New Sequoia Building at Hope Gardens
Draft EIR - Appendices
State Clearinghouse No. 2022060277

Lead Agency:
Los Angeles County Department of Regional Planning
Foothills Development Services
320 West Temple Street, 13th Floor
Los Angeles, CA 90012

June 2025

EcoTierra
consulting

Appendix 1-1

Notice of Preparation and Initial Study

LA COUNTY PLANNING

AMY J. BODEK, AICP
Director,
Regional Planning

DENNIS SLAVIN
Chief Deputy Director,
Regional Planning

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND PUBLIC SCOPING MEETING

DATE: June 15, 2022

TO: State Clearinghouse, Responsible Agencies, Trustee Agencies, Organizations and Interested Parties

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report in Compliance with Title 14, section 15082(a) of the California Code of Regulations

The County of Los Angeles ("County") is the lead agency pursuant to the California Environmental Quality Act ("CEQA") and intends to prepare an Environmental Impact Report ("EIR") for the proposed project identified below. The County has prepared this Notice of Preparation ("NOP") to provide Responsible Agencies and other interested parties with information describing the project and to identify its potential environmental effects pursuant to State requirements.

AGENCIES: The County requests your agency's views on the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the proposed project, in accordance with Title 14, section 15082(b) of the California Code of Regulations. Your agency will need to use the EIR prepared by the County when considering any permits that your agency must issue, or other approval for the project.

ORGANIZATIONS AND INTERESTED PARTIES: The County requests your comments and concerns regarding the environmental issues associated with construction and operation of the proposed project.

PROJECT & PERMIT(S): Hope Gardens**,** 2020-000397-(5), Conditional Use Permit No. RPPL2020000694, Oak Tree Permit No. RPPL2020000706, Environmental Review No. RPPL2020003232

PROJECT APPLICANT: Union Rescue Mission

PROJECT LOCATION: 2846-001-017, 018, 019 and 020, 12249 Lopez Canyon Road, Kagel/Lopez Canyons

PROJECT DESCRIPTION: The project applicant, Union Rescue Mission ("URM"), is requesting a new Conditional Use Permit ("CUP") to replace an existing housing building known as the Sequoia Building with a new housing building within the Hope Gardens Family Center in the A-2-2 Zone pursuant to Los Angeles County ("County") Code Section 22.16.030.C. The proposed building will be sited near the rear northeast corner of the Hope Gardens property where the existing one-

story building currently exists. The new building will consist of approximately 106,410 square feet of building space to be used for 117 housing units and supportive services. The facility was authorized by CUP No. 200600242 in 2007 for the conversion of an existing convalescent hospital and senior citizen residential units into transitional housing for up to 225 formerly homeless women and children, including permanent supportive housing for senior citizen women. In 2019, CUP Modification No. RPPL2019000188 authorized an increased capacity up to 300. The project proposes to increase the housing capacity for up to a total of 525 formerly homeless women and children.

Other existing structures on the property include six residential buildings as well as other buildings for garage, office, utility, and administration. There are currently 128 livable units, 28 full-time staff or Revised 07/14/10 2/49 volunteers, three (3) staff members residing onsite full time, and one (1) staff member residing onsite part time. 25 livable units will be removed as part of the project.

The proposed new Sequoia Building and related infrastructure will occupy approximately one acre. The 106,410-square-foot new building will consist of three residential floors and a subterranean parking. The residential floors include 117 housing units, reception area, case manager and counseling offices, administration offices, security office, dental/medical examination rooms, day care center, computer lab, classroom, multi-purpose room, kitchen, communal dining room, and a courtyard. The new building will also provide a subterranean parking area for 22 spaces for staff and visitors, including four (4) accessible parking spaces, and 11 long-term enclosed bicycle spaces. 74 existing parking spaces located elsewhere within the facility will continue to be provided for staff and general parking. Approximately 3,200 cubic yards of cut and 3,200 cubic yards of fill is proposed to be balance on site.

There are a total 57 protected coast live oak trees in the project area. The project proposes the removal of five (5) oak trees located northwest of the new building and encroachment into the protected zone of eleven oak trees, including one (1) heritage tree. These oak trees are between eight (8) and forty feet tall. The eleven oak trees will be encroached upon between 6.1% and 34.5 % of their protected zones.

In addition, the project seeks the request for building height limit to increase up to 51 feet in order to maximize the available development area to provide the necessary accommodation and services for the growing homelessness problems in the County.

POTENTIAL ENVIRONMENTAL EFFECTS OF THE PROJECT

Based on a preliminary review of the proposed project consistent with section 15060 of the CEQA Guidelines, the County has determined that an EIR should be prepared for this proposed project. In addition, consistent with section 15082 of the CEQA Guidelines, the County has identified the following probable environmental effects of the project, which will be addressed in the EIR for this project:

- Biological Resources
- Cultural Resources
- Geology/Soils
- Tribal Cultural Resources
- Wildfire
- Mandatory Findings of Significance

The County has determined that there is not a likelihood of potentially significant effects related to the following environmental topics:

- Aesthetics
- Agriculture/Forestry
- Air Quality
- Energy
- Greenhouse Gas Emissions
- Hazards/Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Mineral Resources
- Noise
- Population/Housing
- Public Services
- Recreation
- Transportation
- Utilities/Services

The County proposes that the EIR indicate the reasons why these effects were determined not to be significant and are therefore not addressed in detail in the EIR.

NOTICE OF SCOPING MEETING: The County will conduct a public scoping meeting for the purpose of soliciting oral and written comments from interested parties as to the appropriate scope and content of the EIR.

All interested parties are invited to attend the scoping meeting to assist in identifying issues to be addressed in the EIR. The scoping meetings will include a brief presentation of the project to be addressed in the EIR and will provide attendees with an opportunity to provide input to the scope of the EIR. The Scoping Meeting will be held on Tuesday, June 28, 2022 at 6:00 p.m.:

Online. Via Zoom. Visit link for more information.

Please click the link below to join the webinar:
https://us06web.zoom.us/j/87596867124
Or One tap mobile :
US: +16699006833,,87596867124# or +12532158782,,87596867124#
Or Telephone:
Dial(for higher quality, dial a number based on your current location):
US: +1 669 900 6833 or +1 253 215 8782 or +1 346 248 7799 or +1 301 715 8592 or +1 312 626 6799 or +1 929 205 6099 or 833 548 0276 (Toll Free) or 833 548 0282 (Toll Free) or 877 853 5257 (Toll Free) or 888 475 4499 (Toll Free)
Webinar ID: 875 9686 7124
International numbers available: https://us06web.zoom.us/u/kt8VYpKb

Translation in other languages can be made available at the meeting upon request. Please submit translation requests at least seven business days in advance of each scheduled meeting to Michele Bush at mbush@planning.lacounty.gov.

PUBLIC REVIEW PERIOD: The County has determined to make this NOP available for public review and comment pursuant to Title 14, section 15082(b) of the California Code of Regulations. The comment period for the NOP begins on June 17, 2022, and ends on July 19, 2022.

Any comments provided should identify specific topics of environmental concern and your reason for suggesting the study of these topics in the EIR.

Please direct all written comments to the following address:

Michele Bush
LA County Planning
Foothills Development Services Section
320 West Temple Street, Room 1348
Los Angeles, CA 90012
Tel: 213-974-6411
Fax: (213) 626-0434
mbush@planning.lacounty.gov

All written responses will be included as Appendices in the Draft EIR and their contents considered in accordance with State and County environmental guidelines.

DOCUMENT AVAILABILITY: The NOP and Initial Study are available for public review online at https://planning.lacounty.gov/case/view/2020-000397.

Thank you for your participation in the environmental review of this project.

Environmental Checklist Form (Initial Study)

County of Los Angeles, Department of Regional Planning

Project title: "New Sequoia Building at Hope Gardens" / Project No. 2020-000397-(5), Conditional Use Permit No. RPPL2020000694, Oak Tree Permit No. RPPL2020000706. Environmental Assessment No. RPPL2020003232

Lead agency name and address: Los Angeles County, 320 West Temple Street, Los Angeles, CA 90012

Contact Person and phone number: Michele Bush, Principal Regional Planner, (213) 974-6411

Project sponsor's name and address: Union Rescue Mission,
545 S. San Pedro St., Los Angeles, CA 90013

Project location: 12249 Lopez Canyon Road, Sylmar, CA 91342
APN: 2846-001-017, 018, 019, & 020 *USGS Quad*: San Fernando

Gross Acreage: 77.4 acres

General plan designation: RL1- Rural Land 1

Community/Area wide Plan designation: N/A

Zoning: A-2-2 (Heavy Agricultural – Two Acre Minimum Required Lot Area) Zone – Mount Gleason Zoned District

Description of project: The project applicant, Union Rescue Mission (URM), is requesting a new Conditional Use Permit (CUP) to replace an existing housing building known as the Sequoia Building with a new housing building within Hope Gardens Family Center in the A-2-2 Zone pursuant to Los Angeles County ("County") Code Section 22.16.030.C. The proposed building will be sited near the rear northeast corner of the Hope Gardens property where the existing one-story building currently exists. The new building will consist of three (3) stories with subterranean parking, totaling of approximately 106,410 square feet of building space for 117 housing units and supportive services. The facility was authorized by CUP No. 200600242 in 2007 for conversion of an existing convalescent hospital and senior citizen residential units into transitional housing for up to 225 formerly homeless women and children, including permanent supportive housing for senior citizen women. In 2019, CUP Modification No. RPPL2019000188 authorized an increased capacity up to 300. The project proposes to increase the housing capacity for up to total 525 formerly homeless women and children.

URM's Hope Gardens facility provides social services transitional housing for women of various ages and children less than 18 years of age. The facility provides amenities for support services, such as kitchen, classrooms, congregation, recreation, maintenance, and staff housing. There is no male resident at this facility.

Other existing structures on the property include six residential buildings as well as other buildings for garage, office, utility, and administration. There are currently 128 livable units, 28 full-time staff or volunteers, three (3) staff members residing onsite full time, and one (1) staff member residing onsite part time. 25 livable units will be removed as part of the project.

The proposed new Sequoia Building and related infrastructure will occupy approximately one acre. The 106,410-square-foot new building will consist of three residential floors and a subterranean parking. The residential floors include 117 housing units, reception area, case manager and counseling offices, administration offices, security office, dental/medical examination rooms, day care center, computer lab, classroom, multi-purpose room, kitchen, communal dining room, and a courtyard. The new building will also provide a subterranean parking area for 22 spaces for staff and visitors, including four (4) ADA parking, and 11 long-term enclosed bicycle spaces. 74 existing parking spaces located elsewhere within the facility will continue to be provided for staff and general parking. Approximately 3,200 cubic yards of cut and 3,200 cubic yards of fill is proposed to be balance on site.

There are a total 57 protected coast live oak trees in the project area. The project proposes removal of five (5) oak trees located in northwest of the new building and encroach into eleven oak trees, including one (1) heritage tree. These oak trees are between eight (8) and forty feet tall. The eleven oak trees will be encroached between 6.1% and 34.5 % of the tree protected zone. An oak tree report documenting the encroachments has been prepared as required by the County Code.

The typical housing unit averages 371 square feet and can accommodate up to four people. Each unit includes a full bathroom. Numerous rooms will have a connecting door to accommodate female-single parent families with more than four members. Units will not contain kitchens. All food services for residents will be provided at the first-floor dining room.

The facility will be staffed of 60 full-time employees working in three shifts. The first shift will be staffed with up to 40 employees and the second and third shifts with eight to ten employees. The duration of stay for residents would be approximately two years. Individual counseling, various education and trainings, childcare, health care including dental service and general medical exams, and youth development will be available for these residents along with common dining facilities. All transportation needs for residents will be provided by the facility.

In addition, the project seeks the request for building height limit to increase up to 51 feet in order to maximize the available development area to provide the necessary accommodation and services for the growing homelessness problems in the County. Based on the existing topography, proposed project design height will be masked by existing mature trees and vegetation that currently surrounds the Hope Gardens facilities.

Surrounding land uses and setting: The Project Site is located at 12249 Lopez Canyon Road near Sylmar in the unincorporated County of Los Angeles. Surrounding land uses within a quarter mile mostly consists of vacant land, national forest, outdoor storage yards, and landfill.

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code § 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Three Native American Tribes were notified and one of them, Fernandeno Tataviam Band of Mission Indians, requested consultation. Suggested mitigation measures by the tribe will be incorporated into the project's mitigation monitoring and reporting program.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse

impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

Public Agency	*Approval Required*
County of Los Angeles	CUP and Oak Tree Permit
_____	_____

Major projects in the area:

Project/Case No.	*Description and Status*
PRJ2020-003076, CUP RPPL2020009397, Zone Change RPPL2021002637, Plan Amendment RPPL2021002658, Oak Tree Permit RPPL2021002660, Environmental Review RPPL2021002662	Change the zone from A-2-2 to M-1.5 and the land use category from RL10 to IL to authorize an industrial contractor's yard and retroactive encroachment into the oak tree protected zones.
_____	_____
_____	_____

Reviewing Agencies: [*See* **CEQA Appendix B** *to help determine which agencies should review your project***]**

Responsible Agencies

- ☐ None
- Regional Water Quality Control Board:
  - ☒ Los Angeles Region
  - ☐ Lahontan Region
- ☐ Coastal Commission
- ☐ Army Corps of Engineers
- ☐ LAFCO

Special Reviewing Agencies

- ☐ None
- ☐ Santa Monica Mountains Conservancy
- ☐ National Parks
- ☒ National Forest
- ☐ Edwards Air Force Base
- ☐ Resource Conservation District of Santa Monica Mountains Area
- ☐

Regional Significance

- ☒ None
- ☐ SCAG Criteria
- ☐ Air Quality
- ☐ Water Resources
- ☐ Santa Monica Mtns. Area
- ☐

Trustee Agencies

- ☐ None
- ☒ State Dept. of Fish and Wildlife
- ☐ State Dept. of Parks and Recreation
- ☐ State Lands Commission
- ☐ University of California (Natural Land and Water Reserves System)

County Reviewing Agencies

- ☒ DPW
- ☒ Fire Department
  (delete those that don't apply)
  - Forestry, Environmental Division
  - Planning Division
  - Land Development Unit
  - Health Hazmat
- ☐ Sanitation District
- ☒ Public Health/Environmental Health Division: Land Use Program (OWTS), Drinking Water Program (Private Wells), Toxics Epidemiology Program (Noise)
- ☐ Sheriff Department
- ☒ Parks and Recreation
- ☐ Subdivision Committee
- ☐

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially significant impacts affected by this project.

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

DETERMINATION: (To be completed by the Lead Department.)
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 in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

☒ I find that 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 the 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.

Michele R. Bush _____ 06/14/2022 _____
Signature (Prepared by) Date

_____ 6/14/2022 _____
Signature (Approved by) Date

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 the Lead Department 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 Department has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than 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 mitigation measures has reduced an effect from "Potentially Significant Impact" to a "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 Section XVII, "Earlier Analyses," may be cross-referenced.)

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA processes, an effect has been adequately analyzed in an earlier EIR or negative declaration. (State CEQA Guidelines § 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) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7) The explanation of each issue should identify: the significance threshold, if any, used to evaluate each question, and; mitigation measures identified, if any, to reduce the impact to less than significant. Sources of thresholds include the County General Plan, other County planning documents, and County ordinances. Some thresholds are unique to geographical locations.

1. AESTHETICS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

The facility will not have any adverse impact on a scenic vista. The project site is not located near any County identified scenic vista resources or designated Scenic Highways. Most of the undeveloped areas within the Project Site is designated Hillside Management Area. However, the new Sequoia Building will be located within the previously developed area below the level of the adjacent street, Lopez Canyon Road and include a subterranean floor. The developed area is lowest elevation in the immediate vicinity and surrounded by hills and mountains. The new structure will also incorporate various design features such as materials and colors to make it more compatible with the surroundings. Therefore, less than significant impact will occur from the proposed project development.

b) Be visible from or obstruct views from a regional riding, hiking, or multi-use trail?	☐	☐	☐	☒

The project site is not located near any County identified regional riding, hiking, or multi-use trails; therefore, no impact will occur.

c) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐

There are no State designated scenic highways or historic buildings in the vicinity of the subject property. Although most of the Project Site is designated as Hillside Management Area, the proposed project is contained within the existing disturbed area of approximately 80,000 square feet in area. As such, the project would have less than significant impacts.

d) Substantially degrade the existing visual character or quality of public views of the site and its surroundings because of height, bulk, pattern, scale, character, or other features and/or conflict with applicable zoning and other regulations governing scenic quality? (Public views are those that are experienced from publicly accessible vantage point)	☐	☐	☒	☐

The project will result in the replacement of a one-story building with a new four-story building, improved parking areas and driveways, as well as the installation of new landscaping. However, proposed project design will not degrade the existing visual character of the site or the quality of public view of the site. The project occurs on an existing developed housing facility that is surrounded by trees and slopes. The new 51-foot-high building is located at a grade lower than the adjacent street, Lopez Canyon Road, and will be mostly blocked from public view by existing, lush landscaping and trees between the building and the street. Design features of the new building such as color and building materials will be incorporated to be compatible with

other structures on site and surrounding vicinity. As such, the project development impact is considered to be less than significant.

e) Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

The proposed new 3 story housing building will be developed and constructed on the same building pad location as the existing single-story building to be demolished. Any proposed building lighting will comply with County's Rural Outdoor Lighting District (ROLD) requirements, which are intended to reduce glare and light trespass. A lighting plan documenting compliance with ROLD requirements will be prepared and will be subject to review and approval by the County. The building site area is also surrounded by dense vegetations and existing mature pine and oak trees which will substantially shield the new structure and would minimize unwanted light or glare that would affect public views into the area. Thus, project development would result in less than significant impact.

2. AGRICULTURE / FOREST

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 Department 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.

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

The project site is does not contain Prime Farmland, Unique Farmland, or farmland of Statewide Importance; therefore, no impact would occur with the proposed project.

b) Conflict with existing zoning for agricultural use, with a designated Agricultural Resource Area, or with a Williamson Act contract?	☐	☐	☐	☒

The project site is zoned A-2-2, but the existing site has been previously approved and developed as a temporary housing facility for formerly homeless women and children, including senior citizen women as an adult residential facility, which is a conditionally permitted use on the subject property's A-2 zone. There is no designated Agricultural Resources Area or Williamson Act contract on the project site or the adjacent areas; therefore, no impact will occur with the proposed project.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220 (g)), timberland (as defined in Public Resources Code § 4526), or timberland zoned Timberland Production (as defined in Government Code § 51104(g))?	☐	☐	☐	☒

The project site is not zoned for forest land or timberland zoned Timberland Production; therefore, no impacts would occur with the proposed project.

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

The project site has been previously developed and approved as a women's housing facility. It is not located within designated forest land; therefore, no impacts will occur with the proposed project.

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?	☐	☐	☐	☒

There are no designated Farmland exist in the vicinity. The proposed project will not cause changes in the environment that will result in the conversion of any farmland; therefore, no impacts will occur from the proposed project.

3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Conflict with or obstruct implementation of applicable air quality plans of either the South Coast AQMD (SCAQMD) or the Antelope Valley AQMD (AVAQMD)?	☐	☐	☒	☐

The proposed project is a new housing building that will be constructed within an existing homeless shelter facility. The new building will replace an existing building that will be demolished. The project will require grading in the amount of approximately 3,200 cubic yards of cut and 3,200 cubic yards of fill to be balanced on site. The site is located in a non-urban setting that is surrounded by mostly natural open space and few non-residential equipment storge uses. Project construction and operation will comply with all SCAQMD rules and the project is not anticipated to generate any significant impacts associated with local air quality plan; therefore, impacts associated with the project is considered less than significant.

b) 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?	☐	☐	☒	☐

The proposed project is a new housing building that will be constructed within an existing homeless shelter facility. The new building will replace an existing building that will be demolished. Neither the required grading, nor vehicle emissions during construction or the facility operation should result in significant increase in pollutants as the residents at the facility will not operate personal vehicles while staying at the facility. Their transportation needs will be provided by the facility. .

c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒

No sensitive uses or receptors exist in the vicinity of the project site; therefore, no impact will result from the project.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Potential activities that may emit temporary odors during construction include the use of architectural coatings and solvents and the combustion of diesel fuel construction equipment. Mandatory compliance with SCAQMD Rule 1113 would limit the number of VOCs in architectural coatings and solvents. In addition, project will comply with the applicable provisions of the CARB Air Toxic Control Measures regarding idle limitation for diesel trucks. For project operation, this is a housing building that does not produce odors associated with non-residential uses such as agriculture, manufacturing plants, or commercial uses. Through

mandatory compliance with SCAQMD rules, the project is not expected to create objectionable odors affecting occupants in the vicinity; therefore, impact from the development is considered less than significant.

4. BIOLOGICAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
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 Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	☐	☐	☒	☐

The housing facility at the project site has been in operation since the late 1960s. The proposed project is for a demolition of one existing housing building at the northern end of the project site and construction of a new transitional housing building within the previously disturbed areas. The project requires improved driveways for vehicular circulation and fire access, and will not substantially expand the developed area. The project site is not within a Significant Ecological Area (SEA) or other sensitive habitat area as designated by the General Plan. Due to the new building location and he previously disturbed nature of the entire facility, the project would have a less than significant impact, either directly or through habitat modification, on species regulated by CDFW or USFWS.

b) Have a substantial adverse effect on any sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, regulations or by CDFW or USFWS?	☐	☒	☐	☐

Part of the project site, specifically along Lopez Canyon Road and the existing driveways within the facility, is identified as Southern Coast Live Oak Riparian Forest in California Natural Diversity Database (CNDDB). This portion of the site is where the existing buildings, driveways, and other infrastructure of the facility that has been in operation since the late 1960s. The project development request is for a demolition of one existing housing building at the northern end of the project site and construction of a new transitional housing building within the previously disturbed areas. The project requires improved driveways for vehicular circulation and fire access, and will result in removal of five oak trees and encroachment into the protected zone of eleven oak trees. An Oak Tree Report has been prepared by an arborist, and the project will incorporate mitigation measures recommended by the County Forester, including mitigation tree plantation on site. The project would have less than significant impact on the existing resources with the mitigations listed below.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐

The project development will occur within a previously disturbed and developed 75- acre housing facility, and it is not in proximity to or does it contain wetlands and would not result in any removal, filling, hydrological interruption, or other means of disruption to a watercourse; therefore, project development impact is considered to be less than significant.

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? ☐ ☐ ☐ ☒

The proposed new housing building project will occur within an existing 75-acre housing facilities that has been developed since 1960s. No wildlife corridors exist on the project site nor the project development interfere with movement of existing wildlife species; therefore, no impacts will result from the proposed project.

e) Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10% canopy cover with oaks at least 5 inch in diameter measured at 4.5 feet above mean natural grade) or other unique native woodlands (juniper, Joshua, southern California black walnut, etc.)? ☐ ☐ ☒ ☐

The proposed project development will occur within am existing developed housing facility that has been in existence since late 1960s. Development of the project would require both temporary and permanent impacts to protected oaks onsite. An oak tree impact report has been prepared for the project to evaluate and assess the existing oak trees and oak woodlands within the design envelope. Although the project would result in the permanent loss of five (5) oak trees and temporary encroachment of 11 oak trees, it would not result in conversion of oak woodlands. Compliance with the pending Oak Tree Permit conditions, inclusive of the planting of onsite replacement oak trees as mitigation would allow impacts to protect oaks to remain less than significant. There are no Juniper Woodlands or Joshua Trees on site.

f) Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36), the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.174), the Significant Ecological Areas (SEAs) (L.A. County Code, Title 22, Ch. 102), Specific Plans (L.A. County Code, Title 22, Ch. 22.46), Community Standards Districts (L.A. County Code, Title 22, Ch. 22.300 et seq.), and/or Coastal Resource Areas (L.A. County General Plan, Figure 9.3)? ☐ ☐ ☐ ☒

The proposed project development will occur within am existing developed housing facility that has been in existence since late 1960s. The project site does not include Wildflower Reserve Areas, Significant Ecological Areas, Community Standards District, Specific Plan, or Coastal Resource Areas. Development of the project would require both temporary and permanent impacts to protected oaks onsite. An oak tree impact report has been prepared in compliance with the County's Oak Tree Ordinance (Title 22, Ch 174) for the project to evaluate and assess the existing oak trees within the design envelope. As indicated in the attached project oak

tree survey report conducted by South Environmental, a total of 57 protected oak trees were identified in the survey area including 40 canyon live oak (*Quercus chrysolepis*) and 17 coast live oak (*Quercus agrifolia*). Of the 57 oaks surveyed, 13 are considered heritage oaks. The proposed redevelopment of the Sequoia building would result in the removal of five (5) oak trees (2 of which are heritage oaks) and encroachment into the tree protection zone of 11 oak trees (3 of which are heritage oaks). The County Oak Tree Ordinance has been followed with an oak tree report recommending care of the trees and replacement of the trees if lost due to project activities. Compliance with the pending Oak Tree Permit conditions, inclusive of the planting of onsite replacement oak trees as mitigation, would allow impacts to protect oaks to remain less than significant.

Mitigation Measures MM-Bio-1 through MM-Bio-5 shall be implemented to minimize impacts to oak trees:

g) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved state, regional, or local habitat conservation plan? ☐ ☐ ☐ ☒

The project site is not identified as an area within any approve state, regional, or local habitat conservation plan or a Natural Community Conservation Plan. The proposed new housing building project will occur within an approved and developed housing facility; therefore, no impacts will result from the proposed project

Mitigation Measures MM-Bio-1 through MM-Bio-4 shall be implemented to minimize impacts to oak trees:

MM- Bio-1: Prior to initiation of clearing, grading, or other construction activities, protective fencing should be installed around the outermost limits of the protected zones of the oaks within and adjacent to the construction area that may be disturbed during construction activities. Fencing shall remain in place and be maintained for the duration of all construction. No. construction, grading, staging, or materials storage shall be allowed within the fenced exclusion areas, or within the protected zones of any on site protected trees. The limits of encroachment of trees should be clearly visible during construction to avoid unintentional damage.

MM- Bio-2: During construction, a qualified arborist shall monitor protected trees that are removed and those that are within or adjacent to the construction area.

MM- Bio-3: To the extent that is feasible, limbs of trees that overhang the roadways and parking areas will not be pruned or damaged during construction. Workers will be informed of the tree locations and instructed to avoid damaging limbs, trunks, and canopies of tree that overhang the staging areas or construction areas. Fending or high visible flagging will be used to mark areas where there is potential for damage from equipment.

MM- Bio-4: To minimize the compaction of soils beneath oaks that will be encroached, a temporary 10-12 - inch thick layer of mulch can be applied beneath the tree if construction equipment or materials are required to operate with the TPZ. Within 24 hours of finishing work beneath the tree, the mulch should be removed to a depth of no more than 4 inches. A monitoring arborist should be present during construction that is within proximity to this tree to advise on appropriate methods to retain the tree.

MM- Bio-5: Oak replacement tree at 2:1 for the removal of 6 oaks, totaling 12 new oaks, shall be planted onsite and monitored as required by approved Oak Tree conditions.

5. CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines § 15064.5?	☒	☐	☐	☐

Section 15064.5 of the CEQA guidelines generally defines a historic resource as a resource that is listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR), be included in a local register of historical resources of the public resources, and/or identified as significant in a historical resource survey. A significant impact may occur if a project would adversely affect the significance of any identified historic resources on or off site. A substantial adverse change in the significance of a historic resources means demolition, destruction, relocation, and/or alternation of the resources of its immediate surrounding such that the significance of a historical resource would be materially impaired.

A cultural resources analysis (January 2021) was conducted by South Environmental for the proposed project-the new Sequoia Building at the existing Hope Gardens Homeless shelter facility, which proposes the demolition of the existing Sequoia Lodge onsite and be replaced with the construction of a new housing building. The January 2021 analysis, as attached with this initial study, included the results of a California Historical Resources Information Center (CHRIS) records search of the project site and a 0.5-mile radius; and intensive pedestrian survey of the site, building development and archival research; and recordation and evaluation of the entire Hope Gardens property for historical significance and integrity in consideration of CRHR and Los Angeles County designation criteria.

CHRIS records search dated October 3, 2020, concluded that the age of the structure to be replaced is older than 45 years and should be recorded for significance even if it is to be demolished. Native American Heritage Commission (NAHC) Scared Lands file search dated September 22, 2020 acknowledged an absence of specific site information in the Sacred Land File but it should not preclude that there might be other sources of cultural resources. The County of Los Angeles consulted with Gabrieleno Band of Mission (Kizh Nation), Fernandeno Tataviam Band of Mission (Tataviam), and San Gabriel Band of Mission Indians (Tongva) on October 16 and October 28 in 2020. Kizh Nation requested a consultation on October 19, and County staff responded with additional project information but was not informed of their availability. Tataviam tribe requested a consultation and a phone consultation meeting occurred on October 29, 2020 with County staff. During the phone consultation, the Tataviam representative requested that the tribe continues to be updated on the cultural resources report, draft mitigation measures, and draft initial study when available for review. The requested documents will be provided to Tataviam tribe upon completion.

As a result of the property significance evaluation, majority of the existing buildings within the Hope Gardens housing facility (formerly known as Forester Haven) including the existing Sequoia Lodge proposed for demolition is part of a larger campus of buildings that are eligible as contributing resources to the newly identified Forester Haven Historic District under CRHR and County Criteria 3 for embodying the distinctive character-defining features of the Contemporary style of architecture, which unite them aesthetically and create a cohesive campus of rustic, lodge-style buildings designed by an Independent Order of Foresters (IOF) member for an IOF retirement home. Therefore, the proposed project would result in significant impacts to

a building that appears eligible as a contributing resource to the Forester Haven District under CRHR and County Landmark designation Criterion 3 for its architectural merit and is considered an historical resource under CEQA Guidelines 15064.5(a)(3) and (4). The impacts would occur at two levels: (1) Demolition and (2) Construction:

(1) Sequoia Building- Demolition Impact:

Demolition of this building will demolish some of the physical characteristics that justify Forester Haven for its eligibility under CRHR and County Landmark designations. Due to the proposed project development goals, unfortunately, demolition of the Sequoia Building is an unavoidable impact that cannot be mitigated. Therefore mitigations MM-CUL-1 and MM CUL 2 should be incorporated in the context of the project development and overall feasibility:

(2) Sequoia Building- New construction impact:

The construction of a new building as proposed within the boundaries of a historic district has the potential to impact the significance of the district and its setting by introducing incompatible massing, scale, design, materials, or architectural styles that detract from the existing buildings and natural features of the site. Under CEQA, a project that conforms to the Secretary of the Interior's Standards for the Treatment of Historic Properties "shall be considered as mitigated to a level of less than a significant impact on the historical resources" (15064.5(b)(3)). Therefore, MM-CUL-3 will be incorporated in the project.

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

The proposed new building pad and the entire facility has been previously disturbed and developed with housing structures and related uses since 1960's, and it is currently serving as a homeless transitional housing facility for women and children. The proposed project components will replace an existing housing structure that will be demolished in the same disturbed location. According to the Cultural Resources Report,
No archaeological resources were identified in CHRIS records search or NAHC Sacred Lands File search. The Cultural Resources Report also concludes that no such resources were found with the project location and the entire facility area as a result or pedestrian survey. Therefore, the project site is unlikely to contain intact buried archaeological deposits. However, there is a possibility to encounter resources during ground disturbance. Standard unanticipated discovery measures, MM-CUL-4 and MM-CUL-5 are provided to mitigate any potential impacts.

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

The proposed new building pad and the entire facility has been previously disturbed and developed with housing structures and related uses since 1960's, and it is currently serving as a homeless transitional housing facility for women and children. The proposed project components will replace an existing housing structure that will be demolished in the same disturbed location. Therefore, the project site is unlikely to contain intact buried paleontological deposits. However, there is a possibility to encounter resources during ground disturbance. A standard measure, MM-CUL-4 is provided to mitigate any potential impacts.

d) Disturb any human remains, including those interred outside of dedicated cemeteries? ☐ ☐ ☒ ☐

The proposed new building pad and the entire facility has been previously disturbed and developed with housing structures and related uses since 1960's, and it is currently serving as a homeless transitional housing facility for women and children. The proposed project components will replace an existing housing structure that will be demolished in the same disturbed location. Therefore, the project site is unlikely to contain intact buried human remains. However, there is a possibility to encounter resources during ground disturbance. A standard measure, MM-CUL-5, is provided to mitigate any potential impacts.

MM-CUL-1: Archival Documentation. Prior to demolition, it is recommended that the existing Sequoia Lodge be subject o archival documentation that includes photography of all exterior elevations, and views to and from the building, with detailed photographs of materials, doors, windows, rooflines, gardens, and other key components so that there is a record of the demolished building. It is also recommended that the original plans for the historic district (if available) be scanned and reproduced so that they are available for future study on the historic district. This documentation should be based on the National Park Service's Historic American Building Survey (HABS) guidelines for narrative and photographs should be filed with the SCCIC, the County of Los Angeles, and any other interested parties/stakeholders. It should be noted that this recommendation will not reduce impacts to historical resources below a level of significance, however, CEQA required consideration of all feasible mitigation measures.

MM-CUL-2: Protection Plan for Demolition and Construction. Prior to the start of project -related demolition and construction activities, protection measures should be developed in a formal plan for the adjacent building in particular, the Facility Operations Building location to the west. Protection should include: 1) clear denotation in the construction plans that the project is located within a historic district, marking the location of the adjacent Facility Operations Building; 2) all construction workers should be informed of the presence of a historic district and be aware of the protocol to avoid and protect all adjacent buildings; and 3) fencing and signage should be put in place to make sure that all construction worker and equipment are preventing from accessing the building. The protection plan should be prepared by a qualified architectural historian/historic preservation professional and should clearly identify all responsible parties with their contact information

MM-CUL-3: Protection Design Review for SOIS Conformance. Upon completion/near completion of the new building's design, a qualitied architectural historian/historical preservation professional should review the final design for conformation with the Secretary of the Interior's Standards for the Treatment of Historic Properties, specifically, the Standards for Rehabilitation (Weeks and Grimmer 1995, revised 2017). Most importantly, the architectural historian should ensure that the new construction "will not destroy historic materials, features and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size scale and proportion, and massing to protect the integrity of the property and its environment" (Standard 9). Further, the new construction should be "undertaken in such a manner that, if removed in the future, the essential from and integrity of the historic property and its environment would be unimpaired" essential from and integrity of the historic property and its environment would be unimpaired" (Standard 10). The architectural historian should provide a letter summarizing the results of the review and describing how the design conforms to the Standards for Rehabilitation.

MM-CUL-4: If archaeological resources, such as sites, features, or artifacts, are exposed during construction activities for the proposed project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find, the archaeologist may simply record the

find and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.

MM-CUL-5: The applicant shall retain a professional Native American monitor, agreed upon by the Fernandeño Tataviam Band of Mission Indians (FTBMI) and Los Angeles County Planning, to observe all clearing, grubbing, and grading operations within the proposed impact areas. If cultural resources are encountered, the Native American monitor will have the authority to request that ground-disturbing activities cease within 60 feet of discovery to assess and document potential finds in real time. One monitor will be required on-site for all ground-disturbing activities in areas designated through additional consultation. However, if ground-disturbing activities occur in more than one of the designated monitoring areas at the same time, then the parties can mutually agree to an additional monitor, to ensure that simultaneously occurring ground-disturbing activities receive thorough levels of monitoring coverage.

6. ENERGY

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐

The proposed project will comply with the energy conservation standards established in Title 24 of the California Administrative Code during the duration of the project construction process and future building operation.
Project construction is considered a short-term duration, the extent of fuel consumption and energy demands during this time is inherent to construction projects of its size and nature; thus, the temporary demand would not necessitate additional energy facilities or cause wasteful inefficient/unnecessary consumption of energy.
Daily operation of the project would generate demand of additional energy resources. The project would be designed to include applicable energy saving features such as energy efficient HVAC units, energy saving windows, low flow plumbing fixtures, and energy efficient light fixtures as well as waste reduction features that would allow the project to comply with the State regulations. Therefore, the project construction and operation would not result in an inefficient use of energy resources, thus, a less than significant impact would occur.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

The project development would be required to comply with all current State and County building standards that include provisions such as the use of recycled water for landscaping, long/short term bicycle parking, amongst other features; therefore, the project would not result in wasteful inefficient or unnecessary consumption of energy that is inconsistent with the State and County plans for energy reduction measures.

7. GEOLOGY AND SOILS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Directly or indirectly cause 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 active fault trace? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐

The subject property is within the Transverse Ranges Geomorphic Province of southern California that consists of series of west-trending mountains and intervening valleys. The southern California region is traversed by the San Andreas Fault, which is a transform boundary between the Pacific Plate and the North American Plate. The San Andreas fault is part of a system of northwest-striking, right lateral faults that are generally historically active. The San Andreas fault is located approximately 22 miles to the north-northwest. The southern California region is seismically active and commonly experiences strong ground shaking resulting from earthquakes along active faults. Earthquakes along these faults are part of continuous, naturally occurring process, which has contributed to the characteristic landscape of the region. Per the project geotechnical and soils study, the potential for ground rupture on site was evaluated utilizing published maps and references. Review of the Earthquake Zones of Required Investigation map for the San Fernando Quadrangle, provided digitally on the CGS EQZ web application, indicate that there are not any known active faults within the project site, per Alquist-Priolo criteria. Numerous blind (buried) thrust faults are present in the San Fernando Valley. These faults were not exposed at the ground surface and are not considered to be a potential fault-related ground rupture hazard to the project site; therefore, the possibility of fault-related impacts caused by the project site is considered less than significant over the design life of the proposed development.

ii) Strong seismic ground shaking?	☐	☒	☒	☐

The southern California region is seismically active and commonly experiences strong ground shaking resulting from earthquakes along active faults. Earthquakes along these faults are part of continuous, naturally occurring process, which has contributed to the characteristic landscape of the region. Compliance with applicable building codes and adherence to design recommendations would provide safeguard against major failures and loss of life, although they are not intended to limit damage. By complying with the County Building Code and incorporating compacted fill as recommended in MM-GEO-1, the proposed improvements is not likely to induce significant level of seismic ground shaking.

iii) Seismic-related ground failure, including liquefaction and lateral spreading?	☐	☒	☐	☐

Ground failure such as liquefaction is a phenomenon in which pore water pressure generated by earthquake shaking causing sudden, temporary reduction or loss of shear strength in saturated soils with negligible to low plasticity. Structures founded on liquefied soils may experience subsidence and/or lateral movement. Since the existing development is within a Liquefaction Zone where existing, potential for seismic soil liquefaction and associated ground failure were evaluated and assessment of liquefaction potential and associated phenomena at the site was also performed in the Geotechnical Report. Based on site testing, the potential for liquefaction in soil layers beneath the proposed structure is less than significant provided that the recommended mitigation measure MM-GEO-1 is incorporated into the grading plan and implemented during construction. According to the assessment, potential for later spreading is believed to be negligible if all measures are incorporated since laterally continuous, potentially liquefiable soil layers meeting the relative density corresponding results were not present at the site.

iv) Landslides? ☐ ☒ ☐ ☐

Landslides are mass movements of the ground that include rock falls, relatively shallow slumping and sliding of soil. The Project Site contains areas designated as Landslide Zone throughout, although they are outside the existing development. Based on the findings in the Geotechnical Report prepared for the project, that the project will be safe against hazard from landslide, settlement, and slippage for the intended use and will not affect adjacent properties by complying with Section 111 and incorporating all recommendations in the Grading and Building Plans during construction (MM-GEO-1, 2, 3, and 4).

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

Temporary earthmoving activities associated demolition and grading have the potential that will result in soil erosion or loss of topsoil. Short term effects during construction phase would be prevented through compliance with previously identified NPDES and SWPPP programs and incorporation of construction BMPs to reduce soil erosion as well as project LID facilities to insure onsite drainage, water quality and soil loss. Therefore, impacts to loss of topsoil and erosion is less than significant.

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? ☐ ☒ ☐ ☐

The project site is located within a Liquefaction Zone, and the onsite soil consists of recent alluvial sedimentary deposits (Qal) within Lopez Canyon that are underlain by Saugus Formation (TQs) bedrock. Saugus Formation bedrock is also exposed in the adjacent ridgelines at a depth ranging from 23 feet to 30 feet. Quaternary Alluvium formed unconsolidated deposits. Artificial fill (af) associated with past site development was encountered at one subsurface location to a depth of 6 feet. In general, the artificial fill is considered to be thin (< 3 feet) and is undifferentiated from the alluvium. Based on the assessment of potential for liquefaction and associated ground failure in soil layers beneath the proposed structure is less than significant, with inclusion of the recommended removal and re-compaction of site soils. No significant seismically-induced ground surface settlement is anticipated. Potential for lateral spreading is believed to be negligible since laterally continuous, potentially liquefiable soil layers with a relative density are not present at the site. Therefore, it is determined that the project requires incorporation of MM-GEO-1 in order to potentially result in less than significant impact in terms of causing soil instability and seismic-related ground failure.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? ☐ ☐ ☒ ☐

As indicated in the project geological and soils analysis, the expansion potential of in-situ soils when removed, mixed, and replaces as compacted fill per preliminary design is considered very low. Conventional shallow column footings and continuous footings are considered adequate for the support to the proposed structure at the site provided the footings are supported entirely on competent compacted fill soils. All project footing design shall be required to comply with the minimum foundation requirements of the 2020 County of Los Angeles Building Code. Per existing condition and analysis, the project impact is considered less than significant.

e) Have soils incapable of adequately supporting the use of onsite wastewater treatment systems where sewers are not available for the disposal of wastewater? ☐ ☐ ☒ ☐

Currently, the Hope Gardens facility is serviced by its own onsite wastewater treatment plant, which is located approximately 1,700 feet near the southerly end of the site. The existing system may need an expansion to accommodate the proposed development pending County's review and comments. However, the existing treatment system has been in operation since 1975 with modification performed in 2006 and less than significant impact is anticipated for minor modifications that may be required for the existing system based on the soil analysis

f) Conflict with the Hillside Management Area Ordinance (L.A. County Code, Title 22, Ch.22.104)? ☐ ☐ ☐ ☒

Hillside Management Areas (HMA) are defined as areas with 25% or greater natural slopes. The project site contains HMA but the proposed project development will demolish an existing housing building and to be replaced with a new building within an already developed facility. As such, the project would not be considered to be in Hillside Management Area and no impacts would occur.

Mitigation Measures

MM-GEO-1: Refer to Section 8, General Conclusions and Grading Recommendations, in the Geotechnical Report for mitigation measures regarding earthwork and grading, natural slopes, low impact development, oil wells and water wells, sewage disposal, drainage, landscaping, and planters. Earthwork and Grading shall be observed and tested by the Project Geotechnical Engineer, Engineering Geologist, and/or their authorized representatives. These tasks should be performed in accordance with the County Building Code requirements and with the Recommended Earthwork Specifications in Geological Report.

MM-GEO-2: Refer to Section 9, Foundation Recommendations, in the Geotechnical Report for mitigation measures regarding conventional shallow footing foundations, concrete slabs-on-grade, expansive soils considerations, and soil corrosivity considerations.

MM-GEO-3: Refer to Section 10, Retaining Walls; Section 12, Construction Considerations; and Section 13, Tentative Pavement Design and Associated Grading, in the Geotechnical Report.

MM-GEO-4: Refer to Appendix E, Drainage and Erosion Control Recommendations, in the Geotechnical Report, subject to approval of County Department of Public Works.

8. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Generate greenhouse gas (GHGs) emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

The project development request is for a demolition of one existing housing building and construction of a new transitional housing building for homeless women and children within an established housing facility. Construction related sources are considered temporary and it is negligible by compliance with local SCAQMD and County regulations. The project design will incorporate measures that will comply with California Air Resource Board Scoping Plan policies and measures. No significant traffic is generated by the project development as the anticipated homeless occupants will not generate vehicle use since they do not own personal vehicles. Any daily operation and activities associated with the project is also considered not significant since the new building would contribute to overall facility operation. Therefore, the project is considered to result in less than significant impact in regard to greenhouse gas emission.

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

The project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. The project development is a housing facility for homeless women and children within an existing homeless shelter facility. Furthermore, the project would also comply with applicable Green Building Standards and County policies regarding sustainability. Therefore, project impacts are considered less than significant.

9. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials?	☐	☐	☒	☐

The Project may contain some storage of hazardous materials such as paint, cleaners and solvents during demolition and construction of the buildings. However, applicable best practices and any applicable requirements in County Code will be implemented and will result in a less than significant impact.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment?	☐	☐	☒	☐

The Project may contain some storage of hazardous materials such as paint, cleaners and solvents during demolition and construction of the buildings. However, applicable best practices and any applicable requirements in County Code will be implemented and will result in a less than significant impact.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of sensitive land uses?	☐	☐	☐	☒

No emissions of any hazardous materials, substances, or waste are associated with the project development; therefore, no impacts to sensitive land uses within one-quarter mile will occur.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

The project site is not located on a parcel of land that has been included on a list of hazardous materials site complied pursuant to Government Code Section 65962.5. Thus, there would be no impact.

e) For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒

The project site is not located within an airport land use plan or within two miles of a public airport. The project would not result in an airport related safety hazard concern. Thus, no impacts would occur.

f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? ☐ ☐ ☒ ☐

The proposed project development consists of replacing an existing housing building with a new building within a developed homeless shelter facility. The Project Site is approximately 1mile north of Foothill Freeway and is served by two-lane street. Development design and requirements will comply with all County Fire access and fire prevention requirements and existing facility Emergency Evacuation and Management Plan. An Emergency Action and Evacuation Plan has been prepared to address specific conditions of the site and existing facility, and it will be implemented to address any potential adverse impacts on implementing an adopted, existing emergency response plan. Tresult in less than significant impacts.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving fires, because the project is located:

i) within a high fire hazard area with inadequate access? ☐ ☐ ☒ ☐

The proposed new building is adjacent to and direct site access off two-lane Lopez Canyon Road. Access around the new building will be designed to accommodate and comply with the Los Angeles County Fire Access code. An Emergency Action and Evacuation Plan has been prepared to address specific conditions of the site and existing facility, and it will be implemented to address any potential adverse impacts on implementing an adopted, existing emergency response plan. Therefore, project development is considered less than significant.

ii) within an area with inadequate water and pressure to meet fire flow standards? ☐ ☐ ☐ ☒

The project is located within an existing developed housing facility that has been in operation for more than 40 years. No new utility improvements are required as part of the project development. All existing water service is more than adequate to meet the water pressure fire flow standards; therefore, no impact will result from the project.

iii) within proximity to land uses that have the potential for dangerous fire hazard? ☐ ☐ ☒ ☐

While the Hope Gardens facility is surrounded by natural open space, including Angeles National Forest to the north and east. To the south, there are mobile home parks, outside storage of industrial containers or trucks, and landfill. There may be potential for wildfires but all fire prevention equipment and requirements by County of Los Angeles Fire Codes shall be designed as part of the project development. In addition, Hope Gardens facility has an emergency response plan in place to account for such emergency events; therefore, project impact is considered less than significant.

h) Does the proposed use constitute a potentially dangerous fire hazard? ☐ ☐ ☒ ☐

The project development will consist of demolishing the existing housing building and replacing it with a new building that is located within an existing 75-acre Hope Gardens facility for the purpose of housing

homeless women and children. The proposed use does not constitute a potentially dangerous fire hazard. The project will shall comply with all applicable fire and safety codes and standards of the Los Angeles County Fire Department. Therefore, impacts would be less than significant.

10. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐

During project construction, discharge that could affect stormwater such as soil and sediment entering stormwater would be regulated by the Statewide General Construction Permit issued by State Water Resources Control Board. Demolition of the exiting building, construction grading and disturbance would require compliance with erosion control measures. Since the total disturbance area is over 1 acre in size, the project would be required to comply with the National Pollution Discharge Elimination System (NPDES) and requirement with State Water Resources Control Board. A SWPPP with project specific BMPs will be prepared to reduce or eliminate soil erosion and siltation from the construction site. The construction contractor would be required to operate and maintain these controls throughout the duration of the onsite activities. Thus, compliance with the SWPPP and BMP measures will minimize wastewater discharge and reduce impacts to potential water quality; therefore, impacts to water quality is less than significant. During facility operation, a Standard Urban Storm Water Mitigation Plan for municipal storm water and Urban Runoff Management Programs in Los Angeles County (SUSMP) would be required. In accordance with SUSMP requirements, new development is required to meet or exceed pre-project conditions form storm water discharge. The project would be required retain any additional runoff onsite and discharge it into the storm drain system at rates that do not exceed pre-project conditions. To address this requirement, the project design includes low impact development (LID) implementation and structural treatment control approved by County of Los Angeles Dept. of Public Works. Thus, project compliance with required NPDES, SWPPP, and SUSMP implementation, the project would ensure impacts related to surface or groundwater quality or discharge would remain less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐

The construction of the project is not expected to encounter groundwater and would prevent the potential surface runoff through adherence to applicable regulations and BMPs requirements of the NPDES permits, SWPPP, and County of Los Angeles Department of Public Works. In addition, operation of the project will not require direct groundwater extraction either through dewatering for water supply use; therefore, project development impacts is considered less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of a Federal 100-year flood hazard area or County Capital Flood floodplain; the alteration of the course of a stream or river; or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐

(i) Result in substantial erosion or siltation on- or off-site? ☐ ☐ ☒ ☐

The project development will not alter the existing drainage pattern of the site as the newly proposed building will occur on the previously developed building pad with mostly imperious area such as parking and existing driveways. Project construction would temporarily affect the disturb pervious and impervious areas, potentially affecting onsite soils to erosion and siltation. However, pursuant to previously discussion on meeting the State and County stormwater and water quality control best management practice measures during the entire construction phases of the project would ensure that the project impacts related to erosion and siltation would be less than significant.

(ii) Substantially increase the rate, amount, or depth of surface runoff in a manner which would result in flooding on- or offsite? ☐ ☐ ☒ ☐

The project development will not alter the existing drainage pattern of the site as the newly proposed building will occur on the previously developed building pad with mostly imperious area such as parking and existing driveways. The project would be required retain any additional runoff onsite and discharge it into the storm drain system at rates that do not exceed pre-project conditions. To address this requirement, the project design includes low impact development (LID) implementation and structural treatment control approved by County of Los Angeles Dept. of Public Works. Thus, project compliance with required NPDES, SWPPP, and SUSMP implementation, the project would ensure impacts related to surface or groundwater quality or discharge would remain less than significant.

(iii) 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? ☐ ☐ ☒ ☐

The project development will not alter the existing drainage pattern of the site as the newly proposed building will occur on the previously developed building pad with mostly imperious area such as parking and existing driveways. The project would be required to comply with the National Pollution Discharge Elimination System (NPDES) and requirement with State Water Resources Control Board. A SWPPP with project specific BMPs will be prepared to reduce or eliminate soil erosion and siltation from the construction site. The construction contractor would be required to operate and maintain these controls throughout the duration of the onsite activities. The project would be required retain any additional runoff onsite and discharge it into the storm drain system at rates that do not exceed pre-project conditions. To address this requirement, the project design includes low impact development (LID) implementation and structural treatment control approved by County of Los Angeles Dept. of Public Works. Thus, project compliance with required NPDES, SWPPP, and SUSMP implementation, the project would ensure impacts related to surface or groundwater quality or discharge would remain less than significant.

(iv) Impede or redirect flood flows which would expose existing housing or other insurable structures in a Federal 100-year flood hazard area or County Capital Flood floodplain to a significant risk of loss or damage involving flooding? ☐ ☐ ☒ ☐

The project site is not within a Federal 100-year flood hazard or County Capital Flood floodplain area or floodway, therefore less than significant impacts would result from the project.

d) Otherwise place structures in Federal 100-year flood hazard or County Capital Flood floodplain areas which would require additional flood proofing and flood insurance requirements? ☐ ☐ ☐ ☒

The project site is not within a Federal 100-year flood hazard or County Capital Flood floodplain area, therefore no impacts would result from the project.

e) Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84)? ☐ ☐ ☐ ☒

The project development is required to comply with the County's LID requirements. As discussed above, the project design includes improvements and LID devices within the driveways onsite to address the potential impacts associated with the new building. Thus, project impacts is considered less than significant.

f) Use onsite wastewater treatment systems in areas with known geological limitations (e.g. high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course)? ☐ ☐ ☐ ☒

Currently, the Hope Gardens facility is serviced by its own onsite wastewater treatment plant, which is located approximately 1,700 feet near the southerly end of the site. The existing treatment system has been in operation since 1975 with modification performed in 2006. No improvements to the existing treatment system will occur from the project development and it is not within high groundwater or near surface water in the area. Based on the project development location, no disturbance will occur on the remaining areas of the entire facility; therefore, no impacts will occur.

g) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? ☐ ☐ ☐ ☒

The proposed project is not located within a flood hazard, tsunami, or seiche zones; therefore, no impact will occur.

h) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? ☐ ☐ ☐ ☒

The construction and operation of the project would involve activities that have the potential to be in conflict with the local groundwater quality control and management plan. However, project implementation will occur on a previous development property with existing control measures preventing the spread of contaminants. In addition, the construction of the project is not expected to encounter groundwater and would prevent the potential surface runoff through adherence to applicable regulations and BMPs requirements of the NPDES permits, SWPPP, and County of Los Angeles Department of Public Works. In

addition, operation of the project will not require direct groundwater extraction either through dewatering for water supply use; therefore, project development impact is considered less than significant.

11. LAND USE AND PLANNING

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒

The project development request is for the demolition of one existing housing building and construction of a new transitional housing building for homeless women and children within an established housing facility. The project site is surrounded by mostly natural, vacant land to north, east and west, with only commercial trailer and auto related storage site located to the south of the property along Lopez Canyon Road. Therefore, the project would not physically divide an established community. No impacts would occur.

b) Cause a significant environmental impact due to a conflict with any County land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

The project development request is for the demolition of one existing housing building and construction of a new transitional housing building for homeless women and children within a previously established housing facility previously approved under the County designation of Rural Land (RL-1) and zoning of A-2-2 (Heavy Agricultural). Thus, the existing development and use is not in conflict with any County land use plan, policies, or regulations. Therefore, no impact would occur with the proposed project.

c) Conflict with the goals and policies of the General Plan related to Hillside Management Areas or Significant Ecological Areas?	☐	☐	☐	☒

The project development request is for the demolition of one existing housing building and construction of a new transitional housing building for homeless women and children within an established housing facility. The site is not located in a County designated Significant Ecological Area. The site contains a Hillside Management Area but the proposed development will occur within a developed, gentle-sloping area only; therefore, no impacts would occur.

12. MINERAL RESOURCES

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

The project area is within a fully developed and established homeless housing facility, and it is not located within a known mineral resource area. Therefore, no impacts to mineral resources would occur.

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 project site and the adjacent land are not identified as any locally important mineral resource zone or recovery sites that are delineated on County's General Plan or any other land use plans; therefore, no impacts area associated with the project.

13. NOISE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the County General Plan or noise ordinance (Los Angeles County Code, Title 12, Chapter 12.08), or applicable standards of other agencies?	☐	☐	☒	☐

Temporary noise impacts from construction activities are generally a function of the noise generated by construction equipment, the sensitivity of nearby land uses, and the timing and duration of the activities. The proposed project would require the typical construction techniques and equipment. The project will comply with all County noise ordinance and applicable standards during construction activities. The project site is also not located within any noise sensitive uses in the proximity; therefore, noise impacts associated with the project is considered less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

Temporary project construction activities could generate varying degrees of ground vibration depending on the construction procedures and equipment uses. The project operation would typically consist of noise source from mechanical equipment such HAVC units and electrical equipment. The project facility is not located near any noise sensitive uses, the site is located adjacent to mostly open space with nonresidential and commercial uses. The project will comply with all County noise ordinance and applicable standards during construction activities. Thus, impacts to ground borne vibration and noise level is considered less than significant.

c) For a project located within the vicinity of a private airstrip or 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?	☐	☐	☐	☒

The project is not located within an airport land use plan or within two miles of a public airport; therefore, no impact will occur.

14. POPULATION AND HOUSING

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Induce substantial unplanned 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)?	☐	☐	☒	☐

The project proposes to develop a new housing building with 117 units that will replace 25 units within an older building within the existing Hope Gardens homeless shelter facility for women and children. The new building will house approximately 450 residents, each up to two-year of stay. The existing facility is currently entitled for up to 300 women and children and the Project requests an increase of capacity to allow the new livable units through a Conditional Use Permit. However, due to the nature of the transitional housing that serves people who formerly experienced homelessness, the project is not expected to induce un-planned population growth. No roads or other infrastructure will be constructed except for possibly on-site expansion of wastewater that will serve the subject property only. Lastly, no zone change or plan amendments are being requested or required for this project, as the use is conditionally permissible in the A-2-Zone.

b) Displace substantial numbers of existing people or housing, especially affordable housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

The project proposes to develop a new housing building to replace an existing older building within the existing Hope Gardens homeless shelter facility for women and children. The intent of the project is to address the ongoing homeless issues occurring in the regional by providing needed housing facility for homeless women and children. No impacts will result from the project.

15. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐

Fire protection and emergency medical services are provided by the County of Los Angeles Fire Department. The nearest fire station to the facility is the County Fire Department Station #74, which is approximately 3 miles in distance near the adjacent Kagel Canyon Community to the east. The project involves the construction and operation of a new housing building within an existing housing facility for the homeless. The new project building would be equipped with automatic fire sprinkler system and the new building will also be supported by multiple fire hydrants that are located adjacent to the new structure. Fire Lane access will be provided to loop through the new building and would allow direct access from Lopez Canyon Road. Per current project review with County Fire Department, no new demand for physical or staff resources associated with fire protection will be required; therefore, less than significant impact would occur.

Sheriff protection?	☐	☐	☒	☐

The project facility is located with the jurisdiction of the Los Angeles County Sheriff's Department, which provides law enforcement and protection services to the area. The nearest Sheriff's office is located at 900 3rd St. in San Fernando, which is approximately 3.6 miles to the south of the Hope Gardens facility. The facility is also protected and monitored by 24-hour onsite security. The Project may create an additional demand for Sheriff's services. However, Hope Gardens Homeless Shelter facility only provide transitional housing for homeless women and small children only. All activities associated with the operation occurs onsite that are supervised by the staff and onsite security. The development is not expected to require a significant impact to sheriff's facility or resources.

Schools?	☐	☐	☒	☐

The proposed project development involves the construction of a new transitional housing building within an existing homeless shelter facility for women and mothers with children. Currently, Hope Gardens provides children residing in the facility with education services through the local schools within the Los Angeles Unified School District near Sylmar area. Project development will not require expansion existing facilities or resources for the service. The anticipated project development is considered negligible, resulting in impacts that is less than significant.

Parks? ☐ ☐ ☐ ☒

The existing Hope Gardens site maintains its own private recreational facility onsite for the homeless occupants; therefore, the project would not require new or expanded County parks or recreational facilities in the area; therefore, no impacts would occur.

Libraries? ☐ ☐ ☐ ☒

Although the proposed new building and the facility is within the County of Los Angele Public Library service jurisdiction, the project will not increase the demand for library services. Hope Gardens is a non-profit organization offering transitional housing for homeless women and their young children; therefore, the facility receives, maintains, and provides books and educational materials onsite serving those residents. In impacts will occur with the project.

Other public facilities? ☐ ☐ ☐ ☒

The project development and its operation will not result in any increase in requirement for any local public facilities or resources impacting the surrounding area; therefore, no impacts would occur.

16. RECREATION

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

The proposed project will not increase the use of existing neighborhood and regional parks or other recreational facilities. The County Department of Parks and Recreation has indicated that the project will not impact any park facilities.

b) Does the project include neighborhood and regional parks or other recreational facilities or require the construction or expansion of such facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

No new park facilities are proposed or required for the proposed project. The County Department of Parks and Recreation has indicated that no impact will occur with the proposed project.

c) Would the project interfere with regional trail connectivity?	☐	☐	☐	☒

There are no identified regional trails within the vicinity of the project site. The County Department of Parks and Recreation has indicated no impacts will occur from the proposed project.

17. TRANSPORTATION

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
Would the project:				
a) Conflict with an applicable program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐

The proposed project will demolish an existing housing building and replace it with a new building that is located within an existing homeless shelter facility. The existing property is conveniently accessible by existing Lopez Canyon Road and it will not change, be in conflict with any existing local circulation plan in the vicinity or the region. The project is to provide accommodation in addressing the local homeless issue with the County. It is not considered to overburden any existing circulation system. Therefore, the project impact is considered less than significant.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐

The project development is a homeless shelter housing building that will replace an existing building on a existing developed homeless shelter facility. No significant traffic is generated by the project development as the anticipated homeless occupants will not generate vehicle use due to the fact that they do not own personal vehicles. Therefore, the project development is not considered to be in conflict with the section 15064.3 guidelines; thus, resulting in less than significant impact.

c) Substantially increase hazards due to a road design feature (e.g., sharp curves) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

The project development is a homeless shelter housing building that will replace an existing building on an existing developed homeless shelter facility. No improvements to existing roadway access will occur, pending an approval of traffic access management study by Department of Public Work. The proposed use is consistent with the current use of the site, therefore, no impact will occur.

d) Result in inadequate emergency access?	☐	☐	☒	☐

The proposed development occurs within an existing housing facility that has been developed for more than 40 years and has served as a homeless shelter use since 2007. Main access to the site is provided by existing paved Lopez Canyon Road with multiple access to the property. No offsite improvements will occur with the project and the project would not result in inadequate emergency access to the property, pending an approval of traffic access management study by Department of Public Work. Therefore, project development impact is considered less than significant.

18. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §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:				
i) 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 § 5020.1(k), or	☐	☒	☐	☐

Native American Heritage Commission (NAHC) Scared Lands file search dated September 22, 2020 acknowledged an absence of specific site information in the Sacred Land File but it should not preclude that there might be other sources of cultural resources. The County of Los Angeles consulted with Gabrieleno Band of Mission (Kizh Nation), Fernandeno Tataviam Band of Mission (Tataviam), and San Gabriel Band of Mission Indians (Tongva) on October 16 and October 28 in 2020. Kizh Nation requested a consultation on October 19, and County staff responded with additional project information but was not informed of their availability. Tataviam tribe requested a consultation and a phone consultation meeting occurred on October 29, 2020 with County staff. During the phone consultation, the Tataviam representative requested that the tribe continues to be updated on the cultural resources report, draft mitigation measures, and draft initial study when available for review. The requested documents will be provided to Tataviam tribe upon completion. In the event of discovery of such resources, the applicant shall retain a qualified archaeologist to assess the nature and significance of the find as described in mitigation measures below.

ii) 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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

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Band of Mission (Kizh Nation), Fernandeno Tataviam Band of Mission (Tataviam), and San Gabriel Band of Mission Indians (Tongva) on October 16 and October 28 in 2020. Kizh Nation requested a consultation on October 19, and County staff responded with additional project information but was not informed of their availability. Tataviam tribe requested a consultation and a phone consultation meeting occurred on October 29, 2020 with County staff. During the phone consultation, the Tataviam representative requested that the tribe continues to be updated on the cultural resources report, draft mitigation measures, and draft initial study when available for review. The requested documents will be provided to Tataviam tribe upon completion. In the event of discovery of such resources, the applicant shall retain a qualified archaeologist to assess the nature and significance of the find as described in mitigation measures below.

MM-TCR-1: Discovery of Tribal Cultural Resources. If tribal cultural resources are encountered during construction, all ground disturbance activities within 25 feet of the find shall stop until the Tribal Monitor can evaluate the significance of the find. Construction activities may continue in other areas of the project site. The applicant or Project manager shall contact the Gabrieleno Band of Mission Indians and any other consulting tribes to consult if any such find occurs. If the discovery proves significant, the Tribal Monitor shall recommend appropriate measures, subject to County approval, to mitigate potential impacts to tribal cultural resources to less than significant. Such measures may include but are not limited to resource avoidance, reburial, and preservation for educational purposes. The Tribal Monitor shall coordinate with the project Applicant to ensure that all measures approved by the County are implemented. Within 90 days after monitoring has ended, the Tribal Monitor shall prepare and submit a final monitoring report documenting all encountered tribal cultural resources, the significance of the resources, and the treatment of the resources to the County and the California Native American Heritage Commission.

MM-TCR-2: Unanticipated Discovery of Human Remains. If human remains are encountered during construction, all ground disturbance activities within 150 feet of the discovery shall be suspended and the construction manager shall immediately notify the County coroner. If the human remains are determined to be of Native American descent, the coroner shall notify the Native American Heritage Commission (NAHC), Gabrieleno Band of Mission Indians, and any other consulting tribes within 24 hours of identification. The NAHC shall identify and immediately notify the Most Likely Descendant (MLD) of the deceased Native American. Within 48 hours of being granted access to the site, the MLD shall complete the inspection of the site of the discovery and make recommendations to the Applicant/landowner for the treatment or disposition of the human remains and any associated funerary objects. All measures, as required by the County, shall be implemented under the supervision of the MLD and/or Tribal Monitor.

MM-TRC-3: When human remains are found, the County Coroner shall be notified within 24 hours of the discovery pursuant to Section 7050.5 of the California Health and Safety Code. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the remains are determined to be Native American, the Coroner shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the Most Likely Descendant (MLD) from the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The MLD would then determine, in consultation with the property owner, the disposition of the human remains.

MM-TRC-4: The Lead Agency and/or applicant shall, in good faith, consult with the FTBMI on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities.

19. UTILITIES AND SERVICE SYSTEMS

Would the project:	*Potentially Significant Impact*	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐

No new expansion of existing utility facilities and services would be required for the proposed project. The project development will demolish an existing housing facility that will be replaced with a newer building. Although the newer building is anticipated to provide additional homeless housing needs, all existing onsite utility service facilities are more than adequate to meet the gradual demand without resulting in significant environmental effects; therefore, no impacts to existing utility system will occur.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐

The existing facility is currently served by City of Los Angeles Department of Water and Power (DWP) and it has been the sole service provider to the subject property. The project development will demolish an existing housing facility that will be replaced with a newer building to accommodate the growing homeless needs. The project development would be required to continue satisfy all terms and conditions set forth by DWP and provide adequate services. The project design features would also include drought-tolerant landscaping and low flow plumbing fixtures. Therefore, sufficient water supply would be available to serve the facility without resulting in new or expansion of existing infrastructure. As a result, impacts would be less than significant.

c) 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?	☐	☐	☐	☒

The facility is currently being served by an existing onsite wastewater treatment plant onsite. Current analysis of the exiting wastewater treatment plant indicates that the proposed future addition will be adequately served by the existing system and no future expansion will required to meet the project demand; therefore, no impacts will result from the project.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local	☐	☐	☒	☐

infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The waste Management Act (AB 939) requires each California City and County to demonstrate how the local jurisdiction would meet the diversion goals of 50 percent. The project site is located within the service area of the Sunshine Canyon landfill with a maximum permitted throughput of 8300 tons per day and an estimated closure date in the year 2037. Project construction and operation would result in negligible solid waste that would need to be disposed of in off-site facilities. As required by state and local agency mandated required recycling and reuse programs, the project would incorporate the collection of recyclable materials into the project design, the facility would provide recycling containers and appropriate storage areas for onsite use, and require all contractors to reuse construction supplies where practicable to the extent feasible. Therefore, solid waste generated during construction and future project operation would result in a less than significant impact.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? ☐ ☐ ☐ ☒

In complying with goals set by the State AB 939 and County of Los Angeles SRRE, the project would incorporate the collection of recyclable materials into the project design and to require contractors to reuse construction materials where practicable and applicable to the extent feasible. The project would comply with the County Construction and Demolition Debris Recycling and Reuse Code.

20. WILDFIRE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐

The project site is located within a Very High Fire Hazard Severity Zone. The project site within the California State Responsibility Area (SRA) where the State and its CAL Fire has the primary financial responsibility for the prevention and suppression of wildland fires. CAL Fire works with local governments to identify high fire hazard severity zones within the local responsibility areas throughout each County in the State. Access to the site is off Lopez Canyon Road with the facility providing two points of direct access for any emergency purposes. County Fire Station No. 74 is located approximately three (3) miles to the east near the Kagel Canyon area. The project involves the construction and operation of a new housing building within an existing developed housing facility for the homeless. There are no off-site improvements that would create conditions that my potentially impair local emergency response plan. The exiting Hope Gardens facility has an emergency evacuation plan that has been developed and updated to address potential emergency event including potential wildfire in the vicinity. By implementing this plan, which would support and complement an adopted emergency response plan or emergency evacuation plan, the project would result in less than significant impacts.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☒	☐	☐

The proposed project is located within an existing housing facility that has been developed for more than 40 years. Design and construction of the project would be built in accordance with the current California Building Code that include design features such as ignition-resistant materials and incorporate fire sprinklers that would minimize any risk of exposure of persons or property to wildfires. A preliminary fuel modification plan has been approved for the project. Prior to issuance of a grading permit, the applicant would be required to submit a final fuel modification plan for approval. In addition, the facility has an emergency evacuation and management plan in place; therefore, exposure to wildfire risks and pollutant concentrations from a wildfire would be less than significant.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐

The proposed project is located within an existing housing facility that has been developed for more than 40 years. No additional new infrastructure improvements will be required since all existing utility connection and access are in place. A fuel modification plan will be adopted to ensure proper vegetation maintenance to mitigate fire risks. Therefore, impacts associated with project development would be less than significant.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

The project site is located within an already developed property for more than 40 years with existing improvements that are in place to prevent significant risks from downslope flooding, landslides, stormwater runoff, and drainage changes. Therefore, impacts associated with project development would be less than significant.

e) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☒	☐	☐

The proposed project is located within an existing housing facility that has been developed for more than 40 years. Design and construction of the project would be built in accordance with the current California Building Code that include design features such as ignition-resistant materials and incorporate fire sprinklers that would minimize any risk of exposure of persons or property to potential fire related risk. A fuel modification plan will be adopted to ensure proper vegetation maintenance to mitigate fire risks. Therefore, impacts associated with project development would be less than significant.

MM-WF-1: Implement a Emergency Evacuation Plan as approved by the County.

MM-WF-2: Implement a fuel modification plan as approved by Fire Department.

21. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	*Less Than Significant Impact with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Does the project have 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 animal community, substantially 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?	☒	☐	☐	☐

As indicated in the biological resources section, the project development area consists of ordinance protected oak trees. Removal and encroachment of oak trees is considered a potential impact associated with the project development. However, to mitigate the loss of protected oaks, the project would implement mitigation measures during construction activities, plant replacement trees with monitoring, and compliance with project conditions will mitigate the potential impacts to be less than significant.

As indicated in the cultural resources section, the existing Sequoia Lodge building is eligible as contributing resources to the newly identified Forester Haven Historic District under CRHR and County Criteria 3 for embodying the distinctive character-defining features of the Contemporary style of architecture, which unit them aesthetically and create a cohesive campus of rustic, lodge-style buildings designed by an Independent Order of Foresters (IOF) member for an IOF retirement home. Therefore, the proposed project would result in impact to a building that appears eligible as a contributing resource to the Forester Haven District under CRHR and County Landmark designation Criterion 3 for its architectural merit and is considered an historical resource under CEQA Guidelines 15064.5(3) and (4). Demolition of this building will demolish some of the physical characteristics that justify Forester Haven for its eligibility under CRHR and County Landmark designations. Due to the proposed project development goals; unfortunately, demolition of the Sequoia Building is an unavoidable impact that cannot be mitigated significant historical resource.

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)?	☐	☐	☒	☐

This project review did not reveal any cumulatively considerable impacts. The project development is a replacement of an existing housing building that is largely in support of an existing developed 75- acre homeless shelter facility. There is a current project at a property immediately adjacent at the southeast corner

of the Project Site to legalize an existing contractor's storage yard by changing the zone from A-1-1 to M-1.5 and the land use category from RL10 to IL. An oak tree permit is also concurrently filed to address retroactive encroachments into multiple oak tree protected zones. However, since the contractor's storage yard has existed at this location and no other physical changes are requested, there would be no cumulatively considerable impacts. Therefore, the project would not be expected to meet this mandatory finding of significance.

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

As indicated, the project development is a replacement of an existing housing building that is largely in support of an existing developed 75- acre homeless shelter facility. Project impacts are considered negligible and can be reduced to less than significant level with incorporation of project features and mitigation measures as required. Mitigation measures would be implemented to ensure less than significant impacts related to biological resources- Oak Trees. Based on the evaluation contained herein, there is no substantial evidence the project development itself would lead to adverse effects on human beings. Therefore, the project would not be expected to meet this mandatory finding of significance.

Appendix 1-2

Initial Study/Notice of Preparation Comments Matrix and Letters

Table 1
Summary of Comments Received on the IS/NOP

Commenter	Comment	Addressed in Draft EIR Section
California Department of Fish and Wildlife (7/19/22)	Delineate and analyze direct and indirect construction and operation-related impacts to adjacent stream (Tujunga Wash) and associated vegetation that serves to protect integrity of the water resource.	4.1 Biological Resources
	Oak trees and southern coast live oak riparian forest within project site and surrounding area, and these tree species are considered a sensitive plant community that are protected by Oak Woodlands Conservation Act.	4.1 Biological Resources
	Direct and indirect construction-related impacts to protected migratory nesting birds in oak trees or other areas of suitable habitat.	4.1 Biological Resources
	Show proposed landscaping plan with native plant species and replacement tree species locations.	4.1 Biological Resources
	Analyze impact of tree pests and diseases from new landscaping plan and include infectious tree disease management plan or mitigation measures to avoid or reduce spread of tree insect pests and diseases.	4.1 Biological Resources
	Discuss project's use of herbicides, pesticides, and second-generation anticoagulant rodenticides, when and where these chemicals would be used and impact to wildlife. Recommended that the lead agency prohibit use of any second-generation anticoagulant rodenticides.	4.1 Biological Resources
	Conduct a biological baseline assessment for the EIR to assess project-specific and cumulative impacts to plants and animal species within and adjacent to the project site, emphasizing any special status species and habitats.	4.1 Biological Resources
	Impact disclosure, mitigation measures, data, and biological direct, indirect, and cumulative impacts	4.1 Biological Resources
	Listed recommendations for the Project Description and Alternatives sections	3.0 Project Description 4.1 Biological Resources 5.0 Alternatives
	California Endangered Species Act, compensatory mitigation, long-term management of mitigation lands	4.1 Biological Resources

Table 1
Summary of Comments Received on the IS/NOP

Commenter	Comment	Addressed in Draft EIR Section
Los Angeles Conservancy (7/18/22)	Forester Haven is an eligible historic district for listing at the county, state, and national level as determined by the project's historic report as the historic district tells an important history of supportive housing and healthcare in California.	4.2.1 Cultural Resources (Historic)
	EIR should evaluate a range of historic preservation-based alternatives that would reduce the potentially significant and unavoidable impacts to historic resources from the demolition of the Sequoia Lodge. Examples include adaptive reuse, partial preservation paired with new development, or different project site within Hope Gardens. New development should conform with Secretary of the Interior Standards.	5.0 Alternatives
	Conservancy requests meeting with the project team	*Project team has had discussions with commenter.*
Native American Heritage Commission (6/16/22)	Project may be subject to AB 52 and/or SB 18, which have tribal consultation requirements.	4.4 Tribal Cultural Resources
Yuhaaviatam of San Manuel Nation (7/18/22)	Project is outside their tribe's ancestral territory.	4.4 Tribal Cultural Resources
Los Angeles County Department of Public Works (7/19/22)	Project site appears to be located on or within 1,000 feet of Lopez Canyon Sanitary Landfill.	6.0 Other CEQA Considerations
	Permits are required from Environmental Programs Division for construction, installation, modification, or removal of underground storage tanks and/or stormwater treatment facilities.	6.0 Other CEQA Considerations
	Construction, demolition, and grading are required to recycle or reuse a minimum of 65% of debris by weight per County Code. Recycling and Reuse Plan must be approval by Environmental Programs Division prior to construction, demolition, or grading permit issuance.	6.0 Other CEQA Considerations
Kagel Canyon Civic Association (8/5/22)	Planting 12 new oak trees for the removal of existing oak trees is not sufficient mitigation, and does not meet the standard of protecting California trees. Oak tree reports from 2019 and 2020 conflict with each other with the 2019 report referring to some of the oak trees as heritage trees. Appears to the commenter that the report was revised to benefit the applicant.	4.1 Biological Resources

Table 1
Summary of Comments Received on the IS/NOP

Commenter	Comment	Addressed in Draft EIR Section
	Proposed building design will degrade visual character of the site and the proposed height will not be shielded by existing plants. Any new development should be the same scale/footprint as existing Sequoia Lodge and height limited to existing code requirements.	3.0 Project Description
	Project completely changes the intended use of the property and doubles the number of residents as well as seeks a building height variance for additional 12 feet.	3.0 Project Description 6.0 Other CEQA Considerations
	Proposed color palette does not blend with native foliage, and the described "lush landscaping" does not fit with rustic setting. How will proposed light and glare be determined compliant with Rural Outdoor Lighting District before building is completed?	3.0 Project Description 6.0 Other CEQA Considerations
	The proximity of Hope Gardens to the adjacent Angeles National Forest may impact the forest during high winds and fire.	6.0 Other CEQA Considerations 4.5 Wildfire
	Residents at Hope Gardens and in nearby Kagel, Pacoima, Lakeview Terrace, and Sylmar will be impacted by dust and vehicle emissions during construction, especially elderly residents at Hope Gardens.	6.0 Other CEQA Considerations
	Fines should be levied for each tree removed and replacement approval should be required before construction as well as a maintenance plan to protect and nourish new plantings. Who will oversee the preservation of new and existing oaks?	4.1 Biological Resources
	Construction noise can interfere with native wildlife.	4.1 Biological Resources
	Administrative component of the proposed building is inconsistent with original design of the property or rural atmosphere of the area, and will overwhelm the rest of Hope Gardens.	Cultural Resources (Historic)
	Negative search results of the Native American Heritage Commission's Sacred Lands File do not mean Native Americans did not occupy the area where Hope Gardens is located. Excavation for the subterranean parking may result in discovery of archaeological deposits. How will construction account for inadvertent discovery?	4.2.2 Cultural Resources (Archaeological) 4.4 Tribal Cultural Resources
	Construction-related energy consumption is not defined in the county's initial study.	6.0 Other CEQA Considerations

Table 1
Summary of Comments Received on the IS/NOP

Commenter	Comment	Addressed in Draft EIR Section
	New development should be fortified to support building stabilization and protection from earthquakes and daily ground movement.	4.3 Geology and Soils
	Significant GHG emissions will result from construction vehicles as well as construction workers' personal vehicles. Onsite transportation for the additional residents will also contribute to significant GHG emissions.	6.0 Other CEQA Considerations
	Whiteman Airport, Burbank Airport, and helicopters using Lopez Environmental Center bring noise to the area.	6.0 Other CEQA Considerations
	Asbestos and lead paint removal can be hazardous to workers and residents.	6.0 Other CEQA Considerations
	Emergency response plan must include additional traffic as a result of the project and heavy traffic on Lopez Canyon Road coming from Kagel Canyon during fire evacuation. Lopez Canyon Road is one of two roads to Kagel Canyon. Stating there are emergency plans does not guarantee effectiveness. Increased onsite population also increases traffic congestion during emergencies. What emergency transportation would be provided to avoid blocking Lopez Canyon Road when Kagel Canyon is trying to evacuate, especially their horses and other farm animals?	4.5 Wildfire 6.0 Other CEQA Considerations
	New development on areas not previously developed may have unknown runoff implications during construction in the rainy season. Surface runoff from any hazardous waste encountered during demolition could affect water quality.	6.0 Other CEQA Considerations
	Construction-related noise will impact residents and surrounding communities. Increased onsite population will increase noise during operation.	6.0 Other CEQA Considerations
	Existing residents of Sequoia Lodge will need to be re-housed.	6.0 Other CEQA Considerations
	Fire Department Station #47 may not be available to serve Hope Gardens during a major fire. There are fires at the landfill mulching facility.	6.0 Other CEQA Considerations
	San Fernando Sheriff's Station does not oversee the Hope Gardens area, and the station in La Crescenta is much farther away and unavailable.	6.0 Other CEQA Considerations
	Parks and trails that residents might use should be identified.	6.0 Other CEQA Considerations

Table 1
Summary of Comments Received on the IS/NOP

Commenter	Comment	Addressed in Draft EIR Section
	Kagel Canyon residents using Lopez Canyon Road say recent near accidents have occurred from drivers emerging from Hope Gardens and ignoring traffic.	6.0 Other CEQA Considerations
	Construction-related impacts to Lopez Canyon Road must be addressed.	6.0 Other CEQA Considerations
	If vehicle traffic is not going to be increased by the project, why an increase in parking spaces?	6.0 Other CEQA Considerations
	Inadvertent discovery of artifacts should be communicated to the Tatavian [sic] tribe during construction. How will construction workers be educated on how to identify artifacts and cease construction if a discovery is made?	4.4 Tribal Cultural Resources
	How much new waster consumption and wastewater generation is anticipated for construction and operation?	6.0 Other CEQA Considerations
	Current drought and daily small fires indicate a change in fire prevention needs and update in evacuation preparation. Illegal dumping of trash on Lopez Canyon Road increases fire risk. Emergency evacuation plans must be practiced regularly. The EIR also needs to address "proper vegetation" and the "modification plan." The project could result in "loss, injury or death involving wildland fires."	4.5 Wildfire
	Could the proposed new development be located somewhere else on the campus with complementary historical architectural design and avoid demolishing a historic resource?	5.0 Alternatives
Donna Lauber (6/28/22)	Four story building is not acceptable for the area and would allow for other tall buildings that would encroach on semi-rural area. Would it be an eyesore for hikers or riding up on Indian Canyon or in Santa Monica conservancy property?	3.0 Project Description 6.0 Other CEQA Considerations
	Will the project cause traffic and parking problems?	6.0 Other CEQA Considerations
	Will the project remove the 11 oaks area adjacent to the project? Will the project impact white tail deer?	4.1 Biological Resources
	What about fire evacuation and would the project create an even more dangerous situation for the Kagel Canyon community as there are only two ways out during wildfires?	4.5 Wildfire

Table 1
Summary of Comments Received on the IS/NOP

Commenter	Comment	Addressed in Draft EIR Section
Gloria Sharpsteen (7/27/22)	Residents of upper and lower Kagel Canyon use Lopez Canyon Road as main travel route and traffic is increased where from funerals and visits to the Glen Haven and Shalom cemeteries. Speed racing is also a problem on Lopez Canyon Road. Driving hazards also exist from oak trees and telephone poles along the roadway around curves, and from cars and trucks pulling out of Hope Gardens because of the driveway designs there. Roadways cannot be widened because of topography. Understand that no traffic study has been done to address increased traffic impacts on the area.	6.0 Other CEQA Considerations
	Increased residents and workers at Hope Gardens could potentially create traffic gridlock that complicates emergency evacuation for the community during a wildfire on the 2-lane roadway.	4.5 Wildfire
	Hope Gardens is not on a fault but nearby faults can cause earthquakes that can impact Lopez Canyon Road and Kagel Canyon Road.	4.5 Geology and Soils
Kurt and Teresa Krueger (8/1/22)	Old growth oak trees are valuable for the environment with water retention, erosion control, animal habitat, etc. Removal of 5 oak trees and encroaching 8 other oak trees may affect the microbiome, drainage, environment, etc. Will new building height affect tree growth?	4.1 Biological Resources
	The 51-foot-tall building will be 11 feet higher than the nearest oak tree.	3.0 Project Description 6.0 Other CEQA Considerations
	New building will cover one acre, so how will the project affect the microbe, drainage, environment, etc. The onsite population of Hope Gardens will be the same as the entire population of Kagel Canyon, and on how many acres?	3.0 Project Description
Kurt and Teresa Krueger (8/2/22)	What will be the impact of the new building size on old growth trees and ecosystem? Old growth trees at Hope Gardens need to be saved for their benefit to the environment, society, and ecology.	4.1 Biological Resources

Table 1
Summary of Comments Received on the IS/NOP

Commenter	Comment	Addressed in Draft EIR Section
Marlene Rader (8/5/22)	Proposed 51-foot building height is inconsistent with character of the surrounding community and existing structures, and will tower over the forest creating visual blight that does not belong in rural area. Can the proposed building be scaled down in its height/massing/scale for portions aboveground, and be designed to resemble the other structures at the site with the same height as other buildings? A visual simulation of the proposed building would be helpful to understand if vegetation will screen views.	3.0 Project Description 6.0 Other CEQA Considerations
	Replacement of the historic Sequoia Lodge with contemporary architecture cannot be mitigated.	4.2.1 Cultural Resources (Historic)
	Discrepancy between the 2019 and 2020 oak tree reports, which is accurate? Removal of 5 oak trees is a significant impact that cannot be mitigated and none should be removed. Encroachment of 11 oak trees will negatively affect their survivability. Root systems will be disturbed by constructing subterranean parking level.	4.1 Biological Resources
	New FEMA flood plain map must be completed since the last one was done in 1980 and the proposed building covers an acre. The new building will generate runoff and limit ability for water to be absorbed which is an impact.	6.0 Other CEQA Considerations
	The initial study does not appear to address asbestos as a hazardous material, which is likely present in the Sequoia Lodge and would need to be removed.	6.0 Other CEQA Considerations
	Traffic impact report needs to be completed. The increase in onsite population, visitors to Hope Gardens, staff, and deliveries from trucks negatively impact the narrow road. The claim that residents do not have their own cars is inconsistent with what the applicant stated at a community meeting with Kagel Canyon.	6.0 Other CEQA Considerations

Table 1
Summary of Comments Received on the IS/NOP

Commenter	Comment	Addressed in Draft EIR Section
	Fire evacuation plan needs to be implemented and practiced quarterly because of the high fire area. Enough vehicles should be onsite at all times for the new onsite population and workers before project implementation. The county had to send buses to Hope Gardens for the Creek Fire in 2017 to evacuate residents there, and Hope Gardens was not able to safely evacuate the campus on their own. In the event of a fire, if the southern end of Kagel Canyon Road is closed, the Kagel Canyon community will only have Lopez Canyon Road for emergency evacuation, which would be deadly with the increased traffic and evacuation of a larger onsite Hope Gardens population. The larger population puts Hope Gardens and Kagel Canyon at grave safety risk because of wildfire.	4.5 Wildfire
	Is Hope Gardens in compliance with the conditions of the CUP? Is compliance inspected annually? Will there be new conditions for the project with annual inspections? If CUPs have expiration dates, 15 years with no modification should be imposed on a new CUP for Hope Gardens. Current CUP appears to have no provision for elderly women and the new CUP does not mention elderly women at the site, will they be displaced?	Non-CEQA

Table 2
Summary of Comments from Scoping Meeting

Environmental Topic	Comment	Addressed in Draft EIR
Project Description	• Why all the open, huge walkways with very little variety of vegetation? • At 51 feet tall, the building would be taller than the tallest oak tree (described to be 40 feet tall), and will be visible from the 210 Freeway. How is this not affecting aesthetics of the area? • Ugly building design and incompatible with current building and the environment; should be more like a park ranger station to avoid contrasting with nature	3.0 Project Description

Table 2
Summary of Comments from Scoping Meeting

Environmental Topic	Comment	Addressed in Draft EIR
	• What about the rehabilitation of the formerly homeless women and children from the stresses of homelessness and these times, and behavioral/character development programs? • Aesthetically the new building should be in keeping with the surrounding buildings, which are rustic • Building needs to be redesigned and smaller in keeping with the character of the community • Design doesn't match with the Forester Haven Historic District and has been redesigned off buildings in Pacoima/Sylmar area, which don't match Lopez Canyon's oak-covered terrain • Will the parking lot be asphalt? What is the parking lot material? • What about increased security onsite? What is the current onsite population (formerly homeless women, children, and staff) and what will the total onsite population be after the project?	
Air Quality	• Please consider air quality during construction Pollution	6.0 Other CEQA Considerations
Biological Resources	• Destruction of old growth trees has horrendous effects • Excavation for subterranean parking will harm roots • Deer come to drink at the creek. How close is the project to the creek? Wildlife corridors	4.1 Biological Resources
Cultural Resources	Design doesn't match with the Forester Haven Historic District and has been redesigned off buildings in Pacoima/Sylmar area, which don't match Lopez Canyon's oak-covered terrain	4.2.1 Cultural Resources (Historic)
Geology and Soils	What is planned to rejuvenate the soils and plant life at the property?	3.0 Project Description 4.1 Biological Resources 6.0 Other CEQA Considerations
Hazards and Hazardous Materials	How about the use of Round Up-kind of products poisoning the people and planet?	6.0 Other CEQA Considerations
Hydrology and Water Quality	• What's going to prevent all the runoff of valuable water rather than promoting "soil sponge" effect of regenerative plantings as guided by the local tribal or regenerative agriculture throughout the area?	6.0 Other CEQA Considerations

Table 2
Summary of Comments from Scoping Meeting

Environmental Topic	Comment	Addressed in Draft EIR
	• Project site is in 100-year flood hazard zone (A-E Zone); what has been done to address this issue? • When was the FEMA map last updated? Won't this facility lower water tables for our wells?	
Noise	Please consider noise during construction	6.0 Other CEQA Considerations
Transportation	• What are the proposed traffic control mitigations to address increased density of population? Will a traffic signal be installed at the main entrance? • Traffic is already a problem and cars frequently pull out into the road without looking, creating dangerous situations with oncoming traffic • No traffic study has been prepared for the project Transportation will be highly affected due to Lopez Canyon Road being a major egress for people in Kagel Canyon	6.0 Other CEQA Considerations
Tribal Cultural Resources	Working with representative of the local Tongve Tribe, like Joe Calderon, who works at the old Rockadyne facility in the Rocky Peak area?	4.4 Tribal Cultural Resources
Utilities and Service Systems	• How does project impact the onsite sewage treatment facility? Is the treatment facility sized to meet the projected wastewater generation that would result from the project? • How will the septic system be able to accommodate the increased population? What is the water source?	6.0 Other CEQA Considerations
Wildfire	• Impacts on vehicular egress during emergency evacuations from a fire • Egress dangers during a fire is significant; how will it be address? • Only two ways out of mid to upper Kagel Canyon during wildfires. Main road was like fire tunnel heading downhill on main road. 97 parking spaces? 500 more people to evacuate? Makes no sense to burden and block an agricultural ranch district with horse trailers and livestock who need to stay out of the way of fire trucks and emergency vehicles. The soil sponge effect of regenerative agriculture is a very effective prevention of fires spreading rapidly	4.5 Wildfire

Table 2
Summary of Comments from Scoping Meeting

Environmental Topic	Comment	Addressed in Draft EIR
Other CEQA Considerations	How will this affect 7 generations down? It's our heritage we're leaving behind.	6.0 Other CEQA Considerations
Alternatives to the Proposed Project	With the drainage of the aquifer and lack of rejuvenating it because of the drought, what is/are your alternative(s)?	5.0 Alternatives

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
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GAVIN NEWSOM, Governor
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SENT BY EMAIL ONLY

July 19, 2022

Michele Bush
Los Angeles County Department of Regional Planning
320 W Temple Street
Los Angeles, CA 90012
MBush@planning.lacounty.gov

Subject: Notice of Preparation of a Draft Environmental Impact Report for the Hope Gardens Project, SCH #2022060277, Los Angeles County

Dear Ms. Bush:

The California Department of Fish and Wildlife (CDFW) has reviewed a Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) from the Los Angeles County Department of Regional Planning (LADRP) for Hope Gardens (Project). Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Pub. Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on Projects and related activities that have the potential to adversely affect State fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 *et seq*.). Likewise, to the extent implementation of the Project as proposed may result in "take", as defined by State law, of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 *et seq.*), or CESA-listed rare plant pursuant to the Native Plant Protection Act (NPPA;

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Fish & G. Code, §1900 *et seq.*), CDFW recommends the Project proponent obtain appropriate authorization under the Fish and Game Code.

Project Description and Summary

Objective: The Project proposes the replacement of an existing housing building known as the Sequoia Building with a new housing building within the Hope Gardens Family Center. Development of the new building will be located near the northeast corner of the Hope Gardens property, where the existing building currently exists. The new building will consist of three stories with subterranean parking that will provide space for 117 housing units and supportive services. The housing capacity will be increased to support 525 formerly homeless women and children. Each housing unit will average 371 square feet and accommodate up to four people. Supportive services that will be located on site for residents include counseling offices, administration offices, security office, medical examination rooms, dental examination rooms, day care center, computer lab, multi-purpose room, kitchen, and a communal dining room. The subterranean parking area will provide 22 parking spaces, bicycle spaces, and ADA parking. Overall, the proposed new building and related infrastructure will occupy approximately one acre. Additionally, the Project requests to increase the building height limit up to 51 feet to accommodate housing and supportive services. Construction activities will involve approximately 3,200 cubic yards of cut and 3,200 cubic yards of fill. The Project also proposes the removal of five oak trees located northwest of the proposed building and encroachment upon the protected zone of eleven oak trees.

Location: The Project site is located at 12249 Lopez Canyon Road, near Sylmar in the unincorporated County of Los Angeles. The Project site is approximately 77 acres and is set within the Indian Canyon. The site is bounded by Interstate 210 to the south, undeveloped land to the west, and the Angeles National Forest to the north and east.

Comments and Recommendations

CDFW offers the comments and recommendations below to assist the LADRP in adequately identifying, avoiding, and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources. The EIR should provide adequate and complete disclosure of the Project's potential impacts on biological resources [Pub. Resources Code, § 21061; CEQA Guidelines, §§ 15003(i), 15151]. CDFW looks forward to commenting on the EIR when it is available.

Specific Comments

1) Stream Impacts. According to U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory, Tujunga Wash flows directly adjacent to the existing building within the Project site (USFWS 2022). Construction and demolition activities may impact the watercourse and potentially result in loss of riverine habitat.

    a) Analysis and Disclosure. CDFW recommends LADRP identify and delineate all streams within the Project area and provide a discussion of the Project's potential impacts on streams. Modifications to a river, creek, or stream in one area may result in bank erosion, channel incision, or drop in water level along that stream outside of the immediate impact area. Therefore, CDFW recommends the EIR discuss whether impacts on streams within the Project area would impact those streams immediately

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outside of the Project area where there is hydrologic connectivity. Potential impacts such as changes to drainage pattern, runoff, and sedimentation should be discussed.

b) Avoidance. CDFW recommends the Project avoid impacting streams and associated vegetation. Herbaceous vegetation, woody vegetation, and woodlands adjacent to streams serve to protect the integrity of these resources and help maintain natural sedimentation processes. Where development may occur near a stream but may avoid impacts, the EIR should disclose the minimum standards of the chosen setback and provide a justification as to why the chosen setback distance of the proposed development(s) would be effective to avoid impacts on streams and associated vegetation.

c) If avoidance is not feasible, the EIR should include the following:

- A stream delineation and analysis of impacts. The delineation should be conducted pursuant to the USFWS wetland definition adopted by CDFW (Cowardin et al. 1979). Be advised that some wetland and riparian habitats subject to CDFW's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers' Section 404 permit and Regional Water Quality Control Board Section 401 Certification; and

- A requirement for a Lake and Streambed Alteration (LSA) Notification to CDFW pursuant to Fish and Game Code Section 1600 *et seq.* if applicable. As a Responsible Agency under CEQA, CDFW has authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (including vegetation associated with the stream or lake) of a river or stream or use material from a streambed. For any such activities, the project applicant (or "entity") must notify CDFW. CDFW's issuance of a LSA Agreement for a project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. As a Responsible Agency, CDFW may consider the environmental document of the local jurisdiction (Lead Agency) for the Project. To minimize additional requirements by CDFW pursuant to section 1600 *et seq.* and/or under CEQA, the environmental document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for issuance of the LSA Agreement. Please visit CDFW's Lake and Streambed Alteration Program webpage for more information (CDFW 2022c).

  As part of the LSA Notification process, CDFW requests a hydrological evaluation of the 100-year storm event to provide information on how water and sediment is conveyed through the Project area. Additionally, the hydrological evaluation should assess the 100, 50, 25, 10, 5, and 2-year frequency flood events to evaluate existing and proposed conditions and erosion/scour potential. CDFW recommends the EIR discuss the results and address avoidance, minimization, and/or mitigation measures that may be necessary to reduce potential significant impacts.

2) Oak Trees (*Quercus* genus) and Oak Woodlands (*Quercus* genus Woodland Alliance). According to the California Natural Diversity Database, there is a southern coast live oak

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riparian forest within the Project site and surrounding area (CDFW 2022a). Specifically, the NOP states that there are 40 canyon live oak (*Quercus chrysolepis*) and 17 coast live oak (*Quercus agrifolia*) for a total of 57 protected oak trees. The Project proposes the removal of five oak trees which includes two heritage oaks and encroachment onto the protected zone of 11 oak trees which includes three heritage oaks. CDFW considers oak woodlands to be a sensitive plant community since certain associations of this species have a rarity ranking of S3. Oak woodlands serve several important ecological functions such as protecting soils from erosion and land sliding, regulating water flow in watersheds, and maintaining water quality in streams and rivers. Oak trees provide nesting and perching habitat for approximately 170 species of birds (Griffin and Muick 1990). Moreover, oak trees and woodlands are protected by the Oak Woodlands Conservation Act (pursuant under Fish and Game Code sections 1360-1372) and Public Resources Code section 21083.4 due to the historic and on-going loss of these resources.

a) Avoidance. CDFW recommends the EIR discuss the Project's potential impacts on oak trees and oak woodlands. CDFW recommends the LADRP propose an alternative that would avoid and minimize development and encroachment onto oak trees and woodlands.

b) Compensatory Mitigation. If avoidance is not feasible, CDFW recommends the EIR provide sufficient compensatory mitigation for the number of oak trees and acres of oak woodland habitat impacted. The number of replacement trees and oak woodland habitat acres should be higher if the Project would impact mature oak trees; impact an oak woodland supporting rare, sensitive, or special status plants and wildlife; or impact an oak woodland with a State Rarity Ranking of S1, S2, or S3. Furthermore, the EIR should provide a justification for why the compensatory mitigation proposed would minimize the Project's impacts to a level less than significant.

3) Nesting Birds. Nest cavities of mature oak trees provide breeding habitat for nesting birds. The Project may impact nesting birds through removal of oak trees from the Project site. Project activities occurring during the nesting bird season, especially in areas providing suitable nesting habitat, could result in permanent loss of nesting habitat, incidental loss of fertile eggs or nestlings, or nest abandonment.

a) Protection Status. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (Code of Federal Regulations, Title 50, § 10.13). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). It is unlawful to take, possess, or needlessly destroy the nest or eggs of any raptor.

b) Avoidance. CDFW recommends that measures be taken to fully avoid impacts to nesting birds and raptors. CDFW recommends the Project avoids ground-disturbing activities (e.g., mobilizing, staging, drilling, and excavating) and vegetation removal during the avian breeding season which generally runs from February 15 through September 15 (as early as January 1 for some raptors) to avoid take of birds, raptors, or their eggs.

c) Surveys. If impacts to nesting birds and raptors cannot be avoided, CDFW recommends the Project mitigates for impacts. CDFW recommends surveys by a qualified biologist

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with experience conducting breeding bird and raptor surveys. Surveys are needed to detect protected native birds and raptors occurring in suitable nesting habitat that may be disturbed and any other such habitat within 300 feet of the Project disturbance area, to the extent allowable and accessible. For raptors, this radius should be expanded to 500 feet and 0.5 mile for special status species, if feasible. Project personnel, including all contractors working on site, should be instructed on the sensitivity of the area. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.

4) Landscaping. The Project proposes enhanced landscaping throughout the Project site. CDFW recommends the EIR provide the Project's landscaping plant palette and replacement tree species list. CDFW recommends the LADRP use only native species found in naturally occurring vegetation communities within or adjacent to the Project site. The LADRP should not plant, seed, or otherwise introduce non-native, invasive plant species to areas that are adjacent to and/or near native habitat areas. Accordingly, CDFW recommends the LADRP restrict use of any species, particularly 'Moderate' or 'High' listed by the California Invasive Plant Council (Cal-IPC 2022). These species are documented to have substantial and severe ecological impacts on physical processes, plant and animal communities, and vegetation structure.

5) Pest Management. The Project proposes enhanced landscaping and replacement of oak trees. This Project activity may have the potential to spread tree pests and diseases through the Project area and into adjacent natural habitat not currently exposed to these stressors. This could result in expediting the loss of native trees. As such, CDFW recommends the EIR include an infectious tree disease management plan or provide mitigation measures, developed in consultation with an arborist, and describe how the plan or mitigation measures will avoid or reduce the spread of tree insect pests and diseases.

6) Use of Rodenticides. If the Project results in enhanced landscaping, vegetation may need to be managed via chemical methods. Herbicides, pesticides, and rodenticides may impact wildlife. Second generation anticoagulant rodenticides are known to have harmful effects on the ecosystem and wildlife. Assembly Bill 1788 prohibits the use of any second-generation anticoagulant rodenticides because second generation anticoagulant rodenticides have a higher toxicity and are more dangerous to nontarget wildlife (California Legislative Information 2020). CDFW recommends the EIR include a discussion as to the Project's use of herbicides, pesticides, and second-generation anticoagulant rodenticides to maintain the Project's grounds in perpetuity. The EIR should discuss when and where these chemicals would be used and what impacts those chemicals may have on habitat and wildlife. CDFW recommends the LADRP prohibit the use of any second-generation anticoagulant rodenticides during Project implementation.

General Comments

7) Biological Baseline Assessment. The EIR should provide an adequate biological resources assessment, including a complete assessment and impact analysis of the flora and fauna within and adjacent to the Project site and where the Project may result in ground disturbance. The assessment and analysis should place emphasis upon identifying endangered, threatened, sensitive, regionally, and locally unique species, and sensitive

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habitats. Impact analysis will aid in determining any direct, indirect, and cumulative biological impacts, as well as specific mitigation or avoidance measures necessary to offset those impacts. CDFW recommends avoiding any sensitive natural communities found on or adjacent to the Project site. CDFW also considers impacts to California Species of Special Concern a significant direct and cumulative adverse effect without implementing appropriate avoidance and/or mitigation measures. An environmental document should include the following information:

a) Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region [CEQA Guidelines, § 15125(c)]. The EIR should include measures to fully avoid and otherwise protect Sensitive Natural Communities from Project-related impacts. CDFW considers these communities as threatened habitats having both regional and local significance. Plant communities, alliances, and associations with a state-wide ranking of S1, S2, and S3 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by visiting the Vegetation Classification and Mapping Program - Natural Communities webpage (CDFW 2022b);

b) A thorough, recent, floristic-based assessment of special status plants and natural communities following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). Adjoining habitat areas should be included where Project construction and activities could lead to direct or indirect impacts off site;

c) Floristic, alliance- and/or association-based mapping and vegetation impact assessments conducted at a Project site and within the neighboring vicinity. The Manual of California Vegetation (MCV), second edition, should also be used to inform this mapping and assessment (Sawyer et al. 2009). Adjoining habitat areas should be included in this assessment where Project activities could lead to direct or indirect impacts off site. Habitat mapping at the alliance level will help establish baseline vegetation conditions;

d) A complete, recent, assessment of the biological resources associated with each habitat type on site and within adjacent areas that could also be affected by a Project. California Natural Diversity Database in Sacramento should be contacted to obtain current information on any previously reported sensitive species and habitat. An assessment should include a nine-quadrangle search of the CNDDB to determine a list of species potentially present at a Project site. A lack of records in the CNDDB does not mean that rare, threatened, or endangered plants and wildlife do not occur in the Project site. Field verification for the presence or absence of sensitive species is necessary to provide a complete biological assessment for adequate CEQA review [CEQA Guidelines, § 15003(i)];

e) A complete, recent, assessment of rare, threatened, and endangered, and other sensitive species on site and within the area of potential effect, including California Species of Special Concern and California Fully Protected Species (Fish & G. Code, §§ 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition of endangered, rare, or threatened species (CEQA Guidelines, § 15380). Seasonal variations in use of a Project site should also be

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addressed such as wintering, roosting, nesting, and foraging habitat. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, may be required if suitable habitat is present. See CDFW's Survey and Monitoring Protocols and Guidelines for established survey protocol for select species (CDFW 2022d). Acceptable species-specific survey procedures may be developed in consultation with CDFW and the USFWS; and

f) A recent wildlife and rare plant survey. CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of a proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if build out could occur over a protracted time frame or in phases.

8) Disclosure. A EIR should provide an adequate, complete, and detailed disclosure about the effect which a proposed Project is likely to have on the environment (Pub. Resources Code, § 20161; CEQA Guidelines, §15151). Adequate disclosure is necessary so CDFW may provide comments on the adequacy of proposed avoidance, minimization, or mitigation measures, as well as to assess the significance of the specific impact relative to plant and wildlife species impacted (e.g., current range, distribution, population trends, and connectivity).

9) Mitigation Measures. Public agencies have a duty under CEQA to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures [CEQA Guidelines, §§ 15002(a)(3), 15021]. Pursuant to CEQA Guidelines section 15126.4, an environmental document "shall describe feasible measures which could mitigate for impacts below a significant level under CEQA."

a) Level of Detail. Mitigation measures must be feasible, effective, implemented, and fully enforceable/imposed by the Lead Agency through permit conditions, agreements, or other legally binding instruments (Pub. Resources Code, § 21081.6(b); CEQA Guidelines, § 15126.4). A public agency "shall provide the measures that are fully enforceable through permit conditions, agreements, or other measures" (Pub. Resources Code, § 21081.6). CDFW recommends that the LADRP provide mitigation measures that are specific, detailed (i.e., responsible party, timing, specific actions, location), and clear in order for a measure to be fully enforceable and implemented successfully via a mitigation monitoring and/or reporting program (Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15097). Adequate disclosure is necessary so CDFW may provide comments on the adequacy and feasibility of proposed mitigation measures.

b) Disclosure of Impacts. If a proposed mitigation measure would cause one or more significant effects, in addition to impacts caused by the Project as proposed, the EIR should include a discussion of the effects of proposed mitigation measures [CEQA Guidelines, § 15126.4(a)(1)]. In that regard, the EIR should provide an adequate, complete, and detailed disclosure about a project's proposed mitigation measure(s). Adequate disclosure is necessary so CDFW may assess the potential impacts of proposed mitigation measures.

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10) Data. CEQA requires that information developed in environmental impact reports be incorporated into a database which may be used to make subsequent or supplemental environmental determinations [Pub. Resources Code, § 21003, subd. (e)]. Accordingly, please report any special status species and natural communities detected by completing and submitting CNDDB Field Survey Forms (CDFW 2022e). The LADRP should ensure data collected for the preparation of the EIR be properly submitted, with all data fields applicable filled out. The data entry should also list pending development as a threat and then update this occurrence after impacts have occurred.

11) Biological Direct, Indirect, and Cumulative Impacts. CDFW recommends providing a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. The EIR should address the following:

    a) A discussion regarding Project-related indirect impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands [e.g., preserve lands associated with a Natural Community Conservation Plan (Fish & G. Code, § 2800 et. seq.)]. Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the EIR;

    b) A discussion of both the short-term and long-term effects to species population distribution and concentration and alterations of the ecosystem supporting the species impacted [CEQA Guidelines, § 15126.2(a)];

    c) A discussion of potential adverse impacts from lighting, noise, temporary and permanent human activity, and exotic species, and identification of any mitigation measures;

    d) A discussion of Project-related changes on drainage patterns; the volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project sites. The discussion should also address the potential water extraction activities and the potential resulting impacts on the habitat (if any) supported by the groundwater. Mitigation measures proposed to alleviate such Project impacts should be included;

    e) An analysis of impacts from proposed changes to land use designations and zoning, and existing land use designation and zoning located nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the EIR; and

    f) A cumulative effects analysis, as described under CEQA Guidelines section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant and wildlife species, habitat, and vegetation communities. If the LADRP determines that the Project would not have a cumulative impact, the EIR should indicate why the cumulative impact is not significant. The LADRP's conclusion should be supported by facts and analyses [CEQA Guidelines, § 15130(a)(2)].

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12) Project Description and Alternatives. To enable CDFW to adequately review and comment on the proposed Project from the standpoint of the protection of plants, fish, and wildlife, we recommend the following information be included in the EIR:

    a) A complete discussion of the purpose and need for, and description of, the proposed Project, including all staging areas; access routes to the construction and staging areas; fuel modification footprint; and grading footprint;

    b) Pursuant to CEQA Guidelines section 15126.6(a), an environmental document "shall describe a reasonable range of potentially feasible alternatives to the Project, or to the location of the Project, which would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any of the significant effects of the Project." CEQA Guidelines section 15126.6(f)(2) states if the Lead Agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion and should include reasons in the environmental document; and

    c) A range of feasible alternatives to the Project location and design features to avoid or otherwise minimize direct and indirect impacts to sensitive biological resources and wildlife movement areas. CDFW recommends the LADRP consider configuring Project construction and activities, as well as the development footprint, in such a way as to fully avoid impacts to sensitive and special status plants and wildlife species, habitat, and sensitive vegetation communities. CDFW also recommends the LADRP consider establishing appropriate setbacks from sensitive and special status biological resources. Setbacks should not be impacted by ground disturbance or hydrological changes for the duration of the Project. As a general rule, CDFW recommends reducing or clustering the development footprint to retain unobstructed spaces for vegetation and wildlife and provide connections for wildlife between properties and minimize obstacles to open space.

        Project alternatives should be thoroughly evaluated, even if an alternative would impede, to some degree, the attainment of the Project objectives or would be more costly (CEQA Guidelines, § 15126.6). The EIR "shall" include sufficient information about each alternative to allow meaningful evaluation, public participation, analysis, and comparison with the proposed Project (CEQA Guidelines, § 15126.6).

    d) Where the Project may impact aquatic and riparian resources, CDFW recommends the LADRP consider alternatives that would fully avoid impacts to such resources. CDFW also recommends alternatives that would allow not impede, alter, or otherwise modify existing surface flow; watercourse and meander; and water-dependent ecosystems and vegetation communities. Project-related designs should consider elevated crossings to avoid channelizing or narrowing of streams. Any modifications to a river, creek, or stream may cause or magnify upstream bank erosion, channel incision, and drop in water level and cause the stream to alter its course of flow.

13) CESA. CDFW considers adverse impacts to a species protected by CESA to be significant without mitigation under CEQA. As to CESA, take of any endangered, threatened, candidate species, or CESA-listed plant species that results from the Project is prohibited, except as authorized by state law (Fish & G. Code §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Consequently, if the Project or any Project-related activity will result in take of a species

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designated as endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or a consistency determination in certain circumstances, among other options [Fish & G. Code, §§ 2080.1, 2081, subds. (b) and (c)]. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that CDFW issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

14) Compensatory Mitigation. The EIR should include mitigation measures for adverse Project-related direct or indirect impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of Project-related impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. Areas proposed as mitigation lands should be protected in perpetuity with a conservation easement, financial assurance and dedicated to a qualified entity for long-term management and monitoring. Under Government Code, section 65967, the Lead Agency must exercise due diligence in reviewing the qualifications of a governmental entity, special district, or nonprofit organization to effectively manage and steward land, water, or natural resources on mitigation lands it approves.

15) Long-term Management of Mitigation Lands. For proposed preservation and/or restoration, an EIR should include measures to protect the targeted habitat values from direct and indirect negative impacts in perpetuity. The objective should be to offset the Project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include (but are not limited to) restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate non-wasting endowment should be set aside to provide for long-term management of mitigation lands.

Conclusion

We appreciate the opportunity to comment on the NOP for the Hope Gardens Project to assist the LADRP in identifying and mitigating Project impacts on biological resources. If you have any questions or comments regarding this letter, please contact Julisa Portugal, Environmental Scientist, at Julisa.Portugal@wildlife.ca.gov or (562) 330-7563.

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Sincerely,

DocuSigned by:
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Erinn Wilson-Olgin
Environmental Program Manager I
South Coast Region

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July 18, 2022

Sent Electronically

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RE: Notice of Preparation (NOP) for a Draft Environmental Impact Report on the Hope Gardens Project

Dear Ms. Bush:

On behalf of the Los Angeles Conservancy, I am writing to comment on the Notice of Preparation (NOP) for a Draft Environmental Impact Report (EIR) on the Hope Gardens Project (Project). The Union Rescue Mission (URM) is requesting a Conditional Use Permit (CUP) for the demolition and replacement of the existing Sequoia Building within the Hope Gardens Family Center. The Project would replace the existing building with a new three-story 106,410 square foot building to be used for 117 housing units and supportive services. The Sequoia Building has been identified as a contributor to the local, state, and nationally eligible Forester Haven Historic District. In 2007, a CUP authorized the conversion of an existing convalescent hospital and senior citizen residential units into transitional housing for up to 225 formerly homeless women in children; in 2019 a CUP modification increased the capacity to 300. The current Project proposes to increase the housing capacity to a total of 525 formerly homeless women and children.

The Conservancy is concerned by the Project's significant impacts to historic resources, namely the Sequoia Building and potential impacts to the historic district's integrity as a whole. The Conservancy encourages the applicant to pursue project alternatives that meet project goals while reducing impacts to a less than significant level. We understand and greatly appreciate the need for increased supportive housing, and believe a win-win outcome is possible whereby historic preservation and sensitive infill development may co-exist as part of the Project's scope.

I. Forester Haven is eligible for listing at the County of Los Angeles, California Register, and National Register levels

Around 1911, the Independent Order of Foresters (IOF) purchased 40-acres in Lopez Canyon to develop its second tuberculosis sanatorium for its West Coast members. Over the next two decades the sanatorium expanded capacity and needs for its IOF members to include a cancer wing and senior housing. Beginning in the 1950s, tuberculosis treatment shifted from sanatoriums to at-home treatments, leaving many of the sanatorium buildings without use. Around this time, the IOF demolished many of the original buildings to prioritize senior care.

In 1962, the IOF constructed a new building for the Aged Members Home as the first building of what became Forester Haven, designed by architect and IOF member Robert F. Moyer. In 1970, Moyer won first prize at the California Council of the Society ARA for his buildings at Forester Haven. From 1962-1975 the IOF constructed eight buildings with the Sequoia Lodge being the last.

Forester Haven Historic District is eligible for designation at the local, state, and national levels as evaluated by historic preservation consultants at South Environmental. The district has a period of significance from 1962-1975, and is made up of twelve buildings. Eight buildings were constructed during this period and are contributors to the historic district, while four buildings were constructed outside the period of significance and were deemed non-contributors. Forester Haven tells an important history of supportive housing and healthcare in California.

II. The Draft EIR should fully analyze and incorporate existing historic resources

A key policy under the California Environmental Quality Act (CEQA) is the lead agency's duty to "take all action necessary to provide the people of this state with historic environmental qualities and preserve for future generations examples of major periods of California history."[1] To this end, CEQA "requires public agencies to deny approval of a project with significant adverse effects when feasible alternatives or feasible mitigation measures can substantially lessen such effects."[2] The fact that an environmentally superior alternative may be more costly or fails to meet all project objectives does not necessarily render it infeasible under CEQA.[3] Reasonable alternatives must be considered "even if they substantially impede the project or are more costly."[4] Likewise, findings of alternative feasibility or infeasibility must be supported by substantial evidence.[5]

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[1] Public Resource Code, Sec. 21001 (b), (c).
[2] *Sierra Club v. Gilroy City Council* (1990) 222 Cal.App.3d 30, 41; also see Public Resources Code §§ 21002, 21002.1.
[3] Guideline § 15126.6(a).
[4] *San Bernardino Valley Audubon Soc'y v. County of San Bernardino* (1984), 155 Cal.App.3d 738, 750; Guideline § 15126(d)(1).
[5] Public Resources Code § 21081.5.



As noted in the Initial Study, the Project would have potentially significant and unavoidable impacts to historic resources and could substantially deteriorate the Forester Haven historic District's integrity. For this reason, the Draft EIR should evaluate a range of historic preservation-based alternatives that would reduce impacts to less than significant. These may include adaptive reuse, partial preservation paired with new development, or a different project site within Hope Gardens. Additionally, new development must be designed in such a way that it conforms to the Secretary of the Interior Standards.

III. The Conservancy requests a meeting with the Project team.

The Conservancy requests a meeting with the Project team to discuss the proposed plan further. We would appreciate the opportunity to engage so as to better understand the needs and goals, and assess how preservation might be an asset for a possible win-win outcome.

IV. Conclusion

The Conservancy understands and values the critical role of Union Rescue Mission and the supportive housing it provides. We believe strongly that historic preservation and new development can work in tandem to create a win-win outcome that meets the Project's goals and objectives. As discussed previously, Forester Haven Historic District has been deemed eligible for designation at the local, state, and national levels. The property tells an often-overlooked and underappreciated history of healthcare in the United States. We welcome the opportunity to meet with the Project Team and to provide any assistance related to historic preservation.

About the Los Angeles Conservancy:

The Los Angeles Conservancy is the largest local historic preservation organization in the United States, with nearly 5,000 members throughout the Los Angeles area. Established in 1978, the Conservancy works to preserve and revitalize the significant architectural and cultural heritage of Los Angeles County through advocacy and education.

Please do not hesitate to contact me at (213) 430-4203 or afine@laconservancy.org should you have any questions or concerns.

Sincerely,

Adrian Scott Fine

Adrian Scott Fine
Senior Director of Advocacy

cc: Anish Saraiya, 5th District Planning and Public Works Deputy
Dean Edwards, LA County Regional Planning Department Historic Preservation Program Coordinator

NATIVE AMERICAN HERITAGE COMMISSION

Governor's Office of Planning & Research

Jun 17 2022

STATE CLEARINGHOUSE

June 16, 2022

Michele Bush
Los Angeles County Department of Regional Planning
320 W Temple Street
Los Angeles, Ca 90012

Re: 2022060277, Hope Gardens Project, Los Angeles County

Dear Ms. Bush:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a 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 §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, § 5064 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 within the area of potential 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). 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, a notice of negative declaration, or a 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 consultation with 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

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

PARLIAMENTARIAN
Russell Attebery
Karuk

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
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Paiute/White Mountain Apache

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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 §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 §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 §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 §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 §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 non-federally 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 §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §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 §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

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 §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 §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 (https://ohp.parks.ca.gov/?page_id=30331) 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 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, §15064.5(f) (CEQA Guidelines §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 §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §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.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse

From: Ryan Nordness
To: Michele Bush
Subject: AB52 notice for Hope Gardens 2020-000397-(5), CUP No. RPPL2020000694
Date: Monday, July 18, 2022 1:49:13 PM

CAUTION: External Email. Proceed Responsibly.

Dear Michele,

Thank you for contacting the Yuhaaviatam of San Manuel Nation (formerly known as the San Manuel Band of Mission Indians) regarding the above-referenced project. YSMN appreciates the opportunity to review the project documentation, which was received by the Cultural Resources Management Department on June 21st 2022. The proposed project is located outside of Serrano ancestral territory and, as such, YSMN will not be requesting to receive consulting party status with the lead agency or to participate in the scoping, development, or review of documents created pursuant to legal and regulatory mandates.

Kind regards,
Ryan Nordness
Cultural Resource Analyst
Yuhaaviatam of San Manuel Nation

Ryan Nordness
Cultural Resource Analyst
Ryan.Nordness@sanmanuel-nsn.gov
O:(909) 864-8933 Ext 50-2022
M:(909) 838-4053
26569 Community Center Dr Highland, California 92346

From: Daniel Keyribaryan
To: Michele Bush
Cc: Ed Gerlits
Subject: FW: IS/NOP for DEIR of Union Rescue Mission CUP
Date: Tuesday, July 19, 2022 1:23:24 PM
Attachments: nop eir urm.pdf

FYI

From: Toan Duong <TDUONG@dpw.lacounty.gov>
Sent: Tuesday, July 19, 2022 11:22 AM
To: Daniel Keyribaryan <DKeyribaryan@dpw.lacounty.gov>; Ed Gerlits <EGERLITS@dpw.lacounty.gov>
Subject: FW: IS/NOP for DEIR of Union Rescue Mission CUP

Please keep a copy (RPPL2020003232) and forward to Michelle Bush as FYI. We did not circulate for review since a DEIR will be prepared.

From: Jennifer Rodriguez <JeRodriguez@dpw.lacounty.gov>
Sent: Tuesday, July 19, 2022 10:50 AM
To: Toan Duong <TDUONG@dpw.lacounty.gov>
Cc: Nilda Gemeniano <NGEMENIA@dpw.lacounty.gov>
Subject: IS/NOP for DEIR of Union Rescue Mission CUP

Hi Toan,

EPD has reviewed the IS/NOP of the subject project and provides the following comments. This project is located in the Kagel/Lopez Canyons area.

Building and Safety

- The Los Angeles County Building Code, Section 110.3, requires that a building or structure located on or within 1,000 feet (304.8 m) of a landfill containing decomposable material must be protected against landfill gas intrusion. The project site appears to be located on or within 1,000 feet of the Lopez Canyon Sanitary Landfill landfill. This issue should be addressed and mitigation measures provided. The discussion should include subsurface lateral migration of landfill gas, migration detection, and control and protection systems for affected enclosed buildings and structures. Contact Environmental Programs Division at (626) 458-2193 for issuance of necessary permits.

Underground Storage Tanks / Industrial Waste / Stormwater

- Should any operation within the subject project include the construction, installation, modification or removal of underground storage tanks (Los Angeles County Code [LACC] Title 11, Division 4)], industrial waste treatment or disposal

facilities, and/or storm water treatment facilities, Environmental Programs Division must be contacted for required approvals and operating permits. Specific industry types will also be subject to registration and inspections related to implementation of best management practices to prevent stormwater related pollution (LACC Title 12, Chapter 12.80). Visit pw.lacounty.gov/epd/Stormwater/inspection.cfm online or contact Environmental Program Division at (626) 458-3517 for more permit information.

Construction and Demolition Recycling

- Construction, demolition and grading projects in the unincorporated County areas are required to recycle or reuse a minimum of 65 percent of the construction and demolition debris generated by weight per the Green Building Standards Code of the Los Angeles County Code. A Recycling and Reuse Plan must be submitted to and approved by Environmental Programs Division before a construction, demolition, or grading permit may be issued. Visit pw.lacounty.gov/epd/CD/resources.cfm online or call (626) 458-3517 for the list of approved construction and demolition debris recycling facilities.

If you have any questions, please contact Nilda Gemeniano at (626) 418-1550.

Best,

Jennifer Rodriguez

Senior Civil Engineering Assistant

Los Angeles County Public Works

(626) 300-2624

August 5, 2022

Michele Bush
Principal Regional Planner, Foothills Development Services
Los Angeles County Department of Regional Planning
320 West Temple Street, 13th Floor
Los Angeles, CA 90012
Planning.lacounty.gov
T: (213) 974-6411
V: (213) 893-7008
E: mbush@planning.lacounty.gov

Re: "New Sequoia Building at Hope Gardens" / Project No. 2020-000397-(5), Conditional Use

Dear Ms. Bush,

The Kagel Canyon Civic Association's (KCCA) position on the proposed new building at Hope Gardens requires that a Full Environmental Impact Report (EIR) is required and that many of the issues cannot just be simply mitigated. We disagree with the Draft Initial Study lead agency conclusion that proposed mitigation might be able to assuage a Full EIR prior to new construction at the facility on Lopez Canyon Road.

Our major reasons for our position are based on 1) there being no traffic study analysis being planned, 2) no updated flood mapping survey being performed since 1980s, 3) severe affects to the current Oak Tree bio-habitation along with conflicting Oak Tree Surveys from 2019 and 2020, 4) the proposed building doesn't conform to the natural surrounding, 5) the demolition of a state/county historical site simply can not be mitigated and 6) evidence of fire evacuation plans have been non-existent during the 2008 Merek and 2017 Creek fires leaving Hope Gardens residents stranded in place and the Kagel Canyon residents placed at greater risk due to lack of services.

The KCCA strongly disagrees with the assessment that the construction of this new building will be mitigated with the planting of 12 new Oak Trees. The current Oaks will be greatly impacted in an adverse way by being eliminated or having their root structures encroached upon. The mitigation factors proposed don't meet the standard of protecting the treasured California trees.

The project will replace a one-story building with an out-of-character new four-story building, with improved parking areas and driveways, as well as the installation of new landscaping. However, the proposed project design will degrade the existing visual character of the site. The new 51-foot high building will not be hidden by surrounding plants. It will stick out like a sore thumb

The KCCA is also greatly concerned that the findings of the 'study' referenced are based off of a June 2020 Oak Tree Report, while the online posted study for reference is dated October 2019. The two studies vary widely specifically around those 5 Oaks. The earlier study references them as even more protected than the June 2020 study.

This is very alarming since the later study referenced throughout the Draft Initial Study is much more conducive to the applicant's desire to construct this building. The earlier dated study would make that quest much more problematic for the applicant. Why was this study amended? How did five (5) Heritage Oaks become one (1)?

The KCCA disagrees strongly with the lead agency argument on many of its determinations that "since the facility has been in operation since 1960", that makes it reasonable or less significant to have increases in the population and size of its structures. We are talking about nearly doubling the number of residents and asking for an exemption of 12 additional feet above the County building limit. This facility was originally for seniors and that population has been and is currently being phased out during subsequent expansion updates. They are completely changing the intended use of this property.

Since the building cannot be mitigated, we conclude that any new building should include the same scale/footprint of the existing building and that the height be restricted to current county limitations on height requirements for new construction.

Other items of environmental concern we believe need to be considered through a full EIR and in response to the Draft Initial Study Lead Agency responses are:

Aesthetics

- There are many shades of green. The color for the Sequoia building should blend with native foliage as opposed to the color planned.
- "lush landscaping" in d) does not fit with native plants in a rustic setting.
- How will light and glare be determined sufficiently to be compliant with ROLD until after the building is complete?

Agriculture/forest

- The facility is not in forest land, but unoccupied land that literally butts up to the Angeles National Forest and is close enough to impact the area in high winds and fire.

Air Quality

- Residents of the facility, Kagel, Pacoima, Lakeview Terrace and Sylmar will be affected by dust and vehicle emissions during construction. Elderly occupants at the facility, in particular, may have difficulty breathing. Even though residents will not be operating vehicles exhaust can affect them.

Biological Resources

- There needs to be correct identification of each oak tree to be cut down or affected. The person identifying these trees must coordinate with the County Forester and fire warden.
- Fines must be paid for the value of each tree and replacement for each tree must be approved before construction begins. A maintenance plan for protection and nourishment of new plantings will need oversight. Who will be overseeing, with follow-up, the preservation of new and remaining oaks?
- Construction noise and work can interfere with native wildlife in the area. Cultural Resources
- Replacement of a lodge with an office building is not in keeping with the intended design of the property originally. The replaced building will not be in keeping with a rural atmosphere. The new building will overwhelm the rest of the facility and become an eyesore that cannot be mitigated.
- The fact that Native sacred files are not available does not mean preclude Native occupation.
- Creating a level below ground for subterranean parking could result in buried archaeological deposits. How will construction account for this?

Energy

- The length of construction time will determine the energy consumption. This has not been defined.

Geology and Soils

- The Sierra Madre Fault in the San Gabriel Mountains was responsible for the 6.7 San Fernando/Sylmar Earthquake in 1971, within 1500 feet south of the URM. The ’71 earthquake resulted in collapsed freeways, bridges, and hospitals in the northeast San Fernando Valley, including a loss of over forty homes in Kagel Canyon, which is parallel to Lopez Canyon.
- There is ground movement daily in the area. New construction must include fortification to support building stabilization and protection for residents.

Greenhouse Gas Emissions

- There will be significant traffic from construction vehicles as well as vehicles used by workers and onsite transportation for additional occupants.

Hazards and Hazardous Materials

- Both Whiteman Airport and helicopters using the neighboring Lopez Environmental Center as well as the Burbank Airport bring noise to the area.
- Asbestos and lead paint removal could affect workers and residents.
- An emergency response plan must include additional traffic as a result of added occupancy and account for heavy traffic on Lopez Canyon Road coming from Kagel Canyon during fire evacuation. Lopez is the main thoroughfare for many residents of upper Kagel Canyon.

- Lopez Canyon Road is one of the two roads for egress in Kagel Canyon.
- Stating that there are emergency plans does not guarantee effectiveness during a real emergency, especially in a high fire density zone next to a national forest.

Hydrology/Water Quality

- Although building will occur "on the preciously developed building pad," construction of a one acre building will affect areas not previously used. This could result in unknown ramifications, especially if construction occurs during a rainy season.
- Surface runoff from possible hazardous waste found during demolition could affect water quality.

Land Use and Planning

- Although the replaced building is still located in the established facility, architecturally it will not be a unified part of the site due to its size and appearance.

Mineral Resources

- Noise in addition to air quality from construction will impact residents.
- Direction of sound may affect surrounding communities.

Population and Housing

- Population increases result in increases in personnel to service residents, which, in turn, affects traffic congestion during emergencies, noise, and need for supervision.
- Current residents of the building to be demolished will need housing.

Public Services

- Fire Department Station #74 may not be available to service Hope Gardens during a major fire when substitute departments unfamiliar with the area are deployed. Residents and firemen had to shelter in place during a flare up from the Merrick Fire. There are also fires at the landfill mulching facility.
- The San Fernando Sheriff's Station does not oversee the area of Hope Gardens. The County station in La Crescenta is much further away and often unavailable.

Recreation

- Name parks and trails that might be used by residents.

Transportation

- Residents of Kagel Canyon who use Lopez Canyon Road for regular commuting report recent near accidents from unsupervised drivers emerging from Hope Gardens and ignoring traffic.
- The amount of use and blockage of Lopez Canyon Road during construction must be addressed.

