recommended for removal and replacement to the satisfaction of the Urban Forestry Division.

4.2 Wildlife Resources

Birds

During each survey within the Study Area, birds were identified as detected. Birds were detected by both direct observation and by vocalizations, and were recorded in field notes.

Birds observed during biological surveys include Allen's hummingbird, American crow, Anna's hummingbird, ash throated flycatcher, black phoebe, bushtit, California scrub-jay, California towhee, common raven, Eurasian collared-dove, European starling, hooded oriole, house finch, house sparrow, lesser goldfinch, mourning dove, northern mockingbird, northern rough-winged swallow, red-tailed hawk, rock pigeon, yellow-rumped warbler, western bluebird, white-crowned sparrow, white-throated swift, and unidentifiable parrots or parakeets.

Mammals

During each survey within the Study Area, mammals were identified as detected. Mammals were detected both by direct observations and by the presence of diagnostic sign (i.e., tracks, burrows, scat, etc.). Bats were detected visually, by indirect sign including urine staining and/or guano and by acoustic signature Bats were detected visually, by indirect sign (including urine staining and guano), and by acoustic signature through Wildlife Acoustics Echo Meter Touch 2 bat detectors and Sonobat 4 Bat Call Analysis Software. No indirect signs, including urine staining and/or guano were detected during surveys. No bat roosts, including maternity roosts, were detected.

Mammals observed or detected indirectly during the biological surveys include California ground squirrel, fox squirrel, striped skunk, and raccoon. Mexican-free tailed bats were detected visually and by acoustic signature. Common small mammal species are expected to occur, including Botta's pocket gopher (*Thomomys bottae*) and house mouse (*Mus musculus*).

Reptiles and Amphibians

During each survey within the Study Area, reptiles and amphibians were identified as detected. All reptiles and amphibian species observed, as well as diagnostic sign, were recorded in field notes.

Southern alligator lizards and Great Basin fence lizards were observed during biological surveys; however, common species are expected to occur, including western side-blotched lizard (*Uta stansburiana elegans*).

Appendix B provides a complete list of wildlife species observed and expected to occur within the Study Area.

4.3 Special-Status Habitats

According to the CNDDB (2008), eight special-status habitats occur within the Los Angeles quadrangle and the surrounding quadrangles (Burbank, Pasadena, Mt. Wilson, El Monte, Whittier, South Gate, Inglewood, and Hollywood) including open Engelmann oak woodland, Riversidian alluvial fan sage scrub, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern mixed riparian forest, southern sycamore alder riparian woodland, California walnut woodland, and walnut forest. None of the above-mentioned special-status habitats occur within the Study Area.

Additionally, none of the vegetation alliances or land-cover types occurring within the Study Area are considered special-status.

4.4 Wildlife Movement

The Study Area is located in downtown Los Angeles, immediately north of the junction of the 101 and 110 Freeway and bounded by Sunset Boulevard on the west. The entire Study Area is surrounded by dense urban development and exhibits no potential as a wildlife corridor, connecting areas of open space.

4.5 Jurisdictional Features

No features subject to the jurisdiction of the Corps, CDFW, or RWQCB are present within the Study Area.

5.0 IMPACT ANALYSIS

The following discussion examines the potential impacts to plant and wildlife resources that may occur as a result of implementation of the Proposed Project.

Project-related impacts can occur in two forms, direct and indirect. Direct impacts are those that involve the loss, modification or disturbance of plant communities, which in turn, directly affect the flora and fauna of those habitats. Direct impacts also include the destruction of individual plants or wildlife, which may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and population stability.

Other impacts, such as loss of foraging habitat, can occur although these areas or habitats are not directly removed by project development; i.e., indirect impacts. Indirect impacts can also involve the effects of increases in ambient levels of noise or light, unnatural predators (i.e., domestic cats and other non-native animals), competition with exotic plants and animals, and increased human disturbance such as hiking, horseback riding, and dumping of green waste on site. Indirect impacts may be associated with the subsequent day-to day activities associated with project build-out, such as increased traffic use, permanent concrete barrier walls or chain link fences, exotic ornamental plantings that provide a local source of seed, etc., which may be both short-term and long-term in their duration. These impacts are commonly referred to as “edge effects,” and may result in a slow replacement of native plants by exotics, and changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundances in habitats adjacent to Study Area.

The potential for significant adverse effects, either directly or through habitat modifications, on any special-status plant, animal, or habitat that could occur because of project development is discussed below.

5.1 California Environmental Quality Act

5.1.1 Thresholds of Significance

Environmental impacts relative to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, Section 21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

Determining whether a project may have a significant effect, or impact, plays a critical role in the CEQA process. Per CEQA, Section 15064.7 (Thresholds of Significance), each public agency is encouraged to develop and adopt (by ordinance, resolution, rule, or regulation) thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of an environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the development of thresholds of significance for impacts to biological resources CEQA provides guidance primarily in Section 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. Section 15065(a)(1) states that a project may have a significant effect where:

> *"The project has the potential to substantially 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 wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ..."*

Therefore, for this analysis, impacts to biological resources are considered potentially significant (before considering offsetting mitigation measures) if one or more of the following criteria discussed below would result from implementation of the Proposed Project.

5.1.2 Criteria for Determining Significance Pursuant to CEQA

Based on the criteria set forth in the City of Los Angeles CEQA Thresholds Guide (2006) the Project would have a significant biota impact if it results in the following:

- The loss of individuals, or the reduction of existing habitat, of a state or federally listed endangered, threatened, rare, protected, candidate, or sensitive species or a

Species of Special Concern;

- The loss of individuals or the reduction of existing habitat of a locally designated species or a reduction in a locally designated habitat or plant community;
- Interference with wildlife movement/migration corridors that may diminish the chances for long-term survival of a sensitive species;
- The alteration of an existing wetland habitat; or
- 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 the sensitive species.

5.2 Direct Impacts to Vegetation Associations and Special-Status Habitats

Development of the Proposed Project would result in direct impacts to nine vegetation/land use types totaling 5.63 acres (Table 5-1 below) [Exhibit 4]. As none of the impacted vegetation types are considered special-status by either CDFW or the Los Angeles City CEQA Thresholds Guide, impacts would be less than significant.

Table 5-2. Summary of Direct Impacts to Vegetation/Land Use Types

Vegetation/Land Use Type	Area (Acres)
Canary Island Pine	0.35
Canary Island Palm	0.25
Developed Building	2.06
Developed Parking	1.37
Developed Roadway	0.20
Developed Sidewalk	0.10
Mexican Fan Palm	0.09
Mixed Ornamental	0.50
Turf or Former Turf	0.71
Total Vegetation/Land Use Acreage	**5.63**

5.3 Special-Status Plants

No special-status plants were detected during focused surveys, and therefore no impacts to special-status plants would be associated with the Proposed Project.

5.3.1 City of Los Angeles Protected Trees

There is one (1) protected coast live oak tree occurs within the Study Area and is within the vicinity of the grading limits on the property and is subject to the City's protected tree ordinance. This tree will be impacted by the proposed construction and is recommended for removal and replacement to the satisfaction of the urban forestry division.

5.4 Special-Status Wildlife

No special-status wildlife, including special-status bats and special-status avifauna, were detecting during general wildlife surveys.

5.5 Wildlife Movement

As noted, the Study Area is located in downtown Los Angeles is a highly urbanized setting with no areas of adjacent or nearby open space. As such, the Study Area does not exhibit any potential for wildlife movement and development of the project would not have significant impacts on wildlife movement.

5.6 Nesting Birds and Migratory Bird Treaty Act Considerations

The Study Area currently contains groundcover, trees, and shrubs that have the potential to support nesting birds. Although avian surveys were conducted during the raptor nesting season, raptor nesting were not detected and as such nesting raptors are not expected to occur. Impacts to migratory nesting birds are prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Section 3503 and 3503.5 [3]. However, adherence to the MBTA's requirements would ensure potential impacts would be less than significant.

5.7 Indirect Impacts

Indirect impacts to biological resources associated with construction of the Proposed Project are very limited and are associated with lighting, noise, and human use.

Lighting

No significant increase in lighting will be associated with use of the Proposed Project following construction. Given the lack of individuals, or the reduction of existing habitat, of a state or federally listed endangered, threatened, rare, protected, candidate, or sensitive species or a Species of Special Concern associated with the native habitats adjacent to the Development Area and the minimal amount of new lighting associated with the Proposed Project, lighting impacts to biological resources resulting from the Proposed Project would be less than significant.

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[3] The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R.21). In addition, sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

Noise

Given the lack of special-status species associated with the Development Area and adjacent areas of the Study Area, as well as the limited nature of construction noise and lack of long-term noise increase, temporary and permanent noise impacts to biological resources resulting from the Proposed Project would be less than significant.

Human Use

Construction of the Proposed Project would not result in increased human use of the native habitats surrounding the Development Area due to the lack of native habitat that could potentially support state or federally listed endangered, threatened, rare, protected, candidate, or sensitive species or a Species of Special Concern. There would be no interference with habitat such that normal species behaviors due to the location is already urbanized and lacks suitable native habitat that could support state or federally listed endangered, threatened, rare, protected, candidate, or sensitive species or a Species of Special Concern. Therefore, no impacts from human use would be associated with the Proposed Project.

6.0 MITIGATION MEASURES AND PROJECT DESIGN FEATURES

As discussed above, the Proposed Project will result in no significant impacts to special-status plants, wildlife, or special-status habitat. However, the Proposed Project has the potential to impact nesting migratory birds, including raptors (albeit low potential for raptors). With implementation of the measures set for below, any potential impacts would be reduced to less-than-significant.

6.1 Nesting Birds Including Raptors

The following requirements under the MBTA and California Fish and Game Code Section 3503 and 3503.5are to be implemented to ensure that nesting birds are not harmed during Proposed Project construction. While the Project site supports a number of mature Canary Island pines that exhibit suitable structure for nesting raptors, such as red-tailed hawks, the location within the Los Angeles Downtown Area substantially reduces the likelihood of raptor nesting. Nevertheless, Section 6.1.2 below provides measures to ensure that raptors are protected if found nesting on the site

6.1.1 Nesting Birds

1. If feasible, the removal of vegetation should occur outside of the nesting season, generally recognized as March 15 to August 15. If vegetation removal must occur during the nesting season, then a qualified biologist shall conduct a nesting bird survey prior to any vegetation removal. If active nests are identified, the biologist shall flag vegetation containing active nests. The biologist shall establish

appropriate buffers around active nests to be avoided until the nests are no longer active and the young have fledged. Buffers will be based on the species identified, but generally will consist of 50 feet as determined by the Project Biologist.

2. If for some reason, it is not possible to remove all vegetation during the non-nesting season, then vegetation to be removed during the nesting season must be surveyed by a qualified biologist no more than three days prior to removal. If no nesting birds are found, the vegetation can be removed. If nesting birds are detected, then removal must be postponed until the fledglings have vacated the nest or the biologist has determined that the nest has failed. Furthermore, the biologist shall establish an appropriate buffer zone where construction activity may not occur until the fledglings have vacated the nest or the biologist has determined that the nest has failed.

3. Similarly, for vegetation being preserved, if construction is to occur during the nesting season, preserved vegetation should be surveyed for the presence of nesting birds. If nesting birds are detected, the biologist shall establish an appropriate buffer zone where construction activity may not occur until the fledglings have vacated the nest or the biologist has determined that the nest has failed.

4. If feasible, building demolition should occur outside of the avian nesting season, generally recognized as March 15 to August 31 because of the potential for many urban-adapted birds to utilize cavities and other openings with the building. If demolition must occur during the nesting season, then a qualified biologist shall conduct a nesting bird survey prior to any demolition. If active nests are identified, the biologist shall flag active nests and establish appropriate buffers around active nests to be avoided until the nests are no longer active and the young have fledged. Buffers will be based on the species identified, but generally will extend of 50 feet from the nest site.

6.1.2 Raptors

1. If feasible, the removal of vegetation should occur outside of the raptor nesting season, generally recognized as February 1 to June 30. If vegetation removal must occur during the nesting season, then a qualified biologist shall conduct a nesting bird survey prior to any vegetation removal. If active nests are identified, the biologist shall flag vegetation containing active nests. The biologist shall establish appropriate buffers around active nests to be avoided until the nests are no longer active and the young have fledged. Buffers will be based on the species identified, but generally will consist of 300 feet for raptors as determined by the Project Biologist.

2. If for some reason, it is not possible to remove all vegetation during the non-nesting season, then vegetation to be removed during the nesting season must be surveyed by a qualified biologist no more than three days prior to removal. If no raptors are found, the vegetation can be removed. If nesting raptors are detected, then removal must be postponed until the fledglings have vacated the nest or the biologist has determined that the nest has failed. Furthermore, the biologist shall establish an appropriate buffer zone where construction activity may not occur until the fledglings have vacated the nest or the biologist has determined that the nest has failed.

3. Similarly, for vegetation being preserved, if construction is to occur during the nesting season, preserved vegetation should be surveyed for the presence of nesting birds. If nesting raptors are detected, the biologist shall establish a 300-foot buffer zone where construction activity may not occur until the fledglings have vacated the nest or the biologist has determined that the nest has failed.

4. If feasible, the demolition should occur outside of the nesting season, generally recognized as February 1 to June 30 because of the potential for indirect impacts to nearby nests. If demolition must occur during the raptors nesting season, then a qualified biologist shall conduct a nesting raptors survey prior to any demolition. If active nests are identified, the biologist shall flag active nests and establish appropriate buffers around active nests to be avoided until the nests are no longer active and the young have fledged. Buffers will consist of 300 feet for raptors.

6.2 Protected Trees

There is one (1) protected coast live oak tree occurs within the study area and is within the demolition/construction limits on the property.

7.0 REFERENCES

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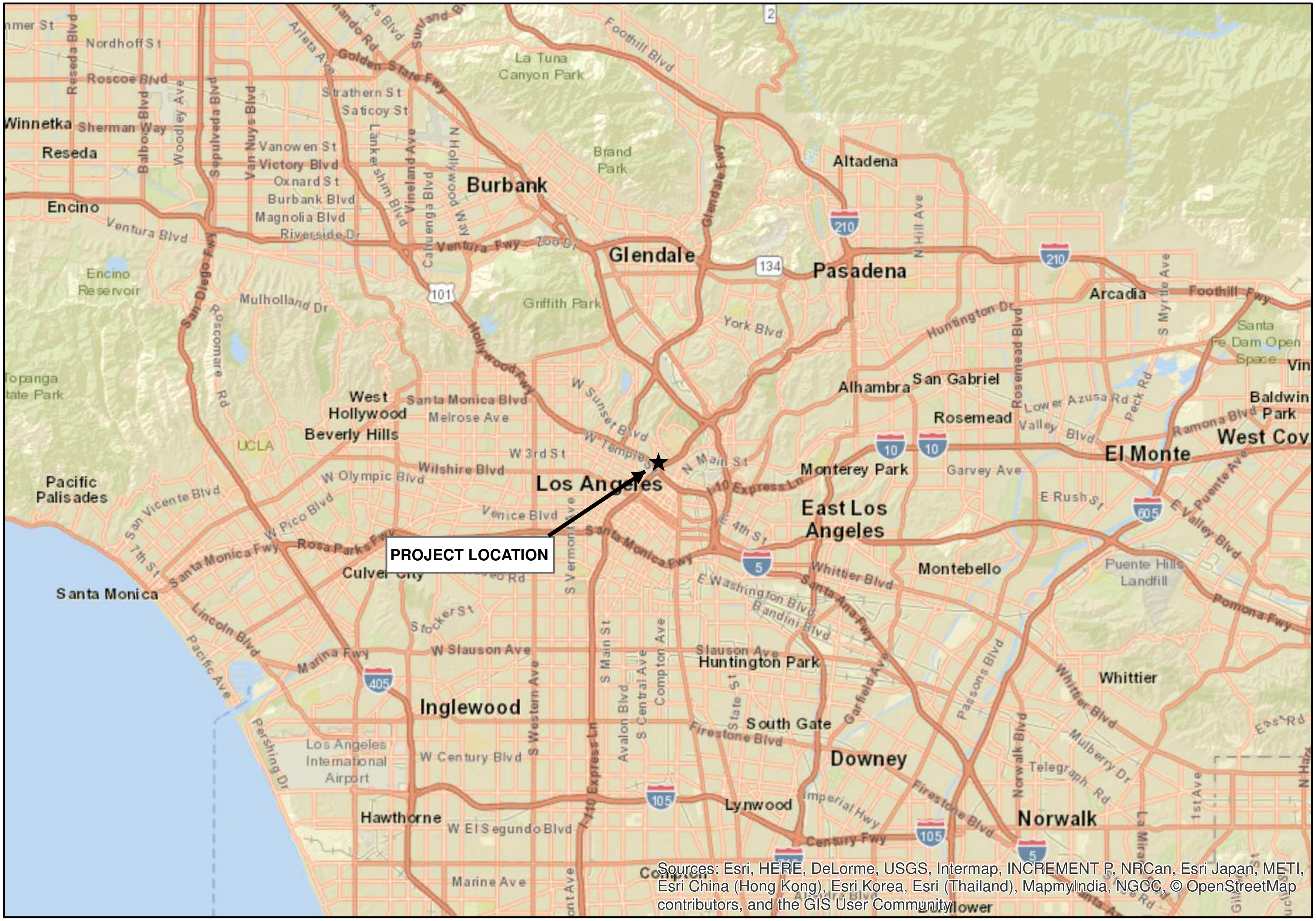
Source: ESRI World Street Map



Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

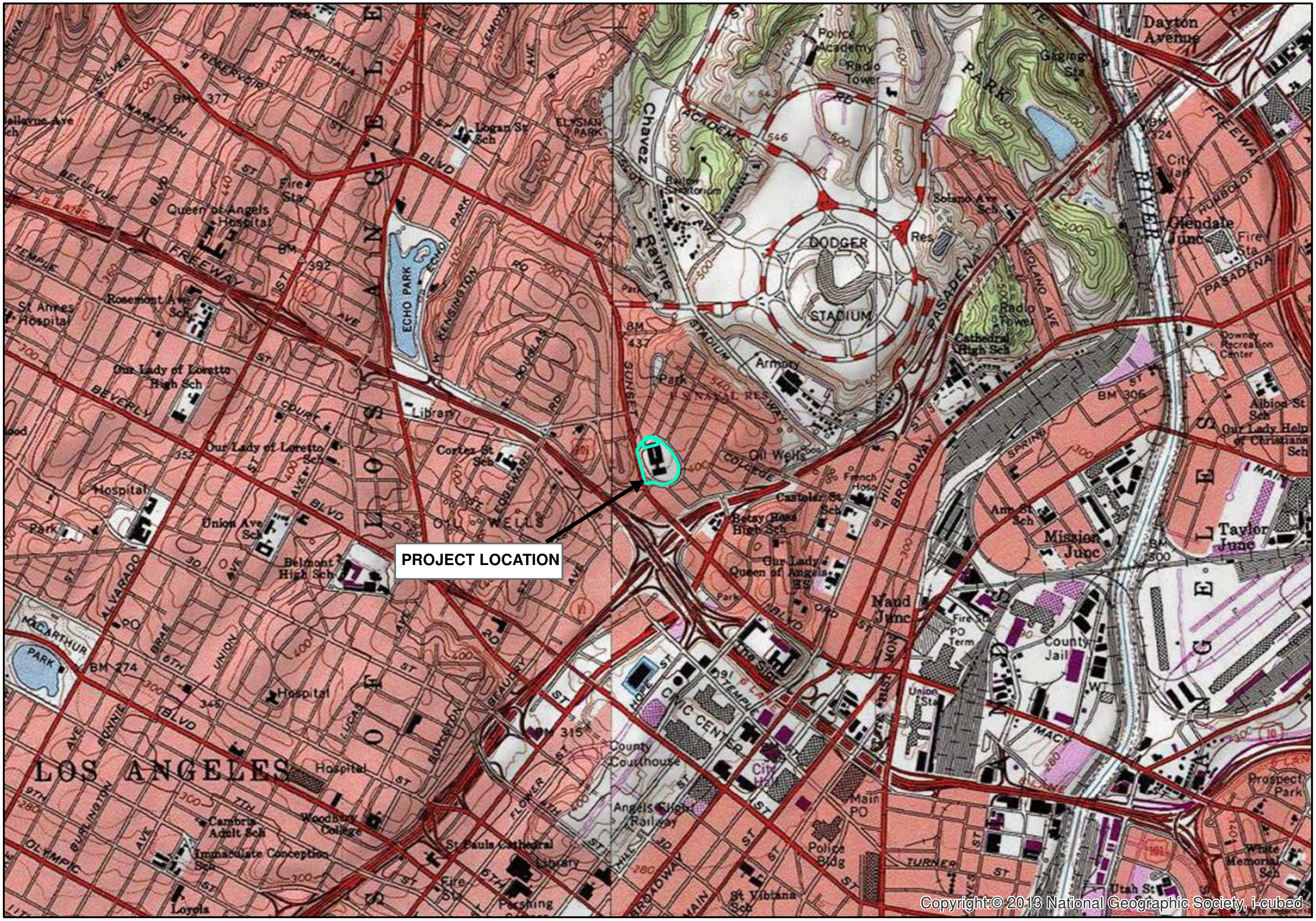
1111 SUNSET BOULEVARD

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1

Adapted from USGS Los Angeles, CA quadrangle

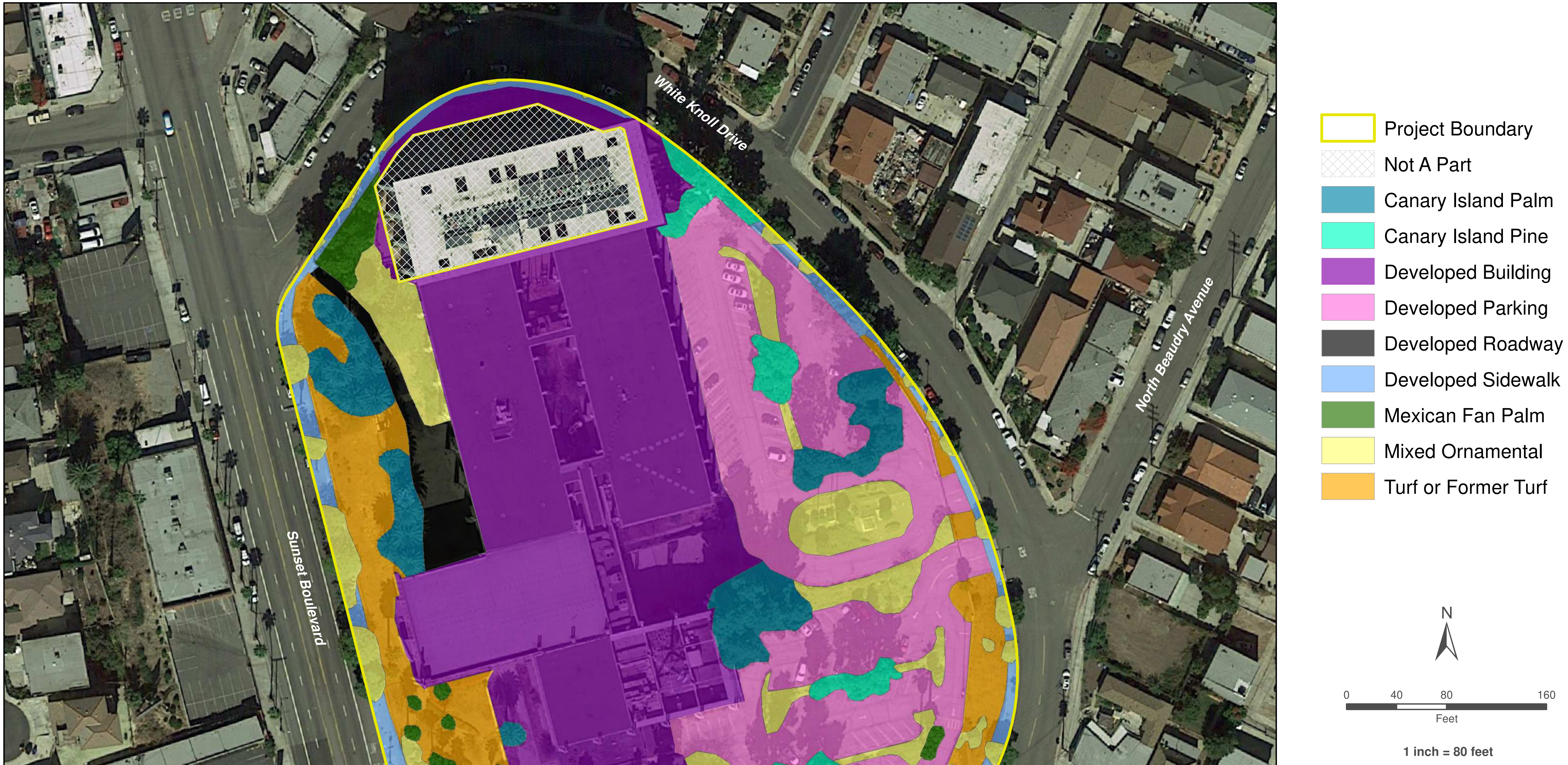


1111 SUNSET BOULEVARD

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



1 inch = 80 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: C. Lukos, GLA
Date Prepared: March 8, 2018

1111SUNSET BOULEVARD

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 3

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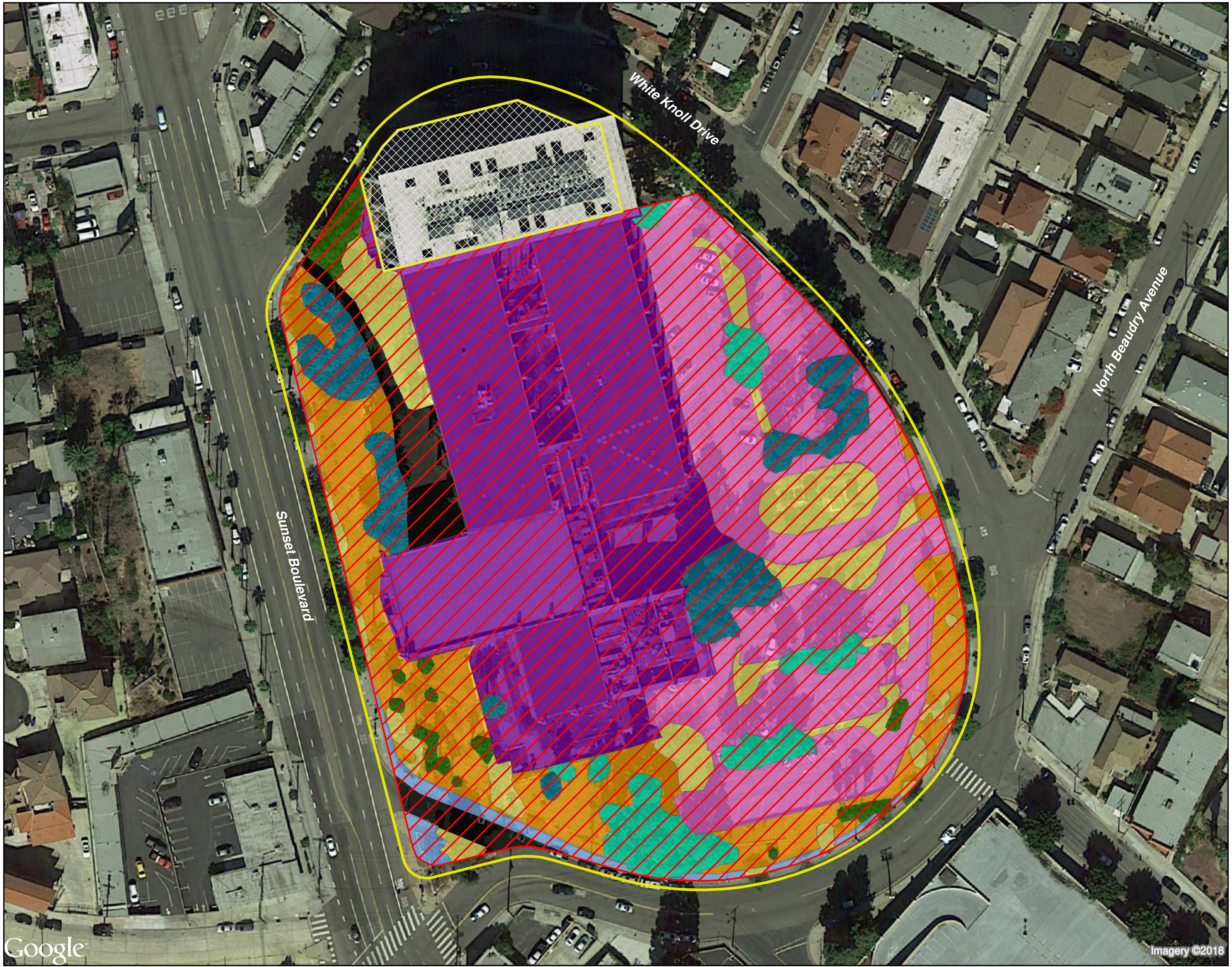

- 🟨 Project Boundary
- ▨ Not A Part
- 🟥 Impact Boundary
- 🟦 Canary Island Palm
- 🟩 Canary Island Pine
- 🟪 Developed Building
- 🟪 Developed Parking
- ⬛ Developed Roadway
- 🟦 Developed Sidewalk
- 🟩 Mexican Fan Palm
- 🟨 Mixed Ornamental
- 🟧 Turf or Former Turf

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Feet

1 inch = 80 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: C. Lukos, GLA
Date Prepared: March 8, 2018

1111SUNSET BOULEVARD

Vegetation Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 4

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APPENDIX A

FLORAL COMPENDIUM

The floral compendium lists species identified on the project site. Taxonomy follows the Jepson Manual (Hickman 1993) and, for sensitive species, the California Native Plant Society's Rare Plant Inventory (Tibor 2001). Common plant names are taken from Hickman (1993), Munz (1974), and Roberts (1998). An asterisk (*) denotes a non-native species.

SCIENTIFIC NAME	COMMON NAME
ARALIACEAE	**ARALIA FAMILY**
**Hedera colchica*	Persian ivy
ARECACEAE	**PALM FAMILY**
**Phoenix cnariensis*	Canary Island palm
Washingtonia filifera	California fan palm
**Washingtonia robusta*	Mexican fan palm
ASPARAGACEAE	**ASPARAGUS FAMILY**
**Agave* sp.	agave
ASPHODELACEAE	**APHODEL FAMILY**
**Aloe maculata*	aloe
BIGNONIACEAE	**BIGNONIAS FAMILY**
**Jacaranda mimosifolia*	jacaranda
CACTACEAE	**CACTUS FAMILY**
***** *Opuntia ficus-indica*	opuntia
CARPOBROTUS	**STONE PLANT FAMILY**
**Carpobrotus edulis*	Fig marigold
CRASSULACEAE	**STONECROP FAMILY**
**Crassula ovata*	jade plant
CUPRESSACEAE	**CYPRESS FAMILY**
Juniper sp.	juniper
ELAEAGNUS	**OLEASTER FAMILY**
**Elaeagnus angustifolia*	Russian olive
ERICACEAE	**HEATH FAMILY**
**Arbutus unedo*	strawberry tree
FABACEAE	**PEA FAMILY**
* *Acacia* sp.	acacia
**Erythrina caffra*	coral tree
FRANKENIACEAE	**FRANKENIA FAMILY**
Frankenia salina	alkali heath
GERANIACEAE	**GERANIUM FAMILY**
* *Erodium moschatum*	musky stork’s bill
MAGNOLIACEAE	**MAGNOLIA FAMILY**
**Magnolia* x *soulangeana*	saucer magnolia
MALVACEAE	**MALLOW FAMILY**
* *Malva parviflora*	cheeseweed

SCIENTIFIC NAME	COMMON NAME
MORACEAE	**MULBERRY FAMILY**
**Ficus benjamina*	weeping fig
**Ficus carica*	common fig
**Morus alba*	white mulberry
NYCTAGINACEAE	**FOUR O’CLOCK FAMILY**
**Bougainvillea spectabilis*	bougainvillea
PINACEAE	**CONIFER FAMILY**
**Pinus canariensis*	Canary Island pine
PITOSPORACEAE	**PITTOSPORUM FAMILY**
**Pittosporum* sp.	cheesewood
POACEAE	**GRASS FAMILY**
* *Bromus diandrus*	ripgut brome
**Cortaderia selloana*	pampas grass
* *Cynodon dactylon*	Bermuda grass
**Pennisetum setaceum*	crimson fountaingrass
**Rosa* sp.	cultivated rose
**Stipa miliacea*	smilo grass
RHAMNACEAE	**BUCKTHORN FAMILY**
Ceanothus sp.	ceanothus
RUTACEAE	**RUE FAMILY**
Citrus limon	lemon
SAPINDACEAE	**SOAPBERRY FAMILY**
**Cupaniopsis anacardioides*	carrotwood

APPENDIX B

FAUNAL COMPENDIUM

The faunal compendium lists species that were either observed within or adjacent to the Study Area, or that have some potential to occur within or adjacent to the Study Area. Taxonomy and common names are taken from the California Wildlife Habitat Relationships System (CDFG 2003); AOU (1998) and CDFG (1990) for birds; Stebbins (1985), Collins (1990), Jones et al. (1992), and CDFG (1990) for reptiles and amphibians; and CDFG (1990) for mammals. An asterisk (*) denotes a non-native species.

SCIENTIFIC NAME	COMMON NAME
BIRDS	
ACCIPITRIDAE	**HAWKS AND HARRIERS**
Buteo jamaicensis	red-tailed hawk
AEGITHALIDAE	**BUSHTIT**
Psaltriparus minimus	bushtit
APODIDAE	**SWIFTS**
Aeronautes saxatalis	white-throated swift
COLUMBIDAE	**PIGEONS AND DOVES**
* *Columbia livia*	rock pigeon
* *Streptopelia decaocto*	Eurasian collared-dove
Zenaida macroura	mourning dove
CORVIDAE	**JAYS, MAGPIES, AND CROWS**
Aphelocoma californica	California scrub-jay
Corvus brachyrhynchos	American crow
Corvus corax	common raven
EMBERIZIDAE	**EMBERIZINES**
Melospiza melodia	song sparrow
Zonotrichia leucophrys	white-crowned sparrow
FRINGILLIDAE	**FINCHES**
Carpodacus mexicanus	house finch
Spinus psaltria	lesser goldfinch
HIRUNDINIDAE	**SWALLOWS**
Stelgidopteryx serripennis	northern rough-winged swallow
ICTERIDAE	**NEW-WORLD PASSERINE**
Icterus cucullatus	hooded oriole
MIMIDAE	**MOCKINGBIRDS AND TRASHERS**
Mimus polyglottos	northern mockingbird
PARULIDAE	**WOOD WARBLERS AND RELATIVES**
Dendroica coronata	yellow-rumped warbler
PASSERIDAE	**OLD WORLD SPARROWS**
Melozone crissalis	California towhee
* *Passer domesticus*	house sparrow

SCIENTIFIC NAME	COMMON NAME
STURNIDAE	**STARLINGS**
* *Sturnus vulgaris*	European starling
TROCHILIDAE	**HUMMINGBIRDS**
Calypte anna	Anna’s hummingbird
Selasphorus sasin	Allen’s hummingbird
TURDIDAE	**THRUSHES**
Sialia mexicana	western bluebird
TYRANNIDAE	**TYRANT FLYCATCHERS**
Myiarchus cinerascens	ash throated flycatcher
Sayornis nigricans	black phoebe
REPTILES	
ANGUIDAE	**LIZARDS**
Elgaria multicarinata	southern alligator lizards
MAMMALS	
MEPHITIDAE	**SKUNKS**
Mephitis mephitis	striped skunk
MOLOSSIDAE	**FREE-TAILED BATS**
+ *Tadarida brasiliensis*	Brazilian free-tailed bat
PROCYONIDAE	**RACCOONS**
Procyon lotor	raccoon
SCIURIDAE	**SQUIRRELS**
* *Sciurus niger*	fox squirrel
Spermophilus beecheyi	California ground squirrel

Appendix IS-4

Cultural and Paleontological Report

Cultural and Paleontological Resource Evaluation and Impact Assessment for the 1111 Sunset Boulevard Project, City of Los Angeles, California

Angela H. Keller, Karen K. Swope, Carrie J. Gregory, Michael R. O'Connell,
Joseph J. El Adli, and Donn R. Grenda

Technical Report 18-05
Statistical Research, Inc.
Redlands, California

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March 2018

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Introduction

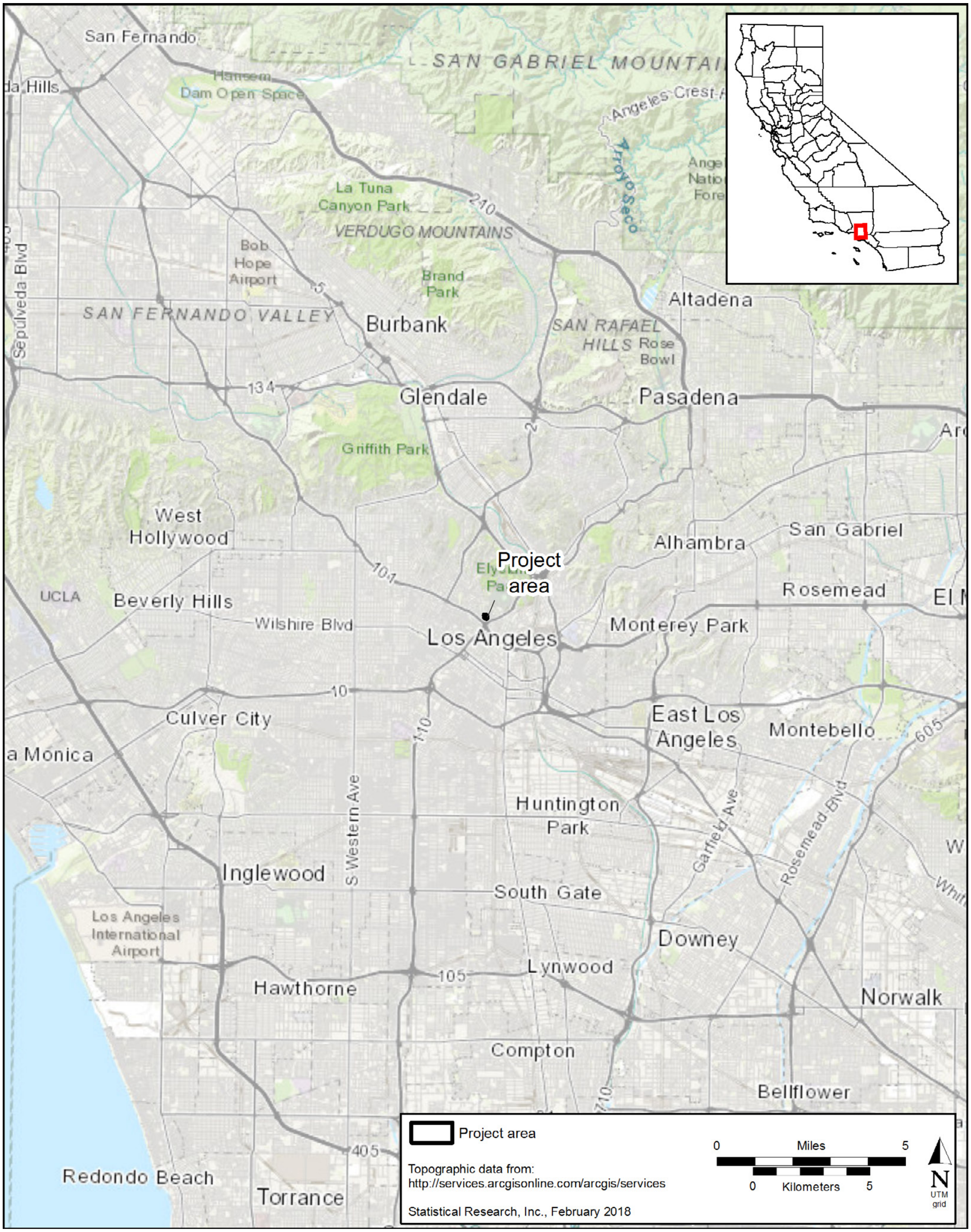
The 1111 Sunset Project (the Project) will redevelop a 6.27-acre commercial block in the City of Los Angeles, Los Angeles County, California (Figure 1). The Project site is bounded by Sunset Boulevard to the west, White Knoll Drive to the north, Alpine Street to the east, and North Beaudry Avenue to the south (Figure 2). The Project site currently supports at-grade parking lots surrounding five multistory buildings constructed between 1963 and 1978 by the Metropolitan Water District (MWD). A church facility was built in the center of the MWD building complex by the Holy Hill Community Church in 1998. Four of the structures (Buildings 1–3 and 5) are currently vacant. Building 4 maintains a separate address, 1115 Sunset Boulevard, and is occupied by The Elysian apartments.

Statistical Research, Inc. (SRI), has conducted a cultural and paleontological resource study to assess the potential impact of the Project on any cultural or paleontological resources that might be present on the property. This study will form the basis of the resulting cultural resource element in the EIR. This report presents our methods; documents the results of a records search, a literature review, and archival research; and presents recommendations for further work needed to manage potential impacts to buried resources and to determine resource significance under the California Environmental Quality Act (CEQA). The results of an associated Native American contact program undertaken for this Project are presented in a separate Tribal Cultural Resources Report. This study was conducted in November and December 2017.

Our research indicates that the Project area has variable low to high sensitivity for the presence of buried historical-period archaeological resources, low sensitivity for the presence of buried prehistoric archaeological resources, and high sensitivity for the presence of significant vertebrate paleontological resources. The highest sensitivity for historical-period archaeological resources exists in the areas of the property currently developed as at-grade parking lots, and the lowest sensitivity exists under the standing structures. Paleontological sensitivity is high across the entire Project footprint, which is underlain by the fossil-rich Puente Formation at depths of between 1 and 10½ feet (0.3–3.2 m). Recommendations for the treatment of possible resources to reduce the potential impact to a less-than-significant level are provided at the conclusion of this report.

Project Description

The proposed Project involves demolition of the existing buildings and construction of two high-rise residential towers (Towers A and B), a 15-level hotel (the Sunset Building), a 3-level office building (the Courtyard Building), several two- to four-story residential bungalows scattered around the base of the two residential towers, and commercial structures fronting Sunset Boulevard. The buildings will accommodate a mixed-use development consisting of up to 778 residential units, up to 98 hotel rooms, up to 48,000 square feet of office space, and approximately 75,000 square feet of commercial floor area. The Project would also include a va-riety of open spaces composed of approximately 81,475 square feet of exterior common area and 6,050 square feet of interior common area. Subterranean parking levels and at-grade parking will provide 1,631 vehicle parking spaces and 995 bicycle spaces to support the proposed uses. Excavation depths of up to 64 feet (19.5 m) are anticipated during construction.



Topographic data from:
http://services.arcgisonline.com/arcgis/services

Statistical Research, Inc., February 2018

Figure 1. Vicinity map of the 1111 Sunset Project.

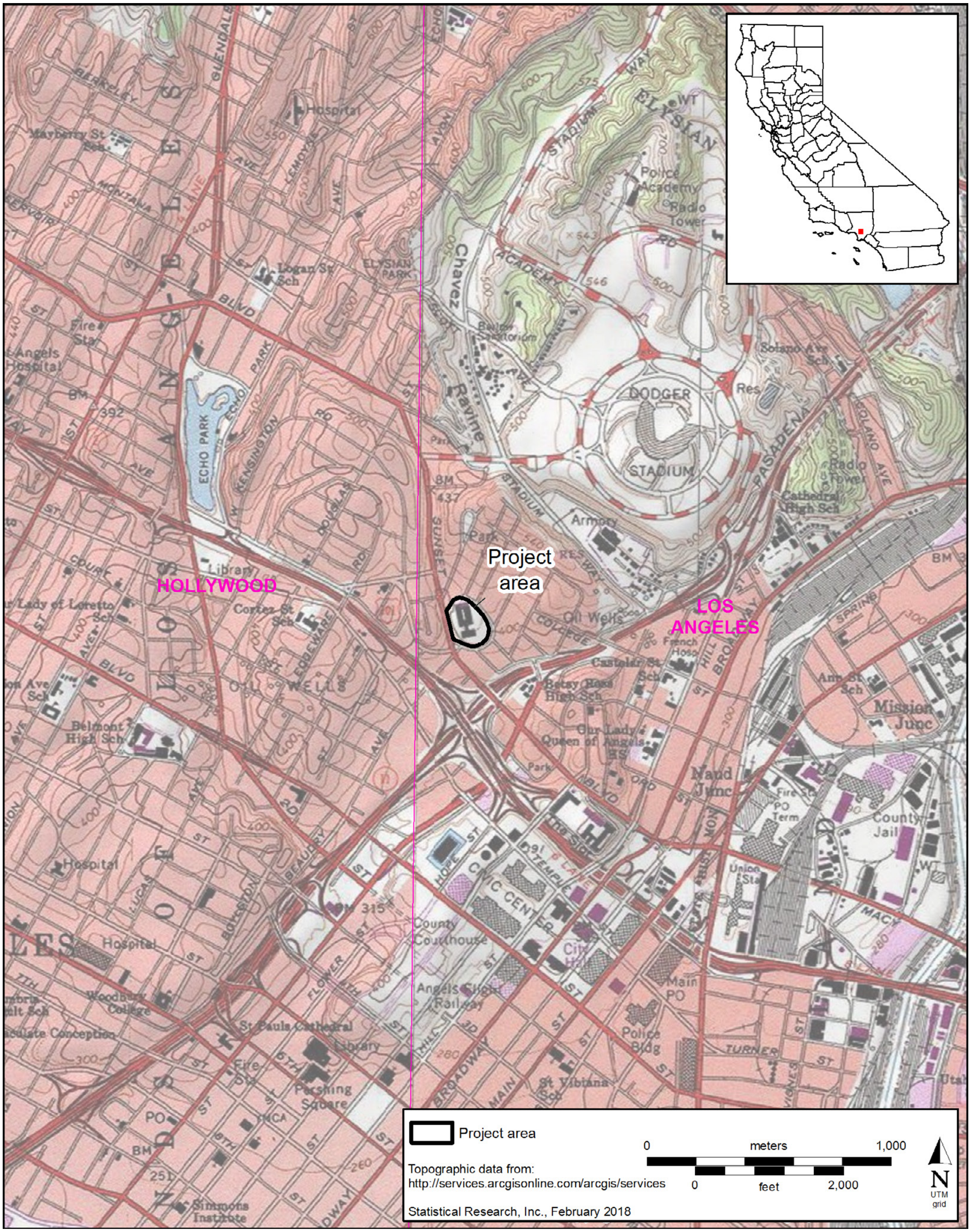


Figure 2. Location map of the 1111 Sunset Project.

Applicable Regulations

The purpose of this investigation is to assess the probability of subsurface cultural resources within the Project parcel, following CEQA guidelines regarding cultural resources. This investigation can be used to prepare the relevant cultural resource documents in support of an EIR. The proposed Project is considered a "project" under the CEQA and is subject to compliance with the CEQA (*Public Resources Code*, Section 21000 [PRC § 21000] *et seq.*) and CEQA guidelines (*California Code of Regulations*, Title 14, Section 15000 [14 CCR § 15000] *et seq.*), as amended to date. The City of Los Angeles is the CEQA lead agency. The CEQA mandates that lead agencies consider whether a proposed project will have an adverse effect on the environment and whether any such effect can be feasibly eliminated by pursuing an alternative course of action or can be mitigated to less-than-significant levels. The CEQA recognizes that historical resources are part of the environment and that "a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment" (PRC § 21084.1).

For purposes of the CEQA, a historical resource is any object, building, structure, site, area, place, record, or manuscript listed in or eligible for listing in the California Register of Historical Resources (CRHR) (PRC § 21084.1). A resource is eligible for listing in the CRHR if it meets any of the following criteria (PRC § 5024.1[c]):

> Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
>
> (1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
>
> (2) Is associated with the lives of persons important in our past.
>
> (3) 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.
>
> (4) Has yielded, or may be likely to yield, information important in prehistory or history.

The CEQA also requires the lead agency to consider whether the Project will have a significant effect on unique archaeological resources that are not eligible for listing in the CRHR and to avoid unique archaeological resources, when feasible, or mitigate any effects to less-than-significant levels (PRC § 21083.2). As defined in the CEQA, a unique archaeological resource is 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 (PRC § 21083.2[g]):

> (1) Contains information needed to answer important scientific research questions and . . . 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.

In addition, the Guidelines for Implementation of the CEQA (14 CCR § 15000 *et seq.*) define the persons, agencies, activities, and procedures required to comply with the CEQA. These guidelines include, as an issue to be addressed within the CEQA Environmental Checklist, the question, "Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?" (CEQA Guidelines Appendices, Appendix G, Section V[c]).

The Project does not involve a new Specific Plan or General Plan Amendment and is therefore not subject to the provisions of Senate Bill 18 (Chapter 905, Statutes of 2004). The Project is subject to the provisions of Assembly Bill (AB) 52, which amends the CEQA (PRC § 21080.3.1) to require lead agencies to consult with California Native American tribes and to consider the effects of a project on tribal cultural resources. Formal government-to-government tribal consultation pursuant to AB 52 is being conducted by the City of Los Angeles. In a separate Tribal Cultural Resources Assessment Report, we present the results of a tribal cultural resource study and Native American contact program undertaken for this Project.

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California *Health and Safety Code* (HSC) § 7050.5(b) requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the county coroner has examined the remains. PRC § 5097.98 also outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC) within 24 hours (HSC § 7050.5[c]). NAHC will then notify the "most likely descendant." With the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the most likely descendant by the NAHC. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

Setting

The City of Los Angeles is a sprawling, 500-square-mile municipality in southern California encompassing portions of the San Fernando Valley, the Los Angeles Basin, and a corridor connecting to the Port of Los Angeles in San Pedro. Several independent cities and unincorporated sections of Los Angeles County are located within the larger boundaries of the City of Los Angeles, including the cities of Santa Monica, Culver City, and Beverly Hills. The Project site is located northeast of downtown Los Angeles, between the Chinatown and Angelino Heights communities.

The Project parcel is located on the U.S. Geological Survey (USGS) 7.5-minute Los Angeles, California, topographic quadrangle (see Figure 2), at an elevation of approximately 122 m (400 feet) above mean sea level, on a natural rise that slopes notably downward from north to south. The current California Geological Survey geologic map of the region (Campbell et al. 2014) shows the Project resting on sedimentary bedrock classified as part of the Puente Formation (Figure 3). The formation predominantly consists of well-bedded siltstones, sandstones, and shales of marine origin that were laid down during the late Miocene and early Pliocene (ca. 11.6–3.6 million years ago [Ma]), when the Los Angeles Basin was submerged under the Pacific Ocean. Numerous invertebrate and vertebrate fossils have been recovered from the Puente Formation, as described in the paleontology assessment provided in the Results section of this document.

A geotechnical investigation previously conducted for the Project (Geotechnologies, Inc. 2017) found that bedrock underlies the entire property at a depth of between 1 and 10½ feet (0.3–3.2 m) below deposits of artificial fill and native colluvium. The geotechnical borings achieved depths of between 50 and 70 feet (10.7–19.8 m), and all encountered well-bedded alternating layers of siltstone and sandstone rock consistent with the Puente Formation (Geotechnologies, Inc. 2017:6–7). Bedrock appears to be closer to the ground surface (roughly 1 foot [0.3 m] deep) in the northern and central portions of the Project site, which are currently developed as at-grade parking. Bedrock is overlain by deeper deposits (5–10½ feet [1.5–3.2 m]) of fill and colluvium at the western and southern edges of the property, where the natural terrain slopes downward and away from the main site grade. In one boring (Boring 2), located in the southeastern corner of the Project footprint, natural tar was encountered at 60 feet (18.3 m) below the ground surface (Geotechnologies, Inc. 2017:Plate A-2c).

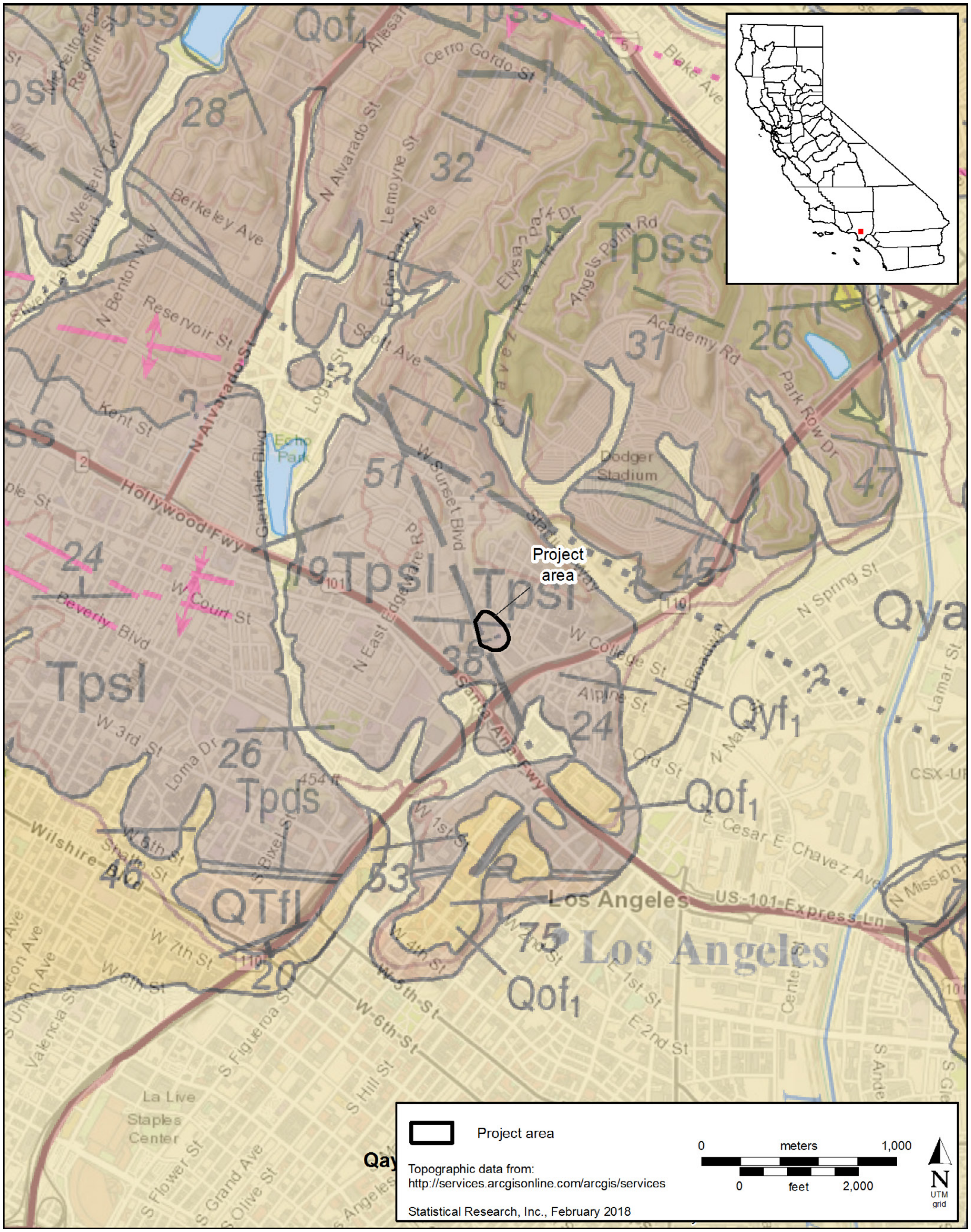


Figure 3. Geologic Map of the Los Angeles Basin (Campbell et al. 2014), with the 1111 Sunset Project footprint.

Culture History

Los Angeles has a long cultural history that includes Native American groups, Spanish explorers and settlers, other Euroamericans, Mexicans, and Americans. The prehistory of the Los Angeles area is briefly summarized in the Culture History section below. Details of historical-period land use within the Project area are also presented below, and additional detailed information is available in *Los Angeles Citywide Historic Context Statement: Pre-Consolidation Communities of Los Angeles, 1862–1932* (Prosser 2016).

Paleoindian Period

Roughly 12,000 years ago, southern California was populated by several related yet distinct cultural groups, generally known as Paleoindians (Moratto 2004:76). Along the coast, these cultures are known as the Paleocoastal tradition and are believed to have migrated down the coast from northern California. The people of the Paleocoastal tradition are thought to have been the first to arrive in California (Erlandson et al. 2007), and the tradition is well documented along the coast of central California and on the northern Channel Islands (see Erlandson et al. 2007). People of the Paleocoastal tradition were maritime adapted and collected shellfish, hunted marine and land mammals and birds, and caught smaller fish (Moratto 2004:78). The Paleoindians living farther inland are known as Clovis (from the original sites excavated near Clovis, New Mexico, in the early twentieth century) and were adapted to a terrestrial and lacustrine environment, using a very different subsistence technology from that of the Paleocoastal people. Inland Paleoindian sites generally date to the same time as Paleocoastal sites. Major Clovis localities are known at Lake Tulare (Moratto 2004:76, 78; Riddell and Olsen 1969) and China Lake (Davis 1975), among other locations in central and southern California.

Although there are many regional variants to these groups, Paleoindians can be characterized by a few general traits (from Moratto 2004:76, 78):

1. Paleoindians inhabited interior sites along ancient lake and marsh shorelines and coastal sites along stream channels and estuaries.
2. Paleoindians had a sophisticated lithic technology with advanced tool-making techniques for the creation of large flaked stone tools, especially large foliate points and lanceolate fluted points.
3. Ground stone tools were not utilized, and groups made use of the atlatl and dart.
4. Paleoindians were primarily nomadic or systematically followed seasonal resources as those became available. Some groups, however, may have been more sedentary, if the resources in the area were adequate for permanent settlements.

Millingstone Period

The Millingstone period—sometimes referred to as the Early period—is a roughly 5,500-year span beginning around 6500 cal B.C. and ending with the first dramatic increase in regional human population ca. 1000 cal B.C. (the cal prefix indicates that the dates are derived from radiocarbon calibration). This time period (called a "horizon" in some chronological schemes) is definitive of a time period when milling implements (especially manos and metates), scraper planes, choppers, and core tools were abundant and when there was a dearth of projectile points (in this case, dart points and spears) and faunal remains. Inherent in the definition of the Millingstone period is a heavy dependence on seeds and a minor emphasis on hunting (hence the abundance of milling implements and the near absence of hunting equipment and faunal remains).

Sutton (2009) has argued that, at the end of the Millingstone period (ca. 1500 B.C.) through the early Intermediate period (ending ca. A.D. 500), there was an initial entry of Takic (proto-Gabrielino/Cupan branch of the Uto-Aztecan language family) speakers into the region. These Takic groups appear to have replaced the existing late Millingstone period groups along the coast. The archaeological record reflects this major change. First, ancestral DNA and osteometric (bone morphology and measurement) studies of the small number of skeletal remains available from this time period indicate that the entering Takic groups were biologically distinct from the preceding populations (for a full discussion, see Sutton [2009]), suggesting that a migration took place. Second, significant increases in site numbers were noted in some areas, suggesting the arrival of incoming groups during the early Intermediate period, earlier than has been traditionally thought. Also, larger sites with greater diversities of artifacts appeared at about that time but seem to have been occupied on a seasonal basis. Lastly, there were some changes in mortuary patterns on the coast. Flexed burials under cairns, a common burial practice throughout the Millingstone period, disappeared from the coast but continued inland; cremation was uncommon and was not a marker of the early Takic expansion, as is commonly believed (see Sutton 2009). Large mourning features with cremated human bone appeared about 600 cal B.C., during the early Intermediate period. These features apparently represent a diffusion of ideas from Yuman groups in the deserts to the east and could mark the inauguration of some sort of ritual complex in the region.

Intermediate Period

The Intermediate period, dating from 1000 cal B.C. to cal A.D. 1000, is marked by changes in settlement patterns, economic activities, mortuary practices, and technology. The latter portion of the Intermediate period, ca. A.D. 500–1000, is marked by the spread of the bow and arrow to the coast from the north and east. Sometime toward the end of the Intermediate period, the trade in obsidian mined in the Coso formation decreased dramatically (Sutton et al. 2007:244), and Obsidian Butte obsidian increased in importance. Yuman ceramics, plus some local wares, were present. Major settlements continued to be occupied on a seasonal basis. Flexed burials continued, and cremation remained uncommon. As discussed above, Sutton (2009) argued that a major process beginning in the late Intermediate period was the diffusion of a Takic language, the mother of the Cupan languages, into Yuman-speaking areas located immediately to the south of the Los Angeles Basin.

Late Period

The Late period, beginning around cal A.D. 1000 and ending with European contact in A.D. 1542, witnessed extensive population growth along much of the southern California coast. There are more sites and a greater variety of sites with greater internal differentiation from this period than from any other time in prehistory. Villages with complex site layouts and burial grounds with highly variable mortuary treatments appeared, suggesting the development of social differentiation (Douglass et al. 2016:44).

Protohistoric and Early Historical Periods

The line between the Late and Protohistoric periods is admittedly arbitrary. The Protohistoric period in the Los Angeles Basin began with initial European contact in A.D. 1542 and ended with the establishment of Mission San Gabriel Archangel in 1771, after which direct and recurrent contact between the Gabrielino/Tongva and the Spanish settlers in the Los Angeles Basin was established (King 1978:46). The early historical period (also known as the Mission period) runs from 1771 until the beginning of the era of secularization in 1834.

The Protohistoric period is possibly the least-well-documented period in the southern California occupational sequence. A distinct time bias against remains from this period is evident in the work of some early archaeologists who excavated in pursuit of the very earliest, Paleoindian deposits and disregarded later components. In addition, if sites were multicomponent and were occupied during the Protohistoric period as well as either the Late or Mission period, it is possible that the Protohistoric period component may have been difficult to identify and distinguish from components of other time periods.

The Gabrielino/Tongva

The Gabrielino/Tongva occupied much of present-day Orange and Los Angeles Counties as well as Santa Catalina, San Clemente, and San Nicolas Islands and portions of Riverside and San Bernardino Counties, with territory including "the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers, several smaller intermittent streams in the Santa Monica and Santa Ana Mountains, all of the Los Angeles Basin, [and] the coast from Aliso Creek to Topanga Creek in the north" (Bean and Smith 1978:538). As previously mentioned, early ancestors of the Gabrielino/Tongva arrived in this area of southern California at the end of the Millingstone period, ca. 1500 B.C., through the early Intermediate period (ending ca. A.D. 500), with the initial entry of Takic-language speakers into the region.

At the time of contact and for many years thereafter, the Gabrielino/Tongva engaged in an intensive hunter-gatherer lifestyle and exploited a wide range of plant and animal resources, such as acorns, deer, yucca, and cacti in the interior of their territory to a wealth of fish and shellfish species associated with the southern California kelp beds and coastline (Bean and Smith 1978; McCawley 1996). With the arrival of Europeans and the expansion of the California mission system, however, pressure from Europeans to turn aside traditional lifeways to work at the various ranchos and missions became too great. By 1800, most of the Gabrielino/Tongva had become missionized, and many had died from violence, imported illness (e.g., smallpox), or illness associated with the cramped mission dormitories (e.g., tuberculosis and dysentery). Those who did not submit to the mission system fled the area to live in remote refuges or work on secular ranches and farms (Bean and Smith 1978:Table 1; Walker and Johnson 1992:127). Many Gabrielino/Tongva still survive, but their numbers are far fewer today than they were at the point of contact.

There were two named Gabrielino/Tongva villages located in the immediate vicinity of the Project. The most important of these was Yaangna (also Yanga), a large village located in the area of present-day downtown Los Angeles, between Union Station and City Hall, and approximately 1 mile (1.6 km) southeast of the Project area. The smaller village of Maungna was located in the area of present-day Elysian Park, within the current Los Angeles Police Department Academy grounds, approximately 1 mile (1.6 km) north-northeast of the Project area. Generally speaking, Gabrielino/Tongva settlements in the Protohistoric and early historical periods were located near reliable rivers, streams, and springs. Both of the nearby villages were located within a mile of the historical course of the Los Angeles River.

Historical Context and Overview

The historical period in this portion of the Los Angeles Basin began with the 1769 Spanish expedition of Gaspar de Portolá and Father Juan Crespi, whose party traversed the coastal route that was to become El Camino Real between San Diego and Monterey Bay (Beck and Haase 1974:15). Mission San Gabriel del Arcángel—fourth to be established in Alta California—was founded in 1771, some 8 miles (12 km) east-northeast of the location where the Pueblo of Los Angeles was to be established. Charles III, King of Spain, authorized the founding of El Pueblo de Nuestra Señora de Los Angeles de Porciuncula in 1781 (Guinn 1915:58, 353), about 0.62 miles (1 km) south of the Project area. Following Mexican independence in 1821, secularization of the missions in 1834, and possession by the United States in 1848, settlement and agricultural development was encouraged on former mission lands outside the pueblo (Beck and Haase 1974:24; Hornbeck 1983:58).

The 1849 *Plan de la Ciudad de Los Angeles* (Ord 1849) did not depict any detail in the hilly area north of the original part of town. U.S. General Land Office plat maps dated 1870 and 1872 do not illustrate any details in Township 1 South, Range 13 West, Section 21; however, land-patent documents for 1866 and 1872 clearly indicate that the entire section is a part of the City Lands of Los Angeles.

Beaudry Park

The hills north of Los Angeles were among those outlying areas of interest to speculators in the years leading up to the southern California real-estate boom of the 1880s. Canadian brothers Prudent and Victor Beaudry speculated in Los Angeles real estate on a large scale, dabbling in numerous other enterprises, including mining, an ice house, vineyards, and a cable railway (Dumke 1944:252).

> Some looked at the arid hills of Los Angeles and saw worthless land. Prudent Beaudry gazed up at them and envisioned prime real estate. In 1867 Beaudry . . . began snapping up hilltop parcels on the cheap from sellers who didn't share his vision. Soon he'd built an elaborate system of reservoirs, iron pipes, and steam pumps to irrigate the sun-baked [*sic*] hills. Suddenly land he'd bought for $1,500 was worth twenty, thirty times as much [Masters 2014].

Historical-period maps and newspaper real-estate listings provide clues to the extent of the Beaudry brothers' holdings and transactions. Prudent served as mayor of the City of Los Angeles from 1874 to 1876 (Fischer 2011). The triangular Victor Heights neighborhood (named for Victor Beaudry) developed during this time. It is roughly bounded by Sunset Boulevard on the southwest, today's State Route 110 on the southeast, and Elysian Park on the north, and it surrounds the Project area. Numerous newspaper items indicate that Victor Heights was subdivided, and lots were sold beginning in 1886 and continuing for several years thereafter.

In the Project area in Victor Heights, on a knoll of the Elysian Hills, north of and overlooking Sonora Town, Beaudry developed a park in 1873 (Fischer 2011). Period newspaper articles sometimes referred to the park as "Mr. Beaudry's Park" (*Los Angeles Herald* [LAH] 16 May 1878:3) or "Mayor Beaudry's Park" (LAH 19 September 1875:3), but maps indicate that it was called Beaudry Park. This part of Los Angeles was watered by water tanks, windmills, and a series of concrete reservoirs located in the hills east of the Project area. The park was designed by landscape gardener F. Tamiet. In 1875, Tamiet advertised in the LAH (12 December 1875:2) as a "French Landscape Gardener" available to "undertake the laying out and ornamentation of gardens or parks," citing Beaudry Park and the City Plaza as examples of his work. In 1876, it was predicted that his work as city gardener would "make the place blossom as the rose" (LAH 7 April 1876:3). A bird's-eye view of Los Angeles, drawn in 1877 (Glover 1877), showed a stylistically drawn Beaudry Park covered with concentric rings of trees. A road mounted the northeastern side of the hill to join a circular road ringing the top of the hill. A small building was shown in the center of the circular road, likely the "Italian House" listed at Beaudry Park in the 1878 City Directory (Smith 1878:60). The 1883–1884 City Directory (Atwood and Ferguson 1884:63) indicated that G. W. Click, a carpenter, resided at Beaudry Park.

By 1881, Beaudry Park reportedly contained "475 orange trees, all bearing; 2,600 Mexican lime trees, all bearing; 100 other varieties of fruit, bearing; 1,200 gum [eucalyptus] trees; 1,000 cypress trees; 100 Monterey pine trees" (LAH 12 April 1881:2), eucalyptus trees, fountains, and drives (LAH 22 November 1881:2). Another news item that year stated that Beaudry Park was "the only one worthy of the name in this city," that it was "splendidly kept" and sure to be a "boon to our people if some one [*sic*] would make it a public pleasure resort" (LAH 14 December 1881:3).

That same year, the park was advertised for sale, but after 2 years on the market, no buyer had been found, and when the Sisters of Charity took possession, one report stated that the park had become "a dry, barren, unattractive hill" (LAH 13 June 1888:8). In March 1883, the LAH (3 March 1883:3) published an item calling for development of the property as a "large and commodious hotel," noting that its situation was "beneficial and attractive to tourists and invalids." The proposed hotel was not to be, however, and Victor Beaudry transferred ownership of the park to the Los Angeles Infirmary that month, at a price of $10,000 (LAH 8 April 1883:3).

Sisters' Hospital

Six Daughters of Charity of St. Vincent de Paul had arrived in Los Angeles in 1855, at the urging of Bishop Amat, first director of the newly formed Diocese of Monterey and Los Angeles (Archives of the Diocese of San Bernardino 1987:33; Pixley 1975:58; Seton Provincialate 2017). In less than 2 years, the Sisters of Charity opened a school, an orphanage, and a hospital (Newmark 1952:170), becoming "the first women to incorporate a business in Los Angeles" (Gunnell 2014:18). By 1883, the Daughters of Charity needed a new hospital facility. On their newly acquired property at Beaudry Park, the Sisters of Charity built a "massive," L-shaped hospital of pressed brick (LAH 12 April 1885:6). The architectural firm of Kysor and Morgan—said to be "the oldest architects of the city"—designed the building (LAH 11 July 1884:2, 1 January 1885:5). The firm prospered during the southern California real-estate boom of the 1880s (Pacific Coast Architecture Database 2015). The Los Angeles Pioneer Iron Foundry manufactured the iron work for the building (LAH 10 May 1885:1). During "imposing ceremonies" (*Los Angeles Times* [LAT] 1 January 1885:9), the fire department, the city council, the mayor, the Eagle Corps, the city band, the Sociedad Progresista Mexicana, and the Ancient Order of Hibernians participated in laying the hospital cornerstone on September 14, 1884 (LAH 6 September 1884:6, 14 September 1884:6, 16 September 1884:6). The building had "four towers 56 feet in height and one central tower 75 feet in height"; six communal wards and 60 private rooms were available, and one report claimed that each private room had a fireplace, a marble mantel piece, and gaslights (LAH 12 April 1885:6).

Period advertisements for the "Los Angeles Infirmary conducted by the Sisters of Charity" (Archives of the Diocese of San Bernardino 1987:8; California State Board of Trade 1898) described its situation in the "most healthful part of Los Angeles" (Archives of the Diocese of San Bernardino 1987:8), "peculiarly adapted as a sanitarium for people with respiratory and nervous diseases" (California State Board of Trade 1898:n.p.). The hospital, "built on the most approved plan" (California State Board of Trade 1898:n.p.), was said to be a "model institution" and to have electricity, elevators, and "all modern improvements in operating rooms, etc. . . . for the care, treatment and cure of disease" (Archives of the Diocese of San Bernardino 1987:8). Newspaper reports indicate that the hospital provided service to patients suffering from a variety of illnesses and injuries, including railroad workers hurt on the job (LAH 28 May 1888:1). At least during the early years, the hospital did not have a team of physicians, and local doctors came to the facility to treat their own patients. Wards devoted to maternity care and other specialties were later added. Local news also carried reports of deaths at the hospital, indicating cases when a coroner's inquest would hear the cause of death and which embalmer or mortuary was responsible for the remains. The facility was operated by as few as 15 Sisters of Charity (Archives of the Diocese of San Bernardino 1987:8), with the assistance of trained and student nurses. The hospital operated a nurse's training facility which, in 1911, was incorporated as the Nurses Training School of Los Angeles Infirmary (Los Angeles County Incorporation Records 2016). Advertisements indicated that "parties irrespective of creed or nationality are received" (California State Board of Trade 1898:n.p.). The fees for treatment at the hospital were reportedly "moderate," although the hospital also accepted patients who could not pay (LAH 12 April 1885:6; Poggi 1916:80). Mass was celebrated in the hospital chapel (Archives of the Diocese of San Bernardino 1987:24).

The hospital grounds would have had a ready water source, because Beaudry Park was reportedly irrigated. Two "city fire hydrants" of 4-inch pipe were located in front of the original façade of the building as early as 1888 and remained after the hospital had been demolished, until at least 1950 (as indicated on Sanborn Fire Insurance Company maps dated 1888, 1894, 1906, and 1950). Two water wells (notably containing no oil) operated just north of the hospital property (Prutzman 1913:331), and in 1887, the Sisters of Charity advertised a windmill for sale (LAH 23 July 1887:4). The City Directory for 1884–1885 (Atwood and Ernest, Publishers 1885:63, 87, 95, 353) revealed that James Bolger, clerk; John Cerpmill, carpenter; William H. Cobb, millwright; and Roger Sullivan, gardener, resided at Beaudry Park. Landscaping improvements on the grounds were reported in 1887 (LAH 8 March 1887:1), and by 1888, the grounds were reported to contain "flower beds, orange groves, and many other semi-tropical plants" that "owing to the perfect system of irrigation . . . are kept constantly green" (Whaling 1888:8). The landscape also included fountains and a "small lake" (LAH 28 May 1888:1). One news item made reference to a cesspool located behind the hospital (LAH 26 June 1888:2).

The earliest available Sanborn Fire Insurance Company map, dated 1888, demonstrated that the southeast wing was three stories with a basement, and the southwest wing was four stories with no basement. Mapped on the hospital grounds were a single-story laundry building with a water tank and a furnace, a shed, a carpenter shop containing a vertical steam boiler, an octagonal billiard room, and a vineyard. The laundry, shed, carpenter shop, and billiard room were all wood-frame buildings.

A stylized bird's-eye drawing of Los Angeles, dated 1891 (Elliott 1891), showed the hospital with a train stopped at the end of the Los Angeles Pacific Railroad line. Two small outbuildings are depicted near the northern edge of the Project area.

The 1894 Sanborn Fire Insurance Company map indicated that the shed outbuilding was for coal storage and may have had a privy attached to it. A 10-foot-high wooden retaining wall ran along the western side of the coal shed. The billiard room remained, as did the laundry, which had been expanded. The area previously indicated to be vineyards was labelled "ornamental ground," and a "lime hedge fence" was depicted bordering Beaudry Avenue on the south side of the property. A bird's-eye drawing completed that year (Pierce 1894) depicted an entirely fictitious northeastern wing, making the hospital a U-shaped building; no photographic, descriptive, or map data support the drawing.

Archival research produced three photographs of the hospital and grounds from the 1890s. Two, from an unknown year during that decade, illustrated the southeastern building façade. One was an overview of the entire building, including numerous young plantings of palm, banana, and evergreen trees, and the other showed a Daughter of Charity standing next to a banana tree. The third photograph appeared in an 1899 directory (Archives of the Diocese of San Bernardino 1987:8, 47). It showed the same hospital façade, with more mature plantings; the photograph was taken from the road at the southwestern edge of the Project area and showed a perimeter walkway and picket fence. A stylized drawing of unknown date depicted the original hospital building and small outbuildings in the area where the laundry was located in 1888 and where a shrine would be identified on the Sanborn Fire Insurance Company map dated 1950.

Construction of the cable railroad through Victor Heights was touted in 1885 (LAH 19 June 1885:1). The Pacific Electric Ostrich Farm Dummy Line, which ran 4 miles northward from the intersection of Sunset Boulevard and North Beaudry Avenue (at the southwestern edge of the Project area), hosted regular excursions to more-remote locales, in an attempt to entice investors (LAH 2 January 1887:1, 11 January 1887:7). As an important local road, Sunset Boulevard, forming the western portion of the Project area boundary, became a critical thoroughfare after it was extended, widened, and paved from downtown Los Angeles to the coast.

E. L. Doheny's 1892 oil discovery in the City of Los Angeles led to a drilling boom in town lots; ultimately, the Los Angeles City Oil Field became the biggest producer in the state, with about 1,000 wells drilled between 1892 and 1900 (Carter 1954:23; Soper 1943:282). Extensive drilling continued until about 1907 (Leck 1921:135), and the field produced over 1 million barrels of oil per year for a few years (Lamar 1970:40). The field ran in a roughly westerly direction from Elysian Park for a distance of approximately 4½ miles (7.24 km) (Soper 1943:282).

The Project area is within the East Field portion of the Los Angeles City Oil Field (Prutzman 1913:197), with the Sisters' Hospital property marking the western extent of the East Field (Arnold 1906:158, 160). The first East Field well was drilled in November 1896 at College and Adobe Streets, nearly ¾ mile (0.6 km) east of Project area. Reportedly, wells in the East Field produced satisfactorily at the start but waned quickly, operating only between 2 and 13 years. Wells in the area were drilled using derricks, and nearly all required pump jacks to bring oil to the surface (Prutzman 1913:198–201) Because the Los Angeles City Field was in an urbanized area lacking pipelines and rail connections, the oil was "used locally, principally for fuel, and [was] delivered by tank wagon" (Prutzman 1904:27).

According to a government report describing oil formations in Los Angeles County, two "Sisters' Hospital wells" had been drilled to 800 feet and abandoned by 1897 on the hill east of the hospital, "on account of water, which is said to be potable" (Watts 1897:16–17); it is not clear whether these wells were in the Project area. When, in 1898, "a number of oil men applied for permission to drill in the vicinity of the hospital," the Sisters of Charity, on behalf of the Los Angeles Infirmary and their patients, filed a protest, stating that "they and their patients had been disturbed by the drilling and operation of wells near the hospital" and that both noise and "the odors of oil" were objectionable "from the standpoint of the invalids" (LAH 13 January 1898:8). The complaint was heard by the Board of Fire Commissioners and the Board of Health. Despite the testimony of one oil man, who "stated that instead of being injurious the oil odor was really beneficial," the commissioners refused the permit and referred it to the city attorney for opinion. The oil man stated that "he had come to this city an invalid three years ago and had been cured by the odors not only of his illness but of baldness" (LAH 13 January 1898:8). A physician who was one of the health commissioners maintained that wells should not be drilled within 600 feet of the hospital (LAH 13 January 1898:8); the entire hospital parcel measures less than 700 feet across its greatest dimension.

Any protests had been overruled by January 1900, when the Sisters of Charity "leased rights to oil on their property for a royalty" (Seton Provincialate 2017). The 10-year lease included only "a small strip of land on the edge of the hospital grounds," reportedly not visible from the hospital because of trees (Gunnell 2013:166–167). Oceanic Oil Company ("one of the most fortunate companies operating in the city field" [LAH 12 October 1900:11]), working on the Sisters' Hospital tract, sought permission to erect cables across Alpine Street and Beaudry Avenue (at the southeastern edge of the property), to facilitate oil pumping (LAH 6 September 1900:10). They reportedly drilled their No. 10 well "about four feet into the sand . . . at a depth of [815?] feet and it filled up 200 feet at once with pure oil. It will be drilled deeper and put to pumping" (LAH 12 October 1900:11). Their No. 8 well at the hospital was "good for about 20 barrels" (LAH 3 January 1900:11, 12 October 1900:11, 6 September 1900:10, 8 September 1900:1). In January of the following year, Oceanic Oil Company was "moving in a rig for another well on the Sisters' [H]ospital tract, where operations have been at a standstill for some time. It is the intention of the company to put down six more wells here immediately" (LAH 19 January 1901:11).

By 1898, the facility had become known as Sisters' Hospital, but references to the Los Angeles Infirmary continue in written documentation (Water and Power Associates 2017). The first available federal census data for the hospital were compiled in 1900 and provided that 56 people resided at the Los Angeles Infirmary: Helen Fealy, superintendent/president of the board; Louis B. Collings, vice president; 1 male attendant (nurse); 15 Sisters of Charity (a druggist, a housekeeper, an invalid, and 12 nurses); 10 students (1 male assistant nurse, 2 female maids, and 7 female nurses); 4 servants (a female nurse, a female maid, a male servant, and a female servant); 2 boarders (a male nurse and a female housekeeper); and 22 patients (7 females and 15 males). With the exception of 2 Japanese male patients, all residents were listed as white (U.S. Census Bureau online database available with subscription to Ancestry.com, accessed November 11, 2017).

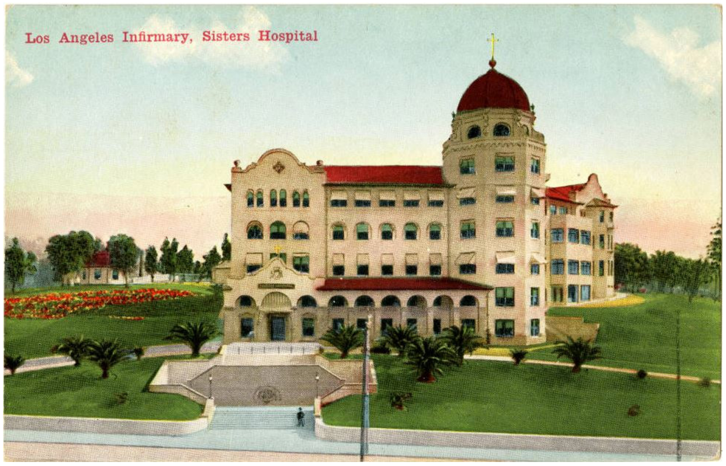


Figure 4. Postcard, Los Angeles Infirmary, Sisters' Hospital, ca. 1910–1914 (courtesy of Loyola Marymount University, William H. Hannon Library, Digital Collections, Werner von Boltenstern Postcard Collection, No. post_00382).

The successful hospital was outgrowing its facility, and in 1902, construction was completed on a new west wing, extending northerly from the southwest wing; the contractor for the addition was George Booth (LAT 11 July 1902:A4). A colorized postcard (Figure 4) depicted the new, red-roofed hospital section (familiarly called "the Annex" [Gunnell 2014:22]), the stairs leading to it, and some of the outbuildings then located in what is presently the northern part of the Project area. Following construction of the new wing, the hospital reportedly had a capacity of 100 patients (Poggi 1916:79).

A 1904 map of the *City Oil Field of Los Angeles* (Prutzman 1904) showed eight wells in the Project area, all near the perimeter of the property, on the southern and southeastern sides. Research to date has not disclosed whether all of those wells became producers or if some were merely exploratory borings. The 1906 *Street and Section Map of the Los Angeles Oil Fields, California* (Arnold 1906) plotted six oil wells in the Project area (Figure 5). In 1913, there were reportedly "several producing wells" on the Sisters' Hospital grounds (Prutzman 1913:331). Data obtained from the online Well Finder database provided by the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (Well Finder database, https://maps.conservation.ca.gov/doggr/wellfinder/#close, accessed November 15, 2017), indicate that six wells were drilled in the Project area. Table 1 presents data for those six wells, including the American Petroleum Institute (API) numbers, operator, well numbers, and current status of the wells, as reported in the Well Finder database (each industry-standard API number is assigned by the American Petroleum Institute and is permanently associated with a specific well).

Close inspection of the Sanborn Fire Insurance Company map dated 1906 and updated in 1952 revealed some mapped features that had been pasted over at an unknown time between those dates. These included three oil wells and two oil tanks along the southern Project boundary (identified as "C. C. Harris Oil Co") and another oil well and an illegible feature in the interior of the property, where two small frame outbuildings were located by 1952. Archival research did not produce any historical documentation regarding C. C. Harris Oil Company wells on the hospital property, but the company was active in the Los Angeles area during the 1900s and 1910s (LAT 4 April 1906:18; McLaughlin 1918:583).

The 1906 Sanborn Fire Insurance Company map (Figure 6) was the first showing the new west wing, which comprised four floors and a basement, with a five-story tower. The former coal shed was removed to make way for the new wing. The former billiard room remained but had been repurposed as a summer house, and two additional summer houses (one octagonal and one rectangular) had been added to the property. The former laundry building had been demolished, but a new laundry building had been constructed along the northwestern edge of the Project area. The main section of the laundry facility was two stories, and it included a one-story pump room. Other new additions were two square, one-story cottages at the northern edge of the Project area. The cottages housed outpatient clinics for walk-in treatment (Gunnell 2013:171–172; LAH 24 September 1905:5, 30 September 1905:3). Although these cottages were in the general vicinity of two buildings depicted on the 1891 bird's-eye view (Elliott 1891), they did not appear on Sanborn Fire Insurance Company maps prior to this date and were unlikely to represent the same features. A T-shaped configuration of "stone [concrete?] steps" had been added, to access the property from Sunset Boulevard. A photograph dated ca. 1910 clearly depicted the stylistic differences between the architecture of the original hospital and the new wing, as well as modifications made to portions of the north wing of the original building at that time. A bird's-eye drawing of Los Angeles dated 1909 (Birdseye View Publishing Company 1909) depicted the hospital and grounds, but the amount of artistic license employed did not allow any additional details to be gleaned from it.

The 1910 federal census provided that 64 people resided at the Catholic Sisters' Hospital: Sister Mary Ann Kasting, superintendent; 14 Sisters of Charity, including 8 nurses; 1 female domestic, a cook; and 48 boarders: a male physician, 32 nurses (30 female and 2 male), a male elevator boy, a male farmer, a male gardener, a female laundry worker, 4 servants (3 female and 1 male), 3 patients (2 female and 1 male), and 4 female boarders with no occupations listed. Although all the residents were listed as white, it should be noted that several of the nonmedical hospital workers had Hispanic surnames (U.S. Census Bureau online database available with subscription to Ancestry.com, accessed November 11, 2017). In 1916, the hospital employed 25 Sisters of Charity and 65 nurses-in-training (Poggi 1916:79–80).

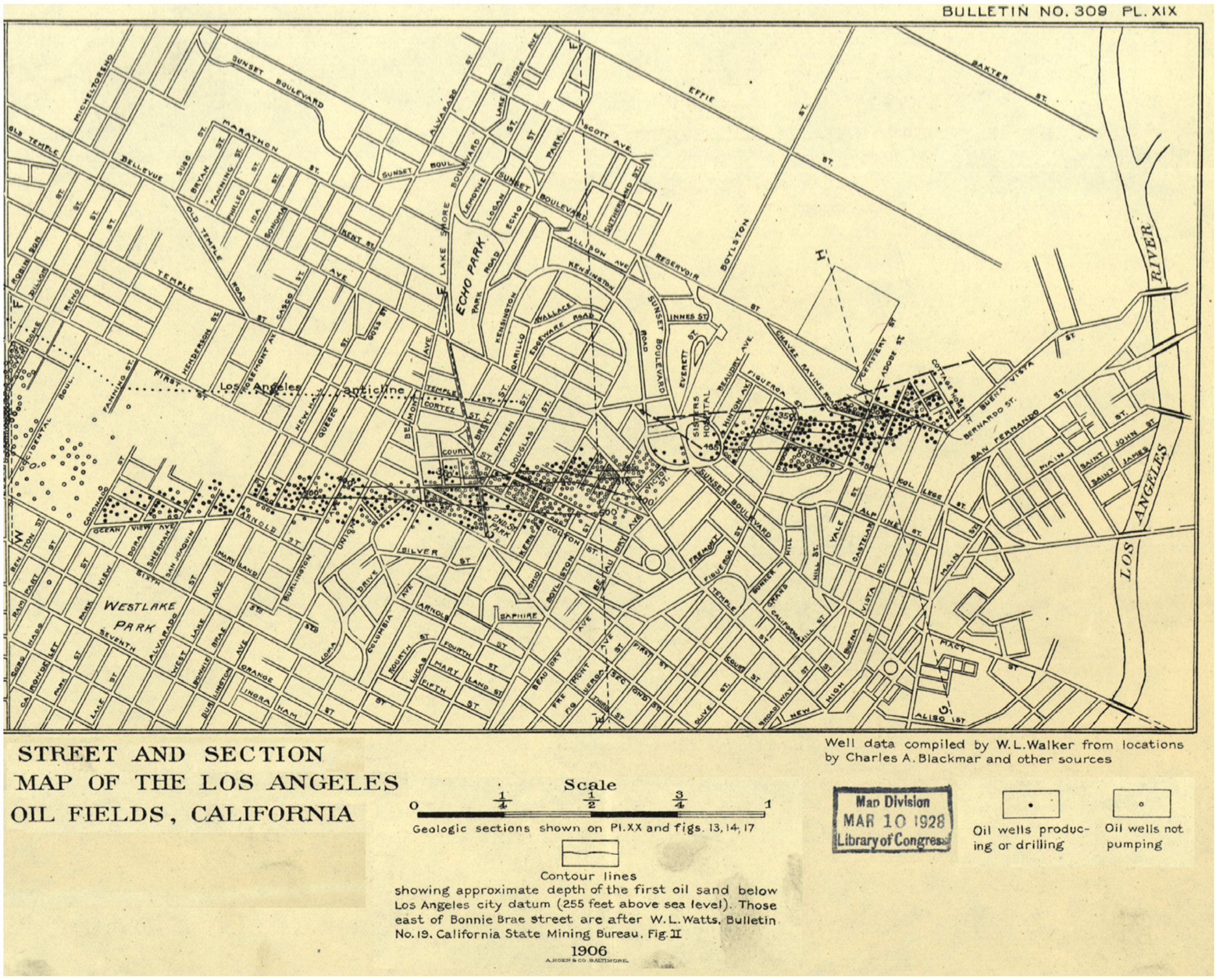


Figure 5. Portion of the Street and Section Map of the Los Angeles Oil Fields, California, 1906. Note the location of Sisters' Hospital in the East Field (courtesy of the Geography and Map Division, Library of Congress, Washington, D.C., Control No. 2006627664).