- If vehicle traffic will not be increased, then why increase the number of parking spaces?
- Increase of population will increase evacuation needs during an emergency regardless of the facility's history. What emergency transportation be provided to avoid blockage of a 2 lane road, especially when horses and other farm animals are being transported from Kagel Canyon?

Tribal Cultural Resources

- Information regarding possible native artifacts should be communicated to the Tatavian tribe during construction rather than upon its completion. How are construction workers educated to identify such artifacts and stop construction?

Utilities and Service Systems

- How much new water use and waste is anticipated during and after construction?

Wildfire

- As part of a high wildfire hazard severity zone, there is potentially significant impacton the facility as a whole with evacuation of a larger populace as a result of the new construction.
- Current drought conditions and daily small fires in the general area indicate a change in fire prevention needs and evacuation preparation from the past.
- Since most major fires have come from the east and north, Fire Station #74 is not likely to be available.
- Dumping of trash on Lopez Canyon Road provides additional fire source possibilities.
- Evacuation plans and added transportation for residents and service workers must be in place and practiced regularly.
- Wind driven fires, especially during Santa Ana winds, present pollutants and heavy smoke which slows evacuation.
- The EIR needs to address specific "proper vegetation" and the "modification plan."
- Evacuation of women and children from 117 units in the new structure during a wildfire could result in "loss, injury or death involving wildland fires." The location of the building in an already developed property is not related to a new concentration of people.

Mandatory Findings of Significance

- Demolishing a building with "architectural merit" and replacing it with an enlarged building with little character is significant. Could it not have been possible to increase housing and resources for homeless women and children through use of other areas of the property with buildings in keeping with the architecture intended by the Order of Foresters?

In summation, the KCCA believes that the Initial Draft Study leaves many questions unanswered. The Lead Agency bases its conclusions on the fact that there has been an "operating facility at the location since the 1960s." That facility was designed to home an aging retirement population capped at 250 residents. The buildings were designed and integrated into the local rural setting with that intention in

mind. The new planned building is something that one would see in a more urban environment (such as downtown Los Angeles) which is designed to handle such a structure and its increased population needs. We therefore reject the planned construction and population increase as they do not fit into the rural local setting for which they are planned. The project (proposed building and increased population) request must be scaled back. We believe strongly that a Full EIR should be undertaken before moving forward.

Sincerely,

William R. Slocum
President, Kagel Canyon Civic Association

From: Donna Lauber
To: Michele Bush
Subject: Hope Gardens expansion plans
Date: Tuesday, June 28, 2022 12:00:39 AM

CAUTION: External Email. Proceed Responsibly.

FOUR story sounds not acceptable for the area. It would appear to be what?
Like the size of Olive View Hospital?
Or Providence Holy Cross hospital?

Traffic, parking, more people?
More tall buildings may follow if this is allowed. We don't want apartments or any further encroachment upon our semi rural area.

Would it be an eyesore if your hiking or riding up on Indian Canyon or in the Santa Monica conservancy property?

Does it take out the eleven Oaks area adjacent to current property?

What about fire evacuation? Could it create an even more dangerous situation for our community? There are only two ways out during wildfires.

Concerned this opens the door for more development that will turn Lopez Canyon into far less of a natural area. It seems incompatible and inappropriate to have such a tall building eating up more acreage interfacing with the Santa Monica conservancy open space natural area.
What about our White tail deer?

These are my thoughts and questions.

I do not see this as being compatible with the canyon natural areas.

Sincerely

Donna Lauber
12721 Kagel Canyon Rd, Sylmar, CA 91342

From: Gloria Sharpsteen
To: Michele Bush
Cc: kagelcanyonevents@gmail.com; Marlene 2
Subject: Hope Gardens Project No. 2020-000397-(5) Conditional Use Permit
Date: Wednesday, July 27, 2022 1:14:20 PM

CAUTION: External Email. Proceed Responsibly.

Dear Michele,

I am a resident of Kagel Canyon, I live above the Glen Haven and Shalom Cemeteries, which is considered upper Kagel Canyon. I attended the two presentations given by Andy Bales and his team at Dexter Park in 2019.

I believe enlarging and upgrading Hope Gardens to serve homeless elderly women, and women with children is necessary in our current homelessness crisis. But, I am concerned that if it is allowed to grow too large it will be impacting the area in a negative way.

I have a few concerns that the current Environmental Impact Report does not completely address. Living in Upper Kagel Canyon, our two travel routes are Lopez Canyon Road and Kagel Canyon Road. Both are narrow, two-lane roads. Many residents from both upper and lower Kagel Canyon use Lopez Canyon Road as their main traveling route. When there are funerals and visitations at the cemeteries, there is increased traffic. There is also consistent speed racing which occurs through the area.

Both roads have insecure hillsides which are not reinforced with retaining walls. On Lopez Canyon Road, near Hope Gardens, there are oak trees and telephone poles where the road curves around, decreasing visibility. At times cars and trucks exiting out of Hope Gardens, have created driving hazards due to the design of the driveways used.

Due to the topography of the area, it is not possible to widen the roads.

We live in a high fire area, where it is necessary to have speedy egress. From the Creek Fire and other devastating fires in California, we know that the ability to travel safely and quickly is necessary. If there is a significant increase of residents and workers at Hope Gardens, this has the potential to create traffic gridlock, especially when exiting into the surrounding neighborhoods during an emergency. It is not a matter of getting two buses into Hope Gardens, it will be of leaving, as either exit routes are only two lanes, serving many businesses and the residents. As to earthquakes, even though Hope Gardens does not exist on a potential fault, there are faults nearby, which can impact both Kagel Canyon and Lopez Canyon Roads.

I understand that a traffic study has not been done to address how increased traffic will impact the area. Thank you.

Sincerely,

Gloria Sharpsteen
Kagel Canyon Board Member

From: K.A. Krueger
To: Michele Bush
Cc: KCCA
Subject: Comments on the Draft EIR for the Hope Gardens
Date: Monday, August 1, 2022 9:39:52 PM
Importance: High

CAUTION: External Email. Proceed Responsibly.

Michele

OLD growth OAKS values for the environment is tremendous. Investigate this for water retention, erosion control, animal habitat, etc.
- 51 foot building that will be 11 feet higher than the nearest Oak Tree, Does it affect its growth, or… ???
- 5 Oaks would be removed with 8 others encroached on, how will this affect the microbiome, drainage, environment, etc.???
~ most of the Oaks are "old Growth", what is the value of an old growth Oak, as an elephant is worth over $1 million dollars! A Whale too… do YOUR DUE DILIGENCE for a thriving life.
- The new building will cover one acre, how will this affect the microbe, drainage, environment, etc.??? Where is the environmental Impact Study?
- 97 new parking spots adding additional traffic to Lopez and possibly Kagel, fire evacuation delays…
- Hope Gardens will have the population of the entire Kagel Canyon side of the hill. On how may acres???

Please complete a FULL ENVIRONMENTAL IMPACT STUDY.

Thank you.

Sincerely,

Kurt and Teresa Krueger

From: Kurt Krueger
To: Michele Bush
Cc: KCCA
Subject: More information on the VALUES Old Growth trees have...
Date: Tuesday, August 2, 2022 9:37:05 PM

CAUTION: External Email. Proceed Responsibly.

Michele,

We need a FULL Environmental IMPACT report on the size of the building and affect on the old growth trees and ecosystem.

There are other studies about the financial and other values of old growth trees. SAVE the ones there at the facility and make the accommodations similar to the A Heritage Oak was deemed worthy saving for the following reasons:

- The tree is part of their history they want to pass on to the next generation. The people of Humbermede believe that the tree is a living representation of their cultural and social values. So, they want their children to experience its wonders and care for it as much as they did.

- It offers sustainable benefits to the local environment. In 2020, it was calculated by the Association for Canadian Education Resources that this old red Oak stores two and a half tons of carbon dioxide per year. Just imagine how much of an impact that has in improving the city's air quality by mitigating pollution!

- The tree serves a reminder to take care of our urban forest. With a trunk circumference of over 5 metres and branches spanning at phenomenal 24 metres, the … old red Oak is now at full maturity. It serves as a living reminder that trees can thrive for a long time and offer significant benefits, so long as people strive to nurture and support their growth.
- According to a study from The University of Hamburg, trees store more carbon as they get older. The research also reported that 70% of all the carbon stored in trees is accumulated in the last half of their lives.

  It just proves that mature trees are more capable of making cities greener, healthier and more sustainable. If we allow them to flourish over time, our urban communities will be able to gain more ecological, social and economic benefits that even future generations will be able to enjoy.

  Lets keep the old trees and ambiance for the women and children at the facility with its incredible value to the environment and quality of life available NOW.

  I noted the unique value of certain animals for the environment:
  The services of forest elephants are worth $1.75m for each animal, the International Monetary Fund's Ralph Chamihas estimated; more than the $40,000 a poacher might get for shooting the mammal for ivory. Whales are worth slightly more at over $2m, he also estimates, due to their "startling" carbon capture potential, and therefore deserve

better protection. From the Guardian article by **Patrick Greenfield**
Thu 28 Jan 2021 https://www.theguardian.com/environment/2021/jan/28/how-much-is-an-elephant-worth-meet-the-ecologists-doing-the-sums-aoe

Thanks you for your consideration. We expect our ‘representatives’ to represent the needs of the entire community. We look forward to hearing your responses to our previous email and discussion from our call with the KCCA Board.

Sincerely,

Kurt and Teresa Krueger
1-818-399-0771

From: Marlene Rader
To: Michele Bush
Subject: New Sequoia Building DEIR Comments
Date: Friday, August 5, 2022 1:37:31 PM

CAUTION: External Email. Proceed Responsibly.

August 5, 2022

Michele Bush
Principal Regional Planner, Foothills Development Services
Los Angeles County Department of Regional Planning

Re: New Sequoia Building at Hope Gardens/Union Rescue Mission (URM)
Project No.2020-00397-(5),

In reviewing the Draft Environmental Impact Report for this project I would like my commit and questions to be entered into the record.

Aesthetics; A proposed 51 foot height building is being proposed this is not in keeping with the scope of the other existing Structures and the character of the surrounding community. This new building will tower over the heavy forest and wooded/rustic area. I believe this will be a visual blight, It resembles something that should be placed in a city, Not in a rural area. I believe this is a Potentially significant impact! Plus accordions to DRP the Sequoia House is under the CRHA, the county distinctive character-defining, Contemporary style of architecture, there is no way to mitigate this once removed.
Because this proposed structure will change the surroundings, can they scale down the height/massing/scale of the above ground? Can DRP request the new project resembling the other building on site?
Perhaps it can be the same height, in order of keeping it with the consistent scale of the existing buildings.
The applicant states that the new building will be "masked by existing mature tress and vegetation". Can DRP require the preparation and submit a photo-simulation which superimpose the building on the existing photograph of the site so the commissioners have a better visual?

Oak tress; A oak tree report has been submitted however there is discrepancies in the report submitted by South Environmental, state the amount of Heritage Oaks tress being removed or impacted, which report is accurate?
The project site is planning to remove this 5 oak trees, I believe is a potentially significant loss there is no way to mitigate hundreds of year old oaks. I am strongly opposed to the removal of these trees. As to the encroachment
Of 11 oak trees this will have a negative affect on the survival of those oaks. By placing a underground parking structure this will disturb the root system, and possibly kill the trees. I have live in the area for almost 50 year and know how sensitive the oaks are, there is not way to replace the trees, the are good for environment, these trees need to be protect and not encroached on. This will negatively impact the area.

Flooding: as I stated in the scoping meeting a new FEMA flood plan mapping must be completed, the last one was 1980 and is out date considering the proposed building is over one hundred six thousand square feet and covering
1 acre or 43,560 square feet . That a tremendous amount of roof run off and the inability for the water intake. Another negative impact.

Hazardous Materials: I did not see asbestos being addressed as a hazardous materials, the Sequoia House was build
In 1960 that leads me to believing it need to be removed.

Fire/Public service evacuation plans; this is zoned a high fire area, I believe a fire evacuation plan need to be implemented and practice drills should be done quarterly. I also believe there must be enough vehicles must be on site at all time to evaluate all the residents and staff before expansion.
As we have learned shortly after they moved in, 2008 the Merrick fire they need to shelter in place, which took fire resources room the community of Kagel Canyon. My husband stayed behind to keep the fire from our home. Not fire assistance ever came to our home. In the Creek Fire of 2017 we recently learned the county had to send busses to the Hope Garden site to evacuate the residents, and someone from the facility stole a van to get out then left the van behind. No fault of hers but simply they have-not be able to safely remove they residents. The fire department stated at the commission's hearing that fire wasn't an issue, that was clearly understate, clearly substandard.
This is a potentially significant impact

Traffic impacts; I strongly urge that a traffic impact report be completed, Hope Gardens has increased they population already once in 2019 with no community input, now they are to almost double in size, and between residents, staff, visitors and delivery truck this will have a negative impact due to the narrow road of one lane each direction and ingress and egress. Lopez canyon is a horse shoe street in the event of a fire or any emergency need to evacuate and if the southern end of Lopez canyon or Kagel Canyon is close we all have one way out. This will become deadly. This project increases will be nearly the size of the entire Kagel Canyon Community, and even though they are claiming residents do not have cars, that in con-traer to what was state by the applicant at our community meeting.
Again, I believe a traffic study must be completed.

DRP usually imposes ac condition on the CUP's, requiring an annual "conmplilane inspection" by DRP staff. Was this imposed on the original CUP, and if so what do the inspections say about the URM's compliance with all conditions?
Will DRP set new conditions with annual inspections?
Isn't it the case that DRP imposes an expiration date on most CUPs it grant? How long will this be? I would like to suggest 15 year with no modification.

In conclusion I would like to state that thus-far they have been good neighbors, and I do not dispute the need for transitional living. However, this facility, known as Forester Haven, was build as a retirement home for senior, when the URM moved to first group of people onto the facility they were senior women, then moms with children, with a max capacity of 250 people, in 2019 a modification to increase the amount of people, and again!
As I have reviewed some of the CUP there is no provision for elderly women which were housed in the Sequoia House, in this new CUP I see no mention of the elderly being house at this location in the new CUP, I believe this is a social injustice to our aging population, and displacing them for a proposed horrendous building.
I believe this project needs to be scaled down by both Height size and population. The applicant states "to maximize the available development area to provide the necessary accommodation and services for the growing homeless problems in the County" that puts both the Hope Gardens and Kagel Canyon community at a grave safety risk.
Living in this area and knowing the issues of high fire, flooding and the current traffic issues at Hope Gardens a full EIR must be completed, Not by passing like the application of 2008.

Sincerely
Marlene Rader
generalmar@icloud.com

Appendix 4.1-1

Biological Resources Report

Biological Resources Report

Hope Gardens Sequoia Building Project

February 2023 (updated June 2024, updated November 2024)

Prepared For:
Brad Perrine
EcoTierra Consulting
633 W. 5th Street, 26th Floor
Los Angeles, CA 90071

Prepared By:
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1 Executive Summary

Introduction: This report includes findings of a biological resources assessment conducted by South Environmental at 12249 Lopez Canyon Road Drive in an unincorporated area of Los Angeles County, California for the Hope Gardens Sequoia Building Project that will be completed on one parcel (Assessor's Identification Number [AIN] 2846-001-017). The development site is in an unincorporated area of the County of Los Angeles. This report identifies and assesses the potential impacts to sensitive or protected biological resources on the development site and a 200-foot buffer biological study area, indicates the regulations governing these resources, and discusses recommendations for avoiding or mitigating these impacts. The biological resources of the parcel were assessed based on a literature review and a field site survey.

Proposed Development: As shown in Figure 4 below, the proposed development on the development site includes: 1.) the demolition of the existing Sequoia building and the creation of a new Sequoia building that is mostly in its place and 2.) the widening of existing paved roads surrounding the building and resurfacing of parking areas. The development will occur in areas that are mostly developed with the Sequoia building, driveways, and parking areas, and these areas will be updated with the new building development, paving, and landscaping. Notably, the new driveway will be widened to a width of 28 feet. The development is shown in Figure 3 below and in the Site Plan in Appendix E.

Plant Communities and Sensitive Natural Communities: The project will largely be conducted within previously developed areas and landscaped areas (1.61-acres) and 0.13-acre of the project impacts will be within oak woodlands that is intermingled with the landscaping surrounding the Sequoia building. The Coast Live Oak Woodlands on the site are not considered a CDFW Sensitive Natural Community because they have a Global and State Rarity Rank of 5. However, portions of the oak woodlands surrounding the ephemeral drainages at the site are a sensitive riparian community but have been disturbed by fuel modification, landscaping, and development. CEQA Appendix G asks if the project would have "a substantial adverse effect on any riparian habitat or other sensitive natural community" and while the Coast Live Oak Woodlands does not meet the typical definition of CDFW Sensitive Natural Community due to its G5/S5 rarity rank, portions surrounding the river (as described in Section 6 of this report) are considered a riparian habitat and would be considered sensitive as a reulst. Therefore, the loss of 0.13-acre of sensitive riparian community would be considered significant according to CEQA. To mitigate the loss of 0.13-acre of oak woodland the project proposes to plant 8-additional coast live oaks per the Mitigation Measure #1 below in Section 3.4.3. These oaks will partially be along the adjacent creek to replace jurisdictional oaks that will be removed by the project. The planting of 8 oaks will be suitable mitigation for the loss of 0.13-acre of Coast Live Oak Woodland that would be impacted by the

project because the oaks will be placed on the Hope Gardens property along in a similar setting to that which is being impacted by the project.

Special-Status Plants: The biological study area has California Sagebrush Scrub which may serve as habitat to five special-status plant assessed with a medium potential to occur — Hubby's phacelia, Nevin's barberry, ocellated Humboldt lily, Davidson's bush mallow, and California spineflower. Although these special-status species can occur in cismontane woodland which is the overarching plant community in which the Coast Live Oak Woodland belongs, the woodland is too disturbed at the ground level with non-native invasive species. These invasive plants would impede colonization of the special-status plants because of their aggressive nature in obtaining sunlight and soil nutrients and water. Therefore, the plants would not occur in the woodlands and would not be directly impacted by the project.

The special-status plants could occur in the California Sagebrush Scrub, however, which is relatively undisturbed. All the plants have been frequently observed in the immediate area, and several species have been observed within a few miles. It is important to note that CRPR 4.2 species are not considered rare, threatened, or endangered and do not meet the threshold for CEQA consideration as special status. Therefore, Hubby's phacelia, ocellated Humboldt lily, and California spineflower do not receive special protection under CEQA. Nevertheless, the California Sagebrush Scrub is located outside of the construction footprint and the established 200-ft fuel modification zone and no direct or indirect impacts would occur to that community. Therefore, no impacts would occur to special-status plants from the project.

Protected Oaks: The proposed redevelopment of the Sequoia building would result in the removal of 4 protected oak trees, and encroachment into the TPZ of 12 oaks. No heritage trees will be removed or encroached. The tree removals are necessary for the upgrades to roads and buildings proposed by the project. South Environmental recommends **Mitigation Measure #1** that includes replacement oaks at a ratio of 2:1 for the 4 lost trees and guidelines to avoid or work around the 12 trees that encroach.

Wildlife Habitat: The project will largely be conducted within previously developed areas and landscaped areas (1.61-acres) and 0.13-acre of the project impacts will be within oak woodlands that is intermingled with the landscaping surrounding the Sequoia building. The oak woodlands at the site are a sensitive riparian community but have been disturbed by fuel modification, landscaping, and development. Nonetheless, the loss of 0.13-acre of sensitive natural community would be considered significant according to CEQA and it could be habitat for special-status bats. To mitigate for the loss of 0.13-acre of oak woodland the project proposes to plant 8-additional coast live oaks per the Mitigation Measure #1 above. These oaks will partially be along the adjacent creek to replace jurisdictional oaks that will be removed by the project. The planting of 8 oaks will be suitable mitigation for the loss of 0.13-acre of Coast Live Oak Woodland that would

be impacted by the project because the oaks will be placed on the Hope Gardens property along in a similar setting to that which is being impacted by the project. This habitat would be similar or superior to that which is impacted by the project.

Special-Status Wildlife: There is the potential for special-status wildlife species to occur in the California Sagebrush Scrub and for special-status bats to occur within the Coast Live Oak Woodlands.

- Coastal California gnatcatcher is a scrub habitat obligate and would not occur within the project footprint. Therefore, no direct impacts to the species or its potential habitat would result from the project because the project impacts are within already developed and landscaped reas and within a minor amount of oak woodlands. In addition, the project does not propose any new fuel modification and the level of disturbance will be minimal from project activities and indirect impact will be minimized. Preconstruction nesting bird survey recommended below in Section 4.4.3 will ensure that no nests are near the development and no indirect impacts to coastal California gnatcatcher nests would result from the project.

- Coast horned lizard and coastal whiptail both have a medium potential to occur within the scrub habitats outside the project footprint. No direct impacts would occur to this habitat and no fuel modification is proposed. Therefore, no direct or indirect impacts would occur from the project to coast horned lizard or coastal whiptail.

- Crotch's bumble bee is not likely to occur in the impact areas because the developed areas and disturbed oak woodlands lack the species typically associated with the bumble bee. While Crotch's bumble bee has the potential to nest in the undeveloped native communities it would not nest in areas where there are a high percentage of landscaping plants surrounding the buildings and in planters as these are not suitable due to lack of area for the species to nest. Therefore, any potential for nesting would be minimal at best due to the lack of nearby foraging habitats and these areas would be avoided by the project as the proposed development The project will not impact habitat for this species and no indirect impacts are anticipated because there is no new fuel modification.

- Mountain lion is expected to avoid the development site due to the level of human activity that is currently on the project site. Therefore, the project would not impact the mountain lion or its habitat.

- There is no habitat for monarch butterfly in the biological study area and no impacts to monarch butterfly would result from the project.

- Special-status bats such as western mastiff bat may forage in the open woodland habitat or roost in the hollows of oak trees on the biological study area. If presence is detected during construction activity, they could be disturbed by the construction directly if roosting sites such as trees are removed, or indirectly by noise or vibration near a roosting site. Disturbance could make the bats abandon roosting sites or harm roosting bats, which would be a significant impact. The focused bat surveys and roosting site protection measures described in **Mitigation Measure #2** would avoid or reduce impacts to a less than significant level.

- The proposed development may require the removal of shrubs or trees that could provide potential nesting habitat for common urban birds, and migratory BCC birds protected by the MBTA, MBPA, and the Fish and Game Code. If present at the time of vegetation removal there could be direct impacts on active nests, eggs, or young. These could be destroyed or otherwise disturbed to a point at which the young do not survive, which would be a violation of the MBTA, MBPA, and the Fish and Game Code. In addition, indirect impacts from noise or vibration have the potential to disturb an active bird nest to the point of failure if the nest is within immediate proximity to project activities, and this would also be a violation of the MBTA and Fish and Game Code. To avoid direct and indirect impacts to active bird nests, eggs, or young, preconstruction nesting bird surveys and monitoring is required as described in **Regulatory Compliance Measure #1.**

Wildlife Movement: High-quality wildlife habitat surrounds the development site in all directions. Special-status species including mountain lion, American badger, and white-tailed kite would likely occur near the development site from time to time. Common urban animals such as raccoon, opossum, and mule deer would move through the site on a regular basis. And migratory birds may migrate onto the site for nesting in which case they would be protected based on Regulatory Compliance Measure #1. No new fuel modification is proposed and no direct impacts to wildlife movement areas would result from the project. However, the project could deter wildlife movement in adjacent area if constructed in a way that disrupts the movement, such as constructing barriers to wildlife or having excessive lighting that could deter movement of wildlife in the Angeles National Forest. To reduce the impact to wildlife movement on the site, **Mitigation Measure #3** limiting fencing and lighting is recommended.

Water Resources: The proposed impacts to the unnamed ephemeral channel #1 will include 0.06-acre of permanent impacts to oak trees within the riparian zone associated with the channel and 0.01-acre of temporary impacts during demolition and repaving of the bridge over the channel in the northern section of the development site. The project will avoid dredge or fill within the OHWM and will not result in direct impacts to waters of the US (USACE features) or waters of the state (RWQCB features). Indirect impacts will be avoided by the recommendations below that will

ensure no discharge occurs within the Ordinary High Water Mark (OHWM) during the project. However, these activities will include altering riparian vegetation permanently, which is an impact to CDFW jurisdictional areas, and the temporary impacts to the bridge over the channel will require temporary impacts to the streambed edges and surrounding vegetation. South Environmental recommends **Mitigation Measure #4** that includes permitting, best management practices, and compensatory mitigation.

Cumulative Impact: The project would result in minor impacts to oak woodlands and the removal of four protected oaks. No other impacts to flora would result. The impacts to oaks would be fully mitigated by replacing the removed oaks with eight new oaks, thus created new areas of oak woodlands to replace those that would be impacted. This mitigation would reduce these impacts to a less than significant level per CEQA. There are no other known projects within the vicinity or region of the project or in areas of oak woodlands upstream or downstream from the project that would have impacts to oaks and/or oak woodlands, and therefore, the project would not result in a cumulative impact to flora in the region.

With the implementation of Mitigation Measure #2 the project would avoid impacts to roosting bats, and with the implementation of Regulatory Compliance Measure #1 the project would avoid impacts to nesting birds and/or indirect impacts to coastal California gnatcatcher. No direct impacts to special-status wildlife would result from the project with these included mitigation and compliance measures. The minor impacts to oak woodlands habitat would be mitigated to be insignificant. There are no other known projects within the vicinity or region of the project or in areas of oak woodlands upstream or downstream from the project that would have impacts to oaks and/or oak woodlands, and therefore, the project would not result in a cumulative impact to wildlife or wildlife habitat in the region.

The proposed project would not have any impact on wildlife movement areas with implementation the limited fencing and lighting requirements described in Mitigation Measure #3. Because the project would not result in impacts to wildlife movement the project would not contribute to any cumulative impacts to wildlife movement in the region.

The project would result in minor impacts to riparian trees that would be protected by the CDFW. The project Mitigation Measure #4 would include permits from CDFW to allow for the removal of these riparian trees, and the proposed compensatory mitigation of replacing the trees removed with 2 trees will result in greater riparian areas following the completion of the mitigation. Because the project would mitigate for the loss of these trees and would create more riparian areas following the completion of the proposed compensatory mitigation the project would not contribute to any cumulative impact to water resources in the region. In fact the amount of riparian areas would either be the same or increased in the future due tot eh compensatory

mitigation. Therefore, the project would not contribute to any cumulative impacts to water resources in the region.

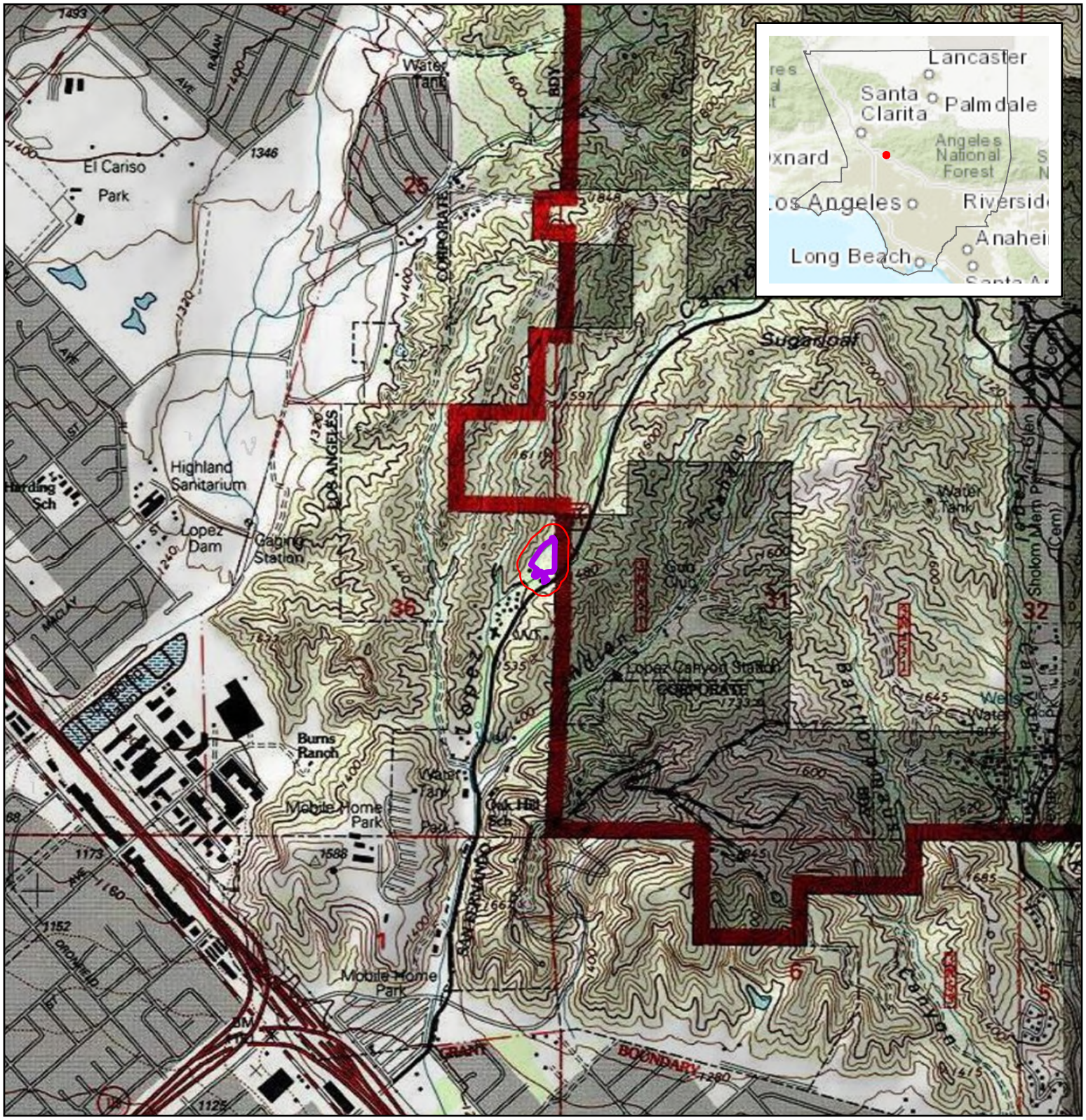
Conclusion: Based on the analysis in this report, the proposed development of a new housing building and associated parking and driveways has the potential to result in significant impacts to biological resources. However, with the implementation of Regulatory Compliance Measures and Mitigation Measures outlined in this report, the impacts will be reduced to a level that is considered insignificant according to CEQA.

2 Project Overview

This report includes findings of a biological resources assessment conducted by South Environmental at 12249 Lopez Canyon Road Drive in an unincorporated area of Los Angeles County California for the Hope Gardens Sequoia Building Project that will be completed on one parcel (Assessor's Identification Number [AIN] 2846-001-017). The project is in an unincorporated area of Los Angeles County northwest of the Sylmar neighborhood of the City of Los Angeles. This report identifies and assesses the potential impacts to sensitive or protected biological resources on the development area associated with the Sequoia building and a 200-foot buffer (which we call the biological study area in this report), indicates the regulations governing these resources, and discusses recommendations for avoiding or mitigating these impacts. The biological resources of the parcel were assessed based on a literature review and a field site survey. In this report, the development site includes the existing Sequoia Building, associated landscaping, and associated paved driveways and parking areas. The biological study area includes the development site and 200-foot buffer to account for any resources that could be subject to indirect effects or from brush clearance. And the project footprint is the area that will be impacted within the development site that includes the footprint of the new building as well as changes to the paved parking areas and driveways.

2.1 Project Location

As shown in Figure 1 below, the project is in unincorporated Los Angeles County approximately 1.5 miles north of Interstate 210. The project is within the U.S. Geological Survey (USGS) San Fernando 7.5 Minute Topographical Quadrangle, and within Section 36 of Township 03 North (03N) and Range 15 West (15W), and Section 31 of Township 03N and Range 14W. The parcel is large and is set within Lopez Canyon with major developments within the Hope Gardens facility including many buildings and paved roadways, and rugged, mountain areas to the north, east and south. As shown in Figure 2 below, the development site is along Lopez Canyon Road and the Hope Gardens facility is within a woodland of mature native and landscaped trees. The areas adjacent to Hope Gardens include undeveloped native coastal scrub on mountain slopes and low-lying riparian woodland. The study area includes northern and eastern adjacent lands is within the Angeles National Forest. Roadways in the area are Lopez Canyon Road located adjacent to the property to the east; and dirt roads and hiking trails near the site include Boy Scout Motorway located to the west; and the Kagel-Indian Canyon Motorway located to the east. Photographs of the biological study area are shown in Appendix A.



Source: ESRI USA Topo Maps and World Topo Map 2022

Hope Gardens Sequoia Building Project

Figure 1. Project Location

Development Site

Survey Area (200-Foot Buffer)



0 1,000 2,000 Feet

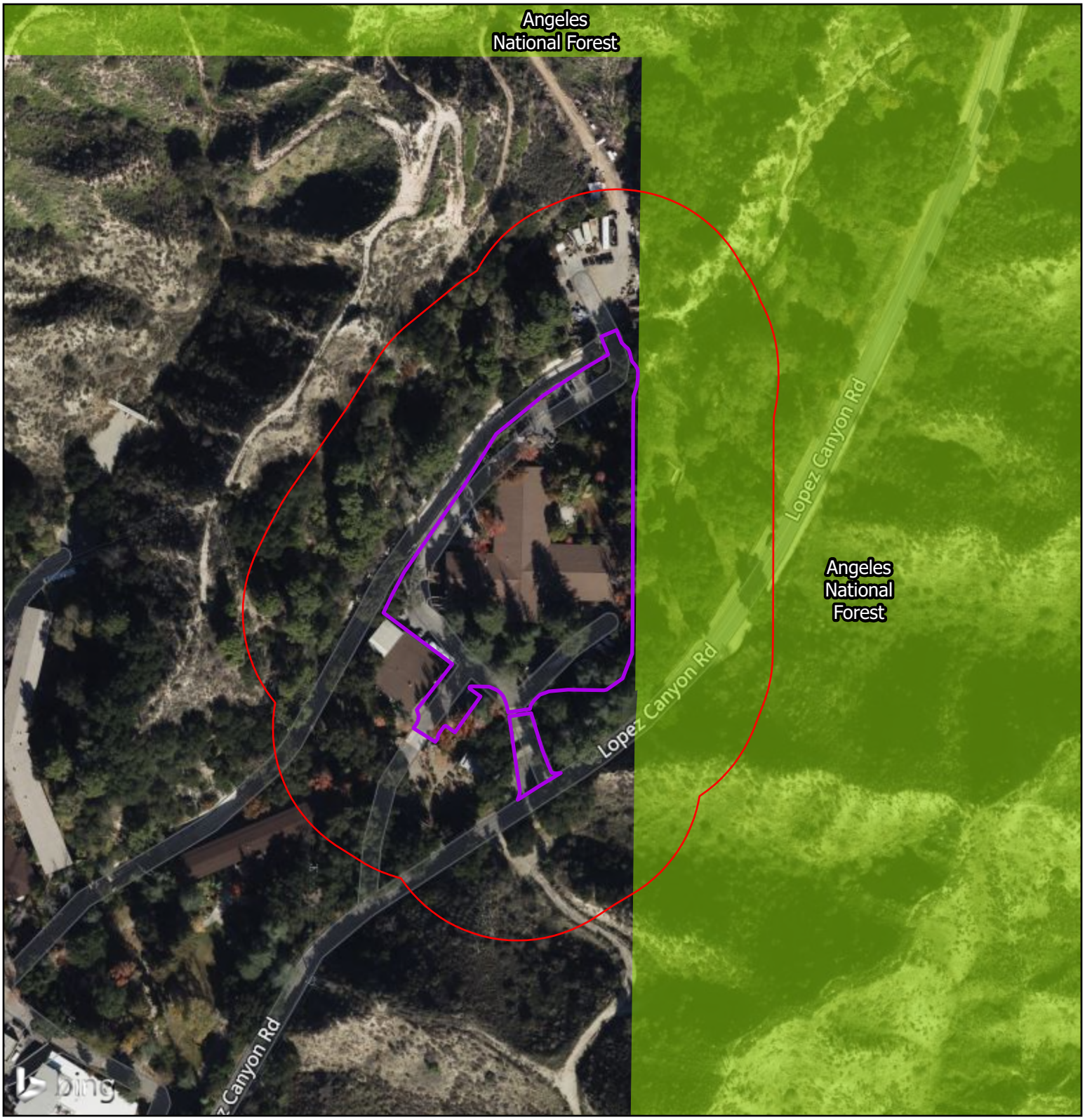
Scale: 1:24,000

N

Project Site is within unincorporated, California, in Los Angeles County on the USGS San Fernando 7.5-minute quadrangle map in Section 31 of Township 03 North and Range 14 West and Section 36 of Township 03 North and Range 15 West

Center Coordinate (Decimal Degrees):
Latitude: 34.3027184N Longitude: -118.3969850W

SOUTH ENVIRONMENTAL



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 2. Project Vicinity

- Development Site
- Survey Area (200-Foot Buffer)
- California Protected Areas Database (CPAD)

0 115 230 Feet

Scale: 1:2,300

N

SOUTH ENVIRONMENTAL

2.2 Site History

The development site is within Hope Gardens which is home to the Union Rescue Mission, a non-profit organization providing shelter, guidance, health, education, and food services to the homeless. There are various buildings including administrative, halls, and housing structures that make up the Mission. An existing housing facility – Sequoia Lodge – is on the development site and is proposed for demolition so that a new housing facility can be constructed for the project. The original building was built in 1975. Surrounding the building are parking areas to the north, east, south, and west and driveways to the east and west. A channelized stream lies to the west of the western driveway and the northern extension behind the Sequoia Lodge has a patio and ornamental landscaped area with lawn. The developed Hope Gardens Family Center is located along the eastern edge of the parcel whereas to the west the parcel is mostly undeveloped rugged, mountainous terrain. The entire development site is within 200-ft of existing buildings and therefore is subject to fuel modification (i.e., brush clearance) as required by the Los Angeles County Fire Department. Thus, the plants on the parcel should be maintained by removal of groundcover including periodic mowing/weed whacking and pruning of trees up to 6-feet.

2.3 Existing Physical & Natural Geographic Site Features

Regionally, the development site is in the southwestern San Gabriel Mountains foothills adjacent to the Angeles National Forest, north of the Santa Monica Mountains, and northwest of the Los Angeles River. Locally, the site is within Lopez Canyon, southwest of Kagel Mountain, and south of Pacoima Reservoir. The Angeles National Forest of the U.S. Forest Service borders the property to the north. The site is located approximately 1.3-miles southwest of Lopez Canyon Park; 1.4-miles southwest of Glen Haven and Sholom Memorial Park; and 1.4-miles southeast of El Cariso Regional Community Park. The area of the Hope Gardens complex has a small increase in elevation from south to north. To the west of the complex is mostly undeveloped mountainous terrain. In the immediate area of the Sequoia Building, the high elevation is approximately 1,460-ft above mean sea level (amsl) in the California Sagebrush Scrub located northwest of the Sequoia Building. The low elevation is 1400-ft amsl is in the channelized stream west of the Sequoia Building on the southwest corner of the general construction area. There are no unique or exceptional natural features (e.g., caves, thickets, wetlands) on the site that may provide habitat to specific plants or animals.

The geology of the site comprises two formations: Surficial Sediments and the Saugus Formation. The Surficial Sediments area made up of alluvial gravel sand and clay. According to Dibblee and Ehrenspeck (1991) the Saugus Formation was formed during the and Pliocene and Pleistocene and is made up of "light gray pebble cobble conglomerate, sandstone and greenish to reddish claystone, interbedded; composed of locally derived granitic and gneissic detritus including some

of anorthosite and gabbro-norite." According to the USDA NRCS Soils Database (USDA 2022) there are four soil complexes on the site shown in Figure 3:

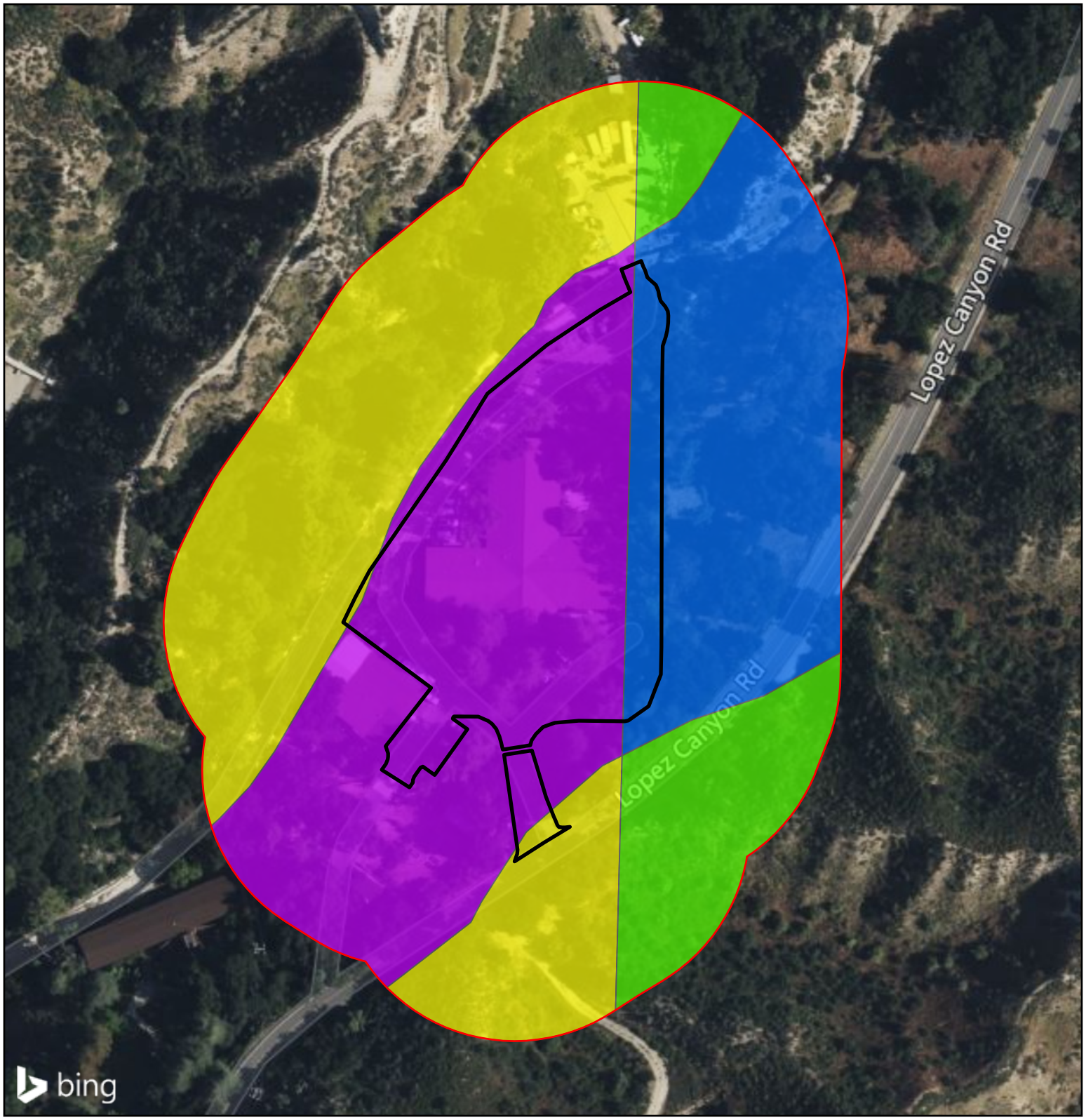
- **Riverwash** occurs in the eastern part of the development site. This is an alluvial flat soil that is excessively drained.
- **Saugus loam, 30 to 50 percent slopes** occurs in the northwestern and southern parts of the development site. This is a mountain/backslope/mountain flank soil and is well drained.
- **Soboba gravelly loamy sand, 0 to 2 percent slopes** occurs in the central and southwestern parts of the development site. This is a fan and floodplain soil and is excessively drained.

- **Trigo-Modesto-San Andreas families association, 15 to 70 percent slopes** occurs in the northeast and southeast parts of the development site. This is an ridge/mountain slope soil and is somewhat excessively drained.

The development site is located within the Los Angeles watershed (HUC8) and within the Lower Big Tujunga Creek sub-watershed (HUC12). There are water resources in the form of three channelized ephemeral streams. Unnamed ephemeral channel #1 is present in the northwest part of the biological study area and flows from northeast to southwest across the biological study area at the west edge of the development site. Unnamed ephemeral channel #1 enters the biological study area with natural dirt channel and becomes culverted under the bridge at the north edge of the project and is lined with concrete and masonry throughout the entire area south of the bridge. Also present in the survey are two much smaller culverted water features that are designed to control irrigation and stormwater flow for the development site and surrounding areas.

2.4 Proposed Development

As shown in Figure 4 below, the proposed development on the development site includes: 1.) the demolition of the existing Sequoia building and the creation of a new Sequoia building that is mostly in its place and 2.) the widening of existing paved roads surrounding the building and resurfacing of parking areas. The development will occur in areas that are mostly developed with the Sequoia building, driveways, and parking areas, and these areas will be updated with the new building development, paving, and landscaping. Notably, the new driveway will be widened to a width of 28 feet. The development is shown in Figure 3 below and in the Site Plan in Appendix E.



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 3. Soils

0 90 180 Feet

N

Scale: 1:1,800

Development Site

Survey Area (200-Foot Buffer)

Soils

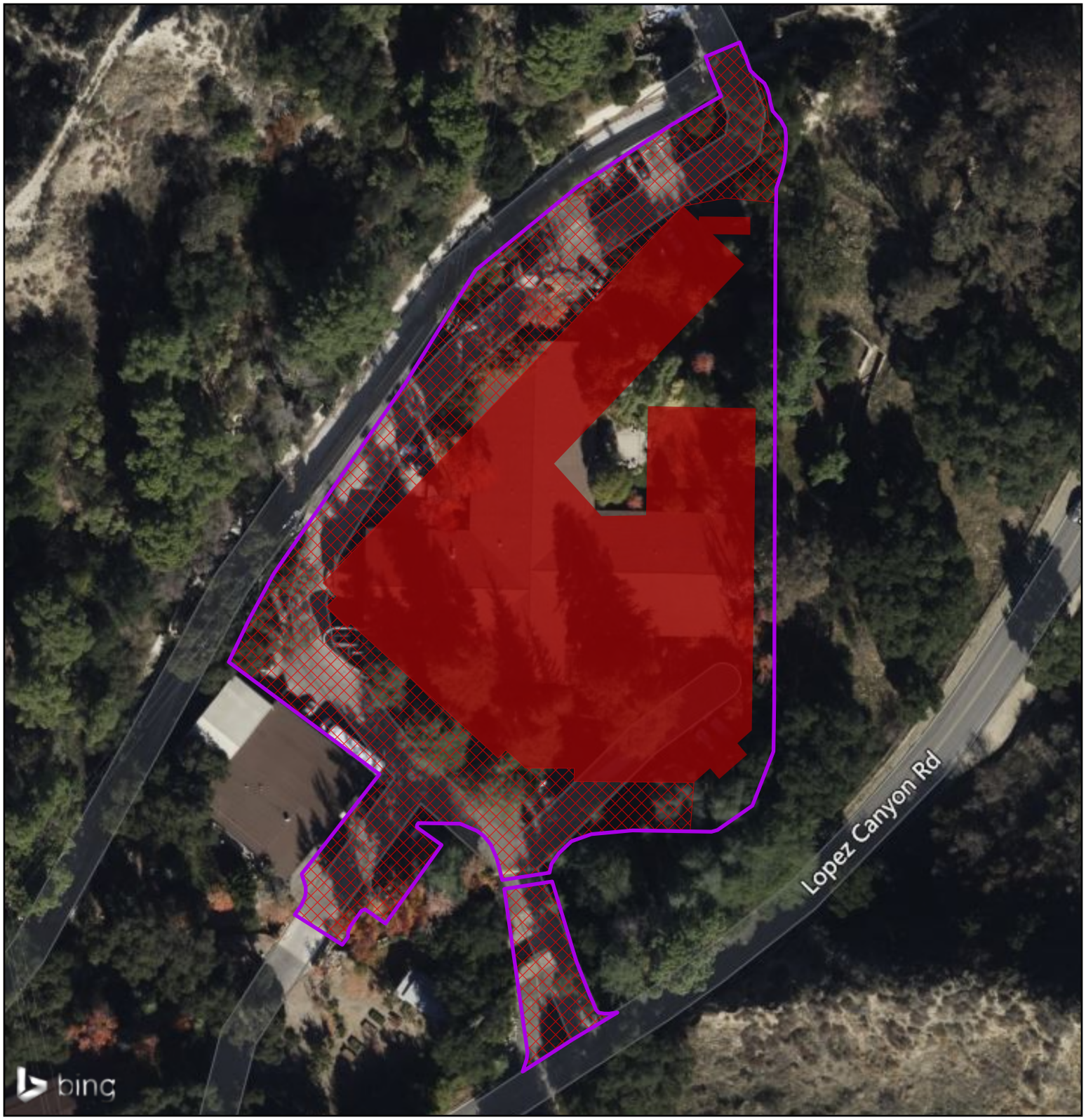
Riverwash

Saugus loam, 30 to 50 percent slopes

Soboba gravelly loamy sand, 0 to 2 percent slopes

Trigo-Modesto-San Andreas families association, 15 to 70 percent slopes

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Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 4. Proposed Development

Development Site

Proposed Development

Paving and Resurfacing

Sequoia Building Footprint

0 50 100 Feet

Scale: 1:1,050

N

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2.5 Characteristics of the Surrounding Area

The development site is in an unincorporated area of Los Angeles County northwest of the Sylmar neighborhood of the City of Los Angeles. It is in a rural environment with little development located about 1-mile north of densely-populated areas of Sylmar. The area around the Sequoia Lodge Building is relatively flat with a slight increase in altitude from south to north across the development site. The site is part of Lopez Canyon and therefore is generally a low-lying area surrounded by a steep canyon. The Angeles National Forest borders the property to the north and east. The site is located approximately 1.3-miles southwest of Lopez Canyon Park; 1.4-miles southwest of Glen Haven and Sholom Memorial Park; and 1.4-miles southeast of El Cariso Regional Community Park. Roadways in the area include Lopez Canyon Road located adjacent to the property to the east and dirt roads and hiking trails Boy Scout Motorway located to the west; and the Kagel-Indian Canyon Motorway located to the east. Landmarks in the area include the Los Angeles Mission College located 1.6-miles to the northwest and the California Polo Club located 2.0-miles to the southeast. There are centers of retail business, residential apartment buildings, and office buildings located 1.7-miles to the south along Foothill Boulevard. The closest highway is Route 210 located 1.5-miles to the south.

3 Biological Site Flora Assessment

3.1 Flora Literature Review

The assessment of the flora of the development site began with a review of literature relating to the flora that is known to occur near the biological study area. The California Department of Fish and Wildlife (CDFW) California Natural Diversity Database online was reviewed to identify special-status plants and natural communities (CDFW 2022a) that have previously been recorded in the United States Geological Survey (USGS) San Fernando 7.5" quad that the development site is located within, and the eight surrounding USGS 7.5" quads: Newhall, Mint Canyon, Agua Dulce, Sunland, Burbank, Canoga Park, Oat Mountain, and Van Nuys. Additional resources that were included in the review:

- A Manual of California Vegetation Online. California Native Plant Society (CNPS 2022a)
- California Natural Community List (CDFW 2022b)
- Inventory of Rare and Endangered Plants of California online (CNPS 2022b)

3.2 Flora Field Methodology

South Environmental conducted a field reconnaissance of the 12249 Lopez Canyon Road property to identify biological resources including plant communities and plant species. A 200-ft radius from the development site was drawn in ARCGIS to clearly delineate the development site and surrounding buffer biological study area. Sufficient time was allotted to collect data on the most prevalent plant species present on the development site and the overall biological study area. The most important plants were observed and recorded on the biological study area and identified to species except for species that could not be identified because of condition (dried out), lack of floral parts, or lack of access to an area (e.g., private property).

When applicable, the field surveys complied with the Survey of California Vegetation (SCV) Classification and Mapping Standards (CDFW 2022e) and the Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2022f). Species that could not be identified in the field were identified with digital photos and plant specimens using the Jepson Manual Vascular Plants of California (Baldwin et al., 2012) and other botanical sources.

3.3 Flora Data Analysis

3.3.1 Site Survey

The survey for biological resources at the development site was conducted on Wednesday, October 19, 2022, during the morning over a period of one hour and a half by Principal Biologist Matt South and Senior Biologist Scott Altmann. The weather was fair with a temperature of 78-82° F, no wind (0 mph) and 25-35% humidity.

3.3.2 Plants Observed

The plants observed on the biological study area were native and non-native ornamental and invasive species. Mostly ornamental species were observed around the standing Sequoia Building, whereas the northern portion of the site had an important presence of native plants and non-native invasives. Plants observed on the development site and biological study area are listed in Table 1. Plant types with an asterisk (*) are considered non-native and invasive as defined by the California Invasive Plant Council. CRPR = California Rare Plant Rank

Table 1. Summary of Plants on Biological study area

Common name	Scientific name	Native/Non-Native	CRPR
silver wattle	*Acacia dealbata*	*Non-native	--
deerweed	*Acmispon glaber*	Native	--
chamise	*Adenostoma fasciculatum*	Native	--
American agave	*Agave americana*	Non-native	--
candelabra aloe	*Aloe arborescens*	Non-native	--
flatspine bursage	*Ambrosia acanthicarpa*	Non-native	--
strawberry tree	*Arbutus unedo*	Non-native	--
California sagebrush	*Artemisia californica*	Native	--
mulefat	*Baccharis salicifolia*	Native	--
black mustard	*Brassica nigra*	*Non-native	--
ripgut brome	*Bromus diandrus*	*Non-native	--
deodar cedar	*Cedrus deodara*	Non-native	--
birchleaf mountain mahagony	*Cercocarpus betuloides*	Native	--
natal lily	*Clivia miniata*	Non-native	--
California buckwheat	*Eriogonum fasciculatum*	Native	--
red river gum	*Eucalyptus camaldulensis*	Non-native	--
Japanese spindle tree	*Euonymus japonicus*	Non-native	--
Japanese aralia	*Fatsia japonica*	Non-native	--
English ivy	*Hedera helix*	*Non-native	--
chaparral yucca	*Hesperoyucca whipplei*	Native	--
toyon	*Heteromeles arbutifolia*	Native	--
crape-myrtle	*Lagerstroemia indica*	Non-native	--

glossy privet	*Ligustrum lucidum*	*Non-native*	--
sweetgum	*Liquidambar styraciflua*	*Non-native*	--
laurel sumac	*Malosma laurina*	*Native*	--
tree tobacco	*Nicotiana glauca*	*Non-native*	--
Indian fig-opuntia	*Opuntia ficus-indica*	*Non-native*	--
Canary Island pine	*Pinus canariensis*	*Non-native*	--
Aleppo pine	*Pinus halepensis*	*Non-native*	--
coast live oak	*Quercus agrifolia*	*Native*	--
hollyleaf redberry	*Rhamnus ilicifolia*	*Native*	--
Indian hawthorn	*Rhaphiolepis indica*	*Non-native*	--
black sage	*Salvia mellifera*	*Native*	--
rosemary	*Salvia rosemarinus*	*Non-native*	--
Brazilian peppertree	*Schinus terebinthifolia*	*Non-native*	--
coast redwood	*Sequoia sempervirens*	*Non-native*	--

3.3.3 Plant Communities

There are three plant communities and one land cover type on the biological study area, and they are shown in Figure 5 below and acres of each is summarized in Table 2 below.

Table 2. Summary of Plant Communities on the Biological study area

Community or Cover Type	Acres on the Biological study area	Acres Within the Project Footprint
California sagebrush scrub	0.26	0
Coast Live Oak Woodland	4.56	0.13
Scrub Oak Chaparral	1.32	0
Developed / Ornamental Landscaped	3.20	1.61
Total	**9.34**	**1.74**

- **California Sagebrush Scrub (*Artemisia californica-(Salvia leucophylla)* Shrubland Alliance)** (CNPS 2024) is found on 0.26-acre of the biological study area and 0.00-acres of the project footprint. This community is found within the northern parts of the biological study area. The CNPS Membership Rules that this community is defined by includes both *Artemisia californica* and *Eriogonum fasciculatum* at 30%-60% relative cover in the shrub layer (CNPS 2024). This corresponds to the *Artemisia californica – Eriogonum fasciculatum* Association which has a Global and State Rank of 4 (CNPS 2024). Onsite, the community is dominated by the native shrubs California sagebrush (*Artemisia californica)* and California buckwheat (*Eriogonum fasciculatum*). Among others, also present was black sage (*Salvia mellifera*), laurel sumac (*Malosma laurina*), deerweed (*Acmispon glaber*), toyon (*Heteromeles arbutifolia*), mulefat (*Baccharis salicifolia*), birchleaf mountain mahagony (*Cercocarpus betuloides*), chaparral yucca (*Hesperoyucca whipplei*), hollyleaf redberry (Rhamnus *ilicifolia*), ripgut brome (Bromus diandrus), and tree tobacco (*Nicotiana glauca*).
- **Coast Live Oak Woodland (*Quercus agrifolia* Forest & Woodland Alliance)** (CNPS 2024) is found on 4.56-acres of the biological study area and 0.13-acre of the project footprint. These areas are within the western, eastern, and northern parts of the biological study area and include some areas that are jurisdictional for waters features that are present on the development site. The CNPS Membership Rules that this community is defined by includes *Quercus agrifolia* at greater than 60% relative cover in the tree canopy (CNPS 2024). This corresponds to the *Quercus agrifolia* Association which has a Global and State Rank of 5 (CNPS 2024). The community is dominated by mature coast live oak (*Quercus agrifolia*) and is co-dominated by red river gum (*Eucalyptus camaldulensis*). Several of the coast live oak are classified as a heritage tree in the Oak Tree Survey (South Environmental 2020). Other tree species present were Canary Island pine (*Pinus canariensis*). The shrub understory is made up of a few widely scattered native plants. Among others, the shrub canopy includes laurel sumac and California buckwheat. The ground cover is dense with non-native forbs and grasses. Among others, the ground cover includes ripgut brome and black mustard (*Brassica nigra*).
- **Scrub Oak Chaparral (*Quercus berberidifolia* Shrubland Alliance)** (CNPS 2024) is found on 1.32-acres of the biological study area and 0.00-acres of the project footprint. This community is found within the southwestern parts of the biological study area. The CNPS Membership Rules that this community is defined by includes *Quercus berberidifolia* at greater than 30% relative cover with other chaparral shrubs present (CNPS 2024). This corresponds to the *Quercus berberidifolia* Association which has a Global and State Rank of 4 (CNPS 2024). Onsite, the community is dominated by the native shrubs scrub oak (*Quercus berberidifolia*) and has a considerable presence of California sagebrush and California buckwheat. Among others, also present was black sage, laurel sumac, deerweed, toyon, birchleaf mountain mahagony, chaparral yucca, hollyleaf redberry, ripgut brome, and tree tobacco.

- **Developed – Ornamental Landscaped** cover type is found on 3.22-acres of the biological study area and 1.61-acres of the project footprint. These areas are within the northern and central parts of the biological study area, as well as Lopez Canyon Road within the southeastern part of the biological study area. The cover type is made up of existing development, including: the existing Sequoia building with its driveways, parking lots, and surrounding ornamental landscaped community. The community comprises lawn and a diversity of non-native ornamental plants. At the canopy level, important ornamental trees observed were sweetgum (*Liquidambar styraciflua*), strawberry tree (*Arbutus unedo*), deodar cedar (*Cedrus deodara*), Brazilian peppertree (*Schinus terebinthifolia*), and crape myrtle (*Lagerstroemia indica*). Among others, plants in the shrub layer included Indian hawthorn (*Rhaphiolepis indica*), rosemary (*Salvia rosemarinus*), candelabra aloe (*Aloe arborescens*), Japanese spindle tree (*Euonymus japonicus*), and American agave (*Agave americana*). Among others, the ground level included English ivy (*Hedra helix*) and natal lily (*Clivia miniate*).

3.3.4 Sensitive Natural Communities

CDFW 2018 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* defines sensitive natural communities as those that are "of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects." CDFW considers a natural community sensitive if it has a Global or State rarity rank of 1-3, which includes communities that are vulnerable (G3/S3), imperiled (G2/S2), and critically imperiled (G1/S1). CDFW uses the alliances and groups described in the Manual of California Vegetation Online to characterize California's natural communities and provides the California Natural Communities List online (most current is dated September 9, 2020) to list the current global and state rarity rank for each natural community characterized in the Manual.

Coast Live Oak Woodland in this area has a global rarity rank of "5" and a state rarity rank of "5" and is not considered a sensitive natural community as a result. The California Sagebrush Scrub and the Scrub Oak Chaparral have a global rarity rank of "4" and a state rarity rank of "4" and therefore are not classified as a sensitive natural communities. The Developed – Ornamental Landscaped does not classify as a sensitive natural community by definition because it lacks native habitat. It should be noted that portions of the Coast Live Oak Woodland are within the riparian corridor associated with ephemeral channels on the site as described in Section 6.3, and these riparian woodlands are considered sensitive natural communities per CEQA because they are riparian.

3.3.5 Special-Status Plants

According to the literature analysis presented in Appendix B, there are 51 special-status plants known to occur in the region. No special-status plants were observed on the development site during the field visit but five special-status plants — **Hubby's phacelia**, **Nevin's barberry**, **ocellated Humboldt lily**, **Davidson's bush mallow**, and **California spineflower**. — were assessed with a medium potential to occur in the native California Sagebrush Scrub. No special-status plant species have been previously recorded for the biological study area by the CDFW and included in the CNDDB. The site is not within designated Critical Habitat for any plant species (USFWS 2022b). The California Sagebrush Scrub was assessed with minimal disturbance and high biological value, and could support the aforementioned special-status species. No special-status species have the potential to occur in the Coast Live Oak Woodland or the Developed – Ornamental Landscaped area because of disturbance from invasive plants, ornamental landscaping, development, and fuel modification that has resulted in the loss of native understory. Now only ruderal non-native grasses occur there.

- **Hubby's phacelia** (*Phacelia hubbyi*): The species does not have an endangered or threatened classification at either the federal or state level. The species has a CRPR of 4.2 indicating the species limited distribution or is uncommon in California and must be monitored. According to the CNPS (2022b), the species inhabits chaparral, coastal scrub, valley, and foothill grassland in substrates that are gravelly, rocky, or talus. It generally blooms from April to July and is found at an elevation of 0 to 3280-ft above mean sea level (amsl). The species may occur on the development site because it has relatively undisturbed coastal scrub and has been frequently observed in the area. **Medium potential to occur.**

- **Nevin's barberry** (*Berberis nevinii*): The species is listed as endangered at both the federal and state level. The species has a CRPR of 1B.1 indicating it is rare, threatened, or endangered in California and elsewhere and that over 80% of its occurrences are threatened in California. According to the CNPS (2022b), the species inhabits chaparral, cismontane woodland, coastal scrub, and riparian scrub sometimes on substrates that are gravelly or sandy. It generally blooms from February to March and is found at an elevation of 230 to 2705-ft amsl. The species may occur on the development site because it has relatively undisturbed coastal scrub and has been observed in the immediate area. **Medium potential to occur**.

- **ocellated Humboldt lily** (*Lilium humboldtii ssp. ocellatum*): The species does not have an endangered or threatened classification at either the federal or state level. The species has a CRPR of 4.2 indicating the species limited distribution or is uncommon in California and

must be monitored. According to the CNPS (2022b), the species inhabits chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland in openings. It generally blooms from March to August and is found at an elevation of 100 to 5905-ft amsl. The species may occur on the development site because it has relatively undisturbed coastal scrub and openings and has been frequently observed in the immediate area. **Medium potential to occur**.

- **Davidson's bush mallow** (*Malacothamnus davidsonii*): The species does not have an endangered or threatened classification at either the federal or state level. The species has a CRPR of 1B.2 indicating it is rare, threatened, or endangered in California and elsewhere and that 20 to 80% of its occurrences are threatened in California. According to the CNPS (2022b), the species inhabits chaparral, cismontane woodland, coastal scrub, and riparian woodland. It generally blooms from June to January and is found at an elevation of 605 to 3740-ft amsl. The species may occur on the development site because it has relatively undisturbed coastal scrub and has been frequently observed in the immediate area. **Medium potential to occur.**

- **California spineflower** (*Mucronea californica*): The species does not have an endangered or threatened classification at either the federal or state level. The species has a CRPR of 4.2 indicating the species limited distribution or is uncommon in California and must be monitored. The species inhabits chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland where it is sandy. It generally blooms from March to July and can be found at an elevation of 0 to 4595-ft amsl. The species may occur on the development site because it has relatively undisturbed coastal scrub, and the species has been frequently observed in the immediate area. **Medium potential to occur.**

3.3.6 Protected and Significant Trees/Shrubs

Numerous oak trees protected by the County of Los Angeles Oak Tree Ordinance were observed on the development site during the South Environmental field visit. Trees and shrubs of the development site were previously assessed by a certified arborist (South Environmental 2022) to determine whether there were individuals protected under the Ordinance. In the Coast Live Oak Woodland and Developed – Ornamental Landscaped area there were 57 coast live oak trees which classified as protected under the Ordinance.

3.4 Project Impacts to Flora

3.4.1 Impacts to Plant Communities/Sensitive Natural Communities

The project will largely be conducted within previously developed areas and landscaped areas (1.61-acres) and 0.13-acre of the project impacts will be within oak woodlands that is intermingled with the landscaping surrounding the Sequoia building. The Coast Live Oak Woodlands on the site are not considered a CDFW Sensitive Natural Community because they have a Global and State Rarity Rank of 5. However, portions of the oak woodlands surrounding the ephemeral drainages at the site are a sensitive riparian community but have been disturbed by fuel modification, landscaping, and development. CEQA Appendix G asks if the project would have "a substantial adverse effect on any riparian habitat or other sensitive natural community" and while the Coast Live Oak Woodlands does not meet the typical definition of CDFW Sensitive Natural Community due to its G5/S5 rarity rank, portions surrounding the river (as described in Section 6 of this report) are considered a riparian habitat and would be considered sensitive as a result. Therefore, the loss of 0.13-acre of sensitive riparian community would be considered significant according to CEQA. To mitigate the loss of 0.13-acre of oak woodland the project proposes to plant 8-additional coast live oaks per the Mitigation Measure #1 below in Section 3.4.3. These oaks will partially be along the adjacent creek to replace jurisdictional oaks that will be removed by the project. The planting of 8 oaks will be suitable mitigation for the loss of 0.13-acre of Coast Live Oak Woodland that would be impacted by the project because the oaks will be placed on the Hope Gardens property along in a similar setting to that which is being impacted by the project.

3.4.2 Impacts to Special-Status Plants

The development site has California Sagebrush Scrub which may serve as habitat to five special-status plant assessed with a medium potential to occur — **Hubby's phacelia**, **Nevin's barberry**, **ocellated Humboldt lily**, **Davidson's bush mallow**, and **California spineflower**. Although these special-status species can occur in cismontane woodland which is the overarching plant community in which the Coast Live Oak Woodland belongs, the woodland is too disturbed at the ground level with non-native invasive species. These invasive plants would impede colonization of the special-status plants because of their aggressive nature in obtaining sunlight and soil nutrients and water.

The special-status plants could occur in the California Sagebrush Scrub, however, which is relatively undisturbed. All the plants have been frequently observed in the immediate area, and several species have been observed within a few miles. It is important to note that CRPR 4.2 species are not considered rare, threatened, or endangered and do not meet the threshold for CEQA consideration as special status. Therefore, Hubby's phacelia, ocellated Humboldt lily, and California spineflower do not receive special protection under CEQA. Nevertheless, the California

Sagebrush Scrub is located outside of the construction footprint and the established 200-ft fuel modification zone and no direct or indirect impacts would occur to that community. Therefore, no impacts would occur to special-status plants from the project.

3.4.3 Impacts to Protected Oaks

The proposed redevelopment of the Sequoia building would result in the removal of 4 protected oak trees, and encroachment into the TPZ of 12 oaks. No heritage trees will be removed or encroached. The tree removals are necessary for the upgrades to roads and buildings proposed by the project. These results are summarized below in Table 3.

Table 3. Summary of Impacts to Oaks

Tree #	Health Rating	Heritage Oak	Trunk distance to Construction (ft)	Impact
#11	4	N	0	Removal
#12	4	N	23	~10% TPZ Encroachment
#13	5	N	0	Removal
#15	1	N	0	Removal
#16	5	N	0	Removal
#17	4	N	3	~98% TPZ Encroachment
#18	4	N	6	~50% TPZ Encroachment
#19	4	N	2	~60% TPZ Encroachment
#20	4	N	5	~40% TPZ Encroachment
#22	4	N	13	~20% TPZ Encroachment
#23	3	N	12	~20% TPZ Encroachment
#25	4	N	2	~75% TPZ Encroachment
#35	4	N	33	~ 3% TPZ Encroachment
#36	4	N	19	~ 5% TPZ Encroachment
#50	5	N	3	~50% TPZ Encroachment
#51	4	N	12	~20% TPZ Encroachment

*Data from *Oak Tree Survey Report* (South Environmental 2022)

Of the 4 oaks that will be removed, 3 of them (#11, #13, and #16) are in good health (4, or 5 health rating). Oak #15 is dead/dying (health rating of 1) and we recommend it be removed to avoid any future conflicts.

The project proposes asphalt resurfacing and fencing installation on the eastern edge of the project that encroaches within the TPZ of 12 oaks. Resurfacing of asphalt would compact soils in the TPZ and in the potential root zone of the oaks and installation of fencing could damage the root zones during installation. Asphalt resurfacing would also occur within the TPZ and within 15-feet of the trunks of oaks #17, #18, #19, #20, #22, #23, #25, #50, and #51. Asphalt resurfacing

would also occur within the TPZ, but beyond 15-feet of the trunks of oaks #12, #35, and #36. For the purposes of this report, encroachment of 30% or greater into the trees TPZ or excavation or grading within 15-feet of the trunk of an oak has the potential to result in the death or significant decline of the tree.

South Environmental recommends **Mitigation Measure #1** that includes replacement oaks at a ratio of 2:1 for the 4 lost trees and guidelines to avoid or work around the 12 trees that encroach (South Environmental 2022).

Mitigation Measure #1: Replacement at a 2:1 ratio of 4 protected coast live oak trees; general guidelines to protect 12 encroached protected trees

For the replacement trees from the arborist report (South Environmental 2022):

- A Landscaping Plan shall be prepared that includes requirements for oak-friendly landscaping under oaks and removal of regular irrigation under oak trees and alleviate any potential issues with over-irrigation on the site.

- A total of 8 replacements oaks should be planted to replace oaks removed. This includes 8 oaks for the removal of 4 of protected oaks at a 2:1.

- A total of 8 Oaks were assessed with the potential for death or significant decline due to the project from either the trunk being located within 15-feet of the construction or greater than 30% of the TPZ to be encroached. These Oaks (#17, #18, #19, #20, #22, #23, #25, and #50) shall be properly cared for and monitoring for a period of 2-years and replaced at a 2:1 by the permittee if mortality or significant decline (Health assessed at a 1 or 2) occurs within that period.

- Required replacement trees shall consist exclusively of indigenous oak trees and shall be in the ration of 2:1. Each replacement tree shall be at least 15-gallon size specimen and measure at least one inch in diameter one foot above the base. The hearing officer, director or commission may, in lieu of this requirement, require the substitution of one larger container specimen for each oak tree to be replaced, where, in its opinion, the substitution is feasible and conditions warrant such greater substitution.

- Replacement trees shall be properly cared for and maintained for a period of two years and replaced by the permittee if mortality occurs within that period.

- Where feasible replacement trees should consist exclusively of indigenous oak trees and certified as being grown from a seed source collected in Los Angeles and Ventura Counties.

- Replacement trees shall be planted and maintained on the subject property and, if feasible, in the same general area where the trees were removed. The process of replacement of oak trees shall be supervised in the field by a person who, in the opinion of the county forester and fire warden, has expertise in the planting, care and maintenance of oak trees.

- Potential planting sites on the property are shown in Figure 4 below. Replacement plantings should be incorporated into proposed landscaping for the new construction to the extent possible. Additional plantings can be in the areas shown in Figure 4 that were chosen because they are currently free of trees or native vegetation and are contiguous with existing forested landscaping on the property. If enough suitable areas for mitigation plantings are not found on the property, potential additional areas for replacement plantings include along Lopez Canyon Road and in the open areas of Angeles National Forest immediately east of the proposed project. Coordination with federal land managers would be required for plantings in the National Forest and coordination with state land managers would be necessary for plantings in the roadway.

- No special-status plants or wildlife should be impacted during the planting of replacement trees. If replacement trees are to be planted in areas of native habitat outside of the landscaped areas on the Hope Gardens Property, or within the Angeles National Forest a preconstruction survey should be performed to ensure avoidance of impacts to special-status species. Prior to planting the replacement trees, the area should be surveyed by a qualified biologist to determine that the area is suitable for the installation of replacement trees and that native plants or habitats would not be removed or crowded by the planting. Preconstruction surveys should be timed to occur when able to observe potential target species above ground. A biologist should prepare a report regarding the methods and findings of the preconstruction surveys, and an assessment of suitability of the site for installation of replacement planting. Any site determined to have special-status species or where planting would disturb, alter, or decrease the biological value of the habitat should be avoided, and only sites where no impacts would occur (as determined by the qualified biologist) shall be used as planting site. The County shall review the preconstruction survey report and approve all replacement planting sites within areas of habitat outside of the Hope Gardens landscaped and disturbed areas prior to the planting being installed.

- If no suitable areas for replacement plantings is found, payment into the oak forests special fund could be an alternative mitigation. The payment amount would be equivalent to the oaks that are impacted as determined by a qualified arborist, and the amount would require approval from the County forester.

Tree Protection for Oaks that Remain During Construction (South Environmental 2022):

- The installation of chain link fencing not less than four feet in height around the protected zone of trees shown on the site plan. Said fencing shall be in place and inspected by the forester and fire warden prior to commencement of any activity on the subject property. Said fencing shall remain in place throughout the entire period of development and shall not be removed without written authorization from the director or the forester and fire warden. The proposed fencing plan is shown if Figure 5 below.
- Tree protective fencing should include an access gat at least 4-feet high with 2x6-inch steel posts installed under the observation of a qualified arborist to ensure tree roots are avoided. Where grading or any other similar activity is specifically approved within the protected zone, the applicant shall provide an individual with special expertise acceptable to the director to supervise all excavation or grading proposed within the protected zones and to further supervise, monitor and certify to the county forester and fire warden the implementation of all conditions imposed in connection with the applicant's oak tree permit,

- No excavation or grading should occur in the protected zone of oak trees without the prior permitting from the County forester. Any excavation or grading allowed within the protected zone or within 15 feet of the trunk of a tree, whichever distance is greater, be limited to hand tools or small hand-power equipment. Fencing proposed on the eastern edge of the project should be placed 15-feet away from the trunk of protected oaks when possible.

- Avoid mechanical injury and compaction to roots, root flares, trunks and branches. Break and lift off asphalt and concrete by hand or using small equipment under the dripline of any tree to be retained. A qualified arborist is recommended be present to observe the area with the roots exposed, prior to undertaking any root pruning or grading. Root pruning should be avoided if possible.

- The tree protection zone of oaks that will be encroached should be irrigated to keep the tree in good health and vigor before, during and after construction. Trees should be soaked so that water reaches a depth of 2-3 feet monthly, starting a minimum of one-month prior to construction. Apply root biostimulants, mulch and compost around the street trees once every 6 months during construction.

- Equipment should not idle under trees and materials should be staged outside the tree protection zone.

- Trees on other portions of the subject property not included within the site plan also be protected with chain link fencing thus restricting storage, machinery storage or access during construction,

- Trees on the site plan must be physically identified by number on a tag affixed to the north side of the tree in a manner preserving the health and viability of the tree. The

tag shall be composed of a non-corrosive all-weather material and shall be permanently affixed to the tree. The tree shall be similarly designated on the site plan in a manner acceptable to the director,

- Where grading or any other similar activity is specifically approved within the protected zone, the applicant shall provide an individual with special expertise acceptable to the director to supervise all excavation or grading proposed within the protected zones and to further supervise, monitor and certify to the county forester and fire warden the implementation of all conditions imposed in connection with the applicant's oak tree permit,

- No excavation or grading should occur in the protected zone of oak trees without the prior permitting from the County forester. Any excavation or grading allowed within the protected zone or within 15 feet of the trunk of a tree, whichever distance is greater, be limited to hand tools or small hand-power equipment. Fencing proposed on the eastern edge of the project should be placed 15-feet away from the trunk of protected oaks when possible.

- Avoid mechanical injury and compaction to roots, root flares, trunks and branches. Break and lift off asphalt and concrete by hand or using small equipment under the dripline of any tree to be retained. A qualified arborist is recommended be present to observe the area with the roots exposed, prior to undertaking any root pruning or grading. Root pruning should be avoided if possible.

- The tree protection zone of oaks that will be encroached should be irrigated to keep the tree in good health and vigor before, during and after construction. Trees should be soaked so that water reaches a depth of 2-3 feet monthly, starting a minimum of one-month prior to construction. Apply root biostimulants, mulch and compost around the street trees once every 6 months during construction.

- Equipment should not idle under trees and materials should be staged outside the tree protection zone.

- Trees on other portions of the subject property not included within the site plan also be protected with chain link fencing thus restricting storage, machinery storage or access during construction,

- Trees on the site plan must be physically identified by number on a tag affixed to the north side of the tree in a manner preserving the health and viability of the tree. The tag shall be composed of a non-corrosive all-weather material and shall be permanently affixed to the tree. The tree shall be similarly designated on the site plan in a manner acceptable to the director,

- Corrective measures for trees noted on the oak tree report as requiring remedial action be taken, including pest control, pruning, fertilizing and similar actions, and, to the extent feasible as determined by the director, utility trenching shall avoid encroaching into the protected zone on its path to and from any structure,

- At the start of grading operations and throughout the entire period of development, no person shall perform any work for which an oak tree permit is required (pruning, staging within TPZ, etc.) unless a copy of the oak tree report, location map, fencing plans, and approved oak tree permit and conditions are in the possession of a responsible person and also available at the site. (Ord. 93-0018 § 2, 1993; Ord. 88-0157 § 8, 1988: Ord. 85-0195 § 12 (part), 1985; Ord. 82-0168 § 2 (part), 1982

3.4.4 Cumulative Impacts to Flora

The project would result in minor impacts to oak woodlands and the removal of four protected oaks. No other impacts to flora would result. The impacts to oaks would be fully mitigated by replacing the removed oaks with eight new oaks, thus created new areas of oak woodlands to replace those that would be impacted. This mitigation would reduce these impacts to a less than significant level per CEQA. There are no other known projects within the vicinity or region of the project or in areas of oak woodlands upstream or downstream from the project that would have impacts to oaks and/or oak woodlands, and therefore, the project would not result in a cumulative impact to flora in the region.

4 Biological Site Wildlife Assessment

4.1 Wildlife Literature Review

The assessment of the wildlife of the project area began with a review of literature relating to the fauna that is known to occur near the biological study area. The CDFW California Natural Diversity Database online (CDFW 2022a) was reviewed to identify special-status animals that have been previously recorded in the United States Geological Survey (USGS) San Fernando 7.5" quad that the development site is located within, and the eight surrounding USGS 7.5" quads: Newhall, Mint Canyon, Agua Dulce, Sunland, Burbank, Canoga Park, Oat Mountain, and Van Nuys. Additional resources that were included in the review. Additional resources that were included in the review:

- United States Fish and Wildlife Service (USFWS) Environmental Conservation Online System (ECOS) Information for Planning and Consultation (IPaC) (USFWS 2022a)
- CDFW California Wildlife Habitat Relationships (CWHR) life history accounts and range maps online (CDFW 2022c)
- Bird species protected by the Migratory Bird Treaty Act (MBTA)

4.2 Wildlife Field Methodology

South Environmental conducted a field visit of 12249 Lopez Canyon Road on October 19, 2022 to identify any biological resources present including endangered and threatened wildlife. A 200-ft radius from the development site was drawn in ARCGIS to clearly delineate the development site and surrounding buffer biological study area. Data were collected on the most prevalent animals present on the development site and the overall biological study area.

Wildlife including mammals, reptiles, amphibians, and birds was observed and recorded on the biological study area and identified to species. Animals were detected and identified via direct sighting, scat, calls, or based on discussion with people living in the area. Direct sightings of animals was with the naked eye or with binoculars when necessary. Binoculars were used to try and view wildlife in private areas where access was prohibited. Since wildlife moves swiftly, observation time of the animal was limited in some cases. In these instances identification of the wildlife at the taxonomic level of species was not always possible and the wildlife was identified at the level of genus or animal group (e.g., hummingbird). When a special-status animal was detected, habitat conditions were documented including characterization of the animal's associated vegetative community and abiotic factors (e.g., soils).

Specific survey protocols for mountain lion, monarch butterfly, and also bats were conducted during the field survey:

Bats: Specific measures were also taken to assess the potential for special-status bats on the biological study area. The biological study area was assessed for appropriate habitat for bats which includes large trees, cliff faces, rock outcroppings, and structure overhangs. Evidence of bat presence was also considered by searching for signs of dead bats, bat urine and guano. Finally, the biological study area was assessed in terms of whether the habitat of the site or adjacent parcels included foraging areas or water sources.

Mountain lion: Specific measures were taken to assess the potential for mountain lion on the biological study area. The biological study area was surveyed and assessed for suitable habitat for mountain lion dens entailing a search for thickets, caves, or rocky outcrop areas with large natural cavities. Signs of mountain lion presence were searched for including scat and tracks. The potential for mule deer — a common animal preyed on by the mountain lion — habitat on the biological study area was considered. And the connectivity of the site through a wildlife corridor to high-quality habitat and human presence in the area were also considered.

Monarch Butterfly: Specific measures were taken to assess the potential for monarch butterfly to overwinter or breed on the biological study area. To assess the potential for the biological study area to be used as overwinter habitat, the proximity of the biological study area to coastline and freshwater resources and the presence of large-protected trees were the main considerations. For monarch butterfly use as breeding habitat, the biological study area was assessed for milkweed presence.

4.3 Wildlife Data Analysis

4.3.1 Wildlife Field Survey

During the field visit by South Environmental on October 19, 2022, several common bird species known to inhabit the Los Angeles County area were observed: spotted towhee (*Pipilo maculatus*), common raven (*Corvus corax*), mourning dove (*Zenaida macroura*), California scrub-jay (*Aphelocoma californica*), acorn woodpecker (*Melanerpes formicivorus*), and northern mockingbird (*Mimus polyglottos*). No reptiles, amphibians, or mammals were observed and there was no other indirect evidence of special-status animals, for example, tracks, scat, carcasses, or bones at the site.

4.3.2 Special-Status Wildlife

No special-status animals were observed during the field visit and there was no other evidence of special-status animals, for example, tracks, scat, carcasses, or bones at the site. According to the literature analysis using the CNDDB database and presented in Appendix B, there are 54 special-status animals known to occur in the region. No wildlife species have been previously reported to CDFW for the biological study area and recorded in the CNDDB (CDFW 2022c). However, four wildlife species were assessed with a medium potential to occur in the California Sagebrush Scrub: **coastal California gnatcatcher**, **Crotch's bumblebee**, **coastal whiptail**, and **coast horned lizard**. The Coast Live Oak would generally not provide habitat for these special-status species. The gnatcatcher would not inhabit it because the species is an obligate of scrub habitat, and the coastal whiptail and coast horned lizard because there is a heavy presence of non-native grasses and lack of open sunning areas that these species require. While the woodland has a species that serves as a host plant to the Crotch's bumble bee (*Eriogonum fasciculatum*), only a few small shrubs were observed, and the level of disturbance has eliminated habitat in the project impact areas. While Crotch's bumble bee has the potential to nest in the undeveloped native communities it would not nest in areas where there are a high percentage of landscaping plants surrounding the buildings and in planters as these are not suitable due to lack of area for the species to nest. Therefore, any potential for nesting would be minimal at best due to the lack of nearby foraging habitats and these areas would be avoided by the project as the proposed development

Bats: There are several special-status bats that were assessed for the potential to inhabit the biological study area. For roosting, these special-status bats prefer palm trees with dense foliage and dead trees especially those with hollows. Most species also require a water source nearby and avoid areas with a significant human concentration where movement and noise levels are higher. The development site has large oaks with dead hollows in them and there is an intermittent water source, but not a permanent water source. And as a homeless services organization, the site has considerable movement and noise which these bats tend to avoid. For these reasons, the potential for special-status bats to be inhabiting the site was assessed as medium when water is present. **Medium potential to occur**

Mountain lion (*Puma concolor*). The species does not have an endangered or threatened listing at the federal level, but the southern California population is a candidate for listing under the California Endangered Species Act (CESA) at the state level. The mountain lion inhabits a range of habitats including woodland, chaparral, coastal scrub, and occasionally grassland. The species avoids urban areas and human development. The species requires a large range devoid of development for hunting and finding mates for breeding (i.e. establishing a home range). It requires dense vegetation for hunting since it is a predatory ambush animal and surprises prey by hiding in the brush. For mating and denning the mountain lion requires rocky areas, thickets, and

caves. The site is adjacent to the Angeles National Forest with large stretches of contiguous habitat for mountain lion. However, the biological study area does not have sufficient cover (e.g., dense thickets, caves) for denning. Because there is no dense vegetation in either of the plant communities, it is also not good habitat for hunting. Furthermore, there is considerable movement and noise at Hope Gardens, and the species tends to avoid such areas. For these reasons it is unlikely the mountain lions will inhabit the biological study area. **Low potential to occur**

Monarch butterfly (*Danaus plexippus*). The species does not have an endangered or threatened classification at either the federal or state level. According to the CNDDB, the species' "winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico", with "roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby." Monarch overwintering sites are located within 1-mile from coastline and monarch breeding habitat requires milkweed plants for nutrition and hosting cocoons. Both overwintering and breeding monarch require a nearby water source. There is a coast live oak tree grove on the biological study area but it is located over 1-mile from coastline and therefore is not suitable for overwintering. And there is no milkweed on the site that the species could use for breeding. Therefore, the potential for the species to be present on the biological study area for overwintering or breeding is none. **No potential to occur**

Nesting birds. There is the potential for nesting migratory birds to use the site and biological study area for foraging, cover, or even nesting. Common urban birds were observed during the field survey and migratory birds may be passing through and temporarily nest on the site. The U.S. Fish and Wildlife Service (U.S. FWS) assesses migratory birds and ranks those that are considered Birds of Conservation Concern (BCC). Some migratory birds assessed by the U.S. FWS are also year-round residents in southern California. The following birds considered to be migratory and BCC by the U.S. FWS have some potential to utilize the site. **Medium potential to occur**

- Allen's hummingbird (*Selasphorous sasin*)
- Bullock's oriole (*Icterus bullockii*)
- California thrasher (*Toxostoma redivivum*)
- Lawrence's goldfinch (*Carduelis lawrencei)*
- Nuttall's woodpecker *(Picoides nuttallii*)
- oak titmouse (*Baeolophus inornatus*)
- olive-sided flycatcher *(Contopus cooperi*)
- wrentit (*Chamaea fasciata*)

4.4 Project Impacts to Wildlife

4.4.1 Impacts to Wildlife Habitat

The project will largely be conducted within previously developed areas and landscaped areas (1.61-acres) and 0.13-acre of the project impacts will be within oak woodlands that is intermingled with the landscaping surrounding the Sequoia building. The oak woodlands at the site are a sensitive riparian community but have been disturbed by fuel modification, landscaping, and development. Nonetheless, the loss of 0.13-acre of sensitive riparian community would be considered significant according to CEQA and it could be habitat for special-status bats. To mitigate for the loss of 0.13-acre of oak woodland the project proposes to plant 8-additional coast live oaks per the Mitigation Measure #1 above. These oaks will partially be along the adjacent creek to replace jurisdictional oaks that will be removed by the project. The planting of 8 oaks will be suitable mitigation for the loss of 0.13-acre of Coast Live Oak Woodland that would be impacted by the project because the oaks will be placed on the Hope Gardens property along in a similar setting to that which is being impacted by the project. This habitat would be similar or superior to that which is impacted by the project.

4.4.2 Impacts to Special-Status Wildlife

There is the potential for special-status wildlife species to occur in the California Sagebrush Scrub and for special-status bats to occur within the Coast Live Oak Woodlands.

- Coastal California gnatcatcher is a scrub habitat obligate and would not occur within the project footprint. Therefore, no direct impacts to the species or its potential habitat would result from the project because the project impacts are within already developed and landscaped areas and within a minor amount of oak woodlands. In addition, the project does not propose any new fuel modification and the level of disturbance will be minimal from project activities and indirect impact will be minimized. Preconstruction nesting bird survey recommended below in Section 4.4.3 will ensure that no nests are near the development and no indirect impacts to coastal California gnatcatcher nests would result from the project.

- Coast horned lizard and coastal whiptail both have a medium potential to occur within the scrub habitats outside the project footprint. No direct impacts would occur to this habitat and no fuel modification is proposed. Therefore, no direct or indirect impacts would occur from the project to coast horned lizard or coastal whiptail.

- Crotch's bumble bee is not likely to occur in the impact areas because the developed areas and disturbed oak woodlands lack the species typically associated with the bumble bee.

While Crotch's bumble bee has the potential to nest in the undeveloped native communities it would not nest in areas where there are a high percentage of landscaping plants surrounding the buildings and in planters as these are not suitable due to lack of area for the species to nest. Therefore, any potential for nesting would be minimal at best due to the lack of nearby foraging habitats and these areas would be avoided by the project as the proposed development The project will not impact habitat for this species and no indirect impacts are anticipated because there is no new fuel modification.

- Mountain lion is expected to avoid the project site due to the level of human activity that is currently on the development site. Therefore, the project would not impact the mountain lion or its habitat.

- There is no habitat for monarch butterfly in the biological study area and no impacts to monarch butterfly would result from the project.

4.4.3 Impacts to Special-Status Bats

Special-status bats such as western mastiff bat may forage in the open woodland habitat or roost in the hollows of oak trees on the biological study area. If presence is detected during construction activity, they could be disturbed by the construction directly if roosting sites such as trees are removed, or indirectly by noise or vibration near a roosting site. Disturbance could make the bats abandon roosting sites or harm roosting bats, which would be a significant impact. The focused bat surveys and roosting site protection measures described below in Mitigation Measure #2 would avoid or reduce impacts to a less than significant level.

Mitigation Measure #2 – Focused Bat Surveys and Roosting Site Protection

- Where project-related implementation, construction, and activities would occur near potential roosting habitat for bats, such as tall trees, a qualified bat specialist shall conduct bat surveys within these areas (plus a 100-foot buffer as access allows) to identify potential habitat that could provide daytime and/or nighttime roost sites, and any maternity roosts. Surveys should be conducted using acoustic recognition technology to maximize detection of bats.

- If bats are not detected, but the bat specialist determines that roosting bats may be present at any time of year and could roost in trees at a given location, during tree removal, trees should be pushed down using heavy machinery rather than felling with chainsaw. To ensure the optimum warning for any roosting bats that may still be present, trees should be pushed lightly two or three times, with a pause of approximately 30 seconds between each nudge to allow bats to become active. The tree should then be pushed to the ground

slowly and remain in place until it is inspected by a bat specialist. Trees that are known to be bat roosts should not be bucked or mulched immediately. A period of at least 24 hours, and preferable 48 hours, should elapse prior to such operations to allow bats to escape.

- If maternity roosts are found, to the extent feasible, work should be scheduled between October 1 and February 28, outside of the maternity roosting season when young bats are present but are yet ready to fly out of the roost (March 1 to September 30).

- If maternity roosts are found and the City determines that impacts are unavoidable, a qualified bat specialist should conduct a preconstruction survey to identify those trees proposed for disturbance that could provide hibernacula or nursery colony roosting habitat. Acoustic recognition technology should be used to maximize the detection of bats. Each tree identified as potentially supporting an active maternity roost should be closely inspected by the bat specialist no more than 7 days prior to tree disturbance to determine the presence or absence of roost bats more precisely. If maternity roosts are detected, trees/structures determined to be maternity roosts should be left in place until the end of the maternity season. Work should not occur within 100 feet of or directly under or adjacent to an active roost. Work should also not occur between 30 minutes before subset and 30 minutes after sunrise.

4.4.4 Impacts to Nesting Birds

The proposed development may require the removal of shrubs or trees that could provide potential nesting habitat for common urban birds, and migratory BCC birds protected by the MBTA, MBPA, and the Fish and Game Code. If present at the time of vegetation removal there could be direct impacts on active nests, eggs, or young. These could be destroyed or otherwise disturbed to a point at which the young do not survive, which would be a violation of the MBTA, MBPA, and the Fish and Game Code. In addition, indirect impacts from noise or vibration have the potential to disturb an active bird nest to the point of failure if the nest is within immediate proximity to project activities, and this would also be a violation of the MBTA and Fish and Game Code. To avoid direct and indirect impacts to active bird nests, eggs, or young, preconstruction nesting bird surveys and monitoring is required as described in **Regulatory Compliance Measure #1** below.

Regulatory Compliance Measure #1: Preconstruction Nesting Bird Survey

- If possible, ground disturbing activities and vegetation removal (including tree trimming) should be timed to occur outside the bird nesting season (September 1 – January 14).

- If ground disturbing activities or vegetation removal (including tree trimming) are scheduled during the bird nesting season (February 15 – August 31 for songbirds and January 15 – August 31 for raptors) a preconstruction survey for nesting birds should be conducted within 72 hours prior to construction activities. The survey should be conducted by a qualified biologist with prior experience conducting nesting bird surveys for construction projects. The biological study area should include the development site and suitable habitat within a 300-foot buffer, or a buffer size determined by the qualified biologist based on level of proposed disturbance and access. If no active nests are found, no additional measures are required.

- If active nests are found the biologist will map the location and document the species and nesting stage. A no-work buffer will be established around the active nest as determined by the qualified biologist and based on the species sensitivity to disturbance and the type and duration of the disturbance. No construction activities shall occur within the no-work buffer until the biologist has determined the nest is no longer active.

4.4.5 Cumulative Impacts to Wildlife

The project would result in minor impacts to oak woodlands that are interspersed with onsite developments and landscaping. The impacts to oak woodlands would be fully mitigated by replacing four removed oaks with eight new oaks, thus creating new areas of oak woodlands to replace those that would be impacted. This mitigation would reduce these impacts to a less than significant level per CEQA. With the implementation of Mitigation Measure #2 the project would avoid impacts to roosting bats, and with the implementation of Regulatory Compliance Measure #1 the project would avoid impacts to nesting birds and/or indirect impacts to coastal California gnatcatcher. No direct impacts to special-status wildlife would result from the project with these included mitigation and compliance measures. The minor impacts to oak woodlands would be mitigated to be insignificant. There are no other known projects within the vicinity or region of the project or in areas of oak woodlands upstream or downstream from the project that would have impacts to oaks and/or oak woodlands, and therefore, the project would not result in a cumulative impact to wildlife or wildlife habitat in the region.

5 Biological Site Wildlife Movement

5.1 Wildlife Movement Literature Review

The assessment of the potential for wildlife movement to and from the development site consisted of consulting the following resources:

- Google Earth online (Google 2022)
- United States Fish and Wildlife Service (USFWS) Environmental Conservation Online System (ECOS) Information for Planning and Consultation (IPaC) (USFWS 2022a)
- USFWS Designated and Proposed Critical Habitat GIS data online (USFWS 2022b)
- California Protected Areas Database Map online (CPAD 2022)
- South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion (SC Wildlands 2006).

Google Earth online was used to assess the level of connectivity of habitat to the site. The foremost considerations were whether there was a direct connection of high-quality habitat to the site — without interference from development — and whether the connecting habitat linked to large habitat tracts.

5.2 Wildlife Movement Field Methodology

During the South Environmental field reconnaissance the development site and surrounding 200-ft biological study area were assessed for their potential use as a wildlife corridor or habitat linkage. The level of disturbance of the project site and surrounding areas by way of development including roads, house and commercial structures, fences, and lighting were noted as they pertain to the connectivity of the site to high-quality habitat. The biological study area was assessed for the presence of a corridor of linkage of habitat that connects the site to adjacent high-quality habitat. Included in this assessment of a corridor was stream areas or those with unique natural feature (e.g., rock outcrops) which wildlife are known to frequently use as habitat linkages.

5.3 Wildlife Movement Data Analysis

There is high-quality habitat in all directions from the development site. Although, this habitat ends with the development of Sylmar to the south and west, it continues for tens-of-miles to the north and east into the Angeles National Forest which provides especially high-quality wildlife habitat because of restrictions on development in the area. Because of the wide expanses of high-quality habitat, special-status wildlife species such as mountain lion, American badger, and white-tailed kite could move in areas adjacent to the site, but would likely avoid the development themselves, preferring the adjacent undeveloped habitat. And common wildlife including

mammals, reptiles, birds, and insects would move across the site on a regular basis. As discussed, mountain lion is unlikely to inhabit the site because of micro-conditions (e.g., lack of dense vegetation) but could move near the site in search of prey or a mate while traversing a large range that would include areas adjacent to the development site.

The biological study area is not part of or close to any important habitat linkage corridors as defined by the South Coast Missing Linkages Project (SC Wildlands, 2008), however, the northern edge is within the Angeles National Forest which is protected from major development. It is not part of or close to USFWS critical habitat (USFWS 2022b) or to state, or local parks or wilderness areas (CPAD 2022).

5.4 Project Impacts to Wildlife Movement

High-quality wildlife habitat surrounds the development site in all directions. Special-status species including mountain lion, American badger, and white-tailed kite would likely occur near the development site from time to time. Common urban animals such as raccoon, opossum, and mule deer would move through the site on a regular basis. And migratory birds may migrate onto the site for nesting in which case they would be protected based on Regulatory Compliance Measure #1. No new fuel modification is proposed and no direct impacts to wildlife movement areas would result from the project. However, the project could deter wildlife movement in adjacent area if constructed in a way that disrupts the movement, such as constructing barriers to wildlife or having excessive lighting that could deter movement of wildlife in the Angeles National Forest. To reduce the impact to wildlife movement on the site, **Mitigation Measure #3** limiting fencing and lighting is recommended. If the measure is implemented, the impact on wildlife movement would be less than significant based on CEQA.

Mitigation Measure #3: Fencing and Lighting

- Fencing or walls shall be prohibited, except where necessary for public safety or habitat protection or restoration. Fencing or walls that do not permit the free passage of wildlife shall be prohibited in any wildlife corridors.

- Exterior lighting (except navigational lights and other similar safety lighting) shall be minimized, restricted to low intensity features, shielded, and directed away from areas without development to minimize impacts on wildlife. Night lighting for sports courts or other private recreational facilities, or where night lighting would increase illumination around the site shall be prohibited. Permitted lighting shall conform to the following standards:

    - The minimum necessary to light walkways used for entry and exit to the structures, including parking areas, on the site. This lighting shall be limited to fixtures that do

not exceed two feet in height, that are directed downward, and use bulbs that do not exceed 60 watts, or the equivalent, unless a higher wattage is authorized by the Planning Director.

- Security lighting attached to the residence that is controlled by motion detectors and is limited to 60 watts, or the equivalent.
- The minimum lighting necessary for safe vehicular use of the driveway. The lighting shall be limited to 60 watts, or the equivalent.
- A light, not to exceed 60 watts or the equivalent, at the entrance to the (identify non-residential accessory structures).
- No lighting around the perimeter of the site, no lighting for sports courts or other private recreational facilities, and no lighting for aesthetic purposes is allowed.

5.4.1 Cumulative Impacts to Wildlife Movement

The proposed project would not have any impact on wildlife movement areas with implementation the limited fencing and lighting requirements described in Mitigation Measure #3. Because the project would not result in impacts to wildlife movement the project would not contribute to any cumulative impacts to wildlife movement in the region.

6 Water Resources

6.1 Water Resources Literature Review

The assessment of the potential for water resources on the development site consisted of consulting the following resources:

- National Wetlands Inventory (NWI) online (USFWS 2022c)
- National Hydrography Dataset online (USGS 2022)
- Hope Gardens Sequoia Building Project Jurisdictional Delineation (South environmental 2022).

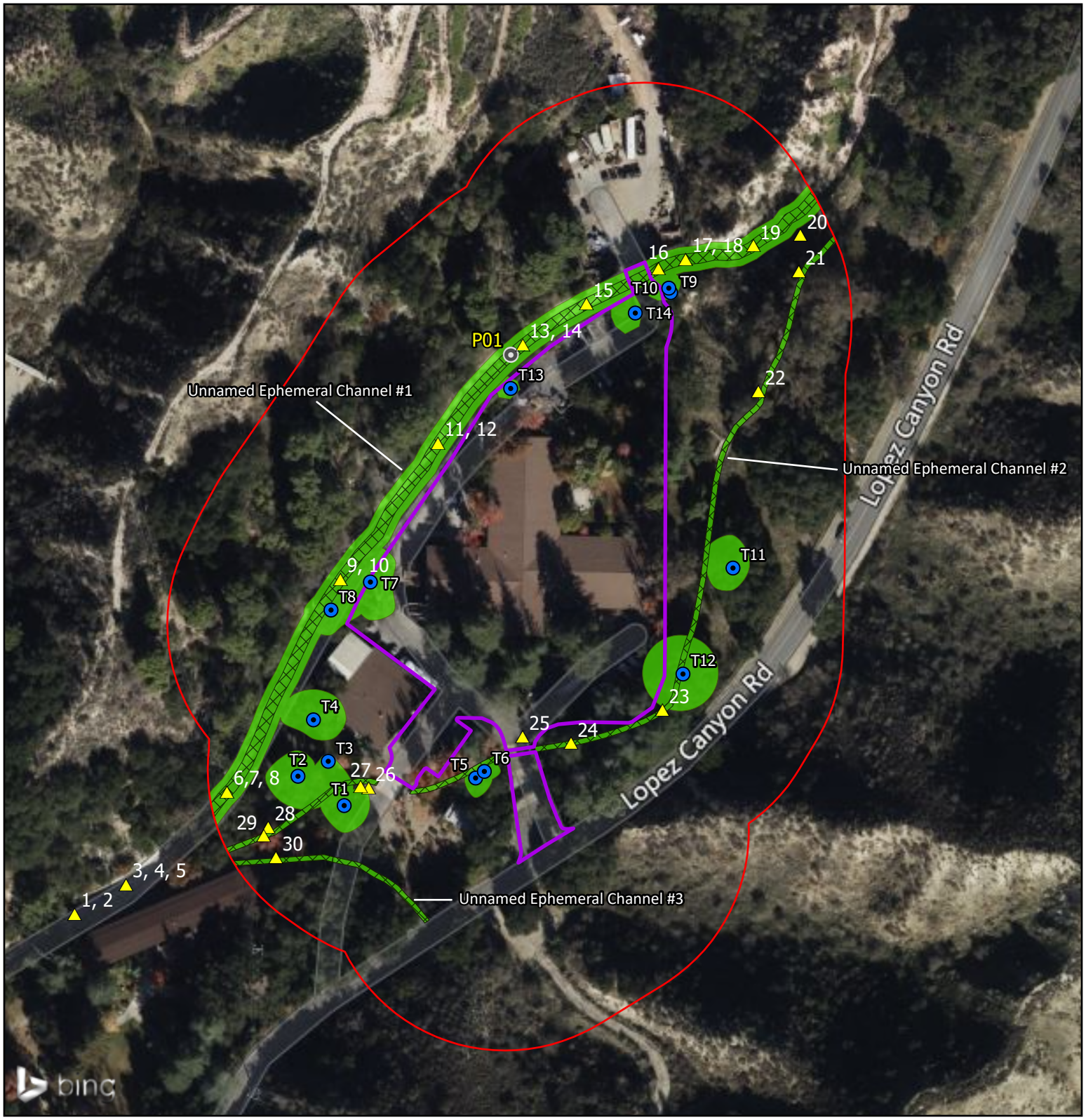
6.2 Water Resources Field Methodology

A formal jurisdictional delineation was prepared by South Environmental that details the methods used for the delineation of water resources on the development site.

6.3 Water Resources Data Analysis

As shown in Figure 6, unnamed ephemeral channel #1 is present in the northwest part of the biological study area and flows from northeast to southwest across the biological study area at the west edge of the development site. Unnamed ephemeral channel #1 enters the biological study area with natural dirt channel and becomes culverted under the bridge at the north edge of the project and is lined with concrete and masonry throughout the entire area south of the bridge. Also present in the survey are two much smaller culverted water features that are designed to control irrigation and stormwater flow for the development site and surrounding areas. Based on the debris, dry conditions, and lack of signs of hydrology it is likely the majority of the rock-lined channels no longer flow and have no upstream connection that may have previously occurred when initially constructed. These channels have some minor irrigation water and stormwater but have no significant source of water.

The OHWM for all three unnamed ephemeral channels in the biological study area is generally defined by a topographic flat plane within the base of its concrete channel. The top of bank (TOB) for all three unnamed ephemeral channels in the biological study area is generally defined by the contact point of the sloped part of the culvert against the ground level topographic plane. Some of the development site TOB boundaries are directly adjacent to other paved areas. Some of the development site TOB boundaries are directly adjacent to natural earth grounds. All three features lack floodplains and are entirely contained within the concrete channel. Riparian areas under CDFW jurisdiction extend to coast live oak (*Quercus agrifolia*) that overhang the channels and occur at the immediate edge of these features.



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 6. Jurisdictional Delineation

- Development Site
- Survey Area (200-Foot buffer)
- Photo Point
- OHWM Form
- Jurisdictional Trees
- USACE/RWQCB Non-Wetland Waters of the US/State
- CDFW Jurisdiction

0 90 180 Feet

Scale: 1:1,800

N

SOUTH ENVIRONMENTAL

The NWI classifies unnamed ephemeral channel #1 in the northwestern part of the biological study area with a R4SBA identification code. This identifies unnamed ephemeral channel #1 as a riverine system with an intermittent streambed that is temporarily flooded. Unnamed ephemeral channel #2 and Unnamed ephemeral channel #3 are not features shown in the NWI and appear to be man-made channels. Table 4 below summarizes the acres of estimated jurisdictional features within the biological study area.

Table 4. Summary of Jurisdictional Features in the Biological study area

Feature	Non-Wetland Waters of the U.S & State (USACE/RWQCB) – acres/linear feet	Streambed and Riparian Habitat (CDFW) – acres/linear feet
Unnamed ephemeral channel #1	0.18/933	0.58/933
Unnamed ephemeral channel #2	0.10/ 1,029	0.32/1,029
Unnamed ephemeral channel #3	0.02/218	0.02/218
Total	0.30/2,180	0.92/2,180

6.4 Project Impacts to Water Resources

Permanent Impacts: As summarized in Table 5 below, he proposed permanent impacts to the unnamed ephemeral channel #1 will include 0.06-acre of permanent impacts to oak trees within the riparian zone associated with the channel.

Temporary Impacts: The proposed temporary impacts to the unnamed ephemeral channel #1 will include 0.01-acre of temporary impacts during demolition and repaving of the bridge over the channel in the northern section of the development site.

Table 5. Summary of Impacts to Jurisdictional Features in the Biological study area

Feature	Non-Wetland Waters of the U.S. and State (USACE/RWQCB) proposed impacts (acres/linear feet)	Riparian Habitat (CDFW) (acres/linear feet of proposed impacts)
Unnamed ephemeral channel #1	0	0.06/150 – permanent impacts 0.01/20 – temporary impacts
Unnamed ephemeral channel #2	0	0 (tree trim)
Unnamed ephemeral channel #3	0	0
Total	0	0.07/170

The project will avoid dredge or fill within the OHWM and will not result in direct impacts to waters of the US (USACE features) or waters of the state (RWQCB features). Indirect impacts will be avoided by the recommendations below that will ensure no discharge occurs within the OHWM during the project. However, these activities will include altering riparian vegetation permanently, which is an impact to CDFW jurisdictional areas, and the temporary impacts to the bridge over the channel will require temporary impacts to the streambed edges and surrounding vegetation within CDFW jurisdictional areas. These impacts would be considered significant according to CEQA. South Environmental recommends **Mitigation Measure #4** that includes permitting, best management practices, and compensatory mitigation to reduce potential impacts to a less than significant level according to CEQA.

Mitigation Measure #4: CDFW Lake and Streambed Alteration Agreement and Best Management Practices

- A CDFW Notification of Lake or Streambed Alteration will be required for these impacts and an application should be submitted via the online portal.

- Measures included in the permits should include best management practices to avoid additional indirect impacts to the streambed or water quality. If these measures are implemented then no permits are likely necessary from the USACE and RWQCB, however, concurrence letters from both agencies is recommended to verify that they agree no impacts to there features would result from the project. These mitigation measures should include at a minimum:

    - Project activities within 50-ft of drainage features shall be planned when no surface water is present. No work should occur after rain events or when there is forecast of 50% chance of rain.
    - The contractor shall clearly delineate the plant removal limits and prohibit any trimming or disturbance outside these boundaries.
    - Trimmed materials shall be removed from the development site and disposed of off-site in a responsible manner.
    - Project-related vehicles and equipment shall not enter the streambed and when possible, shall be staged at least 50-feet outside of jurisdictional areas on paved surfaces.
    - During construction, heavy equipment and vehicles shall be operated in accordance with standard Best Management Practices (BMPs). All equipment used in the workspace shall be properly maintained such that no leaks of oil, fuel, or residues will take place. Provisions shall be in place to remediate any accidental spills.

- Materials shall be stored at least 50-ft from drainage features, as feasible, or equipment will utilize secondary containment.
- Construction parking and staging will occur in previously disturbed and developed areas that are greater than 50-feet from jurisdictional areas.

Compensatory Mitigation

- The project impacts are limited to the removal or permanent damage to 6[1] coast live oaks within CDFW riparian areas, and the temporary impacts to a bridge over the channel that will be returned to the existing conditions following the project. The project oak tree report requires that oak trees be planted at a 2:1 for each removal. We recommend replacement plantings of the coast live oaks planned per projects Oak Tree Report and permit be planted along the channels within riparian areas on the Hope Gardens property. This replacement of riparian habitat would be considered suitable compensation for the impacts to riparian trees. Alternative offsite mitigation considered suitable would be through purchase of mitigation credits for impacts to coast live oak riparian woodlands at a 2:1 and would be subject to County review and approval.

6.4.1 Cumulative Impacts to Water Resources

The project would result in minor impacts to riparian trees that would be protected by the CDFW. The project Mitigation Measure #4 would include permits from CDFW to allow for the removal of these riparian trees, and the proposed compensatory mitigation of replacing the trees removed with 2 trees will result in greater riparian areas following the completion of the mitigation. Because the project would mitigate for the loss of these trees and would create more riparian areas following the completion of the proposed compensatory mitigation the project would not contribute to any cumulative impact to water resources in the region. In fact the amount of riparian areas would either be the same or increased in the future due tot eh compensatory mitigation. Therefore, the project would not contribute to any cumulative impacts to water resources in the region.

[1] It should be noted that the project overall will remove 4 oaks and encroach 12 oaks, and the above reference to 6 oaks includes only those trees within the riparian zone that is CDFW jurisdiction per the jurisdictional delineation report.

7 Applicable Regulations and Permits

7.1 Regulations

7.1.1 Federal Regulations

7.1.1.1 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects individuals as well as any part, nest, or eggs of any bird listed as migratory. In practice, federal permits issued for activities that potentially impact migratory birds typically have conditions that require pre-disturbance surveys for nesting birds. In the event nesting is observed, a buffer area with a specified radius must be established, within which no disturbance or intrusion is allowed until the young have fledged and left the nest, or it has been determined that the nest has failed. If not otherwise specified in the permit, the size of the buffer area varies with species and local circumstances (e.g., presence of busy roads, intervening topography, etc.), and is based on the professional judgment of a monitoring biologist. A list of migratory bird species protected under the MBTA is published by USFWS.

7.1.2 California Regulations

7.1.2.1 State of California Fish and Game Code Section 3500

Section 3503.5 of the California Fish and Game Code states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Activities that result in the abandonment of an active bird of prey nest may also be considered in violation of this code. In addition, California Fish and Game Code, Section 3511 prohibits the taking of any bird listed as fully protected, and California Fish and Game Code, Section 3515 states that is it unlawful to take any non-game migratory bird protected under the MBTA.

7.1.2.2 California Migratory Bird Protection Act

The California Migratory Bird Protect Act (MBPA) was enacted in September 2019 to reinforce the MBTA at the state level. The Act states:

- "It is unlawful to take or possess any migratory nongame bird as designated in the federal Migratory Bird Treaty Act (16 U.S.C. Sec. 703 et seq.) before January 1, 2017, any additional migratory nongame bird that may be designated in that federal act after that date, or any

part of a migratory nongame bird described in this section, except as provided by rules and regulations adopted by the United States Secretary of the Interior under that federal act before January 1, 2017, or subsequent rules or regulations adopted pursuant to that federal act, unless those rules or regulations are inconsistent with this code." This section is inactive on January 20, 2025, and the following language below will be adopted.

- "It is unlawful to take or possess any migratory nongame bird as designated in the federal Migratory Bird Treaty Act (16 U.S.C. Sec. 703 et seq.), or any part of a migratory nongame bird described in this section, except as provided by rules and regulations adopted by the United States Secretary of the Interior under that federal act." This section is operative starting on January 20, 2025.

7.1.3 Local and Regional Regulations

7.1.3.1 County of Los Angeles Oak Tree Ordinance

The County of Los Angeles Oak Tree Ordinance establishes the need for an oak tree permit (a) to recognize oak trees as significant historical, aesthetic and ecological resources, and as one of the most picturesque trees in Los Angeles County, lending beauty and charm to the natural and manmade landscape, enhancing the value of property, and the character of the communities in which they exist; and (b) to create favorable conditions for the preservation and propagation of this unique, threatened plant heritage, particularly those trees which may be classified as heritage oak trees, for the benefit of current and future residents of Los Angeles County. It is the intent of the oak tree permit to maintain and enhance the general health, safety and welfare by assisting in counteracting air pollution and in minimizing soil erosion and other related environmental damage. The oak tree permit is also intended to preserve and enhance property values by conserving and adding to the distinctive and unique aesthetic character of many areas of Los Angeles County in which oak trees are indigenous. The stated objective of the oak tree permit is to preserve and maintain healthy oak trees in the development process. (Ord. 88-0157 § 1, 1988: Ord. 82-0168 § 2 (part), 1982.)

Damaging or removing oak trees is prohibited by the ordinance and the following permit requirements are established:

- Except as otherwise provided in Section 22.56.2070, a person shall not cut, destroy, remove, relocate, inflict damage or encroach into a protected zone of any tree of the oak genus which is (a) 25 inches or more in circumference (eight inches in diameter) as measured four and one-half feet above mean natural grade; in the case of an oak with more than one trunk, whose combined circumference of any two trunks is at least 38 inches (12 inches in diameter) as measured four and one half feet above mean natural

grade, on any lot or parcel of land within the unincorporated area of Los Angeles County, or (b) any tree that has been provided as a replacement tree, pursuant to Section 22.56.2180, on any lot or parcel of land within the unincorporated area of Los Angeles County, unless an oak tree permit is first obtained as provided by this Part 16.

- "Damage," as used in this Part 16, includes any act causing or tending to cause injury to the root system or other parts of a tree, including, but not limited to, burning, application of toxic substances, operation of equipment or machinery, or by paving, changing the natural grade, trenching or excavating within the protected zone of an oak tree.

- "Protected zone," as used in this Part 16, shall mean that area within the dripline of an oak tree and extending therefrom to a point at least five feet outside the dripline, or 15 feet from the trunks of a tree, whichever distance is greater. (Ord. 88-0157 § 2, 1988: Ord. 82-0168 § 2 (part), 1982.)

8 Conclusions

Based on the analysis in this report, the proposed development of a new housing building and associated parking and driveways has the potential to result in significant impacts to biological resources. However, with the implementation if Regulatory Compliance Measures and Mitigation Measures outlined in this report, the impacts will be reduced to a level that is considered insignificant according to CEQA.

Plant Communities and Sensitive Natural Communities: The project will largely be conducted within previously developed areas and landscaped areas (1.61-acres) and 0.13-acre of the project impacts will be within oak woodlands that is intermingled with the landscaping surrounding the Sequoia building. The Coast Live Oak Woodlands on the site are not considered a CDFW Sensitive Natural Community because they have a Global and State Rarity Rank of 5. However, portions of the oak woodlands surrounding the ephemeral drainages at the site are a sensitive riparian community but have been disturbed by fuel modification, landscaping, and development. CEQA Appendix G asks if the project would have "a substantial adverse effect on any riparian habitat or other sensitive natural community" and while the Coast Live Oak Woodlands does not meet the typical definition of CDFW Sensitive Natural Community due to its G5/S5 rarity rank, portions surrounding the river (as described in Section 6 of this report) are considered a riparian habitat and would be considered sensitive as a reulst. Therefore, the loss of 0.13-acre of sensitive riparian community would be considered significant according to CEQA. To mitigate the loss of 0.13-acre of oak woodland the project proposes to plant 8-additional coast live oaks per the Mitigation Measure #1 below in Section 3.4.3. These oaks will partially be along the adjacent creek to replace jurisdictional oaks that will be removed by the project. The planting of 8 oaks will be suitable mitigation for the loss of 0.13-acre of Coast Live Oak Woodland that would be impacted by the project because the oaks will be placed on the Hope Gardens property along in a similar setting to that which is being impacted by the project.

Special-Status Plants: The biological study area has California Sagebrush Scrub which may serve as habitat to five special-status plant assessed with a medium potential to occur — Hubby's phacelia, Nevin's barberry, ocellated Humboldt lily, Davidson's bush mallow, and California spineflower. Although these special-status species can occur in cismontane woodland which is the overarching plant community in which the Coast Live Oak Woodland belongs, the woodland is too disturbed at the ground level with non-native invasive species. These invasive plants would impede colonization of the special-status plants because of their aggressive nature in obtaining sunlight and soil nutrients and water. Therefore, the plants would not occur in the woodlands and would not be directly impacted by the project.

The special-status plants could occur in the California Sagebrush Scrub, however, which is relatively undisturbed. All the plants have been frequently observed in the immediate area, and several species have been observed within a few miles. It is important to note that CRPR 4.2 species are not considered rare, threatened, or endangered and do not meet the threshold for CEQA consideration as special status. Therefore, Hubby's phacelia, ocellated Humboldt lily, and California spineflower do not receive special protection under CEQA. Nevertheless, the California Sagebrush Scrub is located outside of the construction footprint and the established 200-ft fuel modification zone and no direct or indirect impacts would occur to that community. Therefore, no impacts would occur to special-status plants from the project.

Protected Oaks: The proposed redevelopment of the Sequoia building would result in the removal of 4 protected oak trees, and encroachment into the TPZ of 12 oaks. No heritage trees will be removed or encroached. The tree removals are necessary for the upgrades to roads and buildings proposed by the project. South Environmental recommends **Mitigation Measure #1** that includes replacement oaks at a ratio of 2:1 for the 4 lost trees and guidelines to avoid or work around the 12 trees that encroach.

Wildlife Habitat: The project will largely be conducted within previously developed areas and landscaped areas (1.61-acres) and 0.13-acre of the project impacts will be within oak woodlands that is intermingled with the landscaping surrounding the Sequoia building. The oak woodlands at the site are a sensitive riparian community but have been disturbed by fuel modification, landscaping, and development. Nonetheless, the loss of 0.13-acre of sensitive natural community would be considered significant according to CEQA and it could be habitat for special-status bats. To mitigate for the loss of 0.13-acre of oak woodland the project proposes to plant 8-additional coast live oaks per the Mitigation Measure #1 above. These oaks will partially be along the adjacent creek to replace jurisdictional oaks that will be removed by the project. The planting of 8 oaks will be suitable mitigation for the loss of 0.13-acre of Coast Live Oak Woodland that would be impacted by the project because the oaks will be placed on the Hope Gardens property along in a similar setting to that which is being impacted by the project. This habitat would be similar or superior to that which is impacted by the project.

Special-Status Wildlife: There is the potential for special-status wildlife species to occur in the California Sagebrush Scrub and for special-status bats to occur within the Coast Live Oak Woodlands.

- Coastal California gnatcatcher is a scrub habitat obligate and would not occur within the project footprint. Therefore, not direct impacts to the species or its potential habitat would result from the project because the project impacts are within already developed and landscaped reas and within a minor amount of oak woodlands. In addition, the project does not propose any new fuel modification and the level of disturbance will be minimal

from project activities and indirect impact will be minimized. Preconstruction nesting bird survey recommended below in Section 4.4.3 will ensure that no nests are near the development and no indirect impacts to coastal California gnatcatcher nests would result from the project.

- Coast horned lizard and coastal whiptail both have a medium potential to occur within the scrub habitats outside the project footprint. No direct impacts would occur to this habitat and no fuel modification is proposed. Therefore, no direct or indirect impacts would occur from the project to coast horned lizard or coastal whiptail.

- Crotch's bumble bee is not likely to occur in the impact areas because the developed areas and disturbed oak woodlands lack the species typically associated with the bumble bee. While Crotch's bumble bee has the potential to nest in the undeveloped native communities it would not nest in areas where there are a high percentage of landscaping plants surrounding the buildings and in planters as these are not suitable due to lack of area for the species to nest. Therefore, any potential for nesting would be minimal at best due to the lack of nearby foraging habitats and these areas would be avoided by the project as the proposed development The project will not impact habitat for this species and no indirect impacts are anticipated because there is no new fuel modification.

- Mountain lion is expected to avoid the development site due to the level of human activity that is currently on the project site. Therefore, the project would not impact the mountain lion or its habitat.

- There is no habitat for monarch butterfly in the biological study area and no impacts to monarch butterfly would result from the project.

- Special-status bats such as western mastiff bat may forage in the open woodland habitat or roost in the hollows of oak trees on the biological study area. If presence is detected during construction activity, they could be disturbed by the construction directly if roosting sites such as trees are removed, or indirectly by noise or vibration near a roosting site. Disturbance could make the bats abandon roosting sites or harm roosting bats, which would be a significant impact. The focused bat surveys and roosting site protection measures described in **Mitigation Measure #2** would avoid or reduce impacts to a less than significant level.

- The proposed development may require the removal of shrubs or trees that could provide potential nesting habitat for common urban birds, and migratory BCC birds protected by the MBTA, MBPA, and the Fish and Game Code. If present at the time of vegetation removal there could be direct impacts on active nests, eggs, or young. These could be

destroyed or otherwise disturbed to a point at which the young do not survive, which would be a violation of the MBTA, MBPA, and the Fish and Game Code. In addition, indirect impacts from noise or vibration have the potential to disturb an active bird nest to the point of failure if the nest is within immediate proximity to project activities, and this would also be a violation of the MBTA and Fish and Game Code. To avoid direct and indirect impacts to active bird nests, eggs, or young, preconstruction nesting bird surveys and monitoring is required as described in **Regulatory Compliance Measure #1.**

Wildlife Movement: High-quality wildlife habitat surrounds the development site in all directions. Special-status species including mountain lion, American badger, and white-tailed kite would likely occur near the development site from time to time. Common urban animals such as raccoon, opossum, and mule deer would move through the site on a regular basis. And migratory birds may migrate onto the site for nesting in which case they would be protected based on Regulatory Compliance Measure #1. No new fuel modification is proposed and no direct impacts to wildlife movement areas would result from te project. However, the project could deter wildlife movement in adjacent area if constructed in a way that disrupts the movement, such as constructing barriers to wildlife or having excessive lighting that could deter movement of wildlife in the Angeles National Forest To reduce the impact to wildlife movement on the site, **Mitigation Measure #3** limiting fencing and lighting is recommended.

Water Resources: The proposed impacts to the unnamed ephemeral channel #1 will include 0.06-acre of permanent impacts to oak trees within the riparian zone associated with the channel and 0.01-acre of temporary impacts during demolition and repaving of the bridge over the channel in the northern section of the development site. The project will avoid dredge or fill within the OHWM and will not result in direct impacts to waters of the US (USACE features) or waters of the state (RWQCB features). Indirect impacts will be avoided by the recommendations below that will ensure no discharge occurs within the OHWM during the project. However, these activities will include altering riparian vegetation permanently, which is an impact to CDFW jurisdictional areas, and the temporary impacts to the bridge over the channel will require temporary impacts to the streambed edges and surrounding vegetation. South Environmental recommends **Mitigation Measure #4** that includes permitting, best management practices, and compensatory mitigation.

Cumulative Impact: The project would result in minor impacts to oak woodlands and the removal of four protected oaks. No other impacts to flora would result. The impacts to oaks would be fully mitigated by replacing the removed oaks with eight new oaks, thus created new areas of oak woodlands to replace those that would be impacted. This mitigation would reduce these impacts to a less than significant level per CEQA. There are no other known projects within the vicinity or region of the project or in areas of oak woodlands upstream or downstream from the project that would have impacts to oaks and/or oak woodlands, and therefore, the project would not result in a cumulative impact to flora in the region.

With the implementation of Mitigation Measure #2 the project would avoid impacts to roosting bats, and with the implementation of Regulatory Compliance Measure #1 the project would avoid impacts to nesting birds and/or indirect impacts to coastal California gnatcatcher. No direct impacts to special-status wildlife would result from the project with these included mitigation and compliance measures. The minor impacts to oak woodlands habitat would be mitigated to be insignificant. There are no other known projects within the vicinity or region of the project or in areas of oak woodlands upstream or downstream from the project that would have impacts to oaks and/or oak woodlands, and therefore, the project would not result in a cumulative impact to wildlife or wildlife habitat in the region.

The proposed project would not have any impact on wildlife movement areas with implementation the limited fencing and lighting requirements described in Mitigation Measure #3. Because the project would not result in impacts to wildlife movement the project would not contribute to any cumulative impacts to wildlife movement in the region.

The project would result in minor impacts to riparian trees that would be protected by the CDFW. The project Mitigation Measure #4 would include permits from CDFW to allow for the removal of these riparian trees, and the proposed compensatory mitigation of replacing the trees removed with 2 trees will result in greater riparian areas following the completion of the mitigation. Because the project would mitigate for the loss of these trees and would create more riparian areas following the completion of the proposed compensatory mitigation the project would not contribute to any cumulative impact to water resources in the region. In fact the amount of riparian areas would either be the same or increased in the future due tot eh compensatory mitigation. Therefore, the project would not contribute to any cumulative impacts to water resources in the region.

Conclusion: Based on the analysis in this report, the proposed development of a new housing building and associated parking and driveways has the potential to result in significant impacts to biological resources. However, with the implementation of Regulatory Compliance Measures and Mitigation Measures outlined in this report, the impacts will be reduced to a level that is considered insignificant according to CEQA.

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Appendix A:
Photograph Exhibit

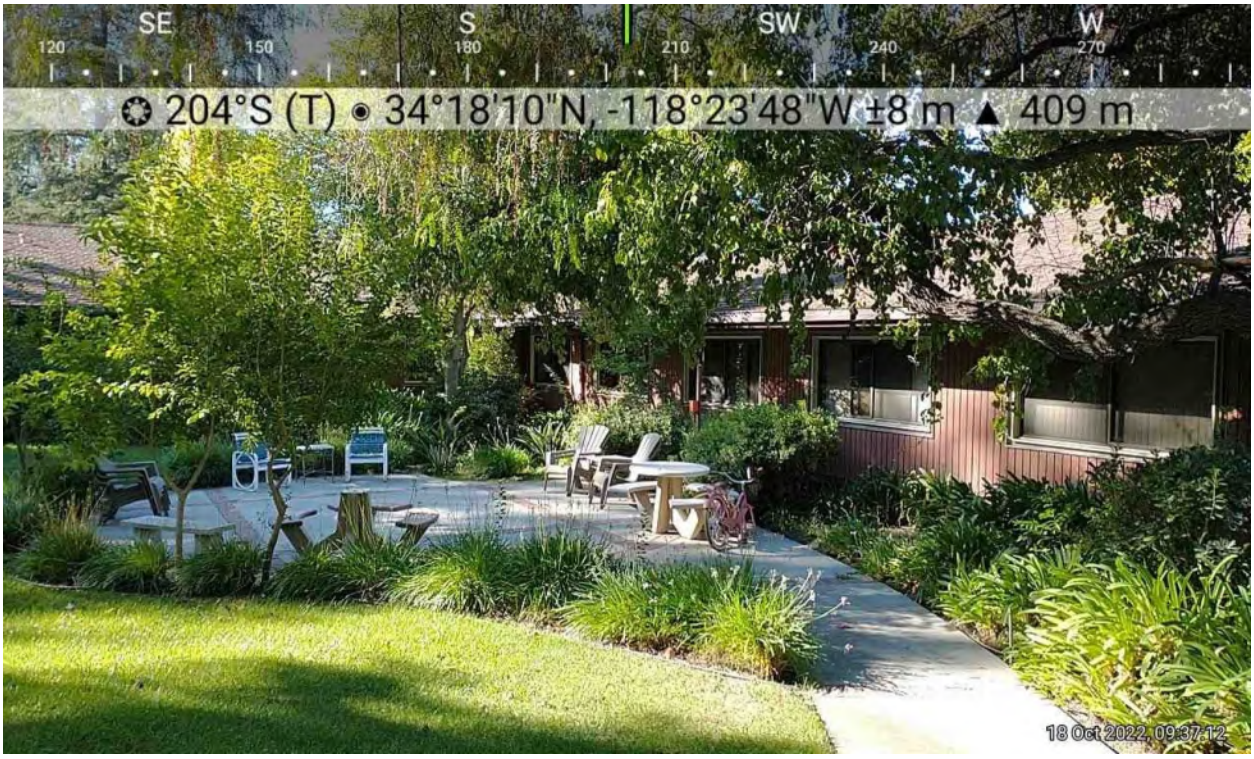


Image 1. Depicts the existing Sequoia building to be removed and surrounding landscaping and hardscaping.