Table 1. Known Oil Wells in the 1111 Sunset Project Area

American Petroleum Institute No.	Operator	Well No.	Status
03725954	Oceanic Oil Company	3	buried
03725955	Oceanic Oil Company	2	buried
03725956	Oceanic Oil Company	5	buried
03725957	Oceanic Oil Company	6	buried
03725958	Oceanic Oil Company	7	buried
03725959	Oceanic Oil Company	4	buried

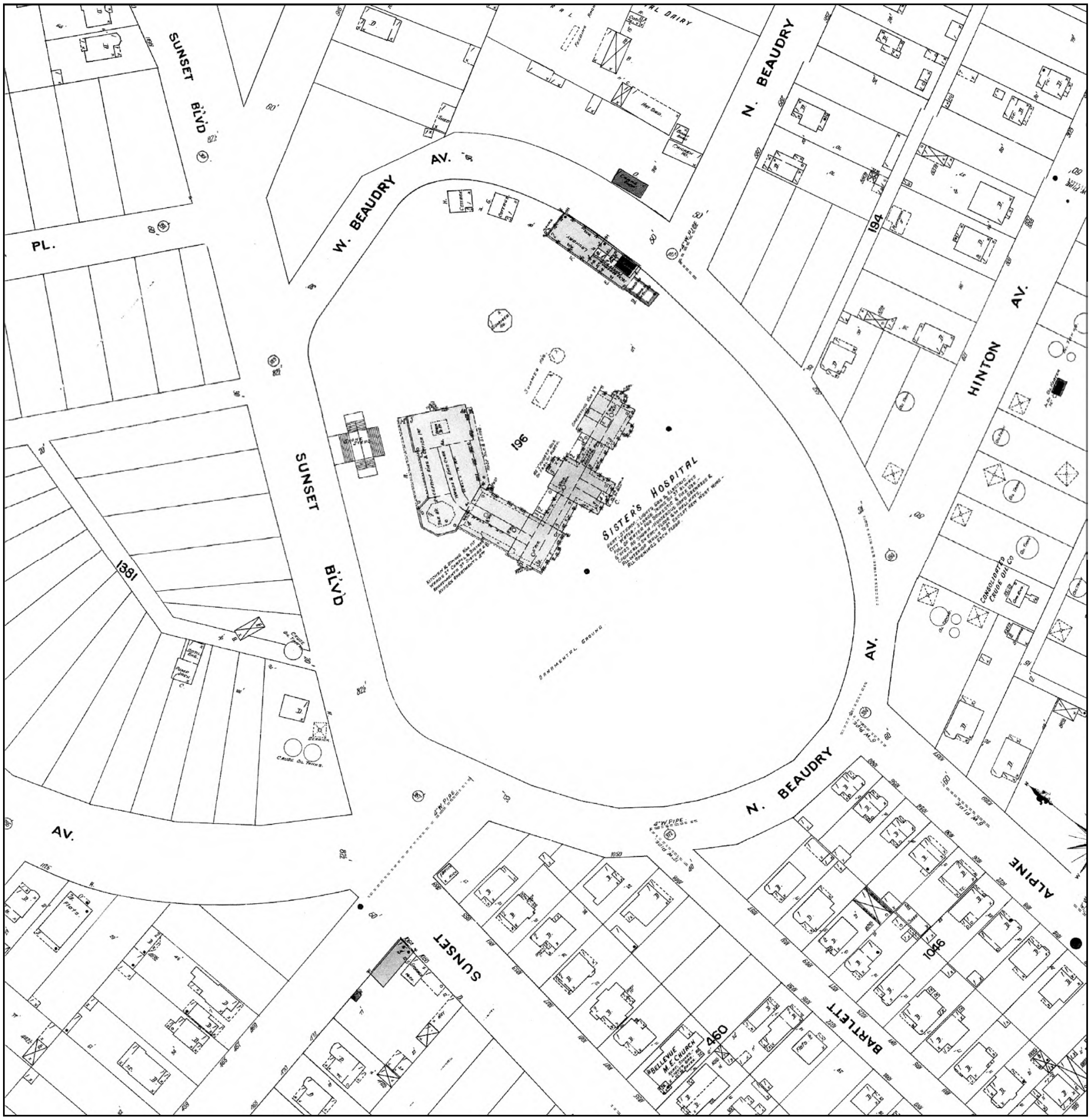


Figure 6. Sanborn Fire Insurance Company Map dated 1906, showing the locations of Sisters' Hospital and outlying features present as of that date (Environmental Data Resources, Inc. 2017a) (Not to be reproduced.)

In 1914, a $15,000 contract was awarded for construction of a nurses' residence on the property (*Southwest Contractor and Manufacturer* 3 January 1914:15). The architect for that project was Elmore R. Jeffery, whose locally designed buildings included apartment buildings, schools, and churches (LAT 24 November 1912:2, 5 April 1914:90, 19 July 1914:59), and the general contractor for the work was John L. Connor, who reportedly specialized in "high-class residences, apartment-houses, and hotels" (LAT 1 January 1917:104). The two-story building had a concrete foundation, a partial cement basement containing storage rooms, red-brick facing, a shingle roof, wired glass skylights, oak and pine floors and trim, a marble-and-tile vestibule, "36 sleeping rooms, nine bath rooms, toilets, living room and cooking school" (*Southwest Contractor and Manufacturer* 3 January 1914:15). The building was located on Beaudry Avenue. In 1918, the Los Angeles Infirmary came to be known as St. Vincent's Hospital by official court decree (Blake 1956).

The 1920 federal census provided that 99 people resided at Sisters' Hospital: Sister Rufina, head person; Patrick M. O'Regan, priest; 18 Sisters of Charity, including 9 nurses, a pharmacist, and a teacher; 46 nurses (45 female and 1 male), including 7 in training and 14 students; 24 workers or employees (12 female and 12 male), including a matron, a dishwasher, 2 engineers, 3 housekeepers, a printer, 2 seamstresses, a waitress, a dining room servant, an elevator boy/gardener, a telephone operator, 4 janitors, a laundryman, and a gardener; and 9 patients (5 female and 4 male) (U.S. Census Bureau online database available with subscription to Ancestry.com, accessed November 11, 2017). In 1921, the hospital, the rectangular laundry, and two cottages were depicted on Baist's Real Estate Atlas of Surveys of Los Angeles (Baist 1921). This map indicated that another rectangular building had been built by that time, fronting on Alpine Street, at the edge of the Project area, east of the laundry. Presumably, this was the residential building for the Sisters of Charity reported in a 1916 source (Poggi 1916:79), which described the nurses' and Sisters of Charity residences as "large modern houses which would do credit to any hospital."

The earliest aerial photograph containing useful details of the Project area was dated 1923. This image depicted the hospital, the laundry and the nearby rectangular building, the cottages, the stairs, pedestrian pathways, and landscape elements. New features included a circular path and a tree in the area that would later be labelled a shrine and at least two new rectangular structures between the hospital and the outbuildings. The locations of at least three oil derricks were represented by tall, triangular shadows at the southeastern edge of the Project area, indicating that wells were being drilled at the time the photograph was taken.

In 1927, construction was underway on a new St. Vincent's Hospital facility in the Westlake District, when, on January 22, fire broke out in the newer, western wing of the old hospital, in the present-day Project area. Possibly caused by short-circuited wiring in the attic or dome area, the fire caused as much as $100,000 in damage and reduced the hospital's capacity. In total, 125 patients (including 28 newborn infants) were evacuated during the emergency; there were no lives lost, and no injuries were reported (LAT 23 January 1927:1). The move to the new Westlake District hospital was accomplished on November 25, 1927 (LAT 26 November 1927:A1). Although the 1930 federal census indicated that the old St. Vincent Hospital was at that time vacant, two people remained in residence: Jean P. and Jean Larregaray. Born in France, the brothers, aged 53 and 48, served as employed gardener and caretaker of the property, respectively (U.S. Census Bureau online database available with subscription to Ancestry.com, accessed November 11, 2017).

After the Hospital

In the years after the hospital closed, newspapers reported several proposed uses of the vacant facility that were considered; research did not uncover any indication that the plans came to fruition (LAT 31 August 1928:A8, 12 September 1932:A12, 7 September 1934:A11a, 26 October 1934:A1). An aerial photograph from 1937 showed that by that date, all that remained on the property were the southeasternmost building fronting on Alpine Street, the shrine, the stairs fronting on Sunset Boulevard, and landscaping elements. The aforementioned newspaper articles provided that the hospital was likely demolished between 1932 and 1934. The 1940 federal census records provided that the remaining building on the property was being rented out. Frank Grubl rented on-site and served as the manager, along with Margaret Mills, his partner and the assistant manager. At least three other units were rented out. In addition to Grubl and Mills, 12 other people lived on-site, including Dick and Edmund Schale, the Cranford family of four, the Cottrells, and the Hubbards (with two lodgers). Five of the tenants were gardeners, and two were laborers. Of the 14 tenants living in the Project area in 1940, 7 also resided on the property in 1935 (U.S. Census Bureau online database available with subscription to Ancestry.com, accessed December 1, 2017). By 1942, Grubl had moved across the street, and by 1946, the rental property was called Grubl Apartments (Los Angeles Directory Company 1942:992; Pacific Telephone and Telegraph Company 1956:19).

By 1941, aerial photography illustrated the same conditions, except that a low, rectangular feature with two compartments (perhaps cisterns) is visible in the northeastern part of the Project area. For the first time, trees did not obscure the shrine area, and a small structure can be seen in that location. A 1946 aerial photograph contained the same details, with one addition: a cleared square area abutting the northern side of the possible cistern features.

In 1945, the Project area was sold to Lerner Shops of California, Inc., who intended to build offices on the property (LAT 14 April 1945:A1). Another sale transaction in 1948 transferred the property to Los Angeles Memorial Hospital Corporation, who planned construction of a new hospital facility there (LAT 14 May 1948:17). Apparently, neither of the planned developments was pursued.

The Sanborn Fire Insurance Company map dated 1950 showed the single remaining building (apartments and a small room added), the stairs, the shrine, two hydrants, and the new addition of two small, single-story buildings connected by what might be a fence. One of the units contained a water hydrant or pipe.

Only three features were mapped in the Project area on the Sanborn Fire Insurance Company maps dated between 1953 and 1958: the apartments, the stairs, and the shrine. The 1953 Sanborn Fire Insurance Company map updated in 1957 indicated that the shrine was constructed of hollow concrete or cement blocks, and an oblique 1957 aerial photograph revealed that the shrine in the Project area was a small—perhaps miniature—building resembling a church, with a cross over an arched doorway.

Just 487 feet (150 m) south of the Project area, the world's first four-level stack interchange was completed in 1953, linking U.S. Highway 101 and State Route 110. The more common cloverleaf interchange was deemed impractical at that location, and although the stacked structure has a smaller footprint, some 4,000 residents were displaced by the design (History.com Staff 2010). The interchange is recognized as a Historic Civil Engineering Landmark of the American Society of Civil Engineers, Los Angeles Section (2017).

MWD Headquarters

The MWD purchased the Project area parcel in 1959, at a cost of $1,225,759 (LAT 27 September 1959:F1). The 1960 and 1961 Sanborn Fire Insurance Company maps confirmed that the apartment building had been demolished, but the stairs and shrine remained during that time. A 1961 building site-inspection document confirmed the existence of "a brick drive, concrete steps and foundations" at that time. As evidenced by historical photographs, virtually all remaining aboveground evidence of the hospital, related outbuildings, and associated infrastructure was removed in preparation for construction of the MWD Sunset Boulevard Headquarters Campus (O'Connor 2016:1, attachments). Building permits dated 1961 showed the locations of several retaining walls around the perimeter of the property that were installed at that time (O'Connor 2016:5, attachments). Aerial photography dated 1961 depicted the MWD buildings in construction, with the perimeter retaining walls in place. Many of the palm trees planted along Sunset Boulevard in front of the hospital's 1902 wing were retained and incorporated into the MWD landscape design; some of them remain today.

The architectural firm of William Pereira & Associates of Los Angeles designed the MWD building (LAT 13 January 1960:B3), with James H. Langenheim as "partner in charge" (LAT 30 June 1963:N2); Diversified Builders, Inc., was the general contractor (LAT 26 April 1961:A14, 30 June 1963:N2). Construction began in 1961 and was completed in 1963. The 1964 Sanborn Fire Insurance Company map depicted details of the footprint of the original MWD buildings. An additional office tower annex was built in 1973. The new tower appeared on the USGS Los Angeles, California, topographic quadrangle dated

1966 (1:24,000 scale; photorevised in 1972). MWD moved from their headquarters in the Project area in 1993. A church building was constructed on the property in 1998. The new church appeared in aerial photography dated 2002; the building was abandoned in recent years (Snow and Thabet 2016:11).

Methods

Project Personnel and Qualifications

The following SRI staff performed the research and analysis reported in this document. Donn R. Grenda, Ph.D., is the company president and a Registered Professional Archaeologist (RPA) with decades of archaeological experience in California. Angela H. Keller, Ph.D., is an RPA specializing in the archaeology of the Americas. Drs. Grenda and Keller meet the Secretary of the Interior's Professional Qualifications Standards in Archaeology. Karen K. Swope, Ph.D., is an RPA meeting the Secretary of the Interior's Professional Qualifications Standards in Historical Archaeology and History. Carrie Gregory, M.A., is an architectural historian who meets the Secretary of the Interior's Professional Qualifications Standards for History, Architectural History, and Historic Preservation. Michael O'Connell, M.A., is an archaeologist and geographic information systems analyst who assisted in archival research and georeferencing for this Project. Joseph J. El Adli, Ph.D., is a qualified paleontologist meeting the Society of Vertebrate Paleontology's (SVP's) criteria for a Project Paleontologist/Principal Investigator. Samuel A. McLeod, Ph.D., is the Collections Manager for the Vertebrate Paleontology Department at the Natural History Museum of Los Angeles County (NHMLA).

Archaeological Records Search

SRI requested that the staff of the South Central Coastal Information Center (SCCIC), a regional repository of the California Historical Resources Information System, conduct a records search for the Project. The purpose of the records search was to identify all previously recorded buildings and structures and relevant reports of the Project area and surrounding ¼-mile radius. The reviewed records included all investigation reports and resource records from the following sources: the National Register of Historic Places (NRHP), the CRHR, California Historical Landmarks, California Points of Historical Interest, the California Office of Historic Preservation State Historic Resources Inventory (HRI), and the Los Angeles Historic-Cultural Monuments (HCMs) list. The results of this search were provided to SRI on January 4, 2018.

Archival and Historical Background Research

The goal of the archival research was to identify, through gathered primary and secondary sources, the chronology of occupation and historical uses of the property, so as to develop a historic context by which to evaluate the historical significance of cultural resources that might be encountered on the property. SRI visited, in person and online, the institutions and repositories shown in Table 2 to collect relevant information on the Project area. Primary historical source materials afforded information specific to the Project area; in particular, maps, newspaper articles, photographs, and aerial photographs were compiled to produce the historical context and overview presented above. More than 50 aerial photographs were collected of the Project area; these were used primarily to better understand and describe land-use changes over time. Secondary source materials provided contextual history for the development of Los Angeles.

Table 2. Repositories Consulted during the Archival Research

Repository	Collection(s)/Document Type(s)
California Department of Conservation	Oil & Gas Well Finder
California Division of Mines and Geology publications	California Division of Mines and Geology Geological Collection
California State University, Northridge, Oviatt Library	Sanborn Fire Insurance Atlas Collection
Echo Park Historical Society	historical information
Environmental Data Resources, Inc.	historical city directories, historical topographic maps, radius map report, certified Sanborn Fire Insurance maps, historical aerial photographs
Huntington Library, Manuscripts Department	Hazard-Dyson Collection
Huntington Library, Photograph Archives	Historical Society of Southern California Collection—Charles Puck Collection of Negatives and Photographs
Los Angeles City Archives and Records Center	Historical Records Index 1940–1979, Archived Digital Vault, City Council Minutes 1850–1979
Los Angeles City Department of Building and Safety	various property records, permits, and inspections
Los Angeles City Historical Society	photograph database
Los Angeles County Assessor's Office	property-construction, -value, -tax, and -title data
Los Angeles Department of Building and Safety	building permits and plans
Los Angeles Department of Water and Power	photograph archive
Los Angeles Public Library	photograph collection, map collection, Sanborn Fire Insurance maps 1867–1970, city and street directories, *Los Angeles Times* historical archives, *Los Angeles Times* newspaper archives, El Pueblo de Los Angeles Historical Monument photograph archive
Loyola-Marymount University, Los Angeles, William H. Hannon Library	photographs and postcards
National Archives and Records Administration	documents and photographs
Newspapers.com	newspaper articles
Online Archive of California	various digital collections
San Fernando Mission, Archival Center	Archdiocese of Los Angeles records
U.S. Department of the Interior Bureau of Land Management	U.S. General Land Office records (plat maps, land-patent records, and land-status records)
U.S. Geological Survey Historical Topographic Map Explorer	U.S. Geological Survey topographic maps
U.S. Library of Congress	Aerial Views of Los Angeles, California, Prints & Photographs Online, Geography and Map Collection
University of California Calisphere	various digital collections
University of California, Los Angeles, Department of Geography	Benjamin and Gladys Thomas aerial-photograph archives
University of California, Los Angeles, Library	maps of Los Angeles, California, the United States, and the world, tract maps and cadastral maps of Southern California 1868–1937, *Los Angeles Times* photographic archive, Center for Oral History Research
University of California, Los Angeles, Library, Special Collections	Hazard-Dyson Los Angeles photograph album 1880–1910, Ana Bégué de Packman Papers 1870–1960
University of California, Santa Barbara, Library	aerial-photograph indexes and collections for Los Angeles County
University of Southern California Digital Library Collections	photographs, maps, aerial photograph, Automobile Club of Southern California strip maps 1912–1936, Automobile Club of Southern California negatives 1892–1963, Automobile Club of Southern California engineering-notebook photoprints 1922–1941
Water and Power Associates	Los Angeles historical photographs

To determine the locations of historical buildings and structures in the Project area, SRI researchers used archival maps and historical aerial photographs dated between 1888 and 1950. These resources were scanned, then georeferenced in ArcGIS, using first-order transformations in ArcMap's Georeferencing toolbar. This was accomplished by using modern aerial imagery as a base layer and then forging links between features visible in both the modern and historical data. Many of the buildings and structures in the Project area and in the surrounding area have been significantly altered or demolished over the past 129 years, rendering them unreliable as markers. However, the streets, namely Sunset Boulevard, have not undergone the same drastic changes and have retained similarities of layout. Taking advantage of this continuity, features such as corners and street junctions were used to match the historical data to locations on the modern landscape. Once the historical maps and photographs were set, the outlines of all visible buildings and structures were digitized into an ArcGIS shapefile, in order to overlay them and plot them geospatially. Because of the variety of historical information and the discrepancies between them, the locations of many built-environment features varied between data sources. In these cases, all possible locations of a given feature were digitized and overlaid. However, no exact location for any one building or structure could be mapped with 100 percent confidence; it may be possible to verify their specific locations through fieldwork. Nonetheless, the polygons mapped for each built-environment feature should remain a generally accurate representation of their locations and their relationships to the site and each other.

Field Survey

Archaeological fieldwork involved a pedestrian survey of the Project parcel, to identify previously unrecorded cultural resources of historical-period or prehistoric age. Given the apparent grading and construction that has occurred across most of the Project area, identification of previously undocumented, surface-visible cultural resources was considered unlikely. Fieldwork did not include excavation or artifact collection. Prior to the field survey, SRI georeferenced several available historical maps of the area, including Sanborn Fire Insurance Company maps of the previous hospital structures, as described above. The surveyor used annotated maps to guide the surface reconnaissance.

Paleontological Resource Assessment

To assess the potential for significant paleontological finds in the Project area, SRI requested a review of the paleontological specimen and locality records held by the Vertebrate Paleontology Department of the NHMLA. The search was conducted by Dr. Samuel McLeod, curator, who provided a written report of his findings. SRI also collected USGS geologic maps and soils maps of the area, to assess the potential for paleontological resources within the Project footprint. Dr. Joseph El Adli, a qualified paleontologist with experience in southern California, reviewed the materials and provided an assessment of the paleontological sensitivity of the Project footprint.

Currently, no specific guidelines exist for the assessment of paleontological resource potential or sensitivity under the CEQA. Therefore, most professional paleontologists in California use one of three established classification schemes to determining fossil sensitivity. The California Department of Transportation (2012) suggests a tripartite classification to characterize paleontological sensitivity: no sensitivity, low sensitivity, and high sensitivity. The U.S. Department of the Interior Bureau of Land Management (BLM) developed a multilevel ranking system termed the Potential Fossil Yield Classification (PFYC) (BLM 2007, 2016 [update]). Under the PFYC system, geologic formations are ranked on a scale of 1–5 for paleontological sensitivity based on the relative abundance of known vertebrate fossils and scientifically significant invertebrate or plant fossils. The final classification scheme was developed by the SVP (2010). Of the three classification systems, the SVP (2010) system is favored by professional paleontologists, because it includes more detailed protocols for the assessment of paleontological resource potential.

For this report, SRI follows the SVP (2010) procedures for paleontological resource assessment. Under the SVP (2010) guidelines, geologic units may be classified as one of four categories of paleontological resource sensitivity: no potential, low, undetermined, and high. The criteria for each of these sensitivity categories are presented in Table 3.

Results

Archaeological Records Search

A records search was conducted by the SCCIC staff in December 2017, and the results were provided to SRI on electronic disc on January 4, 2018. Within a ¼-mile radius of the Project footprint, 21 cultural resource investigations have been completed, 1 of which has yet to be filed with the SCCIC (Table 4; Figure 7). Most are reports of cultural resource assessments in association with the development of cellular facilities, transportation projects, and urban redevelopment plans. Of these studies, 7 were performed within the Project boundaries, including 5 cell-tower-placement investigations (LA-08742, LA-09108, LA-09109, LA-09141, and LA-09842) and 2 cultural and historical assessments of the standing structures within the Project property (LA-03783 and Snow and Thabet 2016). Additionally, 2 reports concerning the historic character of the Arroyo Seco Parkway and associated bridges and features included records searches that overlapped the Project area but did not entail investigations within the Project footprint. The most recent assessment of the standing structures on the Project property concluded that although the standing buildings dating to the 1960s may have been significant for their association with MWD and on the merits of their modernist architectural design by William Pereira and Associates, the buildings currently "lack sufficient integrity to convey that significance and, therefore, the subject property is not eligible for listing in the National or California registers or for local designation" (Snow and Thabet 2016:1).

There are five cultural resources mapped by the SCCIC within the ¼-mile records-search radius (Table 5; Figure 8). One of them is the Holy Hill Community Church/MWD Complex (P-19-188482), located within the Project footprint (note that the resource is mapped incorrectly in the SCCIC digital database and should encompass all structures within the Project footprint, see Figure 8). Recorded in 2009, the complex was assessed to lack the integrity necessary to be listed in the NRHP (Supernowicz 2009). The other four resources within ¼ mile of the Project boundaries are two historical districts (the Arroyo Seco Parkway District [P-19-179645] and the 1300 Block of Carroll Avenue District [P-19-166818]), a historical-period residence (P-19-170960), and a trash deposit containing historical-period materials and some potentially prehistoric materials (P-19-120013) located during the construction of the E. Manfred Evans Community Adult School (see Table 5). The 1300 Block of Carroll Avenue Historic District is listed in the CRHR and the NRHP as the most significant collection of intact Victorian-era residences still remaining in the City of Los Angeles. Many of the individual residences along Carroll Street that are contributing elements to the district are also listed individually as HCMs.

In addition to the mapped resources, there are 112 other historical-period built-environment properties located within ¼ mile of the Project that are recorded on lists maintained by the SCICC. The built-environment properties were identified by the SCCIC staff in the California HRI and the City of Los Angeles HCMs list. The HRI includes listings for historical-period resources listed or eligible for listing in the CRHR and/or the NRHP, as well as ineligible resources and those requiring evaluation.

There are 20 HCMs designated by the City of Los Angeles within ¼ mile of the Project area (Table 6). These include 16 private residences, many of which are contributing elements to the 1300 Block of Carroll Avenue District in Angelino Heights; a carriage-barn structure that was moved to Carroll Avenue; a commercial building; a fourplex rental residence; and a fire station. The SCCIC provided an annotated list of the HRI data file for the County of Los Angeles on which the properties located within ¼ mile of the Property were indicated with highlighting (Appendix A). In addition to the properties identified as HCMs, 4 additional built-environment properties in the HRI are identified as listed in or eligible for listing in the NRHP, CRHR, or a local registry. Those 4 properties are presented with the HCMs in Table 6.

Table 3. Paleontological Resource Sensitivity

Paleontological Potential	Criteria	Recommendations
High potential	Geologic formations that are known to yield vertebrate or significant invertebrate, plant, or trace fossils. Highly sensitive formations may also be those that are likely to produce new vertebrate materials, traces, or trackways.	A field survey is required, as well as on-site construction monitoring. Any significant specimens discovered will require preparation, identification, and curation as well as eventual accession into an appropriate museum collection. A final report documenting the significance of any finds is required.
Low potential	Geologic formations that have yielded few fossils in the past, based upon review of available literature and museum collections records. Low potential may also include formations that yield fossils only under unusual circumstances. This also includes formations that, based on their relative youthful age or high-energy depositional history, are unlikely to produce important fossil remains.	Mitigation is not typically required.
No potential	Geologic formations that are formed under or exposed to immense heat and pressure, such as high-grade metamorphic rocks and plutonic igneous rocks. Artificial fill materials are also assigned a zero potential because of loss of stratigraphic context of any contained organic remains.	No mitigation is required.
Undetermined potential	Geologic formations for which available literature on paleontological resources is scarce, rendering a determination of whether or not it is potentially fossiliferous difficult to make. Under these circumstances, further study (i.e., field survey) is needed to determine the unit's paleontological resource potential.	A field survey is required to further assess the unit's paleontological potential.

Note: Table modified from guidelines provided by the Society of Vertebrate Paleontology (2010).

Table 4. Previously Conducted Cultural Resources Investigations in the 1111 Sunset Project Area and

Report No.	Year	Author(s)	Title	Affiliation
LA-00292	1978	Terence N. D'Altroy	*Environmental Impact Statement: Assessment of the Impact on Archaeological Resources of Proposed Construction of School Facilities and Parking Facilities at the Intersection of Sunset Boulevard and North Figueroa Street, Los Angeles, California*	UCLA Archaeological Survey
LA-01741	1989	Brian D. Dillon	*Archaeological and Paleontological Reconnaissance and Impact Evaluation of the Central City West Study Area Los Angeles, California*	none
LA-02028	1974	William C. Clewlow, Jr.	*Draft Environmental Impact Report, Bank of America Service Center, Los Angeles, California*	Ultrasystems, Inc.
LA-02768	1989	Brian D. Dillon and Roy Sails	*Draft Environmental Impact Report Central City West Specific Plan*	none
LA-03445	1996	Carol R. Demcak	*Report of Archaeological Survey for LA Cellular Site #759.3, 1000 W. Sunset Boulevard, Los Angeles, Los Angeles County*	Archaeological Resource Management Corp.

continued on next page

Report No.	Year	Author(s)	Title	Affiliation
LA-03783	1993	Robert S. White and Laura S. White	*Archaeological Element of the Metropolitan Water District of Southern California Headquarters Facility Site Study Analysis*	Archaeological Associates, Ltd.
LA-04452	1982	Roger G. Hatheway	*Determination of Eligibility Report Chinatown*	Roger G. Hatheway & Associates
LA-05431	2001	Curt Duke	*Cultural Resource Assessment Cingular Wireless Facility No. SM 057-04, Los Angeles County, CA*	LSA Associates, Inc.
LA-06362	1994	Roger Borg	*Finding of Effect on Historic Properties Arroyo Seco Parkway and Four Level Interchange*	Caltrans District 7
LA-08252	1986	John W. Snyder, Mike Sell, and Stephen Pierzinski	*Request for Determination of Eligibility for Inclusion in the National Register of Historic Places/Historic Bridges in California: Concrete Arch, Suspension, Steel Girder and Steel Arch*	Caltrans
LA-08742	2007	Wayne H. Bonner and Kathleen A. Crawford	*Cultural Resources Records Search and Site Visit Results for Royal Street Communications, LLC Candidate LA2054A (Close to Figueroa Terrace & Marview Avenue), 1111 West Sunset Boulevard, Los Angeles, Los Angeles County, California*	Michael Brandman Associates
LA-09108	2007	Wayne H. Bonner	*Cultural Resources Records Search and Site Visit Results for T-Mobile Candidate SV11562H (Holy Hill Monopalm), 1111 West Sunset Boulevard, Los Angeles, Los Angeles County, California*	Michael Brandman Associates
LA-09109	2007	Wayne H. Bonner	*Cultural Resources Records Search and Site Visit Results for T-Mobile Candidate SV11562A (Holy Hill Building Tower), 1111 West Sunset Boulevard, Los Angeles, Los Angeles County, California*	Michael Brandman Associates
LA-09141	2007	Wayne H. Bonner	*Direct APE Historic Architectural Assessment for T-Mobile Candidate SV11562A (Holy Hill Building Tower), 1111 West Sunset Boulevard, Los Angeles, Los Angeles County, California*	Michael Brandman Associates
LA-09489	2003	Portia Lee	*Arroyo Seco Parkway Historic District*	California Archives
LA-09842	2009	Dana E. Supernowicz	*Cultural Resources Study of the Holy Hill Project, Royal Street Communications Site No. LA2054, 1111 W. Sunset Blvd., Los Angeles, Los Angeles County, California*	Historic Resource Associates
LA-10149	2009	Noah M. Stewart	*Finding of No Adverse Effect: US 101 from Alameda Street Underpass to Barham Boulevard Overcrossing*	Caltrans District 7
LA-11709	2011	Noah M. Stewart	*Finding of No Adverse Effect, Source Control Project(s) on State Route 110 and United States Highway 101 at the Four-Level Interchange*	Caltrans
LA-11783	2012	Noah M. Stewart and Noah Allison	*Supplemental Finding of No Adverse Effect, Upgrade Bridge Rails in L.A. County on Highway 101*	Caltrans
LA-11992	2009	Noah M. Stewart	*Findings of No Adverse Effect, Upgrade Bridge Rails in L.A. County om Highway 101*	Caltrans
Not on file	2016	Jenna Snow and Andrea Thabet	*Historic Resource Assessment: 1111 Sunset Boulevard, Los Angeles, California*	Jenna Snow Historic Preservation Consulting

Key: Caltrans = California Department of Transportation; UCLA = University of California, Los Angeles.

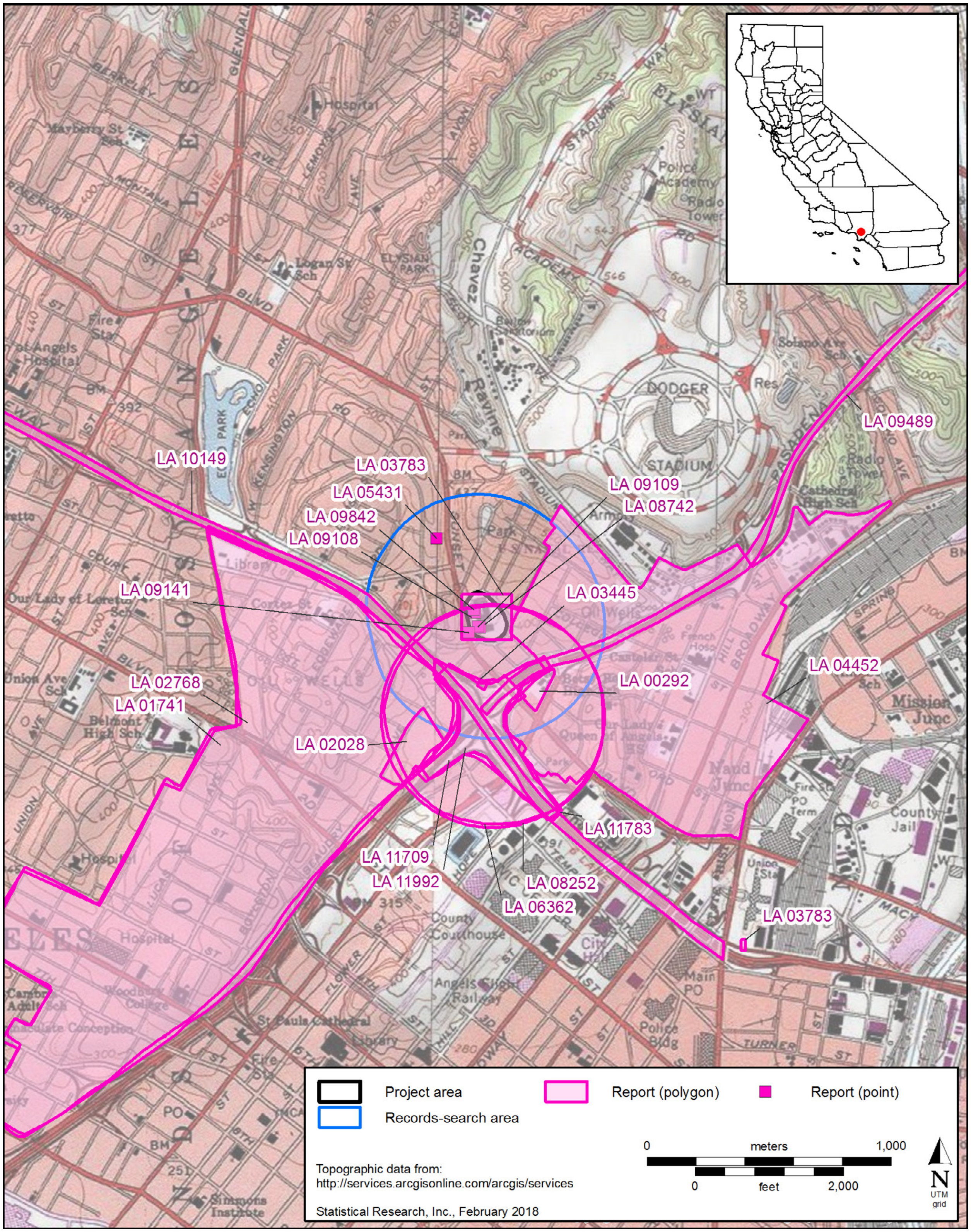


Figure 7. Map showing the locations of previous cultural resource studies within the 1111 Sunset Project area and the surrounding $^1/_4$-mile radius.

Table 5. Previously Recorded Cultural Resources Mapped at the South Central Coastal Information Center within the Project Area and the Surrounding 1/4-Mile Radius

Primary No.	Resource Description	Recorder(s), Date(s)	Affiliation(s)
P-19-120013	Historical-period trash deposit with possible prehistoric materials. Buried resource located during construction of the E. Manfred Evans Community Adult School.	Phyllisa J. Eisentraut, 1996	UCLA Institute of Archaeology
P-19-166818	1300 Block of Carroll Avenue—historic district consisting of large Victorian residences constructed in the late 1880s. Listed in the CRHR and eligible for listing in the NRHP.	Calvin Hamilton, 1975	City of Los Angeles
P-19-170960	Joseph Moffat Rental Cottage, a single-family residence built in the 1880s and moved to the current location in 1924.	Roger G. Hatheway, 1982	Hatheway & Associates
P-19-179645	Arroyo Seco Parkway—historic district, also known as State Route 110 and the Pasadena Freeway and consisting of several related elements.	John W. Snyder, 1982 David Greenwood, 2003 Janice Calpo, 2008	Caltrans Myra L. Frank & Associates Caltrans
P-19-188482	Holy Hill Community Church/MWD Complex consisting of those buildings constructed in the early 1960s.	Dana E. Supernowicz, 2009	Historic Resources Associates

Key: Caltrans = California Department of Transportation; CRHR = California Register of Historical Resources; MWD = Metropolitan Water District; NRHP = National Register of Historic Places; UCLA = University of California, Los Angeles.

Figure 8. CONFIDENTIAL Map showing the locations of previously identified cultural resources mapped at the South Central Coastal Information Center within $^{1}/_{4}$-mile of the 1111 Sunset Project area. ***Provided under separate cover.***

Table 6. Historical-Period Built-Environment Resources Listed in or Eligible for Listing in the NRHP, CRHR, HCM List, or Other Local Listing within 1/4 Mile of the Project Area

Resource Description	Address	Date Built	Listing Status
Bob's Market, previously the Ella J. McMillens Store	1222–1234 Bellevue Avenue	1913	HCM No. 215, not evaluated
E. Edgar Galbreth Residence, private residence	1239–1247 Boston Street	1890	HCM No. 219, appears eligible for listing in the NRHP
Martin C. Marsh Residence, private residence	573 Boylston Street	1903	listed on a local registry (not named)
Louis Luckel Residence, private residence	1311 Calumet Avenue	1892	appears eligible for listing in the NRHP
Aron P. Phillips House, private residence	1300 Carroll Avenue	1887	HCM No. 511, listed in the NRHP and CRHR as part of the 1300 Block of Carroll Avenue District
Russell Carriage House, private residence	1316 Carroll Avenue	1887	HCM No. 76, listed in the NRHP and CRHR as part of the 1300 Block of Carroll Avenue District
Ferdinand A. Heim House, private residence	1320 Carroll Avenue	1888	HCM No. 77, listed in the NRHP and CRHR as part of the 1300 Block of Carroll Avenue District
1145 Court Street Home, private residence	1321 Carroll Avenue and 1310–1316 Kellam Avenue	1887	HCM No. 176, not evaluated
John Scheerer House, private residence	1324 Carroll Avenue	1887	HCM No. 78, listed in the NRHP and CRHR as part of the 1300 Block of Carroll Avenue District
Hiram Irey/John M. Houser Residence, private residence	1325 Carroll Avenue and 1314–1320 Kellam Avenue	1887	HCM No. 109, appears eligible for listing in the NRHP
Daniel Innes House, private residence	1329 Carroll Avenue	1887	HCM No. 73, listed in the NRHP and CRHR as part of the 1300 Block of Carroll Avenue District
Charles Sessions House, private residence	1330 Carroll Avenue	1889	HCM No. 52, listed in the NRHP and CRHR as part of the 1300 Block of Carroll Avenue District
Foy House, private residence	1335–1341½ Carroll Avenue	n.d.	HCM No. 8, not evaluated
Private residence	1340 Carroll Avenue	1907	listed in the NRHP and CRHR as part of the 1300 Block of Carroll Avenue District
Charles C. Haskins House, private residence	1344 Carroll Avenue	1895	HCM No. 79, listed in the NRHP and CRHR as part of the 1300 Block of Carroll Avenue District
Michael Sanders House, private residence	1345 Carroll Avenue	1887	HCM No. 74, listed in the NRHP and CRHR as part of the 1300 Block of Carroll Avenue District
Henry L. Pinney House, private residence	1355 Carroll Avenue	1887	HCM No. 75, listed in the NRHP and CRHR as part of the 1300 Block of Carroll Avenue District
Old Fire Station No. 6, City of Los Angeles	534 E. Edgeware Road	1929	HCM No. 605, not evaluated
Walter Chernish Apartments	701 E. Edgeware Road	1924	appears eligible for listing in the NRHP

Resource Description	Address	Date Built	Listing Status
Caleb Library House, private residence	724 E. Edgeware Road	1887	HCM No. 206, appears eligible for listing in the NRHP and local listing
Forthmann Carriage Barn, private residence (relocated from 629 W. 18th Street in 2007)	812 E. Edgeware Road	n.d.	HCM No. 103, not evaluated
Maxwell House, private residence (relocated from 475 N. Bowling Green Way in 2008)	822 E. Edgeware Road	n.d.	HCM No. 808, not evaluated
Zachariah Weller Residence, private residence	822–826 E. Kensington Road	1894	HCM No. 223, not evaluated
J. M. Haff Fourplex, Craftsman-style rental residence	1121 W. Marion Avenue	n.d.	HCM No. 739, not evaluated

Key: CRHR = California Register of Historical Resources; HCM = City of Los Angeles Historic-Cultural Monument; n.d. = no data; NRHP = National Register of Historic Places.

Archival and Historical Background Research

Secondary published materials were reviewed with regard to the history of Los Angeles, in general, and of the Project site, specifically. The review of historical topographic maps, historical city maps and drawings, historical Sanborn Fire Insurance Company maps, and historical aerial photographs resulted in a compilation of the history of land use for the Project parcel (presented in the Historic Context and Overview section, above). Sanborn Fire Insurance Company maps were informative with regard to built-environment and subsurface features. In addition to providing spatial information, such as the layout of buildings and structures of the old Sisters' Hospital, which occupied the Project parcel from ca. 1884 to sometime between 1932 and 1934, the maps provided information about known or potential archaeological features, such as basements and foundations. A compilation of historical topographic maps (Environmental Data Resources, Inc. [EDR] 2017b), Sanborn Fire Insurance Company maps (California State University, Northridge 2017; EDR 2017a), and historical aerial photographs (EDR 2017c) provided valuable insights into land development in the Project area over time. Building records and permits from the City of Los Angeles Building and Safety Department for the Project address provided detailed information about construction activity since the 1960s.

The compiled historical documentation indicated that the Project parcel has been subjected to varying amounts of subsurface disturbance, such as cutting, filling, grading, and paving. A resubdivision document dated July 18, 1963, described the differing compaction processes that were applied in areas where structural footings were installed, versus areas outside building footprints. The eastern half of the Project maintains terraced parking areas that roughly approximate historical-period contours, but the parking areas were clearly modified to create roughly level surfaces for parking. A compaction report dated December 14, 1962, mentioned benching that would be consistent with current conditions. Nevertheless, because no substantial buildings have ever stood in the eastern portion of the property, there is potential for remnants of previous structures and oil-well equipment to remain in subsurface contexts. The potential is increased in areas outside the retaining walls that maintain the original grade.

The western edge of the Project area is steeply sloped and retains a similar configuration to its historical-period appearance. A 1960 foundation-investigation document noted that a large amount of fill was present in the western portion of the property and that the fill contained brick and concrete rubble. A 1997 soils report indicated the discovery of brick, concrete, and metal fragments in fill beneath the Holy Hill

Church building. Importantly, a row of Canary Island palm trees planted along the western boundary of the property by the Daughters of Charity soon after construction of the new hospital wing in 1902 appears to have been preserved during construction of the MWD complex in 1961–1963 (see the Field Survey section, below). Consequently, that area has high sensitivity for intact landscaping elements related to the hospital period and perhaps the earlier Beaudry Park period of development.

Portions of the hospital foundation and/or basement features may remain in areas outside the footprint of the MWD and church buildings, particularly parts of the 1902 west hospital wing and areas east of the church and the MWD building. The northern and northeastern parts of the Project area may have been subjected to greater cut and fill in preparation for the MWD complex. Nevertheless, some of that area has been used only as a paved parking lot and landscaping, and subsurface features related to outlying features on the hospital grounds may have survived intact. In particular, remnants of the cottages, laundries, one summer house, and the building eventually used as apartments may remain.

Potential archaeological remains related to Beaudry Park and/or the hospital could include foundations or basements, landscaping features (tree pits, walkways, stairways, driveways, retaining walls, fountains, and pools), water-conveyance/-storage features (cisterns, ditches, pipelines, and cesspools), fences, hollow-filled features (such as trash pits or wells), sheet refuse, infrastructure elements (such as utility lines), and industry-specific features related to oil-well drilling and oil extraction. Though unlikely, buried archaeological remains could also be associated with the prehistoric or ethnographic period use of the Project area.

Field Survey

On December 4, 2017, Angela Keller, Ph.D., surveyed the Project parcel by walking over all accessible areas within the Project footprint. The pedestrian survey included the paved parking areas, landscaped containers, cut banks, and the slopes along the edges of the property. The survey did not include the interiors of any buildings. In addition, the interior courtyard space within the former MWD complex was not accessible at the time of the survey. All of the buildings are were locked and unoccupied, with the exception of the northernmost building, which is currently in use as The Elysian apartments. The survey did not reveal any previously unrecorded cultural resources of historical-period or prehistoric age.

Although most of the structures and landscaping present on the property are historical period in age, they have been assessed and found to lack the integrity required for historic significance (Snow and Thabet 2016) (see discussion above). The entire Project area has been modified in the modern era by the construction of the standing buildings and associated parking areas. The buildings form a large, connected structural complex surrounded by graded parking lots and steep, landscaped slopes. The parcel appears to have been modified, through a combination of cut and fill, to create broad terraces that step down to the south and east (Figure 9). In the northeastern corner of the property, the parking lot has been cut down roughly 5 feet below the original grade, and the slope is held back by a block retaining wall (Figure 10). Along the western side of the property, the slope is very steep and supports old Canary Island palm trees that were likely planted in the early 1900s in front of the west wing of the Sisters' Hospital (Figure 11). Some of the palm trees have been cut recently and are mere stumps. The rest of the landscape plantings, including the mature pine trees that line the parking lots, likely date to the 1960s forward.

Prior to the field survey, SRI georeferenced several available historical maps of the area, including Sanborn Fire Insurance Company maps of the previous hospital structures. An annotated map showing the locations of since-demolished structures atop current satellite imagery was used to guide the survey. The footprint of the previous Sisters' Hospital main building and west wing addition is largely encompassed by the standing MWD building complex and courtyard. No significant, intact remnants of the central hospital building and west wing are expected to have been preserved. Along the margins of the property, though, the Sanborn Fire Insurance Company maps show a number of accessory structures (e.g., cottages, laundries, and summer houses) that may be preserved under the current landscaping and parking areas.

Figure 9. Photograph of parking lots and Metropolitan Water District buildings on the 1111 Sunset Project property, view to the northwest, from the southeastern corner of the property.

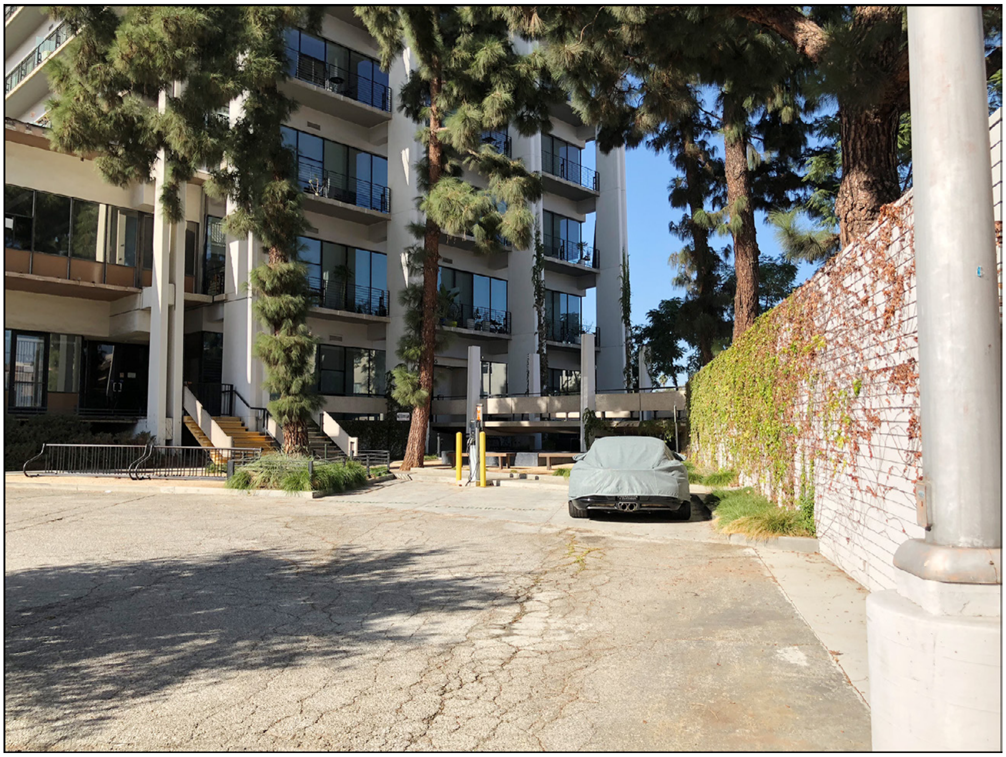


Figure 10. Photograph of north parking lot and The Elysian tower on the 1111 Sunset Project property, view to the north.

Figure 11. Photograph of old Canary Island palm trees next to The Elysian tower, in northwestern corner of the 1111 Sunset Project property, view to the east.

Of particular interest was a lone structure identified as a "shrine" that previously stood in the southern half of the property, to the southeast of the main hospital building. During the survey, the former shrine location was identified and found to be in an area currently developed as an asphalt-covered parking lot. The lot has been cut down several feet from the original grade (Figures 12 and 13), significantly reducing the likelihood that any remnants of the shrine are preserved under the asphalt. Similarly, no surface evidence was found of any of the other structures that formerly lined the margins of the property. Pervasive and large cracks in the parking-lot asphalt appear to be the result of tree-root action and not of settling around structural features (Figure 14).

As a result of the pedestrian survey, no surface-evident remnants were found of any structures or features associated with the Sisters' Hospital or earlier use of the property. Nonetheless, it is possible that buried foundations, trash deposits, pits, or other historical-period remnants may be preserved below the modern construction. The possibility that buried and intact prehistoric deposits are preserved within the Project footprint is quite low, considering the amounts of landscape modification and construction that have occurred from the 1870s forward.

Figure 12. Photograph of the former location of the "shrine" structure in the south parking lot, on the 1111 Sunset Project property, view to the south. Note that the shrine location was roughly in the center and mid-ground of the photograph.

Figure 13. Photograph taken standing on the former location of the "shrine" structure in south parking lot, view to the north.

Figure 14. Photograph of cracked and buckled asphalt in parking lot on the 1111 Sunset Project property, view to the south.

Table 7. Geologic Units within the Project Area and Their Paleontological Potential

Unit	Map Abbreviation	Age	Paleontological Potential
Artificial fill	af	recent	zero
Colluvium	Qcol	Holocene	low
Puente Formation	Tp	late Miocene to early Pliocene	high
Quaternary old alluvial deposits	Qoa, Qof, Qae	late Pleistocene	high

Paleontological Resource Assessment

The current California Geological Survey geologic map of the region (Campbell et al. 2014) shows the Project resting on sedimentary bedrock classified as part of the Puente Formation (see Figure 3), as well as Quaternary-age young alluvial deposits. A geotechnical investigation conducted for this Project (Geotechnologies, Inc. 2017) encountered artificial fill, colluvium, Quaternary-age old alluvial deposits, and sediments of the Puente Formation during exploratory borings of up to 70 feet (21.3 m) below the current grade. Young alluvial deposits documented by Campbell et al. (2014) were not encountered during the geotechnical investigation. However, deposits identified as colluvium by Geotechnologies, Inc. (2017), could represent those identified by Campbell et al. (2014) as Quaternary-age young alluvium.

The following section provides a general overview of the types of geologic deposits located within the Project area (in order from oldest to youngest) and discusses their paleontological significance and potential (Table 7).

Puente Formation (Tp)

A period of accelerated subsidence in the Los Angeles Basin starting in the late Miocene (ca. 11 Ma), coupled with a globally higher sea level, left much of the basin submerged under the Pacific Ocean (Hildenbrand et al. 2001). At that time, large volumes of terrigenous sediments (derived of material eroded from the land) were deposited in marine basins throughout the Los Angeles region, resulting in strata hundreds to thousands of meters thick. The Puente Formation is one of the units formed under these conditions.

The Puente Formation is a late Miocene to early Pliocene (ca. 11.6–3.6 Ma) marine unit consisting of siltstones, sandstones, and shales. Sedimentological characteristics, as well as fossil composition, suggest that the Puente Formation represents the deposits of a submarine fan at bathyal-zone depths (Durham and Yerkes 1964). The Puente Formation has been subdivided into four formal members, which are, from oldest to youngest, La Vida, Soquel, Yorba, and Sycamore Canyon. These members represent the progradation, or seaward growth, of the submarine fan (Critelli 1995; Krueger 1936). Some exposures of the Puente Formation have not been assigned to a formal member in parts of the Los Angeles Basin.

Bedrock corresponding to the Puente Formation was encountered during the geotechnical investigation (Geotechnologies, Inc. 2017) at depths of 1–10½ feet (0.3–3.2 m) below the current grade. These sediments have been mapped by Campbell et al. (2014) as corresponding to the early Pliocene age (ca. 5 Ma) siltstone component of the Puente Formation and have not been assigned to a formal member (Lamar 1970). Sediments were documented by the geotechnical investigation as well-bedded yellowish brown, olive gray, or orange brown clayey siltstones to sandstones. Gypsum crystals and concretions were also documented within this unit.

Paleontological resources are well known from the Puente Formation and have produced remains of marine mammals, fish, sharks, birds, turtles, invertebrates, and plant material. In support of this Project, paleontologist Dr. Samuel McLeod conducted a search of the paleontological specimen and locality records held by the Vertebrate Paleontology Department of the NHMLA. On November 29, 2017, Dr. McLeod provided a report of his findings, a statement concerning the likelihood of significant paleontological resources within the Project footprint, and recommendations for resource protection. That report is summarized here and is provided in full as Appendix B.

Dr. McLeod found no vertebrate-fossil localities recorded in the NHMLA paleontology collection records that lie directly within the Project footprint. Nonetheless, he identified several nearby localities that were found in sedimentary deposits similar to those underlying the Project area. The closest comparable vertebrate-fossil locality, LACM 5961, is located roughly 0.85 miles (1.36 km) south-southeast of the Project area, at the intersection of 1st and Hill Streets. That locality produced a fossil specimen of a deep-sea bristlemouth fish, *Cyclothone*. An additional 13 fossil localities have been documented in similar Puente Formation deposits within 3½ miles (5.6 km) of the Project area. The specimens identified in those localities include a wide variety of fossil marine bony fishes and a fossil whale rib (see Appendix B for specific locality information and species lists).

Although no localities have been identified within the Project footprint, the known significant fossil finds from the Puente Formation and the richness of nearby localities with similar depositional regimes and geologic ages are indicative of the high fossil sensitivity for this unit. Any excavation into the Puente Formation therefore has the potential to encounter significant vertebrate fossil remains.

Quaternary Old Alluvial Deposits (Qoa)

Alluvial fans are cone- or fan-shaped deposits of sediment that form at the boundaries between areas of high and low topography. The sediments of the alluvial fan are transported and deposited by gravity, wind, and often water. Such features are common in mountainous regions of the world, and in tectonically active regions, alluvial fans can reach over 31 miles (50 km) in width and 37 miles (60 km) in length.

Quaternary old alluvial deposits are extensively exposed throughout portions of the Los Angeles Basin and date to the middle to late Pleistocene. The geotechnical report produced for the Project area (Geotechnologies, Inc. 2017) documented old alluvial deposits in Test Pit 1 at the southern edge of the Project area. These deposits were encountered below the colluvium, at a depth of 10 feet (3 m). The old alluvium in this portion of the Project area is at least 4 feet (1.2 m) thick, but the total thickness of these deposits is currently unknown, because excavations for Test Pit 1 did not encounter the contact between the alluvium and the underlying Puente Formation. Sediments of the Quaternary old alluvial deposits encountered during the geotechnical investigation were dark brown in color and consisted of sand to gravelly sand layers. Larger cobbles (up to 4 inches in diameter) were occasionally documented within these sandy deposits, potentially indicating that these sediments were deposited near their source.

Paleontologically significant finds of well-preserved large-bodied land mammals have been found within the Pleistocene-age alluvial deposits throughout Los Angeles County, as well as in nearby Orange and Riverside Counties (Jefferson 1991). These deposits have yielded remains of mammoths, mastodons, camels, bison, ground sloths, dire wolves, and American lions, among others. Plant remains, terrestrial invertebrates, and microfossils (especially micromammals) are also known from similar deposits throughout the Los Angeles Basin (Miller 1971). Based on these regional discoveries of important paleontological resources, the Quaternary old alluvial fan deposits underlying the Project area have high paleontological resource potential, as defined by the SVP (2010).

Colluvial Deposits (Qcol)

Colluvium is a type of mass-wasting deposit composed of sediments that were transported by gravity, rain wash, sheetwash, and/or non-channelized flow (Millar 2014). These deposits form along the slopes and at the bases of topographic features. Sediment composition of colluvial deposits can be quite variable but is generally immature (i.e., poorly sorted, unconsolidated, and compositionally diverse).

Colluvial deposits were documented on the southern side of the Project site during the geotechnical investigation (Geotechnologies, Inc. 2017). These deposits were typically found below the artificial fill and ranged from 1 to 5 feet (0.3–1.5 m) in thickness. The colluvium was encountered as a dark brown to dark gray sandy silt to silty sand. Minor amounts of caliche were observed within the colluvium, which attests to the near-surface formation of these deposits and suggests some degree of aridity during their surficial exposure.

The colluvial deposits within the Project area are likely Holocene to latest Pleistocene in age. This relatively young age means that fossil remains recovered from these deposits would likely have been reworked from older geologic units and thus would lack the stratigraphic context to make them scientifically informative. Therefore, the colluvial deposits underlying the Project area are assigned low paleontological resource sensitivity.

Artificial Fill (af)

Artificial fill materials discovered at the site by Geotechnologies, Inc. (2017), were dark brown in color and poorly to moderately consolidated. These sediments ranged in grain size from silt to fine sand and were generally poorly sorted. Such deposits are presumably derived from prior construction activities and are thus not naturally forming. These disturbed fill sediments could potentially contain fossil materials that were unintentionally introduced during earlier excavations. However, such fossil materials would have been removed from their original geologic and stratigraphic contexts and thus would not be of paleontological interest or significance. Artificial fill materials are thus assigned zero paleontological resource sensitivity, and monitoring of such deposits would not be required.

Conclusions

We have prepared the following conclusions based on the results of archival research, field reconnaissance, and records searches. These lines of inquiry resulted in an understanding of the geologic and cultural setting, land use, and development of the Project area and vicinity. Construction of the MWD headquarters buildings and the later Holy Hill Church building likely destroyed subsurface remains of historical-period and prehistoric activities within their footprints, particularly where basements were excavated. There is, however, potential for the presence of intact archaeological remains outside the current building footprints and throughout the remainder of the Project area. Further, potential exists for the discovery of significant vertebrate paleontological resources wherever excavations are planned that will impact the underlying bedrock.

Historical-Period Archaeological Resources

The results of our research indicate that the parts of the Project within the footprint of existing buildings have low sensitivity for the presence of buried archaeological resources. Parts of the Project to the west, south, and southeast of existing buildings have moderate to high sensitivity for the presence of buried historical-period archaeological resources. The northern portion and the northeastern perimeter of the Project area have moderate sensitivity for the presence of buried historical-period archaeological resources. Locations of specific archaeological sensitivity, as identified through the archival research conducted for this Project, are shown in Figure 15.

If intact, buried archaeological deposits remain extant within the Project area, they could provide important information about early park design in Los Angeles, the daily lives and activities of workers and patients related to the hospital, oil speculation and extraction at the turn of the twentieth century, and mid-twentieth-century residential occupation. If they do provide such information, it appears that they would be potentially eligible for listing in the CRHR under Criterion 4, for resources that "may be likely to yield information important in history," and possibly under other criteria, as well. SRI recommends that the proponent retain a qualified principal archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology to prepare and implement a written cultural resource mitigation and treatment plan to reduce potential Project effects on unanticipated historical-period archaeological resources to a less-than-significant level (see Mitigation Measure 1 below). This plan shall include protocols for monitoring of construction activity to identify any preserved historical-period resources.

Prehistoric Archaeological Resources

The likelihood that intact prehistoric remains are preserved within the Project area is very low, considering the extensive historical-period landscape modification that occurred across the entire property from the 1870s forward. Although not expected, prehistoric deposits would be more likely to be preserved in areas where the natural topography has been minimally altered by historical-period and recent construction. Those less-disturbed areas are confined to the margins of the property, particularly along the northwestern and eastern Project boundaries that face Sunset Boulevard and Alpine/Beaudry Avenue. The presence of two named Gabrielino village sites—*Yaangna* and *Maungna*—within 1 mile of the Project area suggests that the area was a significant hub of occupation and activity in the ethnohistorical period.

In the unlikely event that prehistoric materials or deposits are preserved within the Project area, those items may provide information concerning the prehistoric or ethnographic use of the greater Los Angeles area. If they do provide such information, it appears that they would be potentially eligible for listing in the CRHR under Criterion 4, for resources that "may be likely to yield information important in history," and

Topographic data from: http://services.arcgisonline.com/arcgis/services

Statistical Research, Inc., February 2018

Figure 15. Map of the 1111 Sunset Project area, showing archaeologically sensitive areas overlaid on recent satellite imagery.

possibly under other criteria, as well. Because of the low probability of encountering intact prehistoric archaeological deposits during construction, monitoring for prehistoric archaeological resources, specifically, is not recommended. Nonetheless, SRI recommends that the proponent retain a qualified principal archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology to prepare and implement a written cultural resource mitigation and treatment plan to reduce potential Project effects on unanticipated prehistoric archaeological resources to a less-than-significant level (see Mitigation Measure 1 below).

Human Remains

The likelihood that human remains of historical or prehistoric age are preserved within the Project footprint is quite low. Our historical research found no references to burials on the property in association with the operation of the Sisters' Hospital (St. Vincent Hospital). Although the disposal of medical waste from surgeries and amputations is sometimes not recorded, our research found no indication of such activity. Further, extensive disturbances associated with the construction of the MWD complex have likely removed both historical-period deposits associated with the former hospital as well as any prehistoric deposits that may have existed within the Project footprint. The possibility of encountering human interments from the prehistoric era is, therefore, also unlikely.

If human remains are encountered during Project construction, California law provides clear guidance for the appropriate treatment of human remains found outside of designated cemeteries (PRC § 5097.98 and HSC § 7050.5), as well as penalties for the unlawful treatment of human remains (PRC § 5097.99 and HSC § 7052). SRI recommends that the proponent retain a qualified principal archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology to prepare and implement a written cultural resource mitigation and treatment plan to reduce potential Project effects on unanticipated human remains to a less-than-significant level (see Mitigation Measure 1 below).

Paleontological Resources

Paleontological sensitivity within the Project footprint is high in all areas where excavations will extend below the fill and colluvium into the underlying bedrock. The entire Project area is underlain by the fossil-rich Puente Formation, which dates to the late Miocene and early Pliocene, as well as Quaternary old alluvial deposits. Bedrock within the Project footprint has a high likelihood of containing significant vertebrate fossils similar to those recovered from nearby comparable localities. SRI recommends that the proponent retain a qualified professional paleontologist to write and implement a paleontological treatment and mitigation program, to reduce any impacts to paleontological resources to a less-than-significant level (see Mitigation Measure 2 below).

Recommended Mitigation Measures

Project construction plans call for excavations up to 64 feet (19.5 m) deep in some areas, which would likely destroy any cultural or paleontological resources present at those depths. The following mitigation measures would reduce the potential impact to such resources to a less-than-significant level. These mitigation measures are in addition to the City of Los Angeles standard conditions of approval, which include protocols for the treatment of unanticipated archaeological deposits, tribal cultural resources, and human remains.

Mitigation Measure 1: Archaeological Resources

Prior to the start of Project ground disturbance, including demolition and vegetation removal, a qualified principal archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for Archeology shall be retained to prepare and implement a written Cultural Resource Monitoring and Treatment Plan (CRMTP), to reduce potential Project effects on unanticipated archaeological resources unearthed during construction, with an emphasis on potential historical-period materials. The plan should include the professional qualifications required of key staff, monitoring protocols relative to the varying archaeological sensitivity across the Project site, provisions for evaluating and treating unanticipated cultural materials discovered during ground-disturbing activities, situations under which monitoring may be reduced or discontinued, and reporting requirements. The CRMTP shall also include a section describing the protocol in the event that unanticipated human remains are discovered during Project construction, following HSC § 7050.5 and PRC § 5097.98.

Mitigation Measure 2: Paleontological Resources

The services of a qualified paleontologist shall be retained prior to earthmoving activities associated with the Project, in order to develop a site-specific Paleontological Resource Mitigation and Treatment Plan. The plan shall specify the levels and types of mitigation efforts based on the types and depths of earthmoving activities and the geologic and paleontological sensitivity of the Project area. If artificial fill, significantly disturbed deposits, or younger deposits too recent to contain paleontological resources are encountered during construction, the Project paleontologist may reduce or curtail monitoring in the affected areas, after consultation with the proponent and the City of Los Angeles. The plan shall also include a description of the professional qualifications required of key staff, communication protocols during construction, fossil-recovery protocols, sampling protocols for microfossils (if required), laboratory procedures, reporting requirements, and curation provisions for any collected fossil specimens.

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APPENDIX A

California State Historic Resources Inventory Database Printout for the Project Vicinity

OPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES...........................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
099268	19-175736	4451 ALPHA ST	PICKERING HOUSE	LOS ANGELES	S	1940	HIST.RES.	DOE-19-95-0003-0015	11/20/95	2D2	AC
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
099886	19-175920	4501 ALPHA ST		LOS ANGELES		1948	HIST.RES.	DOE-19-95-0003-0016	11/20/95	6X	AC
							PROJ.REVW.	FHWA830201A	03/07/95	7M	
099271	19-175739	4507 ALPHA ST	PACKARD HOUSE	LOS ANGELES	S	1913	HIST.RES.	DOE-19-95-0003-0017	11/20/95	2D2	AC
	19-155937						PROJ.REVW.	FHWA830201A	03/07/95	7M	
099275	19-175742	4511 ALPHA ST	ARMSTRONG HOUSE	LOS ANGELES	P	1940	HIST.RES.	DOE-19-95-0003-0018	11/20/95	2D2	AC
	19-155936						PROJ.REVW.	FHWA830201A	03/07/95	7M	
099280	19-175744	4517 ALPHA ST	HOAGLAND HOUSE	LOS ANGELES	P	1910	HIST.RES.	DOE-19-95-0003-0019	11/20/95	2D2	AC
	19-155935						PROJ.REVW.	FHWA830201A	03/07/95	7M	
099888	19-175921	4527 ALPHA ST		LOS ANGELES		1916	HIST.RES.	DOE-19-95-0003-0020	11/20/95	6X	AC
	19-155934						PROJ.REVW.	FHWA830201A	03/07/95	7M	
099889	19-175922	4531 ALPHA ST	ROMERO-GLASS HOUSE	LOS ANGELES		1930	HIST.RES.	DOE-19-95-0003-0021	11/20/95	2D2	AC
	19-155933						PROJ.REVW.	FHWA830201A	03/07/95	7M	
024940	19-170960	1027 ALPINE ST	JOSEPH MOFFAT RENTAL COTTAGE	LOS ANGELES	P	1880	HIST.SURV.	0053-2330-0000		7N	
024353	19-170375	2115 ALSACE AVE		LOS ANGELES	P	1924	HIST.SURV.	0053-1821-0000		7R	
	19-157584										
024354	19-170376	2117 ALSACE AVE		LOS ANGELES	P	1921	HIST.SURV.	0053-1822-0000		7R	
	19-157583										
024355	19-170377	2226 ALSACE AVE		LOS ANGELES	P	1921	HIST.SURV.	0053-1823-0000		7R	
	19-157582										
070500	19-173996	2227 ALSACE AVE		LOS ANGELES	U	1922	PROJ.REVW.	HUD9105200	06/11/91	6Y	
024356	19-170378	2322 ALSACE AVE		LOS ANGELES	P	1924	HIST.SURV.	0053-1824-0000		7R	
	19-157581										
024357	19-170379	2416 ALSACE AVE		LOS ANGELES	P	1923	HIST.SURV.	0053-1825-0000		7R	
	19-157653										
127471		2510 ALSACE AVE		LOS ANGELES		1923	HIST.RES.	DOE-19-01-0017-0000	01/31/01	6Y	
							PROJ.REVW.	HUD010201B	01/31/01	6Y	
127472		2516 ALSACE AVE		LOS ANGELES		1923	HIST.RES.	DOE-19-01-0018-0000	01/31/01	6Y	
							PROJ.REVW.	HUD010201B	01/31/01	6Y	
127473		2517 ALSACE AVE		LOS ANGELES		1928	HIST.RES.	DOE-19-01-0019-0000	01/31/01	6Y	
							PROJ.REVW.	HUD010201B	01/31/01	6Y	
127474		2520 ALSACE AVE		LOS ANGELES		1923	HIST.RES.	DOE-19-01-0020-0000	01/31/01	6Y	
							PROJ.REVW.	HUD010201B	01/31/01	6Y	
127475		2521 ALSACE AVE		LOS ANGELES		1923	HIST.RES.	DOE-19-01-0021-0000	01/31/01	6Y	
							PROJ.REVW.	HUD010201B	01/31/01	6Y	
127476		2524 ALSACE AVE		LOS ANGELES		1927	HIST.RES.	DOE-19-01-0022-0000	01/31/01	6Y	
							PROJ.REVW.	HUD010201B	01/31/01	6Y	
127477		2525 ALSACE AVE		LOS ANGELES		1900	HIST.RES.	DOE-19-01-0023-0000	01/31/01	6Y	
							PROJ.REVW.	HUD010201B	01/31/01	6Y	
024352	19-170374	2614 ALSACE AVE		LOS ANGELES	P	1890	HIST.SURV.	0053-1820-0000		7R	
	19-157448										
024358	19-170380	2731 ALSACE AVE		LOS ANGELES	P	1924	HIST.SURV.	0053-1826-0000		7R	
	19-157449										
024359	19-170381	2761 ALSACE AVE		LOS ANGELES	P	1922	HIST.SURV.	0053-1827-0000		7R	
	19-157450										
131049		2830 ALSACE AVE		LOS ANGELES		1923	HIST.RES.	DOE-19-02-0160-0000	04/02/02	6Y	
							PROJ.REVW.	HUD020402AG	04/02/02	6Y	
097926	19-175361	2905 ALSACE AVE		LOS ANGELES	M	1929	HIST.RES.	DOE-19-94-0248-0000	04/29/94	6Y	
							PROJ.REVW.	HRG940202Z	04/29/94	6Y	
137692		2332 ALTA ST		LOS ANGELES		1902	HIST.RES.	DOE-19-02-1182-0000	08/01/02	6U	
							PROJ.REVW.	HUD0208	08/01/02	6U	
152614		1824 ALTIVO WY		LOS ANGELES		1926	HIST.RES.	DOE-19-03-0462-0000	07/31/03	6Y	
							PROJ.REVW.	HUD030801A	07/31/03	6Y	
136764		1222 ALTON ST		LOS ANGELES		1938	HIST.RES.	DOE-19-03-0022-0000	01/31/03	6U	

PERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
021419	19-167453	6542 BELLA VISTA WY		LOS ANGELES	P	1916	HIST.RES.	NPS-82002189-0137	08/19/82	1D	AC
131605		5352 BELLAIRE AVE		LOS ANGELES	P	1948	HIST.RES.	DOE-19-02-0481-0000	03/20/02	6Y	
							PROJ.REVW.	FTA010604A	03/20/02	6Y	
025219	19-171210	1168 BELLEVUE AVE	THE BROWNSTONE HOTEL	LOS ANGELES	P	1927	HIST.SURV.	0053-2614-0000		7R	
025188	19-171179	1217 BELLEVUE AVE	ANGUS BRECKENRIDGE RESIDENCE	LOS ANGELES	P	1887	HIST.SURV.	0053-2583-0000		7N	
025432	19-171423	1222 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2828-0000		7R	
025217	19-171208	1223 BELLEVUE AVE		LOS ANGELES	P	1893	HIST.SURV.	0053-2612-0000		7N	
025430	19-171421	1228 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2826-0000		7R	
025431	19-171422	1229 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2827-0000		7R	
025216	19-171207	1234 BELLEVUE AVE	ELLA J. McMILLENS STORE, BOB'S MAR	LOS ANGELES	P	1913	HIST.SURV.	0053-2611-0000		7R	
025422	19-171413	1242 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2818-0000		7R	
025410	19-171401	1243 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2805-0000		7R	
025411	19-171402	1247 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2806-0000		7R	
025412	19-171403	1253 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2807-0000		7R	
025414	19-171405	1255 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2809-0000		7R	
025421	19-171412	1262 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2817-0000		7R	
025420	19-171411	1264 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2816-0000		7R	
025419	19-171410	1268 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2815-0000		7R	
025415	19-171406	1275 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2810-0000		7R	
025416	19-171407	1279 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2811-0000		7R	
025417	19-171408	1285 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2812-0000		7R	
025418	19-171409	1290 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2814-0000		7R	
025204	19-171195	1311 BELLEVUE AVE	ROBERT R MOORE RESIDENCE	LOS ANGELES	P	1893	HIST.SURV.	0053-2599-0000		5S2	
025290	19-171281	1315 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2685-0000		7R	
025291	19-171282	1319 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2686-0000		7R	
025292	19-171283	1325 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2687-0000		7R	
025293	19-171284	1335 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2688-0000		7R	
025294	19-171285	1337 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2689-0000		7R	
025295	19-171286	1357 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2690-0000		7R	
025251	19-171242	1401 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2646-0000		7R	
025252	19-171243	1417 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2647-0000		7R	
025253	19-171244	1433 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2648-0000		7R	
025254	19-171245	1439 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2649-0000		7R	
025255	19-171246	1443 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2650-0000		7R	
025256	19-171247	1453 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2651-0000		7R	
025315	19-171306	1475 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2710-0000		7R	
025346	19-171337	1501 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2741-0000		7R	
025345	19-171336	1509 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2740-0000		7R	
025344	19-171335	1515 BELLEVUE AVE		LOS ANGELES	P		HIST.SURV.	0053-2739-0000		7R	
097763	19-175254	1632 BELLEVUE AVE	ECHO PARK RECREATION CENTER-COMMUN	LOS ANGELES	M		PROJ.REVW.	HRG940202Z	09/30/94	2D2	
							HIST.RES.	HRG-252	09/30/94	2D2	
024336	19-170358	1802 BELLEVUE AVE		LOS ANGELES	P	1910	HIST.SURV.	0053-1797-0000		5S2	
024337	19-170359	1901 BELLEVUE AVE		LOS ANGELES	P	1912	HIST.SURV.	0053-1798-0000		5S2	
024338	19-170360	1911 BELLEVUE AVE		LOS ANGELES	P	1910	HIST.SURV.	0053-1799-0000		5S2	
024339	19-170361	1915 BELLEVUE AVE		LOS ANGELES	P	1908	HIST.SURV.	0053-1800-0000		5S2	
024341	19-170363	2021 BELLEVUE AVE		LOS ANGELES	P	1905	HIST.SURV.	0053-1802-0000		5S2	
024245	19-170267	2149 BELLEVUE AVE		LOS ANGELES	P	1915	HIST.SURV.	0053-1706-0000		5S2	
024247	19-170269	2201 BELLEVUE AVE		LOS ANGELES	P	1923	HIST.SURV.	0053-1708-0000		5S2	
024243	19-170265	2202 BELLEVUE AVE		LOS ANGELES	P	1922	HIST.SURV.	0053-1704-0000		5S2	
024246	19-170268	2207 BELLEVUE AVE		LOS ANGELES	P	1925	HIST.SURV.	0053-1707-0000		5S2	
024242	19-170264	2214 BELLEVUE AVE		LOS ANGELES	P	1922	HIST.SURV.	0053-1703-0000		5S2	
125076		2612 BELLEVUE AVE		LOS ANGELES	Y	1913	HIST.RES.	DOE-19-98-0270-0000	02/02/98	6Y	
							PROJ.REVW.	HUD980202K	02/02/98	6Y	
125077		2616 BELLEVUE AVE		LOS ANGELES	Y		HIST.RES.	DOE-19-98-0271-0000	02/02/98	6Y	
							PROJ.REVW.	HUD980202K	02/02/98	6Y	
125078		2620 BELLEVUE AVE		LOS ANGELES	Y	1929	HIST.RES.	DOE-19-98-0272-0000	02/02/98	6Y	

ROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
134440		1318 BONNIE BEACH PL		LOS ANGELES		1920	HIST.RES.	DOE-19-02-1030-00000	10/09/02	6U	
							PROJ.REVW.	HUD021009N	10/09/02	6U	
134441		1329 BONNIE BEACH PL		LOS ANGELES		1920	HIST.RES.	DOE-19-02-1031-0000	10/09/02	6U	
							PROJ.REVW.	HUD021009N	10/09/02	6U	
134442		1333 BONNIE BEACH PL		LOS ANGELES		1920	HIST.RES.	DOE-19-02-1032-0000	10/09/02	6U	
							PROJ.REVW.	HUD021009N	10/09/02	6U	
024322	19-170344	617 BONNIE BRAE ST		LOS ANGELES	P	1925	HIST.SURV.	0053-1783-0000		5S2	
024323	19-170345	620 BONNIE BRAE ST		LOS ANGELES	P	1905	HIST.SURV.	0053-1784-0000		5S2	
024979	19-170991	666 BONNIE BRAE ST		LOS ANGELES	P	1910	HIST.SURV.	0053-2369-0000		7N	
024309	19-170331	719 BONNIE BRAE ST		LOS ANGELES	P	1910	HIST.SURV.	0053-1770-0000		5S2	
024310	19-170332	810 BONNIE BRAE ST		LOS ANGELES	P	1912	HIST.SURV.	0053-1771-0000		5S2	
024311	19-170333	813 BONNIE BRAE ST		LOS ANGELES	P	1910	HIST.SURV.	0053-1772-0000		5S2	
024081	19-170103	907 BONNIE BRAE ST		LOS ANGELES	P	1910	HIST.SURV.	0053-1542-0000		5S2	
024082	19-170104	911 BONNIE BRAE ST		LOS ANGELES	P	1907	HIST.SURV.	0053-1543-0000		5S2	
024083	19-170105	1031 BONNIE BRAE ST		LOS ANGELES	P	1900	HIST.SURV.	0053-1544-0000		5S2	
024299	19-170321	1034 BONNIE BRAE ST		LOS ANGELES	P	1905	HIST.SURV.	0053-1760-0000		5S2	
024298	19-170320	1040 BONNIE BRAE ST		LOS ANGELES	P	1915	HIST.SURV.	0053-1759-0000		5S2	
097570	19-175219	BONSALL AVE	MAINTENANCE AND OPERATION BUILDIIN	LOS ANGELES	F	1959	HIST.RES.	DOE-19-81-0001-0009	11/30/81	6Y	
							PROJ.REVW.	VET810807A	11/04/81	6Y	
097463	19-175207	BONSALL AVE	MESS HALL	LOS ANGELES	F	1929	HIST.RES.	DOE-19-81-0001-0001	11/30/81	2D2	AC
							PROJ.REVW.	VET810807A	11/04/81	2D2	AC
097475	19-175210	BONSALL AVE	SINGLE QUARTERS, BUILDING 33	LOS ANGELES	F	1893	HIST.RES.	DOE-19-81-0001-0005	11/30/81	2D2	AC
							PROJ.REVW.	VET810807A	11/04/81	2D2	AC
097476	19-175211	BONSALL AVE	SINGLE QUARTERS, BUILDING 35	LOS ANGELES	F	1916	HIST.RES.	DOE-19-81-0001-0006	11/30/81	2D2	AC
							PROJ.REVW.	VET810807A	11/04/81	2D2	AC
097568	19-175217	BONSALL AVE	ENGINEERING SHOPS BUILDING #44	LOS ANGELES	F	1897	HIST.RES.	DOE-19-81-0001-0007	11/30/81	2D2	AC
							PROJ.REVW.	VET810807A	11/04/81	2D2	AC
097569	19-175218	BONSALL AVE	ENGINEERING SHOPS AND PROJECT STAF	LOS ANGELES	F	1922	HIST.RES.	DOE-19-81-0001-0008	11/30/81	6Y	
							PROJ.REVW.	VET810807A	11/04/81	6Y	
097574	19-175222	BONSALL AVE	TWO-CAR GARAGE / BUILDING #104	LOS ANGELES	F	1928	HIST.RES.	DOE-19-81-0001-0013	11/30/81	2D2	AC
							PROJ.REVW.	VET810807A	11/04/81	2D2	AC
097471	19-175208	BONSALL AVE	GARAGE	LOS ANGELES	F	1900	HIST.RES.	DOE-19-81-0001-0002	11/30/81	2D2	AC
							PROJ.REVW.	VET810807A	11/04/81	2D2	AC
025532	19-171521	1970 BONSALLO AVE	MICHAEL SHANNON RESIDENCE	LOS ANGELES	P	1888	HIST.SURV.	0053-2941-0000		7R	
	19-164721						HIST.RES.	DOE-19-86-0008-0000	08/01/86	2S2	C
							PROJ.REVW.	HUD860725N	08/01/86	2S2	C
025533	19-171522	1982 BONSALLO AVE	AGNES HEIMGARTNER RESIDENCE	LOS ANGELES	P	1893	HIST.SURV.	0053-2942-0000		7R	
	19-164724						HIST.RES.	DOE-19-86-0009-0000	08/01/86	2S2	C
							PROJ.REVW.	HUD860725O	08/01/86	2S2	C
025534	19-171523	2122 BONSALLO AVE	JOHN B KANE RESIDENCE	LOS ANGELES	P	1893	HIST.SURV.	0053-2943-0000		7R	
	19-164726						HIST.RES.	DOE-19-86-0010-0000	08/01/86	2S2	C
							PROJ.REVW.	HUD860725P	08/01/86	2S2	C
025535	19-171524	2124 BONSALLO AVE	CHARLES CLIFFORD GIBBONS RESIDENCE	LOS ANGELES	P	1892	HIST.SURV.	0053-2944-0000		7R	
	19-164727						HIST.RES.	DOE-19-86-0011-0000	08/01/86	2S2	C
							PROJ.REVW.	HUD860725Q	08/01/86	2S2	C
085103	19-174654	5850 BONSALLO AVE		LOS ANGELES	P	1923	PROJ.REVW.	HUD931217U	12/27/93	6Y	
175666		11807 BORDEN AVE		LOS ANGELES	P	1950	PROJ.REVW.	HUD090126A	01/28/09	6U	
097788	19-175275	13109 BORDEN AVE	SYLMAR RECREATION CENTER - SUSAN B	LOS ANGELES	M		PROJ.REVW.	HRG940202Z	09/30/94	2D2	
							HIST.RES.	HRG-0255	09/30/94	2D2	
025189	19-171180	1239 BOSTON ST	E EDGAR GALBRETH RESIDENCE	LOS ANGELES	P	1890	HIST.SURV.	0053-2584-0000		3S	
025426	19-171417	1247 BOSTON ST		LOS ANGELES	P		HIST.SURV.	0053-2822-0000		7R	
066561	19-173622	1369 BOSTON ST		LOS ANGELES	U		PROJ.REVW.	HUD880323E	04/25/88	6Y	
127485		1832 BOUETT ST		LOS ANGELES		1930	HIST.RES.	DOE-19-01-0031-0000	01/31/01	6Y	
							PROJ.REVW.	HUD010201B	01/31/01	6Y	
123809		2440 BOULDER ST		LOS ANGELES	U	1906	HIST.RES.	DOE-19-00-0046-0000	02/01/00	6Y	

OPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							PROJ.REVW.	HUD000201E	02/01/00	6Y	
123753		2442 BOULDER ST		LOS ANGELES	U	1901	HIST.RES.	DOE-19-99-0324-0000	02/01/99	6Y	
							PROJ.REVW.	HUD990201N	02/01/99	6Y	
096291	19-175125	2517 BOULDER ST		LOS ANGELES	P	1928	PROJ.REVW.	HUD950511O	06/19/95	6Y	
123810		2541 BOULDER ST		LOS ANGELES	U	1924	HIST.RES.	DOE-19-00-0047-0000	02/01/00	6Y	
							PROJ.REVW.	HUD000201E	02/01/00	6Y	
150051		5816 BOWCROFT ST		LOS ANGELES		1949	HIST.RES.	DOE-19-04-0166-0000	09/30/04	6Y	
							PROJ.REVW.	HUD041006D	09/30/04	6Y	
175289		5888 BOWCROFT ST		LOS ANGELES	P	1949	PROJ.REVW.	HUD070529J	07/05/07	6U	
100371	19-175993	2708 BOWMONT DR	COLD WATER CANYON WATER TANK	LOS ANGELES	M	1925	HIST.RES.	DOE-19-95-0120-0000	05/04/95	6Y	
							PROJ.REVW.	HRG940202Z	05/04/95	6Y	
025483	19-171474	563 BOYLSTON AVE		LOS ANGELES	P		HIST.SURV.	0053-2879-0000		7R	
025482	19-171473	567 BOYLSTON AVE		LOS ANGELES	P		HIST.SURV.	0053-2878-0000		7R	
025218	19-171209	573 BOYLSTON AVE	MARTIN C MARSH RESIDENCE	LOS ANGELES	P	1903	HIST.SURV.	0053-2613-0000		5S2	
025481	19-171472	611 BOYLSTON AVE		LOS ANGELES	P		HIST.SURV.	0053-2877-0000		7R	
025480	19-171471	613 BOYLSTON AVE		LOS ANGELES	P		HIST.SURV.	0053-2876-0000		7R	
175548		12123 BRADDOCK DR		LOS ANGELES		1950	PROJ.REVW.	HUD080707A	07/22/08	6U	
085045	19-174649	711 BRADSHAW AVE		LOS ANGELES	P	1923	PROJ.REVW.	HUD931119F	12/24/93	6Y	
153163		711 BRADSHAWE AVE		LOS ANGELES		1923	PROJ.REVW.	HUD030710C	11/14/03	6U	
134479		732 BRADY AVE		LOS ANGELES		1926	HIST.RES.	DOE-19-02-1068-0000	10/09/02	6U	
							PROJ.REVW.	HUD021009N	10/09/02	6U	
176943		749 BRADY AVE		LOS ANGELES	P	1936	PROJ.REVW.	HUD091013U	10/23/09	6Y	
163589		1108 BREA CANYON RD	CINGULAR LSANCA0236/11-025	LOS ANGELES	P	1941	PROJ.REVW.	FCC060802E	08/29/06	6Y	
131085		5840 BRENTWOOD ST		LOS ANGELES			HIST.RES.	DOE-19-02-0168-0000	04/02/02	6Y	
							PROJ.REVW.	HUD020402AG	04/02/02	6Y	
096330	19-175134	623 BRIDEWELL ST		LOS ANGELES	P		PROJ.REVW.	HUD950515H	06/21/95	6Y	
101157	19-176384	2622 BRIGHTON AVE		LOS ANGELES	P	1920	PROJ.REVW.	HUD960304G	03/13/96	6Y	
136772		7224 BRIGHTON AVE		LOS ANGELES		1925	HIST.RES.	DOE-19-03-0027-0000	01/31/03	6U	
							PROJ.REVW.	HUD030103G	01/31/03	6U	
116317		7406 BRIGHTON AVE		LOS ANGELES	P	1927	HIST.RES.	DOE-19-96-0231-0000	08/02/96	6U	
							PROJ.REVW.	HUD970203Z	08/02/96	6U	
024746	19-170766	3740 BRILLIANT PL		LOS ANGELES	P	1943	HIST.SURV.	0053-2215-0000		7R	
120793		343 BROAD AVE	LONGSHOREMEN'S DISPATCH HALL	LOS ANGELES	M	1924	HIST.RES.	DOE-19-99-0212-0000	01/27/99	6Y	
							PROJ.REVW.	BUR981221A	01/27/99	6Y	
120794		507 BROAD AVE		LOS ANGELES	P	1922	HIST.RES.	DOE-19-99-0213-0000	01/27/99	6Y	
							PROJ.REVW.	BUR981221A	01/27/99	6Y	
024881	19-170901	BROADWAY	CHINATOWN EAST OF HILL ST	LOS ANGELES	P	1937	HIST.SURV.	0053-2318-9999		7R	
026759	19-172743	BROADWAY	BROADWAY STREET CLOCK	LOS ANGELES	P	1910	HIST.SURV.	0053-4092-0000		5S2	
090791	19-174929	BROADWAY	LOS ANGELES HIGH SCHOOL	LOS ANGELES	M	1873	HIST.RES.	SPHI-LAN-024	02/27/76	7L	
128772		242 BROADWAY	VICTOR CLOTHING COMPANY	LOS ANGELES		1914	TAX.CERT.	537.9-19-0262	05/04/02	2D3	AC
024964	19-170980	401 BROADWAY	BROADWAY DEPARTMENT STORE, BROADWA	LOS ANGELES	P	1890	HIST.SURV.	0053-2354-0000		3S	
023581	19-169603	402 BROADWAY		LOS ANGELES	P	1911	HIST.SURV.	0053-1036-0000		5S2	
023582	19-169604	403 BROADWAY		LOS ANGELES	P	1907	HIST.SURV.	0053-1037-0000		5S2	
023583	19-169605	404 BROADWAY		LOS ANGELES	P	1911	HIST.SURV.	0053-1038-0000		5S2	
023584	19-169606	407 BROADWAY		LOS ANGELES	P	1911	HIST.SURV.	0053-1039-0000		5S2	
023585	19-169607	408 BROADWAY		LOS ANGELES	P	1911	HIST.SURV.	0053-1040-0000		5S2	
023586	19-169608	517 BROADWAY		LOS ANGELES	P	1913	HIST.SURV.	0053-1041-0000		5S2	
023587	19-169609	520 BROADWAY		LOS ANGELES	P	1925	HIST.SURV.	0053-1042-0000		7R	
023588	19-169610	521 BROADWAY		LOS ANGELES	P	1906	HIST.SURV.	0053-1043-0000		5S2	
023589	19-169611	535 BROADWAY		LOS ANGELES	P	1907	HIST.SURV.	0053-1044-0000		5S2	
023590	19-169612	550 BROADWAY		LOS ANGELES	P	1924	HIST.SURV.	0053-1045-0000		5S2	
023591	19-169613	551 BROADWAY		LOS ANGELES	P	1910	HIST.SURV.	0053-1046-0000		3S	
023592	19-169614	553 BROADWAY		LOS ANGELES	P	1909	HIST.SURV.	0053-1047-0000		5S2	
073786	19-174108	810 BROADWAY	RIALTO THEATER	LOS ANGELES	P	0	TAX.CERT.	537.9-19-0101	01/22/90	6X	
026760	19-172744	3013 BROADWAY		LOS ANGELES	P	1908	HIST.SURV.	0053-4093-0000		5S2	
026761	19-172745	3015 BROADWAY		LOS ANGELES	P	1908	HIST.SURV.	0053-4094-0000		5S2	

ROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES...........................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							NAT.REG.	19-0316	04/13/00	3S	AC
132995		CAHUENGA BLVD	HOLLYWOOD RESERVOIR COMPLEX/ WEIR	LOS ANGELES	M		HIST.RES.	DOE-19-00-0324-0012	03/22/00	2D2	
							PROJ.REVW.	EPA990920A	03/22/00	2D2	
025028	19-171032	1601 CAHUENGA BLVD	MARION BUILDING	LOS ANGELES	P	1920	HIST.SURV.	0053-2421-0000		3S	
025029	19-171033	1611 CAHUENGA BLVD	DEPARTMENT OF WATER & POWER BUILDI	LOS ANGELES	P	1920	HIST.SURV.	0053-2422-0000		3S	
097952	19-175377	1724 CAHUENGA BLVD		LOS ANGELES	M	1915	HIST.RES.	DOE-19-94-0101-0000	07/01/94	6Y	
							PROJ.REVW.	HRG940202Z	07/01/94	6Y	
025033	19-171036	1825 CAHUENGA BLVD	AVONDALE APARTMENTS	LOS ANGELES	P	1920	HIST.SURV.	0053-2426-0000		7N	
124935		1825 CAHUENGA BLVD	AVONDALE APARTMENTS, A T & T CELL	LOS ANGELES	P	1925	PROJ.REVW.	FCC000605F	06/29/00	6Y	
025011	19-171017	1830 CAHUENGA BLVD		LOS ANGELES	P	1920	HIST.SURV.	0053-2401-0000		7N	
125970		6709 CALHOUN AVE		LOS ANGELES	Y	1947	HIST.RES.	DOE-19-00-0172-0000	03/03/00	6U	
							PROJ.REVW.	HUD001017Z	03/03/00	6U	
097953	19-175378	17919 CALIFA ST		LOS ANGELES	M	1949	HIST.RES.	DOE-19-94-0102-0000	04/29/94	6Y	
							PROJ.REVW.	HRG940202Z	04/29/94	6Y	
021263	19-167301	610 CALIFORNIA ST	VENICE BRANCH, LOS ANGELES PUBLIC	LOS ANGELES	M	1930	HIST.RES.	DOE-19-94-0373-0000	08/27/94	2S4	
							PROJ.REVW.	HRG940202Z	09/30/94	2S4	
							ST.FND.PRG	619.0-HP-88-19-041	12/21/88	3	
							HIST.RES.	NPS-87001020-0000	05/19/87	1S	AC
081652	19-174481	2655 CALIFORNIA ST		LOS ANGELES	U	1919	PROJ.REVW.	HUD871027C	10/30/89	6Y	
079353	19-174406	20421 CALLON DR	SYLVIA PARK COUNTRY CLUB CLUBHOUSE	LOS ANGELES	P	1930	ST.PT.INT.	19-0082	10/19/92	7J	
025179	19-171171	1308 CALUMET AVE	LOUIS LUCKEL RESIDENCE	LOS ANGELES	P	1892	HIST.SURV.	0053-2574-0000		3S	
025276	19-171267	1311 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2671-0000		7R	
025287	19-171278	1314 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2682-0000		7R	
025277	19-171268	1315 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2672-0000		7R	
025286	19-171277	1320 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2681-0000		7R	
025278	19-171269	1321 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2673-0000		7R	
025285	19-171276	1324 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2680-0000		7R	
025279	19-171270	1327 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2674-0000		7R	
025178	19-171170	1334 CALUMET AVE	MARTIN P THYE RESIDENCE	LOS ANGELES	P	1887	HIST.SURV.	0053-2573-0000		7R	
025280	19-171271	1341 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2675-0000		7R	
025284	19-171275	1342 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2679-0000		7R	
025281	19-171272	1347 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2676-0000		7R	
025282	19-171273	1351 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2677-0000		7R	
025283	19-171274	1354 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2678-0000		7R	
025201	19-171192	1355 CALUMET AVE	ELBERT J CLAPP RESIDENCE	LOS ANGELES	P	1902	HIST.SURV.	0053-2596-0000		7N	
025250	19-171241	1400 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2645-0000		7R	
025236	19-171227	1401 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2631-0000		7R	
025200	19-171191	1411 CALUMET AVE	ALEXIS A. DE REHBINDER RESIDENCE	LOS ANGELES	P	1911	HIST.SURV.	0053-2595-0000		7R	
025249	19-171240	1416 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2644-0000		7R	
025199	19-171190	1417 CALUMET AVE	BASIL M TALBOTT RESIDENCE	LOS ANGELES	P	1909	HIST.SURV.	0053-2594-0000		7N	
025248	19-171239	1422 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2643-0000		7R	
025198	19-171189	1423 CALUMET AVE	GEORGE L. BANNISTER RESIDENCE	LOS ANGELES	P	1903	HIST.SURV.	0053-2593-0000		3S	
025247	19-171238	1426 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2642-0000		7R	
025237	19-171228	1427 CALUMET AVE		LOS ANGELES	P		PROJ.REVW.	HUD040202L	02/02/04	6U	
							HIST.SURV.	0053-2632-0000		7R	
025238	19-171229	1435 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2633-0000		7R	
025246	19-171237	1436 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2641-0000		7R	
025239	19-171230	1437 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2634-0000		7R	
025245	19-171236	1442 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2640-0000		7R	
025240	19-171231	1443 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2635-0000		7R	
025241	19-171232	1445 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2636-0000		7R	
025242	19-171233	1453 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2637-0000		7R	
025244	19-171235	1456 CALUMET AVE		LOS ANGELES	P		HIST.SURV.	0053-2639-0000		7R	
153007		1131 CALZONA ST		LOS ANGELES		1923	PROJ.REVW.	HUD050404N	04/19/05	6U	
124875		15343 CAMARILLO		LOS ANGELES	P	1951	HIST.RES.	DOE-19-00-0113-0000	02/24/00	6Y	
							PROJ.REVW.	FHWA000209A	02/24/00	6Y	

OPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
							PROJ.REVW.	HRG940202Z	03/29/95	2S2	
020736	19-166818	CARROLL AVE	1300 BLOCK OF CARROLL AVENUE	LOS ANGELES	P	1880	HIST.SURV.	0053-0008-9999	01/01/76	1S	
020726	19-166808	1300 CARROLL AVE	ARON P. PHILLIPS HOUSE	LOS ANGELES	P	1887	HIST.SURV.	0053-0008-0001	01/01/79	1D	
							HIST.RES.	NPS-76000488-0000	04/22/76		
							HIST.SURV.	0053-2572-0000		3S	
020727	19-166809	1316 CARROLL AVE	HORACE M RUSSELL HOUSE	LOS ANGELES	P	1887	HIST.SURV.	0053-0008-0002	01/01/76	1D	
							HIST.SURV.	0053-2570-0000		3S	
064608	19-173347	1316 CARROLL AVE	RUSSELL CARRIAGE HOUSE	LOS ANGELES	P	1887	HIST.SURV.	0053-2571-0000		7R	
020728	19-166810	1320 CARROLL AVE	FERDINAND A. HEIM HOUSE	LOS ANGELES	P	1888	TAX.CERT.	537.9-19-0327	03/05/04	7J	
							HIST.SURV.	0053-0008-0003	01/01/76	1D	
							HIST.SURV.	0053-2569-0000		3S	
025168	19-171167	1321 CARROLL AVE	1145 COURT STREET HOME	LOS ANGELES	P	1887	HIST.SURV.	0053-2563-0000		7N	
020729	19-166811	1324 CARROLL AVE	JOHN SCHEERER HOUSE	LOS ANGELES	P	1887	HIST.SURV.	0053-0008-0004	01/01/76	1D	
							HIST.SURV.	0053-4086-0000		7N	
025167	19-171166	1325 CARROLL AVE	HIRAM IREY/JOHN M HOUSER RESIDENCE	LOS ANGELES	P	1887	HIST.SURV.	0053-2562-0000		3S	
020730	19-166812	1329 CARROLL AVE	DANIEL INNES HOUSE	LOS ANGELES	P	1887	TAX.CERT.	537.9-19-0316	05/19/03	7J	
							HIST.SURV.	0053-0008-0005	01/01/76	1D	
							HIST.SURV.	0053-2561-0000		3S	
020731	19-166813	1330 CARROLL AVE	CHARLES SESSIONS HOUSE	LOS ANGELES	P	1889	HIST.SURV.	0053-0008-0006	01/01/76	1D	
							HIST.SURV.	0053-2568-0000		7R	
020732	19-166814	1340 CARROLL AVE		LOS ANGELES	P	1907	HIST.SURV.	0053-0008-0007	01/01/76	1D	
							HIST.SURV.	0053-2567-0000		7N	
020733	19-166815	1344 CARROLL AVE	CHARLES C HASKINS HOUSE	LOS ANGELES	P	1895	TAX.CERT.	537.9-19-0317	05/19/03	7J	
							HIST.SURV.	0053-0008-0008	01/01/76	1D	
							HIST.SURV.	0053-2566-0000		3S	
020734	19-166816	1345 CARROLL AVE	MICHAEL SANDERS HOUSE	LOS ANGELES	P	1887	HIST.SURV.	0053-0008-0009	01/01/76	1D	
025170	19-171169	1354 CARROLL AVE	P McMANUS-E B VAN HORNE RESIDENCE	LOS ANGELES	P	1902	HIST.SURV.	0053-2565-0000		7R	
020735	19-166817	1355 CARROLL AVE	HENRY L. PINNEY HOUSE	LOS ANGELES	P	1887	HIST.SURV.	0053-0008-0010	01/01/76	1D	
025163	19-171164	1355 CARROLL AVE	HENRY L. PINNEY RESIDENCE	LOS ANGELES	P	1887	HIST.SURV.	0053-2558-0000		7N	
025164	19-171165	1355 CARROLL AVE	HENRY L. PINNEY CARRIAGE HOUSE	LOS ANGELES	P	1887	HIST.SURV.	0053-2559-0000		7N	
025226	19-171217	1401 CARROLL AVE		LOS ANGELES	P		HIST.SURV.	0053-2621-0000		7R	
025235	19-171226	1406 CARROLL AVE		LOS ANGELES	P		HIST.SURV.	0053-2630-0000		7R	
021000	19-167061	1407 CARROLL AVE	J B WINSTON HOUSE	LOS ANGELES	P	1889	HIST.SURV.	0053-0181-0000		3S	
							HIST.SURV.	0053-4087-0000		7N	
025162	19-171163	1411 CARROLL AVE	FRANK & EMMA KAISER RESIDENCE	LOS ANGELES	P	1888	HIST.SURV.	0053-2557-0000		7N	
025234	19-171225	1412 CARROLL AVE		LOS ANGELES	P		HIST.SURV.	0053-2629-0000		7R	
025169	19-171168	1416 CARROLL AVE	JAMES McMURRAY RESIDENCE	LOS ANGELES	P	1887	HIST.SURV.	0053-2564-0000		7R	
025227	19-171218	1421 CARROLL AVE		LOS ANGELES	P		HIST.SURV.	0053-2622-0000		7R	
025233	19-171224	1422 CARROLL AVE		LOS ANGELES	P		HIST.SURV.	0053-2628-0000		7R	
025232	19-171223	1426 CARROLL AVE		LOS ANGELES	P		HIST.SURV.	0053-2627-0000		7R	
025231	19-171222	1432 CARROLL AVE		LOS ANGELES	P		HIST.SURV.	0053-2626-0000		7R	
025228	19-171219	1437 CARROLL AVE		LOS ANGELES	P		HIST.SURV.	0053-2623-0000		7R	
021001	19-167062	1441 CARROLL AVE	KASPARE COHN HOSPITAL, J. S. LUCKE	LOS ANGELES	P	1887	HIST.SURV.	0053-0182-0000		7N	
							HIST.SURV.	0053-2556-0000		7N	
025230	19-171221	1442 CARROLL AVE		LOS ANGELES	P		HIST.SURV.	0053-2625-0000		7R	
025229	19-171220	1446 CARROLL AVE		LOS ANGELES	P		HIST.SURV.	0053-2624-0000		7R	
021267	19-167304	CARROLL CANAL CT	CARROLL CANAL	LOS ANGELES	M	1905	HIST.SURV.	0053-0347-0001	08/30/82	1D	AC
116323		4602 CARTWRIGHT AVE		LOS ANGELES	P	1928	HIST.RES.	DOE-19-96-0235-0000	11/12/96	6U	
							PROJ.REVW.	HUD970203Z	11/12/96	6U	
125972		6050 CASE AVE		LOS ANGELES	Y	1942	HIST.RES.	DOE-19-00-0174-0000	05/26/00	6U	
							PROJ.REVW.	HUD001017Z	05/26/00	6U	
070141	19-173923	4700 CASSATT ST		LOS ANGELES	U	1937	PROJ.REVW.	HUD910307C	04/10/91	6Y	
096327	19-175131	3228 CASTALIA AVE		LOS ANGELES	P		PROJ.REVW.	HUD950515E	06/21/95	6Y	
150054		4410 CATALPA ST		LOS ANGELES		1940	HIST.RES.	DOE-19-04-0169-0000	09/30/04	6Y	
							PROJ.REVW.	HUD041006D	09/30/04	6Y	
069761	19-173846	5061 CAVANAGH RD		LOS ANGELES	U	1927	PROJ.REVW.	HUD901115I	12/12/90	6Y	

OPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
025209	19-171200	534 E EDGEWARE RD	CITY OF LOS ANGELES FIRE DEPARTMEN	LOS ANGELES	M	1929	HIST.SURV.	0053-2604-0000		7N	
025314	19-171305	600 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2709-0000		7R	
025203	19-171194	601 E EDGEWARE RD		LOS ANGELES	P	1893	HIST.SURV.	0053-2598-0000		7R	
025289	19-171280	605 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2684-0000		7R	
025313	19-171304	608 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2708-0000		7R	
025288	19-171279	613 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2683-0000		7R	
025202	19-171193	701 E EDGEWARE RD	WALTER CHERNISH APARTMENTS	LOS ANGELES	P	1924	HIST.SURV.	0053-2597-0000		3S	
025208	19-171199	704 E EDGEWARE RD	CHARLES A. LUCKENBACH RESIDENCE	LOS ANGELES	P	1901	HIST.SURV.	0053-2603-0000		7R	
025207	19-171198	710 E EDGEWARE RD	JEANETTE M DAVIES RESIDENCE	LOS ANGELES	P	1902	HIST.SURV.	0053-2602-0000		7N	
025206	19-171197	714 E EDGEWARE RD	HENRY GILES & JOSEPH HALL RESIDENC	LOS ANGELES	P	1887	HIST.SURV.	0053-2601-0000		7R	
021005	19-167066	724 E EDGEWARE RD	CALEB LIBRARY HOUSE	LOS ANGELES	P	1887	HIST.SURV.	0053-0186-0000		3S	
							HIST.SURV.	0053-2575-0000		5S2	
025312	19-171303	728 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2707-0000		7R	
025197	19-171188	801 E EDGEWARE RD	W.ILLIAM W STILSON RESIDENCE	LOS ANGELES	P	1887	HIST.SURV.	0053-2592-0000		7R	
025311	19-171302	808 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2706-0000		7R	
025310	19-171301	814 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2705-0000		7R	
025275	19-171266	827 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2670-0000		7R	
025413	19-171404	832 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2808-0000		7R	
025263	19-171254	901 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2658-0000		7R	
025262	19-171253	909 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2657-0000		7R	
025309	19-171300	914 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2704-0000		7R	
025308	19-171299	916 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2703-0000		7R	
025261	19-171252	917 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2656-0000		7R	
025195	19-171186	921 E EDGEWARE RD	JOSEP C NICHOLS RESIDENCE	LOS ANGELES	P	1906	HIST.SURV.	0053-2590-0000		7N	
025205	19-171196	926 E EDGEWARE RD	JOSEPH WHITEHORN RESIDENCE	LOS ANGELES	P	1910	HIST.SURV.	0053-2600-0000		7R	
025260	19-171251	935 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2655-0000		7R	
025259	19-171250	945 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2654-0000		7R	
025307	19-171298	952 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2702-0000		7R	
025258	19-171249	955 E EDGEWARE RD		LOS ANGELES	P		HIST.SURV.	0053-2653-0000		7R	
070183	19-173928	2036 E EL SEGUNDO BLVD		LOS ANGELES	U	1934	PROJ.REVW.	HUD910321F	04/30/91	6Y	
152141		2229 E EL SEGUNDO BLVD		LOS ANGELES	P	1947	HIST.RES.	DOE-19-05-0006-0000	01/11/05	6Y	
							PROJ.REVW.	FCC041227B	01/11/05	6Y	
175556		3621 E EMMA AVE		LOS ANGELES	P	1910	PROJ.REVW.	HUD080707A	07/22/08	6U	
182702		5163 E ETHELDO AVE		LOS ANGELES	P	1950	PROJ.REVW.	HUD110502H	05/12/11	6U	
083313	19-174538	4600 E EUGENE ST	4600 BLOCK OF EAST EUGENE STREET	LOS ANGELES	U	1921	PROJ.REVW.	HUD071205A		6U	
							PROJ.REVW.	HUD891231g	08/06/93	6Y	
156837		4030 E FISHER ST		LOS ANGELES	P	1907	PROJ.REVW.	HUD051118A	12/02/05	6Y	
083320	19-174543	4500 E FISHER ST	4500-4700 BLOCK OF EAST FISHER STR	LOS ANGELES	U		PROJ.REVW.	HUD890928R	08/06/93	6Y	
125234		4600 E FISHER ST		LOS ANGELES	P	1924	HIST.RES.	DOE-19-00-0122-0000	02/16/00	6Y	
							PROJ.REVW.	HUD000216G	02/16/00	6Y	
125714		4751 E FISHER ST		LOS ANGELES	U	1928	HIST.RES.	DOE-19-99-0356-0000	07/29/99	6Y	
							PROJ.REVW.	HUD990729D	07/29/99	6Y	
125725		4129 E FLORAL DR		LOS ANGELES	U	1922	HIST.RES.	DOE-19-99-0366-0000	07/29/99	6Y	
							PROJ.REVW.	HUD990729D	07/29/99	6Y	
151974		1130 E FLORENCE AVE		LOS ANGELES	P	1947	HIST.RES.	DOE-19-04-0386-0000	11/05/04	6Y	
							PROJ.REVW.	FCC040806D	11/05/04	6Y	
151995		1560 E FLORENCE AVE		LOS ANGELES	P	1941	HIST.RES.	DOE-19-04-0401-0000	12/07/04	6Y	
							PROJ.REVW.	FCC041013H	12/07/04	6Y	
151996		1583 E FLORENCE AVE		LOS ANGELES	P	1958	HIST.RES.	DOE-19-04-0402-0000	12/07/04	6Y	
							PROJ.REVW.	FCC041013H	12/07/04	6Y	
151997		1600 E FLORENCE AVE		LOS ANGELES	P	1942	HIST.RES.	DOE-19-04-0403-0000	12/07/04	6Y	
							PROJ.REVW.	FCC041013H	12/07/04	6Y	
154754		1747 E FLORENCE AVE		LOS ANGELES		1933	PROJ.REVW.	HUD050627E	07/15/05	6U	
161458		2118 E FLORENCE AVE		LOS ANGELES			PROJ.REVW.	HUD041210B	12/10/04	6U	
161459		2122 E FLORENCE AVE		LOS ANGELES			PROJ.REVW.	HUD041210B	12/10/04	6U	

PERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
161461		2126 E FLORENCE AVE		LOS ANGELES			PROJ.REVW.	HUD041210B	12/10/04	6U	
161462		2134 E FLORENCE AVE		LOS ANGELES			PROJ.REVW.	HUD041210B	12/10/04	6U	
161463		2136 E FLORENCE AVE		LOS ANGELES			PROJ.REVW.	HUD041210B	12/10/04	6U	
161464		2140 E FLORENCE AVE		LOS ANGELES			PROJ.REVW.	HUD041210B	12/10/04	6U	
179989		2200 E FLORENCE AVE		LOS ANGELES	P	1923	PROJ.REVW.	HUD090209C	02/10/09	6U	
026770	19-172753	3308 E FOLSOM ST		LOS ANGELES	P	1915	HIST.SURV.	0053-4104-0000		3S	
066301	19-173591	3420 E FOLSOM ST	RESIDENTIAL REHABILITATION	LOS ANGELES	U		PROJ.REVW.	HUD871019J	11/06/87	6Y	
125492		3523 E FOLSOM ST		LOS ANGELES	U	1910	HIST.RES.	DOE-19-97-0211-0000	10/06/97	6Y	
							PROJ.REVW.	HUD971006G	10/06/97	6Y	
175677		212 E GAGE AVE		LOS ANGELES	P	1950	PROJ.REVW.	HUD090126A	01/28/09	6U	
098016	19-175416	215 E GAGE AVE		LOS ANGELES	M	1910	HIST.RES.	DOE-19-94-0010-0000	04/29/94	6Y	
							PROJ.REVW.	HRG940202Z	04/29/94	6Y	
120090		777 E GAGE AVE	LA MULTI-MEDIA AND MARKETING CENTE	LOS ANGELES	U		HIST.RES.	DOE-19-99-0079-0000	03/23/99	6Y	
							PROJ.REVW.	EDA990301L	03/23/99	6Y	
100650	19-176197	72 E GLENARM ST	GLENARM POWER PLANT	LOS ANGELES	M	1928	HIST.RES.	DOE-19-94-0563-0000	01/13/94	2S2	A
							PROJ.REVW.	HRG940202Z	01/13/94	2S2	A
083309	19-174534	4500 E HAMEL ST	4500-4700 BLOCK OF EAST HAMEL STRE	LOS ANGELES	U		PROJ.REVW.	HUD891231c	08/06/93	6Y	
182713		4868 E HILLSDALE DR		LOS ANGELES	P	1913	PROJ.REVW.	HUD110502H	05/12/11	6U	
066767	19-173649	4574 E HUBBARD ST	HOUSING REHABILITATION	LOS ANGELES	U		PROJ.REVW.	HUD880701J	07/27/88	6Y	
175336		4396 E HUNTINGTON DR		LOS ANGELES	P	1925	PROJ.REVW.	HUD070529J	07/05/07	6U	
072771	19-174021	640 E IMPERIAL SR		LOS ANGELES	U	1922	PROJ.REVW.	HUD910703F	07/31/91	6Y	
025859	19-171848	2811 E INEZ ST		LOS ANGELES	P	1915	HIST.SURV.	0053-3264-0000		7R	
025860	19-171849	2820 E INEZ ST		LOS ANGELES	P	1935	HIST.SURV.	0053-3265-0000		7R	
025861	19-171850	2828 E INEZ ST		LOS ANGELES	P	1915	HIST.SURV.	0053-3266-0000		7R	
025862	19-171851	3035 E INEZ ST		LOS ANGELES	P	1912	HIST.SURV.	0053-3267-0000		7R	
025863	19-171852	3036 E INEZ ST		LOS ANGELES	P	1905	HIST.SURV.	0053-3268-0000		7R	
025864	19-171853	3047 E INEZ ST		LOS ANGELES	P	1910	HIST.SURV.	0053-3269-0000		7R	
168370		2517 E JAMES AVE		LOS ANGELES	P	1954	PROJ.REVW.	FHWA020703A	09/06/02	6Y	
123598		1010 E JEFFERSON BLVD	ANGELUS FUNERAL HOME (AFRI AMER LA	LOS ANGELES	P	1934	HIST.RES.	NPS-09000146-0000	03/17/09	1S	A
							NAT.REG.	19-0532	01/27/09	3S	A
							TAX.CERT.	537.9-19-0361	12/13/07	2S3	
							HIST.RES.	DOE-19-99-0318-0000	02/01/99	2S4	
							PROJ.REVW.	HUD990201N	02/01/99	2S4	
025427	19-171418	563 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2823-0000		7R	
025428	19-171419	566 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2824-0000		7R	
025425	19-171416	567 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2821-0000		7R	
025424	19-171415	569 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2820-0000		7R	
025429	19-171420	574 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2825-0000		7R	
025423	19-171414	577 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2819-0000		7R	
025399	19-171390	714 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2794-0000		7R	
025398	19-171389	718 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2793-0000		7R	
025397	19-171388	722 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2792-0000		7R	
025409	19-171400	723 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2804-0000		7R	
025396	19-171387	730 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2791-0000		7R	
025408	19-171399	731 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2803-0000		7R	
025407	19-171398	739 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2802-0000		7R	
025395	19-171386	740 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2790-0000		7R	
025406	19-171397	743 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2801-0000		7R	
025394	19-171385	746 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2789-0000		7R	
025393	19-171384	752 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2788-0000		7R	
025405	19-171396	755 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2800-0000		7R	
025404	19-171395	765 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2799-0000		7R	
025392	19-171383	766 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2787-0000		7R	
025403	19-171394	771 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2798-0000		7R	
025391	19-171382	774 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2786-0000		7R	
025402	19-171393	779 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2797-0000		7R	

ROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
025401	19-171392	785 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2796-0000		7R	
025400	19-171391	789 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2795-0000		7R	
025390	19-171381	792 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2785-0000		7R	
025389	19-171380	798 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2784-0000		7R	
025387	19-171378	801 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2782-0000		7R	
025386	19-171377	809 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2781-0000		7R	
025379	19-171370	812 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2774-0000		7R	
025385	19-171376	813 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2780-0000		7R	
025378	19-171369	814 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2773-0000		7R	
025186	19-171177	824 E KENSINGTON RD	ZACHARIAH WELLER RESIDENCE	LOS ANGELES	P	1894	HIST.SURV.	0053-2581-0000		7N	
025187	19-171178	826 E KENSINGTON RD		LOS ANGELES	P	1900	HIST.SURV.	0053-2582-0000		7R	
025384	19-171375	829 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2779-0000		7R	
025383	19-171374	833 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2778-0000		7R	
025377	19-171368	836 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2772-0000		7R	
025382	19-171373	839 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2777-0000		7R	
025381	19-171372	847 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2776-0000		7R	
025214	19-171205	855 E KENSINGTON RD	BARRETT B HARRIS RESIDENCE	LOS ANGELES	P	1908	HIST.SURV.	0053-2609-0000		7R	
025185	19-171176	856 E KENSINGTON RD	FOSTER C AUSTIN RESIDENCE	LOS ANGELES	P	1911	HIST.SURV.	0053-2580-0000		7N	
025380	19-171371	865 E KENSINGTON RD		LOS ANGELES	P		HIST.SURV.	0053-2775-0000		7R	
116252		1010 E L ST		LOS ANGELES	P	1923	HIST.RES.	DOE-19-96-0172-0000	04/18/96	6U	
							PROJ.REVW.	HUD960801E	04/18/96	6U	
181096		556 E LA PASADA ST	OLAN AND AIDA HAFLEY HOUSE	LOS ANGELES	P	1953	HIST.RES.	NPS-11000429-0000	07/12/11	1S	C
							NAT.REG.	19-0606	02/04/11	3S	C
175571		203 E LANZIT AVE		LOS ANGELES	P	1945	PROJ.REVW.	HUD080707A	07/22/08	6U	
086539	19-174809	1042 E M L KING JR BLVD		LOS ANGELES	U	1922	HIST.SURV.	0053-4808-0000	06/01/92	6L	
131129		1220 E M L KING JR BLVD		LOS ANGELES		1905	HIST.RES.	DOE-19-02-0203-0000	04/02/02	6Y	
							PROJ.REVW.	HUD020402AG	04/02/02	6Y	
088594	19-174877	1232 E M L KING JR BLVD		LOS ANGELES	P	1907	PROJ.REVW.	HUD940215A	03/24/94	6Y	
127531		1247 E M L KING JR BLVD		LOS ANGELES		1921	HIST.RES.	DOE-19-01-0077-0000	01/31/01	6Y	
							PROJ.REVW.	HUD010201B	01/31/01	6Y	
182727		1547 E M L KING JR BLVD		LOS ANGELES	P	1906	PROJ.REVW.	HUD110502H	05/12/11	6U	
025648	19-171637	601 E MANCHESTER AVE		LOS ANGELES	P	1926	HIST.SURV.	0053-3052-0000		7N	
	19-165401										
175343		3416 E MANITOU AVE		LOS ANGELES		1958	PROJ.REVW.	HUD070529J	07/05/07	6U	
175344		3420 E MANITOU AVE		LOS ANGELES		1958	PROJ.REVW.	HUD070529J	07/05/07	6U	
175345		3422 E MANITOU AVE		LOS ANGELES		1948	PROJ.REVW.	HUD070529J	07/05/07	6U	
175346		3210 E MANITOU ST		LOS ANGELES	P	1908	PROJ.REVW.	HUD070529J	07/05/07	6U	
181233		754 E MARIPOSA ST		LOS ANGELES	P	1926	PROJ.REVW.	HUD110131A	02/11/11	6U	
083990	19-174610	3962 E MICHIGAN AVE		LOS ANGELES	U	1909	PROJ.REVW.	HUD920601I	08/31/93	6Y	
083312	19-174537	4500 E MICHIGAN AVE	4500-4600 BLOCK OF EAST MICHIGAN A	LOS ANGELES	U		PROJ.REVW.	HUD891231f	08/06/93	6Y	
175350		1406 E MITCHELL PL		LOS ANGELES	P	1886	PROJ.REVW.	HUD070529J	07/05/07	6U	
083311	19-174536	4500 E NEW YORK ST	4500 BLOCK,E NEW YORK ST	LOS ANGELES	U		PROJ.REVW.	HUD891231e	08/06/93	6Y	
020769	19-166848	2800 E OBSERVATORY RD	GRIFFITH OBSERVATORY, GRIFFITH PAR	LOS ANGELES	M	1935	HIST.RES.	DOE-19-94-0485-0000	08/08/94	2B	
							PROJ.REVW.	HRG940202Z	08/08/94	2B	
							HIST.RES.	DOE-19-94-0442-0004	04/11/94	2D2	A
							PROJ.REVW.	HRG940202Z	04/11/94	2D2	A
							ST.FND.PRG	619.0-HP-88-19-031	12/20/88	3	
							HIST.SURV.	0053-0041-0000		3S	
069435	19-173819	605 E OLYMPIC BLVD	STANDARD OIL BUILDING	LOS ANGELES	U		PROJ.REVW.	65001040	03/13/80		
066049	19-173559	2416 E OLYMPIC BLVD	SOUTHERN CALIFORNIA GAS COMPANY CO	LOS ANGELES	U		HIST.RES.	DOE-19-89-0046-0000	08/18/89	2S2	C
							PROJ.REVW.	EPA890602A	08/18/89	2S2	C
127430		2650 E OLYMPIC BLVD	SEARS, ROEBUCK & COMPANY MAIL ORDE	LOS ANGELES	P	1927	PROJ.REVW.	FCC100216F	03/04/10	2S2	A
							HIST.RES.	NPS-0001407-0000	04/21/06	1S	A
							TAX.CERT.	537.9-19-0339	05/17/05	7J	
							NAT.REG.	19-0473	05/17/05	3S	
							HIST.RES.	DOE-19-01-0002-0000	03/08/01	2S2	AC

OPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
153856		6107 FERGUSON DR		LOS ANGELES		1928	PROJ.REVW.	HUD040329B	04/21/04	6U	
065294	19-173483	6602 FERGUSON DR	RESIDENCE	LOS ANGELES	U		PROJ.REVW.	HUD870724C	08/20/87	6Y	
025642	19-171631	7718 FERNCOLA AVE		LOS ANGELES	P	1915	HIST.SURV.	0053-3046-0000		7R	
096981	19-175172	4516 FERNTOP DR		LOS ANGELES	P	1925	PROJ.REVW.	HUD950630G	07/20/95	6Y	
069904	19-173881	214 FICKETT ST		LOS ANGELES	U	1924	PROJ.REVW.	HUD901218Q	01/15/91	6Y	
027161	19-173106	800 FIGUEROA ST	HOTEL CORDOVA	LOS ANGELES	P	1912	HIST.SURV.	0053-4475-0000		7R	
072764	19-174019	3708 FIGUEROA ST	DEFENSE AND STRATEGY STUDIES	LOS ANGELES	P	1905	HIST.RES.	DOE-19-91-0003-0000	07/29/91	6Y	
							PROJ.REVW.	FHWA900730C	07/29/91	6Y	
072763	19-174018	3714 FIGUEROA ST		LOS ANGELES	P	1910	HIST.RES.	DOE-19-91-0002-0000	07/29/91	6Y	
							PROJ.REVW.	FHWA900730C	07/29/91	6Y	
072762	19-174017	3738 FIGUEROA ST		LOS ANGELES	P	1927	HIST.RES.	DOE-19-91-0001-0000	07/29/91	6Y	
							PROJ.REVW.	FHWA900730C	07/29/91	6Y	
086521	19-174800	5029 FIGUEROA ST		LOS ANGELES	P	1924	HIST.SURV.	0053-4792-0000	06/01/92	6L	
099407	19-175829	13442 FILLMORE ST		LOS ANGELES	M		HIST.RES.	DOE-19-94-0143-0000	04/29/94	6Y	
							PROJ.REVW.	HRG940202Z	04/29/94	6Y	
099419	19-175839	13447 FILLMORE ST		LOS ANGELES	M	1921	HIST.RES.	DOE-19-94-0144-0000	04/29/94	6Y	
							PROJ.REVW.	HRG940202Z	04/29/94	6Y	
026563	19-172550	13333 FILMORE ST		LOS ANGELES	P	1934	HIST.SURV.	0053-3891-0000		5S2	
026564	19-172551	13823 FILMORE ST		LOS ANGELES	P	1903	HIST.SURV.	0053-3892-0000		7N	
021007	19-167068	4510 FINLEY AVE	ST. MARY OF THE ANGELS CHURCH	LOS ANGELES	P	1930	HIST.SURV.	0053-0188-0000		3S	
066317	19-173592	8708 FIR AVE	RESIDENTIAL REHABILITATION	LOS ANGELES	U		PROJ.REVW.	HUD871026G	11/24/87	6Y	
119434		330 FIRMIN ST		LOS ANGELES	P	1916	HIST.RES.	DOE-19-95-0340-0000	08/23/95	6U	
							PROJ.REVW.	HUD950823M	08/23/95	6U	
171664		9305 FIRTH BLVD		LOS ANGELES	P	1957	PROJ.REVW.	HUD080109F	04/17/08	6U	
171667		9315 FIRTH BLVD		LOS ANGELES	P	1956	PROJ.REVW.	HUD080109F	04/17/08	6U	
171665		9321 FIRTH BLVD		LOS ANGELES	P	1960	PROJ.REVW.	HUD080109F	04/17/08	6U	
171666		9321 FIRTH BLVD		LOS ANGELES	P	1960	PROJ.REVW.	HUD080109F	04/17/08	6U	
023818	19-169840 19-165258	9330 FIRTH BLVD		LOS ANGELES	P	1918	HIST.SURV.	0053-1274-0000		7R	
023819	19-169841 19-165259	9510 FIRTH BLVD		LOS ANGELES	M	1921	HIST.RES.	DOE-19-94-0003-0000	04/29/94	6Y	
							PROJ.REVW.	HRG940202Z	04/29/94	6Y	
							HIST.SURV.	0053-1275-0000		7R	
083534	19-174546	6254 FISHBURN AVE		LOS ANGELES	U	1939	PROJ.REVW.	HUD900331r	08/16/93	6Y	
168129		4240 FISHER ST		LOS ANGELES	P	1922	PROJ.REVW.	HUD070920B	09/21/07	6Y	
065611	19-173527	4742 FISHER ST		LOS ANGELES	U		PROJ.REVW.	HUD881221F	01/04/89	6Y	
162407		3318 FITHIAN AVE		LOS ANGELES		1926	PROJ.REVW.	HUD060501M	06/01/06	6U	
064901	19-173432	FLETCHER DR	FLETCHER DRIVE BRIDGE, BRIDGE #53-	LOS ANGELES	U		HIST.RES.	DOE-19-88-0008-0000	01/26/88	2S2	AC
							PROJ.REVW.	FHWA880125A	01/26/88	2S2	AC
							HIST.RES.	DOE-19-86-0063-0000	10/19/86	2S2	C
							PROJ.REVW.	FHWA860919Z	10/19/86	2S2	C
							HIST.RES.	DOE-19-86-0080-0000	09/15/86	2S2	AC
							PROJ.REVW.	FHWA860812A	09/15/86	2S2	AC
083555	19-174556	3352 FLORAL DR		LOS ANGELES	U	1920	PROJ.REVW.	HUD900331l1	08/16/93	6Y	
066299	19-173590	4626 FLORAL DR	RESIDENTIAL REHABILITATION	LOS ANGELES	U		PROJ.REVW.	HUD871019I	11/06/87	6Y	
153209		4466 FLORIZEL ST	ROSE HILL COURTS	LOS ANGELES	M	1941	PROJ.REVW.	HUD030717B	11/21/03	2S2	
068403	19-173727	FLOWER DR	FLOWER DRIVE HISTORIC DISTRICT	LOS ANGELES	P	1920	HIST.RES.	CR	11/07/08	2CS	AC
							CAL.REG.	19-0500	10/23/08	3CS	AC
							HIST.RES.	DOE-19-90-0001-9999	08/28/90	6Y	
							PROJ.REVW.	FHWA900730C	08/28/90	6Y	
173838		3801 FLOWER DR		LOS ANGELES	P	1922	HIST.RES.	CR	11/07/08	2CD	AC
							CAL.REG.	19-0500	10/23/08	3CD	AC
173855		3807 FLOWER DR		LOS ANGELES	P		HIST.RES.	CR	11/07/08	6C	
							CAL.REG.	19-0500	10/23/08	6Z	
173839		3813 FLOWER DR		LOS ANGELES	P	1921	HIST.RES.	CR	11/07/08	2CD	AC
							CAL.REG.	19-0500	10/23/08	3CD	AC
173840		3819 FLOWER DR		LOS ANGELES	P	1923	HIST.RES.	CR	11/07/08	2CD	AC

ROPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS.............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
024386	19-170408	2232 MANSFIELD AVE		LOS ANGELES	P	1925	HIST.SURV.	0053-1854-0000		7R	
024387	19-170409	2330 MANSFIELD AVE		LOS ANGELES	P	1921	HIST.SURV.	0053-1855-0000		7R	
024388	19-170410	2737 MANSFIELD AVE		LOS ANGELES	P	1915	HIST.SURV.	0053-1856-0000		7R	
027282	19-173214	1200 MAPLE AVE	BENDIX BUILDING	LOS ANGELES	P	1928	HIST.SURV.	0053-4578-0000		3S	
024274	19-170296	2118 MARATHON ST		LOS ANGELES	P	1908	HIST.SURV.	0053-1735-0000		5S2	
024275	19-170297	2122 MARATHON ST		LOS ANGELES	P	1908	HIST.SURV.	0053-1736-0000		5S2	
024276	19-170298	2130 MARATHON ST		LOS ANGELES	P	1905	HIST.SURV.	0053-1737-0000		5S2	
024277	19-170299	2138 MARATHON ST		LOS ANGELES	P	1905	HIST.SURV.	0053-1738-0000		5S2	
024278	19-170300	2142 MARATHON ST		LOS ANGELES	P	1908	HIST.SURV.	0053-1739-0000		5S2	
024279	19-170301	2146 MARATHON ST		LOS ANGELES	P	1908	HIST.SURV.	0053-1740-0000		5S2	
024280	19-170302	2150 MARATHON ST		LOS ANGELES	P	1908	HIST.SURV.	0053-1741-0000		5S2	
024261	19-170283	2208 MARATHON ST		LOS ANGELES	P	1910	HIST.SURV.	0053-1722-0000		5S2	
024260	19-170282	2216 MARATHON ST		LOS ANGELES	P	1905	HIST.SURV.	0053-1721-0000		5S2	
024262	19-170284	2225 MARATHON ST		LOS ANGELES	P	1912	HIST.SURV.	0053-1723-0000		5S2	
098084	19-175469	3926 MARATHON ST		LOS ANGELES	M		HIST.RES.	DOE-19-94-0068-0000	07/01/94	6Y	
							PROJ.REVW.	HRG940202Z	07/01/94	6Y	
098085	19-175470	3932 MARATHON ST		LOS ANGELES	M	1917	HIST.RES.	DOE-19-94-0069-0000	07/01/94	6Y	
							PROJ.REVW.	HRG940202Z	07/01/94	6Y	
093943	19-175024	4108 MARATHON ST		LOS ANGELES	P	1928	PROJ.REVW.	HUD941128K	12/28/94	6Y	
026517	19-172504	4900 MARATHON ST		LOS ANGELES	P	1922	HIST.SURV.	0053-3845-0000		7N	
026531	19-172518	4901 MARATHON ST		LOS ANGELES	P	1920	HIST.SURV.	0053-3859-0000		5S2	
026518	19-172505	4906 MARATHON ST		LOS ANGELES	P	1921	HIST.SURV.	0053-3846-0000		7N	
026532	19-172519	4907 MARATHON ST		LOS ANGELES	P	1920	HIST.SURV.	0053-3860-0000		5S2	
026519	19-172506	4912 MARATHON ST		LOS ANGELES	P	1921	HIST.SURV.	0053-3847-0000		3S	
026520	19-172507	4916 MARATHON ST		LOS ANGELES	P	1920	HIST.SURV.	0053-3848-0000		3S	
026521	19-172508	4922 MARATHON ST		LOS ANGELES	P	1919	HIST.SURV.	0053-3849-0000		3S	
026522	19-172509	4926 MARATHON ST		LOS ANGELES	P	1911	HIST.SURV.	0053-3850-0000		5S2	
026523	19-172510	4930 MARATHON ST		LOS ANGELES	P	1923	HIST.SURV.	0053-3851-0000		7N	
026533	19-172520	4935 MARATHON ST		LOS ANGELES	P	1917	HIST.SURV.	0053-3861-0000		7R	
026524	19-172511	4936 MARATHON ST		LOS ANGELES	P	1920	HIST.SURV.	0053-3852-0000		7N	
026534	19-172521	4937 MARATHON ST		LOS ANGELES	P	1912	HIST.SURV.	0053-3862-0000		5S2	
026525	19-172512	4942 MARATHON ST		LOS ANGELES	P	1916	HIST.SURV.	0053-3853-0000		7R	
026526	19-172513	4946 MARATHON ST		LOS ANGELES	P	1920	HIST.SURV.	0053-3854-0000		7N	
026535	19-172522	4947 MARATHON ST		LOS ANGELES	P	1916	HIST.SURV.	0053-3863-0000		7R	
026527	19-172514	4952 MARATHON ST		LOS ANGELES	P	1920	HIST.SURV.	0053-3855-0000		5S2	
026536	19-172523	4955 MARATHON ST		LOS ANGELES	P	1917	HIST.SURV.	0053-3864-0000		7R	
026528	19-172515	4958 MARATHON ST		LOS ANGELES	P	1913	HIST.SURV.	0053-3856-0000		5S2	
026537	19-172524	4961 MARATHON ST		LOS ANGELES	P	1917	HIST.SURV.	0053-3865-0000		5S2	
069745	19-173837	4961 MARATHON ST		LOS ANGELES	U	1920	PROJ.REVW.	HUD901114E	12/10/90	6Y	
026529	19-172516	4962 MARATHON ST		LOS ANGELES	P	1913	HIST.SURV.	0053-3857-0000		5S2	
026530	19-172517	4966 MARATHON ST		LOS ANGELES	P	1912	HIST.SURV.	0053-3858-0000		7R	
023308	19-169332	5128 MARATHON ST	JARDINETTE APARTMENTS	LOS ANGELES	P	1927	HIST.RES.	NPS-86003524-0000	12/29/86	1S	
							HIST.SURV.	0053-0811-0000	12/29/86	1S	
021017	19-167077	5451 MARATHON ST	FAMOUS PLAYERS-LASKY CORP., PARAMO	LOS ANGELES	P	1921	HIST.SURV.	0053-0197-0000		3S	
120284		7315 MARBRISA AVE		LOS ANGELES	P		HIST.RES.	DOE-19-99-0158-0000	04/30/99	6U	
							PROJ.REVW.	HUD990419C	04/30/99	6U	
120281		7412 MARBRISA AVE		LOS ANGELES	P		HIST.RES.	DOE-19-99-0156-0000	04/30/99	6U	
							PROJ.REVW.	HUD990419A	04/30/99	6U	
066503	19-173615	526 MARGARET AVE		LOS ANGELES	U		PROJ.REVW.	HUD880208V	03/16/88	6Y	
162425		3008 MARGUERITE ST		LOS ANGELES		1924	PROJ.REVW.	HUD060501M	06/01/06	6U	
139488		2001 MARIANNA AVE	GASPAR'S AUTO REPAIR	LOS ANGELES	P	1950	HIST.RES.	DOE-19-03-0139-0000	04/14/03	6Y	
							PROJ.REVW.	FHWA030124D	04/14/03	6Y	
139489		2137 MARIANNA AVE	DAVIS MATERIAL HANDLING	LOS ANGELES	P	1950	HIST.RES.	DOE-19-03-0140-0000	04/14/03	6Y	
							PROJ.REVW.	FHWA030124D	04/14/03	6Y	
025477	19-171468	1111 MARION AVE		LOS ANGELES	P		HIST.SURV.	0053-2873-0000		7R	
025479	19-171470	1112 MARION AVE		LOS ANGELES	P		HIST.SURV.	0053-2875-0000		7R	

OPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
025478	19-171469	1116 MARION AVE		LOS ANGELES	P		HIST.SURV.	0053-2874-0000		7R	
153576		MARIPOSA AVE	7900-8200 BLOCKS MARIPOSA AVE/ VER	LOS ANGELES			HIST.RES.	DOE-19-00-0098-0008	03/31/00	2D4	C
							PROJ.REVW.	HUD000327A	03/31/00	2D4	C
024985	19-170996	645 MARIPOSA AVE	ATLANTIC RICHHFIELD COMPANY	LOS ANGELES	P	1946	HIST.SURV.	0053-2375-0000		5S2	
098086	19-175471	1133 MARIPOSA AVE	RAMONA ELEMENTARY SCHOOL-MAIN BUIL	LOS ANGELES	D		HIST.RES.	DOE-19-94-0070-0000	08/15/94	6Y	
							PROJ.REVW.	HRG940202Z	08/15/94	6Y	
101801	19-176405	1623 MARIPOSA AVE		LOS ANGELES	P		PROJ.REVW.	HUD940922B	04/15/96	6Y	
101803	19-176406	1633 MARIPOSA AVE		LOS ANGELES	P		PROJ.REVW.	HUD940922B	04/15/96	6Y	
098087	19-175472	1825 MARIPOSA AVE		LOS ANGELES	M		HIST.RES.	DOE-19-94-0575-0000	09/30/94	6Y	
							PROJ.REVW.	HRG940202Z	09/30/94	6Y	
153685		7921 MARIPOSA AVE		LOS ANGELES			HIST.RES.	DOE-19-00-0098-0087	03/31/00	6U	
							PROJ.REVW.	HUD000327A	03/31/00	6U	
109953		704 MARKET PL	L.A. UNION TERMINAL	LOS ANGELES	P	1917	HIST.RES.	DOE-19-97-0011-0004	08/01/97	2D2	
							PROJ.REVW.	HUD970721H	08/01/97	2D2	
023857	19-158889	4090 MARLTON AVE	MOBILE GAS STATION	LOS ANGELES	P	1947	HIST.SURV.	0053-1313-0000		3S	
	19-169879										
025632	19-171621	8267 MARMAY PL		LOS ANGELES	P	1922	HIST.SURV.	0053-3036-0000		7N	
024840	19-170860	3431 MARMION WY		LOS ANGELES	P	1890	HIST.SURV.	0053-2309-0000		5S2	
	19-155991										
024841	19-170861	3517 MARMION WY		LOS ANGELES	P	1903	HIST.SURV.	0053-2310-0000		5S2	
	19-155992										
024842	19-170862	3547 MARMION WY		LOS ANGELES	P	1909	HIST.SURV.	0053-2311-0000		5S2	
	19-155993										
024843	19-170863	3551 MARMION WY		LOS ANGELES	P	1905	HIST.SURV.	0053-2312-0000		5S2	
	19-155994										
162426		3601 MARMION WY		LOS ANGELES		1924	PROJ.REVW.	HUD060501M	06/01/06	6U	
024680	19-170701	4105 MARMION WY		LOS ANGELES	P	1900	HIST.SURV.	0053-2148-0000		7R	
	19-158570										
024681	19-170702	4201 MARMION WY		LOS ANGELES	P	1908	HIST.SURV.	0053-2149-0000		7R	
	19-158557										
024682	19-170703	4307 MARMION WY		LOS ANGELES	P	1903	HIST.SURV.	0053-2150-0000		7R	
	19-158564										
024683	19-170704	4521 MARMION WY		LOS ANGELES	P	1900	HIST.SURV.	0053-2151-0000		7N	
	19-158565										
024684	19-170705	4547 MARMION WY		LOS ANGELES	P	1895	HIST.SURV.	0053-2152-0000		7R	
	19-158566										
024685	19-170706	4563 MARMION WY		LOS ANGELES	P	1900	HIST.SURV.	0053-2153-0000		7R	
	19-156704										
098091	19-175476	2101 MARVIN AVE		LOS ANGELES	P	1930	HIST.RES.	DOE-19-94-0595-0000	09/30/94	6Y	
							PROJ.REVW.	HRG940202Z	09/30/94	6Y	
083726	19-174568	8827 MARY AVE		LOS ANGELES	U	1924	PROJ.REVW.	HUD901231D	08/18/93	6Y	
138037		10300 MARY AVE		LOS ANGELES			HIST.RES.	DOE-19-03-0069-0226	02/11/03	6Y	
							PROJ.REVW.	HUD030103A	02/11/03	6Y	
138038		10301 MARY AVE		LOS ANGELES			HIST.RES.	DOE-19-03-0069-0227	02/11/03	6Y	
							PROJ.REVW.	HUD030103A	02/11/03	6Y	
138040		10306 MARY AVE		LOS ANGELES			HIST.RES.	DOE-19-03-0069-0228	02/11/03	6Y	
							PROJ.REVW.	HUD030103A	02/11/03	6Y	
137886		10307 MARY AVE		LOS ANGELES	P		HIST.RES.	DOE-19-03-0069-0075	02/11/03	2D2	
							PROJ.REVW.	HUD030103A	02/11/03	2D2	
137887		10312 MARY AVE		LOS ANGELES	P		HIST.RES.	DOE-19-03-0069-0076	02/11/03	2D2	
							PROJ.REVW.	HUD030103A	02/11/03	2D2	
137888		10400 MARY AVE		LOS ANGELES	P		HIST.RES.	DOE-19-03-0069-0077	02/11/03	2D2	
							PROJ.REVW.	HUD030103A	02/11/03	2D2	
138041		10401 MARY AVE		LOS ANGELES			HIST.RES.	DOE-19-03-0069-0229	02/11/03	6Y	
							PROJ.REVW.	HUD030103A	02/11/03	6Y	
137889		10404 MARY AVE		LOS ANGELES	P		HIST.RES.	DOE-19-03-0069-0078	02/11/03	2D2	

OPERTY-NUMBER	PRIMARY-#	STREET.ADDRESS............	NAMES............................	CITY.NAME........	OWN	YR-C	OHP-PROG..	PRG-REFERENCE-NUMBER	STAT-DAT	NRS	CRIT
021511	19-167543	SUNSET BLVD		LOS ANGELES	P	1922	HIST.SURV.	0053-0400-9999		5S2	
021918	19-167945	SUNSET BLVD	5000 BLOCK OF SUNSET BOULEVARD RES	LOS ANGELES	P	1906	HIST.SURV.	0053-0632-9999		5D2	
P 114995		SUNSET BLVD	BRIDGE #53C-136 / SUNSET-SILVER LA	LOS ANGELES	M	1934	HIST.RES.	DOE-19-86-0065-0000	10/19/86	2S2	C
							PROJ.REVW.	FHWA860919Z	10/19/86	2S2	C
025615	19-171604	300 SUNSET BLVD	FAR EAST NATIONAL BANK	LOS ANGELES	M	1975	HIST.SURV.	0053-3019-0000		7R	
025623	19-171612	400 SUNSET BLVD	COLIMA RESTAURANT	LOS ANGELES	P	1922	HIST.SURV.	0053-3027-0000		7R	
023644	19-169666	417 SUNSET BLVD	J. FRED SMITH	LOS ANGELES	P	1921	HIST.SURV.	0053-1099-0000		7R	
024938	19-170958	840 SUNSET BLVD	HENRY GIESE RESIDENCE	LOS ANGELES	P	1887	HIST.RES.	DOE-19-86-0113-0000	08/12/86	2S2	C
							PROJ.REVW.	HUD860725w	08/12/86	2S2	C
							HIST.SURV.	0053-2328-0000		7N	
024945	19-170965	920 SUNSET BLVD	BENJAMIN H. CARLETON RESIDENCE	LOS ANGELES	P	1895	HIST.SURV.	0053-2335-0000		5S2	
025474	19-171465	1200 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2870-0000		7R	
025475	19-171466	1206 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2871-0000		7R	
025476	19-171467	1212 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2872-0000		7R	
025473	19-171464	1280 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2869-0000		7R	
025471	19-171462	1284 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2867-0000		7R	
025472	19-171463	1286 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2868-0000		7R	
025470	19-171461	1288 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2866-0000		7R	
025469	19-171460	1294 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2865-0000		7R	
025468	19-171459	1306 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2864-0000		7R	
025443	19-171434	1426 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2839-0000		7R	
025442	19-171433	1430 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2838-0000		7R	
025441	19-171432	1436 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2837-0000		7R	
025440	19-171431	1442 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2836-0000		7R	
025439	19-171430	1446 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2835-0000		7R	
025438	19-171429	1452 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2834-0000		7R	
025437	19-171428	1456 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2833-0000		7R	
025436	19-171427	1462 SUNSET BLVD		LOS ANGELES	P		HIST.SURV.	0053-2832-0000		7R	
024233	19-170255	2129 SUNSET BLVD		LOS ANGELES	P	1925	HIST.SURV.	0053-1694-0000		5S2	
116371		2139 SUNSET BLVD		LOS ANGELES	P	1914	HIST.RES.	DOE-19-96-0283-0000	07/31/96	6U	
							PROJ.REVW.	HUD970203Z	07/31/96	6U	
024235	19-170257	2146 SUNSET BLVD		LOS ANGELES	P	1925	HIST.SURV.	0053-1696-0000		5S2	
024234	19-170256	2160 SUNSET BLVD		LOS ANGELES	M	1922	HIST.RES.	DOE-19-94-0491-0000	07/01/94	5S2	
							PROJ.REVW.	HRG940202Z	07/01/94	5S2	
							HIST.SURV.	0053-1695-0000		5S2	
024232	19-170254	2201 SUNSET BLVD		LOS ANGELES	P	1925	HIST.SURV.	0053-1693-0000		5S2	
024231	19-170253	2207 SUNSET BLVD		LOS ANGELES	P	1925	HIST.SURV.	0053-1692-0000		5S2	
024230	19-170252	2223 SUNSET BLVD		LOS ANGELES	P	1895	HIST.SURV.	0053-1691-0000		5S2	
097009	19-175187	4013 SUNSET BLVD		LOS ANGELES	P	1924	PROJ.REVW.	HUD950630W	07/20/95	6Y	
100314	19-175970	4969 SUNSET BLVD	JAN CLAYTON CENTER	LOS ANGELES	P	1925	HIST.RES.	DOE-19-95-0087-0000	03/21/95	6Y	
							PROJ.REVW.	HRG940202Z	03/21/95	6Y	
021920	19-167947	5143 SUNSET BLVD		LOS ANGELES	P	1939	HIST.SURV.	0053-0634-0000		5S2	
021915	19-167942	5161 SUNSET BLVD		LOS ANGELES	P	1906	HIST.SURV.	0053-0632-0001		5D2	
021916	19-167943	5167 SUNSET BLVD		LOS ANGELES	P	1921	HIST.SURV.	0053-0632-0002		5D2	
021917	19-167944	5175 SUNSET BLVD		LOS ANGELES	P	1922	HIST.SURV.	0053-0632-0003		5D2	
021919	19-167946	5201 SUNSET BLVD		LOS ANGELES	P	1927	HIST.SURV.	0053-0633-0000		5S2	
021921	19-167948	5208 SUNSET BLVD		LOS ANGELES	P	1930	HIST.SURV.	0053-0635-0000		5S2	
021795	19-167822	5600 SUNSET BLVD	HOLLYWOOD MOVIE ARCADE	LOS ANGELES	P	1923	HIST.SURV.	0053-0601-0000		5S2	
021796	19-167823	5701 SUNSET BLVD		LOS ANGELES	P	1936	HIST.SURV.	0053-0602-0000		3S	
130650		5800 SUNSET BLVD	EXECUTIVE OFFICE BUILDING/OLD WARN	LOS ANGELES	P	1923	HIST.RES.	NPS-02001257-0000	11/01/02	1S	A
							NAT.REG.	19-0393	08/02/02	3S	A
023338	19-169360	5858 SUNSET BLVD	WARNER BROTHERS WEST COAST STUDIOS	LOS ANGELES	P	1923	TAX.CERT.	537.9-19-0248	06/26/02	2S3	
							HIST.SURV.	0053-0820-0000		3S	
073788	19-174109	5901 SUNSET BLVD	RANDALL BUILDING & GARAGE	LOS ANGELES	P	0	TAX.CERT.	537.9-19-0107	09/07/90	6X	
021923	19-167950	5939 SUNSET BLVD		LOS ANGELES	P	1924	HIST.SURV.	0053-0637-0000		5S2	
021924	19-167951	6000 SUNSET BLVD	POVERTY ROW GOWER GULCH, COLUMBIA	LOS ANGELES	P	1925	HIST.SURV.	0053-0638-0000		3S	

P = Possibly within search area.

APPENDIX B

Natural History Museum of Los Angeles County Paleontological Specimen and Locality Records Search

NATURAL HISTORY MUSEUM
LOS ANGELES COUNTY

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

Vertebrate Paleontology Section
Telephone: (213) 763-3325

e-mail: smcleod@nhm.org

29 November 2017

Statistical Research, Inc.
21 West Stuart Avenue
Redlands, CA 92374

Attn: Angela H. Keller, Ph.D.

re: Vertebrate Paleontology Records Check for paleontological resources for the proposed 1111 Sunset Project, Project Code 17SB02, in the City of Los Angeles, Los Angeles County, project area

Dear Angela:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed 1111 Sunset Project, Project Code 17SB02, in the City of Los Angeles, Los Angeles County, project area as outlined on the portion of the Los Angeles USGS topographic quadrangle map that you sent to me via e- mail on 15 November 2017. We have no fossil vertebrate localities that lie directly within the proposed project area boundaries, but we do have localities nearby from the same sedimentary deposits that occur within the proposed project area.

Surface deposits and bedrock in the entire proposed project area consist of the marine late Miocene Puente Formation (also known as the Upper Modelo Formation, the upper Monterey Formation, or even an unnamed shale in this area). Our closest vertebrate fossil locality from these deposits is LACM 5961, situated south-southeast of the proposed project area at the intersection of 1st Street and Hill Street, that produced a fossil specimen of a deep sea fish specimen of bristlemouth, *Cyclothone*. Our next closest vertebrate fossil localities from the Puente Formation were all recovered during excavations for the Metro Rail Red Line around MacArthur Park from Alvarado Street westward to about Catalina Street, west-southwest of the proposed project area. These localities, LACM 6198-6201 and 6254, produced fossil fish specimens of the families Bathylagidae, deep sea smelt, Belonidae, needlefishes, Moridae, moras, Myctophidae, lanternfishes, and Scombridae, mackerels, as well as a fossil whale rib fragment at depths between 40 and eighty feet below the surface. Slightly farther west around the Metro Rail station at Vermont Avenue and Wilshire Boulevard we have the localities LACM 6202 and 6203 from the Puente Formation at a depth of 60 to 80 feet beneath the surface. Fossil specimens of eels, Anguilliformes, and needlefishes, Belonidae, were recovered at LACM 6203. Locality LACM 6202, however, was an extremely productive locality that contained an extensive fauna of fossil fish. A list of the fossil fish taxa from locality LACM 6202 is provided in the attached appendix.

Further to the north of localities LACM 6202-6203, along Vermont Avenue from Beverly Boulevard northward to Hollywood Boulevard, west-northwest to northwest of the proposed project area, we have several fossil vertebrate localities from the Puente Formation from excavations for the MTA Metro Rail Red Line stations and tunnels. For the Metro Rail Red Line Vermont / Beverly station we have the Puente Formation locality LACM 6946 and further north we have the localities LACM 6947-6948, from excavations for the Vermont / Santa Monica and Vermont / Sunset Metro Rail Red Line stations respectively. Just north of the Vermont / Sunset station, around Barnsdall Park near the intersection of Vermont Avenue and Hollywood Boulevard, there are also the Puente Formation localities LACM 6205-6207 from the Metro Rail Redline tunnel. These localities produced a rich suite of fossil fish as detailed in an attached appendix.

Any significant excavations in the Puente Formation exposures in the proposed project area may well encounter significant vertebrate fossil remains. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosures: appendices; invoice

Fossil fish fauna from the Puente Formation locality LACM 6202
from Metro Rail Red Line excavations around MacArthur Park

Osteichthyes					- bony fishes
	Anguilliformes				- eels
	Atheriniformes				
		Belonidae			- needlefishes
	Beryciformes				
		Anoplogasteridae			- fangtooths
			Anoplogaster		
		Melamphaeidae			- bigscales
			Scopelogadus		
	Clupeiformes				
		Clupeidae			- herrings
			Ganolytes	*cameo*	
			Xyne	*grex*	
	Gadiformes				
		Gadidae			- cods
			Physiculus		
		Macrouridae			- grenadiers
		Merlucciidae			- hakes
			Merluccius		
		Moridae			- flatnoses
	Lophiiformes				- frogfishes
		Linophrynidae			
		Oneirodidae			
			Oneirodes		
	Myctophiformes				
		Myctophidae			- lanternfishes
			Diaphus		
			Lampanyctus		
	Perciformes				
		Carangidae			- jacks
			Pseudoseriola		
		Gempylidae			- snake mackerals
			Thyrsocles		
		Sciaenidae			- croakers
			Lompoquia		
		Scombridae			- tunas & mackerals
			Sarda		
			Scomber		
		Serranidae			- groupers
		Trichiuridae			- cutlassfishes

Pleuronectiformes				
	Citharidae			- sanddabs
		Citharichthys		
	Pleuronectidae			- fluonders & soles
		Hippoglossus		
		Pleuronichthys		
Salmoniformes				
	Alepocephalidae			- slickheads
	Argentinidae			- argentinas
	Bathylagidae			- smoothtongues
		Bathylagus		
	Opisthoproctidae			- spookfishes
	Searsiidae			- tubeshoulders
Scorpaeniformes				
	Scorpaenidae			- rockfishes
		Sebastes		
Stomiatiformes				
	Chauliodontidae			- viperfishes
		Chauliodus	*eximius*	
	Gonostomidae			- bristlemouths
		Cyclothone		
		Vinciguerria		
	Sternoptychidae			- hatchetfishes
		Argyropelecus		
	Stomiatidae			- dragonfishes
		Stomias		

Composite fossil fish fauna from LACM localities recovered from MTA Metrorail Red Line excavations along Vermont Avenue from about Beverly Boulevard to Hollywood Boulevard

- Osteichthyes
  - Atheriniformes
    - Belonidae - needlefishes
  - Beryciformes
    - Melamphaeidae - bigscales
      - *Scopelogadus*
  - Clupeiformes
    - Clupeidae - shads & herrings
      - *Ganolytes cameo*
      - *Xyne grex*
  - Gadiformes
    - Moridae - moras
  - Myctophiformes
    - Myctophidae - lanternfishes
      - *Diaphus*
    - Neoscopelidae - blackchins
      - *Scopelengys*
  - Perciformes
    - Carangidae - jacks; amberjacks; pompanos
      - *Decapterus*
    - Gempylidae - snake mackerels; escolars; oilfishes
      - *Thyrsocles*
    - Sciaenidae - croakers
      - *Genyonemus*
      - *Lompoquia*
    - Scombridae - mackerels & tunas
      - *Sarda*
      - *Scomber*
    - Serranidae - sea basses & groupers
      - *Paralabrax*
    - Sparidae - porgies
      - *Plectrites classeni*
  - Salmoniformes
    - Alepocephalidae - slickheads
    - Argentinidae - smelts
      - *Argentina*
    - Bathylagidae - deep sea smelts
      - *Bathylagus*
  - Stomiatiformes
    - Chauliodontidae - extinct deep-sea fishes
      - *Chauliodus eximius*
    - Gonostomidae - bristlemouths
      - *Cyclothone*
    - Sternoptychidae - hatchetfishes
      - *Argyropelecus*
      - *Danaphos*

Appendix IS-5

Geotechnical Engineering Investigation

CITY OF LOS ANGELES
CALIFORNIA

BOARD OF
BUILDING AND SAFETY
COMMISSIONERS

VAN AMBATIELOS
PRESIDENT

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DEPARTMENT OF
BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

FRANK M. BUSH
GENERAL MANAGER
SUPERINTENDENT OF BUILDING

OSAMA YOUNAN, P.E.
EXECUTIVE OFFICER

GEOLOGY AND SOILS REPORT REVIEW LETTER

January 31, 2018

LOG # 101530
SOILS/GEOLOGY FILE - 2

1111 Sunset Boulevard, LLC
11766 Wilshire Boulevard, Suite 1150
Los Angeles, CA 90025

TRACT: PM 1999-3180
LOT: B
LOCATION: 1111 W. Sunset Boulevard

CURRENT REFERENCE REPORT/LETTER	REPORT No.	DATE OF DOCUMENT	PREPARED BY
Geology/Soils Report	21155	10/10/2017 (Rev. 1/10/2018)	Geotechnologies
Oversized Documents	″	″ ″	

The Grading Division of the Department of Building and Safety has reviewed the referenced report that provides recommendations for the proposed demolition of all site improvements; and, construction of two up to 49-story towers, hotel, and low rise residential buildings over 7-stories of subterranean parking. Shoring and retaining walls are anticipated to be up to 70 feet below grade.

The earth materials at the subsurface exploration locations consist of up to 10.5 feet of uncertified fill underlain by up to 5 feet of colluvium, greater than 4 feet of old alluvium and Puente Formation bedrock. The Puente Formation bedrock includes interbedded tuff, siltstone, and sandstone dipping to the south between 31 and 78 degrees. A west plunging syncline was also identified on the west side of the proposed development and an unnamed fault has been mapped through the west portion of the proposed development. According to the consultants (pg. 16), "*historically highest groundwater level should be considered at a depth of 20 feet below the ground surface*" and the highest groundwater level was found at 16 feet depth in the borings.

The consultants recommend to support the proposed structures on conventional, mat-type and/or drilled-pile foundations bearing in competent bedrock. According to the consultants, the fill, colluvium, and old alluvium are not suitable for support of the proposed structures.

The review of the subject report cannot be completed because the stability or safety of the proposed development cannot be determined at this time. The review will be continued upon submittal of an addendum to the reports which includes, but need not be limited to, the following:

(Note: Numbers in parenthesis ( ) refer to applicable sections of the 2017 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. Please provide a complete project description and clarify the number of stories for each structure. Note: The tract map indicates up to 49 stories and the report indicates up to 45 stories.

2. What are the proposed site grades? Will any slopes be part of the proposed project?

3. Clarify the finished floor elevation of the existing "Elysian" 9-story structure at 1115 Sunset Boulevard (number & depth of any subterranean levels), and show the structure including any basement on the cross section(s).

4. It appears that a complete electronic copy of the researched reports was not provided and offsite adjacent reports were not researched for data. Research, review and reference all existing records at the Research Division of the Department of Building and Safety for the **subject and adjacent properties** and incorporate the existing geologic data into the current evaluation. Include for review purposes a **complete electronic PDF copy** (including report text, figures, exploration logs, geologic map, cross-sections and lab data) of the previous reports and the Department's review letters. Summarize previous investigations-conclusions-recommendations, and department approvals. The consultants shall provide a statement that referenced previous reports were reviewed, that they either concur with or do not concur with the findings contained therein, and that they will accept professional responsibility for the use of any data from others.

5. Provide a geologic map that is based upon conceptual grading or site development plans, to illustrate all proposed and existing contours relative to the planned grading and/or construction, along with all off-site slopes and conditions that could adversely affect the stability or safety of the site (7006.3.2). The geologic map and cross-sections shall show all existing and proposed structures, property lines, lithologic contacts, natural slopes, graded slopes, exploration data and location/height of all proposed retaining walls.

6. From the boring logs it appears that the stratification lines were based upon drive samples. Were the sidewalls of the downhole borings cleaned to expose bedding, joints, fractures, faults, etc.? Was a graphic log of the downhole borings and test pits prepared? What bedrock unit/structure was causing the seeps? What are the weakest beds at the site and were they sampled perpendicular to bedding to obtain re-shear direct shear test results?

7. Based on the exploration data, the bedding orientation in the area is dipping to the south. Where the bedrock orientation dips toward an excavation, unsupported beds would likely surcharge the proposed basement and retaining walls on the north side of the proposed structures. In addition, previous consultants identified tuff beds at the subject site. Additional deeper exploration shall rule out the presence of weaker rock types that may be located behind the proposed walls. Enough exploration shall be performed to identify the weakest bedrock layers that will be exposed by all the retaining walls at the site. Cal/OSHA regulations regarding shaft/tunnel safety (including air monitoring, supplied air, ventilation, etc.) shall be implemented prior to anyone entering deep borings or test pits.

8. An unnamed fault appears to traverse the western portion of the site and a syncline has been identified at the site. In addition, folded bedding (anticlines and synclines) were mapped by Lamar on the Local Geologic Map. Provide additional exploration to determine the location of the fault and the orientation of the bedding affecting the subject site.

9. As the subject lot is "egg shaped" and the location of the proposed retaining walls and shoring are not clearly depicted, it is unclear which walls/shoring will be surcharged by adverse bedding conditions. For each retaining wall/shoring, provide a label denoting whether adverse bedding recommendations are recommended.

10. Provide temporary and permanent ground water control recommendations. Note: The Department requires that in the event the proposed depth below grade of the lowest building finish floor level will be near or below the historically highest ground water level or the current ground water level, temporary and permanent ground water control recommendations shall be provided.

11. The residual shear (re-shear) strength shall be used where potential slip along bedding/foliation planes is analyzed as required in Information Bulletin P/BC 2017-049. The residual shear strength is the lowest strength reached at high shear deformations. Provide justification that samples reached the residual strength. Provide plots of each re-shear performed or clarifications. Note: It appears that shears from the remolded samples were used in the analyses instead of re-shears (see Plate B-1).

12. Revise the temporary excavation, shoring, and retaining wall calculations and recommendations considering the weakest adverse bedding conditions.

13. Provide the soils engineers/geologists recommendations for the sequence of construction.

14. Identify all laboratory samples including: location and depth that the sample was obtained; type of material; undisturbed, trimmed or remolded sample; saturated or field moisture condition; and sample orientation per P/BC 2017-049.

15. Provide a detailed description of shear test procedures used.

16. Provide clarification of the reported shear test values as peak, ultimate or re-sheared along the weakest bedding plane per P/BC 2017-049.

17. Historic high groundwater appears to be mapped shallower than 20 feet and the highest groundwater level was found at 16 feet in the borings. As the proposed basement levels appear to be approximately 70 feet below grade, provide recommendations for hydrostatic design of the retaining walls and uplift of the basement floor slabs considering the groundwater levels shallower than 16 feet.

18. Provide tie-back anchor recommendations considering the southerly bedding dip angles that range from 31 to 78 degrees with respect to the 35 degree potentially active wedge assumed by the consultant.

19. Show the location of the inclinometers recommended to be installed at the southeast and southwest corners of the 3-story structure. Do the consultants mean adjacent to the 9-story existing residential structure?

20. Please clarify the recommended bearing materials. Page 16 indicates old alluvium is not suitable for support of the proposed structures and page 17 indicates that smaller improvements on a compacted fill blanket may bear on old alluvium.

The geologist and soils engineer shall prepare a report containing an itemized response to the review items indicated in this letter. If clarification concerning the review letter is necessary, the report review engineer and/or geologist may be contacted. Two copies of the response report, including one unbound wet-signed original for archiving purposes, a pdf-copy of the complete report in a CD or flash drive, and the appropriate fees will be required for submittal.

CASEY LEE JENSEN
Engineering Geologist Associate III

GLEN RAAD
Geotechnical Engineer I

CLJ/GR:clj/gr
Log No. 101530
213-482-0480

cc: Geotechnologies, Inc., Project Consultant
LA District Office

Geotechnologies, Inc.
Consulting Geotechnical Engineers

439 Western Avenue
Glendale, California 91201-2837
818.240.9600 • Fax 818.240.9675

October 10, 2017
Revised January 10, 2018
File Number 21155

1111 Sunset Boulevard, LLC
c/o Palisades Capital Partners
11766 Wilshire Boulevard, Suite 1150
Los Angeles, California 90025

Attention: Mr. Brian Falls

Subject: Geotechnical Engineering Investigation
Proposed Mixed-Use Development
1111 Sunset Boulevard, Los Angeles, California

References: *Report by Geotechnologies, Inc.:*
Geotechnical Opinion, dated March 13, 2017.

Reports by Others:
Converse Foundation Engineering Company, Foundation Investigation, dated October 3, 1960, Project No. 60-451-A;
Pioneer Soils Engineering, Soil and Geology Investigation, dated June 24, 1997, Project No 1677-FG;
Geosyntec Consultants, Methane Report (Draft), Dated April 2016, Project Number SC0808.

Dear Mr. Falls:

This letter transmits the Geotechnical Engineering Investigation for the subject site prepared by Geotechnologies, Inc. This report provides geotechnical recommendations for the development of the site, including earthwork, seismic design, retaining walls, excavations, shoring and foundation design. Engineering for the proposed project should not begin until approval of the geotechnical investigation is granted by the local building official. Significant changes in the geotechnical recommendations may result due to the building department review process.

The validity of the recommendations presented herein is dependent upon review of the geotechnical aspects of the project during construction by this firm. The subsurface conditions described herein have been projected from limited subsurface exploration and laboratory testing. The exploration and testing presented in this report should in no way be construed to reflect any variations which may occur between the exploration locations or which may result from changes in subsurface conditions.

Should you have any questions please contact this office.

Respectfully submitted,
GEOTECHNOLOGIES, INC.

WALTER M. LOPEZ
Staff Engineer

REINARD T. KNUR
G.E. 2755, C.E.G. 1547

REINARD T. KNUR
No. 2755
EXP. 12/31/18

REINARD T. KNUR
NO. 1547

WML/RTK:km

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ENCLOSURES

GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED MIXED-USE DEVELOPMENT
1111 SUNSET BOULEVARD
LOS ANGELES, CALIFORNIA

INTRODUCTION

This report presents the results of the geotechnical engineering investigation performed on the subject site. The purpose of this investigation was to identify the distribution and engineering properties of the geologic materials underlying the site, and to provide geotechnical recommendations for the design of the proposed development.

This investigation included drilling of five borings, excavation of four test pits, collection of representative soil samples, laboratory testing, engineering analysis, and review of available geotechnical engineering information and the preparation of this report. The exploratory borings and test pits locations are shown on the enclosed Plot Plan. Soil reports prepared by other consultants for the site were also reviewed by this firm.

This office has previously provided a geotechnical consultation on the subject site. The report dated March 13, 2017 addressed the impact of the proposed demolition of a two-story office building and a 1-story church located on the site.

PROPOSED DEVELOPMENT

Information concerning the proposed development was furnished by the client and the office of Skidmore, Owings & Merrill, LLP, the project architect. The site is proposed to be developed with multiple mixed-use buildings set on a podium. The buildings consist of two residential towers, one 35 stories and the other 45 stories, and a 10 story hotel tower. Several low rise residential and commercial buildings will be located between the towers. Parking will be extended as much as 7 levels below grade. All of the on-site existing buildings will be demolished. The enclosed Plot Plan, Geologic Map and Cross Sections illustrate the location and depth of the proposed mixed-use development.

Structural information was not available at this time; however, it is estimated that column loads will range between 1,500 and 4,000 kips. Wall loads are estimated to be between 20 and 70 kips per lineal foot. Grading will consist of excavations up to 70 feet in depth for the proposed subterranean parking levels and foundation elements.

It should be noted that an existing 9-story building (known as "The Elysian" at 1115 Sunset Boulevard) is not part of the development.

Any changes in the design of the project or location of any structure, as outlined in this report, should be reviewed by this office. The recommendations contained in this report should not be considered valid until reviewed and modified or reaffirmed, in writing, subsequent to such review.

SITE CONDITIONS

The site is located at 1111 Sunset Boulevard in the City of Los Angeles, California. The site is approximately 5.5 acres in area and has an irregular shape. The site is bounded by The Elysian and White Knoll Drive to the north, by Alpine Street to the east, by Beaudry Avenue to the south, and by Sunset Boulevard to the west. The site is shown relative to topographic features on the attached Vicinity Map.

The site topography descends from the north down to the south; elevations range from 433 feet above mean sea level on the northeast side to 382 feet at the southeast side for a total elevation difference of 51 feet in a distance of 600 feet. The overall site gradient is 3.6 to 1(horizontal to vertical) while locally slope inclinations are as steep as 2 to 1. The enclosed Plot Plan shows the existing site conditions as well as the existing ground elevations.

The site is occupied by a one-story church, a two story and a three-story office building. The balance of the site is developed with retaining walls, asphalt paved parking lot and planter areas. The neighboring development consists of a combination of commercial and residential structures. The site improvements are shown on the attached Plot Plan.

The Elysian is not a part of this project and will remain. Based on plans provided to this firm, the Elysian is supported by a mix of spread footings and belled caissons.

Drainage across the site appears from north to south. The vegetation on the site consists of trees, planters, and grass areas.

LOCAL GEOLOGY

BACKGROUND RESEARCH

Reports by previous consultants were provided by the client for review. The following reports were reviewed:

Converse Foundation Engineering Company, report dated 3 October 1960. Foundation Investigation, Proposed Headquarters Building, Metropolitan Water District, 1111 Sunset Boulevard, Los Angeles, California, Project No. 60-451-A.

The report by Converse Foundation Engineering Company indicates that eleven borings were drilled to depths between 8 and 25 feet by using bucket auger drilling equipment. A Plot Plan showing boring locations was not included in the report. This firm checked the available permit file at the City of Los Angeles Department of Building and Safety and did not identify a map in the permit files.

The report identified fill, which contained large amounts of brick and concrete rubble on the west side of the site. The fill extended to a depth of as much as 15 feet. The location and status of this fill is not known. Siltstone and sandstone of the Puente (identified as Modelo Formation in the report) was identified as weathered and highly fractured. Cemented zones in the bedrock were described in the boring logs Groundwater or seepage was not identified in the borings.

Pioneer Soils Engineering, report dated June 24, 1997, Soils and Geology Investigation, Proposed Sanctuary & Gymnasium Building Additions, Holly Hill Community Church, 1111 Sunset Boulevard, Los Angeles, California, Project No. 1677-FG.

Pioneer Soils Engineering excavated four test pits and four borings to depths of 5 to 12 feet. The boring and test pit locations were at the southwest side of the site, next to Sunset Boulevard. Fill up seven feet was encountered as well as natural colluvial soil consisting of silt and clayey silt and clay was encountered. The colluvium was up to eight feet in thickness. Bedrock consisting of siltstone, tuffaceous siltstone and sandstone was encountered. The bedrock was described as moderately fractured and moderately to highly weathered. Bedding was relatively uniformly oriented with dips to the southeast from 65 to 75 degrees. Groundwater was not encountered in the test pits or borings. The borings are shown on the attached Plot Plan and Geologic Map. Copies of the Boring logs are also included.

ADR Environmental Group, Inc., Subsurface Investigation Report, report dated May 7, 2015, Project Number Line 01-15-006.CA(A).

This report describes the findings of a soil and soil vapor investigation to identify the presence of environmental concerns in the vicinity of the former oil wells located on the site. The investigation found that the site has been impacted by former oil well activities at the site. Methane gas was detected in the vicinity of one of the oil wells and that reabandonment may be necessary. Additional methane gas testing was recommended prior to new construction at the site.

Geosyntec Consultants, Methane Report (DRAFT), report dated April 2016, Project Number SC0808.

The report identifies that the site is located within a City of Los Angeles-designated Methane Zone. Structures located in such zone will be required to include a methane mitigation system. Based on earlier soil vapor sampling for volatile organic compounds and methane, the new structures will be required to incorporate a Level V Mitigation system.

Geotechnologies, Inc., report dated March 1, 2017, Geotechnical Opinion, Demolition of 1-Story Church and 2-Story Office Building, Proposed Mixed Use Development, 1111 Sunset Boulevard, Los Angeles, California, File No. 21155.

This letter was prepared to identify the impact of demolition of the existing buildings adjacent to The Elysian. It was the finding of Geotechnologies, that demolition of the 1-story Church and 3-story office building will not have a geotechnical impact to The Elysian located at 1115 Sunset Boulevard. As of the date of this report the demolition has not yet begun.

LOCAL GEOLOGY

The site is located in the Elysian Hills located to the northeast of downtown Los Angeles (Lamar, 1970). The Elysian Hills are characterized by low, rolling topography and are underlain by Tertiary-age, interlayered siltstone and sandstone of the Puente Formation. Bedding orientation in the Elysian Hills is very uniform dipping from 20 to 60 degrees to the south and southwest (Lamar, 1970). Three local geology maps, reflecting the work of Lamar (1970), Dibblee (1989), and Yerkes, (1977) are attached.

The bedrock bedding orientation is relatively uniform, however, small unnamed faults have been mapped in the area. According to the geologic map prepared by Lamar (1970) and Yerkes (1977), an unnamed fault is shown trending in a northeast-southwest direction and clips the southwest corner of the site. The unnamed fault is not considered active according to the criteria of the Alquist-Priolo Earthquake Fault Zoning Act is therefore not designated with an Earthquake Fault Zone. This area was excavated with several borings and test pits by this firm and Pioneer Soils Engineering. Evidence of a fault was not observed in the excavations, although the bedding orientation identified in Boring B4 and Test Pit TP4 dip towards each other, which is suggestive of a small syncline at the northwest corner of the site.

City of Los Angeles Oil Field

The site is located within the City of Los Angeles Oil Field. Based on a geologic map by Lamar (1970), the field is approximately 18,500 feet long and 1,000 feet wide and is elongated in an east-west direction. The oil is contained in the Puente Formation and seeps at the ground surface at the northern edge of the field. As described later in this report, several oil wells have been drilled on the site. Samples taken from Boring 2 at a depth of 60 and 65 feet identified naturally occurring tar.

GEOTECHNICAL EXPLORATION

FIELD EXPLORATION

The site was explored on July 25 through July 31, 2017, by drilling five borings and excavating four test pits. The depth of the borings ranged between 50 and 70 feet below the existing site grade. The depth of the exploratory test pits was between 8 and 22 feet below the existing site grade. Borings 1 through 4 were drilled with the aid of a truck-mounted drilling rig equipped with a 24-inch diameter bucket-auger. Following excavation, borings 1 through 4 were downhole logged by a geologist. Boring 5 was drilled with the aid of a truck-mounted drilling rig equipped with 8-inch diameter hollow-stem augers.

The test pits were excavated with the aid of hand tools and deepened with a 5–inch diameter hand-auger. The boring and test pit locations are shown on the Plot Plan and the Geologic Map. The geologic materials encountered are logged on Plates A-1 through A-9.

The locations of borings and test pits were determined by hand measurement from hardscape features shown on the attached Plot Plan. Elevations of the explorations were determined by interpolation of the elevation contours shown on the Plot Plan. The location and elevation of the exploratory excavations should be considered accurate only to the degree implied by the method used.

Geologic Materials

Asphalt concrete pavement was encountered in the borings between 4 and 5 inches thick. Base material consisting of silty sand with gravel underlies the asphalt.

Fill soil was encountered in all exploratory borings to depths between 0.5 and 10.5 feet. Fill soils consist of silty sand and sandy silt, which is yellowish brown, dark brown, and grayish brown, and moist. As previously discussed, the boring logs from Converse Foundation Company describe fill soils that contain abundant construction debris. The borings drilled by this firm did not encounter debris in the fill.

Natural colluvium consisting of sandy lean clay, silty sand, and sandy silt, which are dark brown and dark gray, moist, firm to stiff or medium dense were identified in some of the borings. The colluvium ranges in thickness from 1 to 5 feet in the borings drilled by this firm. The colluvium was identified in Boring 5 and Test Pits 1 and 4, found on the south side of the site.

Old alluvium was unidentified in Test Pit 1 and consists of poorly graded sand and well-graded sand, which is dark brown on color, moist, medium dense to dense, with some cobbles up to 4 inches in size). The old alluvium was identified to be 4 feet in thickness in Test Pit 1, but the test pit was terminated before reaching the base of this material.

Sedimentary bedrock of the Puente Formation was encountered in all the borings and most of the Test Pits. The Puente formation consist of clayey siltstone and sandstone that is yellowish brown to olive gray and orange brown in color, moist, and moderately hard. The rock is well bedded and parts easily along bedding planes. The occasionally hard concretions were identified as well as gypsum crystals. The rock is moderately weathered. In Boring 2, some naturally occurring tar was identified in the sample.

The bedrock dips uniformly to the southeast from 31 to 53 degrees over most of the site. However, the bedding appears to steepen approaching Beaudry Avenue steepening from 54 to 75 degrees to the southeast. Bedding in Test Pit TP4 reverses in direction to the northwest, dipping 25 and 27 degrees.

More detailed soil profiles may be obtained from individual Boring Logs and Test Pit Logs.

Groundwater

Water seepage was encountered only in the borings and is summarized in the following table. Water seepage is generally limited in extent, specific in location, and finite in volume. However, it could be conservatively considered as a groundwater elevation.

Boring Number and Ground Surface Elevation (feet)	Depth to Water Seepage (feet)	Elevation of Seepage (feet)
B1 (422.5)	29, 46	393.5, 376.5
B2 (411.5)	35, 60	376.5, 351.5
B3 (424)	39, 62	385, 362
B4 (400.5)	16	384.5

The location and depth of the seepage identified in the borings is also illustrated on the Cross Sections. Seepage should be anticipated at elevations below those listed in the table. It is the experience of this firm that water is contained in the fractures and sandy beds of the rock. Due to the finite volume of water present in the fractures and sandy beds, the seepage volume will attenuate with time.

Based on review of California Geological Survey Seismic Hazard Zone Report of the Los Angeles 7.5 Minute Quadrangle (SHZR 029), no water levels contours are shown nearby to the site. The nearest water contour is shown to be approximately 0.7 mile to the south. This observation indicates that groundwater is present in the sandstone beds and in the fractures and is not present in a fully saturated soil. A copy of this plate, Historically Highest Groundwater Levels Map, is included herein.

The nearest water level contour is shown as 20 feet below the ground surface. For design purposes, water should be considered at this depth. Where the structure extends below this level, the structure should be designed with a wall drainage system or designed to accommodate the lateral and vertical hydrostatic forces.

Fluctuations in the level of groundwater may occur due to variations in rainfall, temperature, and other factors not evident at the time of the measurements reported herein. Fluctuations also may occur across the site. High groundwater levels can result in changed conditions.

Caving

Caving was not observed during exploration. Where large diameter excavations encounter granular and cohesionless soils, such as in the old alluvial soils, caving may occur.

Oil Wells

The site is located within the City of Los Angeles Oil Field. Based on a Well Location Map the California Division of Oil and Gas and Geothermal Resources (2001) six oil wells were drilled on the southern and eastern sides of the site. The wells are indicted to have encountered oil and have been plugged and abandoned. However, it is unknown if the wells were abandoned to current standards. A copy of this map is attached to this report, as the Oil Well Location Map.

An experienced consultant/contractor should be contacted to accurately locate the wells and determine appropriate abandonment procedures.

Methane

The site is located in a City of Los Angeles designated Methane Zone (City of Los Angeles, 2003). A copy of the Methane Zone Risk Map is attached. This hazard was evaluated by Geosyntec Consultants (April 2016). The reader is directed to that report for further information

SEISMIC EVALUATION

REGIONAL GEOLOGIC SETTING

The subject site is located in the northern portion of the Peninsular Ranges Geomorphic Province. The Peninsular Ranges are characterized by northwest-trending blocks of mountain ridges and sediment-floored valleys. The dominant geologic structural features are northwest trending fault zones that either die out to the northwest or terminate at east-trending reverse faults that form the southern margin of the Transverse Ranges.

The Los Angeles Basin is located at the northern end of the Peninsular Ranges Geomorphic Province. The basin is bounded by the east and southeast by the Santa Ana Mountains and San Joaquin Hills, to the northwest by the Santa Monica Mountains. Over 22 million years ago the Los Angeles basin was a deep marine basin formed by tectonic forces between the North American and Pacific plates. Since that time, over 5 miles of marine and non-marine sedimentary rock as well as intrusive and extrusive igneous rocks have filled the basin. During the last 2 million years, defined by the Pleistocene and Holocene epochs, the Los Angeles basin and surrounding mountain ranges have been uplifted to form the present day landscape. Erosion of the surrounding mountains has resulted in deposition of unconsolidated sediments in low-lying areas by rivers such as the Los Angeles River. Areas that have experienced subtle uplift have been eroded with gullies.

REGIONAL FAULTING

Based on criteria established by the California Division of Mines and Geology (CDMG) now called California Geologic Survey (CGS), faults may be categorized as active, potentially active, or inactive. Active faults are those which show evidence of surface displacement within the last 11,000 years (Holocene-age). Potentially-active faults are those that show evidence of most recent surface displacement within the last 1.6 million years (Quaternary-age). Faults showing no evidence of surface displacement within the last 1.6 million years are considered inactive for most purposes, with the exception of design of some critical structures.

Buried thrust faults are faults without a surface expression but are a significant source of seismic activity. They are typically broadly defined based on the analysis of seismic wave recordings of hundreds of small and large earthquakes in the southern California area. Due to the buried nature of these thrust faults, their existence is usually not known until they produce an earthquake. The risk for surface rupture potential of these buried thrust faults is inferred to be low (Leighton, 1990). However, the seismic risk of these buried structures in terms of recurrence and maximum potential magnitude is not well established. Therefore, the potential for surface rupture on these surface-verging splays at magnitudes higher than 6.0 cannot be precluded.

Unnamed Fault

The geologic maps by Lamar (1970) and Yerkes (1977) indicates an unnamed fault is located on the western side of the site. The fault is oriented northwest to with right lateral motion. The un-named fault is not designated with an Earthquake Fault Zone according to the Earthquake Fault Zone Act (Hart and Bryant, 2005)

The fault does not appear to offset Quaternary terrace deposits located 0.6 mile to the southeast of the site. The evidence for the presence of this fault is not readily apparent. Some possible indications of a fault may be local minor folding on the west side of Sunset Boulevard.

Raymond Hill Fault

The Raymond Fault is a significant regional fault with a California Geological Survey Earthquake Fault Zone designation (Hart and Bryant, 2007). As shown on the Earthquake Fault Zone Map for the Los Angeles Quadrangle, the Raymond Fault and its associated Earthquake Fault Zone are located approximately 4 miles north of the site.

The Raymond Fault extends for 25 km from the Los Angeles River eastward to Sierra Madre. The fault is both left lateral and reverse motion. This fault is capable of 6.8 Magnitude (Mw) earthquake and may have been responsible for the 1991 Sierra Madre (Mw 5.8) and the 1988 Pasadena (Mw 4.9) Earthquakes. The recurrence interval for the Raymond fault is probably slightly less than 3,000 years, with the most recent documented event occurring approximately 1,600 years ago (Crook, et al, 1978). However, historical accounts of an earthquake that occurred in July 1855 as reported by Toppozada and others, (1981), places the epicenter of a Richter Magnitude 6 earthquake within the Raymond fault.

The westward continuation of the Raymond Fault across the Los Angeles River valley, and possible connection with the Hollywood Fault has been shown in various locations. Most of these fault representations are shown as concealed and have been poorly constrained.