Image 2. Depicts the existing landscaping and Sequoia building.



Image 3. Depicts the existing driveway and a dead oak at the edge of the driveway.



Image 4. Depicts existing Sequoia building and a coast live oak in the landscaping that will be removed.

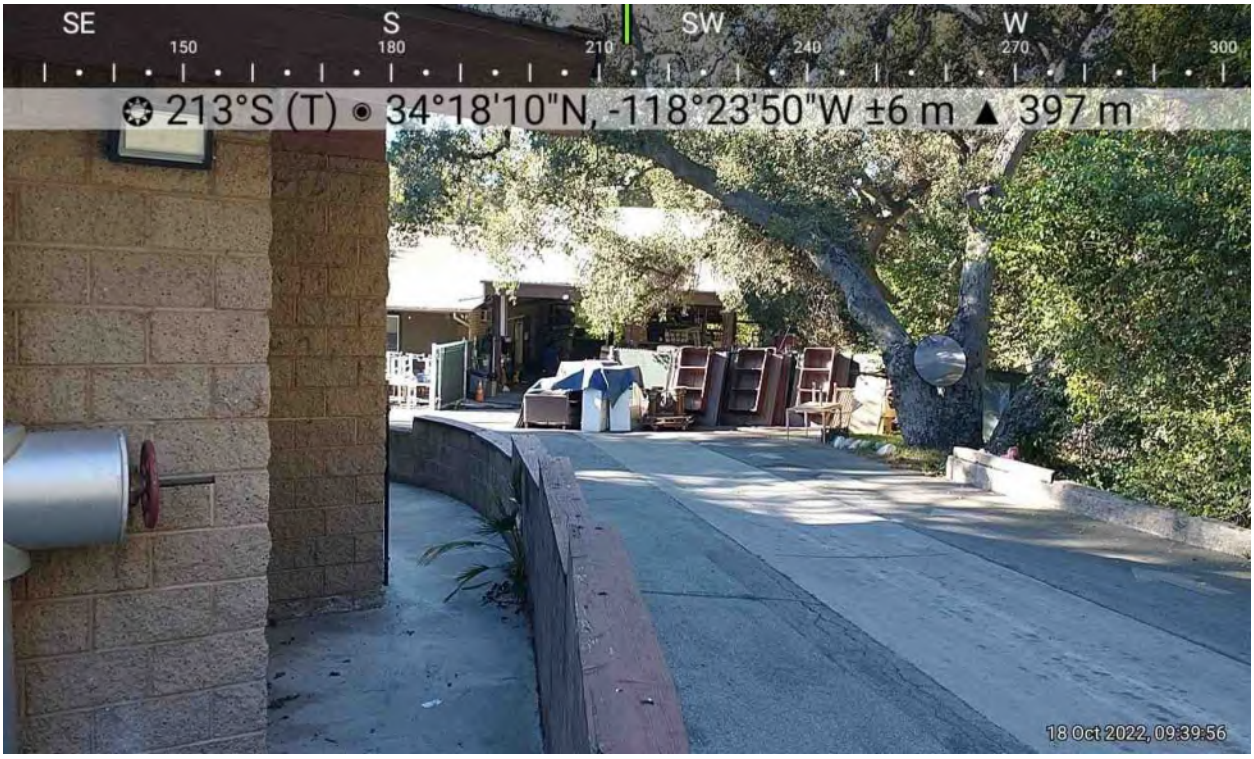


Image 5. Depicts the existing building and driveway on the south end of the project site.



Image 6. Depicts the typical dense landscaping and parking areas surrounding the existing building.



Image 7. Depicts the bridge over the concrete channel that will be replaced.



Image 8. Depicts the oak woodlands (right) and the scrub habitat (left) near the unchannelized portions of the drainage that occurs to the north of the project site in the Angeles National Forest.



Image 9. Depicts the oak woodlands and ephemeral channel east of the project site in the Angeles National Forest.

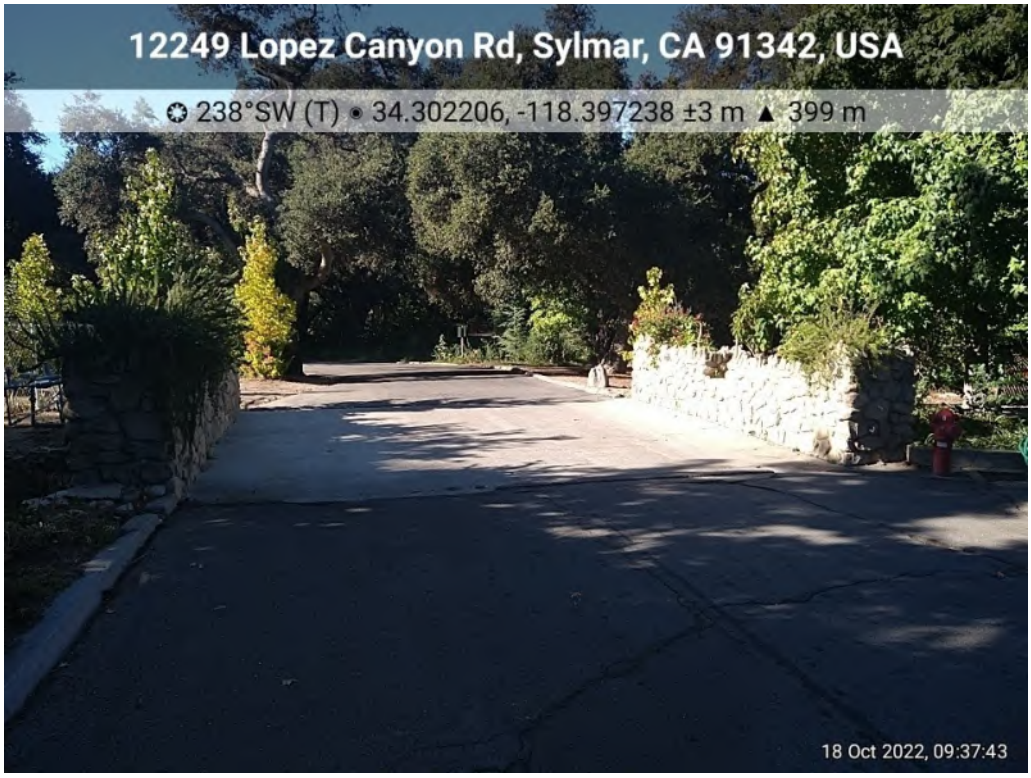


Image 10. Depicts the existing driveway at the south end of the project site.

Appendix B:
Special-Status Species Analysis

Special-Status Species Analysis

Special-status species are those plants and animals that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by federal, state, or other agencies as under threat from human-associated developments. Some of these species receive specific protection that is defined by federal or state endangered species legislation. Others have been designated as special-status based on adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. Special-status species include:

- Plants or wildlife listed or proposed for listing as threatened or endangered, or are candidates for possible future listing as threatened or endangered, under the federal Endangered Species Act or the California Endangered Species Act;
- Plants or wildlife that meet the definitions of rare or endangered under CEQA Guidelines Section 15380.
- Plants or wildlife covered under an adopted NCCP/HCP;
- Plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered (List 1A, 1B and 2 plants) in California;
- Plants listed by the CNPS as plants in which there is limited information about distribution (List 3);
- Plants listed as rare under the California Native Plant Protection Act (Fish and Game Code 1900 et seq.);
- Wildlife designated by CDFW as species of special concern;
- Wildlife "fully protected" in California (California Fish and Game Code Sections 3511, 4700, and 5050); and
- Wildlife protected by the Migratory Bird Treaty Act (MTBA).

9.1.1 Federally-Protected Status

All references to Federally-protected species in this BRA include the most current published status or candidate category to which each species has been assigned by USFWS. For purposes of this assessment the following acronyms are used for Federal status species, as applicable:

FE Federally-listed as Endangered

FT Federally-listed as Threatened
FPE Federally proposed for listing as Endangered
FPT Federally proposed for listing as Threatened
FPD Federally proposed for delisting
FC Federal candidate species (former C1 species)

9.1.2 State-Protected Status

For the purposes of this BRA, the following acronyms are used for State status species, as applicable:

SE State-listed as Endangered
ST State-listed as Threatened
SR State-listed as Rare
SCE State candidate for listing as Endangered
SCT State candidate for listing as Threatened
SFP State Fully Protected
SSC California Species of Special Concern

9.1.3 California Rare Plant Rank

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of special-status species in California. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California (CNPS 2018). The list serves as the candidate list for listing as Threatened and Endangered by CDFW. CNPS has developed six categories of rarity known as the California Rare Plant Rank (CRPR), of which Ranks 1A, 1B, 2A, and 2B are particularly considered sensitive:

Rank 1A Presumed extinct in California.
Rank 1B Plants Rare, Threatened, or Endangered in California and elsewhere.
Rank 2A Presumed extinct in California, but more common elsewhere.
Rank 2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere.
Rank 3 Plants about which we need more information – a review list.
Rank 4 Plants of limited distribution – a watch list.

The CNPS recently added "threat ranks" which parallel the ranks used by the CNDDB. These ranks are added as a decimal code after the CNPS List (e.g., Rank 1B.1). The threat codes are as follows:

.1 Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat);
.2 Moderately threatened in California (20-80% occurrences threatened);
.3 Not very threatened in California (<20% of occurrences threatened or no current threats known).

9.1.4 Potential to Occur Assessment

Special-status species that are **present** or are **high** or **medium** potential to occur within the parcel are a based on one or more of the following:

- the direct observation of the species within the parcel during any field survey;
- a record reported in the CNDDB; and
- the parcel is within known distribution of a species and contains appropriate habitat.
- present means the species is known to occur, high potential indicates the habitat is ideal and near known occurrences of the species, and medium indicates that the habitat may be less than ideal due to some lacking element but still usable by the species and within the known range.

Special-status species that are **low** potential) to occur are based on one of the following:

- the parcel has the general habitat types but lacks necessary habitat elements such as suitable microhabitat or soils; or
- the parcel is outside the known elevation range or distribution of the species, and has otherwise suitable habitats;

Special-status species that have no potential to occur on the parcel are labeled as **none** due to the absence of suitable habitat.

Special-Status Plants

Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Elevation Low (ft)	Elevation High (ft)	Habitat	Micro Habitat	Potential to Occur on Development site
Astragalus brauntonii	Braunton's milk-vetch	None	FE	1B.1	Jan-Aug	15	2100	Chaparral, Coastal scrub, Valley and foothill grassland	Burned areas (sometimes), Carbonate, Disturbed areas (sometimes), Sandstone (usually)	**None.** The development site has coastal scrub; however, the species has not been observed in the immediate area and CNNDB indicates that it is probably extirpated in the area.
Atriplex parishii	Parish's brittlescale	None	None	1B.1	Jun-Oct	80	6235	Chenopod scrub, Playas, Vernal pools	Alkaline	**None**. The development site lacks the habitat the species requires.
Berberis nevinii	Nevin's barberry	CE	FE	1B.1	(Feb)Mar-Jun	230	2705	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub	Gravelly (sometimes), Sandy (sometimes)	**Medium.** The development site has cismontane woodland and coastal scrub. The species has been observed in the immediate area.
Calochortus catalinae	Catalina mariposa lily	None	None	4.2	(Feb)Mar-Jun	50	2295	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland		**Low.** The development site has cismontane woodland and coastal scrub. The species has not been observed in the immediate area.
Calochortus clavatus var. clavatus	club-haired mariposa lily	None	None	4.3	(Mar)May-Jun	100	4265	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	Clay, Rocky, Serpentinite (usually)	**Low.** The development site has cismontane woodland and coastal scrub; however, it is not particularly, rocky, clayey, and not serpentine. The

Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Elevation Low (ft)	Elevation High (ft)	Habitat	Micro Habitat	Potential to Occur on Development site
										species has been little observed in the immediate area.
Calochortus clavatus var. gracilis	slender mariposa-lily	None	None	1B.2	Mar-Jun(Nov)	1050	3280	Chaparral, Coastal scrub, Valley and foothill grassland		**Low.** The development site has cismontane woodland and coastal scrub. The species has been little observed in the immediate area.
Calochortus palmeri var. palmeri	Palmer's mariposa-lily	None	None	1B.2	Apr-Jul	2330	7840	Chaparral, Lower montane coniferous forest, Meadows and seeps	Mesic	**None**. The development site lacks the habitat the species requires.
Calochortus plummerae	Plummer's mariposa-lily	None	None	4.2	May-Jul	330	5580	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland	Granitic, Rocky	**Low.** The development site has cismontane woodland and coastal scrub; however, it is not particularly granitic or rocky.
Calystegia peirsonii	Peirson's morning-glory	None	None	4.2	Apr-Jun	100	4920	Chaparral, Chenopod scrub, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland		**Low.** The development site has cismontane woodland and coastal scrub. The species has been little observed in the immediate area.
Canbya candida	white pygmy-poppy	None	None	4.2	Mar-Jun	1970	4790	Joshua tree "woodland", Mojavean desert scrub, Pinyon and	Granitic, Gravelly, Sandy	**None**. The development site lacks the habitat the species requires.

Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Elevation Low (ft)	Elevation High (ft)	Habitat	Micro Habitat	Potential to Occur on Development site
								juniper woodland		
Centromadia parryi ssp. australis	southern tarplant	None	None	1B.1	May-Nov	0	1575	Marshes and swamps, Valley and foothill grassland, Vernal pools		**None**. The development site lacks the habitat the species requires.
Cercocarpus betuloides var. blancheae	island mountain-mahogany	None	None	4.3	Feb-May	100	1970	Chaparral, Closed-cone coniferous forest		**None**. The development site lacks the habitat the species requires.
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	CE	None	1B.1	Apr-Jul	490	4005	Coastal scrub, Valley and foothill grassland		**Low.** The development site has coastal scrub. The species is indicated as possibly extirpated in the San Fernando quad and there are limited observations of it in the immediate area according to Calflora.
Convolvulus simulans	small-flowered morning-glory	None	None	4.2	Mar-Jul	100	2430	Chaparral, Coastal scrub, Valley and foothill grassland	Clay, Seeps, Serpentinite	**Low.** The development site has cismontane woodland and coastal scrub; however, it lacks seeps and clay and serpentine soils. The species has been little observed in the immediate area.

Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Elevation Low (ft)	Elevation High (ft)	Habitat	Micro Habitat	Potential to Occur on Development site
Deinandra minthornii	Santa Susana tarplant	CR	None	1B.2	Jul-Nov	920	2495	Chaparral, Coastal scrub	Rocky	**Low.** The development site has coastal scrub; however, it is not particulary rocky.
Deinandra paniculata	paniculate tarplant	None	None	4.2	(Mar)Apr-Nov	80	3085	Coastal scrub, Valley and foothill grassland, Vernal pools	Sandy (sometimes), Vernally Mesic (usually)	**Low.** The development site has coastal scrub; however, it is not vernally mesic. The species has not been observed in the immediate area.
Delphinium parryi ssp. purpureum	Mt. Pinos larkspur	None	None	4.3	May-Jun	3280	8530	Chaparral, Mojavean desert scrub, Pinyon and juniper woodland		**None**. The development site lacks the habitat the species requires.
Diplacus johnstonii	Johnston's monkeyflower	None	None	4.3	May-Aug	3200	9580	Lower montane coniferous forest		**None**. The development site lacks the habitat the species requires.
Dodecahema leptoceras	slender-horned spineflower	CE	FE	1B.1	Apr-Jun	655	2495	Chaparral, Cismontane woodland, Coastal scrub	Sandy	**Low.** The development site has cismontane woodland and coastal scrub in an alluvial area, and this species has a low potential to occur there.
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	None	None	1B.1	Apr-Jun	15	1475	Chaparral, Coastal bluff scrub, Coastal scrub, Valley and foothill grassland	Clay (often), Rocky, Serpentinite	**Low.** The development site has coastal scrub; however, it lacks clay and serpentine soils. The species has not been observed in the immediate area.

Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Elevation Low (ft)	Elevation High (ft)	Habitat	Micro Habitat	Potential to Occur on Development site
Dudleya densiflora	San Gabriel Mountains dudleya	None	None	1B.1	Mar-Jul	800	2000	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland	Granitic	**Low.** The development site has cismontane woodland and coastal scrub; however, it is not granitic.
Dudleya multicaulis	many-stemmed dudleya	None	None	1B.2	Apr-Jul	50	2590	Chaparral, Coastal scrub, Valley and foothill grassland	Clay (often)	**Low.** The development site has coastal scrub. The species has not been observed in the immediate area.
Harpagonella palmeri	Palmer's grapplinghook	None	None	4.2	Mar-May	65	3135	Chaparral, Coastal scrub, Valley and foothill grassland	Clay, Openings	**None.** The development site has coastal scrub; however, it lacks clay. The species has not been observed in the immediate area.
Helianthus inexpectatus	Newhall sunflower	None	None	1B.1	Aug-Oct	1000	1000	Marshes and swamps, Riparian woodland	Seeps	**None.** The development site has riparian woodland; however, it lacks seeps. The species has not been observed in the immediate area.
Heuchera caespitosa	urn-flowered alumroot	None	None	4.3	May-Aug	3790	8695	Cismontane woodland, Lower montane coniferous forest, Riparian forest, Upper montane coniferous forest	Rocky	**None.** The development site has cismontane woodland; however, it is not particularly rocky.
Horkelia cuneata var. puberula	mesa horkelia	None	None	1B.1	Feb-Jul(Sep)	230	2660	Chaparral, Cismontane	Gravelly (sometimes),	**Low.** The development site has cismontane

Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Elevation Low (ft)	Elevation High (ft)	Habitat	Micro Habitat	Potential to Occur on Development site
								woodland, Coastal scrub	Sandy (sometimes)	woodland and coastal scrub. The species has been little observed in the immediate area
Hulsea vestita ssp. gabrielensis	San Gabriel Mountains sunflower	None	None	4.3	May-Jul	4920	8205	Lower montane coniferous forest, Upper montane coniferous forest	Rocky	**None**. The development site lacks the habitat the species requires.
Imperata brevifolia	California satintail	None	None	2B.1	Sep-May	0	3985	Chaparral, Coastal scrub, Meadows and seeps, Mojavean desert scrub, Riparian scrub	Mesic	**Low.** The development site has coastal scrub and is somewhat mesic because of the ephemeral streams; The species has been little observed in the immediate area
Juglans californica	Southern California black walnut	None	None	4.2	Mar-Aug	165	2955	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland		**Low.** The species has cismontane woodland and coastal scrub. The species was not observed during South Environmental field visit.
Juncus acutus ssp. leopoldii	southwestern spiny rush	None	None	4.2	(Mar)May-Jun	10	2955	Coastal dunes, Marshes and swamps, Meadows and seeps		**None**. The development site lacks the habitat the species requires.
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	None	None	1B.1	Feb-Jun	5	4005	Marshes and swamps, Playas, Vernal pools		**None**. The development site lacks the habitat the species requires.
Lepechinia fragrans	fragrant pitcher sage	None	None	4.2	Mar-Oct	65	4300	Chaparral		**None**. The development site lacks the habitat the species requires.

Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Elevation Low (ft)	Elevation High (ft)	Habitat	Micro Habitat	Potential to Occur on Development site
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	None	None	4.3	Jan-Jul	5	2905	Chaparral, Coastal scrub		**Low.** The species has cismontane woodland and coastal scrub. The species has been little observed in the immediate area
Lilium humboldtii ssp. ocellatum	ocellated Humboldt lily	None	None	4.2	Mar-Jul(Aug)	100	5905	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland	Openings	**Medium.** The species has cismontane woodland and coastal scrub and openings. The species has been frequently observed in the immediate area.
Lupinus paynei	Payne's bush lupine	None	None	1B.1	Mar-Apr(May-Jul)	720	1380	Coastal scrub, Riparian scrub, Valley and foothill grassland	Sandy	**Low.** The species has coastal scrub. The species has not been observed in the immediate area.
Malacothamnus davidsonii	Davidson's bush-mallow	None	None	1B.2	Jun-Jan	605	3740	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland		**Medium.** The species has cismontane woodland and coastal scrub. The species has been frequently observed in the immediate area.
Monardella hypoleuca ssp. hypoleuca	white-veined monardella	None	None	1B.3	(Apr)May-Aug(Sep-Dec)	165	5005	Chaparral, Cismontane woodland		**Low.** The species has cismontane woodland. The species has not been observed in the immediate area.
Mucronea californica	California spineflower	None	None	4.2	Mar-Jul(Aug)	0	4595	Chaparral, Cismontane woodland, Coastal dunes, Coastal scrub,	Sandy	**Medium.** The species has cismontane woodland and coastal scrub. The

Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Elevation Low (ft)	Elevation High (ft)	Habitat	Micro Habitat	Potential to Occur on Development site
								Valley and foothill grassland		species has been frequently observed in the immediate area.
Nasturtium gambelii	Gambel' s water cress	FE	CT	1B.1	Apr-Oct	15	1085	Marshes and swamps (brackish, freshwater)		**None**. The development site lacks the habitat the species requires.
Navarretia fossalis	spreading navarretia	None	FT	1B.1	Apr-Jun	100	2150	Chenopod scrub, Marshes and swamps, Playas, Vernal pools		**None**. The development site lacks the habitat the species requires.
Navarretia setiloba	Piute Mountains navarretia	None	None	1B.1	Apr-Jul	935	6890	Cismontane woodland, Pinyon and juniper woodland, Valley and foothill grassland	Clay (sometimes), Gravelly (sometimes), Loam (sometimes)	**Low**. The species has cismontane woodland and coastal scrub. The species has not been observed in the immediate area.
Opuntia basilaris var. brachyclada	short-joint beavertail	None	None	1B.2	Apr-Jun(Aug)	1395	5905	Chaparral, Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland		**None**. The development site lacks the habitat the species requires.
Orcuttia californica	California Orcutt grass	CE	FE	1B.1	Apr-Aug	50	2165	Vernal pools		**None**. The development site lacks the habitat the species requires.
Phacelia hubbyi	Hubby's phacelia	None	None	4.2	Apr-Jul	0	3280	Chaparral, Coastal scrub, Valley and foothill grassland	Gravelly, Rocky, Talus	**Medium**. The development site has coastal scrub. The species has been observed in the immediate area.
Phacelia mohavensis	Mojave phacelia	None	None	4.3	Apr-Aug	4595	8205	Cismontane woodland, Lower montane	Gravelly (sometimes),	**None**. The development site is

Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Elevation Low (ft)	Elevation High (ft)	Habitat	Micro Habitat	Potential to Occur on Development site
								coniferous forest, Meadows and seeps, Pinyon and juniper woodland	Sandy (sometimes)	below the elevation range of the species.
Pseudognaphalium leucocephalum	white rabbit-tobacco	None	None	2B.2	(Jul)Aug-Nov(Dec)	0	6890	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland	Gravelly, Sandy	**Low**. The development site has cismontane woodland and coastal scrub. The species has not been observed in the immediate area.
Quercus durata var. gabrielensis	San Gabriel oak	None	None	4.2	Apr-May	1475	3280	Chaparral, Cismontane woodland		**Low.** The development site has cismontane woodland. The species was not observed during the South Environmental field visit and is just below the elevation range of the species.
Sagittaria sanfordii	Sanford's arrowhead	None	None	1B.2	May-Oct(Nov)	0	2135	Marshes and swamps		**None**. The development site lacks the habitat the species requires.
Senecio aphanactis	chaparral ragwort	None	None	2B.2	Jan-Apr(May)	50	2625	Chaparral, Cismontane woodland, Coastal scrub	Alkaline (sometimes)	**Low.** The development site has cismontane woodland and coastal scrub. The species has not been observed in the immediate area.
Spermolepis lateriflora	western bristly scaleseed	None	None	2A	Mar-Apr	1200	2200	Sonoran desert scrub	Rocky (sometimes), Sandy (sometimes)	**None**. The development site lacks the habitat the species requires.

Scientific Name	Common Name	FESA	CESA	CRPR	Blooming Period	Elevation Low (ft)	Elevation High (ft)	Habitat	Micro Habitat	Potential to Occur on Development site
Symphyotrichum greatae	Greata's aster	None	None	1B.3	Jun-Oct	985	6595	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Riparian woodland	Mesic	**Low.** The development site has cismontane woodland and cismontane (riparian); however, it is highly disturbed. The species has been frequently observed in the immediate area.

Special-Status Animals

Scientific Name	Common Name	Taxonomic Group	FESA	CESA	Other Status	General Habitat	Microhabitat	Potential to Occur on Development site
Anaxyrus californicus	arroyo toad	Amphibians	Endangered	None	CDFW_SSC-Species of Special Concern | IUCN_EN-Endangered	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc.	Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	**None**. The development site lacks the habitat the species requires.

Scientific Name	Common Name	Taxonomic Group	FESA	CESA	Other Status	General Habitat	Microhabitat	Potential to Occur on Development site
Rana muscosa	southern mountain yellow-legged frog	Amphibians	Endangered	Endangered	CDFW_WL-Watch List | IUCN_EN-Endangered | USFS_S-Sensitive	Disjunct populations known from southern Sierras (northern DPS) and San Gabriel, San Bernardino, and San Jacinto Mtns (southern DPS). Found at 1,000 to 12,000 ft in lakes and creeks that stem from springs and snowmelt. May overwinter under frozen lakes.	Often encountered within a few feet of water. Tadpoles may require 2 - 4 yrs to complete their aquatic development.	**None**. The development site lacks the habitat the species requires.
Spea hammondii	western spadefoot	Amphibians	None	None	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_NT-Near Threatened	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands.	Vernal pools are essential for breeding and egg-laying.	**None**. The development site lacks the habitat the species requires.
Taricha torosa	Coast Range newt	Amphibians	None	None	CDFW_SSC-Species of Special Concern	Coastal drainages from Mendocino County to San Diego County.	Lives in terrestrial habitats and will migrate over 1 km to breed in ponds, reservoirs and slow moving streams.	**Low**. The development site lacks the habitat the species requires. The species requires pools for breeding which the channelized stream channel is unlikely to have for longer periods.
Accipiter cooperii	Cooper's hawk	Birds	None	None	CDFW_WL-Watch List | IUCN_LC-Least Concern	Woodland, chiefly of open, interrupted or marginal type.	Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	**Low**: There is woodland on the site but it is not riparian, deciduous, canyon bottom, or live oak. The species has been frequently observed in the immediate area.
Agelaius tricolor	tricolored blackbird	Birds	None	Threatened	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_EN-Endangered | NABCI_RWL-Red Watch List | USFWS_BCC-Birds	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California.	Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	**None**. The development site lacks the habitat the species requires.

Scientific Name	Common Name	Taxonomic Group	FESA	CESA	Other Status	General Habitat	Microhabitat	Potential to Occur on Development site
					of Conservation Concern			
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	Birds	None	None	CDFW_WL-Watch List	Resident in Southern California coastal sage scrub and sparse mixed chaparral.	Frequents relatively steep, often rocky hillsides with grass and forb patches.	**Low:** The development site has coastal scrub; however, it is not steep and rocky. The species has not been observed in the immediate area.
Ammodramus savannarum	grasshopper sparrow	Birds	None	None	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes.	Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	**None**. The development site lacks the habitat the species requires.
Artemisiospiza belli belli	Bell's sage sparrow	Birds	None	None	CDFW_WL-Watch List	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range.	Nest located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories about 50 yds apart.	**Low**. The development site has scrub; however, the species has not been observed in the immediate area.
Athene cunicularia	burrowing owl	Birds	None	None	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation Concern	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	**Low**. The development site has scrub; however, it is not low-growing and is too dense for the species.
Buteo swainsoni	Swainson's hawk	Birds	None	Threatened	BLM_S-Sensitive | IUCN_LC-Least Concern	Breeds in grasslands with scattered trees, juniper-sage flats,	Requires adjacent suitable foraging areas such as	**None**. The development site lacks the habitat the species requires. The

Scientific Name	Common Name	Taxonomic Group	FESA	CESA	Other Status	General Habitat	Microhabitat	Potential to Occur on Development site
						riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees.	grasslands, or alfalfa or grain fields supporting rodent populations.	species has been little observed in the immediate area.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	Threatened	Endangered	BLM_S-Sensitive | NABCI_RWL-Red Watch List | USFS_S-Sensitive	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**None**. The development site lacks the habitat the species requires.
Elanus leucurus	white-tailed kite	Birds	None	None	BLM_S-Sensitive | CDFW_FP-Fully Protected | IUCN_LC-Least Concern	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland.	Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Low.** The development site has scattered oaks and dens-topped trees; however, the species has not been observed in the immediate area.
Empidonax traillii extimus	southwestern willow flycatcher	Birds	Endangered	Endangered	NABCI_RWL-Red Watch List	Riparian woodlands in Southern California.		**Low**. The development site has riparian woodland; however, it is disturbed. The species has not been observed in the immediate area.
Eremophila alpestris actia	California horned lark	Birds	None	None	CDFW_WL-Watch List | IUCN_LC-Least Concern	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills.	Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	**None**. The development site lacks the habitat the species requires.
Falco mexicanus	prairie falcon	Birds	None	None	CDFW_WL-Watch List | IUCN_LC-Least Concern	Inhabits dry, open terrain, either level or hilly.	Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	**Low.** The development site has open hilly terrain; however, it lacks cliffs for breeding. The species has been little observed in the immediate area.
Gymnogyps californianus	California condor	Birds	FE	CE	CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_CR-Critically Endangered	Chaparral Valley & foothill grassland	Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100	**None.** The development site lacks nesting habitat for the species.

Scientific Name	Common Name	Taxonomic Group	FESA	CESA	Other Status	General Habitat	Microhabitat	Potential to Occur on Development site
					NABCI_RWL-Red Watch List		miles from roost/nest.	
Lanius ludovicianus	loggerhead shrike	Birds	None	None	CDFW_SSC-Species of Special Concern | IUCN_NT-Near Threatened	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes.	Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**Low.** The development site has riparian woodland; however, it is disturbed. The species has been little observed in the area.
Polioptila californica californica	coastal California gnatcatcher	Birds	Threatened	None	CDFW_SSC-Species of Special Concern | NABCI_YWL-Yellow Watch List	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California.	Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	**Medium**: The development site has scrub and an arid wash b elow 2500. The species has been frequently observed in the immediate area.
Strix occidentalis occidentalis	California spotted owl	Birds	None	None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	Mixed conifer forest, often with an understory of black oaks and other deciduous hardwoods. Canopy closure >40%.	Most often found in deep-shaded canyons, on north-facing slopes and within 300-meters of water.	**Low.** The project site has woodlands near ephemeral water in shaded canyons, but it lacks the typical confire forest and there are no permanent water sources or north-facing slopes. This canyon is also not very deep-shaded. They are often found in areas with downed trees which is not found on the project site. The level of development also limits the potential as these birds are found in larger forests covering a large tract of undeveloped lands.

Scientific Name	Common Name	Taxonomic Group	FESA	CESA	Other Status	General Habitat	Microhabitat	Potential to Occur on Development site
Vireo bellii pusillus	least Bell's vireo	Birds	Endangered	Endangered	NABCI_YWL-Yellow Watch List	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.	Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	**Low**. The development site has riparian woodland but it is disturbed and the stream is ephemeral and often lacks water; also, there are no willow, Baccharis, or mesquite on the site.
Branchinecta lynchi	vernal pool fairy shrimp	Crustaceans	Threatened	None	IUCN_VU-Vulnerable	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools.	Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**None**. The development site lacks the habitat the species requires.
Catostomus santaanae	Santa Ana sucker	Fish	Threatened	None	AFS_TH-Threatened | IUCN_EN-Endangered	Endemic to Los Angeles Basin south coastal streams.	Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	**None**. The development site lacks the habitat the species requires.
Gasterosteus aculeatus williamsoni	unarmored threespine stickleback	Fish	Endangered	Endangered	AFS_EN-Endangered | CDFW_FP-Fully Protected	Weedy pools, backwaters, and among emergent vegetation at the stream edge in small Southern California streams.	Cool (<24 C), clear water with abundant vegetation.	**None**. The development site lacks the habitat the species requires.
Gila orcuttii	arroyo chub	Fish	None	None	AFS_VU-Vulnerable | CDFW_SSC-Species of Special Concern | IUCN_VU-Vulnerable | USFS_S-Sensitive	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave and San Diego river basins.	Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	**None**. The development site lacks the habitat the species requires.
Rhinichthys osculus ssp. 8	Santa Ana speckled dace	Fish	None	None	AFS_TH-Threatened | CDFW_SSC-Species of Special Concern | USFS_S-Sensitive	Headwaters of the Santa Ana and San Gabriel rivers. May be extirpated from the Los Angeles River system.	Requires permanent flowing streams with summer water temps of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	**None**. The development site lacks the habitat the species requires.

Scientific Name	Common Name	Taxonomic Group	FESA	CESA	Other Status	General Habitat	Microhabitat	Potential to Occur on Development site
Bombus crotchii	Crotch bumble bee	Insects	None	Candidate	IUCN_EN-Endangered	Coastal California east to the Sierra-Cascade crest and south into Mexico.	Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	**Medium**. The development site has an important presence of California buckwheat of the genus Eriogonum.
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	Insects	Candidate	None	IUCN_EN-Endangered | USFS_S-Sensitive	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	**None.** The development site has a tree grove but it is not located within one mile from the coast and therefore the site would not be an overwintering area. Also, no milkweed was observed on the site and therefore it is not a breeding area.
Euphydryas editha quino	quino checkerspot butterfly	Insects	Endangered	None		Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego counties.	Hills and mesas near the coast. Need high densities of food plants Plantago erecta, P. insularis, and Orthocarpus purpurescens.	**None.** The development site has shrubland; however, no plant species were observed that the butterfly uses as hosts.
Antrozous pallidus	pallid bat	Mammals	None	None	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFS_S-Sensitive	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting.	Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Low**. The development site has open dry shrubland; however, it is not particularly rocky. The species has been little observed in the immediate area.
Corynorhinus townsendii	Townsend's big-eared bat	Mammals	None	None	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFS_S-Sensitive	Throughout California in a wide variety of habitats. Most common in mesic sites.	Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**Low**. There are no open structures with wall and ceilings to hang from on the site and there is considerable human disturbance. The species has been observed in the immediate area.
Euderma maculatum	spotted bat	Mammals	None	None	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern |	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests.	Feeds over water and along washes. Feeds almost entirely on moths. Needs	**None.** The development site lacks a permanent wash and there are no rock crevices or cliffs for roosting.

Scientific Name	Common Name	Taxonomic Group	FESA	CESA	Other Status	General Habitat	Microhabitat	Potential to Occur on Development site
					IUCN_LC-Least Concern		rock crevices in cliffs or caves for roosting.	
Eumops perotis californicus	western mastiff bat	Mammals	None	None	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.	Roosts in crevices in cliff faces, high buildings, trees and tunnels.	**Low.** The site has scrub and woodland (not deciduous); however, it lacks cliff faces, high buildings and tunnels. The trees available are not dead ones or palms which these bats usually prefer.
Lasionycteris noctivagans	silver-haired bat	Mammals	None	None	IUCN_LC-Least Concern	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.	**None**. The development site lacks permanent water sources for feeding and hollow trees.
Lasiurus cinereus	hoary bat	Mammals	None	None	IUCN_LC-Least Concern	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.	**Low**. The development site has a mosaic with trees; however, it is disturbed and there is no permanent water source.
Lasiurus xanthinus	western yellow bat	Mammals	None	None	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats.	Roosts in trees, particularly palms. Forages over water and among trees.	**None**. The development site lacks the habitat the species requires.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	Mammals	None	None		Intermediate canopy stages of shrub habitats and open shrub / herbaceous and tree / herbaceous edges.	Coastal sage scrub habitats in Southern California.	**Low**. The development site has shrubland. The species has been little observed in the immediate area.
Macrotus californicus	California leaf-nosed bat	Mammals	None	None	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Desert riparian, desert wash, desert scrub, desert succulent scrub, alkali scrub and palm oasis habitats.	Needs rocky, rugged terrain with mines or caves for roosting.	**None**. The development site lacks the habitat the species requires.

Scientific Name	Common Name	Taxonomic Group	FESA	CESA	Other Status	General Habitat	Microhabitat	Potential to Occur on Development site
Neotoma lepida intermedia	San Diego desert woodrat	Mammals	None	None	CDFW_SSC-Species of Special Concern	Coastal scrub of Southern California from San Diego County to San Luis Obispo County.	Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	**None**. The development site lacks dense canopies, rock outrcrops, rocky cliffs, and slopes. The species has not been observed in the immediate area.
Nyctinomops macrotis	big free-tailed bat	Mammals	None	None	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Low-lying arid areas in Southern California.	Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	**None**. The development site lacks the habitat the species requires.
Onychomys torridus ramona	southern grasshopper mouse	Mammals	None	None	CDFW_SSC-Species of Special Concern	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	**None**. The development site has scrub; however, it lacks friable soils. The species has not been observed in the immediate area.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	Mammals	None	None	CDFW_SSC-Species of Special Concern	Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin.	Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	**Low**. The development site has a scrub community with sage. The species has not been observed in the immediate area.
Puma concolor	mountain lion	Mammals	None	Candidate		Woodlands, chaparral, coastal scrub, riparian areas	Requires dense cover for predation and denning (e.g., rocky outcrops, dense vegetation, caves)	**Low**. The development site has woodland and coastal scrub and is at the edge of contiguous habitat for the species; however, the site lacks areas for denning (e.g., thickets) and for hunting (dense vegetation, rock outcrops), and is located in an area with human movement and noise which they tend to avoid.
Taxidea taxus	American badger	Mammals	None	None	CDFW_SSC-Species of Special	Most abundant in drier open stages of	Needs sufficient food, friable soils	**Low**. The development site has shrub and

Scientific Name	Common Name	Taxonomic Group	FESA	CESA	Other Status	General Habitat	Microhabitat	Potential to Occur on Development site
					Concern | IUCN_LC-Least Concern	most shrub, forest, and herbaceous habitats, with friable soils.	and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	woodland; however, it lacks friable soils. The species has been little observed in the immediate area.
Gonidea angulata	western ridged mussel	Mollusks	None	None	IUCN_VU-Vulnerable	Primarily creeks and rivers and less often lakes. Originally in most of state, now extirpated from Central and Southern California.		**None**. The development site lacks the habitat the species requires.
Helminthoglypta fontiphila	Soledad shoulderband	Mollusks	None	None		Air-breathing terrestrial snail. Known from type locality, Little Rock Creek Cyn on north side of San Gabriels; west to Santa Clarita in Soledad Cyn; east to the vicinity of Big Rock Creek; and north to Elizabeth Lake Cyn in the Sierra Pelona Mtns.	Frequently found in riparian habitat (springs, seeps, along streams). May be found in rock piles, flood-borne debris, or under dead yuccas where other cover is not available.	**Low.** The development site does not have permanent flowing water and it is not located within the areas that the species has been observed.
Helminthoglypta traskii pacoimensis	Pacoima shoulderband	Mollusks	None	None		Air-breathing terrestrial snail. Known from type locality, Pacoima Canyon on the west side of the San Gabriel Mountains. Additional specimens from Elizabeth Lake Canyon in the Sierra Pelona Mountains may merit review.	Found mostly under bark and fragments of rotten logs.	**Low**. The site is within 5-mi of Pacoima Canyon; however, it lacks rotten logs.
Helminthoglypta vasquezi	Vasquez shoulderband	Mollusks	None	None		Air-breathing terrestrial snail. Known from type locality, Vasquez Rocks, and adjacent locality, Agua Dulce	Found under Yucca whipplei on north-facing slopes, in semi-desert chaparral with chamise, juniper, and	**Low**. The development site is not in the areas where the species has been observed and lacks juniper and large patches of yucca.

Scientific Name	Common Name	Taxonomic Group	FESA	CESA	Other Status	General Habitat	Microhabitat	Potential to Occur on Development site
						Canyon; Sierra Pelona Mountains.	large patches of Yucca whipplei.	
Anniella spp.	California legless lizard	Reptiles	None	None	CDFW_SSC-Species of Special Concern	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.	Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	**None.** The development site lacks the habitat the species requires. The soils are not moist here.
Anniella stebbinsi	Southern California legless lizard	Reptiles	None	None	CDFW_SSC-Species of Special Concern | USFS_S-Sensitive	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.	Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	**None.** The development site lacks the habitat the species requires. The soils are not moist here.
Arizona elegans occidentalis	California glossy snake	Reptiles	None	None	CDFW_SSC-Species of Special Concern	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.	Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	**Low**. The development site has scrub with loose or sandy soils; however, the species has been little observed in the immediate area.
Aspidoscelis tigris stejnegeri	coastal whiptail	Reptiles	None	None	CDFW_SSC-Species of Special Concern	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas.	Ground may be firm soil, sandy, or rocky.	**Medium:** The development site has areas with sparse vegetation and woodland that is riparian; furthermore, the ground is sandy and somewhat

Scientific Name	Common Name	Taxonomic Group	FESA	CESA	Other Status	General Habitat	Microhabitat	Potential to Occur on Development site
								rocky in places. The species has been frequently observed in the area.
Emys marmorata	western pond turtle	Reptiles	None	None	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_VU-Vulnerable | USFS_S-Sensitive	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation.	Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**None.** The development site lacks the habitat the species requires.
Phrynosoma blainvillii	coast horned lizard	Reptiles	None	None	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	**Medium:** The development site has scattered low bushes, areas for sunning, and loose soil in parts. The species has been frequently observed in the area.
Thamnophis hammondii	two-striped gartersnake	Reptiles	None	None	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFS_S-Sensitive	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation.	Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	**None.** The development site lacks the habitat the species requires.

Appendix C:
Literature Review

The **Special-Status Flora and Wildlife** that are subject to the legislation, policies, or assessments indicated in Appendix B (Special-Status Species) are queried for each development site using several online literature resources: two ma

Special-Status Flora and Wildlife

- California Department of Fish and Wildlife, California Natural Diversity Database (CNDDB), Rarefind 5 link CNDDB Maps and Data (ca.gov)

- United States Fish and Wildlife Service (USFWS) Environmental Conservation Online System (ECOS) Information for Planning and Consultation (IPaC) link https://ecos.fws.gov/ipac/

Special-Status Flora

- Online database of the California Native Plant Society, Inventory of Rare and Endangered Plants link CNPS Rare Plant Inventory.

Special-Status Wildlife

- CDFW. 2022b. California Wildlife Habitat Relationships (CWHR) life history accounts and range maps link https://wildlife.ca.gov/Data/CWHR/Life-History-and-Range

The designation of **Plant Communities** is dependent on the geographic area where the development site occurs. In Southern California, there are two primary vegetation community classification systems. These community classifications also indicate whether the community is considered a sensitive natural community by the CDFW. These two main literature sources area as follows:

- Vegetation Classification of the Santa Monica Mountains National Recreation Area and Environs in Ventura and Los Angeles Counties California (CDFG, CNPS 2006)

- California Native Plant Society (CNPS), A Manual of California Vegetation Online link http://vegetation.cnps.org/

The potential for **Wildlife Movement** at a development site is assessed with several sources that cover geographic connectivity in terms of current development, established wildlife corridors, critical habitat established by the Fish and Wildlife Service, and federal, state, and local protected areas including parks, forests, and reserves. The sources queried for wildlife movement are listed below:

- California Protected Areas Database (CPAD) online link https://www.calands.org/
- GreenInfo Network, Park Information online link https://www.greeninfo.org
- Google Maps, online link https://maps.google.com
- SC Wildlands, South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion.
- US Fish and Wildlife Service Dedicated and Proposed Critical Habitat GIS Data online link https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat#critical-habitat-designations,-maps,-and-gis-data

The potential for **Water Resources**, for example wetlands, streams, rivers, marshes, on the development site was assessed with two literature sources. These water sources may be U.S. jurisdictional water resources subject to state and federal regulations or not.

- US Fish and Wildlife Service. National Wetlands Inventory Online Wetlands Mapper link https://www.fws.gov/wetlands/data/mapper.html
- US Geological Survey. National Wetlands Inventory Online Wetlands Mapper link https://www.fws.gov/wetlands/data/mapper.html

Appendix D:
Biologist's Resume

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Mobile: 303-818-3632

Matthew South

PRINCIPAL BIOLOGIST

Matthew South founded South Environmental in 2018. He is a certified wildlife biologist and certified arborist with 17 years of professional experience providing natural resources consulting services for a wide variety of clients that include residential, commercial, government, utility, infrastructure, research, and non-profit projects. For the last 13 years, Mr. South has been an environmental consultant in southern California acting as a Wildlife Biologist and Geographic Information System (GIS) Analyst. In early 2018 he started South Environmental and has since been supporting clients in Los Angeles, San Bernardino, and Riverside Counties.

Mr. South's background in ecology has led to a passion for conservation planning and resources assessments for the purpose of preservation and management. The integration of the latest technologies such as advanced GIS systems, mobile computing, and drone sensing allows him to innovate new data collection, analysis, and collaboration tools for the environmental sciences that produce more accurate data and better-informed resource managers.

EXPERTISE

- **Conservation and Management Planning.** Mr. South's has extensive experience preparing mitigation and monitoring plans, habitat conservation plans, and technical biological resources management plans that are compliant with federal, state, and local regulations. Mr. South is the only active NRCS TSP for Fish and Wildlife Plans Certified in California.
- **Biological Resources Assessment.** Mr. South has completed dozens of biological resources assessments throughout southern California.
- **Rare Plants and Arborist Services.** Mr. South has surveyed and assessed thousands of native and landscaped trees in southern California. He is a certified arborist with 5-years of tree survey experience working closely with some of the most experienced arborists in California. In addition, he has performed hundreds of hours of rare plant surveys and habitat assessments.
- **Wetland & Jurisdictional Delineations.** Mr. South has conducted dozens of jurisdictional and wetland delineations per the guidelines and methods from the US Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and the state Regional Water Quality Control Boards (RWQCB).
- **GIS.** Mr. South is an expert at spatial data collection and analysis using ESRI mobile and desktop software products and Trimble hardware.

EDUCATION

B.S., Wildlife Ecology, University of Wisconsin-Madison, 2004

CERTIFICATIONS

Certified Wildlife Biologist, The Wildlife Society 2014

ISA Certified Arborist (WE-12564A) 2019

Certified Technical Service Provider (TSP) for Fish and Wildlife Management Plans, USDA NRCS 2017

Authorized Desert Tortoise Biologist – Numerous BOs

Unmanned Aircraft System Pilot Certification, FAA #4177603

TRAINING

Wetland Delineation Training Course – The Wetland Institute (2014)

Southwest Willow Flycatcher Workshop, 2017

USGS Desert Tortoise Health Assessment and Tissue Collection Techniques Training, 2009

SELECT PROJECT EXPERIENCE

Southern California Edison (SCE) As-Needed Natural and Cultural Resources Services (2021-ongoing). As a subconsultant on this contract for multiple Primes (SWCA, EI, Rincon, Cardno, and ERM), South Environmental has focused its biological resources services on wetland delineations and permitting efforts for SCE throughout all its regions. From single pole delineations in roadside ditches to several hundred poles through miles of wet meadows in the Sierras, the projects vary in size and complexity as well as location. Primarily, delineations have been in the Sierras with the largest and most complex projects in Inyo and Mono Counties and several in Kern and Tulare. A few of the specific projects include

- Pickle Meadow: Aquatic Resources Delineation Report and Permitting for 300-poles located in a wet meadow behind Bridgeport Reservoir.
- Kern River: Wetland Delineation and Permitting for 15 pole replacements in Kernville.
- June Lake to Tom's Place: Wetland Delineation and Permitting for 40 poles spread through Inyo and Mono Counties.
- Cajon Wash: Jurisdictional Delineation and SBKR Assessment and Permitting for 10 pole replacements and realignment for a capital project located in SBKR Critical Habitat.
- Pipes Wash: Delineation and Permitting for 25-poles that are within Pipes Wash, a large ephemeral wash in the San Bernardino desert.

Southern California Gas (SCG) As-Needed Natural and Cultural Resources Services (2022-ongoing). As a subconsultant on this contract Mr. South has overseen the assessment numerous resources from single point locations to many miles of pipelines. More recently he has begun to conduct biological assessment in the coastal zone in Santa Barbara County as well as endangered species Biological Assessments (BAs) in support of Coastal Development Permits for SCG. Wetland delineation and permitting, biological resources assessments, and resources surveys and monitoring are services that Mr. South both provides personally and oversees a team of specialists that support the environmental impacts analysis and permitting for SCG.

California Department of Water Resources (DWR) As-Needed Environmental Compliance Services (2012-2018). As part of this contract while employed at another firm, Mr. South prepared conservation and biological resources planning documents as well as oversaw the implementation and compliance components of these documents. Most notably, Mr. South was the lead avian biologist for the billion-dollar Perris Dam Remediation Project where he prepared Avian Protection and Avoidance Plan, Feral Hog Management Plan, negotiated environmental mitigation and compensation with both the USFWS and CDFW biologists, conducted protocol surveys for endangered species such as least Bell's vireo, and oversaw the compliance monitoring efforts for the entire 5-years of project construction.

Los Angeles County Flood Control District and Department of Public Works As-Needed Environmental Compliance Services (2014-2018). As part of this contract while employed at another firm, Mr. South conducted dozens of biological resources assessments, focused surveys for special-status species, and monitored compliance for a wide variety of water infrastructure project. Notably, Mr. South was the lead biologist for the Eaton Dam Maintenance Projects and for a variety of vegetation management programs within sensitive waterways.

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Mobile: 541-620-4438

Scott Altmann

SENIOR BOTANIST & ECOLOGIST

EDUCATION

-MSc, Environmental Sciences and Policy, The Johns Hopkins University

-BA, International Studies, University of Colorado, Boulder

SKILLS

-ESRI ArcGIS Desktop

-Trimble GPS

-Plant identification using dichotomous keys and regional literature

-Application of prominent plant data collection techniques

-Collection, analysis, and presentation of field data

-Statistical modeling and descriptive summaries

TRAINING

-Identification of plant communities with taxonomic keys, Malheur National Forest, 2019

-Ecological restoration of riparian ecosystems, Malheur National Forest, 2019

-Multiple Indicator Monitoring (MIM) of Stream Channels and Streamside Vegetation, Ochoco National Forest, Prineville, OR, 2019

-Identification of common range grasses, Flagstaff, AZ, 2019

Scott Altmann is a Senior Botanist and Ecologist with 23 years of professional experience. He has a high degree of expertise in plant identification using dichotomous keys and has extensive experience identifying rare and at-risk plants in remote field locations using regional plant guides. Much of his experience was gained in Chile where he worked as a freelance and contract research botanist, ecologist, and conservation biologist for over 13 years in collaboration with local universities, government agencies, and botanical gardens. More recently, Mr. Altmann has worked as a botanist to promote conservation of rare and at-risk species for the US Forest Service. For the past year he has worked for South Environmental working closely with large clients such as Southern California Edison (SCE) and private developers on Biological Resources Assessments, impacts analysis, and regulatory permitting.

Mr. Altmann is currently a senior biologist and ecologist with South Environmental with responsibilities including assessing project regulatory settings, developing an impacts assessment and mitigation approach for projects, and then prepares resources assessment reports, impacts analysis, mitigation and monitoring plans, and permitting documents for major utility projects and for large and small developers. Assessments performed are for protected trees, special-status plants and animals, sensitive natural communities, wetlands and jurisdictional delineations, and sensitive habitats.

Mr. Altmann is an expert at assessing projects according to local and regional, state, and federal laws, including experience in Los Angeles City and County, Ventura County, Orange County, San Bernardino, Riverside, Mono, Inyo, and Santa Barbara. He is familiar with the California Coastal Act and has a variety of experiences working in the coastal zone and with various Local Coastal Programs (LCPs). His experience assessing the regulatory setting for projects allow him to assess potential impacts within a variety of situations and land use types, and he can better assist clients with resources that span multiple jurisdictions and that have a variety of different biological resources that could be impacted.

Mr. Altmann has several publications in peer-reviewed scientific journals and has edited hundreds of technical documents and journal articles. He is a Journal Referee for several prominent scientific journals including Journal of Ecology, Plant Ecology, Annals of Botany, and New Zealand Journal of Botany.

SELECT PROJECT EXPERIENCE

SCE On-Call Biologist – Throughout California (2021-present). Conducts wetland delineations, rare plant surveys, and prepares reports and permitting documents for SCE deteriorated poles and for larger scale projects as needed. Work has been completed in several counties throughout California including Santa Barbara, Ventura, Los Angeles, Riverside, San Bernardino, Mono, Kern, Tulare, and Inyo.

Biological Resources Assessments for dozens of clients (2021-present). Scott is the lead biologist and main author for dozens of Biological Resources Assessment for projects that follow strict reporting guidelines such as the City of Los Angeles, the Western Riverside County MSHCP, and the City of Malibu Local Coastal Program.

Rice Canyon Access Road Project – East Valley Municipal Water District (2021-present). Scott is the lead biologist on this project overseeing the BRA, rare plant surveys, burrowing owl surveys, and the mitigation parcel assessments.

USFS Biological Science Technician – John Day, OR (2019). Surveyed streams as part of the Multiple Indicator Monitoring (MIM) of Stream Channels and Streamside Vegetation protocol for evaluation of critical habitat of two federally listed fish species:

- Performed as principal identifier of plants including trees, shrubs, forbs, grasses, sedges, and rushes
- Used taxonomic keys and regional botanical literature to identify plants
- Measured stubble height of graminoid species
- Assessed height, age, and animal browse of overstory woody species
- Assessed streambank stability and alteration (animal use) and stream width and gravel size
- Organized, reviewed, and summarized data at the local scale using the MIM analysis module
- Analyzed statistically and summarized data at the landscape scale for use in an end-of-year agency report
- Organized fieldwork logistics including site visits and equipment preparation

USFS Biological Science Technician – Williams, AZ (2017). Surveyed rare, at-risk, and endemic vascular plant species on lands designated for ecological restoration.

- Hiked 8 to 10 miles a day in diverse environments under variable climatic conditions

- Identified plant species in the field and lab using botanical keys and regional flora literature
- Used topographic maps to locate primitive roads and survey areas
- Used hand-held, electronic devices to traverse survey areas and record plant and habitat data
- Developed digital maps delineating plant populations in ArcGIS
- Ensured proper maintenance of field equipment and transport vehicles
- Presented talks to co-workers and school students on the local flora, ecology, and forest safety
- Redacted extensively a key Arizona rare and endemic vascular plant guidebook for plant nomenclature and morphology

Ecology and Botany Researcher – Rancagua, Chile (2003-2017). Developed or collaborated on ecological and botanical initiatives in central Chile with support from organizations including the Mayor University, University of La Serena, National Forestry Agency (CONF), National Agency for the Environment (CONMAN), Agriculture and Livestock Agency (SAG), Center for Investigation of Patagonian Ecosystems (CIEP), and National Botanical Garden. Major research is listed Publication; additional research projects:

- Ecology of the choroy (*Enicognathus leptorhynchus*) and cachaña parrot (*Enicoganthus ferrugineus*)
- Survey of the plant biodiversity including rare and at-risk species and promotion of sustainable development of the Tanume Experimental Forestry Reserve
- Survey of the plant community and assessment of anthropogenic threats of the National Reserve Río Los Cipreses
- Survey of the frequency and abundance of orchid (Orchidaceae) spp. in commercial pine plantations
- Taxonomic work on an orchid (Orchidaceae) of the genus *Chloraea*

- Disseminated information on opportunities to legally develop and protect wilderness areas
- Realized 37 lectures on biodiversity and wilderness protection at primary and secondary schools and community social organizations

USGS Research Assistant, Laurel, MD (2002-2003)

Participated in plant and wildlife habitat research projects including data collection, analysis, and management and report production:

- Effect of deer browsing on the growth of woody species of a forested wetland of Maryland
- Vegetation regeneration as part of an urban wetland restoration project in Washington, D.C.
- Habitat, migration patterns, and diet of two Northern Hemisphere avifauna species: black duck (*Melanitta nigra*) and scoter duck (*Melanitta perspicillata*)
- Effect of extended managed flooding of a North Carolina floodplain on the diversity and abundance of wildlife, vegetation, and macroinvertebrates
- Survey of the wildlife utilization of seasonally-saturated forested wetlands of Maryland
- Effect of different fertilizer types on the growth of seasonal grasses native to Maryland
- Population abundance and habitat of the endangered Delmarva fox squirrel (*Sciurus niger cinereus*) of the Delmarva Peninsula, Maryland

PUBLICATIONS

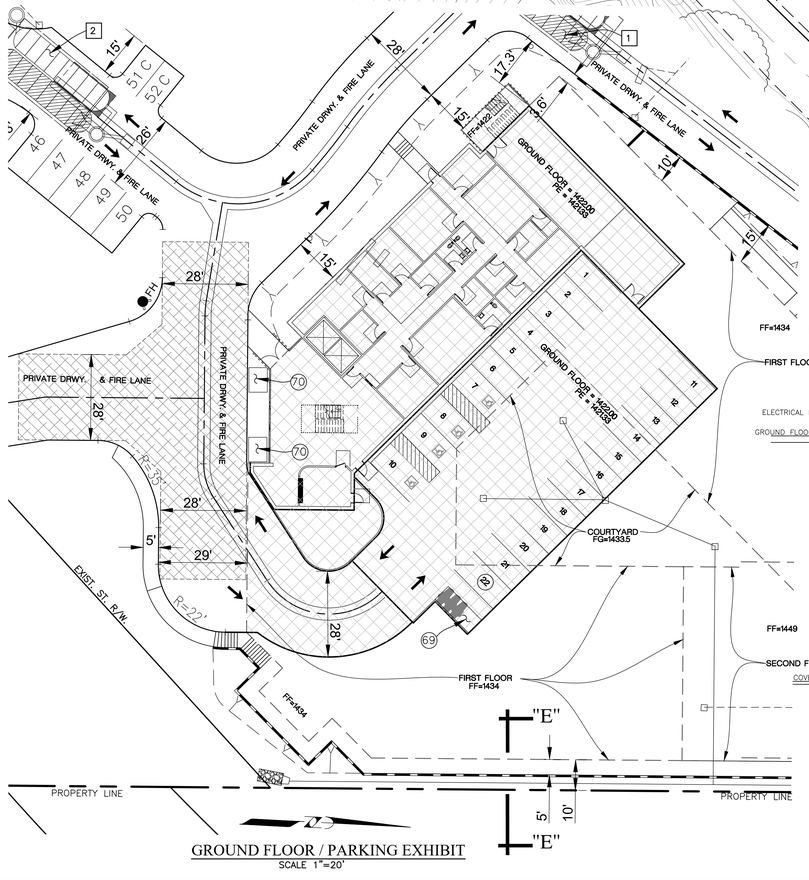
- Global patterns of herbivory in gap and understory environments, and their implications for woody plant carbon storage. December 2017. https://onlinelibrary.wiley.com/doi/abs/10.1111/oik.04686
- Insect abundance and damage on the deciduous *Nothofagus macrocarpa* increase with altitude at a site in the Mediterranean climate zone of Chile. February 2015. https://onlinelibrary.wiley.com/doi/abs/10.1111/aen.12142
- Crown condition, water availability, insect damage and landscape features: are they important to the Chilean tree *Nothofagus glauca* in the context of climate change? August 2013. http://www.publish.csiro.au/bt/bt13015
- Insect folivore damage in Nothofagus Blume trees of central Chile and its association with bottom-up plant community attributes. 2011. http://www.scielo.org.ar/scielo.php?script=sci_abstract&pid=S1667-782X2011000200001
- Reconocimiento del efecto de Cinara cupressi (Hemiptera: Aphididae) en el estado sanitario de Austrocedrus chilensis mediante imágenes multiespectrales. September 2009. https://scielo.conicyt.cl/scielo.php?pid=S0717-92002009000300005&script=sci_abstract&tlng=e

- Use of satellite-derived hyperspectral indices to identify stress symptoms on an *Austrocedrus chilensis* forest invaded by *Cinara cupressi*. January 2009. https://www.tandfonline.com/doi/abs/10.1080/09670870902725809
- Clasificación y caracterización de las comunidades de vegetación del Fundo Santa Elena, Comuna de Nancagua, Región de O'Higgins, Chile. Year 9 (2). 2006. http://www.chlorischilensis.com

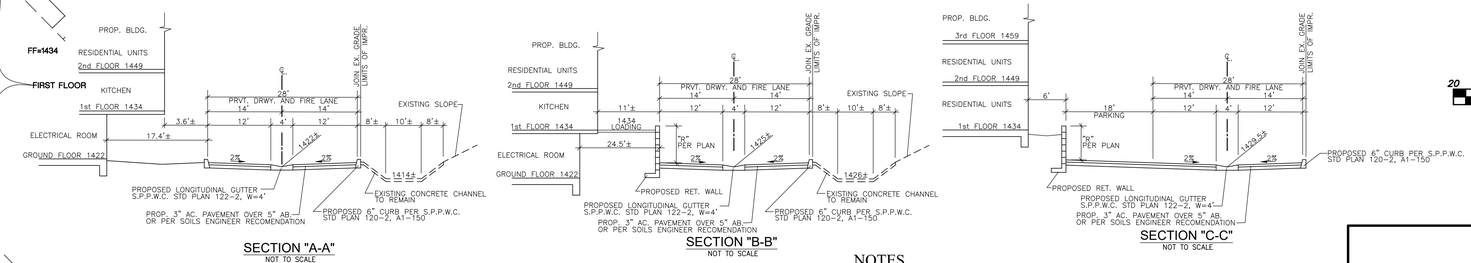
Appendix E:
Site Plan

PROPOSED SITE PLAN / UNDERGROUND PARKING / L.I.D.





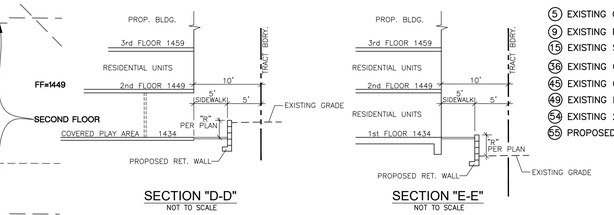
GROUND FLOOR / PARKING EXHIBIT
SCALE 1"=20'



SECTION "A-A"
NOT TO SCALE

SECTION "B-B"
NOT TO SCALE

SECTION "C-C"
NOT TO SCALE



SECTION "D-D"
NOT TO SCALE

SECTION "E-E"
NOT TO SCALE

NOTES

(5) EXISTING CHAIN LINK FENCE
(9) EXISTING FIRE HYDRANT
(15) EXISTING SIGNAGE
(36) EXISTING CATCH BASIN
(45) EXISTING CONTAINER STORAGE AREA
(49) EXISTING FIRE HYDRANT TO BE RELOCATED
(54) EXISTING 24' WIDE GATE TO BE WIDEN TO 28'
(55) PROPOSED RETAINING WALL
(56) PROPOSED 28' WIDE PRIVATE DRIVEWAY AND FIRE LANE SEE DETAIL ON SHEET 1
(57) PROPOSED 26' WIDE PRIVATE DRIVEWAY AND FIRE LANE SEE DETAIL ON SHEET 1
(58) PROPOSED FIRE APPARATUS TURNAROUND
(59) PROPOSED DELIVERY RAMP
(60) PROPOSED CATCH BASIN
(61) PROPOSED STORM DRAIN LINE
(62) PROPOSED STORM DRAIN OUTLET/RIP-RAP
(63) WIDEN EXISTING CULVERT AS REQUIRED
(64) PROPOSED 28' WIDE DRIVEWAY WIDENING
(65) EXISTING DRAINAGE CULVERT TO REMAIN
(66) PROPOSED "NO PARKING FIRE LANE" SIGN
(67) PROPOSED RELOCATED FIRE HYDRANT
(68) PROPOSED SIDEWALK
(69) INSTALL 6-SHORT TERM BICYCLE PARKING SPACES (RACKS)
(70) INSTALL 11-LONG TERM ENCLOSED BICYCLE SPACES (BIKE LOCKER STORAGE) INTENDED FOR RESIDENTS ONLY

L.I.D. NOTES:

BMPs 1 & 2 BELOW COMPRISE OF STORMTECH MC-4500 CHAMBERS AND END CAPS IN CONFIGURATIONS AS NOTED :

[1] TWO ROWS OF 6 CHAMBERS EA. (12 TOTAL) W/ 2 END CAPS EA. ROW, WITH 12" STONE BASE.
[2] TWO ROWS OF 8 CHAMBERS EA. (16 TOTAL) W/ 2 END CAPS EA. ROW, WITH 12" STONE BASE.

GRAPHIC SCALE (IN FEET)
1 inch = 20 ft.

OWNER/DEVELOPER:

UNION RESCUE MISSION
545 S. SAN PEDRO ST. LOS ANGELES, CA 90013
Ph: (213) 347-6300

LEGAL DESCRIPTION:

A.P.N. 2846-001-017, 2846-001-018
A.P.N. 2846-001-019, 2846-001-020

CUP EXHIBIT "A"
HOPE GARDEN SEQUOIA BUILDING
UNION RESCUE MISSION
12249 LOPEZ CANYON ROAD

IN THE UNINCORPORATED TERRITORY OF COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

DRAWN BY	DATE		VERSION
LDC	12/07/2020		VERSION 2
CHECKED BY			
S.H.			
DESIGNED BY			
LDC			
	DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER ROBERT R. SIMS No. 21649 EXP. 9-30-23 CIVIL STATE OF CALIFORNIA

PREPARED BY:

LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
800 Royal Oaks Dr., Suite 140, Monrovia, California 91016
Ph.: (626) 578-7000, Fax: (626) 578-7373
http://www.ldcla.com

Robert R Sims, R.C.E. No. 21649

09/26/2022
DATE

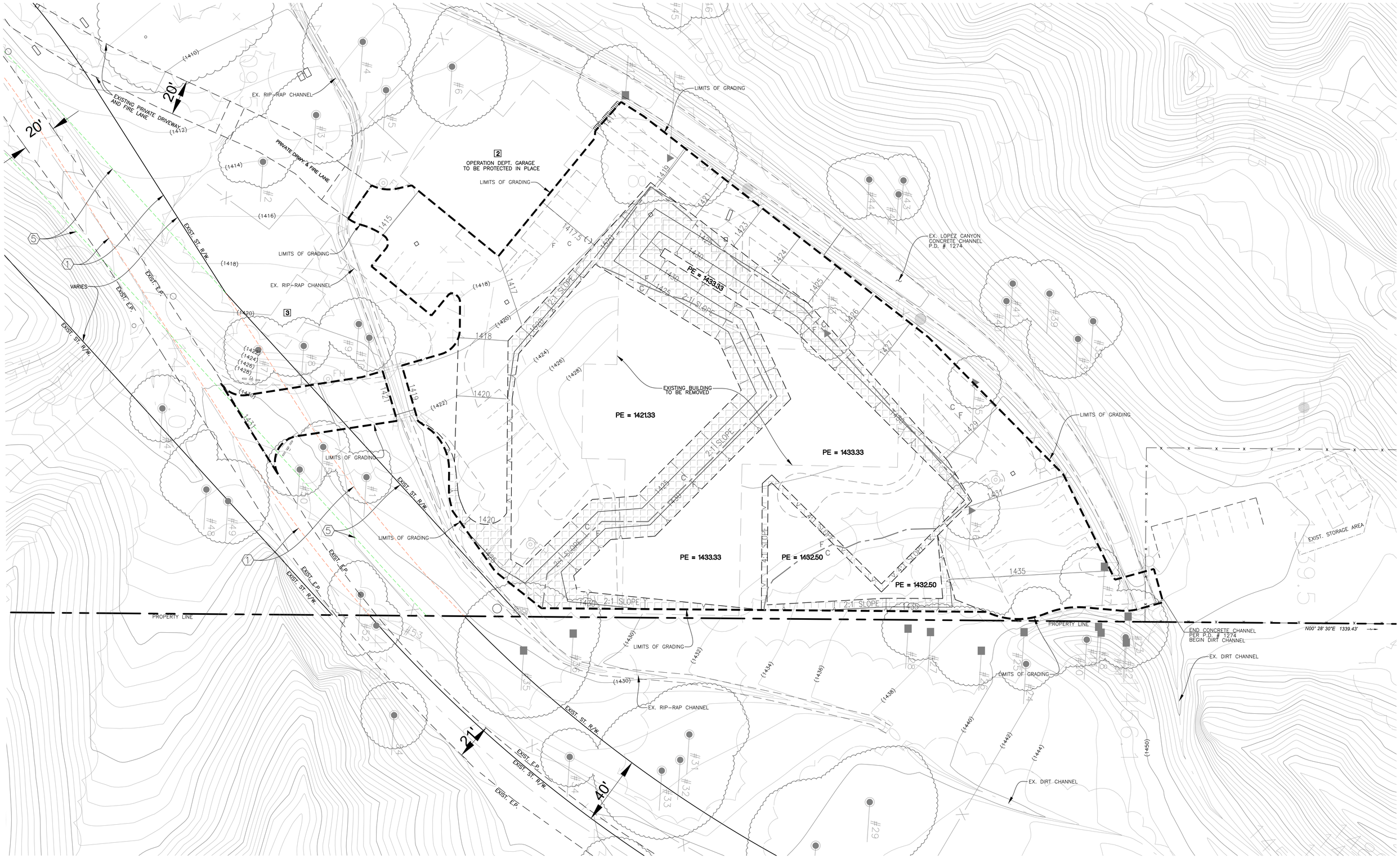
LDC

Project. No. 17019-005

SHEET 3 OF 6

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PROPOSED SITE PLAN / ROUGH GRADING



20 0 10 20 40 80

GRAPHIC SCALE (IN FEET)
1 inch = 20 ft.

OWNER/DEVELOPER:

UNION RESCUE MISSION
545 S. SAN PEDRO ST. LOS ANGELES, CA 90013
Ph: (213) 347-6300

LEGAL DESCRIPTION:

A.P.N. 2846-001-017, 2846-001-018
A.P.N. 2846-001-019, 2846-001-020

CUP EXHIBIT "A"
HOPE GARDEN SEQUOIA BUILDING
UNION RESCUE MISSION
12249 LOPEZ CANYON ROAD

IN THE UNINCORPORATED TERRITORY OF COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

DRAWN BY: LDC	12/07/2020		VERSION 2
CHECKED BY: S.H.			
DESIGNED BY: LDC			
	DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER
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EXP. 9-30-23
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09/26/2022
DATE

LDC

Project. No. 17019-005

SHEET 4 OF 6

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Appendix 4.1-2

Jurisdictional Delineation Memo

SOUTH ENVIRONMENTAL
1443 E. Washington Blvd., #288 Pasadena, California 91104 / www.southenvironmental.com

November 30, 2022

Brad Perrine
EcoTierra Consulting
633 W. 5th Street, 26th Floor
Los Angeles, CA 90071

RE: Jurisdictional Delineation for Hope Gardens Sequoia Building Project in Los Angeles, California (Conditional Use Permit No. RPPL2020000694 and Environmental Assessment No. RPPL2020003232)

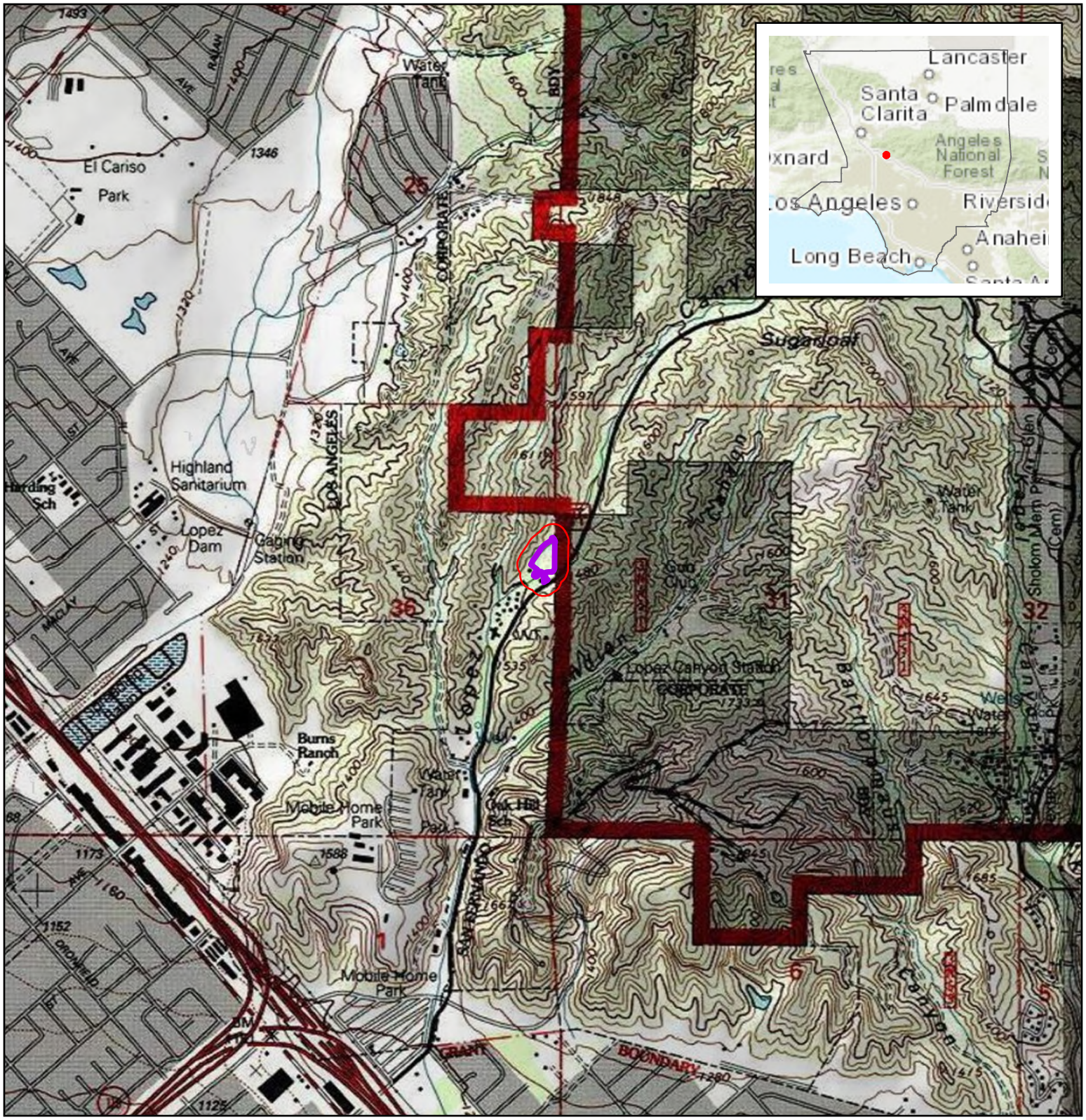
Dear Mr. Perrine,

This letter includes results of a Jurisdictional Delineation and an assessment of impacts to jurisdictional features from the Hope Gardens Sequoia Building Project (project) in an unincorporated area of Los Angeles County, California. The scope of this report includes a description of the project, methodology, results of the survey, a delineation of the jurisdictional resources on the study area, and an assessment of potential impacts to jurisdictional features with recommendations for mitigating or avoiding impacts.

Project Description

Location

The development site includes 1.98-acres that is located north of Lopez Canyon Road adjacent to the Angeles National Forest in unincorporated Los Angeles County, California. The development site includes developments associated with the Hope Gardens shelter and adjacent ornamental landscaping and undeveloped areas (attached Figure 1 and Figure 2). The development site is located on one right of way (road) parcel adjacent to Lopez Canyon Road and one assessor's parcels (APN 2846-001-017) on the San Fernando USGS 7.5-minute quad in Section 31 of Township 03 North and Range 14 West and Section 36 of Township 03 North and Range 15 West. The Angeles National Forest is north and east, Lopez Canyon Road to the south and beyond is undeveloped open space. Other buildings and roads associated with Hope Gardens occurs to the southwest, and a concrete lined drainage occurs on the west edge with landscaping and undeveloped open space beyond to the west.



Source: ESRI USA Topo Maps and World Topo Map 2022

Hope Gardens Sequoia Building Project

Figure 1. Project Location

Development Site

Survey Area (200-Foot Buffer)



0 1,000 2,000 Feet

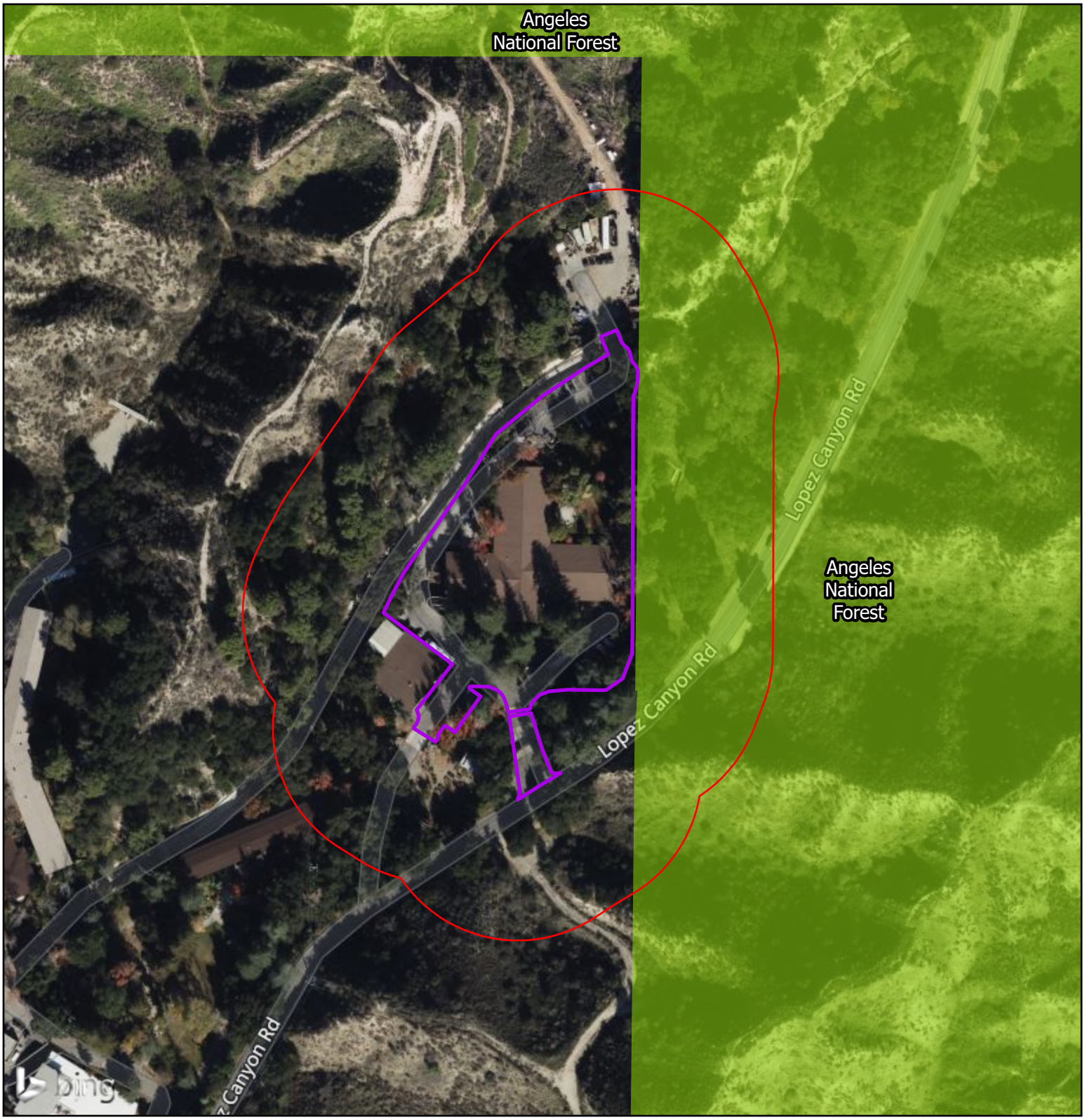
Scale: 1:24,000

N

Project Site is within unincorporated, California, in Los Angeles County on the USGS San Fernando 7.5-minute quadrangle map in Section 31 of Township 03 North and Range 14 West and Section 36 of Township 03 North and Range 15 West

Center Coordinate (Decimal Degrees):
Latitude: 34.3027184N Longitude: -118.3969850W

SOUTH ENVIRONMENTAL



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 2. Project Vicinity

- Development Site
- Survey Area (200-Foot Buffer)
- California Protected Areas Database (CPAD)

0 115 230 Feet

Scale: 1:2,300

N

SOUTH ENVIRONMENTAL

Proposed Development

The proposed development on the development site includes: 1.) the demolition of the existing Sequoia building and the creation of a new Sequoia building that is mostly in its place and 2.) the widening of existing paved roads surrounding the building and resurfacing of parking areas. The development will occur in areas that are mostly developed with the Sequoia building, driveways, and parking areas, and these areas will be updated with the new building development, paving, and landscaping. Notably, the new driveway off of Lopez Canyon Road will be widened to a width of 28 feet. The development is shown in Figure 3 below and in the Site Plan in Attachment C.

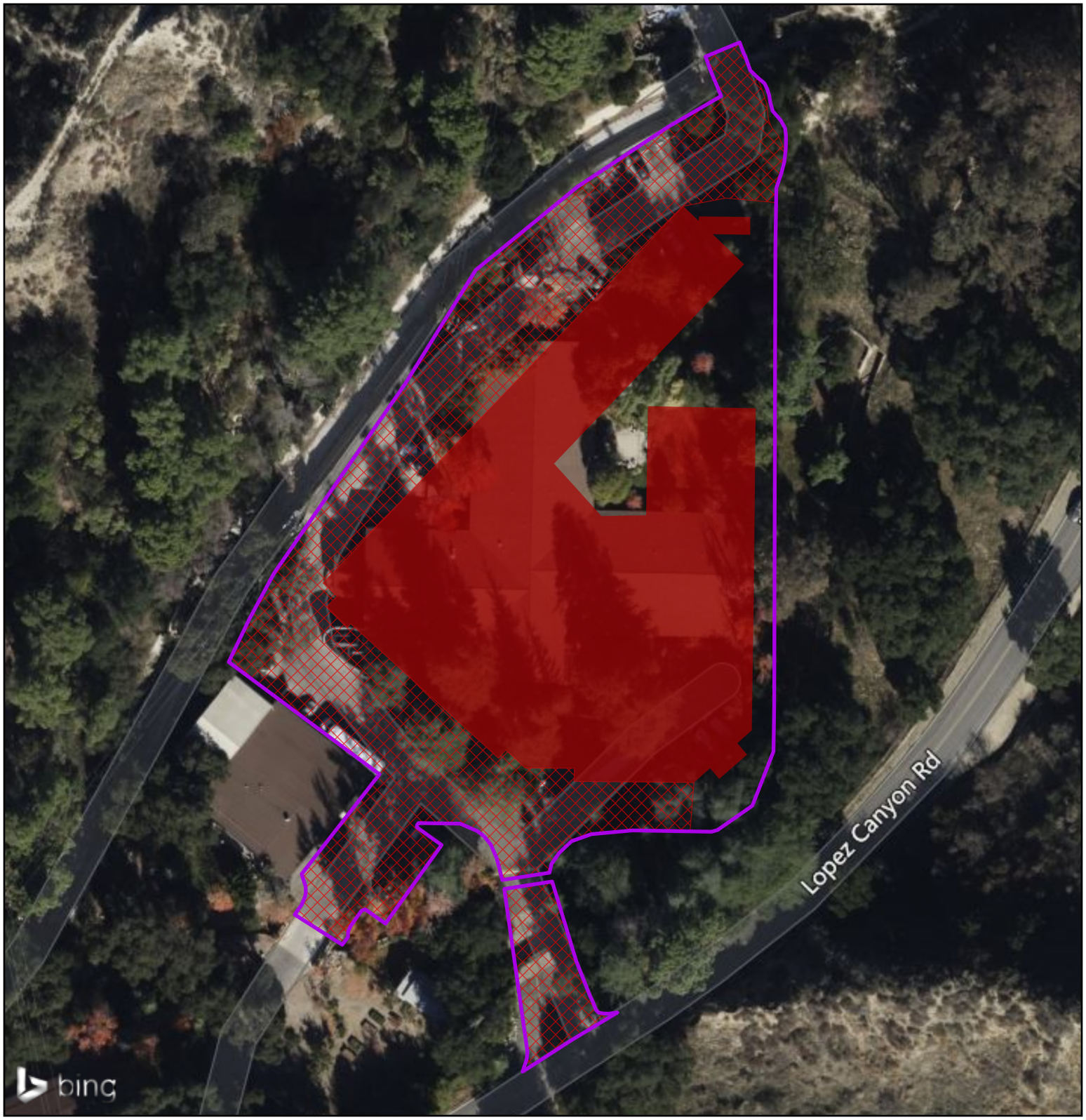
Regulatory Setting

Federal Regulations

Clean Water Act Sections 404 and 401

Section 404 of the Clean Water Act (CWA) establishes a program to regulate the discharge of dredged and fill material into waters of the United States (U.S.), including wetlands. Activities in waters of the U.S. or wetlands regulated under this program include fill as a result of projects such as development, water resource projects (such as dams and levees), infrastructure development and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the U.S.

Section 401 of the CWA requires that any person applying for a federal permit or license which may result in a discharge of pollutants into waters of the United States (such as a Clean Water Act Permit under Section 404), must obtain a state water quality certification stating that the activity complies with all applicable water quality standards, limitations, and restrictions. No license or permit may be issued by a federal agency until certification required by section 401 has been granted or waived.



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 3. Proposed Development

Development Site

Proposed Development

Paving and Resurfacing

Sequoia Building Footprint

0 50 100 Feet

Scale: 1:1,050

N

SOUTH ENVIRONMENTAL

California Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act requires the adoption of water quality control plans (basin plans) that give direction to managing water pollution in California. The basin plans get adopted and administered by the Regional Water Quality Control Board (RWQCB). The plans incorporate the beneficial uses of the waters of the State and then provide objectives that should be met to maintain and protect these uses. Along with the Regional Water Boards, the State Water Resources Board can issue and enforce permits containing waste discharge requirements to maintain clean surface water and groundwater. Each basin plan identifies the specific beneficial uses of water in their region for the past, present, and future. These basin plans also all have objectives for which the plan clearly states steps that are being taken or will be taken to meet the objectives. These objectives are created for the purpose of keeping the water clean and safe to use beneficially. The Regional Board has the authority to give out permits for the purpose of waste disposal or waste assimilation.

State of California Fish and Game Code Section 1600

Fish and Game Code Section 1602 outlines the Lake and Streambed Alteration Agreement (LSAA) permitting process, and states:

- An entity shall not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake

Fish and Game Code Section 1602 requires any entity (defined as any person, State or local governmental agency, or public utility) to notify the CDFW before beginning any activity that will do one or more of the following:

- substantially divert or obstruct the natural flow of and river, stream, or lake, or
- substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or
- deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

A permit, known as a Lake or Streambed Alteration Agreement, from CDFW is required to conduct any of the activities described above.

Methodology

This jurisdictional delineation is based on information compiled through a field survey and a review of appropriate reference materials and literature regarding the resources of the region. The jurisdictional delineation was conducted by South Environmental biologists Matthew South and Scott Altmann. The sources and literature referenced in this assessment are provided below in the Bibliography.

Literature Review

The assessment of the jurisdictional features began with a review of literature relating to the topography, soils, and hydrology that are known to occur on and in the vicinity of the development site, and include the following sources:

- United States Geologic Service (USGS) San Fernando 7.5"quad topographic map,
- US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soils Database (USDA 2022)
- National Hydrography Dataset (USGS 2022a)
- National Wetlands Inventory (USFWS 2022)
- National Watershed Boundary Dataset (USGS 2022b)
- Historic aerial photographs (historicaerials.com),
- Federal Emergency Management Agency (FEMA) flood GIS database (FEMA 2022)

Jurisdictional Delineation

A delineation of waters of the U.S. and "waters of the state" was conducted on October 18, 2022, throughout the study area (development site and a 200-foot buffer) and included the area within the bed and banks of any jurisdictional features and any possible associated riparian areas. The limits of jurisdictional features were recorded in the field using ArcGIS Field Maps mobile application and a Trimble Geode GPS Receiver was used to ensure that the accuracy of the measurements was less than 15-inches of error.

Waters of the U.S.

Guidance documents released by the U.S. Army Corps of Engineers (USACE) following the US Supreme Courts' 2006 Rapanos Decision define waters of the U.S. as any of the following:

- Traditional Navigable Waters (TNWs),
- wetlands adjacent to TNWs,
- tributaries of TNWs (relatively permanent, minimum of a 3-month seasonal flow)
- wetlands directly adjacent to tributaries of TNWs.

Wetlands

The delineators used methods described in the USACE 1987 *Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008) to determine the presence or absence of wetlands. During the site survey the following three wetland indicators were evaluated:

1. Dominance of hydrophytic wetland vegetation,
2. Presence of hydric soils, and
3. Periods of surface flooding or ponding water (visible surface water or saturated soils).

The USACE Arid West 2016 *Regional Wetland Plant List* was used to determine the wetland indicator status of plants that were observed in the Review Area, and changes in vegetation, soils, or hydrologic features are used to identify boundaries of wetlands, when present. Completed *Wetland Determination Data Form – Arid West Region* worksheet were completed for the project and are included in Appendix B.

Non-Wetland Waters

Non-wetland waters of the US are waters that lack wetland vegetation or hydric soils and have a clearly defined Ordinary High-Water Mark (OHWM), which indicates periods of surface flow. The OHWM was delineated using the methods in two USACE guidance documents: *A Field Guide to the Identification of the Ordinary High-Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008) and *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2010). A completed Datasheet for Identification of the OHWM is found in Appendix B.

Waters of the State

Los Angeles Regional Water Quality Control Board

South Environmental assumes all waters of the US are also considered waters of the state and are under the jurisdiction of the Los Angeles Regional Water Quality Control Board (RWQCB). The limits of wetlands, or the OHWM for non-wetland waters delineated in the development site will also be considered the limits of waters of the state under the jurisdiction of the RWQCB.

California Department of Fish and Wildlife (CDFW)

Waters of the state that are under the jurisdiction of the California Department of Fish and Wildlife (CDFW) are delineated at the top of the bank of a stream and extend to riparian habitats or vegetation associated with watercourses. Riparian vegetation is that which depends on surface or groundwater associated with the stream to exist and other vegetation that is either more dense or vigorous than the surrounding communities will also be considered under the jurisdiction of the CDFW.

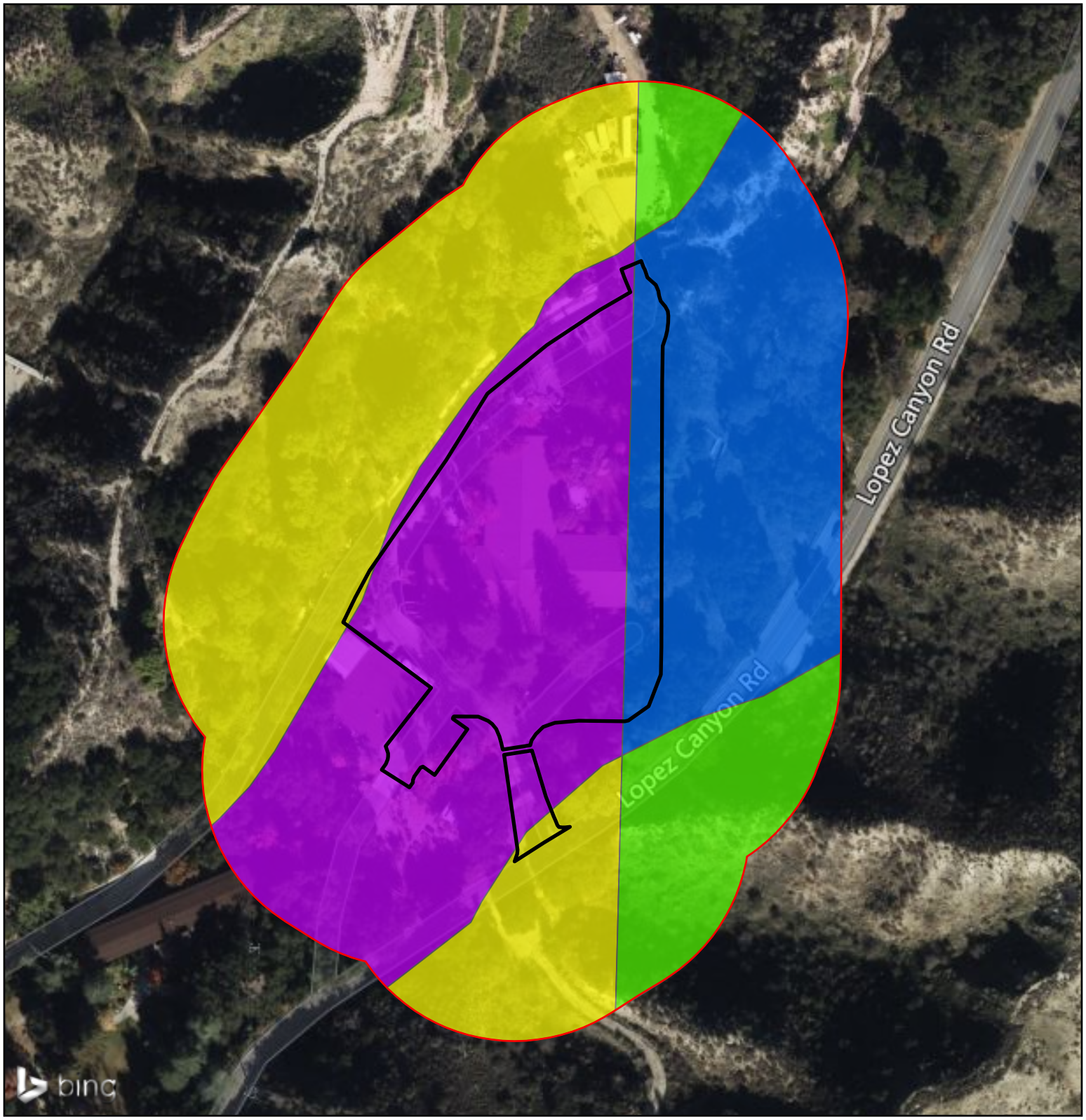
Results

Topography and Climate

The project is within Lopez Canyon, a northeast to southwest bearing erosional valley that has been eroded, in part, by an unnamed ephemeral channel. The unnamed ephemeral channel is a maintained concrete channel at the edge of the development site. The flow enters the concrete channel under the bridge at the north edge of the project that will be replaced. Regionally, Lopez Canyon has a broad southwestern slope, and the development site dips in that same southwestern direction. The highest elevation for the development site is 1439 feet above mean sea level (amsl) is along the northeast border, and the lowest elevation for the development site is along the southwestern border at an elevation of 1415 feet amsl. The climate in the region is hot and dry, with average summer high temperatures in the low-90s and average winter lows in the upper-30s and lower 40s. Average yearly rainfall is 0.83-inches, and the wettest months are November – March, and almost no precipitation between June-September.

Soils

Four soils occur on the development site as shown in Figure 4:



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 4. Soils

0 90 180 Feet

N

Scale: 1:1,800

Development Site

Survey Area (200-Foot Buffer)

Soils

Riverwash

Saugus loam, 30 to 50 percent slopes

Soboba gravelly loamy sand, 0 to 2 percent slopes

Trigo-Modesto-San Andreas families association, 15 to 70 percent slopes

SOUTH ENVIRONMENTAL

- **Riverwash** occurs in the eastern part of the development site. This is an alluvial flat soil that is excessively drained.
- **Saugus loam, 30 to 50 percent slopes** occurs in the northwestern and southern parts of the development site. This is a mountain/backslope/mountain flank soil and is well drained.
- **Soboba gravelly loamy sand, 0 to 2 percent slopes** occurs in the central and southwestern parts of the development site. This is a fan and floodplain soil and is excessively drained.
- **Trigo-Modesto-San Andreas families association, 15 to 70 percent slopes** occurs in the northeast and southeast parts of the development site. This is an ridge/mountain slope soil and is somewhat excessively drained.

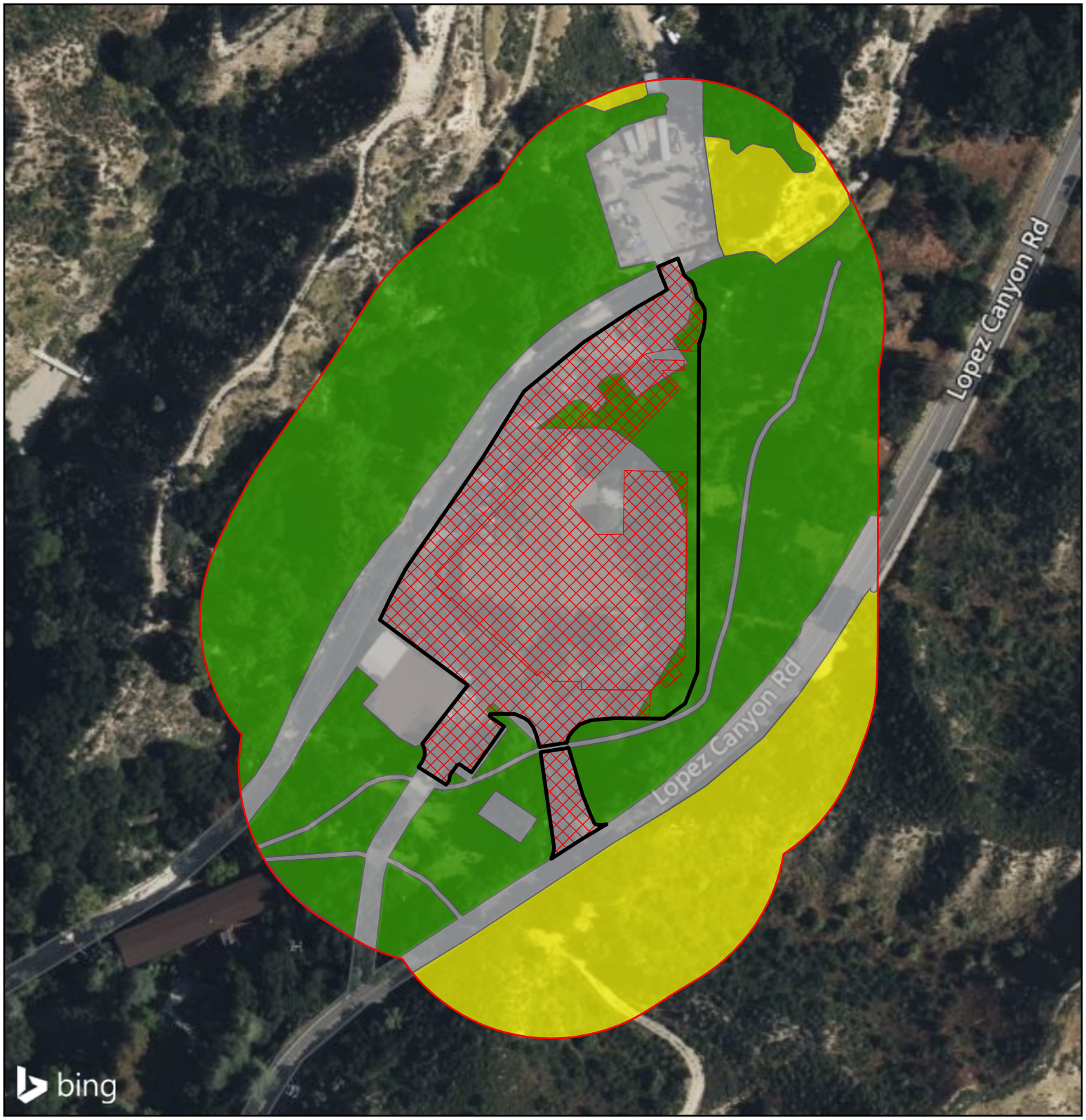
Plant Communities

There are two plant communities and one land cover type on the study area, and they are shown in Figure 5 below and acres of each is summarized in Table 1 below.

Table 1. Summary of Plant Communities on the Study Area

Community or Cover Type	Acres on the Study Area	Acres on Development site	Acres Within the Project Footprint
California sagebrush/California buckwheat scrub	1.58	0	0
Coast live oak woodland	4.56	0.29	0.13
Developed / Ornamental Landscaped	3.20	1.69	1.61
Total	**9.34**	**1.98**	**1.74**

- **California sagebrush/California buckwheat (*Artemisia californica-Eriogonum fasciculatum* Shrubland Alliance)** (CDFG & CNPS 2006) is found on 1.58-acres of the study area and 0.00-acres of the development site or project footprint. These areas are within the northern and southeastern parts of the study area and are upland and outside of any water feature jurisdiction. The community is dominated by the native shrubs California sagebrush *(Artemisia californica)* and California buckwheat (*Eriogonum fasciculatum*).Among others, also present was black sage (*Salvia mellifera*), laurel sumac (*Malosma laurina*), deerweed (*Acmispon glaber*), toyon (*Heteromeles arbutifolia*), mulefat (*Baccharis salicifolia*), birchleaf mountain mahagony (*Cercocarpus betuloides*), chaparral yucca (*Hesperoyucca whipplei*), hollyleaf redberry (Rhamnus *ilicifolia*), ripgut brome (Bromus diandrus), and tree tobacco (*Nicotiana glauca*).



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 5. Plant Communities and Land Cover

0 90 180 Feet

Scale: 1:1,800

N

- Development Site
- Survey Area (200-Foot Buffer)
- Proposed Development Footprint

Plant Communities and Land Cover

- California Sagebrush-California Buckwheat Scrub
- Coast Live Oak Woodland
- Developed / Ornamental Landscaped

SOUTH ENVIRONMENTAL

- **Coast live oak woodland (*Quercus agrifolia Woodland* Alliance)** (CDFG & CNPS 2006) is found on 4.56-acres of the study area, of which 0.29-acre occurs on the development site and 0.13-acre of that is within the project footprint. These areas are within the western, eastern, and northern parts of the study area and include some areas that are jurisdictional for waters features that are present on the development site. The community is dominated by mature coast live oak (*Quercus agrifolia*) and is co-dominated by red river gum (*Eucalyptus camaldulensis*). Several of the coast live oak are classified as a heritage tree in the Oak Tree Survey (South Environmental 2020). Other tree species present were Canary Island pine (*Pinus canariensis*). The shrub understory is made up of a few widely scattered native plants. Among others, the shrub canopy includes laurel sumac and California buckwheat. The ground cover is dense with non-native forbs and grasses. Among others, the ground cover includes ripgut brome and black mustard (*Brassica nigra*).
- **Developed – Ornamental Landscaped** cover type is found on 3.22-acres of the study area, of which 1.69-acres occurs on the development site and 1.61-acres of that is within the project footprint. These areas are within the northern and central parts of the study area, as well as Lopez Canyon Road within the southeastern part of the study area. The cover type is made up of existing development, including: the existing Sequoia building with its driveways, parking lots, and surrounding ornamental landscaped community. The community comprises lawn and a diversity of non-native ornamental plants. At the canopy level, important ornamental trees observed were sweetgum (*Liquidambar styraciflua*), strawberry tree (*Arbutus unedo*), deodar cedar (*Cedrus deodara*), Brazilian peppertree (*Schinus terebinthifolia*), and crape myrtle (*Lagerstroemia indica*). Among others, plants in the shrub layer included Indian hawthorn (*Rhaphiolepis indica*), rosemary (*Salvia rosemarinus*), candelabra aloe (*Aloe arborescens*), Japanese spindle tree (*Euonymus japonicus*), and American agave (*Agave americana*). Among others, the ground level included English ivy (*Hedra helix*) and natal lily (*Clivia miniate*).

Jurisdictional Features

The development site is located within the Los Angeles watershed (HUC8) and within the Lower Big Tujunga Creek sub-watershed (HUC12). As shown in Figure 6, unnamed ephemeral channel #1 is present in the northwest part of the study area and flows from northeast to southwest across the study area at the west edge of the development site. Unnamed ephemeral channel #1 enters the study area with natural dirt channel and becomes culverted under the bridge at the north edge of the project and is lined with concrete and masonry throughout the entire area south of the bridge. Also present in the survey are two much smaller culverted water features that are designed to control irrigation and stormwater flow for the development site and surrounding

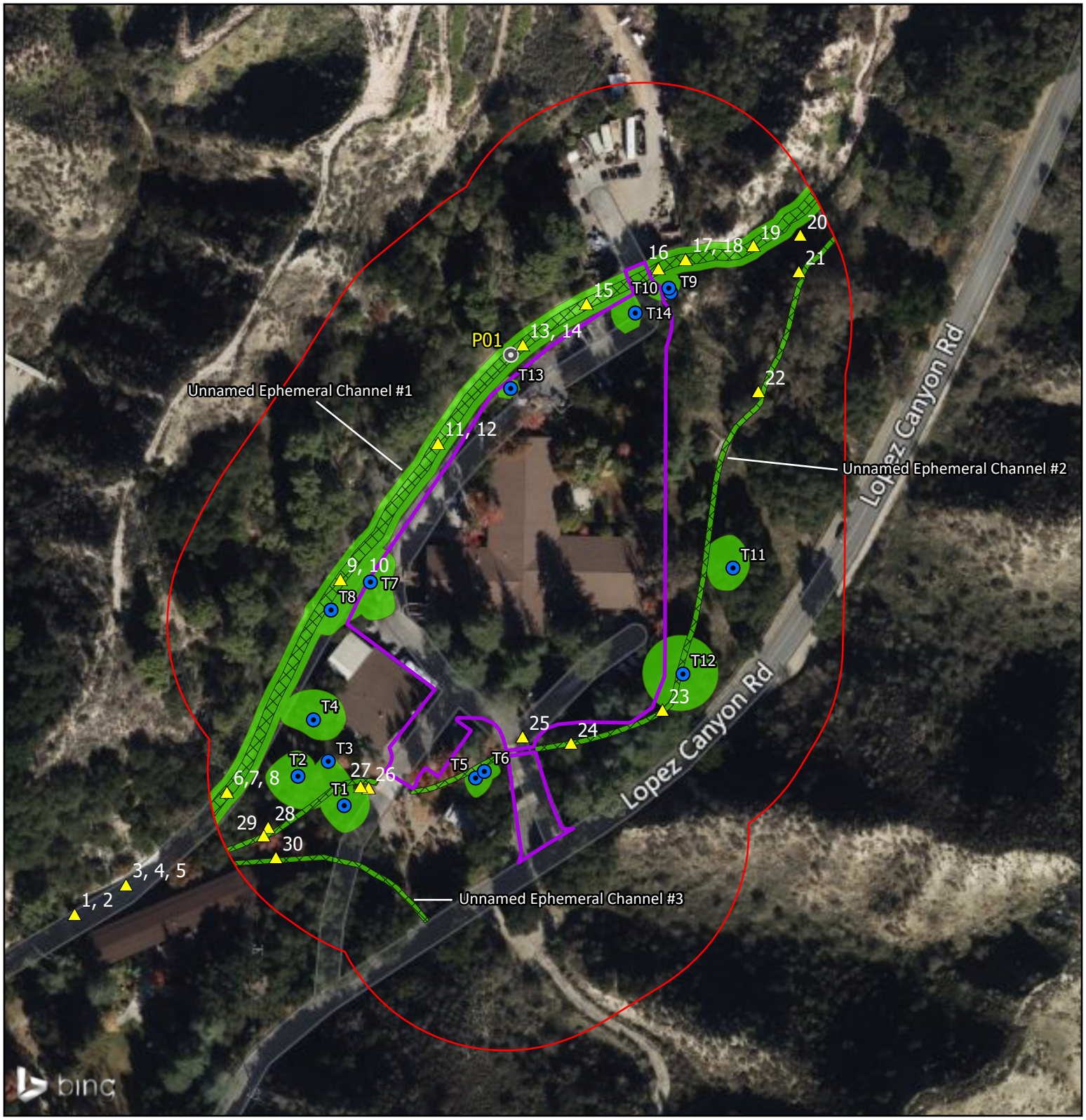
areas. Based on the debris, dry conditions, and lack of signs of hydrology it is likely the majority of the rock-lined channels no longer flow and have no upstream connection that may have previously occurred when initially constructed. These channels have some minor irrigation water and stormwater but have no significant source of water.

The OHWM for all three unnamed ephemeral channels in the study area is generally defined by a topographic flat plane within the base of its concrete channel. The top of bank (TOB) for all three unnamed ephemeral channels in the study area is generally defined by the contact point of the sloped part of the culvert against the ground level topographic plane. Some of the development site TOB boundaries are directly adjacent to other paved areas. Some of the development site TOB boundaries are directly adjacent to natural earth grounds. All three features lack floodplains and are entirely contained within the concrete channel. Riparian areas under CDFW jurisdiction extend to coast live oak (*Quercus agrifolia*) that overhang the channels and occur at the immediate edge of these features.

The NWI classifies unnamed ephemeral channel #1 in the northwestern part of the study area with a R4SBA identification code. This identifies unnamed ephemeral channel #1 as a riverine system with an intermittent streambed that is temporarily flooded. Unnamed ephemeral channel #2 and Unnamed ephemeral channel #3 are not features shown in the NWI and appear to be man-made channels. Table 2 below summarizes the acres of estimated jurisdictional features within the study area.

Table 2. Summary of Jurisdictional Features in the Study area

Feature	Non-Wetland Waters of the U.S & State (USACE/RWQCB) – acres/linear feet	Streambed and Riparian Habitat (CDFW) – acres/linear feet
Unnamed ephemeral channel #1	0.18/933	0.58/933
Unnamed ephemeral channel #2	0.10/ 1,029	0.32/1,029
Unnamed ephemeral channel #3	0.02/218	0.02/218
Total	0.30/2,180	0.92/2,180



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 6. Jurisdictional Delineation

- Development Site
- Survey Area (200-Foot buffer)
- Photo Point
- OHWM Form
- Jurisdictional Trees
- USACE/RWQCB Non-Wetland Waters of the US/State
- CDFW Jurisdiction

0 90 180 Feet

Scale: 1:1,800

N

SOUTH ENVIRONMENTAL

The results of this jurisdictional delineation are based on the best professional judgement of the qualified delineator, using the most up-to-date regulations, written policy, and guidance from regulatory agencies. However, all conclusions regarding potential jurisdiction in this report should be considered preliminary and at the final discretion of the regulatory agencies.

Unnamed Ephemeral Channel #1

A total of 933-linear feet (0.58-acres) of unnamed ephemeral channel #1 is on the development site, including 1.) 0.18-acres that are jurisdictional within the OHWM and 2.) 0.40-acres of jurisdictional areas between the OHWM and top-of-bank, plus associated riparian habitat. Unnamed ephemeral channel #1 originates off-study area to the northeast channel and traverses southwest out of the study area. Unnamed ephemeral channel #1 enters Hansen Dam 2.80 miles southeast of the study area and connects to Tujunga Wash at Hansen Dam Park. Tujunga Wash is a tributary the Los Angeles River, and the Los Angeles River is considered a Traditional Navigable Water (TNW) due to its connection with the Pacific Ocean. As a result, unnamed ephemeral channel #1 is considered a water of the U.S. and State due to its downstream connection to the Los Angeles River. According to the NWI, this feature is unnamed at the project site.

OHWM Datasheet P01 was completed within the concrete culvert part of unnamed ephemeral channel #1 in the northern part of the study area. The location is within the OHWM bounds for unnamed ephemeral channel #1. The width of the OHWM for P01 was approximately 12 feet and the TOB was approximately 8 feet beyond the OHWM bounds to both the northwest and southeast. The presence of trees that have canopy within TOB extents to both the north and south of P01 has created riparian areas that extend beyond the TOB for unnamed ephemeral channel #1. The OHWM around P01 for unnamed ephemeral channel #1 was dry at the time of the survey.

A Wetland Data Determination Form was not taken for the natural boundaries portion of unnamed ephemeral channel #1 due to a lack of hydrophytic vegetation. The dominant plants there were California sagebrush (UPL), California buckwheat (UPL), coast live oak (UPL), and ripgut brome (UPL). The dominance test failed at 0%. A Wetland Data Determination Form was not taken for the culverted concrete portion of unnamed ephemeral channel #1 due to a lack of soils in the concrete channel. The entire span of unnamed ephemeral channel #1 in the study area are non-wetland waters of the U.S. and State.

Unnamed Ephemeral Channel #2

A total of 1,029-linear feet (0.32-acres) of an unnamed ephemeral channel #2 is on the development site including 0.10-acres that are jurisdictional within the OHWM and 0.22-acres that

are jurisdictional between the OHWM and TOB and riparian habitat. Unnamed ephemeral channel #2 originates near a soil berm east of unnamed ephemeral channel #1. Unnamed ephemeral channel #2 traverses south and becomes culverted with concrete along the east side of the existing Sequoia building (Photo 21). Unnamed ephemeral channel #2 traverses south and east within the study area and is not classified by the NWI. It is *not* considered a Traditional Navigable Water (TNW) per Section 404 of the CWA; however, its confluence with unnamed ephemeral channel #1 changes its jurisdiction to waters of the U.S. and State (Photo 3).

Unnamed ephemeral channel #2 is mostly a culverted concrete channel with side bank walls that are reinforced by limestone masonry. The masonry construct is mostly perpendicular to the topographic plane of the channel; therefore, its OHWM is the same as its TOB – they are the same. The active floodplain for unnamed ephemeral channel #2 is limited to each TOB, respectively; the culvert was designed to maintain water flows to within its construct.

A Wetland Data Determination Form was not taken for the natural boundaries portion of unnamed ephemeral channel #2 due to a lack of hydrophytic vegetation and the concrete soil. The dominant plants there were *Quercus agrifolia* (UPL), red river gum (FAC), and ripgut brome (UPL). The dominance test failed at 33%. A Wetland Data Determination Form was not taken for the culverted concrete portion of unnamed ephemeral channel #2 due to a lack of hydric soils. The entire span of unnamed ephemeral channel #2 in the study area are non-wetland waters of the U.S. and State.

Unnamed Ephemeral Channel #3

A total of 218-linear feet (0.02-acres) of an unnamed ephemeral channel #3 is on the development site including 0.02-acres that are jurisdictional within the OHWM and 0.00-acres that are jurisdictional between the OHWM and TOB and riparian habitat. Unnamed ephemeral channel #3 originates in the study area as a culverted channel underneath Lopez Canyon Road. Unnamed ephemeral channel #3 traverses northwest and west within the study area and is not classified by the NWI. It is not considered a Traditional Navigable Water (TNW) per Section 404 of the CWA; however, its confluence with unnamed ephemeral channel #1 changes its jurisdiction to waters of the U.S. and State (Photo 3).

Unnamed ephemeral channel #3 is a culverted concrete channel with side bank walls that are reinforced by limestone masonry. The masonry construct is mostly perpendicular to the topographic plane of the channel; therefore, its OHWM is the same as its TOB – they are the same. The active floodplain for unnamed ephemeral channel #3 is limited to each TOB, respectively; the culvert was designed to maintain water flows to within its construct.

A Wetland Data Determination Form was not taken for the unnamed ephemeral channel #3 due to a lack of hydric soils. The entire span of unnamed ephemeral channel #3 in the study area are non-wetland waters of the U.S. and State.

Surveyed Trees for Jurisdictional Boundaries

Several coast live oak trees (T1-T14 in Figure 6) were observed during the site visits to help define jurisdictional boundaries for the development site. These trees are associated with channel #1 and are within CDFW jurisdiction because they overhang the streambed. The Oak Tree Survey Report for the project describes these trees and the condition and Figure 6 shows the location of these jurisdictional trees.

Impacts Analysis

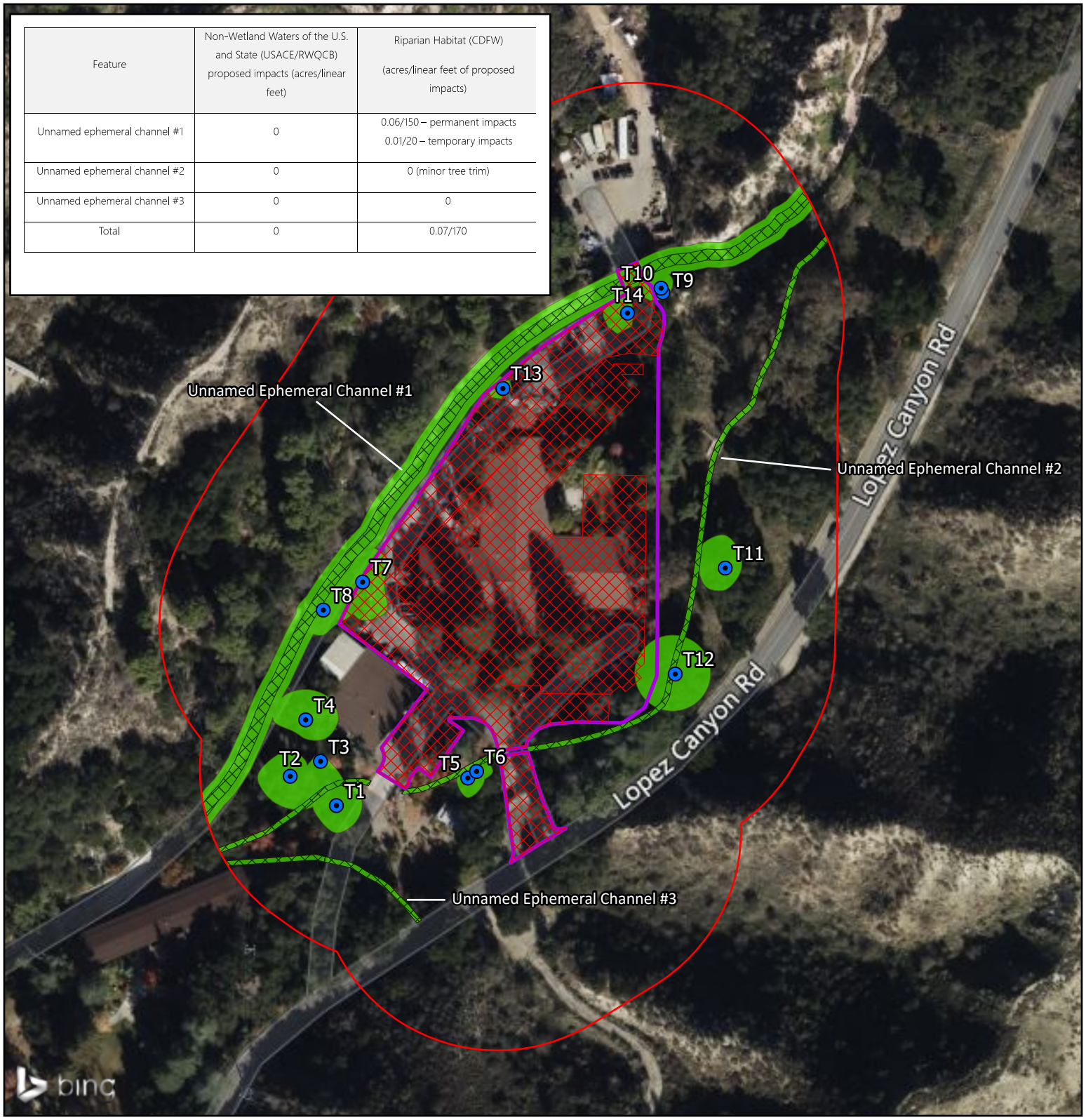
Non-Wetland Waters of the United States (USACE)

As depicted in Figure 7 and summarized in Table 4, there are no anticipated impacts for the development site that include the waters of the U.S. within the OHWM bounds for unnamed ephemeral channel #1, unnamed ephemeral channel #2, or unnamed ephemeral channel #3. The project would be located outside the flow areas and the OHWM. The bridge area over the channel will not impact the flow areas and no dredge or fill, or discharge will occur within waters of the US. The work adjacent to or above the waters will be done during dry times of the year when no water is present, and no water diversion will be necessary. All work materials and equipment will be located outside of the OHWM. The best management practices in the recommendations below will ensure that indirect impacts from erosion or runoff during project construction do not occur.

Table 4. Summary of Temporary Impacts to Jurisdictional Features

Feature	Non-Wetland Waters of the U.S. and State (USACE/RWQCB) proposed impacts (acres/linear feet)	Riparian Habitat (CDFW) (acres/linear feet of proposed impacts)
Unnamed ephemeral channel #1	0	0.06/150 – permanent impacts 0.01/20 – temporary impacts
Unnamed ephemeral channel #2	0	0 (minor tree trim)
Unnamed ephemeral channel #3	0	0
Total	0	0.07/170

Feature	Non-Wetland Waters of the U.S. and State (USACE/RWQCB) proposed impacts (acres/linear feet)	Riparian Habitat (CDFW) (acres/linear feet of proposed impacts)
Unnamed ephemeral channel #1	0	0.06/150 – permanent impacts 0.01/20 – temporary impacts
Unnamed ephemeral channel #2	0	0 (minor tree trim)
Unnamed ephemeral channel #3	0	0
Total	0	0.07/170



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 7. Impacts to Jurisdictional Resources

- Development Site
- Survey Area (200-Foot buffer)
- Proposed Development Footprint
- Jurisdictional Trees
- USACE/RWQCB Non-Wetland Waters of the US/State
- CDFW Jurisdiction

0 90 180 Feet

Scale: 1:1,800

N

SOUTH ENVIRONMENTAL

Wetland Waters of the Unites States (USACE)

The development site does not contain any wetland waters of the U.S.

Non-Wetland Waters of the State (RWQCB)

The bounds for non-wetland waters of the State under the jurisdiction of RWQCB are identical to the bounds for the non-wetland waters of the U.S. under the jurisdiction of USACE. As depicted in Figure 7 and summarized in Table 4, there are no anticipated impacts for the development site that include the waters of the State within the OHWM bounds for unnamed ephemeral channel #1, unnamed ephemeral channel #2, or unnamed ephemeral channel #3. There will be no direct impact to areas within the OHWM and no dredge or fill, or discharge will occur. The work adjacent to or above the waters will be done during dry times of the year when no water is present, and no water diversion will be necessary. All work materials and equipment will be located outside of the OHWM. The best management practices in the recommendations below will ensure that indirect impacts from erosion or runoff during project construction do not occur.

Wetland Waters of the State (RWQCB)

The development site does not contain any wetland waters of the state.

Streambed, Vegetated Streambed, and Riparian Habitat (CDFW)

As depicted in Figure 7 and summarized in Table 4, the total proposed permanent impacts for the development site include 0.06-acre within CDFW riparian habitat jurisdiction for unnamed ephemeral channel #1 where road resurfacing will be done within the root zone and protected area of jurisdictional oaks. These trees will either be removed entirely or the project will be conducted within greater than 30% of the trees critical root zone and will likely result in the loss of the tree. Additional temporary impacts would occur to 0.01-acre of channel #1 where the new paved road bridge will be constructed over the channel. There will be minor trimming to less than 5% of the canopy of an oak tree associated with drainage channel #2, however, this impact is negligible and will not result in significant damage to the tree or riparian areas.

Recommendations and Conclusion

The proposed impacts to the unnamed ephemeral channel #1 will include 0.06-acre of permanent impacts to oak trees within the riparian zone associated with the channel and 0.01-acre of temporary impacts during demolition and repaving of the bridge over the channel in the northern

section of the development site. The project will avoid dredge or fill within the OHWM and will not result in direct impacts to waters of the US (USACE features) or waters of the state (RWQCB features). Indirect impacts will be avoided by the recommendations below that will ensure no discharge occurs within the OHWM during the project. However, these activities will include altering riparian vegetation permanently, which is an impact to CDFW jurisdictional areas, and the temporary impacts to the bridge over the channel will require temporary impacts to the streambed edges and surrounding vegetation. A CDFW Notification of Lake or Streambed Alteration will be required for these impacts and an application should be submitted via the online portal.

Measures included in the permits should include best management practices to avoid additional indirect impacts to the streambed or water quality. If these measures are implemented then no permits are likely necessary from the USACE and RWQCB, however, concurrence letters from both agencies is recommended to verify that they agree no impacts to there features would result from the project. These mitigation measures should include at a minimum:

- Project activities within 50-ft of drainage features shall be planned when no surface water is present. No work should occur after rain events or when there is forecast of 50% chance of rain.
- The contractor shall clearly delineate the plant removal limits and prohibit any trimming or disturbance outside these boundaries.
- Trimmed materials shall be removed from the development site and disposed of off-site in a responsible manner.
- Project-related vehicles and equipment shall not enter the streambed and when possible, shall be staged at least 50-feet outside of jurisdictional areas on paved surfaces.
- During construction, heavy equipment and vehicles shall be operated in accordance with standard Best Management Practices (BMPs). All equipment used in the workspace shall be properly maintained such that no leaks of oil, fuel, or residues will take place. Provisions shall be in place to remediate any accidental spills.
- Materials shall be stored at least 50-ft from drainage features, as feasible, or equipment will utilize secondary containment.
- Construction parking and staging will occur in previously disturbed and developed areas that are greater than 50-feet from jurisdictional areas.

Compensatory Mitigation

The project impacts are limited to the removal or permanent damage to 6[1] coast live oaks within CDFW riparian areas, and the temporary impacts to a bridge over the channel that will be returned to the existing conditions following the project. The project oak tree report requires that oak trees be planted at a 2:1 for each removal. We recommend replacement plantings of the coast live oaks planned per projects Oak Tree Report and permit be planted along the channels within riparian areas on the Hope Gardens property. This replacement of riparian habitat would be considered suitable compensation for the impacts to riparian trees. Alternative offsite mitigation considered suitable would be through purchase of mitigation credits for impacts to coast live oak riparian woodlands at a 2:1.

If you have any questions regarding the information in this report, please contact Matthew South by mobile phone: 303.818-3632 or by email: msouth@southenvironmental.com.

Sincerely,



Matthew R. South

List of Attachments

1. **Attachment A**. Photograph Exhibit
2. **Attachment B**. Arid West Ephemeral and Intermittent Streams OHWM Datasheet
3. **Attachment C**. Site Plan

[1] It should be noted that the project overall will remove 4 oaks and encroach 12 oaks, and the above reference to 6 oaks includes only those trees within the riparian zone that is CDFW jurisdiction per the jurisdictional delineation report.

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Attachment A

Photograph Exhibit



Photo 1. View of unnamed ephemeral channel #1 from its OHWM bounds, facing northeast.



Photo 2. View of unnamed ephemeral channel #1 from its OHWM bounds, facing southwest.



Photo 3. View from unnamed ephemeral channel #1 of its confluences with unnamed ephemeral channel #2 (left) and unnamed ephemeral channel #3 (right), facing northeast.



Photo 4. View of unnamed ephemeral channel #1 from its OHWM bounds, facing northeast.



Photo 5. View of unnamed ephemeral channel #1 from its OHWM bounds, facing southwest.



Photo 6. View of the TOB for unnamed ephemeral channel #1 from its OHWM bounds, facing west.



Photo 7. View of unnamed ephemeral channel #1 from its OHWM bounds, facing southwest.



Photo 8. View of unnamed ephemeral channel #1 from its OHWM bounds, facing northeast.



Photo 9. View of unnamed ephemeral channel #1 from its OHWM bounds, facing northeast.



Photo 10. View of unnamed ephemeral channel #1 from its OHWM bounds, facing southwest.



Photo 11. View of unnamed ephemeral channel #1 from its OHWM bounds, facing northeast.

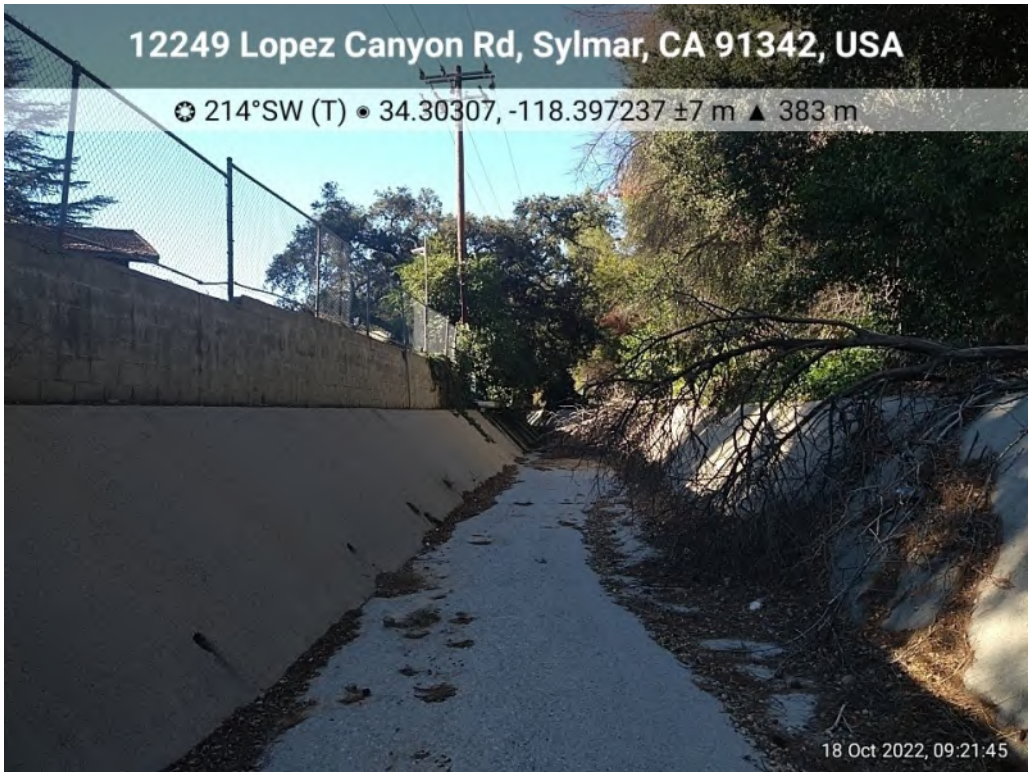


Photo 12. View of unnamed ephemeral channel #1 from its OHWM bounds, facing southwest.