Puente Hills Thrust Fault

The Puente Hill Thrust Fault underlies the downtown Los Angeles area to Brea (in northern Orange County) and overlies the Elysian Park Thrust. The fault includes three north-dipping segments, named from east to west as the Coyote Hills segment, the Santa Fe Springs segment, and the Los Angeles segment. These segments are overlain by folds expressed at the surface as the Coyote Hills, Santa Fe Springs Anticline, and the Montebello Hills. The Santa Fe Springs segment of the fault is believed to be the causative fault of the October 1, 1987 Whittier Narrows Earthquake (Shaw et al., 2002). Postulated earthquake scenarios for the fault include single segment fault ruptures capable of producing an earthquake of magnitude 6.5 to 6.6 (Mw) and a multiple segment fault rupture capable of producing an earthquake of magnitude 7.1 (Mw).

The Puente Hills Thrust fault is defined based on seismic reflection profiles, petroleum well data, and precisely located seismicity (Shaw et al., 2002). The fault is not exposed at the ground surface and does not present a potential for surface fault rupture. This fault has not been designated with an Earthquake Fault zone (Hart and Bryant, 1999). However, based on deformation of late Quaternary age sediments above this fault system and the occurrence of the Whittier Narrows earthquake, the fault is considered an active fault capable of generating future earthquakes beneath the Los Angeles Basin. An average slip rate of 0.03 inches per year and a maximum magnitude of 7.1 are estimated by the California Geological Survey (2003) for the Puente Hills Thrust.

SEISMIC HAZARDS AND DESIGN CONSIDERATIONS

The primary geologic hazard at the site is moderate to strong ground motion (acceleration) caused by an earthquake on any of the local or regional faults. The potential for other earthquake-induced hazards was also evaluated including surface rupture, liquefaction, dynamic settlement, inundation and landsliding.

Surface Rupture

Surface rupture is defined as surface displacement which occurs along the surface trace of the causative fault during an earthquake. Based on research of available literature, the surface trace of known active or potentially active faults do not underlie the subject site. In addition, the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Based on these considerations, the potential for surface ground rupture at the subject site is considered low. The unnamed fault is not considered active by any of the governing agencies: therefore, it is not considered at risk of rupture.

Liquefaction

Liquefaction is a phenomenon in which saturated silty to cohesionless soils below the groundwater table are subject to a temporary loss of strength due to the buildup of excess pore pressure during cyclic loading conditions such as those induced by an earthquake. Liquefaction-related effects include loss of bearing strength, amplified ground oscillations, lateral spreading, and flow failures.

The Seismic Hazard Maps for the Los Angeles Quadrangle of the State of California (CDMG, 1999), does not classify the site as part of the potentially “Liquefiable” area. In addition, the proposed structure will be supported on the siltstone bedrock which, due to its long tectonic history and moderately hard consistency is not considered liquefiable. Therefore, the potential for liquefaction settlement at the site is considered to be negligible.

Dynamic Dry Settlement

Seismically-induced settlement or compaction of dry or moist, cohesionless soils can be an effect related to earthquake ground motion. Such settlements are typically most damaging when the settlements are differential in nature across the length of structures.

The proposed project will be supported on the moderately hard bedrock of the Puente Formation. As a result, seismic settlement of the proposed structures is considered remote.

Tsunamis, Seiches and Flooding

Tsunamis are large ocean waves generated by sudden water displacement caused by a submarine earthquake, landslide, or volcanic eruption. Review of the County of Los Angeles Flood and Inundation Hazards Map, Leighton (1990), indicates the site does not lie within the mapped tsunami inundation boundaries.

Seiches are oscillations generated in enclosed bodies of water which can be caused by ground shaking associated with an earthquake. No major water-retaining structures are located immediately up gradient from the project site. Therefore, the risk of flooding from a seismically-induced seiche is considered to be remote.

Review of the County of Los Angeles Flood and Inundation Hazards Map, Leighton (1990), indicates the site does not lie within mapped inundation boundaries due to a seiche or a breached upgradient reservoir.

Landsliding

The attached Geologic Maps by Lamar and Dibblee do not show the presence of mapped landslides. In addition, the site reconnaissance did not reveal indications of landslides such as cracks in pavement, tilted walls, or scarps. Since the site will be shored and excavated, leaving no natural slopes, the potential for landsliding is considered remote.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the exploration, laboratory testing, and research, it is the finding of Geotechnologies, Inc. that construction of the proposed project is considered feasible from a geotechnical engineering standpoint provided the advice and recommendations presented herein are followed and implemented during construction.

The site is underlain by fill soil that is up to 10 1/2 feet thick. Underlying the fill are relatively thin accumulations of fine-grained Colluvium and coarse-grained Old Alluvium. Well bedded clayey siltstone and sandstone of the Puente Formation underlies the entire site. Bedding the Puente Formation dips moderately to the southeast from 20 to 50 degrees. However, at the southern side of the site, bedding dips steeper from 50 to 75 degrees. Hard concretions should be anticipated during excavation and be up to several feet in dimension.

A local reversal of bedding is noted at the northwest side of the site, where bedding dips to the northwest approximately 26 degrees, forming a small syncline. Grading in this area will require the observation of a geologist.

The site is located in the Los Angeles City Oil Field. Six oil wells are indicated on the site. A consultant familiar with locating, identifying, and oil abandonment procedures should be retained to address this issue. The oil wells will be encountered during construction and are anticipated to have up to 70 feet of casing removed, possibly requiring deeper abandonment.

Seepage from the bedrock will likely be encountered below elevation 393 feet. It is anticipated that during construction, the rate of water seepage will diminish with time. Conventional dewatering will not be necessary, however seepage water will require collection and disposal.

The permanent structure may be designed for the hydrostatic uplift and lateral loads caused by the seepage water. As an option, the structure may be designed with a wall drainage system. For permanent conditions, the historically highest groundwater level should be considered at a depth of 20 feet below the ground surface. The water surface should be considered to vary with the ground surface.

The fill soil, colluvium, and old alluvium are not suitable for support of the proposed structures. The proposed excavations for the proposed subterranean parking levels will vary approximately between 22 and 70 feet in depth below the existing grade. It is anticipated that excavation of the proposed subterranean levels will remove the fill and the surficial soils and expose the sedimentary bedrock. All foundations may bear in the bedrock found at the subgrade elevation.

Due to the well bedded structure of the rock and the moderate to steep inclination of the bedding, care should be taken to plan cuts in the rock no steeper than the angle of bedding. Where there is insufficient space, excavations should be shored.

Due to the load surcharge caused by bedding, the 3-story structure near the center of the site, and the depth of excavation (70 feet), it is recommended that the shoring wall be instrumented with inclinometers to monitor performance of the shoring wall. Monitoring may cease when the project reaches the P1 level.

The proposed structures may be supported on conventional foundations bearing in the sedimentary bedrock. However, the structure will require the installation of drains to eliminate hydrostatic pressures. If the structure will be designed to accommodate hydrostatic pressures, a mat foundation will be required.

If grades will be raised, smaller improvements may be supported on a compacted fill blanket that bears on the old alluvium or bedrock, or a combination of both.

SEISMIC DESIGN CONSIDERATIONS

2016 California Building Code Seismic Parameters

Based on information derived from the subsurface investigation and the shallow bedrock encountered, the subject site is classified as Site Class C, which corresponds to a “Very Dense Soil and Soft Rock” profile, according to Table 20.3-1 of ASCE 7-10. This information and the site coordinates were input into the USGS U.S. Seismic Design Maps tool (Version 3.1.0) to calculate the ground motions for the site.

2016 CALIFORNIA BUILDING CODE SEISMIC PARAMETERS	
Site Class	C
Mapped Spectral Acceleration at Short Periods (S_S)	2.560g
Site Coefficient (F_a)	1.0
Maximum Considered Earthquake Spectral Response for Short Periods (S_{MS})	2.560g
Five-Percent Damped Design Spectral Response Acceleration at Short Periods (S_{DS})	1.706g
Mapped Spectral Acceleration at One-Second Period (S_1)	0.902g
Site Coefficient (F_v)	1.3
Maximum Considered Earthquake Spectral Response for One-Second Period (S_{M1})	1.172g
Five-Percent Damped Design Spectral Response Acceleration for One-Second Period (S_{D1})	0.782g

FILL SOILS

The maximum depth of fill encountered on the site was 10½ feet, however, locally deeper fill may be encountered. This material and any fill generated during demolition should be removed during the excavation of the subterranean levels and removed from the site.

EXPANSIVE SOILS

The onsite geologic materials are in the very low to low expansion range. The Expansion Index was found to be between 17 and 43 for representative soil samples. Recommended reinforcing is noted in the "Foundation Design" and "Slabs On Grade" sections of this report.

WATER-SOLUBLE SULFATES

The Portland cement portion of concrete is subject to attack when exposed to water-soluble sulfates. Usually the two most common sources of exposure are from soil and marine environments. The source of natural sulfate minerals in soils include the sulfates of calcium, magnesium, sodium, and potassium. When these minerals interact and dissolve in subsurface water, a sulfate concentration is created, which will react with exposed concrete. Over time sulfate attack will destroy improperly proportioned concrete well before the end of its intended service life.

The water-soluble sulfate content of the onsite geologic materials was tested by California Test 417. The water-soluble sulfate content was determined to be less than 0.1% percentage by weight for the soils tested. Based on American Concrete Institute (ACI) Standard 318-08, the sulfate exposure is considered to be negligible for geologic materials with less than 0.1% and Type I cement may be utilized for concrete foundations in contact with the site soils. A couple of samples below depth of 57.5 feet were found to be in the moderate range, therefore, Type II cement should be utilized for footings at or below that depth.

CONSTRUCTION DEWATERING

The California Geological Survey Seismic Hazard Zone Report of the Los Angeles 7.5 Minute Quadrangle (SHZR 029) does not provide water depth contours in the site vicinity. The lack of contours indicates that the rock is non-water bearing. However seepage water was identified in the borings and will be encountered in the excavation. The quantity and rate of flow will be limited. Based on the findings from the subsurface investigation, water should be anticipated as a series of seeps, the shallowest occurring at elevation 393 feet above mean sea level. It should be noted that water will not be encountered at a uniform level across the site. Since the excavation extends to elevation 359 feet above mean sea level, water will be encountered in the excavation. However, conventional dewatering will not be necessary, but seepage will require collection and disposal.

GRADING GUIDELINES

The following guidelines are provided for any miscellaneous site grading which may be required as part of the proposed development.

Site Preparation

- A thorough search should be made for possible underground utilities and/or structures. Any existing or abandoned utilities or structures located within the footprint of the proposed grading should be removed or relocated as appropriate.
- All vegetation, existing fill, and soft or disturbed geologic materials should be removed from the areas to receive controlled fill. All existing fill materials and any disturbed geologic materials resulting from grading operations shall be completely removed and properly recompacted prior to foundation excavation.
- Any vegetation or associated root system located within the footprint of the proposed structures should be removed during grading.
- Subsequent to the indicated removals, the exposed grade shall be scarified to a depth of six inches, moistened to optimum moisture content, and recompacted in excess of the minimum required comparative density.
- The excavated areas shall be observed by the geotechnical engineer prior to placing compacted fill.

Compaction

The City of Los Angeles Department of Building and Safety requires a minimum 90 percent of the maximum density, except for cohesionless soils having less than 15 percent finer than 0.005 millimeters, which shall be compacted to a minimum 95 percent of the maximum density in accordance with the most recent revision of the Los Angeles Building Code. Based on observation of the borings and samples, it is the opinion of this firm that fill derived from the on-site soil and bedrock will not require 95% relative compaction.

All fill should be mechanically compacted in layers not more than 8 inches thick. All fill shall be compacted to at least 90 percent of the maximum laboratory density for the materials used. The maximum density shall be determined by the laboratory operated by Geotechnologies, Inc. using the test method described in the most recent revision of ASTM D 1557.

Field observation and testing shall be performed by a representative of the geotechnical engineer during grading to assist the contractor in obtaining the required degree of compaction and the proper moisture content. Where compaction is less than required, additional compactive effort shall be made with adjustment of the moisture content, as necessary, until a minimum of 90 percent compaction is obtained.

Acceptable Materials

The excavated onsite materials are considered satisfactory for reuse in the controlled fills as long as any debris and/or organic matter is removed.

Any imported materials shall be observed and tested by the representative of the geotechnical engineer prior to use in fill areas. Imported materials should contain sufficient fines so as to be relatively impermeable and result in a stable subgrade when compacted. Any required import materials should consist of geologic materials with an expansion index of less than 30. The water-soluble sulfate content of the import materials should be less than 0.1% percentage by weight.

Imported materials should be free from chemical or organic substances which could affect the proposed development.

Utility Trench Backfill

Utility trenches should be backfilled with controlled fill. The utility should be bedded with clean sands at least one foot over the crown. The remainder of the backfill may be onsite soil compacted to 90 percent of the laboratory maximum density. Utility trench backfill should be tested by representatives of this firm in accordance with the most recent revision of ASTM D-1557.

Shrinkage and Bulking

Shrinkage results when a volume of soil removed at one density is compacted to a higher density. Bulking occurs when rock is removed and replaced at a lower density. It is anticipated that the bedrock will be used as the primary material for grading. The net result of grading will result in a bulking factor of approximately 5 percent when excavating and recompacting the excavated bedrock to an average comparative compaction of 92 percent.

Weather Related Grading Considerations

When rain is forecast all fill that has been spread and awaits compaction shall be properly compacted prior to stopping work for the day or prior to stopping due to inclement weather. These fills, once compacted, shall have the surface sloped to drain to an area where water can be removed.

Temporary drainage devices should be installed to collect and transfer excess water to the street in non-erosive drainage devices. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope.

Work may start again, after a period of rainfall, once the site has been reviewed by a representative of this office. Any soils saturated by the rain shall be removed and aerated so that the moisture content will fall within three percent of the optimum moisture content.

Surface materials previously compacted before the rain shall be scarified, brought to the proper moisture content and recompacted prior to placing additional fill, if considered necessary by a representative of this firm.

Geotechnical Observations and Testing During Grading

Geotechnical observations and testing during grading are considered to be a continuation of the geotechnical investigation. It is critical that the geotechnical aspects of the project be reviewed by representatives of Geotechnologies, Inc. (or the Engineer of Record) during the construction process. Compliance with the design concepts, specifications or recommendations during construction requires review by this firm during the course of construction. Any fill which is placed should be observed, tested, and verified if used for engineered purposes. Please advise this office at least twenty-four hours prior to any required site visit.

FOUNDATION DESIGN

This development will consist of several buildings with subterranean parking levels of varying depth. Based on the design concept, most of the proposed building will be constructed over subterranean parking levels; except for the proposed courtyard buildings that will be constructed at-or-near grade. Geotechnologies, Inc. provides several options for the foundation design.

Conventional Foundations

Conventional foundations for the proposed structures must bear in the bedrock. All conventional foundations for a structure should bear in the same material.

Continuous foundations may be designed for a bearing capacity of 7,000 pounds per square foot, and should be a minimum of 12 inches in width, 24 inches in depth below the lowest adjacent grade and 18 inches into the recommended bearing material.

Column foundations may be designed for a bearing capacity of 8,000 pounds per square foot, and should be a minimum of 24 inches in width, 24 inches in depth below the lowest adjacent grade and 18 inches into the recommended bearing material.

The bearing capacity increase for each additional foot of width is 250 pounds per square foot. The bearing capacity increase for each additional foot of depth is 800 pounds per square foot. The maximum recommended bearing capacity is 10,000 pounds per square foot.

A factor of safety of 3 was utilized in determining the allowable bearing capacities. The bearing values indicated above are for the total of dead and frequently applied live loads, and may be increased by one third for short duration loading, which includes the effects of wind or seismic forces. Since the recommended bearing value is a net value, the weight of concrete in the foundations may be taken as 50 pounds per cubic foot and the weight of the soil backfill may be neglected when determining the downward load on the foundations.

The proposed foundation plan shall be reviewed by this office when it achieves more definition, so that the recommendations contained herein may be modified or reaffirmed subsequent to such review, as necessary.

Conventional Foundations Adjacent to Buildings or Property Lines

Conventional foundations to be constructed adjacent to existing structures should be deepened to extend \ below a 1:1 plane of foundation action projected up from the bottom of the existing foundation or it is recommended that new foundation should match the depth of the existing foundation and should bear solely in the bedrock. Where foundation excavations will leave an adjacent foundation unsupported, the foundation excavation should be slot cut as described in the "Temporary Excavations" sections of this report.

Miscellaneous Foundations

Foundations for small miscellaneous outlying structures, such as property line fence walls, planters, exterior canopies, and trash enclosures, which will not be tied-in to the proposed structure, may be supported on conventional foundations bearing in the native soils. Wall footings may be designed for a bearing value of 1,500 pounds per square foot, and should be a minimum of 12 inches in width, 18 inches in depth below the lowest adjacent grade and 18 inches into the recommended bearing material. No bearing value increases are recommended. Since the recommended bearing capacity is a net value, the weight of concrete in the foundations may be taken as 50 pounds per cubic foot and the weight of the soil backfill may be neglected when determining the downward load on the foundations.

Foundation Reinforcement

Based on City of Los Angeles minimum requirements, all continuous foundations should be reinforced with a minimum of four #4 steel bars. Two should be placed near the top of the foundation, and two should be placed near the bottom.

Lateral Design

Resistance to lateral loading may be provided by friction acting at the base of foundations and by passive earth pressure. An allowable coefficient of friction of 0.35 may be used with the dead load forces.

Passive geologic pressure for the sides of foundations poured against undisturbed or recompacted soil may be computed as an equivalent fluid having a density of 300 pounds per cubic foot with a maximum earth pressure of 3,000 pounds per square foot. The passive and friction components may be combined for lateral resistance without reduction. A one-third increase in the passive value may be used for short duration loading such as wind or seismic forces.

Foundation Settlement

All conventional footings are expected to bear in the bedrock. The maximum settlement is expected to be ½ inch and occur below the heaviest loaded columns. Differential settlement is not expected to exceed ¼ inch.

Foundation Observations

It is critical that all foundation excavations are observed by a representative of this firm to verify penetration into the recommended bearing materials. The observation should be performed prior to the placement of reinforcement. Foundations should be deepened to extend into satisfactory geologic materials, if necessary. Foundation excavations should be cleaned of all loose soils prior to placing steel and concrete. Any required foundation backfill should be mechanically compacted, flooding is not permitted.

Mat Foundation

A mat foundation will be necessary if a hydrostatic design is used for the proposed subterranean levels.

An average bearing pressure of 6,000 pounds per square foot is anticipated. The mat foundation may be designed utilizing a modulus of subgrade reaction of 350 pounds per cubic inch. This value is a unit value for use with a one-foot square footing. The modulus should be reduced in accordance with the following equation when used with larger foundations.

$$K = K_1 * [(B + 1) / (2 * B)]^2$$

Where: K = Reduced Subgrade Modulus
K1 = Unit Subgrade Modulus
B = Foundation Width (feet)

The bearing values indicated above are for the total of dead and frequently applied live loads, and may be increased by one third for short duration loading, which includes the effects of wind or seismic forces. Since the recommended bearing value is a net value, the weight of concrete in the foundations may be taken as 50 pounds per cubic foot and the weight of the soil backfill may be neglected when determining the downward load on the foundations.

Lateral Design for Mat Foundation

Resistance to lateral loading may be provided by soil friction, and by the passive resistance of the soils. A coefficient of friction of 0.35 may be used with the dead load forces between footings and the underlying supporting soils.

Passive earth pressure for the sides of footings poured against undisturbed soil may be computed as an equivalent fluid having a density of 400 pounds per cubic foot, with a maximum earth pressure of 4,000 pounds per square foot. When combining passive and friction for lateral resistance, the passive component should be reduced by one third. A one-third increase in the passive value may be used for wind or seismic loads. A minimum safety factor of 2 has been utilized in determining the allowable passive pressure.

Foundation Settlement

The majority of the foundation settlement is expected to occur on initial application of loading. It is anticipated that total settlement between 1 to 1½ inches will occur below the more heavily loaded central core portions of the mat foundation beneath the tower. Settlement on the edges of the mat foundation are expected to be between ½ to ¾ inch.

Friction Piles

Deep foundation may be used to support the proposed at-or-near grade courtyard buildings in order to avoid the surcharge on the proposed subterranean walls and the adjacent footings of the adjacent building. The location of the piles should be carefully coordinated with the location of any tiebacks in the area to avoid interference.

Friction piles located in the vicinity of the adjacent proposed subterranean structures and adjacent footings should be designed to derive support only within the native soils below a 1:1 (h:v) surcharge plane projected upward from the bottom of the lowest adjacent subterranean level or footings. In addition, the upper section of the piles shall be sleeved to prevent skin friction from developing within the 1:1 (h:v) surcharge plane projected upward from the bottom of the lowest adjacent subterranean level.

Drilled Cast-in-Place Friction Piles

The proposed friction piles may be proportioned utilizing the enclosed Friction Pile Capacity Chart and the Lateral Load Capacity Charts. The friction pile capacities are mathematically determined using a safety factor of 2. For ultimate compression and tension design, the pile capacities may be doubled. Uplift capacity may be designed using 50 percent of the downward capacity.

All friction piles should be tied together with grade beams or structural slabs. Where pile groups are required, the piles should be spaced a minimum of 3 diameters on centers. If so spaced, there will be no reduction in the downward capacity of the piles due to group action.

A one-third increase may be used for transient loading such as wind or seismic forces. The capacities presented are based on the strength of the soils. The compressive and tensile strength of the pile sections should be checked to verify the structural capacity of the piles.

Lateral Design for Pile Foundation

Lateral loads may be resisted by the piles, and by the passive resistance of the bedrock against the pile caps and grade beams. The passive resistance of the bedrock against pile caps and grade beams may be assumed as an equivalent fluid having a density of 400 pounds per cubic foot with a maximum earth pressure of 4,000 pounds per square foot. A one-third increase in this value may be used for wind or seismic loads. The passive resistance of the piles and the passive resistance of the bedrock against pile caps and grade beams may be combined without reduction in determining the total lateral resistance.

Maximum recommended allowable lateral capacities for ¼-inch deflection for single, isolated, fixed-head and free-head piles are presented in the Appendix. No factors of safety have been applied to the lateral load values calculated to induce ¼-inch lateral deflection.

Single isolated piles may be classified as piles spaced at or greater than 8 diameters on center. For pile groups where piles will be spaced closer than 8 diameters on center in the direction of loading, the following reduction factor may be utilized to determine the allowable lateral pile capacities to maintain a ¼-inch pile deflection.

Pile Spacing*	Percentage of Lateral Passive Resistance
7B	70%
6B	55%
5B	45%
4B	38%
3B	33%

* B is the diameter of the proposed piles

Lateral capacities provided are for drilled, cast-in-place concrete piles, penetrating the materials encountered during the course of this investigation. Assumed as part of these lateral capacity calculations are a concrete modulus of elasticity of at least 3,000,000 pounds per square inch (psi), and minimum total pile depth of 40 feet.

A one-third increase may be used for transient loading such as wind or seismic forces. The capacities presented are based on the strength of the soils. The compressive and tensile strength of the pile sections should be checked to verify the structural capacity of the piles.

Lateral Design for Piles Adjacent to Existing Basement

Where piles, pile caps, and grade beams are located adjacent to the existing neighboring basements within a 1:1 (h:v) surcharge plane projected upward from the bottom of the lowest adjacent subterranean level, they should not be utilized for lateral support in the direction perpendicular to the subterranean structures. Lateral capacity in the direction parallel to the existing neighboring basements shall be reduced by one half.

As an alternative, the proposed piles may be designed to derive lateral capacity from the native soils below the bottom of the existing neighboring basements. In order to prevent lateral loads from the proposed piles surcharging the existing neighboring basements, the upper section of the pile above the basement level shall be provided with a sleeve/casing. As an alternative the adjacent retaining wall can be designed to accommodate the surcharge pressure.

Installation of Drilled Cast-in-Place Friction Piles

Difficult drilling conditions were encountered during exploration in some of the borings due to seepage and moderately hard bedrock and concretions.

Caving of drilled borings is not anticipated due to the modernly hard consistency of the bedrock. Closely spaced piles should be drilled and filled alternately, with the concrete permitted to set at least overnight before drilling an adjacent hole. Pile excavations should be filled with concrete as soon after drilling and inspection as possible; the shafts should not be left open overnight. The concrete should be placed with special equipment so that the concrete is not allowed to fall freely more than 5 feet and to prevent concrete from striking the walls of the excavations and possible causing caving.

If the water level in a boring exceeds three inches a tremie and/or a concrete pump shall be used to place the concrete into the bottom of the hole. A tremie shall consist of a water-tight tube having a diameter of not less than 4 inches and connected to a concrete pump. The tube shall be equipped with a device that will close the discharge end and prevent water from entering the tube while it is being charged with concrete. The tremie shall be supported so as to permit free movement of the discharge end over the entire top surface of the work and to permit rapid lowering when necessary to retard or stop the flow of concrete. The discharge end shall be closed at the start of the work to prevent water entering the tube and shall be entirely sealed at all times, except when the concrete is being placed. The tremie tube shall be kept full of concrete.

The flow shall be continuous until the work is completed and the resulting concrete seal shall be monolithic and homogeneous. The tip of the tremie tube shall always be kept about five feet below the surface of the concrete and definite steps and safeguards should be taken to insure that the tip of the tremie tube is never raised above the surface of the concrete.

A special concrete mix should be used for concrete to be placed below water. The design shall provide for concrete with a strength of 1,000 psi over the initial job specification. An admixture that reduces the problem of segregation of paste/aggregates and dilution of paste shall be included. The slump shall be commensurate to any research report for the admixture, provided that it shall also be the minimum for a reasonable consistency for placing when water is present.

Settlement

The maximum settlement of pile-supported foundations is not expected to exceed ½ inch. Differential settlement is expected to be less than ¼ inch.

RETAINING WALL DESIGN

Some of the retaining walls will incur a surcharge loads due to the orientation of bedding. Bedding dips to the south-southwest from 30 to 75 degrees and will surcharge walls that have a southern exposure. Walls with and west, north or east exposure will have bedding that is oblique to the face of the wall and will not have a surcharge. The exception to this recommendation will be the wall along the east side of the site between White Knoll Avenue and Beaudry Avenue. Bedding will have an out of slope component that should be considered daylighted for purposes of shoring design.

Cantilever retaining walls supporting a level backslope may be designed utilizing a triangular distribution of active earth pressure. Restrained retaining walls may be designed utilizing a triangular distribution of at-rest earth pressure. Retaining walls may be designed utilizing the following tables:

LATERAL RETAINING WALL PRESSURE
DAYLIGHTED BEDDING ORIENTATION
(SOUTH WALL EXPOSURES, AND EAST SIDE OF SITE BETWEEN WHITE KNOLL DRIVE AND BEAUDRY AVENUE)

Height of Retaining Wall (feet)	Cantilever Retaining Wall Triangular Distribution of Active Earth Pressure (pcf)	Restrained Retaining Wall Triangular Distribution of At-Rest Earth Pressure (pcf)
Up to 10	44	78
10 to 20	58	78
20 to 30	63	78
30 to 40	N.A.	78
40 to 50	N.A.	78
50 to 60	N.A.	78
60 to 70	N.A.	78
70 to 80	N.A.	78

LATERAL RETAINING WALL PRESSURE
OBLIQUE BEDDING ORIENTATION
(WEST, NORTH AND EAST WALL EXPOSURES)

Height of Retaining Wall (feet)	Cantilever Retaining Wall Triangular Distribution of Active Earth Pressure (pcf)	Restrained Retaining Wall Triangular Distribution of At-Rest Earth Pressure (pcf)
Up to 10	26	59
10 to 20	40	59
20 to 30	45	59
30 to 40	N.A.	59
40 to 50	N.A.	59
50 to 60	N.A.	59
60 to 70	N.A.	59
70 to 80	N.A.	59

The lateral earth pressures recommended above for retaining walls assume that a permanent drainage system will be installed so that external water pressure will not be developed against the walls. Additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic and the adjacent structures.

The upper ten feet of the retaining wall adjacent to streets, driveways or parking areas should be designed to resist a uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot surcharge behind the walls due to normal street traffic. If the traffic is kept back at least ten feet from the retaining walls, the traffic surcharge may be neglected. Foundations may be designed using the allowable bearing capacities, friction, and passive earth pressure found in the "Foundation Design" section above.

Dynamic (Seismic) Earth Pressure

Retaining walls exceeding 6 feet in height shall be designed to resist the additional earth pressure caused by seismic ground shaking. A triangular pressure distribution should be utilized for the additional seismic loads, with an equivalent fluid pressure of 28 pounds per cubic foot. When using the load combination, the greater of the seismic earth pressure and the active pressure or the At-rest pressure should be used for that depth interval. The comparison is made in the following tables:

SEISMIC WALL PRESSURE
DAYLIGHTED BEDDING CONDITION
(All Pressure Distributions are Triangular)

Wall Height (feet)	**Active pressure (pcf)**	**Active + Seismic (pcf)**	**At-Rest (pcf)**
Up to 10	44	(44 + 28) = 72	78*
10 to 20	58	86*	78
20 to 30	63	91*	78
30 to 40	65	93*	78
40 to 50	67	95*	78
50 to 60	68	96*	78
60 to 70	69	97*	78
70 to 80	70	98*	78

Note: * denotes value to be used in design

SEISMIC WALL PRESSURE
OBLIQUE BEDDING CONDITION
(All Pressure Distributions are Triangular)

Wall Height (feet)	**Active pressure (pcf)**	**Active + Seismic (pcf)**	**At-Rest (pcf)**
Up to 10	26	(26 + 28) = 54	59*
10 to 20	40	68	78*
20 to 30	45	73	78*
30 to 40	47	75	78*
40 to 50	49	77	78*
50 to 60	50	78	78*
60 to 70	50	78	78*
70 to 80	51	79*	78

Note: * denotes value to be used in design

Surcharge from Adjacent Structures

As indicated herein, additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic or adjacent structures for retaining walls and shoring design.

The following surcharge equation provided in the LADBS Information Bulletin Document No. P/BC 2008-83, may be utilized to determine the surcharge loads on basement walls and shoring system for existing structures located within the 1:1 (h:v) surcharge influence zone of the excavation and basement.

Resultant lateral force: $R = (0.3*P*h^2)/(x^2+h^2)$

Location of lateral resultant: $d = x*[(x^2/h^2+1)*\tan^{-1}(h/x)-(x/h)]$

Where:

R = resultant lateral force measured in pounds per foot of wall width.
P = resultant surcharge loads of continuous or isolated footings measured in pounds per foot of length parallel to the wall.
x = distance of resultant load from back face of wall measured in feet.
h = depth below point of application of surcharge loading to top of wall footing measured in feet.
d = depth of lateral resultant below point of application of surcharge loading measure in feet.
$\tan^{-1}(h/x)$ = the angle in radians whose tangent is equal to h/x.

The structural engineer and shoring engineer may use this equation to determine the surcharge loads based on the loading of the adjacent structures located within the surcharge influence zone.

Waterproofing

Moisture effecting retaining walls is one of the most common post construction complaints. Poorly applied or omitted waterproofing can lead to efflorescence or standing water inside the building. Efflorescence is a process in which a powdery substance is produced on the surface of the concrete by the evaporation of water. The white powder usually consists of soluble salts such as gypsum, calcite, or common salt. Efflorescence is common to retaining walls and does not affect their strength or integrity.

It is recommended that retaining walls be waterproofed. Waterproofing design and inspection of its installation is not the responsibility of the geotechnical engineer. A qualified waterproofing consultant should be retained in order to recommend a product or method which would provide protection to below grade walls.

Retaining Wall Drainage

All retaining walls shall be provided with a subdrain in order to minimize the potential for future hydrostatic pressure buildup behind the proposed retaining walls. Subdrains may consist of four-inch diameter perforated pipes, placed with perforations facing down. The pipe shall be encased in at least one-foot of gravel around the pipe. The gravel may consist of three-quarter inch to one inch crushed rocks.

A compacted fill blanket or other seal shall be provided at the surface. Retaining walls may be backfilled with gravel adjacent to the wall to within 2 feet of the ground surface. The onsite earth materials are acceptable for use as retaining wall backfill as long as they are compacted to a minimum of 90 percent of the maximum density as determined by ASTM D 1557-02 or equivalent.

Certain types of subdrain pipe are not acceptable to the various municipal agencies, it is recommended that prior to purchasing subdrainage pipe, the type and brand is cleared with the proper municipal agencies. Subdrainage pipes should outlet to an acceptable location.

Where retaining walls are to be constructed adjacent to property lines there is usually not enough space for emplacement of a standard pipe and gravel drainage system. Under these circumstances, the use of a flat drainage produce is acceptable. However, the City of Los Angeles only permits the used of flat drainage products if used in conjunction with a conventional rockpockets or back drain system. The use of such a product should be researched with the building official.

The lateral earth pressures recommended above for retaining walls assume that a permanent drainage system will be installed so that external water pressure will not be developed against the walls. If a drainage system is not provided, the walls should be designed to resist an external hydrostatic pressure due to water in addition to the lateral earth pressure. In any event, it is recommended that retaining walls be waterproofed.

Retaining Wall Backfill

Any required backfill should be mechanically compacted in layers not more than 8 inches thick, to at least 90 percent of the maximum density obtainable by the ASTM Designation D 1557 method of compaction. Flooding should not be permitted. Proper compaction of the backfill will be necessary to reduce settlement of overlying walks and paving. Some settlement of required backfill should be anticipated, and any utilities supported therein should be designed to accept differential settlement, particularly at the points of entry to the structure.

Proper compaction of the backfill will be necessary to reduce settlement of overlying walks and paving. Some settlement of required backfill should be anticipated, and any utilities supported therein should be designed to accept differential settlement, particularly at the points of entry to the structure.

Sump Pump Design

The purpose of the recommended permanent retaining wall backdrainage system is to relieve hydrostatic pressure. Water seepage was encountered at different depths, between 16 and 62 feet below grade in the borings. This water seepage represents a flow within thin layers of sand within the bedrock. Therefore, this water seepage should be added to any potential irrigation waters and precipitation. Additionally, the proposed site grading is such that all drainage is directed to the streets and the structure has been designed with adequate non-erosive drainage devices.

Based on these considerations, the permanent retaining wall backdrainage system is not expected to experience an appreciable flow of water. For the purposes of sump pump design, a flow rate of 10 gallons per minute may be assumed.

TEMPORARY EXCAVATIONS

It is anticipated that excavations for this development extend as much as 70 feet in depth for the proposed subterranean levels and foundation elements. The excavations are expected to expose fill, colluvium, old alluvium and sedimentary bedrock. All of the materials, with the exception of daylighted bedrock, are suitable for vertical excavations up to five feet where not surcharged by adjacent traffic or structures.

Proposed footings next to The Elysian will require temporary shoring. It is recommended that the proposed foundation plans be reviewed by this firm, so that the need for temporary shoring or slot cuts during foundation excavations may be evaluated.

Where sufficient space is available, temporary unsurcharged embankments (where not exposing daylighted bedrock) could be cut at a uniform 1:1 (h:v) slope gradient to a maximum depth equal to the depth the excavation to a maximum depth of 30 feet. A uniform sloped excavation does not have a vertical component.

Where sloped embankments are utilized, the top of the slopes should be barricaded to prevent vehicles and storage loads surcharging the slopes within a horizontal distance equal to the depth of the excavation. If the temporary construction embankments are to be maintained during the rainy season, berms are suggested along the tops of the slopes where necessary to prevent runoff water from entering the excavation and eroding the slope faces. The soils exposed in the cut slopes should be inspected during excavation by personnel from this office so that modifications of the slopes can be made if variations in the soil conditions occur.

Where the horizontal distance from the edge of the proposed excavation to the neighboring structures is less than or equal to the depth of the excavation, the proposed excavation should be made in 8 foot slots by the A-B-C slot cut methods.

Daylighted Bedrock

As described earlier in this report, bedrock dips to the south-southeast from 30 to 50 degrees. Near the southern edge of the site, bedding steepens to 50 to 70 degrees. Temporary cuts in the bedrock may not be made steeper than the angle of bedding. Where the reversal in bedding dip occurs, this recommendation applies.

Excavations Adjacent to Buildings or Property Lines

Where foundation excavations will leave an adjacent foundation unsupported, the foundation excavation should be slot cut. The slot cutting method employs the earth as a buttress and allows the earth excavation to proceed in phases. Alternate "A" slots of 8 feet may be worked. The remaining earth buttresses ("B" and "C" slots) should each be 8 feet in width for a combined intervening length of 16 feet. The foundation should be poured in the "A" slots before the "B" slots are excavated. After completing the foundation in the "B" slots, finally the "C" slots may be excavated.

Excavation Observations

It is critical that the rock exposed in the cut slopes are observed by a representative of Geotechnologies, Inc. (or the geotechnical engineer of record) during excavation so that modifications of the slopes can be made if variations in the geologic material conditions occur. Many building officials require that temporary excavations should be made during the continuous observations of the geotechnical engineer. All excavations should be stabilized within 30 days of initial excavation.

SHORING DESIGN

The following information on the design and installation of the shoring is as complete as possible at this time. It is suggested that a review of the final shoring plans and specifications be made by this office prior to bidding or negotiating with a shoring contractor be made.

One method of shoring would consist of steel soldier piles, placed in drilled holes and backfilled with concrete. The soldier piles may be designed as cantilevers or laterally braced utilizing drilled tie-back anchors or raker braces.

Soldier Piles

Drilled cast-in-place soldier piles should be placed no closer than 2 diameters on center. The minimum diameter of the piles is 18 inches. Structural concrete should be used for the soldier piles below the excavation; lean-mix concrete may be employed above that level. As an alternative, lean-mix concrete may be used throughout the pile where the reinforcing consists of a wideflange section. The slurry must be of sufficient strength to impart the lateral bearing pressure developed by the wideflange section to the earth materials. For design purposes, an allowable passive value for the earth materials below the bottom plane of excavation may be assumed to be 600 pounds per square foot per foot. To develop the full lateral value, provisions should be implemented to assure firm contact between the soldier piles and the undisturbed earth materials.

The frictional resistance between the soldier piles and retained earth material may be used to resist the vertical component of the anchor load. The coefficient of friction may be taken as 0.35 based on uniform contact between the steel beam and lean-mix concrete and retained earth. The portion of soldier piles below the plane of excavation may also be employed to resist the downward loads. The downward capacity may be determined using a frictional resistance of 600 pounds per square foot. The minimum depth of embedment for shoring piles is 5 feet below the bottom of the footing excavation, or 7 feet below the bottom of excavated plane, whichever is deeper.

Casing may be required should caving be experienced in the saturated earth materials. If casing is used, extreme care should be employed so that the pile is not pulled apart as the casing is withdrawn. At no time should the distance between the surface of the concrete and the bottom of the casing be less than 5 feet.

Piles placed below water greater than 3 inches in depth, will require the use of a tremie to place the concrete into the bottom of the hole. A tremie shall consist of a water-tight tube having a diameter of not less than 4 inches and be connected to a concrete pump. The tube shall be equipped with a device that will close the discharge end and prevent water from entering the tube while it is being charged with concrete. The tremie shall be supported so as to permit free movement of the discharge end over the entire top surface of the work and to permit rapid lowering when necessary to retard or stop the flow of concrete. The discharge end shall be closed at the start of the work to prevent water entering the tube and shall be entirely sealed at all times, except when the concrete is being placed. The tremie tube shall be kept full of concrete. The flow shall be continuous until the work is completed and the resulting concrete seal shall be monolithic and homogeneous. The tip of the tremie tube shall always be kept about five feet below the surface of the concrete and definite steps and safeguards should be taken to insure that the tip of the tremie tube is never raised above the surface of the concrete.

A special concrete mix should be used for concrete to be placed below water. The design shall provide for concrete with a strength of 1,000 psi over the initial job specification. An admixture that reduces the problem of segregation of paste/aggregates and dilution of paste shall be included. The slump shall be commensurate to any research report for the admixture, provided that it shall also be the minimum for a reasonable consistency for placing when water is present.

Lagging

Soldier piles and anchors should be designed for the full anticipated pressures. Due to the cohesionless nature of the underlying earth materials, lagging will be required throughout the entire depth of the excavation. Due to arching in the geologic materials, the pressure on the lagging will be less. It is recommended that the lagging should be designed for the full design pressure but be limited to a maximum of 400 pounds per square foot. It is recommended that a representative of this firm observe the installation of lagging to insure uniform support of the excavated embankment.

Lateral Pressures

Shoring wall loads will be affected by the orientation of bedding. Bedding dips to the south – southwest from 30 to 75 degrees and will surcharge walls that have a southern exposure. Walls with and west, north or east exposure will have bedding that is oblique to the face of the wall and will not have a surcharge. The exception to this recommendation will be the wall along the east side of the site between White Knoll Avenue and Beaudry Avenue. Bedding will have an out of slope component that should be considered daylighted for purposes of shoring design.

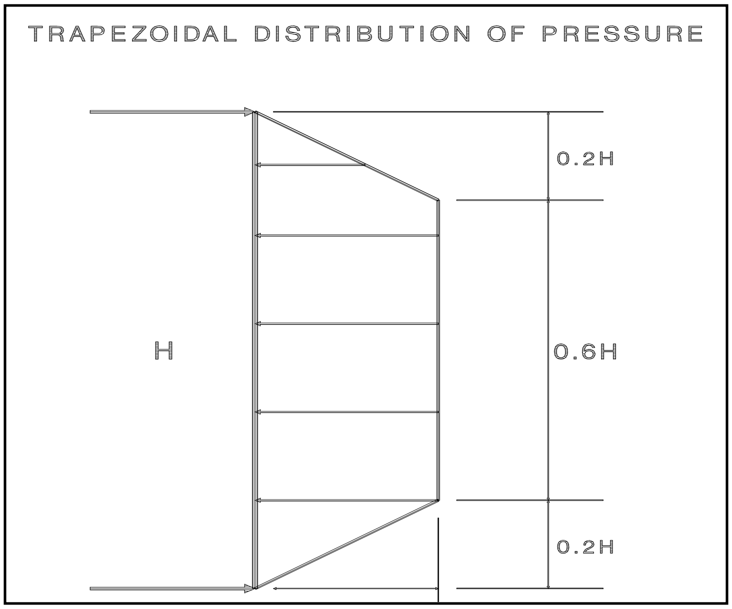
A triangular distribution of lateral earth pressure should be utilized for the design of cantilevered shoring system. A trapezoidal distribution of lateral earth pressure would be appropriate where shoring is to be restrained at the top by bracing or tie backs. The design of trapezoidal distribution of pressure is shown in the diagram below. Equivalent fluid pressures for the design of cantilevered and restrained shoring are presented in the following table:

LATERAL SHORING WALL PRESSURES **DAYLIGHTED BEDDING ORIENTATION** (SOUTH WALL EXPOSURES, AND EAST SIDE OF SITE BETWEEN WHITE KNOLL DRIVE AND BEAUDRY AVENUE)		
Height of Shoring Wall (feet)	Cantilever Shoring System Equivalent Fluid Pressure (pcf) Triangular Distribution of Pressure	Restrained Shoring System Lateral Earth Pressure (psf)* Trapezoidal Distribution of Pressure
Up to 10	33	21H
10 to 20	48	30H
20 to 30	54	34H
30 to 40	N.A.	36H
40 to 50	N.A.	37H
50 to 60	N.A.	38H
60 to 70	N.A.	39H
70 to 80	N.A.	39H
80 to 90	N.A.	40H

*Where H is the height of the shoring in feet.

LATERAL SHORING WALL PRESSURES **OBLIQUE BEDDING ORIENTATION** (WEST, NORTH AND EAST WALL EXPOSURES)		
Height of Shoring Wall (feet)	Cantilever Shoring System Equivalent Fluid Pressure (pcf) Triangular Distribution of Pressure	Restrained Shoring System Lateral Earth Pressure (psf)* Trapezoidal Distribution of Pressure
Up to 20	30	19H
20 to 30	36	23H
30 to 40	N.A.	24H
40 to 50	N.A.	26H
50 to 60	N.A.	27H
60 to 70	N.A.	28H
70 to 80	N.A.	29H
80 to 90	N.A.	308H

*Where H is the height of the shoring in feet.



Where a combination of sloped embankment and shoring is utilized, the pressure will be greater and must be determined for each combination. Additional active pressures should be applied where the shoring will be surcharged by adjacent traffic or structures.

The upper ten feet of the retaining wall adjacent to streets, driveways or parking areas should be designed to resist a uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot surcharge behind the walls due to normal street traffic. If the traffic is kept back at least ten feet from the retaining walls, the traffic surcharge may be neglected. Foundations may be designed using the allowable bearing capacities, friction, and passive earth pressure found in the "Foundation Design" section above.

Tied-Back Anchors

Tied-back anchors may be used to resist lateral loads. Friction anchors are recommended. For design purposes, it may be assumed that the active wedge adjacent to the shoring is defined by a plane drawn 35 degrees with the vertical through the bottom plane of the excavation. Friction anchors should extend a minimum of 20 feet beyond the potentially active wedge.

Drilled friction anchors may be designed for a skin friction of 600 pounds per square foot. Pressure grouted anchor may be designed for a skin friction of 2,500 pounds per square foot. Where belled anchors are utilized, the capacity of belled anchors may be designed by assuming the diameter of the bonded zone is equivalent to the diameter of the bell. Only the frictional resistance developed beyond the active wedge would be effective in resisting lateral loads.

It is recommended that at least 3 of the initial anchors have their capacities tested to 200 percent of their design capacities for a 24-hour period to verify their design capacity. The total deflection during this test should not exceed 12 inches. The anchor deflection should not exceed 0.75 inches during the 24 hour period, measured after the 200 percent load has been applied.

All anchors should be tested to at least 150 percent of design load. The total deflection during this test should not exceed 12 inches. The rate of creep under the 150 percent test load should not exceed 0.1 inch over a 15 minute period in order for the anchor to be approved for the design loading.

After a satisfactory test, each anchor should be locked-off at the design load. This should be verified by rechecking the load in the anchor. The load should be within 10 percent of the design load. Where satisfactory tests are not attained, the anchor diameter and/or length should be increased or additional anchors installed until satisfactory test results are obtained. The installation and testing of the anchors should be observed by the geotechnical engineer. Minor caving during drilling of the anchors should be anticipated.

Anchor Installation

Tied-back anchors may be installed between 20 and 40 degrees below the horizontal. Caving of the anchor shafts, particularly within sand deposits, should be anticipated and the following provisions should be implemented in order to minimize such caving. The anchor shafts should be filled with concrete by pumping from the tip out, and the concrete should extend from the tip of the anchor to the active wedge. In order to minimize the chances of caving, it is recommended that the portion of the anchor shaft within the active wedge be backfilled with sand before testing the anchor. This portion of the shaft should be filled tightly and flush with the face of the excavation. The sand backfill should be placed by pumping; the sand may contain a small amount of cement to facilitate pumping.

Deflection

It is difficult to accurately predict the amount of deflection of a shored embankment. It should be realized that some deflection will occur. It is estimated that the deflection could be on the order of one inch at the top of the shored embankment. If greater deflection occurs during construction, additional bracing may be necessary to minimize settlement of adjacent buildings and utilities in adjacent street and alleys. If desired to reduce the deflection, a greater active pressure could be used in the shoring design. Where internal bracing is used, the rakers should be tightly wedged to minimize deflection. The proper installation of the raker braces and the wedging will be critical to the performance of the shoring.

The City of Los Angeles Department of Building and Safety requires limiting shoring deflection to ½ inch at the top of the shored embankment where a structure is within a 1:1 plane projected up from the base of the excavation. A maximum deflection of 1-inch has been allowed provided there are no structures within a 1:1 plane drawn upward from the base of the excavation.

Raker Brace Foundations

An allowable bearing pressure of 4,000 pounds per square foot may be used for the design a raker foundations. This bearing pressure is based on a raker foundation a minimum of 4 feet in width and length as well as 4 feet in depth. The base of the raker foundations should be horizontal. Care should be employed in the positioning of raker foundations so that they do not interfere with the foundations for the proposed structure.

Monitoring

Because of the depth of the excavation, some method of monitoring the performance of the shoring system is recommended. The monitoring should consist of periodic surveying of the lateral and vertical locations of the tops of all soldier piles and the lateral movement along the entire lengths of selected soldier piles. Also, some means of periodically checking the load on selected anchors will be necessary, where applicable.

Some movement of the shored embankments should be anticipated as a result of the relatively deep excavation. It is recommended that photographs of the existing buildings on the adjacent properties be made during construction to record any movements for use in the event of a dispute.

Inclinometers

Due to the depth of the excavation, and the presence of a structure at the top of the excavation and the daylighted bedding orientation, it is recommended that inclinometers be installed at the southeast and southwest corners of the 3-story structure. The purpose of inclinometers will be to measure deflection along the face of the shoring when conventional survey methods cannot be employed.

The installation should occur when the shoring piles are installed. Inclinometer readings should be performed at 10 foot depth intervals as the excavation proceeds.

Shoring Observations

It is critical that the installation of shoring is observed by a representative of Geotechnologies, Inc. Many building officials require that shoring installation should be performed during continuous observation of a representative of the geotechnical engineer. The observations insure that the recommendations of the geotechnical report are implemented and so that modifications of the recommendations can be made if variations in the geologic material or groundwater conditions warrant. The observations will allow for a report to be prepared on the installation of shoring for the use of the local building official, where necessary.

SLABS ON GRADE

Concrete Slabs-on Grade

Concrete floor slabs should be a minimum of 5 inches in thickness. Slabs-on-grade should be cast over undisturbed bedrock or properly controlled fill materials but not a combination of both. Any geologic materials loosened or over-excavated should be wasted from the site or properly compacted to 90 percent of the maximum dry density. The depth of fill beneath a slab need not exceed 12 inches.

Outdoor Concrete Slab

Outdoor concrete flatwork should be a minimum of 4 inches in thickness. Outdoor concrete flatwork should be cast over undisturbed bedrock or properly controlled fill materials. Any geologic materials loosened or over-excavated should be wasted from the site or properly compacted to 90 percent of the maximum dry density.

Design of Slabs That Receive Moisture-Sensitive Floor Coverings

Geotechnologies, Inc. does not practice in the field of moisture vapor transmission evaluation and mitigation. Therefore it is recommended that a qualified consultant be engaged to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction. The qualified consultant should provide recommendations for mitigation of potential adverse impacts of moisture vapor transmission on various components of the structure.

Where dampness would be objectionable, it is recommended that the floor slabs should be waterproofed. A qualified waterproofing consultant should be retained in order to recommend a product or method which would provide protection for concrete slabs-on-grade.

All concrete slabs-on-grade should be supported on vapor retarder. The design of the slab and the installation of the vapor retarder should comply with the most recent revisions of ASTM E 1643 and ASTM E 1745. The vapor retarder should comply with ASTM E 1745 Class A requirements.

Where a vapor retarder is used, a low-slump concrete should be used to minimize possible curling of the slabs. The barrier can be covered with a layer of trimmable, compactible, granular fill, where it is thought to be beneficial. See ACI 302.2R-32, Chapter 7 for information on the placement of vapor retarders and the use of a fill layer.

Concrete Crack Control

The recommendations presented in this report are intended to reduce the potential for cracking of concrete slabs-on-grade due to settlement. However even where these recommendations have been implemented, foundations, stucco walls and concrete slabs-on-grade may display some cracking due to minor soil movement and/or concrete shrinkage. The occurrence of concrete cracking may be reduced and/or controlled by limiting the slump of the concrete used, proper concrete placement and curing, and by placement of crack control joints at reasonable intervals, in particular, where re-entrant slab corners occur.

For standard control of concrete cracking, a maximum crack control joint spacing of 15 feet should not be exceeded. Lesser spacings would provide greater crack control. Joints at curves and angle points are recommended. The crack control joints should be installed as soon as practical following concrete placement. Crack control joints should extend a minimum depth of one-fourth the slab thickness. Construction joints should be designed by a structural engineer.

Complete removal of the existing fill soils beneath outdoor flatwork such as walkways or patio areas, is not required, however, due to the rigid nature of concrete, some cracking, a shorter design life and increased maintenance costs should be anticipated. In order to provide uniform support beneath the flatwork it is recommended that a minimum of 12 inches of the exposed subgrade beneath the flatwork be scarified and recompacted to 90 percent relative compaction.

Slab Reinforcing

Concrete slabs-on-grade should be reinforced with a minimum of #4 steel bars on 16-inch centers each way. Outdoor flatwork should be reinforced with a minimum of #3 steel bars on 18-inch centers each way.

PAVEMENTS

Asphalt Concrete Paving

Prior to placing paving, the existing grade should be scarified to a depth of 12 inches, moistened as required to obtain optimum moisture content, and recompacted to 90 percent of the maximum density as determined by the most recent revision of ASTM D 1557. The required paving and thickness will depend on the expected wheel loads and service (traffic index). We have conservatively assumed an R-value of 40 for the subgrade soils. The R-value of the compacted fill should be confirmed during grading. The client should be aware that removal of all existing fill in the area of new paving is not required, however, pavement constructed in this manner will most likely have a shorter design life and increased maintenance costs. The following pavement sections are recommended:

Service	Asphalt Pavement Thickness (Inches)	Base Course (Inches)
Passenger Cars	3.0	4
Moderate Truck	4.0	6
Heavy Truck	6.0	9

Aggregate base should be compacted to a minimum of 95 percent of the most recent revision of ASTM D 1557 laboratory maximum dry density. Base materials should conform with Sections 200-2.2 or 200-2.4 of the "Standard Specifications for Public Works Construction", (Green Book), latest edition.

The performance of pavement is highly dependent upon providing positive surface drainage away from the edges. Ponding of water on or adjacent to pavement can result in saturation of the subgrade materials and subsequent pavement distress. If planter islands are planned, the perimeter curb should extend a minimum of 12 inches below the bottom of the aggregate base.

Concrete Pavement

Concrete paving may be used on the project. Portland cement concrete paving sections were determined in accordance with procedures developed by the Portland Cement Association. Concrete paving sections for a range of Traffic Indices are presented in the following table. We have assumed that the portland cement concrete will have a compressive strength of at least 3,000 pounds per square inch.

Service	Concrete Pavement Thickness (Inches)	Base Course (Inches)
Passenger Cars	6.5	4
Moderate Truck	7.0	4
Heavy Truck	7.5	4

The occurrence of concrete cracking may be reduced and/or controlled by limiting the slump of the concrete used, proper concrete placement and curing, and by placement of crack control joints at reasonable intervals, in particular, where re-entrant slab corners occur.

For standard control of concrete cracking, a maximum crack control joint spacing of 15 feet should not be exceeded. Lesser spacings would provide greater crack control. Joints at curves and angle points are recommended. The crack control joints should be installed as soon as practical following concrete placement. Crack control joints should extend a minimum depth of one-fourth the slab thickness. Construction joints should be designed by a structural engineer. Concrete paving should be reinforced with a minimum of #3 steel bars on 18-inch centers each way.

Aggregate base should be compacted to a minimum of 95 percent of the most recent revision of ASTM D 1557 laboratory maximum dry density. Base materials should conform with Sections 200-2.2 or 200-2.4 of the “Standard Specifications for Public Works Construction”, (Green Book), latest edition.

SITE DRAINAGE

Proper surface drainage is critical to the future performance of the project. Saturation of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Proper site drainage should be maintained at all times.

All site drainage should be collected and transferred to the street in non-erosive drainage devices. The proposed structure should be provided with roof drainage. Discharge from downspouts, roof drains and scuppers should not be permitted on unprotected soils within five feet of the building perimeter. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope. Planters which are located within a distance equal to the depth of a retaining wall should be sealed to prevent moisture adversely affecting the wall. Planters which are located within five feet of a foundation should be sealed to prevent moisture affecting the earth materials supporting the foundation.

STORMWATER DISPOSAL

Introduction

Recently regulatory agencies have been requiring the disposal of a certain amount of stormwater generated on a site by infiltration into the site soils. Increasing the moisture content of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. This means that any overlying structure, including buildings, pavements and concrete flatwork, could sustain damage due to saturation of the subgrade soils. Structures serviced by subterranean levels could be adversely impacted by stormwater disposal by increasing the design fluid pressures on retaining walls and causing leaks in the walls. Proper site drainage is critical to the performance of any structure in the built environment.

The site is entirely underlain by sedimentary bedrock of the Puente Formation. Based on experience of this firm, the bedrock underlying the site does not transmit water readily due to its fine grained composition. Therefore, it is the opinion of this firm that stormwater infiltration at this site is not feasible.

When infiltration of stormwater into the subgrade soils is not advisable, most Building Officials have allowed the stormwater to be filtered through soils in planter areas. Once the water has been filtered through a planter it may be released into the storm drain system. It is recommended that overflow pipes are incorporated into the design of the discharge system in the planters to prevent flooding. In addition, the planters shall be sealed and waterproofed to prevent leakage. Please be advised that adverse impact to landscaping and periodic maintenance may result due to excessive water and contaminants discharged into the planters.

It is recommended that the design team (including the structural engineer, waterproofing consultant, plumbing engineer, and landscape architect) be consulted in regard to the design and construction of potential infiltration systems.

DESIGN REVIEW

Engineering of the proposed project should not begin until approval of the geotechnical report by the Los Angeles Department of Building and Safety is obtained in writing. Significant changes in the geotechnical recommendations may result during the building department review process.

It is recommended that the geotechnical aspects of the project be reviewed by this firm during the design process. This review provides assistance to the design team by providing specific recommendations for particular cases, as well as review of the proposed construction to evaluate whether the intent of the recommendations presented herein are satisfied.

CONSTRUCTION MONITORING

Geotechnical observations and testing during construction are considered to be a continuation of the geotechnical investigation. It is critical that this firm (or geotechnical engineer of record) review the geotechnical aspects of the project during the construction process. Compliance with the design concepts, specifications or recommendations during construction requires review by this firm during the course of construction. All foundations should be observed by a representative of this firm prior to placing concrete or steel. Any fill which is placed should be observed, tested, and verified if used for engineered purposes. Please advise Geotechnologies, Inc. at least twenty-four hours prior to any required site visit.

If conditions encountered during construction appear to differ from those disclosed herein, notify Geotechnologies, Inc. immediately so the need for modifications may be considered in a timely manner.

It is the responsibility of the contractor to ensure that all excavations and trenches are properly sloped or shored. All temporary excavations should be cut and maintained in accordance with applicable OSHA rules and regulations.

EXCAVATION CHARACTERISTICS

The exploration performed for this investigation is limited to the geotechnical excavations described. Direct exploration of the entire site would not be economically feasible. The owner, design team and contractor must understand that differing excavation and drilling conditions may be encountered based on boulders, gravel, oversize materials, groundwater and many other conditions. Fill materials, especially when they were placed without benefit of modern grading codes, regularly contain materials which could impede efficient grading and drilling. Southern California sedimentary bedrock is known to contain variable layers which reflect differences in depositional environment. Such layers may include abundant gravel, cobbles and boulders. Similarly bedrock can contain concretions. Concretions are typically lenticular and follow the bedding. They are formed by mineral deposits. Concretions can be very hard. Excavation and drilling in these areas may require full size equipment and coring capability. The contractor should be familiar with the site and the geologic materials in the vicinity.

CLOSURE AND LIMITATIONS

The purpose of this report is to aid in the design and completion of the described project. Implementation of the advice presented in this report is intended to reduce certain risks associated with construction projects. The professional opinions and geotechnical advice contained in this report are sought because of special skill in engineering and geology and were prepared in accordance with generally accepted geotechnical engineering practice. Geotechnologies, Inc. has a duty to exercise the ordinary skill and competence of members of the engineering profession. Those who hire Geotechnologies, Inc. are not justified in expecting infallibility, but can expect reasonable professional care and competence.

The scope of the geotechnical services provided did not include any environmental site assessment for the presence or absence of organic substances, hazardous/toxic materials in the soil, surface water, groundwater, or atmosphere, or the presence of wetlands.

Proper compaction is necessary to reduce settlement of overlying improvements. Some settlement of compacted fill should be anticipated. Any utilities supported therein should be designed to accept differential settlement. Differential settlement should also be considered at the points of entry to the structure.

The City of Los Angeles does not require corrosion testing. However, if corrosion sensitive improvements are planned, it is recommended that a comprehensive corrosion study should be commissioned. The study will develop recommendations to avoid premature corrosion of buried pipes and concrete structures in direct contact with the soils.

GEOTECHNICAL TESTING

Classification and Sampling

The soil is continuously logged by a representative of this firm and classified by visual examination in accordance with the Unified Soil Classification system. The field classification is verified in the laboratory, also in accordance with the Unified Soil Classification System. Laboratory classification may include visual examination, Atterberg Limit Tests and grain size distribution. The final classification is shown on the boring logs.

Samples of the geologic materials encountered in the exploratory excavations were collected and transported to the laboratory. Undisturbed samples of soil are obtained at frequent intervals. Unless noted on the boring logs as an SPT sample, samples acquired while utilizing a hollow-stem auger drill rig are obtained by driving a thin-walled, California Modified Sampler with successive 30-inch drops of a 140-pound hammer. The soil is retained in brass rings of 2.50

inches outside diameter and 1.00 inch in height. The central portion of the samples are stored in close fitting, waterproof containers for transportation to the laboratory. Samples noted on the excavation logs as SPT samples are obtained in accordance with the most recent revision of ASTM D 1586. Samples are retained for 30 days after the date of the geotechnical report.

Moisture and Density Relationships

The field moisture content and dry unit weight are determined for each of the undisturbed soil samples, and the moisture content is determined for SPT samples by the most recent revision of ASTM D 4959 or ASTM D 4643. This information is useful in providing a gross picture of the soil consistency between exploration locations and any local variations. The dry unit weight is determined in pounds per cubic foot and shown on the "Boring Logs", A-Plates. The field moisture content is determined as a percentage of the dry unit weight.

Direct Shear Testing

Shear tests are performed by the most recent revision of ASTM D 3080 with a strain controlled, direct shear machine manufactured by Soil Test, Inc. or a Direct Shear Apparatus manufactured by GeoMatic, Inc. The rate of deformation is approximately 0.025 inches per minute. Each sample is sheared under varying confining pressures in order to determine the Mohr-Coulomb shear strength parameters of the cohesion intercept and the angle of internal friction. Samples are generally tested in an artificially saturated condition. Depending upon the sample location and future site conditions, samples may be tested at field moisture content. The results are plotted on the "Shear Test Diagram," B-Plates.

The most recent revision of ASTM 3080 limits the particle size to 10 percent of the diameter of the direct shear test specimen. The sheared sample is inspected by the laboratory technician running the test. The inspection is performed by splitting the sample along the sheared plane and observing the soils exposed on both sides. Where oversize particles are observed in the shear plane, the results are discarded and the test run again with a fresh sample.

Consolidation Testing

Settlement predictions of the soil's behavior under load are made on the basis of the consolidation tests using the most recent revision of ASTM D 2435. The consolidation apparatus is designed to receive a single one-inch high ring. Loads are applied in several increments in a geometric progression, and the resulting deformations are recorded at selected time intervals. Porous stones are placed in contact with the top and bottom of each specimen to permit addition and release of pore fluid. Samples are generally tested at increased moisture content to determine the effects of water on the bearing soil. The normal pressure at which the water is added is noted on the drawing. Results are plotted on the "Consolidation Test," C-Plates.

Expansion Index Testing

The expansion tests performed on the remolded samples are in accordance with the Expansion Index testing procedures, as described in the most recent revision of ASTM D4829. The soil sample is compacted into a metal ring at a saturation degree of 50 percent. The ring sample is then placed in a consolidometer, under a vertical confining pressure of 1 lbf/square inch and inundated with distilled water. The deformation of the specimen is recorded for a period of 24 hour or until the rate of deformation becomes less than 0.0002 inches/hour, whichever occurs first. The expansion index, EI, is determined by dividing the difference between final and initial height of the ring sample by the initial height, and multiplied by 1,000. Results are presented on the D-Plates.

Laboratory Compaction Characteristics

The maximum dry unit weight and optimum moisture content of a soil are determined by use of the most recent revision of ASTM D 1557. A soil at a selected moisture content is placed in five layers into a mold of given dimensions, with each layer compacted by 25 blows of a 10 pound hammer dropped from a distance of 18 inches subjecting the soil to a total compactive effort of about 56,000 pounds per cubic foot. The resulting dry unit weight is determined. The procedure is repeated for a sufficient number of moisture contents to establish a relationship between the dry unit weight and the water content of the soil. The data when plotted represent a curvilinear relationship known as the compaction curve. The values of optimum moisture content and modified maximum dry unit weight are determined from the compaction curve. Results are presented on the D-Plates.

Grain Size Distribution

These tests cover the quantitative determination of the distribution of particle sizes in soils. Sieve analysis is used to determine the grain size distribution of the soil larger than the Number 200 sieve. The most recent revision of ASTM D 422 is used to determine particle sizes smaller than the Number 200 sieve. The grain size distributions are plotted on the E-Plates.

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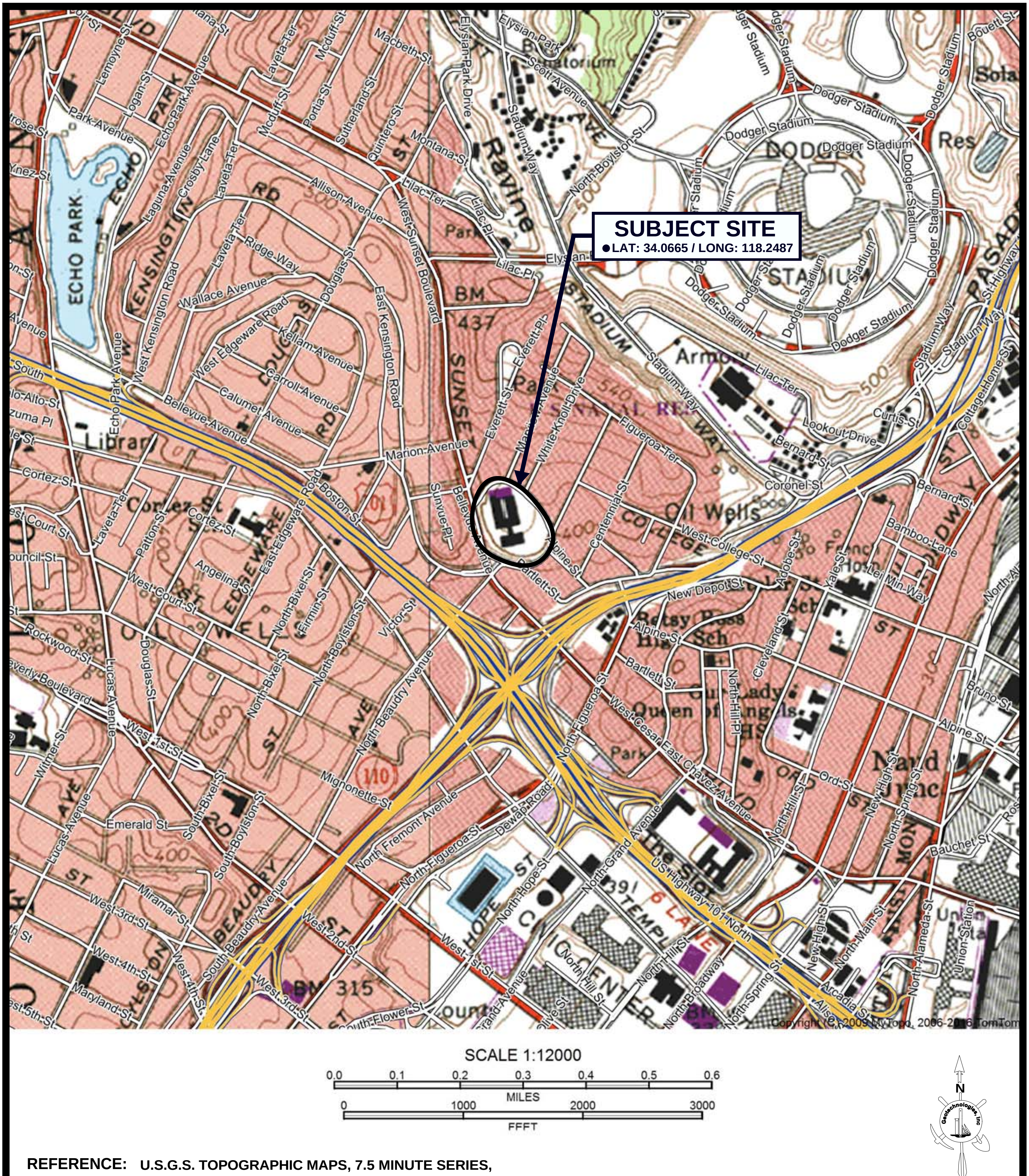

REFERENCE: U.S.G.S. TOPOGRAPHIC MAPS, 7.5 MINUTE SERIES,
LOS ANGELES, CA QUADRANGLE

VICINITY MAP

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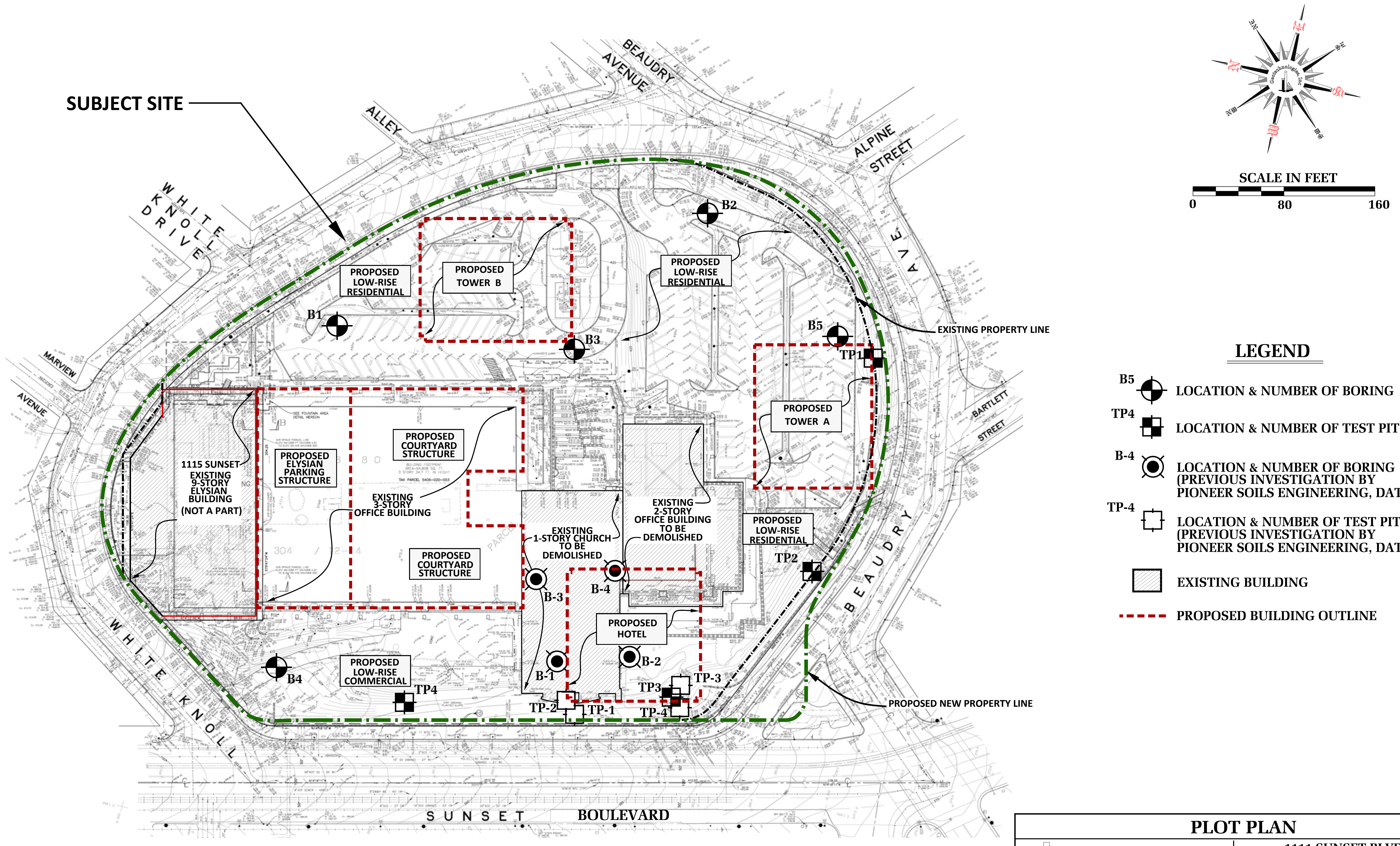

LEGEND

- B5 ⊕ LOCATION & NUMBER OF BORING
- TP4 ▚ LOCATION & NUMBER OF TEST PIT
- B-4 ◉ LOCATION & NUMBER OF BORING (PREVIOUS INVESTIGATION BY PIONEER SOILS ENGINEERING, DATED 1997)
- TP-4 ☐ LOCATION & NUMBER OF TEST PIT (PREVIOUS INVESTIGATION BY PIONEER SOILS ENGINEERING, DATED 1997)
- ▨ EXISTING BUILDING
- - - - PROPOSED BUILDING OUTLINE

REFERENCES:
ALTA/ARCHITECTURAL DESIGN SURVEY BY HENNON SURVEYING & MAPPING, INC., DATED FEBRUARY 12, 2016;
DRAFT PLANS PREPARED BY SKIDMORE, OWINGS & MERRILL LLP, DATED NOVEMBER 17, 2017

PLOT PLAN

1111 SUNSET BLVD., LLC
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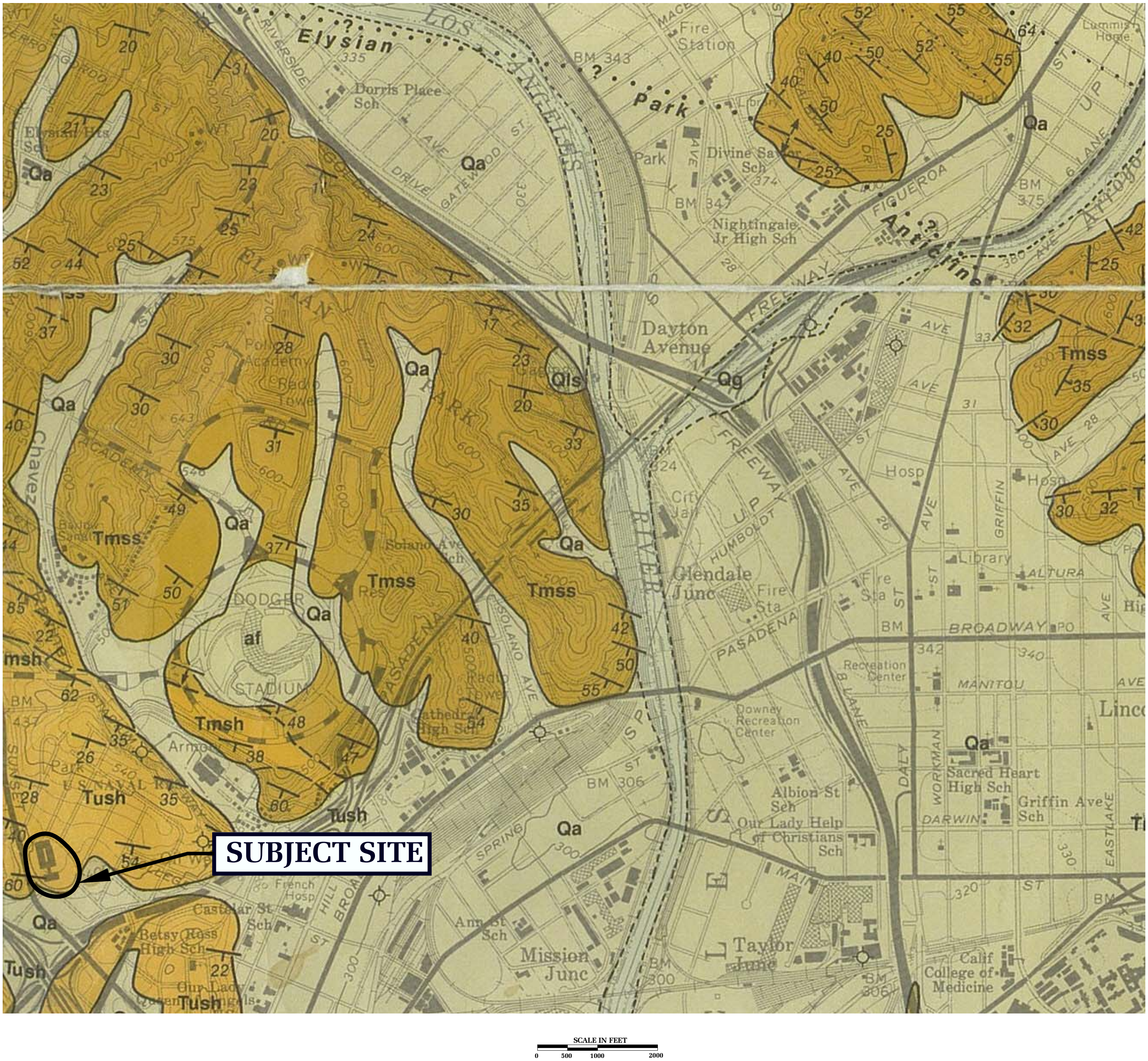
DATE: January 2018



LEGEND

Qg: Surficial Sediments: stream channel deposits of gravel, sand and silt
Qa: Surficial Sediments: alluvium; unconsolidated floodplain deposits
Qls: Landslide Debris
Tush: Unnamed Shale: gray to light borwn, thin-bedded, silty clay shale
Tmsh: Monterey Formation: white-weathering, thin-bedded, platy, siliceous shale
Tmss: Monterey Formation: tan to light gray semi-friable arkosic sandstone

◄--†--- Folds - arrow on axial trace of fold indicates direction of plunge
—•••? Fault - dashed where indefinite or inferred, dotted where concealed, queried where existence is doubtful

REFERENCE: DIBBLEE, T.W., (1989) GEOLOGIC MAP OF THE LOS ANGELES QUADRANGLE (#DF-22)

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LOCAL GEOLOGIC MAP - DIBBLEE

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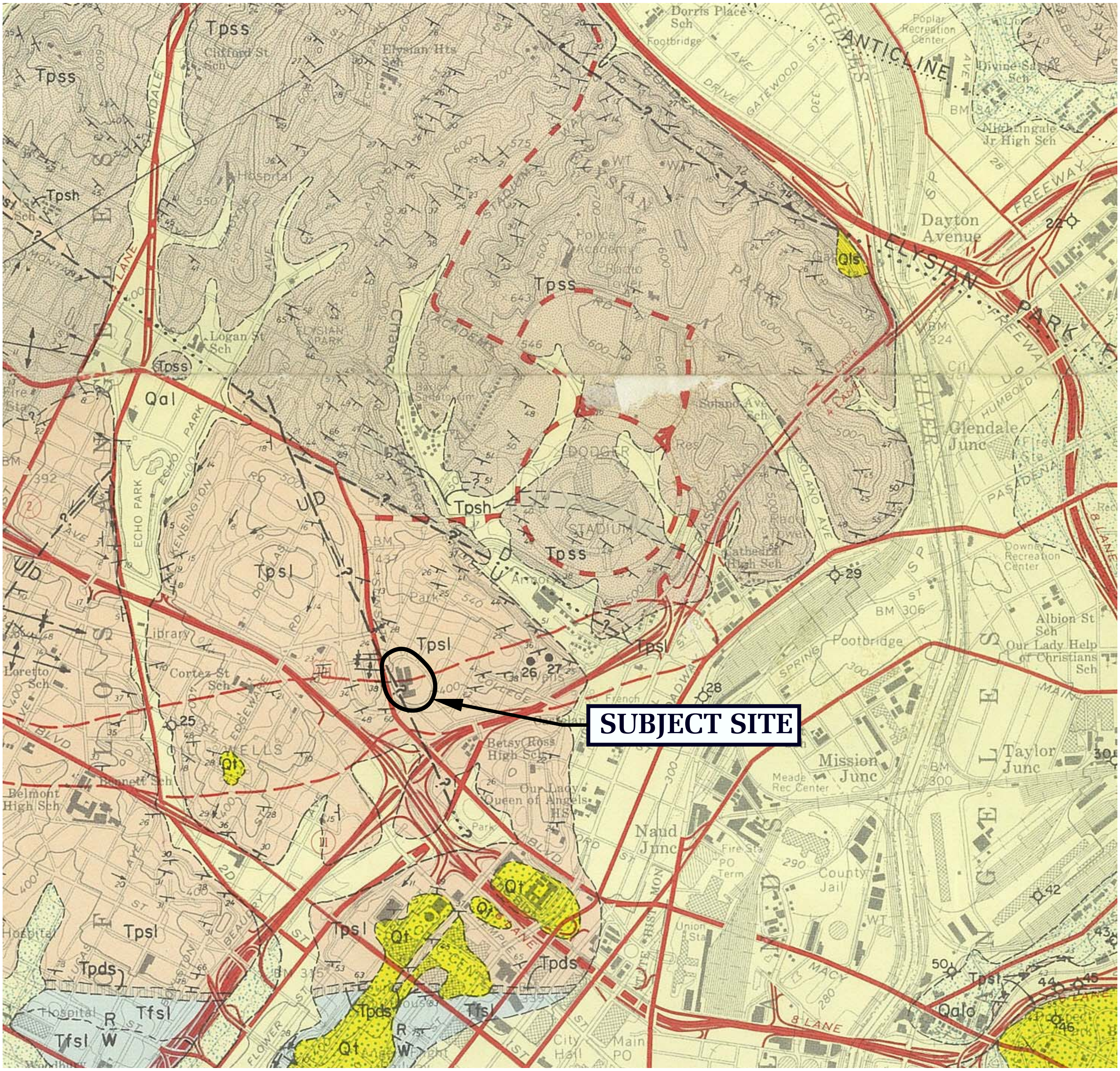
1111 SUNSET BLVD.

FILE NO. 21155



SCALE IN FEET

0 500 1000 2000

LEGEND

Qal: Alluvium: silt, sand & gravel

Tpsl: Puente Formation: Siltstone, well bedded, light brown and light gray

Tpsh: Puente Formation: Shale, well bedded, light gray, siliceous

Tpss: Puente Formation: Sandstone, well bedded, medium-course grained

◄--┼--- Folds - arrow on axial trace of fold indicates direction of plunge

—••••? Fault - dashed where indefinite or inferred, dotted where concealed, queried where existence is doubtful

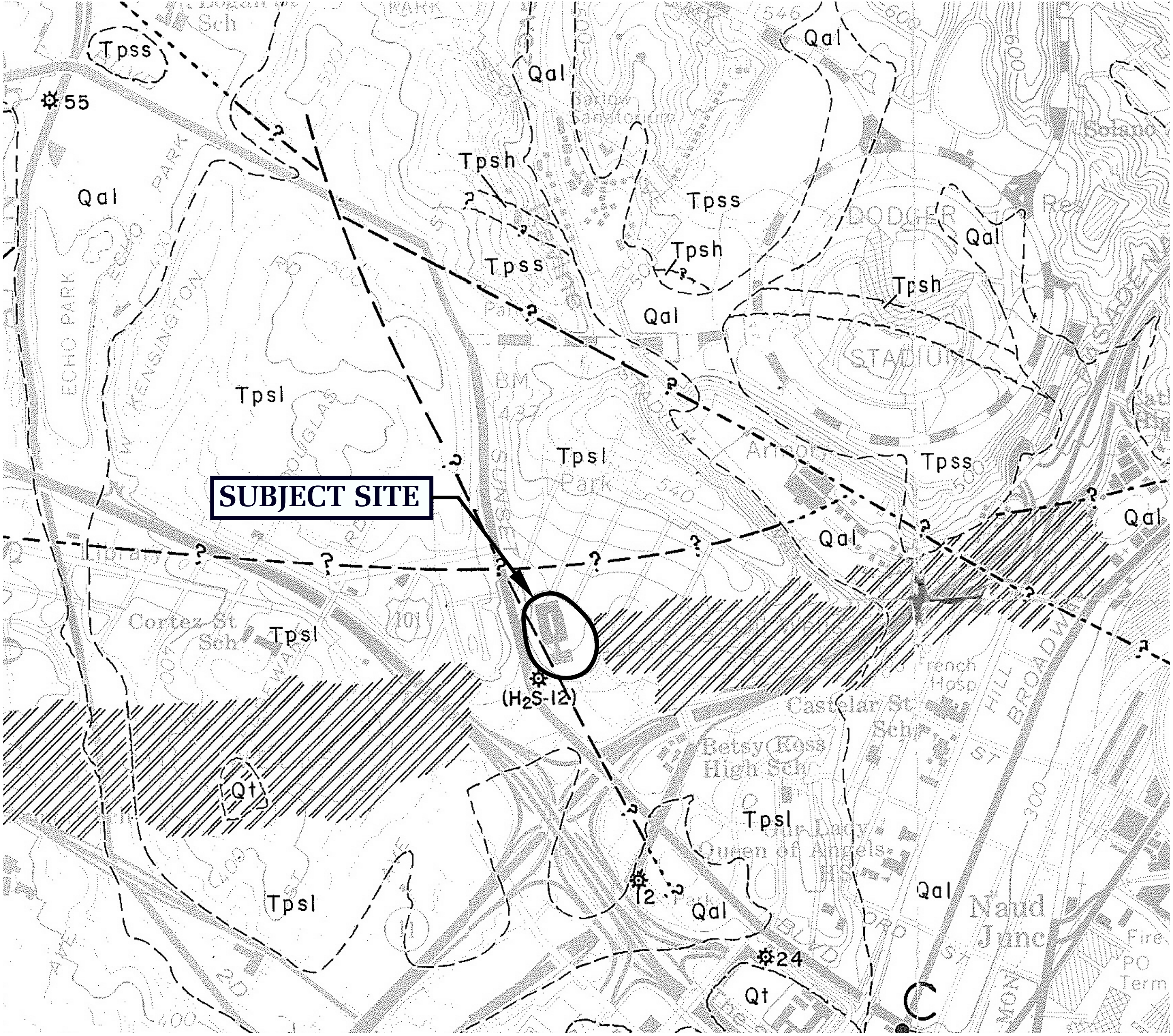
REFERENCE: LAMAR, D.L., (1970) GEOLOGIC MAP OF THE ELYSIAN PARK - REPETTO HILLS AREA (SP 101)

LOCAL GEOLOGIC MAP - LAMAR

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD.

FILE NO. 21155



SCALE IN MILES

0 1/2 1 MI

LEGEND

Qal	Surficial Deposits: Alluvium, silty to sandy gravel
Qt	Surficial Deposits: Terrace deposits, slightly consolidated gravel
Tpsl	Puente Formation: siltstone and very fine-grained sandstone
⚙	Boring or well penetrated shallow petroleum deposits (gas, free oil, or tar); number gives subsurface depth
———----?--	Long dash, approx. located; short dash, location inferred; queried where doubtful
	Approximate boundary of exposed bedrock

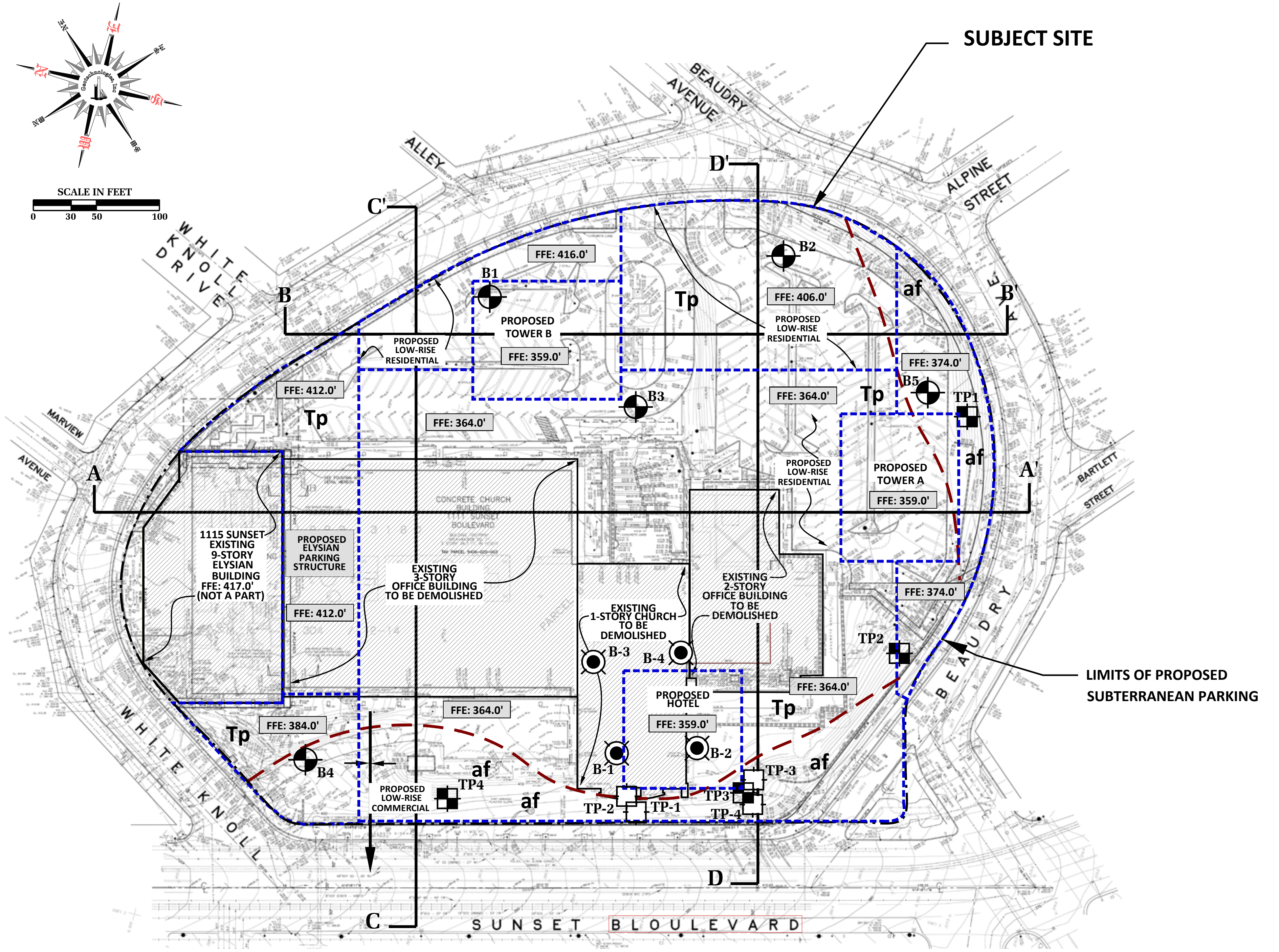
REFERENCE: YERKES, TINSLEY, WILLIAMS, McMANUS; ASPECTS OF TUNNELING (DEPTH OF BEDROCK), 1977 (USGS MF-866, SHEET 2 OF 5)

LOCAL GEOLOGIC MAP - YERKES

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD.