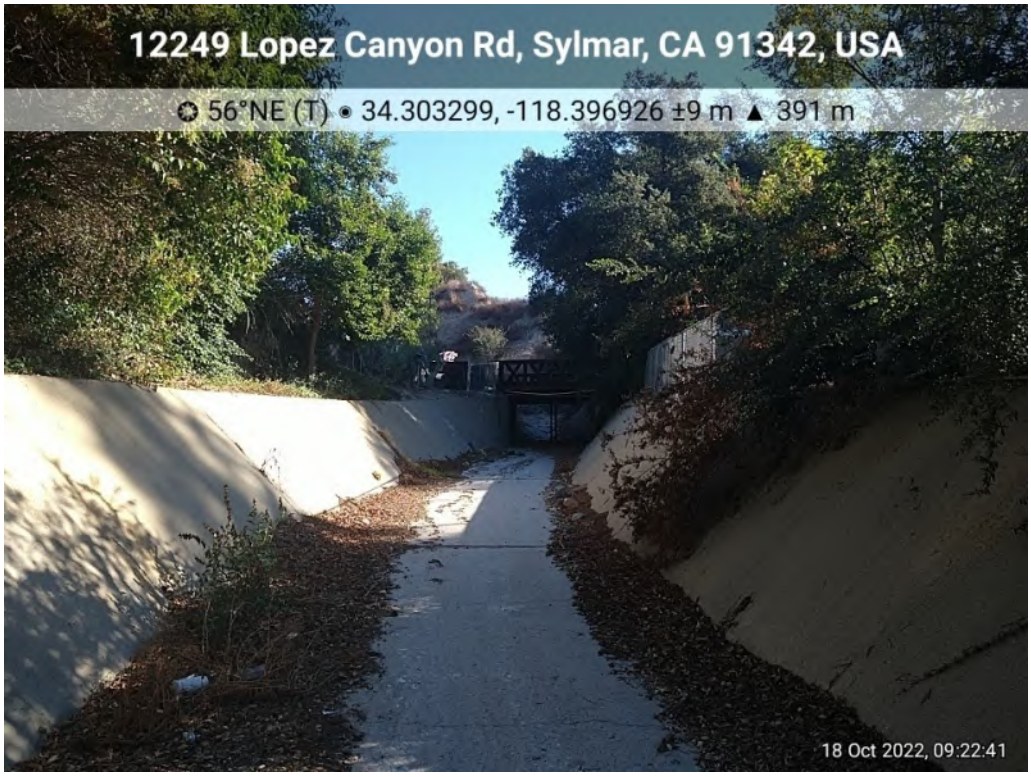


Photo 13. View of unnamed ephemeral channel #1 from its OHWM bounds, facing northeast.

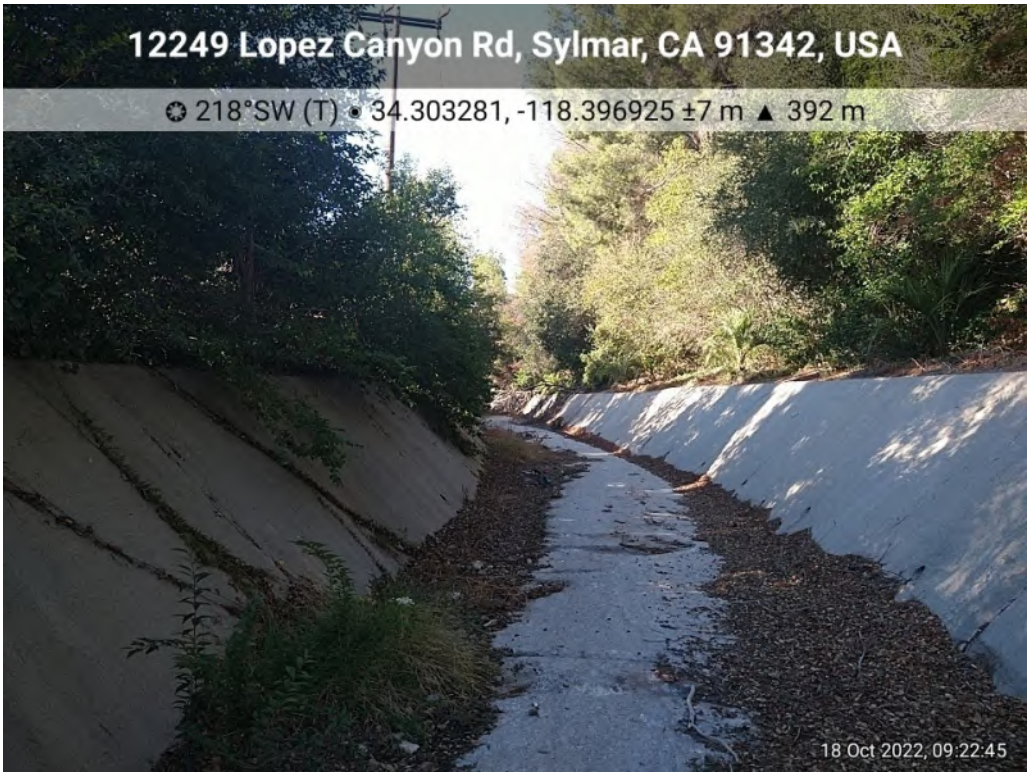


Photo 14. View of unnamed ephemeral channel #1 from its OHWM bounds, facing southwest.

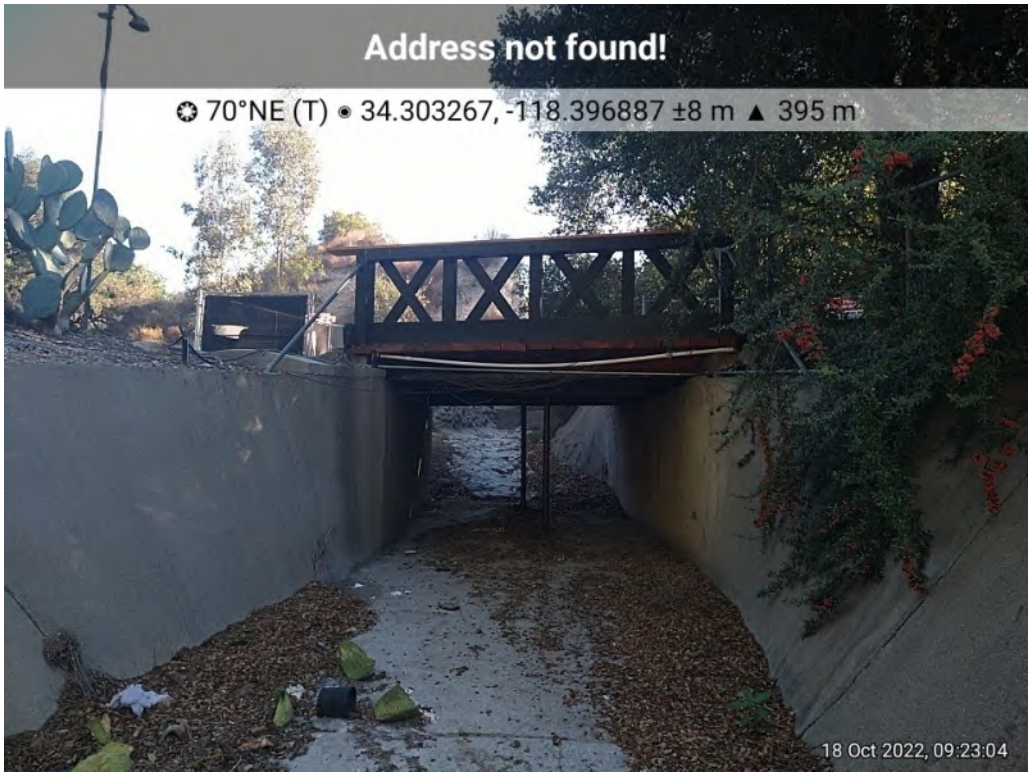


Photo 15. View of unnamed ephemeral channel #1 from its OHWM bounds, facing northeast.

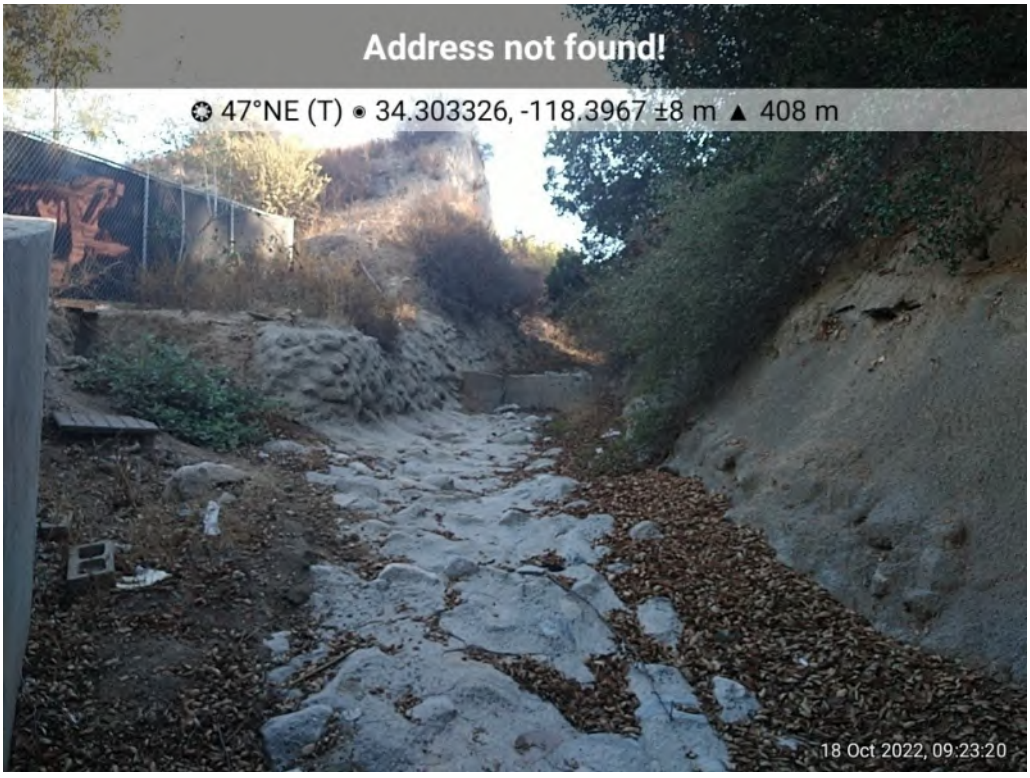


Photo 16. View of unnamed ephemeral channel #1 from its OHWM bounds, facing northeast.



Photo 17. View of unnamed ephemeral channel #1 from its OHWM bounds, facing northeast.



Photo 18. View of unnamed ephemeral channel #1 from its OHWM bounds, facing southwest.



Photo 19. View of unnamed ephemeral channel #1 from its OHWM bounds, facing northeast.



Photo 20. View of unnamed ephemeral channel #1 from just beyond its southeast TOB, facing northeast.



Photo 21. View of unnamed ephemeral channel #2 from its west TOB bounds where it becomes culverted with masonry and concrete, facing south.



Photo 22. View of unnamed ephemeral channel #2 from its west TOB bounds, facing south.



Photo 23. View of unnamed ephemeral channel #2 from its OHWM bounds, facing southwest.



Photo 24. View of unnamed ephemeral channel #2 from where it traverses under a property driveway on the south side of the building, facing west.

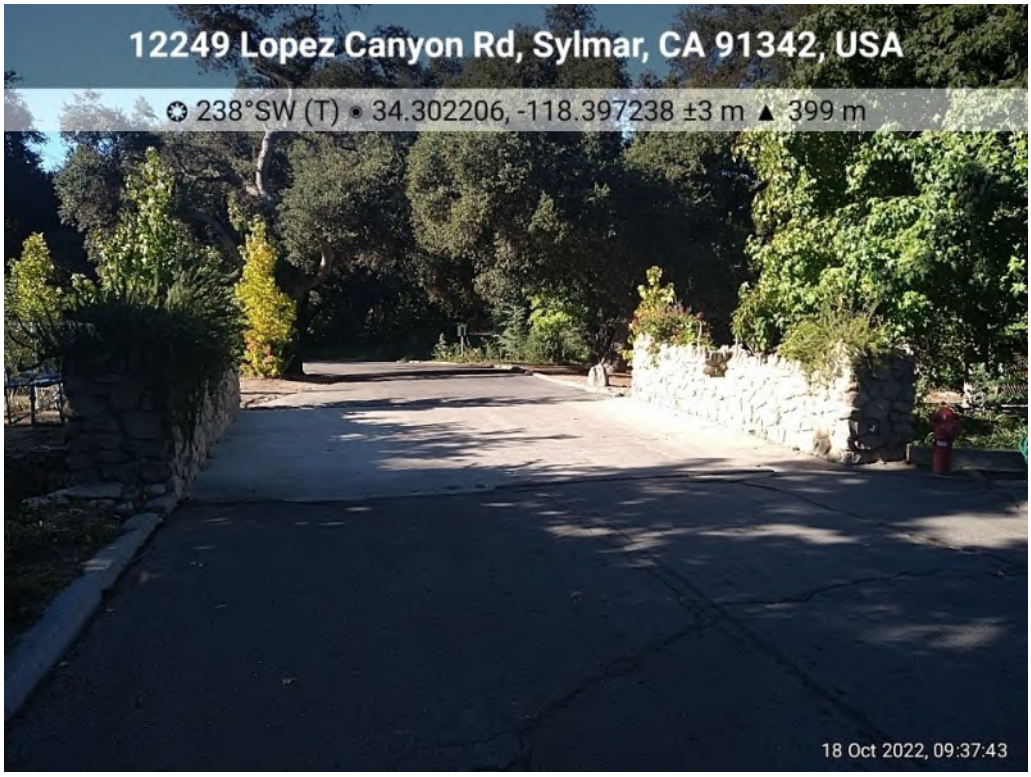


Photo 25. View of the property driveway to be re-paved in the proposed development, facing south. Unnamed ephemeral channel traverses under the bridge from left to right.

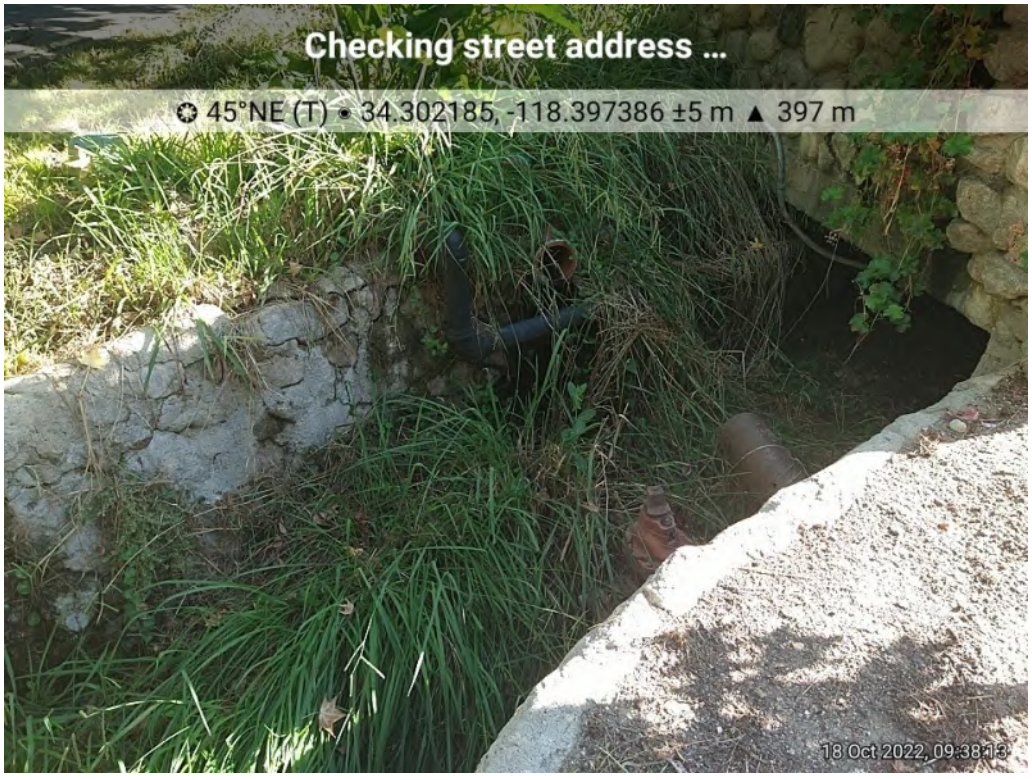


Photo 26. View of unnamed ephemeral channel #2 where it traverses under a property driveway just to the southwest of the project site, facing northeast.



Photo 27. View of unnamed ephemeral channel #2 from just beyond its southern TOB bounds, facing southwest.



Photo 28. View of unnamed ephemeral channel #2 from just beyond its northwest TOB, facing northeast.

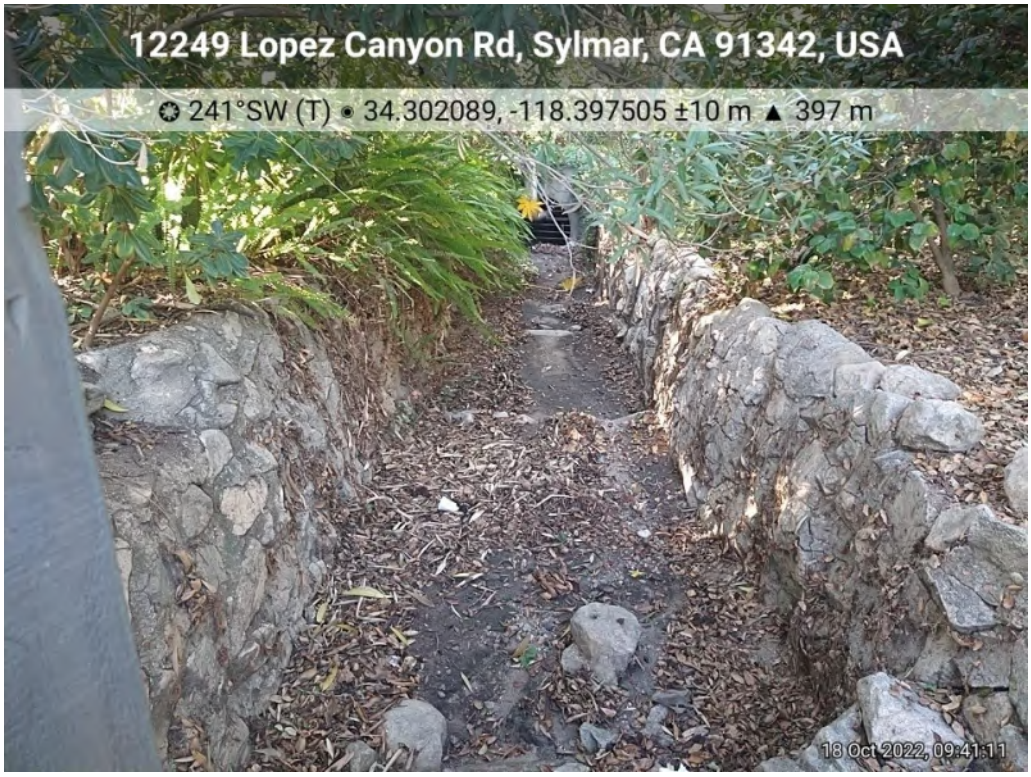


Photo 29. View of unnamed ephemeral channel #2 from its OHWM bounds as it leaves the project site, facing southwest.



Photo 30. View of unnamed ephemeral channel #3 from it northern TOB boundary, facing east.

Attachment B

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Hope Garden
Project Number:
Stream: Tujunga
Investigator(s): Matt South

Date: 10/18/22 **Time:** 9:30
Town: Los Angeles **State:** CA
Photo begin file#: **Photo end file#:**

Y ☑ / N ☐ Do normal circumstances exist on the site?

Y ☑ / N ☐ Is the site significantly disturbed?

Location Details:
Union Rescue Mission - Hope Garden

Projection: **Datum:**
Coordinates:

Potential anthropogenic influences on the channel system:
Concrete channel on site, Entirely paved/maintained. Hope Garden Building
Taken on site storm water and earth.

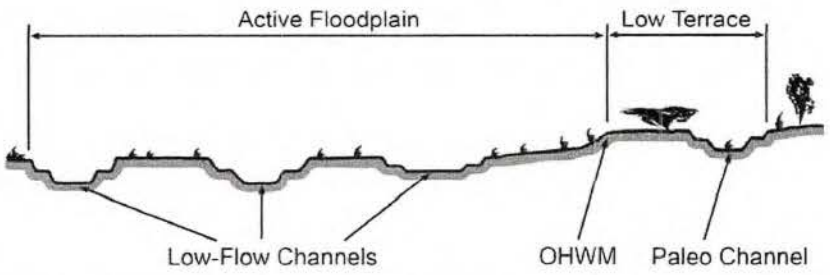
Brief site description:
The Tujunga Wash is the concrete channel @ edge of Hope Garden driveway and parking area

Checklist of resources (if available):

- ☒ Aerial photography
  Dates:
- ☒ Topographic maps
- ☐ Geologic maps
- ☒ Vegetation maps
- ☒ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

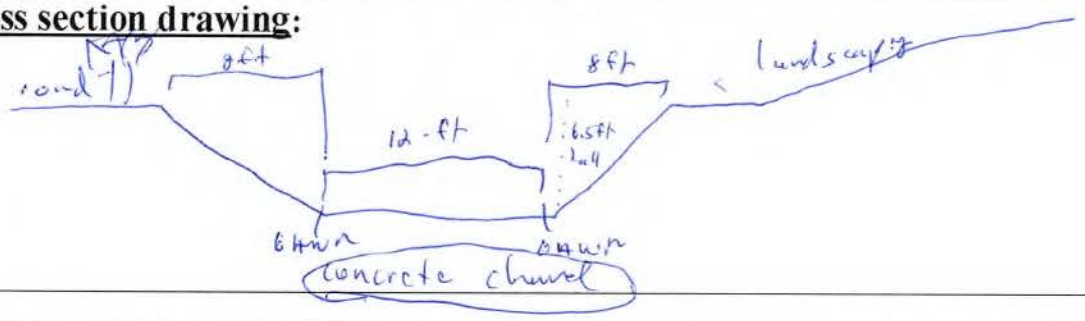


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☒ Mapping on aerial photograph
   - ☒ Digitized on computer
   - ☒ GPS
   - ☐ Other:

Project ID: **Cross section ID:** **Date:** **Time:**

Cross section drawing:



OHWM

GPS point: _____

Indicators:

- ☐ Change in average sediment texture
- ☐ Change in vegetation species
- ☐ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

The channel is concrete and OHWM is @ base of concrete channel

Floodplain unit: ☐ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: N/A

Characteristics of the floodplain unit:

Average sediment texture: _____

Total veg cover: _____% Tree: _____% Shrub: _____% Herb: _____%

Community successional stage:

- ☐ NA
- ☐ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☐ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

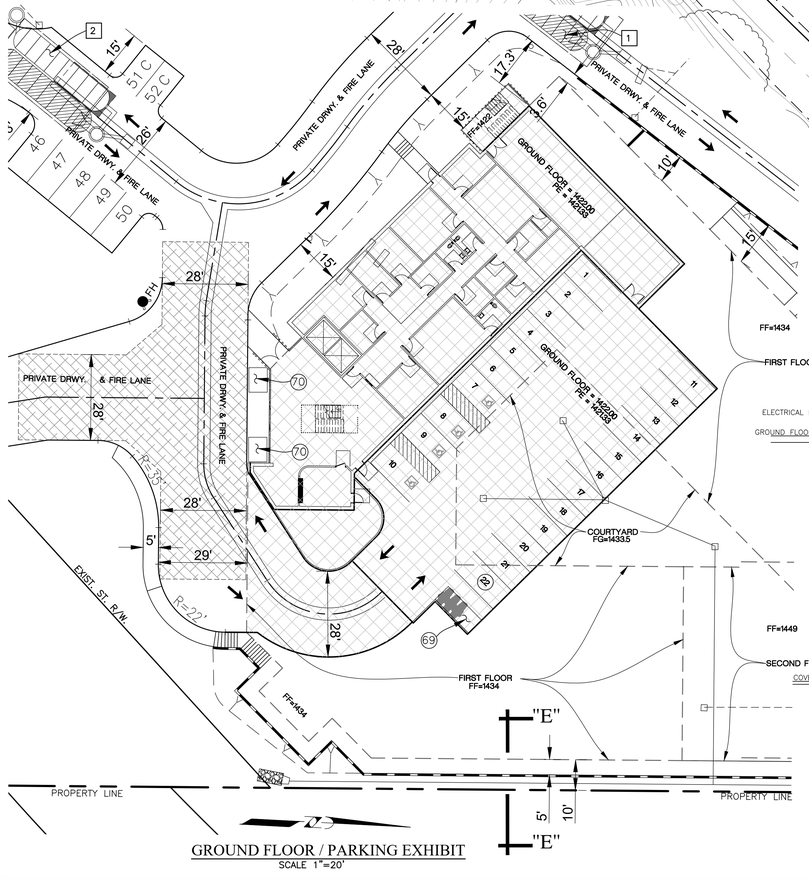
Comments:

Attachment C

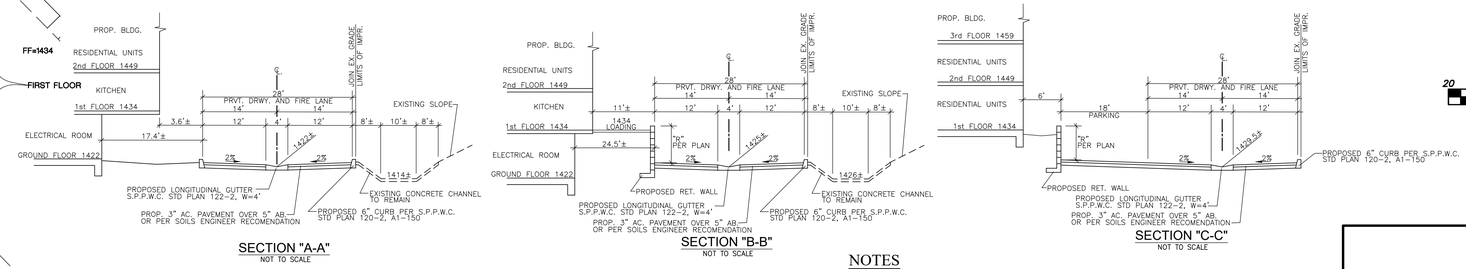
Site Plan

PROPOSED SITE PLAN / UNDERGROUND PARKING / L.I.D.





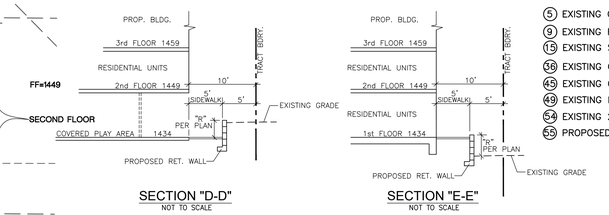
GROUND FLOOR / PARKING EXHIBIT
SCALE 1"=20'



SECTION "A-A"
NOT TO SCALE

SECTION "B-B"
NOT TO SCALE

SECTION "C-C"
NOT TO SCALE



SECTION "D-D"
NOT TO SCALE

SECTION "E-E"
NOT TO SCALE

GRAPHIC SCALE (IN FEET)
1 inch = 20 ft.

NOTES

(5) EXISTING CHAIN LINK FENCE
(9) EXISTING FIRE HYDRANT
(15) EXISTING SIGNAGE
(36) EXISTING CATCH BASIN
(45) EXISTING CONTAINER STORAGE AREA
(49) EXISTING FIRE HYDRANT TO BE RELOCATED
(54) EXISTING 24' WIDE GATE TO BE WIDEN TO 28'
(55) PROPOSED RETAINING WALL
(56) PROPOSED 28' WIDE PRIVATE DRIVEWAY AND FIRE LANE SEE DETAIL ON SHEET 1
(57) PROPOSED 26' WIDE PRIVATE DRIVEWAY AND FIRE LANE SEE DETAIL ON SHEET 1
(58) PROPOSED FIRE APPARATUS TURNAROUND
(59) PROPOSED DELIVERY RAMP
(60) PROPOSED CATCH BASIN
(61) PROPOSED STORM DRAIN LINE
(62) PROPOSED STORM DRAIN OUTLET/RIP-RAP
(63) WIDEN EXISTING CULVERT AS REQUIRED
(64) PROPOSED 28' WIDE DRIVEWAY WIDENING
(65) EXISTING DRAINAGE CULVERT TO REMAIN
(66) PROPOSED "NO PARKING FIRE LANE" SIGN
(67) PROPOSED RELOCATED FIRE HYDRANT
(68) PROPOSED SIDEWALK
(69) INSTALL 6-SHORT TERM BICYCLE PARKING SPACES (RACKS)
(70) INSTALL 11-LONG TERM ENCLOSED BICYCLE SPACES (BIKE LOCKER STORAGE) INTENDED FOR RESIDENTS ONLY

L.I.D. NOTES:

BMPs 1 & 2 BELOW COMPRISE OF STORMTECH MC-4500 CHAMBERS AND END CAPS IN CONFIGURATIONS AS NOTED :

[1] TWO ROWS OF 6 CHAMBERS EA. (12 TOTAL) W/ 2 END CAPS EA. ROW, WITH 12" STONE BASE.
[2] TWO ROWS OF 8 CHAMBERS EA. (16 TOTAL) W/ 2 END CAPS EA. ROW, WITH 12" STONE BASE.

OWNER/DEVELOPER:
UNION RESCUE MISSION
545 S. SAN PEDRO ST. LOS ANGELES, CA 90013
Ph: (213) 347-6300

LEGAL DESCRIPTION:
A.P.N. 2846-001-017, 2846-001-018
A.P.N. 2846-001-019, 2846-001-020

CUP EXHIBIT "A"
HOPE GARDEN SEQUOIA BUILDING
UNION RESCUE MISSION
12249 LOPEZ CANYON ROAD

IN THE UNINCORPORATED TERRITORY OF COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

DRAWN BY	DATE		VERSION 2
LDC	12/07/2020		
CHECKED BY			
S.H.			
DESIGNED BY			
LDC			
	DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER ROBERT R. SIMS No. 21649 EXP. 9-30-23 CIVIL STATE OF CALIFORNIA

PREPARED BY:
LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
800 Royal Oaks Dr., Suite 140, Monrovia, California 91016
Ph.: (626) 578-7000, Fax: (626) 578-7373
http://www.ldcla.com

Robert R Sims, R.C.E. No. 21649 — 09/26/2022 DATE

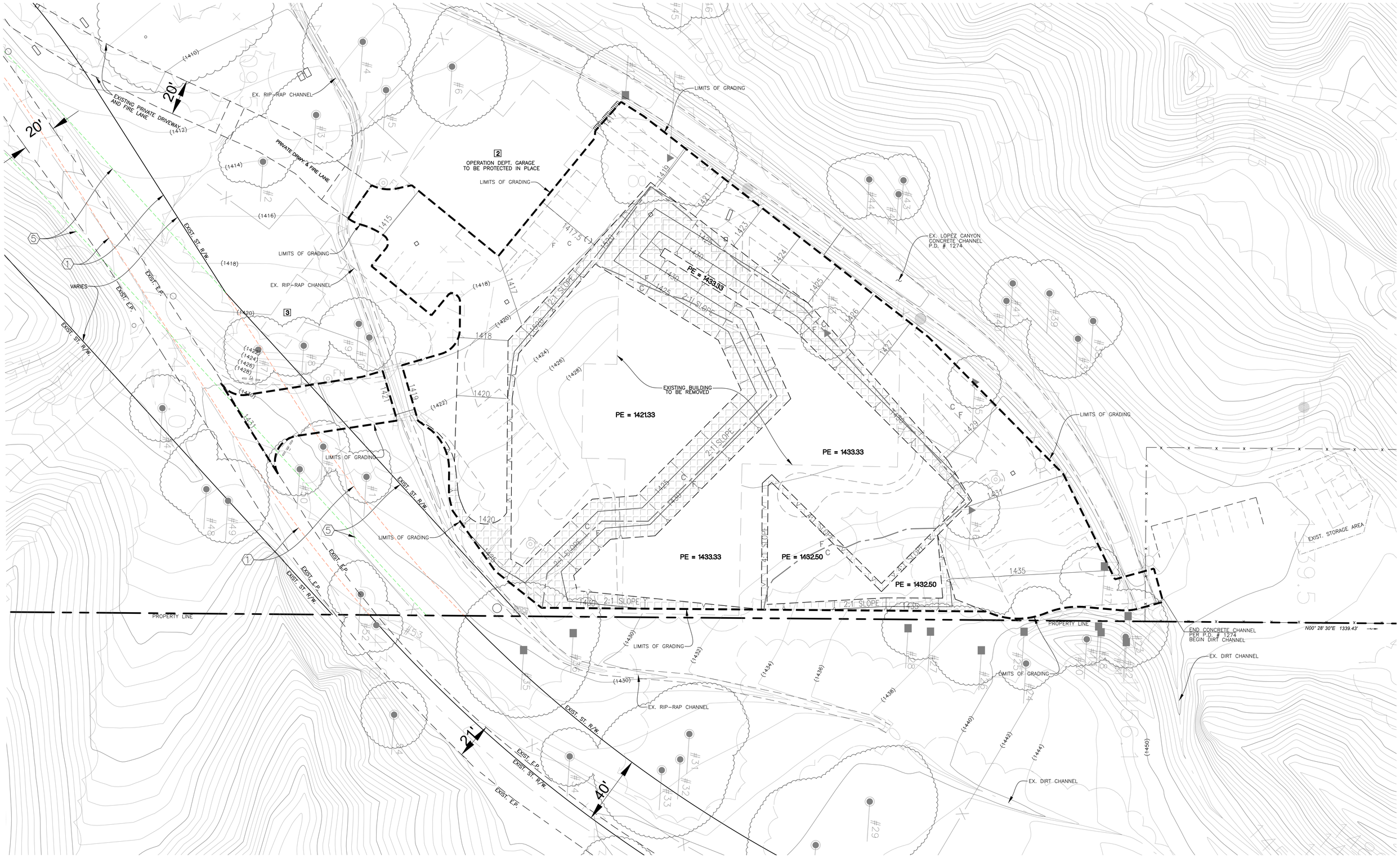
LDC

Project. No. 17019-005

SHEET 3 OF 6

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PROPOSED SITE PLAN / ROUGH GRADING



20 0 10 20 40 80

GRAPHIC SCALE (IN FEET)
1 inch = 20 ft.

OWNER/DEVELOPER:

UNION RESCUE MISSION
545 S. SAN PEDRO ST. LOS ANGELES, CA 90013
Ph: (213) 347-6300

LEGAL DESCRIPTION:

A.P.N. 2846-001-017, 2846-001-018
A.P.N. 2846-001-019, 2846-001-020

CUP EXHIBIT "A"
HOPE GARDEN SEQUOIA BUILDING
UNION RESCUE MISSION
12249 LOPEZ CANYON ROAD

IN THE UNINCORPORATED TERRITORY OF COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

DRAWN BY	LDC	12/07/2020	VERSION 2
CHECKED BY	S.H.		
DESIGNED BY	LDC		
DATE CHANGED	CHANGED BY	REVISION	

REGISTERED PROFESSIONAL ENGINEER
ROBERT R. SIMS
No. 21649
EXP. 9-30-23
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09/26/2022
DATE

LDC

Project. No. 17019-005

SHEET 4 OF 6

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Appendix 4.1-3

Oak Tree Survey Report

SOUTH ENVIRONMENTAL

Oak Tree Survey Report

Hope Gardens Sequoia Building Project

September 2020 (Updated December 2022)

Prepared For:
Brad Perrine
EcoTierra Consulting
633 W. 5th Street, 26th Floor
Los Angeles, California 90071

Prepared By:
Matthew South, CWB
ISA Certified Arborist WE-12564A
South Environmental
1443 E. Washington Blvd., #288
Pasadena, California 91104
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mobile: 303-818-3632

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Appendix B: Photograph Exhibit
Appendix C: Site Plan

1. Introduction

This report includes results of a focused oak tree survey conducted by South Environmental for a redevelopment project at Hope Gardens Family Center, a Union Rescue Mission Facility located at 12249 Lopez Canyon Road in an unincorporated area of Los Angeles County, California. The project includes the demolition of the Sequoia building, a housing facility at the Hope Gardens, and the construction of a new building on top of the existing footprint, new driveways and parking areas. The purpose of this report is to support the filing of the required oak tree permit application (Oak Tree Permit No. RPPL2020000706) concurrently with the conditional use permit (CUP) application (CUP No. RPPL2020000694) with the County of Los Angeles for Environmental Assessment No. RPPL2020003232. The scope of this report includes a description of the proposed project and survey area, methods used to survey and assess the oak trees, and a discussion of the project's potential impacts to oak trees.

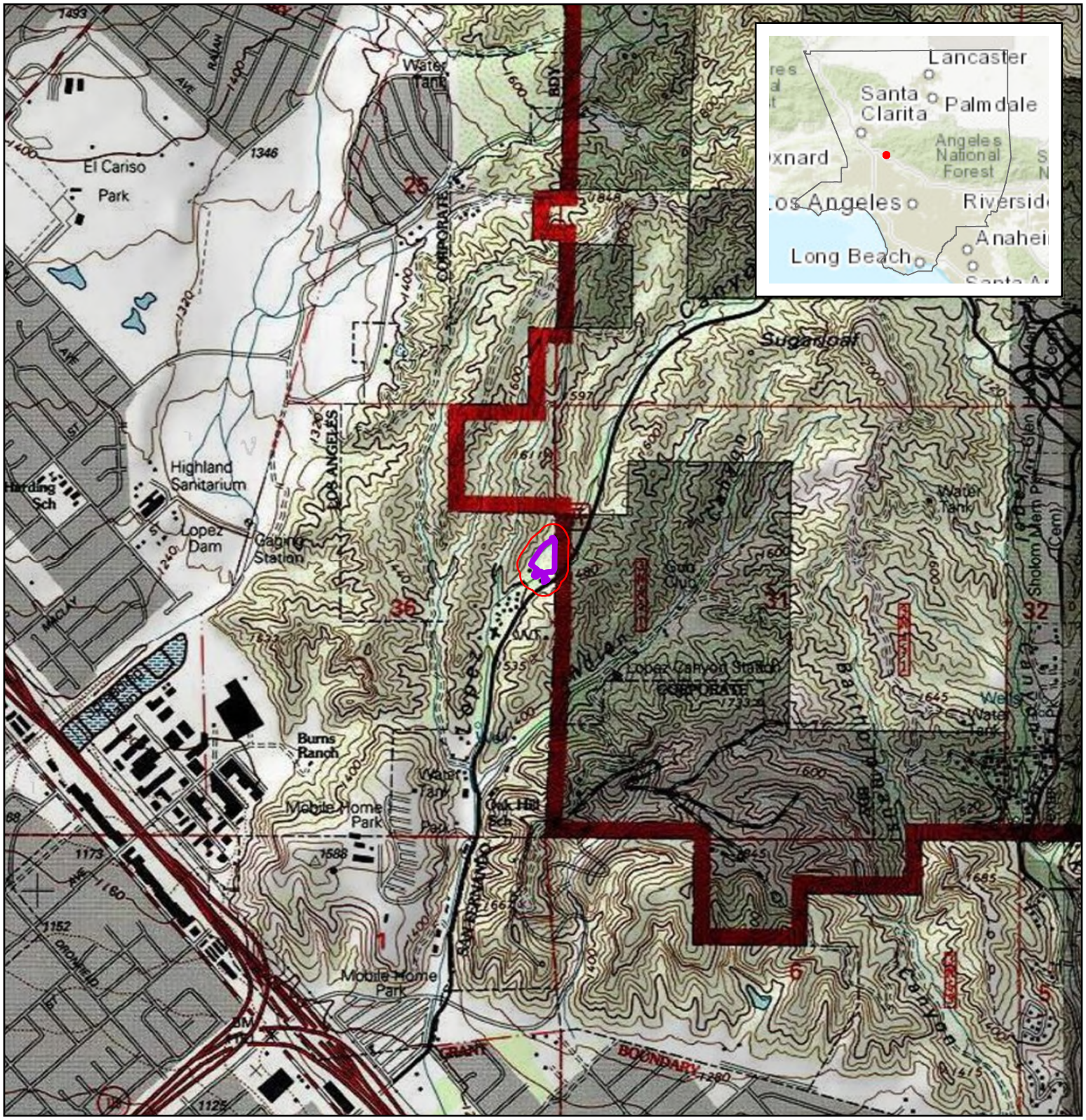
1.1 Project Description

Location and Setting

As shown in Figure 1 below, the project is in unincorporated Los Angeles County approximately 1.0 mile north of Interstate 210 and the Sylmar neighborhood of the City of Los Angeles. The project is within the U.S. Geological Survey (USGS) San Fernando 7.5 Minute Topographical Quadrangle, and within Section 36 of Township 03 North (03N) and Range 15 West (15W), and Section 31 of Township 03N and Range 14W. As shown in Figure 2 below, the development site is set within a canyon along Lopez Canyon Road and the Hope Gardens facility is within a woodland of mature native and landscaped trees. The areas adjacent to the east and west of Hope Gardens include undeveloped native coastal scrub and non-native grassland habitats on steep mountain slopes. The survey area includes a 200-foot buffer around the development site, and the eastern portion is within the Angeles National Forest, which occurs immediately adjacent to the east of the Sequoia building and approximately 400 feet north.

Proposed Development

The project includes the demolition of the Sequoia building and the construction of a new building, additional driveways and parking areas, and an enhancement of the landscaping. The proposed development areas are shown in Figure 2 below and in the Site Plan in Appendix C. The development will occur largely in areas that are currently developed with the Sequoia building, driveways, and parking areas. Construction of the new building will be on top of the existing



Source: ESRI USA Topo Maps and World Topo Map 2022

Hope Gardens Sequoia Building Project

Figure 1. Project Location

Development Site

Survey Area (200-Foot Buffer)



0 1,000 2,000 Feet

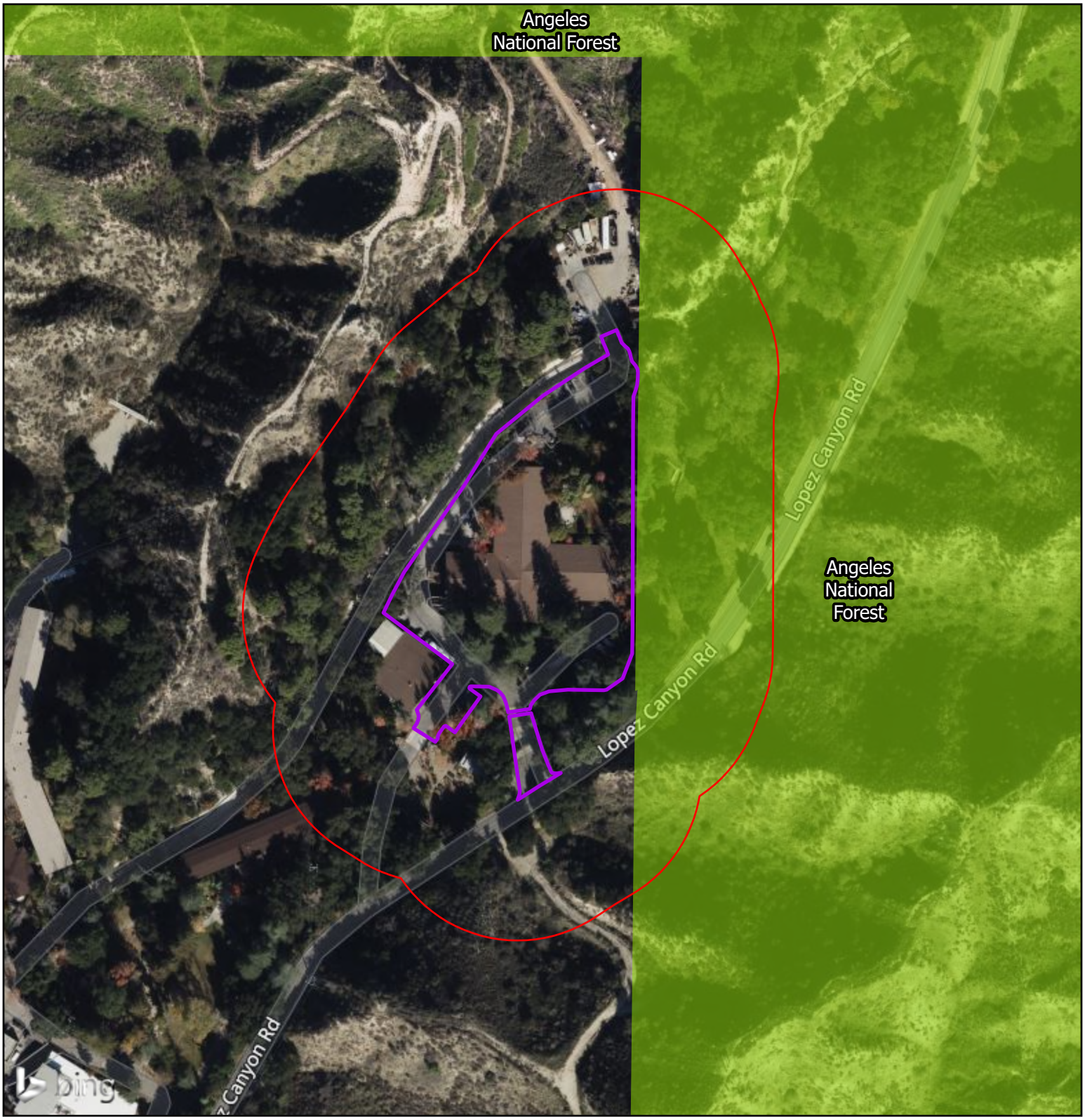
Scale: 1:24,000

N

Project Site is within unincorporated, California, in Los Angeles County on the USGS San Fernando 7.5-minute quadrangle map in Section 31 of Township 03 North and Range 14 West and Section 36 of Township 03 North and Range 15 West

Center Coordinate (Decimal Degrees):
Latitude: 34.3027184N Longitude: -118.3969850W

SOUTH ENVIRONMENTAL



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 2. Project Vicinity

- Development Site
- Survey Area (200-Foot Buffer)
- California Protected Areas Database (CPAD)

0 115 230 Feet

Scale: 1:2,300

N

SOUTH ENVIRONMENTAL

developed area, and the existing development will be reconstructed and expanded with the new development, paving, and landscaping. The roads will be widened to 28-feet and resurfaced.

1.2 Methodology

Field Survey

South Environmental certified arborist Matthew South (ISA#: WE-12564A) conducted a survey of each tree of the genus *Quercus* with a trunk diameter of 8 inches or greater or with two trunks with diameters totaling at least 12 inches when measured at 4.5 feet above grade (protected oak) that is within 200-feet of proposed construction. The survey was conducted on May 2, 2019 and adhered to the guidelines outlined in the County of Los Angeles Oak Tree Ordinance. During the survey, each protected oak was marked on the north side with a unique identification number and the location of the trunk was recorded using a Trimble R1 high-accuracy (sub-meter) GPS unit. The arborist evaluated the physical structure and health of each protected oak, and a photograph was taken of each tree surveyed. Another survey was conducted on June 11, 2020 at the request of Los Angeles County foresters, to confirm the trunk diameters of oaks proposed for impacts. The development site was revisited on October 18 2022 to confirm the location and size of the oak trees remained the same following an update to the development site Plan (attached).

Structural Evaluation

An evaluation of the physical structure of each protected oak included the following:

- **Trunk diameter at breast height (dbh)** was measured at 4.5 feet above grade using a diameter tape,
- **Canopy measurements** were taken in eight separate directions from the trunk: north, northeast, east, southeast, south, southwest, west, and northwest. The arborist used a tape measure to measure the first 3 trees canopies to calibrate the distance, and then estimated the remainder of the measurements,
- **Aesthetic assessment** of each tree included describing the visual structure of the tree such as the symmetry, unbalanced crown, broken branches, and excessive horizontal branching,

Health Assessment

An evaluation of the health of each protected oak included the following:

- **Disease** – evidence such as slime flux, heart rot, crown rot, root fungus, exfoliation, leaf scorch, and exudates,

- **Pests** – evidence such as galls, twig girdling, borers, termites, pit scale, and plant parasites,
- **Vigor** – signs used to evaluate vigor include new tip growth, leaf color, abnormal bark, dead wood, and crown thinning among other signs,
- **Health Rating** – each protected oak received a single number health rating based on its similarity to an archetypal oak of the same species:
    - 5 – Maximum health: 99-100% like archetype of same species
    - 4 – Good health: minor crown thinning and reduced shoot growth
    - 3 – Fair health: some dead twigs in outer crown and increased crown thinning, and little shoot growth
    - 2 – Poor health: many dead branches and little shoot growth
    - 1 – Dead/dying: large dead branches, bark loss, advanced decline (no recovery), or dead
- **Recommendations** for improving the structure or health of the tree, when possible, were included.

Oak Tree Mapping

Trunk and Canopy

The trunk locations recorded during the field survey were mapped using ESRI ArcGIS Pro mapping software. The canopy of each tree was digitized using the same software by creating a vertex at the appropriate distance from the trunk in each of the 8 directions per the canopy measurements recorded during the field survey, and then creating a polygon that connects each of the vertices. The newly created polygon represents the boundaries of the canopy. The arborist adjusted the digitized trunk location and canopies to align appropriately with the aerial photographs.

Tree Protected Zone

Per the Oak Tree Ordinance, the Tree Protected Zone (TPZ) includes the area within 5-feet extended from the trees canopy or 15-feet from the trunk, whichever is greater. The TPZ was also digitized using ESRI ArcGIS Pro mapping software by creating a polygon that is a 5-foot buffer from the tree canopies described above and another polygon that is 15-foot buffer from each trunk location. The two polygons were merged and dissolved to create a single polygon representing the TPZ that encompasses the outer edges of the 5-foot canopy buffer and the 15-foot buffer from the trunk, whichever is the greatest.

Impact Analysis

Impacts to protected oaks were assessed by digitizing the proposed development area (the Sequoia building) and overlaying them onto the digitized tree trunks, canopies, and TPZs. Intersection of a protected oak trunk with the project features would result in removal of the tree and intersection of the project features with the TPZ would result in encroachment. The level of encroachment to a single protected oak is reported as a percent of that oak's entire TPZ expected to be impacted by the development. The oak trunks and canopies are also shown in the Site Plan in Appendix C.

2. Protected Oaks

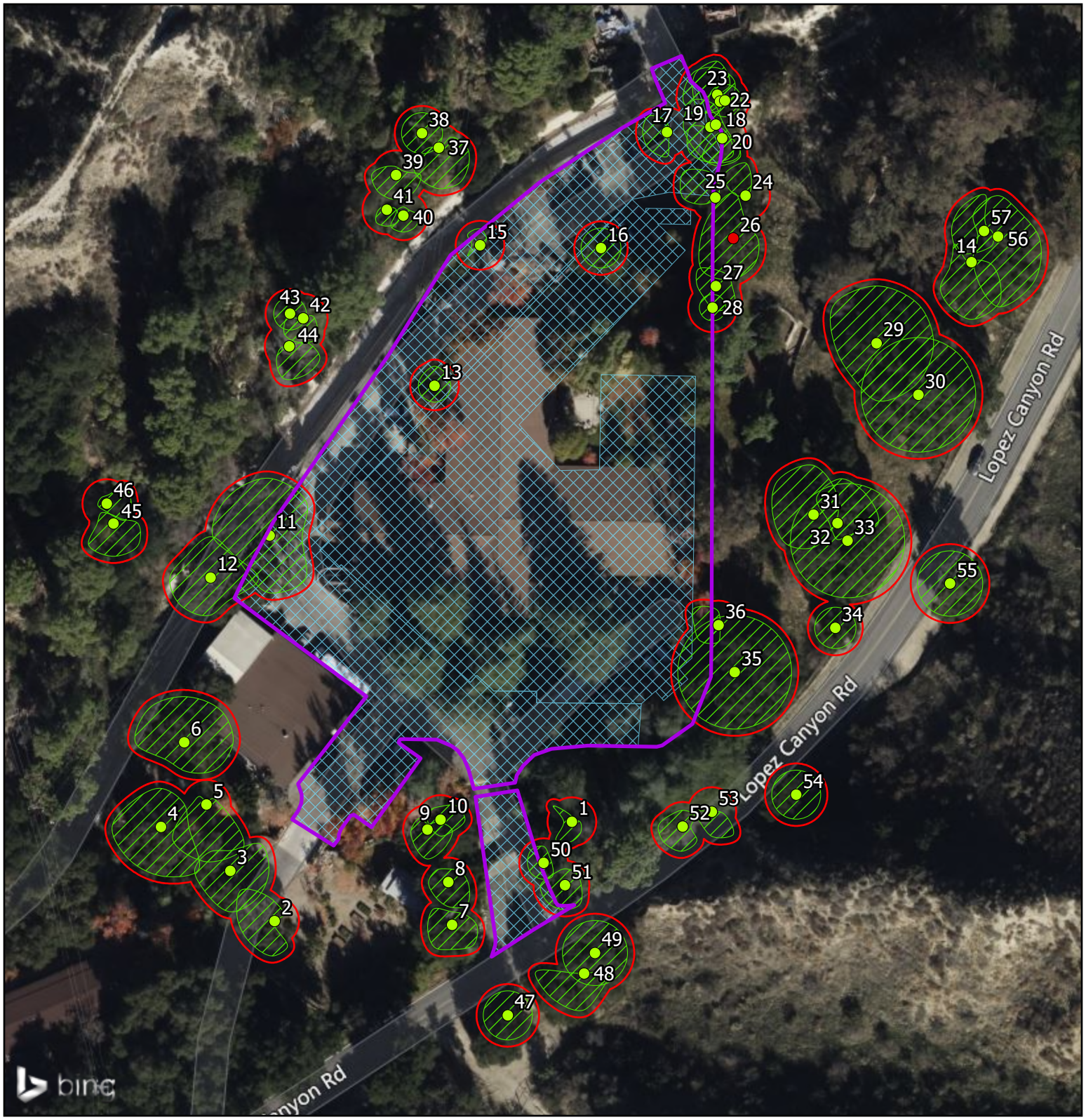
A total of 57 protected coast live oak (*Quercus agrifolia*) were identified in the survey area and marked with an identification number (ID#s 1-57), including one heritage oak[1] (#26). The locations of the trunks, canopies, and the TPZs for all trees surveyed are shown in Figure 3. Appendix A includes a summary table of the data collected for each tree and an image of each tree is in Appendix B.

2.1 Structure and Health

Overall structure and health of trees is good. A total of 35 trees (61%) scored a 4 or 5 for symmetry, and no tree scored lower than 2 for symmetry. A total of 47 trees (82%) scored 4 or 5 for health, eight trees scored 3 for health, and two trees (#15 and #26) scored 1 for health because they were nearly dead. Tree #15 has two large trunks that are beneath a power line and were topped to reduce the conflict. One of the trunks is dead and the other is showing new growth, however, the position beneath the utility line requires future growth be pruned to reduce the conflict. Tree #26 was burned and has a hollow trunk (see photos in Appendix B), it is losing large limbs and showing severe decline. Tree #26 is not likely to survive due to the severe damage. The trees surveyed in the northwest area on the opposite side of a concrete drainage west of the Sequoia building are on a steep slope in a densely vegetated area and have poor symmetry as a result.

The oak trees in the survey area are managed differently depending on location and land ownership. The oak trees within the Hope Gardens facility receive regular care from an onsite groundskeeper that includes irrigation, pruning, and fertilization. The oak trees that occur in the National Forest east of the eastern edge of the Sequoia building and those that are on the edge of Lopez Canyon Road do not receive care. All the trees showed new growth, and trees that are on National Forest were recently burned on the trunks and lower limbs.

[1] A 2019 version of this Oak Tree Report identified 13 heritage oaks due to errors with adding multi-trunk trees stem diameters together creating incorrect findings of heritage oaks. This 2019 report was updated in 2020 to correct these errors to report only a single heritage oak (#26). The 2020 version of the report was certified by the County Forester in 2020 and the 2019 version was not a certified or finalized report. The 2019 version of the report was used in support of planning documents in error and the 2020 version was the correct version certified by the County that had the correct information regarding heritage oaks, but was not included in the planning documents for this project due to error.



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 3. Oak Tree Survey

0 60 120 Feet

N

Scale: 1:1,200

- Oak Tree
- Heritage Oak
- Canopy
- Tree Protection Zone
- Proposed Development Footprint
- Development Site

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2.2 Structure and Health Recommendations

Oak #15 is recommended for removal due to the poor health from being topped and the trees position beneath utility lines. Oak #26 on National Forest Land is not likely to survive, and the hollow trunk indicates that it is likely to lose more large limbs soon. Fencing exists to keep people from going near the tree from the Hope Gardens facility. To maintain the current low risk situation, South Environmental recommends the barrier remain in place.

3. Impact Analysis

The proposed redevelopment of the Sequoia building would result in the removal of 4 protected oak trees, and encroachment into the TPZ of 12 oaks. No heritage trees will be removed or encroached. The tree removals are necessary for the upgrades to roads and buildings proposed by the project. These results are summarized below in Table 1 below and shown in Figure 3.

Table 1. Summary of Impacts to Oaks

Tree #	Health Rating	Heritage Oak	Trunk distance to Construction (ft)	Impact
#11	4	N	0	Removal
#12	4	N	23	~10% TPZ Encroachment
#13	5	N	0	Removal
#15	1	N	0	Removal
#16	5	N	0	Removal
#17	4	N	3	~98% TPZ Encroachment
#18	4	N	6	~50% TPZ Encroachment
#19	4	N	2	~60% TPZ Encroachment
#20	4	N	5	~40% TPZ Encroachment
#22	4	N	13	~20% TPZ Encroachment
#23	3	N	12	~20% TPZ Encroachment
#25	4	N	2	~75% TPZ Encroachment
#35	4	N	33	~ 3% TPZ Encroachment
#36	4	N	19	~ 5% TPZ Encroachment
#50	5	N	3	~50% TPZ Encroachment
#51	4	N	12	~20% TPZ Encroachment

Of the 4 oaks that will be removed, 3 of them (#11, #13, and #16) are in good health (4, or 5 health rating). Oak #15 is dead/dying (health rating of 1) and we recommend it be removed to avoid any future conflicts. Heritage Oak #26 will not be impacted by the project because it is off the project site and not in jeopardy from project activities.

The project proposes asphalt resurfacing and fencing installation on the eastern edge of the project that encroaches within the TPZ of 12 oaks. Resurfacing of asphalt would compact soils in the TPZ and in the potential root zone of the oaks and installation of fencing could damage the root zones during installation. Asphalt resurfacing would also occur within the TPZ and within 15-feet of the trunks of oaks #17, #18, #19, #20, #22, #23, #25, #50, and #51. Asphalt resurfacing would also occur within the TPZ, but beyond 15-feet of the trunks of oaks #12, #35, and #36. For the purposes of this report, encroachment of 30% or greater into the trees TPZ or excavation or

grading within 15-feet of the trunk of an oak has the potential to result in the death or significant decline of the tree.

- The trunk of Oak #17 is within 3-feet of proposed road improvement and the root zone has the potential to be significantly impacted. In addition, the proposed impacts would encroach approximately 98% of the trees TPZ. These impacts are from removal of existing asphalt and then resurfacing the same area. These impacts have the potential to result in death or significant decline of the tree.

- The trunk of Oak #18 is within 6-feet of proposed road improvements and the root zone has the potential to be significantly impacted. In addition, the proposed impacts would encroach approximately 50% of the trees TPZ. These impacts are from removal of existing asphalt and then resurfacing the same area. These impacts have the potential to result in death or significant decline of the tree.

- The trunk of Oak #19 is within 2-feet of proposed road improvements and the root zone has the potential to be significantly impacted. In addition, the proposed impacts would encroach approximately 60% of the trees TPZ. These impacts have the potential to result in death or significant decline of the tree.

- The trunk of Oak #20 is within 5-feet of proposed road improvements and the root zone has the potential to be significantly impacted. In addition, the proposed impacts would encroach approximately 40% of the trees TPZ. These impacts have the potential to result in death or significant decline of the tree.

- The trunk of Oak #22 is within 13-feet of proposed road improvements and the root zone has the potential to be significantly impacted. In addition, the proposed impacts would encroach approximately 20% of the trees TPZ. These impacts have the potential to result in death or significant decline of the tree.

- The trunk of Oak #23 is within 12-feet of proposed road improvements and the root zone has the potential to be significantly impacted. In addition, the proposed impacts would encroach approximately 20% of the trees TPZ. These impacts have the potential to result in death or significant decline of the tree.

- Oak #25 is within 2-feet of proposed road improvements and the root zone has the potential to be significantly impacted. In addition, the proposed impacts would encroach approximately 75% of the trees TPZ. These impacts have the potential to result in death or significant decline of the tree.

- Oak #50 is within 3.0-feet of proposed road improvements and the root zone has the potential to be significantly impacted. In addition, the proposed impacts would encroach approximately 50% of the trees TPZ. These impacts have the potential to result in death or significant decline of the tree.

- Oak #51 is within 12 feet of proposed asphalt resurfacing and project encroachment into the TPZ is at approximately 20%. Using the methods described in the ISA's Managing Trees During Construction Second Edition (ISA 2016) for calculating Critical Root Zone (CRZ) of trees, this oak is a mature tree with a high tolerance to construction damage and a CRZ diameter of 8.6-feet. Although the tree is within 12-feet of construction the CRZ is not within the impact area based on the above calculation and the encroachments into the TPZs of less than 20% indicates that this tree will not be significantly impacted by the construction.

- The remaining oaks that will be encroached (oaks #12, #25, and #36) would result in impacts to less than 30% of the TPZ and the tree trunks are further than 15-feet from proposed construction. It is unlikely that less than 30% encroachment will result in the loss/death of these oaks and no significant impacts are expected to occur.

4. Recommendations

Construction and staging of equipment will occur within the TPZ of 12 oaks that will remain on the property and within proximity to several other oaks in the survey area. The Los Angeles County recommendations for tree protected during construction provided below are designed to ensure impacts to oaks that are encroached are minimized and no impacts to other oaks would occur during construction.

Mitigation for Impacts to Oaks

According to the Los Angeles County Oak Tree Ordinance, the applicant will be required to replace the trees that are removed with the same species, and mitigation planting will be determined by the hearing officer, the director, or the commission. The proposed project will result in removal of 4 protected oaks and encroachment into the TPZ of 12 additional protected oaks. However, 3 of the oaks will be encroached into less than 30% of the TPZ and the trunks are greater than 15-feet from the and unlikely to result in death or significant decline. Oak #51 was determined to be far enough away from construction to avoid damage to the Critical Root Zone and the project is unlikely to result in death or decline of that oak. A total of 8 Oaks (#17, #18, #19, #20, #22, #23, #25, and #50) were assessed with the potential for death or significant decline due to the project from either the trunk being located within 15-feet of the construction or greater than 30% of the TPZ to be encroached. South Environmental makes the following recommendations to mitigate the removal and encroachment impacts to protected oaks:

- A total of 8 replacement oaks should be planted to replace oaks removed. This includes 8 oaks for the removal of 4 of protected oaks at a 2:1.

- A total of 8 Oaks were assessed with the potential for death or significant decline due to the project from either the trunk being located within 15-feet of the construction or greater than 30% of the TPZ to be encroached. These Oaks (#17, #18, #19, #20, #22, #23, #25, and #50). These trees shall be properly cared for and monitoring for a period of 2-years and replaced at a 2:1 by the permittee if mortality or significant decline (Health assessed at a 1 or 2) occurs within that period.

- Required replacement trees shall consist exclusively of indigenous oak trees and shall be in the ration of 2:1. Each replacement tree shall be at least 15-gallon size specimen and measure at least one inch in diameter one foot above the base. The hearing officer, director or commission may, in lieu of this requirement, require the substitution of one larger

container specimen for each oak tree to be replaced, where, in its opinion, the substitution is feasible and conditions warrant such greater substitution.

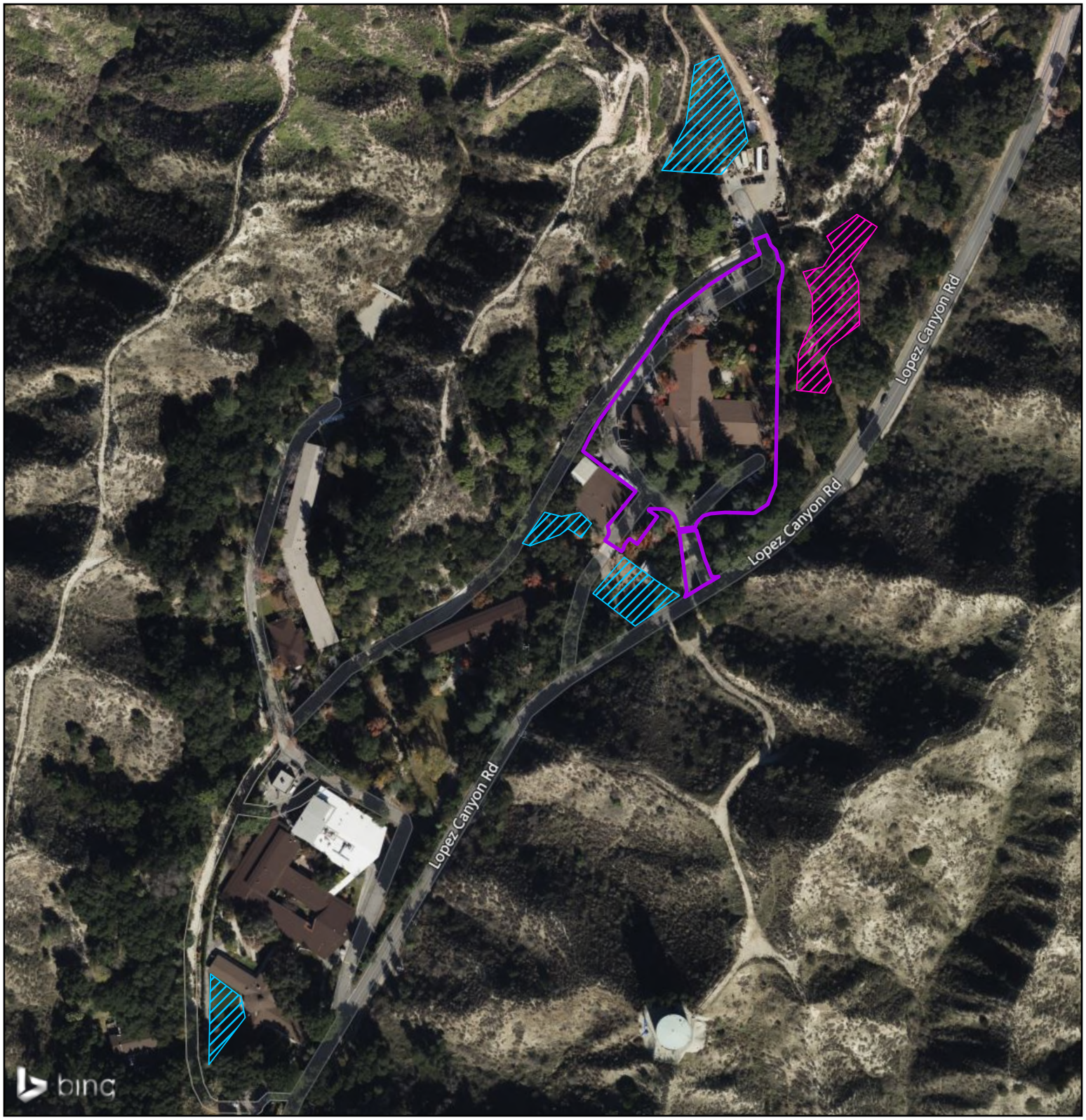
- Replacement trees shall be properly cared for and maintained for a period of two years and replaced by the permittee if mortality occurs within that period.

- Where feasible replacement trees should consist exclusively of indigenous oak trees and certified as being grown from a seed source collected in Los Angeles and Ventura Counties.

- Replacement trees shall be planted and maintained on the subject property and, if feasible, in the same general area where the trees were removed. The process of replacement of oak trees shall be supervised in the field by a person who, in the opinion of the county forester and fire warden, has expertise in the planting, care and maintenance of oak trees.

- Potential planting sites on the property are shown in Figure 4 below. Replacement plantings should be incorporated into proposed landscaping for the new construction to the extent possible. Additional plantings can be in the areas shown in Figure 4 that were chosen because they are currently free of trees or native vegetation and are contiguous with existing forested landscaping on the property. If enough suitable areas for mitigation plantings are not found on the property, potential additional areas for replacement plantings include along Lopez Canyon Road and in the open areas of Angeles National Forest immediately east of the proposed project. Coordination with federal land managers would be required for plantings in the National Forest and coordination with state land managers would be necessary for plantings in the roadway.

- If no suitable areas for replacement plantings is found, payment into the oak forests special fund could be an alternative mitigation. The payment amount would be equivalent to the oaks that are impacted as determined by a qualified arborist, and the amount would require approval from the County forester.



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 4. Potential Mitigation Planting Sites

0 120 240 Feet

Scale: 1:2,449

N

Development Site

Potential Mitigation Planting Area

Onsite

Offsite

SOUTH ENVIRONMENTAL

Tree Protection During Construction

The Los Angeles County Oak Tree Ordinance recommends a plan for protecting oak trees during construction shown in Figure 5 below and using the following measures:

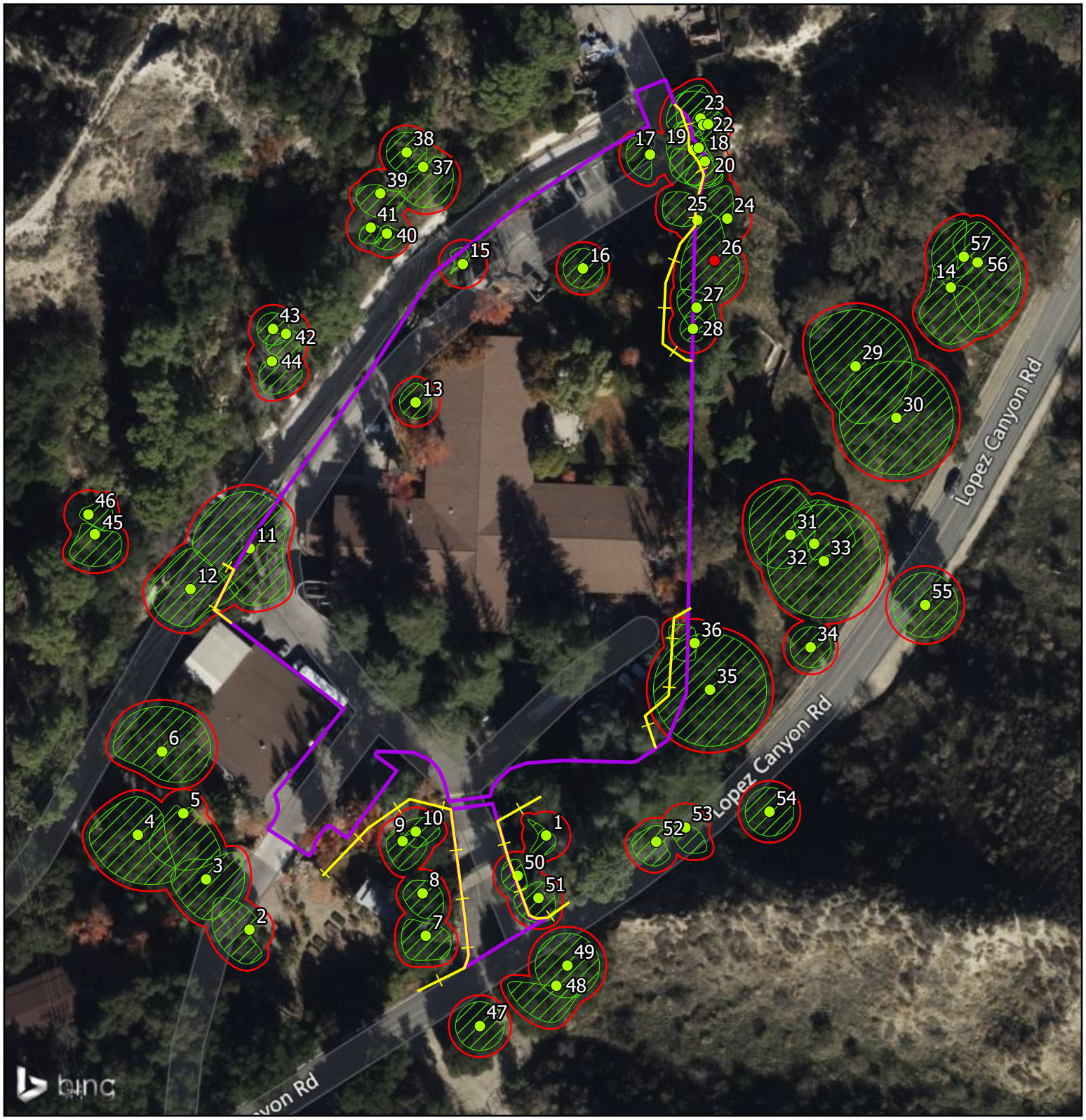
- The installation of chain link fencing not less than four feet in height around the protected zone of trees shown on the site plan. Said fencing shall be in place and inspected by the forester and fire warden prior to commencement of any activity on the subject property. Said fencing shall remain in place throughout the entire period of development and shall not be removed without written authorization from the director or the forester and fire warden. The proposed fencing plan is shown if Figure 5 below.
- Tree protective fencing should include an access gate at least 4-feet high with 2x6-inch steel posts installed under the observation of a qualified arborist to ensure tree roots are avoided. Where grading or any other similar activity is specifically approved within the protected zone, the applicant shall provide an individual with special expertise acceptable to the director to supervise all excavation or grading proposed within the protected zones and to further supervise, monitor and certify to the county forester and fire warden the implementation of all conditions imposed in connection with the applicant's oak tree permit,

- No excavation or grading should occur in the protected zone of oak trees without the prior permitting from the County forester. Any excavation or grading allowed within the protected zone or within 15 feet of the trunk of a tree, whichever distance is greater, be limited to hand tools or small hand-power equipment. Fencing proposed on the eastern edge of the project should be placed 15-feet away from the trunk of protected oaks when possible.

- Avoid mechanical injury and compaction to roots, root flares, trunks and branches. Break and lift off asphalt and concrete by hand or using small equipment under the dripline of any tree to be retained. A qualified arborist is recommended be present to observe the area with the roots exposed, prior to undertaking any root pruning or grading. Root pruning should be avoided if possible.

- The tree protection zone of oaks that will be encroached should be irrigated to keep the tree in good health and vigor before, during and after construction. Trees should be soaked so that water reaches a depth of 2-3 feet monthly, starting a minimum of one-month prior to construction. Apply root biostimulants, mulch and compost around the street trees once every 6 months during construction.

- Equipment should not idle under trees and materials should be staged outside the tree protection zone.



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 5. Protective Fencing Plan

0 50 100 Feet

N

Scale: 1:998

- Oak Tree
- Heritage Oak
- Proposed Protective Fencing
- Canopy
- Tree Protection Zone
- Development Site

SOUTH ENVIRONMENTAL

- Where grading or any other similar activity is specifically approved within the protected zone, the applicant shall provide an individual with special expertise acceptable to the director to supervise all excavation or grading proposed within the protected zones and to further supervise, monitor and certify to the county forester and fire warden the implementation of all conditions imposed in connection with the applicant's oak tree permit.

- No excavation or grading should occur in the protected zone of oak trees without the prior permitting from the County forester. Any excavation or grading allowed within the protected zone or within 15 feet of the trunk of a tree, whichever distance is greater, be limited to hand tools or small hand-power equipment. Fencing proposed on the eastern edge of the project should be placed 15-feet away from the trunk of protected oaks when possible.

- Trees on other portions of the subject property not included within the site plan also be protected with chain link fencing thus restricting storage, machinery storage or access during construction.

- Trees on the site plan must be physically identified by number on a tag affixed to the north side of the tree in a manner preserving the health and viability of the tree. The tag shall be composed of a non-corrosive all-weather material and shall be permanently affixed to the tree. The tree shall be similarly designated on the site plan in a manner acceptable to the director,

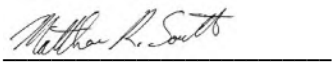
- Corrective measures for trees noted on the oak tree report as requiring remedial action be taken, including pest control, pruning, fertilizing and similar actions, and, to the extent feasible as determined by the director, utility trenching shall avoid encroaching into the protected zone on its path to and from any structure,

- At the start of grading operations and throughout the entire period of development, no person shall perform any work for which an oak tree permit is required (pruning, staging within TPZ, etc.) unless a copy of the oak tree report, location map, fencing plans, and approved oak tree permit and conditions are in the possession of a responsible person and also available at the site. (Ord. 93-0018 § 2, 1993; Ord. 88-0157 § 8, 1988: Ord. 85-0195 § 12 (part), 1985; Ord. 82-0168 § 2 (part), 1982.

5. Certification Statement

The signature below certifies that the information provided regarding protected oak trees within this report is true and accurate to the best of my knowledge and is based on the results of a survey of each tree that was conducted by qualified arborist Matthew South on May 2, 2019, June 11, 2020, and October 18, 2022. If you have questions regarding the methodology or findings of the report you can contact me by email at msouth@southenvironmental.com.

Sincerely,



Matthew South
Principal Biologist
South Environmental
Mobile: 303.818-3632

Appendix A:
Oak Tree Data

Table A-1. Oak Tree Data

ID#	Species	Height ft.	DBH in.	Canopy Measurements (feet)								Sym	Aesth	Disease	Pest	Vigor	Health	Recommendations and Notes
				N	NE	E	SE	S	SW	W	NW							
1	Coast	25	11	3	2	5	8	12	15	5	15	3	UC				4	
2	Coast	35	30	12	6	0	18	21	20	23	28	3	UC				4	
3	Coast	35	26	12	25	24	24	25	20	22	18	3	UC				4	
4	Coast	35	23,20	24	20	18	35	30	28	30	24	4					5	2 large trunks
5	Coast	40	35	1	5	8	35	35	30	10	6	3	UC					2 trunks 1 dead
6	Coast	45	21,18,17,15	28	30	30	25	18	15	30	30	5					5	up against building, 4 main trunks
7	Coast	26	17	8	10	15	18	15	18	15	15	4					4	
8	Coast	25	15	8	10	12	18	15	12	12	10	4				Bark	4	included bark at branch union
9	Coast	30	15	4	8	15	15	18	12	10	8	4					4	
10	Coast	25	13	8	13	15	10	10	8	8	8	4					4	other plants growing at the base
11	Coast	35	33,28,24	35	30	20	35	35	25	35	35	3	UC				4	mirrors installed on trunk
12	Coast	35	22,21	25	20	28	18	23	25	25	20	4					4	2 large trunks
13	Coast	25	15	12	10	10	10	10	10	10	10	5			B		5	
14	Coast	15	19	0	1	10	30	35	25	12	15	3	UC, HB	HR		Bark, Dead, thinning	3	underneath the canopy of 2 other oaks
15	Coast	12	27,26	10	5	1	0	0	10	5	10	1	BB,UC,HB			NTG, Dead, thinning	1	topped, 2 huge trunks, 1 is dead, other has new growth but poor health, beneath power lines
16	Coast	18	14	12	12	12	12	12	12	12	12	5					5	near parking lot
17	Coast	22	15	6	2	2	2	15	15	15	15	4					4	
18	Coast	30	22	12	5	5	25	25	20	20	20	4					4	
19	Coast	8	13	0	0	5	20	22	20	12	0	2	UC,HB			thinning	3	

ID#	Species	Height ft.	DBH in.	Canopy Measurements (feet)								Sym	Aesth	Disease	Pest	Vigor	Health	Recommendations and Notes
				N	NE	E	SE	S	SW	W	NW							
20	Coast	18	9	3	2	10	15	15	18	6	3	3	UC				4	
21	Coast	22	8	10	10	10	10	10	10	10	10	4					5	
22	Coast	22	11	20	15	5	2	5	10	22	24	4					4	
23	Coast	20	16	22	10	0	0	5	15	15	20	3	UC	HR			3	position was corrected in database on 9/29/2020 to show trunk location outside of the impact area. Verified by the attached photogaphs.
24	Coast	15	10	20	5	3	2	1	1	5	18	3	UC				4	likely burned on bark
25	Coast	25	13	12	4	3	1	1	5	20	25	3	UC				4	
26	Coast	28	60	28	12	15	20	25	28	20	20	5	BB	CR,HR		Bark, thinning, Dead, LC	1	hollow inside, burned throughout won't survive, heritage oak
27	Coast	22	15	10	10	10	15	15	10	12	15	4	BB			Bark, Dead	3	burned
28	Coast	28	9	8	8	8	8	8	8	8	8	4				Dead, thinning	3	burned
29	Coast	45	34,31,30	35	35	35	35	35	35	35	35	5	BB			Dead, thinning	4	burned
30	Coast	40	28,20	35	35	35	35	35	35	35	35	5	BB			Dead	4	burned
31	Coast	45	22,20	30	20	15	15	20	25	25	30	4	BB					burned
32	Coast	40	19	28	25	25	10	10	5	5	20	4					4	
33	Coast	45	26,24	35	35	35	35	35	35	35	35	5				thinning	4	
34	Coast	20	13	12	12	12	12	12	12	12	12	5			Parasite		4	on a fence at the road edge vine growing through it
35	Coast	40	29,28,25,23	35	35	35	35	35	35	35	35	5	HB				4	burned
36	Coast	25	10	8	2	2	2	10	15	15	18	3	UC				4	

ID#	Species	Height ft.	DBH in.	Canopy Measurements (feet)								Sym	Aesth	Disease	Pest	Vigor	Health	Recommendations and Notes
				N	NE	E	SE	S	SW	W	NW							
37	Coast	15	18	0	10	18	25	25	20	5	0	2	UC				4	
38	Coast	40	15	12	12	12	12	12	12	12	12	4					4	
39	Coast	25	10	5	5	15	15	15	15	15	5	4					4	vine on trunk
40	Coast	25	9	5	5	10	10	10	10	5	5	4					4	
41	Coast	20	8	2	2	5	10	10	10	5	2	3	UC				4	vines
42	Coast	20	8	0	0	0	5	15	15	10	0	2	UC				4	
43	Coast	30	9	10								5					5	
44	Coast	20	10	0				20				3	UC				4	
45	Coast	30	20	5			20	20	20	10	10	4					4	
46	Coast	25	10	5	15	15	15	5	0	5	5	3	UC			Bark	3	burned and wounded trunk
47	Coast	30	29	15								4					4	2 trunks
48	Coast	30	24	0	0		15	22	25	30	0	3	UC				4	
49	Coast	35	25,13,12	20	20	20	20	20	20	20	20	5					4	
50	Coast	20	10	10	5	5	10	10	10	10	10	4					5	
51	Coast	20	11	10	10	10	15	15	15	15	10	4					4	
52	Coast	30	13	10	10	5	12	15	15	15	10	3					4	
53	Coast	25	8	0	0	5	18	15	10	10	0	3	UC				4	
54	Coast	25	15	15								5					3	on road edge on cliff, exposed roots up to 6 ft
55	Coast	30	21	20								4		HR			4	
56	Coast	45	28,25,13	25	20	25	35	40	20	12	20	4				Dead, thinning	4	burned, included bark
57	Coast	30	22	22	3	5	10	12	20	20	20	3		HR		dead, thinning	3	burned, root rot and heart rot visible

Appendix B:
Photograph Exhibit

Oak #1



Oak #2



Oak #3



Oak #4



Oak #5



Oak #6



Oak #7



Oak #8



Oak #9



Oak #10



Oak #11



Oak #12



Oak #13



Oak #14



Oak #15



Oak #16



Oak #17



Oak #18



Oak #19



Oak #20



Oak #21



Oak #22



Oak #23



Oak #24



Oak #25



Oak #26 (Hollow Trunk)



Oak #26



Oak #27



Oak #28



Oak #29



Oak #30



Oak #31



Oak #32



Oak #33



Oak #34



Oak #35



Oak #36



Oak #37



Oak #38



Oak #39



Oak #40



Oak #41



Oak #42



Oak #43



Oak #44



Oak #45



Oak #46



Oak #47



Oak #48 (on R off photo)



Oak #49



Oak #50



Oak #51



Oak #52



Oak #53



Oak #54



Oak #55



Oak #56



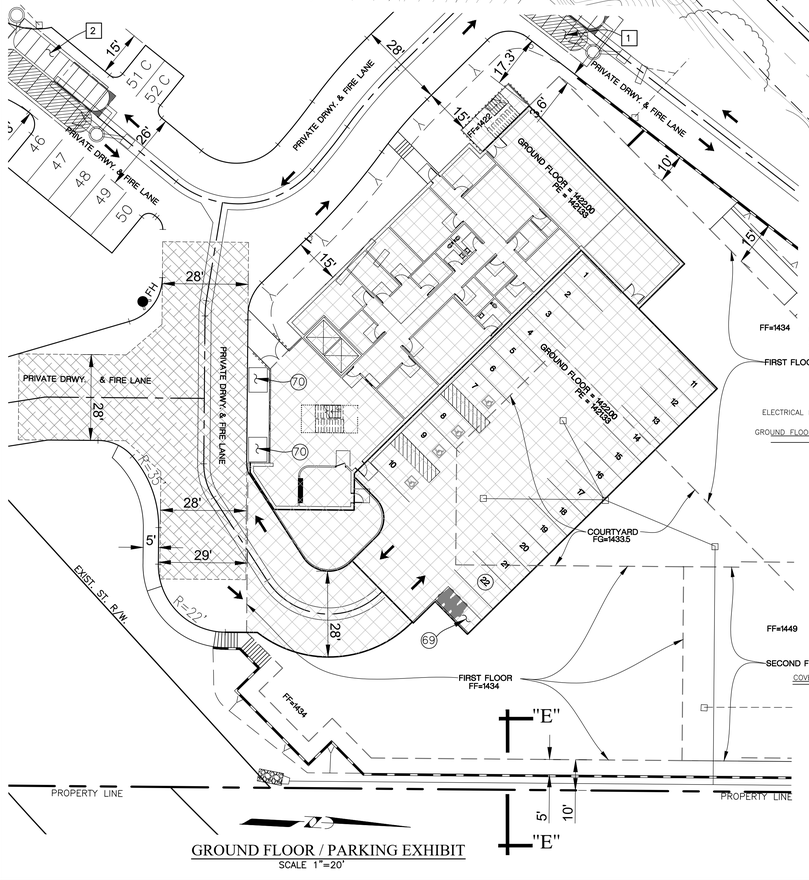
Oak #57



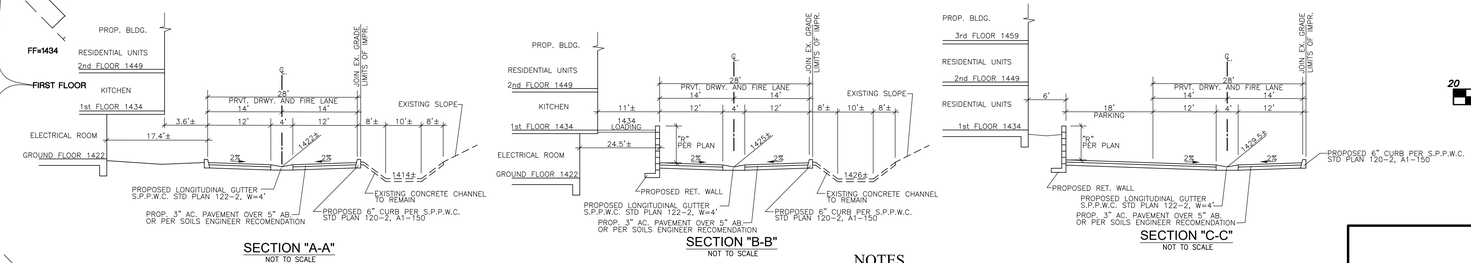
Appendix C:
Site Plan

PROPOSED SITE PLAN / UNDERGROUND PARKING / L.I.D.





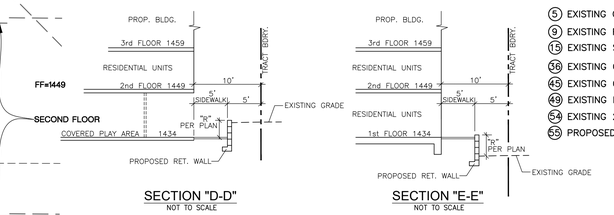
GROUND FLOOR / PARKING EXHIBIT
SCALE 1"=20'



SECTION "A-A"
NOT TO SCALE

SECTION "B-B"
NOT TO SCALE

SECTION "C-C"
NOT TO SCALE



SECTION "D-D"
NOT TO SCALE

SECTION "E-E"
NOT TO SCALE

NOTES

(5) EXISTING CHAIN LINK FENCE
(9) EXISTING FIRE HYDRANT
(15) EXISTING SIGNAGE
(36) EXISTING CATCH BASIN
(45) EXISTING CONTAINER STORAGE AREA
(49) EXISTING FIRE HYDRANT TO BE RELOCATED
(54) EXISTING 24' WIDE GATE TO BE WIDEN TO 28'
(55) PROPOSED RETAINING WALL
(56) PROPOSED 28' WIDE PRIVATE DRIVEWAY AND FIRE LANE SEE DETAIL ON SHEET 1
(57) PROPOSED 26' WIDE PRIVATE DRIVEWAY AND FIRE LANE SEE DETAIL ON SHEET 1
(58) PROPOSED FIRE APPARATUS TURNAROUND
(59) PROPOSED DELIVERY RAMP
(60) PROPOSED CATCH BASIN
(61) PROPOSED STORM DRAIN LINE
(62) PROPOSED STORM DRAIN OUTLET/RIP-RAP
(63) WIDEN EXISTING CULVERT AS REQUIRED
(64) PROPOSED 28' WIDE DRIVEWAY WIDENING
(65) EXISTING DRAINAGE CULVERT TO REMAIN
(66) PROPOSED "NO PARKING FIRE LANE" SIGN
(67) PROPOSED RELOCATED FIRE HYDRANT
(68) PROPOSED SIDEWALK
(69) INSTALL 6-SHORT TERM BICYCLE PARKING SPACES (RACKS)
(70) INSTALL 11-LONG TERM ENCLOSED BICYCLE SPACES (BIKE LOCKER STORAGE) INTENDED FOR RESIDENTS ONLY

L.I.D. NOTES:

BMPs 1 & 2 BELOW COMPRISE OF STORMTECH MC-4500 CHAMBERS AND END CAPS IN CONFIGURATIONS AS NOTED :

[1] TWO ROWS OF 6 CHAMBERS EA. (12 TOTAL) W/ 2 END CAPS EA. ROW, WITH 12" STONE BASE.
[2] TWO ROWS OF 8 CHAMBERS EA. (16 TOTAL) W/ 2 END CAPS EA. ROW, WITH 12" STONE BASE.

GRAPHIC SCALE (IN FEET)
1 inch = 20 ft.

OWNER/DEVELOPER:

UNION RESCUE MISSION
545 S. SAN PEDRO ST. LOS ANGELES, CA 90013
Ph: (213) 347-6300

LEGAL DESCRIPTION:

A.P.N. 2846-001-017, 2846-001-018
A.P.N. 2846-001-019, 2846-001-020

CUP EXHIBIT "A"
HOPE GARDEN SEQUOIA BUILDING
UNION RESCUE MISSION
12249 LOPEZ CANYON ROAD

IN THE UNINCORPORATED TERRITORY OF COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

DRAWN BY	DATE		VERSION
LDC	12/07/2020		VERSION 2
CHECKED BY			
S.H.			
DESIGNED BY			
LDC			
	DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER ROBERT R. SIMS No. 21649 EXP. 9-30-23 CIVIL STATE OF CALIFORNIA

PREPARED BY:

LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
800 Royal Oaks Dr., Suite 140, Monrovia, California 91016
Ph.: (626) 578-7000, Fax: (626) 578-7373
http://www.ldcla.com

Robert R Sims, R.C.E. No. 21649

09/26/2022
DATE

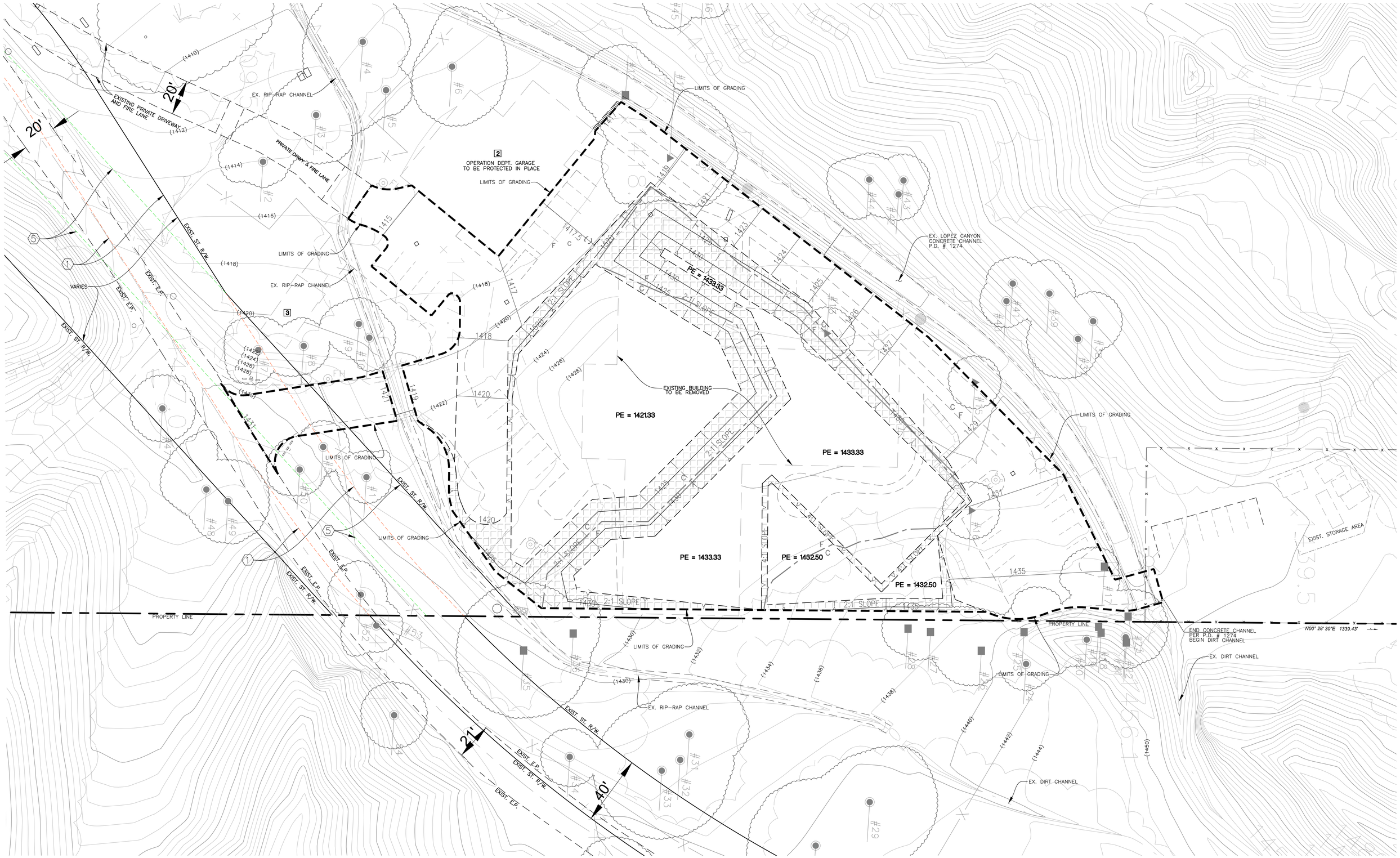
LDC

Project. No. 17019-005

SHEET 3 OF 6

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PROPOSED SITE PLAN / ROUGH GRADING



20 0 10 20 40 80

GRAPHIC SCALE (IN FEET)
1 inch = 20 ft.

OWNER/DEVELOPER:

UNION RESCUE MISSION
545 S. SAN PEDRO ST. LOS ANGELES, CA 90013
Ph: (213) 347-6300

LEGAL DESCRIPTION:

A.P.N. 2846-001-017, 2846-001-018
A.P.N. 2846-001-019, 2846-001-020

CUP EXHIBIT "A"
HOPE GARDEN SEQUOIA BUILDING
UNION RESCUE MISSION
12249 LOPEZ CANYON ROAD

IN THE UNINCORPORATED TERRITORY OF COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

DRAWN BY: LDC	12/07/2020		VERSION 2
CHECKED BY: S.H.			
DESIGNED BY: LDC			
	DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER
ROBERT R. SIMS
No. 21649
EXP. 9-30-23
CIVIL
STATE OF CALIFORNIA

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Robert R Sims, R.C.E. No. 21649

09/26/2022
DATE

LDC

Project. No. 17019-005

SHEET 4 OF 6

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Appendix 4.1-4

Oak Woodland Report

SOUTH ENVIRONMENTAL

Oak Woodland Report (OWR)

Hope Gardens Sequoia Building Project

December 2022 (updated February 2023, June 2024, October 2024, January 2025)

Prepared For:
Brad Perrine
EcoTierra Consulting
633 W. 5th Street, 26th Floor
Los Angeles, CA 90071

Prepared By:
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1. Introduction

This Oak Woodland Report (OWR) includes an assessment of oak woodlands at Hope Gardens Family Center by South Environmental and is in support of the Union Rescue Mission Sequoia Building Project (project) located at 12249 Lopez Canyon Road in an unincorporated area of Los Angeles County, California (project site) for Environmental Assessment No. RPPL2020003232. The project includes the demolition of the existing Sequoia Lodge building, a 25-living unit residential building at Hope Gardens, and the construction of a new 117-living unit multi-use building on top of the existing development pad (known hereinafter as the development site), new driveways, and parking areas. The purpose of this management plan is to support permitting efforts for the project with the County of Los Angeles, including Oak Tree Permit No. RPPL2020000706 and CUP No. RPPL2020000694, and the main scope of this report includes a description of oak woodland present, an analysis of potential impacts to the woodland from the proposed project, and options for mitigation with a best alternative presented.

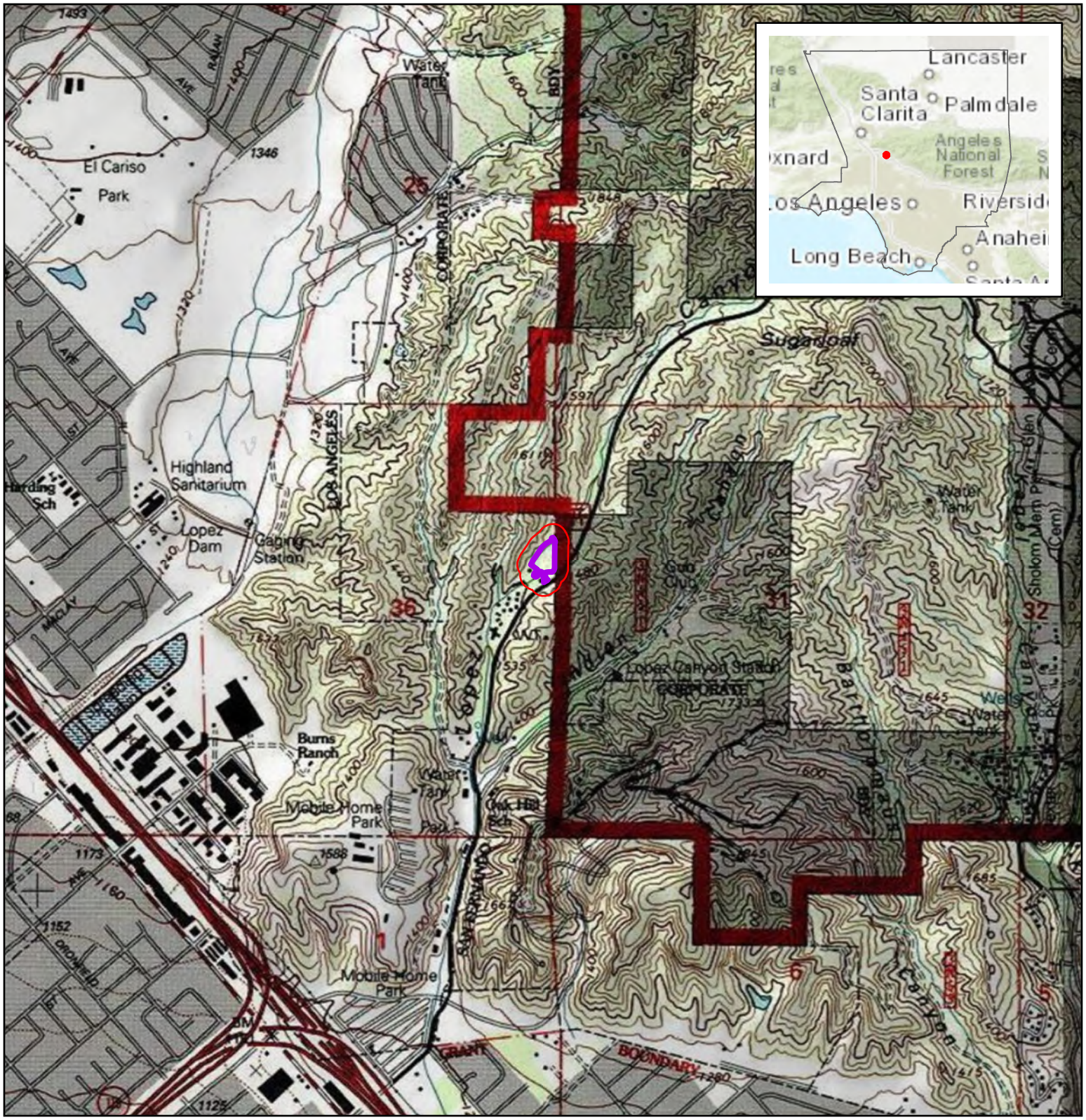
1.1 Project Description

Location and Setting

As shown in Figure 1 below, the project is in unincorporated Los Angeles County approximately 1.0 mile north of Interstate 210 and the Sylmar neighborhood of the City of Los Angeles. The project is within the U.S. Geological Survey (USGS) San Fernando 7.5 Minute Topographical Quadrangle, and within Section 36 of Township 03 North (03N) and Range 15 West (15W), and Section 31 of Township 03N and Range 14W. As shown in Figure 2 below, the development site is set within a canyon along Lopez Canyon Road on the northerly portion of the larger Hope Gardens campus, which is set within a woodland of mature native and landscaped trees. The areas adjacent to the east and west of Hope Gardens include undeveloped native coastal scrub and non-native grassland habitats on steep mountain slopes. The survey area includes a 200-foot buffer around the development site, and the eastern portion is within the Angeles National Forest, which occurs immediately adjacent to the east of the Sequoia building and approximately 400 feet north.

Topography and Climate

Directly north of the development site, Lopez Canyon is a northeast to southwest bearing erosional valley that has been eroded, in part, by a braided ephemeral stream. The unnamed ephemeral channel is mostly culverted with concrete where it traverses the development site. Regionally, Lopez Canyon has a broad southwestern dipping slope, and the development site dips in that same southwestern direction. The highest elevation for the development site is 1439 feet



Source: ESRI USA Topo Maps and World Topo Map 2022

Hope Gardens Sequoia Building Project

Figure 1. Project Location

Development Site

Survey Area (200-Foot Buffer)



0 1,000 2,000 Feet

Scale: 1:24,000

N

Project Site is within unincorporated, California, in Los Angeles County on the USGS San Fernando 7.5-minute quadrangle map in Section 31 of Township 03 North and Range 14 West and Section 36 of Township 03 North and Range 15 West

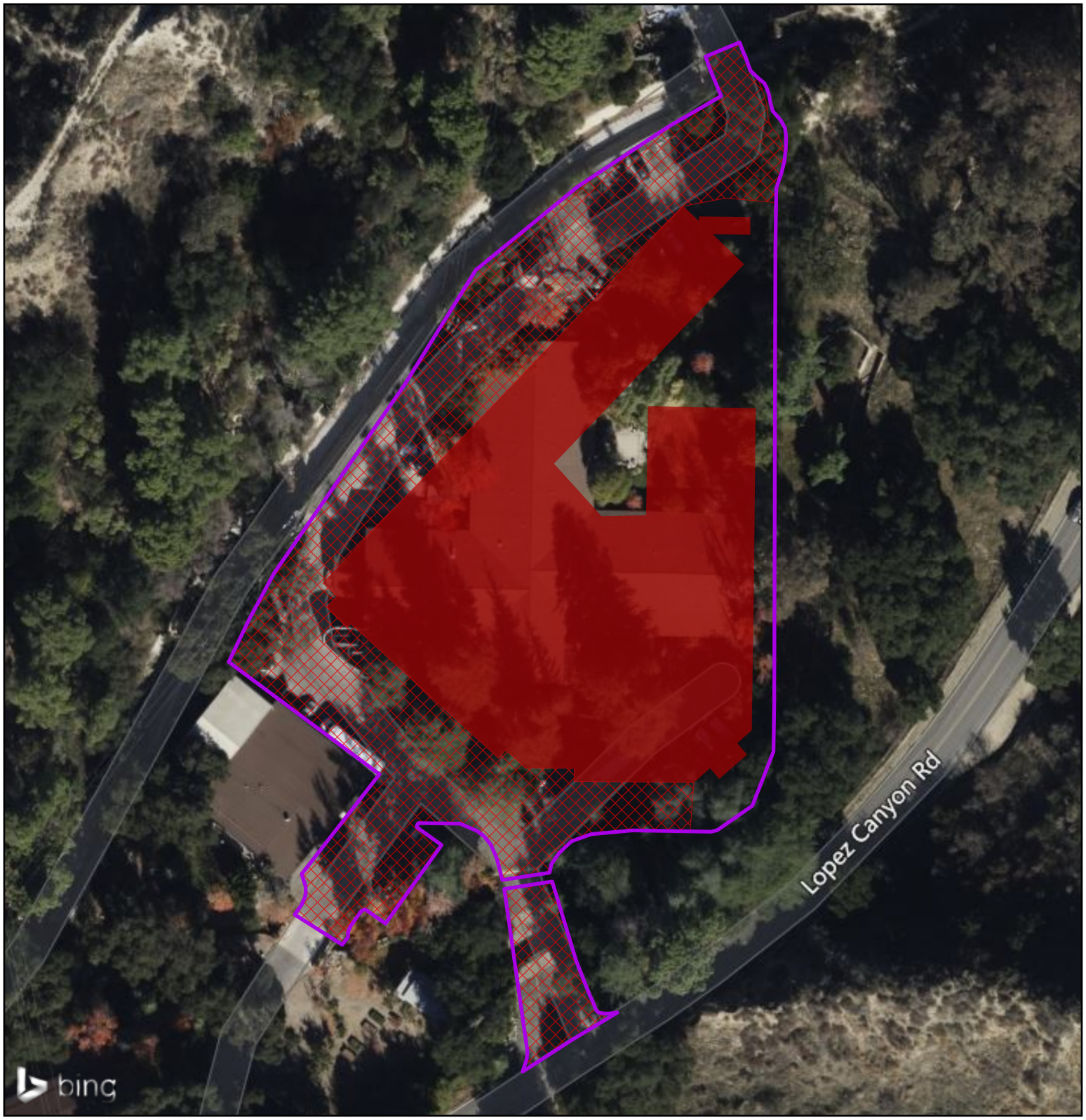
Center Coordinate (Decimal Degrees):
Latitude: 34.3027184N Longitude: -118.3969850W

SOUTH ENVIRONMENTAL

above mean sea level (amsl) along the northeast border, and the lowest elevation for the development site is along the southwestern border at an elevation of 1415 feet amsl. The climate in the region is hot and dry, with average summer high temperatures in the low-90s and average winter lows in the upper-30s and lower 40s. Average yearly rainfall is 0.83-inches; the wettest months are November-March, with almost no precipitation between June-September.

Proposed Development

The project includes the demolition of the Sequoia Lodge building and the construction of a new multi-use residential building consisting of living units, reception area, case manager area counseling offices, administrative offices, security office, dental/medical examination rooms, day care center, computer lab, classroom, multi-purpose room, kitchen, communal dining, and a courtyard; resurfacing and widening of driveways and parking areas; and an enhancement of the landscaping. The proposed development areas are shown in Figure 3 below and in the attached Site Plan. The development will occur in areas that are currently developed with the Sequoia Lodge building, driveways, and parking areas, and these areas will be updated with the new development, paving, and landscaping.



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 3. Proposed Development

Development Site

Proposed Development

Paving and Resurfacing

Sequoia Building Footprint

0 50 100 Feet

Scale: 1:1,050

N

SOUTH ENVIRONMENTAL

2. Methodology

2.1 Prior Field Survey

South Environmental certified arborist Matthew South conducted a survey on May 2, 2019, and June 11, 2020, of trees of the genus *Quercus* (oak) on the property. The site was revisited by South Environmental arborists on October 18, 2022, to reassess the trees to confirm the prior survey findings. During the survey all protected oak trees consisting of trees with a trunk diameter of 8 inches or greater or with two trunks with diameters totaling at least 12 inches when measured at 4.5 feet above grade (protected oak) were recorded within 200-feet of proposed construction. The survey adhered to the guidelines outlined in the County of Los Angeles Oak Tree Ordinance.

During the survey, each protected oak was marked on the north side with a unique identification number and the location of the trunk was recorded using a Trimble R1 high-accuracy (sub-meter) GPS unit. The arborist evaluated the physical structure and health of each protected oak, and a photograph was taken of each tree surveyed. Another survey was conducted on June 11, 2020, at the request of Los Angeles County foresters, to confirm the trunk diameters of oaks proposed for impacts.

2.2 Oak Tree Mapping

The **trunk locations and canopy** of each tree recorded during the field survey were mapped using ESRI ArcGIS Pro mapping software. Per the Oak Tree Ordinance, the **Tree Protected Zone** (TPZ) includes the area within 5-feet extended from the trees canopy or 15-feet from the trunk, whichever is greater. The TPZ was also digitized using ESRI ArcGIS Pro mapping software (South Environmental 2022).

2.3 Oak Tree Community

Community Alliance Type and Sensitive Natural Community

During the tree surveys conducted in 2019 and 2020 by South Environmental, data were also collected to classify and characterize the plant communities of the site. This information was supplemented with plant community data from a South Environmental field visit in the Fall of 2022. Below, an assessment of the plant communities on the site is presented based on these surveys and a literature review.

The primary plant community on the site is oak woodland which is located in areas in all directions from the Sequoia Building. This community is characterized by California Naitve Plant Society

(CNPS) Manual of California Vegetation Online as a Coast Live Oak Woodland (Quercus agrifolia Forest & Woodland Alliance) (CNPS 2024). The CNPS Membership Rules that this community is defined by includes *Quercus agrifolia* at greater than 60% relative cover in the tree canopy (CNPS 2024). This corresponds to the *Quercus agrifolia* Association which has a Global and State Rank of 5 (CNPS 2024). The community is dominated by mature coast live oak (*Quercus agrifolia*) and is co-dominated by red river gum (*Eucalyptus camaldulensis*). Other tree species present were Canary Island pine (*Pinus canariensis*). The shrub understory is made up of a few widely scattered native plants. Among others, the shrub canopy includes laurel sumac and California buckwheat. The ground cover is dense with non-native forbs and grasses. Among others, the ground cover includes ripgut brome and black mustard (*Brassica nigra*).

Coast Live Oak Woodland in this area has a global rarity rank of "5" and a state rarity rank of "5" and is not considered a sensitive natural community as a result. However, portions of the oak woodlands surrounding an ephemeral drainage at the site are a sensitive riparian community but have been disturbed by fuel modification, landscaping, and development. CEQA Appendix G asks if the project would have "a substantial adverse effect on any riparian habitat or other sensitive natural community" and while the Coast Live Oak Woodlands does not meet the typical definition of CDFW Sensitive Natural Community due to its G5/S5 rarity rank, portions surrounding the river are considered a riparian habitat and would be considered sensitive as a result.

The "stand alone" oaks from the arborist survey — #13, #15, and #16 — do not form part of oak woodland as per the definition of the Management Plant Guide. However, all areas within the study area (development site and a 200-foot buffer) were mapped as Coast Live Oak Woodland.

Areas Established as Oak Woodland

As per the language and figures of the Management Plan Guide (Page 3-5, Figure 3), not all oaks on the site "make up 10% or greater relative cover". The arborist report carried out by South Environmental shows the oaks with numbers 13, 15, and 16 as "stand alone" oaks (South Environmental 2022), And therefore they do not constitute oak woodland as per the definition of the guide. These oaks therefore would not be subject to special oak woodland protection. All other oaks on the site form part of an oak woodland as per the definition of the Management Plan Guide.

Water Resources

The development site is located within the Los Angeles watershed (HUC8) and within the Lower Big Tujunga Creek sub-watershed (HUC12). There are three unnamed ephemeral channels that traverse the oak woodland on the site. These channels were recently subject to a jurisdictional

delineation (JD) conducted by South Environmental in the Fall of 2022. The JD characterized the channels and assessed the potential impact on them and associated oaks from the project.

Unnamed ephemeral channel #1 runs from northeast to southwest adjacent to the east of oak woodland. Unnamed ephemeral channel #2 runs north to south through the central portion of oak woodland to the east of Sequoia Building. And unnamed ephemeral channel #3 runs through oak woodland to the south of Sequoia Building (Figure 3; South Environmental 2022). Unnamed ephemeral channel #1 is culverted with concrete and masonry; unnamed ephemeral channel #2 is culverted with concrete and natural boundaries; and unnamed ephemeral channel #3 is culverted with concrete.

The three unnamed ephemeral channels are protected at the state and federal levels. The channels were classified by South Environmental as *Non-Wetland Waters of the U.S. and State* because of their ultimate connection to the Pacific Ocean (i.e., tributaries of Traditional Navigable Waters). There are no wetland waters of the U.S. or state on the development site. The three channels have some presence of oak woodland and are considered as "CDFW riparian habitat" under the overall regulatory measure of *Non-Wetland Waters of the State*.

3. Regulations

3.1 State of California

California Oak Woodlands Conservation Act (AB 242)

The California Oak Woodlands Conservation Act was approved by the Governor of California in 2001. The legislation requires that each county develop an Oak Woodlands Conservation Management Plan in order to qualify for funding for oak woodland conservation throughout the state. The Management Plan for the County of Los Angeles was adopted in 2011. In line with meeting funding requirements, the Management Plan includes the following overarching measures "1) preservation, where oak woodlands remain intact and functional, 2) conservation, where woodlands are integrated into land development; and 3) mitigation, where loss of oak woodlands in one area is mitigated off-site through restoration, creation, or purchase for preservation in another area." A central idea behind this document is to eventually incorporate its tenets into other planning documents such as the Los Angeles County General Plan.

California Environmental Quality Act (CEQA) and Senate Bill 1334

The California Environmental Quality Act (CEQA) is a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. CEQA applies to certain activities of state and local public agencies. A public agency must comply with CEQA when it undertakes an activity defined by CEQA as a "project." A project is an activity undertaken by a public agency or a private activity which must receive some discretionary approval (meaning that the agency has the authority to deny the requested permit or approval) from a government agency which may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment.

An Initial Study (IS) is prepared when a proposed action is determined to be a "project" under CEQA. The IS is a checklist that asks specific questions about the project's level of environmental impacts in many categories, including biological resources. The checklist includes a series of questions to determine the projects level of potential impacts in each of the categories. The CEQA Checklist includes the following questions regarding biological resources:

- *Would the project:*
    - *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?*

- *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?*
- *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?*
- *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?*
- *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance*
- *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

Potential level of impact choices includes: No Impacts, Less Than Significant Impact, Less Than Significant with Mitigation Incorporated, and Potentially Significant Impact. For projects that have no impact or less than significant impact a Negative Declaration is prepared, for those with Less Than Significant with Mitigation Incorporated prepare a Mitigated Negative Declaration, and for those with a Potentially Significant Impact prepare an Environmental Impact Report (EIR).

Senate Bill 1334 (Conversion of Oak Woodlands)

In 2004 the California legislature approved Senate Bill 1334 (Conversion of Oak Woodlands), amending the CEQA to specifically address impacts to California's oak woodlands. The legislation requires counties to assess whether projects under their jurisdiction will have significant impacts to oaks and oak woodlands. The legislation provides mitigation guidelines for these impacts, including the preservation of other oak woodlands through conservation easements, planting of replacement trees, and mitigation fees to be paid to a state or local mitigation fund. A notable exemption to this law is for the "conversion of oak woodlands on agricultural land that includes land that is used to produce or process plant and animal products for commercial purposes." Applying SB1334 in Los Angeles County to mitigation requires calculating oak woodlands values.

3.2 County of Los Angeles

Oak Tree Ordinance

The Oak Tree Ordinance was enacted in 1982 and was designed to protect individual standing oak trees. It was designed as an initiative to "recognize oak trees as significant historical, aesthetic and ecological resources, and as one of the most picturesque trees in Los Angeles County." The Ordinance stipulates that "a person shall not cut, destroy, remove, relocate, inflict damage, or encroach into the protected zone of any tree of the oak tree genus" if the tree meets a particular

size requirements. If this is not possible as in the cases of development, then a permit is necessary. Heritage oaks are classified as having a diameter at breast height of 36 inches or trees having significant historical or cultural importance. The Ordinance requires mitigation for loss of individual oak trees, but does not assess or mitigation for the loss of oak woodland as habitat.

General Plan

The General Plan of the County of Los Angeles includes the "Land Use and Conservation and Open Space Elements" component where there are policies that protect oak stands. The General Plan stipulates that "Developments in hillside areas on slopes of 25% or greater should preserve distinct visual characteristics and natural resources such as oak trees." It further stipulates that approval of residential development plans be contingent upon preservation of distinct visual aspects, including oak stands,

4. Impacts Analysis

4.1 Impacts to Individual Oak Trees

Impacts to individual oak tress was assessed in the Oak Tree Report (South Environmental 2022). Impacts were assessed by digitizing the development site (the Sequoia building) and overlaying them onto the digitized tree trunks, canopies, and TPZs. Intersection of a protected oak trunk with the project features would result in removal of the tree and intersection of the project features with the TPZ would result in encroachment. The level of encroachment to a single protected oak is reported as a percent of that oak's entire TPZ expected to be impacted by the development (South Environmental 2022).

A total of 57 protected coast live oak were identified in the survey area and marked with an identification number (ID#s 1-57), including one heritage oak (#26). The locations of the trunks, canopies, and the TPZs for all trees surveyed are shown in Figure 1. For data and assessment of the structure and health of the oak trees on the property refer to the Oak Tree Report (South Environmental 2022).

The proposed redevelopment of the Sequoia building would result in the removal of 4 protected oak trees, and encroachment into the TPZ of 12 oaks. No heritage trees will be removed or encroached upon. The tree removals are necessary for the upgrades to roads and buildings proposed by the project. These results are summarized below in Table 1 below and shown in Figure 3 (South Environmental 2022).

Table 1. Summary of Impacts to Oaks

Tree #	Health Rating	Heritage Oak	Trunk distance to Construction (ft)	Impact
#11	4	N	0	Removal
#12	4	N	23	~10% TPZ Encroachment
#13	5	N	0	Removal
#15	1	N	0	Removal
#16	5	N	0	Removal
#17	4	N	3	~98% TPZ Encroachment
#18	4	N	6	~50% TPZ Encroachment
#19	4	N	2	~60% TPZ Encroachment
#20	4	N	5	~40% TPZ Encroachment
#22	4	N	13	~20% TPZ Encroachment
#23	3	N	12	~20% TPZ Encroachment
#25	4	N	2	~75% TPZ Encroachment

#35	4	N	33	~ 3% TPZ Encroachment
#36	4	N	19	~ 5% TPZ Encroachment
#50	5	N	3	~50% TPZ Encroachment
#51	4	N	12	~20% TPZ Encroachment

*Data from *Oak Tree Survey Report* (South Environmental 2022)

Of the 4 oaks that will be removed, 3 of them (#11, #13, and #16) are in good health (4, or 5 health rating). Oak #15 is dead/dying (health rating of 1) and we recommend it be removed to avoid any future conflicts. Heritage Oak #26 will not be impacted by the project because it is off the project site and not in jeopardy from project activities.

The project proposes asphalt resurfacing and fencing installation on the eastern edge of the project that encroaches within the TPZ of 12 oaks. Resurfacing of asphalt and installation of fencing would occur within areas in the TPZ and near the potential root zone of the oaks and could inadvertently damage the root zones during installation. Asphalt resurfacing would occur within the TPZ and within 15-feet of the trunks of oaks #17, #18, #19, #20, #22, #23, #25, #50, and #51. Asphalt resurfacing would also occur within the TPZ, but beyond 15-feet of the trunks of oaks #12, #35, and #36. For the purposes of this report, encroachment of 30% or greater into the trees TPZ or excavation or grading within 15-feet of the trunk of an oak has the potential to result in the death or significant decline of the tree when these impacts reduce the canopy or root zone in these areas. However, these 12 oaks are within areas that are already developed and the oaks are maintained and managed by pruning and have an existing fence in this location. The proposed resurfacing and fence installation would not damage the roots of the trees as the roots of the trees would not be within the existing paved areas where the resurfacing and fencing would occur. Therefore, there would not be a reduction in root zone and potential impacts to the roots are minimal. Similarly, the canopy of these oaks would be unaffected because they are currently managed and pruned to allow for vehicle traffic and no new pruning of the canopy would be necessary to complete the construction of the project, and future tree care will be the same as the current. Because the project would not result in the loss of root zone or canopy (these would be near 0% for all the trees) these impacts would not be significant and no significant impacts would be expected to occur as a result.

Due to the proximity of the construction to the trees it is possible that these oaks could be inadvertently impacted during construction by machinery, and protective fencing should be installed to protect the trunks. Further, an arborist should monitor work within or adjacent to the TPZ of these oaks to ensure no inadvertent impact were to occur. These recommendations are described in the mitigation measures in the oak tree report. Finally, the mitigation measures also state that these trees would need replacement if they were inadvertently impacted and decline or die as a result of the construction, which would ensure there is compensation for the loss in the event that they were to be inadvertently impacted.

4.2 Impacts to Oak Woodland

The impact on individual coast live oak trees was assessed in the Oak Tree Survey Report which was a result of on the ground data collection in 2019 and 2020, and then revisited in 2022 to confirm conditions (South Environmental 2022). To assess potential impacts from the project to the oak at the level of community or woodland, the "*Los Angeles County Oak Woodlands Conservation Management Plan Guide*" was referred to for guidance. The Management Plan Guide was developed to implement portions of the "*Oak Woodlands Conservation Management Plan*" which implements the California Oak Woodlands Conservation Act (AB 242).

On page 8 of the Management Plan Guide under the subtitle "Determination," seven topics are presented as an outline of the required information for an Oakland Woodland Report from the project applicant. South Environmental provides this information in the order the topics are presented as follows:

1.) A description of the baseline condition of the oak woodland, including the species of oak trees present, the density of trees (number/acre), a demographic assessment of the trees (e.g. size or age range and the proportion of trees in young, mature, and declining classes), the vegetation type of the understory (e.g. scrub, grass/herb, barren, ornamental, etc.), the presence or potential use of the site by special-status species, and the spatial relationship to other woodland stands in the vicinity (e.g., immediately adjacent and fully integrated, isolated by urban development, etc.);

The oak trees present on the site are large, mature coast live oaks (*Quercus agrifolia*). Many are >30-in diameter at breast height and there is one heritage oak (#26; South Environmental 2022). The density of the oaks varies among areas around the Sequoia Building but there are approximately 10 large oak trees per acre. Little regeneration in the form of seedlings or saplings was observed due primarily to dense invasive cover at ground level which outcompetes the oaks for light and soil nutrients and landscaping around existing structures and appurtenant facilities at Hope Gardens. A considerable acorn mast was observed in the trees and on the ground. The shrub understory is sparse in most places and consists of a few native (e.g., California buckwheat) and non-native shrubs or trees (e.g., red river gum).

There is very little potential for either special-status plant or wildlife species to be present within or to use the area. The oak woodland is disturbed because of the presence of non-native species especially at the ground level, but also to some degree at the shrub and tree level. In general, special-status plants and animals do not inhabit disturbed areas that are close to developments but could use areas outside the developed portions of the development site. Because of the dense cover at the ground level, the potential for special-status plants to occur is unlikely or low, at best. There is California buckwheat which is of a genus (*Eriogonum*) that serves as host plant to the

special-status species Crotch's bumblebee (*Bombus crotchii*). However, the shrubs are few and far between and if the bumblebee were present in the area, it would likely inhabit the adjacent shrubland where there is a greater *Eriogonum* presence. Several wildlife species that use woodland are unlikely to be found because they are either considered extirpated or have rarely been observed in the area.

There is a continuation of oak woodland outside of the development site in all directions. The largest concentration of woodland is to the east before Lopez Canyon Road and to the west on a sloped area. Beyond the sloped area further to the west is another stand and going north there is oak woodland within the unnamed ephemeral stream channel. To the east beyond Lopez Canyon Road is shrubland and the woodland is largely located within the Hope Gardens campus and adjacent surrounding areas.

2.) A determination of the habitat value/integrity of the woodland (See Table 1 of Management Plan Guide);

Based on the **Existing Conditions** in Table 1 of the Management Plan Guide, the majority of the oak woodland was assessed as **"Moderately Degraded"**. The description from the Management Plan Guide of woodland with this condition is as follows: "Even though the site has been altered, oak woodlands persist and retain some of their functions. Natural regeneration is possible, wildlife use still occurs, and some level of ecosystem services is still present. Most oak woodlands in the County fall within this category". The oaks woodlands on the site is largely within irrigated planters and along the edges of existing paved areas, landscaped areas, and within proximity to the developments. These woodlands have been altered but retain some of their functions and are capable of regeneration in some areas.

There is a small stand of trees in the northeast that is assessed as **"Intact".** Woodlands assessed as Intact includes oaks in the northeast that partially occur on the Hope Gardens property but are also contiguous with the intact oak woodlands to the east within the Angeles National Forest. The description from the Management Plan Guide of woodland with this condition is as follows: "Site is currently in a 'wild' state where all ecological functions such as groundwater infiltration, shade, habitat, nutrient cycling, carbon sequestration, wind/noise/dust abatement, and the stand is self-sustaining and regenerating. Understory of grasslands may be dominated by invasive exotic grasses and forbs. Fire exclusion or frequency may have altered native woodland. Woodland supports associated flora and fauna and are free from destructive land practices that limit long-term persistence." This stand of oaks is regularly pruned on the west side where they overhang the existing parking lot, but they are otherwise undisturbed and intact.

3.) An analysis of impacts to the oak woodland and their severity (See Tables 2 and 3 of Management Plan Guide);

Based on the **Impact Severity** in Table 2 of the Management Plan Guide, the impact to the oak woodland was assessed as **"Low"** which is described as follows: "regeneration potential is being maintained across the site; understory oak associates present or can be restored; expansion of developed areas is centralized; new road and stream crossings not being considered. In the absence of special circumstances, statutes, or ordinances, this may represent a non-significant impact." The trees that will be impacted are set within a developed landscape and provide only minimal opportunities for wildlife that is found near developments and would not support special-status species. In addition, the areas that are proposed for impacts do not have the potential for new oaks to regenerate due to the level of development, and these areas are not a natural woodland due to the level of landscaping, irrigation, and pruning, as well as the impacts from the existing developments.

The woodlands in the northeast that are assessed as Intact will be avoided by the project. The proposed development would resurface the existing paved areas but not expand them. No new grading of areas beneath the trees would occur and impacts to the root zones would be avoided. The Intact woodlands that overhang the paved areas are regularly maintained by pruning and would continue to be maintained the same way following the completion of the project. Because there are no new paved areas or grading beneath the Intact woodlands and there is no new pruning or trimming that would be required, there would be no impact to the Intact woodlands on the site. No impacts to the root zones or canopy are anticipated, and the trunks will be protected by fencing to ensure impacts are avoided. This is consistent with the "Low" Impact Severity in Table 2 for Intact Woodland which is described as follows: "Minimal disturbance to stand structure and composition and habitat features resulting in no increased edge habitat or fragmentation; road and stream crossings are not being considered; activities will not result in the introduction of exotic or invasive species."

Table 2. Potential Impact and the Significance Level on Oak Woodland Assessed as Moderately Disturbed at Hope Gardens *From the Plan Management Guide: LTS = *Less Than Significant*

Impact	**Impact Severity and Level of Significance**		
	Low	**Mod**	**High**
Net loss of oak woodland acreage.	LTS		
Increased habitat fragmentation.	LTS		
Loss of vertical and horizontal structural complexity.			

Loss of understory species diversity, locally uncommon or rare species or associations.			
Loss of food sources for wildlife	LTS		
Loss of nesting, denning, burrowing, hibernating and roosting structures.	LTS		
Loss of habitats and refugia for sedentary species and those with special habitat requirements, i.e. mosses, lichens, rocks, native grasses, and fungi.	LTS		
Road construction, grading, trenching, activities affecting changes in grade, other road-related impacts.	LTS		
Stream crossings, culverts, and road associated erosion and sediment inputs.	LTS		
Loss of riparian function, reduced bank stability and increasing sedimentation or water temperature that impacts native fishes and other aquatic species.			
Road building activities that aggravate existing conditions	LTS		
Changes in environmental conditions that prevent existing residual trees from natural regeneration.			
Proposed project designs that result in construction that poses barriers to wildlife or fish passage.			
Proposed project designs that result in the probable introduction or expansion of invasive plants and animals	LTS		
Loss of individual heritage trees that are recognized and/or protected by ordinance or statutes.			
Loss of appropriate recruitment sites for recognized and/or protected heritage tree species.	LTS		
Loss of individual trees where the natural occurrence and range of the species has been dramatically reduced and altered resulting in decreased recruitment/restoration potential for the species.			
The removal of even a few individual trees that represents a significant portion of the existing population of that species.			
Loss of ecosystem services such as groundwater recharge, erosion protection, water quality protection, temperature moderation.	LTS		
Changes to carbon sequestration potential.	LTS		

Loss of view-shed, aesthetics, amenity value, public recreation opportunities, historic or cultural resources.			

4.) An analysis of recreational or aesthetic value of the woodland based on the presence of trails, location within a viewshed visible from parks or scenic highways, etc;

There are trails and dirt roads (e.g., Boy Scout Mountain Way) within 0.50-mile of the to the west and dirt roads within 0.50-mile to the east (e.g., Kagel-Indian Canyon Mountainway). Viewsheds of the site would be available along these roads. However, the trails in the immediate area are not established trails within the Angeles National Forest. In general, these trails and dirt roads increase in elevation to the north and would provide viewsheds of the property. Hikers or campers walking north from the property into Angeles National Forest along an unnamed ephemeral channel could climb adjacent hills to the west from which the oak woodland would be visible.

5.) An analysis of alternative project options that includes an explanation of why avoidance of the oak woodland was not feasible.

The project was designed to replace an existing building on the Hope Gardens campus. This is the least impactful project as it will put the new building in predominantly the same footprint as the old building and will update the paved surfaces to meet the new County regulations. The impacts to individual oaks are those that are located within the landscaped areas and development edges, and are not within a natural woodland. The woodland outside the Hope Gardens development will not be impacted significantly and the placement of the new building in the location of the prior building's footprint minimizes the impact to the woodland to the greatest extent possible.

6.) Impact of introduced pests and disease on the oak woodland.

The Oak Tree Report of South Environmental (2022) reported an overall good health of the oak trees in the woodland. A total of 47 trees (82%) scored 4 or 5 for health, eight trees scored 3 for health, and two trees (#15 and #26) scored 1 for health because they were nearly dead. Four trees showed signs of the fungal disease "heart rot" whereby the heartwood of a tree is decayed. One tree showed signs of insect infestation. Otherwise, there were no widespread signs of either pest or pathogen outbreaks. There were minimal signs of damage (shot holes, mining, border chewing). Some necrotic spotting was observed, but was not widespread and the trunks were generally free of cankers. Signs of burned trunks were common, but many of the trees are mature and capable of withstanding fires. The heritage tree (#26) had an entirely burned and hollow trunk and was dying, but was not a result of pests or disease.

7.) A summary of ecosystem services provided by oak woodlands as described by the Plan and how those services may change with development of the proposed project.

Below are ecosystem values of oak woodlands according to the Plan and an analysis of those services as applied to the oak woodland on the property. Mitigation for these impacts is presented in Section 5 below.

Habitat: The oak woodland provides habitat for mammals, reptiles, birds, insects and potentially amphibians. The canopy cover provides nesting habitat for many species of birds including those that are known to nest in species of the *Quercus* genus. And the bark provides ample foraging habitat for insect eating birds such as woodpeckers. Mammals such as raccoon and squirrel consume the acorns which can be a critical element of an animal's diet. The bark and detritus provide foraging and egg-laying and development habitat for insects. With the proposed removal of several oak trees, there would be a reduction in the amount of habitat available to wildlife. However, there are enough oak trees in the area that their removal would not have a sizeable impact on the amount of oak tree habitat available to wildlife because the loss is to oaks set within the development site and surrounding landscaped areas. The oaks within the adjacent undeveloped woodland (i.e., higher habitat value) will not be impacted by the project.

Erosion: The trees in the oak woodland stabilize the soil and provide detritus which traps moisture. Furthermore, the leaves slow the rate at which water reaches the ground producing runoff. The detritus also allows for more water infiltration into the soil. Bare or paved ground result in quicker and greater amount of runoff. The removal of several oak trees would result in more runoff into the unnamed ephemeral channels. However, there are enough oak trees in the woodland that the impact on erosion would be minimal. The lost oaks are set in planters in the parking areas and at road edges and much of the area beneath them is paved. The loss of these oaks will be replaced with paving or the project construction and erosion will not occur.

Carbon Sequestration: The leaves of the oak woodland absorb carbon resulting in the removal of carbon from the atmosphere, or carbon sequestration. The removal of several trees would result in less carbon sequestration. However, there is an abundance of vegetation, especially in terms of other species (e.g., eucalyptus), in the oak woodlands and the impact on carbon sequestration would be minimal.

Pollutants: Plants such as oaks absorb pollutants through their leaves such as volatile organic compounds (VOCs) and carbon monoxide. They also take up pollutants in the soil, helping to purify it**.** The removal of several oaks would thus result in greater pollutants in the air and soil.

Temperature Moderation: Trees including oaks provide shade which helps lower the temperature during hot days. The removal of several trees would result in greater temperatures around the areas where the trees were removed.

Watershed Function: The detritus around oak trees helps keep water cleaner through purifying the water of pollutants. If oaks are replaced by concrete or asphalt, there will be quicker runoff

and likely more contaminated runoff from chemicals found in developed areas, for example, from cars.

Water Resources

As discussed, there are three drainages on the site which were classified as *Non-wetland Waters of the U.S. and State*. Several of the oaks that will be removed are within the CDFW riparian zone of the concrete channelized stream adjacent to the project, and the removal of these trees will require permitting. These impacts will be mitigated by replacing the trees at a 2:1 ratio and by also protecting the remaining trees in place. Also, some temporary impacts will occur when a bridge over the concrete channel is replaced. However, the project will avoid permanent impacts to the channel and implement BMPs to avoid runoff or pollutants from entering the streambed. Permitting is required to implement the portions of the project within CDFW riparian areas. Implementation of the permitting measures will ensure that the project impacts will be minimized and mitigated.

5. Mitigation for Project Impacts

5.1 Mitigation for Individual Oaks

According to the Los Angeles County Oak Tree Ordinance, the property owner for a development site is required to replace Ordinance-protected oak trees that are removed with mitigation oak trees at a 2:1 ratio. The proposed project will result in removal of 4 protected oaks and encroachment into the TPZ of 12 additional protected oaks. However, South Environmental assessed that encroachment would not result in the death of any of these oaks if certain measures are followed as contained in the Oak Tree Survey Report. Key to mitigation will be the replacement of the 4 lost oaks at a ratio of 2:1 and therefore a total of 8 replacement trees. In the event the encroached trees die or severely decline in health, the project would replace those trees at 2:1 as well as confirmed during a 5-year monitoring period. For a full discussion of mitigation for the oaks to be removed at the site, refer to the Oak Tree Survey Report (South Environmental 2022).

5.1 Mitigation for Oak Woodland

The California Public Resources Code indicates that a project must be assessed for whether it would "result in a conversion of oak woodlands that will have a significant effect on the environment." Based on the Plan Management Guide for woodlands which is used to implement the Code, the impact to the oak woodland at the site was assessed as "Less Than Significant" for all of several woodland integrity indicators. The indicators assess potential impact to qualities or features considered important to the integrity and health of the oak woodland. Because the Management Guide indicates that projects which are assessed with a "Less than Significant" impact do not need to be mitigated, there would be no mitigation necessary based on the Code.

The impact to CDFW jurisdictional riparian habitat will require permitting. Measures in the permits should include best management practices to avoid additional indirect impacts to the streambed or water quality. If these measures are implemented, then no permits are likely necessary from the USACE and RWQCB; however, concurrence letters from both agencies are recommended to verify the agencies agree no impacts to their features would result from the project. These mitigation measures should include, at a minimum:

- Project activities within 50-ft of drainage features shall be planned when no surface water is present. No work should occur after rain events or when there is forecast of 50% chance of rain.
- The contractor shall clearly delineate the plant removal limits and prohibit any trimming or disturbance outside these boundaries.

- Trimmed materials shall be removed from the development site and disposed of off-site in a responsible manner.
- Project-related vehicles and equipment shall not enter the streambed and, when possible, shall be staged at least 50-feet outside of jurisdictional areas on paved surfaces.
- During construction, heavy equipment and vehicles shall be operated in accordance with standard Best Management Practices (BMPs). All equipment used in the workspace shall be properly maintained such that no leaks of oil, fuel, or residues will take place. Provisions shall be in place to remediate any accidental spills.
- Materials shall be stored at least 50-ft from drainage features, as feasible, or equipment will utilize secondary containment.
- Construction parking and staging will occur in previously disturbed and developed areas that are greater than 50-feet from jurisdictional areas.

Compensatory Mitigation

The project impacts are limited to the removal or permanent damage (encroachment) to 6[1] coast live oaks that are within CDFW riparian areas, and the temporary impacts to the bridge north of the development site that goes over the unnamed channel that will be resurfaced and returned to the existing conditions following the project. The project oak tree report requires that oak trees be planted at a 2:1 for each removal. We recommend replacement plantings of the coast live oaks planned per the project's Oak Tree Report and associated Oak Tree Permit be planted along the channels within riparian areas on the Hope Gardens property. This replacement of riparian habitat would be considered suitable compensation for the impacts to riparian trees. Alternative offsite mitigation considered suitable would be through purchase of mitigation credits for impacts to coast live oak riparian woodlands at a 2:1 and would be subject to County review and approval.

[1] It should be noted that the project overall will remove 4 oaks and encroach 12 oaks, and the above reference to 6 oaks includes only those trees within the riparian zone that is CDFW jurisdiction per the jurisdictional delineation report.

6. References

California Native Plant Society (CNPS). 2024. A Manual of California Vegetation Online: https://vegetation.cnps.org/

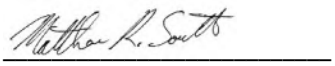
Los Angeles County Oak Woodlands Strategic Alliance. 2014. Oak Woodlands Conservation Management Plan Guide, Los Angeles County Department of Regional Planning, Los Angeles, California.

South Environmental. 2022. Oak Tree Survey Report: Hope Gardens Sequoia Building Project, Pasadena, California

7. Certification Statement

The signature below certifies that the information provided regarding protected oak trees within this report is true and accurate to the best of my knowledge and is based on the results of a survey of each tree that was conducted by qualified arborist Matthew South on May 2, 2019,June 11, 2020, and October 28, 2022. If you have questions regarding the methodology or findings of the report you can contact me by email at msouth@southenvironmental.com.

Sincerely,



Matthew South
Principal Biologist
South Environmental
Mobile: 303.818-3632

Appendix A:
Oak Tree Data

Table A-1. Oak Tree Data

ID#	Species	Height ft.	DBH in.	Canopy Measurements (feet)								Sym	Aesth	Disease	Pest	Vigor	Health	Recommendations and Notes
				N	NE	E	SE	S	SW	W	NW							
1	Coast	25	11	3	2	5	8	12	15	5	15	3	UC				4	
2	Coast	35	30	12	6	0	18	21	20	23	28	3	UC				4	
3	Coast	35	26	12	25	24	24	25	20	22	18	3	UC				4	
4	Coast	35	23,20	24	20	18	35	30	28	30	24	4					5	2 large trunks
5	Coast	40	35	1	5	8	35	35	30	10	6	3	UC					2 trunks 1 dead
6	Coast	45	21,18,17,15	28	30	30	25	18	15	30	30	5					5	up against building, 4 main trunks
7	Coast	26	17	8	10	15	18	15	18	15	15	4					4	
8	Coast	25	15	8	10	12	18	15	12	12	10	4				Bark	4	included bark at branch union
9	Coast	30	15	4	8	15	15	18	12	10	8	4					4	
10	Coast	25	13	8	13	15	10	10	8	8	8	4					4	other plants growing at the base
11	Coast	35	33,28,24	35	30	20	35	35	25	35	35	3	UC				4	mirrors installed on trunk
12	Coast	35	22,21	25	20	28	18	23	25	25	20	4					4	2 large trunks
13	Coast	25	15	12	10	10	10	10	10	10	10	5			B		5	
14	Coast	15	19	0	1	10	30	35	25	12	15	3	UC, HB	HR		Bark, Dead, thinning	3	underneath the canopy of 2 other oaks
15	Coast	12	27,26	10	5	1	0	0	10	5	10	1	BB,UC,HB			NTG, Dead, thinning	1	topped, 2 huge trunks, 1 is dead, other has new growth but poor health, beneath power lines
16	Coast	18	14	12	12	12	12	12	12	12	12	5					5	near parking lot
17	Coast	22	15	6	2	2	2	15	15	15	15	4					4	
18	Coast	30	22	12	5	5	25	25	20	20	20	4					4	
19	Coast	8	13	0	0	5	20	22	20	12	0	2	UC,HB			thinning	3	

ID#	Species	Height ft.	DBH in.	Canopy Measurements (feet)								Sym	Aesth	Disease	Pest	Vigor	Health	Recommendations and Notes
				N	NE	E	SE	S	SW	W	NW							
20	Coast	18	9	3	2	10	15	15	18	6	3	3	UC				4	
21	Coast	22	8	10	10	10	10	10	10	10	10	4					5	
22	Coast	22	11	20	15	5	2	5	10	22	24	4					4	
23	Coast	20	16	22	10	0	0	5	15	15	20	3	UC	HR			3	position was corrected in database on 9/29/2020 to show trunk location outside of the impact area. Verified by the attached photogaphs.
24	Coast	15	10	20	5	3	2	1	1	5	18	3	UC				4	likely burned on bark
25	Coast	25	13	12	4	3	1	1	5	20	25	3	UC				4	
26	Coast	28	60	28	12	15	20	25	28	20	20	5	BB	CR,HR		Bark, thinning, Dead, LC	1	hollow inside, burned throughout won't survive, heritage oak
27	Coast	22	15	10	10	10	15	15	10	12	15	4	BB			Bark, Dead	3	burned
28	Coast	28	9	8	8	8	8	8	8	8	8	4				Dead, thinning	3	burned
29	Coast	45	34,31,30	35	35	35	35	35	35	35	35	5	BB			Dead, thinning	4	burned
30	Coast	40	28,20	35	35	35	35	35	35	35	35	5	BB			Dead	4	burned
31	Coast	45	22,20	30	20	15	15	20	25	25	30	4	BB					burned
32	Coast	40	19	28	25	25	10	10	5	5	20	4					4	
33	Coast	45	26,24	35	35	35	35	35	35	35	35	5				thinning	4	
34	Coast	20	13	12	12	12	12	12	12	12	12	5			Parasite		4	on a fence at the road edge vine growing through it
35	Coast	40	29,28,25,23	35	35	35	35	35	35	35	35	5	HB				4	burned
36	Coast	25	10	8	2	2	2	10	15	15	18	3	UC				4	

ID#	Species	Height ft.	DBH in.	Canopy Measurements (feet)								Sym	Aesth	Disease	Pest	Vigor	Health	Recommendations and Notes
				N	NE	E	SE	S	SW	W	NW							
37	Coast	15	18	0	10	18	25	25	20	5	0	2	UC				4	
38	Coast	40	15	12	12	12	12	12	12	12	12	4					4	
39	Coast	25	10	5	5	15	15	15	15	15	5	4					4	vine on trunk
40	Coast	25	9	5	5	10	10	10	10	5	5	4					4	
41	Coast	20	8	2	2	5	10	10	10	5	2	3	UC				4	vines
42	Coast	20	8	0	0	0	5	15	15	10	0	2	UC				4	
43	Coast	30	9	10								5					5	
44	Coast	20	10	0				20				3	UC				4	
45	Coast	30	20	5			20	20	20	10	10	4					4	
46	Coast	25	10	5	15	15	15	5	0	5	5	3	UC			Bark	3	burned and wounded trunk
47	Coast	30	29	15								4					4	2 trunks
48	Coast	30	24	0	0		15	22	25	30	0	3	UC				4	
49	Coast	35	25,13,12	20	20	20	20	20	20	20	20	5					4	
50	Coast	20	10	10	5	5	10	10	10	10	10	4					5	
51	Coast	20	11	10	10	10	15	15	15	15	10	4					4	
52	Coast	30	13	10	10	5	12	15	15	15	10	3					4	
53	Coast	25	8	0	0	5	18	15	10	10	0	3	UC				4	
54	Coast	25	15	15								5					3	on road edge on cliff, exposed roots up to 6 ft
55	Coast	30	21	20								4		HR			4	
56	Coast	45	28,25,13	25	20	25	35	40	20	12	20	4				Dead, thinning	4	burned, included bark
57	Coast	30	22	22	3	5	10	12	20	20	20	3		HR		dead, thinning	3	burned, root rot and heart rot visible

Appendix B:
Photograph Exhibit

Oak #1



Oak #2



Oak #3



Oak #4



Oak #5



Oak #6



Oak #7



Oak #8



Oak #9



Oak #10



Oak #11



Oak #12



Oak #13



Oak #14



Oak #15



Oak #16



Oak #17



Oak #18



Oak #19



Oak #20



Oak #21



Oak #22



Oak #23



Oak #24



Oak #25



Oak #26 (Hollow Trunk)



Oak #26



Oak #27



Oak #28



Oak #29



Oak #30



Oak #31



Oak #32



Oak #33



Oak #34



Oak #35



Oak #36



Oak #37



Oak #38



Oak #39



Oak #40



Oak #41



Oak #42



Oak #43



Oak #44



Oak #45



Oak #46



Oak #47



Oak #48 (on R off photo)



Oak #49



Oak #50



Oak #51



Oak #52



Oak #53



Oak #54



Oak #55



Oak #56



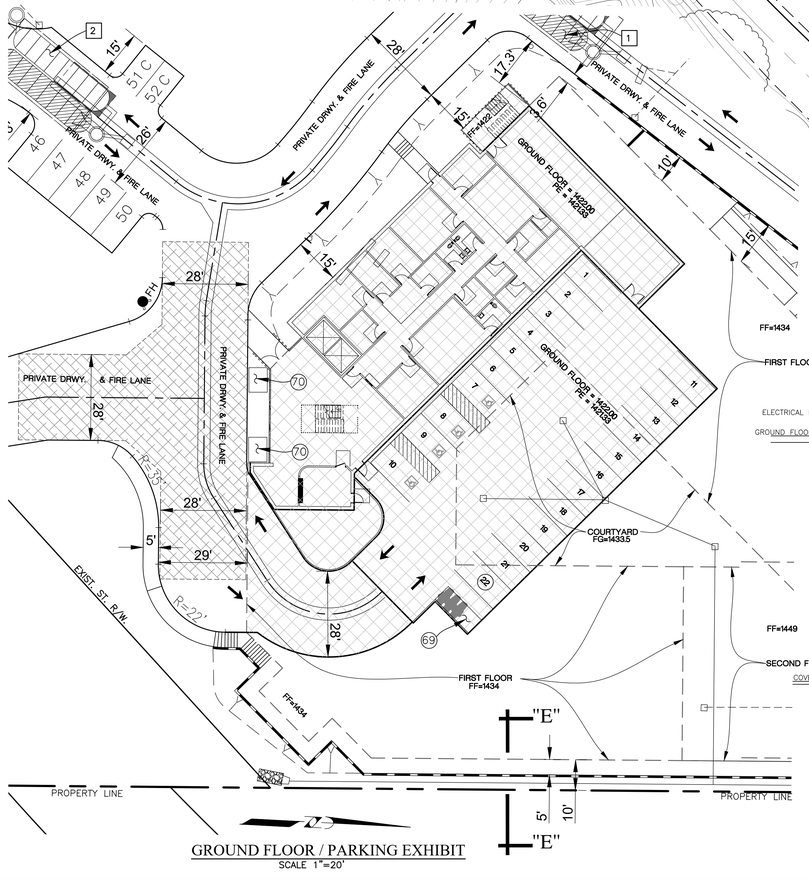
Oak #57



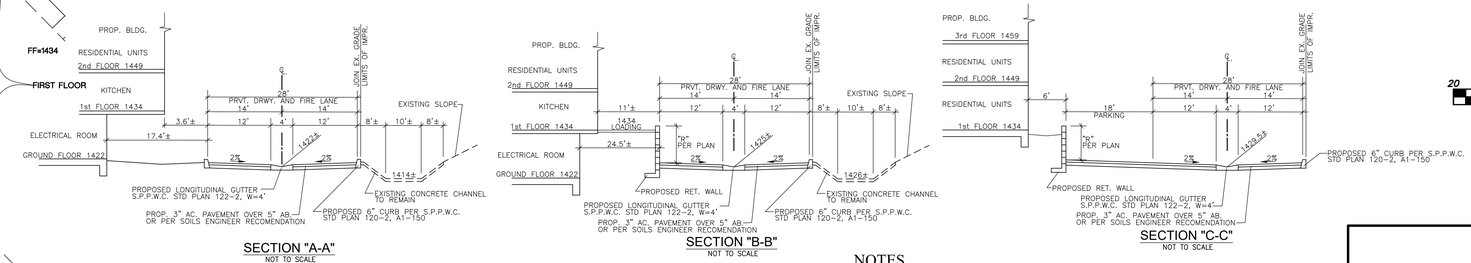
Appendix C:
Site Plan

PROPOSED SITE PLAN / UNDERGROUND PARKING / L.I.D.





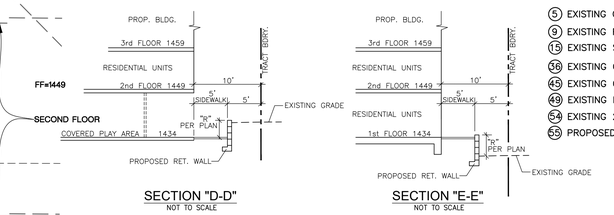
GROUND FLOOR / PARKING EXHIBIT
SCALE 1"=20'



SECTION "A-A"
NOT TO SCALE

SECTION "B-B"
NOT TO SCALE

SECTION "C-C"
NOT TO SCALE



SECTION "D-D"
NOT TO SCALE

SECTION "E-E"
NOT TO SCALE

NOTES

(5) EXISTING CHAIN LINK FENCE
(9) EXISTING FIRE HYDRANT
(15) EXISTING SIGNAGE
(36) EXISTING CATCH BASIN
(45) EXISTING CONTAINER STORAGE AREA
(49) EXISTING FIRE HYDRANT TO BE RELOCATED
(54) EXISTING 24' WIDE GATE TO BE WIDEN TO 28'
(55) PROPOSED RETAINING WALL
(56) PROPOSED 28' WIDE PRIVATE DRIVEWAY AND FIRE LANE SEE DETAIL ON SHEET 1
(57) PROPOSED 26' WIDE PRIVATE DRIVEWAY AND FIRE LANE SEE DETAIL ON SHEET 1
(58) PROPOSED FIRE APPARATUS TURNAROUND
(59) PROPOSED DELIVERY RAMP
(60) PROPOSED CATCH BASIN
(61) PROPOSED STORM DRAIN LINE
(62) PROPOSED STORM DRAIN OUTLET/RIP-RAP
(63) WIDEN EXISTING CULVERT AS REQUIRED
(64) PROPOSED 28' WIDE DRIVEWAY WIDENING
(65) EXISTING DRAINAGE CULVERT TO REMAIN
(66) PROPOSED "NO PARKING FIRE LANE" SIGN
(67) PROPOSED RELOCATED FIRE HYDRANT
(68) PROPOSED SIDEWALK
(69) INSTALL 6-SHORT TERM BICYCLE PARKING SPACES (RACKS)
(70) INSTALL 11-LONG TERM ENCLOSED BICYCLE SPACES (BIKE LOCKER STORAGE) INTENDED FOR RESIDENTS ONLY

L.I.D. NOTES:

BMPs 1 & 2 BELOW COMPRISE OF STORMTECH MC-4500 CHAMBERS AND END CAPS IN CONFIGURATIONS AS NOTED :

[1] TWO ROWS OF 6 CHAMBERS EA. (12 TOTAL) W/ 2 END CAPS EA. ROW, WITH 12" STONE BASE.
[2] TWO ROWS OF 8 CHAMBERS EA. (16 TOTAL) W/ 2 END CAPS EA. ROW, WITH 12" STONE BASE.

GRAPHIC SCALE (IN FEET)
1 inch = 20 ft.

OWNER/DEVELOPER:

UNION RESCUE MISSION
545 S. SAN PEDRO ST. LOS ANGELES, CA 90013
Ph: (213) 347-6300

LEGAL DESCRIPTION:

A.P.N. 2846-001-017, 2846-001-018
A.P.N. 2846-001-019, 2846-001-020

CUP EXHIBIT "A"
HOPE GARDEN SEQUOIA BUILDING
UNION RESCUE MISSION
12249 LOPEZ CANYON ROAD

IN THE UNINCORPORATED TERRITORY OF COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

DRAWN BY	DATE		VERSION
LDC	12/07/2020		VERSION 2
CHECKED BY			
S.H.			
DESIGNED BY			
LDC			
	DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER ROBERT R. SIMS No. 21649 EXP. 9-30-23 CIVIL STATE OF CALIFORNIA

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Robert R Sims, R.C.E. No. 21649

09/26/2022
DATE

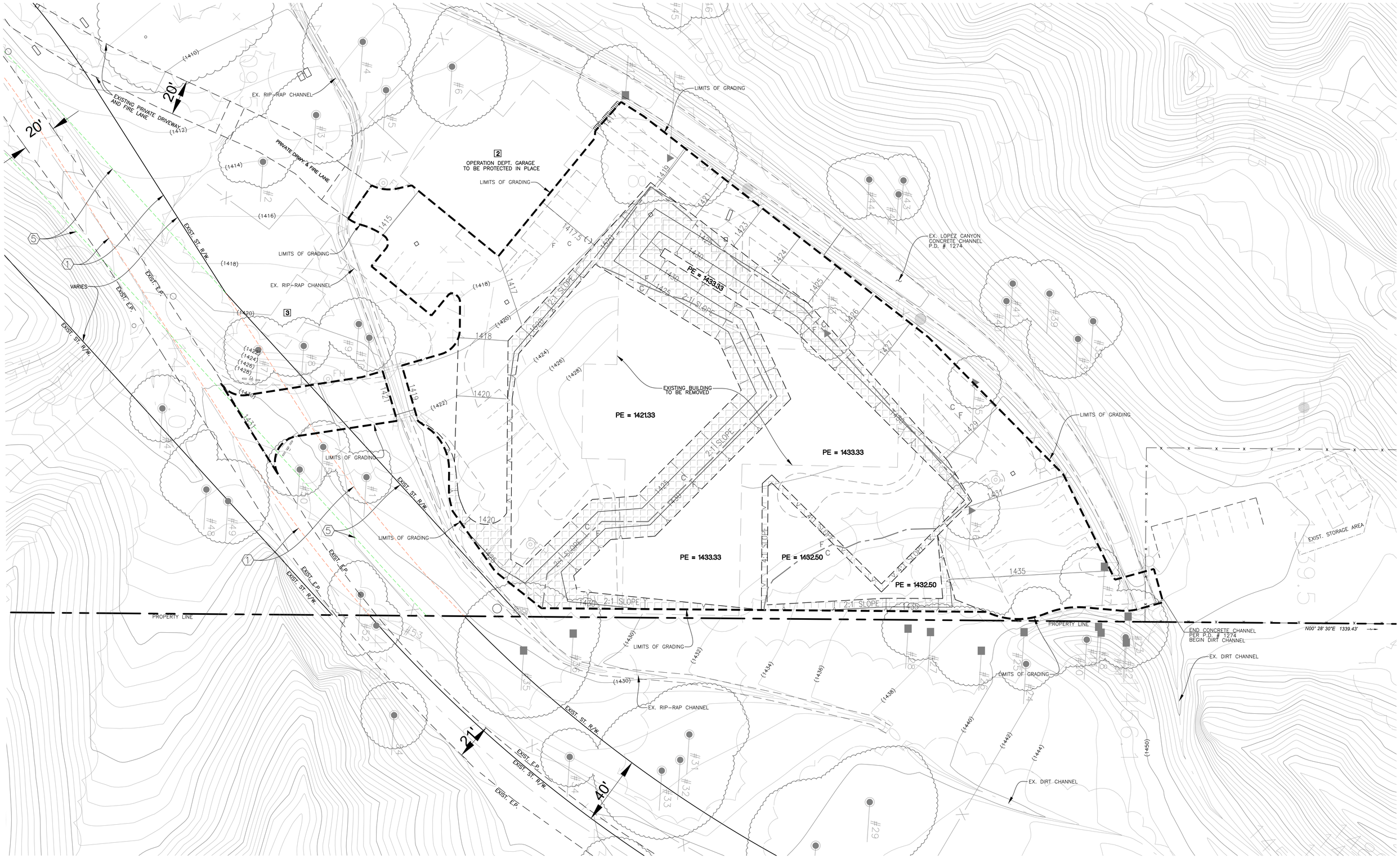
LDC

Project. No. 17019-005

SHEET 3 OF 6

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PROPOSED SITE PLAN / ROUGH GRADING



20 0 10 20 40 80

GRAPHIC SCALE (IN FEET)
1 inch = 20 ft.

OWNER/DEVELOPER:

UNION RESCUE MISSION
545 S. SAN PEDRO ST. LOS ANGELES, CA 90013
Ph: (213) 347-6300

LEGAL DESCRIPTION:

A.P.N. 2846-001-017, 2846-001-018
A.P.N. 2846-001-019, 2846-001-020

CUP EXHIBIT "A"
HOPE GARDEN SEQUOIA BUILDING
UNION RESCUE MISSION
12249 LOPEZ CANYON ROAD

IN THE UNINCORPORATED TERRITORY OF COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

DRAWN BY: LDC	12/07/2020		VERSION 2
CHECKED BY: S.H.			
DESIGNED BY: LDC			
	DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER
ROBERT R. SIMS
No. 21649
EXP. 9-30-23
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Robert R Sims, R.C.E. No. 21649

09/26/2022
DATE

LDC

Project. No. 17019-005

SHEET 4 OF 6

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Appendix 4.2-1

Cultural Report

Cultural Resources Technical Report

Hope Gardens Sequoia Building Project,
Los Angeles County, California

March 2023

Prepared For:
EcoTierra Consulting
633 W. 5th Street, 26th Floor
Los Angeles, California 90071

Prepared By:
Samantha Murray, MA

SOUTH ENVIRONMENTAL
2061 N. Los Robles Avenue, Suite 205
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Appendix A. Confidential Records Search Results
Appendix B. NAHC Sacred Lands File Search
Appendix C. DPR Forms: Forester Haven Historic District
Appendix D: Project Site Plan and Concept Design

Executive Summary

South Environmental was retained to complete a cultural resources technical report for the Hope Gardens Sequoia Building Project located at 12249 Lopez Canyon Drive in unincorporated Los Angeles County, California (AIN: 2846-001-017), which proposes demolition of the existing building on the site and construction of a new residential and childcare facility. This study includes the results of a California Historical Resources Information Center (CHRIS) records search of the project site and a 0.5-mile radius; review of the Office of Historic Preservation's Built Environment Resources Directory (BERD); an intensive-level survey of the project site by a qualified archaeologist and architectural historian; building development and archival research; and recordation and evaluation of a newly identified historic district of buildings and structures (Forester Haven Historic District) for historical significance and integrity in consideration of National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), and Los Angeles County designation criteria. This report was prepared in conformance with California Environmental Quality Act (CEQA) Guidelines Section 15064.5 for historical resources and the County of Los Angeles Historic Preservation Ordinance.

No archaeological resources were identified within the project site as a result of the CHRIS records search, NAHC Sacred Lands File search, or pedestrian survey. All Native American coordination for the proposed project was overseen by the County of Los Angeles. The project site is unlikely to contain intact buried archaeological deposits. Still, it is always possible to encounter resources during ground disturbance. Standard inadvertent discovery measures for archaeological resources and human remains have been provided in Section 8.1.

As a result of the property significance evaluation, 11 buildings (Building ID#s 1, 2, 5, 6, 7, 8, 10, 11, 12, 14, 15, see Figure 12) appear eligible as contributing resources to the newly identified Forester Haven Historic District under NRHP, CRHR, and County Criteria A/1/1 and C/3/3 for their important historical associations with the Independent Order of Foresters (IOF) and for embodying the distinctive character-defining features of the Contemporary style of architecture, which unite them aesthetically and create a cohesive campus of rustic, lodge-style buildings designed by an IOF member for an IOF retirement home. Building ID#s 3, 4, 9, and 13 were identified as non-contributing resources.

Section 7 provides detailed recommendations for next steps regarding the proposed demolition of the Sequoia Lodge Building and construction of a new building. These recommendations include: 1) considering a reasonable range of alternatives to demolition; 2) archival documentation of the building prior to demolition; and 3) providing protection to adjacent buildings during demolition and construction activities.

1 Introduction

South Environmental was retained to complete a cultural resources technical report for the Hope Gardens Sequoia Building Project located at 12249 Lopez Canyon Drive in unincorporated Los Angeles County, California. This study includes the results of a California Historical Resources Information Center (CHRIS) records search of the project site and a 0.5-mile radius; review of the Office of Historic Preservation's Built Environment Resources Directory (BERD); an intensive-level survey of the project site by a qualified archaeologist and architectural historian; building development and archival research; and recordation and evaluation of a newly identified historic district of buildings and structures (Forester Haven Historic District)for historical significance and integrity in consideration of National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), and Los Angeles County designation criteria. This report was prepared in conformance with California Environmental Quality Act (CEQA) Guidelines Section 15064.5 for historical resources and the County of Los Angeles Historic Preservation Ordinance.

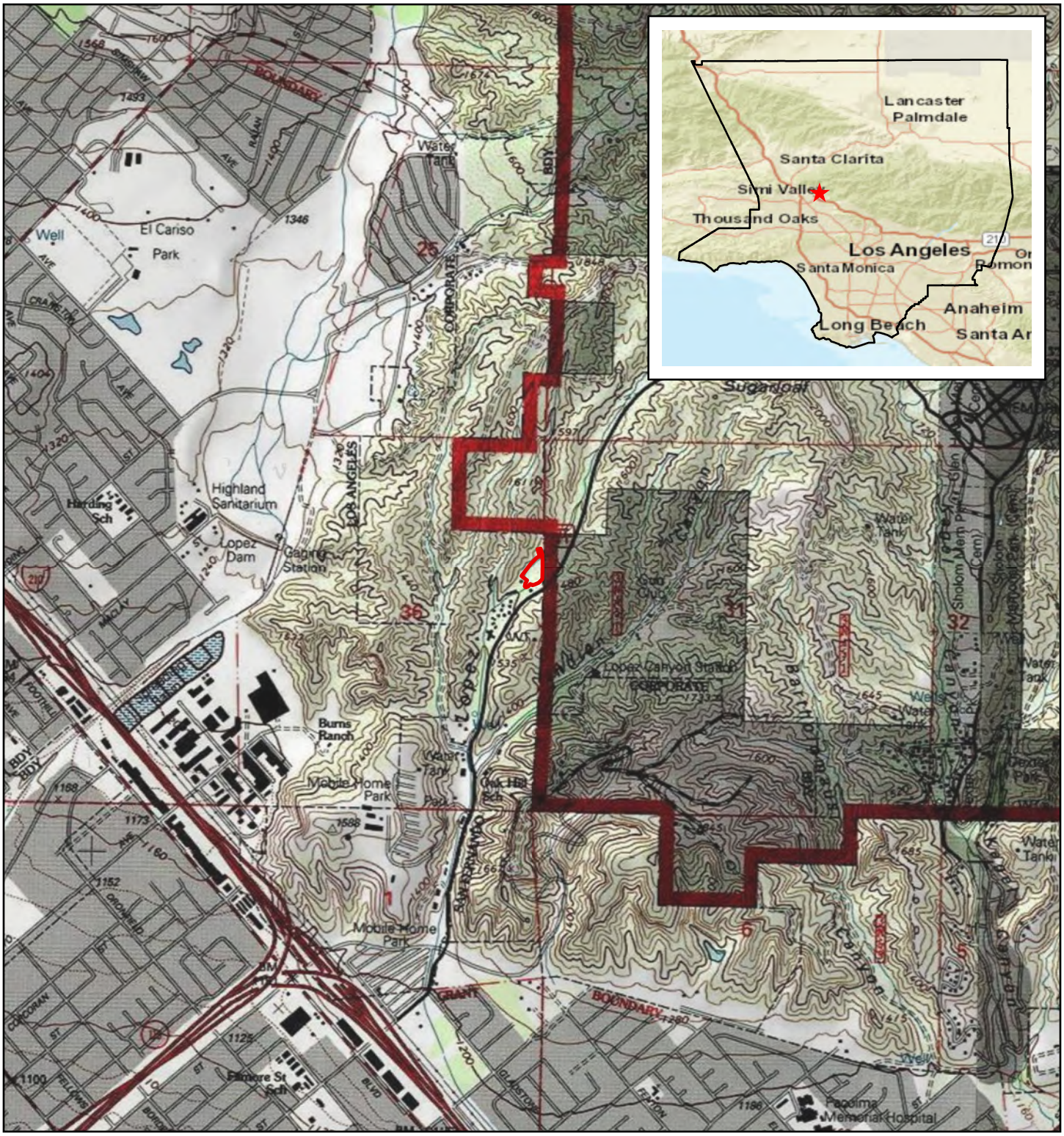
1.1 Project Location Description

Project Location

The project site is located at 12249 Lopez Canyon Road in unincorporated Los Angeles County on Assessor's Identification Number (AIN) 2846-001-017. The project site is approximately 1-mile north of Interstate 210 and the Sylmar neighborhood of the City of Los Angeles. The project is within the U.S. Geological Survey (USGS) San Fernando 7.5 Minute Topographical Quadrangle, and within Section 36 of Township 03 North (03N) and Range 15 West (15W), and Section 31 of Township 03N and Range 14W (Figure 1, Project Location).

Project Description

The proposed project includes the demolition of the Sequoia Lodge Building and the construction of a new four story, 106,410-square-foot building to provide long term homeless housing. The new development would support 117 family residential units and associated support services including kitchen, dining, recreation, daycare, education, medical clinic, library, and offices. The new development also includes additional driveways and parking areas, and an enhancement of the landscaping. The new development will occur in areas that are currently developed with the Sequoia Lodge Building, driveways, and parking areas. It will consist of the enlarged building, reconfigured parking and paving, and updated landscaping (Figure 2, Proposed Project Footprint).



Source: ESRI USA Topo Maps 2021

Hope Gardens Redevelopment Project

Figure 1. Project Location



0 2,000 4,000 Feet

N

Project Footprint (1.97-acres)

Project Footprint is in unincorporated Los Angeles County on the USGS San Fernando 7.5-minute quadrangle map in Section 36 of Township 03 North (T03N) and Range 15 West (R15W)

Center Coordinate (decimal degrees):
Latitude: 34.3027N Longitude: -118.3969W

SOUTH ENVIRONMENTAL



Source: BING Aerial Basemap 2021

Hope Gardens Redevelopment Project

Figure 2. Proposed Project Footprint

0 100 200 Feet

N

Proposed Development

Project Footprint (1.97-acres)

Angeles National Forest

SOUTH ENVIRONMENTAL

Project Study Area

The archaeological area of study includes the project footprint, where ground disturbance is expected to occur as a result of demolition and new construction. This report assumes that construction staging/stockpiling areas for new construction will occur in the existing parking areas on the Hope Gardens campus. The built environment area of study includes the larger Hope Gardens property, since most of the existing buildings and structures were constructed between 1962 and 1975 in the same architectural style, by the same architect, and for the same general function (Figure 3, Cultural Resources Study Area). Throughout the report, buildings and structures identified in the project study area will be referred to by their Building ID#s as labeled on Figures 3 and 12.



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 3. Cultural Resources Study Area

0 145 290 Feet

N

Scale: 1:2,900

- Buildings
- Project Footprint/Archaeological Study Area
- Built Environment Study Area

SOUTH ENVIRONMENTAL

1.2 Regulatory Setting

Federal

National Register of Historic Places

The NRHP is the United States' official list of districts, sites, buildings, structures, and objects worthy of preservation. Overseen by the National Park Service under the U.S. Department of the Interior, the NRHP was authorized under the National Historic Preservation Act (NHPA), as amended. Its listings encompass all National Historic Landmarks and historic areas administered by the National Park Service.

NRHP guidelines for the evaluation of historic significance were developed to be flexible and to recognize the accomplishments of all who have made significant contributions to the nation's history and heritage. Its criteria are designed to guide state and local governments, federal agencies, and others in evaluating potential entries in the NRHP. For a property to be listed in or determined eligible for listing, it must be demonstrated to possess integrity and to meet at least one of the following criteria:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association; and

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or

B. That are associated with the lives of persons significant in our past; or

C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. That have yielded, or may be likely to yield, information important in prehistory or history.

"Integrity" is defined in NRHP guidance, How to Apply the National Register Criteria, as "the ability of a property to convey its significance. To be listed in the NRHP, a property must not only be shown to be significant under the NRHP criteria, but it also must have integrity." NRHP guidance further states that properties be completed at least 50 years ago to be considered for eligibility. Properties completed fewer than 50 years before evaluation must be proven to be "exceptionally important" (criteria consideration G) to be considered for listing.

State

California Register of Historical Resources

In California, the term "historical resource" includes but is not limited to "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California Public Resources Code Section 5020.1(j)). In 1992, the California legislature established the CRHR "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (California Public Resources Code Section 5024.1(a)). The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the National Register of Historic Places (NRHP), enumerated below. According to California Public Resources Code Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

(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.

In order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (see 14 CCR 4852(d)(2)).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act

As described further below, the following CEQA statutes and CEQA Guidelines are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- California Public Resources Code Section 21083.2(g) defines "unique archaeological resource."
- California Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5(a) define "historical resources." In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource." It also defines the circumstances when a project would materially impair the significance of an historical resource.
- California Public Resources Code Section 21074(a) defines "tribal cultural resources."
- California Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- California Public Resources Code Sections 21083.2(b)-(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures; preservation-in-place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context and may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

More specifically, under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5(b).) If a site is either listed or eligible for listing in the CRHR, or if it is included in a local register of historic resources or identified as significant in a historical resources survey (meeting the requirements of California Public Resources Code Section 5024.1(q)), it is a "historical resource" and is presumed to be historically or culturally significant for purposes of CEQA (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5(a)). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5(a)).

A "substantial adverse change in the significance of an historical resource" reflecting a significant effect under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines Section 15064.5(b)(1); California Public Resources Code

Section 5020.1(q)). In turn, CEQA Guidelines section 15064.5(b)(2) states the significance of an historical resource is materially impaired when a project:

1. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
2. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
3. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any "historical resources," then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (California Public Resources Code Section 21083.2[a], [b], and [c]).

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

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.

3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Impacts to non-unique archaeological resources are generally not considered a significant environmental impact (California Public Resources Code section 21083.2(a); CEQA Guidelines Section 15064.5(c)(4)). However, if a non-unique archaeological resource qualifies as tribal cultural resource (California Public Resources Code Section 21074(c), 21083.2(h)), further consideration of significant impacts is required. CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in California Public Resources Code Section 5097.98.

Assembly Bill 52

AB 52 amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. Section 4 of AB 52 adds Sections 21074(a) and (b) to the PRC, which address tribal cultural resources and cultural landscapes. Section 21074(a) defines tribal cultural resources as one of the following:

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

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

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

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

Section 1(a)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource."

Local

Los Angeles County Historic Preservation Ordinance

On September 1, 2015, the Board of Supervisors recognized the importance of preserving the County's distinctive architectural and cultural history by adopting the Historic Preservation Ordinance ("HPO") that:

- Specifies criteria and procedures for the designation of landmarks and historic districts.
- Specifies criteria and procedures for reviewing proposed work on designated landmarks or on property within historic districts.
- Establishes penalties for unauthorized work, including demolition, on landmarks or historic district contributors.
- Requires maintenance of landmarks and historic district contributors to prevent deterioration.
- Prohibits work, including demolition, on property nominated but not yet designated as a landmark or historic district.
- Encourages adaptive reuse of landmarks and historic district contributors by providing relief from parking requirements.
- Provides for the enhancement of historic districts by the establishment of development guidelines and standards, and by allowing streetscape improvements that are compatible with the areas historic character.

22.124.070 Criteria for Designation of Landmarks and Historic Districts

A. A structure, site, object, tree, landscape, or natural land feature may be designated as a landmark if it is 50 years of age or older and satisfies one or more of the following criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of the history of the nation, State, County, or community in which it is located;

2. It is associated with the lives of persons who are significant in the history of the nation, State, County, or community in which it is located;

3. It embodies the distinctive characteristics of a type, architectural style, period, or method of construction, or represents the work of an architect, designer, engineer, or builder whose work is of significance to the nation, State, County,

or community in which it is located; or possesses artistic values of significance to the nation, State, County, or community in which it is located;

4. It has yielded, or may be likely to yield, significant and important information regarding the prehistory or history of the nation, State, County, or community in which it is located;

5. It is listed, or has been formally determined eligible by the United States National Park Service for listing, in the National Register of Historic Places, or is listed, or has been formally determined eligible by the State Historical Resources Commission for listing, on the California Register of Historical Resources;

6. If it is a tree, it is one of the largest or oldest trees of the species located in the County; or

7. If it is a tree, landscape, or other natural land feature, it has historical significance due to an association with a historic event, person, site, street, or structure, or because it is a defining or significant outstanding feature of a neighborhood.

B. Property less than 50 years of age may be designated as a landmark if it meets one or more of the criteria set forth in Subsection A, above, and exhibits exceptional importance.

C. The interior space of a property, or other space held open to the general public, including but not limited to a lobby, may be designated as a landmark or included in the landmark designation of a property if the space qualifies for designation as a landmark under Subsection A or B, above.

D. Historic Districts. A geographic area, including a noncontiguous grouping of related properties, may be designated as a historic district if all of the following requirements are met:

1. More than 50 percent of owners in the proposed district consent to the designation;

2. The proposed district satisfies one or more of the criteria set forth in Subsections A.1 through A.5, above; and

3. The proposed district exhibits either a concentration of historic, scenic, or sites containing common character-defining features, which contribute to each other and are unified aesthetically by plan, physical development, or architectural quality; or significant geographical patterns, associated with

different eras of settlement and growth, particular transportation modes, or distinctive examples of parks or community planning.

2 Background Research

2.1 CHRIS Records Search

On December 23, 2020, staff at the South Central Coastal Information Center (SCCIC) completed a CHRIS records search of the project site and a 0.5-mile search radius. This search included their collections of mapped prehistoric and historic archaeological resources and historic built-environment resources, State of California Department of Parks and Recreation Site Records (DPR forms), technical reports, archival resources, and ethnographic references. Additional consulted sources include historical maps of the study area, the NRHP, the CRHR, the lists of California State Historical Landmarks, California Points of Historical Interest, the Archaeological Determinations of Eligibility, and the Built Environment Resources Directory (BERD). The results of the records search are presented in Confidential Appendix A.

Previously Conducted Cultural Resource Studies

The SCCIC records search results indicate that one previously conducted archaeological study intersects the northern portion of the proposed Project site: *Archaeological Survey Report, Southern California* Edison *Deteriorated Pole Replacement Program, Lopez 16kV Circuit, Angeles National Forest and Private Inholdings, Los Angeles County, California* (LA-10555, Jordan and Wise 2005). The report was completed in compliance with Section 106 of the NHPA and identified two previously recorded resources, the Black Wonder Mill Site (CA-LAN-2138H) and the German Limekilns site (CA-LAN-800H), within the project's area of potential effects. Both resources were determined to be avoidable with no potential to be adversely affected by the project. Additionally, one newly identified resource, SCE.029-1 (a pole located on the Lopez 12kV Circuit) was recommended for avoidance. The larger Circuit (which runs through the proposed project site) was recommended ineligible for the NRHP due to a lack of significant historical associations and for representing a ubiquitous resource type. The report did not include any resource recommendations beyond standard protections measures for unanticipated archaeological resource discoveries during construction.

An additional seven previously conducted cultural resources studies were conducted within 0.5-mile of the project site between 1975 and 2004. A summary of all previously conducted studies identified as a result of the records search are provided in Table 1.

Table 1. Previous Cultural Resources Investigations Within 0.5-Mile of the Project Site

SCCIC Report Number	Author	Year	Report Title	Proximity to Project Site
LA-00138	Hector-Kaufman, Susan	1975	Evaluation of the Archaeological Resources and Potential Impact of the Proposed Modification of an Area Adjacent to Lopez Canyon, Los Angeles, Into a Sanitary Landfill	Outside
LA-00455	Van Horn, David M.	1979	Archaeological Survey Report: a 100+ Acre Parcel Located Adjacent to San Fernando Near the Pacoima Dam in the County of Los Angeles, California	Outside
LA-00464	Foster, John M. and Louis J. Tartaglia	1979	Cultural Resource Inventory of Tentative Tract 36183 EIR Case No. 98-79zc (sub)	Outside
LA-01691	Wessel, Richard L.	1988	Archaeological Reconnaissance Report: Homenetmen Land Exchange	Outside
LA-09747	Brasket, Kelli S.	–	Little Tujunga West Fuels Reduction Project, Los Angeles River Ranger District, Angeles National Forest, Los Angeles County, California. ARR# 05-01-01096	Outside
LA-10555	Jordan, Stacey C. and Michael J. Wise	2005	Archaeological Survey Report SCE Deteriorated Pole Replacement Program Lopez 16kV Circuit, Angeles National Forest and Private Inholdings, Los Angeles County, California	**Overlaps northern portion of Project Site**
LA-10556	Schmidt, James J.	2004	2004 Los Angeles County Pole Replacement Project	Outside
LA-10756	McKenna, Jeanette	2010	A Cultural Resources Overview and Preliminary Assessment of the Pacoima/Panorama City Redevelopment Plan Amendment/Expansion Project Area, Los Angeles County, California	Outside

Previously Recorded Cultural Resources

The SCCIC records search results indicate that no previously recorded cultural resources exist within the project site. One previously recorded cultural resource, the Angeles National Forest (19-186535, Table 2), was identified within the 0.5-mile records search area. The forest itself borders the project site directly to the east and north; and a plaque placed by the California State Park Commission in 1960 commemorates the Angeles National Forest as "the first national forest in the State of California, second in the United States." Neither the Angeles National Forest, nor the plaque (located well outside the Project site) have the potential to be impacted by the proposed Project.

Table 2. Previously Recorded Cultural Resources Within 0.5-Mile of the Project Site

Primary Number	Trinomial	Resource Description	Resource Eligibility	Recorded by and Year	Proximity to Project Site
19-186535	--	Angeles National Forest	California Historical Landmark 717	1979 (J. Arbuckle)	Outside

2.2 Native American Coordination

On September 22, 2020, the California Native American Heritage Commission (NAHC) responded to the County of Los Angeles Department of Regional Planning's request for a Sacred Lands File Search of the project site. The results of the search were negative, but because the NAHC does not maintain an exhaustive list of Native American cultural resources, it was recommended that other sources be contacted for information regarding known and recorded sites within the project area. The NAHC provided a list of 16 tribes who may have knowledge of cultural resources in the project area and should be contacted for additional information (Appendix B). No additional tribal coordination was completed by South Environmental.

The results of the County's outreach and consultation with applicable tribes as part of the AB 52 process are detailed in the Tribal Cultural Resources section of the EIR.

2.3 Building Development and Archival Research

In addition to the results of the CHRIS records search described above, background research was conducted on the project site in an effort to establish a thorough and accurate historic context, and to confirm the building development history of the property. Original design plans/as-builts for buildings within the Hope Gardens property could not be obtained.

Los Angeles County Office of the Assessor

On November 23, 2020, the existing Hope Gardens property was reviewed on the Los Angeles County Office of the Assessor online Property Assessment Information System in order to establish a date of construction for the building within the Project site. The Assessor's data indicates that the subject parcel (AIN 2846-001-017) was constructed with 5 buildings between 1965 and 1975. The adjacent parcel to the south (AIN 2846-001-019) is also part of the existing Hope Gardens property and was constructed with 2 buildings between 1923 and 1970.

Los Angeles County Public Works Building Permit Viewer

On December 24, 2020, South Environmental reviewed all permits associated with the Hope Gardens property available through Los Angeles County Public Work's online Building Permit Viewer Application. A summary of all relevant building permits is provided below:

AIN 2846-001-017 (project site parcel)

- 1996: storage addition, 1,456 square foot (BL 9612180054)
- 1997: relocate sewer pipe (SE 9604230012)

AIN: 2846-001-019 (adjacent parcel to the south)

- 2004: repair/replacement of damaged wood beams/posts (BL 0309160046)
- 2006: kitchen re-model for housing, 200 square foot (BL 0605300022)
- 2007: ADA improvements; add non-bearing walls, adjoining doors, and modify guardrails, 2,000 square foot (BL 0609110063)
- 2007: re-roof; remove existing gravel roof system and install new gravel roof system over existing sheeting, roof pitch 3:12 for four buildings (BLs 0611290061, 0611290062, 0611290063, and 0701090057)
- 2007: repair 4-block columns on lounge next to Palm Court (BL 0704250034)
- 2010: ADA access improvements; modify restroom in community building in 2 residential units; install connection doors between rooms; extend guardrail from 36'' to 42'' (BL 1003090014)
- 2013: remodel bathrooms; gut and refinish existing finishes; replace all new windows and doors; repair and add insulation and drywall where needed; convert kitchen to office – 6,855 square feet; reroof entire structure with Class A shingle (BL 1108090003)
- 2015: upgrade kitchen in admin building, 1,120 square feet (BL 1004200054)
- 2015: re-roof (E) bldg.: remove heavy weight tile roof and install 30 year cool roof comp shingles, Ecoasis premium roof in agave, mesquite, tumbleweed, 12,000 square feet, 3: 12 pitch (BL 1511180077)
- 2020: replace interior drywall on partition wall of sleeping area, 320 square feet (BL 1707110060)

Historical Newspaper Search

South Environmental reviewed historical newspapers covering the Los Angeles area in an effort to understand the development of the project site and surrounding area.

Sanborn Fire Insurance Maps

No Sanborn Maps were identified for the project site among the Los Angeles County Sanborn Fire Insurance Company maps available on the Los Angeles Public Library website.

Historical Aerial Photographs

Historic aerial photographs of the project site were available from Nationwide Environmental Title Research (NETR 2021) LLC maps for the years 1952, 1953, 1954, 1959, 1964, 1972, 1978, 1980, 1994, 2002, 2003, 2005, 2009, 2010, 2012, 2014, and 2016 and from the University of California, Santa Barbara (UCSB), FrameFinder Maps for the years 1928, 1944, 1971, and 1975. Table 3 provides a summary of all available aerial photographs for the Project site and surrounding areas.

Table 3. Summary of Historic Aerial Photographs of the Project Site

Year of Photograph	Description of Project Site and Surrounding Areas
1928	The distinctive Y-shape where present-day Lopez Canyon Road and Kagel-Indian Canyon Motorway split can just barely be seen in the bottom left corner of the 1928 aerial. Although difficult to discern on the grainy photograph, there appears to be at least several structures in the area that today represents the proposed project site as well as a distinctive triangular and circular landscape feature. The southern portion of the present-day Hope Gardens property has not yet been developed. The surrounding rugged terrain is almost entirely undeveloped. To the east, the Kagel Canyon area has started to develop in the area that is today occupied by the Glen Haven & Sholom Memorial Park, and the residential area directly to the north.
1944	The project site and surrounding area that is today occupied by Hope Gardens has been further developed with what appears to be a campus of buildings. The formerly undeveloped area to the south now contains a semi-circle-shaped landscape feature surrounded by several small rectangular bungalows. More of these bungalows can also be seen directly north of the semi-circle in two parallel rows. The area that is today the proposed project site still includes the distinctive triangular and circular landscaping features but is now surrounded by a variety of buildings and structures of varying size and scale. The surrounding area continues to be undeveloped and characterized by rugged terrain.
1952	No discernible changes.
1953	No discernible changes.
1954	No discernible changes.
1959	No discernible changes.
1964	Immediately south of the semi-circle feature is the new four-wing Concord Hall building, which was constructed at the end of 1962. The area to the north that is today occupied by the Sequoia Lodge Building (the proposed project footprint) no longer maintains its distinctive triangular-shaped landscaped area, and several buildings appear to have been removed.

Year of Photograph	Description of Project Site and Surrounding Areas
1971	This aerial demonstrates the significant changes that occurred in the areas immediately adjacent to the project site in 1968. The semi-circle feature surrounded by small rectangular buildings has been replaced with a new O-shaped building to the west (Building ID# 11) and a rectangular plan building to the east (Building ID# 10). Just north of these new buildings, the parallel arrangement of bungalows remains. This southern portion of the campus is defined by an arched drainage channel on its western border that funnels water down Lopez Canyon towards Hansen Lake to the south. Directly north of this area is a new, narrow rectangular building (Building ID# 5); and northwest of this area are two additional new buildings: one that is irregular in-plan with a hipped roof (Building ID# 8) and another that forms a long irregular L-shape (Building ID# 7). A new water tank is visible directly east of Lopez Canyon Road and an unpaved road has been created to connect the tank to the campus. No discernible changes have occurred in the area of the proposed project footprint.
1972	No discernible changes.
1975	The area of the proposed project footprint appears to be undergoing grading, likely for development of the Sequoia Lodge Building (Building ID# 1) that was built this same year. There are no other discernible changes to the larger campus.
1978	The area of the proposed project footprint is now developed with the Sequoia Lodge Building (Building ID# 1) as well as related hardscaping and landscaping. The last remaining elements of the original campus buildings seen in the 1944 aerial (the parallel bungalows in the center of campus) have been removed.
1980	No discernible changes.
1994	The vegetation along the western channel has filled in significantly. There are no other discernible changes.
2002	No discernible changes.
2003	No discernible changes.
2005	No discernible changes.
2009	No discernible changes.
2010	No discernible changes.
2012	No discernible changes.
2014	No discernible changes.
2016	No discernible changes.

3 Cultural Context

3.1 Environmental Setting

The project site is set within a canyon along Lopez Canyon Road and the Hope Gardens property is within a woodland of mature native and landscaped trees. The areas adjacent to the east and west of Hope Gardens include undeveloped native coastal scrub and non-native grassland habitats on steep mountain slopes. The Angeles National Forest is located immediately adjacent to the east of the Sequoia building and approximately 400 feet north. The project site is underlain by Pliocene and/or Pleistocene sandstone, shale, and gravel deposits; in part Miocene (USGS 2019).

3.2 Prehistoric Context

While many chronological sequences have been developed to describe cultural changes in Southern California, the following builds on Wallace (1955, 1978), who developed a prehistoric chronology for the Southern California coastal region that is still widely used today. Four periods are presented in this sequence: Early Man, Milling Stone, Intermediate, and Late Prehistoric. The summary of prehistoric chronological sequences for Southern California coastal and near-coastal areas presented below is a combination of Wallace (1955) and Warren (1968) as well as more recent studies.

Early Man Horizon (ca. 10,000 – 6,000 B.C.)

Numerous pre-8,000 B.C. sites have been identified along the mainland coast and Channel Islands of Southern California (Moratto 1984; Erlandson 1991; Rick et al. 2001; Johnson et al. 2002; Jones and Klar 2007). The Arlington Springs site on Santa Rosa Island produced human femurs dated to approximately 13,000 years ago (Johnson et al. 2002). The most widely accepted dates for archaeological sites on the southern California coast are from two of the northern Channel Islands, located off the coast of Santa Barbara. On San Miguel Island, Daisy Cave clearly establishes the presence of people in this area about 10,000 years ago (Erlandson 1991:105).

Early Man Horizon sites are generally associated with a greater emphasis on hunting than later horizons. Recent data indicate that the Early Man economy was a diverse mixture of hunting and gathering, including a significant focus on aquatic resources in coastal areas and on inland Pleistocene lakeshores (Moratto 1984).

Milling Stone Horizon (6,000 – 3,000 B.C.)

Set during the Altithermal, which began around 6,000 B.C., the Milling Stone Horizon is characterized by changing subsistence strategies in response to drier climate. This included a greater emphasis on plant foods and small game. Extensive seed processing is evident in the dominance of stone grinding implements in contemporary archaeological assemblages; namely, milling stones (metates) and handstones (manos). The mortar and pestle, associated with acorns or other foods processed through pounding, were first used during the Milling Stone Horizon and increased dramatically in later periods (Wallace 1955, 1978; Warren 1968). Other food resources including small and large terrestrial mammals, sea mammals, birds, shellfish and other littoral and estuarine species, near-shore fishes, yucca, agave, and seeds and other plant products (Kowta 1969). Depending on the environmental setting (coastal or inland), food procurement strategies are found to be highly variable (Byrd and Raab 2007:220).

Intermediate Horizon (3,000 B.C. – A.D. 500)

The Intermediate Horizon is characterized by a shift toward a hunting and maritime subsistence strategy, as well as greater use of plant foods. During the Intermediate Horizon, a noticeable trend occurred towards a greater adaptation to local resources including a broad variety of fish, land mammals, and sea mammals along the coast. This diversity was reflected in tool kits for hunting, fishing, and processing food and materials, with flake scrapers, drills, various projectile points, and shell fishhooks being manufactured. Mortars and pestles became more common during this period, gradually replacing manos and metates as the dominant milling tool. This change in milling stone technology indicates a transition from the processing and consumption of hard seed resources to the increased reliance on acorns (Glassow et al. 1988; True 1993).

Late Prehistoric Horizon (A.D. 500 – Historic Contact)

The Late Prehistoric Horizon is characterized by an increased diversity of plant food resources and land and sea mammal hunting. Material culture became more complex as demonstrated through more diverse classes of artifacts. During this period, the northern Channel Islands populations further developed craft specializations, including shell bead manufacture, that sustained trade with mainland settlements and with further trading partners to the east, creating a regional economy. Steatite quarried on Santa Catalina Island was used to make stone bowls, pipes, comals, sucking tubes, pendants, beads, and effigies. The lack of pottery in coastal and near-coastal sites implies that ceramic technology was not widely used, or that ceramics were obtained by trade with neighboring groups to the south and east. The lack of widespread pottery manufacture may also be due to the utility of tightly woven and watertight basketry that functioned in much the same way as ceramic vessels.

In areas of inland settlement, by the end of the Intermediate Period, mobility and long-distance migration towards the coast from seasonal camps was replaced by the development of permanent settlements. The period between A.D. 500 and historic contact is divided into three regional patterns: Chumash (Santa Barbara and Ventura counties), Takic/Numic (Los Angeles, Orange, and western Riverside counties), and Yuman (San Diego County). Modern Gabrielino/Tongva, Juaneño, and Luiseño people in this region are considered to be the descendants of the Uto-Aztecan, Takic-speaking populations that settled along the California coast during this period (Warren 1968).

3.3 Ethnographic Context

Gabrielino (Gabrieleño)/Tongva

The project area is in the heart of Gabrielino/Tongva territory (Bean and Smith 1978:538; Kroeber 1925: Plate 57), who arrived in the Los Angeles Basin around 500 B.C. Surrounding native groups include the Chumash and Tatataviam to the north, the Serrano to the East, and the Luiseño/Juaneño to the south. Gabrielino/Tongva lands encompass the greater Los Angeles Basin and three Channel Islands: San Clemente, San Nicolas, and Santa Catalina. Their mainland territory is bound on the north by the Chumash at Topanga Creek, the Serrano at the San Gabriel Mountains in the east, and the Juaneño on the south at Aliso Creek (Bean and Smith 1978:538; Kroeber 1925:636).

The name "Gabrieliño" or "Gabrieleño" takes its name from Mission San Gabriel, where it was the dominate language spoken by Native Americans who forced to convert (Golla 2011). Many modern Gabrieleño identify themselves and their language as the Tongva (King 1994; Golla 2011). Though the names "Tongva" or "Gabrieleño" are the most common names used by Native American groups today, there are other groups that identify themselves differently, such as the Gabrielino Band of Mission Indians - Kizh Nation.

The Gabrielino/Tongva established large, permanent villages in the fertile lowlands along rivers and streams, and in sheltered areas along the coast, stretching from the foothills of the San Gabriel Mountains to the Pacific Ocean. As the population expanded, the larger permanent villages established satellite communities that stayed connected via economic, religious, and social ties. Structures within the village were typically large, circular, domed structures made of willow poles thatched with tule, fern, or carrizo. Other structures found in Gabrielino villages included sweathouses, menstrual huts, and a ceremonial enclosure (Bean and Smith 1978).

The Gabrielino/Tongva subsistence economy was centered on gathering and hunting. The location of known Gabrielino/Tongva villages suggests three principal settlement and subsistence strategies in their mainland territory (McCawley 1996:35–74). In the valley zones located closest to the transverse ranges, including the San Fernando and San Gabriel valleys, acorn exploitation

was the basis of subsistence, but foothill resources such as chia and yucca were also seasonally important. Pinyon nuts and juniper berries were also an important resource for communities located near the transverse ranges, either gathered or exchanged from further inland. A second subsistence strategy involved villages on the high ground along the middle or lower (coastward) reaches of major river courses. These communities had access to acorn stands, while downriver ones had closer access to marine resources (McCawley 1996). The third strategy included both bluff and estuary coastal villages. These appear to have clustered in the Palos Verdes Peninsula and San Pedro shore and estuary areas. Offshore fishing from plank canoes was carried out, along with inshore fishing and shellfish gathering. Both shell hooks and nets were used in obtaining fish which were dried for storage (McCawley 1996:62–71, 122–127). Hunting of sea mammals was also practiced with harpoons, spear throwers, and clubs (Bean and Smith 1978).

A wide variety of tools and implements were employed by the Gabrielino/Tongva to gather and collect food resources. Fishing involved the use of line and hooks, nets, basketry traps, spears, and bow and arrows. Mammal hunting was accomplished using bow and arrows, deadfalls, snares, traps, throwing sticks (Bean and Smith 1978). Food was processed with a variety of tools, including portable and bedrock mortars, pestles, basket hopper mortars, manos and metates, hammerstones and anvils, woven strainers and winnowers, leaching baskets and bowls, woven parching trays, knives, bone saws, and wooden drying racks. Food was stored in large, finely woven baskets, and the unprocessed acorns were stored in large granaries woven of willow branches and raised off the ground on platforms. Food was consumed from various woven and carved wood vessels (McCawley 1996).

Registers from Missions San Gabriel and San Juan Capistrano refer to Puvunga (located on the campus of Cal State University Long Beach) as a native rancheria. Many (but not all) Gabrielino identified Puvunga to the Spanish as the "birthplace of the prophet Chinigchinich and a religious movement led by him" (Boxt and Raab 200:45). The basis of Gabrielino religious life was the Chinigchinich cult, centered on the last of a series of heroic mythological figures. Chinigchinich gave instruction on laws and institutions, and also taught the people how to dance, the primary religious act for this society. He later withdrew into heaven, where he rewarded the faithful and punished those who disobeyed his laws (Kroeber 1925:637–638). The Chinigchinich religion seems to have been relatively new when the Spanish arrived. It was spreading south into the southern Takic groups even as Christian missions were being built and may represent a mixture of Native and Christian belief and practices (McCawley 1996:143–144).

Deceased Gabrielino were either buried or cremated, with inhumation more common on the Channel Islands and the neighboring mainland coast, and cremation predominating on the remainder of the coast and in the interior (Harrington 1942; McCawley 1996:157).

3.4 Historic Context

Post-Contact history for the state of California is generally divided into three periods: the Spanish Period (1769–1822), Mexican Period (1822–1848), and American Period (1848–present).

Spanish Period (1769–1822)

In search of the legendary Northwest Passage, Spanish explorer Juan Rodríquez Cabríllo stopped in 1542 at present-day San Diego Bay. Cabríllo explored the shorelines of present-day Catalina Island as well as San Pedro and Santa Monica Bays. Much of the present California and Oregon coastline was mapped and recorded in the next half-century by Spanish naval officer Sebastián Vizcaíno. Spain laid claim to California based on the surveys conducted by Cabríllo and Vizcaíno (Bancroft 1885:96–99; Gumprecht 1999:35).

The 1769 overland expedition by Captain Gaspar de Portolá marks the start of California's Historic period. With a band of 64 soldiers, missionaries, Baja (lower) California Native Americans, and Mexican civilians, Portolá established the Presidio of San Diego, a fortified military outpost, as the first Spanish settlement in Alta California. In July of 1769, while Portolá was exploring southern California, Franciscan Fr. Junípero Serra founded Mission San Diego de Alcalá at Presidio Hill, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823.

The Portolá expedition first reached the present-day boundaries of Los Angeles in August 1769, thereby becoming the first Europeans to visit the area. Father Juan Crespí, a member of the expedition, named "the campsite by the river Nuestra Señora la Reina de los Angeles de la Porciúncula" or "Our Lady the Queen of the Angeles of the Porciúncula." Two years later, Friar Junípero Serra returned to the valley to establish a Catholic mission, the Mission San Gabriel Arcángel, on September 8, 1771 (Kyle 2002:151).

A major emphasis during the Spanish Period in California was the construction of missions and associated presidios to integrate the Native American population into Christianity and communal enterprise. Incentives were also provided to bring settlers to pueblos or towns, but just three pueblos were established during the Spanish Period, only two of which were successful and remain as California cities (San José and Los Angeles).

Mexican Period (1822–1848)

After more than a decade of intermittent rebellion and warfare, New Spain (Mexico and the California territory) won independence from Spain in 1821. In 1822, the Mexican legislative body

in California ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports open to foreign merchants (Dallas 1955:14).

Extensive land grants were established in the interior during the Mexican Period, in part to increase the population inland from the more settled coastal areas where the Spanish had first concentrated their colonization efforts. The secularization of the missions following Mexico's independence from Spain resulted in the subdivision of former mission lands and establishment of many additional ranchos. During the supremacy of the ranchos (1834–1848), landowners largely focused on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary southern California export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico. The number of nonnative inhabitants increased during this period because of the influx of explorers, trappers, and ranchers associated with the land grants. The rising California population contributed to the introduction and rise of diseases foreign to the Native American population, who had no associated immunities.

War in 1846 between Mexico and the United States precipitated the Battle of Chino, a clash between resident Californios and Americans in the San Bernardino area.

American Period (1848–Present)

The Mexican–American War ended with the Treaty of Guadalupe Hidalgo in 1848, ushering California into its American Period. California officially became a state with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as U.S. Territories.

The Gold Rush began in 1848, and with the influx of people seeking gold, cattle were no longer desired mainly for their hides but also as a source of meat and other goods. During the 1850s cattle boom, rancho vaqueros drove large herds from southern to northern California to feed that region's burgeoning mining and commercial boom. The cattle boom ended for southern California as neighbor states and territories drove herds to northern California at reduced prices. Operation of the huge ranchos became increasingly difficult, and droughts severely reduced their productivity (Cleland 2005:102–103).

In 1781, a group of 11 Mexican families traveled from Mission San Gabriel Arcángel to establish a new pueblo called El Pueblo de la Reyna de Los Angeles (The Pueblo of the Queen of the Angels). This settlement consisted of a small group of adobe-brick houses and streets and would eventually be known as the Ciudad de Los Angeles (City of Angels), which incorporated on April 4, 1850.

The County of Los Angeles was established on February 18, 1850, one of 27 counties established in the months prior to California acquiring official statehood in the United States. Many of the

ranchos in the area now known as Los Angeles County remained intact after the United States took possession of California; however, a severe drought in the 1860s resulted in many of the ranchos being sold or otherwise acquired by Americans. Most of these ranchos were subdivided into agricultural parcels or towns (Dumke 1944).

Los Angeles maintained its role as a regional business center, and the development of citriculture in the late 1800s and early 1900s further strengthened this status (Caughey and Caughey 1977). These factors, combined with the expansion of port facilities and railroads throughout the region, contributed to the impact of the real estate boom of the 1880s on Los Angeles (Caughey and Caughey 1977; Dumke 1944).

By the late 1800s, government leaders recognized the need for water to sustain the growing population in the Los Angeles area. Irish immigrant William Mulholland personified the city's efforts for a stable water supply (Dumke 1944). By 1913, the City of Los Angeles had purchased large tracts of land in the Owens Valley and Mulholland planned and completed the construction of the 240-mile aqueduct that brought the valley's water to the city. Los Angeles continued to grow in the twentieth century, in part due to the discovery of oil in the area and its strategic location as a wartime port. The county's mild climate and successful economy continued to draw new residents in the late 1900s, with much of the county transformed from ranches and farms into residential subdivisions surrounding commercial and industrial centers. Hollywood's development into the entertainment capital of the world and southern California's booming aerospace industry were key factors in the county's growth in the twentieth century.

3.5 Project Site Historic Context

An Overview of the Independent Order of Foresters

The Independent Order of Foresters (IOF) is a fraternal benefit society that offered its members financial services, life insurance, and other benefits. Now based in Toronto, Canada, the organization operates under the name Foresters Financial.

In 1834 the Ancient Order of Foresters (AOF) was organized in England as an "English Society", a succession from the former Royal Foresters established in 1790. The AOF offered sick and burial benefits to its members (Dunn 1924). In the United States, following the Civil War, the AOF began to rebuild its failed attempts to establish membership in the U.S. On June 17, 1874, three local AOF courts seceded, and the IOF was founded in Newark, New Jersey, making the organization independent of the AOF (Oronhyatekha 1894; Dunn 1924). After putting down its roots in the U.S., the IOF quickly expanded into Canada, establishing the first Court in Canada, Court Hope No. 1, in 1878 in London, Ontario.

The expansion of the IOF into Canada is largely attributed to a man named Oronhyatekha (meaning "burning sky", baptized "Peter Martin"), much of who's life story remains a mystery. Oronhyatekha was born to a Mohawk family on the Six Nations Reserve of the Grand River Territory in 1841. In 1878, he joined the IOF, a truly remarkable feat given that the IOF's own constitution stated that it was open only to white males. Oronhyatekha's previous fraternal activity, community standing, and his status among the Orangemen ultimately led to his acceptance in the IOF. A summary of the highlights of his extraordinary life include (Hamilton and Jamieson 2016):

> ⋯rising to prominence in medicine, sports, politics, fraternalism, and business. He was one of the first Indigenous physicians in Canada, the first to attend Oxford University, a Grand River representative to the Prince of Wales during the 1860 royal tour, a Wimbledon rifle champion, the chairman of the Grand General Indian Council of Ontario, and Grand Templar of the International Order of Good Templars. He counted among his friends some of the most powerful people of the day, including John A. Macdonald and Theodore Roosevelt. He successfully challenged the racial criteria of the Independent Order of Foresters to become its first non-white member and ultimately its supreme chief ranger.

In 1878, Oronhyatekha was elected Most Worthy High Chief Ranger (Dunn 1924) and would continue to be elected for the next several years until he was elected to the highest level of Supreme Chief Ranger in 1881. Following years of internal fighting and poor financials, Oronhyatekha had the difficult task of breathing new life and more funding into an underperforming IOF. His first task was to restructure the IOF and put it on a road to financial solvency (University of Toronto 2021). Amidst an array of changes to Order's structure, he established the Endowment Fund (a form of life insurance) in amounts of $1,000, $2,000, or $3,000. Benefits included free medical attendance, sick and funeral, annuity for aged Foresters, and disability (Potter and Oliver 1967). While Oronhyatekha still publicized his medical practice in the Fraternal Monitor, he largely abandoned medicine to focus full time on the IOF, which in 1888 moved its head office from London to Toronto.

During the 1880s Oronhyatekha travelled across the U.S. and Canada promoting the fraternalism of the IOF over conventional insurance companies and financial protection for the working classes. The 1890s can be thought of as "the golden years of the IOF" with Oronhyatekha deserving much of the credit for its success. Oronhyatekha spent much of this time opening new lodges and had become a well-known advocate of fraternalism. In 1895 the cornerstone of the Temple Building in Toronto, Canada was laid and in 1897 the Head Office was officially moved there (Potter and Oliver 1967). By the early 1900s, "Oronhyatekha had succeeded in transforming the IOF from a bankrupt organization into the largest fraternal body on the continent" (University of Toronto

2021). At the end of his life Oronhyatekha is credited with sending immediate aid to affected IOF members in San Francisco following the 1906 Earthquake.

Following Oronhyatekha's death, new Supreme Chief Ranger, Elliot Stevenson was forced to make serious changes when "crippling new insurance legislation" and the onset of World War I resulted in a substantial loss of membership. Said to be "perhaps the most difficult period in the Foresters history", older members had been withdrawing far more in death and old age benefits than they had been putting in. With the mortuary fund paying out more than was coming in, it was clear the funds would soon be exhausted. Stevenson was tasked with coming up with new rates assessments in order to put the IOF back on track (Potter and Oliver 1967).

The turn-of-the century also saw the opening of new IOF-operated facilities (Figure 4). In 1907, the IOF sold its first Orphans' Home in Deseronto, Ontario which had only been open for 18 months after incurring massive debt on the property. In 1909, the IOF then opened "a more modest home", the Orphans' Home, in Oakville, Ontario which function until 1943 when it was sold to the Canadian Government and became a convalescent home for wounded servicemen. In 1911, the IOF opened its first tuberculosis (TB) sanatorium at Rainbow Lake in New York which would operate until 1931. Two years later, Stevenson announced the opening of another new TB sanatorium in Lopez Canyon in California which would operate until 1952. With the onset of World War I, membership continued to drop while accumulated assets increased (Potter and Oliver 1967).

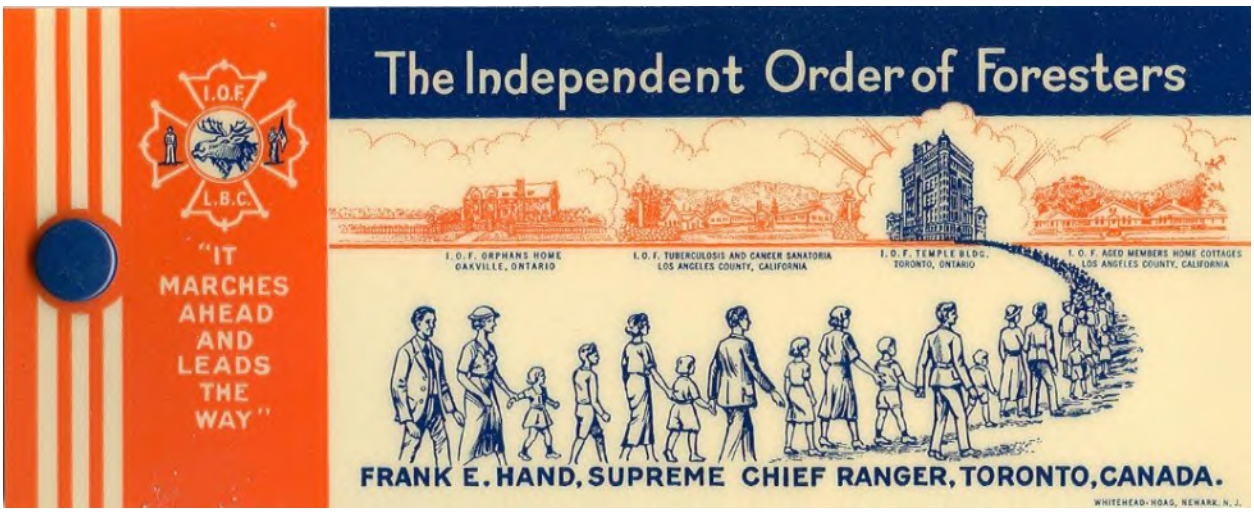


Figure 4. Blotter pad showing depicting the major IOF institutions Orphans Home in Oakville, Ontario, the Tuberculosis and Cancer Sanatorium in Los Angeles County, the Temple Building in Toronto, Ontario, and the Aged Members Home Cottages in Los Angeles County (National Museum of American History 2006)

In 1926, Frank Hand was brought from California to become the Order's first Direction of Organization at the head office in Toronto. Three years later, Hand was unanimously selected to be the fourth Supreme Chief Ranger and became the first American to lead the IOF. Extremely well known throughout the order, Hand was a popular and logical choice (Potter and Oliver 1967).

Hand had the difficult task of leading the IOF at the brink of the Great Depression, a time where convincing people to spend money on insurance benefits was no easy task. He would ultimately lead the organization through the worst of its financial challenges. Hand is credited with playing a large role in setting up multiple components of the Lopez Canyon site, including being one of the "prime architects" of TB sanatorium, overseeing construction of the cancer clinic, and opening a home for aged IOF members. One of the most successful jurisdictions during the 1930s was in Southern California, where the Supreme Chief Ranger's son Frank E. Hand, Jr. was High Treasurer (Potter and Oliver 1967).

After resigning in 1941, Hand turned over the role of Supreme Chief Ranger to Victor Morin. Over the span of the next decade of the IOF would see a total of four Supreme Chief Rangers and finally show movement towards good financial health, with an increase in membership, assets, and insurance.

By 1946, the worst of the IOF's financial hardships were officially behind them. The election of Louis E. Probst as Supreme Chief Ranger in 1951 breathed new life into the organization and the IOF became revitalized. In 1953, Probst laid the cornerstone of the new Jarvis Street Headquarters in heart of Toronto's "insurance row." After outgrowing the building, in 1967, a new 24 story flagship building known as the 'Foresters House' was constructed in a Toronto suburb. Membership had significantly increased from 159,263 in 1951 to 540,072 in 1966 (Potter and Oliver 1967).

In the 1960s and 1970s the IOF constructed retirement homes for their aged members. The first being Forester Haven at Lopez Canyon in Los Angeles County, constructed over a period of 13 years between 1962 and 1975. In the 1970s IOF benefits expanded to cover university scholarships, polio, cancer, and TB grants, and orphan and senior benefits. In 1973, the IOF opened Forester Haven No. 2 in Mount Dora near Orlando Florida for their east coast members (Willis 2009).

Development History of the Project Site

The IOF Tubercular Sanatorium and Aged Members Home (1911-1952)

In June 1889 a court of the IOF was instituted and was said to be the first on the Pacific Coast (LAT 1889). While the IOF continued to expand its membership into the Western U.S., the U.S. and Europe were battling a tuberculosis (TB) epidemic (also referred to as "consumption"), identified as one of the two leading causes of death in the early 1900s (the other being pneumonia). The disease often killed slowly with patients coughing up infected sputum, sometimes for years, while ravaging the lungs. Overcrowded and unsanitary conditions in tenement housing in big cities provided the ideal conditions for the transmission of TB, particularly among the poor and immigrant populations. Among the more privileged in white society, a common method for treatment at the turn-of-the-century was to send patients in the early stages of TB to a specialized sanatorium where they could be treated with fresh air, a healthy diet, and rest to help with their recovery. With early diagnosis and adequate treatment, many could recover or at least have remission (Speaker 2018). The first sanatorium in the U.S. opened in Asheville, North Carolina in 1875 and the second in New York in 1884. In 1904, there were 115 TB sanatoriums in the U.S. with the capacity for 8,000 patients. By 1953, this number would grow to 839 sanatoriums with capacity for 136,000 patients (CDC 2016).

In 1910, the IOF built the first of its two TB sanatoriums for its members at Rainbow Lake in Franklin County, New York. The Rainbow Sanatorium opened on July 20, 1910 and was constructed on 600-acres, including a lake, with eight buildings (Willis 2009). By 1911, the IOF had 19 courts in Los Angeles with approximately 3,000 members (LAT 1911). It was at this time that the IOF purchased 40-acres in Lopez Canyon in Los Angeles County, California to develop its second TB sanatorium for its West Coast members battling the early stages of TB. Patients would primarily live outdoors in open-air tents, even while sleeping. The tents would surround a large building containing a reading-room, dining-room, as well as multiple bedrooms and baths. The proposed facility was expected to be one of the top TB sanatoriums in California and received preapproved financial assistance from the IOF Supreme Court in Toronto with additional funding from the 19 Los Angeles IOF courts. The IOF would be able to construct the new facility at a minimum cost thanks in large part to its high number of architects and builders within the IOF membership.

Assistant Supreme Chief Ranger of the IOF Frank E. Hand, accompanied by 15 workmen, first went to the undeveloped site for the future sanatorium in 1911. There he built a bridge, which came to be known as "The Bridge of Hope", between Pacoima Station and the proposed site, that was strong enough to carry automobiles. The next task was to develop a sufficient water flow to the site which they immediately bored. Hand and Dr. E.B. Dickson were said to be in charge of all plans

for the proposed hospital (LAT 1911), with Hand noted as one of the "prime architects" in setting up the TB clinic (Potter and Oliver 1967:120).

In February 1913, the IOF completed the first section of its open-air sanatorium, consisting of 11 buildings (Figure 5) with promises to spend thousands of dollars more to transform the facility into "a site for the National Health Resort of their great order." (The Record 1913; The Burbank Review 1913). The dedication ceremony for the new $25,000 facility was held on March 15, 1913. Approximately 300 lodge men were expected to be in attendance as well as "prominent members from the north" (LAT 1913). A detailed model of one of the sanatorium cottages/bungalows designed and prepared by Frank Hand was displayed at the 1915 San Francisco Exposition and was awarded a gold medal by the International Jury of Awards (Potter and Oliver 1967). A few years later in 1917, several other buildings were dedicated on site and celebrated with a barbecue. By this time, the IOF Southern California jurisdiction had grown to 8,000 members (LAT 1917).



Figure 5. Postcard of newly built tuberculosis sanatorium in location of current project site c. 1915

By 1924, the IOF maintained 165,000 members in the U.S. and Canada, and more than 350 members had been treated at the Lopez Canyon sanatorium with 275 patients "discharged as improved or the disease arrested" (Dunn 1924:427).

In the 1930s, the IOF sanatorium in Lopez Canyon continued to expand, with the opening of a new cancer clinic. It was Hand's duty to oversee and report on the construction of the new building at the IOF sanatorium. Originally started in 1930 for study and research only, cancer patients were treated at the Lopez Canyon facility from 1935 until 1946 (Potter and Oliver 1967). In addition, the closing of the Rainbow Lake Sanatorium in New York resulted in the Lopez Canyon sanatorium taking the remaining patients (Willis 2009). The IOF continued to raise funds to expand, hosting a Bazaar with proceeds going to a fund to add new units to the site (LAT 1930).

Also in the 1930s, the IOF also decided to prioritize the care of its senior members. In 1931, the IOF made plans to construct a large number of cottages for senior citizens "in the sunny setting of Lopez Canyon" (Potter and Oliver: 1967:120). The facility was described as a "mountain lodge for aged members" of the IOF. Known as the Home for Aged Foresters, the new aged center would be located directly south of the existing sanatorium (LAT 1931). In the late 1930s the IOF was regularly taking out large newspaper advertisements to make new recruits, promising happiness and security to its prospective members with the slogan "A Stronghold of Family Protection". Every advertisement outlined the IOF's five core principles or "Protective & Fraternal Features" which included (LAT 1936a):

1) Four forms of Protective Certificates. Two of which provide for Monthly Income Disability, two making provision for Old Age Benefits, and all four, payments to Beneficiaries in case of death.
2) Sick Benefits provided by IOF. Maximum and Minimum Sick Benefit Certificate. – (This benefit is for males only).
3) Home and full provision for orphaned children of members through the IOF. Home at Oakville, Ontario.
4) IOF Sanatoria at Lopez Canyon, Los Angeles County, California, provides hospitalization and treatment for members suffering from TB or cancer, without expense. All transportation paid from any point in Canada or the United States.
5) A Home for Aged Members, built on the bungalow plan (Figures 6 and 7), where members may spend the eventide of life together, in happiness and contentment.



Figure 6. Picture taken in front of the new Aged Members Home in 1937 showing bungalows (Foresters Financial 2020)



Figure 7. Aerial rendering of the expanded IOF Property at Lopez Canyon c. 1937 (eBay)

The IOF property saw its share of natural disasters, starting in 1919 when the entire facility was evacuated, and firebreaks were constructed (LAT 1919). The facility was again evacuated in 1935 after a brush fire tore through Upper Kagel and Lopez Canyons, again burning right to the edge of the grounds and threatening structures at the IOF sanatorium site (LAT 1935). In 1936, flood waters from a cloudburst in Lopez Canyon overtopped a five-foot protective ditch and washed through several bungalows at the sanatorium, leaving behind an 8-inch layer of mud and silt. Frank Hand and manager William Topham were on site to help clear away a debris field of stone and masonry. It was noted that "crippled women patients were rushed to safety" (LAT 1936b). In 1947 another brush fire burned through Lopez Canyon, this time sparing structures at the IOF facility but sending a tower of smoke in its direction (The Valley Times 1947).

By 1929, Frank Hand had been elected to the highest position at the IOF in Toronto, the Supreme Chief Ranger, and would remain in that position until 1941. At the time of his election, Hand, along with Dr C.B. Dickson, were credited with originating "the medical, hospital and surgical system of benefits now general throughout the order." As for his contributions in the Los Angeles area, Hand is credited with building the TB sanatorium in Lopez Canyon, the first IOF building on Olive Street, an IOF building at 1329 S. Hope Street, and the Forester Inn at Avalon (LAT 1929). On April 22, 1944, Hand died in Buffalo, New York at the age of 74. An obituary notice stated that Hand was "a man of sterling character with a great heart, he devoted his life to alleviate the misfortunes of suffering humanity. The Tuberculosis Sanatorium, Cancer Clinic, and Aged Foresters' Home in Lopez Canyon, Los Angeles, are principally if not exclusively, due to him, as well as the Foresters' Orphan Home in Oakville, Ontario" (Potter and Oliver 1967:140). Another notable death, this one occurring on the grounds of the Lopez Canyon facility, was Dr. C.B. Dickson, the High Chief Ranger of Southern California (Potter and Oliver 1967).

In the 1950s the treatment of TB started to shift away from sanatoriums to home treatment with a proper drug therapy, leading to a decline in TB sanatoriums across the U.S. (CDC 2016). Reflecting this trend, the Lopez Canyon TB sanatorium officially ceased operations in 1952. After the sanatorium's closure, the IOF moved toward providing its members with grants for various circumstances and in varying amounts to supplement the care they received at other non-IOF facilities. (Potter and Oliver 1967)

Forester Haven (1962-2005)

After clearing away many of the original 1937 Aged Member's Home bungalows and landscaping features, a new building for the Aged Members Home of the IOF was dedicated at 12249 Lopez Canyon Road on December 16, 1962. The new building at what was to be called "Forester Haven" was designed by architect and IOF member Robert F. Moyer, American Register of Architects (ARA) of Woodland Hills, California. More than 1,500 members and guests from the U.S. and Canada attended the dedication ceremonies. The 16-unit building named "Concord Hall" (Building ID#

12) was constructed around a 40-foot diameter circular lounge that was said to be earthquake-proof and fire-resistant (LAT 1962). The central lounge was dominated by an enormous fieldstone fireplace (Potter and Oliver 1967). According to Ray Tessier, coordinator of construction on the facility:

> The recently completed home for the aged is designed in the shape of a Maltese cross with four wings branching out from a central circular lounge. This is symbolic of the Forester's motto, "Liberty, Benevolence, and Concord" (Citizen-News 1962).

In January 1968 two additional new halls were dedicated at the 74-acre Forester Haven facility in ceremonies that were attended by approximately 500 IOF representatives from the U.S., Canada, and Great Britain, including Supreme Chief Ranger Lou E. Probst. The new buildings were once again designed by Moyer and constructed for a cost of $300,000. The new additions included Sycamore Hall (Building ID# 5 and 6), a 20-unit, two-story residential building featuring a combination living room and bedroom, bath and private patio (Figure 8); and Spruce Hall (assumed to be Building ID# 11) for use as a recreation lounge and dining facility (Figure 9) (The Van Nuys News 1968; LAT 1968). In 1970, Moyer would go on to receive a first prize gold medal national design award at the California Council of the Society ARA for one of the buildings at Forester Haven (LAT 1970).



Figure 8. Interior view of new residential building, Sycamore Hall (Potter and Oliver 1967)



Figure 9. Overview of original circular landscape feature outside of Buildings 2 and 3 (Potter and Oliver 1967)

In 1971, Palm Court, the "newest wing of Forester Haven" was formally dedicated (currently labeled as "Currie Court" by Hope Gardens signage). The new buildings included Sequoia Lodge (Building ID# 8, not to be confused with the present-day Sequoia Lodge Building, Building ID#1), a one-story building that supported dining and entertainment services, and Redwood Hall (Building ID# 7), a three-story post-and-beam building with "48 soundproof living units." The buildings were once again credited to Moyer as well as landscape architect James Dean (TFM 1971).

In the mid-1970s, the San Fernando Valley saw the emergence and subsequent boom of a new industry, the institutionalized care of the elderly. With suburban families growing in size and moving into smaller living spaces like condominiums and apartments, at-home care for the elderly was not always feasible. The smaller, mom-and-pop care facilities which would typically care for no more than five seniors in a private residence, were also reported to be on the decline during this time. County Register data confirms this trend of larger, institutionalized housing for the elderly. In 1968, there were 117 facilities in the County that would care for 16 or more senior citizens. By 1972, that number grew to 160 and in just one year, reached 198 large facilities. At the 142-room California Home for the Aged in Reseda (the third largest in the Valley at the time),

applicants could expect to wait 6-8 months for an opening. In 1974, other large-scale retirement complexes included (LAT 1974):

- Panorama Terrace East in Panorama City (148 rooms)
- Royale Gardens in Studio City (146 rooms)
- Northridge Royale in Northridge (132 rooms)
- Astoria Terrace in Sylmar (128 rooms)
- Valley View in Van Nuys (116 rooms)
- Forester Haven in Los Angeles County (111 rooms for members only)
- Laurel Canyon Garden in North Hollywood (110 rooms)
- Studio City Retire Villa in Studio City (100 rooms)

In line with this trend of large-scale retirement and aged homes, the IOF expanded Forester Haven with a new skilled nursing facility in 1975 (the present-day Sequoia Lodge, Building ID# 1). In 1976, Forester Haven commissioned Pati Pfahler Design Associates to design the new facility's interior. The goal of the project was to bring "the outside into the building throughout the use of glass and natural woods designed by architect Robert Moyer". True to the palette of the 1970s, the interiors promised to feature "yellows, blues, greens, and soft oranges. The dining room has been keynoted by a wall mural of flowers and trees and other natural scenes done in lime greens and natural earth tones." It was also noted that two atrium gardens were planned that would allow the sunshine in while keeping the elements out "and have been punctuated by greenery and posted antiques" (LAT 1976). The Sequoia Lodge (Building ID#1) is the last building constructed on the Hope Gardens property.

In 1973, Forester Haven No. 2 opened in Mount Dora near Orlando Florida with large rambling buildings sprawled across 55 acres of a peninsula, also credited to architect Moyer. This facility closed in 2002, leaving members with the option of transferring to the Lopez Canyon facility in California, moving to another facility not owned by the IOF, or receiving money to cover care elsewhere. It was said that "most are going to California and are delighted by the arrangement" (Orlando Sentinel 2002).

Forester Haven at Lopez Canyon continued serving aged IOF members until the early 2000s (exact date of closure is unclear). After occupying the site on Lopez Canyon for close to a century, the IOF sold the property to the Union Rescue Mission in 2005 for $7.5 million.

Architects

Robert Franklin Moyer (1924-2009)

Robert (Bob) F. Moyer was born in Monona, Iowa on May 16, 1924 to Franklin and Mabel (Bentien) Moyer. He grew up in Iowa and Illinois with his five older sisters following the death of his mother when he was only four years old. After high school, Moyer studied architecture at the Illinois Institute of Technology in Chicago. From 1942-1945 Moyer served in the U.S. Army Air Corps as a 2nd Lieutenant, piloting a B-24 bomber. Following the war, he returned to Illinois to marry his first wife, Shirley Nelson, in 1945 and completed his degree in architectural design in 1948.

In 1949, Moyer and his wife moved to Southern California and undertook their new life together, with Moyer officially establishing his architectural practice followed by the birth of their four children. After residing in Van Nuys and Northridge, the family moved to Thousand Oaks in 1967. By 1976, Moyer had risen in the IOF ranks to become senior vice president and was responsible for real estate acquisition and management. In 1979, following the death of his wife, Moyer moved to San Diego and married his second wife, Catherine Buchanan, in 1982.

Moyer retired from the IOF in 1990 and relocated to Redstone, Colorado where he and his son would design and build a home. In 2003, Moyer and his wife again relocated to Sandy, Utah, and then to Payson Arizona in 2005 where Moyer would spend the remaining years of his life before passing away in 2009 (The Crystal Valley Echo 2009).

In addition to the IOF buildings at Forester Haven in Lopez Canyon, Moyer is known to have designed the following buildings (no other works attributed to Moyer could be identified):

- 1961: American International Pictures building located at 7165 W. Sunset Boulevard in Los Angeles (Citizen-News 1961)
- 1973: IOF Forester Haven No. 2 in Mount Dora, Florida, just northwest of Orlando (Orlando Evening Star 1971; Orlando Sentinel 1973)
- 1974: IOF apartment complex at 1000 E. Washington Avenue in Escondido, California (Times-Advocate 1974)

James Dean, Landscape Architect

James Dean is a Southern California landscape architect with over 40 years designing civic centers, parks, commercial centers, hotels and many high-end private residential estates. He is also known to have worked on the Reagan Library gardens. Mr. Dean appears to still be practicing in the Thousand Oaks area (James Dean Design 2010).

Architectural Style

Contemporary (ca. 1945-1990)

The Forester Haven campus was designed in the Contemporary style of architecture, which was favored by American architects between ca. 1945 to 1965. Although most residential subdivisions were still dominated by Ranch style homes at this time, a few successful developers constructed Contemporary-style subdivisions, perhaps the most prolific being Joseph Eichler (1900-1974), who built nearly 10,000 residences in the San Francisco Bay Area. Other master architects associated with the Contemporary style in California include Frank Lloyd Wright, Richard Neutra, Donald Wexler, and Palmer and Krisal.

Contemporary style buildings had two design advantages over their Ranch style counterparts: 1) the Contemporary style was adaptable to steep hillsides, something a rambling Ranch would be unable to achieve and 2) the Contemporary style was appropriate for both one- and two-story buildings, allowing for a large house to be constructed on a smaller, steeper footprint and leaving more room for exterior green spaces. The Contemporary style is primarily concerned with the relationship between interior and outdoor spaces/views, resulting in a spacious quality that differs sharply from the smaller houses of the 1940s and 1950s. A major feature of Contemporary style buildings is the use of continuous window walls that open to a private garden or greenspace view. Japanese design influence is present in many examples of Contemporary architecture, including the design of gardens from an interior perspective, and the use of plywood cladding to create a panelized appearance. Post-and-beam construction was often used, boasting large, exposed roof beams.

By the late 1950s, more economical methods of constructing Contemporary buildings were put into practice, including use of brick cladding, ending the masonry at the edge of the windows, and running vertical panels of wood cladding from the ground to the roofline thus, avoiding the expense of laying windows in masonry. The Contemporary style began to fall out of favor by the late 1960s. The Federal Housing Authority also preferred to finance more "traditional" style homes rather than "avant-garde designs" with unusual roof forms (McAlester 2013).

Key character-defining features of the Contemporary style include (McAlester 2013):

- Post-and-beam construction
- Asymmetrical design
- Gabled, flat, butterfly, and slant roof forms
- Wide, open eaves either covered or with exposed rafters

- Exposed roof beams
- Use of natural materials (wood, stone, brick, or occasionally concrete block)
- Connection of interior and outdoor spaces through use of window walls and courtyards
- Continuous windows with fixed panes, often filling in gable ends
- Window placement relates to façade composition
- Use of clerestories
- Broad, uninterrupted wall surfaces
- Use of shade structures or pergolas
- Open terraces and patios
- Screened porches
- Recessed entrances
- Panelized walls (Japanese influence)
- Adaptable to steep hillsides

Other examples of Contemporary/Mid-century Modern style retirement/assisted living complexes identified in the San Fernando Valley/adjacent areas, include the following, although none are comparable to the expansive forested property at Forester Haven:

- Broadview Residential Care Center (535 W Broadway in Glendale), built 1963 – Contemporary style
- Country Villa Sheraton Nursing and Rehabilitation Center (9655 Sepulveda Blvd), built 1963 – Contemporary/New Formalist style
- Panorama Gardens Nursing & Rehabilitation Center (9541 Van Nuys Blvd, Panorama City), 1964 – Contemporary style
- Golden Legacy Care Center (12260 Foothill Blvd), built 1968 – Contemporary style
- Sun and Air Convalescent Hospital (14857 Roscoe Blvd, Panorama City), built in 1969 – Contemporary style
- Valley View Retirement Center (7720 Woodman Ave), built 1973 – New Formalist style
- Villa Scalabrini (10631 Vindale Ave), built 1978 – Contemporary style
- Pacifica Senior Living (8700 Lindley), built 1985 – Contemporary style

4 Field Survey

4.1 Methods and Results

Cross-trained archaeologist and architectural historian Samantha Murray, MA, RPA, conducted an intensive-level survey of the project site and the larger Hope Gardens property on December 10, 2020. Fieldwork included taking field notes, digital photography, and examination of close-scale field maps and aerial photographs. Photographs were taken with a digital camera.

Archaeological Survey

The Project site is almost entirely developed with the existing Sequoia Lodge Building (Building ID# 1) and surrounding landscaping and hardscaping, including a variety of mature trees. The archaeological survey entailed an intensive-level survey of the entire project site, opportunistically spot-checking any areas around the Sequoia Lodge Building with exposed ground surface, of which there were none. Ground surface visibility within the Project site was approximately 0% due to the presence of ornamental landscaping, grasses, trees, duff, and paved surfaces (Figures 10 and 11). No archaeological resources were identified as a result of the pedestrian survey.



Figure 10. Overview of built and paved areas within the Project site

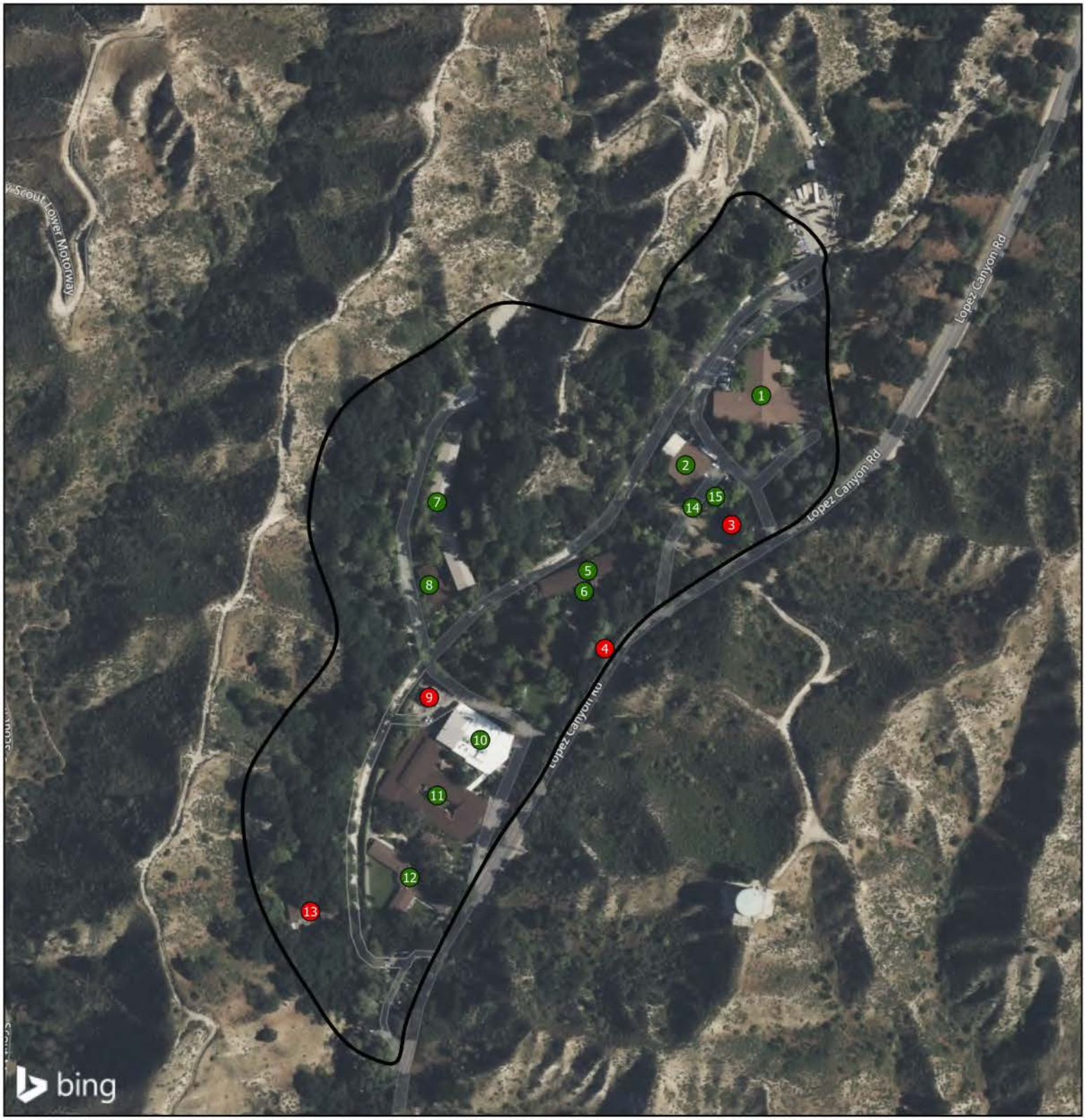


Figure 11. Overview of poor ground surface visibility in non-paved areas within the Project site

Built Environment Survey

Review of the project site's construction history indicates it was designed as part of a campus of buildings constructed over a 13-year period (1962-1975) for the IOF's Forester Haven. The buildings within the existing Hope Gardens property were constructed by the same architect (Moyer), in the same architectural style (Contemporary), and for the same purpose (to support the IOF's Forester Haven). For these reasons, it was necessary to examine the entire property as a whole and not just consider the project site (i.e., the Sequoia Lodge Building, Building ID#1) as an individual property. The built environment survey entailed walking the exterior of the Sequoia Lodge Building and all other buildings within the existing Hope Gardens property. Each building was documented with notes and photographs, specifically noting common character-defining features, spatial relationships, observed alterations, landscaping features, and paths of circulation.

During the course of the pedestrian survey, Ms. Murray identified numerous buildings/features over 45 years old requiring recordation and evaluation for historical significance (Table 4 and Figure 12, Forester Haven Historic District). Section 5 (Description of Surveyed Resources) provides a detailed physical description of all built environment within the existing Hope Gardens property and Section 6 (Significance Evaluation) provides a significance evaluation of the newly identified Forester Haven Historic District under NRHP, CRHR, and County designation criteria.



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Figure 12. Forester Haven Historic District

0 150 300 Feet

N

Scale: 1:3,004

Historic District Boundary

Buildings

- Contributor
- Non-Contributor

SOUTH ENVIRONMENTAL

5 Description of Surveyed Resources

Nestled on the edge of the Angeles National Forest in a forested canyon, the Hope Gardens property comprises 71-acres developed with a sprawling campus of buildings. A total of 15 buildings/structures were identified within the property.

Most of the buildings (Building ID#s 1, 2, 5, 6, 7, 8, 10, 11, and 12) were constructed between 1962 and 1975 as part of the IOF's Forester Haven, a retirement community/nursing facility for its aged members. These buildings were designed by local architect and IOF member, Robert F. Moyer in the Contemporary style, which gave the campus a cohesive, lodge-like feel. This effect is achieved through use of simple, natural materials that are repeated in buildings throughout the campus, including: wood post-and-beam construction, Japanese-inspired plywood paneling, and broad, uninterrupted expanses of brick and stone. Design cohesion is also evident in elements repeated throughout the campus, such as: use of the site's natural topography, window walls, trapezoidal windows, exposed roof beams, wide overhanging eaves with exposed rafters, low-pitch gable and slanted roof forms, punctuated greenspaces, and intentional connections between interior and exterior spaces. Although Building ID# 13 was constructed c. 1970, it is not cohesive with the design of the rest of the campus and is located on the other side of the channel.

Three other buildings/structures (Building ID#s 3, 14, and 15) are remnants of the early years of IOF history (c. 1913-1937), when the campus functioned as the Tuberculosis Sanatorium and Aged Members Home, however, Building ID# 3 is heavily altered from its original appearance and does not contribute to the district's significance.

Finally, the remaining two buildings/structures (Building ID#s 4 and 9) are of recent construction and do not contribute to the significance of the historic district.

Table 4 provides a description of all identified buildings and structures within the Hope Gardens property. Larger, more visible photographs of each building are provided in the DPR Form set located in Appendix C.

Table 4. Identified Buildings/Features on the Existing Hope Gardens Property

Building ID#1 Sequoia Lodge (built 1975)

Currently known the "Sequoia Lodge", the single-story, gabled-roof building has three wings that create an irregular cross plan. The roof features wide overhanging eaves with exposed rafters and roof beams and is sheathed in composition shingles.

The building's exterior is clad in both vertical and horizontal wood panels and features split face concrete masonry units (CMU) retaining walls as opposed to the fieldstone used on other earlier-constructed buildings in the district.

A parking lot accesses the building's main entrance located on the east elevation. The entrance is recessed into a nook on the east elevation adjacent to the easterly projecting wing. This wing has a notch cut out of the gable where a walkway leads to the eastern gable end, which is characterized by a window wall of floor-to-ceiling rectangular fixed windows.

The entrance on the east elevation is sheltered partly by the gable and party by wooden screen that has been laid across the roof beams (a symmetrical feature that is also applied to the opposite gable). The entrance features the original large yellow door with decorative pull, which is adjacent to a series of fixed windows. A small wooden pergola shelters a bench outside of the main entrance.

The south elevation features a continuous wall of wood-framed windows from the ground to the top of the gable, featuring rectangular and trapezoidal shapes. Much of this elevation is obscured by vegetation.

The rear (west) elevation is accessed via a utility road that leads to small parking areas. The southernmost portion of the west elevation features mechanical systems and a utility room clad in split face CMU and wood paneling.

The northernmost portion of the rear elevation features a large yellow entrance door with decorative pull, recessed beneath a front-facing gabled roof with a cut-out notch and is adjacent to a series of floor-to-ceiling fixed windows. The northeastern corner of the building opens to a large greenspace with mature trees and ornamental plantings.

Alterations: addition of black metal handrails throughout (unconfirmed).









Photographs (from top): Main entrance on east elevation, view to west; Overview of window wall on south elevation, view to north; Overview of northeast elevations showing green space, view to southwest; Overview of rear (west) elevation showing extensive use of split-face CMU, view to east.

Building ID#2 Operations Department (built 1968)

Currently known as the "Operations Department", this 1-2 story, rectangular plan building features a front gabled roof with wide, overhanging eaves and large, exposed roof beams. The building reads as single-story from the front (east) elevation but contains a slant roof section on the south elevation that opens up to reveal a second story component.

The main (east) elevation features horizontal wood paneling replaced vinyl windows and a replaced corrugated metal garage door.

The slant roof component on the south elevation features a window wall with a metal railing. Other aspects of this elevation were obscured.

The north elevation is clad in painted brick and has a replaced vinyl window.

The west (rear) elevation is obscured by a large open workshop addition with a gabled, wood paneled roof supported by wooden posts.

Alterations: replaced windows and doors on main and north elevation; recent rear structure addition (date unknown).







Photographs (from top): Overview of main (east) elevation, view to west; East elevation and partial view of slant roof south elevation; rear structure addition.

Building ID#3. Cottage (built c. 1913-1937)

Single-story, modified bungalow that appears to be from the IOF's original period of development on the property (c.1913-1937). The building appears to have been heavily altered in the 1960s and 1970s in order to blend in with the new construction that occurred on the rest of the campus during the development of Forester Haven. This included infilling of an original porch, removal of original cladding, replacement of original windows, the addition of windows to the front gable, and application of the plywood paneling seen throughout the other buildings on the property. Only the south and west elevations were visible/accessible.



Photograph: overview of south and west elevations of Building 3.

Building ID#4. Gazebo (built 2012-2013)

Simple, wooden structure with four square posts bolted into a poured concrete foundation with a flat roof structure.



Photograph: overview of gazebo, facing southeast

Building ID#5 Sycamore Building (built 1968)

Directly adjacent to one another are two buildings known as the Sycamore Building (ID#5) and Sycamore Hall (ID#6).

The Sycamore Building represents largest volume of the two buildings and is the rectangular in-plan, two-story component with a side-gabled roof and exposed posts and beams. The gabled elevations (east and west) are finished with vertical wood paneling from the roofline to the first story, with fieldstone filling the space between the ground and first floor.

The front-facing, south elevation features a series of individual units on both the first and second floor. All units are accessed via a common walkway; the ground floor sheltered by the second story and the second story sheltered by the wide roof overhang. The ground floor features painted white brick, horizontal wood paneling, and narrow rectangular transoms above the doors. The second story features all horizontal wood paneling and the same windows.

The rear (north) elevation reads as a single-story with the rest of the building hidden below grade and features both vertical and horizontal wood paneling.

Alterations: replacement of original wood guard rails on front and rear elevations with black metal railings; some replaced transom windows.







Photographs (from top): Overview of east elevation showing side paneling, view to west; Overview of south and west elevations showing side paneling, view to northeast; Overview of rear (north) elevation, view to south.

Building ID#6 Sycamore Hall (built 1968)

Directly adjacent to one another are two buildings known as the Sycamore Building (ID#5) and Sycamore Hall (ID#6).

The smaller, one-story building to the south is known as Sycamore Hall. The front entrance/lobby portion is located on the south elevation. The building features a front-gabled roof with wide overhanging eaves supported by large, exposed wooden beams. A large, paneled chimney/HVAC cover projects from the center of the roof. Most of this elevation is represented by a broad, uninterrupted expanse of fieldstone, which extends from the ground to the bottom of the trapezoidal windows. The upper half is clad in horizontal plywood paneling.

Alterations: HVAC equipment added; replacement of original gravel roof.



Photographs (from top): South elevation, view to northeast; South elevation, view to north; West elevation, view to east.

Building ID#7 Palm Court (built 1971)

Originally known as "Redwood Hall", this three-story, building exhibits a long irregular-L shape or boomerang-plan. The building features a side-gabled roof and exposed posts and beams. The gabled elevations (north and south) are finished with vertical wood paneling from the roofline to the ground floor. A low, painted brick wall lines the edge of the small greenspace with mature trees on the building's west elevation, and steps down with the grade of the site.

The front-facing, west elevation features a series of individual units on all three floors. All units are accessed via a common walkway, sheltered by the overhang of the floor/roof above. The ground floor begins at-grade on the southern end, eventually becoming sub-grade toward the northern portion of the building with the natural topography of the site.

The ground floor features a continuous tile floor the length of the corridor. Wall are clad in painted brick from the ground to the top of the door, and in vertical wood panels from the top of the door to the ceiling. The second and third floor corridor walls are clad in horizontal wood paneling from the ground to the top of the door, and in vertical wood panels from the top of the door to the ceiling. All floors feature narrow rectangular windows above the doors.

The north elevation features a concrete patio area with steps leading the sub-grade first floor. The rear (east) elevation of the building is entirely clad in plywood paneling feature rows of aluminum sliding windows set in wooden frames.

Alterations: some replaced vinyl windows, possible flooring replacement on upper walkways. It is unknown if the building originally featured wooden guardrails as seen on the original Sycamore building. Based on the extensive use of wood throughout the building, the use of black metal railings is a likely but unconfirmed alteration.







Photographs (from top): Overview of north elevation paneling and patio area, view to south; Overview of ground-floor corridor, view to north; Overview of south elevation, view to north.

Building ID#8 Palm Court Hall (built 1971)

Known the "Sequoia Lodge" when it was first constructed, this single-story, irregular-plan building features a low-pitch multi-hipped roof sheathed in rolled composition with large overhanding eaves finished with plywood paneling, and large exposed roof beams. A brick chimney protrudes from the roof nearest the west elevation. Exterior walls are clad in painted brick with floor-to-ceiling window walls punctuated between broad expanses of wall. Each nook between two elevations features a small patio or greenspace area.

The south elevation was largely hidden behind ornamental vegetation but features a wall of fixed, wood-framed windows and an original wood-paneled door.

The north elevation faces onto an open greenspace with tables and chairs and is represented by a broad expanse of brick with no windows.

The east elevation is accessed via a few steps to access the below-grade building. This elevation also features a recessed nook closest to the north elevation with a small patio area exhibiting continuous floor tiles. There is an entrance within a metal-framed window wall.

Th west elevation features a series of fixed windows set between expanses of painted brick walls.

Alterations: possible glass replacement on south elevation.









Photographs (from top): Patio nook on the north and east elevations, Below grade entrance on the east elevation, view to west; Interior photograph from 2018 showing exposed wood beam ceiling and continuous window walls; Overview of north and west elevations, view to southeast

Building ID#9 Utility Building (built c. 2000)

Simple, square-in-plan utility building with a flat roof, clad in split-face CMU. A concrete stoop leads up to a single-entry door on the south elevation with metal downspouts located on either side.



Photographs: overview of south and east elevations, view to northwest.

Building ID#10 Administration (built 1968)

This building is currently known as the Administration Building and is partially connected to the adjacent Building #2. This rectangular-plan building appears to be single-story when viewed from the front (east) elevation but rises up to two-stories at the rear (west) elevation, following the natural grade of the site. The building features a front-gabled roof with wide, overhanging eaves and large, exposed roof beams. The front elevation features a floor-to-ceiling window wall with aluminum framing, and broad expanses of fieldstone on either side of the main entrance.

The building's south elevation is mostly concealed from view but features a covered walkway that extends from the Administration's Building's front gable, connecting to the adjacent Building #2. This elevation also shares a central circular patio with Building #2. The north elevation features a combination of painted brick and vertical plywood with aluminum sliding windows.

The rear of the building features a hidden, second story with a gabled roof with wide overhanging eaves and exposed rafters. The east-facing portion contains an uneven façade with a window wall that exhibits both square and trapezoidal-shaped windows, and vertical plywood cladding. The rear of the second story features more wood paneling, various sized aluminum sliding windows, and painted brick cladding.

Photographs taken on the interior of the building in 2018 indicate the building still contains at least some of its original tile flooring and fieldstone walls.

Alterations: some replacement vinyl windows on secondary elevations; the addition of black metal railings throughout; replacement of original gravel roof.



Photographs (from top): Main (east) elevation, view to west; Interior photograph taken in 2018 (SmugMug) showing interior and outdoor connections and retention of some original elements like fieldstone walls and tile flooring; Main (east)elevation connection to Building 2 via a covered walkway, view to southwest; Rear (west) elevation showing second story component, view to southeast

Building ID#11 Oaks (built 1968)

While not confirmed, this building's original name may have been "Spruce Hall." It could also not be confirmed if this building is physically connected to the adjacent Administrative building by any means other than the covered walkway on the front elevation. The building is single-story, irregular O-plan with a rectangular clerestory roof at the rear, and an open atrium at its center.

The east elevation features a front-gabled/slanted roof with a wide overhanging eaves featuring square roof openings and supported by large, exposed wooden beams. Most of the elevation is represented by a broad, uninterrupted expanse of fieldstone, which extends from the ground to the bottom of the trapezoidal windows. The upper half is clad in vertical plywood paneling. Eave ends feature exposed rafters and broad expanses of painted white brick and board-and-batten siding.

The building is accessed on the north elevation via a covered walkway that connects to the adjacent Administration Building and is punctuated by small green spaces and patios. Floor-to-ceiling trapezoidal windows bring in light from the open space at the building's center. The rear (west) elevation features plywood panel and board-and-batten siding with a view of the clerestory roofline that features a band of small, rectangular windows.

Alterations: the addition of black metal railings throughout; replaced doors on the north elevation; replaced vinyl windows facing the central open play area as well as on the entire west elevation; alteration of central circular landscaping feature; possible removal of original wooden guardrails.









Photographs (from top): Main (east elevation), view to west; Overview of east and south elevations, view to northwest; Overview of roof openings and materials on front (east)

elevation; Rear (west) elevation showing clerestory windows and replaced vinyl windows, view to northeast.

Building ID#12 Concord (built 1962)

Originally known as "Concord Hall", the building is single-story, cross-plan, with 16 units on 4-wings that branch out from a central, circular lounge with floor-to-ceiling windows that look out to enclosed greenspaces on the east and west. The lounge also maintains its original, massive fieldstone fireplace, exposed wood beam ceiling, and paneled walls.

The wings have side-gabled roofs with large, exposed rafters, and the roof is sheathed in rolled composition. The circular center of the building exhibits a square-shaped cupola with wood paneling that projects from the center of the roof.

Exterior walls are clad in painted brick from the ground to the top of the door frames, and plywood paneling from the top of the doors to the roofline. The east- and west-facing elevations maintain their original materials, while the north and south-facing elevations do not.

Alterations: both the north- and south-facing elevations exhibit replaced vinyl windows and the original brick exterior has been replaced with stucco such that they retain very little of their original materials and workmanship; the original roofing material (likely heavy tile or gravel) has also been replaced.









Photographs (from top): Overview of rear (west) elevation showing circular lounge, view to east; Front (east) elevation showing partial wings and circular lounge, view to southwest; Overview of south elevation showing alterations, view to north; Interior photograph taken in 2018 (SmugMug) of the original fieldstone fireplace and exposed wood beam ceiling.

Building ID#13. Caretaker's Cottage (built c. 1970)

The Caretaker's Cottage is somewhat separated from the rest of the buildings, located on the west side of the channel. Functioning as a single-family residence for staff, the building is L-shape in plan, single-story, with a gable roof clad in composition shingles. Exterior walls are clad in horizontal wood siding. Windows throughout consist of various sized horizontal sliders, including some original aluminum and some vinyl replacements, all with a wood surround.

An asphalt driveway leads up to the property's main (southwest) elevation, which features the primary entrance on the west elevation and a secondary entrance on the south elevation. A wood/composite deck was added to this elevation at an unknown date.

The north elevation features a covered patio with a large post-and-beam shade structure. A pair of French doors provides access to the residence. The east elevation features a concrete walkway through a small, fenced yard with a large oak tree.

A small shed structure with a front-gabled roof is located northeast of the residence up the hill, hidden among trees. It was noted to have been used as a children's play house in the recent past.

This building lacks most of the Contemporary style character-defining features seen elsewhere on the campus, such as dramatic rooflines, use of post-and-beam construction, and fieldstone application.









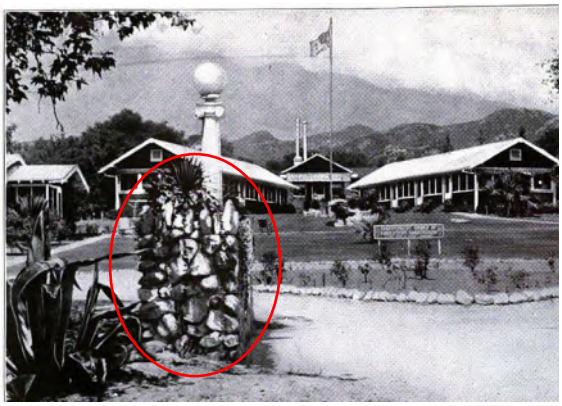
Photographs (from top): Overview of main (southwest) elevation, view to northeast; Rear (north) elevation showing French doors and shade structure, view to southwest; Overview of south elevation projection, view to north; and overview of east elevation, view to west.

Building ID#14. Stone Bridge and Channel (built c. 1913)

The bridge and wall feature consist of stacked stones held together by what appears to be a concrete mortar. The feature occurs on either site of the main road that accesses the northern portion of the property. The bridge travels over what was likely a hand-dug channel lined with a concrete slurry and stone. The smaller channel meanders throughout the northern portion of the project site and appears to empty out into the large, modern concrete channel that runs along the western boundary of the property.

A historic photograph from 1913 confirms that at least part of the stone bridge/wall feature that connects to what was once the old TB sanatorium, dates to the earliest period of IOF development on the property. Additional research is needed to fully understand the history of this feature, but it is likely that this is what was originally referred to as "the bridge of hope" that was constructed by or at least overseen by Frank Hand during the original period of development.





Photographs (from top): overview of existing stone bridge and channel feature, view to southeast; historic photograph showing the stone feature present c. 1913.

Building ID#15. IOF Footbridge (built c. 1934)

A small stone bridge set atop a concrete slab deck extends over a shallow drainage and provides access to the entrance of Building #3 (the cottage) from the road. The south-facing wall displays an applied concrete IOF Maltese cross crest that is in inscribed with "CM 1934," its assumed date of construction.



Photograph: overview of stone bridge leading up to the building with IOF crest, view to northeast

6 Significance Evaluation

The Sequoia Lodge building proposed for demolition (Building ID# 1) is part of a larger campus of buildings (Figure 12) that have historically functioned together as a single property and were designed by the same architect in the Contemporary style. Therefore, the entire Hope Gardens campus (formerly known as the IOF's Forester Haven) was recorded and evaluated for historical significance to determine if the larger campus should be considered an historical resource (i.e., a historic district) under CEQA. The Sequoia Lodge Building was also assessed for eligibility at the individual-level of significance. The following provides an evaluation of the Forester Haven Historic District in consideration of NRHP, CRHR, and County of Los Angeles designation criteria and integrity requirements. A State of California Department of Parks and Recreation Series 523 form set (DPR forms) for the property is provided in Appendix C.

6.1 Forester Haven Historic District

NRHP, CRHR, and County of Los Angeles Designation Criteria

The following provides an evaluation of the Forester Haven Historic District, in consideration of NRHP, CRHR, and County designation criteria.

NRHP Criterion A. That are associated with events that have made a significant contribution to the broad patterns of our history.

CRHR Criterion 1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

County Criterion 1. It is associated with events that have made a significant contribution to the broad patterns of the history of the nation, State, County, or community in which it is located.

The first period of development at the Lopez Canyon site (1911-1952) is significant for its association with the IOF's expansion into the Los Angeles area to provide a sanatorium for its west coast members battling the early stages of TB. However, in terms of extant built environment, little remains from the property's first period of development, including one of the original cottages (Building ID#3) which was built c. 1913-1937 and has since been heavily altered, a small concrete slab and stone walled footbridge bearing the IOF crest (Building ID# 15), and the larger stone bridge and canal features (Building ID# 14). Although most of the original IOF TB sanitorium development was erased by the second IOF period of development that began in the 1960s, the continuous use of the site by the same fraternal organization and the extant bridges, channels,

stone wall features, and forested setting that retain integrity, contribute to the long term historical associations of the property and the IOF, and serve as the last remaining physical evidence of the first development period.

The second major period of development at the Lopez Canyon site (1962-1975) is associated with the IOF's development of Forester Haven, a retirement center and nursing home facility created exclusively for its aged members. Forester Haven follows a pattern of development for institutionalized elderly care seen during the 1960s and 1970s in the San Fernando Valley and elsewhere and was one of hundreds of retirement and nursing home facilities that came about during the development boom that occurred around the early-to-mid 1970s in Los Angeles County.

Another association to consider is the role of Forester Haven within the context of the IOF fraternal society, as it was only accessible to IOF members. Forester Haven developed and expanded over a period of 13 years in response to the needs of its aging west coast members. In operation from approximately 1962-2005, Forester Haven was one of at least two "havens" constructed by the IOF. Forester Haven No. 2 near Orlando Florida served east coast members and shares a similar timeline, constructed in 1973 and in operation until 2002. Forester Haven at Lopez Canyon served an important function for aging IOF members on the west coast and speaks to the order's history of fraternalism. Its development contributes to the history of the IOF, from its first phase of development as a TB sanatorium and cancer clinic, to its transition to a home for the aging. For all of the reasons discussed above, the property appears eligible under NRHP Criterion A, CRHR Criterion 1, and County Criterion 1. None of the buildings or structures on the property (including Building ID#1) appear eligible at the individual level of significance.

NRHP Criterion B. That are associated with the lives of persons significant in our past.

CRHR Criterion 2. Is associated with the lives of persons important in our past.

County Criterion 2. It is associated with the lives of persons who are significant in the history of the nation, State, County, or community in which it is located.

Numerous individuals have been associated with the property by the nature of it being an institutional property where hundreds of people have lived and worked over the last century. Perhaps the most significant individual to be associated with the Lopez Canyon property is fourth IOF Supreme Chief Ranger, Frank Hand, who is a significant leader in the history of the IOF, helping pull the order through the Great Depression years. It is reported that "The Tuberculosis Sanatorium, Cancer Clinic, and Aged Foresters' Home in Lopez Canyon, Los Angeles, are principally if not exclusively, due to him" (Potter and Oliver 1967:140). He is also credited with building the IOF building at 1329 S. Hope Street and the Forester Inn at Avalon. Despite Hand's

important role in the history of the IOF and his strong connections to the Lopez Canyon property and Los Angeles, there is very little left from the first period of IOF development to convey Hand's associations with the property. Therefore, the property is recommended not eligible under NRHP Criterion B, CRHR Criterion 2, or County Criteria 2, and none of the buildings are eligible at the individual level of significance.

NRHP Criterion C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

CRHR Criterion 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.