FILE NO. 21155



EXCAVATION BY GEOTECHNOLOGIES, INC.

B1
GS 422.5'
0-1' af
1-50' Tp
@ 5' 58
@ 8' 35
@ 11' 34
@ 16' 35
@ 19' 37
@ 22' 35
@ 29' ▼
@ 29' 36
@ 37' 36
@ 43' 35
@ 46' ▼
TD 50'

B2
GS 411.5'
0-10.5' af
10.5-67.5' Tp
@ 11.5' 58
@ 19' 54
@ 35' ▼
@ 60' ▼
TD 67.5'

B3
GS 424'
0-1' af
1-68' Tp
@ 3' 65
@ 8' 47
@ 9' 55
@ 15' 48
@ 21' 31
@ 25' 31
@ 30' 47
@ 31' 68
@ 36' 54
@ 39' ▼
@ 40' 49
@ 49' 49
@ 55' 48
@ 55' 88
@ 57' 58
@ 62' ▼
TD 68'

B4
GS 400.5'
0-5' af
5-35' Tp
@ 6' 53
@ 12' 40
@ 14' 39
@ 16' ▼
TD 35'

B5
GS 406.5'
0-8' af
8-9' Qcol
9-70' Tp
@ 42.5' 67
TD 70'
NW

TP1
GS 393'
0-5' af
5-10' Qcol
10-14' Qoal
TD 14'
NW

TP2
GS 398'
0-1.5' af
1.5-8' Tp
@ 2.5' 75
@ 5' 78
TD 8'
NW

TP3
GS 395'
0-5' af
5-9' Tp
@ 7' 62
TD 9'
NW

TP4
GS 406'
0-10' af
10-15' Qcol
15-22' Tp
@ 19' 25
@ 21' 27
TD 22'
NW

EXCAVATION BY PIONEER SOILS ENGINEERING

B-1
GS 408.5'
0-6' af
6-8' Tp
TD 8'
NW

B-2
GS 406'
0-2.5' af
2.5-5' Tp
TD 5'
NW

B-3
GS ?
0-7' af
7-10' Tp
TD 10'
NW

B-4
GS ?
0-5.5' af
5.5-7' Tp
TD 7'
NW

TP-1
GS 397'
0-2' af
2-10' Qcol
10-12' Tp
TD 12'
NW

TP-2
GS 402'
0-3' af
3-10' Qcol
10-12.5' Tp
@ 10' 75
TD 11.5'
NW

TP-3
GS 396'
0-6.5' af
6.5-9' Tp
@ 7' 70
TD 9'
NW

TP-4
GS 395'
0-7' af
7-8.5' Tp
@ 8' 65
TD 8.5'
NW

GS: GROUND SURFACE ELEVATION (FEET)   TD: TOTAL DEPTH   NW: NO WATER

LEGEND

B5 ⊕ LOCATION & NUMBER OF BORING
TP4 ▚ LOCATION & NUMBER OF TEST PIT
B-4 ◉ LOCATION & NUMBER OF BORING (PREVIOUS INVESTIGATION BY PIONEER SOILS ENGINEERING, DATED 1997)
TP-4 ☐ LOCATION & NUMBER OF TEST PIT (PREVIOUS INVESTIGATION BY PIONEER SOILS ENGINEERING, DATED 1997)
▨ EXISTING BUILDING
— — GEOLOGIC CONTACT

- - - - BOUNDARY LINES OF BASEMENT ELEVATIONS
D D' CROSS-SECTION LOCATION
af ARTIFICIAL FILL
Qcol COLLUVIUM
Qoal OLD ALLUVIUM
Tp BEDROCK (PUENTE FORMATION): WELL BEDDED SILTSTONE & SANDSTONE
@ 26' ▼ SEEPAGE AND DEPTH
31 BEDDING STRIKE & DIP
88 FRACTURE STRIKE & DIP

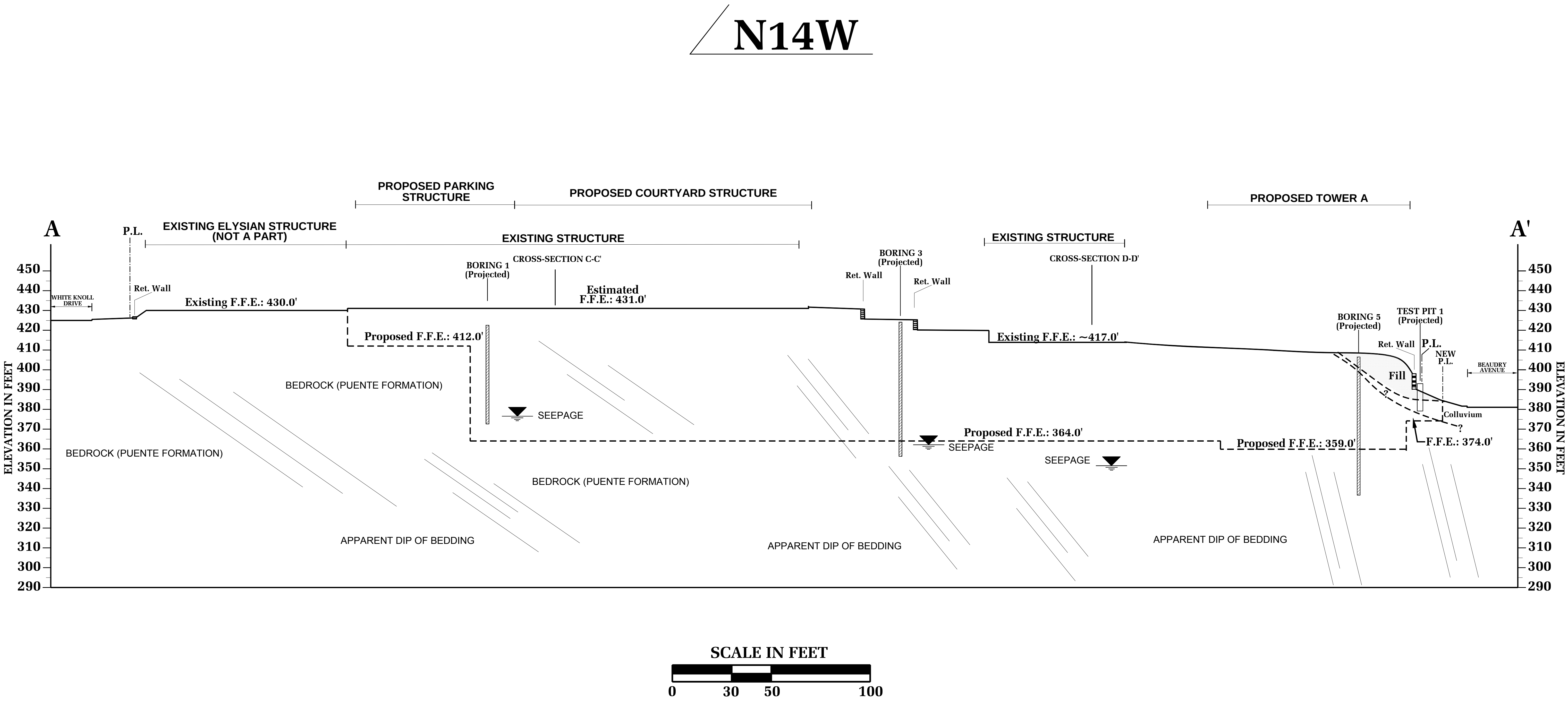
REFERENCES:
ALTA/ARCHITECTURAL DESIGN SURVEY BY HENNON SURVEYING & MAPPING, INC., DATED FEBRUARY 12, 2016;
EXCAVATION EXHIBIT EX-1 PREPARED BY KPFF, DATED NOVEMBER 1, 2017

GEOLOGIC MAP

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD., LLC
1111 SUNSET BLVD., LOS ANGELES

FILE No. 21155
DRAWN BY: TC
DATE: January 2018



REFERENCES: EXCAVATION EXHIBIT EX-1 PREPARED BY KPFF
DATED NOVEMBER 1, 2017

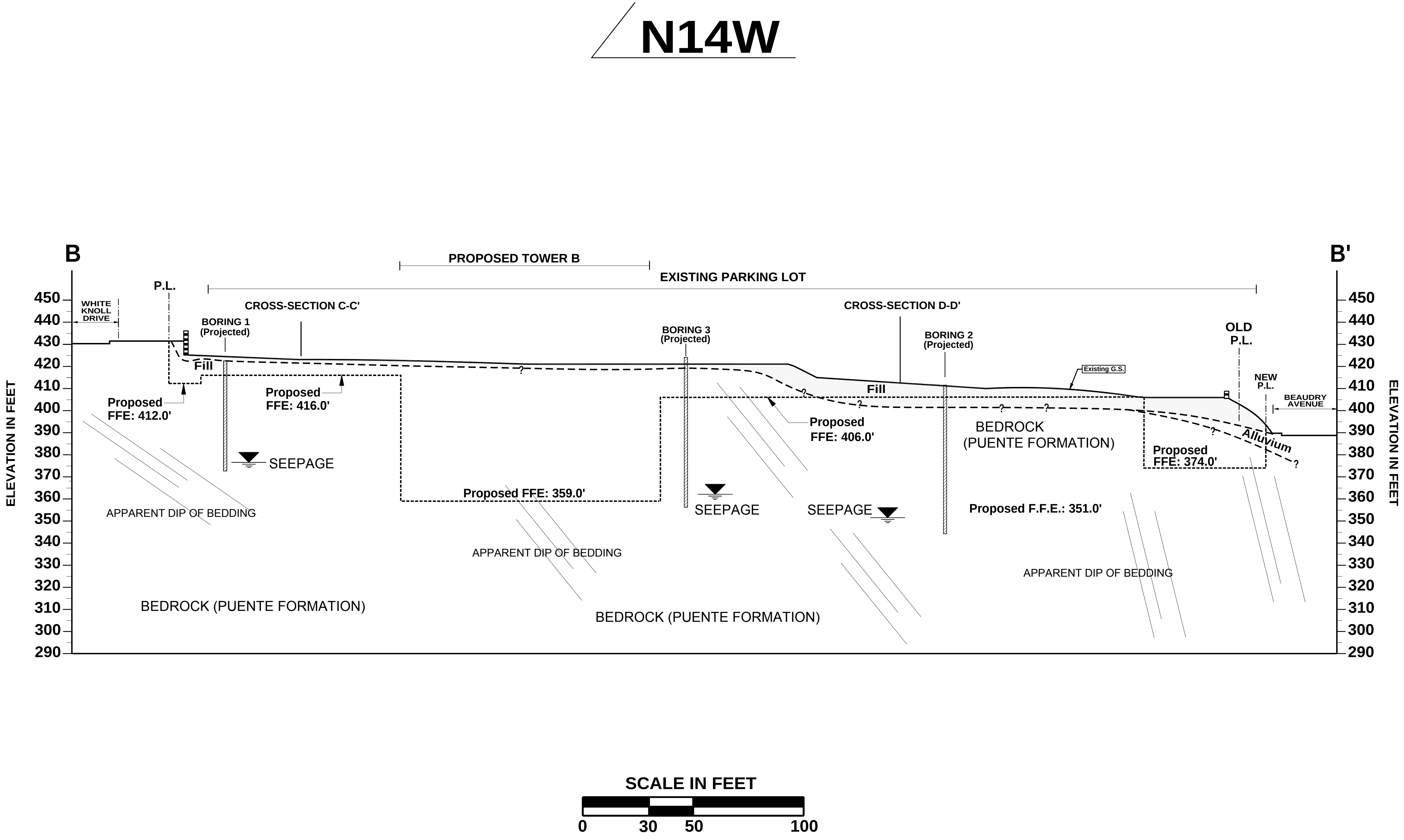
ALTA/ARCHITECTURAL DESIGN SURVEY BY HENNON SURVEYING & MAPPING, INC.
DATED FEBRUARY 12, 2016

CROSS-SECTION A-A'

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD., LLC
1111 SUNSET BLVD., LOS ANGELES

FILE No. 21155	**DRAWN BY: TC**
DATE: November 2017	



REFERENCES:

EXCAVATION EXHIBIT EX-1 PREPARED BY KPFF, DATED NOVEMBER 1, 2017
ALTA/ARCHITECTURAL DESIGN SURVEY BY HENNON SURVEYING & MAPPING, INC., DATED FEBRUARY 12, 2016.

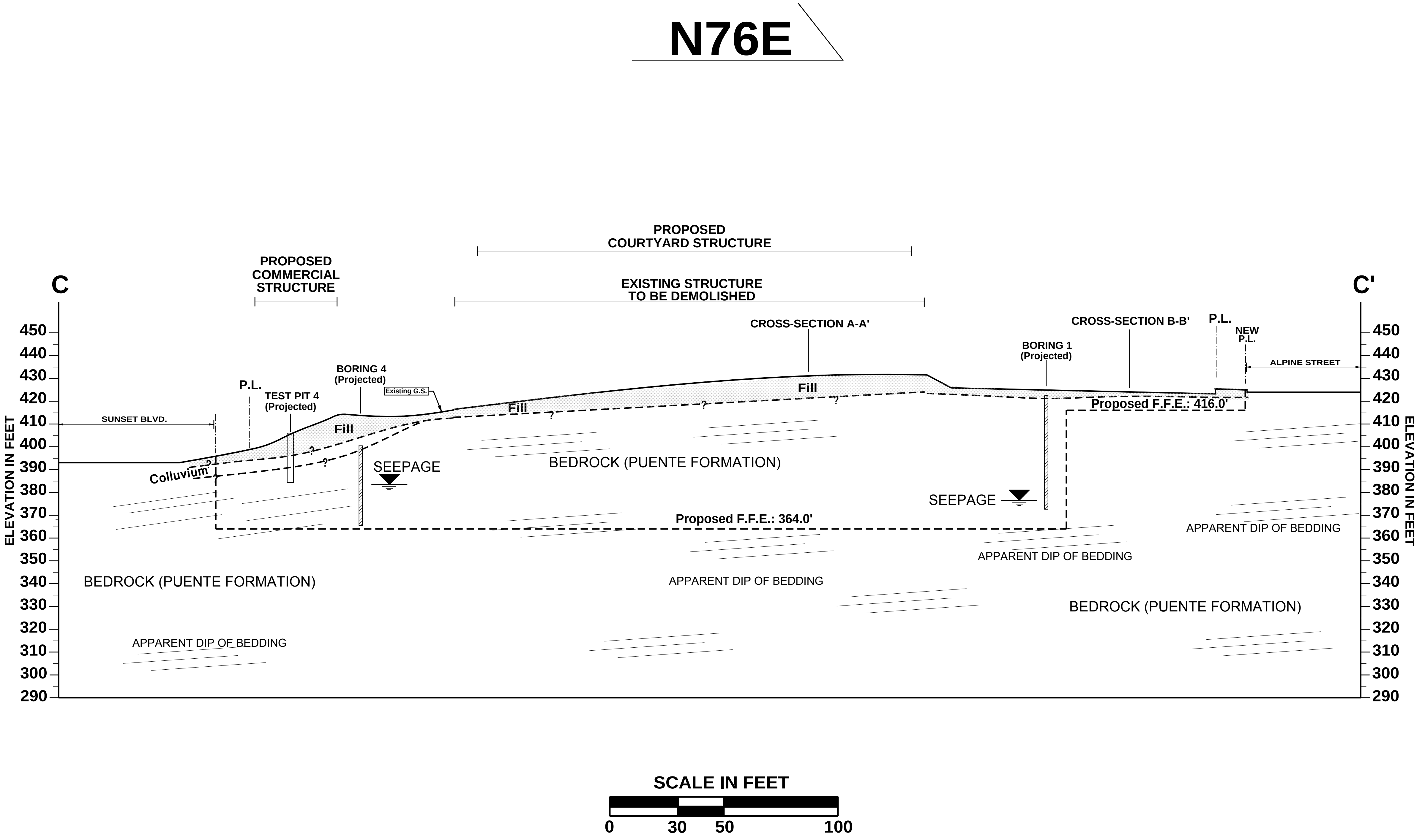
CROSS-SECTION B-B'

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD., LLC
1111 SUNSET BLVD., LOS ANGELES

FILE No. 21155 | **DRAWN BY: TC**

DATE: November 2017



REFERENCES:

EXCAVATION EXHIBIT EX-1 PREPARED BY KPFF, DATED NOVEMBER 1, 2017;

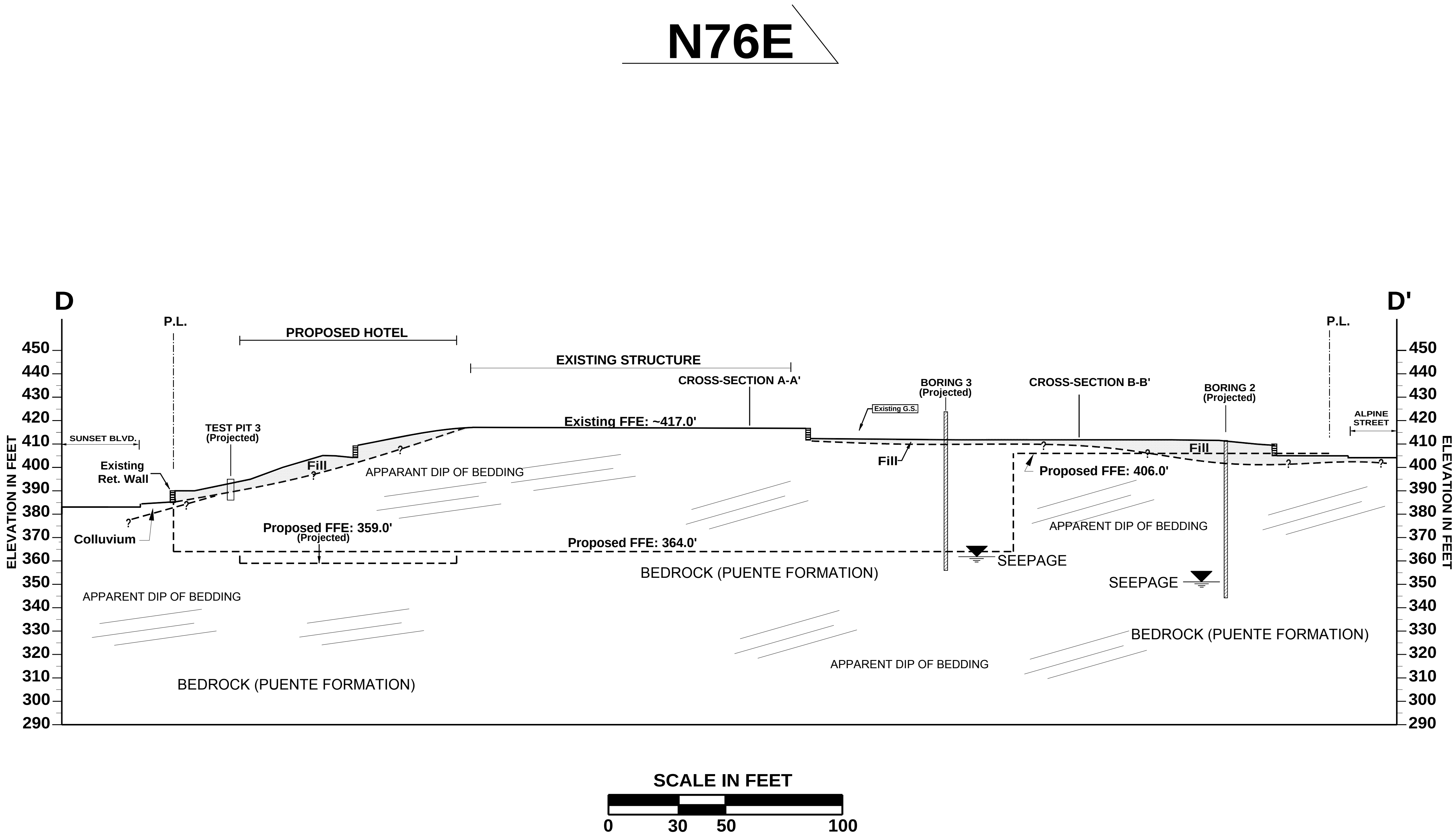
ALTA/ARCHITECTURAL DESIGN SURVEY BY HENNON SURVEYING & MAPPING, INC., DATED FEBRUARY 12, 2016.

CROSS-SECTION C-C'

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD., LLC
1111 SUNSET BLVD., LOS ANGELES

FILE No. 21155	**DRAWN BY: TC**
DATE: November 2017	



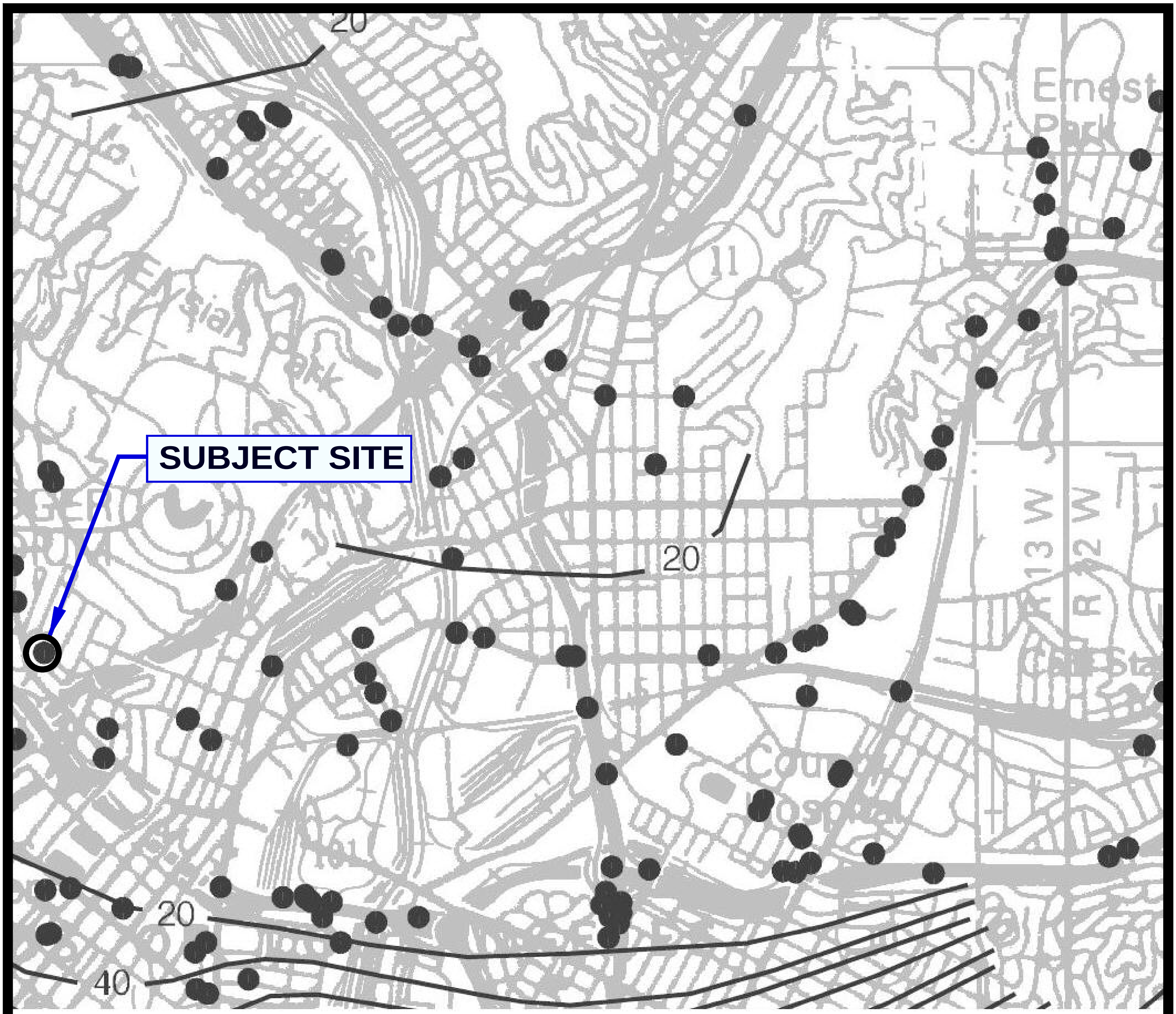
CROSS-SECTION D-D'

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD., LLC
1111 SUNSET BLVD., LOS ANGELES

FILE No. 21155
DRAWN BY: TC
DATE: November 2017

REFERENCES:
EXCAVATION EXHIBIT EX-1 PREPARED BY KPFF, DATED NOVEMBER 1, 2017;
ALTA/ARCHITECTURAL DESIGN SURVEY BY HENNON SURVEYING & MAPPING, INC., DATED FEBRUARY 12, 2016.



ONE MILE

SCALE

20 Depth to groundwater in feet

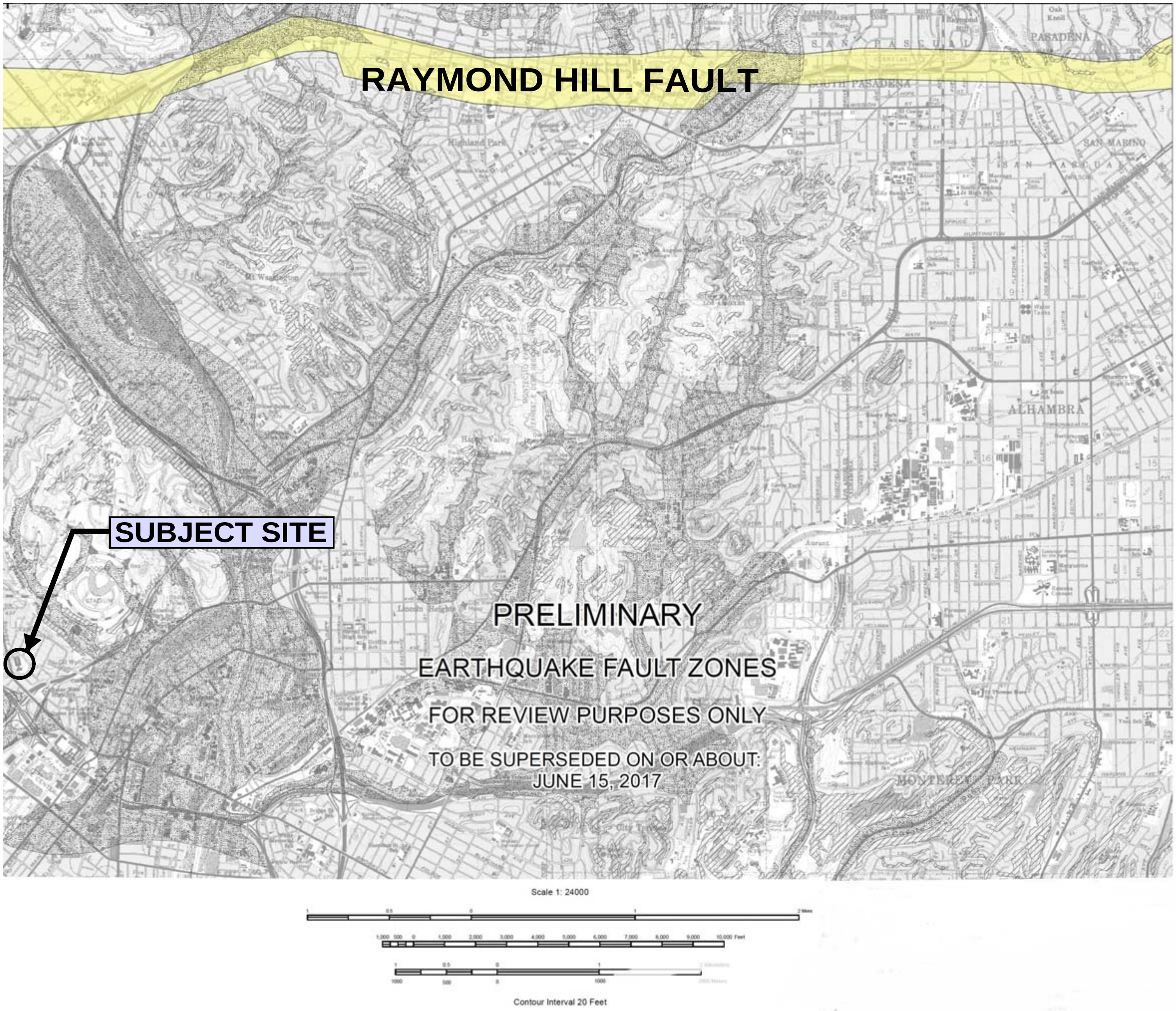
REFERENCE: CDMG, SEISMIC HAZARD ZONE REPORT, 029
LOS ANGELES 7.5 - MINUTE QUADRANGLE, LOS ANGELES COUNTY, CALIFORNIA (1998, REVISED 2006)

HISTORICALLY HIGHEST GROUNDWATER LEVELS

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD., LLC

FILE NO. 21155



○——○ **Alquist-Priolo Earthquake Fault Zone**

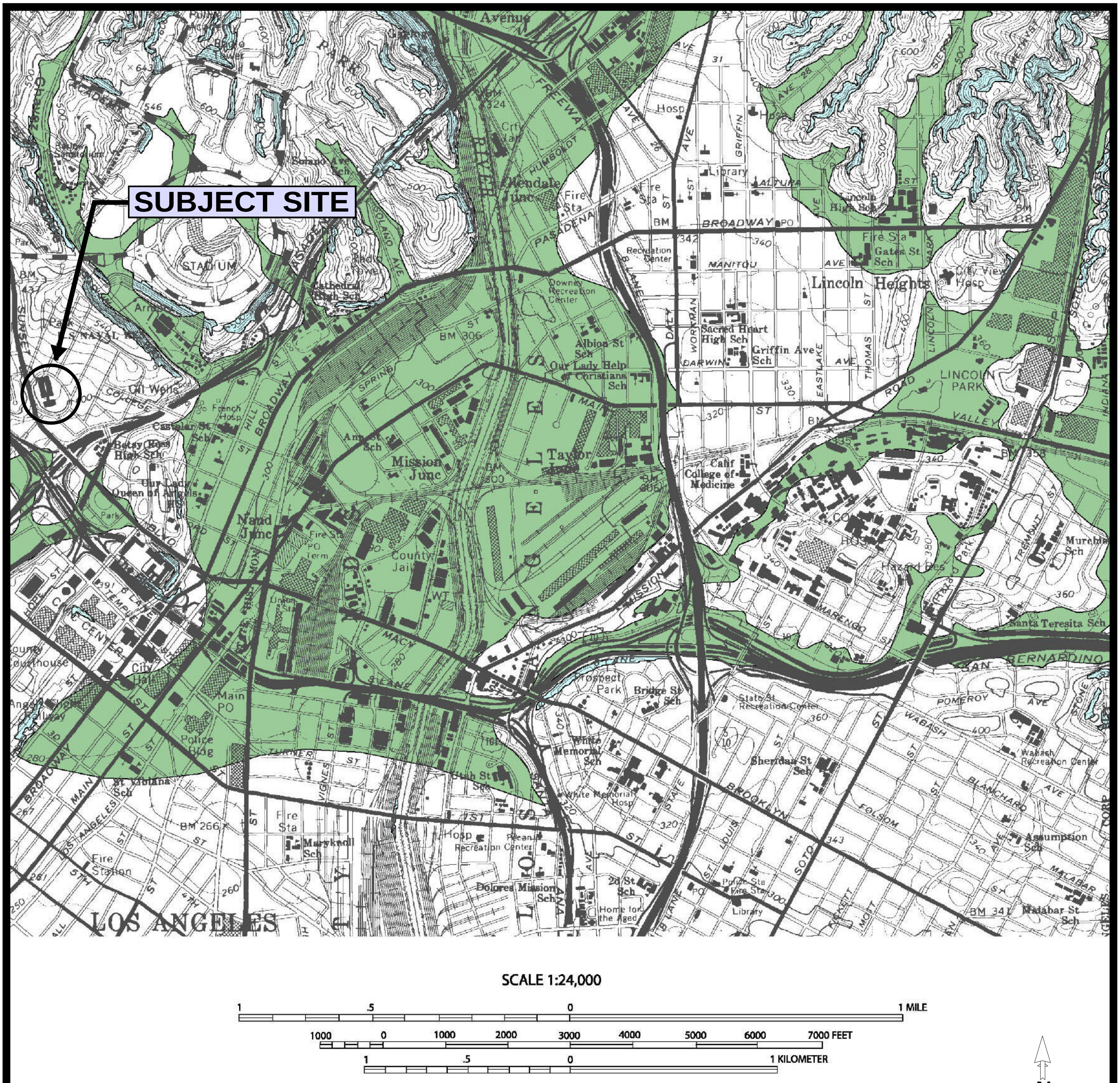
REFERENCE: EARTHQUAKE FAULT ZONES, LOS ANGELES QUADRANGLE,
CALIFORNIA GEOLOGICAL SURVEY, JUNE 2017

EARTHQUAKE FAULT ZONE

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD., LLC

FILE NO. 21155



🟩 **LIQUEFACTION AREA**

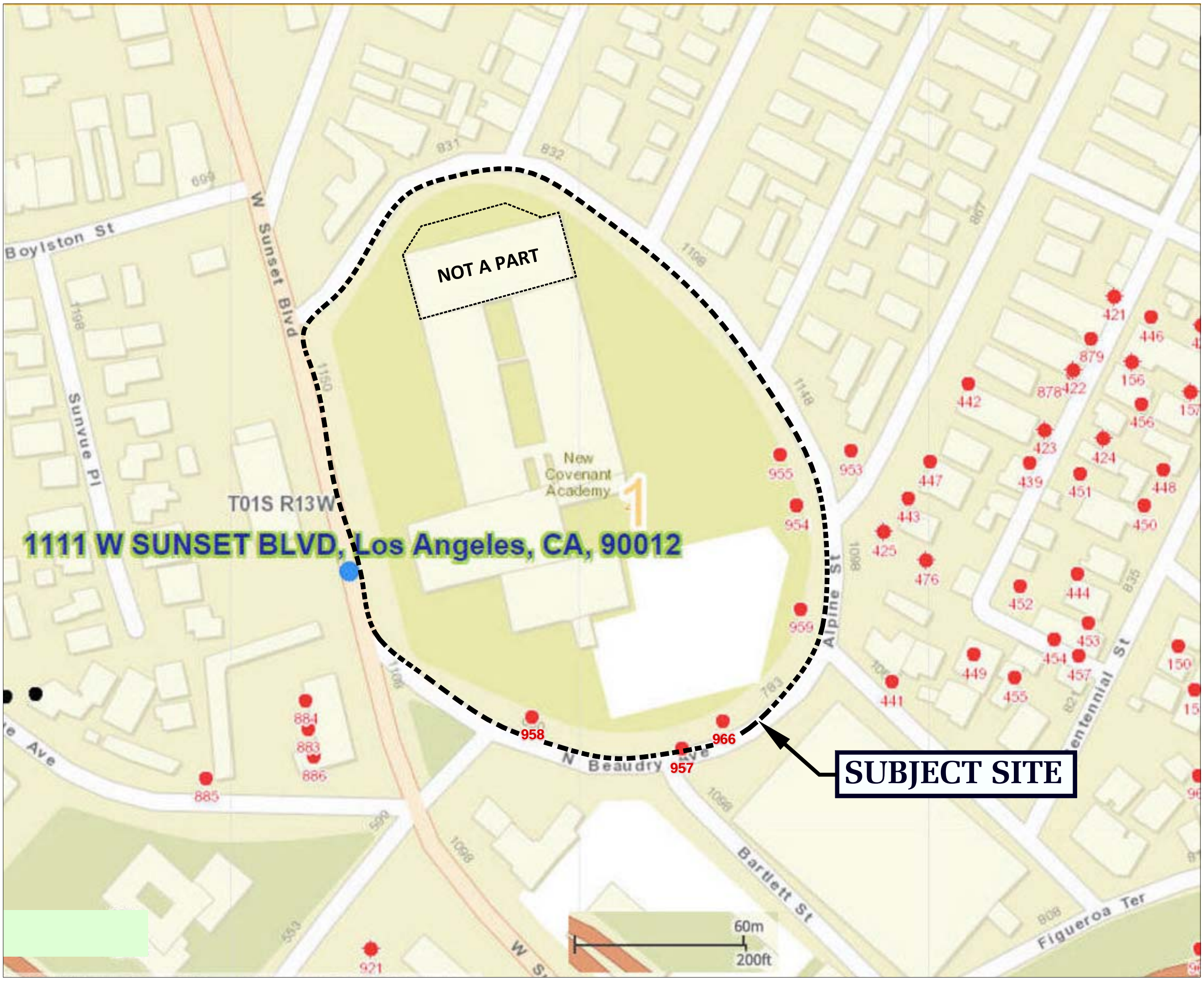
REFERENCE: SEISMIC HAZARD ZONES, LOS ANGELES QUADRANGLE OFFICIAL MAP (CDMG, 1999)

SEISMIC HAZARD ZONE MAP

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD., LLC

FILE NO. 21155



OIL WELL LEGEND

API NO.	OPERATOR, WELL NO.
958	Oceanic Oil Co., #7
957	Oceanic Oil Co., #6
956	Oceanic Oil Co., #5
959	Oceanic Oil Co., #4
954	Oceanic Oil Co., #3
955	Oceanic Oil Co., #2

N

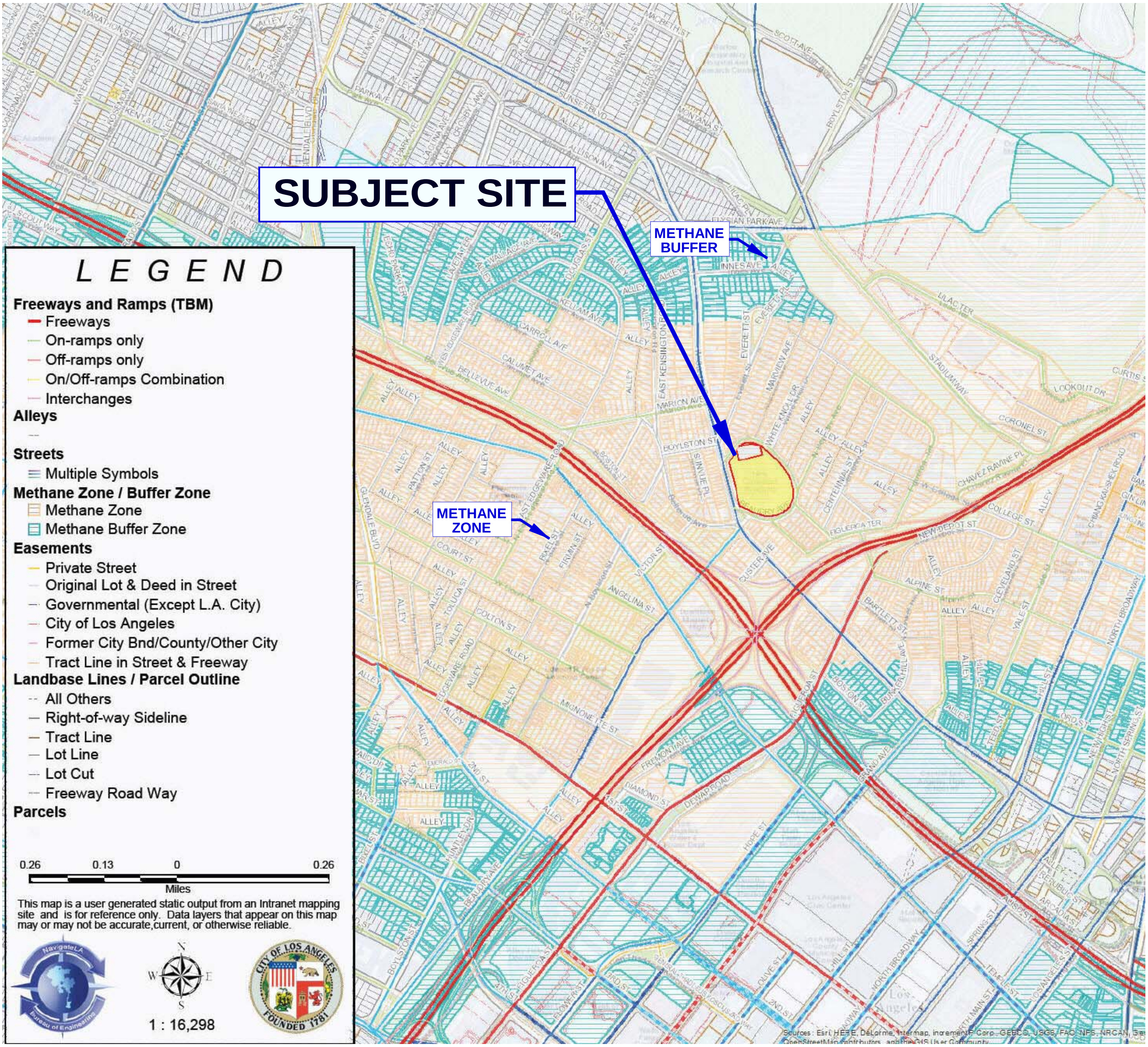
REFERENCE: DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES WELL FINDER, STATE OF CALIFORNIA, 2014

OIL WELL LOCATION MAP

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD.

FILE NO. 21155



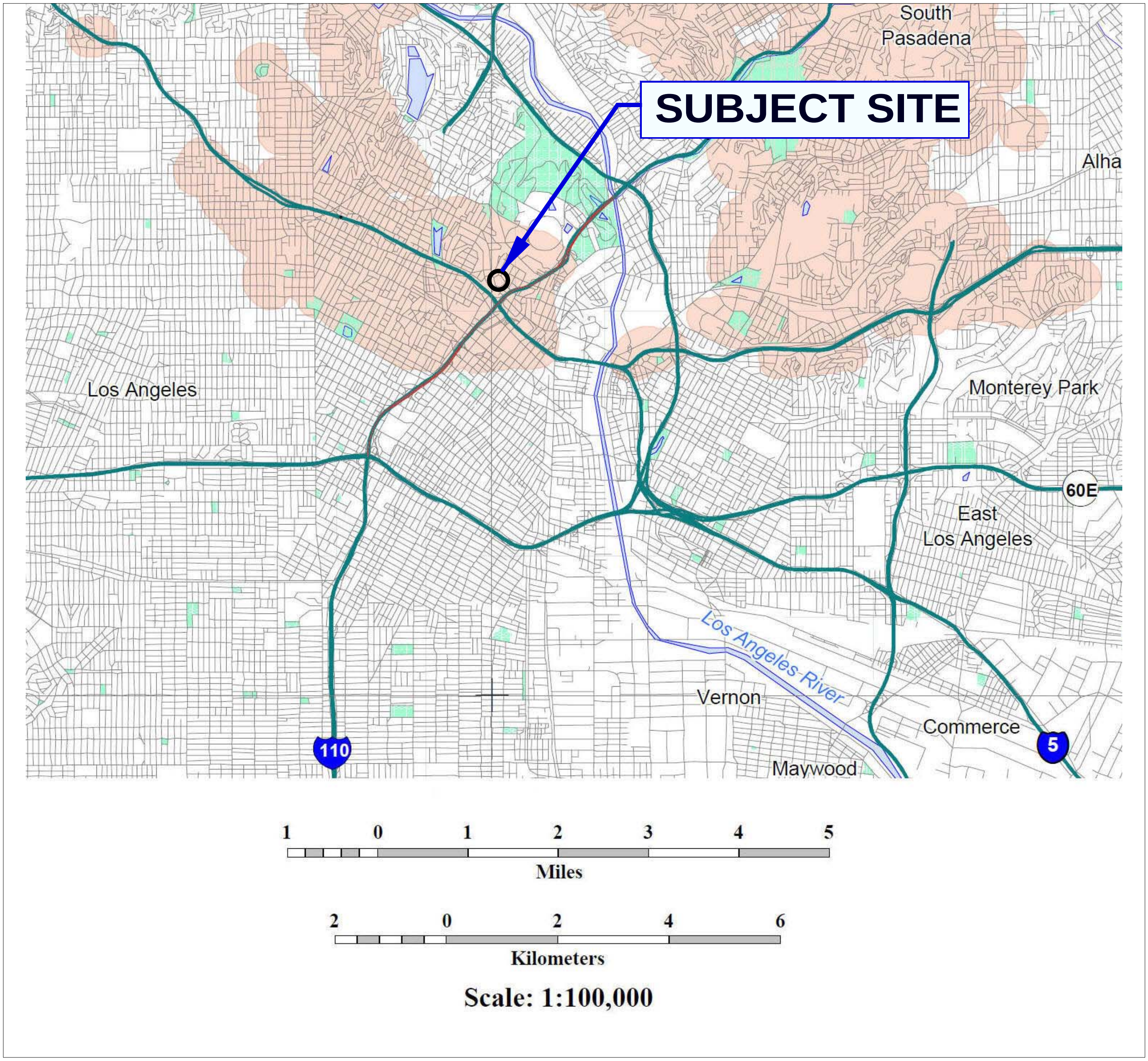
REFERENCE: **http://navigatela.lacity.org/NavigateLA/**

METHANE ZONE RISK MAP

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD.

FILE NO. 21155



EXPLANATION

Radon Potential Zoning Definitions:

- 🟥 High Potential for Indoor Radon Levels Above 4.0 Picocuries per Liter
- ▨ High Potential for Indoor-Radon Levels Above 4.0 Picocuries per Liter in Recent Alluvium (High - Qa)
- 🟧 Moderate Potential for Indoor Radon Levels Above 4.0 Picocuries per Liter
- ☐ Low Potential for Indoor Radon Levels Above 4.0 Picocuries per Liter
- ○ Special Test Areas - Areas where National Uranium Resource Evaluation (NURE) Project airborne radiometric data suggest rocks and soils contain higher than typical amounts of uranium but where indoor-radon data are currently unavailable. Follow-up indoor-radon testing is recomended for buildings in these areas.

Map Features

- ⬜ Airport
- 🟩 Park
- 🟩 National Forest

REFERENCE: RADON POTENTIAL ZONE MAP FOR SOUTHERN L.A. COUNTY; R. CHURCHILL (JANUARY 2005)

RADON ZONE MAP

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD., LLC

FILE NO. 21155

BORING LOG NUMBER 1

Sunset Boulevard, LLC **Date: 07/25/17** **Elevation: 422.5'***

File No. 21155 **Method: 24-inch diameter Bucket Auger**

km

*Reference: Survey by Hennon Surveying and Mapping, dated 2/12/16

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Asphalt Parking Lot
				0 --		5-inch Thick Asphalt over 3-inch Thick Base
				-		
1	16	19.5	102.8	1 --		
				-		FILL: Sandy Silt, yellow and dark brown, moist, stiff
				2 --		
				-		BEDROCK (PUENTE FORMATION): Siltstone, yellowish brown, moist, hard, well bedded, fissile
				3 --		
				-		
				4 --		
				-		@5' Bedding [E-W, 58S]
5	12	6.4	111.0	5 --		
				-		Siltstone interbedded with Sandstone, yellowish brown and orange brown mottled, moist, medium hard, fine grained
				6 --		
				-		
				7 --		
				-		
				8 --		@ 8' Bedding [E-W, 35S]
				-		
				9 --		
				-		
10	8	16.9	104.1	10 --		
				-		olive brown and grayish brown mottled
				11 --		@ 11' Bedding [E-W, 34S]
				-		
				12 --		
				-		
				13 --		
				-		
				14 --		
				-		
15	12	18.6	103.6	15 --		
				-		Interbedded Siltstone and Sandstone, yellow and olive grayish brown, moist, medium hard
				16 --		
				-		@ 16' Bedding [N85E, 35SE]
				17 --		
				-		@ 17½' Concretion 1½" thick
				18 --		
				-		
				19 --		@ 19' Bedding [E-W, 37S]
				-		
20	15	24.6	100.8	20 --		
				-		olive gray to orange and yellow mottled, moist, medium hard
				21 --		
				-		
				22 --		@ 22' Bedding [N85E, 35SE]
				-		
				23 --		
				-		
				24 --		
				-		
25	24	17.3	105.2	25 --		
				-		

BORING LOG NUMBER 1

Sunset Boulevard, LLC

File No. 21155

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				26 --		
				-		
				27 --		
				-		
				28 --		
				-		
				29 --		@ 29' Seepage
				-		
30	35	21.2	100.0	30 --		Siltstone, olive gray to orange brown, laminations, brittle, Bedding [N85E, 36SE]
				-		
				31 --		
				-		
				32 --		
				-		
				33 --		
				-		
				34 --		
				-		
35	40	20.4	103.3	35 --		more lamination
				-		
				36 --		
				-		
				37 --		@ 37' Bedding [N85E, 36SE]
				-		
				38 --		
				-		
				39 --		
				-		
40	39	19.8	107.5	40 --		
				-		Siltstone to Sandstone, orange brown and yellow mottled, very moist, medium hard
				41 --		
				-		
				42 --		
				-		
				43 --		@ 43' Bedding [N85E, 35SE]
				-		
				44 --		NOTE: The stratification lines represent the approximate boundary between earth types; the transition may be gradual. Used 24-inch diameter Bucket Auger 12-inch drop of Kelly Bar Modified California Sampler used unless otherwise noted Downhole logged by Geologist Kelly Weights: 0-25' 2400 lbs. 25-44' 1550 lbs. 44-62' 850 lbs. 62-70' 1900 lbs.
				-		
45	23/6" 33/4"	29.7	92.3	45 --		
				-		
				46 --		
				-		
				47 --		
				-		
				48 --		
				-		
				49 --		
				-		
50	25/6" 30/3"	23.9	102.4	50 --		
				-		Total Depth 50 feet Seepage at 29 feet and 46 feet Fill to 1 foot

BORING LOG NUMBER 2

Sunset Boulevard, LLC **Date: 07/27/17** **Elevation: 411.5'***

File No. 21155 **Method: 24-inch diameter Bucket Auger**

km

*Reference: Survey by Hennon Surveying and Mapping, dated 2/12/16

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
						Surface Conditions: Asphalt Driveway
				0 --		4-inch Thick Asphalt over 10-inch Thick Base
				-		
				1 --		
				-		FILL: Silty Sand, mottled gray and light gray, gravel sized
				2 --		Siltstone pieces, firm
				-		
				3 --		
				-		
				4 --		
				-		
5	3	19.5	108.7	5 --		Sandy to Clayey Silt, dark gray, moist, stiff
				-		
				6 --		
				-		
				7 --		
				-		
				8 --		
				-		
				9 --		
				-		
10	6	23.8	99.9	10 --		
				-		
				11 --		BEDROCK (PUENTE FORMATION): Interbedded Siltstone
				-		and Sandstone, yellowish brown to olive gray, moist, medium
				12 --		hard, very weathered, abundant white caliche streaks
				-		
				13 --		@ 11½' Bedding [N85E, 58SE]
				-		
				14 --		
				-		
15	6	19.5	105.4	15 --		
				-		olive gray and orange brown mottled, laminated, fine Sand
				16 --		
				-		
				17 --		
				-		
				18 --		
				-		
				19 --		@ 19' Bedding [N10W, 54SW]
				-		orange brown and olive brown mottled
20	12	16.5	113.6	20 --		@ 20' stopped downhole log due to odor
				-		
				21 --		
				-		
				22 --		
				-		
				23 --		
				-		
				24 --		
				-		
25	17	21.1	105.1	25 --		
				-		Siltstone to Sandstone, olive brown and yellowish brown
						mottled, very moist, medium hard

BORING LOG NUMBER 2

Sunset Boulevard, LLC

File No. 21155

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				26 --		
				-		
				27 --		
				-		
				28 --		
				-		
				29 --		
				-		
30	21	18.8	109.9	30 --		
				-		Sandstone, olive brown and yellowish brown mottled, very moist, fine grained
				31 --		
				-		
				32 --		
				-		
				33 --		
				-		
				34 --		
				-		@ 35' Water Seepage
35	12	27.3	97.8	35 --		
				-		Siltstone, orange brown and olive brown, fine Sand
				36 --		
				-		
				37 --		
				-		
				38 --		
				-		
				39 --		
				-		
40	20	17.7	104.3	40 --		
				-		Siltstone interbedded with Sandstone, gray to yellowish brown, very moist, fine Sand
				41 --		
				-		
				42 --		
				-		
				43 --		
				-		
				44 --		
				-		
45	52	22.4	101.8	45 --		
				-		Siltstone interbedded with Sandstone, dark brown, moist, medium hard
				46 --		
				-		
				47 --		
				-		
				48 --		
				-		
				49 --		
				-		
50	20/6" 50/4"	15.4	112.2	50 --		
				-		Siltstone, dark brown, some fine Sand

BORING LOG NUMBER 2

Sunset Boulevard, LLC

File No. 21155

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				51 --		
				-		
				52 --		
				-		
				53 --		
				-		
				54 --		
				-		
55	40	20.5	104.2	55 --		
				-		Siltstone, dark brown, laminated, fine Sand, some Clay
				56 --		
				-		
				57 --		
				-		
				58 --		
				-		
				59 --		
				-		
60	60	20.2	105.6	60 --		
				-		dark brown to black, tar content
				61 --		
				-		
				62 --		
				-		
				63 --		
				-		
				64 --		
				-		
65	51	14.1	116.5	65 --		
				-		
				66 --		
				-		
				67 --		
				-		
				68 --		Total Depth 67½ feet
				-		Seepage at 35 feet and 60 feet
				69 --		Fill to 10½ feet
				-		
				70 --		
				-		NOTE: The stratification lines represent the approximate
				71 --		boundary between earth types; the transition may be gradual.
				-		Used 24-inch diameter Bucket Auger
				72 --		12-inch drop of Kelly Bar
				-		Modified California Sampler used unless otherwise noted
				73 --		Downhole logged by Geologist to 20 feet
				-		
				74 --		Kelly Weights:
				-		0-25' 2400 lbs.
				75 --		25-44' 1550 lbs.
				-		44-62' 850 lbs.
						62-70' 1900 lbs.

BORING LOG NUMBER 3

Sunset Boulevard, LLC **Date: 07/26/17** **Elevation: 424'***

File No. 21155 **Method: 24-inch diameter Bucket Auger**

km

*Reference: Survey by Hennon Surveying and Mapping, dated 2/12/16

Sample	Blows	Moisture	Dry Density	Depth in	USCS	Description
Depth ft.	per ft.	content %	p.c.f.	feet	Class.	Surface Conditions: Asphalt Driveway
				0 --		4-inch Thick Asphalt over 3-inch Thick Base
				-		
				1 --		
				-		FILL: Silty Sand, grayish brown, roots (up to 1/4" in size)
				2 --		
2.5	13	12.2	98.0	-		BEDROCK (PUENTE FORMATION): Siltstone, light yellowish brown, moist, soft to medium hard, abundant mica
				3 --		
				-		
				4 --		Siltstone to Sandstone, yellowish brown, moist, medium hard
				-		
5	16	7.3	105.0	5 --		@ 3' Bedding [N05W, 65SW], beds ¼ to 1" thick, Sandstone is friable
				-		
				6 --		
				-		
				7 --		
				-		
				8 --		@ 8' Bedding [N76E, 47SE]
				-		
				9 --		@ 9' Bedding [N7SE, 55SE]
				-		
10	8	17.7	103.7	10 --		
				-		light olive and orange brown mottled, some Clay
				11 --		
				-		
				12 --		@ 12' Concretions to 3" in Sandstone beds, very hard
				-		
				13 --		
				-		
				14 --		
				-		
15	13	6.5	113.3	15 --		@ 15' Bedding [N82E, 47SE] Sandstone to Siltstone, light gray to orange brown, fine grained
				-		
				16 --		
				-		
				17 --		
				-		
				18 --		
				-		
				19 --		
				-		
20	11	25.8	99.6	20 --		
				-		
				21 --		@ 21' Bedding [N87E, 31SE] Siltstone, gray and orange brown mottled
				-		
				22 --		
				-		
				23 --		
				-		
				24 --		
				-		
25	20	11.2	107.5	25 --		@ 25' Bedding [N86E, 31SE] Clayey Siltstone with Sandstone, reddish brown and gray, medium hard, fine grained
				-		

BORING LOG NUMBER 3

Sunset Boulevard, LLC

File No. 21155

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				26 --		
				-		
				27 --		
				-		scattered concretions to 4" in Sandstone
				28 --		
				-		
				29 --		
				-		
30	25	13.4	115.9	30 --		
				-		very moist, orange brown and gray mottled, fine grained
				31 --		@ 30' Bedding [N77E, 47SE], concretions in Sandstone to 6" thick
				-		@ 31' 1" offset in bedding
				32 --		Fracture [N63E, 68NW]
				-		Concretions along fracture
				33 --		
				-		
				34 --		
				-		
35	16	24.3	100.5	35 --		
				-		thin laminations
				36 --		@ 36' Bedding [N86E, 54SE]
				-		
				37 --		@ 37' Seepage
				-		
				38 --		
				-		
				39 --		
				-		
40	30	18.0	113.1	40 --		@ 40' Bedding [N80E, 49SE] orange brown, Sandstone beds, friable 2" thick
				-		
				41 --		
				-		
				42 --		
				-		
				43 --		
				-		
				44 --		
				-		
45	25/6"	23.6	101.8	45 --		
	35/4"			-		Siltstone to Sandstone, dark brown, moist, hard
				46 --		
				-		
				47 --		
				-		
				48 --		
				-		
				49 --		@ 49' Bedding [N82E, 49SE]
				-		
50	25/6"	17.3	109.3	50 --		
	30/4"			-		dark olive brown, fine grained

BORING LOG NUMBER 3

Sunset Boulevard, LLC

File No. 21155

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				51 --		
				-		
				52 --		
				-		
				53 --		
				-		
				54 --		
				-		
55	20/6"	22.7	102.2	55 --		
	30/4"			-		Siltstone, dark brown and orange brown mottled
				56 --		@ 55' Bedding [N82E, 48SE], 1" offset in bedding east side up
				-		1" offset in bedding east side up
				57 --		@ 55' fracture [N-S, 88W]
				-		@ 57': 9"-thick concretion
				58 --		Bedding [E-W, 58S]
				-		
				59 --		
				-		
60	20/6"	24.9	99.6	60 --		
	30/4"			-		Sandier, some Clay, fine grained
				61 --		
				-		
				62 --		
				-		
				63 --		
				-		
				64 --		
				-		
65	40	25.2	97.1	65 --		
				-		Siltstone, dark brown to black, fine Sand
				66 --		
				-		
				67 --		
				-		
68	40	20.9	102.1	68 --		
				-		Total Depth 68 feet
				69 --		Seepage at 39 feet and 62 feet
				-		Fill to 1 foot
				70 --		
				-		
				71 --		NOTE: The stratification lines represent the approximate
				-		boundary between earth types; the transition may be gradual.
				72 --		Used 24-inch diameter Bucket Auger
				-		12-inch drop of Kelly Bar
				73 --		Modified California Sampler used unless otherwise noted
				-		Downhole logged by Geologist to 20 feet
				74 --		
				-		Kelly Weights:
				75 --		0-25' 2400 lbs.
				-		25-44' 1550 lbs.
						44-62' 850 lbs.
						62-70' 1900 lbs.

BORING LOG NUMBER 4

Sunset Boulevard, LLC **Date: 07/28/17** **Elevation: 400.5'***

File No. 21155 **Method: 24-inch diameter Bucket Auger**

km

*Reference: Survey by Hennon Surveying and Mapping, dated 2/12/16

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Northwest Descending Concrete Driveway
				0 --		6-inch Thick Concrete, No Base
				-		
				1 --		FILL: Sandy Silt, dark and yellowish brown, moist
				-		
				2 --		
				-		
				3 --		
				-		
				4 --		
				-		
5	4	23.8	97.1	5 --		
				-		BEDROCK (PUENTE FORMATION): Interbedded Siltstone and Sandstone, yellowish brown and white mottled, moist, medium hard, well bedded
				6 --		
				-		
				7 --		@ 6' Bedding [N80E, 55SE]
				-		
				8 --		
				-		
				9 --		
				-		
10	5	19.8	101.3	10 --		
				-		Siltstone, grayish brown and orange brown mottled, moist, medium hard, some Clay, some rootlets
				11 --		
				-		
				12 --		@ 12' Bedding [N80E, 40SE]
				-		
				13 --		
				-		
				14 --		@ 14' Bedding [N80E, 39SE]
				-		
15	7	23.3	100.2	15 --		
				-		olive brown and orange brown mottled, some Clay, fine Sand
				16 --		chert layer ½" thick
				-		@ 16' Seepage
				17 --		
				-		
				18 --		
				-		
				19 --		
				-		
20	20	26.5	97.0	20 --		
				-		Sandstone, olive gray to dark brown, very moist, hard, fine grained
				21 --		
				-		
				22 --		
				-		
				23 --		
				-		
				24 --		
				-		
25	4	20.5	105.2	25 --		
				-		Sandstone interbedded with Siltstone, olive gray and yellowish brown mottled, moist, medium hard, fine grained

BORING LOG NUMBER 4

Sunset Boulevard, LLC

File No. 21155

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				26 --		
				-		
				27 --		
				-		
				28 --		
				-		
				29 --		
				-		
30	47	14.3	119.6	30 --		
				-		Siltstone, yellowish brown, very moist, fine grained, some Clay
				31 --		
				-		
				32 --		
				-		
				33 --		
				-		
				34 --		
				-		
35	21	23.9	100.8	35 --		
				-		Total Depth 35 feet
				36 --		Downhole logging terminated due to heavy seepage
				-		Heavy Seepage at 16 feet
				37 --		Fill to 5 feet
				-		
				38 --		
				-		NOTE: The stratification lines represent the approximate
				39 --		boundary between earth types; the transition may be gradual.
				-		
				40 --		Used 24-inch diameter Bucket Auger
				-		12-inch drop of Kelly Bar
				41 --		Modified California Sampler used unless otherwise noted
				-		
				42 --		Kelly Weights:
				-		0-25' 2400 lbs.
				43 --		25-44' 1550 lbs.
				-		44-62' 850 lbs.
				44 --		62-70' 1900 lbs.
				-		
				45 --		
				-		
				46 --		
				-		
				47 --		
				-		
				48 --		
				-		
				49 --		
				-		
				50 --		
				-		

BORING LOG NUMBER 5

Sunset Boulevard, LLC **Date: 07/31/17** **Elevation: 406.5'***

File No. 21155 **Method: 8-inch diameter Hollow Stem Auger**

km

*Reference: Survey by Hennon Surveying and Mapping, dated 2/12/16

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Asphalt Driveway
				0 --		5-inch Thick Asphalt, No Base
				-		
				1 --		FILL: Sandy Silt, dark yellowish brown, moist
				-		
				2 --		
2.5	28	16.5	110.9	-		
				3 --		Sandy Silt, yellowish brown and dark brown, moist, fine grained
				-		
				4 --		
				-		
5	16	17.8	SPT	5 --		
				-		Silty Sand to Sandy Silt, dark brown, moist, fine grained
				6 --		
				-		
				7 --		
7.5	31	22.8	100.4	-		
				8 --		
				-	CL	COLLUVIUM: Sandy Lean Clay, dark brown, moist, very stiff, minor caliche, fine Sand
				9 --		
				-		
10	16	20.3	SPT	10 --		BEDROCK (PUENTE FORMATION): Interbedded Siltstone and Sandstone, yellowish brown and olive brown mottled, moist, medium hard, fine Sand
				-		
				11 --		
				-		
				12 --		
12.5	49	20.8	103.7	-		
				13 --		yellow and light brown mottled, some Clay
				-		
				14 --		
				-		
15	28	21.9	SPT	15 --		
				-		Siltstone, yellow and brown mottled, some gypsum, some Clay
				16 --		
				-		
				17 --		
17.5	63	23.2	102.6	-		
				18 --		some gypsum crystal, Bedding [N85E, 55S] oriented sample
				-		
				19 --		
				-		
20	30	22.2	SPT	20 --		
				-		cemented layers
				21 --		
				-		
				22 --		
22.5	68	24.8	99.9	-		
				23 --		Siltstone, yellowish brown, moist, medium hard, some Clay
				-		
				24 --		
				-		
25	31	23.4	SPT	25 --		
				-		

BORING LOG NUMBER 5

Sunset Boulevard, LLC

File No. 21155

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				26 --		
				-		
				27 --		
27.5	72	23.2	101.0	-		
				28 --		light brown, calcium strings
				-		
				29 --		
				-		
30	40	20.9	SPT	30 --		
				-		some Clay
				31 --		
				-		
				32 --		
32.5	73	22.7	101.7	-		
				33 --		more thin laminar calcium strings
				-		
				34 --		
				-		
35	44	22.4	SPT	35 --		
				-		more Clayey
				36 --		
				-		
				37 --		
37.5	78	19.1	105.1	-		
				38 --		Siltstone, gray to dark gray, moist, hard, some Clay
				-		
				39 --		
				-		
40	45	19.6	SPT	40 --		
				-		cemented
				41 --		
				-		
				42 --		
42.5	40/6"	18.8	107.3	-		
	50/5"			43 --		Siltstone, dark gray, moist, hard
				-		Bedding [N90E, 67S] oriented sample
				44 --		
				-		
45	44	17	SPT	45 --		
				-		
				46 --		
				-		
				47 --		
47.5	39/6"	19.9	105.4	-		
	50/3"			48 --		
				-		
				49 --		
				-		
50	72	18.7	SPT	50 --		
				-		Bedding [N90E, 80S] oriented sample

BORING LOG NUMBER 5

Sunset Boulevard, LLC

File No. 21155

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				-		
				51 --		
				-		
				52 --		
52.5	100/8"	16.8	107.0	-		
				53 --		
				-		
				54 --		
				-		
55	83	16.3	SPT	55 --		
				-		
				56 --		
				-		
				57 --		
57.5	100/8"	14.8	113.3	-		
				58 --		
				-		
				59 --		
				-		
60	48	16.4	SPT	60 --		
				-		
				61 --		
				-		
				62 --		
62.5	100/8"	16.1	111.7	-		
				63 --		Siltstone, gray to dark gray, medium hard
				-		
				64 --		
				-		
65	70	15.5	SPT	65 --		
				-		
				66 --		
				-		
				67 --		
67.5	100/8"	13.4	107.7	-		
				68 --		dark gray to grayish black, fine Sand
				-		
				69 --		
				-		
70	51	22.5	SPT	70 --		
				-		Total Depth 70 feet
				71 --		No Water
				-		Fill to 8 feet
				72 --		
				-		
				73 --		NOTE: The stratification lines represent the approximate
				-		boundary between earth types; the transition may be gradual.
				74 --		
				-		Used 8-inch diameter Hollow-Stem Auger
				75 --		140-lb. Automatic Hammer, 30-inch drop
				-		Modified California Sampler used unless otherwise noted
						Hydrocarbon odor at 67.5 feet below ground surface

LOG OF TEST PIT NUMBER 1

Sunset Boulevard, LLC **Drilling Date: 07/31/17** **Elevation: 393'***

File No. 21155 **Method: Hand Dug Test Pit**

km

*Reference: Survey by Hennon Surveying and Mapping, dated 2/12/16

Sample Depth ft.	Moisture Content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Moderate South Descending Slope, Annual Grasses
			0 --		FILL: Sandy Silt, dark brown, moist, stiff, minor brick fragments
			-		
			1 --		
			-		
			2 --		
			-		
3	5.0	103.3	3 --		— — — — — — — — — — — — — — — —
			-		Silty Sand to Sand, dark gray, moist, medium dense, fine to medium grained
			4 --		
			-		
5	10.8	102.4	5 --		
			-	SP	COLLUVIUM: Sand, dark gray, moist, medium dense, fine to medium grained
			6 --		
			-		
			7 --		
			-		
8	7.2	114.5	8 --		
			-	SM	Silty Sand, dark brown, moist, medium dense, fine grained
			9 --		
			-		
			10 --		
10.5	5.1	115.7	-	SP/SW	OLD ALLUVIUM: Sand to Gravelly Sand, dark brown, moist, medium dense to dense, fine to coarse grained, cobbles (up to 4" in size)
			11 --		
			-		
			12 --		
			-		
			13 --		
13.5	0.7	130.1	-		
			14 --		
			-		Total Depth 14 feet No Water Fill to 5 feet
			15 --		
			-		
			16 --		
			-		
			17 --		NOTE: The stratification lines represent the approximate boundary between earth types; the transition may be gradual.
			-		
			18 --		
			-		Test Pit Downhole Logged by a Geologist Used Hand Tools and Hand Sampler Bedrock not encountered
			19 --		
			-		
			20 --		
			-		
			21 --		
			-		
			22 --		
			-		
			23 --		
			-		
			24 --		
			-		
			25 --		
			-		

LOG OF TEST PIT NUMBER 2

Sunset Boulevard, LLC **Drilling Date: 07/27/17** **Elevation: 398'***

File No. 21155 **Method: Hand Dug Test Pit**

km

*Reference: Survey by Hennon Surveying and Mapping, dated 2/12/16

Sample Depth ft.	Moisture Content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Moderate Southwesterly Descending Slope
			0 --		FILL: Sandy Silt, dark brown, moist, stiff
			-		
			1 --		
			-		
2	17.9	91.3	2 --		BEDROCK (PUENTE FORMATION): Interbedded Siltstone and Sandstone,
			-		dark and yellowish brown, moist, medium hard, moderately well bedded
			3 --		@ 2½' Bedding [N75E, 75S]
			-		
4	15.4	92.1	4 --		
			-		
			5 --		@ 5' Bedding [N75E, 78S]
			-		
			6 --		
			-		
7	14.8	87.7	7 --		
			-		
			8 --		
			-		Total Depth 8 feet
			9 --		No Water
			-		Fill to 1½ feet
			10 --		
			-		
			11 --		NOTE: The stratification lines represent the approximate
			-		boundary between earth types; the transition may be gradual.
			12 --		
			-		Test Pit Downhole Logged by a Geologist
			13 --		Used Hand Tools and Hand Sampler
			-		
			14 --		
			-		
			15 --		
			-		
			16 --		
			-		
			17 --		
			-		
			18 --		
			-		
			19 --		
			-		
			20 --		
			-		
			21 --		
			-		
			22 --		
			-		
			23 --		
			-		
			24 --		
			-		
			25 --		
			-		

LOG OF TEST PIT NUMBER 3

Sunset Boulevard, LLC **Drilling Date: 07/27/17** **Elevation: 395'***

File No. 21155 **Method: Hand Dug Test Pit**

km *Reference: Survey by Hennon Surveying and Mapping, dated 2/12/16

Sample Depth ft.	Moisture Content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Moderate Westerly Descending Slope
			0 --		FILL: Sandy Silt, dark brown, moist, stiff
			-		
1	12.1	82.5	1 --		
			-		
			2 --		
			-		
3	12.1	91.9	3 --		
			-		
			4 --		
			-		
5	11.3	100.2	5 --		
			-		BEDROCK (PUENTE FORMATION): Interbedded Siltstone and Sandstone,
			6 --		dark gray, moist, medium hard
			-		
			7 --		@ 7' Bedding [N85E, 62SE]
			-		
			8 --		
			-		
9	14.8	99.5	9 --		
			-		Total Depth 9 feet
			10 --		No Water
			-		Fill to 5 feet
			11 --		
			-		
			12 --		NOTE: The stratification lines represent the approximate
			-		boundary between earth types; the transition may be gradual.
			13 --		
			-		Test Pit Downhole Logged by a Geologist
			14 --		Used Hand Tools and Hand Sampler
			-		
			15 --		
			-		
			16 --		
			-		
			17 --		
			-		
			18 --		
			-		
			19 --		
			-		
			20 --		
			-		
			21 --		
			-		
			22 --		
			-		
			23 --		
			-		
			24 --		
			-		
			25 --		
			-		

LOG OF TEST PIT NUMBER 4

Sunset Boulevard, LLC **Drilling Date: 07/26/17** **Elevation: 406'***

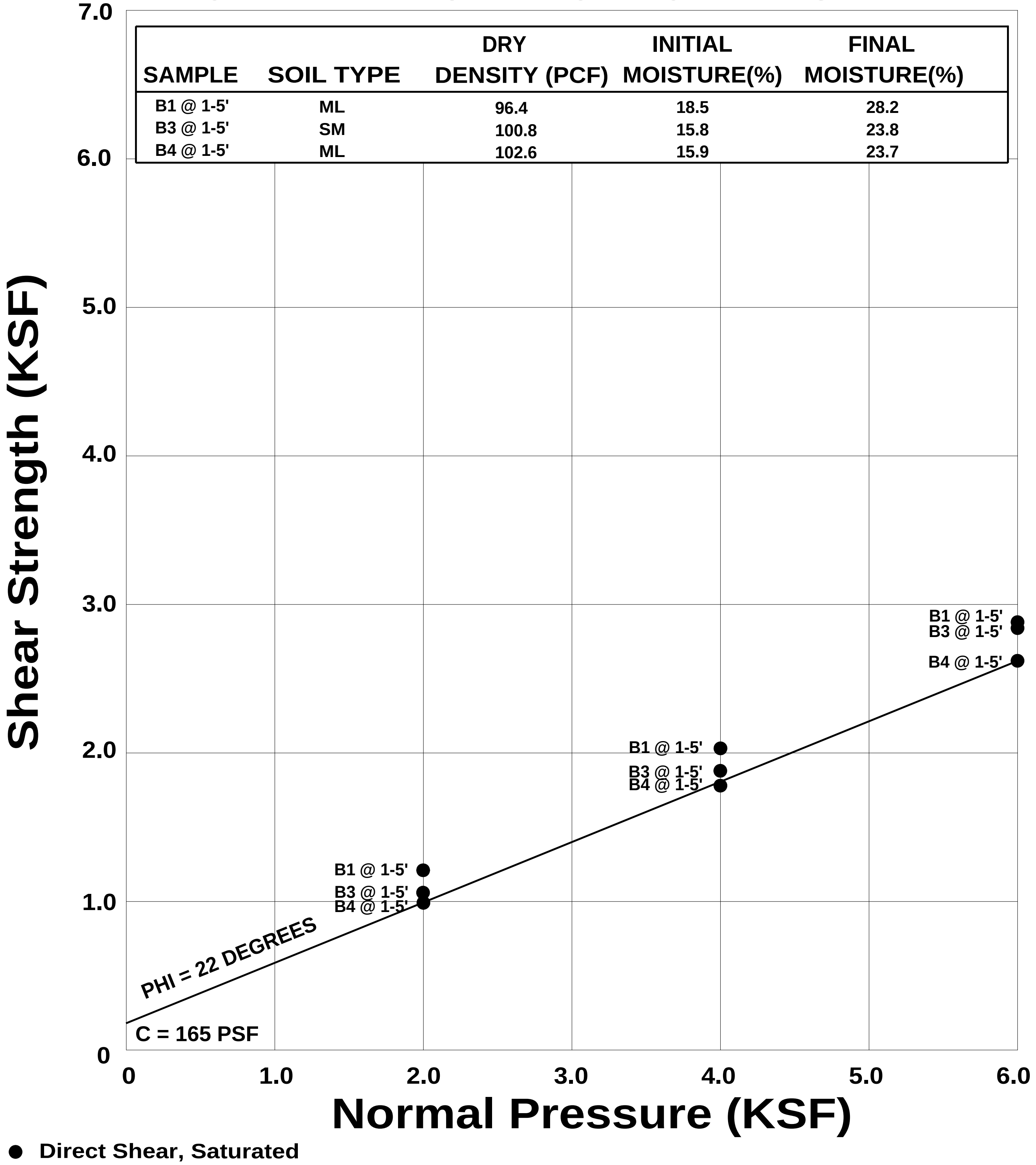
File No. 21155 **Method: Hand Dug Test Pit**

km

*Reference: Survey by Hennon Surveying and Mapping, dated 2/12/16

Sample Depth ft.	Moisture Content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Moderate Westerly Descending Slope, Scattered Trees
			0 --		FILL: Sandy Silt, dark brown, moist, stiff
			-		
			1 --		
			-		
2	12.1	86.7	2 --		
			-		Sandy Silt to Silty Sand, dark brown, moist, medium dense, fine grained, stiff
			3 --		
			-		
4	11.1	93.9	4 --		
			-		
			5 --		
			-		
			6 --		
			-		
7	13.2	89.4	7 --		
			-		
			8 --		
			-		
			9 --		
			-		
10	14.6	98.2	10 --		
			-	SM/ML	COLLUVIUM: Silty Sand to Sandy Silt, dark brown, moist, medium dense, fine grained, stiff
			11 --		
			-		
			12 --		
			-		
			13 --		
			-		
			14 --		
			-		
15	20.1	95.0	15 --		
			-		BEDROCK (PUENTE FORMATION): Interbedded Siltstone and Sandstone, dark yellowish brown, moist, medium hard
			16 --		
			-		
17	17.8	86.0	17 --		
			-		
			18 --		
			-		
			19 --		@ 19' Bedding [N60E, 25N]
			-		
20	25.6	87.8	20 --		
			-		
21	28.8	82.2	21 --		@ 21' Bedding [N60E, 27N]
			-		
			22 --		
			-		Total Depth 22 feet
			23 --		No Water
			-		Fill to 10 feet
			24 --		
			-		NOTE: The stratification lines represent the approximate boundary between earth types; the transition may be gradual.
			25 --		
			-		Test Pit Downhole Logged by a Geologist
					Used Hand Tools and Hand Sampler

BULK SAMPLE REMOLDED TO 90 PERCENT OF THE MAXIMUM LABORATORY DENSITY



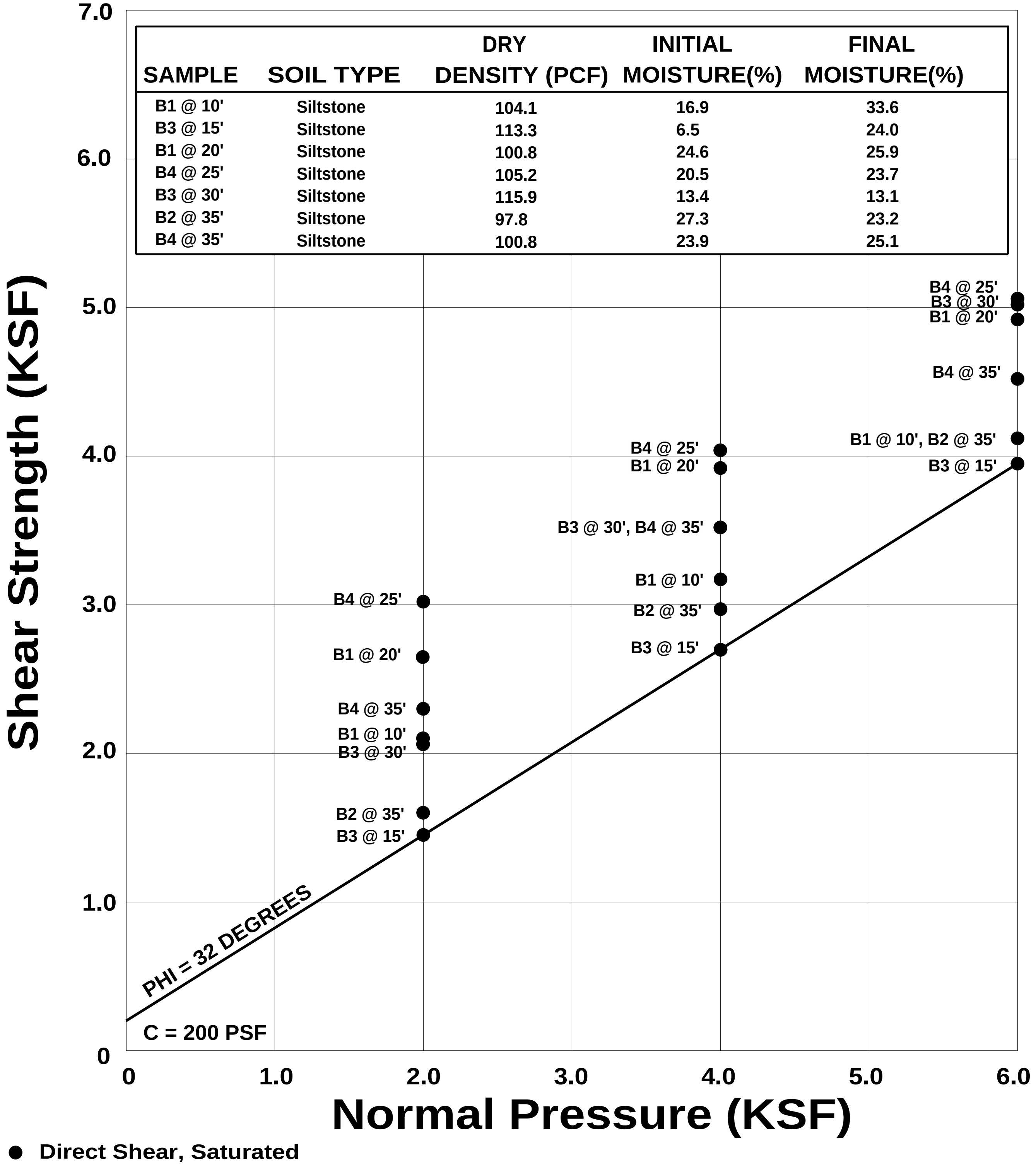
SAMPLE	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE(%)	FINAL MOISTURE(%)
B1 @ 1-5'	ML	96.4	18.5	28.2
B3 @ 1-5'	SM	100.8	15.8	23.8
B4 @ 1-5'	ML	102.6	15.9	23.7

SHEAR TEST DIAGRAM

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD, LLC

FILE NO. 21155 | **PLATE: B-1**



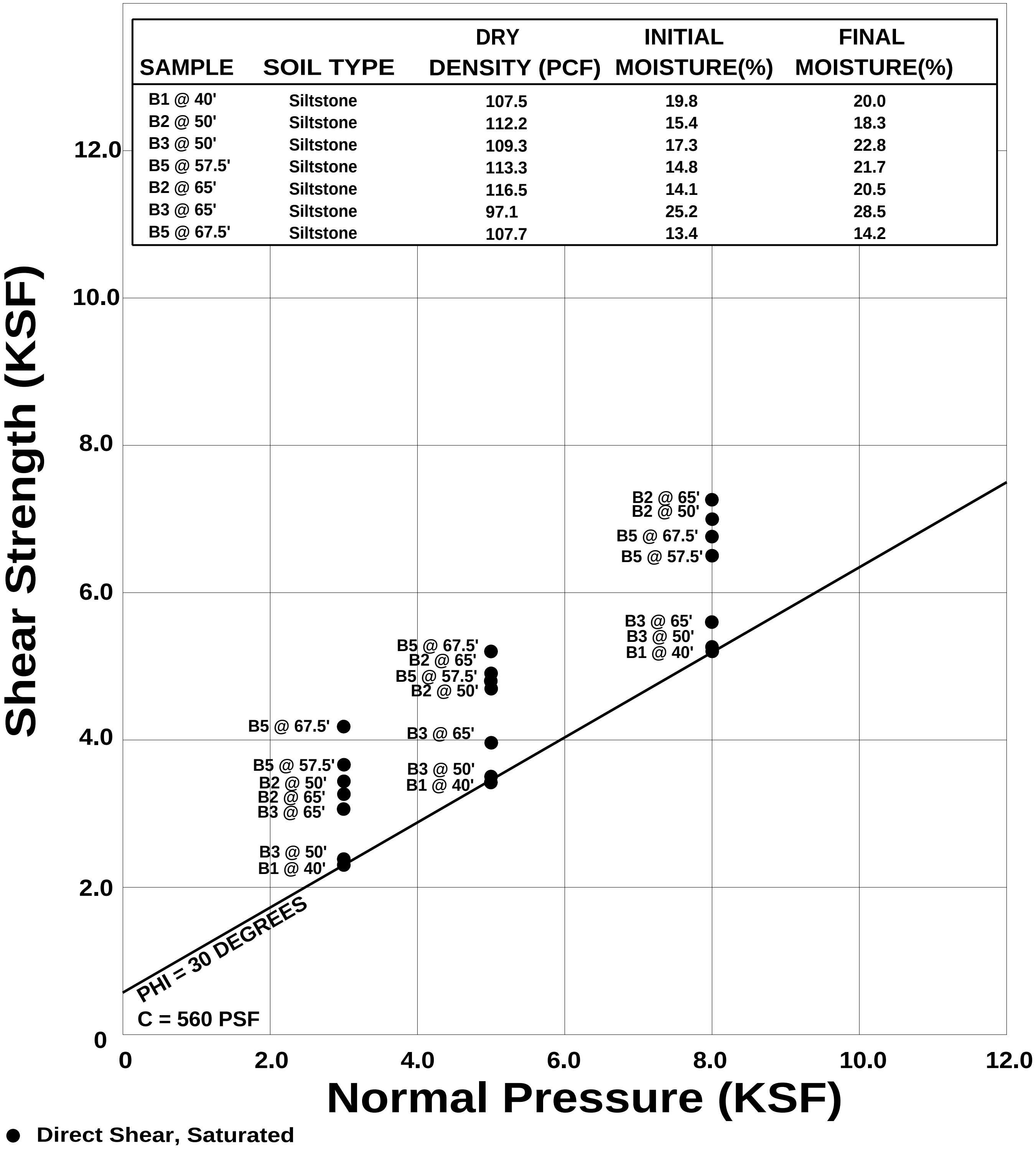
SAMPLE	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE(%)	FINAL MOISTURE(%)
B1 @ 10'	Siltstone	104.1	16.9	33.6
B3 @ 15'	Siltstone	113.3	6.5	24.0
B1 @ 20'	Siltstone	100.8	24.6	25.9
B4 @ 25'	Siltstone	105.2	20.5	23.7
B3 @ 30'	Siltstone	115.9	13.4	13.1
B2 @ 35'	Siltstone	97.8	27.3	23.2
B4 @ 35'	Siltstone	100.8	23.9	25.1

SHEAR TEST DIAGRAM

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 Sunset Blvd., LLC

FILE NO. 21155 | **PLATE: B-2**



SAMPLE	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE(%)	FINAL MOISTURE(%)
B1 @ 40'	Siltstone	107.5	19.8	20.0
B2 @ 50'	Siltstone	112.2	15.4	18.3
B3 @ 50'	Siltstone	109.3	17.3	22.8
B5 @ 57.5'	Siltstone	113.3	14.8	21.7
B2 @ 65'	Siltstone	116.5	14.1	20.5
B3 @ 65'	Siltstone	97.1	25.2	28.5
B5 @ 67.5'	Siltstone	107.7	13.4	14.2

SHEAR TEST DIAGRAM

Geotechnologies, Inc.
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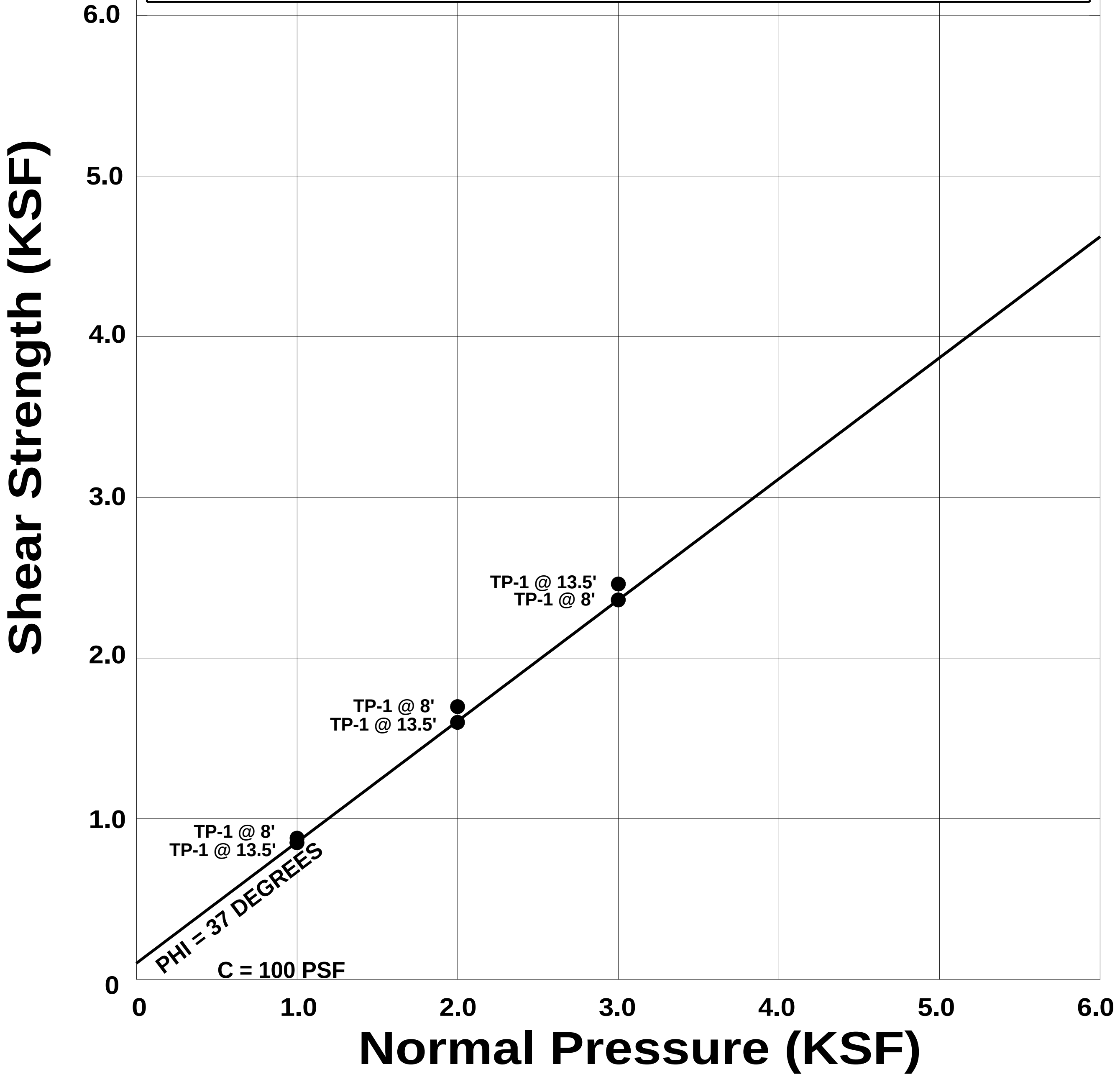
1111 Sunset Blvd., LLC

FILE NO. 21155

PLATE: B-3

SAMPLE	SOIL TYPE	DRY DENSITY (PCF)	INITIAL MOISTURE(%)	FINAL MOISTURE(%)
TP-1 @ 8'	SM	114.5	7.2	11.6
TP-1 @ 13.5'	SP/SW	130.1	0.7	13.3



● Direct Shear, Saturated

SHEAR TEST DIAGRAM

Geotechnologies, Inc.
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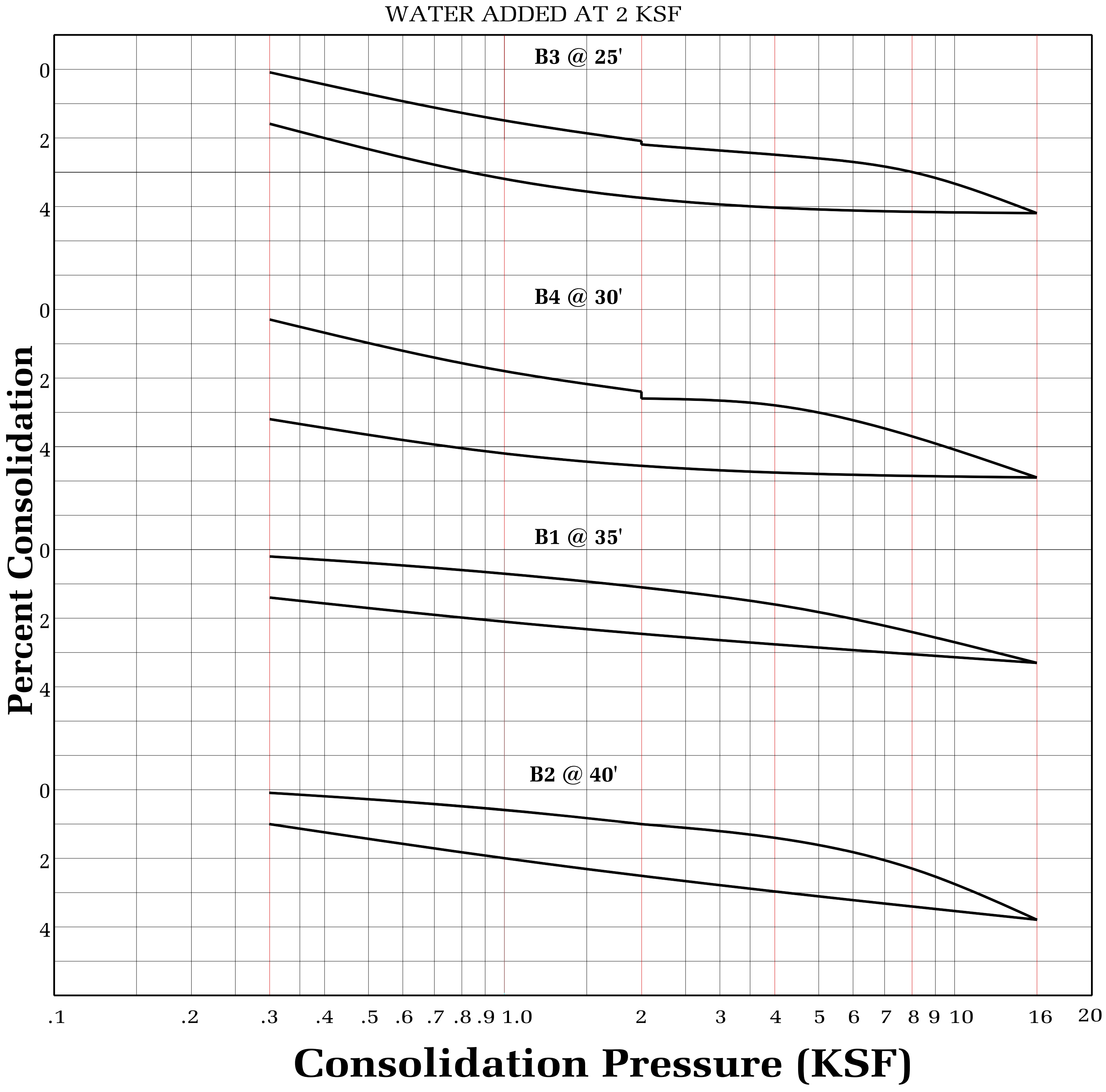
1111 Sunset Blvd., LLC

FILE NO. 21155

PLATE: B-4



CONSOLIDATION TEST

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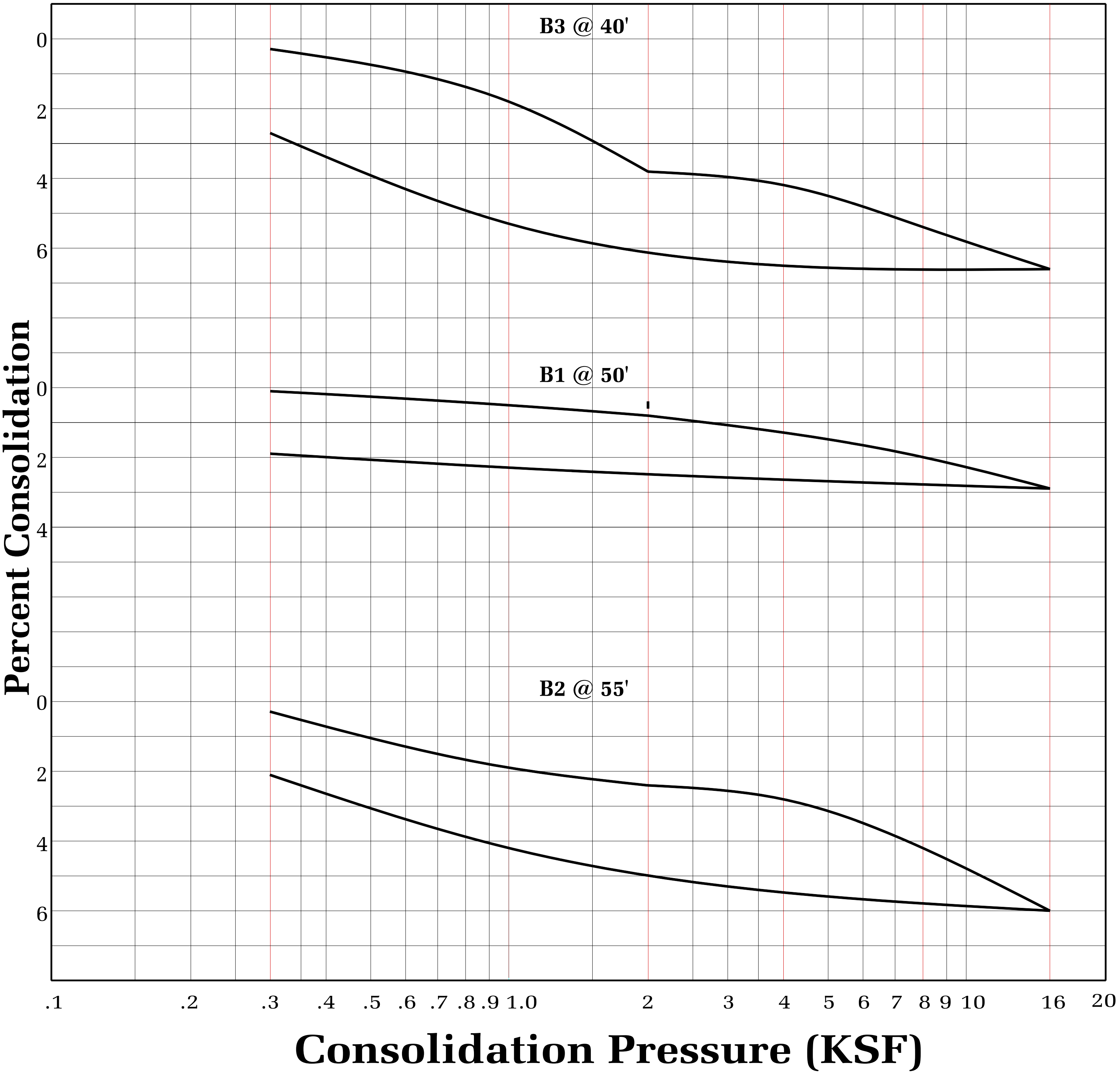
FILE NO. 21155	**PLATE: C-1**

WATER ADDED AT 2 KSF



CONSOLIDATION TEST

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Consulting Geotechnical Engineers

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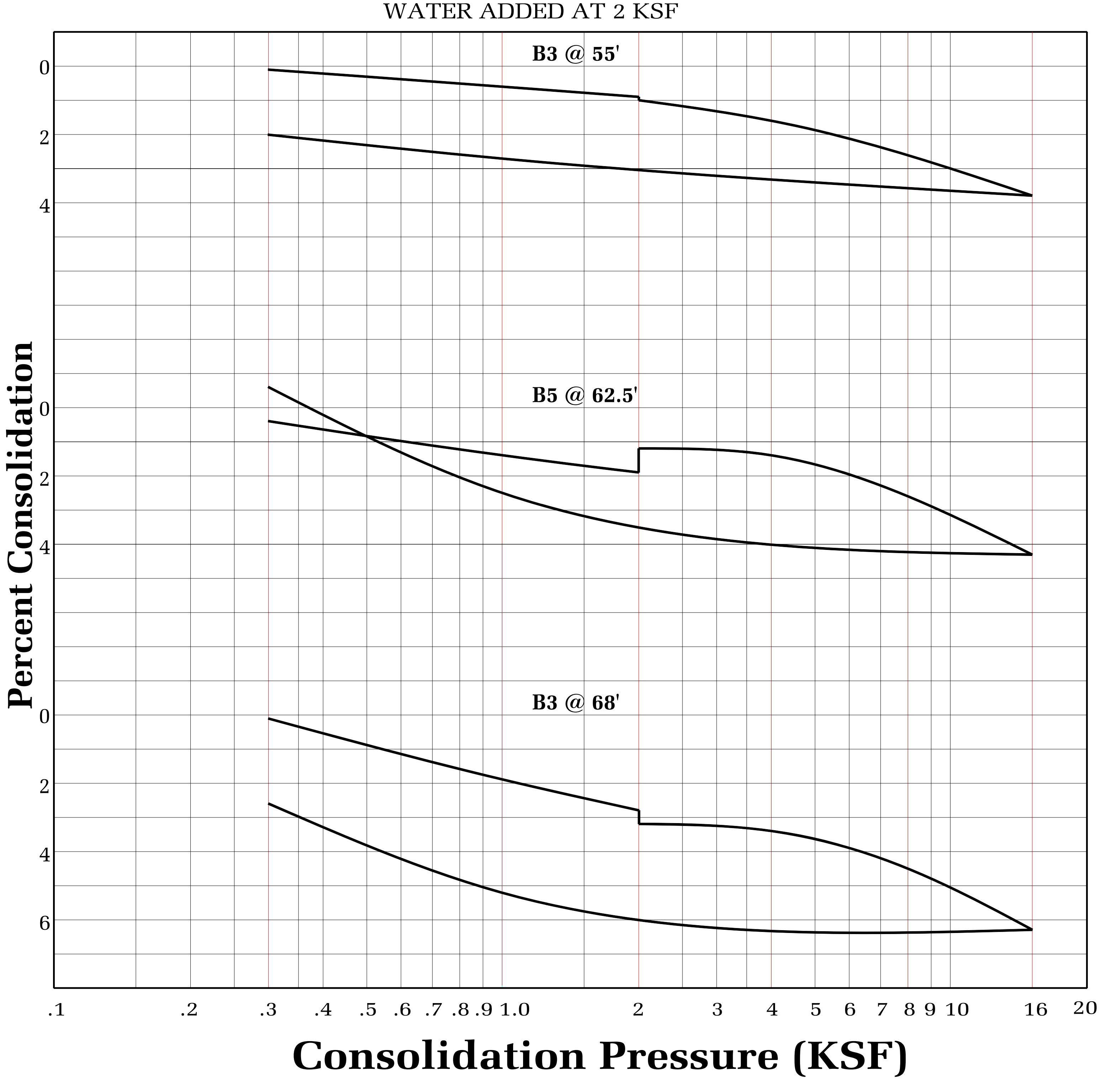
FILE NO. 21155

PLATE: C-2



CONSOLIDATION TEST

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FILE NO. 21155

PLATE: C-3

ASTM D 1557

SAMPLE	B1 @ 1- 5'	B3 @ 1- 5'	B4 @ 1-5'
SOIL TYPE:	SM/SHALE	SM/SHALE	SM/SHALE
MAXIMUM DENSITY pcf.	107.1	112.0	114.0
OPTIMUM MOISTURE %	18.5	15.8	15.9

ASTM D 4829

SAMPLE	B1 @ 1- 5'	B3 @ 1- 5'	B4 @ 1-5'
SOIL TYPE:	SM/SHALE	SM/SHALE	SM/SHALE
EXPANSION INDEX UBC STANDARD 18-2	35	17	43
EXPANSION CHARACTER	LOW	VERY LOW	LOW

SULFATE CONTENT

SAMPLE	B1 @ 35'	B1 @ 40'	B1 @ 50'	B1 @ 1'- 5'	B3 @ 1'- 5'	B4 @ 1'- 5'
SULFATE CONTENT: (percentage by weight)	< 0.10 %	< 0.10 %	< 0.10 %	< 0.10 %	< 0.10 %	< 0.10 %

SAMPLE	TP4 @ 1'- 5'	B3 @ 40'	B3 @ 55'	B3 @ 68'	B5 @ 57.5'	B5 @ 70'
SULFATE CONTENT: (percentage by weight)	< 0.10 %	< 0.10 %	< 0.10 %	< 0.20 %	> 0.20 %	> 0.20 %

COMPACTION/EXPANSION DATA SHEET

Geotechnologies, Inc.
Consulting Geotechnical Engineers

1111 SUNSET BLVD., LLC.
1111 SUNSET BLVD., LOS ANGELES

FILE NO. 21155

PLATE: D

LOG OF TEST PIT 1

DIGGING EQUIPMENT: Hand Tools
DRIVING WEIGHT: 50 lbs w/24" drop
PIT DIMENSION: L 4' X 4' W

DATE EXCAVATED: 6/2 to 6/6/97
SURFACE ELEVATION: 397'±

DEPTH IN FEET	UND.	BULK	N	USC	MATERIAL DESCRIPTION	GEO-STRUCT'R	γ	MC	S	RC
	■		18	ML-CL	FILL, silt, clayey, sli. sandy, numerous roots, brown, mod. compact		91	25.3		
					COLLUVIUM, silt, clayey to silty clay, sli. porous, num. roots, dark-brown, firm					
5	■		24		sand, very fine, silty, sli. clayey, massive, numerous roots, brown, compact		101	19.1		
10	■		39		BEDROCK, tuff, silty to tuffaceous silty, very fine-grained, sandstone, massive, sli. to moderately indurated, highly weathered, tan, dense		95	23.4		
15										
20					Total depth 12' No Groundwater No Caving					
25										

LEGEND: B = bedding; J = joint; F = fault; SS = slide surface;
γ = dry unit weight(pcf); MC = moisture content(%);
S = degree of saturation(%); RC = relative compaction(%);
N = blows per foot; USC = unified soil classification

Proposed Sanctuary and Gymnasium buildings
1111 Sunset Blvd.
Los Angeles, California

PROJECT NO.: 1677-FG
PLATE: A-1

PIONEER SOILS ENGINEERING, INC.
CONSULTANT FOUNDATION ENGINEERS & ENGINEERING GEOLOGIST

LOG OF TEST PIT 2

DIGGING EQUIPMENT:	Hand Tools	**DATE EXCAVATED:**	6/1 to 6/6/97
DRIVING WEIGHT:	50 lbs w/24" drop	**SURFACE ELEVATION:**	402'±
PIT DIMENSION:	L 5' x 4' W		

DEPTH IN FEET	UND.	BULK	N	USC	MATERIAL DESCRIPTION	GEO-STRUCT'R	γ	MC	S	RC
	■		20		FILL, silt, sandy, sli. clayey, sli. gravelly, minor trash, mod. porous, num. roots, yellow-brown, sli. to mod. compact		98	15.0		
				ML	COLLUVIUM, silt, sli. clayey to clayey, sli. sandy, massive, numerous roots, dark brown to brown, moderately stiff					
5	■		23				104	19.8		
10	■		43		BEDROCK, siltstone, sandy siltstone and tuffaceous siltstone, mod. thin bedded, well indurated, mod. fractured, mod. weathered, brown to yellow-brown to tan, very firm	N 70°E 75°S	90	23.5		
15										
20					Total depth 11.5' No Groundwater No Caving					
25										

LEGEND: B = bedding; J = joint; F = fault; SS = slide surface;
γ = dry unit weight(pcf); MC = moisture content(%);
S = degree of saturation(%); RC = relative compaction(%);
N = blows per foot; USC = unified soil classification

Proposed Sanctuary and Gymnasium Buildings
1111 Sunset Blvd.
Los Angeles, California

PROJECT NO.: 1677-FG

PLATE: A-2

PIONEER SOILS ENGINEERING, INC.

CONSULTANT FOUNDATION ENGINEERS & ENGINEERING GEOLOGIST

LOG OF TEST PIT 3

DIGGING EQUIPMENT:	Hand Tools	**DATE EXCAVATED:**	6/1 to 6/6/97
DRIVING WEIGHT:	50 lbs w/24" drop	**SURFACE ELEVATION:**	396'_±
PIT DIMENSION:	L 4' x 2½' W		

DEPTH IN FEET	UND.	BULK	N	USC	MATERIAL DESCRIPTION	GEO-STRUCT'R	γ	MC	S	RC
0–6					FILL, silt, sandy to silty, very fine sand, sli. gravelly, some concrete & bricks, crudely layered, mod. porous, num. roots, brown to light brown, mod. compact					
6–9					BEDROCK, siltstone, sandy siltstone & silty, very fine-grained sandstone, mod. thin to thin-bedded, mod. well indurated, mod. fractured, mod. weathered, brown to tan to light gray, firm to very firm	N 78° E 70S				
9	■		38				95	20.1		

Total depth 9'

No Groundwater

No Caving

LEGEND: B = bedding; J = joint; F = fault; SS = slide surface;
γ = dry unit weight(pcf); MC = moisture content(%);
S = degree of saturation(%); RC = relative compaction(%);
N = blows per foot; USC = unified soil classification

Proposed Sanctuary & Gymnasium Buildings 1111 Sunset Blvd. Los Angeles, California	**PROJECT NO.:** 1677-FG **PLATE:** A-3

PIONEER SOILS ENGINEERING, INC.

CONSULTANT FOUNDATION ENGINEERS & ENGINEERING GEOLOGIST

LOG OF TEST PIT 4

DIGGING EQUIPMENT: Hand tools
DRIVING WEIGHT: 50 lbs w/24" drop
PIT DIMENSION: L 3½' x 3' W
DATE EXCAVATED: 6/1 to 6/6/97
SURFACE ELEVATION: 395'±

DEPTH IN FEET	UND.	BULK	N	USC	MATERIAL DESCRIPTION	GEO-STRUCT'R	γ	MC	S	RC
	■		17		FILL, silt, sandy to sli. silty, fine sand, sli. gravelly, minor metal & concrete pieces, crudely layered, mod. porous, num. roots, brown to dark brown, sli. to mod. firm		101	18.2		
5										
	■		39		BEDROCK, sandstone, very fine-grained, silty to tuffaceous, mod. thick-bedded, mod. indurated, highly weathered, lt. gray to tan, dense	N 75° E 65°S	95	13.9		
10										
15					Total depth 8.5' No Groundwater No Caving					
20										
25										

LEGEND: B = bedding; J = joint; F = fault; SS = slide surface;
γ = dry unit weight(pcf); MC = moisture content(%);
S = degree of saturation(%); RC = relative compaction(%);
N = blows per foot; USC = unified soil classification

Proposed Sanctuary & Gymnasium Buildings
1111 Sunset Blvd.
Los Angeles, California

PROJECT NO.: 1677-FG
PLATE: A-4

PIONEER SOILS ENGINEERING, INC.
CONSULTANT FOUNDATION ENGINEERS & ENGINEERING GEOLOGIST

LOG OF BORING 1

DRILLING EQUIPMENT: 8" Ø power-driven hand auger
DRIVING WEIGHT: 50 lbs w/24" drop

DATE DRILLED: 5/30/97
SURFACE ELEVATION: 408.5'±

DEPTH IN FEET	UND.	BULK	N	USC	MATERIAL DESCRIPTION	γ	MC	S	RC
					FILL, silt, clayey, w/scattered brick fragments, scatt. roots, brown to dark brown, mod. firm				
	■		19		sli. sandy, scatt. concrete chunks & siltstone fragments	88	18.0		
5									
	■		39		BEDROCK, sandstone, fine to medium-grained, massive highly weathered, tan, dense	97	11.3		
10									
15									
					End of boring @ 8' No Groundwater No Caving				
20									
25									

LEGEND: B = bedding; J = joint; F = fault; SS = slide surface;
γ = dry unit weight(pcf); MC = moisture content(%);
S = degree of saturation(%); RC = relative compaction(%);
N = blows per foot; USC = unified soil classification

Proposed Sanctuary & Gymnasium Buildings
1111 Sunset Blvd.
Los Angeles, California

PROJECT NO.: 1677-FG
PLATE: A-5

PIONEER SOILS ENGINEERING, INC.
CONSULTANT FOUNDATION ENGINEERS & ENGINEERING GEOLOGIST

LOG OF BORING 2

DRILLING EQUIPMENT: 8" Ø power-driven hand auger
DRIVING WEIGHT: 50 lbs w/24" drop

DATE DRILLED 5/30/97
SURFACE ELEVATION: 406'±

DEPTH IN FEET	UND.	BULK	N	USC	MATERIAL DESCRIPTION	γ	MC	S	RC
					FILL, silt, clayey, sandy, scattered roots, brown to dark brown, firm to mod. firm				
	■		18			97	10.3		
					BEDROCK, sandstone, fine-grained & siltstone, highly weathered, yellow-brown				
	■		46			93	19.3		
5									
10									
15					End of boring @ 5' No Groundwater No Caving				
20									
25									

LEGEND:
B = bedding; J = joint; F = fault; SS = slide surface;
γ = dry unit weight(pcf); MC = moisture content(%);
S = degree of saturation(%); RC = relative compaction(%);
N = blows per foot; USC = unified soil classification

Proposed Sanctuary & Gymnasium Buildings
1111 Sunset Blvd.
Los Angeles, California

PROJECT NO.: 1677-FG
PLATE: A-6

PIONEER SOILS ENGINEERING, INC.
CONSULTANT FOUNDATION ENGINEERS & ENGINEERING GEOLOGIST

LOG OF BORING 3

DRILLING EQUIPMENT: 8" Ø power-driven hand auger
DRIVING WEIGHT: 50 lbs w/24" drop

DATE DRILLED: 5/30/97
SURFACE ELEVATION:

DEPTH IN FEET	UND.	BULK	N	USC	MATERIAL DESCRIPTION	γ	MC	S	RC
					FILL, silt, clayey, w/scatt. brick fragments, scatt. roots, dark brown to brown, mod. firm				
					sli. sandy, scatt. concrete chunks & siltstone fragments				
	■		20			104	18.3		
5									
	■		37		BEDROCK, sandstone, very fine-grained, silty, massive, gray, highly weathered	95	17.6		
10									
					End of boring @ 10' No Groundwater No Caving				
15									
20									
25									

LEGEND: B = bedding; J = joint; F = fault; SS = slide surface;
γ = dry unit weight(pcf); MC = moisture content(%);
S = degree of saturation(%); RC = relative compaction(%);
N = blows per foot; USC = unified soil classification

Proposed Sanctuary & Gymnasium Buildings
1111 Sunset Blvd.
Los Angeles, California

PROJECT NO.: 1677-FG

PLATE: A-7

PIONEER SOILS ENGINEERING, INC.
CONSULTANT FOUNDATION ENGINEERS & ENGINEERING GEOLOGIST

LOG OF BORING 4

DRILLING EQUIPMENT: 8" Ø power-driven hand auger
DRIVING WEIGHT: 50 lbs w/24" drop

DATE DRILLED: 5/30/97
SURFACE ELEVATION:

DEPTH IN FEET	UND.	BULK	N	USC	MATERIAL DESCRIPTION	γ	MC	S	RC
					FILL, silt, sandy, scatt. gravels, scatt. concrete chunks, brown to dark brown, mod. firm				
	■		20			102	16.9		
5					firm				
	■		38		BEDROCK, sandstone, fine- to medium-grained & siltstone, highly weathered, lt. yellow-brown, dense	95	24.0		
10									
15					End of boring @ 7' No Groundwater No Caving				
20									
25									

LEGEND: B = bedding; J = joint; F = fault; SS = slide surface;
γ = dry unit weight(pcf); MC = moisture content(%);
S = degree of saturation(%); RC = relative compaction(%);
N = blows per foot; USC = unified soil classification

Proposed Sanctuary & Gymnasium Buildings
1111 Sunset Blvd.
Los Angeles, California

PROJECT NO.: 1677-FG

PLATE: A-8

PIONEER SOILS ENGINEERING, INC.
CONSULTANT FOUNDATION ENGINEERS & ENGINEERING GEOLOGIST

Geotechnologies, Inc.

Project: 1111 Sunset LLC
File No.: 21155
Sample: Bedrock
Depth: 0-5 feet

SHRINKAGE CALCULATIONS

Properties of In-situ Soils (Borrow)

. Dry Density =	103.9	pcf
Moisture Content =	13.9	%
Density Gravity Water =	62.4	pcf
Specific Gravity of Solids =	2.66	

Calculations

VOL.		Borrow		WT.
	0.141	AIR	0.00	
0.992	0.230	WATER	14.32	103.04
	0.621	SOLIDS	103.04	

Properties of Engineered Fill Soils

Percent compaction =	92.0	%
Maximum Dry Density =	112.0	pcf
Dry Density =	103.0	pcf
Optimum Moisture Content =	15.8	%

Calculations

VOL.		Fill		WT.
	0.118	AIR	0.00	
1.000	0.261	WATER	16.28	119.32
	0.621	SOLIDS	103.04	

Shrinkage = -0.8%

Geotechnologies, Inc.

Project: 1111 Sunset Blvd., LLC
File No.: 21155
Description: Foundation Pile Design

Drilled Friction Pile Capacity Calculation

Input Data:

Unit Weight of Overlying Soil Layer	γ_1	0 pcf
Thickness of Overlying Soil Layer	H_1	0 feet
Unit Weight of Bearing Strata	γ_2	125 pcf
Friction Angle of Bearing Strata	ϕ_2	30 degrees
Friction Angle between Pile and Soil	δ	22.5 degrees
Cohesion of Bearing Strata	c_2	560 psf
Adhesion	c_A	500 psf
Minimum Embedment into Bearing Strata	H_2	30 feet
Unit Weight of Water	γ_w	62.4 pcf
Depth to Groundwater from Pile Cap	H_w	0 feet

Pile Design:

Drilled <<Driven/Drilled
Circular <<Circular/Square Pile

Pile Dimension:

24 inch diameter pile
30 inch diameter pile
36 inch diameter pile

Critical Depth Limit (Dc):

20 B

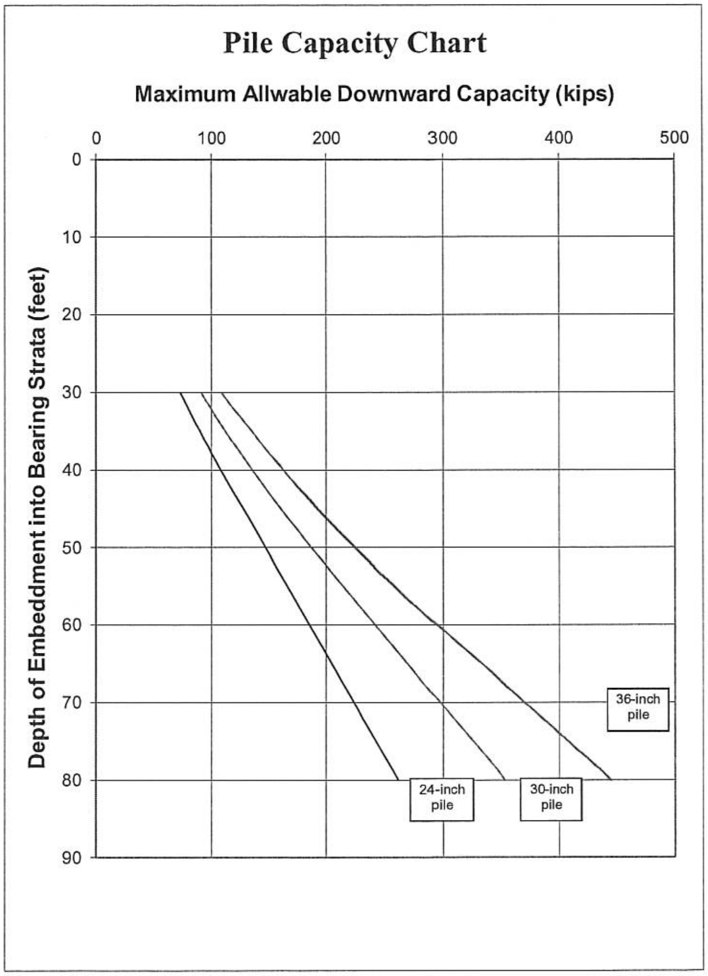
Lateral Earth Pressure Coefficient: $K_{HC} = 0.70$

Applied Factor of Safety: $FS = 2$

Factored Skin Friction $f_s/FS = [K_{HC}*\sigma'_v*(\tan\delta)]/FS$ **or** $fs/FS = c_A/FS$

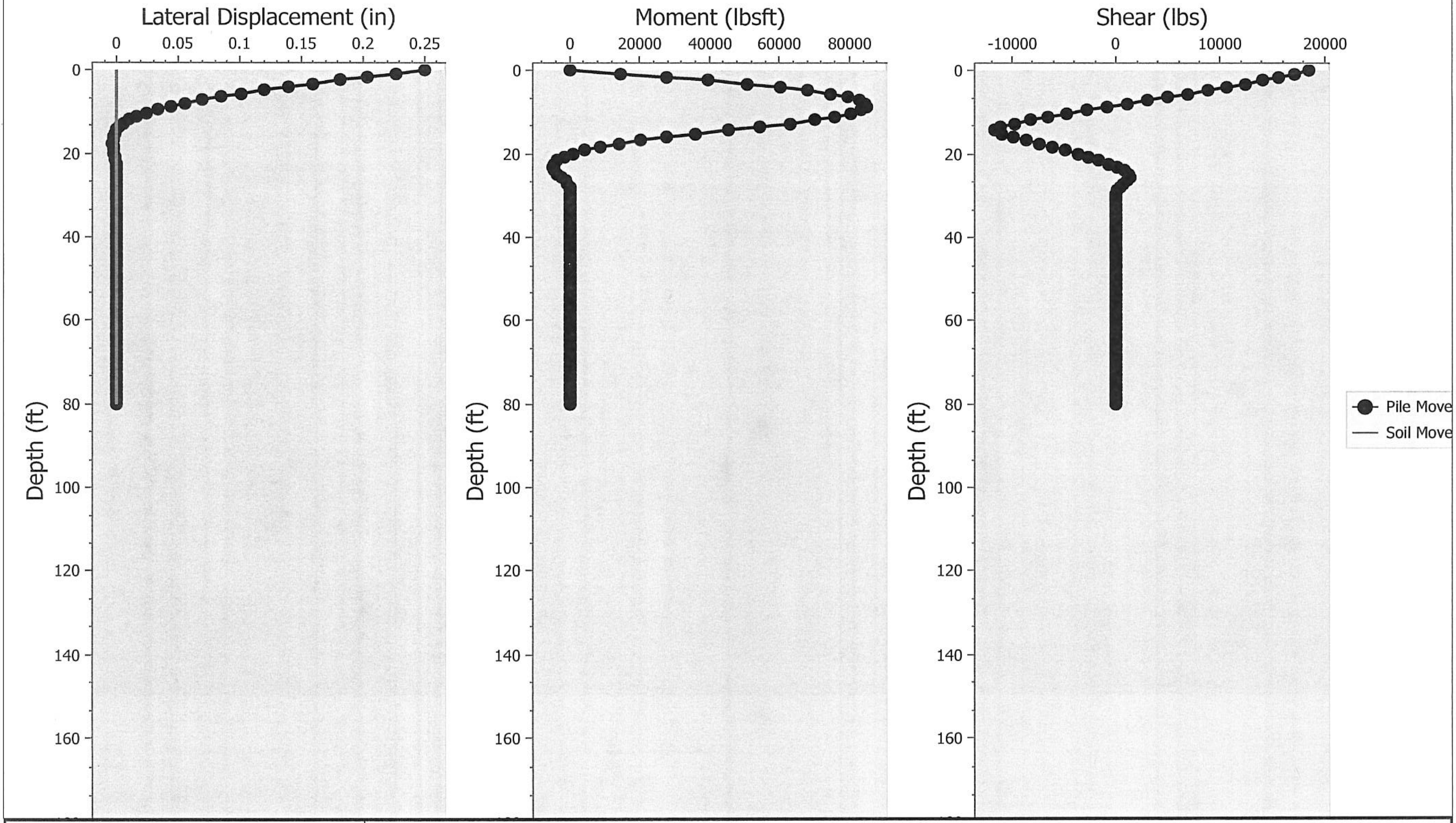
Pile Capacity:

Total Depth of Pile (feet)	Depth of Embeddment into Bearing Strata (feet)	Maximum Allowable Downward Pile Capacity Capacity of 24 inch diameter pile (kips)	Capacity of 30 inch diameter pile (kips)	Capacity of 36 inch diameter pile (kips)
30	30	72.8	91.0	109.2
31	31	76.1	95.1	114.1
32	32	79.5	99.3	119.2
33	33	82.9	103.6	124.3
34	34	86.4	108.0	129.5
35	35	89.9	112.4	134.9
36	36	93.5	116.9	140.2
37	37	97.2	121.4	145.7
38	38	100.9	126.1	151.3
39	39	104.6	130.8	156.9
40	40	108.4	135.6	162.7
41	41	112.3	140.4	168.5
42	42	116.2	145.3	174.4
43	43	120.0	150.3	180.4
44	44	123.9	155.4	186.5
45	45	127.7	160.5	192.6
46	46	131.6	165.7	198.9
47	47	135.4	171.0	205.2
48	48	139.3	176.4	211.6
49	49	143.1	181.8	218.1
50	50	147.0	187.3	224.7
51	51	150.8	192.8	231.4
52	52	154.7	198.3	238.2
53	53	158.5	203.9	245.0
54	54	162.4	209.4	251.9
55	55	166.2	214.9	259.0
56	56	170.1	220.4	266.1
57	57	173.9	226.0	273.3
58	58	177.8	231.5	280.5
59	59	181.6	237.0	287.9
60	60	185.5	242.5	295.3
61	61	189.3	248.1	302.8
62	62	193.2	253.6	310.3
63	63	197.0	259.1	317.8
64	64	200.9	264.7	325.3
65	65	204.7	270.2	332.8
66	66	208.6	275.7	340.3
67	67	212.4	281.2	347.8
68	68	216.3	286.8	355.2
69	69	220.1	292.3	362.7
70	70	224.0	297.8	370.2
71	71	227.9	303.3	377.7
72	72	231.7	308.9	385.2
73	73	235.6	314.4	392.7
74	74	239.4	319.9	400.2
75	75	243.3	325.5	407.7
76	76	247.1	331.0	415.1
77	77	251.0	336.5	422.6
78	78	254.8	342.0	430.1
79	79	258.7	347.6	437.6
80	80	262.5	353.1	445.1



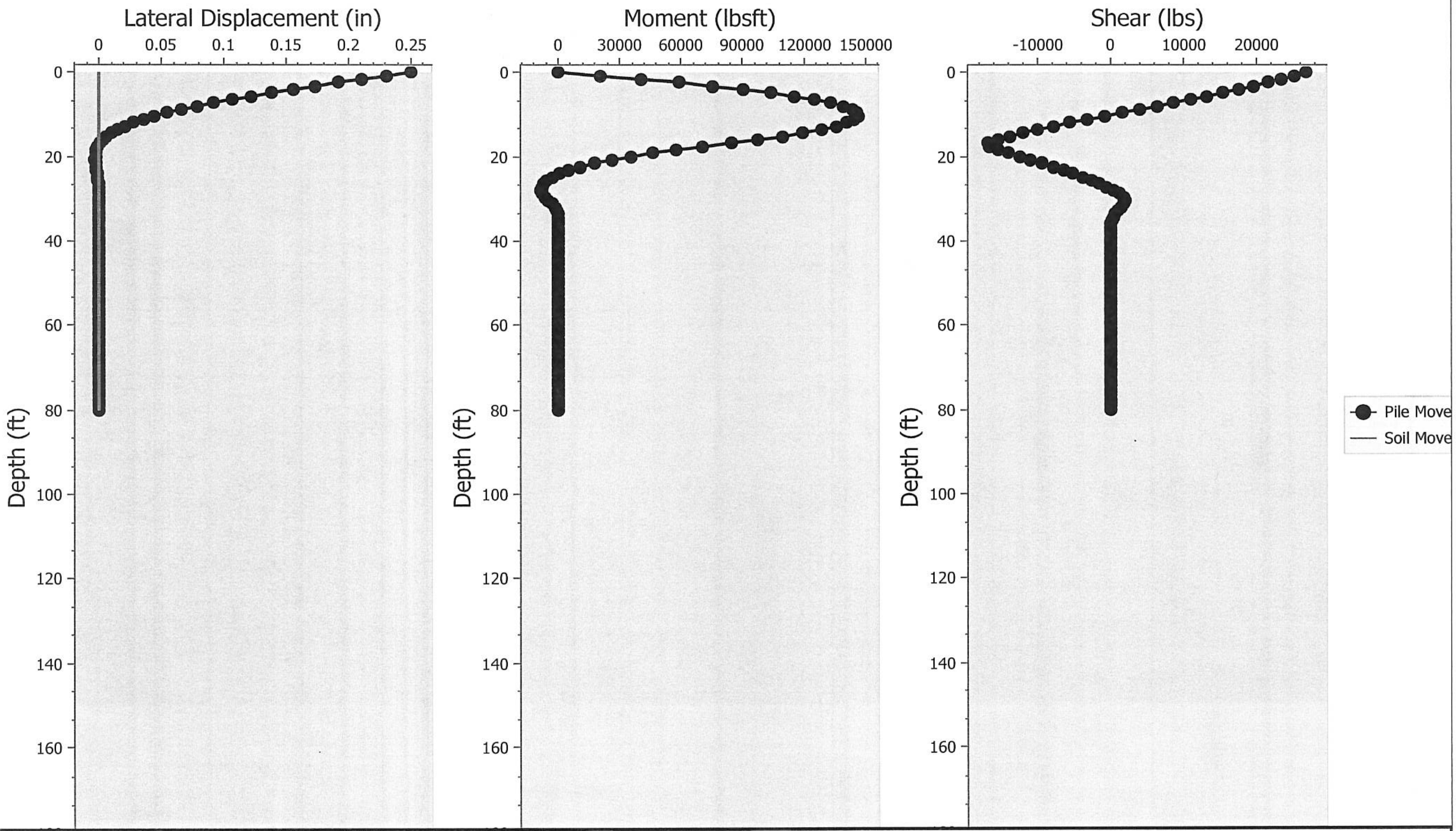
Note: 1. Minimum pile embeddment depth of 30 feet
2. Uplift capacity may be designed using 50% of the downward capacity
3. Pile should be spaced a minimum of 3 diameters on center
4. See text of report for pile details and installation recommendations

24-inch Diameter (Free-Head)



GEOTECHNOLOGIES, INC. CONSULTING GEOTECHNICAL ENGINEERS RSPILE 1.006	*Project* 1111 Sunset Blvd.		
	Analysis Description Proposed Courtyard Buildings		
	Drawn By WL	*Company* Geotechnologies, Inc.	
	Date 9/18/2017, 10:20:05 AM	*File Name* 21155_Courtyard.rspile	

30-inch Diameter (Free-Head)

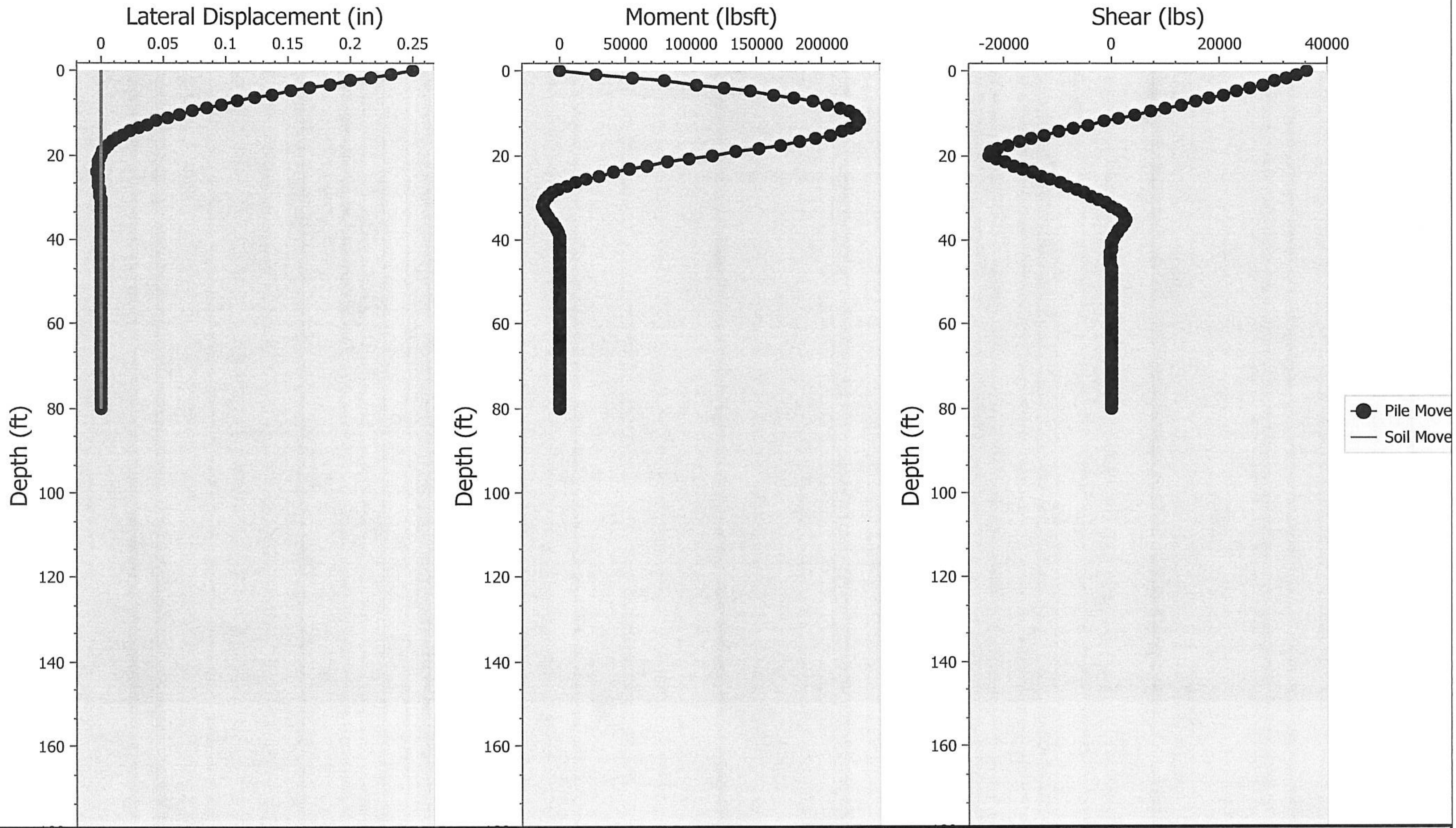


GEOTECHNOLOGIES, INC.
CONSULTING GEOTECHNICAL ENGINEERS

RSPILE 1.006

Project	1111 Sunset Blvd.		
Analysis Description	Proposed Courtyard Buildings		
Drawn By	WL	*Company*	Geotechnologies, Inc.
Date	9/18/2017, 10:20:05 AM	*File Name*	21155_Courtyard.rspile

36-inch Diameter (Free-Head)

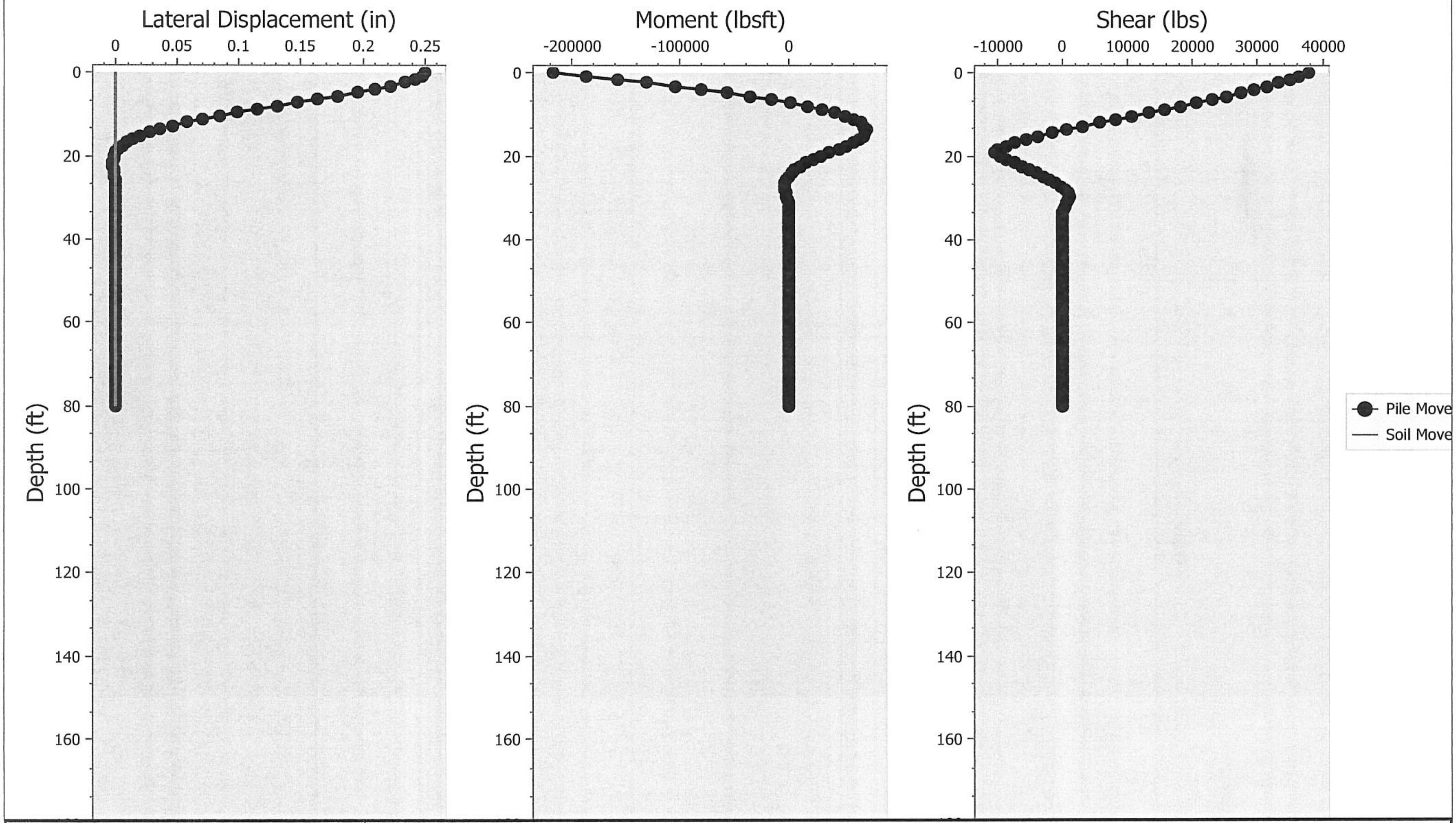


GEOTECHNOLOGIES, INC.
CONSULTING GEOTECHNICAL ENGINEERS

RSPILE 1.006

Project	1111 Sunset Blvd.		
Analysis Description	Proposed Courtyard Buildings		
Drawn By	WL	*Company*	Geotechnologies, Inc.
Date	9/18/2017, 10:20:05 AM	*File Name*	21155_Courtyard.rspile

24-inch Diameter (Fixed-Head)

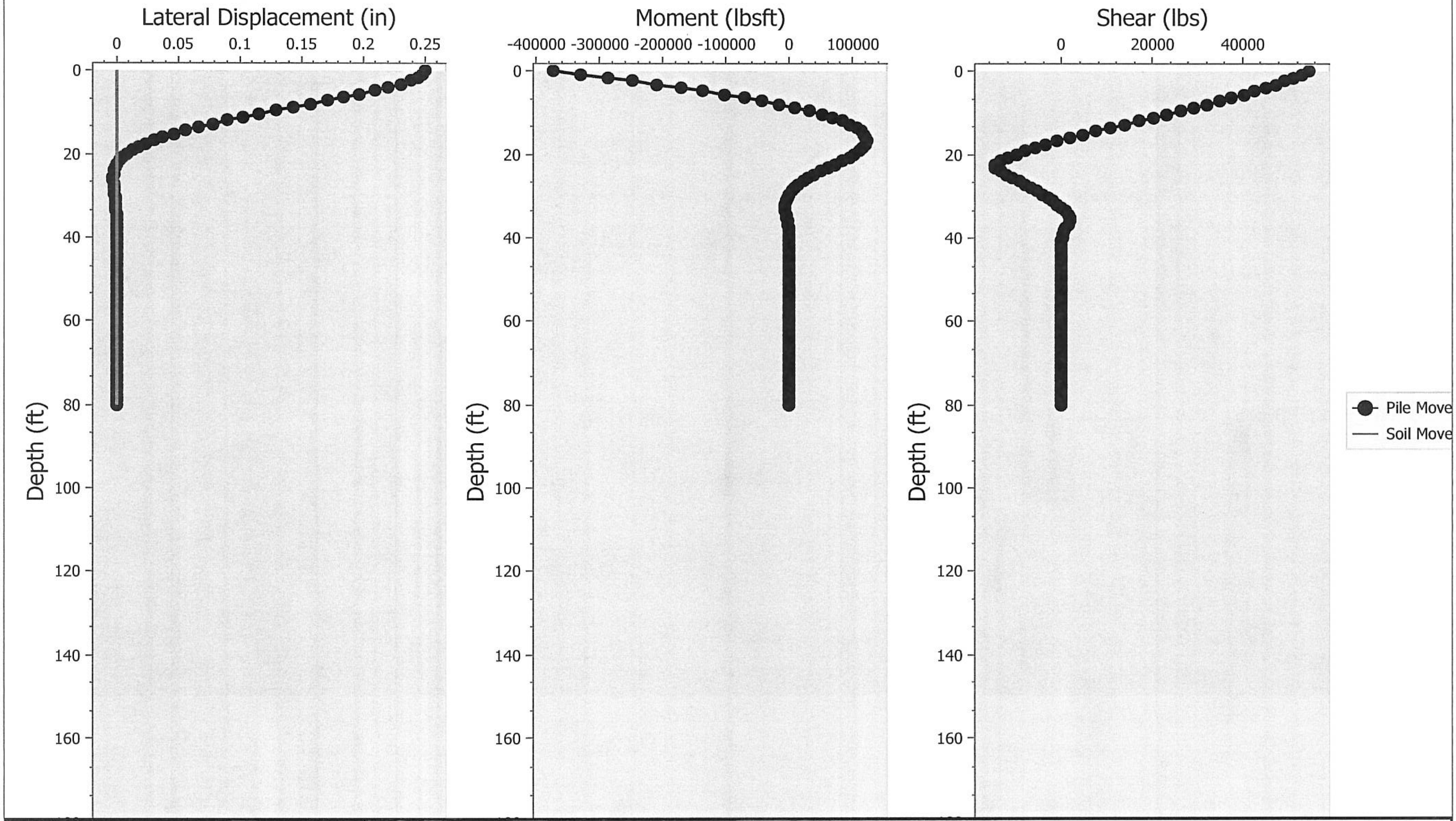


GEOTECHNOLOGIES, INC.
CONSULTING GEOTECHNICAL ENGINEERS

RSPILE 1.006

Project	1111 Sunset Blvd.		
Analysis Description	Proposed Courtyard Buildings		
Drawn By	WL	*Company*	Geotechnologies, Inc.
Date	9/18/2017, 10:20:05 AM	*File Name*	21155_Courtyard_(Fixed Head).rspile

30-inch Diameter (Fixed-Head)

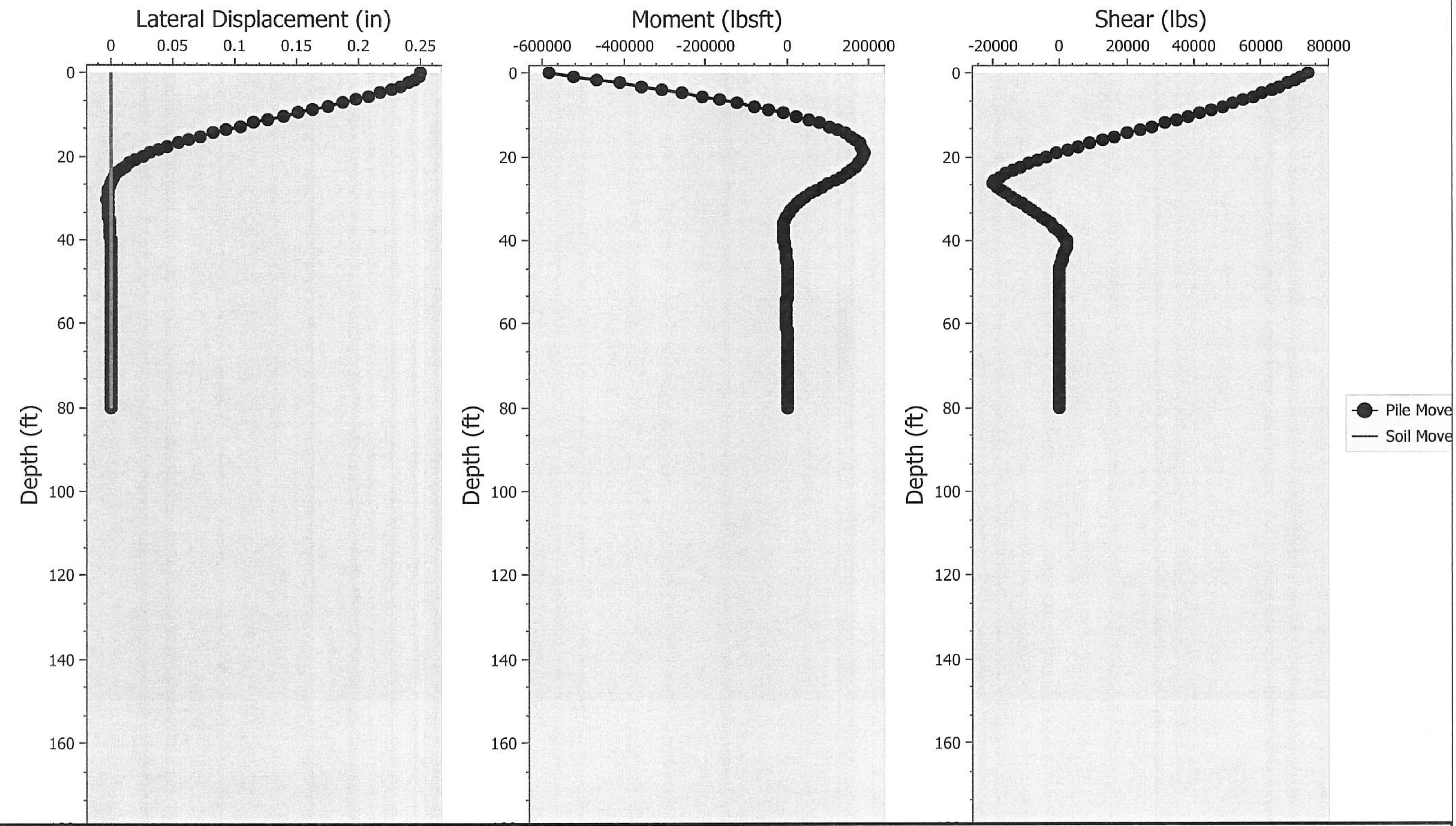


GEOTECHNOLOGIES, INC.
CONSULTING GEOTECHNICAL ENGINEERS

RSPILE 1.006

Project	1111 Sunset Blvd.		
Analysis Description	Proposed Courtyard Buildings		
Drawn By	WL	*Company*	Geotechnologies, Inc.
Date	9/18/2017, 10:20:05 AM	*File Name*	21155_Courtyard_(Fixed Head).rspile

36-inch Diameter (Fixed-Head)



GEOTECHNOLOGIES, INC. CONSULTING GEOTECHNICAL ENGINEERS RSPILE 1.006	*Project* 1111 Sunset Blvd.		
	Analysis Description Proposed Courtyard Buildings		
	Drawn By WL	*Company* Geotechnologies, Inc.	
	Date 9/18/2017, 10:20:05 AM	*File Name* 21155_Courtyard_(Fixed Head).rspile	

Geotechnologies, Inc.

Project: 2111 SUNSET Boulevard, LLC
File No.: 21155
Geologic Material Bedrock, ~~daylighted~~ oblique orientation

Soil Weight	γ	125 pcf
Internal Friction Angle	ϕ	32 degrees
Cohesion	c	200 psf
Height of Retaining Wall	H	80 feet

Cantilever Retaining Wall Design based on At Rest Earth Pressure

$\sigma'_h = K_o\sigma'_v$

$K_o = 1 - \sin\phi$	0.470
$\sigma'_v = \gamma H$	10000.0 psf

$\sigma'_h =$ 4700.8 psf

EFP = 58.8 pcf

$P_o =$ 188032.3 lbs/ft (based on a triangular distribution of pressure)

Design wall for an EFP of 59 pcf

Restrained Wall Design based on At Rest Earth Pressure

$P_o =$ 188032.3 lbs/ft

$\sigma'_{h,\,max} =$ 36.7 H (based on a trapezoidal distribution of pressure)

$\sigma'_{h,\,max} =$ 2350.4 psf

Design restrained wall for 38 H

Geotechnologies, Inc.

Project: 2111 Sunset, LLC
File No.: 21155
Description: Oblique Bedding

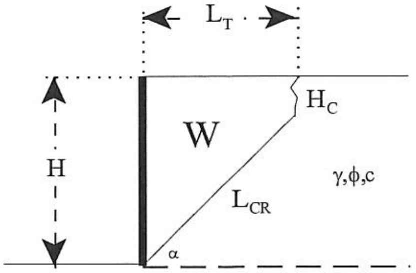
Retaining Wall Design with Level Backfill
(Vector Analysis)

Input:

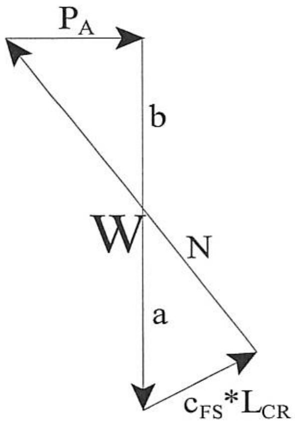
Retaining Wall Height	(H)	10.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	32.0 degrees
Cohesion of Retained Soils	(c)	200.0 psf
Factor of Safety	(FS)	1.50

28

Factored Parameters:	(ϕ_{FS})	22.6 degrees
	(c_{FS})	133.3 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) $feet^2$	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	8.8	19	2353.8	2.3	2209.7	144.1	18.7
31	7.9	32	3946.1	4.1	3477.7	468.4	69.0
32	7.1	39	4930.7	5.4	4101.4	829.2	137.0
33	6.5	44	5541.1	6.4	4371.2	1169.9	214.4
34	6.0	47	5911.3	7.1	4441.3	1470.0	296.0
35	5.6	49	6122.1	7.7	4397.7	1724.4	378.6
36	5.3	50	6224.3	8.1	4289.8	1934.5	460.3
37	5.0	50	6251.2	8.4	4146.8	2104.4	539.7
38	4.7	50	6225.0	8.6	3986.4	2238.6	616.0
39	4.5	49	6161.0	8.8	3819.2	2341.8	688.5
40	4.3	49	6069.9	8.9	3651.7	2418.3	757.1
41	4.1	48	5959.5	8.9	3487.7	2471.8	821.5
42	4.0	47	5835.1	9.0	3329.6	2505.5	881.6
43	3.9	46	5701.0	9.0	3178.5	2522.4	937.3
44	3.8	44	5560.0	9.0	3035.1	2524.9	988.7
45	3.7	43	5414.3	9.0	2899.4	2514.9	1035.8
46	3.6	42	5265.8	8.9	2771.4	2494.4	1078.6
47	3.5	41	5115.5	8.9	2650.8	2464.7	1117.2
48	3.4	40	4964.4	8.8	2537.3	2427.2	1151.7
49	3.4	39	4813.3	8.8	2430.4	2382.9	1182.1
50	3.3	37	4662.7	8.7	2329.8	2332.9	1208.5
51	3.3	36	4512.9	8.6	2235.0	2277.9	1230.8
52	3.3	35	4364.2	8.6	2145.7	2218.6	1249.3
53	3.2	34	4216.9	8.5	2061.3	2155.6	1263.9
54	3.2	33	4071.0	8.4	1981.6	2089.4	1274.6
55	3.2	31	3926.7	8.3	1906.2	2020.5	1281.5



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\ max}$ 1281.5 | lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of wall)

$EFP = 2*P_A/H^2$

EFP 25.6 pcf

Design Wall for an Equivalent Fluid Pressure: 26 pcf

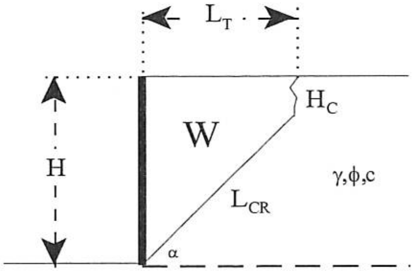
Geotechnologies, Inc.

Project: 1111 Sunset Blvd., LLC
File No.: 21155
Description: ~~Retaining Walls up to 20 feet~~ OBLIQUE BEDDING

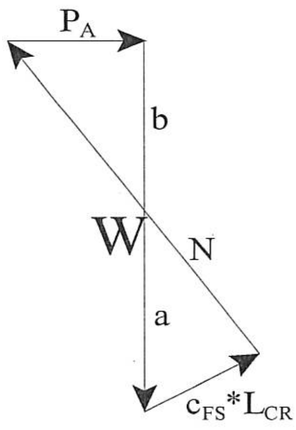
Retaining Wall Design with Level Backfill
(Vector Analysis)

Input:

Retaining Wall Height	(H)	20.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	32.0 degrees
Cohesion of Retained Soils	(c)	200.0 psf
Factor of Safety	(FS)	1.50
Factored Parameters:	(ϕ_{FS})	22.6 degrees
	(c_{FS})	133.3 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) feet^2	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
44	3.8	200	24976.1	23.4	7894.4	17081.7	6688.9
45	3.7	193	24164.3	23.1	7470.2	16694.2	6875.5
46	3.6	187	23372.4	22.8	7082.4	16290.0	7044.1
47	3.5	181	22600.1	22.6	6727.1	15873.1	7195.1
48	3.4	175	21847.0	22.3	6400.7	15446.3	7329.3
49	3.4	169	21112.5	22.0	6100.2	15012.2	7447.0
50	3.3	163	20395.8	21.8	5823.0	14572.9	7548.8
51	3.3	158	19696.4	21.5	5566.5	14129.8	7635.0
52	3.3	152	19013.3	21.2	5328.9	13684.4	7705.9
53	3.2	147	18346.0	21.0	5108.3	13237.8	7761.7
54	3.2	142	17693.7	20.7	4903.0	12790.8	7802.7
55	3.2	136	17055.6	20.5	4711.5	12344.1	7829.1
56	3.2	131	16431.0	20.3	4532.7	11898.3	7840.8
57	3.2	127	15819.2	20.0	4365.4	11453.8	7838.0
58	3.2	122	15219.6	19.8	4208.5	11011.1	7820.7
59	3.2	117	14631.5	19.6	4061.1	10570.4	7788.7
60	3.2	112	14054.1	19.3	3922.3	10131.8	7742.0
61	3.3	108	13487.1	19.1	3791.4	9695.7	7680.4
62	3.3	103	12929.7	18.9	3667.6	9262.0	7603.7
63	3.3	99	12381.3	18.7	3550.4	8830.9	7511.6
64	3.4	95	11841.4	18.5	3439.0	8402.5	7403.7
65	3.5	90	11309.5	18.3	3332.9	7976.6	7279.7
66	3.5	86	10785.1	18.0	3231.6	7553.5	7139.1
67	3.6	82	10267.5	17.8	3134.5	7133.0	6981.4
68	3.7	78	9756.4	17.6	3041.1	6715.2	6806.0
69	3.8	74	9251.1	17.4	2950.9	6300.1	6612.2



Design Equations (Vector Analysis):
$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$
$b = W-a$
$P_A = b*\tan(\alpha-\phi_{FS})$
$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\max}$ 7840.81 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of wall)

$EFP = 2*P_A/H^2$

EFP 39.2 pcf

Design Wall for an Equivalent Fluid Pressure: 40 pcf

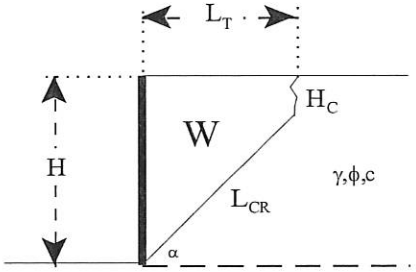
Geotechnologies, Inc.

Project: 1111 Sunset Blvd., LLC
File No.: 21155
Description: ~~Retaining Walls up to 30 feet~~ BEDROCK, OBLIQUE BEDDING

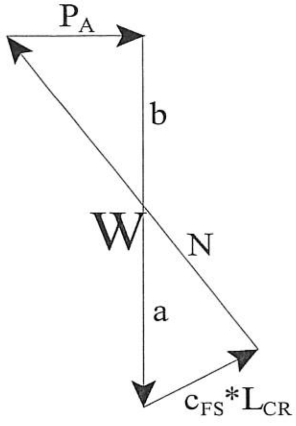
Retaining Wall Design with Level Backfill
(Vector Analysis)

Input:

Retaining Wall Height	(H)	30.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	32.0 degrees
Cohesion of Retained Soils	(c)	200.0 psf
Factor of Safety	(FS)	1.50
Factored Parameters:	(ϕ_{FS})	22.6 degrees
	(c_{FS})	133.3 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) feet^2	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
44	3.8	459	57336.5	37.8	12753.7	44582.8	17457.8
45	3.7	443	55414.3	37.3	12040.9	43373.4	17863.4
46	3.6	428	53550.2	36.7	11393.4	42156.8	18229.2
47	3.5	414	51741.2	36.2	10803.4	40937.9	18556.8
48	3.4	400	49984.6	35.7	10264.1	39720.5	18847.4
49	3.4	386	48277.7	35.3	9770.0	38507.6	19102.3
50	3.3	373	46617.7	34.8	9316.1	37301.6	19322.4
51	3.3	360	45002.1	34.4	8898.1	36104.0	19508.7
52	3.3	347	43428.5	33.9	8512.2	34916.3	19661.8
53	3.2	335	41894.6	33.5	8155.2	33739.4	19782.4
54	3.2	323	40398.2	33.1	7824.3	32573.9	19871.0
55	3.2	311	38937.1	32.7	7516.9	31420.2	19927.9
56	3.2	300	37509.4	32.3	7230.8	30278.6	19953.2
57	3.2	289	36113.2	32.0	6964.1	29149.2	19947.2
58	3.2	278	34746.8	31.6	6714.9	28031.9	19909.7
59	3.2	267	33408.3	31.2	6481.7	26926.7	19840.7
60	3.2	257	32096.3	30.9	6263.1	25833.3	19739.9
61	3.3	246	30809.2	30.6	6057.7	24751.5	19606.8
62	3.3	236	29545.6	30.2	5864.5	23681.0	19441.0
63	3.3	226	28304.0	29.9	5682.4	22621.6	19241.8
64	3.4	217	27083.1	29.6	5510.4	21572.7	19008.5
65	3.5	207	25881.7	29.3	5347.5	20534.1	18740.0
66	3.5	198	24698.5	29.0	5193.0	19505.5	18435.3
67	3.6	188	23532.4	28.7	5046.1	18486.3	18093.2
68	3.7	179	22382.2	28.4	4906.0	17476.2	17712.3
69	3.8	170	21246.8	28.1	4771.9	16474.9	17290.9



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\,max}$ 19953.22 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of wall)

$EFP = 2*P_A/H^2$

EFP 44.3 pcf

Design Wall for an Equivalent Fluid Pressure: 45 pcf

Project: 2111 SUNSET Boulevard, LLC
File No.: 21155
Geologic Material Bedrock, daylighted

Soil Weight	γ	125	pcf
Internal Friction Angle	ϕ	22	degrees
Cohesion	c	165	psf
Height of Retaining Wall	H	80	feet

Cantilever Retaining Wall Design based on At Rest Earth Pressure

$\sigma'_h = K_o\sigma'_v$

$K_o = 1 - \sin\phi$ 0.625

$\sigma'_v = \gamma H$ 10000.0 psf

$\sigma'_h =$ 6253.9 psf

EFP = 78.2 pcf

$P_o =$ 250157.4 lbs/ft (based on a triangular distribution of pressure)

Design wall for an EFP of 78 pcf

Restrained Wall Design based on At Rest Earth Pressure

$P_o =$ 250157.4 lbs/ft

$\sigma'_{h,\,max} =$ 48.9 H (based on a trapezoidal distribution of pressure)

$\sigma'_{h,\,max} =$ 3127.0 psf

Design restrained wall for 51 H

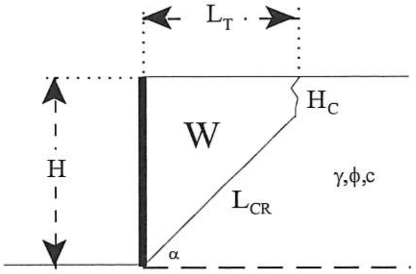
Geotechnologies, Inc.

Project: 2111 Sunset, LLC
File No.: 21155
Description: Daylighted Bedrock,

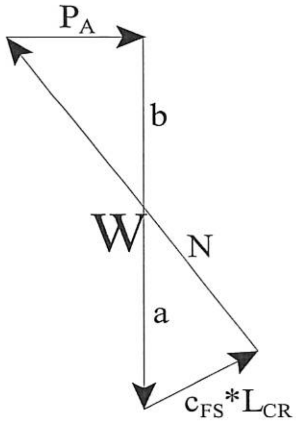
Retaining Wall Design with Level Backfill
(Vector Analysis)

Input:

Retaining Wall Height	(H)	10.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	22.0 degrees
Cohesion of Retained Soils	(c)	165.0 psf
Factor of Safety	(FS)	1.50
		28
Factored Parameters:	(ϕ_{FS})	15.1 degrees
	(c_{FS})	110.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) $feet^2$	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	3.8	74	9254.3	12.4	5105.8	4148.5	1105.8
31	3.6	72	9044.0	12.4	4800.6	4243.4	1210.8
32	3.4	71	8817.3	12.4	4515.3	4302.0	1309.1
33	3.3	69	8581.2	12.3	4250.5	4330.7	1400.9
34	3.2	67	8340.6	12.2	4005.7	4334.9	1486.3
35	3.0	65	8098.9	12.1	3779.8	4319.1	1565.6
36	2.9	63	7858.4	12.0	3571.7	4286.7	1639.1
37	2.8	61	7620.6	11.9	3379.8	4240.8	1706.9
38	2.8	59	7386.6	11.7	3202.9	4183.7	1769.4
39	2.7	57	7157.1	11.6	3039.7	4117.4	1826.7
40	2.6	55	6932.5	11.5	2888.9	4043.5	1879.1
41	2.6	54	6713.0	11.3	2749.5	3963.5	1926.7
42	2.5	52	6498.8	11.2	2620.3	3878.5	1969.8
43	2.5	50	6289.8	11.0	2500.5	3789.3	2008.5
44	2.4	49	6086.0	10.9	2389.2	3696.8	2042.9
45	2.4	47	5887.4	10.7	2285.7	3601.6	2073.1
46	2.4	46	5693.6	10.6	2189.3	3504.3	2099.4
47	2.4	44	5504.7	10.5	2099.3	3405.4	2121.7
48	2.3	43	5320.4	10.3	2015.2	3305.2	2140.3
49	2.3	41	5140.4	10.2	1936.5	3204.0	2155.0
50	2.3	40	4964.8	10.0	1862.7	3102.1	2166.1
51	2.3	38	4793.1	9.9	1793.3	2999.8	2173.5
52	2.3	37	4625.3	9.8	1728.2	2897.2	2177.2
53	2.3	36	4461.2	9.6	1666.7	2794.4	2177.4
54	2.3	34	4300.5	9.5	1608.8	2691.7	2173.9
55	2.3	33	4143.1	9.4	1554.0	2589.1	2166.8



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\max}$ 2177.4 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of wall)

$EFP = 2*P_A/H^2$

EFP 43.5 pcf

Design Wall for an Equivalent Fluid Pressure: **44 pcf**

Geotechnologies, Inc.

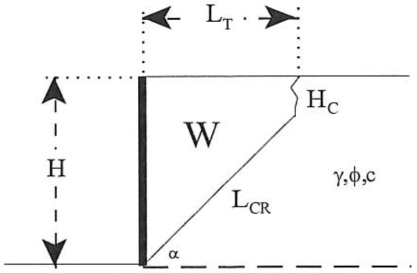
Project: 2111 Sunset, LLC
File No.: 21155
Description: Daylighted Bedrock,

Retaining Wall Design with Level Backfill
(Vector Analysis)

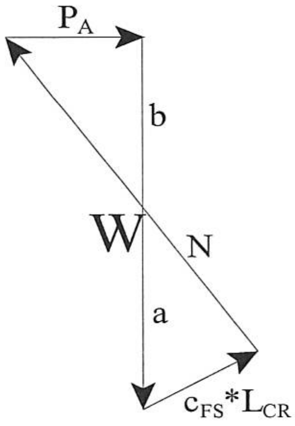
Input:

Retaining Wall Height	(H)	20.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	22.0 degrees
Cohesion of Retained Soils	(c)	165.0 psf
Factor of Safety	(FS)	1.50
Factored Parameters:	(ϕ_{FS})	15.1 degrees
	(c_{FS})	110.0 psf

28



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) $feet^2$	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	3.8	334	41730.2	32.4	13353.7	28376.5	7563.7
31	3.6	322	40249.2	31.8	12316.7	27932.6	7970.0
32	3.4	311	38823.6	31.2	11400.3	27423.3	8345.0
33	3.3	300	37453.7	30.7	10586.9	26866.7	8690.7
34	3.2	289	36138.7	30.1	9862.1	26276.5	9009.3
35	3.0	279	34876.7	29.6	9213.6	25663.1	9302.6
36	2.9	269	33665.6	29.0	8631.3	25034.3	9572.2
37	2.8	260	32502.7	28.5	8106.5	24396.2	9819.6
38	2.8	251	31385.5	28.0	7631.9	23753.6	10046.2
39	2.7	242	30311.4	27.5	7201.5	23109.9	10253.0
40	2.6	234	29277.8	27.0	6809.8	22468.0	10441.3
41	2.6	226	28282.4	26.6	6452.6	21829.8	10611.8
42	2.5	219	27322.7	26.1	6125.7	21197.0	10765.5
43	2.5	211	26396.7	25.7	5826.0	20570.7	10903.2
44	2.4	204	25502.2	25.3	5550.5	19951.7	11025.3
45	2.4	197	24637.4	24.9	5296.7	19340.6	11132.6
46	2.4	190	23800.3	24.5	5062.4	18737.9	11225.5
47	2.4	184	22989.3	24.1	4845.6	18143.7	11304.5
48	2.3	178	22202.9	23.8	4644.7	17558.2	11369.8
49	2.3	172	21439.6	23.4	4458.1	16981.5	11421.9
50	2.3	166	20697.9	23.1	4284.5	16413.4	11460.8
51	2.3	160	19976.6	22.8	4122.8	15853.8	11486.8
52	2.3	154	19274.4	22.5	3971.8	15302.7	11500.1
53	2.3	149	18590.3	22.2	3830.6	14759.7	11500.5
54	2.3	143	17923.2	21.9	3698.4	14224.8	11488.3
55	2.3	138	17272.0	21.6	3574.4	13697.6	11463.2



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$
$b = W-a$
$P_A = b*\tan(\alpha-\phi_{FS})$
$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A, max}$ 11500.5 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of wall)

$EFP = 2*P_A/H^2$
EFP 57.5 pcf

Design Wall for an Equivalent Fluid Pressure: 58 pcf

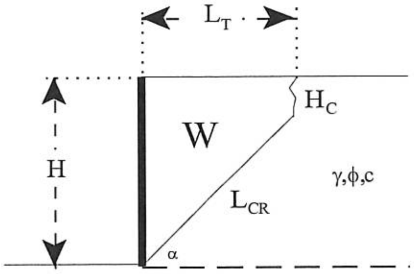
Geotechnologies, Inc.

Project: 2111 Sunset, LLC
File No.: 21155
Description: Daylighted Bedrock,

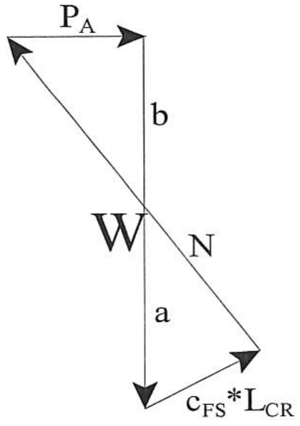
Retaining Wall Design with Level Backfill
(Vector Analysis)

Input:

Retaining Wall Height	(H)	30.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	22.0 degrees
Cohesion of Retained Soils	(c)	165.0 psf
Factor of Safety	(FS)	1.50
		28
Factored Parameters:	(ϕ_{FS})	15.1 degrees
	(c_{FS})	110.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) $feet^2$	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	3.8	767	95856.8	52.4	21601.6	74255.3	19792.6
31	3.6	738	92258.0	51.2	19832.8	72425.2	20665.2
32	3.4	711	88834.0	50.1	18285.2	70548.8	21468.1
33	3.3	685	85574.4	49.0	16923.4	68651.1	22206.9
34	3.2	660	82468.7	48.0	15718.6	66750.1	22886.4
35	3.0	636	79506.3	47.0	14647.5	64858.9	23510.7
36	2.9	613	76677.5	46.0	13690.9	62986.6	24083.9
37	2.8	592	73972.9	45.1	12833.1	61139.7	24609.1
38	2.8	571	71383.7	44.2	12060.9	59322.8	25089.6
39	2.7	551	68901.9	43.4	11363.2	57538.7	25527.8
40	2.6	532	66520.1	42.6	10730.8	55789.4	25926.3
41	2.6	514	64231.4	41.8	10155.7	54075.8	26287.1
42	2.5	496	62029.4	41.1	9631.2	52398.2	26612.0
43	2.5	479	59908.2	40.4	9151.6	50756.7	26902.7
44	2.4	463	57862.5	39.7	8711.9	49150.7	27160.7
45	2.4	447	55887.4	39.0	8307.8	47579.6	27387.2
46	2.4	432	53978.1	38.4	7935.6	46042.5	27583.3
47	2.4	417	52130.4	37.8	7592.0	44538.4	27749.8
48	2.3	403	50340.6	37.2	7274.2	43066.3	27887.6
49	2.3	389	48604.8	36.7	6979.8	41625.0	27997.3
50	2.3	375	46919.7	36.1	6706.4	40213.4	28079.4
51	2.3	362	45282.3	35.6	6452.2	38830.2	28134.3
52	2.3	350	43689.6	35.2	6215.3	37474.3	28162.2
53	2.3	337	42138.9	34.7	5994.4	36144.5	28163.2
54	2.3	325	40627.6	34.2	5787.9	34839.7	28137.3
55	2.3	313	39153.5	33.8	5594.7	33558.8	28084.5



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\,max}$ 28163.2 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of wall)

$EFP = 2*P_A/H^2$

EFP 62.6 pcf

Design Wall for an Equivalent Fluid Pressure: 63 pcf

Geotechnologies, Inc.

Project: 1111 Sunset Blvd.

File No.: 21155

Seismically Induced Lateral Soil Pressure on Retaining Wall

Input:

Height of Retaining Wall:	(H)	80.0	feet
Retained Soil Unit Weight:	(γ)	125.0	pcf
Peak Ground Acceleraction:	(PGA_M)	0.97	g
Horizontal Ground Acceleration:	(k_h)	0.33	g

Seismic Increment (ΔP_{AE}):

$k_h = 0.5*0.67*PGA_M$

$\Delta P_{AE} = (0.5*\gamma*H^2)*(0.75*k_h)$

$\Delta P_{AE} =$ 97887.0 lbs/ft

$T*(2/3)*H = \Delta P_{AE}*0.6*H$

$T =$ 88098.3 lbs/ft

$EFP = 2*T/H^2$

EFP = 27.5 pcf Recommended = 28 pcf

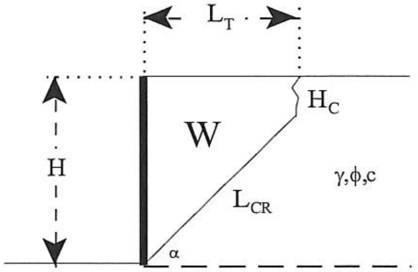
triangular distribution of pressure, applied to the proposed retaining wall.

Description: Daylighted Bedding

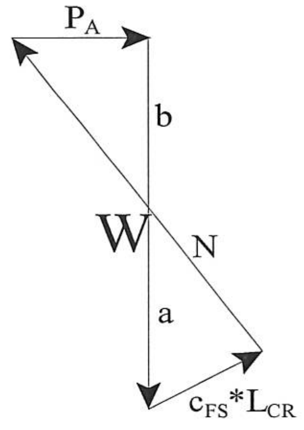
Shoring Design with Level Backfill
(Vector Analysis)

Input:

Shoring Height	(H)	10.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	22.0 degrees
Cohesion of Retained Soils	(c)	165.0 psf
Factor of Safety	(FS)	1.25
		28
Factored Parameters:	(ϕ_{FS})	17.9 degrees
	(c_{FS})	132.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) feet^2	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	5.5	60	7502.3	8.9	5349.4	2152.9	461.1
31	5.2	61	7614.3	9.4	5194.4	2419.9	562.6
32	4.9	61	7632.2	9.7	4997.5	2634.6	661.2
33	4.6	61	7585.3	9.9	4781.7	2803.6	755.8
34	4.4	60	7493.5	10.1	4560.3	2933.1	845.9
35	4.2	59	7370.4	10.2	4341.3	3029.1	931.2
36	4.0	58	7225.8	10.2	4129.3	3096.5	1011.4
37	3.8	57	7066.3	10.2	3926.6	3139.7	1086.5
38	3.7	55	6897.0	10.2	3734.6	3162.4	1156.5
39	3.6	54	6721.4	10.2	3553.7	3167.7	1221.6
40	3.5	52	6542.1	10.1	3383.8	3158.4	1281.7
41	3.4	51	6361.0	10.1	3224.5	3136.5	1337.1
42	3.3	49	6179.5	10.0	3075.5	3104.0	1387.7
43	3.2	48	5998.6	9.9	2936.1	3062.5	1433.8
44	3.2	47	5819.0	9.8	2805.6	3013.4	1475.5
45	3.1	45	5641.3	9.7	2683.5	2957.8	1512.8
46	3.1	44	5465.9	9.6	2569.2	2896.7	1545.9
47	3.0	42	5292.9	9.5	2462.0	2830.9	1574.9
48	3.0	41	5122.6	9.4	2361.5	2761.1	1599.8
49	3.0	40	4955.0	9.3	2267.0	2688.0	1620.7
50	2.9	38	4790.2	9.2	2178.2	2612.0	1637.7
51	2.9	37	4628.2	9.1	2094.6	2533.6	1650.9
52	2.9	36	4469.0	9.0	2015.8	2453.2	1660.2
53	2.9	34	4312.4	8.9	1941.3	2371.1	1665.7
54	2.9	33	4158.4	8.8	1870.8	2287.6	1667.4
55	2.9	32	4007.0	8.7	1804.0	2203.0	1665.4



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\ max}$ 1667.4 | lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$

EFP 33.3 pcf

Design Shoring for an Equivalent Fluid Pressure: 33 pcf

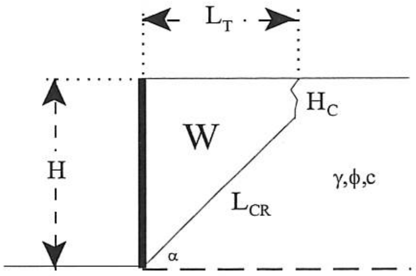
Geotechnologies, Inc.

Project: 2111 Sunset, LLC
File No.: 21155
Description: Daylighted Bedding

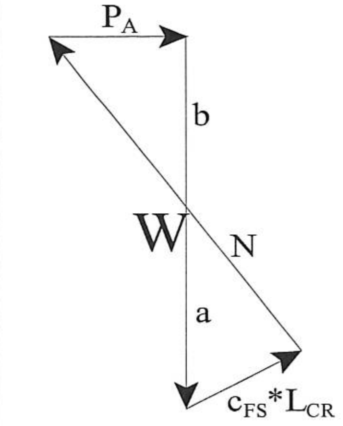
Shoring Design with Level Backfill
(Vector Analysis)

Input:

Shoring Height	(H)	20.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	22.0 degrees
Cohesion of Retained Soils	(c)	165.0 psf
Factor of Safety	(FS)	1.25
		28
Factored Parameters:	(ϕ_{FS})	17.9 degrees
	(c_{FS})	132.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) $feet^2$	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	5.5	320	39978.2	28.9	17344.9	22633.3	4847.2
31	5.2	311	38819.5	28.8	15963.7	22855.8	5313.7
32	4.9	301	37638.4	28.6	14734.9	22903.5	5747.9
33	4.6	292	36457.7	28.3	13641.2	22816.6	6151.3
34	4.4	282	35291.5	27.9	12665.7	22625.7	6525.5
35	4.2	273	34148.2	27.6	11793.7	22354.5	6872.1
36	4.0	264	33032.9	27.2	11011.8	22021.2	7192.6
37	3.8	256	31948.4	26.8	10308.6	21639.8	7488.4
38	3.7	247	30895.9	26.5	9674.4	21221.5	7761.0
39	3.6	239	29875.8	26.1	9100.7	20775.0	8011.5
40	3.5	231	28887.5	25.7	8580.2	20307.3	8241.0
41	3.4	223	27930.4	25.3	8106.6	19823.8	8450.7
42	3.3	216	27003.5	24.9	7674.6	19328.9	8641.4
43	3.2	209	26105.5	24.6	7279.5	18826.0	8814.0
44	3.2	202	25235.2	24.2	6917.3	18318.0	8969.2
45	3.1	195	24391.3	23.9	6584.3	17807.0	9107.6
46	3.1	189	23572.6	23.5	6277.7	17294.9	9230.0
47	3.0	182	22777.6	23.2	5994.6	16783.0	9336.7
48	3.0	176	22005.2	22.9	5732.8	16272.4	9428.3
49	3.0	170	21254.2	22.6	5490.1	15764.1	9505.0
50	2.9	164	20523.4	22.3	5264.7	15258.6	9567.3
51	2.9	158	19811.7	22.0	5055.1	14756.6	9615.3
52	2.9	153	19118.1	21.7	4859.7	14258.4	9649.3
53	2.9	148	18441.5	21.4	4677.2	13764.3	9669.5
54	2.9	142	17781.1	21.1	4506.5	13274.6	9675.7
55	2.9	137	17135.9	20.9	4346.6	12789.2	9668.2



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\,max}$ 9675.7 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$

EFP 48.4 pcf

Design Shoring for an Equivalent Fluid Pressure: 48 pcf

Geotechnologies, Inc.

Project: 2111 Sunset, LLC
File No.: 21155
Description: Daylighted Bedding

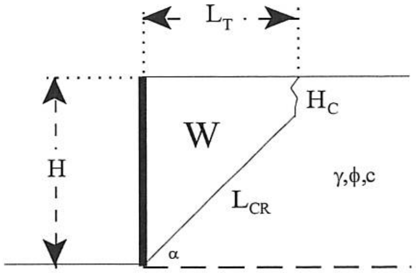
Shoring Design with Level Backfill
(Vector Analysis)

Input:

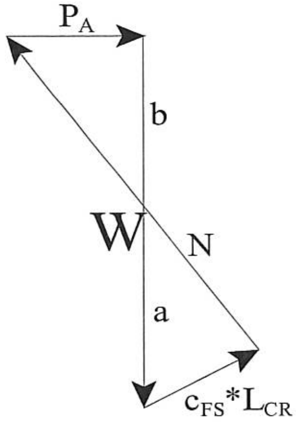
Shoring Height	(H)	30.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	22.0 degrees
Cohesion of Retained Soils	(c)	165.0 psf
Factor of Safety	(FS)	1.25

28

Factored Parameters:	(ϕ_{FS})	17.9 degrees
	(c_{FS})	132.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) feet^2	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	5.5	753	94104.8	48.9	29340.4	64764.4	13870.2
31	5.2	727	90828.3	48.2	26733.0	64095.3	14901.4
32	4.9	701	87648.9	47.4	24472.3	63176.6	15854.9
33	4.6	677	84578.5	46.6	22500.6	62077.9	16736.0
34	4.4	653	81621.5	45.8	20771.2	60850.4	17549.8
35	4.2	630	78777.8	45.0	19246.0	59531.8	18300.8
36	4.0	608	76044.9	44.2	17894.3	58150.6	18993.2
37	3.8	587	73418.6	43.5	16690.6	56727.9	19630.6
38	3.7	567	70894.1	42.7	15614.3	55279.9	20216.5
39	3.6	548	68466.3	42.0	14647.8	53818.5	20754.0
40	3.5	529	66129.8	41.2	13776.6	52353.2	21245.7
41	3.4	511	63879.5	40.6	12988.7	50890.7	21694.2
42	3.3	494	61710.1	39.9	12273.8	49436.4	22101.6
43	3.2	477	59617.0	39.2	11623.0	47994.1	22469.9
44	3.2	461	57595.6	38.6	11028.9	46566.6	22800.7
45	3.1	445	55641.3	38.0	10485.2	45156.2	23095.7
46	3.1	430	53750.3	37.4	9986.2	43764.1	23356.2
47	3.0	415	51918.7	36.9	9527.2	42391.4	23583.2
48	3.0	401	50142.8	36.3	9104.1	41038.7	23777.9
49	3.0	387	48419.4	35.8	8713.2	39706.2	23941.1
50	2.9	374	46745.2	35.3	8351.2	38394.0	24073.4
51	2.9	361	45117.4	34.8	8015.5	37101.9	24175.4
52	2.9	348	43533.2	34.4	7703.6	35829.7	24247.7
53	2.9	336	41990.1	33.9	7413.1	34577.0	24290.4
54	2.9	324	40485.5	33.5	7142.3	33343.3	24303.7
55	2.9	312	39017.4	33.1	6889.3	32128.1	24287.8



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\ max}$ 24303.7 | lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$

EFP 54.0 pcf

Design Shoring for an Equivalent Fluid Pressure: 54 pcf

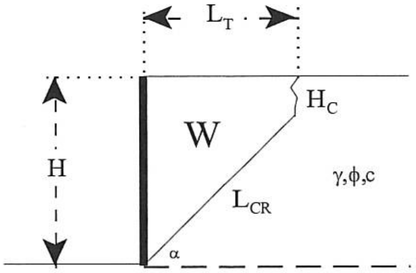
Geotechnologies, Inc.