County Criterion 3. It embodies the distinctive characteristics of a type, architectural style, period, or method of construction, or represents the work of an architect, designer, engineer, or builder whose work is of significance to the nation, State, County, or community in which it is located; or possesses artistic values of significance to the nation, State, County, or community in which it is located.

The Hope Gardens campus (formerly Forester Haven) embodies the distinctive character-defining features of Contemporary style architecture and post-and-beam construction, as expressed in the 1960s and 1970s throughout California and much of the United States. Although the original As-built drawings/construction plans for Forester Haven could not be obtained, it is clear through archival research and survey that the buildings were constructed between 1962 and 1975 by the same architect and were designed to function together as a campus of lodge-style buildings that provided various services (housing, recreation, medical, administrative, etc.) for aging foresters. The buildings share many character-defining features which unite them aesthetically and creates a cohesive campus of lodge-style buildings. Repetitive character-defining features identified on most or all of the buildings include the use of post-and-beam construction; use of simple, natural materials such as: wood, stone, glass, and brick that often appear as broad, uninterrupted surfaces of the same material; Japanese influence in panelized walls; asymmetrical designs; gabled and slanted roof forms; wide open eaves with exposed beams; a clear connection of interior and outdoor spaces through use of window walls, courtyards, and continuous beams; use of pergolas/shade structures; recessed entrances; and an adaptability to steep hillsides and slopes. Although some alterations to original materials were identified throughout the campus (with some buildings appearing more altered than others), taken together, these alterations are not extensive enough to materially impair the campus as a whole or prevent it from conveying its major character-defining features as a district of buildings.

Developed exclusively for IOF members, the property is somewhat unique among other retirement centers/institutional properties developed throughout the San Fernando Valley during the 1960s and 1970s for its natural and isolated setting. The property's location in a forested canyon surrounded by hills on a sprawling 71-acres is particularly unusual for an institutional property in Los Angeles County, with most others occurring within suburban areas on significantly smaller parcels. Further, a cursory review of other retirement centers in the San Fernando Valley and surrounding areas indicates that there are almost no extant examples of current or former retirement/nursing facilities in rustic Contemporary style with a grouping of lodge-style buildings.

Forester Haven does not represent the work of an important creative individual. Architect Robert F. Moyer was a local working architect who was also active in the IOF. Although he did win a national design award for his work on Forester Haven (specific building(s) awarded unclear), his identifiable body of work indicates that he does not rise to the level of a master architect. What is significant about Moyer's involvement in the Forester Haven project is that he himself was a forester, which follows a common building practice in the IOF of looking to its members to assist in/oversee large scale building projects to reduce costs. Moyer found further cost-savings in construction techniques like post-and-beam and use of plywood paneling for broad surfaces. The result is a rustic interpretation of Contemporary style architecture in a natural, forested setting that is particularly unique amongst institutional properties. Moyer was also responsible for the design of Forester Haven No. 2 near Orlando Florida, which was constructed in 1973. Little information could be found concerning the career of landscape architect, James Dean, who appears to still be practicing.

In summary, the Forester Haven Historic District is significant as a grouping of buildings that embody the distinctive character-defining features of the Contemporary style of architecture, which unite them aesthetically and create a cohesive campus of rustic, lodge-style buildings designed by an IOF member for an IOF retirement home. For all of the reasons discussed above, the property appears eligible under NRHP Criterion C, CRHR Criterion 3, and County Criterion 3. None of the buildings or structures on the property (including Building ID# 1) appear eligible at the individual level of significance.

NRHP Criterion D. That have yielded, or may be likely to yield, information important in prehistory or history.

CRHR Criterion 4. Has yielded, or may be likely to yield, information important in prehistory or history.

County Criterion 4. It has yielded, or may be likely to yield, significant and important information regarding the prehistory or history of the nation, State, County, or community in which it is located.

The property is not significant as a source, or likely source, of important historical information nor does it appear likely to yield important information about historic construction methods, materials, or technologies. Therefore, the property does not appear eligible under NRHP Criterion D, CRHR Criterion 4, or County Criterion 4.

County Criterion 5. It is listed, or has been formally determined eligible by the United States National Park Service for listing, in the National Register of Historic Places, or is listed, or has been formally determined eligible by the State Historical Resources Commission for listing, on the California Register of Historical Resources.

The subject property has not been formally determined eligible for either the NRHP or CRHR and is therefore not eligible under this criterion.

County Criterion 6. If it is a tree, it is one of the largest or oldest trees of the species located in the County.

The subject property is not a tree and is therefore not eligible under this criterion.

County Criterion 7. If it is a tree, landscape, or other natural land feature, it has historical significance due to an association with a historic event, person, site, street, or structure, or because it is a defining or significant outstanding feature of a neighborhood.

The subject property is not a tree, landscape, or other natural land feature and is therefore not eligible under this criterion.

County Criterion for Historic Districts. A geographic area, including a noncontiguous grouping of related properties that:

> **exhibits either a concentration of historic, scenic, or sites containing common character-defining features, which contribute to each other and are unified aesthetically by plan, physical development, or architectural quality; or significant geographical patterns, associated with different eras of settlement**

and growth, particular transportation modes, or distinctive examples of parks or community planning.

As discussed under NRHP/CRHR/County Criteria A/1/1 and C/3/3, the Forester Haven Historic District is significant as a historic grouping of buildings. Under Criterion A/1/1, Forester Haven at Lopez Canyon served an important function for aging IOF members on the west coast and speaks to the order's history of fraternalism. Its development contributes to the history of the IOF, from its first phase of development as a TB sanatorium and cancer clinic in the early 1900s, to its transition to a home for the aging (Forester Haven) in the 1960s. Forester Haven also follows a pattern of development for institutionalized elderly care seen during the 1960s and 1970s in the San Fernando Valley and elsewhere, and was one of hundreds of retirement and nursing home facilities that came about during the development boom that occurred around the early-to-mid 1970s in Los Angeles County.

Under Criterion C/3/3, the buildings embody the distinctive character-defining features of the Contemporary style of architecture, which unite them aesthetically and create a cohesive campus of lodge-style buildings. These features include: the use of post-and-beam construction; use of simple, natural materials such as: wood, stone, glass, and brick that often appear as broad, uninterrupted surfaces of the same material; Japanese influence in panelized walls; asymmetrical designs; gabled and slanted roof forms; wide open eaves with exposed beams; a clear connection of interior and outdoor spaces through use of window walls, courtyards, and continuous beams; use of pergolas/shade structures; recessed entrances; and an adaptability to steep hillsides and slopes.

Integrity Discussion

Location: The subject property retains integrity of location. The buildings are sited on the original location of construction in their original orientations.

Design: The subject property retains integrity of design. The original designs of buildings have not been significantly altered since their construction. All of the major design elements introduced by architect Robert Moyer are still present, with some replacement of original windows primarily on secondary elevations, and original wooden guardrails. The essential elements of form, space, structure and style have all been retained and the property can be identified as a unified group of Contemporary style buildings designed during the 1960s-1970s.

Setting: The subject property retains integrity of setting and has always been located in a forested canyon surrounded by mature trees. There has not been any significant development in proximity to the Forester Haven property that would disrupt its original isolated setting.

Materials: The subject property mostly retains integrity of materials. Most of the buildings maintain their essential materials, including paneled wood, brick, fieldstone, glass window walls, aluminum slider windows, etc. All buildings appear to have had their original roofing materials replaced and received the addition of black metal railings throughout, likely for ADA compliance. Some buildings exhibited replaced windows but in most cases these replacements were located on secondary elevations and did not disrupt from the overall design. The largest exterior alterations observed within the district are those made to the secondary elevations on Concord Hall (Building ID# 12); the removal of the original wooden guardrails on the Sycamore Building (Building ID# 5); and replacement of nearly all windows and doors on the Operations Department Building (Building ID#2). While these alterations somewhat diminish integrity of materials, taken as a whole, the district maintains the vast majority of its original materials.

Workmanship: The subject property retains integrity of workmanship. The physical evidence of the craftsmanship required to create the Contemporary lodge-style buildings has been retained.

Feeling: The subject property retains integrity of feeling. When walking through the campus, the property's isolated setting, varying topography, mature trees, and rustic Contemporary style buildings evokes the feeling of a lodge or camp. What is also immediately apparent are the intentional connections between the buildings and the natural space that surrounds them.

Association: The subject property retains integrity of association. The subject property has lost most of the built environment from the IOF's initial development of the site (1911-1952). However, the Forester Haven facility (1962-2005) served an important function for aging IOF members on the west coast and speaks to the Order's history of fraternalism. The IOF/fraternal association is conveyed through the buildings, which were designed by a member architect for the IOF using cost-saving construction techniques and provide a rustic interpretation of the Contemporary style in a natural, forested setting.

In summary, the Forester Have Historic District retains all seven aspects of integrity such that it can convey its historical significance as a grouping of IOF-designed/built buildings and structures in the Contemporary style of architecture.

Significance Evaluation Findings

As a result of the property significance evaluation, 11 buildings and structures appear eligible as contributing resources to the newly identified Forester Haven Historic District under NRHP, CRHR, and County Criteria A/1/1 and C/3/3 for their important historical associations with the IOF and for embodying the distinctive character-defining features of the Contemporary style of architecture, which unite them aesthetically and create a cohesive campus of rustic, lodge-style buildings designed by an IOF member for an IOF retirement home (see Table 5). Building ID#s 3,

4, 9, and 13 were identified as non-contributing buildings: Building ID# 3 is a heavily altered cottage that no longer resembles its original appearance; Building ID# 4 is a gazebo of recent construction; Building ID# 9 is a utility building of recent construction; and Building ID# 13 is a modified single-family residence that does not exhibit the major character-defining features seen throughout the rest of the historic district (Table 5).

The period of significance under NRHP, CRHR, and County Criteria A/1/1 is 1913-1975, capturing the years in which the property was actively developed by the IOF. Elements contributing to the significance of the district under Criteria A/1/1 include the few remaining aspects of the original IOF TB facility developed c. 1913-1934, including the stone bridge that connects the upper and lower parts of the district (Building ID# 14), the stone channel system that connects to the main wash (also Building ID #14), the concrete footbridge bearing the official emblem of the IOF (Building ID# 15), and the forested setting; as well as all buildings from the second period of development that were constructed as part of Forester Haven beginning in 1962 through 1975 (Building ID#s 1, 2, 5, 6, 7, 8, 10, 11, and 12).

The period of significance under NRHP, CRHR, and County Criteria C/3/3 is 1962-1975, capturing the years in which the existing campus of Contemporary, lodge-style buildings were constructed by IOF architect Robert Moyer. Buildings/structures contributing to the significance of the district under Criteria C/3/3 include Building ID#s 1, 2, 5, 6, 7, 8, 10, 11, and 12.

Table 5. Forester Haven Historic District Contributing and Non-Contributing Resources

Building ID#	Current Name/Description	Built Date	Historic District Status	Applicable NRHP/CRHR/County Criteria
1	Sequoia Lodge	1975	Contributing	A/1/1 and C/3/3
2	Operations Department/Garage	1968	Contributing	A/1/1 and C/3/3
3	Cottage	c.1913-1937	Non-contributing	n/a
4	Gazebo	c.2012-2013	Non-contributing	n/a
5	Sycamore	1968	Contributing	A/1/1 and C/3/3
6	Sycamore Hall	1968	Contributing	A/1/1 and C/3/3
7	Palm Court	1971	Contributing	A/1/1 and C/3/3
8	Palm Court Hall	1971	Contributing	A/1/1 and C/3/3
9	Utility building	c. 2000s	Non-contributing	n/a
10	Administration	1968	Contributing	A/1/1 and C/3/3
11	Oaks	1968	Contributing	A/1/1 and C/3/3
12	Concord Hall	1962	Contributing	A/1/1 and C/3/3
13	Caretaker's Cottage	c. 1970s	Non-contributing	n/a
14	Stone bridge and channel features	c. 1913	Contributing	A/1/1
15	IOF footbridge	c. 1934	Contributing	A/1/1

7 Impacts Assessment

The Sequoia Lodge Building (Building ID# 1) appears eligible as a contributing resource to the Forester Haven Historic District under NRHP, CRHR, and County Landmark designation criteria A/1/1 and C/3/3 for its important historical associations and architectural merit (Table 5) and is therefore considered an historical resource under CEQA (CEQA Guidelines § 15064.5(a)(3) and (4)). The Sequoia Lodge (Building ID# 1) is not eligible at the individual level of significance. For this reason, it is necessary to analyze the impact of demolition and new construction on the Forester Haven Historic District, as follows (CEQA Guidelines § 15064.5(b)):

> A project with an effect 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.
>
> (1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
>
> (2) The significance of an historical resource is materially impaired when a project:
>
> (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
>
> (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
>
> (C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

7.1 Impact 1: Demolition of the Sequoia Lodge

Demolition of the Sequoia Lodge will demolish some of the physical characteristics that justify the Forester Haven Historic District for its eligibility under NRHP, CRHR, and County Landmark designation criteria. The building contributes to the district as a Contemporary style institutional building constructed by the IOF as part of the Forester Haven aged home. It is also the last building

to be constructed at the Forester Haven facility and marks the end of its 13-year development period and the end of the period of significance for the historic district (1913-1975 under A/1/1 and 1962-1975 under C/3/3). Sequoia Lodge exhibits many characteristics of the Contemporary style as seen in other district buildings, including gabled and slanted roof forms, use of wood paneling on the exterior, window walls, pergolas and shade structures, aluminum sliding windows, and green spaces. However, it is still worth noting how the Sequoia Lodge is different from the rest of the district buildings in several important ways:

- It was built in 1975 and is the last building to be constructed at Forester Haven (with other contributors constructed in 1962, 1968 and 1971).
- It is located in the northernmost portion of the district on the site of the old TB sanatorium and is distinctly separate from the rest of the buildings by paved areas. It lacks a clear path of circulation to the other buildings via formal pathways, as seen in other parts of the district.
- Much of the primary elevations (east and south) are almost entirely obscured by mature trees and vegetation. In general, this building lacks visibility on the campus.
- Although the building does continue the use of many of the material types seen in other district buildings (such as wood plywood siding in different orientations), it introduces a new material-type (split-face CMU) that is not seen anywhere else in the district.

Despite these issues, the Sequoia Lodge (Building ID #1) is still a contributing building that displays numerous character-defining features seen throughout the district and marks the end of the period of significance for Forester Haven.

Although demolition of the Sequoia Lodge (Building ID #1) would result in the loss of a contributing building, the Forester Haven Historic District would remain eligible for NRHP, CRHR, and local designation even after its demolition, as the district would continue to exhibit its major character-defining features through the remaining district-contributing buildings. However, given that the district will lose a unique contributor that represents the last building constructed and would alter the period of significance for the district, demolition of the Sequoia Lodge would result in a significant impact to an historical resource (the Forester Haven Historic District) under CEQA. The following recommendations have been provided for next steps.

Recommendations for Impact 1:

The Sequoia Lodge (Building ID#1) is a contributing element of the Forester Haven Historic District, an historical resource under CEQA. For this reason, South Environmental recommends consideration of the following:

Alternatives to Demolition: As required by CEQA, an Environmental Impact Report (EIR) must analyze a reasonable range of alternatives prior to any discretionary approvals by the County. One alternative that should be considered is an adaptive reuse/preservation alternative that maintains the building's major character-defining features as part of a compatible new use. Another alternative that should be considered is a partial preservation/new construction project. These alternatives should be considered in the context of the goals and objectives of the proposed project and overall feasibility.

Archival Documentation: The Sequoia Lodge was recently subject to archival documentation that included photography of all exterior elevations, and views to and from the building, with detailed photographs of materials, doors, windows, rooflines, gardens, and other key components so that there is a record of the building. This documentation was substantially based on the National Park Service's Historic American Building Survey (HABS) guidelines for narrative and photographic documentation. If the EIR determines that there are no feasible alternatives to demolition, prior to demolition, it is recommended that the original plans for the Sequoia Lodge (if available) be scanned and reproduced so that they are available for future study on the historic district. A final set of the archival documentation and photographs should be filed with the SCCIC, the County of Los Angeles, and any other interested parties/stakeholders. It should be noted that this recommendation will not reduce impacts to historical resources below a level of significance, however, CEQA requires consideration of all feasible mitigation measures.

Protection Plan for Demolition and Construction: Prior to the start of project-related demolition and construction activities, protection measures should be developed in a formal plan for the adjacent buildings. In particular, the Operations Building (Building ID# 2). Protection should include: 1) clear denotation in the construction plans that the project is located within a historic district, marking the location of the nearby Operations Building; 2) all construction workers should be informed of the presence of a historic district and be aware of the protocol to avoid/protect all adjacent buildings; and 3) fencing and signage should be put in place to make sure that all construction workers and equipment are preventing from accessing the building. The protection plan should be prepared by a qualified architectural historian/historic preservation professional and should clearly identify all responsible parties with their contact information.

7.2 Impact 2: New construction in a historic district

The construction of a new building within the boundaries of a historic district has the potential to impact the significance of the Forester Haven Historic District and its setting by introducing incompatible massing, scale, design, materials, or architectural styles that detract from the existing buildings and natural features of the site.

The project proposes to construct a new four-story building to provide approximately 117 new units for long term homeless housing and related services. The new building is proposed to be approximately 39 feet tall, occupying 106,410-square-feet (Appendix D).

The Sequoia Lodge (Building ID# 1) is located in northernmost portion of the Forester Haven Historic District, somewhat topographically isolated, and surrounded by trees and other vegetation. The building lacks visibility from nearly all other vantage points in the historic district. Therefore, although the proposed new design (see Appendix D) does not meet the Standards for Rehabilitation in its proposed massing, scale, and materials, its general lack of visibility from other parts of the historic district indicates that construction of the proposed new building will not significantly impact the remaining Forester Haven Historic District buildings and structures, such that they will remain eligible for NRHP, CRHR, and local designation. However, it is necessary to protect nearby district-contributing buildings and structures prior to initiation of any demolition or construction activities. Protection measures for adjacent buildings during demolition and new construction activities are provided above under Recommendations for Impact 1.

8 Findings and Conclusions

8.1 Archaeological Resources

Findings

No archaeological resources were identified within the project site as a result of the CHRIS records search, NAHC Sacred Lands File search, or pedestrian survey. Further the entire project site has been disturbed by development over the years, first with the construction of a TB facility in the early 1900s and again with the construction of the current building. Therefore, the project site is unlikely to contain intact buried archaeological deposits. Still, it is always possible to encounter resources during ground disturbance. Standard inadvertent discovery measures for archaeological resources and human remains have been provided below.

Recommendations

Inadvertent Discovery of Cultural Resources

Should archaeological resources (sites, features, or artifacts) be exposed during construction activities for the proposed project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find, the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.

Inadvertent Discovery of Human Remains

In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the remains are determined to be Native American, the Coroner shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the Most Likely Descendant (MLD) from the deceased Native American. The MLD shall complete their inspection within 48 hours of being

granted access to the site. The MLD would then determine, in consultation with the property owner, the disposition of the human remains.

8.2 Historic Built Environment Resources

Findings

As result of the property significance evaluation, 11 buildings (Building ID#s 1, 2, 5, 6, 7, 8, 10, 11, 12, 14, and 15) appear eligible as contributing resources to the newly identified Forester Haven Historic District under NRHP, CRHR, and County Criteria A/1/1 and C/3/3 for their important historical associations with the IOF and for embodying the distinctive character-defining features of the Contemporary style of architecture, which unite them aesthetically and create a cohesive campus of rustic, lodge-style buildings designed by an IOF member for an IOF retirement home. Building ID#s 3, 4, 9, and 13 were identified as non-contributing resources: Building ID# 3 is a heavily altered cottage that no longer resembles its original appearance; Building ID# 4 is a gazebo of recent construction; Building ID# 9 is a utility building of recent construction; and Building ID# 13 is a modified single-family residence that does not exhibit the major character-defining features seen throughout the rest of the historic district.

Demolition of the Sequoia Lodge Building (Building ID#1) will demolish physical characteristics that justify the Forester Haven Historic District for its eligibility under NRHP, CRHR, and County Landmark designation criteria. The building contributes to the district as a Contemporary style institutional building constructed by the IOF as part of the Forester Haven aged home. It is also the last building to be constructed at the Forester Haven facility and marks the end of its 13-year development period (1962-1975). The Sequoia Lodge exhibits many characteristics of the Contemporary style as seen in other district buildings including gabled and slanted roof forms, use of wood paneling on the exterior, window walls, pergolas and shade structures, aluminum sliding windows, and green spaces. Therefore, demolition of the Sequoia Lodge Building would result in a significant impact to an historical resource under CEQA (the Forester Haven Historic District).

Recommendations

Section 7 provides detailed recommendations for next steps regarding the proposed demolition of the Sequoia Lodge Building and construction of a new building. These recommendations include: 1) considering a reasonable range of alternatives to demolition; 2) archival documentation of the building; and 3) providing protection to adjacent buildings during demolition and construction activities.

9 Bibliography

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Appendix A

CONFIDENTIAL Records Search Results

Not for public distribution

Appendix B

NAHC Sacred Lands File Search

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
Marshall McKay
Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
[**Vacant**]

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
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Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

September 22, 2020

Soyeon Choi
Department of Regional Planning

Via Email to: schoi@planning.lacounty.gov

Re: Hope Gardens Center Project, Los Angeles County

Dear Ms. Choi:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: steven.quinn@nahc.ca.gov.

Sincerely,

Steven Quinn
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Los Angeles County
9/22/2020

Barbareno/Ventureno Band of Mission Indians
Julie Tumamait-Stenslie, Chairperson
365 North Poli Ave
Ojai, CA, 93023
Phone: (805) 646 - 6214
jtumamait@hotmail.com
Chumash

Barbareno/ Ventureno Band of Mission Indians
Patrick Tumamait,
992 El Camino Corto
Ojai, CA, 93023
Phone: (805) 216 - 1253
Chumash

Barbareno/ Ventureno Band of Mission Indians
Eleanor Arrellanes,
P. O. Box 5687
Ventura, CA, 93005
Phone: (805) 701 - 3246
Chumash

Barbareno/ Ventureno Band of Mission Indians
Raudel Banuelos,
331 Mira Flores
Camarillo, CA, 93012
Phone: (805) 427 - 0015
Chumash

Chumash Council of Bakersfield
Julio Quair, Chairperson
729 Texas Street
Bakersfield, CA, 93307
Phone: (661) 322 - 0121
chumashtribe@sbcglobal.net
Chumash

Coastal Band of the Chumash Nation
Mariza Sullivan, Chairperson
P. O. Box 4464
Santa Barbara, CA, 93140
Phone: (805) 665 - 0486
cbcntribalchair@gmail.com
Chumash

Fernandeno Tataviam Band of Mission Indians
Jairo Avila, Tribal Historic and Cultural Preservation Officer
1019 Second Street, Suite 1
San Fernando, CA, 91340
Phone: (818) 837 - 0794
Fax: (818) 837-0796
jairo.avila@tataviam-nsn.us
Tataviam

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

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

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

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

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com
Gabrielino

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

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Hope Gardens Center Project, Los Angeles County.

Northern Chumash Tribal Council
Fred Collins, Spokesperson
P.O. Box 6533 Chumash
Los Osos, CA, 93412
Phone: (805) 801 - 0347
fcollins@northernchumash.org

San Fernando Band of Mission Indians
Donna Yocum, Chairperson
P.O. Box 221838 Kitanemuk
Newhall, CA, 91322 Vanyume
Phone: (503) 539 - 0933 Tataviam
Fax: (503) 574-3308
ddyocum@comcast.net

San Luis Obispo County Chumash Council
Mark Vigil, Chief
1030 Ritchie Road Chumash
Grover Beach, CA, 93433
Phone: (805) 481 - 2461
Fax: (805) 474-4729

Santa Ynez Band of Chumash Indians
Kenneth Kahn, Chairperson
P.O. Box 517 Chumash
Santa Ynez, CA, 93460
Phone: (805) 688 - 7997
Fax: (805) 686-9578
kkahn@santaynezchumash.org

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

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Hope Gardens Center Project, Los Angeles County.

Appendix C

DPR Forms: Forester Haven Historic District

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
DISTRICT RECORD

Primary #
HRI #
Trinomial

 ***NRHP Status Code** 3D, 3CD, 5D3

***Resource Name or #** Forester Haven Historic District

D1. Historic Name: Forester Haven; IOF Tubercular Sanatorium and Aged Members Home

D2. Common Name: Hope Gardens

***D3. Detailed Description**:

Nestled on the edge of the Angeles National Forest in a forested canyon, the Hope Gardens property comprises 71-acres developed with a sprawling campus of buildings. A total of 15 buildings/structures were identified within the property.

Most of the buildings (Building ID#s 1, 2, 5, 6, 7, 8, 10, 11, and 12) were constructed between 1962 and 1975 as part of the IOF's Forester Haven, a retirement community/nursing facility for its aged members. These buildings were designed by local architect and IOF member, Robert F. Moyer in the Contemporary style, which gave the campus a cohesive, lodge-like feel. This effect is achieved through use of simple, natural materials that are repeated in buildings throughout the campus, including: wood post-and-beam construction, Japanese-inspired plywood paneling, and broad, uninterrupted expanses of brick and stone. Design cohesion is also evident in elements repeated throughout the campus, such as: use of the site's natural topography, window walls, trapezoidal windows, exposed roof beams, wide overhanging eaves with exposed rafters, low-pitch gable and slanted roof forms, punctuated greenspaces, and intentional connections between interior and exterior spaces. Although Building ID# 13 was constructed c. 1970, it is not cohesive with the design of the rest of the campus and is located on the other side of the channel.

Three other buildings/structures (Building ID#s 3, 14, and 15) are remnants of the early years of IOF history (c. 1913-1937), when the campus functioned as the Tuberculosis Sanatorium and Aged Members Home, however, Building ID# 3 is heavily altered from its original appearance and does not contribute to the district's significance.

Finally, the remaining two buildings/structures (Building ID#s 4 and 9) are of recent construction and do not contribute to the significance of the historic district.

***D4. Boundary Description** (Describe limits of district and attach map showing boundary and district elements.):

As shown on the Sketch Map, the boundary of the district consists of the developed and landscaped portions of the existing campus, encompassing all buildings and structures, and the surrounding mature trees.

***D5. Boundary Justification:**

The district boundary captures all existing buildings and structures as well as the most critical aspects of the rural, forested setting that contribute to the significance of the district.

D6. Significance: Theme Contemporary Style Institutional Architecture, Fraternal Society Architecture **Area** Unincorporated Los Angeles County; San Fernando Valley **Period of Significance** 1913-1975 (Criteria A/1/1) and 1962-1975 (Criteria C/3/3) **Applicable Criteria** NRHP, CRHR, and County Criteria A/1/1 and C/3/3

Eleven buildings and structures appear eligible as contributing resources to the newly identified Forester Haven Historic District under NRHP, CRHR, and County Criteria A/1/1 and C/3/3 for their important historical associations with the IOF and for embodying the distinctive character-defining features of the Contemporary style of architecture, which unite them aesthetically and create a cohesive campus of rustic, lodge-style buildings designed by an IOF member for an IOF retirement home (See Continuation Sheets).

***D7. References**: See Continuation Sheets.

***D8. Evaluator:** Samantha Murray **Date:** 1/23/2021

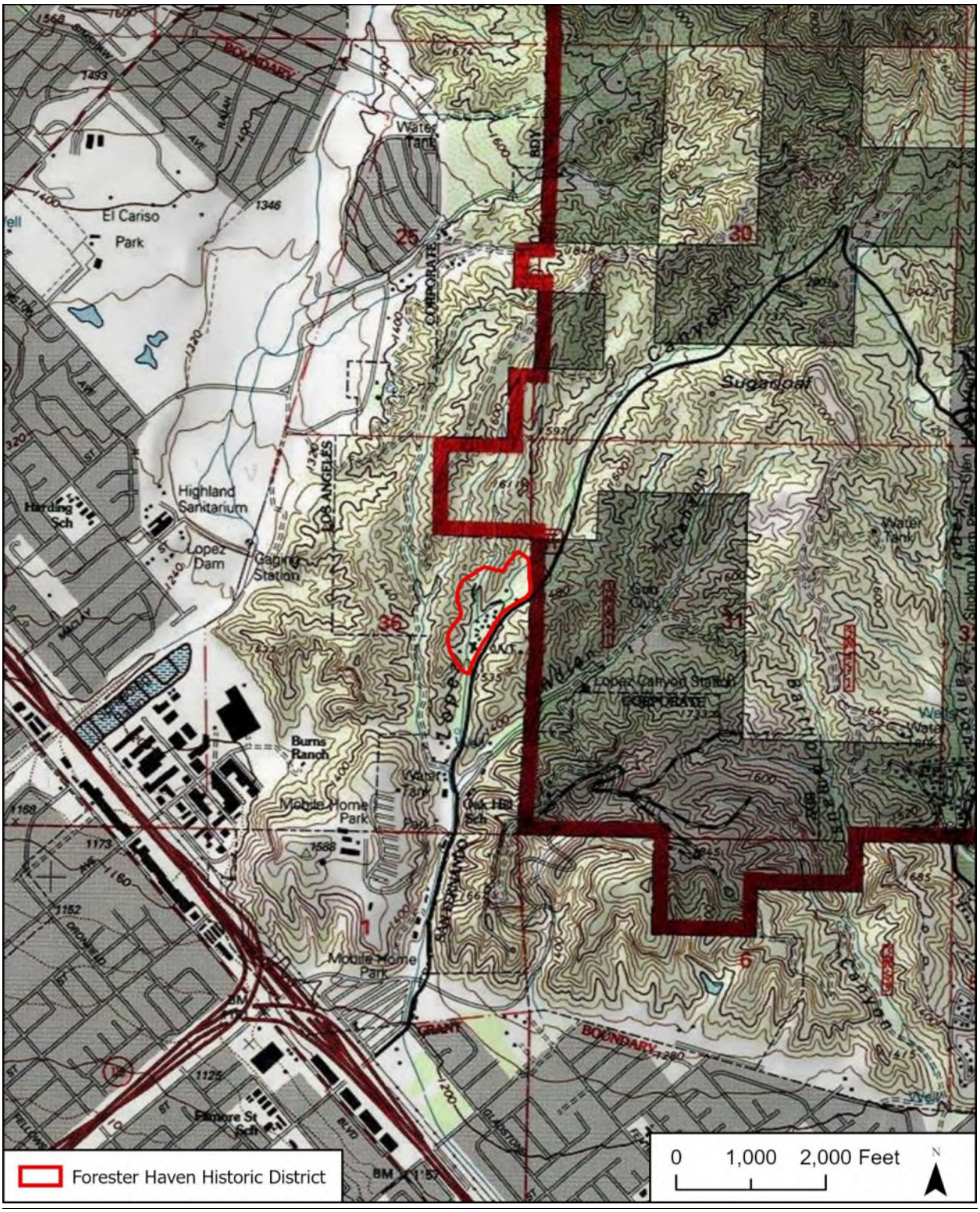
Affiliation and Address: South Environmental
2061 N. Los Robles Avenue, Suite 205
Pasadena, CA, 91104

State of California - The Resources Agency Primary #
DEPARTMENT OF PARKS AND RECREATION HRI#

LOCATION MAP

Trinomial

Page 2 **of** 60 ***Resource Name or #** Forester Haven Historic District
***Map Name:** San Fernando, CA ***Scale:** 1:24,000 ***Date of map:** 2013

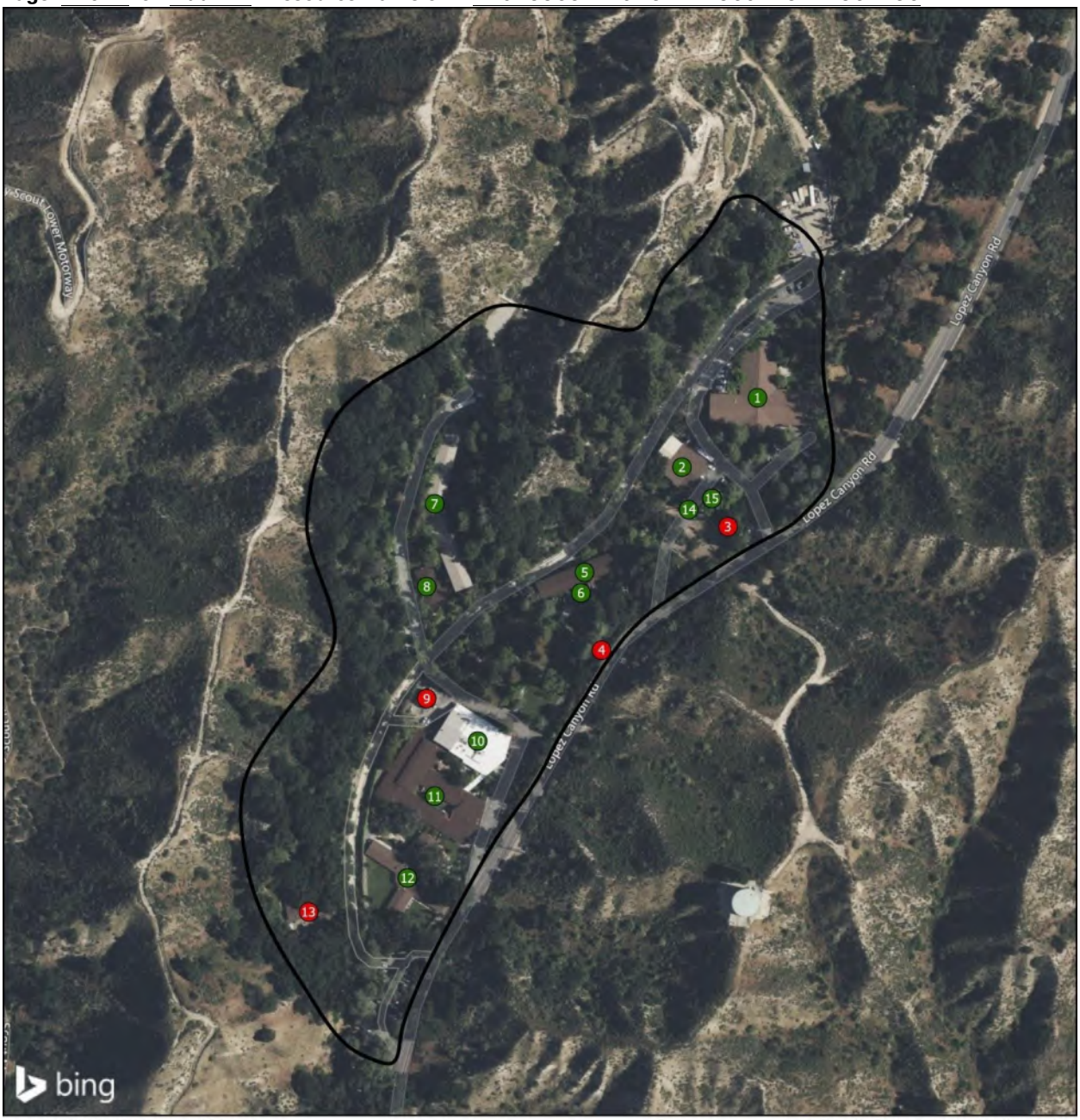


State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

SKETCH MAP

Primary #
HRI#
Trinomial

Page 3 **of** 60 ***Resource Name or #** Forester Haven Historic District



Source: BING Aerial Imagery 2022

Hope Gardens Sequoia Building Project

Historic District Boundary

Buildings

- Contributor
- Non-Contributor

0 150 300 Feet

Scale: 1:3,004

N

SOUTH ENVIRONMENTAL

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D, 3CD, 5D3

Other Listings
Review Code | Reviewer | Date

Page 4 **of** 60 ***Resource Name or #:** Sequoia Lodge **P1. Other Identifier:** Building ID#1

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Fernando **Date** 2013 **T** 3N ; **R** 15W ; __ ☐ **of** __ ☐ **of Sec** 36 ; SB **B.M.**

c. Address 12249 Lopez Canyon Drive City Unincorporated LA County Zip 91342

d. UTM: (Give more than one for large and/or linear resources) Zone __, _____ mE/ _____ mN

e. Other Locational Data:

***P3a. Description:**

Currently known the "Sequoia Lodge", the single-story, gabled-roof building has three wings that create an irregular cross plan. The roof features wide overhanging eaves with exposed rafters and roof beams and is sheathed in composition shingles. The building's exterior is clad in both vertical and horizontal wood panels and features split face concrete masonry units (CMU) retaining walls as opposed to the fieldstone used on other earlier-constructed buildings in the complex. A parking lot accesses the building's main entrance located on the east elevation. The entrance is recessed into a nook on the east elevation adjacent to the easterly projecting wing. This wing has a notch cut out of the gable where a walkway leads to the eastern gable end, which is characterized by a window wall of floor-to-ceiling rectangular fixed windows. The entrance on the east elevation is sheltered partly by the gable and party by wooden screen that has been laid across the roof beams (a symmetrical feature that is also applied to the opposite gable). The entrance features the original large yellow door with decorative pull, which is adjacent to a series of fixed windows (see Continuation Sheets).

***P3b. Resource Attributes:** HP13. Community Center; HP6. 1-3 Story Commercial Building

***P4.Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ■ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing



P5b. Description of Photo:
Overview of northeast elevation, view to southwest (IMG_8125)

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both
Built in 1975 (NETR 2021)

***P7. Owner and Address:**
Union Rescue Mission
545 South San Pedro Street
Los Angeles, California 90013

***P8. Recorded by:**
Sam Murray, South Environmental
2061 N. Los Robles Ave, Ste 205,
Pasadena, CA, 91104

***P9. Date Recorded:** 12/10/2020

***P10. Survey Type:** Intensive

***P11. Report Citation:** *Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California* (South Environmental 2022)

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D, 3CD, 5D3

Other Listings
Review Code | Reviewer | Date

 ***Resource Name or #:** Operations Department **P1. Other Identifier:** Building ID#2

*P2. **Location:** □ **Not for Publication** ■ **Unrestricted**

***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Fernando **Date** 2013 **T** 3N ; **R** 15W ; __ □ **of** __ □ **of Sec** 36 ; SB **B.M.**

e. Address 12249 Lopez Canyon Drive City Unincorporated LA County Zip 91342

f. UTM: (Give more than one for large and/or linear resources) Zone __, _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

***P3a. Description:**

Currently known as the "Operations Department", this 1-2 story, rectangular plan building features a front gabled roof with wide, overhanging eaves and large, exposed roof beams. The building reads as single-story from the front (east) elevation but contains a slant roof section on the south elevation that opens up to reveal a second story component. The main (east) elevation features horizontal wood paneling replaced vinyl windows and a replaced corrugated metal garage door. The slant roof component on the south elevation features a window wall with a metal railing. Other aspects of this elevation were obscured. The north elevation is clad in painted brick and has a replaced vinyl window. The west (rear) elevation is obscured by a large open workshop addition with a gabled, wood paneled roof supported by wooden posts (see Continuation Sheets).

***P3b. Resource Attributes:** HP13. Community Center; HP6. 1-3 Story Commercial Building

P5a. Photograph or Drawing



***P4. Resources Present:** □ Building □ Structure □ Object □ Site □ District ■ Element of District □ Other (Isolates, etc.)

P5b. Description of Photo: Overview of main (east) elevation, view to west (IMG_8133)

***P6. Date Constructed/Age and Source:** ■ Historic □ Prehistoric □ Both

Built in 1968 (LAT 1968)

***P7. Owner and Address:**
Union Rescue Mission
545 South San Pedro Street
Los Angeles, California 90013

***P8. Recorded by:** (Name, affiliation, and address)
Sam Murray, South Environmental
2061 N. Los Robles Ave, Ste 205,
Pasadena, CA, 91104

***P9. Date Recorded:** 12/10/2020

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")
Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California (South Environmental 2022)

***Attachments:** □NONE ■Location Map ■Continuation Sheet □Building, Structure, and Object Record □Archaeological Record ■District Record □Linear Feature Record □Milling Station Record □Rock Art Record □Artifact Record □Photograph Record □ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code | Reviewer | Date

Page 6 **of** 60 ***Resource Name or #:** Cottage **P1. Other Identifier:** Building ID#3

*P2. **Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Fernando **Date** 2013 **T** 3N ; **R** 15W ; __ ☐ **of** __ ☐ **of Sec** 36 ; SB **B.M.**

g. Address 12249 Lopez Canyon Drive City Unincorporated LA County Zip 91342

h. UTM: (Give more than one for large and/or linear resources) Zone __, _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

***P3a. Description:**

Single-story, bungalow that appears to be a heavily altered cottage from the IOF's original period of development on the property (c.1913-1937), although this could not be confirmed. The building appears to have been heavily altered in the 1960s and 1970s in order to blend in with the new construction that occurred on the rest of the campus during the development of Forester Haven. This included infilling of an original porch, removal of original cladding, replacement of original windows, the addition of windows to the front gable, and application of the plywood paneling seen throughout the other buildings on the property. Only the south and west elevations were visible/accessible (see Continuation Sheets).

***P3b. Resource Attributes:** HP13. Community Center; HP6. 1-3 Story Commercial Building

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



***P4. Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ■ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: Overview of south and west elevations, view to northeast (IMG_8239)

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both

Built c. 1913-1937 (observed)

***P7. Owner and Address:**
Union Rescue Mission
545 South San Pedro Street
Los Angeles, California 90013

***P8. Recorded by:** (Name, affiliation, and address)
Sam Murray, South Environmental
2061 N. Los Robles Ave, Ste 205,
Pasadena, CA, 91104

***P9. Date Recorded:** 12/10/2020

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") *Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California* (South Environmental 2022)

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D, 3CD, 5D3

Other Listings
Review Code | Reviewer | Date

Page 7 **of** 60 ***Resource Name or #:** Sycamore **P1. Other Identifier:** Building ID#5

*P2. **Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Fernando **Date** 2013 **T** 3N ; **R** 15W ; ☐ **of** ☐ **of Sec** 36 ; SB **B.M.**

i. Address 12249 Lopez Canyon Drive City Unincorporated LA County Zip 91342

j. UTM: (Give more than one for large and/or linear resources) Zone ___, _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

***P3a. Description:**

Directly adjacent to one another are two buildings known as the Sycamore Building (ID#5) and Sycamore Hall (ID#6). The Sycamore Building represents largest volume of the two buildings and is the rectangular in-plan, two-story component with a side-gabled roof and exposed posts and beams. The gabled elevations (east and west) are finished with vertical wood paneling from the roofline to the first story, with fieldstone filling the space between the ground and first floor.

The front-facing, south elevation features a series of individual units on both the first and second floor. All units are accessed via a common walkway; the ground floor sheltered by the second story and the second story sheltered by the wide roof overhang. The ground floor features painted white brick, horizontal wood paneling, and narrow rectangular transoms above the doors. The second story features all horizontal wood paneling and the same windows. The rear (north) elevation reads as a single-story with the rest of the building hidden below grade and features both vertical and horizontal wood paneling (see Continuation Sheets).

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



***P3b. Resource Attributes:** HP13. Community Center; HP6. 1-3 Story Commercial Building

***P4. Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ■ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: Overview of south and west elevations, view to northeast (IMG_8154)

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both

Built in 1968 (LAT 1968)

***P7. Owner and Address:**
Union Rescue Mission
545 South San Pedro Street
Los Angeles, California 90013

***P8. Recorded by:** (Name, affiliation, and address)
Sam Murray, South Environmental
2061 N. Los Robles Ave, Ste 205, Pasadena, CA, 91104

***P9. Date Recorded:** 12/10/2020

***P10. Survey Type:** Intensive

***P11. Report Citation:** *Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California* (South Environmental 2022)

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D, 3CD, 5D3

Other Listings
Review Code | Reviewer | Date

Page 8 **of** 60 ***Resource Name or #:** Sycamore Hall **P1. Other Identifier:** Building ID#6

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Fernando **Date** 2013 **T** 3N ; **R** 15W ; ☐ **of** ☐ **of Sec** 36 ; SB **B.M.**

k. Address 12249 Lopez Canyon Drive City Unincorporated LA County Zip 91342

l. UTM: (Give more than one for large and/or linear resources) Zone ___, _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

***P3a. Description:**

Directly adjacent to one another are two buildings known as the Sycamore Building (ID#5) and Sycamore Hall (ID#6). The smaller, one-story building to the south is known as Sycamore Hall. The front entrance/lobby portion is located on the south elevation. The building features a front-gabled roof with wide overhanging eaves supported by large, exposed wooden beams. A large, paneled chimney/HVAC cover projects from the center of the roof. Most of this elevation is represented by a broad, uninterrupted expanse of fieldstone, which extends from the ground to the bottom of the trapezoidal windows. The upper half is clad in horizontal plywood paneling (see Continuation Sheets).

***P3b. Resource Attributes:** HP13. Community Center; HP6. 1-3 Story Commercial Building

***P4.Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ■ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: Overview of main (south) elevation, view to northeast (IMG_8150)

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both
Built in 1968 (LAT 1968)

***P7. Owner and Address:**
Union Rescue Mission
545 South San Pedro Street
Los Angeles, California 90013

***P8. Recorded by:**
Sam Murray, South Environmental
2061 N. Los Robles Ave, Ste 205,
Pasadena, CA, 91104

***P9. Date Recorded:** 12/10/2020

***P10. Survey Type:** Intensive

***P11. Report Citation:** *Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California* (South Environmental 2022)

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D, 3CD, 5D3

Other Listings
Review Code | Reviewer | Date

Page 9 **of** 60 ***Resource Name or #:** Palm Court **P1. Other Identifier:** Building ID#7

*P2. **Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Fernando **Date** 2013 **T** 3N ; **R** 15W ; ☐ **of** ☐ **of Sec** 36 ; SB **B.M.**

m. Address 12249 Lopez Canyon Drive City Unincorporated LA County Zip 91342

n. UTM: (Give more than one for large and/or linear resources) Zone ___, _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

***P3a. Description:**

Originally known as "Redwood Hall", this three-story, building exhibits a long irregular-L shape or boomerang-plan. The building features a side-gabled roof and exposed posts and beams. The gabled elevations (north and south) are finished with vertical wood paneling from the roofline to the ground floor. A low, painted brick wall lines the edge of the small greenspace with mature trees on the building's west elevation, and steps down with the grade of the site. The front-facing, west elevation features a series of individual units on all three floors. All units are accessed via a common walkway, sheltered by the overhang of the floor/roof above. The ground floor begins at-grade on the southern end, eventually becoming sub-grade toward the northern portion of the building with the natural topography of the site. The ground floor features a continuous tile floor the length of the corridor. Wall are clad in painted brick from the ground to the top of the door, and in vertical wood panels from the top of the door to the ceiling. The second and third floor corridor walls are clad in horizontal wood paneling from the ground to the top of the door, and in vertical wood panels from the top of the door to the ceiling. All floors feature narrow rectangular windows above the doors (see Continuation Sheets).

***P3b. Resource Attributes:** HP13. Community Center; HP6. 1-3 Story Commercial Building

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



***P4. Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ■ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: Overview of main (east) elevation, view to west (IMG_8190)

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both

Built in 1971 (TFM 1971)

***P7. Owner and Address:**
Union Rescue Mission
545 South San Pedro Street
Los Angeles, California 90013

***P8. Recorded by:** (Name, affiliation, and address)
Sam Murray, South Environmental
2061 N. Los Robles Ave, Ste 205,
Pasadena, CA, 91104

***P9. Date Recorded:** 12/10/2020

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") *Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California* (South Environmental 2022)

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D, 3CD, 5D3

Other Listings
Review Code Reviewer Date

Page 10 **of** 60 ***Resource Name or #:** Palm Court Hall **P1. Other Identifier:** Building ID#8

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Fernando **Date** 2013 **T** 3N ; **R** 15W ; ☐ **of** ☐ **of Sec** 36 ; SB **B.M.**

o. Address 12249 Lopez Canyon Drive City Unincorporated LA County Zip 91342

p. UTM: (Give more than one for large and/or linear resources) Zone ___, _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

***P3a. Description:**

Known the "Sequoia Lodge" when it was first constructed, this single-story, irregular-plan building features a low-pitch multi-hipped roof sheathed in rolled composition with large overhanding eaves finished with plywood paneling, and large exposed roof beams. A brick chimney protrudes from the roof nearest the west elevation. Exterior walls are clad in painted brick with floor-to-ceiling window walls punctuated between broad expanses of wall. Each nook between two elevations features a small patio or greenspace area. The south elevation was largely hidden behind ornamental vegetation but features a wall of fixed, wood-framed windows and an original wood-paneled door. The north elevation faces onto an open greenspace with tables and chairs and is represented by a broad expanse of brick with no windows. The east elevation is accessed via a few steps to access the below-grade building. This elevation also features a recessed nook closest to the north elevation with a small patio area exhibiting continuous floor tiles. There is an entrance within a metal-framed window wall. The west elevation features a series of fixed windows set between expanses of painted brick walls (see Continuation Sheets).

***P3b. Resource Attributes:** HP13. Community Center; HP6. 1-3 Story Commercial Building

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



***P4. Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ■ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: Overview of north and west elevations, view to south (IMG_8192)

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both

Built in 1971 (TFM 1971)

***P7. Owner and Address:**
Union Rescue Mission
545 South San Pedro Street
Los Angeles, California 90013

***P8. Recorded by:** (Name, affiliation, and address)
Sam Murray, South Environmental
2061 N. Los Robles Ave, Ste 205,
Pasadena, CA, 91104

***P9. Date Recorded:** 12/10/2020

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")
Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California (South Environmental 2022)

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D, 3CD, 5D3

Other Listings
Review Code | Reviewer | Date

Page 11 **of** 60 ***Resource Name or #:** Administration **P1. Other Identifier:** Building ID#10

*P2. **Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Fernando **Date** 2013 **T** 3N ; **R** 15W ; ☐ **of** ☐ **of Sec** 36 ; SB **B.M.**

q. Address 12249 Lopez Canyon Drive City Unincorporated LA County Zip 91342

r. UTM: (Give more than one for large and/or linear resources) Zone ___, _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

***P3a. Description:**

This building is currently known as the Administration Building and is partially connected to the adjacent Building #2. This rectangular-plan building appears to be single-story when viewed from the front (east) elevation but rises up to two-stories at the rear (west) elevation, following the natural grade of the site. The building features a front-gabled roof with wide, overhanging eaves and large, exposed roof beams. The front elevation features a floor-to-ceiling window wall with aluminum framing, and broad expanses of fieldstone on either side of the main entrance.

The building's south elevation is mostly concealed from view but features a covered walkway that extends from the Administration's Building's front gable, connecting to the adjacent Building #2. This elevation also shares a central circular patio with Building #2. The north elevation features a combination of painted brick and vertical plywood with aluminum sliding windows.

The rear of the building features a hidden, second story with a gabled roof with wide overhanging eaves and exposed rafters (see Continuation Sheets).

***P3b. Resource Attributes:** HP13. Community Center; HP6. 1-3 Story Commercial Building

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



***P4. Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ■ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: Overview of main (east) elevation, view to southwest (IMG_8205)

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both

Built in 1968 (LAT 1968)

***P7. Owner and Address:**
Union Rescue Mission
545 South San Pedro Street
Los Angeles, California 90013

***P8. Recorded by:** (Name, affiliation, and address)
Sam Murray, South Environmental
2061 N. Los Robles Ave, Ste 205,
Pasadena, CA, 91104

***P9. Date Recorded:** 12/10/2020

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey *Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California* (South Environmental 2022)

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D, 3CD, 5D3

Other Listings
Review Code | Reviewer | Date

Page 12 **of** 60 ***Resource Name or #:** Oaks **P1. Other Identifier:** Building ID#11

*P2. **Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Fernando **Date** 2013 **T** 3N ; **R** 15W ; ☐ **of** ☐ **of Sec** 36 ; SB **B.M.**

s. Address 12249 Lopez Canyon Drive City Unincorporated LA County Zip 91342

t. UTM: (Give more than one for large and/or linear resources) Zone ___, _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

***P3a. Description:**

Originally known as "Spruce Hall," the building is single-story, irregular O-plan with a rectangular clerestory roof at the rear, and an open atrium at its center. The east elevation features a front-gabled/slanted roof with a wide overhanging eaves featuring square roof openings and supported by large, exposed wooden beams. Most of the elevation is represented by a broad, uninterrupted expanse of fieldstone, which extends from the ground to the bottom of the trapezoidal windows. The upper half is clad in vertical plywood paneling. Eave ends feature exposed rafters and broad expanses of painted white brick and board-and-batten siding. The building is accessed on the north elevation via a covered walkway that connects to the adjacent Administration Building and is punctuated by small green spaces and patios. Floor-to-ceiling trapezoidal windows bring in light from the open space at the building's center. The rear (west) elevation features plywood panel and board-and-batten siding with a view of the clerestory roofline that features a band of small, rectangular windows (see Continuation Sheets).

***P3b. Resource Attributes:** HP13. Community Center; HP6. 1-3 Story Commercial Building

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



***P4. Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ■ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: Overview of main (east) elevation, view to southwest (IMG_8226)

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both

Built in 1968 (LAT 1968)

***P7. Owner and Address:**
Union Rescue Mission
545 South San Pedro Street
Los Angeles, California 90013

***P8. Recorded by:** (Name, affiliation, and address)
Sam Murray, South Environmental
2061 N. Los Robles Ave, Ste 205,
Pasadena, CA, 91104

***P9. Date Recorded:** 12/10/2020

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")
Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California (South Environmental 2022)

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D, 3CD, 5D3

Other Listings
Review Code | Reviewer | Date

Page 13 **of** 60 ***Resource Name or #:** Concord **P1. Other Identifier:** Building ID#12

*P2. **Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Fernando **Date** 2013 **T** 3N ; **R** 15W ; ☐ **of** ☐ **of Sec** 36 ; SB **B.M.**

u. Address 12249 Lopez Canyon Drive City Unincorporated LA County Zip 91342

v. UTM: Zone , mE/ mN

e. Other Locational Data)

***P3a. Description:**

Originally known as "Concord Hall", the building is single-story, cross-plan, with 16 units on 4-wings that branch out from a central, circular lounge with floor-to-ceiling windows that look out to enclosed greenspaces on the east and west. The lounge also maintains its original, massive fieldstone fireplace, exposed wood beam ceiling, and paneled walls. The wings have side-gabled roofs with large, exposed rafters, and the roof is sheathed in rolled composition. The circular center of the building exhibits a square-shaped cupola with wood paneling that projects from the center of the roof. Exterior walls are clad in painted brick from the ground to the top of the door frames, and plywood paneling from the top of the doors to the roofline. The east- and west-facing elevations maintain their original materials, while the north and south-facing elevations do not (see Continuation Sheets).

***P3b. Resource Attributes:** HP13. Community Center; HP6. 1-3 Story Commercial Building

***P4.Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ■ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (



P5b. Description of Photo:
Overview of front (east) elevation, view to west (IMG_8217)

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both
Built in 1962 (LAT 1962)

***P7. Owner and Address:**
Union Rescue Mission
545 South San Pedro Street
Los Angeles, California 90013

***P8. Recorded by:**
Sam Murray, South Environmental
2061 N. Los Robles Ave, Ste 205, Pasadena, CA, 91104

***P9. Date Recorded:** 12/10/2020

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")
Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California (South Environmental 2022)

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code | Reviewer | Date

Page 14 **of** 60 ***Resource Name or #:** Caretaker's Cottage **P1. Other Identifier:** Building ID#13

*P2. **Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Fernando **Date** 2013 **T** 3N ; **R** 15W ; ☐ **of** ☐ **of Sec** 36 ; SB **B.M.**

w. Address 12249 Lopez Canyon Drive City Unincorporated LA County Zip 91342

x. UTM: Zone , mE/ mN

e. Other Locational Data)

***P3a. Description:**

The Caretaker's Cottage is somewhat separated from the rest of the buildings, located on the west side of the channel. Functioning as a single-family residence for staff, the building is L-shape in plan, single-story, with a gable roof clad in composition shingles. Exterior walls are clad in horizontal wood siding. Windows throughout consist of various sized horizontal sliders, including some original aluminum and some vinyl replacements, all with a wood surround. An asphalt driveway leads up to the property's main (southwest) elevation, which features the primary entrance on the west elevation and a secondary entrance on the south elevation. A wood/composite deck was added to this elevation at an unknown date (see Continuation Sheets).

***P3b. Resource Attributes:** HP2. Single-family property

***P4.Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ■ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (



P5b. Description of Photo: Overview of front (northwest) elevation, view to southeast (IMG_P1010822)

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both

Built in 1962 (LAT 1962)

***P7. Owner and Address:**
Union Rescue Mission
545 South San Pedro Street
Los Angeles, California 90013

***P8. Recorded by:**
Sam Murray, South Environmental
2061 N. Los Robles Ave, Ste 205,
Pasadena, CA, 91104

***P9. Date Recorded:** 12/10/2020

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")
Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California (South Environmental 2022)

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D, 3CD, 5D3

Other Listings
Review Code Reviewer Date

Page 15 **of** 60 ***Resource Name or #:** Stone bridge and channel feature **P1. Other Identifier:** Building ID#14

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Fernando **Date** 2013 **T** 3N ; **R** 15W ; ☐ **of** ☐ **of Sec** 36 ; SB **B.M.**

y. Address 12249 Lopez Canyon Drive City Unincorporated LA County Zip 91342

z. UTM: (Give more than one for large and/or linear resources) Zone ___, _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

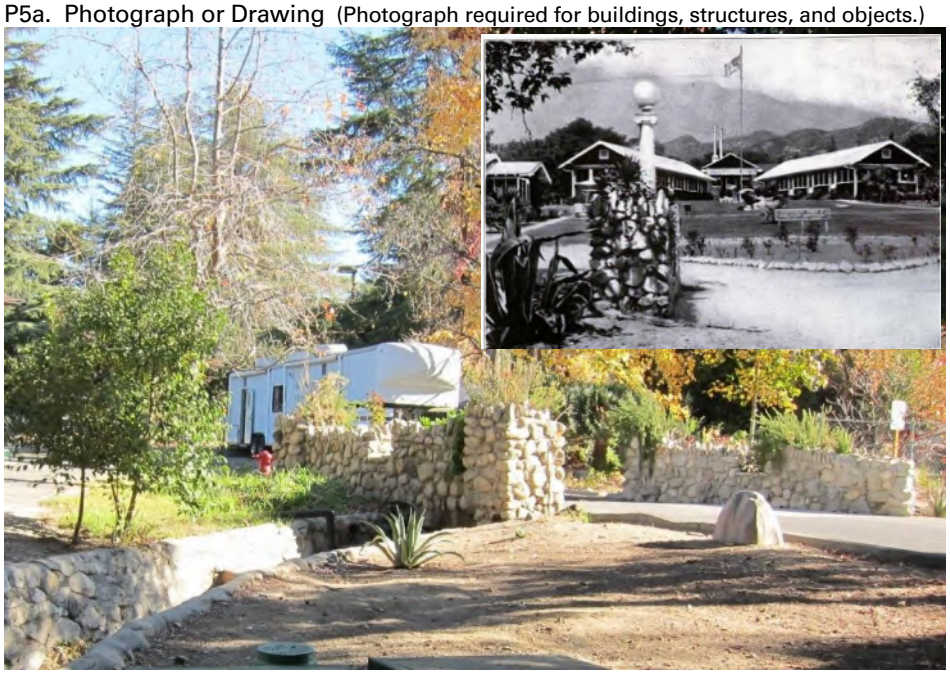
***P3a. Description:**

The bridge and wall feature consist of stacked stones held together by what appears to be a concrete mortar. The feature occurs on either site of the main road that accesses the northern portion of the property. The bridge travels over what was likely a hand-dug channel lined with a concrete slurry and stone. The smaller channel meanders throughout the northern portion of the project site and appears to empty out into the large, modern concrete channel that runs along the western boundary of the property. A historic photograph from 1913 confirms that at least part of the stone bridge/wall feature that connects to what was once the old TB sanatorium, dates to the earliest period of IOF development on the property. Additional research is needed to fully understand the history of this feature, but it is possible that the stone bridge and channel could have been constructed by or at least overseen by Frank Hand during the original period of development (see Continuation Sheets).

***P3b. Resource Attributes:** HP19. Bridge

***P4. Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ■ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: Overview of bridge and channel, view to northeast (IMG_8141). Inset of c.1913 photo

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric ☐ Both

Built c. 1913 (historic photograph)

***P7. Owner and Address:**

Union Rescue Mission
545 South San Pedro Street
Los Angeles, California 90013

***P8. Recorded by:** (Name, affiliation, and address)

Sam Murray, South Environmental
2061 N. Los Robles Ave, Ste 205,
Pasadena, CA, 91104

***P9. Date Recorded:** 12/10/2020

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")

Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California (South Environmental 2022)

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3D, 3CD, 5D3

Other Listings
Review Code | Reviewer | Date

Page 16 **of** 60 ***Resource Name or #:** IOF Footbridge **P1. Other Identifier:** Building ID# 15

*P2. **Location:** ☐ **Not for Publication** ■ **Unrestricted**

***a. County** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Fernando **Date** 2013 **T** 3N ; **R** 15W ; __ ☐ **of** __ ☐ **of Sec** 36 ; SB **B.M.**

aa. Address 12249 Lopez Canyon Drive City Unincorporated LA County Zip 91342

bb. UTM: (Give more than one for large and/or linear resources) Zone __, _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

***P3a. Description:**

A small stone bridge set atop a concrete slab deck extends over a shallow drainage and provides access to the entrance of Building #3 (the cottage) from the road. The south-facing wall displays an applied concrete IOF Maltese cross crest that is in inscribed with "CM 1934," its assumed date of construction (see Continuation Sheets).

***P3b. Resource Attributes:** HP19. Bridge

***P4.Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☐ District ■ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo:
Overview of bridge over channel, view to southeast (IMG_8141).

***P6. Date Constructed/Age and Source:** ■ Historic ☐ Prehistoric
☐ Both
Built c. 1934 (date on bridge)

P5a. Photograph or Drawing



***P7. Owner and Address:**
Union Rescue Mission
545 South San Pedro Street
Los Angeles, California 90013

***P8. Recorded by:** (Name, affiliation, and address)
Sam Murray, South Environmental
2061 N. Los Robles Ave, Ste 205, Pasadena, CA, 91104

***P9. Date Recorded:** 12/10/2020

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")
Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California (South Environmental 2022)

***Attachments:** ☐NONE ■Location Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

D6. Significance (Continued):

Historic Context

An Overview of the Independent Order of Foresters

The Independent Order of Foresters (IOF) is a fraternal benefit society that offered its members financial services, life insurance, and other benefits. Now based in Toronto, Canada, the organization operates under the name Foresters Financial.

In 1834 the Ancient Order of Foresters (AOF) was organized in England as an "English Society", a succession from the former Royal Foresters established in 1790. The AOF offered sick and burial benefits to its members (Dunn 1924). In the United States, following the Civil War, the AOF began to rebuild its failed attempts to establish membership in the U.S. On June 17, 1874, three local AOF courts seceded, and the IOF was founded in Newark, New Jersey, making the organization independent of the AOF (Oronhyatekha 1894; Dunn 1924). After putting down its roots in the U.S., the IOF quickly expanded into Canada, establishing the first Court in Canada, Court Hope No. 1, in 1878 in London, Ontario.

The expansion of the IOF into Canada is largely attributed to a man named Oronhyatekha (meaning "burning sky", baptized "Peter Martin"), much of who's life story remains a mystery. Oronhyatekha was born to a Mohawk family on the Six Nations Reserve of the Grand River Territory in 1841. In 1878, he joined the IOF, a truly remarkable feat given that the IOF's own constitution stated that it was open only to white males. Oronhyatekha's previous fraternal activity, community standing, and his status among the Orangemen ultimately led to his acceptance in the IOF. A summary of the highlights of his extraordinary life include (Hamilton and Jamieson 2016):

…rising to prominence in medicine, sports, politics, fraternalism, and business. He was one of the first Indigenous physicians in Canada, the first to attend Oxford University, a Grand River representative to the Prince of Wales during the 1860 royal tour, a Wimbledon rifle champion, the chairman of the Grand General Indian Council of Ontario, and Grand Templar of the International Order of Good Templars. He counted among his friends some of the most powerful people of the day, including John A. Macdonald and Theodore Roosevelt. He successfully challenged the racial criteria of the Independent Order of Foresters to become its first non-white member and ultimately its supreme chief ranger.

In 1878, Oronhyatekha was elected Most Worthy High Chief Ranger (Dunn 1924) and would continue to be elected for the next several years until he was elected to the highest level of Supreme Chief Ranger in 1881. Following years of internal fighting and poor financials, Oronhyatekha had the difficult task of breathing new life and more funding into an underperforming IOF. His first task was to restructure the IOF and put it on a road to financial solvency (University of Toronto 2021). Amidst an array of changes to Order's structure, he established the Endowment Fund (a form of life insurance) in amounts of $1,000, $2,000, or $3,000. Benefits included free medical attendance, sick and funeral, annuity for aged Foresters, and disability (Potter and Oliver 1967). While Oronhyatekha still publicized his medical practice in the Fraternal Monitor, he largely abandoned medicine to focus full time on the IOF, which in 1888 moved its head office from London to Toronto.

During the 1880s Oronhyatekha travelled across the U.S. and Canada promoting the fraternalism of the IOF over conventional insurance companies and financial protection for the working classes. The 1890s can be thought of as "the golden years of the IOF" with Oronhyatekha deserving much of the credit for its success. Oronhyatekha spent much of this time opening new lodges and had become a well-known advocate of fraternalism. In 1895 the cornerstone of the Temple Building in Toronto, Canada was laid and in 1897 the Head Office

was officially moved there (Potter and Oliver 1967). By the early 1900s, "Oronhyatekha had succeeded in transforming the IOF from a bankrupt organization into the largest fraternal body on the continent" (University of Toronto 2021). At the end of his life Oronhyatekha is credited with sending immediate aid to affected IOF members in San Francisco following the 1906 Earthquake.

Following Oronhyatekha's death, new Supreme Chief Ranger, Elliot Stevenson was forced to make serious changes when "crippling new insurance legislation" and the onset of World War I resulted in a substantial loss of membership. Said to be "perhaps the most difficult period in the Foresters history", older members had been withdrawing far more in death and old age benefits than they had been putting in. With the mortuary fund paying out more than was coming in, it was clear the funds would soon be exhausted. Stevenson was tasked with coming up with new rates assessments in order to put the IOF back on track (Potter and Oliver 1967).

The turn-of-the century also saw the opening of new IOF-operated facilities (Figure 1). In 1907, the IOF sold its first Orphans' Home in Deseronto, Ontario which had only been open for 18 months after incurring massive debt on the property. In 1909, the IOF then opened "a more modest home", the Orphans' Home, in Oakville, Ontario which function until 1943 when it was sold to the Canadian Government and became a convalescent home for wounded servicemen. In 1911, the IOF opened its first tuberculosis (TB) sanatorium at Rainbow Lake in New York which would operate until 1931. Two years later, Stevenson announced the opening of another new TB sanatorium in Lopez Canyon in California which would operate until 1952. With the onset of World War I, membership continued to drop while accumulated assets increased (Potter and Oliver 1967).

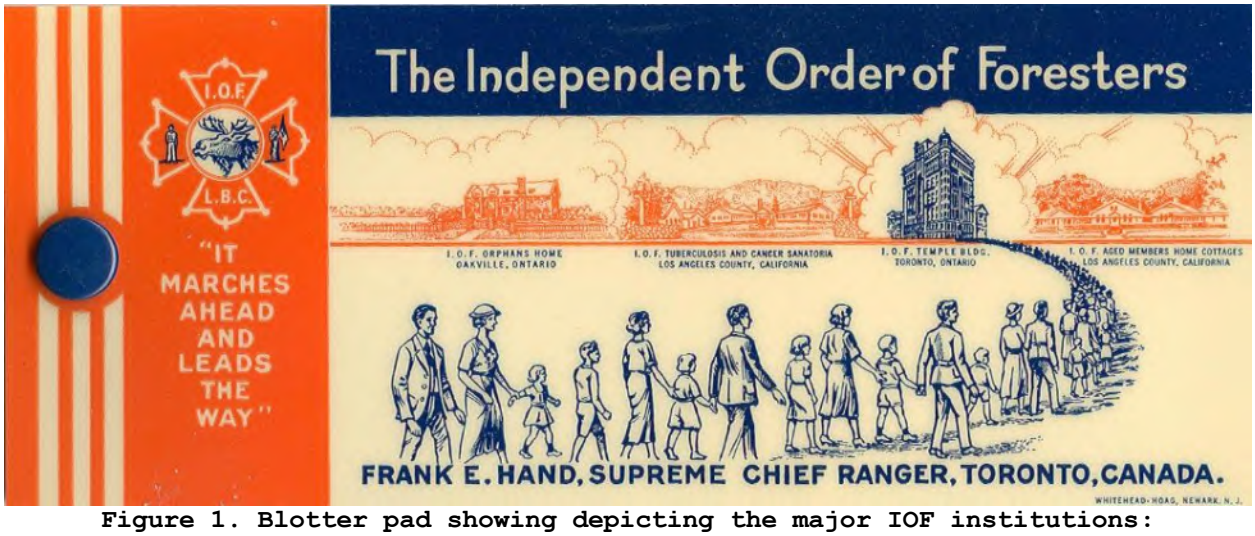


Figure 1. Blotter pad showing depicting the major IOF institutions: Orphans Home in Oakville, Ontario, the Tuberculosis and Cancer Sanatorium in Los Angeles County, the Temple Building in Toronto, Ontario, and the Aged Members Home Cottages in Los Angeles County (National Museum of American History 2006)

In 1926, Frank Hand was brought from California to become the Order's first Direction of Organization at the head office in Toronto. Three years later, Hand was unanimously selected to be the fourth Supreme Chief Ranger and became the first American to lead the IOF. Extremely well known throughout the order, Hand was a popular and logical choice (Potter and Oliver 1967).

Hand had the difficult task of leading the IOF at the brink of the Great Depression, a time where convincing people to spend money on insurance benefits was no easy task. He would ultimately lead the organization through the worst of its financial challenges. Hand is credited with playing a large role in setting up multiple components of the Lopez Canyon site, including being one of the "prime architects" of TB sanatorium, overseeing construction of the cancer clinic, and opening a home for aged IOF members. One of the most successful jurisdictions during the 1930s was in Southern California, where the Supreme Chief Ranger's son Frank E. Hand, Jr. was High Treasurer (Potter and Oliver 1967).

After resigning in 1941, Hand turned over the role of Supreme Chief Ranger to Victor Morin. Over the span of the next decade of the IOF would see a total of four Supreme Chief Rangers and finally show movement towards good financial health, with an increase in membership, assets, and insurance.

By 1946, the worst of the IOF's financial hardships were officially behind them. The election of Louis E. Probst as Supreme Chief Ranger in 1951 breathed new life into the organization and the IOF became revitalized. In 1953, Probst laid the cornerstone of the new Jarvis Street Headquarters in heart of Toronto's "insurance row." After outgrowing the building, in 1967, a new 24 story flagship building known as the 'Foresters House' was constructed in a Toronto suburb. Membership had significantly increased from 159,263 in 1951 to 540,072 in 1966 (Potter and Oliver 1967).

In the 1960s and 1970s the IOF constructed retirement homes for their aged members. The first being Forester Haven at Lopez Canyon in Los Angeles County, constructed over a period of 13 years between 1962 and 1975. In the 1970s IOF benefits expanded to cover university scholarships, polio, cancer, and TB grants, and orphan and senior benefits. In 1973, the IOF opened Forester Haven No. 2 in Mount Dora near Orlando Florida for their east coast members (Willis 2009).

Development History of 12249 Lopez Canyon Drive

The IOF Tubercular Sanatorium and Aged Members Home (1911-1952)

In June 1889 a court of the IOF was instituted and was said to be the first on the Pacific Coast (LAT 1889). While the IOF continued to expand its membership into the Western U.S., the U.S. and Europe were battling a tuberculosis (TB) epidemic (also referred to as "consumption"), identified as one of the two leading causes of death in the early 1900s (the other being pneumonia). The disease often killed slowly with patients coughing up infected sputum, sometimes for years, while ravaging the lungs. Overcrowded and unsanitary conditions in tenement housing in big cities provided the ideal conditions for the transmission of TB, particularly among the poor and immigrant populations. Among the more privileged in white society, a common method for treatment at the turn-of-the-century was to send patients in the early stages of TB to a specialized sanatorium where they could be treated with fresh air, a healthy diet, and rest to help with their recovery. With early diagnosis and adequate treatment, many could recover or at least have remission (Speaker 2018). The first sanatorium in the U.S. opened in Asheville, North Carolina in 1875 and the second in New York in 1884. In 1904, there were 115 TB sanatoriums in the U.S. with the capacity for 8,000 patients. By 1953, this number would grow to 839 sanatoriums with capacity for 136,000 patients (CDC 2016).

In 1910, the IOF built the first of its two TB sanatoriums for its members at Rainbow Lake in Franklin County, New York. The Rainbow Sanatorium opened on July 20, 1910 and was constructed on 600-acres, including a lake, with eight buildings (Willis 2009). By 1911, the IOF had 19 courts in Los Angeles with approximately 3,000 members (LAT 1911). It was at this time that the IOF purchased 40-acres in Lopez Canyon in Los Angeles County,

California to develop its second TB sanatorium for its West Coast members battling the early stages of TB. Patients would primarily live outdoors in open-air tents, even while sleeping. The tents would surround a large building containing a reading-room, dining-room, as well as multiple bedrooms and baths. The proposed facility was expected to be one of the top TB sanatoriums in California and received preapproved financial assistance from the IOF Supreme Court in Toronto with additional funding from the 19 Los Angeles IOF courts. The IOF would be able to construct the new facility at a minimum cost thanks in large part to its high number of architects and builders within the IOF membership.

Assistant Supreme Chief Ranger of the IOF Frank E. Hand, accompanied by 15 workmen, first went to the undeveloped site for the future sanatorium in 1911. There he built a bridge, which came to be known as "The Bridge of Hope", between Pacoima Station and the proposed site, that was strong enough to carry automobiles. The next task was to develop a sufficient water flow to the site which they immediately bored. Hand and Dr. E.B. Dickson were said to be in charge of all plans for the proposed hospital (LAT 1911), with Hand noted as one of the "prime architects" in setting up the TB clinic (Potter and Oliver 1967:120).

In February 1913, the IOF completed the first section of its open-air sanatorium, consisting of 11 buildings (Figure 2) with promises to spend thousands of dollars more to transform the facility into "a site for the National Health Resort of their great order." (The Record 1913; The Burbank Review 1913). The dedication ceremony for the new $25,000 facility was held on March 15, 1913. Approximately 300 lodge men were expected to be in attendance as well as "prominent members from the north" (LAT 1913). A detailed model of one of the sanatorium cottages designed and prepared by Frank Hand was displayed at the 1915 San Francisco Exposition and was awarded a gold medal by the International Jury of Awards (Potter and Oliver 1967). A few years later in 1917, several other buildings were dedicated on site and celebrated with a barbecue. By this time, the IOF Southern California jurisdiction had grown to 8,000 members (LAT 1917).



Figure 2. Postcard of newly built tuberculosis sanatorium in location of current project site c. 1915

By 1924, the IOF maintained 165,000 members in the U.S. and Canada, and more than 350 members had been treated at the Lopez Canyon sanatorium with 275 patients "discharged as improved or the disease arrested" (Dunn 1924:427).

In the 1930s, the IOF sanatorium in Lopez Canyon continued to expand, with the opening of a new cancer clinic. It was Hand's duty to oversee and report on the construction of the new building at the IOF sanatorium. Originally started in 1930 for study and research only, cancer patients were treated at the Lopez Canyon facility from 1935 until 1946 (Potter and Oliver 1967). In addition, the closing of the Rainbow Lake Sanatorium in New York resulted in the Lopez Canyon sanatorium taking the remaining patients (Willis 2009). The IOF continued to raise funds to expand, hosting a Bazaar with proceeds going to a fund to add new units to the site (LAT 1930).

Also in the 1930s, the IOF also decided to prioritize the care of its senior members. In 1931, the IOF made plans to construct a large number of cottages for senior citizens "in the sunny setting of Lopez Canyon" (Potter and Oliver: 1967:120). The facility was described as a "mountain lodge for aged members" of the IOF. Known as the Home for Aged Foresters, the new aged center would be located directly south of the existing sanatorium (LAT 1931). In the late 1930s the IOF was regularly taking out large newspaper advertisements to make new recruits, promising happiness and security to its prospective members with the slogan "A Stronghold of Family Protection". Every advertisement outlined the IOF's five core principles or "Protective & Fraternal Features" which included (LAT 1936a):

1) Four forms of Protective Certificates. Two of which provide for Monthly Income Disability, two making provision for Old Age Benefits, and all four, payments to Beneficiaries in case of death.

2) Sick Benefits provided by IOF. Maximum and Minimum Sick Benefit Certificate. – (This benefit is for males only).

3) Home and full provision for orphaned children of members through the IOF. Home at Oakville, Ontario.

4) IOF Sanatoria at Lopez Canyon, Los Angeles County, California, provides hospitalization and treatment for members suffering from TB or cancer, without expense. All transportation paid from any point in Canada or the United States.

5) A Home for Aged Members, built on the bungalow plan (Figures 3 and 4), where members may spend the eventide of life together, in happiness and contentment.



Figure 3. Picture taken in front of the new Aged Members Home in 1937 showing bungalows (Foresters Financial 2020)

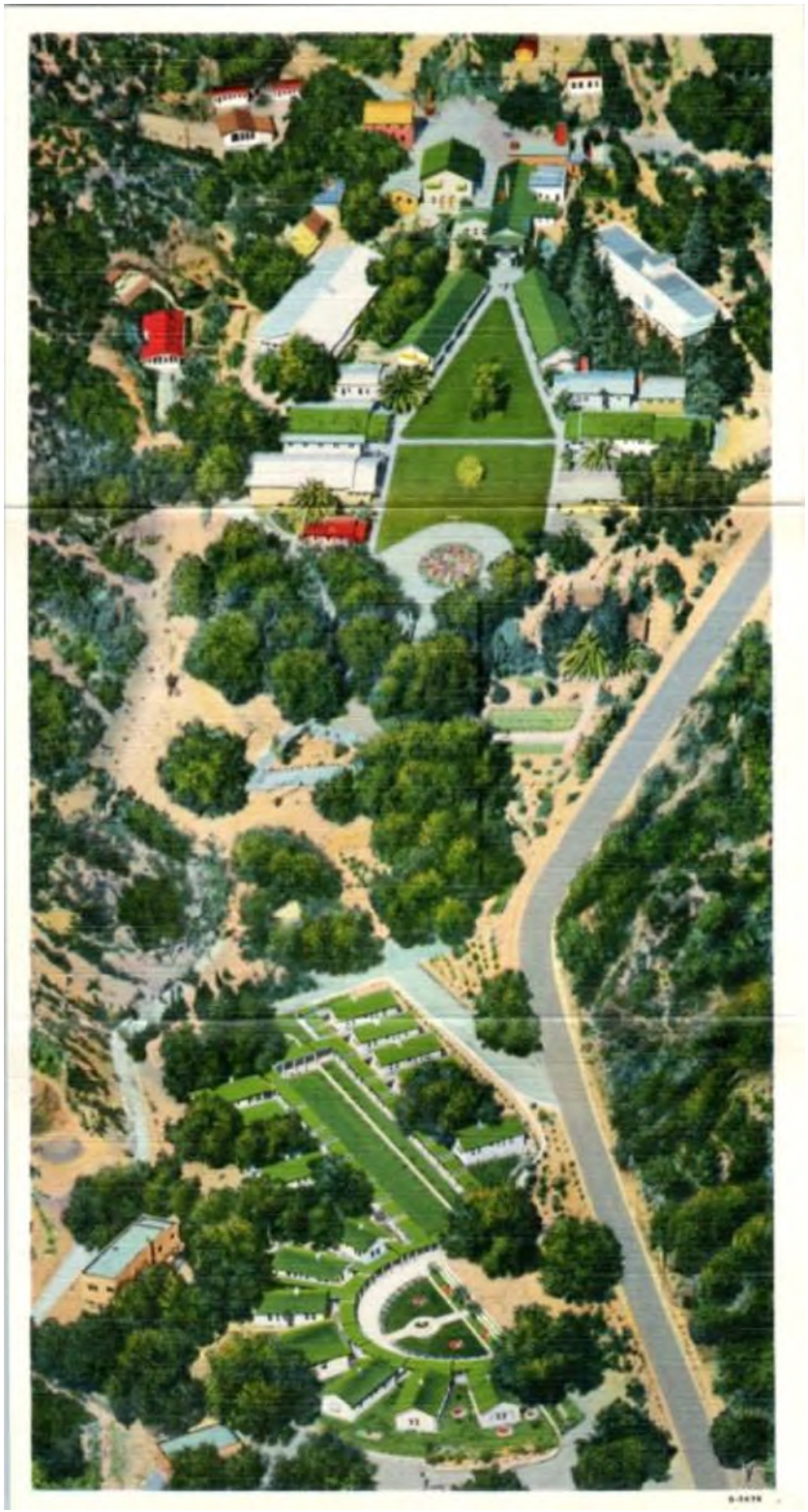


Figure 4. Aerial rendering of the expanded IOF Property at Lopez Canyon c. 1937 (eBay)

The IOF property saw its share of natural disasters, starting in 1919 when the entire facility was evacuated, and firebreaks were constructed (LAT 1919). The facility was again evacuated in 1935 after a brush fire tore through Upper Kagel and Lopez Canyons, again burning right to the edge of the grounds and threatening structures at the IOF sanatorium site (LAT 1935). In 1936, flood waters from a cloudburst in Lopez Canyon overtopped a five-foot protective ditch and washed through several cottages at the sanatorium, leaving behind an 8-inch layer of mud and silt. Frank Hand and manager William Topham were on site to help clear away a debris field of stone and masonry. It was noted that "crippled women patients were rushed to safety" (LAT 1936b). In 1947 another brush fire burned through Lopez Canyon, this time sparing structures at the IOF facility but sending a tower of smoke in its direction (The Valley Times 1947).

By 1929, Frank Hand had been elected to the highest position at the IOF in Toronto, the Supreme Chief Ranger, and would remain in that position until 1941. At the time of his election, Hand, along with Dr C.B. Dickson, were credited with originating "the medical, hospital and surgical system of benefits now general throughout the order." As for his contributions in the Los Angeles area, Hand is credited with building the TB sanatorium in Lopez Canyon, the first IOF building on Olive Street, an IOF building at 1329 S. Hope Street, and the Forester Inn at Avalon (LAT 1929). On April 22, 1944, Hand died in Buffalo, New York at the age of 74. An obituary notice stated that Hand was "a man of sterling character with a great heart, he devoted his life to alleviate the misfortunes of suffering humanity. The Tuberculosis Sanatorium, Cancer Clinic, and Aged Foresters' Home in Lopez Canyon, Los Angeles, are principally if not exclusively, due to him, as well as the Foresters' Orphan Home in Oakville, Ontario" (Potter and Oliver 1967:140). Another notable death, this one occurring on the grounds of the Lopez Canyon facility, was Dr. C.B. Dickson, the High Chief Ranger of Southern California (Potter and Oliver 1967).

In the 1950s the treatment of TB started to shift away from sanatoriums to home treatment with a proper drug therapy, leading to a decline in TB sanatoriums across the U.S. (CDC 2016). Reflecting this trend, the Lopez Canyon TB sanatorium officially ceased operations in 1952. After the sanatorium's closure, the IOF moved toward providing its members with grants for various circumstances and in varying amounts to supplement the care they received at other non-IOF facilities. (Potter and Oliver 1967)

Forester Haven (1962-2005)

After clearing away many of the original 1937 Aged Member's Home bungalows and landscaping features, a new building for the Aged Members Home of the IOF was dedicated at 12249 Lopez Canyon Road on December 16, 1962. The new building at what was to be called "Forester Haven" was designed by architect and IOF member Robert F. Moyer, American Register of Architects (ARA) of Woodland Hills, California. More than 1,500 members and guests from the U.S. and Canada attended the dedication ceremonies. The 16-unit building named "Concord Hall" (Building ID# 1) was constructed around a 40-foot diameter circular lounge that was said to be earthquake-proof and fire-resistant (LAT 1962). The central lounge was dominated by an enormous fieldstone fireplace (Potter and Oliver 1967). According to Ray Tessier, coordinator of construction on the facility:

The recently completed home for the aged is designed in the shape of a Maltese cross with four wings branching out from a central circular lounge. This is symbolic of the Forester's motto, "Liberty, Benevolence, and Concord" (Citizen-News 1962).

In January 1968 two additional new halls were dedicated at the 74-acre Forester Haven facility in ceremonies that were attended by approximately 500 IOF representatives from the U.S., Canada, and Great Britain, including Supreme Chief Ranger Lou E. Probst. The new buildings were once again designed by Moyer and constructed for a cost of $300,000.

The new additions included Sycamore Hall (Building ID# 4), a 20-unit, two-story residential building featuring a combination living room and bedroom, bath and private patio (Figure 5); and Spruce Hall (assumed to be Building ID#s 2 and 3) for use as a recreation lounge and dining facility (Figure 6) (The Van Nuys News 1968; LAT 1968). In 1970, Moyer would go on to receive a first prize gold medal national design award at the California Council of the Society ARA for one of the buildings at Forester Haven (LAT 1970).



Figure 5. Interior view of new residential building, Sycamore Hall (Potter and Oliver 1967)



Figure 6. Overview of original circular landscape feature outside of Buildings 2 and 3 (Potter and Oliver 1967)

In 1971, Palm Court, the "newest wing of Forester Haven" was formally dedicated (currently labeled as "Currie Court" by Hope Gardens signage). The new buildings included Sequoia Lodge (Building ID# 6, not to be confused with the present-day Sequoia Lodge building, Building ID#8), a one-story building that supported dining and entertainment services, and Redwood Hall (Building ID# 7), a three-story post-and-beam building with "48 soundproof living units." The buildings were once again credited to Moyer as well as landscape architect James Dean (TFM 1971).

In the mid-1970s, the San Fernando Valley saw the emergence and subsequent boom of a new industry, the institutionalized care of the elderly. With suburban families growing in size and moving into smaller living spaces like condominiums and apartments, at-home care for the elderly was not always feasible. The smaller, mom-and-pop care facilities which would typically care for no more than five seniors in a private residence, were also reported to be on the decline during this time. County Register data confirms this trend of larger, institutionalized housing for the elderly. In 1968, there were 117 facilities in the County that would care for 16 or more senior citizens. By 1972, that number grew to 160 and in just one year, reached 198 large facilities. At the 142-room California Home for the Aged in Reseda (the third largest in the Valley at the time), applicants could expect to wait 6-8 months for an opening. In 1974, other large-scale retirement complexes included (LAT 1974):

- Panorama Terrace East in Panorama City (148 rooms)
- Royale Gardens in Studio City (146 rooms)
- Northridge Royale in Northridge (132 rooms)
- Astoria Terrace in Sylmar (128 rooms)
- Valley View in Van Nuys (116 rooms)
- Forester Haven in Los Angeles County (111 rooms for members only)
- Laurel Canyon Garden in North Hollywood (110 rooms)
- Studio City Retire Villa in Studio City (100 rooms)

In line with this trend of large-scale retirement and aged homes, the IOF expanded Forester Haven with a new skilled nursing facility in 1975 (the present-day Sequoia Lodge, Building ID# 8). In 1976, Forester Haven commissioned Pati Pfahler Design Associates to design the new facility's interior. The goal of the project was to bring "the outside into the building throughout the use of glass and natural woods designed by architect Robert Moyer". True to the palette of the 1970s, the interiors promised to feature "yellows, blues, greens, and soft oranges. The dining room has been keynoted by a wall mural of flowers and trees and other natural scenes done in lime greens and natural earth tones." It was also noted that two atrium gardens were planned that would allow the sunshine in while keeping the elements out "and have been punctuated by greenery and posted antiques" (LAT 1976). The Sequoia Lodge is the last building constructed on the Hope Gardens property.

In 1973, Forester Haven No. 2 opened in Mount Dora near Orlando Florida with large rambling buildings sprawled across 55 acres of a peninsula, also credited to architect Moyer. This facility closed in 2002, leaving members with the option of transferring to the Lopez Canyon facility in California, moving to another facility not owned by the IOF, or receiving money to cover care elsewhere. It was said that "most are going to California and are delighted by the arrangement" (Orlando Sentinel 2002).

Forester Haven at Lopez Canyon continued serving aged IOF members until the early 2000s (exact date of closure is unclear). After occupying the site on Lopez Canyon for close to a century, the IOF sold the property to the Union Rescue Mission in 2005 for $7.5 million.

Architects

Robert Franklin Moyer (1924-2009)

Robert (Bob) F. Moyer was born in Monona, Iowa on May 16, 1924 to Franklin and Mabel (Bentien) Moyer. He grew up in Iowa and Illinois with his five older sisters following the death of his mother when he was only four years old. After high school, Moyer studied architecture at the Illinois Institute of Technology in Chicago. From 1942-1945 Moyer served in the U.S. Army Air Corps as a 2nd Lieutenant, piloting a B-24 bomber. Following the war, he returned to Illinois to marry his first wife, Shirley Nelson, in 1945 and completed his degree in architectural design in 1948.

In 1949, Moyer and his wife moved to Southern California and undertook their new life together, with Moyer officially establishing his architectural practice followed by the birth of their four children. After residing in Van Nuys and Northridge, the family moved to Thousand Oaks in 1967. By 1976, Moyer had risen in the IOF ranks to become senior vice president and was responsible for real estate acquisition and management. In 1979, following the death of his wife, Moyer moved to San Diego and married his second wife, Catherine Buchanan, in 1982.

Moyer retired from the IOF in 1990 and relocated to Redstone, Colorado where he and his son would design and build a home. In 2003, Moyer and his wife again relocated to Sandy, Utah, and then to Payson Arizona in 2005 where Moyer would spend the remaining years of his life before passing away in 2009 (The Crystal Valley Echo 2009).

In addition to the IOF buildings at Forester Haven in Lopez Canyon, Moyer is known to have designed the following buildings (no other works attributed to Moyer could be identified):

- 1961: American International Pictures building located at 7165 W. Sunset Boulevard in Los Angeles (Citizen-News 1961)
- 1973: IOF Forester Haven No. 2 in Mount Dora, Florida, just northwest of Orlando (Orlando Evening Star 1971; Orlando Sentinel 1973)
- 1974: IOF apartment complex at 1000 E. Washington Avenue in Escondido, California (Times-Advocate 1974)

James Dean, Landscape Architect

James Dean is a Southern California landscape architect with over 40 years designing civic centers, parks, commercial centers, hotels and many high-end private residential estates. He is also known to have worked on the Reagan Library gardens. Mr. Dean appears to still be practicing in the Thousand Oaks area (James Dean Design 2010).

Architectural Style

Contemporary (ca. 1945-1990)

The Forester Haven campus was designed in the Contemporary style of architecture, which was favored by American architects between ca. 1945 to 1965. Although most residential subdivisions were still dominated by Ranch style homes at this time, a few successful developers constructed Contemporary-style subdivisions, perhaps the most prolific being Joseph Eichler (1900-1974), who built nearly 10,000 residences in the San Francisco Bay Area. Other master architects associated with the Contemporary style in California include Frank Lloyd Wright, Richard Neutra, Donald Wexler, and Palmer and Krisal.

Contemporary style buildings had two design advantages over their Ranch style counterparts: 1) the Contemporary style was adaptable to steep hillsides, something a rambling Ranch would be unable to achieve and 2) the Contemporary style was appropriate for both one- and two-story buildings, allowing for a large house to be constructed on a smaller, steeper footprint and leaving more room for exterior green spaces. The Contemporary style is primarily concerned with the relationship between interior and outdoor spaces/views, resulting in a spacious quality that differs sharply from the smaller houses of the 1940s and 1950s. A major feature of Contemporary style buildings is the use of continuous window walls that open to a private garden or greenspace view. Japanese design influence is present in many examples of Contemporary architecture, including the design of gardens from an interior perspective, and the use of plywood cladding to create a panelized appearance. Post-and-beam construction was often used, boasting large, exposed roof beams.

By the late 1950s, more economical methods of constructing Contemporary buildings were put into practice, including use of brick cladding, ending the masonry at the edge of the windows, and running vertical panels of wood cladding from the ground to the roofline thus, avoiding the expense of laying windows in masonry. The Contemporary style began to fall out of favor by the late 1960s. The Federal Housing Authority also preferred to finance more "traditional" style homes rather than "avant-garde designs" with unusual roof forms (McAlester 2013).

Key character-defining features of the Contemporary style include (McAlester 2013):

- Post-and-beam construction
- Asymmetrical design
- Gabled, flat, butterfly, and slant roof forms
- Wide, open eaves either covered or with exposed rafters
- Exposed roof beams
- Use of natural materials (wood, stone, brick, or occasionally concrete block)
- Connection of interior and outdoor spaces through use of window walls and courtyards
- Continuous windows with fixed panes, often filling in gable ends
- Window placement relates to façade composition
- Use of clerestories
- Broad, uninterrupted wall surfaces
- Use of shade structures or pergolas
- Open terraces and patios
- Screened porches
- Recessed entrances
- Panelized walls (Japanese influence)
- Adaptable to steep hillsides

Other examples of Contemporary/Mid-century Modern style retirement/assisted living complexes identified in the San Fernando Valley/adjacent areas, include the following, although none are comparable to the expansive forested property at Forester Haven:

- Broadview Residential Care Center (535 W Broadway in Glendale), built 1963 – Contemporary style
- Country Villa Sheraton Nursing and Rehabilitation Center (9655 Sepulveda Blvd), built 1963 – Contemporary/New Formalist style
- Panorama Gardens Nursing & Rehabilitation Center (9541 Van Nuys Blvd, Panorama City), 1964 – Contemporary style
- Golden Legacy Care Center (12260 Foothill Blvd), built 1968 – Contemporary style
- Sun and Air Convalescent Hospital (14857 Roscoe Blvd, Panorama City), built in 1969 – Contemporary style

- Valley View Retirement Center (7720 Woodman Ave), built 1973 – New Formalist style
- Villa Scalabrini (10631 Vindale Ave), built 1978 – Contemporary style
- Pacifica Senior Living (8700 Lindley), built 1985 – Contemporary style

Significance Evaluation

The following provides an evaluation of the Forester Haven Historic District, in consideration of NRHP, CRHR, and County designation criteria.

NRHP Criterion A. That are associated with events that have made a significant contribution to the broad patterns of our history.

CRHR Criterion 1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

County Criterion 1. It is associated with events that have made a significant contribution to the broad patterns of the history of the nation, State, County, or community in which it is located.

The first period of development at the Lopez Canyon site (1911-1952) is significant for its association with the IOF's expansion into the Los Angeles area to provide a sanatorium for its west coast members battling the early stages of TB. However, in terms of extant built environment, little remains from the property's first period of development, including one of the original cottages (Building ID#3) which was built c. 1913-1937 and has since been heavily altered, a small concrete slab and stone walled footbridge bearing the IOF crest (Building ID# 15), and the larger stone bridge and canal features (Building ID# 14). Although most of the original IOF TB sanitorium development was erased by the second IOF period of development that began in the 1960s, the continuous use of the site by the same fraternal organization and the extant bridges, channels, stone wall features, and forested setting that retain integrity, contribute to the long term historical associations of the property and the IOF, and serve as the last remaining physical evidence of the first development period.

The second major period of development at the Lopez Canyon site (1962-1975) is associated with the IOF's development of Forester Haven, a retirement center and nursing home facility created exclusively for its aged members. Forester Haven follows a pattern of development for institutionalized elderly care seen during the 1960s and 1970s in the San Fernando Valley and elsewhere and was one of hundreds of retirement and nursing home facilities that came about during the development boom that occurred around the early-to-mid 1970s in Los Angeles County.

Another association to consider is the role of Forester Haven within the context of the IOF fraternal society, as it was only accessible to IOF members. Forester Haven developed and expanded over a period of 13 years in response to the needs of its aging west coast members. In operation from approximately 1962-2005, Forester Haven was one of at least two "havens" constructed by the IOF. Forester Haven No. 2 near Orlando Florida served east coast members and shares a similar timeline, constructed in 1973 and in operation until 2002. Forester Haven at Lopez Canyon served an important function for aging IOF members on the west coast and speaks to the order's history of fraternalism. Its development contributes to the history of the IOF, from its first phase of development as a TB sanatorium and cancer clinic, to its transition to a home for the aging. For all of the reasons discussed above, the property appears eligible under NRHP Criterion A, CRHR Criterion 1, and County Criterion 1. None of the buildings or structures on the property (including Building ID#1) appear eligible at the individual level of significance.

NRHP Criterion B. That are associated with the lives of persons significant in our past.

CRHR Criterion 2. Is associated with the lives of persons important in our past.

County Criterion 2. It is associated with the lives of persons who are significant in the history of the nation, State, County, or community in which it is located.

Numerous individuals have been associated with the property by the nature of it being an institutional property where hundreds of people have lived and worked over the last century. Perhaps the most significant individual to be associated with the Lopez Canyon property is fourth IOF Supreme Chief Ranger, Frank Hand, who is a significant leader in the history of the IOF, helping pull the order through the Great Depression years. It is reported that "The Tuberculosis Sanatorium, Cancer Clinic, and Aged Foresters' Home in Lopez Canyon, Los Angeles, are principally if not exclusively, due to him" (Potter and Oliver 1967:140). He is also credited with building the IOF building at 1329 S. Hope Street and the Forester Inn at Avalon. Despite Hand's important role in the history of the IOF and his strong connections to the Lopez Canyon property and Los Angeles, there is very little left from the first period of IOF development to convey Hand's associations with the property. Therefore, the property is recommended not eligible under NRHP Criterion B, CRHR Criterion 2, or County Criteria 2, and none of the buildings are eligible at the individual level of significance.

NRHP Criterion C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

CRHR Criterion 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.

County Criterion 3. It embodies the distinctive characteristics of a type, architectural style, period, or method of construction, or represents the work of an architect, designer, engineer, or builder whose work is of significance to the nation, State, County, or community in which it is located; or possesses artistic values of significance to the nation, State, County, or community in which it is located.

The Hope Gardens campus (formerly Forester Haven) embodies the distinctive character-defining features of Contemporary style architecture and post-and-beam construction, as expressed in the 1960s and 1970s throughout California and much of the United States. Although the original As-built drawings/construction plans for Forester Haven could not be obtained, it is clear through archival research and survey that the buildings were constructed between 1962 and 1975 by the same architect and were designed to function together as a campus of lodge-style buildings that provided various services (housing, recreation, medical, administrative, etc.) for aging foresters. The buildings share many character-defining features which unite them aesthetically and creates a cohesive campus of lodge-style buildings. Repetitive character-defining features identified on most or all of the buildings include the use of post-and-beam construction; use of simple, natural materials such as: wood, stone, glass, and brick that often appear as broad, uninterrupted surfaces of the same material; Japanese influence in panelized walls; asymmetrical designs; gabled and slanted roof forms; wide open eaves with exposed beams; a clear connection of interior and outdoor spaces through use of window walls, courtyards, and continuous beams; use of pergolas/shade structures; recessed entrances; and an adaptability to steep hillsides and slopes. Although some alterations to original materials were identified throughout the campus (with some buildings appearing more altered than others), taken together, these alterations are not extensive enough to materially impair the campus as a whole or prevent it from conveying its major character-defining features as a district of buildings.

Developed exclusively for IOF members, the property is somewhat unique among other retirement centers/institutional properties developed throughout the San Fernando Valley during the 1960s and 1970s for its natural and isolated setting. The property's location in a forested canyon surrounded by hills on a sprawling 71-acres is particularly unusual for an institutional property in Los Angeles County, with most others occurring within suburban areas on significantly smaller parcels. Further, a cursory review of other retirement centers in the San Fernando Valley and surrounding areas indicates that there are almost no extant examples of current or former retirement/nursing facilities in rustic Contemporary style with a grouping of lodge-style buildings.

Forester Haven does not represent the work of an important creative individual. Architect Robert F. Moyer was a local working architect who was also active in the IOF. Although he did win a national design award for his work on Forester Haven (specific building(s) awarded unclear), his identifiable body of work indicates that he does not rise to the level of a master architect. What is significant about Moyer's involvement in the Forester Haven project is that he himself was a forester, which follows a common building practice in the IOF of looking to its members to assist in/oversee large scale building projects to reduce costs. Moyer found further cost-savings in construction techniques like post-and-beam and use of plywood paneling for broad surfaces. The result is a rustic interpretation of Contemporary style architecture in a natural, forested setting that is particularly unique amongst institutional properties. Moyer was also responsible for the design of Forester Haven No. 2 near Orlando Florida, which was constructed in 1973. Little information could be found concerning the career of landscape architect, James Dean, who appears to still be practicing.

In summary, the Forester Haven Historic District is significant as a grouping of buildings that embody the distinctive character-defining features of the Contemporary style of architecture, which unite them aesthetically and create a cohesive campus of rustic, lodge-style buildings designed by an IOF member for an IOF retirement home. For all of the reasons discussed above, the property appears eligible under NRHP Criterion C, CRHR Criterion 3, and County Criterion 3. None of the buildings or structures on the property (including Building ID# 1) appear eligible at the individual level of significance.

NRHP Criterion D. That have yielded, or may be likely to yield, information important in prehistory or history.

CRHR Criterion 4. Has yielded, or may be likely to yield, information important in prehistory or history.

County Criterion 4. It has yielded, or may be likely to yield, significant and important information regarding the prehistory or history of the nation, State, County, or community in which it is located.

The property is not significant as a source, or likely source, of important historical information nor does it appear likely to yield important information about historic construction methods, materials, or technologies. Therefore, the property does not appear eligible under NRHP Criterion D, CRHR Criterion 4, or County Criterion 4.

County Criterion 5. It is listed, or has been formally determined eligible by the United States National Park Service for listing, in the National Register of Historic Places, or is listed, or has been formally determined eligible by the State Historical Resources Commission for listing, on the California Register of Historical Resources.

The subject property has not been formally determined eligible for either the NRHP or CRHR and is therefore not eligible under this criterion.

County Criterion 6. If it is a tree, it is one of the largest or oldest trees of the species located in the County.

The subject property is not a tree and is therefore not eligible under this criterion.

County Criterion 7. If it is a tree, landscape, or other natural land feature, it has historical significance due to an association with a historic event, person, site, street, or structure, or because it is a defining or significant outstanding feature of a neighborhood.

The subject property is not a tree, landscape, or other natural land feature and is therefore not eligible under this criterion.

County Criterion for Historic Districts. A geographic area, including a noncontiguous grouping of related properties that:

> *exhibits either a concentration of historic, scenic, or sites containing common character-defining features, which contribute to each other and are unified aesthetically by plan, physical development, or architectural quality; or significant geographical patterns, associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of parks or community planning.*

As discussed under NRHP/CRHR/County Criteria A/1/1 and C/3/3, the Forester Haven Historic District is significant as a historic grouping of buildings. Under Criterion A/1/1, Forester Haven at Lopez Canyon served an important function for aging IOF members on the west coast and speaks to the order's history of fraternalism. Its development contributes to the history of the IOF, from its first phase of development as a TB sanatorium and cancer clinic in the early 1900s, to its transition to a home for the aging (Forester Haven) in the 1960s. Forester Haven also follows a pattern of development for institutionalized elderly care seen during the 1960s and 1970s in the San Fernando Valley and elsewhere, and was one of hundreds of retirement and nursing home facilities that came about during the development boom that occurred around the early-to-mid 1970s in Los Angeles County.

Under Criterion C/3/3, the buildings embody the distinctive character-defining features of the Contemporary style of architecture, which unite them aesthetically and create a cohesive campus of lodge-style buildings. These features include: the use of post-and-beam construction; use of simple, natural materials such as: wood, stone, glass, and brick that often appear as broad, uninterrupted surfaces of the same material; Japanese influence in panelized walls; asymmetrical designs; gabled and slanted roof forms; wide open eaves with exposed beams; a clear connection of interior and outdoor spaces through use of window walls, courtyards, and continuous beams; use of pergolas/shade structures; recessed entrances; and an adaptability to steep hillsides and slopes.

Integrity Discussion

Location: The subject property retains integrity of location. The buildings are sited on the original location of construction in their original orientations.

Design: The subject property retains integrity of design. The original designs of buildings have not been significantly altered since their construction. All of the major design elements introduced by architect Robert Moyer are still present, with some replacement of original windows primarily on secondary elevations, and original wooden guardrails. The essential elements of form, space, structure and style have all been retained and the property can be identified as a unified group of Contemporary style buildings designed during the 1960s-1970s.

Setting: The subject property retains integrity of setting and has always been located in a forested canyon surrounded by mature trees. There has not been any significant development in proximity to the Forester Haven property that would disrupt its original isolated setting.

Materials: The subject property mostly retains integrity of materials. Most of the buildings maintain their essential materials, including paneled wood, brick, fieldstone,

glass window walls, aluminum slider windows, etc. All buildings appear to have had their original roofing materials replaced and received the addition of black metal railings throughout, likely for ADA compliance. Some buildings exhibited replaced windows but in most cases these replacements were located on secondary elevations and did not disrupt from the overall design. The largest exterior alterations observed within the district are those made to the secondary elevations on Concord Hall (Building ID# 12); the removal of the original wooden guardrails on the Sycamore Building (Building ID# 5); and replacement of nearly all windows and doors on the Operations Department Building (Building ID#2). While these alterations somewhat diminish integrity of materials, taken as a whole, the district maintains the vast majority of its original materials.

Workmanship: The subject property retains integrity of workmanship. The physical evidence of the craftsmanship required to create the Contemporary lodge-style buildings has been retained.

Feeling: The subject property retains integrity of feeling. When walking through the campus, the property's isolated setting, varying topography, mature trees, and rustic Contemporary style buildings evokes the feeling of a lodge or camp. What is also immediately apparent are the intentional connections between the buildings and the natural space that surrounds them.

Association: The subject property retains integrity of association. The subject property has lost most of the built environment from the IOF's initial development of the site (1911-1952). However, the Forester Haven facility (1962-2005) served an important function for aging IOF members on the west coast and speaks to the Order's history of fraternalism. The IOF/fraternal association is conveyed through the buildings, which were designed by a member architect for the IOF using cost-saving construction techniques and provide a rustic interpretation of the Contemporary style in a natural, forested setting.

In summary, the Forester Have Historic District retains all seven aspects of integrity such that it can convey its historical significance as a grouping of IOF-designed/built buildings and structures in the Contemporary style of architecture.

Significance Evaluation Findings

As a result of the property significance evaluation, 11 buildings and structures appear eligible as contributing resources to the newly identified Forester Haven Historic District under NRHP, CRHR, and County Criteria A/1/1 and C/3/3 for their important historical associations with the IOF and for embodying the distinctive character-defining features of the Contemporary style of architecture, which unite them aesthetically and create a cohesive campus of rustic, lodge-style buildings designed by an IOF member for an IOF retirement home (see Table 1). Building ID#s 3, 4, 9, and 13 were identified as non-contributing buildings: Building ID# 3 is a heavily altered cottage that no longer resembles its original appearance; Building ID# 4 is a gazebo of recent construction; Building ID# 9 is a utility building of recent construction; and Building ID# 13 is a modified single-family residence that does not exhibit the major character-defining features seen throughout the rest of the historic district (Table 1).

The period of significance under NRHP, CRHR, and County Criteria A/1/1 is 1913-1975, capturing the years in which the property was actively developed by the IOF. Elements contributing to the significance of the district under Criteria A/1/1 include the few remaining aspects of the original IOF TB facility developed c. 1913-1934, including the stone bridge that connects the upper and lower parts of the district (Building ID# 14), the stone channel system that connects to the main wash (also Building ID #14), the concrete footbridge bearing the official emblem of the IOF (Building ID# 15), and the forested setting; as well as all buildings from the second period of development that were constructed as part of Forester Haven beginning in 1962 through 1975 (Building ID#s 1, 2, 5, 6, 7, 8, 10, 11, and 12).

The period of significance under NRHP, CRHR, and County Criteria C/3/3 is 1962-1975, capturing the years in which the existing campus of Contemporary, lodge-style buildings were constructed by IOF architect Robert Moyer. Buildings/structures contributing to the significance of the district under Criteria C/3/3 include Building ID#s 1, 2, 5, 6, 7, 8, 10, 11, and 12.

Table 1. Forester Haven Historic District Contributing and Non-Contributing Resources

Building ID#	Current Name/Description	Built Date	Historic District Status	Applicable NRHP/CRHR/County Criteria
1	Sequoia Lodge	1975	Contributing	A/1/1 and C/3/3
2	Operations Department/Garage	1968	Contributing	A/1/1 and C/3/3
3	Cottage	c.1913-1937	Non-contributing	n/a
4	Gazebo	c.2012-2013	Non-contributing	n/a
5	Sycamore	1968	Contributing	A/1/1 and C/3/3
6	Sycamore Hall	1968	Contributing	A/1/1 and C/3/3
7	Palm Court	1971	Contributing	A/1/1 and C/3/3
8	Palm Court Hall	1971	Contributing	A/1/1 and C/3/3
9	Utility building	c. 2000s	Non-contributing	n/a
10	Administration	1968	Contributing	A/1/1 and C/3/3
11	Oaks	1968	Contributing	A/1/1 and C/3/3
12	Concord Hall	1962	Contributing	A/1/1 and C/3/3
13	Caretaker's Cottage	c. 1970s	Non-contributing	n/a
14	Stone bridge and channel features	c. 1913	Contributing	A/1/1
15	IOF footbridge	c. 1934	Contributing	A/1/1

***P3a. Description (Continued):**

Building ID#1 Sequoia Lodge (built 1975):

Continued from Primary Record - A small wooden pergola shelters a bench outside of the main entrance. The south elevation features a continuous wall of wood-framed windows from the ground to the top of the gable, featuring rectangular and trapezoidal shapes. Much of this elevation is obscured by vegetation. The rear (west) elevation is accessed via a utility road that leads to small parking areas. The southernmost portion of the west elevation features mechanical systems and a utility room clad in split face CMU and wood paneling.

The northernmost portion of the rear elevation features a large yellow entrance door with decorative pull, recessed beneath a front-facing gabled roof with a cut-out notch and is adjacent to a series of floor-to-ceiling fixed windows. The northeastern corner of the building opens to a large greenspace with mature trees and ornamental plantings. See photographs 27-30.

Alterations: addition of black metal handrails throughout (unconfirmed).



Photograph 1. Main entrance on east elevation, view to west



Photograph 2. Overview of window wall on south elevation, view to north



Photograph 3. Overview of northeast elevations showing green space, view to southwest



Photograph 4. Overview of rear (west) elevation showing extensive use of split-face CMU, view to east

Building ID#2 Operations Department (built 1968):

Continued from Primary Record - Alterations: replaced windows and doors on main and north elevation; recent rear structure addition (date unknown). See photographs 17-19.



Photograph 5. Overview of main (east) elevation, view to west



Photograph 6. East elevation and partial view of slant roof south elevation



Photograph 7. Rear structure addition, view to southwest

Building ID#3. Cottage (built c. 1913-1937):



Photograph 8. Overview of altered cottage north and west elevations, view to southeast

Building ID#4. Gazebo (built 2012-2013)

Simple, wooden structure with four square posts bolted into a poured concrete foundation with a flat roof structure.



Photograph 9. Overview of gazebo, view to southeast

Building ID#5 Sycamore Building (built 1968):

Continued from Primary Record - The ground floor features painted white brick, horizontal wood paneling, and narrow rectangular transoms above the doors. The second story features all horizontal wood paneling and the same windows. The rear (north) elevation reads as a single-story with the rest of the building hidden below grade and features both vertical and horizontal wood paneling. Alterations: replacement of original wood guard rails on front and rear elevations with black metal railings; some replaced transom windows.



Photograph 10. Overview of east elevation showing side paneling, view to west



Photograph 11. Overview of south and west elevations showing side paneling, view to northeast



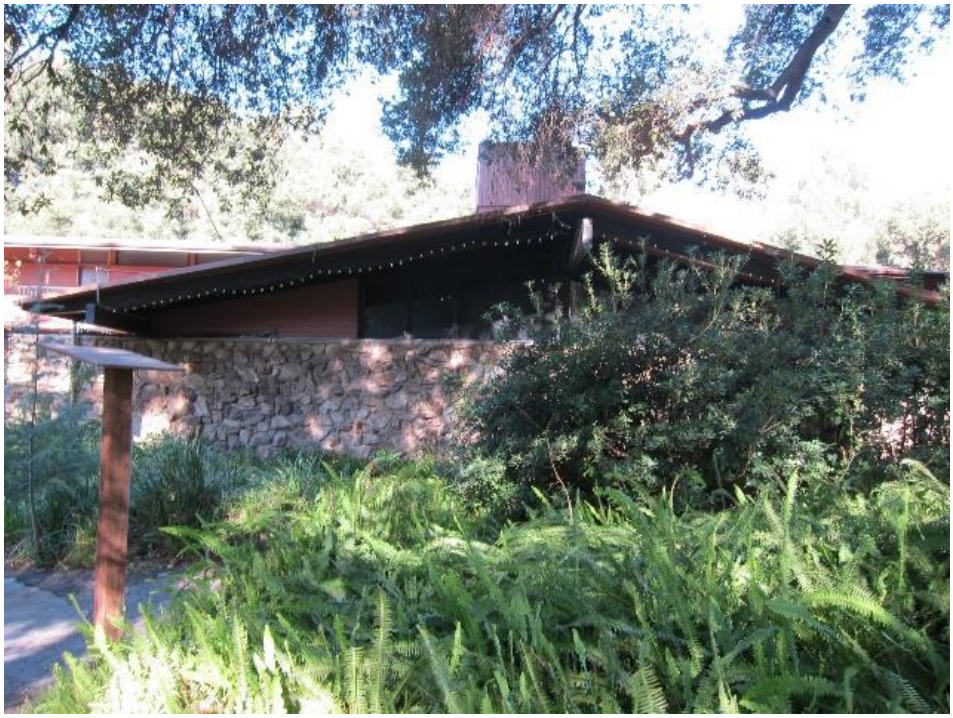
Photograph 12. Overview of rear (north) elevation, view to south

Building ID#6 Sycamore Hall (built 1968):

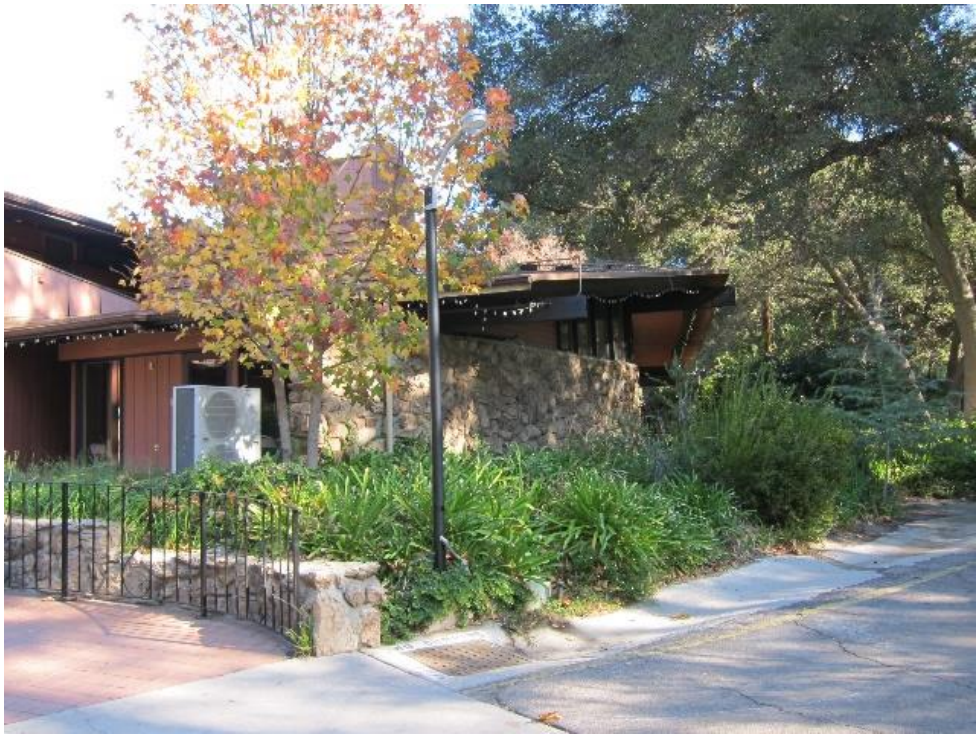
Continued from Primary Record - Alterations: HVAC equipment added; replacement of original gravel roof.



Photograph 13. Single-story portion of south elevation, view to northeast



Photograph 14. South elevation, view to north



Photograph 15. West elevation, view to east

Building ID#7 Palm Court (built 1971):

Continued from Primary Record - The north elevation features a concrete patio area with steps leading the sub-grade first floor. The rear (east) elevation of the building is entirely clad in plywood paneling feature rows of aluminum sliding windows set in wooden frames. Alterations: some replaced vinyl windows, possible flooring replacement on upper walkways. It is unknown if the building originally featured wooden guardrails as seen on the original Sycamore building. Based on the extensive use of wood throughout the building, the use of black metal railings is a likely but unconfirmed alteration.



Photograph 16. Overview of north elevation paneling and patio area, view to south



Photograph 17. Overview of ground-floor corridor, view to north



Photograph 18. Overview of south elevation, view to north

Building ID#8 Palm Court Hall (built 1971):

Continued from Primary Record - Alterations: possible glass replacement on south elevation. See photographs 20-23.



Photograph 19. Patio nook on the north and east elevations, view to southwest



Photograph 20. Below grade entrance on the east elevation, view to west



Photograph 21. Interior photograph from 2018 showing exposed wood beam ceiling and continuous window walls



Photograph 22. Overview of north and west elevations, view to southeast

Building ID#9 Utility Building (built c. 2000):

Simple, square-in-plan utility building with a flat roof, clad in split-face CMU. A concrete stoop leads up to a single-entry door on the south elevation with metal downspouts located on either side.



Photograph 23. Overview of south and east elevations, view to northwest.

Building ID#10 Administration (built 1968):

Continued from Primary Record - The east-facing portion contains an uneven façade with a window wall that exhibits both square and trapezoidal-shaped windows, and vertical plywood cladding. The rear of the second story features more wood paneling, various sized aluminum sliding windows, and painted brick cladding. Photographs taken on the interior of the building in 2018 indicate the building still contains at least some of its original tile flooring and fieldstone walls. Alterations: some replacement vinyl windows on secondary elevations; the addition of black metal railings throughout; replacement of original gravel roof.



Photograph 24. Main (east) elevation, view to west



Photograph 25. Interior photograph taken in 2018 (SmugMug) showing interior and outdoor connections and retention of some original elements like fieldstone walls and tile flooring



Photograph 26. Main (east)elevation connection to Building 2 via a covered walkway, view to southwest



Photograph 27. Rear (west) elevation showing second story component, view to southeast

Building ID#11 Oaks (built 1968):

Continued from Primary Record - Alterations: the addition of black metal railings throughout; replaced doors on the north elevation; replaced vinyl windows facing the central open play area as well as on the entire west elevation; alteration of central circular landscaping feature; possible removal of original wooden guardrails. See photographs 5-8.



Photograph 28. Main (east elevation), view to west



Photograph 29. Overview of east and south elevations, view to northwest



Photograph 30. Overview of roof openings and materials on front (east) elevation



Photograph 31. Rear (west) elevation showing clerestory windows and replaced vinyl windows, view to northeast

Building ID#12 Concord (built 1962):

Continued from Primary Record - Alterations: both the north- and south-facing elevations exhibit replaced vinyl windows and the original brick exterior has been replaced with stucco such that they retain very little of their original materials and workmanship; the original roofing material (likely heavy tile or gravel) has also been replaced. See photographs 1-4.



Photograph 32. Overview of rear (west) elevation showing circular lounge, view to east



Photograph 33. Front (east) elevation showing partial wings and circular lounge, view to southwest



Photograph 34. Overview of south elevation showing alterations, view to north



Photograph 35. Interior photograph taken in 2018 (SmugMug) of the original fieldstone fireplace and exposed wood beam ceiling

Building ID#13. Caretaker's Cottage (built c. 1970):

Continue from Primary Record - The north elevation features a covered patio with a large post-and-beam shade structure. A pair of French doors provides access to the residence. The east elevation features a concrete walkway through a small, fenced yard with a large oak tree. A small shed structure with a front-gabled roof is located northeast of the residence up the hill, hidden among trees. It was noted to have been used as a children's play house in the recent past. This building lacks most of the Contemporary style character-defining features seen elsewhere on the campus, such as dramatic rooflines, use of post-and-beam construction, and fieldstone application.



Photograph 36. Overview of main (southwest) elevation, view to northeast



Photograph 37. Rear (north) elevation showing French doors and shade structure, view to southwest

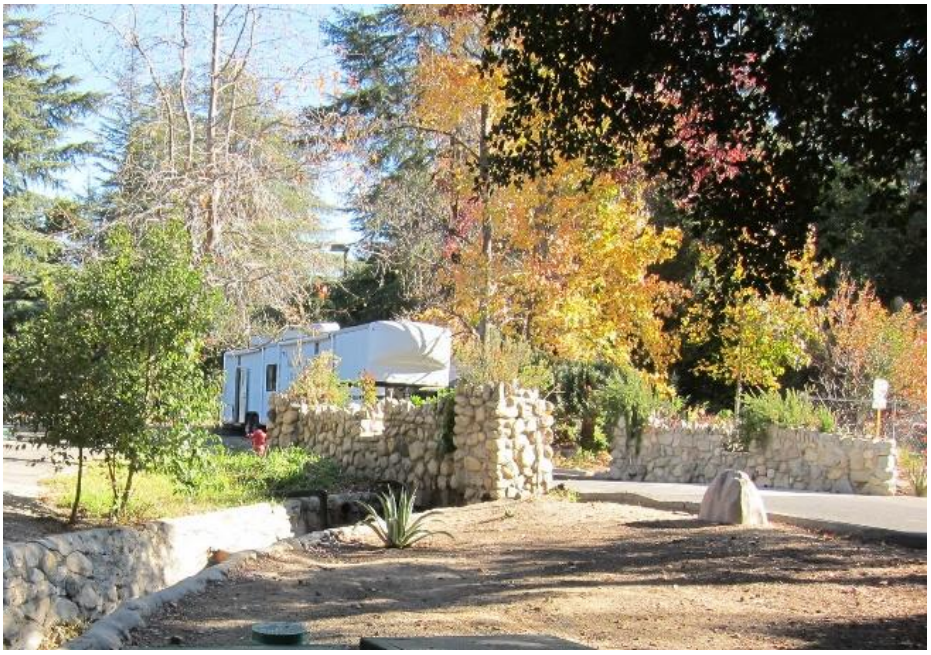


Photograph 38. Overview of south elevation projection, view to north

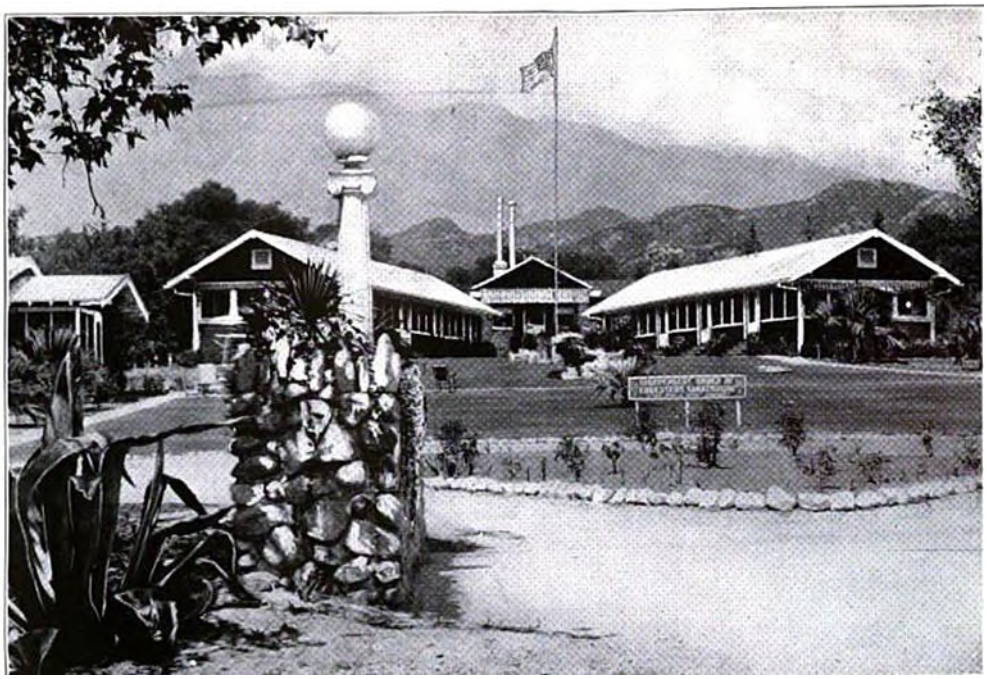


Photograph 39. Overview of east elevation, view to west

Building ID#14. Stone Bridge and Channel (built c. 1913):



Photograph 40. overview of existing stone bridge and channel feature, view to southeast



Photograph 41. Historic photograph showing the stone feature present c. 1913.