Project: 2111 Sunset, LLC
File No.: 21155
Description: Daylighted Bedding

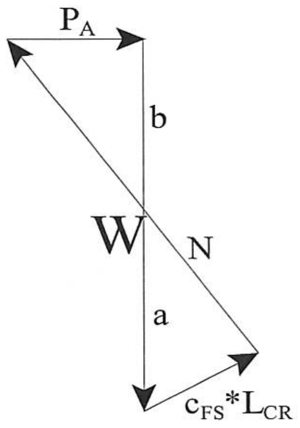
Shoring Design with Level Backfill
(Vector Analysis)

Input:

Shoring Height	(H)	40.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	22.0 degrees
Cohesion of Retained Soils	(c)	165.0 psf
Factor of Safety	(FS)	1.25
		28
Factored Parameters:	(ϕ_{FS})	17.9 degrees
	(c_{FS})	132.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) feet^2	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	5.5	1359	169882.0	68.9	41335.9	128546.1	27529.9
31	5.2	1309	163640.5	67.6	37502.3	126138.2	29325.6
32	4.9	1261	157663.5	66.3	34209.7	123453.8	30982.1
33	4.6	1216	151947.6	65.0	31360.1	120587.5	32510.1
34	4.4	1172	146483.5	63.7	28876.6	117607.0	33919.0
35	4.2	1130	141259.3	62.5	26698.3	114561.0	35217.5
36	4.0	1090	136261.6	61.2	24776.8	111484.8	36413.2
37	3.8	1052	131476.8	60.1	23072.7	108404.1	37513.0
38	3.7	1015	126891.6	58.9	21554.1	105337.5	38523.2
39	3.6	980	122493.0	57.9	20194.8	102298.3	39449.2
40	3.5	946	118269.0	56.8	18973.1	99296.0	40295.8
41	3.4	914	114208.1	55.8	17870.8	96337.2	41067.6
42	3.3	882	110299.4	54.8	16872.9	93426.5	41768.4
43	3.2	852	106533.2	53.9	15966.5	90566.7	42401.6
44	3.2	823	102900.0	53.0	15140.6	87759.4	42970.3
45	3.1	795	99391.3	52.2	14386.0	85005.3	43477.1
46	3.1	768	95999.2	51.3	13694.7	82304.5	43924.5
47	3.0	742	92716.2	50.5	13059.8	79656.4	44314.5
48	3.0	716	89535.5	49.8	12475.4	77060.1	44648.7
49	3.0	692	86450.7	49.1	11936.2	74514.4	44928.8
50	2.9	668	83455.8	48.4	11437.7	72018.1	45156.0
51	2.9	644	80545.5	47.7	10976.0	69569.5	45331.2
52	2.9	622	77714.5	47.1	10547.5	67167.0	45455.1
53	2.9	600	74958.1	46.4	10149.0	64809.0	45528.4
54	2.9	578	72271.8	45.9	9778.0	62493.8	45551.3
55	2.9	557	69651.4	45.3	9431.9	60219.5	45524.0



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$
$b = W-a$
$P_A = b*\tan(\alpha-\phi_{FS})$
$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\ max}$ 45551.3 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$
EFP 56.9 pcf

Design Shoring for an Equivalent Fluid Pressure: 57 pcf

Geotechnologies, Inc.

Project: 2111 Sunset, LLC
File No.: 21155
Description: Daylighted Bedding

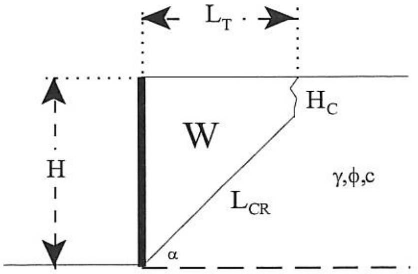
Shoring Design with Level Backfill
(Vector Analysis)

Input:

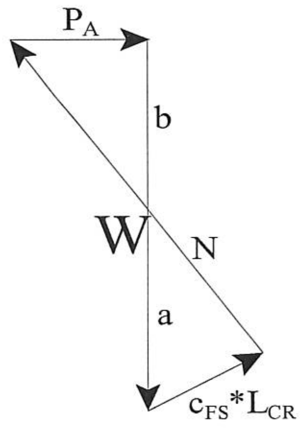
Shoring Height	(H)	50.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	22.0 degrees
Cohesion of Retained Soils	(c)	165.0 psf
Factor of Safety	(FS)	1.25

28

Factored Parameters:	(ϕ_{FS})	17.9 degrees
	(c_{FS})	132.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) $feet^2$	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	5.5	2138	267309.9	88.9	53331.4	213978.5	45826.4
31	5.2	2058	257256.2	87.0	48271.6	208984.6	48586.4
32	4.9	1981	247682.3	85.2	43947.1	203735.2	51129.7
33	4.6	1909	238565.0	83.4	40219.6	198345.4	53473.4
34	4.4	1839	229877.6	81.6	36982.0	192895.6	55633.0
35	4.2	1773	221592.6	79.9	34150.7	187442.0	57622.0
36	4.0	1709	213683.1	78.3	31659.3	182023.8	59452.6
37	3.8	1649	206123.1	76.7	29454.7	176668.4	61135.8
38	3.7	1591	198888.3	75.2	27493.9	171394.4	62681.0
39	3.6	1536	191956.0	73.7	25741.8	166214.2	64097.0
40	3.5	1482	185305.2	72.4	24169.5	161135.7	65391.4
41	3.4	1431	178916.3	71.0	22752.9	156163.4	66570.9
42	3.3	1382	172771.4	69.8	21472.0	151299.4	67641.7
43	3.2	1335	166853.9	68.6	20309.9	146544.0	68609.0
44	3.2	1289	161148.6	67.4	19252.2	141896.3	69477.7
45	3.1	1245	155641.3	66.3	18286.8	137354.5	70251.8
46	3.1	1203	150319.2	65.2	17403.2	132916.0	70935.0
47	3.0	1161	145170.2	64.2	16592.5	128577.7	71530.4
48	3.0	1121	140183.2	63.3	15846.7	124336.5	72040.8
49	3.0	1083	135348.0	62.3	15159.3	120188.8	72468.4
50	2.9	1045	130655.2	61.4	14524.2	116130.9	72815.1
51	2.9	1009	126095.8	60.6	13936.4	112159.4	73082.5
52	2.9	973	121661.8	59.8	13391.4	108270.4	73271.8
53	2.9	939	117345.5	59.0	12885.0	104460.5	73383.6
54	2.9	905	113139.8	58.2	12413.8	100726.0	73418.6
55	2.9	872	109038.1	57.5	11974.6	97063.6	73376.9



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\ max}$ 73418.6 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$

EFP 58.7 pcf

Design Shoring for an Equivalent Fluid Pressure: 59 pcf

Geotechnologies, Inc.

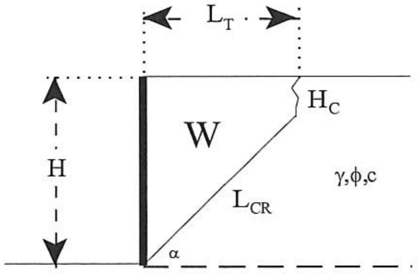
Project: 2111 Sunset, LLC
File No.: 21155
Description: Daylighted Bedding

Shoring Design with Level Backfill
(Vector Analysis)

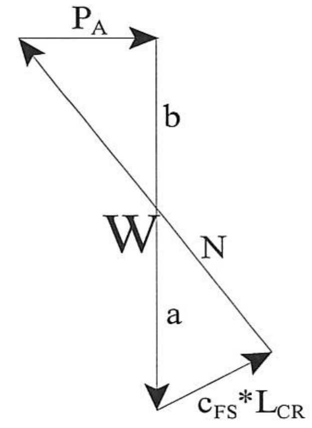
Input:

Shoring Height	(H)	60.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	22.0 degrees
Cohesion of Retained Soils	(c)	165.0 psf
Factor of Safety	(FS)	1.25
Factored Parameters:	(ϕ_{FS})	17.9 degrees
	(c_{FS})	132.0 psf

28



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) feet^2	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	5.5	3091	386388.4	108.9	65326.9	321061.4	68759.7
31	5.2	2973	371675.4	106.4	59040.9	312634.5	72683.8
32	4.9	2862	357705.3	104.0	53684.5	304020.8	76297.5
33	4.6	2755	344430.7	101.7	49079.0	295351.7	79626.1
34	4.4	2654	331803.7	99.5	45087.4	286716.3	82691.8
35	4.2	2558	319777.8	97.3	41603.0	278174.8	85514.4
36	4.0	2466	308309.3	95.3	38541.8	269767.6	88111.5
37	3.8	2379	297357.4	93.3	35836.7	261520.7	90498.7
38	3.7	2295	286884.3	91.4	33433.7	253450.6	92689.9
39	3.6	2215	276855.2	89.6	31288.8	245566.4	94697.5
40	3.5	2138	267238.2	87.9	29365.9	237872.3	96532.3
41	3.4	2064	258004.1	86.3	27635.0	230369.1	98204.1
42	3.3	1993	249126.0	84.7	26071.2	223054.8	99721.6
43	3.2	1925	240579.3	83.2	24653.4	215925.9	101092.3
44	3.2	1859	232341.3	81.8	23363.9	208977.4	102323.1
45	3.1	1795	224391.3	80.4	22187.7	202203.7	103419.8
46	3.1	1734	216710.3	79.1	21111.7	195598.6	104387.6
47	3.0	1674	209280.6	77.9	20125.1	189155.5	105231.1
48	3.0	1617	202086.0	76.7	19218.0	182868.0	105954.0
49	3.0	1561	195111.5	75.6	18382.3	176729.2	106559.7
50	2.9	1507	188343.3	74.5	17610.7	170732.5	107050.8
51	2.9	1454	181768.5	73.4	16896.9	164871.6	107429.6
52	2.9	1403	175375.2	72.4	16235.3	159139.9	107697.5
53	2.9	1353	169152.3	71.5	15620.9	153531.4	107856.0
54	2.9	1305	163089.6	70.6	15049.5	148040.1	107905.5
55	2.9	1257	157177.4	69.7	14517.2	142660.2	107846.4



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\max}$ 107905.5 | lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$

EFP 59.9 pcf

Design Shoring for an Equivalent Fluid Pressure: 60 pcf

Geotechnologies, Inc.

Project: 2111 Sunset, LLC
File No.: 21155
Description: Daylighted Bedding

Shoring Design with Level Backfill
(Vector Analysis)

Input:

Shoring Height	(H)	70.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	22.0 degrees
Cohesion of Retained Soils	(c)	165.0 psf
Factor of Safety	(FS)	1.25

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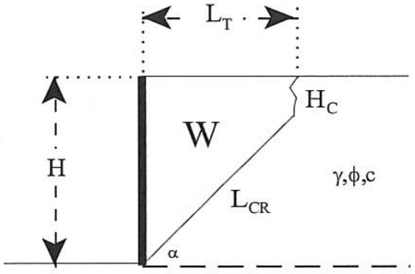
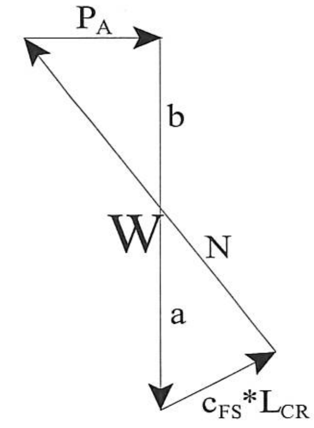
Factored Parameters:	(ϕ_{FS})	17.9 degrees
	(c_{FS})	132.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) feet^2	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	5.5	4217	527117.5	128.9	77322.4	449795.1	96329.8
31	5.2	4055	506898.1	125.9	69810.2	437087.9	101617.7
32	4.9	3902	487732.5	122.9	63421.9	424310.6	106485.6
33	4.6	3756	469544.8	120.1	57938.5	411606.3	110968.0
34	4.4	3618	452261.7	117.4	53192.8	399068.9	115095.4
35	4.2	3487	435814.8	114.8	49055.3	386759.5	118894.7
36	4.0	3361	420140.3	112.3	45424.3	374716.1	122389.8
37	3.8	3241	405179.8	109.9	42218.7	362961.1	125602.0
38	3.7	3127	390879.5	107.7	39373.5	351506.0	128550.0
39	3.6	3018	377190.6	105.5	36835.9	340354.7	131250.6
40	3.5	2913	364068.2	103.5	34562.3	329505.9	133718.6
41	3.4	2812	351471.6	101.5	32517.1	318954.4	135967.2
42	3.3	2715	339363.3	99.7	30670.3	308693.0	138008.0
43	3.2	2622	327709.2	97.9	28996.8	298712.4	139851.3
44	3.2	2532	316478.1	96.2	27475.6	289002.6	141506.3
45	3.1	2445	305641.3	94.6	26088.5	279552.8	142981.0
46	3.1	2361	295172.5	93.0	24820.3	270352.3	144282.4
47	3.0	2280	285047.4	91.6	23657.7	261389.8	145416.5
48	3.0	2202	275243.8	90.2	22589.3	252654.5	146388.5
49	3.0	2126	265741.1	88.8	21605.4	244135.7	147202.8
50	2.9	2052	256520.1	87.5	20697.2	235822.9	147863.1
51	2.9	1981	247563.4	86.3	19857.4	227706.1	148372.2
52	2.9	1911	238854.6	85.1	19079.2	219775.5	148732.5
53	2.9	1843	230378.6	84.0	18356.8	212021.8	148945.5
54	2.9	1777	222121.2	82.9	17685.2	204435.9	149012.1
55	2.9	1713	214069.2	81.9	17059.8	197009.4	148932.6



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$
$b = W-a$
$P_A = b*\tan(\alpha-\phi_{FS})$
$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\ max}$ 149012.1 | lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$
EFP 60.8 pcf

Design Shoring for an Equivalent Fluid Pressure: 61 pcf

Geotechnologies, Inc.

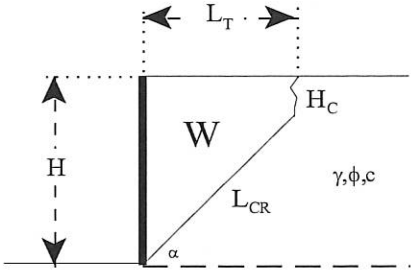
Project: 2111 Sunset, LLC
File No.: 21155
Description: Daylighted Bedding

Shoring Design with Level Backfill
(Vector Analysis)

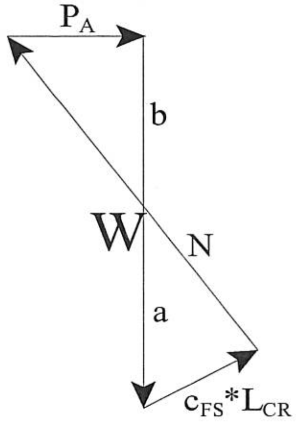
Input:

Shoring Height	(H)	80.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	22.0 degrees
Cohesion of Retained Soils	(c)	165.0 psf
Factor of Safety	(FS)	1.25
Factored Parameters:	(ϕ_{FS})	17.9 degrees
	(c_{FS})	132.0 psf

28



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) $feet^2$	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	5.5	5516	689497.3	148.9	89318.0	600179.3	128536.7
31	5.2	5303	662924.3	145.3	80579.5	582344.8	135388.2
32	4.9	5102	637763.9	141.8	73159.3	564604.6	141694.0
33	4.6	4911	613907.1	138.4	66798.0	547109.1	147499.3
34	4.4	4730	591251.8	135.2	61298.2	529953.6	152843.8
35	4.2	4558	569703.7	132.2	56507.7	513196.0	157762.8
36	4.0	4393	549176.2	129.3	52306.8	496869.4	162287.5
37	3.8	4237	529590.2	126.5	48600.7	480989.5	166445.5
38	3.7	4087	510874.1	123.9	45313.3	465560.7	170261.2
39	3.6	3944	492962.2	121.4	42382.9	450579.3	173756.4
40	3.5	3806	475795.1	119.0	39758.8	436036.3	176950.3
41	3.4	3675	459318.6	116.8	37399.2	421919.4	179860.1
42	3.3	3548	443483.2	114.6	35269.4	408213.8	182500.9
43	3.2	3426	428243.8	112.6	33340.3	394903.5	184886.1
44	3.2	3308	413559.1	110.6	31587.2	381971.9	187027.6
45	3.1	3195	399391.3	108.7	29989.3	369402.0	188935.6
46	3.1	3086	385705.8	106.9	28528.8	357177.1	190619.3
47	3.0	2980	372470.7	105.2	27190.3	345280.5	192086.6
48	3.0	2877	359656.7	103.6	25960.7	333696.0	193344.1
49	3.0	2778	347236.7	102.1	24828.5	322408.2	194397.6
50	2.9	2681	335185.7	100.6	23783.7	311402.0	195251.8
51	2.9	2588	323480.7	99.2	22817.8	300662.9	195910.5
52	2.9	2497	312100.2	97.8	21923.1	290177.1	196376.6
53	2.9	2408	301024.3	96.5	21092.8	279931.5	196652.2
54	2.9	2322	290234.5	95.3	20321.0	269913.6	196738.3
55	2.9	2238	279713.7	94.1	19602.5	260111.2	196635.5



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\ max}$ 196738.3 | lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$

EFP 61.5 pcf

Design Shoring for an Equivalent Fluid Pressure: 62 pcf

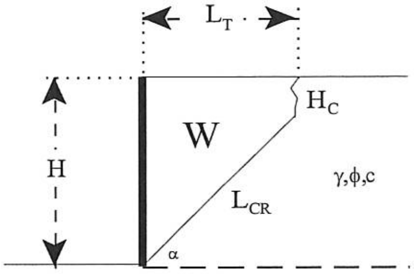
Geotechnologies, Inc.

Project: 2111 Sunset, LLC
File No.: 21155
Description: Daylighted Bedding

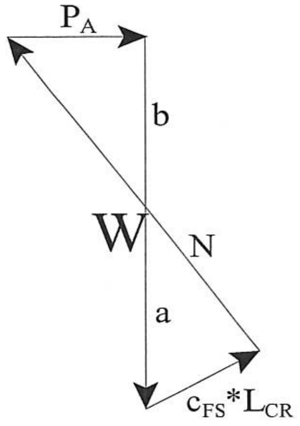
Shoring Design with Level Backfill
(Vector Analysis)

Input:

Shoring Height	(H)	90.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	22.0 degrees
Cohesion of Retained Soils	(c)	165.0 psf
Factor of Safety	(FS)	1.25
		28
Factored Parameters:	(ϕ_{FS})	17.9 degrees
	(c_{FS})	132.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) $feet^2$	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	5.5	6988	873527.7	168.9	101313.5	772214.2	165380.3
31	5.2	6718	839754.0	164.7	91348.8	748405.2	173995.2
32	4.9	6462	807799.4	160.7	82896.7	724902.7	181922.7
33	4.6	6220	777517.8	156.8	75657.4	701860.3	189219.8
34	4.4	5990	748773.9	153.1	69403.7	679370.3	195937.0
35	4.2	5772	721444.4	149.6	63960.0	657484.4	202118.9
36	4.0	5563	695416.7	146.3	59189.3	636227.5	207804.7
37	3.8	5365	670588.7	143.2	54982.7	615606.0	213029.3
38	3.7	5175	646867.9	140.2	51253.2	595614.7	217823.5
39	3.6	4993	624170.0	137.3	47929.9	576240.1	222214.8
40	3.5	4819	602418.9	134.6	44955.2	557463.7	226227.4
41	3.4	4652	581545.2	132.0	42281.3	539263.9	229883.0
42	3.3	4492	561485.8	129.6	39868.6	521617.2	233200.4
43	3.2	4337	542183.0	127.2	37683.8	504499.2	236196.7
44	3.2	4189	523584.2	125.0	35698.9	487885.3	238886.7
45	3.1	4045	505641.3	122.9	33890.2	471751.2	241283.4
46	3.1	3906	488310.3	120.8	32237.3	456073.0	243398.4
47	3.0	3772	471550.5	118.9	30722.9	440827.6	245241.4
48	3.0	3643	455324.6	117.1	29332.0	425992.7	246820.9
49	3.0	3517	439598.4	115.3	28051.5	411546.9	248144.2
50	2.9	3395	424340.1	113.6	26870.2	397469.8	249217.1
51	2.9	3276	409520.2	112.0	25778.3	383742.0	250044.5
52	2.9	3161	395111.8	110.5	24767.0	370344.8	250629.9
53	2.9	3049	381089.4	109.1	23828.7	357260.7	250976.0
54	2.9	2939	367429.7	107.7	22956.7	344473.0	251084.2
55	2.9	2833	354110.7	106.3	22145.1	331965.6	250955.1



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$
$b = W-a$
$P_A = b*\tan(\alpha-\phi_{FS})$
$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\,max}$ 251084.2 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$
EFP 62.0 pcf

Design Shoring for an Equivalent Fluid Pressure: 62 pcf

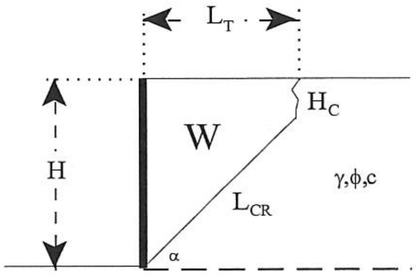
Geotechnologies, Inc.

Project: 2111 Sunset, LLC
File No.: 21155
Description: Oblique Bedding

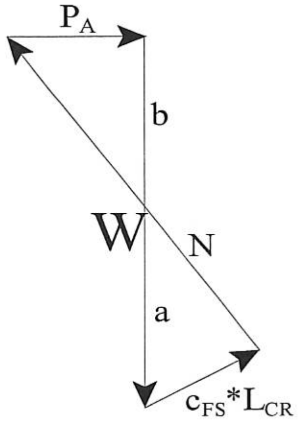
Shoring Design with Level Backfill (Vector Analysis)

Input:

Shoring Height	(H)	20.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	32.0 degrees
Cohesion of Retained Soils	(c)	200.0 psf
Factor of Safety	(FS)	1.25
		28
Factored Parameters:	(ϕ_{FS})	26.6 degrees
	(c_{FS})	160.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) $feet^2$	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
30	22.0	-74	-9257.1	-4.1	-9705.1	448.0	0.0
31	17.3	85	10638.4	5.3	9854.5	783.9	60.9
32	14.2	158	19722.6	10.9	16405.7	3317.0	315.9
33	12.2	194	24238.4	14.4	18340.5	5897.9	665.7
34	10.7	212	26523.5	16.7	18449.9	8073.6	1054.3
35	9.5	221	27609.0	18.3	17811.2	9797.8	1453.8
36	8.6	224	28004.7	19.3	16881.2	11123.5	1849.4
37	7.9	224	27984.6	20.1	15864.6	12120.1	2233.1
38	7.3	222	27705.7	20.6	14854.8	12850.9	2600.5
39	6.8	218	27262.4	20.9	13893.9	13368.5	2949.0
40	6.4	214	26713.9	21.1	12998.8	13715.1	3277.4
41	6.1	209	26098.2	21.2	12174.1	13924.1	3585.4
42	5.8	204	25440.7	21.2	11418.5	14022.2	3872.8
43	5.5	198	24758.4	21.2	10728.1	14030.3	4139.9
44	5.3	193	24062.9	21.1	10097.7	13965.2	4387.1
45	5.1	187	23362.3	21.0	9521.9	13840.4	4614.7
46	5.0	181	22662.0	20.9	8995.4	13666.7	4823.5
47	4.8	176	21966.0	20.8	8513.2	13452.8	5013.7
48	4.7	170	21277.0	20.6	8070.9	13206.0	5186.0
49	4.6	165	20596.5	20.4	7664.4	12932.1	5340.7
50	4.5	159	19926.0	20.3	7290.2	12635.8	5478.4
51	4.4	154	19266.0	20.1	6944.8	12321.2	5599.5
52	4.3	149	18617.0	19.9	6625.5	11991.5	5704.2
53	4.3	144	17979.1	19.7	6329.6	11649.4	5792.9
54	4.2	139	17352.2	19.5	6055.0	11297.2	5865.9
55	4.2	134	16736.4	19.3	5799.5	10936.9	5923.3



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A, max}$ 5923.3 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$

EFP 29.6 pcf

Design Shoring for an Equivalent Fluid Pressure: 30 pcf

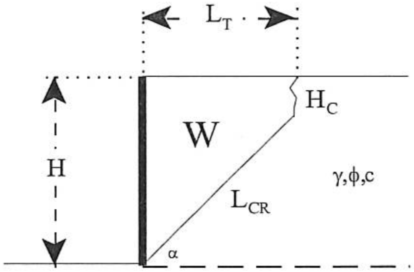
Geotechnologies, Inc.

Project: 1111 Sunset Blvd., LLC
File No.: 21155
Description: ~~Shoring Walls up to 30 feet~~ — oblique Bedding

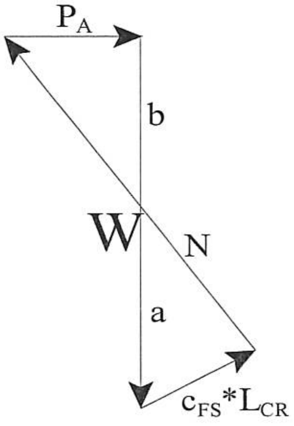
Shoring Design with Level Backfill
(Vector Analysis)

Input:

Shoring Height	(H)	30.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	32.0 degrees
Cohesion of Retained Soils	(c)	200.0 psf
Factor of Safety	(FS)	1.25
Factored Parameters:	(ϕ_{FS})	26.6 degrees
	(c_{FS})	160.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) $feet^2$	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
45	5.1	437	54612.3	35.2	15920.6	38691.7	12900.8
46	5.0	423	52839.8	34.8	14973.2	37866.6	13364.5
47	4.8	409	51107.1	34.4	14116.6	36990.5	13785.9
48	4.7	395	49414.6	34.1	13339.5	36075.1	14166.5
49	4.6	382	47761.8	33.7	12632.3	35129.5	14507.8
50	4.5	369	46147.9	33.3	11986.7	34161.1	14811.0
51	4.4	357	44571.8	32.9	11395.8	33176.0	15077.0
52	4.3	344	43032.1	32.6	10853.4	32178.8	15307.0
53	4.3	332	41527.6	32.2	10354.3	31173.4	15501.6
54	4.2	320	40056.7	31.9	9893.8	30162.9	15661.5
55	4.2	309	38617.8	31.5	9468.1	29149.8	15787.4
56	4.2	298	37209.6	31.2	9073.5	28136.0	15879.6
57	4.1	287	35830.4	30.8	8707.1	27123.3	15938.5
58	4.1	276	34478.8	30.5	8366.0	26112.9	15964.2
59	4.1	265	33153.5	30.2	8047.8	25105.7	15957.0
60	4.2	255	31852.9	29.8	7750.4	24102.5	15916.7
61	4.2	245	30575.8	29.5	7471.9	23103.9	15843.1
62	4.2	235	29320.8	29.2	7210.4	22110.5	15736.2
63	4.2	225	28086.7	28.9	6964.4	21122.4	15595.4
64	4.3	215	26872.3	28.6	6732.4	20139.9	15420.3
65	4.4	205	25676.4	28.3	6513.1	19163.2	15210.3
66	4.4	196	24497.8	28.0	6305.4	18192.4	14964.5
67	4.5	187	23335.3	27.7	6107.9	17227.4	14682.3
68	4.6	178	22188.0	27.4	5919.7	16268.3	14362.5
69	4.7	168	21054.6	27.1	5739.5	15315.1	14004.1
70	4.9	159	19934.2	26.7	5566.6	14367.6	13605.7



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\max}$ 15964.23 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$

EFP 35.5 pcf

Design Shoring for an Equivalent Fluid Pressure: 36 pcf

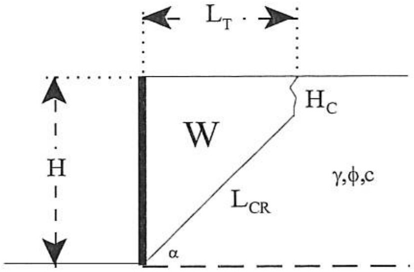
Geotechnologies, Inc.

Project: 1111 Sunset Blvd., LLC
File No.: 21155
Description: ~~Shoring Walls up to 40 feet~~ Bedrock, Oblique Bedding

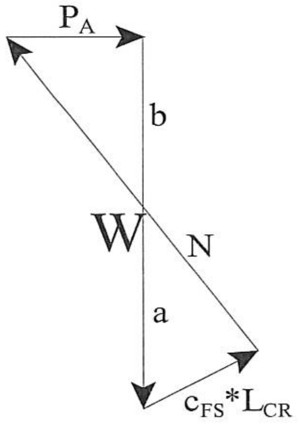
Shoring Design with Level Backfill
(Vector Analysis)

Input:

Shoring Height	(H)	40.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	32.0 degrees
Cohesion of Retained Soils	(c)	200.0 psf
Factor of Safety	(FS)	1.25
Factored Parameters:	(ϕ_{FS})	26.6 degrees
	(c_{FS})	160.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) $feet^2$	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
46	5.0	761	95088.7	48.7	20951.1	74137.6	26165.8
47	4.8	735	91904.7	48.1	19720.1	72184.6	26902.2
48	4.7	710	88807.3	47.5	18608.1	70199.1	27566.9
49	4.6	686	85793.1	46.9	17600.1	68192.9	28162.4
50	4.5	663	82858.5	46.4	16683.3	66175.2	28691.1
51	4.4	640	79999.8	45.8	15846.8	64153.0	29154.8
52	4.3	618	77213.4	45.3	15081.3	62132.1	29555.3
53	4.3	596	74495.6	44.7	14378.9	60116.7	29894.2
54	4.2	575	71842.9	44.2	13732.7	58110.3	30172.7
55	4.2	554	69251.9	43.7	13136.7	56115.3	30391.7
56	4.2	534	66719.3	43.2	12585.7	54133.6	30552.2
57	4.1	514	64242.0	42.7	12075.3	52166.7	30654.7
58	4.1	495	61816.9	42.3	11601.3	50215.5	30699.5
59	4.1	476	59441.1	41.8	11160.4	48280.7	30686.9
60	4.2	457	57112.0	41.4	10749.3	46362.7	30616.7
61	4.2	439	54826.8	41.0	10365.2	44461.6	30488.8
62	4.2	421	52583.1	40.5	10005.7	42577.4	30302.7
63	4.2	403	50378.5	40.1	9668.5	40710.0	30057.6
64	4.3	386	48210.6	39.7	9351.6	38859.0	29752.7
65	4.4	369	46077.3	39.3	9053.1	37024.2	29386.9
66	4.4	352	43976.5	38.9	8771.4	35205.1	28958.7
67	4.5	335	41906.1	38.5	8504.8	33401.3	28466.7
68	4.6	319	39864.1	38.2	8251.9	31612.2	27908.9
69	4.7	303	37848.7	37.8	8011.2	29837.4	27283.3
70	4.9	287	35857.9	37.4	7781.5	28076.3	26587.4
71	5.0	271	33889.9	37.0	7561.4	26328.4	25818.5



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A, max}$ 30699.51 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$

EFP 38.4 pcf

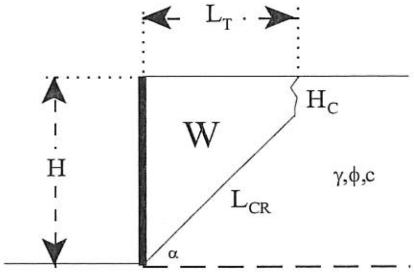
Design Shoring for an Equivalent Fluid Pressure: 39 pcf

Project: 1111 Sunset Blvd., LLC
File No.: 21155
Description: ~~Shoring Walls up to 50 feet~~ Bed rock, Oblique Bedding

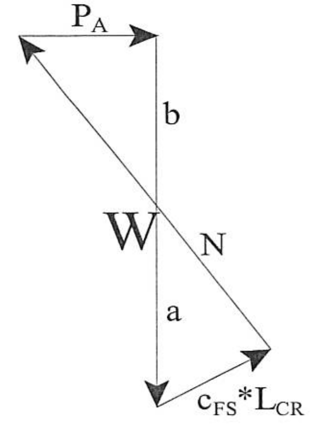
Shoring Design with Level Backfill
(Vector Analysis)

Input:

Shoring Height	(H)	50.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	32.0 degrees
Cohesion of Retained Soils	(c)	200.0 psf
Factor of Safety	(FS)	1.25
Factored Parameters:	(ϕ_{FS})	26.6 degrees
	(c_{FS})	160.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) feet^2	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
45	5.1	1237	154612.3	63.5	28717.9	125894.4	41976.5
46	5.0	1195	149408.7	62.6	26928.9	122479.7	43227.4
47	4.8	1155	144358.7	61.8	25323.5	119035.2	44362.8
48	4.7	1116	139455.0	61.0	23876.7	115578.3	45387.1
49	4.6	1078	134690.4	60.2	22568.0	112122.5	46304.5
50	4.5	1040	130057.8	59.4	21379.9	108677.9	47118.7
51	4.4	1004	125550.2	58.7	20297.8	105252.4	47832.6
52	4.3	969	121160.7	58.0	19309.2	101851.5	48449.3
53	4.3	935	116883.0	57.3	18403.5	98479.5	48970.8
54	4.2	902	112710.9	56.6	17571.5	95139.5	49399.4
55	4.2	869	108638.6	55.9	16805.2	91833.4	49736.5
56	4.2	837	104660.4	55.3	16097.9	88562.5	49983.4
57	4.1	806	100771.2	54.7	15443.5	85327.7	50141.0
58	4.1	776	96965.8	54.1	14836.7	82129.1	50210.0
59	4.1	746	93239.5	53.5	14272.9	78966.6	50190.6
60	4.2	717	89587.9	52.9	13748.1	75839.8	50082.7
61	4.2	688	86006.7	52.4	13258.6	72748.1	49885.8
62	4.2	660	82491.8	51.9	12801.0	69690.7	49599.4
63	4.2	632	79039.3	51.4	12372.7	66666.6	49222.3
64	4.3	605	75645.6	50.9	11970.8	63674.8	48753.0
65	4.4	578	72307.2	50.4	11593.1	60714.0	48189.9
66	4.4	552	69020.6	49.9	11237.4	57783.2	47530.8
67	4.5	526	65782.8	49.4	10901.7	54881.1	46773.2
68	4.6	501	62590.6	48.9	10584.1	52006.5	45914.0
69	4.7	476	59441.0	48.5	10282.9	49158.1	44950.1
70	4.9	451	56331.2	48.0	9996.5	46334.7	43877.5



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$

$b = W-a$

$P_A = b*\tan(\alpha-\phi_{FS})$

$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\ max}$ 50210.01 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$

EFP 40.2 pcf

Design Shoring for an Equivalent Fluid Pressure: 41 pcf

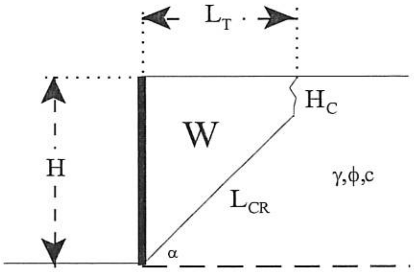
Geotechnologies, Inc.

Project: 1111 Sunset Blvd., LLC
File No.: 21155
Description: ~~Shoring Walls up to 60 feet~~ Bedrock, Oblique Bedding

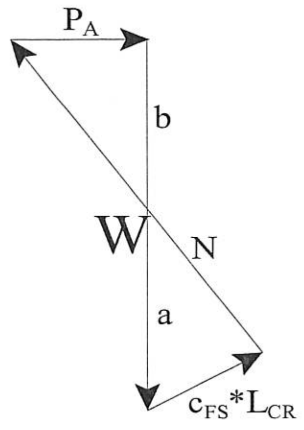
Shoring Design with Level Backfill
(Vector Analysis)

Input:

Shoring Height	(H)	60.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	32.0 degrees
Cohesion of Retained Soils	(c)	200.0 psf
Factor of Safety	(FS)	1.25
Factored Parameters:	(ϕ_{FS})	26.6 degrees
	(c_{FS})	160.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) $feet^2$	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
45	5.1	1787	223362.3	77.6	35116.5	188245.7	62766.1
46	5.0	1726	215799.8	76.5	32906.8	182893.0	64549.4
47	4.8	1668	208469.1	75.5	30926.9	177542.1	66167.5
48	4.7	1611	201357.8	74.4	29145.3	172212.4	67627.1
49	4.6	1556	194453.9	73.4	27535.8	166918.1	68934.1
50	4.5	1502	187745.9	72.5	26076.5	161669.5	70093.8
51	4.4	1450	181222.8	71.5	24748.8	156474.0	71110.7
52	4.3	1399	174874.1	70.6	23537.1	151337.0	71988.8
53	4.3	1350	168689.9	69.8	22428.1	146261.8	72731.5
54	4.2	1301	162660.7	68.9	21410.3	141250.4	73341.6
55	4.2	1254	156777.9	68.1	20473.8	136304.0	73821.5
56	4.2	1208	151032.9	67.3	19610.1	131422.8	74173.1
57	4.1	1163	145417.9	66.6	18811.7	126606.2	74397.5
58	4.1	1119	139925.5	65.9	18072.1	121853.5	74495.7
59	4.1	1076	134548.7	65.2	17385.5	117163.2	74468.1
60	4.2	1034	129280.8	64.5	16746.9	112533.8	74314.4
61	4.2	993	124115.4	63.8	16151.9	107963.5	74034.2
62	4.2	952	119046.8	63.2	15596.4	103450.4	73626.4
63	4.2	913	114069.2	62.6	15076.8	98992.3	73089.5
64	4.3	873	109177.2	62.0	14590.1	94587.1	72421.3
65	4.4	835	104365.8	61.4	14133.1	90232.7	71619.5
66	4.4	797	99630.1	60.8	13703.4	85926.7	70680.8
67	4.5	760	94965.5	60.3	13298.6	81666.9	69601.7
68	4.6	723	90367.4	59.7	12916.3	77451.1	68377.8
69	4.7	687	85831.7	59.2	12554.6	73277.1	67004.4
70	4.9	651	81354.1	58.7	12211.4	69142.7	65475.9



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$
$b = W-a$
$P_A = b*\tan(\alpha-\phi_{FS})$
$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\ max}$ 74495.72 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$
EFP 41.4 pcf

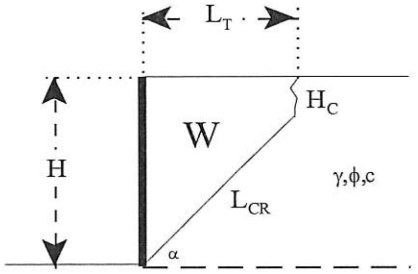
Design Shoring for an Equivalent Fluid Pressure: 42 pcf

Project: 1111 Sunset Blvd., LLC
File No.: 21155
Description: ~~Shoring Walls up to 70 feet~~ Bedrock, Oblique Bedding

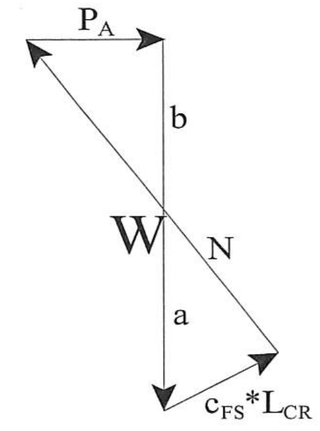
Shoring Design with Level Backfill
(Vector Analysis)

Input:

Shoring Height	(H)	70.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	32.0 degrees
Cohesion of Retained Soils	(c)	200.0 psf
Factor of Safety	(FS)	1.25
Factored Parameters:	(ϕ_{FS})	26.6 degrees
	(c_{FS})	160.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) feet^2	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
45	5.1	2437	304612.3	91.8	41515.2	263097.1	87723.5
46	5.0	2354	294262.0	90.4	38884.7	255377.3	90131.7
47	4.8	2274	284235.9	89.1	36530.4	247705.6	92316.5
48	4.7	2196	274515.6	87.9	34413.9	240101.7	94287.0
49	4.6	2121	265083.4	86.7	32503.7	232579.8	96051.2
50	4.5	2047	255922.8	85.5	30773.0	225149.7	97616.4
51	4.4	1976	247017.8	84.4	29199.8	217818.0	98988.8
52	4.3	1907	238353.6	83.3	27765.0	210588.5	100173.8
53	4.3	1839	229916.1	82.3	26452.7	203463.4	101176.1
54	4.2	1774	221692.3	81.3	25249.1	196443.2	101999.4
55	4.2	1709	213669.7	80.3	24142.4	189527.3	102647.0
56	4.2	1647	205836.7	79.4	23122.3	182714.4	103121.3
57	4.1	1585	198182.3	78.5	22179.9	176002.4	103424.1
58	4.1	1526	190696.2	77.7	21307.4	169388.7	103556.6
59	4.1	1467	183368.6	76.8	20498.1	162870.5	103519.3
60	4.2	1410	176190.5	76.0	19745.8	156444.7	103312.0
61	4.2	1353	169153.0	75.3	19045.3	150107.8	102933.9
62	4.2	1298	162248.2	74.5	18391.7	143856.4	102383.7
63	4.2	1244	155468.1	73.8	17781.0	137687.1	101659.2
64	4.3	1190	148805.5	73.1	17209.3	131596.2	100757.6
65	4.4	1138	142253.3	72.4	16673.1	125580.2	99675.5
66	4.4	1086	135804.9	71.8	16169.5	119635.5	98408.7
67	4.5	1036	129454.0	71.1	15695.5	113758.6	96952.3
68	4.6	986	123194.5	70.5	15248.5	107946.0	95300.3
69	4.7	936	117020.6	69.9	14826.3	102194.4	93446.3
70	4.9	887	110926.7	69.3	14426.4	96500.3	91382.7



Design Equations (Vector Analysis):

$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$
$b = W-a$
$P_A = b*\tan(\alpha-\phi_{FS})$
$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\ max}$ 103557 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$
EFP 42.3 pcf

Design Shoring for an Equivalent Fluid Pressure: 43 pcf

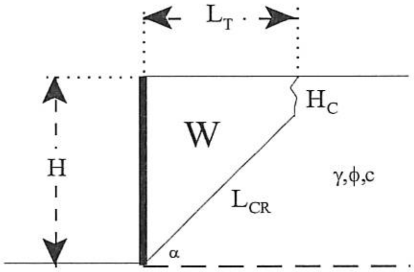
Geotechnologies, Inc.

Project: 1111 Sunset Blvd., LLC
File No.: 21155
Description: ~~Shoring Walls up to 80 feet~~ Bedrock, Oblique Bedding

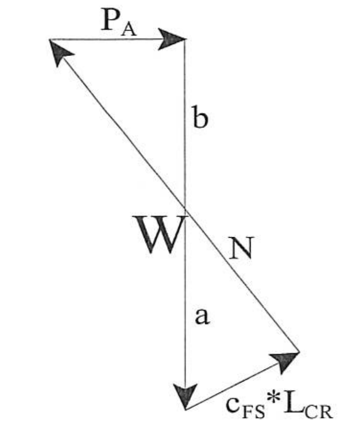
Shoring Design with Level Backfill
(Vector Analysis)

Input:

Shoring Height	(H)	80.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	32.0 degrees
Cohesion of Retained Soils	(c)	200.0 psf
Factor of Safety	(FS)	1.25
Factored Parameters:	(ϕ_{FS})	26.6 degrees
	(c_{FS})	160.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) feet^2	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
46	5.0	3078	384795.3	104.3	44862.5	339932.8	119974.3
47	4.8	2973	371659.2	102.8	42133.8	329525.4	122809.6
48	4.7	2871	358928.5	101.4	39682.5	319245.9	125366.6
49	4.6	2773	346579.1	99.9	37471.5	309107.6	127655.8
50	4.5	2677	334588.4	98.6	35469.6	299118.7	129686.6
51	4.4	2583	322935.0	97.3	33650.8	289284.2	131467.2
52	4.3	2493	311599.1	96.0	31992.9	279606.2	133004.5
53	4.3	2404	300561.8	94.8	30477.3	270084.5	134304.7
54	4.2	2318	289805.7	93.7	29088.0	260717.7	135372.7
55	4.2	2235	279314.2	92.5	27811.0	251503.2	136212.8
56	4.2	2153	269071.9	91.5	26634.5	242437.4	136828.1
57	4.1	2073	259064.3	90.4	25548.1	233516.1	137220.9
58	4.1	1994	249277.7	89.4	24542.8	224734.9	137392.8
59	4.1	1918	239699.3	88.5	23610.6	216088.7	137344.4
60	4.2	1843	230317.0	87.6	22744.6	207572.4	137075.4
61	4.2	1769	221119.5	86.7	21938.6	199180.9	136585.0
62	4.2	1697	212095.9	85.8	21187.1	190908.9	135871.2
63	4.2	1626	203236.1	85.0	20485.2	182751.0	134931.4
64	4.3	1556	194530.4	84.2	19828.5	174701.9	133761.8
65	4.4	1488	185969.6	83.5	19213.1	166756.5	132358.0
66	4.4	1420	177545.1	82.7	18635.5	158909.6	130714.5
67	4.5	1354	169248.5	82.0	18092.4	151156.2	128824.9
68	4.6	1289	161072.0	81.3	17580.8	143491.2	126681.5
69	4.7	1224	153007.9	80.6	17097.9	135909.9	124275.8
70	4.9	1160	145048.9	80.0	16641.4	128407.5	121597.8
71	5.0	1098	137188.1	79.3	16208.6	120979.5	118636.4



Design Equations (Vector Analysis):
$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$
$b = W-a$
$P_A = b*\tan(\alpha-\phi_{FS})$
$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\,max}$ 137393 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$

EFP 42.9 pcf

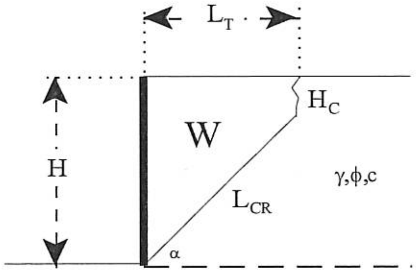
Design Shoring for an Equivalent Fluid Pressure: **43 pcf**

Geotechnologies, Inc.

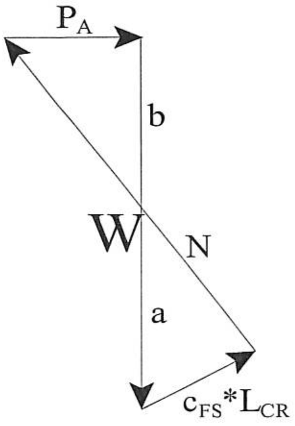
Project: 1111 Sunset Blvd., LLC
File No.: 21155
Description: ~~Shoring Walls up to 90 feet~~ — Bedrock, Oblique Bedding

Shoring Design with Level Backfill
(Vector Analysis)

Input:		
Shoring Height	(H)	90.00 feet
Unit Weight of Retained Soils	(γ)	125.0 pcf
Friction Angle of Retained Soils	(ϕ)	32.0 degrees
Cohesion of Retained Soils	(c)	200.0 psf
Factor of Safety	(FS)	1.25
Factored Parameters:	(ϕ_{FS})	26.6 degrees
	(c_{FS})	160.0 psf



Failure Angle (α) degrees	Height of Tension Crack (H_C) feet	Area of Wedge (A) feet^2	Weight of Wedge (W) lbs/lineal foot	Length of Failure Plane (L_{CR}) feet	a lbs/lineal foot	b lbs/lineal foot	Active Pressure (P_A) lbs/lineal foot
46	5.0	3899	487399.8	118.2	50840.4	436559.4	154077.3
47	4.8	3766	470738.9	116.5	47737.2	423001.7	157647.0
48	4.7	3637	454596.4	114.8	44951.2	409645.3	160866.1
49	4.6	3512	438940.8	113.2	42439.4	396501.4	163747.9
50	4.5	3390	423742.7	111.6	40166.2	383576.5	166304.3
51	4.4	3272	408974.6	110.2	38101.8	370872.8	168545.6
52	4.3	3157	394610.7	108.7	36220.8	358389.8	170480.7
53	4.3	3045	380626.9	107.3	34502.0	346125.0	172117.3
54	4.2	2936	367000.8	106.0	32926.8	334074.0	173461.6
55	4.2	2830	353711.2	104.8	31479.6	322231.7	174519.0
56	4.2	2726	340738.4	103.5	30146.7	310591.7	175293.4
57	4.1	2625	328063.8	102.4	28916.3	299147.5	175787.8
58	4.1	2525	315670.0	101.2	27778.2	287891.9	176004.1
59	4.1	2428	303540.7	100.2	26723.2	276817.5	175943.2
60	4.2	2333	291660.5	99.1	25743.5	265917.0	175604.7
61	4.2	2240	280014.9	98.1	24832.0	255182.9	174987.5
62	4.2	2149	268590.1	97.2	23982.4	244607.6	174089.1
63	4.2	2059	257373.2	96.2	23189.3	234183.9	172906.1
64	4.3	1971	246352.0	95.4	22447.7	223904.3	171434.0
65	4.4	1884	235514.8	94.5	21753.1	213761.7	169667.0
66	4.4	1799	224850.7	93.7	21101.5	203749.2	167598.3
67	4.5	1715	214349.0	92.9	20489.2	193859.8	165219.6
68	4.6	1632	203999.8	92.1	19913.0	184086.8	162521.4
69	4.7	1550	193793.4	91.3	19369.6	174423.8	159492.8
70	4.9	1470	183720.8	90.6	18856.3	164864.4	156121.3
71	5.0	1390	173773.0	89.9	18370.4	155402.5	152392.7



Design Equations (Vector Analysis):
$a = c_{FS}*L_{CR}*\sin(90+\phi_{FS})/\sin(\alpha-\phi_{FS})$
$b = W-a$
$P_A = b*\tan(\alpha-\phi_{FS})$
$EFP = 2*P_A/H^2$

Maximum Active Pressure Resultant

$P_{A,\max}$ 176004 lbs/lineal foot

Equivalent Fluid Pressure (per lineal foot of shoring)

$EFP = 2*P_A/H^2$
EFP 43.5 pcf

Design Shoring for an Equivalent Fluid Pressure: 44 pcf

Geotechnologies, Inc.

Tiebacks Calculations

(Ref: Bowles, 1982)

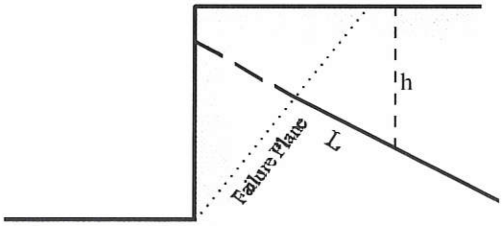
Project: 1111 Sunset Blvd.
File No. 21155

Soil Parameters:			
Weight of Soil	γ	125.00	*lbs/ft³*
Friction Angle	ϕ	32.00	*degrees*
Cohesion	c	200.00	*lbs/ft²*
Tieback Angle	α	40.00	*degrees*
Design Assumptions:			
Diameter of Grout	d	1.00	*feet*
Length of Embeddment	L	20.00	*feet*
Depth to midpoint of Embeddment	h	12.00	*feet*
Earth Pressure Coefficient	K	0.65	
Factor of Safety Applied	F.S.	1.50	
Ultimate Resistance:	R_{ult}	53.91	*kips*

Eq: $pi*d*\gamma*L*h*\cos(a)*\tan(\phi)+c*pi*d*L$

Allowable Resistance:	$R_{allow} = R_{ult}/F.S.$	35.94	*kips*
Allowable Skin Friction:	$R_{allow}/2/pi/r/L$	572.01	*psf*

Allowable Skin Friction Design Value **600** ***psf***



2

Geotechnologies, Inc.

Project: 1111 Sunset Blvd.
File No.: 21155
Description: Slot Cut

Slot Cut Calculation

Input:

Height of Slots	(H)	10.0 feet
Unit Weight of Soils	(γ)	120.0 pcf
Friction Angle of Soils	(ϕ)	32.0 degrees
Cohesion of Soils	(c)	200.0 psf
Factor of Safety	(FS)	1.25

Factor of Safety = Resistance Force/Driving Force

Coefficient of Lateral Earth Pressure At-Rest	K_o	0.5

Surcharge Pressure:

Line Load	(q_L)	3000.0 plf
Distance Away from Edge of Excavation	(X)	0.0 feet

Design Equations

$b = H/(\tan\alpha)$

$A = 0.5*H*b$

$W = 0.5*H*b*\gamma$ *(per lineal foot of slot width)*

$F_1 = d*W*(\sin\alpha)*(\cos\alpha)$

$F_2 = d*L$

$R_1 = d*[W*(\cos^2\alpha)*(\tan\phi)+(c*b)]$

$R_2 = 2*\Delta F$

$\Delta F = A*[1/3*\gamma*H*K_o*(\tan\phi)+c]$

FS = Resistance Force/Driving Force

$FS = (R_1+R_2)/(F_1+F_2)$

Failure Angle (α) degrees	Base Width of Failure Wedge (b) feet	Area of Failure Wedge (A) feet2	Weight of Failure Wedge (W) lbs/lineal foot	**Driving Force** Wedge + Surcharge per lineal foot of Slot Wdith	**Resisting Force** Failure Wedge per lineal foot of Slot Width	**Resisting Force** Side Resistance Force (ΔF) lbs	Allowable Width of Slots* (d) feet
45	10.0	50	6000.0	4500.0	4811.9	16748.6	42.4
46	9.7	48	5794.1	4394.4	4583.1	16173.9	36.4
47	9.3	47	5595.1	4287.1	4363.1	15618.3	32.1
48	9.0	45	5402.4	4178.2	4151.6	15080.5	28.7
49	8.7	43	5215.7	4067.9	3948.2	14559.3	26.1
50	8.4	42	5034.6	3956.3	3752.6	14053.7	24.0
51	8.1	40	4858.7	3843.5	3564.4	13562.7	22.2
52	7.8	39	4687.7	3729.7	3383.4	13085.4	20.8
53	7.5	38	4521.3	3615.0	3209.3	12621.0	19.5
54	7.3	36	4359.3	3499.5	3041.9	12168.6	18.5
55	7.0	35	4201.2	3383.5	2880.8	11727.5	17.6
56	6.7	34	4047.1	3267.0	2726.0	11297.1	16.8
57	6.5	32	3896.4	3150.1	2577.1	10876.7	16.2
58	6.2	31	3749.2	3033.1	2434.0	10465.7	15.6
59	6.0	30	3605.2	2916.0	2296.6	10063.6	15.1
60	5.8	29	3464.1	2799.0	2164.5	9669.8	14.6
61	5.5	28	3325.9	2682.3	2037.7	9283.9	14.3
62	5.3	27	3190.3	2566.0	1916.0	8905.4	13.9
63	5.1	25	3057.2	2450.2	1799.2	8533.8	13.6
64	4.9	24	2926.4	2335.0	1687.1	8168.8	13.4
65	4.7	23	2797.8	2220.7	1579.7	7810.0	13.2
66	4.5	22	2671.4	2107.3	1476.7	7457.0	13.0
67	4.2	21	2546.8	1995.0	1378.1	7109.4	12.9
68	4.0	20	2424.2	1884.0	1283.7	6766.9	12.7
69	3.8	19	2303.2	1774.3	1193.3	6429.2	12.7
70	3.6	18	2183.8	1666.0	1106.9	6096.0	12.6

Critical Slot Width with Factor of Safety equal or exceeding 1.5:

d_{allow} 12.6 feet

The proposed excavation may be made using the A-B-C Slot-Cutting Method with a Maximum Allowable Slot Width of 8 Feet, and up to 10 Feet in Height, with a Factor of Safety Equal or Exceeding 1.25.

Appendix IS-6

Oil Well Report

Geosyntec consultants

2355 Northside Drive, Ste 250
San Diego, CA 92108
PH 858.674.6559
FAX 858.674.6586
www.geosyntec.com

2 March 2018

Brian Falls
1111 Sunset Boulevard, LLC
11766 Wilshire Boulevard, Suite 1150
Los Angeles, California 90025

Subject: **Oil Well Report**
1111 Sunset Boulevard Property
Los Angeles, California

Dear Mr. Falls:

Geosyntec Consultants (Geosyntec) is pleased to submit this letter report (report) summarizing oil well compliance services performed for the 1111 Sunset Boulevard Property in Los Angeles, California (the site; Figure 1). The site includes one approximately 5.27-acre parcel (Los Angeles County Assessor's Parcel No. 5406-020-003) and currently includes a multi-use office building complex of three interconnected buildings comprising a total of approximately 98,000 square feet. The complex was formerly occupied by the Holy Hill Community Church and the Metropolitan Water District of Southern California. Reportedly, previous site structures included an infirmary and associated facilities dating back to the late 1800s; however, remnants of these previous structures no longer remain onsite. Records indicate that the site has also included six historical oil wells (Figure 1); however, pertinent available records are limited.

OBJECTIVE

The objective of the Oil Well Report was to evaluate compliance of oil wells onsite with current California Department of Conservation - Division of Oil, Gas, & Geothermal Resources (DOGGR) regulations, Section 3208 of California Laws for Conservation of Petroleum and Gas [DOGGR, 2014]. Oil wells that will not remain in operation must be abandoned or re-abandoned to current DOGGR standards prior to release of building or grading permits for redevelopment.

SCOPE OF WORK

To evaluate the presence and nature of oil wells at the site, Geosyntec requested site-specific records from the site owner and DOGGR, and reviewed available records on the DOGGR online database. Additionally, an interview was conducted with a DOGGR representative for the Los Angeles City Oil Field, and field reconnaissance was performed to evaluate the potential presence of existing oil well-related surface features at the site.

FINDINGS

The site is located in the Los Angeles City Oil Field (No. 422), an old oil field and one of the first to be discovered in the Los Angeles Basin. The field is east-west trending, and is approximately 18,500 feet long and 1,000 feet wide. The oil-bearing zone is contained in the Puente Formation, a Tertiary interlayered siltstone and sandstone formation. Seeping has been documented to occur at the ground surface within the northern margin of the field, and several hundred wells have been drilled in the field since the 1890s. Additionally, methane and hydrogen sulfide gas (H_2S) are known to be present is the subsurface across the field [Geotechnologies, 2015].

Owner-Provided Records

The site owner provided an historical map of the City Oil Field of Los Angeles, dated 1903, which illustrates eight oil well heads onsite, including five standard oil wells and three well heads noted with multiple completions. The site owner also provided a Street and Section Map of the Los Angeles Oil Fields, dated 1906, which illustrates six oil wells distributed throughout the site similar to the DOGGR records reviewed and described below. Additionally, the site owner provided a report entitled Subsurface Investigation Report, prepared by ADR Environmental Group, dated May 2015. The report indicated that nine soil borings were advanced near assumed buried oil well locations at the site to assess the site for impacts related to former oil production at the site. Results indicated that samples collected from the southeastern portion of the site contained elevated concentrations of petroleum hydrocarbons in soil, and elevated methane in soil vapor. The report concluded that the identified impacts are likely indicative of improperly abandoned oil wells at the site [ADR, 2015].

DOGGR Records Review

Review of the DOGGR online database on 22 January 2016 and 4 February 2018 indicated that six former oil and gas production wells are located in the southern and eastern portions of the site, and numerous historical oil and gas wells are located in the vicinity, predominantly south of the site. The six wells were constructed within the Los Angeles City Oil Field and were formerly operated by Oceanic Oil Company. The wells are listed as “buried/idle.” Additional information was not provided, and available specific well details are below:

- API 03725955 – Oceanic Oil Co., Well # 2
- API 03725954 – Oceanic Oil Co., Well # 3
- API 03725959 – Oceanic Oil Co., Well # 4
- API 03725956 – Oceanic Oil Co., Well # 5
- API 03725957 – Oceanic Oil Co., Well # 6
- API 03725958 – Oceanic Oil Co., Well # 7

Following request of site-specific records, DOGGR indicated that they had no records for the six wells listed above. In an email dated 17 February 2016, DOGGR reported that a gap exists in their records for a range of API numbers which includes the six APIs associated with the site; therefore, well-specific records are not available from DOGGR.

DOGGR Representative Interview

To supplement the gap in DOGGR records Geosyntec conducted an interview on 17 February 2016 with the DOGGR representative for the Los Angeles City oil field, Mr. Barry Irick.

Based on correspondence with DOGGR, the buried wells may not have been abandoned in accordance with current DOGGR standards. Mr. Irick indicated that the wells are very old, and were likely drilled and abandoned prior to the existence of DOGGR (prior to 1915). Further, he explained that, in general, wells in the field relatively shallow (less than 2000 feet) and straight (not directional), and that methods of abandonment are mostly unknown. In the early 1900s, there was very little, if any, regulatory oversight and detailed well records do not exist in many cases. He explained that unknown details for the six wells at the site include casing sizes (if casing was even used), borehole diameter and depth, depths to oil/gas/water zones, and abandonment procedures (if any). Mr. Irick indicated that the DOGGR-plotted well locations and abandonment statuses are questionable, and therefore DOGGR has assigned the site wells the default status “buried/idle” in the database.

Site Reconnaissance

Geosyntec conducted a limited site reconnaissance on 21 January 2016. No indications of oil well-related features were observed at the site.

Conclusions

Based on the available information and communication with DOGGR, six to eight buried wells are located onsite, and are likely non-compliant with current DOGGR abandonment standards. Based on regional experience, DOGGR generally recommends that no structure be placed in a manner that will impede future access to any oil wells. Although the potential exists for the wells to be erroneously plotted at the site by DOGGR, recent soil and soil vapor testing at the site identified concentrations of petroleum hydrocarbons and methane which may be indicative of historical oil production and improperly abandoned oil wells at or near the site.

RECOMMENDATIONS

Based on the findings of this assessment and the recommendations of DOGGR, Geosyntec recommends conducting a surface geophysical survey to locate the wells on the property. If located, the wells should be unearthed and inspected by DOGGR to assess and prescribe abandonment procedures based on their observed condition. Abandonment procedures to be developed in coordination with DOGGR should consider well specifications and the planned methane mitigation system for redevelopment at the site. In the event that wells are not located during a surface geophysical survey, a soil and site management plan should be developed and implemented to address the potential identification and abandonment of the wells if encountered during earthwork activities.

Geosyntec appreciates this opportunity to provide 1111 Sunset Boulevard, LLC this report summarizing the findings of this oil wells evaluation. If you have any questions, please contact us at (858) 674-6559.

Sincerely,

Geosyntec Consultants,

Douglas Baumwirt, PG, CHG
Principal Geologist

Rebecca Oliver, PE
Senior Engineer

Attachments (1):

Figure 1 – Site Layout and Approximate Well Locations

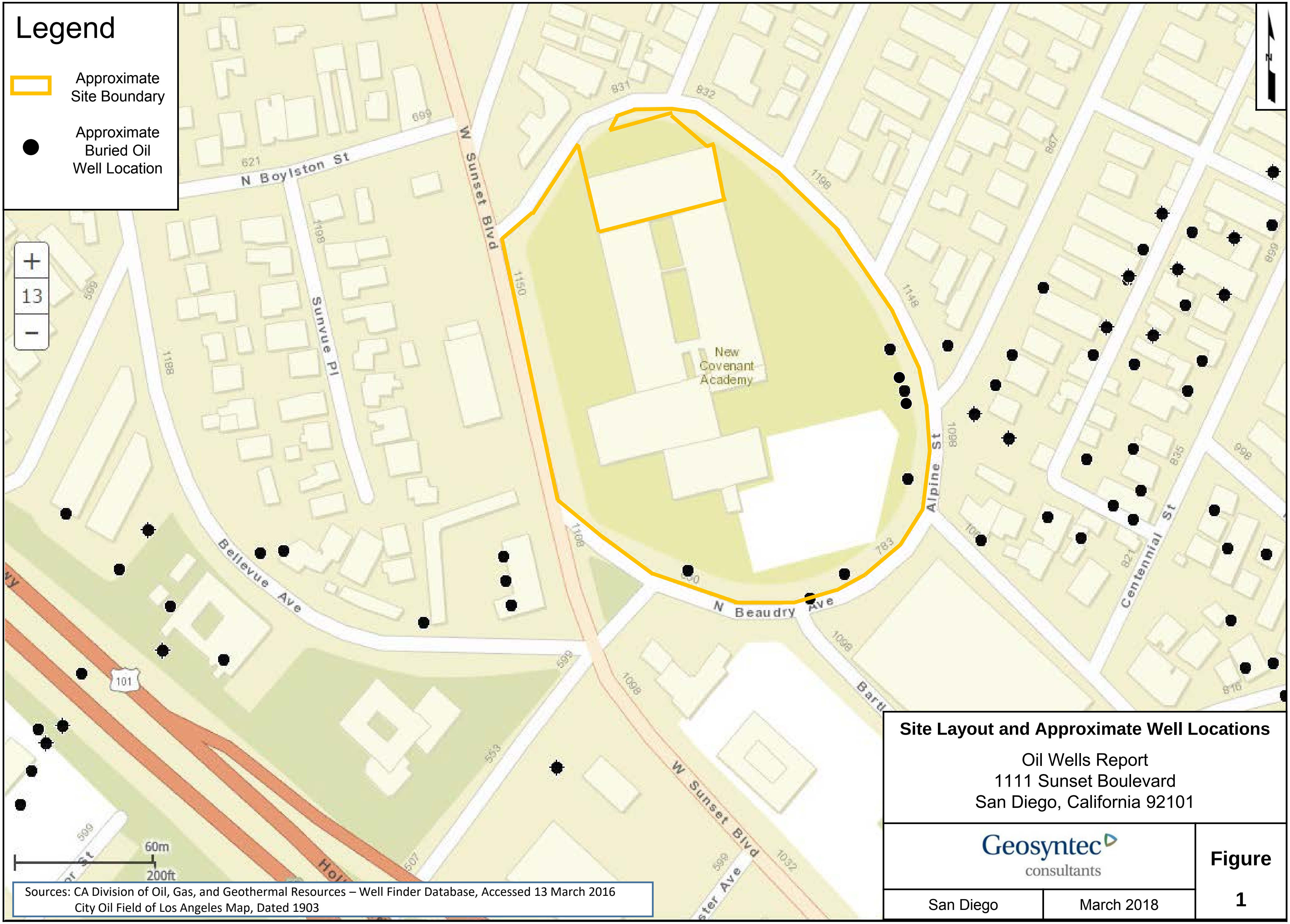
References:

ADR Environmental Group, 2015. Subsurface Investigation Report, 1111 Sunset Boulevard, Los Angeles, California. May 2015.

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, 2014. California Laws for Conservation of Petroleum and Gas, January 2014.

Geotechnologies, Inc., 2015. "Geotechnical Engineering Consultation for EIR, Proposed Mixed Use Development," 1111 Sunset Boulevard, Los Angeles, California, February 2016.

FIGURES



Sources: CA Division of Oil, Gas, and Geothermal Resources – Well Finder Database, Accessed 13 March 2016
City Oil Field of Los Angeles Map, Dated 1903

Site Layout and Approximate Well Locations

Oil Wells Report
1111 Sunset Boulevard
San Diego, California 92101

Geosyntec consultants

San Diego | March 2018

Figure 1

Appendix A.2

Notice of Preparation (NOP)

LOS ANGELES
DEPARTMENT OF CITY
PLANNING
221 North Figueroa St., Suite 1350
Los Angeles, CA 90012

NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING

May 21, 2018

ENVIRONMENTAL CASE NO.:	ENV-2018-177-EIR
PROJECT NAME:	1111 Sunset
PROJECT APPLICANT:	1111 Sunset Boulevard, LLC.
PROJECT ADDRESS:	1111 and 1115 West Sunset Boulevard, Los Angeles, CA 90012
COMMUNITY PLAN AREA:	Central City North
COUNCIL DISTRICT:	1—Gilbert Cedillo
PUBLIC COMMENT PERIOD:	May 21, 2018 – June 20, 2018
SCOPING MEETING:	May 30, 2018, 5:00 p.m. – 7:00 p.m. See below for additional information.

The City of Los Angeles (City) intends to prepare an Environmental Impact Report (EIR) for the proposed 1111 Sunset Project (Project). In accordance with Section 15082 of the California Environmental Quality Act (CEQA) Guidelines, the City has prepared this Notice of Preparation to provide the public, nearby residents and property owners, responsible agencies, and other interested parties with information regarding the Project and its potential environmental effects. The EIR will be prepared by outside consultants under the supervision of the City of Los Angeles, Department of City Planning.

The City requests your written comments as to the scope and contents of the EIR, including mitigation measures or project alternatives to reduce potential environmental impacts from the Project. Comments must be submitted in writing according to directions below. If you represent a public agency, the City seeks written comments as to the scope and content of the environmental information in the EIR that are germane to your agency's statutory responsibilities in connection with the Project. Your agency may need to use the EIR prepared by the City when considering your permit or other approval for the Project.

A Public Scoping Meeting will be held to receive input as to what environmental topics the EIR should study. No decisions about the Project are made at the Public Scoping Meeting. Additional project details, meeting information, and instructions for public comment submittal are listed below.

PROJECT LOCATION AND EXISTING ON-SITE USES: The Project Site is comprised of a 262,437-square-foot lot located at 1111-1115 Sunset Boulevard on the former Metropolitan Water District Headquarters site. A 10,481-square-foot portion of Beaudry Avenue and Sunset Boulevard would be merged with the 1111-1115 Sunset Boulevard lot. The Project Site is located within the Central City North Community Plan Area of the City of Los Angeles, north of Downtown Los Angeles and northwest of Chinatown. The Project Site is generally bounded by White Knoll Drive to the north, Alpine Street to the east, Beaudry Avenue to the south, and Sunset Boulevard to the west. (See attached Project Location Map) The Project Site is currently developed with four vacant structures most recently used as church facilities, the Elysian apartment building, and a traffic island that divides Beaudry Avenue at Sunset Boulevard. The Project Site also includes surface parking and circulation areas.

PROJECT DESCRIPTION: The Project proposes to remove the existing vacant buildings within the Project Site that comprise approximately 114,600 square feet to develop up to 778 residential units (including up to 76 Very-Low Income housing units), up to 98 hotel rooms, up to 48,000 square feet of office space, and up to 95,000 square feet of general commercial floor area in four primary structures (Tower A, Tower B, The Sunset Building, and The Courtyard Building). The proposed general commercial floor area could include up to 20,000 square feet of food and beverage uses associated with a hotel use. The Project would result in 994,982 square feet of floor area. The Project would provide a variety of open space totaling 87,525 square feet, including approximately 81,475 square feet of exterior common area and 6,050 square feet of interior common area, pursuant to the Los Angeles Municipal Code (LAMC). A summary of the existing uses to be removed and the proposed uses is provided in the following tables:

Existing Uses to be Removed

Existing Uses to be Removed	Sizes
Existing Vacant Buildings (formerly used as church facilities)	114,600 sf
Total Existing Uses to be Removed	**114,600 sf**

Proposed Uses

Proposed Uses	Maximum Sizes
Commercial Land Uses	
Hotel	75,000 sf (98 rooms)
Office	48,000 sf
Retail/Restaurant	95,000 sf
Total Commercial	**218,000 sf**
Residential Land Uses	
Residential	776,982 sf (778 units)
Total Residental	**776,982 sf**
Open Space	
Total Open Space	**87,525 sf**

The proposed uses would require 1,631 parking spaces in accordance with the LAMC. An additional 168 parking spaces for the existing Elysian apartment building would be provided within a five-level, partially subterranean parking structure located within the footprint of the proposed Courtyard Building.

The Project would allow a limited amount of exchange of uses if certain uses are reduced or eliminated. In particular, the number of residential units could be up to 827 units if the proposed hotel is not constructed, the number of hotel rooms could be up to 120 rooms with a reduction in the number of residential units to 767 units, and/or the entirety of the proposed office space could be allocated to the residential floor area to provide larger units with no increase in the maximum number of 827 units.

REQUESTED ACTIONS:

1. Pursuant to LAMC Section 12.22-A,25 a 14 percent Density Bonus to provide an additional 95 units in lieu of 683 base units, for a total of 778 units. The Project would set aside 76 units (11 percent) for Very Low Income Households, would utilize parking option 1, and one On-Menu and one Off-Menu incentive:
   - Pursuant to LAMC Section 12.22-A,25(F), an On-Menu Incentive to permit a 35 percent increase in FAR to permit a 4.05 FAR in lieu of 3.0 FAR permitted by the parcel D limitation, zoned C2-2D.
   - Pursuant to LAMC Section 12.22-A,25(G), a Waiver of Development Standard (Off-Menu) to permit a reduction in the building separation requirements as defined by LAMC Section 12.21- C,2(a).
2. Pursuant to LAMC Section 12.32-R,2(e), a request for the removal of a variable width building line, created via ordinance 101,106, effective February 1953.
3. Pursuant to LAMC Section 12.24-T and LAMC Section 12.24-W,24(a), Vesting Conditional Use Permit to permit a hotel use and short term/extended stay rentals within 500 feet of an R zone.
4. Pursuant to LAMC Section 12.24-W,1 Master Conditional Use Permit to allow the on-site and off-site sale of a full line of alcoholic beverages in conjunction with the proposed development of a mixed-use project, which would include 75,000 square feet of commercial space and a hotel. Alcohol sales are being requested within the following areas:
   - Commercial: a total of 13 (thirteen) tenant spaces would offer a full line of alcohol for on- and off-site sales;
   - Hotel: a total of seven locations within the hotel would offer full line sales, with a restaurant with outdoor dining for on- and off-site sales.
5. Pursuant to LAMC Section 16.05, Site Plan Review for a development project which creates 50 or more dwelling units or guest rooms and over 50,000 square feet of commercial floor area.
6. Pursuant to California Government Code Sections 66473.1 and 66474 (Subdivision Map Act) and LAMC Sections 17.00 and 17.15 of Article 7 (Division of Land), approval of a phased Vesting Tentative Airspace Tract Map (Tract No. 80315) which includes a master lot and 17 airspace lots. The Tract request includes the following:
   - A request to vacate and merge portions of Beaudry Avenue into the property;
   - An approximately 5-foot wide sidewalk easement, extending six inches below grade along Alpine Street and portions of White Knoll Drive and Beaudry Avenue. Building structures are permitted below six inches;
   - A reduction from Advisory Agency’s Parking Policy to allow parking to be calculated based on LAMC Section 12.22 A.25 (d)(1);
   - A Haul Route approval.

POTENTIAL ENVIRONMENTAL EFFECTS OF THE PROJECT: Based on an Initial Study, the Project could have potentially significant environmental impacts in the following topic areas, which will to be addressed in the EIR: Air Quality, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, Public Services (fire protection, police protection, schools, parks, and libraries), Recreation, Transportation and Traffic, Tribal Cultural Resources, and Utilities and Service Systems (wastewater and water). In addition, in accordance with Appendix F of the CEQA Guidelines, energy conservation will be addressed in the EIR.

PUBLIC SCOPING MEETING: A Public Scoping Meeting will be held in **an open house format** to share information regarding the Project and the environmental review process and to receive written public comments regarding the scope and content of the environmental analysis to be addressed in the EIR. City staff, environmental consultants, and project representatives will be available, but no formal presentation is scheduled. You may stop by at any time during the hours listed below to view materials, ask questions, and provide written comments. The City encourages all interested individuals and organizations to attend this meeting. Written comments may be submitted, but there will be no verbal comments or public testimony taken at the Public Scoping Meeting. No decisions about the Project will be made at the Public Scoping Meeting. A separate public hearing for Municipal Code entitlement requests, will be scheduled after the completion of the EIR. The date, time, and location of the Public Scoping Meeting are as follows:

Date:	May 30, 2018
Time:	5:00 p.m. – 7:00 p.m.
Location:	Castelar Elementary School 840 Yale Street Los Angeles, CA 90012

Free Parking is available at the Scoping Meeting Location

FILE REVIEW AND COMMENTS: The enclosed materials reflect the scope of the Project. The environmental file is available for public review at the City of Los Angeles, Department of City Planning, 221 North Figueroa Street, Suite 1350, Los Angeles, CA 90012, during office hours Monday - Friday, 9:00 a.m. - 4:00 p.m. To review the file, please contact the Staff Planner listed below to schedule an appointment. A copy of this notice and the Initial Study prepared for the Project may be viewed with the environmental file or online at http://planning.lacity.org by clicking on the "Environmental Review" tab, then "Notice of Preparation & Public Scoping Meetings", and then clicking on the document links below the Project title. The City will consider all written comments regarding the potential environmental impacts of the Project and issues to be addressed in the EIR. If you wish to submit comments, please reference the Environmental Case No. above, and submit them in writing by **Wednesday, June 20, 2018 no later than 4:00 p.m.** Written comments will also be accepted at the Public Scoping Meeting described above. Please direct your comments to:

Mail:	Jason McCrea City of Los Angeles, Department of City Planning 221 N. Figueroa Street, Suite 1350 Los Angeles, CA 90012
E-mail:	jason.mccrea@lacity.org

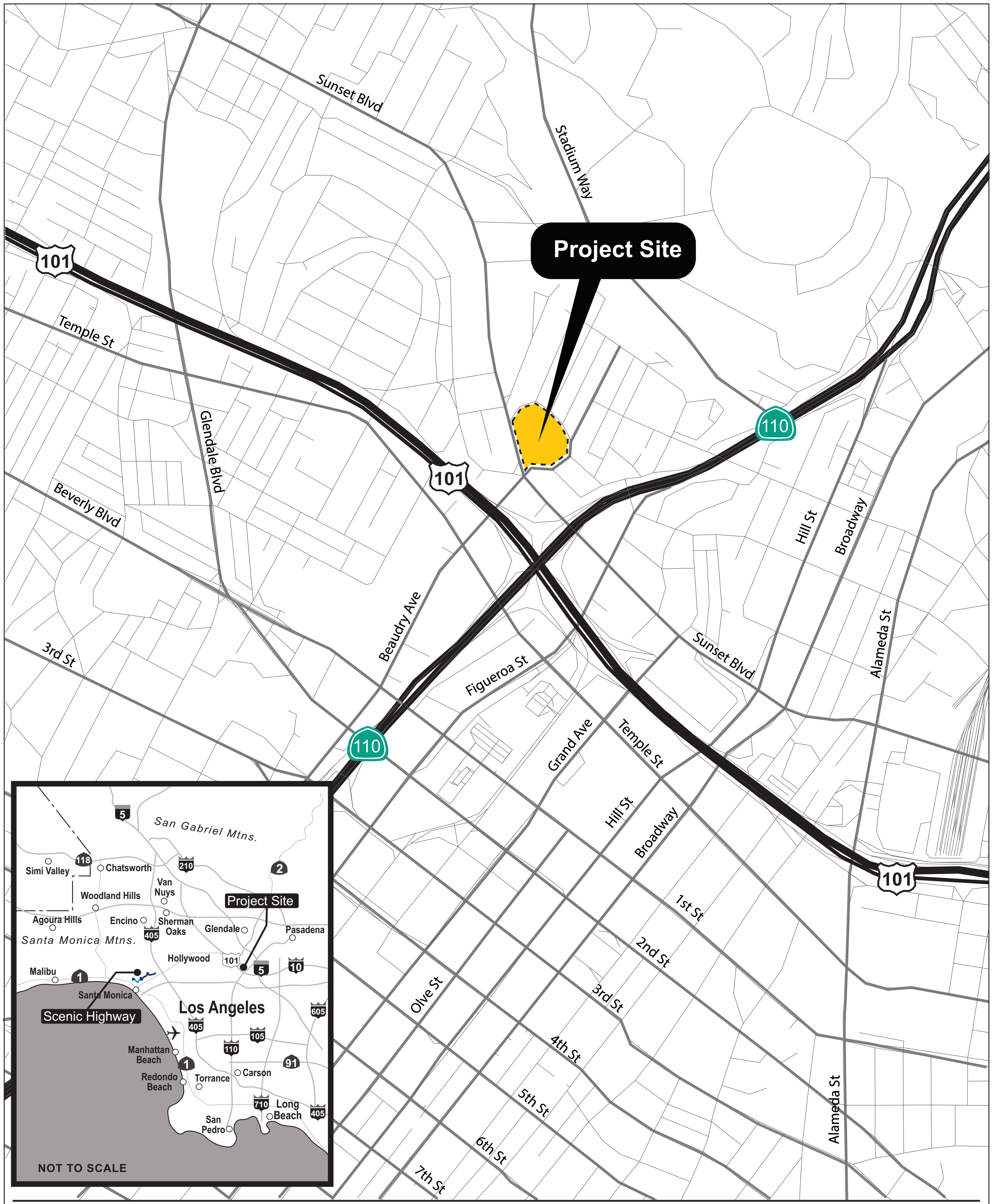
ACCOMMODATIONS: As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability. The Public Scoping Meeting facility and its parking are wheelchair accessible. Sign language interpreters, assistive listening devices, or other auxiliary aids and/or services may be provided upon request. Other services, such as translation between English and other languages, may also be provided upon written request submitted a minimum of seven (7) working days in advance to: per.planning@lacity.org. Be sure to identify the language you need English to be translated into, and indicate if the request is for oral or written translation services. If translation of a written document is requested, please include the document to be translated as an attachment to your email.

VINCENT P. BERTONI, AICP
Director of Planning

Jason McCrea
Major Projects Section
Department of City Planning
(213) 847-3672

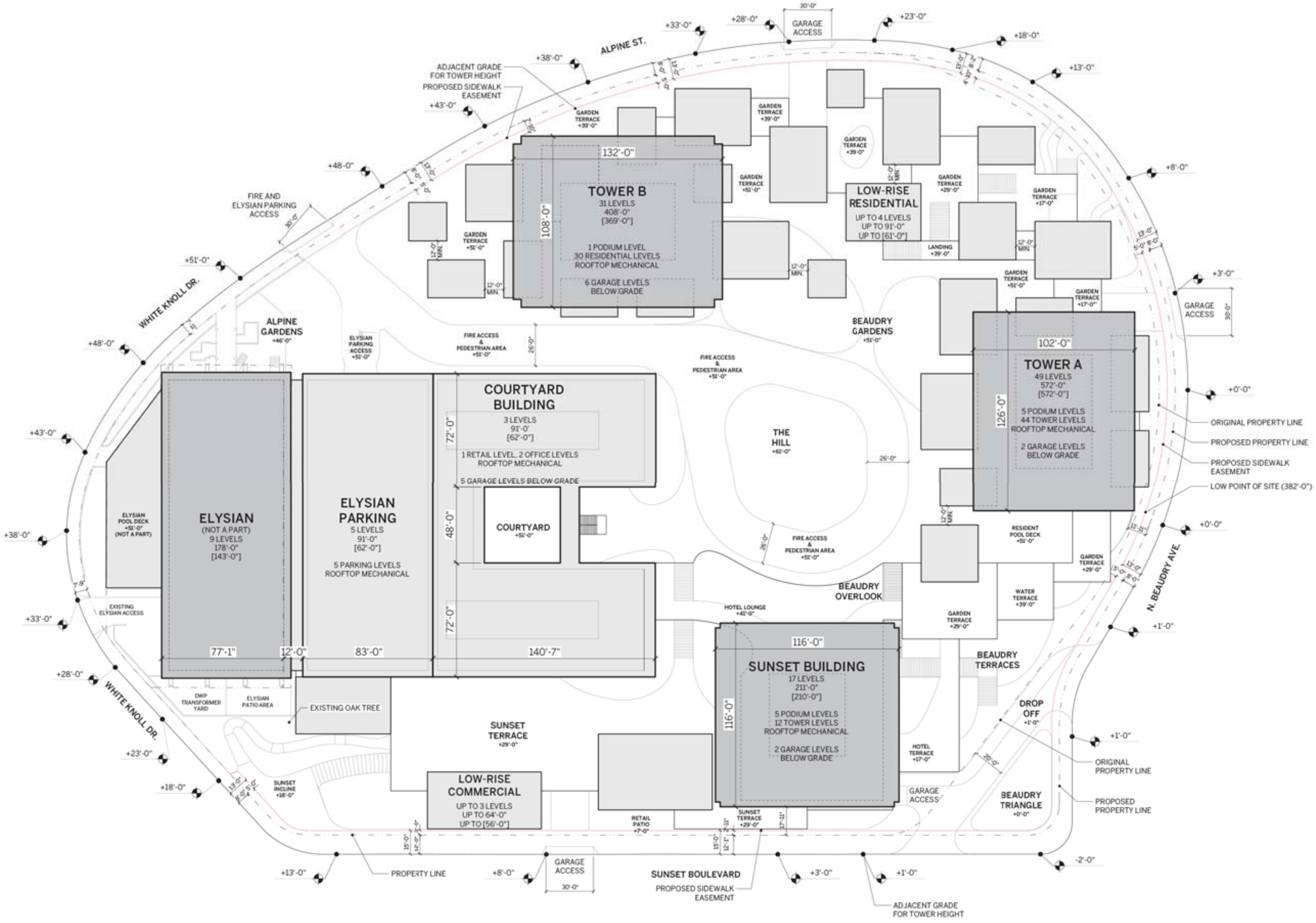
Attachments:
Project Location Map
Conceptual Site Plan
Scoping Meeting Location Map

Puede obtener información en Español acerca de esta junta llamando al (213) 847-3674.



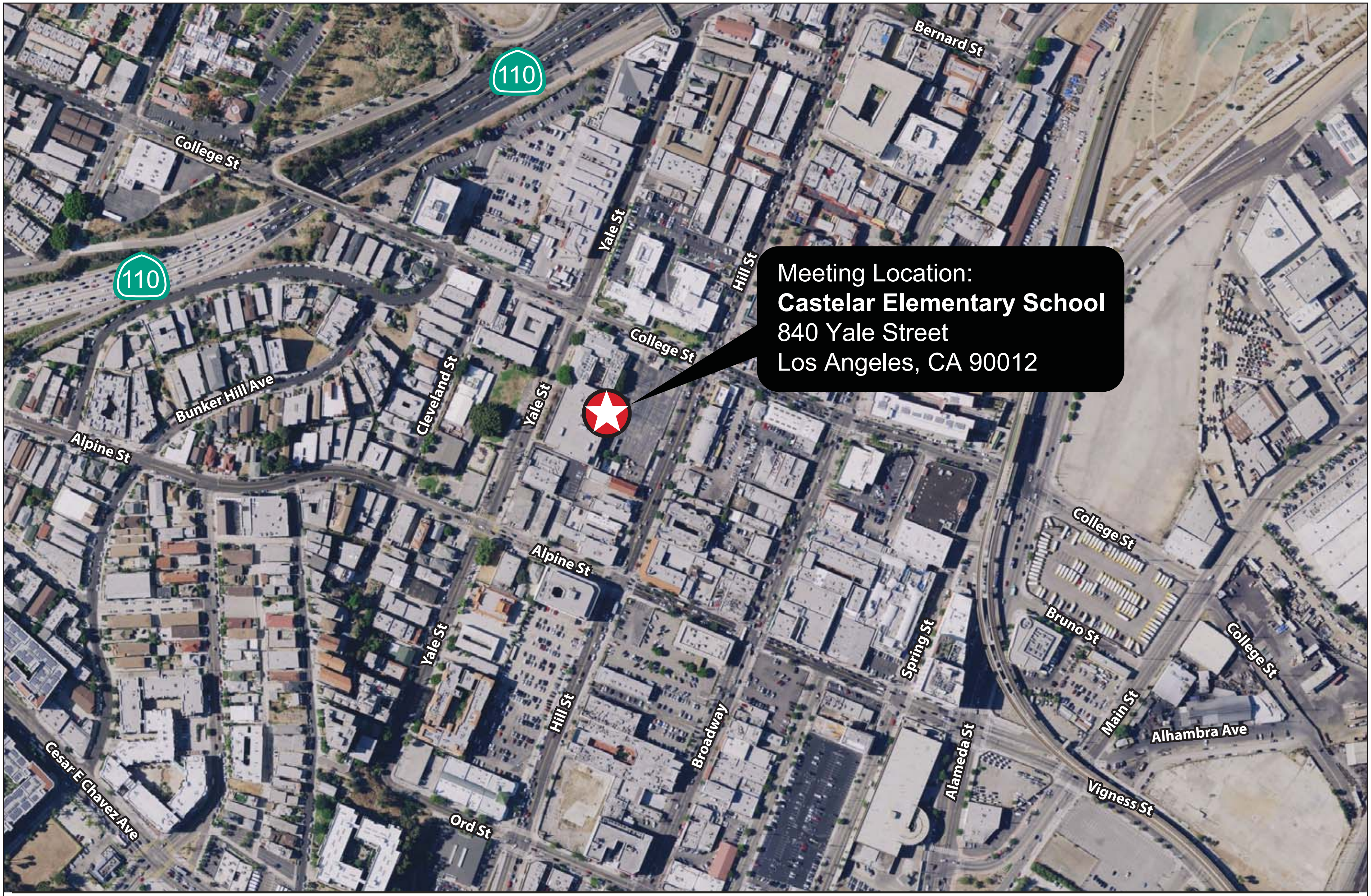
Project Location Map

Source: Los Angeles County GIS, 2015; Eyestone Environmental, 2018.



Conceptual Site Plan

Source: Skidmore, Owings & Merrill LLP, 2017.



Meeting Location:
Castelar Elementary School
840 Yale Street
Los Angeles, CA 90012

Scoping Meeting Location Map

Source: Apple Maps, 2018.

Appendix A.3

NOP Comment Letters

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

Notice of Preparation

RECEIVED
CITY OF LOS ANGELES
MAY 23 [illegible]
MAJOR PROJECTS
UNIT

May 21, 2018

To: Reviewing Agencies

Re: 1111 Sunset
SCH# 2018051043

Attached for your review and comment is the Notice of Preparation (NOP) for the 1111 Sunset draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Jason McCrea
City of Los Angeles
221 N. Figueroa St, Suite 1350
Los Angeles, CA 90012

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# **2018051043**
Project Title 1111 Sunset
Lead Agency Los Angeles, City of

Type **NOP** Notice of Preparation

Description The project proposes to remove the existing vacant buildings within the project site that comprise approx 114,600 sf to develop up to 778 residential units (including up to 76 restricted affordable housing units), up to 98 hotel rooms, up to 48,000 sf of office space, and up to 95,000 sf of general commercial floor area. The proposed general commercial floor area (which could include up to 20,000 sf of food and beverage uses associated with a hotel use). The project would comprise result in 994,982 sf of floor area. The project would allow for an exchange of uses if certain uses are reduced or eliminated.