Building ID#15. IOF Footbridge (built c. 1934)



Photograph 42. overview of stone bridge leading up to the building with IOF crest, view to northeast

***D7. References (Continued)**

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Appendix D

Project Site Plan and Concept Design



UNION RESCUE MISSION®
The Way Home

SEQUOIA BUILDING - HOPE GARDENS - CONCEPT DESIGN

Union Rescue Mission

Street Level View - Main Entrance

Date: 01/09/2020

PDA IS NOW HED



UNION RESCUE MISSION
The Way Home

SEQUOIA BUILDING - HOPE GARDENS - CONCEPT DESIGN

Union Rescue Mission

View From Lopez Canyon Road - North Approach

Date: 01/09/2020

PDA IS NOW HED

SEQUOIA BUILDING

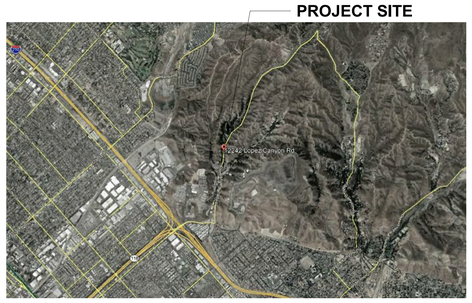
HOPE GARDEN

SYLMAR, CA

ABBREVIATIONS

ACC	ACCESSIBLE
ACT	ACOUSTICAL CEILING TILE
ADD'N	ADDITION
ADJ.	ADJACENT
A.F.F	ABOVE FINISH FLOOR
A.H.J.	AUTHORITY HAVING JURISDICTION
ALT	ALTERNATE
ALUM.	ALUMINUM
AMD.	ACOUSTICAL METAL DECK
ANOD.	ANODIZED
A.P.	ACCESS PANEL
APPROX.	APPROXIMATE
AUTO.	AUTOMATIC
AWP	ACOUSTICAL WALL PANEL
BET.	BETWEEN
BD.	BOARD
BLK(G)	BLOCK(ING)
BLDG.	BUILDING
B.M.	BENCHMARK
BOT.	BOTTOM
BSMT.	BASEMENT
CAB.	CABINET
CB	CATCH BASIN,
CBU	CEMENTITIOUS BACKER UNIT
CEM.	CEMENT
CER.	CERAMIC
C.F.C.I.	CONTRACTOR FURNISHED, CONTRACTOR
CL	CENTER LINE
CLG.	CEILING
CLO.	CLOSET
CLR	CLEAR
CJ	CONTROL JOINT
COMPO.	COMPOSITION
CMU	CONCRETE MASONRY UNIT
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
CORR.	CORRUGATED
CPT	CARPET
CSK.	COUNTERSUNK, CONCRETE SEALER
CT	CERAMIC TILE
C.U.	CLEAN UTILITY
DET.	DETAIL
DEG.	DEGREE
DIA.	DIAMETER
DIAG.	DIAGONAL
DIM.	DIMENSION
DN.	DOWN
D.S.	DOWN SPOUT
DWG.	DRAWING
DWR.	DRAWER
(E)	EXISTING
E/ELEC.	ELECTRICAL
EA.	EACH
E.B.	EXPANSION BOLT
E.F.	EACH FACE
EMBED.	EMBEDMENT
ENCLO.	ENCLOSURE
E.P.	ELECTRICAL PANEL
EQ.	EQUAL
EQUIPT.	EQUIPMENT
EST.	ESTIMATED
E.W.C.	ELECTRICAL WATER COOLER
EXP.	EXPOSED
EXT.	EXTERIOR
F	FACTORY FINISH
F.D.	FLOOR DRAIN
F.E.	FIRE EXTINGUISHER
F.F.	FLOOR FINISH
F.H.E.C.	FIRE HOSE EXTINGUISHER CABINET
FIN	FINISH
FLASH	FLASHING
FLR.	FLOOR
FND.	FOUNDATION
F.O.C.	FACE OF CONCRETE
F.O.F.	FACE OF FINISH
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
FR	FIRE RATED; FIRE RESISTANT
FRP	FIBERGLASS REINFORCED PANELS
FRS	FIRE SPRINKLER
FX	LIGHT FIXTURE
GA.	GAUGE
GALV.	GALVANIZED
GB	GYPSUM BOARD
GBMR	MOISTURE RESISTANT GYPSUM BOARD
GBMRX	FIRE RATED MOISTURE RESISTANT GYPSUM
GBX	FIRE RATED GYPSUM BOARD
GBX-AR	FIRE RATED GYPSUM BOARD ABRASIVE
GD.	GRADE
GL	GLASS
GLZ	GLAZING
G.S.S.	GALVANIZED STEEL SHEET
GRD.	GROUND
GYP.	GYPSUM
H.C.	HANDICAP ACCESSIBLE
H.B.	HOSE BIBB
H.D.	HEAVY DUTY
HDWR.	HARDWARE
H.M.	HOLLOW METAL
HR.	HOUR
HSKPG	HOUSEKEEPING
HT.	HEIGHT
H.V.A.C.	HEATING, VENTILATING, AND AIR CONDITIONING
HWD.	HARDWOOD
I.D.	INSIDE DIAMETER
INCLU.	INCLUDED
INT.	INTERIOR
INSUL.	INSULATION
LAM.	LAMINATE
LAV.	LAVATORY
LP	LAMINATE PLASTIC
LPT	LOW POINT
LT.	LIGHT
M/MECH.	MECHANICAL
MACH.	MACHINE
MAT'L	MATERIAL
MAS.	MASONRY
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MTL.	METAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MT.	MOUNTED
N.	NORTH
N.A.	NOT APPLICABLE
NAT'L	NATURAL
N.I.C.	NOT INCLUDED, NOT IN CONTRACT
NO.	NUMBER
NOM.	NOMINAL
NR	NOT RATED
N.T.S.	NOT TO SCALE
O.A.	OUTSIDE AIR
O.C.	ON CENTER
O.C.E.W	ON CENTER EACH WAY
O.D.	OUTSIDE DIAMETER
O.F.O.I.	OWNER FURNISHED, OWNER INSTALLED
O.F.C.I.	OWNER FURNISHED, CONTRACTOR INSTALLED
OSHPD	OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
OPP.	OPPOSITE
OPNG.	OPENING
P	PLUMBING
PART.	PARTITION
PATHO.	PATHOLOGY
PC	PORTLAND CEMENT
PF	PRE FINISHED
PL.	PROPERTY LINE
PLAM.	PLASTIC LAMINATE
PLAS.	PLASTER
PNL.	PANEL
PORT.	PORTABLE
PREFAB.	PREFABRICATED
P.S.I	POUNDS PER SQUARE INCH
PT.	POINT, PAINT
P.T.	PRESSURE TREATED
P.V.C.	POLYVINLYLCLORIDE
P.W.J.	PLYWOOD WEB JOIST
Q.T.	QUARRY TILE
R.	RADIUS
RB	RESILIENT BASE
RBT	RESILIENT RUBBER TILE
RCP	REFLECTED CEILING PLAN
R.D.	ROOF DRAIN
RECEP.	RECEPTOR
REQ.	REQUIRE
REV.	REVISION
RM.	ROOM
R.O.	ROUGH OPENING
RSF	RESILIENT SHEET FLOORING
RWF	RESILIENT WOOD FLOORING
S	SOUTH
S.C.	SOLID CORE
SCHED.	SCHEDULE
SECT.	SECTION
SF	STOREFRONT WINDOW SYSTEM
SHWR.	SHOWER
SHT.	SHEET
SIM.	SIMILAR
SL.	SLEEVE
S.M.S	SHEET METAL SCREWS
S.O.G	SLAB ON GRADE
SPEC.	SPECIFICATIONS
SQ.	SQUARE
SS	STAINLESS STEEL
STL.	STEEL
STD.	STANDARD
STO.	STORAGE
STRUCT	STRUCTURAL
S.U.	SOILED UTILITY
SUSP.	SUSPENSION/SUSPENDED
SYM.	SYMMETRICAL
T.	TILE
TEL.	TELEPHONE
TEMP	TEMPORARY
THK.	THICK
THRES.	THRESHOLD
T.I.	TENANT IMPROVEMENT
TLT.	TOILET
TMPD	TEMPERED
T.O.B.	TOP OF BEAM
T.O.P.	TOP OF PARAPET
T.O.PLY.	TOP OF PLYWOOD
T.O.SC.	TOP OF SCUPPER
T.O.R.	TOP OF ROOF
T.O.R.D.	TOP OF ROOF DRAIN
TOIL.	TOILET
TOS	TOP OF SLAB
TOSTL	TOP OF STEEL
TOW	TOP OF WALL
TREAT.	TREATMENT
TYP.	TYPICAL
UNF	UNFINISHED
U.N.O.	UNLESS NOTED OTHERWISE
UR.	URINAL
VB	VENTILATING BASE
VCT	VINYL COMPOSITION TILE
VER.	VERIFY
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
VT	VINYL TILE
VWC	VINYL WALL COVERING
W.	WIDE / WIDTH
W/	WITH
W/O	WITHOUT
W.C.	WATER CLOSET
WCT.	WAINSCOT
WD.	WOOD. RESILIENT WOOD FLOOR FINISH
W.G.	WIRE GLASS
WH.B	WHEEL BUMPER
WH.CH.	WHEELCHAIR
W.I.	WROUGHT IRON
WP	WORKING POINT
WPM	WATERPROOF MEMBRANE
WR	WATER RESISTANT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

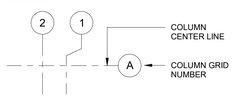
VICINITY MAP



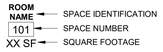
DRAWING SYMBOLS

NOTE: NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED FOR THIS PROJECT.

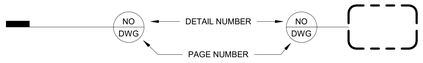
GRID LINES



SPACE NAME



DETAIL INDICATORS



SECTION INDICATOR



ELEVATION IDENTIFIER



EXTERIOR ELEVATION



INTERIOR ELEVATION



CEILING HEIGHT IDENTIFIER (ABOVE FINISH FLOOR)



MATCH LINE INDICATOR



WINDOW TYPE IDENTIFIER



DOOR IDENTIFIER



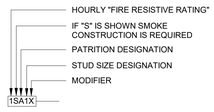
DATUM LINE AND INDICATOR (SECTIONS AND ELEVATIONS)



FINISHED FLOOR ELEVATION INDICATOR (SITE AND FLOOR PLANS)



WALL TYPE IDENTIFIER



REVISION INDICATOR



KEYNOTE IDENTIFIER



EQUIPMENT IDENTIFIER



NORTH INDICATOR



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Sylmar, CA 91342
T (310) 337-2881

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T (626) 304-9215

CIVIL ENGINEER
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800 Royal Oaks, Suite 104
Monrovia, CA 91016
T (626) 578-7000

LAND-USE ATTONERY
Charles Moore
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South Pasadena, CA 91030
Email: CHJOMO2@GMAIL.COM

PROJECT SUMMARY

NEW FOUR STORY 106,410 SQ.FT. LONG TERM HOMELESS HOUSING BUILING ON A 1 ACRE SITE. THE NEW BUILDING IS TO SUPPORT 117 FAMILY RESIDENTIAL UNITS AND ASSOCIATED SUPPORT SERVICES INCLUDING KITCHEN, DINING, RECREATION, DAYCARE, EDUCATION, MEDICAL CLINIC, LIBRARY AND OFFICES.

SHEET INDEX

SHEET NUMBER	DESCRIPTION	Issue / Revision 1	Issue / Revision 2	Issue / Revision 3	Issue / Revision 4	Issue / Revision 5	Issue / Revision 6	Issue / Revision 7
GENERAL								
G-001	TITLE SHEET							
ARCHITECTURAL								
A-100	CONCEPT PLAN - ENLARGED SITE							
A-101	CONCEPT PLAN - GROUND FLOOR							
A-102	CONCEPT PLAN - FIRST FLOOR							
A-103	CONCEPT PLAN - SECOND FLOOR							
A-104	CONCEPT PLAN - THIRD FLOOR							
A-105	CONCEPT PLAN - ROOF							
A-201	EXTERIOR ELEVATIONS							
A-202	EXTERIOR ELEVATIONS							
A-301	DIAGRAMMATIC SECTIONS							

PROJECT INFORMATION

UNIT COUNT:	117
	AVERAGE SIZE: 371 SQFT
PROPOSED SETBACK:	SIDE YARD: 10'-0"
PROPOSED BUILDING HEIGHT:	39' - 0"
PROPOSED NUMBER OF STORIES:	3 LEVELS + BASEMENT
PARKING:	93

Room Schedule

Level	Name	Area
MAIN FLOOR	RECEPTION/ SECURITY	211 SF
MAIN FLOOR	LOBBY	1385 SF
MAIN FLOOR	ELECTRICAL	859 SF
MAIN FLOOR	BOILER	480 SF
MAIN FLOOR	SOILED UTILITY	135 SF
MAIN FLOOR	DENTAL EXAM	308 SF
MAIN FLOOR	DENTAL WORK AREA	139 SF
MAIN FLOOR	DENTAL OFFICE	84 SF
MAIN FLOOR	PUMP RM	39 SF
MAIN FLOOR	THERAPY RM	86 SF
MAIN FLOOR	THERAPY RM	76 SF
MAIN FLOOR	STAFF TOILET	68 SF
MAIN FLOOR	THERAPY RM	86 SF
MAIN FLOOR	PATIENT TOILET	55 SF
MAIN FLOOR	MEDICAL STAFF	289 SF
MAIN FLOOR	STAFF TOILET	54 SF
MAIN FLOOR	EXAM	93 SF
MAIN FLOOR	PED EXAM	166 SF
MAIN FLOOR	EXAM	131 SF
MAIN FLOOR	LAB	106 SF
MAIN FLOOR	CLEAN LINEN/ MED STORAGE	251 SF
MAIN FLOOR	CONFERENCE	204 SF
MAIN FLOOR	BEHAVOURAL HEALTH WORK AREA	399 SF
MAIN FLOOR	WAITING AREA	110 SF
FIRST FLOOR	DINING HALL	3859 SF

Room Schedule

Level	Name	Area
FIRST FLOOR	KITCHEN	2151 SF
FIRST FLOOR	MULTIPURPOSE	2467 SF
FIRST FLOOR	DAYCARE	4894 SF
FIRST FLOOR	ELEV. MACHINE	139 SF
FIRST FLOOR	RECREATION	1337 SF
FIRST FLOOR	WOMENS	185 SF
FIRST FLOOR	MENS	180 SF
FIRST FLOOR	CASE MGR	89 SF
FIRST FLOOR	DIRECTORS OFFICE	100 SF
FIRST FLOOR	CASE MGR	100 SF
FIRST FLOOR	CASE MGR	100 SF
FIRST FLOOR	CASE MGR	100 SF
FIRST FLOOR	PROGRAM CASE MGR	120 SF
FIRST FLOOR	P.A./INTAKE	130 SF
FIRST FLOOR	P.A./ INTAKE	130 SF
FIRST FLOOR	LAB	60 SF
FIRST FLOOR	YOUTH DEV MGR	101 SF
FIRST FLOOR	CHAPLAIN	101 SF
FIRST FLOOR	CHAPLAIN	99 SF
FIRST FLOOR	COMPUTER/ CLASSROOM	832 SF
FIRST FLOOR	PATIENT TOILET	57 SF
FIRST FLOOR	STAFF TOILET	56 SF
FIRST FLOOR	EXEC. ASSIST. AREA	115 SF
FIRST FLOOR	ELEVATOR MACHINE ROOM	170 SF
SECOND FLOOR	ELECTRICAL	450 SF
SECOND FLOOR	IDF	174 SF

Room Schedule

Level	Name	Area
SECOND FLOOR	STORAGE	486 SF
SECOND FLOOR	SECURITY	72 SF
SECOND FLOOR	STORAGE	361 SF
SECOND FLOOR	LAUNDRY	753 SF
SECOND FLOOR	JAN.	31 SF
SECOND FLOOR	CASE MGR	157 SF
SECOND FLOOR	COMMON AREA	533 SF
SECOND FLOOR	COMMON AREA	749 SF
THIRD FLOOR	ELECTRICAL	450 SF
THIRD FLOOR	IDF	174 SF
THIRD FLOOR	STORAGE	486 SF
THIRD FLOOR	SECURITY	72 SF

Room Schedule

Level	Name	Area
THIRD FLOOR	COMMON AREA	748 SF
THIRD FLOOR	LAUNDRY	753 SF
THIRD FLOOR	JAN.	31 SF
THIRD FLOOR	JAN.	47 SF
THIRD FLOOR	STORAGE	361 SF
THIRD FLOOR	CASE MGR	157 SF
THIRD FLOOR	COMMON AREA	533 SF
THIRD FLOOR	COMMON AREA	428 SF

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Architecture / Planning / Design

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Client:

Project:
SEQUOIA BUILDING

Project Address:
12249 LOPEZ CANYON RD
SYLMAR, CA 91342

Consultant:

CONSULTANT LOGO

Stamp:

ARCHITECT STAMP

CONSULTANT STAMP

Agency Approval:

NOT FOR CONSTRUCTION

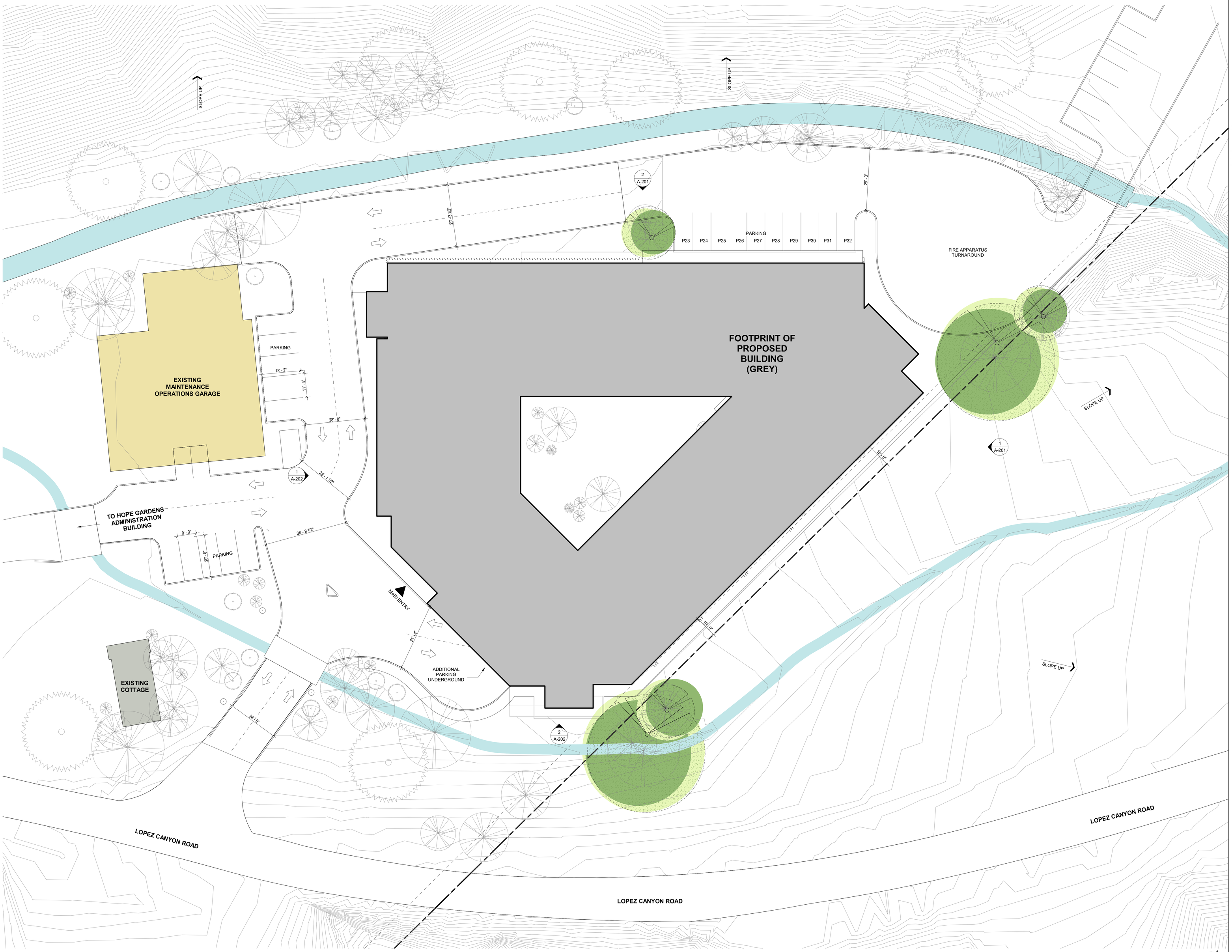
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ENLARGED SITE PLAN
SCALE: 1/16" = 1'-0"

1

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Project:
SEQUOIA BUILDING

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PROGRAM LEGEND

- ADMINISTRATION
- BEHAVOURAL HEALTH
- CLINIC
- DAYCARE
- GUEST COMMON AREA
- OUTDOOR SPACE
- SUPPORT
- TRAINING

LEVEL 00 - GROUND

SCALE: 3/32" = 1'-0"

1

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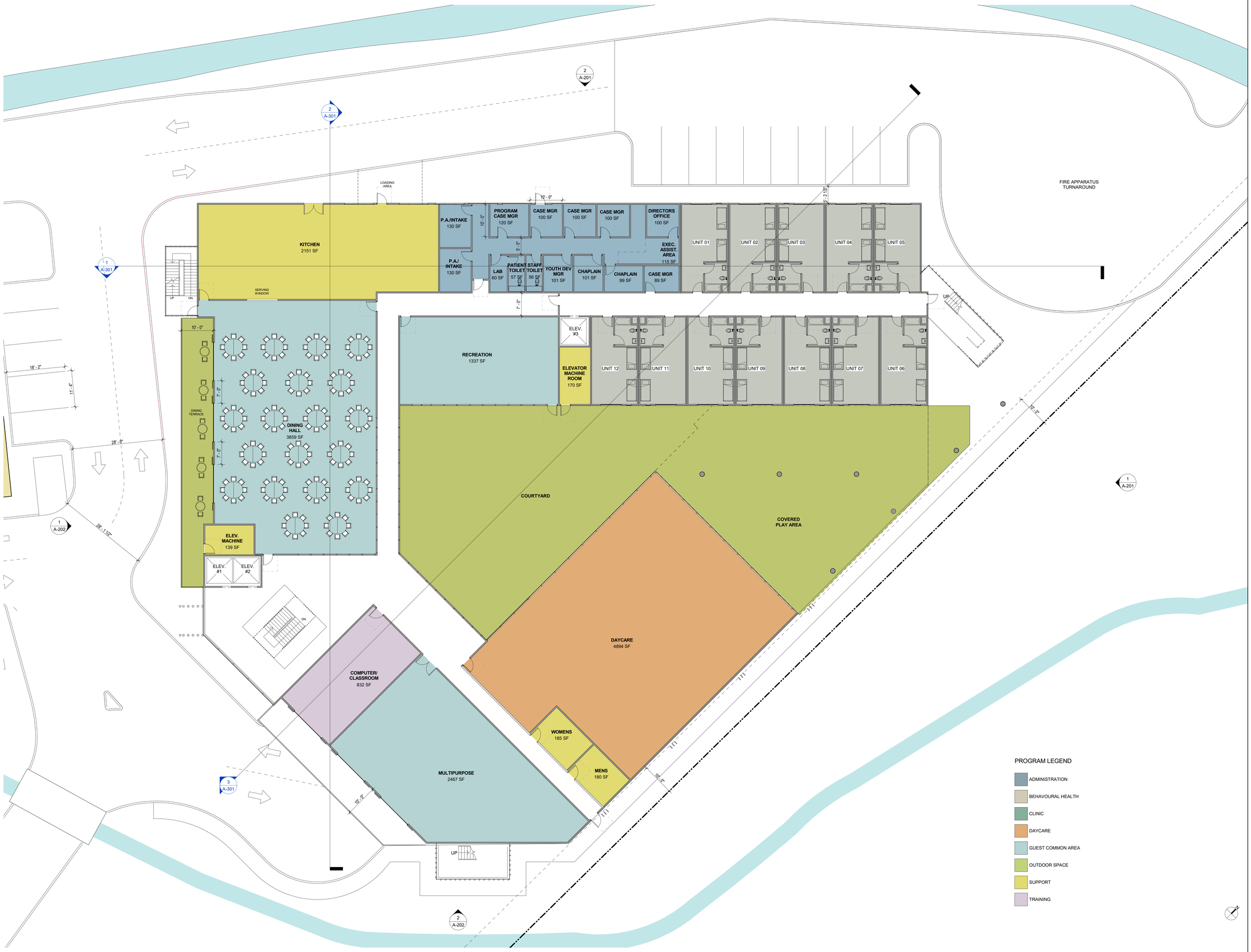
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CONCEPT PLAN - GROUND FLOOR

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A-101



PROGRAM LEGEND

- ADMINISTRATION
- BEHAVOURAL HEALTH
- CLINIC
- DAYCARE
- GUEST COMMON AREA
- OUTDOOR SPACE
- SUPPORT
- TRAINING

LEVEL 01 - FIRST FLOOR

SCALE: 3/32" = 1'-0"

1

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LEVEL 02 - SECOND FLOOR

SCALE: 3/32" = 1'-0"

1

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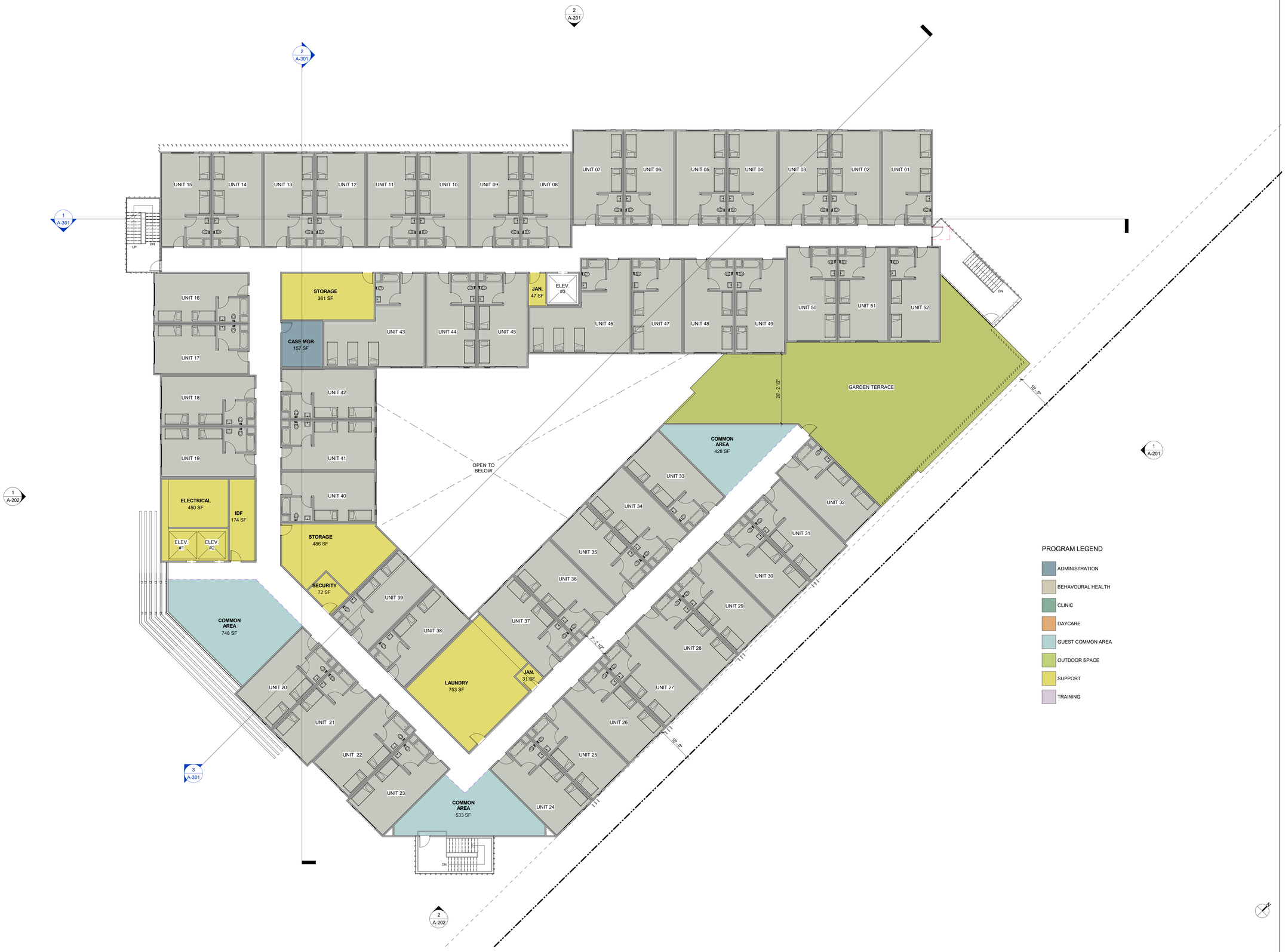
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PROGRAM LEGEND

- ADMINISTRATION
- BEHAVOURAL HEALTH
- CLINIC
- DAYCARE
- GUEST COMMON AREA
- OUTDOOR SPACE
- SUPPORT
- TRAINING

LEVEL 03 - THIRD FLOOR

SCALE: 3/32" = 1'-0"

1

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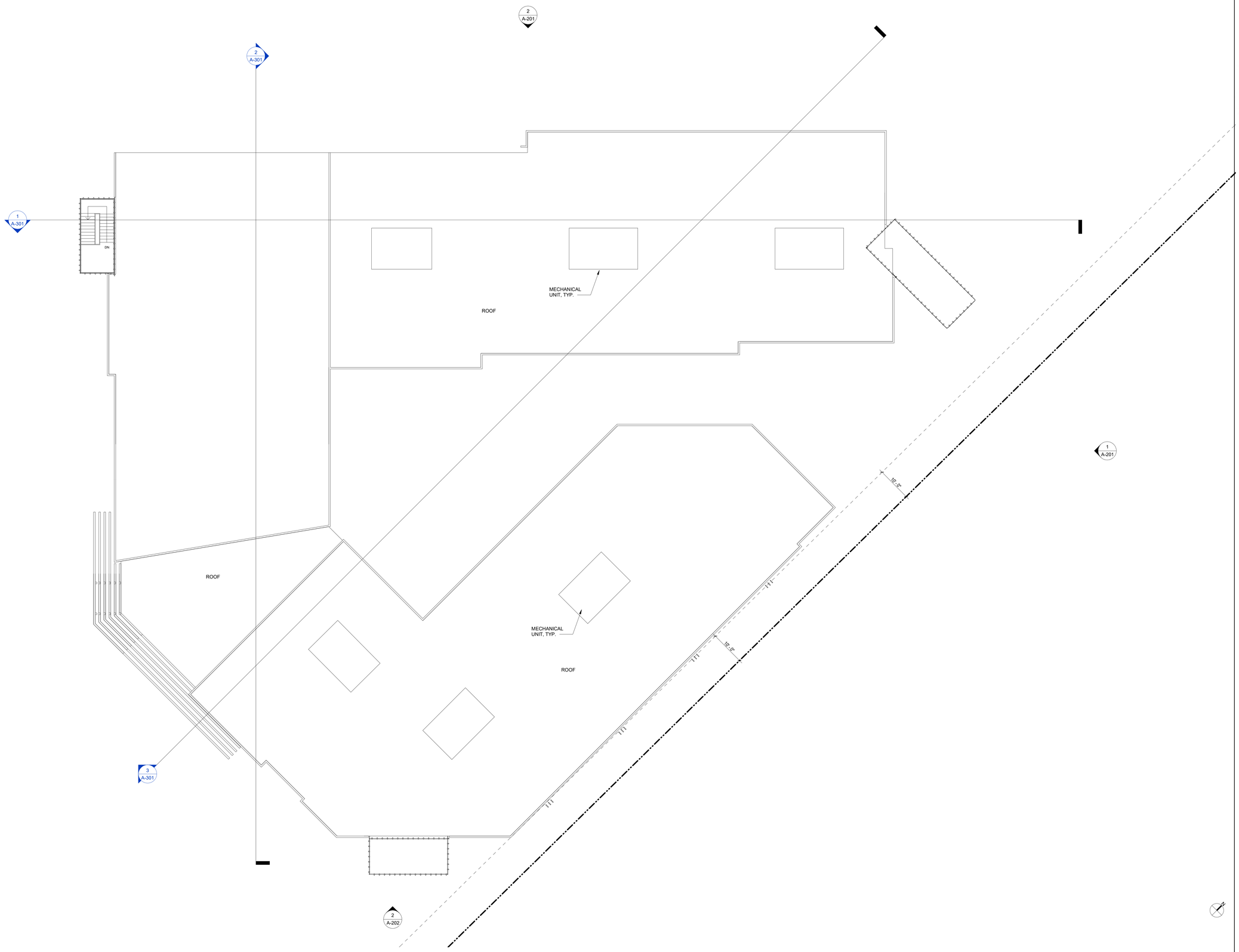
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LEVEL 04 - FOURTH FLOOR

SCALE: 3/32" = 1'-0"

1

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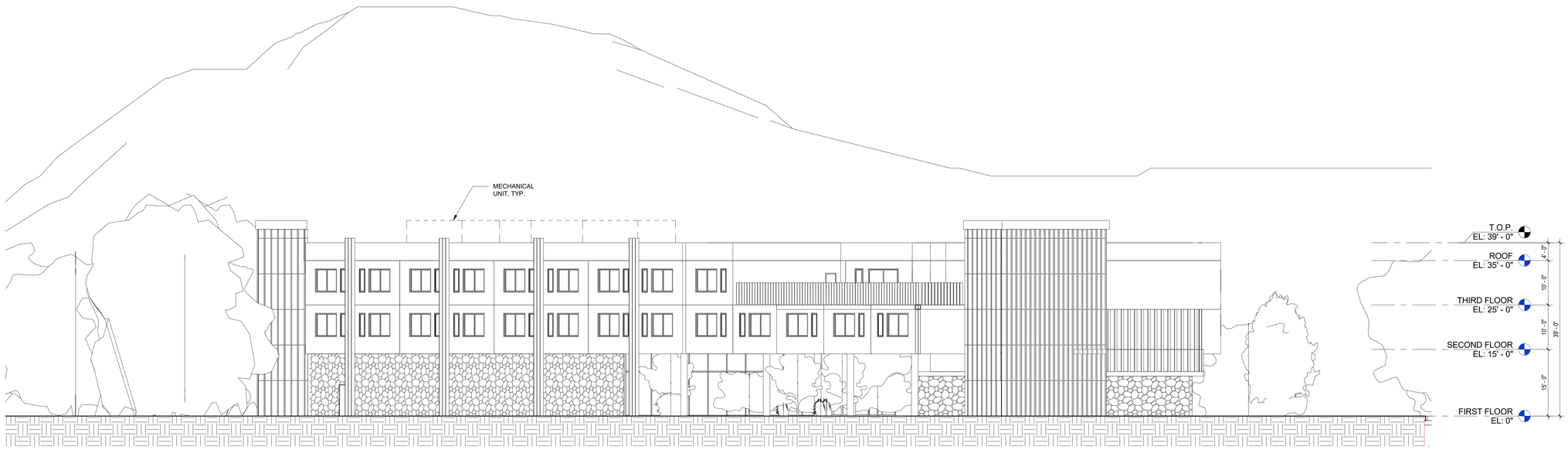
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NORTHWEST ELEVATION

SCALE: 3/32" = 1'-0"

2



NORTHEAST ELEVATION

SCALE: 3/32" = 1'-0"

1

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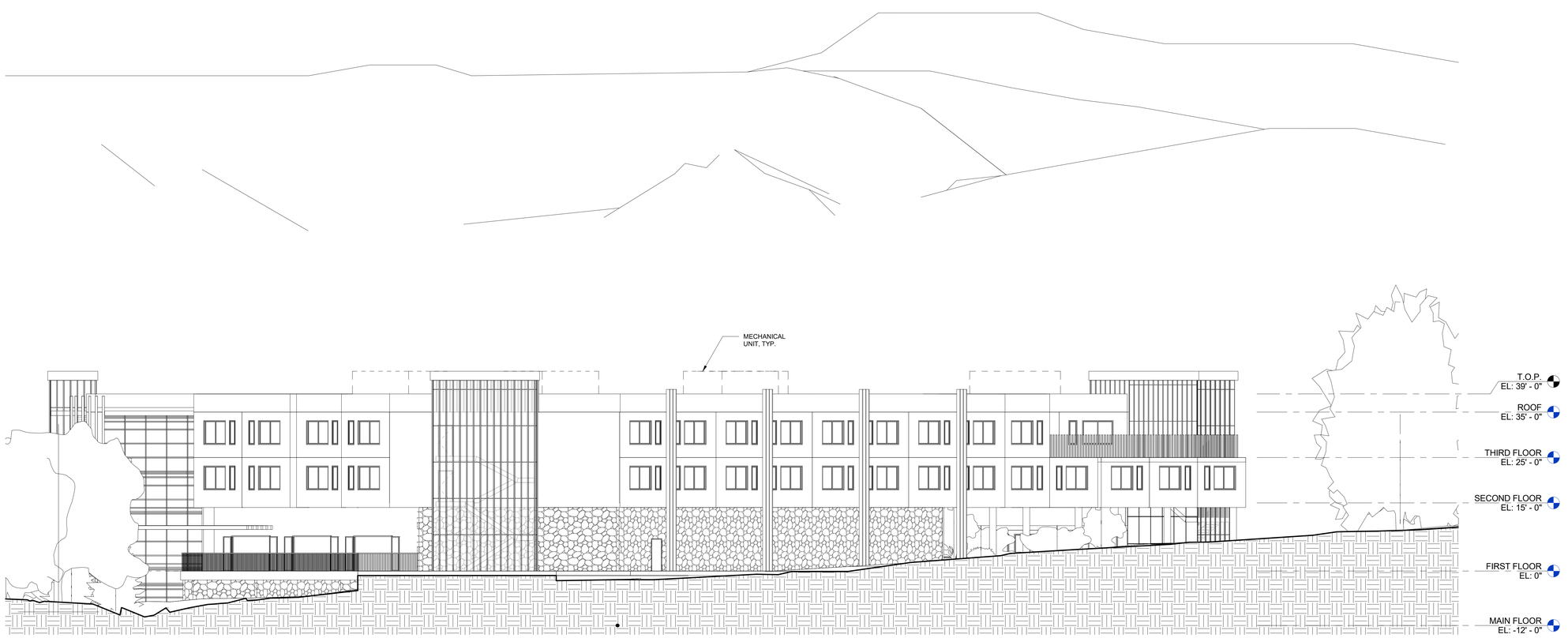
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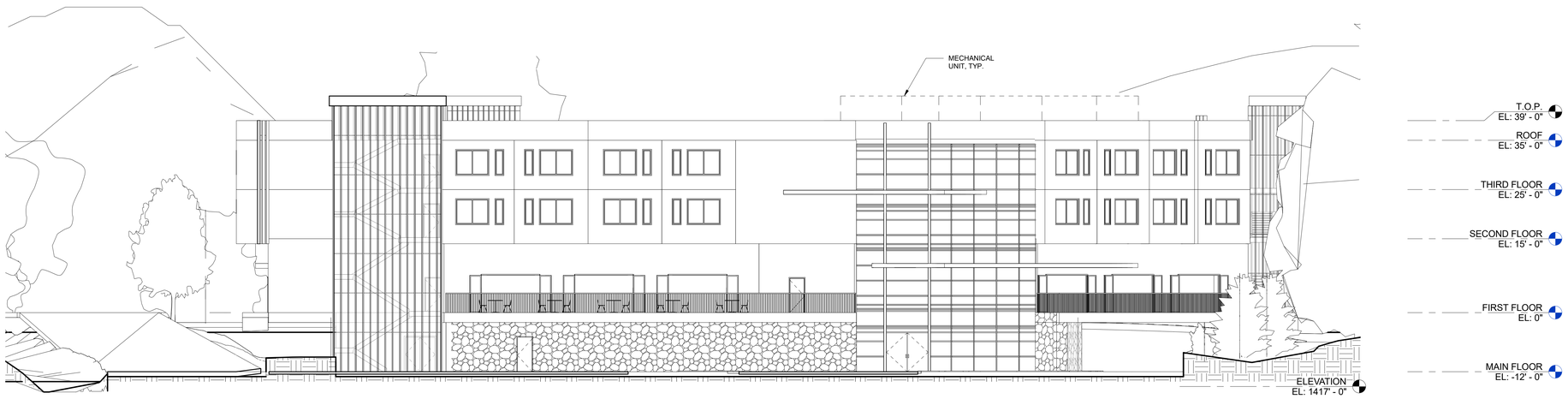
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SOUTHEAST ELEVATION

SCALE: 3/32" = 1'-0"

2



SOUTHWEST ELEVATION

SCALE: 3/32" = 1'-0"

1

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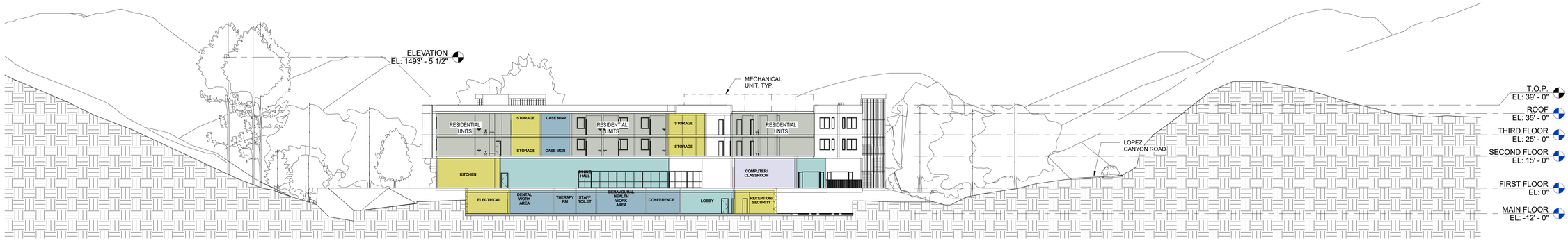
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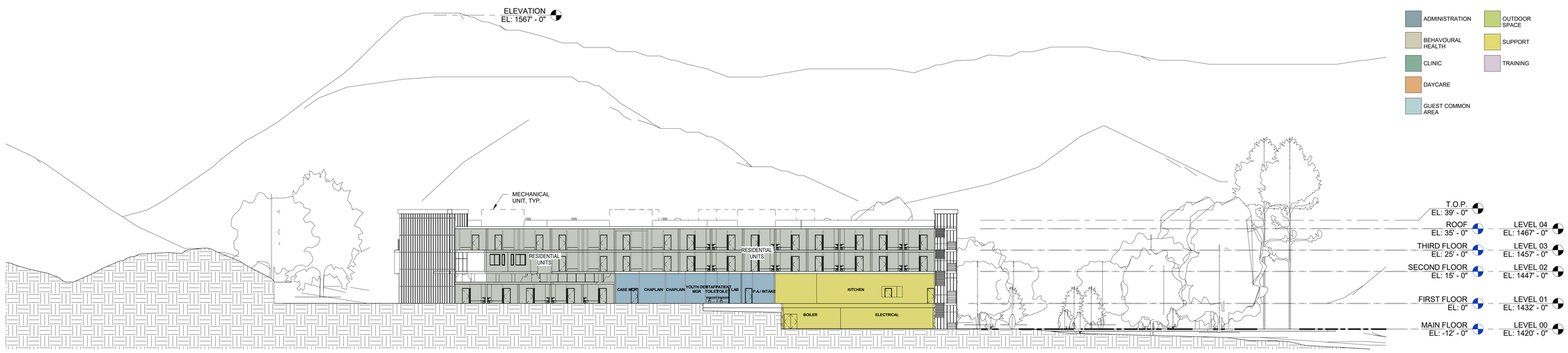
Section 3
SCALE: 1" = 20'-0"

3



Section 2
SCALE: 1" = 20'-0"

2



Section 1
SCALE: 1" = 20'-0"

1

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Date:	**08/26/2019**
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A-301

Appendix 4.3-1

Geotechnical Report

ALLAN E. SEWARD
ENGINEERING GEOLOGY, INC.
Geological And Geotechnical Consultants

GEOTECHNICAL REPORT
Review of CUP Exhibit A

Proposed New Sequoia Building
Union Rescue Mission – Hope Gardens
12249 Lopez Canyon Road
Sylmar, County of Los Angeles, California

Prepared for:

Union Rescue Mission
c/o Land Design Consultants, Inc.

Job No.: 20-2653-5
Dated: October 14, 2020

27825 Smyth Drive, Valencia, California 91355 661-294-0065 FAX 661-294-0833

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Geotechnical Map Plate I
Cross Sections 1-1' and 2-2' Plate II

ALLAN E. SEWARD
ENGINEERING GEOLOGY, INC.
Geological And Geotechnical Consultants

October 14, 2020 Job No.: 20-2653-5

Union Rescue Mission
C/o Land Design Consultants Inc.
800 Royal Oaks Drive, Suite 104
Monrovia, CA 90061

Attention: Mr. Steve Hunter

Subject: **GEOTECHNICAL REPORT**
Review of CUP Exhibit A

Project: Proposed New Sequoia Building
Union Rescue Mission – Hope Gardens
12249 Lopez Canyon Road
Sylmar, County of Los Angeles, California

References: At end of text

Dear Mr. Hunter:

This report presents our opinions regarding the existing geologic and geotechnical conditions at the above-referenced site, their potential effects on the proposed development, and our geotechnical recommendations for design and construction.

1.0 SCOPE OF WORK

Our investigation included the following tasks:

1. Coordination with the project team.
2. Review of the CUP Exhibit "A" plan set (Sheets 1 thru 5) prepared by Land Design Consultants, Inc. (LDC), dated 8/3/2020. The 20-scale exhibit therein (Sheet 3) was used as the base for our Geotechnical Map (**Plate I**). We make no representation regarding the accuracy of this base map.
3. Review of pertinent geotechnical reports received from the County of Los Angeles for prior development at the project site.
4. Review of the published geologic reports and maps referenced at the end of this report.
5. Review of the Seismic Hazards Map and Report for the San Fernando Quadrangle.

6. Evaluation of ground water conditions and historic ground water levels based on Los Angeles County Flood Control District (LACFCD) water well data and published maps.
7. Coordination with Underground Service Alert to obtain clearance from potentially impacted utilities prior to the subsurface exploration.
8. Excavation, sampling and logging of 5 hollow-stem-auger borings (HS-1 through HS-5) drilled to a maximum depth of 37.5 feet, and 2 percolation borings (PB-1 and PB-2) drilled to a maximum depth of 12 feet.
9. Laboratory testing of samples obtained during our subsurface investigation.
10. Geotechnical evaluation of soil density, shear strength, compressibility, corrosion potential, expansion potential, and shrinkage and bulking factors.
11. Evaluation of feasibility of on-site stormwater infiltration.
12. Performed general earthquake ground motion characterization utilizing the latest seismic ground-motion provisions of the 2019 California Building Code (CBC), ASCE 7-16, and Special Publication 117A. Our evaluation included calculation of site-specific response spectrum parameters and potential ground accelerations that could be generated at the site during future earthquakes on nearby faults.
13. Assessment of potential ground rupture hazard at the site.
14. Geotechnical assessment of liquefaction potential of site alluvial soils and calculation of associated seismic settlements and lateral spread displacements based on subsurface data, existing and historic ground water levels, laboratory test results, and estimated earthquake ground motions.
15. Estimation of potential static settlements under future building loads based on SPT blow count data and the results of our laboratory testing.
16. Evaluation of geotechnical parameters for design of shallow footing foundations, retaining walls and slab-on-grade floors, including allowable bearing pressure, equivalent fluid densities for calculation of active, passive, and at-rest pressures, soil to concrete friction factors, and coefficient of subgrade vertical reaction beneath floor slab areas.
17. Assessment of recommended grading removal depths based on subsurface conditions, calculated seismic settlements, and estimated static settlements under assumed future building loads.

18. Preparation of the enclosed Geotechnical Map (**Plate I**) illustrating our geologic and geotechnical data and recommended mitigation measures in relation to the proposed improvements.

19. Preparation of Cross Sections 1-1' and 2-2' (**Plate II**) illustrating anticipated geotechnical conditions with respect to the proposed structure.

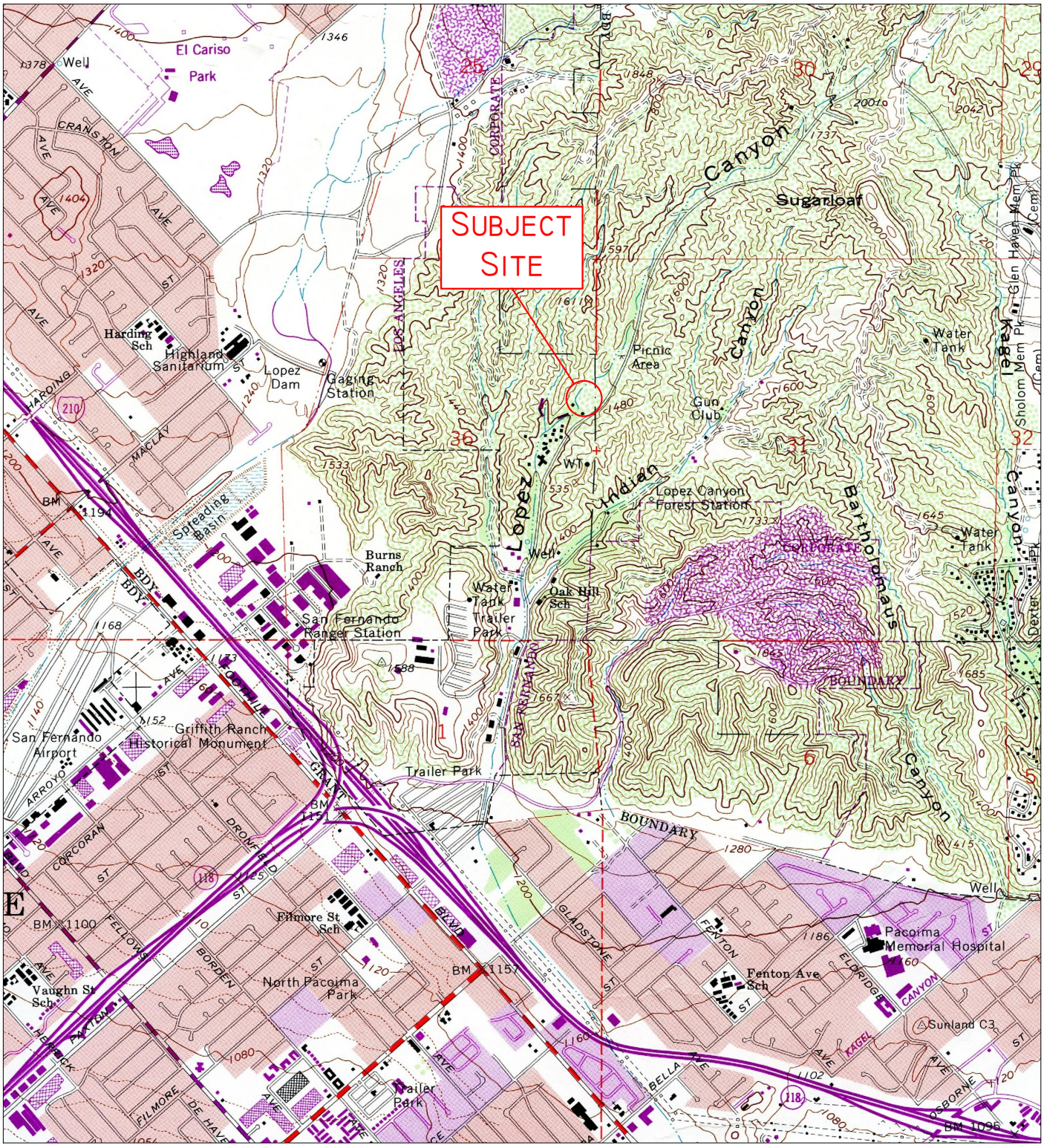
20. Preparation of figures and illustrations, including Location Map, Fault Location Map, drill hole logs, laboratory test reports, infiltration test reports, seismicity figures, liquefaction and lateral spreading results and calculations, and pertinent construction details for inclusion in this report.

21. Preparation of this Geotechnical report, which summarizes the results of our investigation and provides geotechnical recommendations for design and construction of the proposed development, for submittal to the Los Angeles County Department of Public Works, Geotechnical and Materials Engineering Division.

2.0 SITE DESCRIPTION

The project site is located on the west side of Lopez Canyon Road within the northeasterly trending Lopez Canyon, in the northern part of Sylmar in unincorporated Los Angeles County (see **Location Map** following page 3). The sprawling property is occupied by various, isolated residential, office, and maintenance buildings, access roads, parking lots, and gardens operated by Union Rescue Mission and referred to as their Hope Gardens campus. The campus is situated in the alluvial canyon bottom with mature landscaping that consists of large oaks, evergreens, and palms, non-native grasses and various flora, fauna, and shrubs. The property gently falls down-canyon toward the south over approximately 1700 ft, with elevations that range from 1365 to 1440 ft above MSL.

In general, the property is bounded by undeveloped areas on the upstream (north) and downstream (south) sides and flanked by bedrock ridgelines to the east and west. The existing one-story residential Sequoia building is the northernmost structure on the campus, situated at an approximate elevation of 1420 ft. At this location, the site is bounded by Lopez Canyon Road on the easterly side and an open concrete drainage culvert on the west side (at the toe of the ascending canyon slope). A small armored drainage channel extends down-canyon on the easterly side, between the existing Sequoia building and Lopez Canyon Road. It is presumed that this channel directs sheet flow of stormwater emanating from the relatively flat, open area directly to the north away from the building. Both drainage channels were observed to be dry during the site investigation.



Source: USGS San Fernando Quadrangle, Dated 1966, Photo Revised 1988

Approximate Scale: 1"=2,000'

NOTE: THIS IS NOT A SURVEY OF THE PROPERTY

ALLAN E. SEWARD
ENGINEERING GEOLOGY, INC.
Geological And Geotechnical Consultants

LOCATION MAP

Job No.: 20-2653-5

Date: 10/14/20

3.0 PROPOSED DEVELOPMENT

The proposed development includes demolition of the existing 2-story Sequoia building and replacement with a new 4-level building (including a partial subterranean level), retaining walls (up to 10 ft in height), hardscape, vehicle pavement and parking lot improvements, and stormwater quality control measures. Up to about 6 feet of compacted fill will be placed to achieve first-floor subgrade elevations; subgrade elevation for the subterranean level is estimated at approximately 6 to 8 feet beneath existing grade.

Preliminary foundation plans and details are not available at this time; however, based on the data and results presented herein it is assumed that the proposed structure will be supported on conventional footing foundations with concrete slab-on-grade. For this study we have assumed isolated column loads up to 300 kips and wall loads up to 5 kips per linear foot.

4.0 RESEARCH

Records were requested from the Los Angeles County Department of Public Works, Geotechnical and Materials Engineering Division (GMED) relative to prior site development. A digital copy of the Foundation Investigation report prepared by Foundation Engineering Co., Inc., dated 12/7/74 (see Reference 1), and various Los Angeles County geologic review sheets were provided. The referenced report dated 12/7/74 was reviewed as part of the current study. Supplemental geologic reports dated 2/28/75 and 5/1/75 that were indicated on a review sheet dated 5/7/75 were not available. No significant findings were made based on this research.

5.0 FIELD INVESTIGATION, SAMPLING, AND LABORATORY TESTING

5.1 Subsurface Exploration

Subsurface exploration performed to address the proposed new building included the drilling, sampling, and logging of five (5) hollow-stem auger borings (HS-1 thru HS-5) to a maximum depth of 37.5 feet. The borings were drilled by Choice Drilling Inc. and logged by the undersigned Geotechnical Engineer on 8/27/20 and 8/28/20.

The drill hole logs are included in **Appendix A** and represent our interpretation of field data prepared for each boring by our geologic/engineering staff at the time of drilling, along with refinements based on observations and laboratory test results. Unit boundaries shown in the graphic log column of our hollow-stem-auger drill hole logs are approximate and may represent gradual transitions. The boring locations are shown on the attached Geotechnical Map (**Plate I**).

5.2 Field Infiltration Testing

Two (2) additional hollow-stem auger borings (PB-1 and PB-2) were excavated to a depth of 12 feet in the vicinity of hollow-stem auger borings HS-4 and HS-5, respectively, to evaluate the use of Low Impact Development (LID) stormwater quality control measures with an infiltration component. Field infiltration testing was conducted using the "Boring Percolation" test procedure outlined in Administrative Manual GS200.2 (dated 6/30/17), *Guidelines for Investigation and Reporting, Low Impact Development Stormwater Infiltration*, prepared by the County of Los Angeles Department of Public Works, Geotechnical and Materials Engineering Division (referred to herein as GMED LID Guidelines). The infiltration testing was performed as described below:

- At each location an 8-inch diameter borehole was excavated to a target invert elevation of 12 feet below existing grade using a hollow-stem-auger drill rig.
- A water delivery pipe with end cap was installed in the borehole to introduce water during the test. The water delivery pipe consisted of 2-inch diameter Schedule 40 PVC pipe, with Schedule 40 PVC slotted well screen in the lower 1.5 feet.
- A separate pipe was installed to monitor the water level during the test. This pipe consisted of 2-inch diameter Schedule 40 PVC pipe, with Schedule 40 PVC slotted well screen in the lower 5 feet.
- Following installation of the pipes, the annular space was backfilled with No. 2 filter pack material to at least 6 inches above the slotted section of the water delivery pipe.
- Clear water was introduced into the boreholes using flexible tubing connected to a 13,000 mL graduated cylinder. The boreholes were filled to a water level 2 feet above the bottom of the borehole. A ball valve on the flexible tubing was used to maintain a constant head of 2 feet above the bottom during the test period.
- After the initial filling and 1-hour pre-soak period, a ball valve on the flexible tubing was used to maintain a constant head elevation of 2 feet above the borehole bottom during the test period. The volume of water required to maintain the constant head was recorded using the graduated cylinders at 10-minute intervals until the flow rate stabilized.

Results of field infiltration testing are discussed in **Section 6.5** of this report.

5.3 Sampling Procedures

California drive (relatively undisturbed) ring and Standard Penetration Test (SPT) samples were obtained in the exploratory drill holes at various depths (see logs in **Appendix A**). Recovered soil samples were sealed in plastic containers and brought to our laboratory for

further classification and testing.

Bulk (disturbed) samples of the near surface soils were obtained from cuttings developed during excavation of the exploratory drill holes. The bulk samples were collected for classification and testing purposes and represent a mixture of soils within the noted depths.

5.4 Laboratory Testing

Soil samples were visually classified at the site in accordance with the Unified Soil Classification System (ASTM D2487). Thereafter, the samples were brought to our geotechnical laboratory, the visual soil classifications were checked, and the trench logs were reviewed in order to select soil samples for testing.

The laboratory testing program performed on samples of on-site soils included the following tests: moisture content, dry density, percent minus no. 200 sieve (i.e., percent fines), particle-size analysis, hydro-compression, direct shear, Modified Proctor (compaction), and corrosivity (sulfate content, chloride content, pH, and resistivity).

Laboratory test methods and results of the testing are provided in **Appendix B** of this report.

6.0 GEOLOGIC AND GEOTECHNICAL CONDITIONS

6.1 Geologic Setting

The project site is located at the mountain front (south side) at the west end of the San Gabriel Mountains, just above the San Fernando Valley, in the Transverse Ranges geomorphic province of southern California. At this location, the east-west trending San Gabriel Mountains consist predominately of intrusive igneous rocks of granodiorite and quartz diorite that are being thrust over the subsiding San Fernando basin from the north. Prominent structural features include a series of north-dipping thrust faults that comprise the San Fernando section of the Sierra Madre Fault Zone, located 0.5 miles to the south of the site.

Pleistocene Saugus Formation (TQs) is widely distributed along the mountain front in the vicinity of the project site and rests unconformably upon the Pico Formation and Towsley Formation, and unconformably overlies or is in fault contact with the igneous and metamorphic basement rocks. The Saugus Formation generally is comprised of nonmarine interbedded light gray pebble-cobble conglomerate, sandstone, and greenish to reddish claystone (Dibblee, 1991).

Large canyon drainages with source areas in the steep, rugged San Gabriel Mountains, including Big Tujunga Canyon and Pacoima Canyon, extend south to the San Fernando Valley. The project site, located in Lopez Canyon, drains an area between these two larger canyons where the bedrock has been uplifted on the hanging wall of the San Fernando fault.

Deposits in Lopez Canyon include young sands and gravelly sands with potential for large cobbles and boulders.

6.2 Geologic Structure

Bedrock at the project site has been uplifted and tilted by north-south compressional tectonic forces producing geologic structures which trend east-west (see **Geologic Map** by **Dibblee** following page 7). The Saugus Formation bedding generally strikes east-west and dips 53 to 60° to the north (Dibblee, 1991).

6.3 Geologic Units

The project site consists of recent alluvial sedimentary deposits (Qal) within Lopez Canyon that are underlain by Saugus Formation (TQs) bedrock. Saugus Formation bedrock is also exposed in the adjacent ridgelines. Artificial fill (af) associated with past site development was encountered at one subsurface location to a depth of 6 feet. In general, the artificial fill is considered to be thin (< 3 feet) and is undifferentiated from the alluvium. Details of the geologic units observed at the site are discussed below and presented on our subsurface logs (**Appendix A**).

6.3.1 Saugus Formation (TQs)

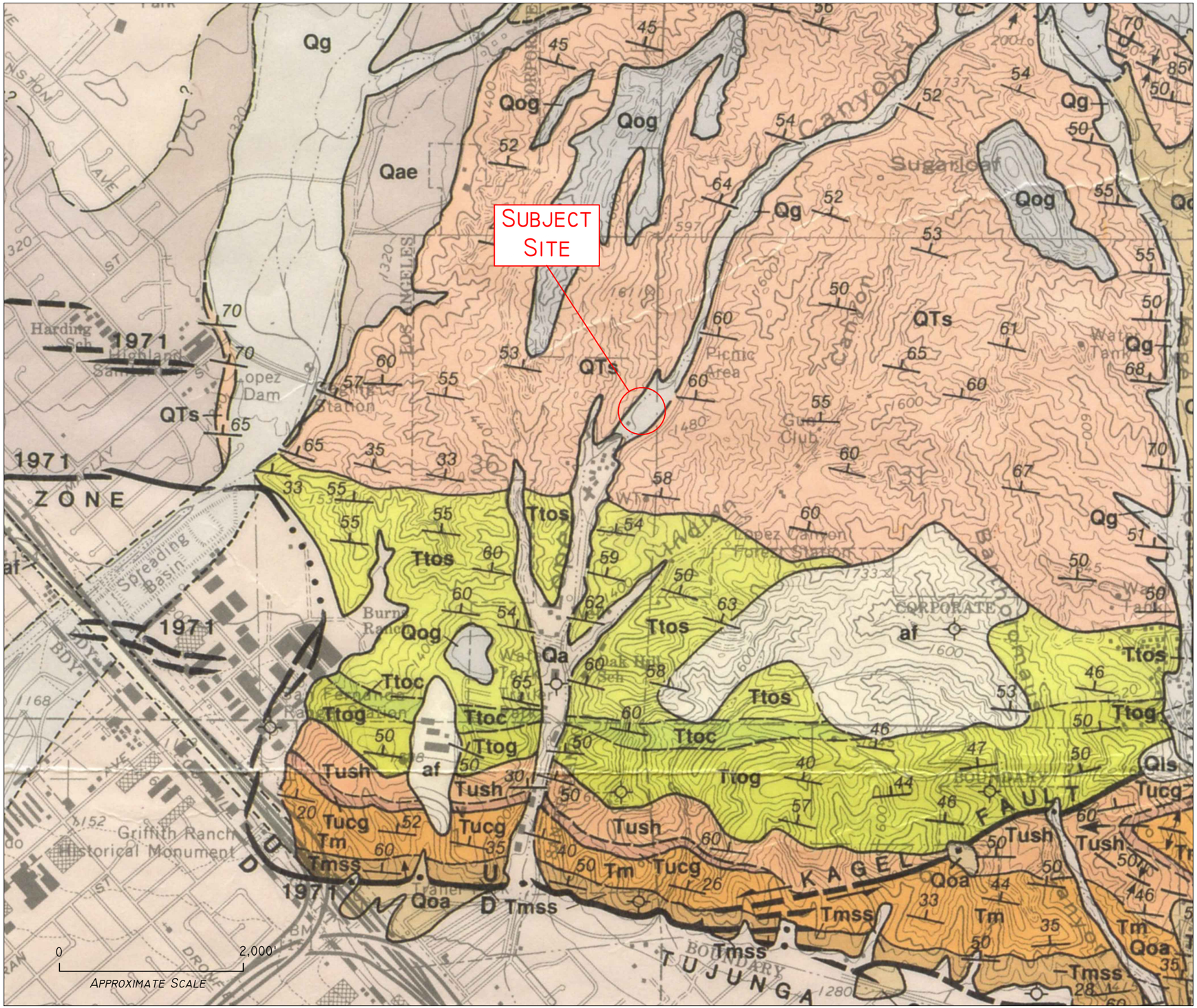
Bedrock underlying the alluvial deposits was encountered at depths ranging from 23 ft at boring HS-1 to 32.5 ft at boring HS-4. The bedrock observed consists of light brownish-gray, medium-brown and pale yellowish-brown, very dense, damp silty sandstone and brown, reddish-brown, and light brownish-gray, hard, damp sandy mudstone.

6.3.2 Quaternary Alluvium (Qal)

Unconsolidated alluvial deposits predominantly consist of interbedded, light to dark brown, yellowish-brown, and dark brownish-gray, medium dense to very dense, fine- to coarse-grained sand and silty sand with gravel. Interbedded layers of silty and clayey sands were also observed in boring HS-1. Resistant layers, presumed to be due to the presence of cobbles, were encountered in borings HS-1 at 25 ft, HS-2 from 20 to 25 ft, HS-3 at 15 ft, and HS-4 from 7 to 11 ft. Measured in-situ dry densities in the alluvium range from about 109 to 126 pcf with moisture contents that range from 1.4 to 11.4 percent.

6.3.3 Artificial Fill (af)

Artificial fill (af) generated from past development activities was encountered in boring HS-1 and was observed to a maximum depth of about 6 feet. The artificial fill consisted of light-brown and dark-gray, poorly graded sand with silt and gravel. The fill is characterized as dense to very dense and moist but is undocumented fill and not considered suitable for support of structures due to potential variability in strength and composition.



LEGEND

SURFICIAL SEDIMENTS
af *artificial cut and fill* — **Qls** *landslide debris*
Qg *gravel and sand of major stream channels* — **Qa** *alluvial gravel, sand and clay of valley areas*

OLDER DISSECTED SURFICIAL SEDIMENTS
Qae *similar to* **Qa**, *but slightly elevated and dissected*
Qoa *remnants of older, slightly consolidated, dissected alluvial gravel and sand*
Qog *high remnants of slightly consolidated, brown coarse alluvial gravel*

—UNCONFORMITY—

PACOIMA FORMATION
(of Oakeshott 1958)
terrestrial, weakly consolidated; Pleistocene age
Qp *weakly consolidated brown alluvial gravel and sand derived from adjacent mountains*

—UNCONFORMITY—

SAUGUS FORMATION
terrestrial, weakly consolidated; Pliocene and Pleistocene age
QTs *light gray pebble-cobble conglomerate, sandstone and greenish to reddish claystone, interbedded; composed of locally derived granitic and gneissic detritus including some of anorthosite and gabbro-norite; deposited by streams; Pliocene and Pleistocene age*
Ts *(in Whitney Canyon area) same as* **QTs**, *but correlative in age (Pliocene) with units* **Tsr** *and* **Tps** *(in part lower member of Pico Formation of Oakeshott 1958)*
Tsr *Sunshine Ranch Member (of Oakeshott 1958; Winterer and Durham 1962, in part) in Van Norman Lake area; light reddish to greenish claystone and sandstone and interbedded pebble-cobble conglomerate similar to that of* **QTs**

TOWSLEY FORMATION
(of Winterer and Durham 1962; Pico Formation of Hill 1930; "Repetto" Formation, including Elsmere Member, of Oakeshott 1958)
terrestrial and shallow marine regressive; latest Miocene and/or early Pliocene age
Ttos *mostly light gray to tan sandstone; minor gray silty claystone and conglomerate*
Ttoc *gray silty claystone and siltstone, minor sandstone*
Ttog *gray to brown crudely bedded cobble conglomerate of mostly granitic and gneissic detritus and coarse grained sandstone; probably terrestrial, deposited by streams as a fan-delta*

—UNCONFORMITY—
In mountain area

UNNAMED MARINE STRATA
(included in Modelo Formation by Oakeshott 1958; Barrows et al. 1974; probably equivalent to Sisquoc Formation of Ventura Basin)
marine clastic; probably late Miocene age
Tush *light gray, bedded, clayey to slightly siliceous, crumbly shale*
Tucg *brown cobble conglomerate of granitic, some basaltic-andesitic detritus, and sandstone*

CASTAIC FORMATION
(north of San Gabriel Fault; only lowest part exposed in quadrangle)
marine clastic and biogenic; late Miocene age
Tcal *light gray to tan crudely bedded diatomaceous or semi-siliceous claystone or siltstone, somewhat crumbly; thin sandstone at base*

—UNCONFORMITY—

MONTEREY FORMATION
(Modelo Formation of Oakeshott 1958; Barrows et al. 1974)
marine biogenic and clastic; late Miocene age (Mohnian Stage)
Tm *white-weathering, thin bedded, hard, platy to soft, fissile, semi-siliceous shale*
Tmss *light gray to tan bedded sandstone; gritty or pebbly with granitic detritus*

MINT CANYON FORMATION
(north of San Gabriel Fault)
nonmarine clastic; middle(?) to late Miocene
Tmc *greenish and reddish gray silty claystone and interbedded light gray sandstone and pebbly sandstone with granitic detritus*
Tmg *gray to dark reddish-gray, crudely bedded coarse cobble conglomerate of detritus of gabbro-norite, anorthosite, gneiss and granitic rocks*

SYMBOLS
(not all symbols present on each map)

FORMATION CONTACT — *dashed where inferred or indefinite*
MEMBER CONTACT — *between units of a formation*
CONTACT BETWEEN SURFICIAL SEDIMENTS — *located only approximately in places*

FAULT: *Dashed where indefinite or inferred, dotted where concealed, queried where existence is doubtful. Parallel arrows indicate inferred relative lateral movement. Relative vertical movement is shown by U/D (U=upthrown side, D=downthrown side). Short arrow indicates dip of fault plane. Sawteeth on upper plate of low angle thrust fault.*

FOLDS: ANTICLINE — SYNCLINE
arrow on axial trace of fold indicates direction of plunge; dotted where concealed by surficial sediments

STRIKE AND DIP OF STRATIFIED ROCKS: inclined; inclined (approximate); overturned; inclined; approximate; vertical; horizontal; vertical; metamorphic or igneous rock foliation or flow banding

FOSSIL LOCALITY — DIRECTION OF LANDSLIDE MOVEMENT — SANDSTONE MARKER BED — CONGLOMERATE MARKER BED — ABANDONED EXPLORATORY OIL (OR GAS) WELL — OIL WELL(S) ON TOPOGRAPHIC BASE MAP)

SOURCE: GEOLOGIC MAP OF THE SAN FERNANDO AND VAN NUYS (NORTH ½ QUADRANGLES BY THOMAS W. DIBBLEE, JR., 1991, # DF-33

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ALLAN E. SEWARD
ENGINEERING GEOLOGY, INC.
Geological And Geotechnical Consultants

GEOLOGIC MAP BY T.W.DIBBLEE, JR.

JOB NO.: 20-2653-5 | DATE: 10/14/20

6.4 Ground Water

Based on the historically highest ground water contours included in the Seismic Hazard Zone Report for the San Fernando 7.5-Minute Quadrangle (Plate 1.2), the closest historic high groundwater elevation is the 150-ft contour located approximately 3,000 feet to the west in the Pacoima Canyon wash, and over 6,000 feet to the southwest beyond the mouth of Lopez Canyon. However, in the *Ground-Water Conditions* section of the Seismic Hazard Zone report, ground water is considered relatively shallow in all canyon areas of the San Gabriel Mountains. The shallow and relatively less permeable bedrock below the alluvium helps to maintain shallow ground water conditions that fluctuate seasonally and with significant rain events.

Review of Los Angeles County water well data indicates that an inactive well (No. 6009) is located in a tributary to Lopez Canyon, approximately 650 ft to the northwest of the project site. The well record includes data from one reading conducted on 7/8/59 with a measured ground water depth of 25.2 feet.

Ground water was encountered in the alluvium just above the bedrock contact in borings HS-4 at 29 feet and HS-5 at 25 feet. Based on the lack of ground water observed in the underlying bedrock and results of in-situ moisture content testing of bedrock material, this ground water is considered to be a perched condition. Ground water was not encountered in the remainder of the borings performed for this investigation. In the referenced report by Foundation Engineers Co., Inc., ground water was not encountered in their investigation conducted in 1974, which reached depths of up to 18 feet.

Seasonal fluctuations in ground water levels or development of perched water conditions will occur in the alluvium due to precipitation, storm water, irrigation, and other factors not evident at the time of our study. Based on ground water information reviewed, historically high static ground water is estimated to be no shallower than 15 feet beneath existing grade.

Ground water is not anticipated to be encountered during construction or have an adverse impact to design.

6.5 Infiltration Characteristics

6.5.1 Introduction

Infiltration testing was performed in borings PB-1 and PB-2 to evaluate feasibility of low impact development stormwater quality control measures with an infiltration component. Preliminary locations and infiltration invert depths were provided to us by the civil engineer, LDC. Borings PB-1 and PB-2 were drilled in the vicinity of hollow-stem-auger borings HS-4 and HS-5, which were used to assess subsurface conditions at and below a

preliminary infiltration invert depth of 12 feet. Boring PB-2 is located within 10 ft of Boring HS-5. Due to difficult drilling conditions and presumed resistant cobble layer encountered in Boring HS-4 (between 7 and 12 feet in depth) and at the initial location of Boring PB-1 (originally within 10 feet of HS-4), Boring PB-1 was relocated to the current location shown on the Geotechnical Map, which is approximately 40 ft from Boring HS-4. However, the same resistant layer was encountered again in PB-1 near the test invert elevation, presumably resulting in a significantly lower measured infiltration rate.

Field results of the infiltration test as elapsed time (minutes) versus the raw, incremental infiltration rate (inches/minute) are graphically illustrated on the attached Boring Percolation Test Reports, **Figures A1** and **A2**. The measured raw infiltration rates at a stabilized flow rate were 1.10 inches/hour at PB-1 and 7.35 inches/hour at PB-2. The infiltration surface area used to calculate the infiltration rate is equal to the sum of the wetted bottom surface area and wetted sidewall surface area for the 2-ft water height maintained in the borehole during the test period.

6.5.2 Reduction Factors

In accordance with County of Los Angeles GMED infiltration design requirements, the measured infiltration rate should be corrected using the reduction factors defined below in **Table 1** to determine a design value that will represent the long-term performance of the storm water infiltration device.

Table 1 – Reduction Factors

REDUCTION FACTOR	DEFINITION	VALUE
RF_T	Test-specific reduction factor to account for direction of flow during the test and reliability of the test.	2
RF_V	Site variability, number of tests, and thoroughness of subsurface investigation	1 to 3
RF_S	Long-term siltation, plugging, and maintenance	1 to 3
Total reduction factor, $RF = RF_T + RF_V + RF_S$		
Design infiltration rate = measured infiltration rate / RF		

The stabilized infiltration rates measured in the field using the Boring Percolation test procedure should be adjusted using a reduction factor $RF_T = 2$, as indicated in the GMED LID Guidelines. A reduction of the measured infiltration rate due to number of tests and thoroughness of investigation is not considered applicable at this time and an infiltration reduction factor of $RF_V = 1$ has been assumed for best-case scenario. It is assumed that the storm water will be pre-treated prior to infiltration and that the infiltration devices will be subject to an operation and maintenance plan for ongoing maintenance provisions. However, long-term performance due to siltation has been shown to reduce infiltration

rates even with maintenance. Therefore, a reduction factor of $RF_S = 1.5$ is assumed.

6.5.3 Results and Discussion

A summary of the measured infiltration rates, applied reduction factors, and associated corrected infiltration rates are provided in **Table 2**.

Table 2 – Summary of Infiltration Test Results

Geologic Unit	Test Location	Finer than No. 200 Sieve Size, %[1]	Measured Infiltration Rate, inches/hour	Reduction Factors			Corrected Infiltration Rate, inches/hour
				RF_T	RF_V	RF_S	
Qal	PB-1	11.5	1.10	2	1	1.5	0.24
	PB-2	7.3	7.35	2	1	1.5	1.63

Results of on-site field testing and applied reduction factors yield corrected infiltration rates of 0.24 and 1.63 in/hr. The substantially lower infiltration rate measured in PB-1 is likely due to a resistant cobble layer at that test elevation. Based on the coarse-grained nature of the alluvium and limited thickness and lateral extent of resistant cobble layers encountered during subsurface exploration, site soils are generally conducive to stormwater infiltration. The infiltration rate obtained in boring PB-2 is considered representative and may be used for preliminary design purposes. Siting of LID stormwater quality control measures with an infiltration component shall be reviewed by this office relative to potentially resistant cobble layers that may inhibit infiltration.

6.6 Soil Shear Strength

Direct Shear testing was performed on California drive ring samples of Quaternary alluvial soils and on soil samples remolded from a blend of on-site soils collected within the upper 10 feet at the project site. Results of the testing are presented in **Appendix B** and were used to select the following design shear strength parameters for site materials.

Table 3 – Summary of Shear Strength Parameters

Material	Moist Unit Weight, pcf	Peak Shear Strength		Residual Shear Strength	
		Phi, degrees	Cohesion, psf	Phi, degrees	Cohesion, psf
Alluvium (Qal)	130	35	100	28	100
Proposed Compacted Fill (Cf)	130	34	260	32	60

[1] Finer than No 200 sieve size measured in adjacent hollow-stem auger borings HS-4 and HS-5.

6.7 Soil Compressibility

SPT blow count data, in-situ dry density and moisture content, and results of hydro-compression tests performed on soil samples from the borings were used to evaluate compressibility of alluvial soils under static loading conditions from new foundations. Based on this evaluation, potentially compressible layers were identified in the upper 10 feet. The recommended removal depths provided in the Earthworks Recommendations section of this report consider these data.

In general, soils that have an in-situ dry density of 108 pcf or less and in-situ moisture content of 8 percent or less are considered susceptible to hydro-compression. Results of in-situ dry density testing and sampler blow count data indicates that on-site alluvial soils do not fit these criteria. However, two samples with the lowest measured dry density that have in-situ moisture contents less than 8 percent were selected for testing (HS-1 at 9 ft and HS-5 at 12 ft). Test results of the samples of the alluvium show less than 1% settlement due to hydro-compression (see **Appendix B** for lab test data). No significant hydro-compression effects due to water incursion are expected at the site after the removals recommended in the Earthwork and Grading section of this report are performed.

6.8 Expansion Potential of Soils

Based on our visual observation of samples and during drilling operations, in-situ soils at the site have a very low to low expansion potential. It is anticipated that site soils when removed, mixed, and replaced as a compacted fill will have a **very low** expansion potential (per ASTM D4829 expansion potential classification).

The Expansion Index of building pad soils should be measured or visually assessed at the completion of grading in order to confirm the foundations recommendations.

6.9 Soil Corrosivity

The Geotechnical and Materials Engineering Division (GMED) of the Los Angeles County Department of Public Works regards soil at a site to be corrosive to concrete and/or steel if the measured resistivity is 1,000 ohm-cm or less, and/or if the sulfate concentration is 2,000 ppm (0.20%) or greater, and/or if the pH is 5.5 or less. Also, a soil with a chloride concentration greater than or equal to 500 ppm is considered deleterious to ferrous metals.

Soil resistivity, chloride content, soluble sulfate content, and pH were measured on a mixture of alluvial soils collected from Borings HS-2 and HS-4 at a depth of 0 to 10 feet to assess the potential corrosive effects on concrete and metals. Results of this testing are presented in Table B1 (**Appendix B**) and are discussed below.

- The measured resistivity value of the soil sample was 9,518 ohm-cm (which classifies

as moderately corrosive to ferrous metals, per Los Angeles County Department of Public Works classification).

- Chloride content of the soil sample was 186 parts per million (ppm). Soils in this chloride content range have a negligible effect on concrete or ferrous metals.
- Sulfate content of the soil sample was 0.02 percent. Soils in this sulfate content range have a negligible effect on concrete per ACI 318 (Table 4.3.1).
- Based on the pH value measured in the soil sample (7.81), acidity of site soils is low and not anticipated to increase soil corrosivity.

7.0 SEISMIC CONSIDERATIONS

7.1 Introduction

The subject property is within the Transverse Ranges Geomorphic Province of southern California. The Transverse Ranges consist of a series of west-trending mountains and intervening valleys. These ranges largely resulted from north-south compression, ultimately causing east-west-trending folds and thrust faults. The San Fernando section of the Sierra Madre Fault Zone is located within 0.5 miles of the site. Other faults in the vicinity of the site include the Northridge blind thrust fault, Verdugo reverse fault, and San Gabriel right-lateral strike-slip fault.

The southern California region is traversed by the San Andreas fault, which is a transform boundary between the Pacific Plate and the North American Plate. The San Andreas fault is part of a system of northwest-striking, right-lateral faults that are generally historically active, as evidenced by the June 28, 1992 Landers (M7.3) earthquake. The San Andreas fault is located approximately 22 miles to the north-northeast.

The southern California region is seismically active and commonly experiences strong ground shaking resulting from earthquakes along active faults. Earthquakes along these faults are part of a continuous, naturally occurring process, which has contributed to the characteristic landscape of the region. Common geologic hazards associated with earthquakes are discussed below and include **Ground Rupture**, **Ground Motion**, and **Ground Failure**.

7.2 Ground Rupture

Earthquake faults in southern California that are defined as active may present a hazard of fault rupture. The California Department of Conservation, California Geologic Survey (CGS), Special Publication 42 defines an active fault as one which has had surface displacement within Holocene time (about the last 11,000 years).

The potential for ground rupture on the site was evaluated utilizing published maps and references. Review of the Earthquake Zones of Required Investigation map for the San Fernando Quadrangle, provided digitally on the CGS EQZ web application, indicate that there are not any known active faults (i.e. Earthquake Fault Zones) within the project site, per Alquist-Priolo criteria (see **Figure C1**). However, the nearest Earthquake Fault Zone is delineated for the Sierra Madre Fault Zone located approximately 1500 feet south of the project site. Movement along a segment of this fault zone produced the 6.7M 1971 San Fernando earthquake, which resulted in apparent offsets along a complex set of discontinuous thrust faults. The active **San Andreas fault** is located about 23.1 miles northeast of the project site.

Numerous blind (buried) thrust faults are present in the San Fernando Valley. The January 17, 1994 Northridge (M6.8) Earthquake occurred on a south-dipping blind thrust fault which uplifted the Santa Susana Mountains at least 40 cm. These faults were not exposed at the ground surface and are not considered to be a potential fault-related ground rupture hazard to the project site.

Based on our research, the possibility of fault-related ground rupture at the site is considered to be low over the design life of the proposed development.

7.3 Ground Motion

7.3.1 General

The project site is located in southern California, which is in a geologically and seismically active region where large magnitude, potentially destructive earthquakes are common. Therefore, it is reasonable to assume that moderate or large magnitude earthquakes along any of the numerous faults in the region are expected to produce strong ground shaking at the project site in the future.

The current standards for construction provided in the 2019 California Building Code are designed to safeguard against major failures and loss of life, but are not intended to limit damage, maintain functions or provide for easy repair. Per Structural Engineers Association of California (SEAOC), conformance to these recommendations does not constitute any kind of guarantee or assurance that significant structural damage will not occur in the event of a maximum level of earthquake ground motion. However, it is reasonable to expect that a well-planned and constructed structure will not collapse in a major earthquake and that protection of life is reasonably provided, but not with complete assurance.

Although research on earthquakes during the last fifty years has greatly enhanced the level

of understanding of earthquake faulting in California, the record is much too short to constrain behavior of all faults in southern California and the attenuation characteristics of all areas relative to each future potential earthquake. Predicted accelerations should, therefore, be considered **rough estimates** rather than precise facts and ground motions from future earthquakes may exceed the predicted accelerations. Neither the **Time, Location, nor Magnitude** of an earthquake can be accurately predicted at this time.

7.3.2 Earthquake Magnitude

Earthquake **magnitude** is a quantitative measure of the strength of an earthquake or the strain energy released by it, as determined by seismographic or geologic observations. It does not vary with distance or the underlying earth material. This differs from **intensity**, which is a qualitative measure of the effects a given earthquake has on people, structures, loose objects, and the ground at a specific location. Intensity generally increases with increasing magnitude and in areas underlain by unconsolidated materials and decreases with distance from the epicenter. Approximate locations of historic earthquakes are shown on the appended Fault and Earthquake Epicenter Location Map (**Figure C2**).

The table below presents the distances to nearby significant faults located within about 20 miles of the project site. The site-to-source distances were obtained from the USGS fault parameters online database (based on 2008 National Seismic Hazards Map). The maximum earthquake magnitudes (M) were calculated using the Ellsworth-B magnitude-area scaling relationship presented in Appendix E of the Uniform California Earthquake Rupture Forecast, Version 3 (UCERF3).

Table 4 – Summary of Major Known Faults Within 20 Miles

Distance (Miles)	Fault Name	Dip Direction	Slip Sense	Magnitude
0.7	Sierra Madre (San Fernando)	N	thrust	6.7
0.7	Sierra Madre Connected		reverse	7.3
0.9	Northridge	S	thrust	6.9
3.2	Verdugo	NE	reverse	6.9
3.7	San Gabriel	N	strike slip	7.3
5.9	Santa Susana, alt 1	N	reverse	6.9
6.4	Sierra Madre	N	reverse	7.2
11.8	Holser, alt 1	S	reverse	6.9
14.0	Hollywood	N	strike slip	6.7
14.3	Elysian Park (Upper)	NE	reverse	6.7
14.8	Santa Monica Connected alt 2		strike slip	7.3
15.9	Raymond	N	strike slip	6.8

DISTANCE (MILES)	FAULT NAME	DIP DIRECTION	SLIP SENSE	MAGNITUDE
17.2	Simi-Santa Rosa		strike slip	6.9
17.9	Newport Inglewood Connected alt 1		strike slip	7.6
18.9	Puente Hills (LA)	N	thrust	7.0
19.8	Oak Ridge Connected		reverse	7.4

7.3.3 Peak Ground Acceleration

The peak ground acceleration consistent with maximum considered earthquake geometric mean (MCE_G) ground motions was evaluated at the site for stiff soil conditions (Site Class D). The mapped MCE_G peak ground acceleration (ASCE 7-16, Figure 22-9) adjusted for Site Class effects (PGA_M) was determined using the OSHPD Seismic Design Maps web tool by the Structural Engineers Association of California (SEAOC). Based on this evaluation, a PGA_M of 1.10g would be produced by MCE_G ground motions. This mapped value incorporates a 2% probability of exceedance in 50 years (i.e. 2,475-year return period).

Site-specific ground motion procedures were also used to evaluate the MCE_G peak ground acceleration, PGA_M, in accordance with ASCE 7-16 Section 21.5. A probabilistic geometric mean PGA of 1.13g was determined using the uniform hazard ground motion (UHGM) with a 2% probability of exceedance in 50 years. The UHGM was calculated using the *USGS Risk-Targeted Ground Motion Calculator*. A deterministic geometric mean PGA of 1.04g was calculated as the largest 84th-percentile PGA for the characteristic earthquake. Based on UCERF3 fault data and a weighted average of the 2014 NGA West-2 ground motion prediction equations (GMPEs), the characteristic earthquake that will produce the largest 84th-percentile PGA at the site will occur on the San Fernando section of the Sierra Madre fault zone. The site-specific PGA_M was taken as the lesser of the probabilistic and deterministic geometric mean peak ground accelerations, but no less than 80 percent of the mapped PGA_M.

Based on our evaluation, the MCE_G peak ground acceleration (PGA_M) used for geotechnical applications is 1.04g.

7.3.4 Deaggregation of Fault Hazard

A probabilistic analysis evaluates a range of magnitudes from 5.0 to the maximum magnitude for each fault. However, the dominant magnitude which statistically generates the peak acceleration within a limited time period (e.g. 2,475 years) is typically less than the maximum magnitude for a given fault. In order to evaluate what dominant magnitude-distance combination produces the site PGA, the hazard was deaggregated using the

USGS *Beta – Unified Hazard Tool* and an estimated average shear wave velocity ($V_{S,30}$) for the upper 100 feet (~30 meters) of 360 meters per second based on Site Class C/D boundary conditions. Review of the magnitude-distance contributions to the hazard (**Table C1**) indicates that the site PGA would most likely be generated by a magnitude 6.3 earthquake within 4 km of the project site, as shown graphically in **Figure C3**. The dominant fault controlling maximum potential ground accelerations is the San Fernando section of the Sierra Madre fault zone, with secondary impacts from the Santa Susana fault.

The peak ground acceleration used for evaluation of liquefaction potential and associated phenomena was corrected to account for an earthquake duration typical of an "average" magnitude 7.5 event. This was accomplished by applying a magnitude scaling factor based on the empirical relationship by Youd and Idriss (1997). Based on a magnitude 6.3 earthquake, a corrected peak ground acceleration of 0.66g was used in our liquefaction analyses (see **Appendix D**).

7.4 Ground Failure

Ground Failure is a general term describing seismically induced secondary permanent ground deformation caused by strong ground motion. This includes liquefaction, lateral spreading, seismic settlement of poorly consolidated materials (dynamic densification), differential materials response, slope failures, sympathetic movement on weak bedding planes or non-causative faults, shattered ridge effects and ground lurching. Review of the Earthquake Zones of Required Investigation map for the San Fernando Quadrangle indicates that the subject site is located within an area of required investigation for liquefaction (see **Figure C1**).

Potential secondary seismic hazards to the building are described below. The potential for liquefaction and seismic settlement are evaluated in detail in **Appendix D**. The potential for adverse impacts to the proposed development from liquefaction and other secondary seismic effects is considered to be low to non-existent provided that our recommendations are incorporated into the future grading plan and implemented during construction.

7.4.1 Potential for Liquefaction and Associated Ground Failure

Liquefaction is a phenomenon in which pore water pressure generated by earthquake shaking causes sudden, temporary reduction or loss of shear strength in saturated soils with negligible to low plasticity. Structures founded on liquefied soils may experience subsidence and/or lateral movement. Potential for seismic soil liquefaction and the magnitude of associated liquefaction-induced ground failure (i.e. seismic settlement, lateral spread displacements, and surface manifestation) were evaluated using data from

hollow-stem auger Boring HS-4. The calculation procedures described in the following references were used herein for our assessment:

- *Cyclic Liquefaction and its Evaluation Based on the SPT and CPT*, by Robertson and Wride, 1997.
- *Liquefaction Resistance of Soils: Summary Report* (NCEER/NSF, 2001), by Youd, Idriss, et al.
- *SPT-Based Probabilistic Assessment of Seismic Soil Liquefaction Potential*, by Cetin, et. al., 2004.
- *Revised Multilinear Regression Equations for Prediction of Lateral Spread Displacement,* Youd, Hanson, Corbett, and Bartlett, ASCE Journal of Geotechnical and Geoenvironmental Engineering, December 2002.
- *Evaluation of Settlements in Sands Due to Earthquake Shaking,* Tokimatsu and Seed, ASCE, August, 1987.

Additionally, our assessment of liquefaction potential and associated phenomena at the site was performed in accordance with the following guidelines:

- *Review of Geotechnical Reports Addressing Liquefaction,* memorandum from Los Angeles County Department of Public Works (LACDPW), dated February 24, 2009.
- *Special Publication 117A: Guidelines for Evaluating and Mitigating Seismic Hazards in California*, revised and re-adopted by California State Mining and Geology Board, September 11, 2008.
- *Manual for Preparation of Geotechnical Reports*, LACDPW, July 2013.

Factors that affect potential for liquefaction triggering at the site include estimated ground motion parameters, engineering characteristics of site soils, historic high ground water depth, and proposed grading (i.e., removals and/or raising of grade). Based on our site-specific ground motion hazard analysis, the maximum considered earthquake geometric mean (MCE_G) peak ground acceleration (PGA_M) generated by a magnitude 6.3 earthquake is 1.04g. This magnitude-acceleration pair is considered to be equivalent to a magnitude 7.5 earthquake (i.e., the "standard" magnitude used to evaluate liquefaction triggering) and a corresponding PGA of 0.66g. This magnitude-acceleration pair was used in our liquefaction potential analyses. Boring $N_{1,60}$ values from SPT blow count data, soil classifications, and measured fines content were used to characterize site soils at each sample depth at Boring HS-4. As discussed in the Ground Water section of the report, the historic high ground water depth at the site is estimated to be greater than 15 feet beneath existing grade. The liquefaction potential analyses performed include the recommended removal and re-compaction of site soils.

Results of our liquefaction assessment for the analyzed boring location at the site is graphically summarized herein on **Figure D1**, SPT-Based Assessment of Seismic Soil Liquefaction Potential. This sheet present plots of depth vs. normalized SPT blow count corrected for fines content $(N_1)_{60,cs}$, laboratory fines content, FC, cyclic shear stress induced by earthquake shaking, resistance to liquefaction caused by cyclic shear stress, and cumulative settlement that would be caused by earthquake shaking (before and after recommended removals). The sheets also display ground water depths at the time of the drilling and estimated historic high ground water depth.

Based on the results, the potential for liquefaction in soil layers beneath the proposed structure is low, and that no significant seismically-induced ground surface settlement is anticipated. Potential for lateral spreading is believed to be negligible since laterally continuous, potentially liquefiable soil layers with a relative density corresponding to $N1_{60} \leq 15$ are not present at the site.

Calculations for Standard Penetration Test Corrections, Liquefaction Triggering and Seismically-Induced Settlement are included in **Appendix D**.

7.4.2 Potential for Other Modes of Ground Failure

Earthquake-induced slope failures include activation and reactivation of landslides, rock falls, debris flows and surficial failures. Based on location of the proposed building within the canyon, the potential for earthquake-induced slope failures to adversely impact the proposed development is considered negligible.

8.0 GENERAL CONCLUSIONS AND GRADING RECOMMENDATIONS

8.1 Earthwork and Grading Recommendations

All grading and earthworks shall be observed and tested by the Project Geotechnical Engineer, Engineering Geologist, and/or their authorized representatives. These tasks should be performed in accordance with the recommendations contained in this report, in accordance with the current Building Code requirements of the County of Los Angeles, and in accordance with this firm's Recommended Earthwork Specifications (See **Appendix E**).

8.1.1 Site Preparation

The purpose of site preparation is to clear the site of organics (vegetation), topsoil, and unsuitable materials, and to grade the site to provide a firm base for compacted fill, as applicable. All vegetation, topsoil, debris, existing disturbed fills, undocumented artificial fill, and unsuitable alluvial soils should be removed from ground surfaces on which compacted fill will be placed.

8.1.2 Removals

To mitigate potential compressibility of near-surface soils and to provide a uniform bearing surface for at-grade and subterranean foundation elements, remedial removals are recommended. The depth and lateral limits of removals are shown on the attached Geotechnical Map (**Plate I**) and Cross Sections (**Plate II**) and are discussed below:

- The existing alluvial soils and artificial fill beneath the proposed building should be completely removed to a depth of 10 feet beneath existing soil subgrade and replaced as a compacted fill. At subterranean locations, or where proposed grade is lower than existing grade, the removals should extend at least 3 feet beneath bottom of proposed footings. Recommended removals for the building should extend laterally beyond proposed adjacent retaining walls.
- The recommended removal bottoms should extend outside the foundation footprint at a 1:1 or flatter projection from the bottom of the foundation element down to the recommended removal depth. If the tract boundary along the east side of the building is a constraint to achieve structural removals, temporary shoring or slot-cutting may be required.
- Transitions between deeper and shallower removals (i.e. at edges of subterranean footprint) should be slope at a 2:1 (h:v) gradient, or shallower.
- The recommended removals are intended to limit total settlement of foundations subjected to anticipated loads (dead plus live) to 1.0 inch, or less. If design (dead plus live) loads warrant the revision of foundation dimensions or induce stresses to the subgrade that exceed the allowable bearing capacity, the recommended removal depths must be re-evaluated.
- In areas of proposed driveways and parking, existing soils should be removed and replaced with compacted fill to a depth of at least 12 inches below pavement subgrade or existing grade, whichever is deeper, to provide a uniform base for the pavement.

Removal areas shall be observed by the Geotechnical Engineer, or his authorized representative, prior to placement of compacted fill, to verify the removal of all unsuitable materials. Soft soils identified during field observations should be evaluated and may warrant additional removals. The exact depth and extent of necessary removals will be decided in the field during the grading operations, when observations and more location-specific evaluations can be performed.

8.1.3 Preparation of Removal Bottoms

After the ground surface to receive fill has been exposed, it shall be ripped to a minimum depth of six inches, aerated or moistened to Optimum Moisture Content or above, and thoroughly mixed to obtain a nearly uniform moisture condition and uniform blend of materials, and then compacted to at least 95 percent of Maximum Dry Density, per ASTM D1557.

8.1.4 Fill Materials

Based on material types encountered during our investigation, on-site soils within the range of depths of proposed removal and re-compaction, except debris and organic matter, classify predominantly as poorly graded sands with gravels with interbeds of silty sand and clayey sand. When thoroughly mixed and placed as a compacted fill these soils are considered suitable for support of the proposed building. Rocks or hard fragments larger than four (4) inches in dimension should not compose more than 25 percent of a fill and/or fill lift. Irreducible rock or similar material larger than eight (8) inches in dimension should not be placed in the fill without approval of the Geotechnical Engineer.

8.1.5 Placement and Compaction of Fill Materials

All fill materials should be placed in lifts not exceeding 8 inches prior to compaction, then aerated or water-conditioned to Optimum Moisture Content (OMC), or above, then thoroughly mixed to produce a nearly uniform moisture content and uniform blend of materials, and then compacted to at least 95 percent of Maximum Dry Density, in accordance with ASTM D1557.

8.1.6 Shrinkage and Bulking

Based on measured in-situ density values within the range of the recommended removal depths and assuming that fill will be compacted to an average of about of 96 percent of maximum dry density (per ASTM D1557), it is anticipated that soil shrinkage (i.e., the reduction in initial soil volume caused by compaction of excavated soil divided by the initial soil volume prior to excavation) will be small. However, actual shrinkage (or bulking) quantities will depend on the degree of compaction achieved during earthwork operations. The supervising civil engineer should design pad grades with sufficient flexibility to accommodate a possible shrinkage or bulking of fill of up to 5 percent of the total grading volume.

8.1.7 Oversize Material

Oversized, irreducible rocks are likely present in the alluvium within the Lopez Canyon drainage. Cobbly layers may be encountered within the structural removals or over-

excavation of pavement areas. Oversized material generated as a result of cut and removals will require special handling and off-site disposal.

8.1.8 Rippability

The project site is underlain by undocumented artificial fill and alluvial deposits that can be ripped using conventional grading equipment.

8.1.9 Import Fill

All imported fill shall be observed, tested and approved by this firm prior to use at the project site. Import soils to be used in the building pad areas should have an expansion index of less than 20 and corrosive characteristics that are equally or less detrimental than that of the existing onsite soils.

8.2 Natural Slopes

There are ascending 2:1 (h:v) gradient or flatter natural slopes to the east and west of the proposed building. The toe of the east-facing natural slope is 65 to 80 feet to the west of the proposed building. The toe of the west-facing natural slope is at least 100 feet to the east of the proposed building. The bedrock bedding dips are neutral to the ascending natural slopes, which are considered geologically grossly stable.

8.3 Low Impact Development

Though not shown on the plan, the Civil Engineer has indicated potential low impact development (LID) stormwater quality control measures within new vehicle pavement areas proposed to the south of the building. Based on preliminary infiltration testing at the project site, LID stormwater quality control measures with an infiltration component are considered feasible. A corrected infiltration rate of 1.6 inches/hour may be used for preliminary design and siting. The type and siting of LID devices should be reviewed by this office to assess compatibility with the recommendations in this report and to verify conformance to GMED LID Guidelines.

8.4 Oil Wells and Water Wells

No oil wells were observed on the site. In addition, review of the Munger Map Book and California Division of Oil and Gas records (DOGGR website) indicates that no oil wells have been drilled on or immediately adjacent to the site. The closest mapped oil well (dry hole) was located approximately 3,200 feet down canyon (API #0403706063) and currently has a plugged status.

Review of Los Angeles County Flood Control District (LACFCD) website indicates that no water wells are located on the project site. The closest active water well, Well Number

1459D, is located approximately 5,850 ft to the east-southeast.

If an oil well or water well is encountered during future grading/construction operations at the site, the location should be surveyed and the well conditions evaluated immediately.

8.5 Sewage Disposal

It is our understanding that sewage disposal will be by an on-site wastewater treatment system (OWTS). Details regarding OWTS improvements or modifications to the existing on-site wastewater treatment plant have not been made available.

8.6 Drainage

Roof drainage should be collected in gutters and downspouts and discharged at approved locations away from the proposed structure.

Water should not be allowed to stand or pond on structural pads, parking areas, level graded areas, or constructed slopes. Water that flows onto these areas should be conducted to appropriate discharge locations via non-erodible drainage devices. Drainage devices should be inspected periodically and should be kept clear of debris. Drainage and erosion control should be designed in accordance with the standards set forth in the 2020 County of Los Angeles Building Code.

Any modification of the grade of building pad, parking areas, etc. after certification by the project Civil Engineer could adversely affect drainage at the site. Future landscaping, construction of walkways, planters and walls, etc. must never modify site drainage unless additional measures to enhance drainage (such as area drains, additional grading, etc.) are designed and constructed in compliance with applicable County of Los Angeles regulations.

8.7 Landscaping

All final grades should be sloped away from the building foundations to allow rapid removal of surface water runoff. No ponding of water should be allowed adjacent to the foundations. Plants and other landscaped vegetation requiring excessive watering should be avoided adjacent to the building foundations. Should landscaping be constructed, an effective water-tight barrier should be provided to prevent water from affecting the building foundations.

8.8 Planters

Planters located adjacent to proposed building should either be sealed or provided with drains that discharge irrigation water well away from footing foundations of the proposed buildings.

9.0 FOUNDATION RECOMMENDATIONS

Conventional shallow column footings and continuous footings are considered adequate for the support of the proposed structure at the site provided the footings are supported entirely on competent compacted fill soils. Footing design should be in accordance with the minimum foundation requirements of the 2020 County of Los Angeles Building Code.

Once the design and foundation loading configuration proceeds to a more finalized plan, the recommendations within this report should be reviewed and revised, if necessary. If the proposed building loads will exceed those estimated herein, the potential for settlement should be reevaluated. Additionally, observations made during earthworks for this project may warrant revisions to the recommendations herein.

9.1 Conventional Shallow Footing Foundations

9.1.1 Assumptions

- The **expansion potential** of foundation subgrades is **very low**.
- Minimum continuous footing width: 15 inches (2-story) and 18 inches (3-story and 4-story).
- Minimum column footing width: 24 inches.
- Minimum embedment of footing foundations beneath lowest adjacent soil subgrade elevation: 36 inches.
- Bearing foundation material: Certified compacted fill (Cef).
- Footings are not influenced by other footing loads.
- Removals beneath the proposed grade: per the Removals section of this report.

9.1.2 Vertical Bearing Capacity Parameters

- Maximum allowable static plus sustained live load bearing pressure for footing foundations (with minimum required embedment and width): 3,000 psf.
- Increase in allowable bearing pressure: 300 psf for each additional foot of embedment or footing width, up to a maximum of 4,500 psf. Additional grading removals may be required for foundation elements deeper than 36 inches.
- Increase to allowable (static plus sustained live load) bearing pressure when considering short-term seismic loads or wind loads: One-third.

9.1.3 Settlement

Total settlement due to static loading of footing foundations designed as recommended

above is estimated to be about 1.5 inch or less, and differential settlement of footing foundations over a horizontal distance of 30 feet may be assumed to be about 1 inch, or less. Foundation settlement caused by earthquake shaking is expected to be negligible.

9.1.4 Resistance to Lateral Loads

- Lateral passive pressure that can be developed against the side of footing foundations is 250 psf per foot of depth beneath lowest adjacent soil subgrade, to a maximum of 2,500 psf. If care is not taken to compact soil adjacent to footing foundations or if the soil surface adjacent to footing foundations is not protected against erosion, the passive resistance of soil provided by the upper one foot of foundation embedment should be neglected.
- A one-third increase in allowable passive pressure may be used for short-term seismic and wind loads.
- The allowable frictional resistance that can be developed beneath the base of footing foundations may be calculated by multiplying the dead load by a friction coefficient of 0.38.
- The passive pressure and frictional resistance may be used concurrently without reduction.

9.1.5 Auxiliary Structures

Small auxiliary structures, such as block walls up to 6 feet high, planter walls or trash enclosures, which will not be tied-in to the proposed structures, may be supported on conventional footing foundations bearing on a minimum of 12 inches of engineered fill. The foundations may be designed for a bearing pressure of 1,500 psf and should be a minimum of 12 inches in width and 18 inches in depth below the lowest adjacent grade.

9.1.6 Additional Foundation Recommendations

Additional recommendations for shallow foundations that should be incorporated into the design and construction of future structures, as applicable, are presented below.

- All continuous footing foundations shall be reinforced with at least four #4 steel bars (two placed near the top, and two placed near the bottom of the foundations) or by the requirements of the applicable structural design code for the design loadings, whichever is greater.
- Isolated footings that support exterior structural columns shall be structurally connected to the main foundation system in at least two orthogonal horizontal directions.

- The sides of footings that support interior columns should be connected to the closest adjacent (isolated spread footing and/or continuous footing) foundations using reinforced concrete tie beams. The tie beams should be at least 12 inches wide and should be embedded at least 12 inches beneath pad grade. Reinforcement of the tie beams should be at least ρ_{min} (200/f_y).
- The footing excavations should be pre-moistened to above optimum moisture content and free of all loose or sloughed material prior to placement of concrete. The footing area should not be allowed to desiccate prior to placing concrete.
- Foundation excavations should be observed by a representative of this firm prior to placement of forms, reinforcement, or concrete, to verify that the excavations are embedded into the recommended material and prepared as specified herein.

9.2 Concrete Slabs-On-Grade

9.2.1 General

Concrete slab-on-grade floors shall be supported on a fill subgrade compacted to 95 percent of Maximum Dry Density (per ASTM D1557). The design of the required slab thickness and reinforcement is under the purview of the structural engineer. The following are minimum recommendations for design of conventional slab-on-grade floors based on a medium expansion potential of the fill subgrade beneath the floor slabs.

- Slab-on-grade thickness: at least 4 inches.
- Slab reinforcement: #3 Rebar at 18" each way.
- Concrete used in floor slabs should satisfy the requirements presented in Chapter 19 of the California Building Code.

In order to minimize shrinkage cracking of concrete slab-on-grade, the slabs should be constructed using low-slump concrete and with crack control joints in both horizontal directions. In any case, concrete used in slabs-on-grade should satisfy the requirements of Chapter 19 of the California Building Code.

In order to reduce moisture intrusion from utility trenches beneath slabs on grade, utility trenches should be plugged with lean concrete or concrete slurry at foundation perimeters. The plug should extend under the full width of the footing foundation and should extend at least 24 inches along the utility trench in the direction of the slab.

Deflections, shears, and moments in concrete slabs-on-grade caused by applied vertical pressures up to 1000 psf may be estimated using a coefficient of vertical subgrade reaction, k_v. The value k_v is defined as the pressure applied by a concrete slab to the subgrade

divided by the resulting settlement of the subgrade and is a function of the subgrade soil type, soil stiffness, dimensions of the loaded area, base thickness, and base type. A k_v value of 120 psi may be used to represent the soil subgrade at the project site. These values should be adjusted based on the actual dimensions of a loaded area. The coefficient of vertical subgrade reaction for a loaded area of specific width, k_b, may be determined using the following equation, where b equals the width of the loaded area in feet:

$$k_b = k_v [(b + 1) / 2b]$$

9.2.2 Slab Underlayment

Concrete slabs-on-grade may be cast directly on compacted soil subgrade where the migration of moisture up through the slab is not a concern. Where moisture may damage floor coverings such as carpet, hardwood, tile, linoleum, etc., mitigation to help prevent water vapor and capillary rise from penetrating slab-on-grade floors is recommended. Slab underlayment to mitigate vapor transmission is not under the purview of the geotechnical engineer, however, the following specifications based on standard local practice may be incorporated into the design:

- 4 inches of aggregate base should be placed and compacted over the soil subgrade (to act as a capillary break) and overlain with a plastic membrane (10-mil "Visqueen" vapor retarder or approved equivalent) to prevent transmission of water vapor. The plastic membrane should then be overlain by an additional 2-inch thick protective cushion of compacted, well-graded clean sand.
- Alternatively, the omission of the capillary break and placement of an engineered under-slab vapor barrier (e.g. Stego Wrap 15-mil Vapor Barrier) directly between the compacted subgrade surface and concrete slab-on-grade is also acceptable, provided the barrier is installed in accordance with the manufacturer's instructions.
- The selected membrane should be properly lapped and sealed at all seams and around all plumbing structures and other openings. Care should be taken to prevent sharp objects in the subgrade and/or structures from puncturing the membrane.

Suitability of proposed sand cushion materials should be evaluated in our laboratory prior to transporting them to the subject site.

9.3 Expansive Soils Considerations

Recommendations are provided in this report based on the potential expansion of fill soils, including recommendations for footing embedment and reinforcement. These recommendations depend on the expansion potential that characterizes the foundation soils. The expansion potential of in-situ soils when removed, mixed, and replaced as compacted

fill may be assumed for preliminary design purposes to be **very low** (per ASTM D4829 expansion potential classification).

Geotechnical observation of the soils exposed in the foundation excavations should be performed and the Expansion Index measured (if warranted) in order to verify the applicability of minimum parameters presented herein for design and construction of footing foundations.

9.4 Soil Corrosivity Considerations

Based on the results of sulfate content testing, corrosivity of soils at the site to concrete is expected to be negligible. Therefore, Type I or II Portland cement may be used for concrete structures that will be in contact with site soils. Based on the results of resistivity testing site soils classify as moderately corrosive to metals.

The on-site soils when excavated, mixed and placed as a compacted fill are not anticipated to exhibit corrosive characteristics to concrete or ferrous metals. However, the following precautionary measures may be implemented to mitigate for corrosion potential:

- Steel and wire reinforcement in concrete structures cast against site soils should have at least 3 inches of concrete cover.
- Buried utilities made of ferrous metals should be protected with polyethylene extruded coating, or with tape over primer per AWWA Standard C209 or C203, or with hot-applied coal tar enamel, or as recommended by manufacturers of the utility conduits.
- Metallic pipes that penetrate concrete structures should be surrounded by plastic sleeves, rubber seals, boots, or other dielectric material in order to prevent contact between the pipe and the concrete structure.
- Below-grade ferrous metals should be electrically insulated (isolated) from above-grade metals.

Additional corrosivity testing of soils from the subgrades of footings and floor slabs should be performed following site grading. A corrosion specialist may provide final recommendations for mitigation of potential corrosion of metals and concrete.

10.0 RETAINING WALLS

The following recommendations may be used for design and construction of retaining walls retaining up to 12 feet of backfill that are shown on the current site plan.

10.1 Assumptions

Retaining walls should be founded on clean, non-deleterious, competent compacted fill. The

earth materials exposed at the bottom of the proposed retaining wall footing should be observed by the Soils Engineer/Engineering Geologist or his representative. Recommendations for remedial removals beneath retaining wall footings are presented in the Removals section of this report. If the earth materials in the bottom of the foundation excavation appear to be disturbed, they should be removed and replaced with compacted fill.

10.2 Footing Parameters

Footings that will support conventional retaining walls shall be designed as recommended above for conventional shallow footing foundations for the building, except where superseded below.

10.2.1 Vertical Bearing Capacity

- Minimum footing depth: 24 inches below lowest adjacent soil subgrade.
- Minimum footing width: 24 inches.
- Maximum allowable static plus sustained live load bearing pressure for footing foundations (with minimum required embedment and width): 2,500 psf.
- Allowable increase in bearing pressure for footing embedment deeper than minimum required embedment: 200 psf per additional foot, up to 3,500 psf max.

10.2.2 Resistance to Lateral Loading

- Lateral passive pressure that can be developed against the side of footing foundations is 250 psf per foot of depth beneath lowest adjacent soil subgrade. Passive resistance should be reduced to 125 psf per foot of depth for footings adjacent to sloping ground.
- If care is not taken to compact soil adjacent to footing foundations or if the soil surface adjacent to footing foundations is not protected against erosion, the passive resistance of soil provided by the upper one foot of foundation embedment should be neglected.

10.3 Lateral Earth Pressures

Retaining walls (including building subterranean walls) should be designed to resist lateral (static) earth pressures equal to those exerted by an equivalent fluid with a density not less than the following for active (free-standing) and at-rest (restrained) conditions. A wall is considered restrained if it is prevented from movement greater than 0.002H (H = height of wall in feet) at the top of the wall.

Table 5 – Lateral Static Earth Pressure

Backfill Slope (Horizontal to Vertical)	Equivalent Fluid Density Value	
	Free-Standing Cantilever Retaining Walls (active conditions)	Retaining Walls Restrained Against Rotation (at-rest conditions)
Level	38 pcf	55 pcf
2:1 max	59 pcf	75 pcf

These equivalent fluid density (EFD) values assume backfill consisting of compacted fill materials with low expansion potential and plasticity, and that drainage will be provided behind walls in order to prevent buildup of water pressure. If soil retained by walls is not drained, the walls should be designed to resist hydro-static water pressures in addition to the applicable active or at-rest soil pressures discussed above.

Additional lateral pressures may be exerted onto building subterranean walls by surcharge loads from adjacent footings that will support at-grade portions of the building. The magnitude of the lateral pressures from footing surcharge loads is dependent on parameters of the footing that is exerting the surcharge, including footing width, applied bearing pressure, and the clear horizontal distance to the subterranean wall. In general, lateral pressures exerted on subterranean walls by adjacent footing loads can be minimized (not eliminated) by maintaining a 1:1 (h:v) projection, or shallower, between the bottom of the wall footing and bottom of the adjacent at-grade footing exerting the surcharge. Footing surcharge conditions should be evaluated on a case-by-case basis upon receipt of the foundation plan.

Additional lateral pressures may be exerted against retaining walls by traffic loads. Potential traffic loads may be represented by a vertical surcharge load of 250 psf. A uniform lateral surcharge pressure against the retaining wall and base can be taken as one-third of this vertical surcharge load.

Walls that will retain more than 6 feet of earth materials shall be designed to resist seismic earth pressures. The total seismic earth pressure (P_{AE}) is equal to the sum of the static lateral earth pressure (P_{static}) and dynamic load increment (ΔP_{AE}). The dynamic load increment can be represented by an equivalent fluid with a density not less than the following:

Table 6 – Dynamic Load Increment

Backfill Slope (Horizontal to Vertical)	Equivalent Fluid Density Value	
	Free-Standing Cantilever Retaining Walls (active conditions)	Retaining Walls Restrained Against Rotation (at-rest conditions)
Level	53 pcf	85 pcf
2:1 max	87 pcf	--

Dynamic load increments are calculated as follows in accordance with Administrative Manual S004.0 issued by GMED:

Restrained wall with level backfill: $\Delta P_{AE} = 0.5\gamma H^2(0.68\ PGA_M/g)$

Unrestrained wall with level backfill: $\Delta P_{AE} = 0.5\gamma H^2(0.42\ PGA_M/g)$

Unrestrained wall with sloping backfill: $\Delta P_{AE} = 0.5\gamma H^2(0.70\ PGA_M/g)$

where γ is the moist unit weight of retained soil (120 pcf), H is the retained height, and PGA_M (1.04g) is the maximum considered earthquake geometric mean (MCE_G) peak ground acceleration.

The equivalent fluid pressures provided for the dynamic load increment are in addition to the equivalent fluid density (EFD) values provided for active and at-rest conditions under static loading. The resultant seismic earth pressure acts at about H/3 from the base of the wall.

10.4 Retaining Wall Drainage

Retaining walls should be provided with a freeboard of at least 6 inches and a standard surface backdrain swale, if applicable (see **Retaining Wall Drainage Detail**). All drainage should flow to the toe of the adjacent slope using non-erodible devices. In order to reduce infiltration of surface water behind retaining walls, the surface backdrain swale should be paved or the surface of the backfill covered with at least 12 inches of low permeability fill for a horizontal distance equal at least to the height of the wall.

A backdrain system should be provided to prevent development of hydrostatic water pressures behind retaining walls. The referenced **Retaining Wall Drainage Detail** and **Alternate Wall Drainage Detail** show drainage recommendations with specifications for drainage materials behind the walls. If a drainage composite is selected for use in lieu of drainage rock it should consist of a high-strength core (compressive strength > 15,000 psi) and a high-flow (flow rate > 140 gpm/ft^2) non-woven filter fabric. At locations where moisture migration through walls is undesirable, the side of the wall in contact with backfill soils should be waterproofed. The drainage composite shall be compatible with the waterproofing materials.

10.5 Retaining Wall Backfill

Retaining wall backfill to be certified by this office must be placed in accordance with our recommendations presented in this report and observed and tested by our personnel during placement. Under no circumstances will retaining wall backfill be certified by this office if our recommendations concerning backfill placement are not followed, or if our personnel do not observe the installed backdrain and test the backfill during placement.

To prevent the buildup of lateral soil pressures in excess of the recommended design pressures, over-compaction of fill behind walls should be avoided by placement of wall backfill in lifts not exceeding six inches in thickness and by compacting each lift with hand-operated or self-propelled compaction equipment that weighs less than 1000 pounds. Use of heavier equipment for compacting backfills should be limited to those areas at least 8 feet from retaining walls. If these precautions cannot be maintained, then the respective retaining walls should be either be redesigned to support the significantly higher lateral loads or the walls should be braced to support the higher load during placement and compaction of backfill.

11.0 GROUND MOTION HAZARD ANALYSIS

11.1 General

Based on site soil properties, the site is classified as Site Class D (stiff soils). The mapped risk-targeted MCE_R spectral acceleration parameter at a period of 1 second (S_1) is 0.788. Due to deficiencies in capturing site response for Site Class D soils using the general procedure, site-specific ground motion hazard analysis was performed as required by ASCE 7-16 Section 11.4.8 since S_1 is greater than or equal to 0.2.

11.2 MCE_R Ground Motion Hazard Analysis

Risk-targeted maximum considered earthquake (MCE_R) ground motion hazard analysis was completed using the procedures outlined in ASCE 7-16 Section 21.2.

Probabilistic spectral response accelerations were determined using the uniform hazard ground motion (UHGM) with a 2% probability of exceedance in 50 years and corresponding risk-targeted ground motion (RTGM) with a 1% probability of collapse in 50 years. The UHGM and RTGM were calculated using the *USGS Risk-Targeted Ground Motion Calculator*. Scale factors were applied to the RTGM to yield spectral response accelerations in the direction of maximum horizontal response at each spectral ordinate.

Deterministic spectral response accelerations were taken as the largest 84th-percentile 5% damped spectral response acceleration calculated at each period for characteristic earthquakes in the region. Fault parameters and maximum magnitude of characteristic earthquakes were determined based on fault data and magnitude-area relationships (Ellsworth-B) presented in UCERF3. Using this fault data, spectral response accelerations were calculated (Seyhan, 2015) based on a weighted average of the 2014 NGA West-2 ground motion prediction equations (GMPEs). Scale factors were applied to yield spectral response accelerations in the direction of maximum horizontal response at each spectral ordinate. A deterministic lower limit in conformance with Figure 21.2-1 was applied.

The site-specific MCE_R spectral response acceleration at each period was taken as the lesser of the spectral response accelerations from the probabilistic and deterministic ground motions.

11.3 Design Response Spectrum and Acceleration Parameters

The design response spectrum and design acceleration parameters were calculated in accordance with Sections 21.3 and 21.4, respectively, and are presented on **Figure C4** in Appendix C. The design spectral response accelerations were taken as 2/3 of the site-specific MCE_R spectral response accelerations at each period, but not less than 80% of code-based values from the general procedure utilizing parameter F_a and F_v.

12.0 CONSTRUCTION CONSIDERATIONS

12.1 Excavations, Shoring, and Backfilling of Excavations

Excavations deeper than 3.5 ft should conform to the State Construction Safety Orders of the State Division of Industrial Safety, CAL-OSHA. Temporary excavations in competent artificial fill and alluvial soils up to 3.5 feet in height may be vertical. Temporary excavations shall be no steeper than 1.25:1 (h:v) for slope heights up to 8 feet, and no steeper than 1.5:1 for slope heights up to 12 feet. Excavations deeper than 12 feet are not anticipated but may be evaluated on a case-by-case basis as needed. Excavations that do not comply with these requirements should be shored. Excavation walls in sands and dry soils must be kept moist at all times, but not saturated.

The horizontal distance of vertical surcharge loads from excavations should be at least 5 feet or half the excavation depth, whichever is greater. Some sloughing from granular soils may occur in excavations. Workers should be adequately protected from such sloughing, i.e., using movable shields/shoring. Surface drainage should be controlled along the top of excavation slopes.

Excavations for footings should be setback from the toe of temporary excavation slopes a horizontal distance equal to the footing excavation depth. The bases of excavations and trenches should be firm and unyielding prior to construction of foundations or installation of utilities. On-site materials, other than topsoil or soils with roots or deleterious materials may be used for backfilling of excavations.

12.2 Utility Trench Backfill

Utility trench backfill should be compacted at least to 95 percent of Maximum Dry Density (MDD), per ASTM Test Method D1557. Compaction shall be performed with a mechanical compaction device in accordance with specifications for trench backfill presented in **Appendix E**. If the excavated soils have dried, they should be moisture-conditioned to near

Optimum Moisture Content prior to placement and compaction in trenches. Trench backfill within building footprints must comply with all PCC floor slab moisture requirements.

Bedding material placed around utility conduits shall consist of clean gravel or sand with a Sand Equivalent (per ASTM D2419) of 30 or greater. Compaction of bedding material shall be in accordance with "Standard Specifications for Public Works Construction" (Greenbook) specifications. Jetting should not be employed for compaction of bedding material at depths less than 4 feet beneath the subgrade of concrete slabs-on-grade, vehicle pavements, or other structures.

12.3 Concrete Flatwork/Hardscape

The following recommendations for concrete flatwork and hardscape elements are not required; however, these recommendations are provided to minimize settlement and/or cracking, to extend the design life of the pavements, and to minimize future maintenance costs.

- Portland Cement Concrete sidewalks that will not support vehicular traffic should be at least 4 inches thick, and as a minimum, should be reinforced at mid-depth with 6x6-W1.4xW1.4 welded wire-fabric reinforcement.
- Based on a very low expansion potential, PCC sidewalks may be cast directly on compacted soil subgrades.
- The soil subgrade should be moisture conditioned at least to Optimum Moisture Content and compacted to at least 95 percent of Maximum Dry Density (per ASTM D1557). The moisture conditioned subgrade should not be allowed to desiccate prior to casting of concrete hardscape elements.
- To help minimize shrinkage cracking, concrete flatwork should be constructed using uniformly cured, low-slump concrete, with crack control joints spaced at intervals not exceeding 8 ft.

13.0 TENTATIVE PAVEMENT DESIGN AND ASSOCIATED GRADING

13.1 Asphalt Concrete Pavements

Design of asphalt concrete pavement sections depends primarily on support characteristics (strength) of soil beneath the pavement section and on cumulative traffic loads within the service life of the pavement. Strength of the pavement subgrade is represented by R-Value test data. Traffic loads within service life of a pavement are represented by a Traffic Index (TI) which is calculated based on anticipated traffic loads and on the projected number of load repetitions during the design life of the pavement. The design TI value should be

verified by the Project Civil Engineer prior to construction.

Based on soil type and compaction characteristics of future subgrade soils, and on judgment regarding variability of site soils, a preliminary design R-Value of 30 was selected. Pavement sections are provided in the following table. These sections satisfy the minimum requirements of the CALTRANS flexible pavement design procedure for the design R-Value and a design service life of 20 years.

Table 7 – Flexible Pavement Sections

Traffic Index (TI)	Pavement Section (Thickness in inches)	
	Asphalt Concrete	Base Course
4	3.0	4.5
5	3.0	5.5
6	4.0	7.0
7	4.5	8.5
8	5.0	11.0

The preceding pavement sections provide the minimum thickness of asphalt concrete permitted by the Caltrans design procedure. Alternate designs with greater asphalt thickness and smaller base course thickness can be provided upon request.

13.2 PCC Vehicle Pavements

The design of PCC pavement and slab thicknesses and reinforcement is under the purview of a structural engineer. Deflections, shears, and moments in PCC pavements may be estimated using a coefficient of vertical subgrade reaction, k_v. The value k_v is defined as the pressure applied by the PCC slab divided by the resulting settlement of the subgrade and is a function of the subgrade soil type, soil stiffness, base thickness, and base type. An effective k_v value of 120 pci may be used for design of PCC pavements that support vehicle loads.

Unless specifically designed by the project structural engineer, PCC vehicle pavements should be at least 6 inches thick and reinforced with No. 3 rebar placed 18 inches on center in each horizontal direction. PCC vehicle pavements should be supported on at least 6 inches of compacted base material.

PCC apron slabs planned for support of heavy vehicle loads in loading areas should be reinforced with #4 bars at 14-inch spacing in both horizontal directions. PCC apron slabs should be at least 8-inches thick and should be supported on at least 8 inches of compacted base material.

13.3 PCC Curb and Gutter

Based on the anticipated expansion potential of the compacted fills at the project site (i.e., very low), proposed PCC curbs and gutters may be cast directly on compacted soil subgrades.

13.4 Base Course

The base course beneath pavements should have an R-value of at least 78 and should comply with specifications for untreated crushed aggregate base (CAB), crushed miscellaneous base (CMB), or processed miscellaneous base (PMB), as defined in Section 200-2 of the current **Green Book** (Standard Specifications for Public Works Construction), or aggregate base (AB-Class 2) as defined in Section 605.3 of the current Caltrans Highway Design Manual.

13.5 Grading Recommendations for Pavement Construction

13.5.1 General

All grading shall be performed under the observation and testing of the Project Geotechnical Engineer and/or their authorized representatives in accordance with the recommendations contained herein and in accordance with the current Building Code requirements of the County of Los Angeles.

In order to provide suitable bearing support for the pavement section, all disturbed compacted fill soils (e.g. due to desiccation or over-saturation by rainfall, broken water lines, etc.) must be removed and replaced with a minimum 12 inches of fill compacted to the required density and moisture content before placement of base and asphalt concrete.

13.5.2 Subgrade Preparation

The top 6 inches of the sub-grade materials shall be scarified and moisture conditioned to Optimum Moisture Content, or above, immediately prior to pavement construction. The moisture content shall be brought to the specified percentage by the addition of water, by the addition and blending of dry suitable material, or by the drying of existing material. The subgrade material shall then be compacted to a relative compaction of at least 95 percent of Maximum Dry Density, per ASTM 1557.

During processing of the top 6 inches of backfill in the pavement subgrade, all rocks larger than 3 inches in dimension shall be removed. If unsuitable material is found below the processing depth, it shall be removed and replaced as compacted fill. After compaction and trimming, the subgrade shall be firm, hard, and unyielding.

13.5.3 Placement of Base Materials

Base material shall be watered as required to facilitate compaction and spread and

compacted in horizontal lifts of approximately equal thickness. The maximum compacted thickness of any aggregate base lift shall not exceed 6 inches. Each lift of aggregate base material shall be compacted to at least 95 percent of Maximum Dry Density, per ASTM D1557.

14.0 LOS ANGELES COUNTY 111 STATEMENT

In compliance with Section 111 of the Los Angeles County Building Code, it is the finding of this firm that the proposed improvements designated on the Geotechnical Map submitted with this report, will be safe against hazard from landslide, settlement, and slippage, for the use intended, and will not affect offsite property, provided that all our recommendations are incorporated in the Grading and Building Plans and implemented during construction.

15.0 PLAN REVIEW AND CONSTRUCTION OBSERVATIONS

Allan E. Seward Engineering Geology, Inc. (AESEGI) should be authorized to review project grading plans, foundation plans and specifications for conformance with the recommendations provided in this report. Prior to the approval of the Grading Plans and Building Plans by the County of Los Angeles, this office is required to review and approve your plans by manual signatures and date.

AESEGI should also be authorized to perform on-site construction observation and testing to ascertain that conditions at the project site are consistent with the findings and conclusions presented in this report and that construction operations are performed in accordance with the recommendations presented in this report. If variations in subsurface soil conditions become evident during construction, the recommendations presented in this report may require revision.

The geotechnical and geological consultants of record should be authorized to perform the testing and observation recommended in this report, including the following tasks:

1. Observation and testing of all subgrade and fill bottoms (following excavation and prior to scarifying, recompaction, and fill placement).
2. Observation and testing of all fill placement and compaction.
3. Observation of foundation excavations to verify embedment into competent bearing material (prior to placement of forms or reinforcement into the excavations). Excavations must be free of all loose and slough material and must be neatly trimmed and water-conditioned prior to casting concrete in them.
4. Observation and testing of utility trenches beneath and adjacent to the proposed structures

5. Observation of slab-on-grade subgrades prior to casting of concrete and/or installation of slab underlayment materials. The slab subgrades must be tested to verify that they have been maintained at the moisture content recommended herein.

Please notify AESEGI at least 48 hours in advance of any required observations, sampling, or testing, so that appropriate personnel can be made available.

16.0 GEOLOGIST/GEOTECHNICAL ENGINEER OF RECORD

This report has been prepared assuming that all required geologic and geotechnical field inspections and observations will be performed by Allan E. Seward Engineering Geology, Inc. If these tasks are performed by another party, that party must review this report, assume full responsibility for recommendations contained herein, and assume the title and responsibility of "Geologist/Geotechnical Engineer of Record" for the specific work.

A representative of the Geologist/Geotechnical Engineer of Record shall be present to observe all grading operations. All footing excavations shall be observed by a representative of the Geologist/Geotechnical Engineer of Record prior to placing steel or casting concrete in the excavations. A report that presents results of these observations and related testing shall be issued at the end of grading operations.

17.0 LIMITATIONS

This report has been prepared by Allan E. Seward Engineering Geology, Inc. for the exclusive use of Union Rescue Mission and their design consultants for the specific site discussed herein. This report should not be considered transferable. Prior to use by others, this firm must be notified, as additional work may be required to update this report.

In the event that any modification in the location or design of the proposed development, as discussed herein, are planned, the conclusions and recommendations contained in this report will require a written review by this firm with respect to the planned modifications.

The proposed development is located in southern California, a geologically and tectonically active region, where large magnitude, potentially destructive earthquakes are common. Therefore, ground motions from moderate or large magnitude earthquakes could affect the project site during the design life of the proposed structure(s).

In performing these professional services, this firm has used the degree of care and skill ordinarily exercised under similar circumstances by reputable engineering geologists and geotechnical engineers practicing in this or similar localities. The data presented in this report are based on the results of pertinent field and laboratory testing. It should be recognized that subsurface conditions can vary in time and laterally and with depth at a given site and that the

conclusions and recommendations presented in this report are based on our interpretation of these data. Therefore, our **conclusions** and **recommendations** are **professional opinions** and are **not meant** to be a control of nature. We make no other **warranty**, either **expressed** or **implied**.

This opportunity to be of service is appreciated. If you have any questions regarding this report, please contact us.

Respectfully submitted,

Eric J. Seward, CEG 2110
Principal Engineering Geologist
Vice President

Kevin P. Callahan, MS, GE 2989
Principal Geotechnical Engineer





The following attachments and appendices complete this report.