Lead Agency Contact

Name Jason McCrea
Agency City of Los Angeles
Phone (213) 847-3672 ***Fax***
email
Address 221 N. Figueroa St, Suite 1350
City Los Angeles ***State*** CA ***Zip*** 90012

Project Location

County Los Angeles
City Los Angeles, City of
Region
Cross Streets Sunset Blvd/Beaudry Ave, Sunset Blvd/White Knoll Dr
Lat / Long 34° 03' 58" N / 118° 14' 55" W
Parcel No. 5406020003
Township 1S ***Range*** 13W ***Section*** 9 ***Base***

Proximity to:

Highways SR-110
Airports
Railways
Waterways
Schools Ramon C. Cortines Gratts ES
Land Use vacant and res/C2-2D (commercial, height district 2, development limitation)/general commerical

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Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Growth Inducing; Landuse; Minerals; Noise; Other Issues; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian

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Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; Department of Housing and Community Development; Native American Heritage Commission; Public Utilities Commission; Santa Monica Bay Restoration; California Highway Patrol; Caltrans, District 7; Regional Water Quality Control Board, Region 4; State Water Resources Control Board, Division of Drinking Water; State Water Resources Control Board, Division of Water Quality; Department of Toxic Substances Control; Baldwin Hills Conservancy

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Date Received 05/21/2018 ***Start of Review*** 05/21/2018 ***End of Review*** 06/19/2018

Note: Blanks in data fields result from insufficient information provided by lead agency.

Appendix C

2018051043

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: 1111 Sunset

Lead Agency: City of Los Angeles
Contact Person: Jason McCrea
Mailing Address: 221 N. Figueroa Street, Suite 1350
Phone: (213) 847-3672
City: Los Angeles
Zip: 90012
County: Los Angeles

Project Location: County: Los Angeles
City/Nearest Community: Los Angeles/Central City North
Cross Streets: Sunset Boulevard / Beaudry Avenue, Sunset Boulevard / White Knoll Drive
Zip Code: 90012
Longitude/Latitude (degrees, minutes and seconds): 34 °03 ′58 ″N / 118 °14 ′55 ″W
Total Acres: 6.27
Assessor's Parcel No.: 5406020003
Section: S9
Twp.: T1S
Range: R13W
Base:
Within 2 Miles: State Hwy #: SR-110
Waterways:
Airports:
Railways:
Schools: Ramon C. Cortines, Gratts Elementary

Document Type:

CEQA:
☒ NOP
☐ Early Cons
☐ Neg Dec
☐ Mit Neg Dec
☐ Draft EIR
☐ Supplement/Subsequent EIR
(Prior SCH No.)
Other:

NEPA:
☐ NOI
☐ EA
☐ Draft EIS
☐ FONSI

Other:
☐ Joint Document
☐ Final Document
☐ Other:

Governor's Office of Planning & Research
MAY 21 2018
STATE CLEARINGHOUSE

Local Action Type:

☐ General Plan Update
☐ General Plan Amendment
☐ General Plan Element
☐ Community Plan
☐ Specific Plan
☐ Master Plan
☐ Planned Unit Development
☒ Site Plan
☐ Rezone
☐ Prezone
☒ Use Permit
☒ Land Division (Subdivision, etc.)
☐ Annexation
☐ Redevelopment
☐ Coastal Permit
☒ Other: Density Bonus

Development Type:

☒ Residential: Units 778 Acres
☒ Office: Sq.ft. 48,000 Acres Employees
☒ Commercial: Sq.ft. 170,000 Acres Employees
☐ Industrial: Sq.ft. Acres Employees
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type MW
☐ Waste Treatment: Type MGD
☐ Hazardous Waste: Type
☐ Other:

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☒ Agricultural Land
☒ Air Quality
☒ Archeological/Historical
☒ Biological Resources
☐ Coastal Zone
☒ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☒ Flood Plain/Flooding
☒ Forest Land/Fire Hazard
☒ Geologic/Seismic
☒ Minerals
☒ Noise
☒ Population/Housing Balance
☒ Public Services/Facilities
☒ Recreation/Parks
☒ Schools/Universities
☐ Septic Systems
☒ Sewer Capacity
☒ Soil Erosion/Compaction/Grading
☒ Solid Waste
☒ Toxic/Hazardous
☒ Traffic/Circulation
☒ Vegetation
☒ Water Quality
☒ Water Supply/Groundwater
☒ Wetland/Riparian
☒ Growth Inducement
☒ Land Use
☒ Cumulative Effects
☒ Other: GHG

Present Land Use/Zoning/General Plan Designation:

Vacant and Residential / C2-2D (Commercial, Height District 2, Development Limitation) / General Commercial

Project Description: *(please use a separate page if necessary)*

The Project proposes to remove the existing vacant buildings within the Project Site that comprise approximately 114,600 square feet to develop up to 778 residential units (including up to 76 restricted affordable housing units), up to 98 hotel rooms, up to 48,000 square feet of office space, and up to 95,000 square feet of general commercial floor area. The proposed general commercial floor area (which could include up to 20,000 square feet of food and beverage uses associated with a hotel use). The Project would comprise result in 994,982 square feet of floor area. The Project would allow for an exchange of uses if certain uses are reduced or eliminated.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Revised 2010

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "S".

X Air Resources Board
___ Boating & Waterways, Department of
___ California Emergency Management Agency
___ California Highway Patrol
X Caltrans District #7
X Caltrans Division of Aeronautics
X Caltrans Planning
___ Central Valley Flood Protection Board
___ Coachella Valley Mtns. Conservancy
___ Coastal Commission
___ Colorado River Board
X Conservation, Department of
___ Corrections, Department of
___ Delta Protection Commission
___ Education, Department of
X Energy Commission
X Fish & Game Region #5
___ Food & Agriculture, Department of
___ Forestry and Fire Protection, Department of
___ General Services, Department of
___ Health Services, Department of
X Housing & Community Development
X Native American Heritage Commission

X Office of Historic Preservation
___ Office of Public School Construction
X Parks & Recreation, Department of
___ Pesticide Regulation, Department of
X Public Utilities Commission
X Regional WQCB #4
X Resources Agency
X Resources Recycling and Recovery, Department of
___ S.F. Bay Conservation & Development Comm.
___ San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
___ San Joaquin River Conservancy
___ Santa Monica Mtns. Conservancy
___ State Lands Commission
___ SWRCB: Clean Water Grants
X SWRCB: Water Quality
___ SWRCB: Water Rights
___ Tahoe Regional Planning Agency
X Toxic Substances Control, Department of
X Water Resources, Department of

___ Other: ___
___ Other: ___

Local Public Review Period (to be filled in by lead agency)

Starting Date May 21, 2018
Ending Date June 20, 2018

Lead Agency (Complete if applicable):

Consulting Firm: Eyestone Environmental
Address: 2121 Rosecrans Avenue
City/State/Zip: El Segundo, CA 90245
Contact: Stephanie Eyestone-Jones
Phone: (424) 207-5333

Applicant: 1111 Sunset Boulevard, LLC.
Address: 11766 Wilshire Boulevard, Suite 1150
City/State/Zip: Los Angeles, CA 90025
Phone: (310) 268-8288

Signature of Lead Agency Representative: **Date:** May 21, 2018

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

NOP Distribution List

County: Los Angeles

or

SCH# 2018051043

esources Agency

☒ **Resources Agency**
Nadell Gayou

☐ **Dept. of Boating & Waterways**
Denise Peterson

☐ **California Coastal Commission**
Allyson Hitt

☐ **Colorado River Board**
Lisa Johansen

☐ **Dept. of Conservation**
Crina Chan

☐ **Cal Fire**
Dan Foster

☐ **Central Valley Flood Protection Board**
James Herota

☐ **Office of Historic Preservation**
Ron Parsons

☒ **Dept of Parks & Recreation**
Environmental Stewardship Section

☐ **S.F. Bay Conservation & Dev't. Comm.**
Steve Goldbeck

☒ **Dept. of Water Resources**
Resources Agency
Nadell Gayou

Fish and Game

☐ **Depart. of Fish & Wildlife**
Scott Flint
Environmental Services Division

☐ **Fish & Wildlife Region 1**
Curt Babcock

☐ **Fish & Wildlife Region 1E**
Laurie Harnsberger

☐ **Fish & Wildlife Region 2**
Jeff Drongesen

☐ **Fish & Wildlife Region 3**
Craig Weightman

☐ **Fish & Wildlife Region 4**
Julie Vance

☒ **Fish & Wildlife Region 5**
Leslie Newton-Reed
Habitat Conservation Program

☐ **Fish & Wildlife Region 6**
Tiffany Ellis
Habitat Conservation Program

☐ **Fish & Wildlife Region 6 I/M**
Heidi Calvert
Inyo/Mono, Habitat Conservation Program

☐ **Dept. of Fish & Wildlife M**
William Paznokas
Marine Region

Other Departments

☐ **California Department of Education**
Lesley Taylor

☐ **OES (Office of Emergency Services)**
Monique Wilber

☐ **Food & Agriculture**
Sandra Schubert
Dept. of Food and Agriculture

☐ **Dept. of General Services**
Cathy Buck
Environmental Services Section

☒ **Housing & Comm. Dev.**
CEQA Coordinator
Housing Policy Division

Independent Commissions,Boards

☐ **Delta Protection Commission**
Erik Vink

☐ **Delta Stewardship Council**
Anthony Navasero

☐ **California Energy Commission**
Eric Knight

☒ **Native American Heritage Comm.**
Debbie Treadway

☒ **Public Utilities Commission**
Supervisor

☒ **Santa Monica Bay Restoration**
Guangyu Wang

☐ **State Lands Commission**
Jennifer Deleong

☐ **Tahoe Regional Planning Agency (TRPA)**
Cherry Jacques

Cal State Transportation Agency CalSTA

☐ **Caltrans - Division of Aeronautics**
Philip Crimmins

☐ **Caltrans – Planning HQ LD-IGR**
Christian Bushong

☒ **California Highway Patrol**
Suzann Ikeuchi
Office of Special Projects

Dept. of Transportation

☐ **Caltrans, District 1**
Rex Jackman

☐ **Caltrans, District 2**
Marcelino Gonzalez

☐ **Caltrans, District 3**
Susan Zanchi - North

☐ **Caltrans, District 4**
Patricia Maurice

☐ **Caltrans, District 5**
Larry Newland

☐ **Caltrans, District 6**
Michael Navarro

☒ **Caltrans, District 7**
Dianna Watson

☐ **Caltrans, District 8**
Mark Roberts

☐ **Caltrans, District 9**
Gayle Rosander

☐ **Caltrans, District 10**
Tom Dumas

☐ **Caltrans, District 11**
Jacob Armstrong

☐ **Caltrans, District 12**
Maureen El Harake

Cal EPA

Air Resources Board

☐ **Airport & Freight**
Jack Wursten

☐ **Transportation Projects**
Nesamani Kalandiyur

☐ **Industrial/Energy Projects**
Mike Tollstrup

☐ **California Department of Resources, Recycling & Recovery**
Sue O'Leary

☐ **State Water Resources Control Board**
Regional Programs Unit
Division of Financial Assistance

☒ **State Water Resources Control Board**
Cindy Forbes – Asst Deputy
Division of Drinking Water

☐ **State Water Resources Control Board**
Div. Drinking Water #________

☒ **State Water Resources Control Board**
Student Intern, 401 Water Quality Certification Unit
Division of Water Quality

☐ **State Water Resouces Control Board**
Phil Crader
Division of Water Rights

☒ **Dept. of Toxic Substances Control Reg. #________**
CEQA Tracking Center

☐ **Department of Pesticide Regulation**
CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

☐ **RWQCB 1**
Cathleen Hudson
North Coast Region (1)

☐ **RWQCB 2**
Environmental Document Coordinator
San Francisco Bay Region (2)

☐ **RWQCB 3**
Central Coast Region (3)

☒ **RWQCB 4**
Teresa Rodgers
Los Angeles Region (4)

☐ **RWQCB 5S**
Central Valley Region (5)

☐ **RWQCB 5F**
Central Valley Region (5)
Fresno Branch Office

☐ **RWQCB 5R**
Central Valley Region (5)
Redding Branch Office

☐ **RWQCB 6**
Lahontan Region (6)

☐ **RWQCB 6V**
Lahontan Region (6)
Victorville Branch Office

☐ **RWQCB 7**
Colorado River Basin Region (7)

☐ **RWQCB 8**
Santa Ana Region (8)

☐ **RWQCB 9**
San Diego Region (9)

☐ **Other** ____________________
____
____

☒ Baldwin Hills
Conservancy

Last Updated 2/01/18

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-8391
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

Serious Drought.
Making Conservation
a California Way of Life.

RECEIVED
CITY OF LOS ANGELES
JUN 12 2018
MAJOR PROJECTS
UNIT

June 1, 2018

Mr. Jason McCrea
City of Los Angeles, Department of City Planning
221 N. Figueroa Street, Suite 1350
Los Angeles, CA 90012

RE: 1111 Sunset
Vic. LA-101,110/PM 1.771
GTS # LA-2018-01462ME-NOP

Dear Mr. McCrea:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The Project proposes a new mixed-use development with up to 778 residential units, up to 98 hotel rooms, up to 48,000 square feet of office space, and up to 95,000 square feet in general commercial floor area.

After reviewing the Notice of Preparation for this project, Caltrans has the following comments:

Caltrans is aware of challenges that the region faces in identifying viable solutions to alleviating congestion on State and Local facilities. With limited room to expand vehicular capacity, future development should incorporate multi-modal and complete streets transportation elements that will actively promote alternatives to car use and better manage existing parking assets. Prioritizing and allocating space to efficient modes of travel such as bicycling and public transit can allow streets to transport more people in a fixed amount of right-of-way.

Caltrans supports the implementation of complete streets and pedestrian safety measures such as road diets and other traffic calming measures. Please note the Federal Highway Administration (FHWA) recognizes the road diet treatment as a proven safety countermeasure, and the cost of a road diet can be significantly reduced if implemented in tandem with routine street resurfacing.

We encourage the Lead Agency to integrate transportation and land use in a way that reduces Vehicle Miles Traveled (VMT) and Greenhouse Gas (GHG) emissions by facilitating the provision of more proximate goods and services to shorten trip lengths, and achieve a high level of non-motorized travel and transit use. We also encourage the Lead Agency to evaluate the potential of Transportation Demand Management (TDM) strategies and Intelligent Transportation System

(ITS) applications to better manage the transportation network, as well as transit service and bicycle or pedestrian connectivity improvements.

Transportation of heavy construction equipment and/or materials, which requires the use of oversized-transport vehicles on State highways, will require a transportation permit from Caltrans. It is recommended that large size truck trips be limited to off-peak commute periods.

In the spirit of mutual cooperation, Caltrans staff is available to work with your planners and traffic engineers for this project, if needed. If you have any questions regarding these comments, please contact project coordinator Ms. Miya Edmonson, at (213) 897-6536 and refer to GTS # LA-2018-01462ME

Sincerely,

FRANCES LEE
IGR/CEQA Acting Branch Chief

cc: Scott Morgan, State Clearinghouse

Metro

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

Congestion Management Program

Metro must notify the Project Sponsor of state requirements. A Transportation Impact Analysis (TIA), with roadway and transit components, is required under the State of California Congestion Management Program (CMP) statute. The CMP TIA Guidelines are published in the "2010 Congestion Management Program for Los Angeles County," Appendix D (attached). The geographic area examined in the TIA must include the following, at a minimum:

1. All CMP arterial monitoring intersections, including monitored freeway on/off-ramp intersections, where the proposed Project will add 50 or more trips during either the a.m. or p.m. weekday peak hour (of adjacent street traffic).

2. If CMP arterial segments are being analyzed rather than intersections, the study area must include all segments where the proposed Project will add 50 or more peak hour trips (total of both directions). Within the study area, the TIA must analyze at least one segment between monitored CMP intersections.

3. Mainline freeway-monitoring locations where the Project will add 150 or more trips, in either direction, during either the a.m. or p.m. weekday peak hour.

4. Caltrans must also be consulted through the NOP process to identify other specific locations to be analyzed on the state highway system.

The CMP TIA requirement also contains two separate impact studies covering roadways and transit, as outlined in Sections D.8.1 – D.9.4. If the TIA identifies no facilities for study based on the criteria above, no further traffic analysis is required. However, projects must still consider transit impacts. For all CMP TIA requirements please see the attached guidelines.

If you have any questions, please contact David Lor by phone at 213-922-2883, by email at lord@metro.net, or by mail at the following address:

Metro Development Review
One Gateway Plaza MS 99-23-2
Los Angeles, CA 90012-2952

APPENDIX

D

GUIDELINES FOR CMP TRANSPORTATION IMPACT ANALYSIS

Important Notice to User: This section provides detailed travel statistics for the Los Angeles area which will be updated on an ongoing basis. Updates will be distributed to all local jurisdictions when available. In order to ensure that impact analyses reflect the best available information, lead agencies may also contact MTA at the time of study initiation. Please contact MTA staff to request the most recent release of "Baseline Travel Data for CMP TIAs."

D.1 OBJECTIVE OF GUIDELINES

The following guidelines are intended to assist local agencies in evaluating impacts of land use decisions on the Congestion Management Program (CMP) system, through preparation of a regional transportation impact analysis (TIA). The following are the basic objectives of these guidelines:

- ☐ Promote consistency in the studies conducted by different jurisdictions, while maintaining flexibility for the variety of project types which could be affected by these guidelines.
- ☐ Establish procedures which can be implemented within existing project review processes and without ongoing review by MTA.
- ☐ Provide guidelines which can be implemented immediately, with the full intention of subsequent review and possible revision.

These guidelines are based on specific requirements of the Congestion Management Program, and travel data sources available specifically for Los Angeles County. References are listed in Section D.10 which provide additional information on possible methodologies and available resources for conducting TIAs.

D.2 GENERAL PROVISIONS

Exhibit D-7 provides the model resolution that local jurisdictions adopted containing CMP TIA procedures in 1993. TIA requirements should be fulfilled within the existing environmental review process, extending local traffic impact studies to include impacts to the regional system. In order to monitor activities affected by these requirements, Notices of Preparation (NOPs) must be submitted to MTA as a responsible agency. Formal MTA approval of individual TIAs is not required.

The following sections describe CMP TIA requirements in detail. In general, the competing objectives of consistency & flexibility have been addressed by specifying standard, or minimum, requirements and requiring documentation when a TIA varies from these standards.

D.3 PROJECTS SUBJECT TO ANALYSIS

In general a CMP TIA is required for all projects required to prepare an Environmental Impact Report (EIR) based on local determination. A TIA is not required if the lead agency for the EIR finds that traffic is not a significant issue, and does not require local or regional traffic impact analysis in the EIR. Please refer to Chapter 5 for more detailed information.

CMP TIA guidelines, particularly intersection analyses, are largely geared toward analysis of projects where land use types and design details are known. Where likely land uses are not defined (such as where project descriptions are limited to zoning designation and parcel size with no information on access location), the level of detail in the TIA may be adjusted accordingly. This may apply, for example, to some redevelopment areas and citywide general plans, or community level specific plans. In such cases, where project definition is insufficient for meaningful intersection level of service analysis, CMP arterial segment analysis may substitute for intersection analysis.

D.4 STUDY AREA

The geographic area examined in the TIA must include the following, at a minimum:

- ☐ All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours (of adjacent street traffic).
- ☐ If CMP arterial segments are being analyzed rather than intersections (see Section D.3), the study area must include all segments where the proposed project will add 50 or more peak hour trips (total of both directions). Within the study area, the TIA must analyze at least one segment between monitored CMP intersections.
- ☐ Mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.
- ☐ Caltrans must also be consulted through the Notice of Preparation (NOP) process to identify other specific locations to be analyzed on the state highway system.

If the TIA identifies no facilities for study based on these criteria, no further traffic analysis is required. However, projects must still consider transit impacts (Section D.8.4).

D.5 BACKGROUND TRAFFIC CONDITIONS

The following sections describe the procedures for documenting and estimating background, or non-project related traffic conditions. Note that for the purpose of a TIA, these background estimates must include traffic from all sources without regard to the exemptions specified in CMP statute (e.g., traffic generated by the provision of low and very low income housing, or trips originating outside Los Angeles County. Refer to Chapter 5, Section 5.2.3 for a complete list of exempted projects).

D.5.1 Existing Traffic Conditions. Existing traffic volumes and levels of service (LOS) on the CMP highway system within the study area must be documented. Traffic counts must be less than one year old at the time the study is initiated, and collected in accordance with CMP highway monitoring requirements (see Appendix A). Section D.8.1 describes TIA LOS calculation requirements in greater detail. Freeway traffic volume and LOS data provided by Caltrans is also provided in Appendix A.

D.5.2 Selection of Horizon Year and Background Traffic Growth. Horizon year(s) selection is left to the lead agency, based on individual characteristics of the project being analyzed. In general, the horizon year should reflect a realistic estimate of the project completion date. For large developments phased over several years, review of intermediate milestones prior to buildout should also be considered.

At a minimum, horizon year background traffic growth estimates must use the generalized growth factors shown in Exhibit D-1. These growth factors are based on regional modeling efforts, and estimate the general effect of cumulative development and other socioeconomic changes on traffic throughout the region. Beyond this minimum, selection among the various methodologies available to estimate horizon year background traffic in greater detail is left to the lead agency. Suggested approaches include consultation with the jurisdiction in which the intersection under study is located, in order to obtain more detailed traffic estimates based on ongoing development in the vicinity.

D.6 PROPOSED PROJECT TRAFFIC GENERATION

Traffic generation estimates must conform to the procedures of the current edition of Trip Generation, by the Institute of Transportation Engineers (ITE). If an alternative methodology is used, the basis for this methodology must be fully documented.

Increases in site traffic generation may be reduced for existing land uses to be removed, if the existing use was operating during the year the traffic counts were collected. Current traffic generation should be substantiated by actual driveway counts; however, if infeasible, traffic may be estimated based on a methodology consistent with that used for the proposed use.

Regional transportation impact analysis also requires consideration of trip lengths. Total site traffic generation must therefore be divided into work and non-work-related trip purposes in order to reflect observed trip length differences. Exhibit D-2 provides factors which indicate trip purpose breakdowns for various land use types.

For lead agencies who also participate in CMP highway monitoring, it is recommended that any traffic counts on CMP facilities needed to prepare the TIA should be done in the manner outlined in Chapter 2 and Appendix A. If the TIA traffic counts are taken within one year of the deadline for submittal of CMP highway monitoring data, the local jurisdiction would save the cost of having to conduct the traffic counts twice.

D.7 TRIP DISTRIBUTION

For trip distribution by direct/manual assignment, generalized trip distribution factors are provided in Exhibit D-3, based on regional modeling efforts. These factors indicate Regional Statistical Area (RSA)-level tripmaking for work and non-work trip purposes.

(These RSAs are illustrated in Exhibit D-4.) For locations where it is difficult to determine the project site RSA, census tract/RSA correspondence tables are available from MTA.

Exhibit D-5 describes a general approach to applying the preceding factors. Project trip distribution must be consistent with these trip distribution and purpose factors; the basis for variation must be documented.

Local agency travel demand models disaggregated from the SCAG regional model are presumed to conform to this requirement, as long as the trip distribution functions are consistent with the regional distribution patterns. For retail commercial developments, alternative trip distribution factors may be appropriate based on the market area for the specific planned use. Such market area analysis must clearly identify the basis for the trip distribution pattern expected.

D.8 IMPACT ANALYSIS

CMP Transportation Impact Analyses contain two separate impact studies covering roadways and transit. Section Nos. D.8.1-D.8.3 cover required roadway analysis while Section No. D.8.4 covers the required transit impact analysis. Section Nos. D.9.1-D.9.4 define the requirement for discussion and evaluation of alternative mitigation measures.

D.8.1 Intersection Level of Service Analysis. The LA County CMP recognizes that individual jurisdictions have wide ranging experience with LOS analysis, reflecting the variety of community characteristics, traffic controls and street standards throughout the county. As a result, the CMP acknowledges the possibility that no single set of assumptions should be mandated for all TIAs within the county.

However, in order to promote consistency in the TIAs prepared by different jurisdictions, CMP TIAs must conduct intersection LOS calculations using either of the following methods:

☐ The Intersection Capacity Utilization (ICU) method as specified for CMP highway monitoring (see Appendix A); or

☐ The Critical Movement Analysis (CMA) / Circular 212 method.

Variation from the standard assumptions under either of these methods for circumstances at particular intersections must be fully documented.

TIAs using the 1985 or 1994 Highway Capacity Manual (HCM) operational analysis must provide converted volume-to-capacity based LOS values, as specified for CMP highway monitoring in Appendix A.

D.8.2 Arterial Segment Analysis. For TIAs involving arterial segment analysis, volume-to-capacity ratios must be calculated for each segment and LOS values assigned using the V/C-LOS equivalency specified for arterial intersections. A capacity of 800 vehicles per hour per through traffic lane must be used, unless localized conditions necessitate alternative values to approximate current intersection congestion levels.

D.8.3 Freeway Segment (Mainline) Analysis. For the purpose of CMP TIAs, a simplified analysis of freeway impacts is required. This analysis consists of a demand-to-capacity calculation for the affected segments, and is indicated in Exhibit D-6.

D.8.4 Transit Impact Review. CMP transit analysis requirements are met by completing and incorporating into an EIR the following transit impact analysis:

☐ Evidence that affected transit operators received the Notice of Preparation.

☐ A summary of existing transit services in the project area. Include local fixed-route services within a ¼ mile radius of the project; express bus routes within a 2 mile radius of the project, and; rail service within a 2 mile radius of the project.

☐ Information on trip generation and mode assignment for both AM and PM peak hour periods as well as for daily periods. Trips assigned to transit will also need to be calculated for the same peak hour and daily periods. Peak hours are defined as 7:30-8:30 AM and 4:30-5:30 PM. Both "peak hour" and "daily" refer to average weekdays, unless special seasonal variations are expected. If expected, seasonal variations should be described.

☐ Documentation of the assumption and analyses that were used to determine the number and percent of trips assigned to transit. Trips assigned to transit may be calculated along the following guidelines:

- Multiply the total trips generated by 1.4 to convert vehicle trips to person trips;
- For each time period, multiply the result by one of the following factors:

3.5% of Total Person Trips Generated for most cases, except:

10% primarily Residential within 1/4 mile of a CMP transit center
15% primarily Commercial within 1/4 mile of a CMP transit center
7% primarily Residential within 1/4 mile of a CMP multi-modal transportation center
9% primarily Commercial within 1/4 mile of a CMP multi-modal transportation center
5% primarily Residential within 1/4 mile of a CMP transit corridor
7% primarily Commercial within 1/4 mile of a CMP transit corridor
0% if no fixed route transit services operate within one mile of the project

To determine whether a project is primarily residential or commercial in nature, please refer to the CMP land use categories listed and defined in Appendix E, *Guidelines for New Development Activity Tracking and Self Certification*. For projects that are only partially within the above one-quarter mile radius, the base rate (3.5% of total trips generated) should be applied to all of the project buildings that touch the radius perimeter.

☐ Information on facilities and/or programs that will be incorporated in the development plan that will encourage public transit use. Include not only the jurisdiction's TDM Ordinance measures, but other project specific measures.

☐ Analysis of expected project impacts on current and future transit services and proposed project mitigation measures, and;

☐ Selection of final mitigation measures remains at the discretion of the local jurisdiction/lead agency. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the existing mitigation monitoring requirements of CEQA.

D.9 IDENTIFICATION AND EVALUATION OF MITIGATION

D.9.1 Criteria for Determining a Significant Impact. For purposes of the CMP, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$), causing LOS F ($V/C > 1.00$); if the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$). The lead agency may apply a more stringent criteria if desired.

D.9.2 Identification of Mitigation. Once the project has been determined to cause a significant impact, the lead agency must investigate measures which will mitigate the impact of the project. Mitigation measures proposed must clearly indicate the following:

☐ Cost estimates, indicating the fair share costs to mitigate the impact of the proposed project. If the improvement from a proposed mitigation measure will exceed the impact of the project, the TIA must indicate the proportion of total mitigation costs which is attributable to the project. This fulfills the statutory requirement to exclude the costs of mitigating inter-regional trips.

☐ Implementation responsibilities. Where the agency responsible for implementing mitigation is not the lead agency, the TIA must document consultation with the implementing agency regarding project impacts, mitigation feasibility and responsibility.

Final selection of mitigation measures remains at the discretion of the lead agency. The TIA must, however, provide a summary of impacts and mitigation measures. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the mitigation monitoring requirements contained in CEQA.

D.9.3 Project Contribution to Planned Regional Improvements. If the TIA concludes that project impacts will be mitigated by anticipated regional transportation improvements, such as rail transit or high occupancy vehicle facilities, the TIA must document:

☐ Any project contribution to the improvement, and

☐ The means by which trips generated at the site will access the regional facility.

D.9.4 Transportation Demand Management (TDM). If the TIA concludes or assumes that project impacts will be reduced through the implementation of TDM measures, the TIA must document specific actions to be implemented by the project which substantiate these conclusions.

D.10 REFERENCES

1. *Traffic Access and Impact Studies for Site Development: A Recommended Practice*, Institute of Transportation Engineers, 1991.
2. *Trip Generation*, 5th Edition, Institute of Transportation Engineers, 1991.
3. *Travel Forecast Summary: 1987 Base Model - Los Angeles Regional Transportation Study (LARTS)*, California State Department of Transportation (Caltrans), February 1990.
4. *Traffic Study Guidelines*, City of Los Angeles Department of Transportation (LADOT), July 1991.
5. *Traffic/Access Guidelines*, County of Los Angeles Department of Public Works.
6. *Building Better Communities*, Sourcebook, Coordinating Land Use and Transit Planning, American Public Transit Association.
7. *Design Guidelines for Bus Facilities*, Orange County Transit District, 2nd Edition, November 1987.
8. *Coordination of Transit and Project Development*, Orange County Transit District, 1988.
9. *Encouraging Public Transportation Through Effective Land Use Actions*, Municipality of Metropolitan Seattle, May 1987.

STATE OF CALIFORNIA Edmund G. Brown Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710

May 25, 2018

Jason McCrea
City of Los Angeles
221 N. Figueroa Street, Suite 1350
Los Angeles, CA 90012

Also sent via e-mail: Jason.mccrea@lacity.org

RE: SCH# 2018051043, 1111 Sunset Project, City of Los Angeles; Los Angeles County, California

Dear Mr. McCrea:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for Draft Environmental Impact Report for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd. (a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a **separate category of cultural resources**, “tribal cultural resources” (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (Pub. Resources Code § 21084.2). Please reference California Natural Resources Agency (2016) “Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form,” http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf. Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends **lead agencies consult with all California Native American tribes** that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC’s recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws**.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
    - **a.** A brief description of the project.
    - **b.** The lead agency contact information.
    - **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
    - **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
    - **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
    - **a.** Alternatives to the project.
    - **b.** Recommended mitigation measures.
    - **c.** Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
    - **a.** Type of environmental review necessary.
    - **b.** Significance of the tribal cultural resources.
    - **c.** Significance of the project's impacts on tribal cultural resources.
    - **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
    - **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
    - **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
   - **a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
   - **b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
   - **a.** Avoidance and preservation of the resources in place, including, but not limited to:
      - **i.** Planning and construction to avoid the resources and protect the cultural and natural context.
      - **ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
   - **b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
      - **i.** Protecting the cultural character and integrity of the resource.
      - **ii.** Protecting the traditional use of the resource.
      - **iii.** Protecting the confidentiality of the resource.
   - **c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
   - **d.** Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
   - **e.** Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
   - **f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
   - **a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
   - **b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
   - **c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

   This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires **local governments** to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at:
https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    - **a.** The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    - **b.** Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at:
http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    - **a.** If part or all of the APE has been previously surveyed for cultural resources.
    - **b.** If any known cultural resources have been already been recorded on or adjacent to the APE.
    - **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
    - **d.** If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    - **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. 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 public disclosure.

  - **b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
  - **a.** A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - **b.** A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
  - **a.** Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
  - **b.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
  - **c.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst
(916) 373-3714

cc: State Clearinghouse

SCAG™
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SOUTHERN CALIFORNIA
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June 20, 2018

Jason McCrea
City of Los Angeles, Department of City Planning
221 N. Figueroa Street, Suite 1350
Los Angeles, California 90012
Phone: (213) 847-3672
E-mail: jason.mccrea@lacity.org

RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report (DEIR) for the 1111 Sunset Project [SCAG NO. IGR9616]

Dear Mr. McCrea,

Thank you for submitting the Notice of Preparation of a DEIR for the 1111 Sunset Project ("proposed project") to the Southern California Association of Governments (SCAG) for review and comment. SCAG is the authorized regional agency for Inter-Governmental Review (IGR) of programs proposed for Federal financial assistance and direct Federal development activities, pursuant to Presidential Executive Order 12372. Additionally, SCAG reviews the Environmental Impact Reports of projects of regional significance for consistency with regional plans pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

SCAG is also the designated Regional Transportation Planning Agency under state law, and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS) pursuant to Senate Bill (SB) 375. As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans.[1] SCAG's feedback is intended to assist local jurisdictions and project proponents to implement projects that have the potential to contribute to attainment of Regional Transportation Plan/Sustainable Community Strategies (RTP/SCS) goals and align with RTP/SCS policies.

SCAG staff has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the 1111 Sunset Project. The proposed project includes 218,000 square feet (sf) of commercial uses including hotel, office, and retail restaurant, 778 residential dwelling units, and 87,525 sf of open space on a 262,437 sf site.

When available, please send environmental documentation to *SCAG's office in Los Angeles or by email to au@scag.ca.gov* providing, at a minimum, the full public comment period for review. Please note our new headquarters in Downtown Los Angeles is at *900 Wilshire Boulevard, Ste. 1700, Los Angeles, California 90017*.

If you have any questions regarding the attached comments, please contact the Inter-Governmental Review (IGR) Program, attn.: Anita Au, Associate Regional Planner, at (213) 236-1874 or au@scag.ca.gov. Thank you.

Sincerely,

Ping Chang

Ping Chang
Acting Manager, Compliance and Performance Monitoring

---

[1] Lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the 2016 RTP/SCS for the purpose of determining consistency for CEQA. Any "consistency" finding by SCAG pursuant to the IGR process should not be construed as a determination of consistency with the 2016 RTP/SCS for CEQA.

COMMENTS ON THE NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE 1111 SUNSET PROJECT [SCAG NO. IGR9616]

CONSISTENCY WITH RTP/SCS

SCAG reviews environmental documents for regionally significant projects for their consistency with the adopted RTP/SCS. For the purpose of determining consistency with CEQA, lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the RTP/SCS.

2016 RTP/SCS GOALS

The SCAG Regional Council adopted the 2016 RTP/SCS in April 2016. The 2016 RTP/SCS seeks to improve mobility, promote sustainability, facilitate economic development and preserve the quality of life for the residents in the region. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health (see http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx). The goals included in the 2016 RTP/SCS may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project within the context of regional goals and policies. Among the relevant goals of the 2016 RTP/SCS are the following:

SCAG 2016 RTP/SCS GOALS	
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*
RTP/SCS G3:	*Ensure travel safety and reliability for all people and goods in the region*
RTP/SCS G4:	*Preserve and ensure a sustainable regional transportation system*
RTP/SCS G5:	*Maximize the productivity of our transportation system*
RTP/SCS G6:	*Protect the environment and health for our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking)*
RTP/SCS G7:	*Actively encourage and create incentives for energy efficiency, where possible*
RTP/SCS G8:	*Encourage land use and growth patterns that facilitate transit and active transportation*
RTP/SCS G9:	*Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies**
	**SCAG does not yet have an agreed-upon security performance measure.*

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the goals and supportive analysis in a table format. Suggested format is as follows:

SCAG 2016 RTP/SCS GOALS		
	Goal	Analysis
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
etc.		etc.

2016 RTP/SCS STRATEGIES

To achieve the goals of the 2016 RTP/SCS, a wide range of land use and transportation strategies are included in the 2016 RTP/SCS. Technical appendances of the 2016 RTP/SCS provide additional supporting information in detail. To view the 2016 RTP/SCS, please visit: http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx. The 2016 RTP/SCS builds upon the progress from the 2012 RTP/SCS and continues to focus on integrated, coordinated, and balanced planning for land use and transportation that the SCAG region strives toward a more sustainable region, while the region meets and exceeds in meeting all of applicable statutory requirements pertinent to the 2016 RTP/SCS. These strategies within the regional context are provided as guidance for lead agencies such as local jurisdictions when the proposed project is under consideration.

DEMOGRAPHICS AND GROWTH FORECASTS

Local input plays an important role in developing a reasonable growth forecast for the 2016 RTP/SCS. SCAG used a bottom-up local review and input process and engaged local jurisdictions in establishing the base geographic and socioeconomic projections including population, household and employment. At the time of this letter, the most recently adopted SCAG jurisdictional-level growth forecasts that were developed in accordance with the bottom-up local review and input process consist of the 2020, 2035, and 2040 population, households and employment forecasts. To view them, please visit http://www.scag.ca.gov/Documents/2016GrowthForecastByJurisdiction.pdf. The growth forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts			Adopted City of Los Angeles Forecasts		
	Year 2020	Year 2035	Year 2040	Year 2020	Year 2035	Year 2040
Population	19,663,000	22,091,000	22,138,800	4,017,000	4,442,500	4,609,400
Households	6,458,000	7,325,000	7,412,300	1,441,400	1,618,900	1,690,300
Employment	8,414,000	9,441,000	9,871,500	1,899,500	2,104,100	2,169,100

MITIGATION MEASURES

SCAG staff recommends that you review the Final Program Environmental Impact Report (Final PEIR) for the 2016 RTP/SCS for guidance, as appropriate. SCAG's Regional Council certified the Final PEIR and adopted the associated Findings of Fact and a Statement of Overriding Considerations (FOF/SOC) and Mitigation Monitoring and Reporting Program (MMRP) on April 7, 2016 (please see: http://scagrtpscs.net/Pages/FINAL2016PEIR.aspx). The Final PEIR includes a list of project-level performance standards-based mitigation measures that may be considered for adoption and implementation by lead, responsible, or trustee agencies in the region, as applicable and feasible. Project-level mitigation measures are within responsibility, authority, and/or jurisdiction of project-implementing agency or other public agency serving as lead agency under CEQA in subsequent project- and site- specific design, CEQA review, and decision-making processes, to meet the performance standards for each of the CEQA resource categories.

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
South Coast AQMD (909) 396-2000 · www.aqmd.gov

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JUN 12 2018

MAJOR PROJECTS
UNIT

June 5, 2018

SENT VIA USPS AND E-MAIL:
Jason.mccrea@lacity.org
Jason McCrea
City of Los Angeles, Department of City Planning
221 N. Figueroa Street, Suite 1350
Los Angeles, CA 90012

Notice of Preparation of Environmental Impact Report for 1111 Sunset (ENV-2018-177-EIR)[1]

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. SCAQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the Proposed Project that should be included in the Environmental Impact Report (EIR). Please send SCAQMD a copy of the EIR upon its completion. Note that copies of the EIR that are submitted to the State Clearinghouse are not forwarded to SCAQMD. Please forward a copy of the EIR directly to SCAQMD at the address shown in the letterhead. **In addition, please send with the EIR all appendices or technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files[2]. These include emission calculation spreadsheets and modeling input and output files (not PDF files). Without all files and supporting documentation, SCAQMD staff will be unable to complete our review of the air quality analyses in a timely manner. Any delays in providing all supporting documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from SCAQMD's Subscription Services Department by calling (909) 396-3720. More guidance developed since this Handbook is also available on SCAQMD's website at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). SCAQMD staff also recommends that the Lead Agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

SCAQMD has also developed both regional and localized significance thresholds. SCAQMD staff requests that the Lead Agency quantify criteria pollutant emissions and compare the results to

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[1] The Lead Agency proposes to build, among others, residential land uses totaling 776,982 square feet with 778 units.

[2] Pursuant to the CEQA Guidelines Section 15174, the information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public. Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR. Appendices to the EIR may be prepared in volumes separate from the basic EIR document, but shall be readily available for public examination and shall be submitted to all clearinghouses which assist in public review.

SCAQMD's CEQA regional pollutant emissions significance thresholds to determine air quality impacts. SCAQMD's CEQA regional pollutant emissions significance thresholds can be found here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf. In addition to analyzing regional air quality impacts, SCAQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the Proposed Project, it is recommended that the Lead Agency perform a localized analysis by either using the LSTs developed by SCAQMD staff or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the Proposed Project and all air pollutant sources related to the Proposed Project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be included in the analysis.

Mobile Source Health Risk Assessment

Notwithstanding the court rulings, SCAQMD staff recognizes that the Lead Agencies that approve CEQA documents retain the authority to include any additional information they deem relevant to assessing and mitigating the environmental impacts of a project. Because of SCAQMD staff's concern about the potential public health impacts of siting sensitive populations within close proximity of freeways, SCAQMD staff recommends that, prior to approving the project, Lead Agencies consider the impacts of air pollutants on people who will live in a new project and provide mitigation where necessary.

When specific development is reasonably foreseeable as result of the goals, policies, and guidelines in the Proposed Project, the Lead Agency should identify any potential adverse health risk impacts using its best efforts to find out and a good-faith effort at full disclosure in the CEQA document. Based on a review of aerial photographs and information in the NOP, SCAQMD staff found that the Proposed Project will be located in proximity to the intersection between Interstate 101 (I-101) and State Route 110 (SR-110). Because of the close proximity to the existing freeways, residents at the Proposed Project[3] would be exposed to diesel particulate matter (DPM), which is a toxic air contaminant and a carcinogen. Diesel particulate matter emitted from diesel powered engines (such as trucks) has been classified by the state as a toxic air contaminant and a carcinogen. Since future residences of the Proposed Project would be exposed to toxic emissions from the nearby sources of air pollution (e.g., diesel fueled highway vehicles), SCAQMD staff recommends that the Lead Agency conduct a health risk assessment (HRA)[4] to disclose

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[3] According to the Project Description in the Notice of Preparation, the Proposed Project would include residential uses with 778 units.

[4] "Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis," accessed at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis.

the potential health risks to the residents from the emissions coming from vehicles traveling on I-101 and SR-110 on I-215 in the EIR[5].

Guidance Regarding Residences Sited Near a High-Volume Freeway or Other Sources of Air Pollution
SCAQMD staff recognizes that there are many factors Lead Agencies must consider when making local planning and land use decisions. To facilitate stronger collaboration between Lead Agencies and the SCAQMD to reduce community exposure to source-specific and cumulative air pollution impacts, the SCAQMD adopted the Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning in 2005. This Guidance Document provides suggested policies that local governments can use in their General Plans or through local planning to prevent or reduce potential air pollution impacts and protect public health. SCAQMD staff recommends that the Lead Agency review this Guidance Document as a tool when making local planning and land use decisions. This Guidance Document is available on SCAQMD's website at: http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf. Additional guidance on siting incompatible land uses (such as placing homes near freeways or other polluting sources) can be found in the California Air Resources Board's (CARB) *Air Quality and Land Use Handbook: A Community Health Perspective*, which can be found at: http://www.arb.ca.gov/ch/handbook.pdf. Guidance[6] on strategies to reduce air pollution exposure near high-volume roadways can be found at: https://www.arb.ca.gov/ch/rd_technical_advisory_final.PDF.

Mitigation Measures
In the event that the Proposed Project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize these impacts. Pursuant to CEQA Guidelines Section 15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying potential mitigation measures for the Proposed Project, including:

- Chapter 11 of SCAQMD's CEQA Air Quality Handbook
- SCAQMD's CEQA web pages available here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies
- SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions and Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities
- SCAQMD's Mitigation Monitoring and Reporting Plan (MMRP) for the 2016 Air Quality Management Plan (2016 AQMP) available here (starting on page 86): http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-mar3-035.pdf
- CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* available here: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

In a recent report to the City of Los Angeles Planning and Land Use Management Committee in response to Council Motion No. 17-0309, the City Planning Department recommended a number of strategies to reduce exposures of future residents to the harmful pollutant levels from freeways for freeway adjacent

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[5] SCAQMD has developed the CEQA significance threshold of 10 in one million for cancer risk. When SCAQMD acts as the Lead Agency, SCAQMD staff conducts a HRA, compares the maximum cancer risk to the threshold of 10 in one million to determine the level of significance for health risk impacts, and identifies mitigation measures if the risk is found to be significant.

[6] In April 2017, CARB published a technical advisory, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory*, to supplement CARB's Air Quality and Land Use Handbook: A Community Health Perspective. This technical advisory is intended to provide information on strategies to reduce exposures to traffic emissions near high-volume roadways to assist land use planning and decision-making in order to protect public health and promote equity and environmental justice. The technical advisory is available at: https://www.arb.ca.gov/ch/landuse.htm.

development[7]. The strategies are: (1) installation and regular maintenance of high efficiency filters; (2) limitations on the siting or sensitive uses immediately adjacent to the freeway; and (3) design, building location, and installation of landscaping screens. Additionally, Article 9 of Chapter IX of the City of Los Angeles Municipal Code requires provision of regularly occupied areas of the building with air filtration media for outside and return air that provides a Minimum Efficiency Reporting Value (MERV) of 13 for buildings within 1,000 feet of a freeway. Therefore, SCAQMD staff recommends that the Lead Agency incorporate these recent efforts in the EIR to reduce health impacts of future residents at the Proposed Project from harmful air toxics emissions due to living in close proximity to I-101 and SR-110.

As stated above, the Proposed Project is located in proximity to the intersection between I-101 and SR-110. Many strategies are available to reduce exposure, including, but are not limited to, building filtration systems with MERV13 or better, or in some cases, MERV 15 or better is recommended; building design, orientation, location; vegetation barriers or landscaping screening, etc. Because of the potential adverse health risks involved with siting sensitive receptors near freeways, it is essential that any proposed strategy must be carefully evaluated before implementation.

In the event that enhanced filtration units are installed at the Proposed Project either as a mitigation measure or project design feature requirement, SCAQMD staff recommends that the Lead Agency consider the limitations of the enhanced filtration. For example, in a study that SCAQMD conducted to investigate filters[8], a cost burden is expected to be within the range of $120 to $240 per year to replace each filter. In addition, because the filters would not have any effectiveness unless the HVAC system is running, there may be increased energy costs to the residents. It is typically assumed that the filters operate 100 percent of the time while residents are indoors, and the environmental analysis does not generally account for the times when the residents have their windows or doors open or are in common space areas of the project. In addition, these filters have no ability to filter out any toxic gases from vehicle exhaust. . Therefore, the presumed effectiveness and feasibility of any filtration units should be carefully evaluated in more detail prior to assuming that they will sufficiently alleviate exposures to DPM emissions.

If enhanced filtration units are installed at the Proposed Project, and to ensure that they are enforceable throughout the lifetime of the Proposed Project as well as effective in reducing exposures to DPM emissions, SCAQMD staff recommends that the Lead Agency provide additional details regarding the ongoing, regular maintenance of filters in the EIR. To facilitate a good faith effort at full disclosure and provide useful information to future residents who will live at the Proposed Project, the EIR should include the following information, at a minimum:

- Disclose the potential health impacts to prospective residents from living in a close proximity of I-101 and SR-110 and the reduced effectiveness of air filtration system when windows are open and/or when residents are outdoor (e.g., in the common usable open space areas);
- Identify the responsible implementing and enforcement agency such as the Lead Agency to ensure that enhanced filtration units are installed on-site at the Proposed Project before a permit of occupancy is issued;
- Identify the responsible implementing and enforcement agency such as the Lead Agency to ensure that enhanced filtration units are inspected regularly;
- Provide information to residents on where the MERV filers can be purchased;

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[7] City of Los Angeles Planning and Land Use Management Committee. April 12, 2018. Accessed at: https://cityclerk.lacity.org/lacityclerkconnect/index.cfm?fa=ccfi.viewrecord&cfnumber=17-0309

[8] This study evaluated filters rated MERV 13 or better. Accessed at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/aqmdpilotstudyfinalreport.pdf. Also see also 2012 Peer Review Journal article by SCAQMD: http://d7.iqair.com/sites/default/files/pdf/Polidori-et-al-2012.pdf

- Disclose the potential increase in energy costs for running the HVAC system to prospective residents;
- Provide recommended schedules (e.g., once a year or every six months) for replacing the enhanced filtration units to prospective residents;
- Identify the responsible entity such as residents themselves, Homeowner's Association, or property management for ensuring enhanced filtration units are replaced on time, if appropriate and feasible (if residents should be responsible for the periodic and regular purchase and replacement of the enhanced filtration units, the Lead Agency should include this information in the disclosure form);
- Identify, provide, and disclose any ongoing cost sharing strategies, if any, for the purchase and replacement of the enhanced filtration units;
- Set City-wide or Project-specific criteria for assessing progress in installing and replacing the enhanced filtration units; and

  Develop a City-wide or Project-specific process for evaluating the effectiveness of the enhanced filtration units at the Proposed Project.

Alternatives
In the event that the Proposed Project generates significant adverse air quality impacts, CEQA requires the consideration and discussion of alternatives to the project or its location which are capable of avoiding or substantially lessening any of the significant effects of the project. The discussion of a reasonable range of potentially feasible alternatives, including a "no project" alternative, is intended to foster informed decision-making and public participation. Pursuant to CEQA Guidelines Section 15126.6(d), the EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project.

Permits
In the event that the Proposed Project requires a permit from SCAQMD, SCAQMD should be identified as a responsible agency for the Proposed Project. For more information on permits, please visit SCAQMD webpage at: http://www.aqmd.gov/home/permits. Questions on permits can be directed to SCAQMD's Engineering and Permitting staff at (909) 396-3385.

Data Sources
SCAQMD rules and relevant air quality reports and data are available by calling SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available at SCAQMD's webpage at: http://www.aqmd.gov.

SCAQMD staff is available to work with the Lead Agency to ensure that project air quality impacts are accurately evaluated and any significant impacts are mitigated where feasible. If you have any questions regarding this letter, please contact me at lsun@aqmd.gov or call me at (909) 396-3308.

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

LS
LAC180522-07
Control Number

FORM GEN. 160 (Rev. 8-12)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

RECEIVED
CITY OF LOS ANGELES
JUL 06 2018
CITY PLANNING DEPT.
EXECUTIVE OFFICE

DATE: June 27, 2018

TO: Vincent P. Bertoni, Director of Planning
Department of City Planning

Attn: Jason McCrea, City Planner
Department of City Planning

FROM: Ali Poosti, Division Manager
Wastewater Engineering Services Division
LA Sanitation and Environment

SUBJECT: **1111 SUNSET - NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING**

This is in response to your May 21, 2018 letter requesting a review of your proposed mixed-use project located at 1111 and 1115 West Sunset Boulevard, Los Angeles, CA 90012. The project will consist of residential units, hotel, and commercial use. LA Sanitation has conducted a preliminary evaluation of the potential impacts to the wastewater and stormwater systems for the proposed project.

WASTEWATER REQUIREMENT

LA Sanitation, Wastewater Engineering Services Division (WESD) is charged with the task of evaluating the local sewer conditions and to determine if available wastewater capacity exists for future developments. The evaluation will determine cumulative sewer impacts and guide the planning process for any future sewer improvement projects needed to provide future capacity as the City grows and develops.

Projected Wastewater Discharges for the Proposed Project:

Type Description	Average Daily Flow per Type Description (GPD/UNIT)	Proposed No. of Units	Average Daily Flow (GPD)
Proposed			
Residential: APT- 1 BDRM	110 GPD/DU	389 Units	42,790
Residential: APT- 2 BDRM	150 GPD/DU	389 Units	58,350
Hotel	120 GPD/Room	98 \Rooms	11,760
Office	120 GPD/1000 SQ.FT	48,000 SQ.FT	8,160
Commercial Use	50 GPD/1000 SQ.FT	60,000 SQ.FT	3,000
Commercial: Restaurant	3 GPD/ Seat	2,334 Seats	7,002
Pool	20,000 GPD/1 Pool	2 Pools	40,000
Total			**171,062**

SEWER AVAILABILITY

The sewer infrastructure in the vicinity of the proposed project includes an existing 8-inch line on White Knoll Dr. The sewage from the existing 8-inch line feeds into a 30-inch line on Los Angeles St before discharging into a 42-inch sewer line on Los Angeles St. Figure 1 shows the details of the sewer system within the vicinity of the project. The current flow level (d/D) in the 8-inch line cannot be determined at this time without additional gauging.

The current approximate flow level (d/D) and the design capacities at d/D of 50% in the sewer system are as follows:

Pipe Diameter (in)	Pipe Location	Current Gauging d/D (%)	50% Design Capacity
8	White Knoll Dr.	*	229,323 GPD
30	Los Angeles Dr.	28	7.78 MGD
30	Los Angeles Dr.	38	8.16 MGD
36	Los Angeles Dr.	58	8.49 MGD
42	Los Angeles Dr.	33	17.60 MGD

* No gauging available

Based on the estimated flows, it appears the sewer system might be able to accommodate the total flow for your proposed project. Further detailed gauging and evaluation will be needed as part of the permit process to identify a specific sewer connection point. If the public sewer has insufficient capacity then the developer will be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at that time. Ultimately, this sewage flow will be conveyed to the Hyperion Water Reclamation Plant, which has sufficient capacity for the project.

If you have any questions, please call Christopher DeMonbrun at (323) 342-1567 or email at chris.demonbrun@lacity.org.

STORMWATER REQUIREMENTS

LA Sanitation, Watershed Protection Program (WPP) is charged with the task of ensuring the implementation of the Municipal Stormwater Permit requirements within the City of Los Angeles. We anticipate the following requirements would apply for this project.

POST-CONSTRUCTION MITIGATION REQUIREMENTS

In accordance with the Municipal Separate Storm Sewer (MS4) National Pollutant Discharge Elimination System (NPDES) Permit (Order No. R4-2012-0175, NPDES No. CAS004001) and the City of Los Angeles Stormwater and Urban Runoff Pollution Control requirements (Chapter VI, Article 4.4, of the Los Angeles Municipal Code), the Project shall comply with all mandatory provisions to the Stormwater Pollution Control Measures for Development Planning (LID Ordinance) and as it may be subsequently amended or modified. Prior to issuance of grading or building permits, the Applicant shall submit a LID Plan to the City of Los Angeles, LA Sanitation, Watershed Protection Division (WPD), for review and approval. The LID Plan shall be prepared consistent with the requirements of the Development Best Management Practices Handbook.

Current regulations prioritize infiltration, capture/use, and then biofiltration as the preferred stormwater control measures. The relevant documents can be found at: www.lacitysan.org. It is advised that input regarding LID requirements be received in the early phases of the project from WPD's plan-checking staff.

GREEN STREETS

The City is developing a Green Street Initiative that will require projects to implement Green Street elements in the parkway areas between the roadway and sidewalk of the public right-of-away to capture and retain stormwater and urban runoff to mitigate the impact of stormwater runoff and other environmental concerns. The goals of the Green Street elements are to improve the water quality of stormwater runoff, recharge local ground water basins, improve air quality, reduce the heat island effect of street pavement, enhance pedestrian use of sidewalks, and encourage alternate means of transportation. The Green Street elements may include infiltration systems, biofiltration swales, and permeable pavements where stormwater can be easily directed from the streets into the parkways and can be implemented in conjunction with the LID requirements. Green Street standard plans can be found at:
www.eng2.lacity.org/techdocs/stdplans/

CONSTRUCTION REQUIREMENTS

All construction sites are required to implement a minimum set of BMPs for erosion control, sediment control, non-stormwater management, and waste management. In addition, construction sites with active grading permits are required to prepare and implement a Wet Weather Erosion Control Plan during the rainy season between October 1 and April 15. Additionally, construction sites that disturb more than one-acre of land are subject to the NPDES Construction General Permit issued by the State of California, and are required to prepare, submit, and implement the Storm Water Pollution Prevention Plan (SWPPP).

If there are questions regarding the stormwater requirements, please call WPP's plan-checking counter at (213) 482-7066. WPD's plan-checking counter can also be visited at 201 N. Figueroa, 3rd Fl, Station 18.

GROUNDWATER DEWATERING REUSE OPTIONS

The Los Angeles Department of Water and Power (LADWP) is charged with the task of supplying water and power to the residents and businesses in the City of Los Angeles. One of the sources of water includes groundwater. The majority of groundwater in the City of Los Angeles is adjudicated, and the rights of which are owned and managed by various parties. Extraction of groundwater within the City from any depth by law requires metering and regular reporting to the appropriate Court-appointed Watermaster. LADWP facilitates this reporting process, and may assess and collect associated fees for the usage of the City's water rights. The party performing the dewatering should inform the property owners about the reporting requirement and associated usage fees.

On April 22, 2016 the City of Los Angeles Council passed Ordinance 184248 amending the City of Los Angeles Building Code, requiring developers to consider beneficial reuse of groundwater as a conservation measure and alternative to the common practice of discharging groundwater to the storm drain (SEC. 99.04.305.4). It reads as follows: "Where groundwater is being extracted and discharged, a system for onsite reuse of the groundwater, shall be developed and constructed. Alternatively, the groundwater may be discharged to the sewer."

Groundwater may be beneficially used as landscape irrigation, cooling tower make-up, and construction (dust control, concrete mixing, soil compaction, etc.). Different applications may require various levels of treatment ranging from chemical additives to filtration systems. When onsite reuse is not available the groundwater may be discharged to the sewer system. This allows the water to be potentially reused as recycled water once it has been treated at a water reclamation plant. If groundwater is discharged into the storm drain it offers no potential for reuse. The onsite beneficial reuse of groundwater can reduce or eliminate costs associated with sewer and storm drain permitting and monitoring. Opting for onsite reuse or discharge to the sewer system are the preferred methods for disposing of groundwater.

To help offset costs of water conservation and reuse systems, LADWP offers the Technical Assistance Program (TAP), which provides engineering and technical assistance for qualified projects. Financial incentives are also available. Currently, LADWP provides an incentive of $1.75 for every 1,000 gallons of water saved during the first two years of a five-year conservation project. Conservation projects that last 10 years are eligible to receive the incentive during the first four years. Other water conservation assistance programs may be available from Metropolitan Water District of Southern California. To learn more about available water conservation assistance programs, please contact LADWP Rebate Programs 1-888-376-3314 and LADWP TAP 1-800-544-4498, selection "3".

For more information related to beneficial reuse of groundwater, please contact Greg Reed, Manager of Water Rights and Groundwater Management, at (213)367-2117 or greg.reed@ladwp.com.

SOLID RESOURCE REQUIREMENTS

The City has a standard requirement that applies to all proposed residential developments of four or more units or where the addition of floor areas is 25 percent or more, and all other development projects where the addition of floor area is 30 percent or more. Such developments must set aside a recycling area or room for onsite recycling activities. For more details of this requirement, please contact LA Sanitation Solid Resources Recycling hotline (213) 922-8300.

CD/AP: sa
Attachment: Figure 1 – Sewer Map

c: Kosta Kaporis, LASAN
Christopher DeMonbrun, LASAN

Wastewater Engineering Services Division
Bureau of Sanitation
City of Los Angeles

Figure 1
1111 SUNSET
Sewer Map

Thomas Brother Data reproduced with permission granted by THOMAS BROS MAP

DATE: June 20, 2018 3pm

TO: Jason McCrea, Planner, CoLA DDpt.CityPlang.
221 N. Figueroa Str., Ste. 1350, LA, Ca 90012
jason.mccrea@lacity.org 213-847-3672

FROM: Dr. Tom Williams Snr. Techn. Adviser, CCSC, Mbr.:SC-Env.Justice Comte.
4117 Barrett Rd. Los Angeles, CA 90032-1712 323-528-9682

SUBJECT: 1111 Sunset ENV. CASE NO.: ENV-2018-177-EIR APPLICT.: 1111 Sunset Blvd, LLC.
RE: Comments for Scoping of DEIR
Request for Scoping until 06/20/18 and new Scoping Meeting with Presentation & Q&A

Review of the Initial Study, appendices, and available references have been reviewed, the Scoping Meeting was attended.

Although retired, I have several degrees in geology and zoology and 40+ years of experience in preparation, management, reviews/editing, and processing of of more than 400 EIRs, EISs, MNDs, and EAs in California and worldwide for local, state, federal, and international agencies.

I find the Initial Study and Scoping efforts are/were totally inadequate and incomplete and often erroneous, in addition many references/citations are not available to the public and could not be reviewed.

Comments/requests are discussed below in general and specific levels, but they can be summarized as: Initial Study and Scoping efforts - totally inadequate and incomplete and that both be withdrawn, revised, and recirculated for public review and comments. Failing to do such may be considered forthwith or at a later date for additional efforts.

SCOPING

No displays regarding historic character and resources were presented and no qualified cultural/historic specialist was available for responsible responses.

Scoping Meeting with no presentation for attendees and no general Q&As.
Provide new, second scoping with adequate outreach and notices, presentation/Q&A, and extended comment period of one month as was done for the Elysian Park Loft Project Scoping.
Project planners, consultants, nor applicant/proponents were NOT identified and no readable name tags were worn; responses cannot be connected to the responders.

Only 11 Displays were available but were not provided On-Line before/after meeting.
Provide pre-meeting displays for public preparation and those comments on project as presented.
Two displays for Traffic, not transportation, with LaDOT process but without any representative of LaDOT or competent consultant; no geologist/no excavation specialist/no Environmental Justice specialist was available for responses to public questions.
Provide qualified specialists for Scoping meeting for competent responses for public questions.
Provide all geological/geotechnical reports and correction letters online
Provide online/searchable/copy-able, files of all documents and provide www.links for all cited/referenced documents, including copies of any "personal communications".

No representative of Dpt. Public Works was present and no one could competently respond to questions regarding the Project's drainage, sewerage, and Low Impact Development issues.

Alternatives
No discussions or displays of alternatives was provided and no basis (project objectives) was provided for proposing alternatives. ***Provide alternatives for:***

a. specific plan for site and surrounding 2640ft radius of site boundary;
b. half and double current floor areas and heights

Scoping Meeting was totally inadequate with no presentation for attendees and no Q&As and no discussion as to content/purpose of scoping and comments.

Provide new, second scoping with adequate outreach and notices, presentation/Q&A, and extended comment period of one month as was done for the Elysian Park Loft Project Scoping.

No project planners, consultants, nor applicant/proponents were identified and no name tags were worn; responses can not be connected to the responders.

Provide clearly identified project related staffs.

Only 11 Displays were available but were not provided On-Line before/after meeting.

Provide pre-meeting displays for public preparation and those comments on project as presented.

Two displays for Traffic, not transportation, with LaDOT process but without any representative of LaDOT; no geologist/no excavation specialist/no Environmental Justice specialist was available for responses to public questions.

Provide qualified specialists for Scoping meeting for competent responses for public questions;
Provide all geological/geotechnical reports and correction letters online;
Provide online/searchable/copy-able, files of all documents and provide www.links for all cited/referenced documents, including copies of any "personal communications".

No representative of Dpt. Public Works was present and no one could competently respond to questions regarding the Project's drainage, sewerage, and Low Impact Development issues.

Provide qualified specialists for Scoping meeting for competent responses for public questions.

No discussions, nor form***ats,*** nor displays of alternatives were provided and no basis (project objectives) was provided for proposing alternatives.

Provide alternatives for:

a. Specific plan for site and surrounding 2640ft radius of site boundary,
b. Double floor or footprint areas,
c. Cut floor or footprint areas by 50%,
d. Project objectives.

Made request for disk which can be searched/copied...rejected; City Planning Department policy but without reference. **Provide se*archable/copyable cds and digital/pdf files. Provide written policy regarding copying of text from files/cds.***
Provide all text/appendix documents available ON LINE Geo-References 241-42

More Specifics

58\B-38/3 Cultural Resources V. a Although Significant cultural impacts are expected, the entire assessment is **b**ased on textual and drawn materials with minor mention of historic aerial photos that were reviewed but acquired for a different project and site assessment. Photos are available for the site from a referenced source for 1923, 1928, 1933, 1938, and later which could have specifically and accurately identified structures, remains and activities which may be of historic cultural value.
V.b and V.c Impacts may be mitigated to less than significant if appropriate inventory information (e.g., aerial photos) is available in the IS and incorporated into the mitigation process, prior to/during construction which they have not been.
Provide Project specific historic aerial photos for 1928-1958.

Geology
132\34/1 Entire paragraph is in error and without access to referenced documents, e.g., Geologic Map (Fig.3) does not show any Quaternary-age/Qal alluvial deposits in Project.

103\5/4 & 104\6/Fig.3 Geological Map showing Faults
Campbell Wills Irvine 2014 Preliminary Geologic map Los angeles 30 x 60

ftp://ftp.consrv.ca.gov/pub/dmg/rgmp/Prelim_geo_pdf/Los_Angeles_100k_v2.1_Map.pdf
No direct public access to original map site.
Provide web links to referenced/cited sources
Require Statistical Research, Inc., Feb., 2018 modifications of original map be clearly indicated.

No historic records of seismicity (SCECntr.) is provided in the vicinity of the Project: one earthquake at 700ft NW of site center - 34.06750, -118.25067, 1972/04/03 09:30am, 1.70RM, Depth 9.2km.

117\19/4 50 aps
118\20/Table 2 Incorrect cit***ation for Well Finder*** DOGGR/DOC: bad acronyms
Repositories are no publicly accessible
Mixing up of LACity and LACounty repositories, revise referencing format.
Referenced: Well Finder without date of access Provide dates of access or a standard format.

113\15/Fig. 5 shows only 5 wells, but Table 1 show 6 wells but with sequence of #2-#7 (7 wells ***assuming #1 abandoned***, ***8 Oil Wells mentioned elsewhere. Buried also must assumed not plugged/abandoned.***

115\17/3 Mention is made of aerial photos dated 1923 [EDR] without reference or inclusion.
115\17/5 1937 Aerial photos mentioned again without reference to presence of 1928, 1933, 1943 photos without reference or access to EDR, Connecticut-commercial source, only in Table 2/118\20.
140-141\42-43 References of EDR for maps/photos for 5420-5450 Sunset, not 1111 Sunset***. Acquire and review, and provide access to appropriately centered historic aerial photos (1923,-28, -33, -38, & -40s); photos would be useful for providing factual setting for cultural resources, hazards, hazardous wastes/contamination, mineral and oil wells for tthe Project site.***

71\B-43/2 - 72\B-44 /1 Hazardous Wastes must include Methane/H2S, oil wells, and oil seeps. ***These materials/facilities can be detected/located easily in the field before and during construction and can be mitigated as have been done elsewhere in the City.***

72\B-44/1 Data-base search of Cortese List ***[CalEPA]***. List is not referenced nor included under appendix. ***Provide list and all related sources and the quantitative methods to develop and assign tthe levels of hazard.***

183\4/3 Vapor investigation referenced by ADR 01-15-006 05/07/15 ***184\5/1 "***earlier soil vapor sampling for organic compounds and methane***"*** and ***"***Level V Mitigation system***"*** are not referenced***. Provide relevant and accessible references.***

50\B-22/Item III/e Odors Not significant but other references indicate odors: ***52\B-24/3 Odors, and 53\B-25/1*** Odors without mitigations. ***Provide revised IS and include in DEIR odors as less than significant with mitigation for hydrocarbon and H2S gases***

70\B-42/1 - 73\B-45/1 Hazards Sub-Section does not mention:
Site being located in a Methane Zone over the Los Angeles City Oil Field
Known odors of hydrocarbons and H2S,
Presence of unplugged/abandoned oil wells,
Reported seepage of oil near the northern Site boundary,
Presence of fault along the Sunset frontage of the site
Provide as a subsection within Hazards impact assessments: Methane/Ground Gas with a ***"Less than Significant Impact with Mitigation".***
Provide mitigation including:
Establish ownerships of subsurface properties and owner cooperation with abandonment;
Gas surveys- Prior to construction, during excavations, whenever encountering oil wells (bores and casings), and when reaching design excavation depths, prior to any gas mitigation measures;
Abandonment of bores/wells must include: clean/flush out to bottom (or 2000ft, whichever less), log all depths and casings, fully (100%) cement casing-bore annulli and openings,

place cap/collector on top of cemented bore, and convey all leakage from cap to surface with appropriate gas treatment before exhausting or use;

Gas Controls with ventilation and barriers of all gases entering excavations or reaching surfaces and soil covering construction - pavement/impervious surfacing.

59\B-31/V-d & 64\B-36/1 Cultural Resources - Cemetery designated impacts as LTSwMitigation.

Include mitigation measures:

Gather historic (pre-1944) ground and aerial photos of the site of Hospital and Church;

Review photos for and identify/survey prospective burial sites with procedure/process before and during construction;

If found provide procedure for identification and appropriate re-internment approved by coroner and other relevant persons.

Mineral Resources

79\B-51/2 & 80\B-52\1 Mineral Resources incorrectly designated as "no impact". IS does not provide surface/subsurface ownerships related to mineral resources. IS does not consider resources related to deeper oil layers within the Oil Field. No reference mentions existing active and operationally "idled" LA City Oil Field Wells at the Belmont/Rockwood production pad with >10 active/idle wells, 4300ft WSW of the Project site.

Revise checklist from No Impact to Less than Significant Impact with Mitigation and include assessment in DEIR

Geology and Soils / Mineral Resources

IS-6 245/Fig. Map 2 Dibble 1989 No fault, no Qal, no Fill

IS-6 246/Fig. Map "Sunset" Fault Lamar 1970 E-Dwn/W-Up

IS-6 247/Fig. Map "Sunset" Fault, Yerkes, et al, 1977; one well at south end with H2S

IS-6 256/Fig. Map Oil Wells, 6 sited, #2-#7"

IS-6 258/Fig. Map Radon - High Bedrock near surface

IS-6 328\ Oil Well Report 03/02/18

IS-6 330\2/1 Seeping (oil/tar) along northern ground surface; methane and H2S gases

IS-6 330\2/2 8 oil wells, 6 in 1906 map

IS-6 331\3/5 assumed 6 only Recent soil and soil vapor testing detected petroleum hydrocarbons and methane

IS-6 331\3/6 Only general statements, e.g., "recommends...surface geophysical survey...should consider well specifications and planned methane mitigation..." No specifications for well abandonment.

IS-6 334\Fig.1 shows eight well sites on southern and southeasterly boundaries. Northerly well site along northerly boundary of the Oil Field.

Revise and provide consistent inter-sector numbers and assessment regarding seismicity, wells, odors, gases, and hazards.

A-6/Fig. a-3 Map shows circles for Bus Routes (linear corridors) with multiple numbered routes with headways of ≤15minutes, e.g., Sunset/Chavez, Broadway, Beverly, Wilshire, etc.. ***Revise and recirculate map and a larger (double current) scale map and provide bus #s for major arterials within one mile of Project.***

A-*8/2* Erroneous information without numerical values: Bus 10 on Temple "one block away from Project", 1200+ft 1/4mile; "near" =700ft east from center of Project site to DOT/DASH; ~~Hold~~ ***Gold*** Line Station, 4000ft ENE of site. These render the IS/Scoping efforts to be inadequate/incomplete documents. ***Withdraw IS, revise, and recirculate with adequate scoping. Provide transit map for systems within one mile of Project site. Provide mitigation in DEIR by adding bus stops and extending lines to the Project perimeter and by providing subsidized TAP cards for all employees and registered condo owners, renters, and lessees.***

Provide appendix with City of Los Angeles, Department of Transportation, Transportation Impact Study Memorandum of Understanding (MOU), DOT Traffic Study Policies and Procedures, Critical Movement analysis CMA, and current, future without Project, and future with full development to existing zoning Level of Services (LOS), Vehicle Miles Travelled (VMT), and Passenger Milles Travelled.

Provide traffic analyses based on: 1. Institute of Transportation Engineers (ITE) Trip Generation, 9th Edition, 2012, 2. Maximum/Worst Case Exit/Entry (e.g. 400 vehicles/hr during peak am/pm commute hour), and 3. Weekday/Weekend Event conditions with tailbacks.
Provide curbside parking prohibition for all Project perimeter curbs with right turn-in and turn-out lanes and prohibition of all left turn-ins and turn-outs for all Project driveways.
Provide wider sidewalks on Project north-/south-side for pedestrian access from the uphill residential areas pass the Project to Sunset transit stops.

50\B-22/3 AQ-e "Less Than Significant" is incorrect based on other sectors and thereby inadequate. ***Based on odors mentioned in geology, methane, and oil well reports, revise to "Less than Significant with Mitigation" and provide/reference appropriate mitigation cited elsewhere.***

> ***51\B-23/4*** AQ-a + b refers to AQMD standards which must include AQMD permitting requirements of requiring "Worst Case"/"Maximum Case" equipment and operating conditions for the emission sources. ***Provide "worst case" emission conditions for vehicular operations during construction and operations, e.g., maximum exiting/entry of vehicles at the four driveway in worse case hour of am/pm commutes [1600 parked vehicles / four driveways = 400 vehicles/hr (1 vehicle/9sec) per driveways].***

53\B-25/1 No potential for odors, no need for further review in DEIR, although odors, onsite oil wells, and methane zonation of the site would indicate a real potential for odors during deep excavation. ***Revise to "Less than significant with mitigation" and require DEIR to address appropriate mitigation for odors and releases of gases from excavations.***

77\B-49/3 X.a Less than significant Impact for Community division. Not "No Impact". No quantified measure of the degree of divisive differences. ***Change "No Significant Impact" to "Less than Significant Impact with Mitigation". Provide construction and early operational mitigation for reducing the barrier-effects and better integration of the Project for the neighborhood northeasterly of the Project.***
78\B-50/1 "Project does not propose a freeway or other large infrastructure...physical division of an established community would be less than significant...no mitigation...required." The Project will form a construction and physical/security operational barriers will greatly increase the barrier-effect between the to the existing northeasterly neighborhood and the Sunset corridor. ***Provide construction and early operational mitigation for reducing the barrier-effects of the Project.***

78\B-50/2 Conflict with...plan, policy...further analyses.
25\A-15/1 Very Low Income is mentioned without references nor quantification. ***Provide income quantification (Md/L/VL/ExtL income groups) and their expenditures for housing of Local census tracts within 500ft of the Project.***
Provide mitigation measures: including -

> ***Right of First Refusal to VL-Income residents of the neighboring, northeasterly community during construction***
> ***Community recreation, educational, senior activities and appropriate facilities;***
> ***Community clinic/care activities and facilities***

82\B-54/4 Population growth in the area is mentioned and related to SCAG's projections at a county level, but no process or references is provided for assignment to even the Community Plan or census tracts. ***Provide the population tiering-down of growth to the Community Plan and Project's census tract.***

82\B-54/5 Housing in the area will differ from the th*at of the Project.* ***Provide quantified comparison of Project and existing housing northeast of the Project with regard to household incomes, persons/household, housing costs in $$/%, vehicle/transit dependency/ownership, and other related population, housing, and land uses.***

86\B-58/1 XVI.c & 87\B-59/2 Mitigation: The tower could affect air/helicopter traffic watchers as the tower is within 800-1400ft of US-101 + I-110 + interchange and may affect air traffic by lights, reflections, turbulence, and communication disruptions. ***Change designation from No Impact to LTSWMitigation***

and provide suitable specific mitigation measures with review by local appropriate agencies and organizations

96\B-68/ Table ***B-2*** employment
99\B-71/1 TPA employment center aesthetics
References to employment center for "NO IMPACT" designation requires documentation for employment as suggested in Table B-2 for solid wastes. ***Provide numerical construction and operational employment and income rates for the Project. Provide similarly comparative numerical findings for other small-medium-large project rates for other recent projects within one mile, 5280ft, of the Project..***

ES-2/5 "Other permitting public agencies" does not include permits within the City organizations, e.g., Haul Route DB&S, Tree Removal DPW, etc.. ***Provide list of all permits required for the project and draft applications and requirements as appendices, e.g., Haul Routes.***

11\A-1/1 Project Description The Project Description does not include any Project objectives, purposes, or needs which are required to formulate alternatives to the proposed Project.
The Initial Study/Scoping process does not mention any Project alternative(s) and thereby is incomplete in accordance with CEQA (Tile 14, Sec.3, Art.7, 15082) and the Project NOP (1/2) request: "The City requests your written comments as to the scope and contents of the EIR, including mitigation measures or **project alternatives** to reduce potential environmental impacts from the Project."
The Project Description is totally incomplete without the Project Objectives and without even mention of any alternative or minimal "Do Nothing" or "Future without Project" alternatives. Without Project objectives and alternative(s), the public cannot reasonably propose alternatives to the proposed project which may mitigate potential significant impacts, as stated in CEQA:

> ***Title 14. California Code of Regulations*** **Chapter 3. Guidelines for Implementation of the California Environmental Quality Act Article 7. EIR Process**
> **15082. Notice of Preparation and Determination of Scope of EIR**
> (a) Notice of Preparation. ....
> (b) Response to Notice of Preparation. ...each...agency...shall provide the lead agency with specific detail about the scope and content of the environmental information...included in the draft EIR.
> (1) The response at a minimum shall identify:
> (A) The significant environmental issues and **reasonable alternatives** and mitigation measures that the responsible or trustee agency...will need to have explored in the draft EIR;....

Provide Project objectives, goals, purposes, needs, etc. and a process for developing alternatives for the IS and DEIR for the public to develop appropriate alternative during an extended scoping process.

Los Angeles Unified School District
Office of Environmental Health and Safety

AUSTIN BEUTNER
Superintendent of Schools

DIANE PAPPAS
Chief Executive Officer, District Operations & Digital Innovations

CARLOS A. TORRES
Acting Director, Environmental Health and Safety

May 29, 2018

Jason McCrea
City of Los Angeles, Department of City Planning
221 N Figueroa Street, Suite 1350
Los Angeles, CA 90012

SUBJECT: PROJECT NAME: 1111 Sunset Boulevard
PROJECT LOCATION: 1111 and 1115 Sunset Boulevard, Los Angeles, CA 90012
CEQA CASE NUMBER: ENV-2018-177-EIR

Presented below are comments submitted on behalf of the Los Angeles Unified School District (LAUSD) regarding the Notice of Preparation for the subject project. Due to the fact that Edward R. Roybal Learning Center, Downtown Business High School, and Evans Community Adult School are located within a quarter-mile of the proposed project site, LAUSD is concerned about the potential negative impacts of the project to our students, staff and parents traveling to and from the referenced campuses.

Based on the extent/location of the proposed development, it is our opinion that significant environmental impacts on the surrounding community (traffic, pedestrian safety, etc.) will occur. Since the project will have a significant impact on LAUSD schools, mitigation measures designed to help reduce or eliminate such impacts are included in this response.

Traffic/Transportation
LAUSD's Transportation Branch **must be contacted** at (213) 580-2950 regarding the potential impact upon existing school bus routes. The Project Manager or designee will have to notify the LAUSD Transportation Branch of the expected start and ending dates for various portions of the project that may affect traffic within nearby school areas. To ensure that effective mitigations are employed to reduce construction and operation related transportation impacts on District sites, we ask that the following language be included in the mitigation measures for traffic impacts:

- School buses must have unrestricted access to schools.
- During the construction phase, truck traffic and construction vehicles may not cause traffic delays for our transported students.
- During and after construction changed traffic patterns, lane adjustment, traffic light patterns, and altered bus stops may not affect school buses' on-time performance and passenger safety.
- Construction trucks and other vehicles are required to stop when encountering school buses using red-flashing-lights must-stop-indicators per the California Vehicle Code.
- Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure vehicular safety.

- Contractors must maintain ongoing communication with LAUSD school administrators, providing sufficient notice to forewarn children and parents when existing vehicle routes to school may be impacted.

- Parents dropping off their children must have access to the passenger loading areas.

Pedestrian Safety
Construction activities that include street closures, the presence of heavy equipment and increased truck trips to haul materials on and off the project site can lead to safety hazards for people walking in the vicinity of the construction site. To ensure that effective mitigations are employed to reduce construction and operation related pedestrian safety impacts on District sites, we ask that the following language be included in the mitigation measures for pedestrian safety impacts:

- Contractors must maintain ongoing communication with LAUSD school administrators, providing sufficient notice to forewarn children and parents when existing pedestrian routes to school may be impacted.

- Contractors must maintain safe and convenient pedestrian routes to all nearby schools. The District will provide School Pedestrian Route Maps upon your request.

- Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure pedestrian and vehicular safety.

- Haul routes are not to pass by ***any*** school, except when school is ***not*** in session.

- No staging or parking of construction-related vehicles, including worker-transport vehicles, will occur on or adjacent to a school property.

- Funding for crossing guards at the contractor's expense is required when safety of children may be compromised by construction-related activities at impacted school crossings.

- Barriers and/or fencing must be installed to secure construction equipment and to minimize trespassing, vandalism, short-cut attractions, and attractive nuisances.

- Contractors are required to provide security patrols (at their expense) to minimize trespassing, vandalism, and short-cut attractions.

The Principal of Evans Community Adult School has noted that the school runs classes from 8:00 a.m. through 8:45 p.m. Monday to Thursday, and 8:00 a.m.-12:15 p.m. on Friday and Saturday. The school has no student parking, so the adult students must find street parking, take the bus or subway, walk or ride their bikes to school. He stressed the importance that construction vehicles do not take up parking spaces "on or adjacent" to school property. Those students who do drive would stop coming to class if they could not find street parking near the school.

The District's charge is to protect the health and safety of students and staff, and the integrity of the learning environment. The comments presented above identify potential environmental impacts related to the proposed project that must be addressed to ensure the welfare of the students attending Edward R. Roybal Learning Center, Downtown Business High School, and Evans Community Adult School, their teachers and the staff, as well as to assuage the concerns of the parents of these students. Therefore, the measures set forth in these comments should be adopted as conditions of project approval to offset unmitigated impacts on the affected school students and staff. Thank you for your attention to this matter. If you need additional information please contact me at (213) 241-4674.

Regards,

Cinah Daqiq
Environmental Specialist/Research Associate

From: **Estela Lopez** <beatus821@gmail.com>
Date: Thu, Jun 21, 2018 at 5:44 PM
Subject: ENV-2018-177-EIR / 1111 Sunset Blvd. , LA 90012
To: Jason.mccrea@lacity.org

Hello Jason. We met at the EIR scoping meeting for this project. Happy to provide this brief comment.

For the past 16 years I've owned and lived at 1007 Figueroa Terrace, #A, Los Angeles, CA 90012. I am supportive of this project and particularly of the low-rise residential component at the northern side of the property. I believe this is an important aspect of their plan that will help to connect the project with the existing residential community of Victor Heights.

Just one thought going forward. Victor Heights is quite compact: bordered by Everett St. on the West, the 110 Parkway on the East, While Knoll Drive and Figueroa Terrace on the North, and Sunset on the South. A more robust conversation with this community would be advisable. There's never been a project of this scope and size proposed for this area. The interests of the project and the City would be well served by a fuller community engagement with Victor Heights.

If you have any questions, I can be reached at 213-709-6650.

Thanks for your consideration, and for your work on behalf of the City of LA.

Cordially,

Estela Lopez

Estela Lopez

ENVIRONMENTAL ISSUES & IMPACTS

What key issues or potential impacts of concern should be analyzed in the Environmental Impact Report?

- ☐ Aesthetics
- ☐ Agriculture and Forest Resources
- ☐ Air Quality
- ☐ Biological Resources
- ☐ Cultural Resources
- ☐ Geology and Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards and Hazardous Materials
- ☐ Hydrology/Water Quality
- ☐ Land Use and Planning
- ☐ Mineral Resources
- ☐ Noise
- ☑ Population and Housing
- ☐ Public Services
- ☐ Recreation
- ☑ Traffic/Transportation
- ☐ Tribal Cultural Resources
- ☐ Utilities/Service Systems

Note: Any identifying information provided will become part of the public record and, as such, must be released to any individual upon request.

Written Comment Form

Use the space below to comment on areas of concern regarding the scope and content of the Draft EIR, and offer potential alternatives and/or measures to avoid or reduce environmental impacts.

Lots of traffic will come in —
AFFORDABLE HOUSING!
6 in 70 very low-income is not enough.

CONTACT INFORMATION (Optional, please print clearly)

Name: ____________________ Representing Agency or Organization: ____________________

Address: ____________________ City/State/Zip: ____________________

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I'm concerned about parking. There is already a lack of parking in the neighborhood. With so many units being built, I would like to know how many parking spaces will each unit have. Also, will there be ample guest parking.

With restaurants and store selling liquor, I'm concern of having drunken people ambling around in the late hours making a ruckous.

Another concern I have is the height of the buildings. Right now, I have a nice view of the sunset behind the existing building. I'm not enthusiastic about having a tower so close to my property.

CONTACT INFORMATION (Optional, please print clearly)

Name: ______________________ Representing Agency or Organization: ______________________

Address: ______________________ City/State/Zip: ______________________

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Permiso De propiedad 21 June -6PM.
222 Hewitt St.
LA CAL. - Catalina - 2nd & Alameda.

CONTACT INFORMATION (Optional, please print clearly)

Name: ____________ Representing Agency or Organization: ____________

Address: ____________ City/State/Zip: ____________

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We do not want high rent, high rise eyesores in our low rent community. Less people in the area means less environmental impact ALWAYS!

We do not have a housing crisis. We have an affordable housing crisis. This is making the situation worse!

CONTACT INFORMATION (Optional, please print clearly)

Name: ____________ Representing Agency or Organization: ____________

Address: ____________ City/State/Zip: ____________

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Written Comment Form

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I THINK it is taking All the look of CHINATOWN. It
Would Be NICE TO HAVE Something TO keep the ORIENTIAL
IMAGE, it's way TO modern AND the people who live
there ARE CHINESE.. it would BRING in Alot OF CHINESE
From All over making ~~it~~ an Attraction. AND GREAT For
the NEighborHood. I DON'T LIKE the IDEA OF TAKING
the ISLAND OUT, we need it FOR TRAFFIC. I Feel it
would pile-up, that is the WAY out FOR All OR the
Homes TO GET EXIT TO SUNSET
ALSO CONCERN ABOUT ASBESTOS DUST-POWDER
FOR I LIVE ACROSS the Street From project

CONTACT INFORMATION (Optional, please print clearly)

Name: RALPH MORAN Representing Agency or Organization:

Address: 1069 SUNSET City/State/Zip: LA

ENVIRONMENTAL ISSUES & IMPACTS

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Written Comment Form

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I live across the street from the proposed project site on Beaudry Ave. and have many concerns including destruction of the historic nature of this residential neighborhood. The extreme height of the buildings is completely out of character with the small family units in this historical neighborhood. I am very concerned about the impact on street parking which is very hard to find as it is, with so many new residences there will be many more people visiting and taking away the few available spots, Uber notwithstanding! Parking on the property will be costly and people will drive around and use street parking when visiting or engaging in business/services. Of course the high rentals of the project will raise all the rents in the area, forcing myself and most residents to leave.

CONTACT INFORMATION (Optional, please print clearly)

Name: Alise Sochaczewski Representing Agency or Organization: __________

Address: __________ City/State/Zip: __________

From: Jason McCrea <jason.mccrea@lacity.org>
Sent: Wednesday, June 20, 2018 11:34 AM
To: Laura Rodriguez <l.rodriguez@eyestoneeir.com>
Subject: Interested party 1111 Sunset

Please add these folks to the notification list.

Richard Drury
Daniel Charlier-Smith
Lozeau Drury LLP
410 12th Street, Suite 250
Oakland, CA 94607
richard@lozeaudrmy.com
daniel@lozeaudrury.com

--

Jason McCrea, Planning Assistant
Department of City Planning
Major Projects
T: 213-847-3672
221 N. Figueroa St., Suite 1350
Los Angeles, CA 90012

From: Kathleen King <kathleen.king@lacity.org>
Sent: Friday, November 16, 2018 1:45 PM
To: Laura Rodriguez <l.rodriguez@eyestoneeir.com>
Subject: 1111 Sunset Blvd Interested Party Request

Laura,

Please add the following to the interested parties list for 1111 Sunset:

UNITE HERE Local 11
Attn: Elle Farmer
464 Lucas Ave Suite 201
LA CA 90017
lfarmer@unitehere11.org

Thanks

CITY OF LOS ANGELES
PUBLIC SCOPING MEETING
1111 SUNSET
MAY 30, 2018

Please include your mailing address if you wish to receive future notices regarding this case, including publication of the Draft EIR and Final EIR.

Name	Address	Organization (if any)
Dr Tom Williams Please print	4117 Barrett Rd LA 90032 ctwilliams2012@yahoo.com	CCSC Sra Club Ang Chptr Env. Justice
TIFFANY DO Please print	927 W COLLEGE ST, LOS ANGELES, CA 90012	
ANGELICA MOYES Please print		HCNC CHINATOWN & CHINATOWN SUSTAINABILITY
MARIO ALONZO Please print	227 N BURLINGTON AV LA Calif 90026	press. 213 4015786
Please print		
Please print		
Please print		
Please print		
Please print		
Please print		
Please print		

CITY OF LOS ANGELES
PUBLIC SCOPING MEETING
1111 SUNSET
MAY 30, 2018

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Name	Address	Organization (if any)
Please print Doreen Quan	845½ Centennial St. LA 90012	
Please print ESTELA LOPEZ	1007 FIGUEROA TERRACE #A LA 90012	
Please print		
Please print		
Please print		
Please print		
Please print		
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CITY OF LOS ANGELES
PUBLIC SCOPING MEETING
1111 SUNSET
MAY 30, 2018

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Name	Address	Organization (if any)
Please print Ralph H Moran	~~6800 HAS~~ 1069 SUNSET BLVD	—
Please print Gerald Gubatan	200 N. Spring St. LA 90012	CD-01.
Please print Alise Sochaczewski	816 N. Beaudry Ave LA 90012	
Please print Andy Ku	257 S. Spring St 90012	
Please print MANUEL LOZA	501 N. Beaudry Ave 90012	
Please print THOMAS DeVOSS	1801 BELLEVUE AVE 90026	
Please print ICIAR RIVERA	812 Alpine A 90012	
Please print Ricardo Flores	200 N. Spring St. L.A. 90012	CD 1
Please print Norma Ramirez	949 Everett St. # 1 LA CA 90026	
Please print Isabel Vargas	949 Everett St. # 15 LA CA 90026.	
Please print SHEILA GONZAGA	5900 WILSHIRE BLVD #1550 LA CA 90036	MARATHON COMMUNICATIONS