Location Map following page 3
Geologic Map by Dibblee following page 7
References

APPENDIX A – Subsurface Logs and Infiltration Test Reports
- Exploratory Boring Logs (HS-1 thru HS-5)
- Key to Boring Log Symbols
- Boring Percolation Test Reports Figures A1 and A2

APPENDIX B – Laboratory Testing

APPENDIX C – Seismicity
- Earthquake Zones of Required Investigation Figure C1
- Fault and Earthquake Epicenter Location Map Figure C2
- OSHPD Seismic Design Maps Output
- USGS Deaggregation Parameters and Output
- Magnitude-Distance Contributions to Hazard Figure C3

- Site-Specific Response Spectra and Seismic Design Parameters Figure C4
- Ground Motion Hazard Analysis Calculations (4 pages)
- Ground Motion and Response Spectra References

APPENDIX D – Liquefaction Evaluation

- SPT-Based Assessment of Seismic Soil Liquefaction Potential Figure D1
- Corrections for Standard Penetration Test (1 page)
- Seismic Soil Liquefaction Triggering Calculations (2 pages)
- Seismically-Induced Settlement Calculations (2 pages)
- References for Assessment of Liquefaction Potential and Estimated Cyclic Settlements

APPENDIX E – General Specifications, Figures, Map and Cross Sections

- Recommended Earthwork Specifications
- Recommended Specifications for Placement of Trench Backfill
- Drainage and Erosion Control Recommendations
- Retaining Wall Drainage Detail
- Alternate Retaining Wall Drainage Detail

Geotechnical Map Plate I
Cross Sections 1-1' and 2-2' Plate II

Distribution:

Union Rescue Mission
Mr. Kevin Dretzka (via email in PDF format)

Land Design Consultants, Inc.
Mr. Steve Hunter (via email in PDF format)

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San Fernando, California
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Appendix A

CLIENT: Union Rescue Mission	JOB NO.: 20-2563	**DRILL HOLE LOG**	
PROJECT: URM Hope Gardens - Sequoia Building 12249 Lopez Canyon Road, Sylmar CA	DATE: October 14, 2020		
	LOGGED BY: KPC		
DRILLING COMPANY: Choice Drilling, Inc.	DRILLED: 8/27/20		
DRILLING METHOD: Hollow-stem Auger	HOLE DIA: 8"	**BORING NO.** HS-1	
HAMMER TYPE: Automatic	AVERAGE DROP: 18"		
DRIVING WEIGHTS: 140 lbs	ELEVATION: 1427'		

DEPTH (feet)	SAMPLE TYPE	BLOWS / 12"	USCS SYMBOL	DESCRIPTION	LABORATORY TESTS: Moisture Content (%)	Dry Density (pcf)	% Fines	Other Tests
0				**<u>ASPHALT</u>; (0 - 4")** **<u>ARTIFICIAL FILL</u>; af (4" - 6')**				
		67	SP-SM	@ 3' Poorly graded SAND with silt; medium dense; very moist; light brown				
5				@ 4' - with gravel; dense; very moist; dark gray	9.3	125		
		15	SM	**<u>QUATERNARY ALLUVIUM</u>; Qal (6 - 23')** @ 6' Silty SAND with gravel; medium dense; damp; light brown				
10		28	SP-SM	@ 9' Poorly graded SAND with silt and gravel; medium dense; damp; medium brown	3.4	116	9	Swell/Consol Shear Test
		26	SM-SC	@ 12' Silty, clayey SAND; medium dense; slightly moist; medium brown				
			SP-SM	@ 12.5' Poorly graded SAND with silt and gravel; medium dense; damp; medium to yellowish brown				
15		18	SC	@ 15' Clayey, fine- to coarse-grained SAND with gravel; medium dense; slightly moist; medium brown	8.7	120		
20		11						
				@ 22.5' - dense gravel/cobble layer **<u>BEDROCK</u>; TQs (23 - 30')**				
25		Ref/ 5"		@ 25' Silty, medium- to coarse-grained sandstone; very dense; damp; light brownish-gray	9.1	113		
30		50/4"		@ 25' - fine-grained; medium brown				
				TOTAL DEPTH 30' (Elev. 1397') No Groundwater				
35								

CLIENT: Union Rescue Mission		JOB NO.: 20-2563	**DRILL HOLE LOG**
PROJECT: URM Hope Gardens - Sequoia Building 12249 Lopez Canyon Road, Sylmar CA		DATE: October 14, 2020	
		LOGGED BY: KPC	
DRILLING COMPANY: Choice Drilling, Inc.		DRILLED: 8/27/20	
DRILLING METHOD: Hollow-stem Auger		HOLE DIA: 8"	**BORING NO.** HS-2
HAMMER TYPE: Automatic		AVERAGE DROP: 18"	
DRIVING WEIGHTS: 140 lbs		ELEVATION: 1430'	

DEPTH (feet)	SAMPLE TYPE	BLOWS / 12"	USCS SYMBOL	DESCRIPTION	LABORATORY TESTS: Moisture Content (%)	Dry Density (pcf)	% Fines	Other Tests
0				**ASPHALT; (0 - 6")** **QUATERNARY ALLUVIUM; Qal (6" - 25.5')**				Bulk sample @ 0-10'
		9	SM	@ 3' Silty, fine- to medium-grained SAND; loose; damp; dark brownish-gray to medium brown; scattered pebbles				
5		21		@ 6' - fine-grained; medium dense; slightly moist; dark brownish gray	6.7	109		
		11		@ 9' - medium brown @ 10' - less silty; dark brownish gray				
10		63	SP	@ 12' Poorly graded SAND with gravel; dense; damp; medium brown to yellowish brown to medium gray	2.2	123		
15		22	SM SP-SM	@ 15' Silty, fine- to medium-grained SAND; medium dense; moist; dark brown @ 16' Poorly graded SAND with silt; medium dense; damp; light yellowish brown; minor gravel				
20		Ref/ 6"		@ 20' - with gravel and small cobbles; moist; medium brown				
25		50/4"		**BEDROCK; TQs (25.5 - 30')** @ 25.5' Silty sandstone; very dense; damp; pale yellowish brown				
30		Ref/ 3" Ref/ 4"		TOTAL DEPTH 30' (Elev. 1400') No Groundwater				
35								

CLIENT: Union Rescue Mission		JOB NO.: 20-2563	**DRILL HOLE LOG**
PROJECT: URM Hope Gardens - Sequoia Building 12249 Lopez Canyon Road, Sylmar CA		DATE: October 14, 2020	
		LOGGED BY: KPC	
DRILLING COMPANY: Choice Drilling, Inc.		DRILLED: 8/28/20	
DRILLING METHOD: Hollow-stem Auger		HOLE DIA: 8"	**BORING NO.** HS-3
HAMMER TYPE: Automatic		AVERAGE DROP: 18"	
DRIVING WEIGHTS: 140 lbs		ELEVATION: 1428'	

DEPTH (feet)	SAMPLE TYPE	BLOWS / 12"	GRAPHIC LOG	USCS SYMBOL	DESCRIPTION	LABORATORY TESTS: Moisture Content (%)	Dry Density (pcf)	% Fines	Other Tests
0					**<u>ASPHALT</u>; (0 - 4")** **<u>QUATERNARY ALLUVIUM</u>; Qal (4" - 16')**				
5		33		SP-SM	@ 3' Poorly graded SAND with silt and gravel; medium dense; damp; light yellowish brown				
		56			@ 6' - very dense				
10		68			@ 9' - dense	1.8	126		
		55			@ 12' - less gravel; very dense				
15		50/4"			@ 16' - refusal				
					TOTAL DEPTH 16' (Elev. 1412') No Groundwater				
20									
25									
30									
35									

CLIENT: Union Rescue Mission		JOB NO.: 20-2563	**DRILL HOLE LOG**
PROJECT: URM Hope Gardens - Sequoia Building 12249 Lopez Canyon Road, Sylmar CA		DATE: October 14, 2020	
		LOGGED BY: KPC	
DRILLING COMPANY: Choice Drilling, Inc.		DRILLED: 8/27/20	
DRILLING METHOD: Hollow-stem Auger		HOLE DIA: 8"	**BORING NO.** HS-4
HAMMER TYPE: Automatic		AVERAGE DROP: 18"	
DRIVING WEIGHTS: 140 lbs		ELEVATION: 1423'	

DEPTH (feet)	SAMPLE TYPE	BLOWS / 12"	GRAPHIC LOG	USCS SYMBOL	DESCRIPTION	LABORATORY TESTS: Moisture Content (%)	Dry Density (pcf)	% Fines	Other Tests
0					**ASPHALT/BASE; (0 - 4")** **ALLUVIUM; Qal (4" - 32.5')**				Bulk sample @ 0-10'
5		37		SP-SM	@ 5' Poorly graded SAND with silt and gravel; dense; damp; light grayish brown	2.3		7	
		88			@ 7.5' - very dense; damp; light gray; gravel is abundant	1.4		8	Resistant layer and difficult drilling conditions from approx. 7-12 ft
10		Ref/ 6"				1.7		9	
		26		SP-SM	@ 12.5' - less gravel; medium dense; light yellowish brown	2.4		12	Sieve
15		39			@ 15' - with gravel; dense	2.2		8	
		50				2.3		7	
20		41			@ 20' - less gravel	2.6		7	
		30			@ 22.5' - medium dense	3.6		9	
25		29				4.6		9	
		35		SM	@ 27.5' Silty SAND; dense; damp; light yellowish brown @ 29' - moist to wet	8.0		14	
30		76		SP-SM	@ 30' Poorly graded SAND with silt; very dense; wet; light yellowish brown	11.4		10	
		66			**BEDROCK; TQs (32.5 - 37.5')** @ 32.5' Claystone with sand; hard; moist; medium to reddish brown	16.3		72	
35		Ref/ 6"			@ 35' Clayey sandstone; very dense; moist; medium brown @ 37.5' Sandy claystone; hard; moist; medium brown	10.0		43	
		95/ 10"			TOTAL DEPTH 37.5' (Elev. 1385.5') Perched Groundwater at 29'	13.8		54	

CLIENT: Union Rescue Mission		JOB NO.: 20-2563	**DRILL HOLE LOG**
PROJECT: URM Hope Gardens - Sequoia Building 12249 Lopez Canyon Road, Sylmar CA		DATE: October 14, 2020	
		LOGGED BY: KPC	
DRILLING COMPANY: Choice Drilling, Inc.		DRILLED: 8/27/20	
DRILLING METHOD: Hollow-stem Auger		HOLE DIA: 8"	**BORING NO.** HS-5
HAMMER TYPE: Automatic		AVERAGE DROP: 18"	
DRIVING WEIGHTS: 140 lbs		ELEVATION: 1418'	

DEPTH (feet)	SAMPLE TYPE	BLOWS / 12"	GRAPHIC LOG	USCS SYMBOL	DESCRIPTION	LABORATORY TESTS: Moisture Content (%)	Dry Density (pcf)	% Fines	Other Tests
0					**ASPHALT/BASE; (0 - 9")** **ALLUVIUM; Qal (9" - 25.5')**				
		9		SM	@ 3' Silty, fine- to medium-grained SAND; loose; damp; medium brown				
5		19			@ 6' - with gravel; medium dense	6.4	116		
		22			@ 9' - less gravel				
10				SP-SM	@ 10' Poorly graded SAND with silt; medium dense; moist; light brown				
		19		SW-SM	@ 12' Well-graded SAND with silt; medium dense; moist; light brown	3.5	111	7	Sieve Swell/Consol
15		19							
20		33		SP-SM	@ 20' Poorly graded SAND with silt and gravel; medium dense; moist; light brown	6.9	116		
25		50/6"			@ 25' - wet **BEDROCK; TQs (25.5 - 26')** @ 25.5' Sandy mudstone; hard; damp; grayish white				
					TOTAL DEPTH 26' (Elev. 1392') Perched Groundwater @ 25'				
30									
35									

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS (MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE)	GRAVEL AND GRAVELLY SOILS (MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE SIZE)	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand-clay mixtures
	SAND AND SANDY SOILS (MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE SIZE)	CLEAN SANDS (LITTLE OR NO FINES)		SW	Well-graded sands, gravelly sands, little or no fines
				SP	Poorly-graded sands, gravelly sands, little or no fines
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	Silty sands, sand-silt mixtures
				SC	Clayey sands, sand-clay mixtures
FINE GRAINED SOILS (MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE)	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	Inorganic silts and very fine sands, clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, lean clays
				OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	Inorganic silts, micaceous or diatomaceous fine, sandy or silty soils, elastic silts
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS				PT	Peat and other highly organic soils

Notes:
(1) Dual USCS symbols, such as SP-SM, denote 5 to 12% of minor constituent.
(2) Dual USCS symbols, such as SM/ML, denote borderline soil classifications.
(3) Subsurface information from boring and test pit logs depict conditions only at the specific locations. and dates indicated. Soil conditions and water levels at other locations may differ from conditions at these locations. Also, the conditions at these locations may change with time.
(4) Blow counts on logs are the number of blows to drive the sampler with the weight and drop height indicated on each log.
(5) Split-barrel sampler driving record applies only to hollow-stem-auger and rotary-wash borings.
(6) These logs are subject to the limitations, conclusions, and recommendations in this report.

HS: Hollow-stem-auger boring
RW: Rotary-wash boring
B: Bucket-auger boring

SAMPLE TYPE

STANDARD PENETRATION TEST
Split barrel sampler in accordance with ASTM D-1586 Test Method

CALIFORNIA DRIVE
Split-barrel sampler in accordance with ASTM D-3550 Test Method

DISTURBED CALIFORNIA DRIVE

SHELBY TUBE
Thin-walled sampler in accordance with ASTM D-1587 Test Method

BULK SAMPLE

NO RECOVERY

GROUND WATER DATA

GROUND WATER WHILE DRILLING

GROUND WATER AFTER DRILLING

DENSITY OF GRANULAR SOILS

DESCRIPTION	SPT BLOWS PER FOOT
Very Loose	< 4
Loose	4 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

STRENGTH OF COHESIVE SOILS

CONSISTENCY	SPT BLOWS PER FOOT
Very Soft	< 2
Soft	2 - 4
Firm	5 - 8
Stiff	9 - 15
Very Stiff	16 - 30
Hard	> 30

SPLIT-BARREL SAMPLER DRIVING RECORD

BLOW COUNT	DESCRIPTION
25	25 blows drove the sampler 12 inches, after initial 6 inches of seating
50/7"	50 blows drove the sampler 7 inches, after initial 6 inches of seating
Ref/3"	50 blows drove the sampler 3 inches during initial 6-inch seating interval

LABORATORY TESTING ABBREVIATIONS

Plasticity Index	PI	Compaction Curve	Curve=A
Liquid Limit	LL	Consolidation / Collapse	Consol
Hydrometer	%-5 micron	Direct Shear / Reshear / Remold	Shear Test
Expansion Index	EI		
Corrosivity Analysis	Cor		

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USCS Soil Classification and Key to Boring Log Symbols

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BORING PERCOLATION TEST REPORT
CONSTANT HEAD

Client:	Union Rescue Mission	Borehole Depth [ft]:	12
Project:	URM Hope Gardens - Sequoia Building	Borehole Diameter [in]:	8
	12249 Lopez Canyon Road, Sylmar	Seasonal High GW Elev.:	<1401
Project No.:	20-2653	Test Invert Elevation:	1411
Test Date:	8/28/20 Test By: K. Callahan	Soil Type at Invert:	Qal
Location:	PB-1	USCS Soil Type at Invert:	SP-SM

Test Start Time:	2:00 PM	Stabilized flow rate [in^3/min]:	12
Standard Time Interval (min):	10	Total volume infiltrated [in^3]:	1589
Test Duration (min):	100	Total Reduction Factor:	4.5
Water Remaining after 24 hr?:	No	***Design Infiltration Rate (in/hr):***	**0.24**

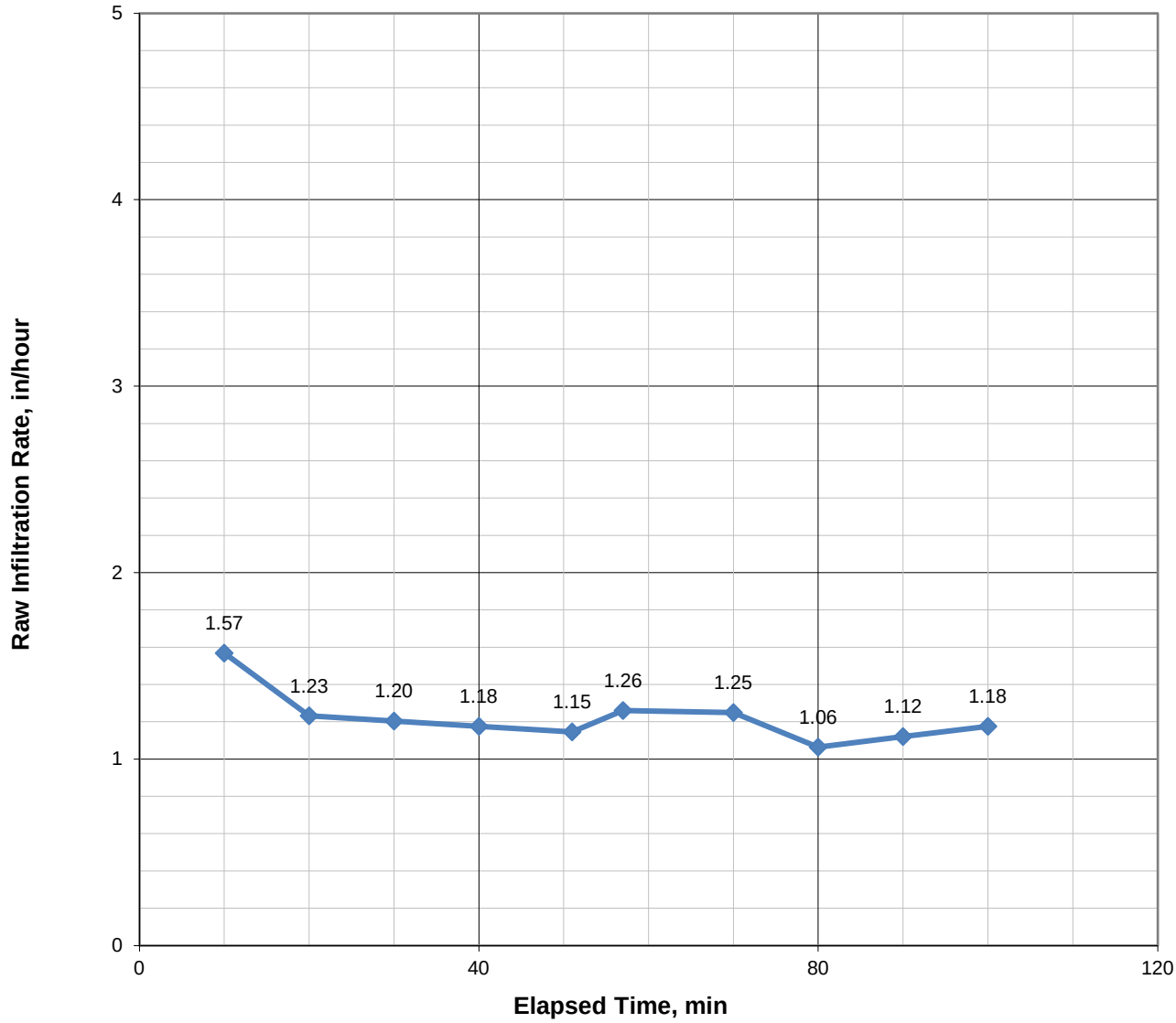


Figure A1

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BORING PERCOLATION TEST REPORT
CONSTANT HEAD

Client:	Union Rescue Mission			Borehole Depth [ft]:	12
Project:	URM Hope Gardens - Sequoia Building			Borehole Diameter [in]:	8
	12249 Lopez Canyon Road, Sylmar			Seasonal High GW Elev.:	<1396
Project No.:	20-2653			Test Invert Elevation:	1406
Test Date:	8/28/20	Test By:	K. Callahan	Soil Type at Invert:	Qal
Location:	PB-2			USCS Soil Type at Invert:	SW-SM

Test Start Time:	2:00 PM	Stabilized flow rate [in^3/min]:	80
Standard Time Interval (min):	10	Total volume infiltrated [in^3]:	9086
Test Duration (min):	100	Total Reduction Factor:	4.5
Water Remaining after 24 hr?:	No	***Design Infiltration Rate (in/hr):***	**1.63**

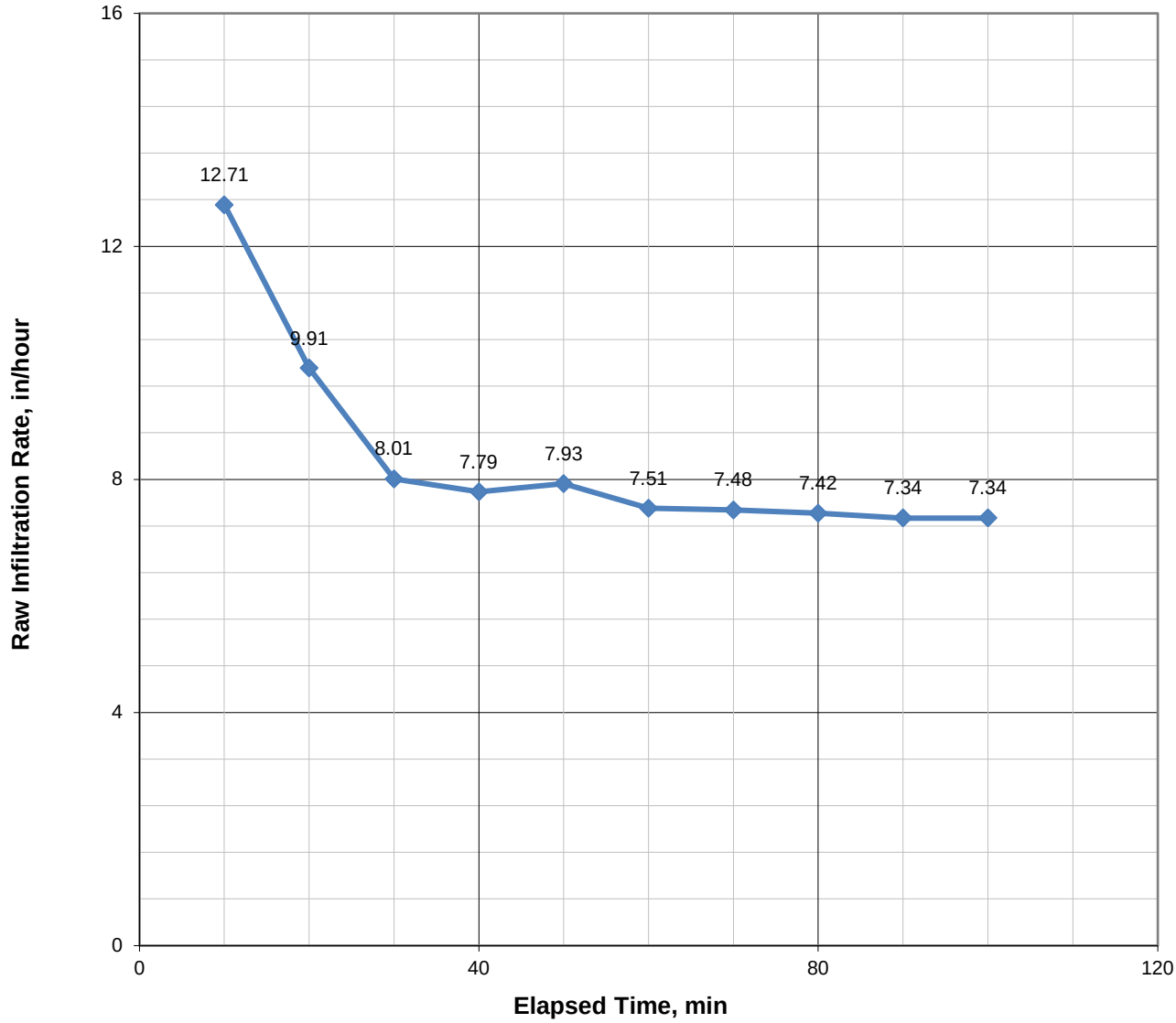


Figure A2

Appendix B

APPENDIX B

GEOTECHNICAL LABORATORY INVESTIGATION

1. General

   a. The laboratory investigation used current, accepted test procedures of the American Society of Testing and Materials (ASTM) and/or California Test Standards, wherever practical.

   b. Bulk samples and Modified California Drive ring samples were obtained during the field investigation. Laboratory sample identification is by project name and number, boring number, and depth.

2. Geotechnical Index Parameter Tests

   The following Geotechnical Index Parameters tests were performed on bulk samples and Modified California ring samples of soil collected at the project site.

Test Type	Number of Tests Performed	Testing Standard
In-Situ Moisture Content	24	ASTM D2216
In-Situ Dry Density	10	ASTM D7263
Percent-Finer Than #200 Sieve	18	ASTM D1140
Particle-Size Analysis of Soils	2	ASTM D

   The purpose of each test type is briefly described below.

   a. In-Situ Moisture Content (ASTM D2216) and Dry Density (ASTM D7263) testing of soils provide an indication of the strength and compressibility of in-situ soils. These data aided in evaluation of soil consistency and in selection of samples for additional laboratory testing. Results of Moisture Content and Dry Density testing are recorded on the Drill Hole Logs in **Appendix A**.

   b. Percent Finer than #200 Sieve (ASTM D1140) testing aids in classification of soils in accordance with the Unified Soil Classification System (USCS). Results of Percent Finer than #200 Sieve testing are recorded on the Drill Hole Logs in **Appendix A** and on applicable test reports in this appendix.

   c. Mechanical particle-size analyses of soil fractions larger than 75 microns (No. 200 sieve) were conducted to aid in classification of soils in accordance with the Unified Soil Classification System (USCS). Results of the Particle Size Analysis testing are presented on Lab Report Figure B1 in this Appendix.

APPENDIX B

3. Geotechnical Engineering Parameters Tests

The following Geotechnical Engineering Parameters Tests were performed on bulk samples and Modified California ring samples of soil collected at the project site.

TEST TYPE	NUMBER OF TESTS PERFORMED	TESTING STANDARD
Modified Proctor	1	ASTM D1557
Direct Shear	2	ASTM D3080
Consolidation	2	ASTM D4546

The purpose of each test type is briefly described below.

1. Modified Proctor (ASTM D1557) testing was performed on a selected bulk sample of site artificial fill soils to assess the compacted moisture-density relationship for use during future grading operations and to evaluate the relative compaction of the existing soils. Results of the Modified Proctor test is presented on **Figure B2** in this Appendix.

2. Direct Shear (ASTM D3080) testing was performed on selected ring samples and on remolded test specimens using a displacement-controlled Direct Shear machine. The remolded sample was prepared using material passing the No. 4 sieve compacted to about 90% of Maximum Dry Density. Prior to testing, the samples were inundated and consolidated under normal pressures ranging from about 500 psf to 3,000 psf. Thereafter, the samples were sheared horizontally at a controlled displacement rate until the horizontal shear force reduced to a stable value. Results of the Direct Shear testing, including interpreted peak strength and residual shear strength parameters, are recorded on **Figures B3.1** and **B3.2** in this Appendix.

3. One-dimensional Collapse of Soils (ASTM D4546) testing was performed on California drive ring samples to assess the hydro-compression potential of alluvial soils when inundated with water under future loading conditions. The samples were incrementally loaded to normal pressures ranging from 400 to 12,800 psf in accordance with Procedure B. The "hydro-compression" was taken as the percent strain when inundated with water under an applied pressure approximately equal to the existing overburden pressure plus future applied foundation bearing pressure at that depth. Results of collapse testing are presented on **Figures B4.1** and **B4.2** in this Appendix.

APPENDIX B

4. Corrosion Tests

The following corrosivity tests were performed on a blend of artificial fill and native soils collected at the project site.

TEST TYPE	NUMBER OF TESTS PERFORMED	TESTING STANDARD
Sulfate-Content	1	California Test Method 417
Chloride-Content	1	California Test Method 422
Resistivity	1	California Test Method 643
pH	1	California Test Method 643

Soluble Sulfates Content, Chloride Content, Resistivity, and pH tests were performed to evaluate corrosivity of soil from the project site to concrete, ferrous metals, and non-ferrous metals. Results of the testing are presented in **Table B1** in this Appendix.

The following attachments complete this Appendix.

LABORATORY TEST RESULTS

- Corrosivity Testing Summary — Table B1
- Particle-Size Analysis Test Report — Figure B1
- Compaction Test Report — Figure B2
- Direct Shear Test Reports — Figures B3.1 & B3.2
- Consolidation Test Reports — Figures B4.1 & B4.2

APPENDIX B

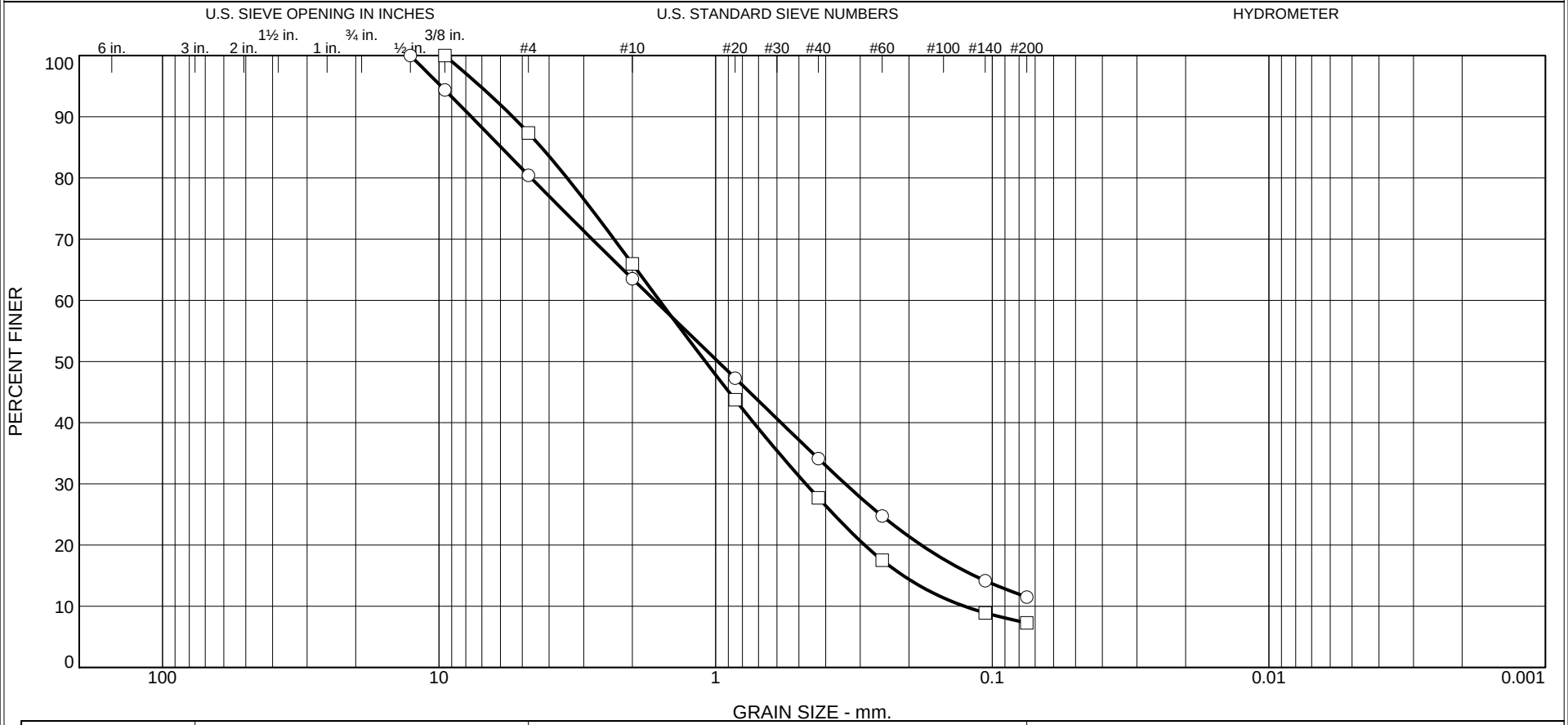
CORROSIVITY TESTING SUMMARY

Source	Depth (ft)	Soil Description	Resistivity		Chemical Analyses			
			Saturated (ohm-cm)	Corrosion Characteristics[2]	pH	Chloride Cl (ppm)	Sulfate SO_4 (%)	Concrete exposure to sulfate[3]
HS-2/HS-4	0-10	Silty Sand	9,518	Moderately Corrosive	7.81	186	0.02	Negligible

[2] Per County of Los Angeles classification

[3] Per ACI 318 – Table 4.3.1

Particle Size Distribution Test Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	19.6	16.9	29.4	22.6	11.5	
□	0.0	0.0	12.7	21.3	38.3	20.4	7.3	

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	HS-4		13.5'	8/27/20	SP-SM	Poorly graded SAND with silt and gravel	2.4		NP
□	HS-5		13'	8/27/20	SW-SM	Well-graded SAND with silt	3.5		NP

Client Union Rescue Mission

Project URM Hope Gardens - Sequoia Building

12249 Lopez Canyon Road, Sylmar CA

Project No. 20-2563 Figure B1

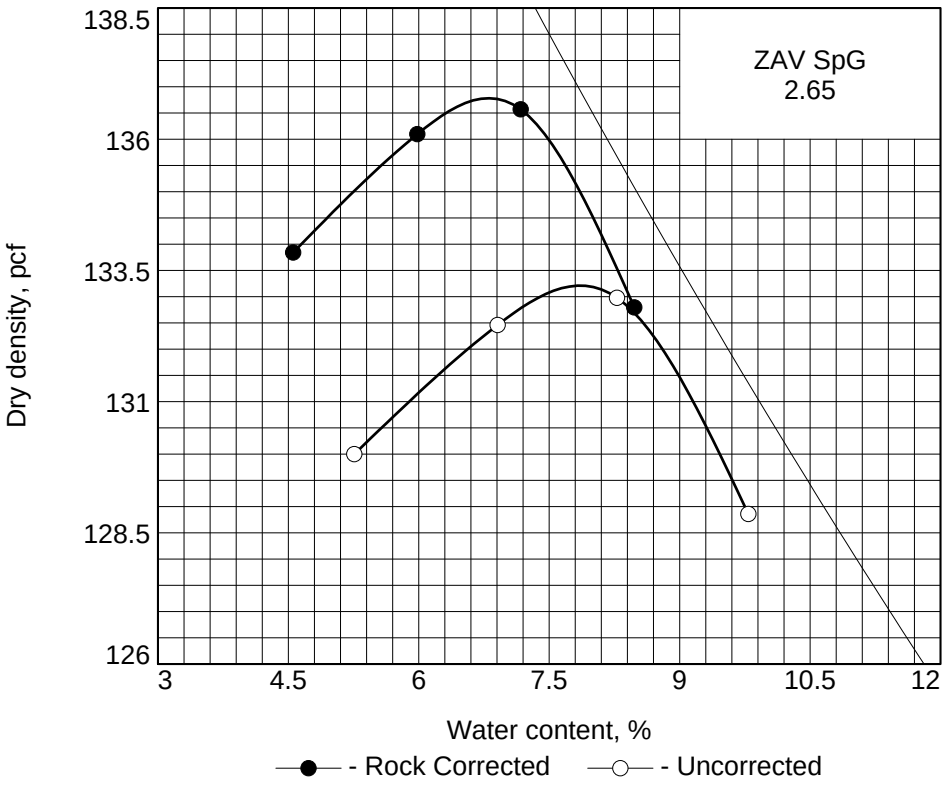
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○ Alluvium (Qal)
□ Alluvium (Qal)

COMPACTION TEST REPORT



Curve No.
A

Test Specification:
ASTM D 1557-12 Method A Modified
ASTM D4718-15 Oversize Corr. Applied to Each Test Point

Preparation Method Moist
Hammer Wt. 10 lb.
Hammer Drop 18 in.
Number of Layers five
Blows per Layer 25
Mold Size 0.03333 cu. ft.

Test Performed on Material Passing #4 **Sieve**

NM **LL** **PI**
Sp.G. (ASTM D 854) 2.65
%>#4 13.4 **%<No.200** 22.8
USCS SM **AASHTO**
Date Sampled 8/27/20
Date Tested 9/4/0
Tested By E. Parr

TESTING DATA

	1	2	3	4	5	6
WM + WS	8.91	9.07	9.15	9.06		
WM	4.37	4.37	4.37	4.37		
WW + T #1	760.8	949.1	919.9	842.0		
WD + T #1	724.3	889.9	852.9	770.8		
TARE #1	29.8	32.2	43.6	43.7		
WW + T #2						
WD + T #2						
TARE #2						
MOISTURE	4.6	6.0	7.2	8.5		
DRY DENSITY	133.8	136.1	136.6	132.8		

ROCK CORRECTED TEST RESULTS

Maximum dry density = 136.8 pcf

Optimum moisture = 6.8 %

Material Description

Brown, silty SAND (SM)

Remarks:
Mixture of on-site soils

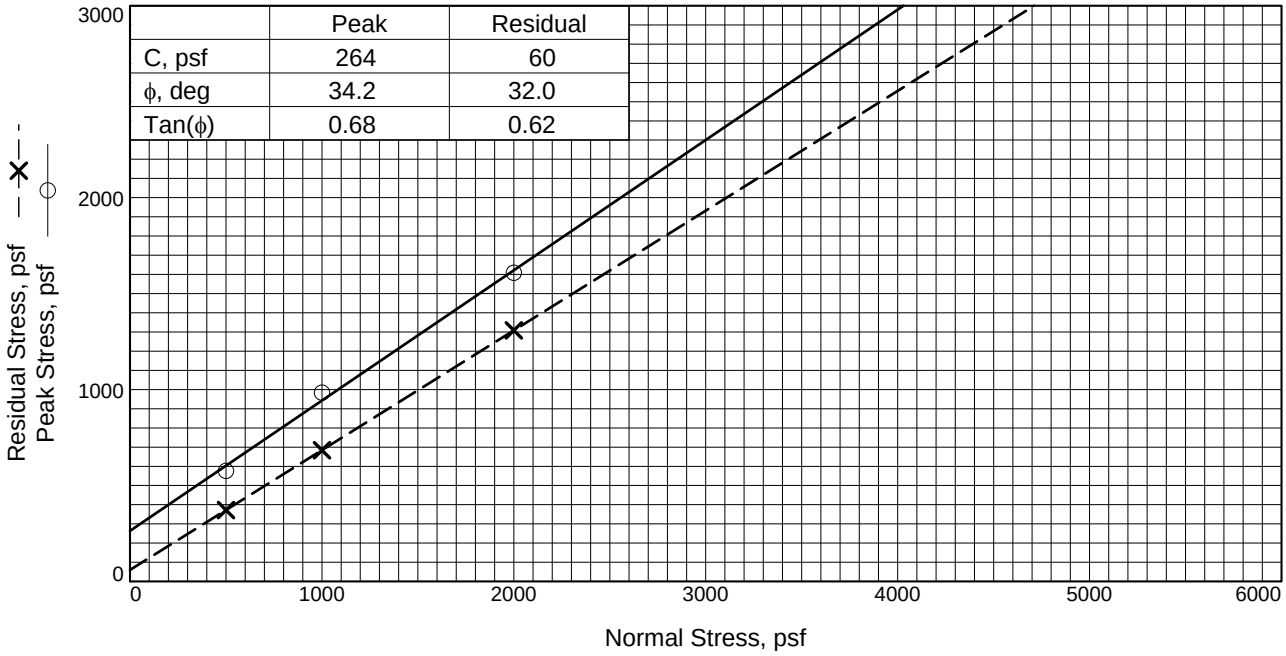
Project No. 20-2563 **Client:** Union Rescue Mission
Project: URM Hope Gardens - Sequoia Building
12249 Lopez Canyon Road, Sylmar CA
○ **Location:** HS-2 & HS-4 @ 0-10' 50/50 blend

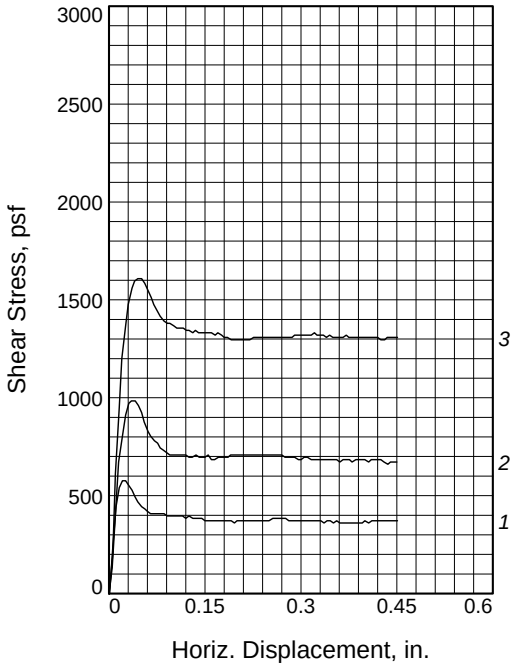
Checked by: K. Callahan
Title: Geotechnical Engineer

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Figure B2





Sample No.		1	2	3
Initial	Water Content, %	7.7	7.8	7.7
	Dry Density, pcf	122.0	121.7	121.8
	Saturation, %	56.9	57.6	57.0
	Void Ratio	0.3565	0.3593	0.3582
	Diameter, in.	2.42	2.42	2.42
	Height, in.	1.00	1.00	1.00
At Test	Water Content, %	13.3	13.2	13.1
	Dry Density, pcf	122.3	122.5	122.7
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.3526	0.3506	0.3483
	Diameter, in.	2.42	2.42	2.42
	Height, in.	1.00	0.99	0.99
Normal Stress, psf		500	1000	2000
Peak Stress, psf		576	984	1608
Displacement, in.		0.02	0.04	0.05
Residual Stress, psf		372	684	1308
Displacement, in.		0.45	0.42	0.45
Strain rate, in./min.		0.010	0.010	0.010

Sample Type: Remold
Description: Brown, silty SAND (SM)

Assumed Specific Gravity= 2.65
Remarks: Representative fill mixture
Remolded to about 90% of MDD
% Fines = 22.8

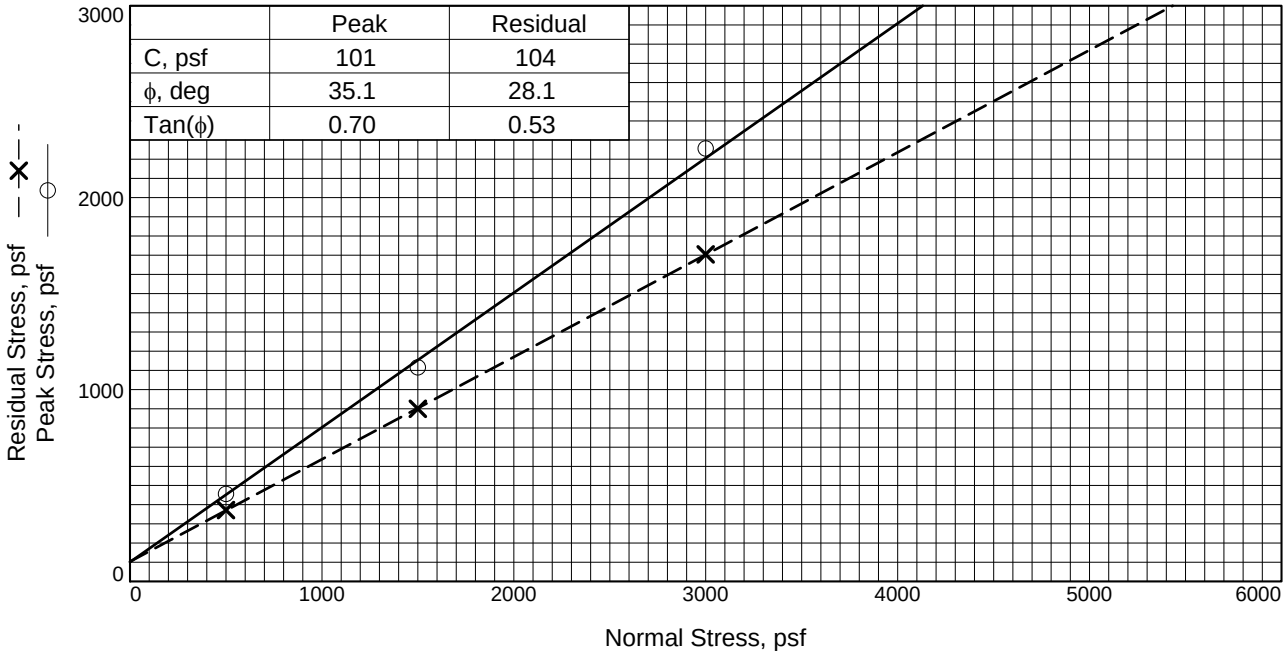
Figure B3.1

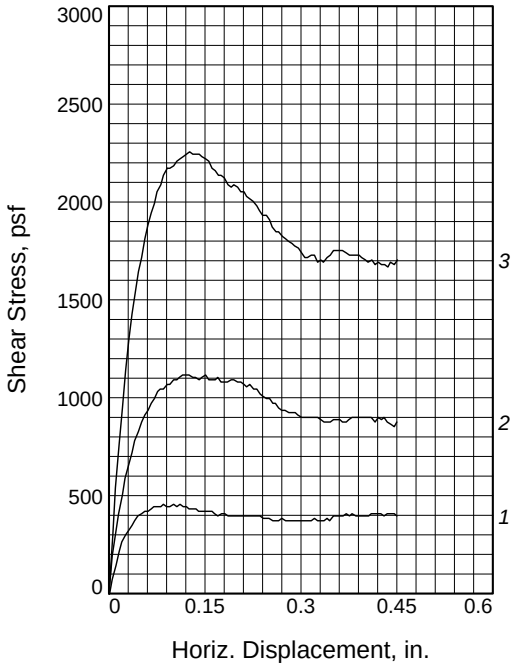
Client: Union Rescue Mission

Project: URM Hope Gardens - Sequoia Building
12249 Lopez Canyon Road, Sylmar CA
Location: HS-2 & HS-4 @ 0-10' 50/50 blend

Proj. No.: 20-2563 **Date Sampled:** 8/27/20

DIRECT SHEAR TEST REPORT
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Sample No.		1	2	3
Initial	Water Content, %	3.8	3.7	4.9
	Dry Density, pcf	111.8	111.9	113.4
	Saturation, %	20.8	20.5	28.1
	Void Ratio	0.4800	0.4780	0.4588
	Diameter, in.	2.42	2.42	2.42
	Height, in.	1.00	1.00	1.00
At Test	Water Content, %	17.8	17.5	16.2
	Dry Density, pcf	112.4	113.0	115.8
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.4722	0.4636	0.4283
	Diameter, in.	2.42	2.42	2.42
	Height, in.	0.99	0.99	0.98
Normal Stress, psf		500	1500	3000
Peak Stress, psf		456	1116	2256
Displacement, in.		0.09	0.12	0.13
Residual Stress, psf		372	900	1704
Displacement, in.		0.30	0.43	0.45
Strain rate, in./min.		0.010	0.010	0.010

Sample Type: Modified California Drive
Description: Poorly graded SAND with silt and gravel

Assumed Specific Gravity= 2.65
Remarks: Alluvium (Qal)
% Fines = 9.1

Figure B3.2

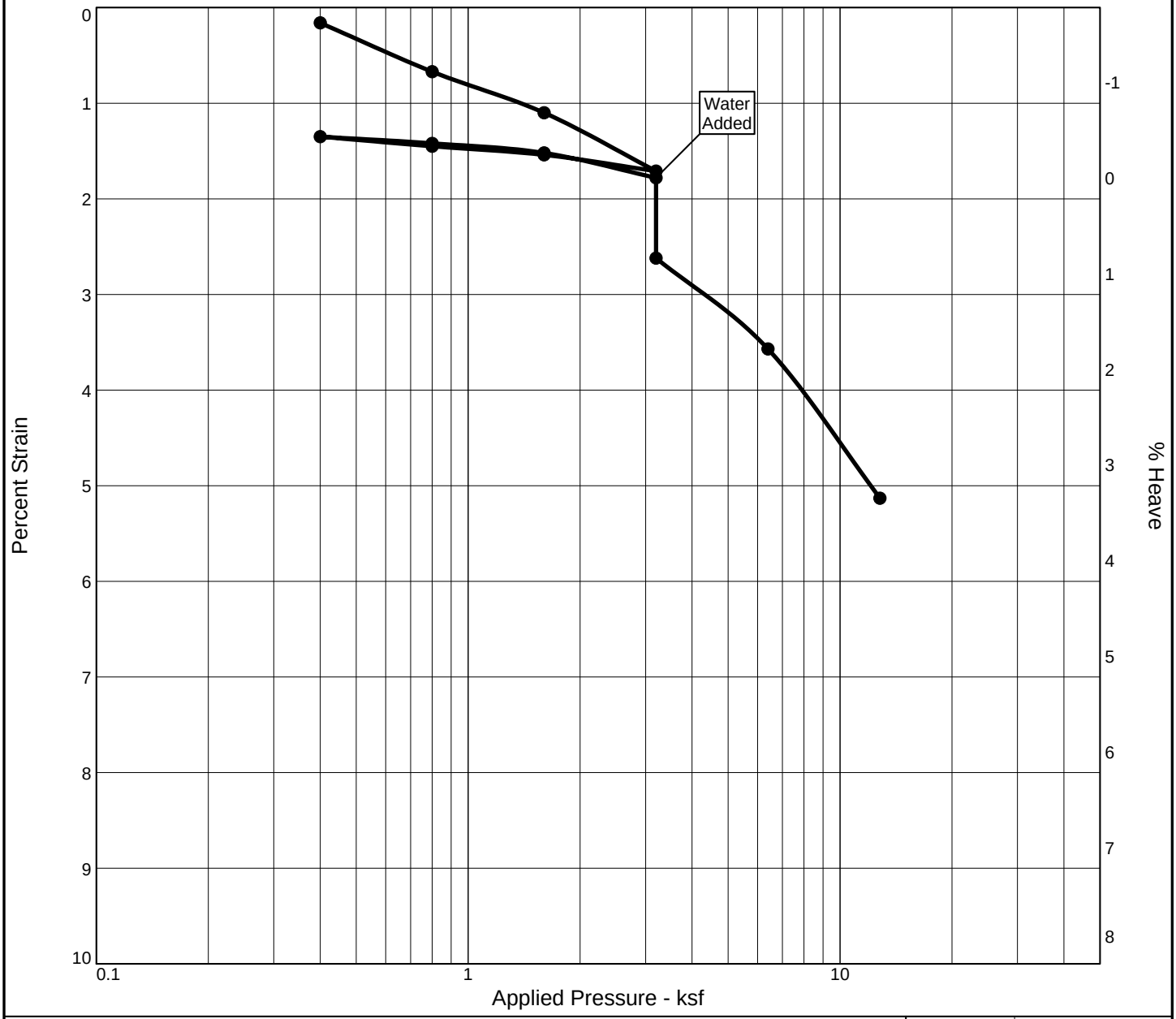
Client: Union Rescue Mission

Project: URM Hope Gardens - Sequoia Building
12249 Lopez Canyon Road, Sylmar CA
Source of Sample: HS-1 **Depth:** 10'

Proj. No.: 20-2563 **Date Sampled:** 8/27/20

DIRECT SHEAR TEST REPORT
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Valencia, California

SWELL/CONSOLIDATION TEST REPORT



MATERIAL DESCRIPTION	USCS	AASHTO
Poorly graded SAND with silt and gravel	SP-SM	

LL	PI	Sp. Gr.	Overburden (ksf)	Dry Dens. (pcf)		Moisture		Saturation		Void Ratio		P_c (ksf)	C_c
				Init.	Final	Init.	Final	Init.	Final	Init.	Final		
		2.65	3.2	108.5	114.3	3.5 %	14.9	17.5 %	88.4 %	0.525	0.447	6.5	0.08

Preparation Process: Tested directly in a ring from a ring lined sampler

Condition of Test: Inundated with distilled water at psf

D2435 Method	C_s	Swell Press. (ksf)	Heave %
D4546	0.01		-0.9

Project No. 20-2563 **Client:** Union Rescue Mission

Project: URM Hope Gardens - Sequoia Building
12249 Lopez Canyon Road, Sylmar CA

Source of Sample: HS-1 **Depth:** 10'

Remarks:
Alluvium (Qal)
% Fines = 9.1

Checked By: K. Callahan

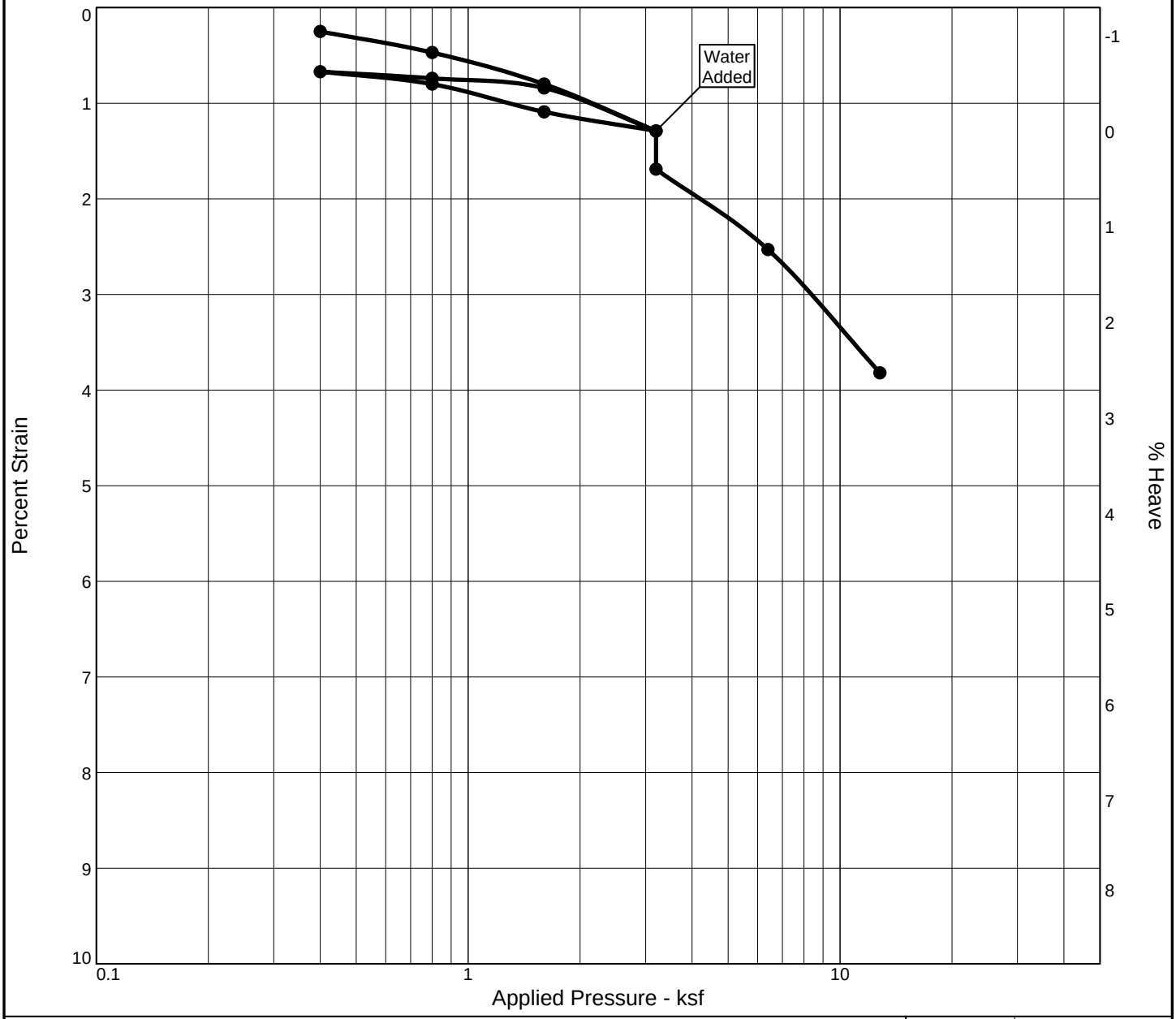
Title: Geotechnical Engineer

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Valencia, California

Figure B4.1

SWELL/CONSOLIDATION TEST REPORT



MATERIAL DESCRIPTION	USCS	AASHTO
Well-graded SAND with silt	SW-SM	

LL	PI	Sp. Gr.	Overburden (ksf)	Dry Dens. (pcf)		Moisture		Saturation		Void Ratio		P_c (ksf)	C_c
				Init.	Final	Init.	Final	Init.	Final	Init.	Final		
		2.65	3.2	109.0	113.3	4.1 %	15.5	21.1 %	89.3 %	0.518	0.460	6.6	0.07

Preparation Process: Tested directly in a ring from a ring lined sampler

Condition of Test: Inundated with distilled water at psf

D2435 Method	C_s	Swell Press. (ksf)	Heave %
D4546	0.01		-0.4

Project No. 20-2563 **Client:** Union Rescue Mission

Project: URM Hope Gardens - Sequoia Building
12249 Lopez Canyon Road, Sylmar CA

Source of Sample: HS-5 **Depth:** 13'

Remarks:
Alluvium (Qal)
% Fines = 7.2

Checked By: K. Callahan

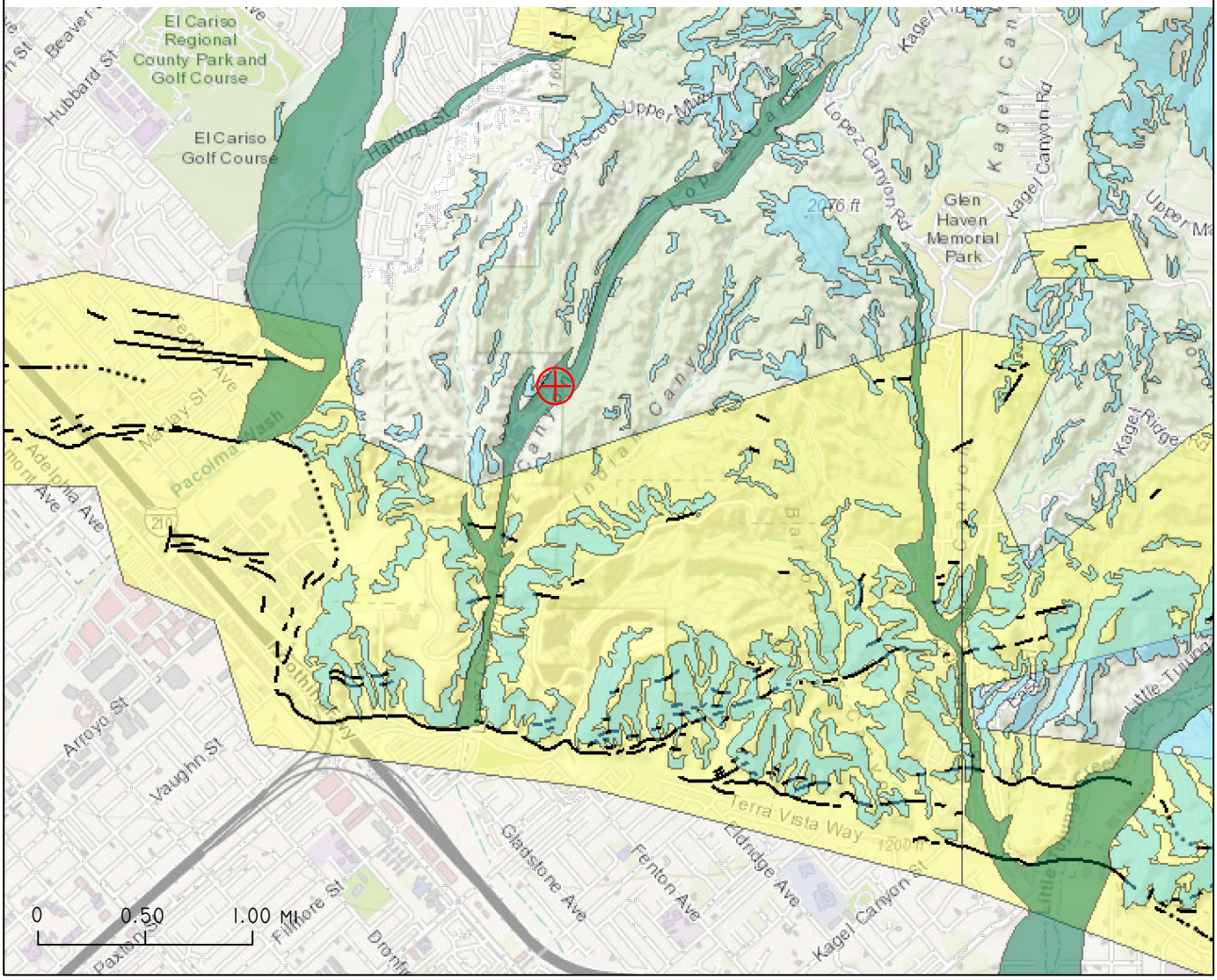
Title: Geotechnical Engineer

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Figure B4.2

Appendix C



LEGEND

Colors may vary due to transparency and overlapping data.

Fault Traces

- Accurately Located
- Approximately Located
- Approximately Located, Queried
- Inferred
- Inferred, Queried
- Concealed
- Concealed, Queried
- Aerial Photo Lineament

Fault Zone

Liquefaction Zone

Landslide Zone

APPROXIMATE LOCATION OF SUBJECT SITE

SOURCE; CALIFORNIA GEOLOGIC SURVEY
EARTHQUAKE ZONES WEB APPLICATION

N

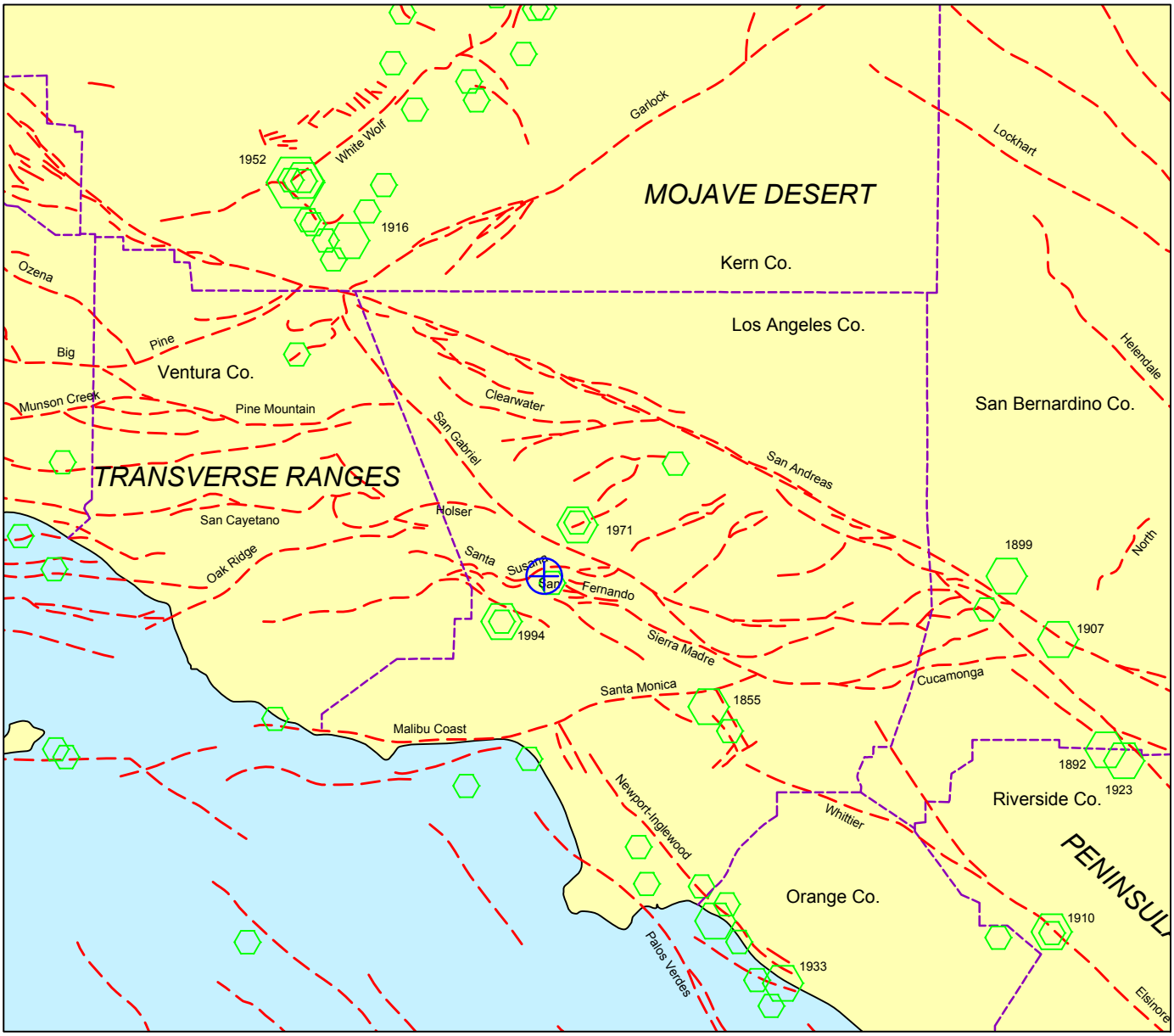
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EARTHQUAKE ZONES OF
REQUIRED INVESTIGATION

JOB NO.: 20-2653-5

DATE: 10/14/20

FIGURE: C1



20 10 0 20 MILES

EXPLANATION

APPROXIMATE LOCATION OF MAJOR KNOWN FAULTS

San Andreas

EARTHQUAKE EPICENTERS

LOCATION	MAGNITUDE
⬡	5.0 - 5.9
⬡	6.0 - 6.9
⬡	7.0 - 7.9

N

APPROXIMATE LOCATION OF SUBJECT SITE

⊕

COMPILED AND MODIFIED FROM: JENNINGS (1994), REAL ET AL. (1978), YERKES (1985), ZIONY AND JONES (1989), AND SHAKAL ET AL. (1994)

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FAULT AND EARTHQUAKE EPICENTER LOCATION MAP

JOB NO.: 20-2653-5

DATE: 10/14/20

FIGURE: C2

URM Hope Gardens - Sequoia Building

Latitude, Longitude: 34.30268, -118.3969



Date	9/4/2020, 12:59:25 PM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Default (See Section 11.4.3)

Type	Value	Description
S_S	2.448	MCE_R ground motion. (for 0.2 second period)
S_1	0.788	MCE_R ground motion. (for 1.0s period)
S_{MS}	2.937	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.958	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1.2	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.999	MCE_G peak ground acceleration
F_{PGA}	1.2	Site amplification factor at PGA
PGA_M	1.199	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	2.578	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	2.848	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	2.448	Factored deterministic acceleration value. (0.2 second)
S1RT	0.927	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	1.039	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.788	Factored deterministic acceleration value. (1.0 second)
PGAd	0.999	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.905	Mapped value of the risk coefficient at short periods
C_{R1}	0.892	Mapped value of the risk coefficient at a period of 1 s

APPENDIX C

DEAGGREGATION OUTPUT AND PARAMETERS

*** Deaggregation of Seismic Hazard at One Period of Spectral Acceleration ***
*** Data from Dynamic: Conterminous U.S. 2014 (update) (v4.2.0) ****

PSHA Deaggregation. %contributions.
site: URM Hope Gardens, Sequoia Building
longitude: 118.397°W
latitude: 34.303°E
imt: Peak ground acceleration
vs30 = 360 m/s (C/D boundary)
return period: 2475 yrs.
This deaggregation corresponds to: Total

Summary statistics for PSHA PGA deaggregation, r=distance, ε=epsilon:

Deaggregation targets:
Return period: 2475 yrs
Exceedance rate: 0.0004040404 yr^{-1}
PGA ground motion: 1.1855866 g

Recovered targets:
Return period: 2921.1313 yrs
Exceedance rate: 0.00034233313 yr^{-1}

Totals:
Binned: 100 %
Residual: 0 %
Trace: 0.03 %

Mean (over all sources):
m: 6.75
r: 4.52 km
ε_0: 1.53 σ

Mode (largest m-r bin):
m: 6.3
r: 3.98 km
ε_0: 1.67 σ
Contribution: 17.78 %

Mode (largest m-r-ε_0 bin):
m: 6.27
r: 3.48 km
ε_0: 1.68 σ
Contribution: 11.73 %

Discretization:
r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ

Epsilon keys:
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

APPENDIX C

Closest Distance, rRup (km)	Mag. (Mw)	ALL_ε	ε=[2.5,∞)	ε=[2,2.5)	ε=[1.5,2)	ε=[1,1.5)	ε=[0.5,1)	ε=(-∞,0.5)	ε=[-0.5,∞)	ε=[-1,-0.5)	ε=[-1.5,-1)	ε=[-2,-1.5)	ε=[-2.5,-2)	ε=(-∞,-2.5)
50	8.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	6.3	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	6.5	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	6.7	0.013	0.001	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	6.9	0.098	0.030	0.068	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	7.1	0.071	0.013	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	7.3	0.100	0.028	0.072	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	7.5	0.081	0.000	0.051	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	7.7	0.113	0.075	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	7.9	0.116	0.042	0.074	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	8.1	0.200	0.001	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	8.3	0.172	0.001	0.171	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	5.1	3.075	2.999	0.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	5.3	3.582	1.431	2.104	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	5.5	4.266	0.700	1.922	1.449	0.196	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	5.7	3.666	1.123	1.213	1.029	0.301	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	5.9	2.956	1.593	0.659	0.380	0.324	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	6.1	2.960	1.029	0.819	0.919	0.192	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	6.3	17.783	4.407	11.727	1.510	0.140	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	6.5	5.992	1.902	3.227	0.741	0.122	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	6.7	7.076	4.605	2.077	0.339	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	6.9	8.040	0.140	5.348	2.037	0.473	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	7.1	4.243	0.999	2.396	0.612	0.201	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	7.3	5.867	0.739	3.409	1.418	0.266	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	7.5	12.950	3.366	7.006	2.048	0.502	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	7.7	11.749	3.700	5.595	2.045	0.387	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000

APPENDIX C

Principal Sources (faults, subduction, random seismicity having > 3% contribution

UC33brAvg_FM32:
Percent Contributed: 42.57
Distance (km): 3.8980641
Magnitude: 7.043712
Epsilon (mean values): 1.4280506

Sierra Madre (San Fernando) [1]:
Percent Contributed: 11.22
Distance (km): 1.4151704
Magnitude: 7.4058812
Epsilon (mean values): 1.1003964
Azimuth: 237.06288
Latitude: 34.299946
Longitude: -118.40201

Santa Susana East (connector) [1]:
Percent Contributed: 10.52
Distance (km): 2.8765883
Magnitude: 6.5727063
Epsilon (mean values): 1.5608381
Azimuth: 240.16784
Latitude: 34.292074
Longitude: -118.41928

Santa Susana alt 2 [0]:
Percent Contributed: 9.89
Distance (km): 3.6422895
Magnitude: 6.8327147
Epsilon (mean values): 1.5848029
Azimuth: 23.962876
Latitude: 34.331316
Longitude: -118.38149

Mission Hills 2011 [0]:
Percent Contributed: 3.25
Distance (km): 4.285107
Magnitude: 7.0147362
Epsilon (mean values): 1.363737
Azimuth: 209.70792
Latitude: 34.270223
Longitude: -118.41931

Verdugo [3]:
Percent Contributed: 2.68
Distance (km): 4.1927229
Magnitude: 7.5238336
Epsilon (mean values): 1.1574603
Azimuth: 203.83756
Latitude: 34.269
Longitude: -118.41491

Northridge [4]:
Percent Contributed: 1.75
Distance (km): 8.349439
Magnitude: 7.1757588
Epsilon (mean values): 1.4737678
Azimuth: 97.735957
Latitude: 34.302199
Longitude: -118.39262

UC33brAvg_FM31:
Percent Contributed: 34.33
Distance (km): 4.4829673
Magnitude: 7.0917535
Epsilon (mean values): 1.4039602

Sierra Madre (San Fernando) [1]:
Percent Contributed: 8.8
Distance (km): 1.4151704
Magnitude: 7.5200125
Epsilon (mean values): 1.068497
Azimuth: 237.06288
Latitude: 34.299946
Longitude: -118.40201

Santa Susana East (connector) [1]:
Percent Contributed: 8.57
Distance (km): 2.8765883
Magnitude: 6.8212071
Epsilon (mean values): 1.4740253
Azimuth: 240.16784
Latitude: 34.292074
Longitude: -118.41928

Mission Hills 2011 [0]:
Percent Contributed: 7.52
Distance (km): 4.285107
Magnitude: 6.4773786
Epsilon (mean values): 1.5034249
Azimuth: 209.70792
Latitude: 34.270223
Longitude: -118.41931

Verdugo [3]:
Percent Contributed: 2.98
Distance (km): 4.1927229
Magnitude: 7.5449507
Epsilon (mean values): 1.1656069
Azimuth: 203.83756
Latitude: 34.269
Longitude: -118.41491

Northridge [4]:
Percent Contributed: 2.31
Distance (km): 8.349439
Magnitude: 7.1834007
Epsilon (mean values): 1.4671992
Azimuth: 97.735957
Latitude: 34.302199
Longitude: -118.39262

San Gabriel [1]:
Percent Contributed: 1.01
Distance (km): 6.9866555
Magnitude: 7.3713469
Epsilon (mean values): 1.7889143
Azimuth: 19.782311
Latitude: 34.360478
Longitude: -118.37172

UC33brAvg_FM31 (opt):
Percent Contributed: 11.61
Distance (km): 5.7498295
Magnitude: 5.6870293
Epsilon (mean values): 1.9212908

PointSourceFinite: -118.397, 34.307:
Percent Contributed: 4.9
Distance (km): 5.0331695
Magnitude: 5.594227
Epsilon (mean values): 1.8395077
Azimuth: 0
Latitude: 34.307177
Longitude: -118.3969

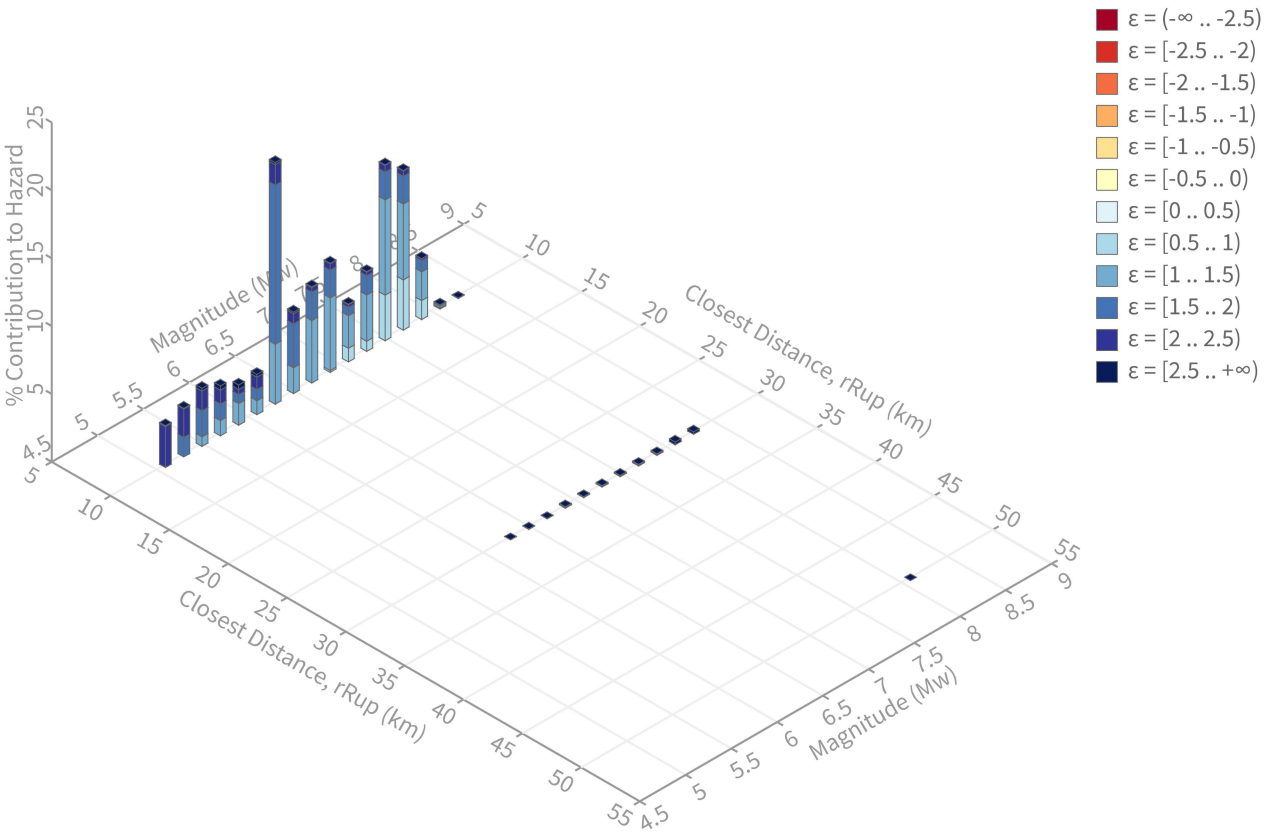
PointSourceFinite: -118.397, 34.307:
Percent Contributed: 4.9
Distance (km): 5.0331695
Magnitude: 5.594227
Epsilon (mean values): 1.8395077
Azimuth: 0
Latitude: 34.307177
Longitude: -118.3969

UC33brAvg_FM32 (opt):
Percent Contributed: 11.5
Distance (km): 5.7185602
Magnitude: 5.6779528
Epsilon (mean values): 1.9201124

PointSourceFinite: -118.397, 34.307:
Percent Contributed: 4.89
Distance (km): 5.0299996
Magnitude: 5.5891996
Epsilon (mean values): 1.8413904
Azimuth: 0
Latitude: 34.307177
Longitude: -118.3969

PointSourceFinite: -118.397, 34.307:
Percent Contributed: 4.89
Distance (km): 5.0299996
Magnitude: 5.5891996
Epsilon (mean values): 1.8413904
Azimuth: 0
Latitude: 34.307177
Longitude: -118.3969

HAZARD CONTRIBUTIONS



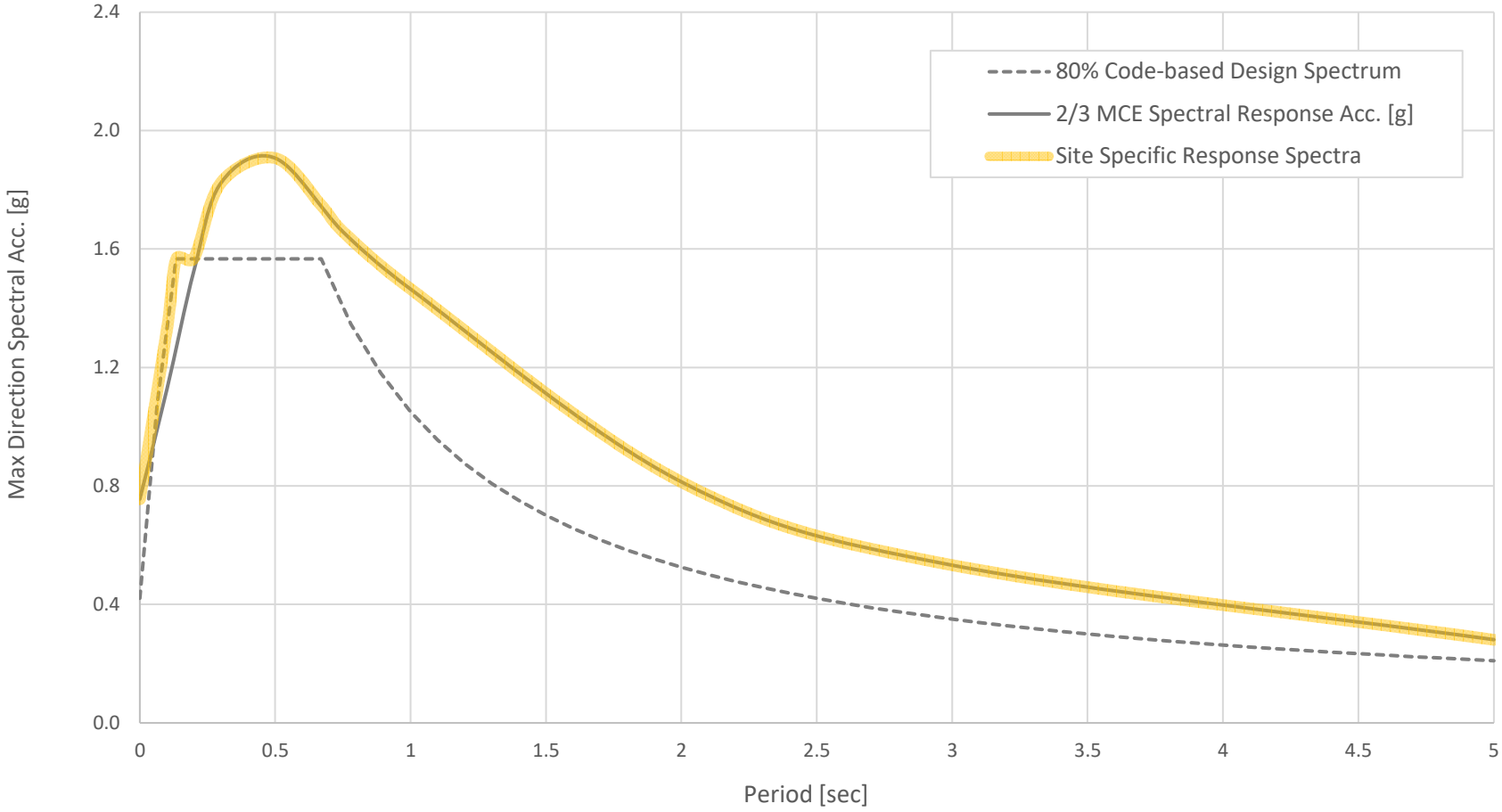
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MAGNITUDE-DISTANCE CONTRIBUTIONS TO HAZARD

JOB NO.: 20-2653-5

DATE: 10/14/20

FIGURE: C3



Site Coordinates		Site Class	Risk Category	SDC	S_{MS}	S_{M1}	S_{DS}	S_{D1}	PGA
Lat	Long								
34.30268	118.3969	D	I, II or III	D	2.575	2.441	1.717	1.627	0.76

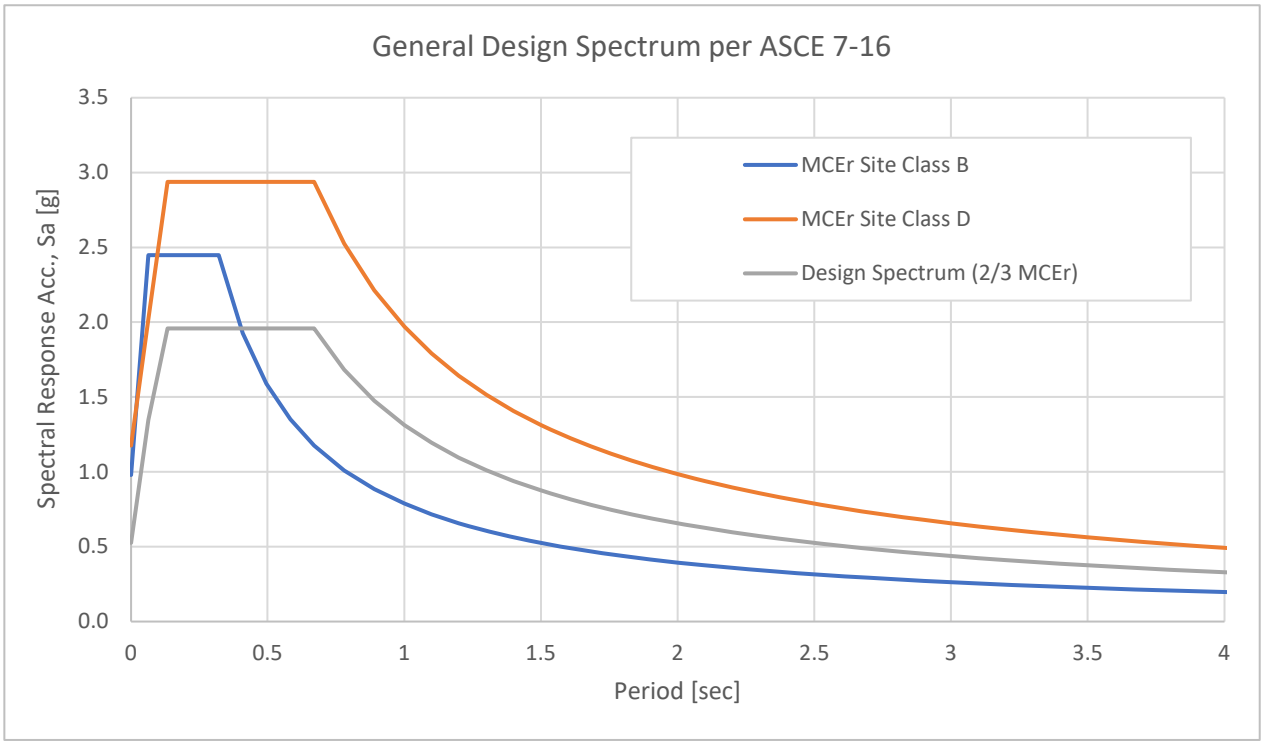
Design Reference: 2019 CBC and ASCE 7-16

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Geological and Geotechnical Consultants

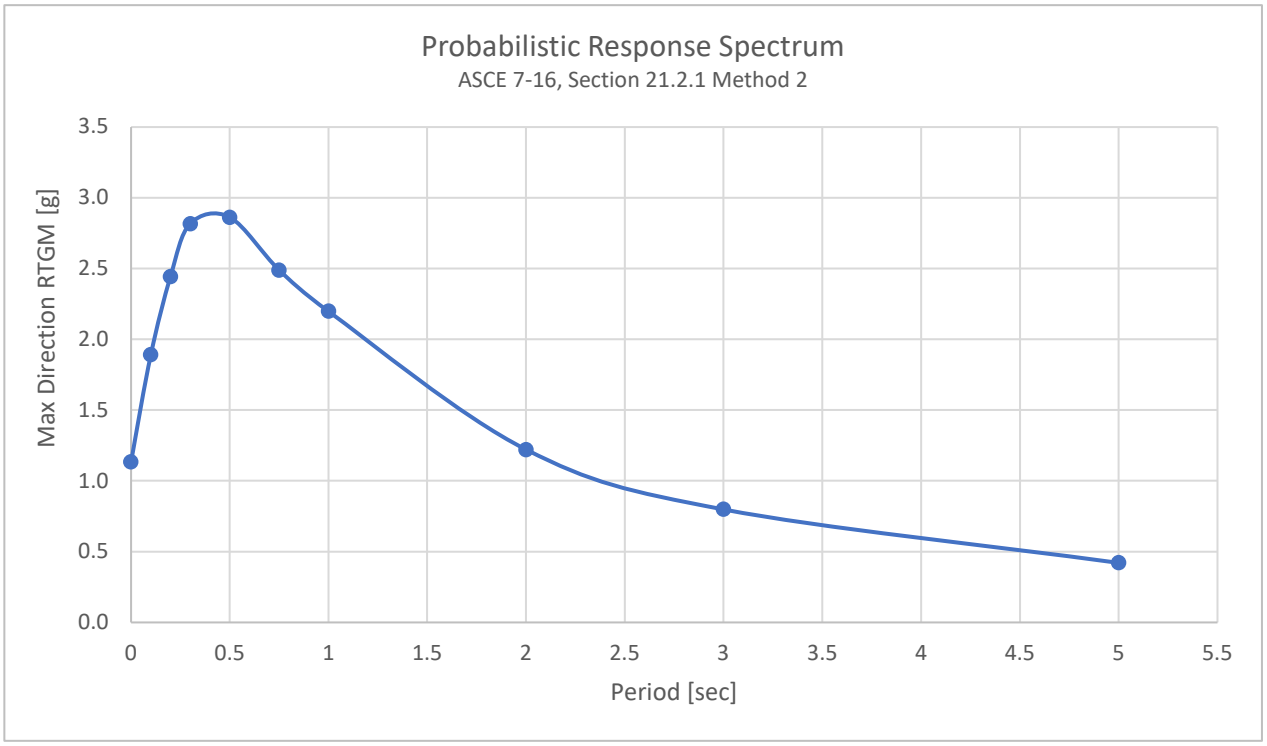
Site-Specific Response Spectra and Seismic Design Parameters

Client:	Union Rescue Mission	Job No.:	20-2653
Project:	URM Hope Gardens - Sequoia Building	Date:	10/14/20
	12279 Lopez Canyon Rd., Sylmar	Figure:	C4

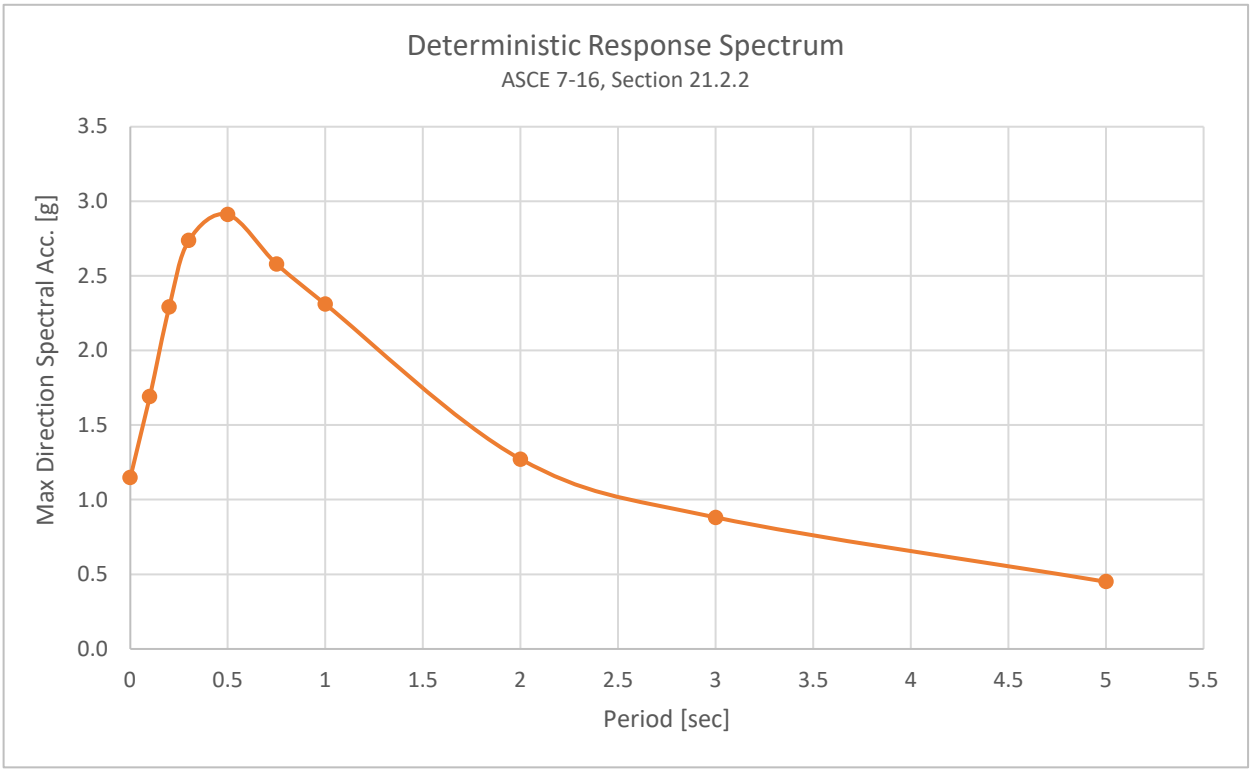
Parameter	Value	Description
S_S	2.448	MCE_R ground motion (0.2 sec)
S_1	0.788	MCE_R ground motion (1.0 sec)
F_a	1.2	Site amplification factor (0.2 sec)
F_v	2.5	Site amplification factor (1.0 sec)
S_{MS}	2.9376	Site-modified spectral acc. (0.2 sec)
S_{M1}	1.970	Site-modified spectral acc. (1.0 sec)
S_{DS}	1.958	Design spectral acc. value (0.2 sec)
S_{D1}	1.313	Design spectral acc. value (1.0 sec)
PGA	0.999	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	1.10	Site-modified peak ground acc. (Eq. 11.8-1)



Period [sec]	UHGM [g]	RTGM [g]	Max Direction Scale Factor	Max Dir RTGM [g]
0	1.072	1.031	1.1	1.134
0.1	1.763	1.720	1.1	1.892
0.2	2.267	2.221	1.1	2.443
0.3	2.601	2.504	1.125	2.817
0.5	2.614	2.435	1.175	2.861
0.75	2.220	2.011	1.2375	2.489
1	1.870	1.691	1.3	2.198
2	1.013	0.904	1.35	1.220
3	0.643	0.571	1.4	0.799
5	0.315	0.281	1.5	0.422



Period [sec]	84th Percentile Spectral Acc. [g]	Max Direction Scale Factor	Max Deterministic Spectral Acc. [g]
0	1.044	1.1	1.148
0.1	1.537	1.1	1.691
0.2	2.084	1.1	2.292
0.3	2.433	1.125	2.737
0.5	2.477	1.175	2.910
0.75	2.084	1.2375	2.579
1	1.777	1.3	2.310
2	0.942	1.35	1.272
3	0.630	1.4	0.882
5	0.301	1.5	0.452

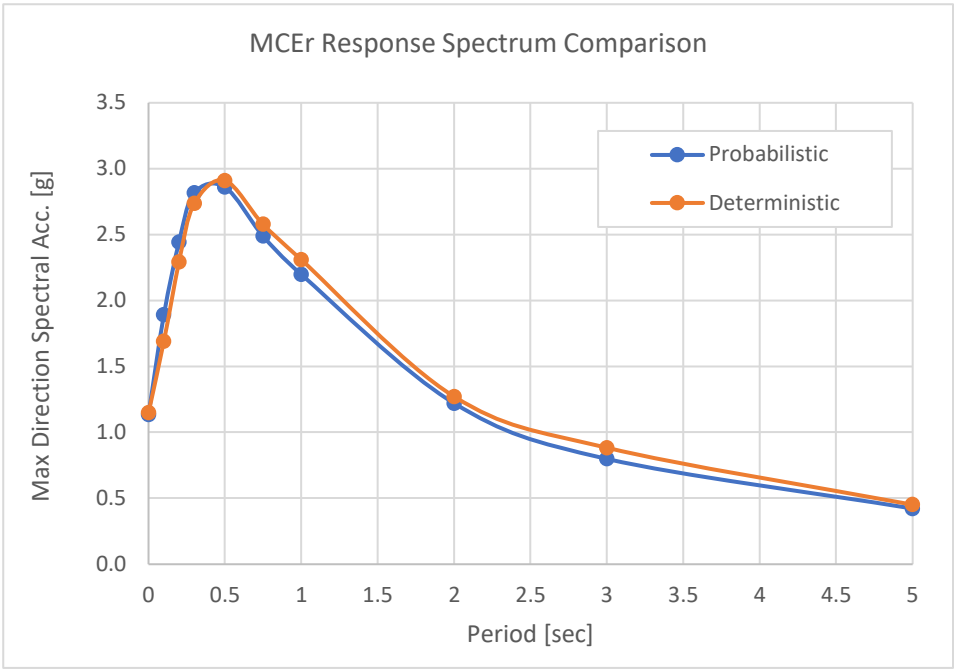


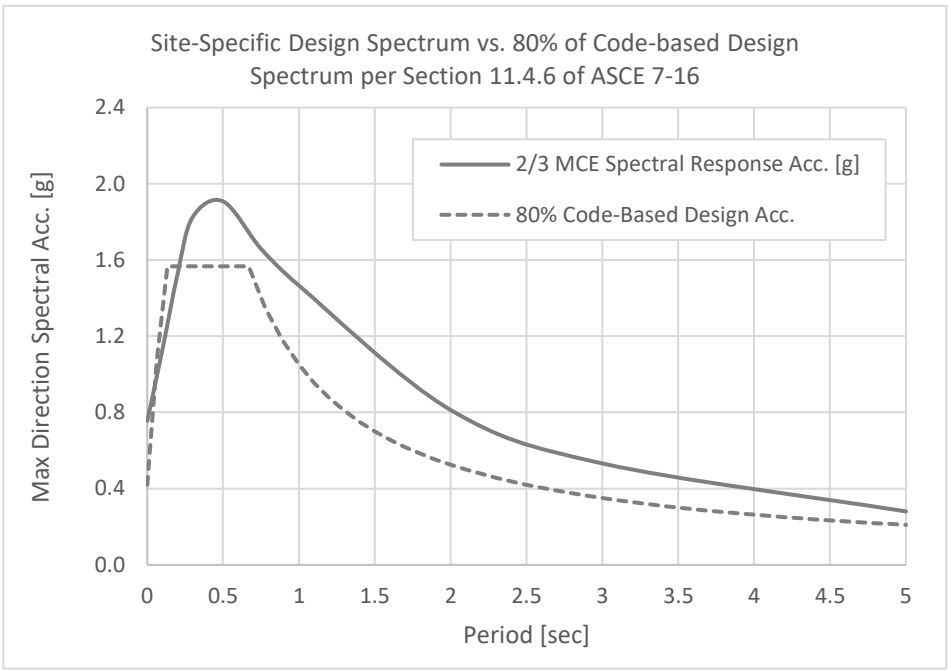
Period, T [sec]	Max Probabilistic Spectral Acc. [g]	Max Deterministic Spectral Acc. [g]	MCE Spectral Response Acc. [g] [a]	2/3 MCE Spectral Response Acc. [g]	80% Code-based Design Spectrum	Site-Specific Design Acc. [g] [b]
0	1.134	1.148	1.134	0.756	0.420	0.756
0.1	1.892	1.691	1.691	1.127	1.330	1.330
0.2	2.443	2.292	2.292	1.528	1.570	1.570
0.3	2.817	2.737	2.737	1.825	1.570	1.825
0.5	2.861	2.910	2.861	1.907	1.570	1.907
0.75	2.489	2.579	2.489	1.659	1.400	1.659
1	2.198	2.310	2.198	1.466	1.051	1.466
2	1.220	1.272	1.220	0.814	0.525	0.814
3	0.799	0.882	0.799	0.533	0.350	0.533
5	0.422	0.452	0.422	0.281	0.210	0.281

Design Parameters
SD_S
1.717
SD_1
1.627
SM_S
2.575
SM_1
2.441
PGA
0.76

[a] Equal to the lesser of the MCEr probabilistic and deterministic spectral acceleration at each ordinate

[b] Equal to 2/3 of the MCE Spectral Response Acceleration





APPENDIX C

GROUND MOTION AND RESPONSE SPECTRA REFERENCES

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Boore, D.M., Stewart, J.P., Seyhan, E., and Atkinson, G.A., 2014, NGA-West2 equations for predicting PGA, PGV, and 5% damped PSA for shallow crustal earthquakes: Earthquake Spectra, v. 30, no. 3, p. 1057–1085.

Campbell, K.W., and Bozorgnia, Y., 2014, NGA-West2 ground motion model for the average horizontal components of PGA, PGV, and 5% damped linear acceleration response spectra: Earthquake Spectra, v. 30, no. 3, p. 1087–1115.

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Field, E.H., Biasi, G.P., Bird, P., Dawson, T.E., Felzer, K.R., Jackson, D.D., Johnson, K.M., Jordan, T.H., Madden, C., Michael, A.J., Milner, K.R., Page, M.T., Parsons, T., Powers, P.M., Shaw, B.E., Thatcher, W.R., Weldon, R.J., II, and Zeng, Y., 2013, Uniform California earthquake rupture forecast, version 3 (UCERF3)—The time-independent model: U.S. Geological Survey Open-File Report 2013–1165, 97 p., California Geological Survey Special Report 228, and Southern California Earthquake Center Publication 1792, http://pubs.usgs.gov/of/2013/1165/

Seyhan, E., (2015), Weighted Average of 2014 NGA West-2 GMPEs, Excel file: NGAW2_GMPE_Spreadsheets_v5.7_041515 (2015), Pacific Earthquake Engineering Research Center.

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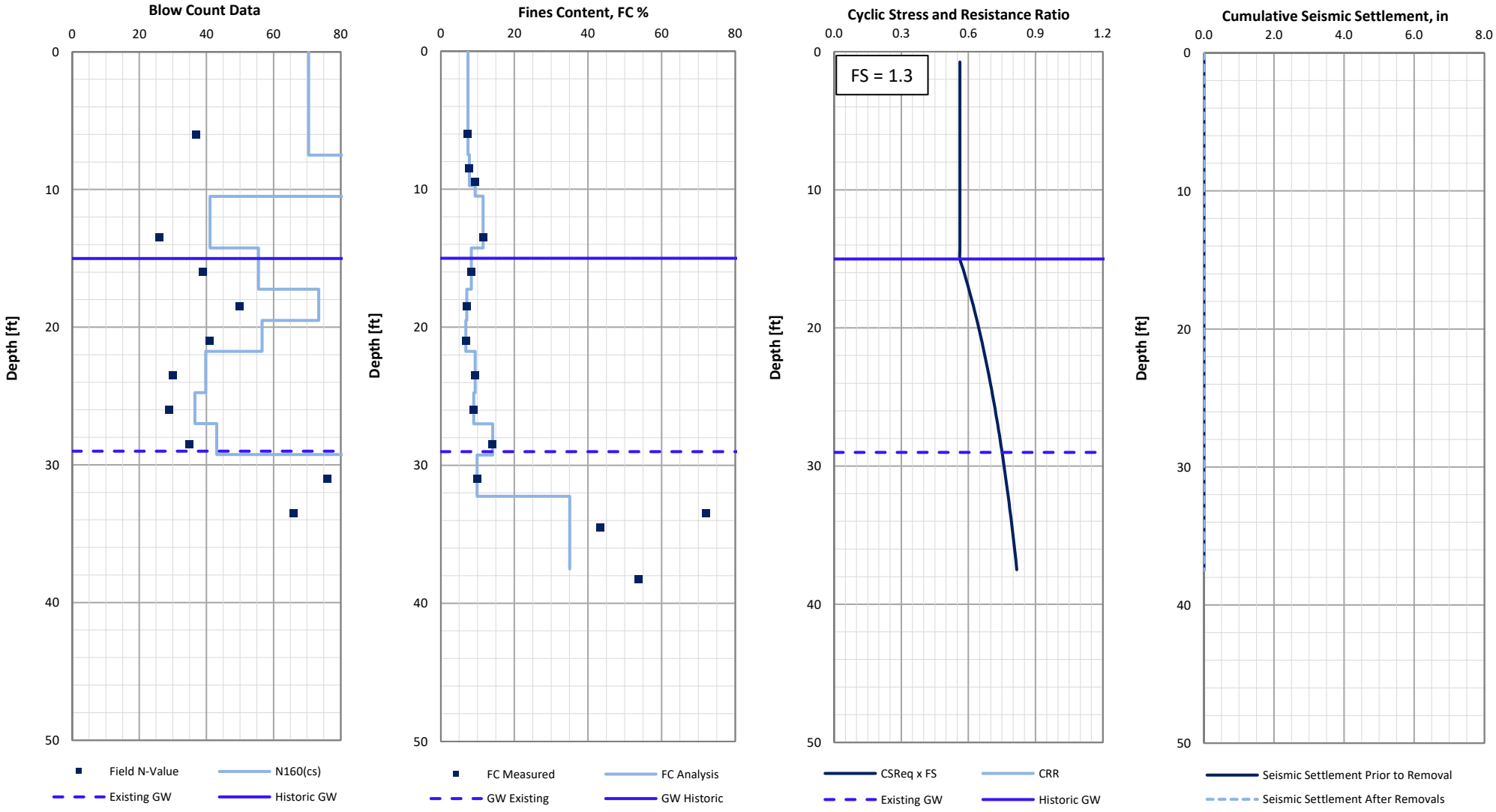
U.S. Geological Survey, Quaternary Faults and Folds in the U.S., Google Earth .kmz file, https://www.usgs.gov/natural-hazards/earthquake-hazards/google-earth-kml-files

U.S. Geological Survey, Risk-Targeted Ground Motion Calculator, https://earthquake.usgs.gov/designmaps/rtgm/

U.S. Geological Survey, 2008 National Seismic Hazards Map – Source Parameters, https://earthquake.usgs.gov/cfusion/hazfaults_2008_search/query_main.cfm

Appendix D

SPT-Based Assessment of Seismic Soil Liquefaction Potential



1. Design Reference: Cetin, et al., ASCE Journal of Geotechnical and Environmental Engineering, December 2004, pp. 1314 - 1340
2. Design Reference: Tokimatsu and Seed, ASCE Journal of Geotechnical Engineering, August 1987

Location:	**HS-4**
Elevation (MSL):	1423
Removal Depth (ft):	10
Total Settlement (in)	
Prior to Removal:	0.00
After Removal:	0.00

SPT Liq v1a; Feb 2017

Figure: D1

ALLAN E. SEWARD
ENGINEERING GEOLOGY, INC.
Geological and Geotechnical Consultants

Client:	Union Rescue Mission	Magnitude, M_w	6.3
Project:	URM Hope Gardens	Acceleration, PGA (g)	1.04
	Sequoia Building	Magnitude Weighted PGA (g)	0.66
Job No.:	20-2653	Existing GW Elev. (ft)	29
Date:	10/14/20	Historic GW Elev. (ft)	15

Corrections for Standard Penetration Test

Union Rescue Mission

Design Reference: Cetin, et al., ASCE Journal of Geotechnical and Environmental Engineering, December 2004, pp. 1314 - 1340

Job No.: 20-2653

Calculated By: K. Callahan Date: 10/9/2020

Layer	Sample Depth [ft]		Mid-Height Depth, z [ft]	USCS	Total Vertical Stress, σ_v [psf]	Pore Pressure, u [psf]	Effective Vertical Stress, σ'_v [psf]	Field Blow Count, N [blows/ft]	Overburden Correction Factor, C_N [lim ≤ 1.6]	Corrected Blow Count, N_1	Rod Length [ft]	Short Rod Length Correction Factor, C_R	Sampler Configuration Correction Factor, C_S [1.1 to 1.3]	Corrected Blow Count $(N_1)_{60}$
	top	bottom			$z\gamma_T$		σ_v-u		Cetin et al. (2004)	N x C_N		Cetin et al. (2004)		N_1 x C_R x C_S x C_B x C_E
1	5.5	6.5	6.0	SP-SM	720.0	0.0	720.0	37	1.60	59.2	9.5	0.75	1.00	68.1
2	8.0	9.0	8.5	SP-SM	1020.0	0.0	1020.0	88	1.44	126.8	12.0	0.80	1.00	155.5
3	9.5	9.5	9.5	SP-SM	1140.0	0.0	1140.0	100	1.36	136.2	13.5	0.85	1.00	177.6
4	13.0	14.0	13.5	SP-SM	1620.0	0.0	1620.0	26	1.14	29.7	17.0	0.85	1.00	38.7
5	15.5	16.5	16.0	SP-SM	1920.0	0.0	1920.0	39	1.05	40.9	19.5	0.85	1.00	53.4
6	18.0	19.0	18.5	SP-SM	2220.0	0.0	2220.0	50	0.98	48.8	22.0	0.95	1.00	71.1
7	20.5	21.5	21.0	SP-SM	2520.0	0.0	2520.0	41	0.92	37.6	24.5	0.95	1.00	54.7
8	23.0	24.0	23.5	SP-SM	2820.0	0.0	2820.0	30	0.87	26.0	27.0	0.95	1.00	37.9
9	25.5	26.5	26.0	SP-SM	3120.0	0.0	3120.0	29	0.82	23.9	29.5	0.95	1.00	34.8
10	28.0	29.0	28.5	SM	3420.0	0.0	3420.0	35	0.79	27.5	32.0	0.95	1.00	40.1
11	30.5	31.5	31.0	SP-SM	3720.0	124.8	3595.2	76	0.77	58.3	34.5	1.00	1.00	89.4
12	33.0	34.0	33.5	BEDROCK	4020.0	280.8	3739.2	66	0.75	49.7	37.0	1.00	1.00	76.1
13	34.5	34.5	34.5	BEDROCK	4140.0	343.2	3796.8	100	0.75	74.7	38.5	1.00	1.00	114.5
14	37.8	38.7	38.3	BEDROCK	4590.0	577.2	4012.8	100	0.73	72.6	41.8	1.00	1.00	111.4
15														
16														
17														
18														
19														
20														

Seismic Soil Liquefaction Triggering Calculations

Union Rescue Mission

Design Reference: Cetin, et al., ASCE Journal of Geotechnical and Environmental Engineering, December 2004, pp. 1314 - 1340

Job No.: 20-2653

0.15 Probability of Liquefaction, P_L

Layer	Depth, d [ft]	Corrected Blow Count $(N_1)_{60}$	Fines Content, FC measured [%]	Fines Content, FC for analysis [%]	C_{FINES} Eq. 15	Clean Sand Blow Count $(N_1)_{60,CS}$ Eq. 14	Total Vertical Stress, σ_v [psf]	Pore Pressure, u [psf]	Effective Vertical Stress, σ'_v [psf]	Non-Linear Shear Factor, r_d (d<20m) Eq. 8	CSR_{eq} Eq. 10	Probability of Liquefaction, P_L Eq. 19	CRR for P_L = 0.15 Eq. 20	ŧ (0.6-0.8)	Kσ Eq. 18	CSR_{eq}^* Eq. 22	Factor of Safety, FS_L CRR/CSR_{eq}^*
1	0.8	68.1	7.4	7.4	1.04	70.5	90.0	0.0	90.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
1	1.5	68.1	7.4	7.4	1.04	70.5	180.0	0.0	180.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
1	2.3	68.1	7.4	7.4	1.04	70.5	270.0	0.0	270.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
1	3.0	68.1	7.4	7.4	1.04	70.5	360.0	0.0	360.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
1	3.8	68.1	7.4	7.4	1.04	70.5	450.0	0.0	450.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
1	4.5	68.1	7.4	7.4	1.04	70.5	540.0	0.0	540.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
1	5.3	68.1	7.4	7.4	1.04	70.5	630.0	0.0	630.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
1	6.0	68.1	7.4	7.4	1.04	70.5	720.0	0.0	720.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
1	6.8	68.1	7.4	7.4	1.04	70.5	810.0	0.0	810.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
1	7.5	68.1	7.4	7.4	1.04	70.5	900.0	0.0	900.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
2	8.3	155.5	7.8	7.8	1.03	160.7	990.0	0.0	990.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
2	9.0	155.5	7.8	7.8	1.03	160.7	1080.0	0.0	1080.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
2	9.8	155.5	7.8	7.8	1.03	160.7	1170.0	0.0	1170.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
3	10.5	177.6	9.4	9.4	1.04	184.7	1260.0	0.0	1260.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
4	11.3	38.7	11.5	11.5	1.06	41.1	1350.0	0.0	1350.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
4	12.0	38.7	11.5	11.5	1.06	41.1	1440.0	0.0	1440.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
4	12.8	38.7	11.5	11.5	1.06	41.1	1530.0	0.0	1530.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
4	13.5	38.7	11.5	11.5	1.06	41.1	1620.0	0.0	1620.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
4	14.3	38.7	11.5	11.5	1.06	41.1	1710.0	0.0	1710.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
5	15.0	53.4	8.3	8.3	1.04	55.6	1800.0	0.0	1800.0	1.000	0.68	0.00	4.00	0.80	1.00	0.43	>2.0
5	15.8	53.4	8.3	8.3	1.04	55.6	1890.0	46.8	1843.2	1.000	0.69	0.00	4.00	0.80	1.00	0.44	>2.0
5	16.5	53.4	8.3	8.3	1.04	55.6	1980.0	93.6	1886.4	1.000	0.71	0.00	4.00	0.80	1.00	0.45	>2.0
5	17.3	53.4	8.3	8.3	1.04	55.6	2070.0	140.4	1929.6	1.000	0.73	0.00	4.00	0.80	1.00	0.46	>2.0
6	18.0	71.1	7.1	7.1	1.03	73.5	2160.0	187.2	1972.8	1.000	0.74	0.00	4.00	0.80	1.00	0.47	>2.0
6	18.8	71.1	7.1	7.1	1.03	73.5	2250.0	234.0	2016.0	1.000	0.75	0.00	4.00	0.80	1.00	0.48	>2.0
6	19.5	71.1	7.1	7.1	1.03	73.5	2340.0	280.8	2059.2	1.000	0.77	0.00	4.00	0.80	1.00	0.49	>2.0
7	20.3	54.7	6.8	6.8	1.03	56.6	2430.0	327.6	2102.4	1.000	0.78	0.00	4.00	0.80	1.00	0.50	>2.0
7	21.0	54.7	6.8	6.8	1.03	56.6	2520.0	374.4	2145.6	1.000	0.79	0.00	4.00	0.80	1.00	0.51	>2.0
7	21.8	54.7	6.8	6.8	1.03	56.6	2610.0	421.2	2188.8	1.000	0.81	0.00	4.00	0.80	1.00	0.52	>2.0
8	22.5	37.9	9.4	9.4	1.05	39.7	2700.0	468.0	2232.0	1.000	0.82	0.04	4.00	0.80	1.00	0.52	>2.0
8	23.3	37.9	9.4	9.4	1.05	39.7	2790.0	514.8	2275.2	1.000	0.83	0.05	4.00	0.80	1.00	0.53	>2.0
8	24.0	37.9	9.4	9.4	1.05	39.7	2880.0	561.6	2318.4	1.000	0.84	0.06	4.00	0.80	1.00	0.54	>2.0
8	24.8	37.9	9.4	9.4	1.05	39.7	2970.0	608.4	2361.6	1.000	0.85	0.07	4.00	0.80	1.00	0.54	>2.0
9	25.5	34.8	9.0	9.0	1.05	36.5	3060.0	655.2	2404.8	1.000	0.86	0.42	4.00	0.78	1.00	0.55	>2.0
9	26.3	34.8	9.0	9.0	1.05	36.5	3150.0	702.0	2448.0	1.000	0.87	0.45	4.00	0.78	1.00	0.56	>2.0
9	27.0	34.8	9.0	9.0	1.05	36.5	3240.0	748.8	2491.2	1.000	0.88	0.48	4.00	0.78	1.00	0.56	>2.0
10	27.8	40.1	14.1	14.1	1.07	43.1	3330.0	795.6	2534.4	1.000	0.89	0.01	4.00	0.80	1.00	0.57	>2.0
10	28.5	40.1	14.1	14.1	1.07	43.1	3420.0	842.4	2577.6	1.000	0.90	0.01	4.00	0.80	1.00	0.57	>2.0
10	29.3	40.1	14.1	14.1	1.07	43.1	3510.0	889.2	2620.8	1.000	0.90	0.01	4.00	0.80	1.00	0.58	>2.0
11	30.0	89.4	9.9	9.9	1.05	93.4	3600.0	936.0	2664.0	1.000	0.91	0.00	4.00	0.80	1.00	0.58	>2.0
11	30.8	89.4	9.9	9.9	1.05	93.4	3690.0	982.8	2707.2	0.999	0.92	0.00	4.00	0.80	1.00	0.59	>2.0

Seismic Soil Liquefaction Triggering Calculations

Union Rescue Mission

Design Reference: Cetin, et al., ASCE Journal of Geotechnical and Environmental Engineering, December 2004, pp. 1314 - 1340

Job No.: 20-2653

0.15 Probability of Liquefaction, P_L

Layer	Depth, d [ft]	Corrected Blow Count $(N_1)_{60}$	Fines Content, FC measured [%]	Fines Content, FC for analysis [%]	C_{FINES} Eq. 15	Clean Sand Blow Count $(N_1)_{60,CS}$ Eq. 14	Total Vertical Stress, σ_v [psf]	Pore Pressure, u [psf]	Effective Vertical Stress, σ'_v [psf]	Non-Linear Shear Factor, r_d (d<20m) Eq. 8	CSR_{eq} Eq. 10	Probability of Liquefaction, P_L Eq. 19	CRR for P_L = 0.15 Eq. 20	τ (0.6-0.8)	Kσ Eq. 18	CSR_{eq}^* Eq. 22	Factor of Safety, FS_L CRR/CSR_{eq}^*
11	31.5	89.4	9.9	9.9	1.05	93.4	3780.0	1029.6	2750.4	0.999	0.93	0.00	4.00	0.80	1.00	0.59	>2.0
11	32.3	89.4	9.9	9.9	1.05	93.4	3870.0	1076.4	2793.6	0.999	0.94	0.00	4.00	0.80	1.00	0.60	>2.0
12	33.0	76.1	72.2	35.0	1.16	88.5	3960.0	1123.2	2836.8	0.999	0.94	0.00	4.00	0.80	1.00	0.60	>2.0
12	33.8	76.1	72.2	35.0	1.16	88.5	4050.0	1170.0	2880.0	0.999	0.95	0.00	4.00	0.80	1.00	0.61	>2.0
12	34.5	76.1	72.2	35.0	1.16	88.5	4140.0	1216.8	2923.2	0.999	0.96	0.00	4.00	0.80	1.00	0.61	>2.0
13	35.3	114.5	43.3	35.0	1.16	132.3	4230.0	1263.6	2966.4	0.999	0.96	0.00	4.00	0.80	1.00	0.62	>2.0
13	36.0	114.5	43.3	35.0	1.16	132.3	4320.0	1310.4	3009.6	0.999	0.97	0.00	4.00	0.80	1.00	0.62	>2.0
13	36.8	114.5	43.3	35.0	1.16	132.3	4410.0	1357.2	3052.8	0.999	0.98	0.00	4.00	0.80	1.00	0.62	>2.0
14	37.5	111.4	53.8	35.0	1.16	128.7	4500.0	1404.0	3096.0	0.999	0.98	0.00	4.00	0.80	1.00	0.63	>2.0

Seismically-Induced Settlement Calculations

Union Rescue Mission

Design Reference: Tokimatsu and Seed, ASCE Journal of Geotechnical Engineering, August 1987

Job No.: 20-2653

0.700	Vol. Strain Ratio For Dry Sands

						Wet Settlement		Dry Sand Settlement								
Layer	Depth, d [ft]	Layer Thickness Δd [ft]	Avg. Clean Sand Blow Count $(N_1)_{60,CS}$	Avg. CSR_{eq}	FS_L	Volumetric Strain, ε_v [%]	Settlement [in]	a	b	Low Strain Shear Modulus G_{max} [psf]	Induced Cyclic Stress (γ_{eff} x G_{eff}) M=7.5 [ksf]	γ_{eff} x (G_{eff} / G_{max})	Cyclic Shear Strain, γ_{cyc} (γ_{eff} x 100) [%]	Volumetric Strain M = 7.5 [%]	Volumetric Strain M = 6.5 [%]	Volumetric Strain w/ 3D Effect [%]	Settlement [inches]
			Cetin, 2004			Fig. 2	ε_v*Δd									
1	0.8	0.8	70	0.43	>2.0			0.66	2.31	640061	0.04	6.05E-05	0.01	0.00	0.00	0.01	
1	1.5	0.8	70	0.43	>2.0			0.68	2.22	905183	0.08	8.55E-05	0.02	0.01	0.00	0.01	
1	2.3	0.8	70	0.43	>2.0			0.69	2.16	1108618	0.12	1.05E-04	0.03	0.01	0.01	0.01	
1	3.0	0.8	70	0.43	>2.0			0.70	2.13	1280122	0.15	1.21E-04	0.03	0.01	0.01	0.02	
1	3.8	0.8	70	0.43	>2.0			0.70	2.10	1431220	0.19	1.35E-04	0.04	0.01	0.01	0.02	
1	4.5	0.8	70	0.43	>2.0			0.71	2.07	1567823	0.23	1.48E-04	0.04	0.02	0.01	0.02	
1	5.3	0.8	70	0.43	>2.0			0.71	2.06	1693442	0.27	1.60E-04	0.05	0.02	0.01	0.02	
1	6.0	0.8	70	0.43	>2.0			0.72	2.04	1810366	0.31	1.71E-04	0.05	0.02	0.01	0.03	
1	6.8	0.8	70	0.43	>2.0			0.72	2.03	1920183	0.35	1.81E-04	0.06	0.02	0.01	0.03	
1	7.5	0.8	70	0.43	>2.0			0.72	2.01	2024050	0.39	1.91E-04	0.06	0.02	0.01	0.03	
2	8.3	0.8	161	0.43	>2.0			0.72	2.00	2802164	0.43	1.52E-04	0.03	0.01	0.00	0.01	
2	9.0	0.8	161	0.43	>2.0			0.73	1.99	2926765	0.46	1.59E-04	0.04	0.01	0.00	0.01	
2	9.8	0.8	161	0.43	>2.0			0.73	1.98	3046274	0.50	1.65E-04	0.04	0.01	0.00	0.01	
3	10.5	0.8	185	0.43	>2.0			0.73	1.97	3311133	0.54	1.64E-04	0.04	0.00	0.00	0.01	0.00
4	11.3	0.8	41	0.43	>2.0			0.73	1.96	2074096	0.58	2.80E-04	0.11	0.07	0.05	0.10	0.00
4	12.0	0.8	41	0.43	>2.0			0.73	1.96	2142117	0.62	2.89E-04	0.12	0.07	0.05	0.10	0.00
4	12.8	0.8	41	0.43	>2.0			0.74	1.95	2208044	0.66	2.98E-04	0.12	0.07	0.05	0.10	0.00
4	13.5	0.8	41	0.43	>2.0			0.74	1.94	2272059	0.70	3.07E-04	0.12	0.08	0.05	0.11	0.00
4	14.3	0.8	41	0.43	>2.0			0.74	1.94	2334318	0.74	3.15E-04	0.13	0.08	0.05	0.11	0.00
5	15.0	0.8	56	0.43	>2.0			0.74	1.93	2657254	0.77	2.91E-04	0.10	0.05	0.03	0.06	0.00
5	15.8	0.8	56	0.44	>2.0	Non-liquefiable	0.00	0.74	1.93	2688952	0.81	3.02E-04	0.11	0.05	0.03	0.07	
5	16.5	0.8	56	0.45	>2.0	Non-liquefiable	0.00	0.74	1.93	2720280	0.85	3.12E-04	0.12	0.05	0.04	0.07	
5	17.3	0.8	56	0.46	>2.0	Non-liquefiable	0.00	0.74	1.92	2751252	0.89	3.23E-04	0.12	0.05	0.04	0.08	
6	18.0	0.8	73	0.47	>2.0	Non-liquefiable	0.00	0.74	1.92	3038901	0.93	3.05E-04	0.11	0.04	0.03	0.05	
6	18.8	0.8	73	0.48	>2.0	Non-liquefiable	0.00	0.74	1.92	3071993	0.97	3.15E-04	0.11	0.04	0.03	0.05	
6	19.5	0.8	73	0.49	>2.0	Non-liquefiable	0.00	0.74	1.92	3104733	1.01	3.25E-04	0.12	0.04	0.03	0.06	
7	20.3	0.8	57	0.50	>2.0	Non-liquefiable	0.00	0.74	1.91	2888795	1.05	3.64E-04	0.15	0.07	0.05	0.09	
7	21.0	0.8	57	0.51	>2.0	Non-liquefiable	0.00	0.75	1.91	2918323	1.09	3.75E-04	0.16	0.07	0.05	0.10	
7	21.8	0.8	57	0.52	>2.0	Non-liquefiable	0.00	0.75	1.91	2947556	1.14	3.86E-04	0.17	0.07	0.05	0.10	
8	22.5	0.8	40	0.52	>2.0	Non-liquefiable	0.00	0.75	1.91	2645054	1.16	4.39E-04	0.23	0.14	0.10	0.20	
8	23.3	0.8	40	0.53	>2.0	Non-liquefiable	0.00	0.75	1.90	2670528	1.21	4.52E-04	0.24	0.15	0.10	0.21	
8	24.0	0.8	40	0.54	>2.0	Non-liquefiable	0.00	0.75	1.90	2695762	1.25	4.64E-04	0.25	0.16	0.11	0.22	
8	24.8	0.8	40	0.54	>2.0	Non-liquefiable	0.00	0.75	1.90	2720762	1.28	4.69E-04	0.25	0.16	0.11	0.22	
9	25.5	0.8	36	0.55	>2.0	Non-liquefiable	0.00	0.75	1.90	2650784	1.32	4.99E-04	0.29	0.20	0.14	0.28	

Seismically-Induced Settlement Calculations

Union Rescue Mission

Design Reference: Tokimatsu and Seed, ASCE Journal of Geotechnical Engineering, August 1987

Job No.: 20-2653

0.700 Vol. Strain Ratio For Dry Sands

Layer	Depth, d [ft]	Layer Thickness Δd [ft]	Avg. Clean Sand Blow Count $(N_1)_{60,CS}$	Avg. CSR_{eq}	FS_L	Wet Settlement: Volumetric Strain, ε_v [%]	Wet Settlement: Settlement [in]	Dry Sand Settlement: a	b	Low Strain Shear Modulus G_{max} [psf]	Induced Cyclic Stress (γ_{eff} x G_{eff}) M=7.5 [ksf]	γ_{eff} x (G_{eff} / G_{max})	Cyclic Shear Strain, γ_{cyc} (γ_{eff} x 100) [%]	Volumetric Strain M = 7.5 [%]	Volumetric Strain M = 6.5 [%]	Volumetric Strain w/ 3D Effect [%]	Settlement [inches]
			Cetin, 2004			Fig. 2	ε_v*Δd										
9	26.3	0.8	36	0.56	>2.0	Non-liquefiable	0.00	0.75	1.90	2674488	1.37	5.13E-04	0.30	0.21	0.15	0.29	
9	27.0	0.8	36	0.56	>2.0	Non-liquefiable	0.00	0.75	1.89	2697983	1.40	5.17E-04	0.30	0.21	0.15	0.29	
10	27.8	0.8	43	0.57	>2.0	Non-liquefiable	0.00	0.75	1.89	2887317	1.44	5.00E-04	0.28	0.16	0.11	0.22	
10	28.5	0.8	43	0.57	>2.0	Non-liquefiable	0.00	0.75	1.89	2911821	1.47	5.05E-04	0.28	0.16	0.11	0.22	
10	29.3	0.8	43	0.58	>2.0	Non-liquefiable	0.00	0.75	1.89	2936120	1.52	5.18E-04	0.29	0.17	0.12	0.24	
11	30.0	0.8	93	0.58	>2.0	Non-liquefiable	0.00	0.75	1.89	3828208	1.55	4.04E-04	0.16	0.04	0.03	0.06	
11	30.8	0.8	93	0.59	>2.0	Non-liquefiable	0.00	0.75	1.88	3859122	1.60	4.14E-04	0.17	0.05	0.03	0.06	
11	31.5	0.8	93	0.59	>2.0	Non-liquefiable	0.00	0.75	1.88	3889791	1.62	4.17E-04	0.17	0.05	0.03	0.06	
11	32.3	0.8	93	0.60	>2.0	Non-liquefiable	0.00	0.75	1.88	3920220	1.68	4.28E-04	0.18	0.05	0.03	0.07	
12	33.0	0.8	89	0.60	>2.0	Non-liquefiable	0.00	0.75	1.88	3892946	1.70	4.37E-04	0.19	0.05	0.04	0.07	
12	33.8	0.8	89	0.61	>2.0	Non-liquefiable	0.00	0.75	1.88	3922476	1.76	4.48E-04	0.19	0.05	0.04	0.08	
12	34.5	0.8	89	0.61	>2.0	Non-liquefiable	0.00	0.75	1.88	3951785	1.78	4.51E-04	0.19	0.05	0.04	0.08	
13	35.3	0.8	132	0.62	>2.0	Non-liquefiable	0.00	0.75	1.87	4539837	1.84	4.05E-04	0.15	0.03	0.02	0.04	
13	36.0	0.8	132	0.62	>2.0	Non-liquefiable	0.00	0.75	1.87	4572774	1.87	4.08E-04	0.15	0.03	0.02	0.04	
13	36.8	0.8	132	0.62	>2.0	Non-liquefiable	0.00	0.76	1.87	4605476	1.89	4.11E-04	0.15	0.03	0.02	0.04	
14	37.5	0.8	129	0.63	>2.0	Non-liquefiable	0.00	0.76	1.87	4602542	1.95	4.24E-04	0.16	0.03	0.02	0.04	
		Total Settlements [in]:					**0.00**										**0.00**

APPENDIX D

REFERENCES FOR ASSESSMENT OF LIQUEFACTION POTENTIAL AND ESTIMATED CYCLIC SETTLEMENTS

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Boulanger, Ross W. and Idriss, I.M., "Liquefaction Susceptibility Criteria for Silts and Clays", ASCE Journal of Geotechnical and Geoenvironmental Engineering, Vol. 132, No. 11, pp. 1413-1426, November, 2006.

Bray, Jonathan D. and Sancio, Rodolfo B., "Assessment of the Liquefaction Potential of Fine Grained Soils", ASCE Journal of Geotechnical and Geoenvironmental Engineering, Vol. 132, No. 9, pp. 1165-1177, September, 2006.

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Youd, T. Leslie, Hanson, Corbett M. and Bartlett, Steven F. "Revised Multilinear Regression Equations for Prediction of Lateral Spread Displacement", Vol. 128, No. 12, ASCE Journal of Geotechnical and Geoenvironmental Engineering, December 2002.

Appendix E

APPENDIX E

RECOMMENDED EARTHWORK SPECIFICATIONS

The following specifications are recommended to provide a basis for quality control during the placement of compacted fill or backfill, as applicable.

1. Areas on which compacted fill will be placed shall be observed by Allan E. Seward Engineering Geology, Inc. (AESEGI) prior to the placement of fill.
2. All drainage devices shall be properly installed and observed by AESEGI and/or the owner's representative(s) prior to placement of backfill.
3. Fill soils shall consist of imported soils or on-site soils which are free of organics, cobbles, and deleterious material, provided that each material is approved by AESEGI. AESEGI shall evaluate and/or test the import material for its conformance with the report recommendations prior to its delivery to the site. The contractor shall notify AESEGI at least 72 hours prior to importing material to the site
4. The thickness of the controlled lifts in which Fill is placed shall be compatible with the type of compaction equipment used. The fill materials shall be brought to Optimum Moisture Content or above, thoroughly mixed during spreading to obtain a near uniform water content and a uniform blend of materials, and then placed in lifts with a pre-compaction thickness not exceeding 8 inches. Each lift shall be compacted to the specified percentage of Maximum Dry Density determined in accordance with ASTM Test Method D1557. Density testing shall be performed by AESEGI to verify relative compaction. The contractor shall provide proper access and level areas for testing.
5. Rocks or rock fragments less than eight (8) inches in the largest dimension may be utilized in the fill, provided they are not placed in concentrated pockets. However, rocks larger than four (4) inches in dimension shall not be placed within three (3) ft of finish grade.
6. Rocks greater than eight (8) inches in largest dimension shall be taken offsite, or placed in areas designated by the Geotechnical Engineer to be suitable for rock disposal.
7. Where space limitations do not allow for conventional fill compaction operations, special backfill materials and procedures may be required. Pea gravel or other select fill can be used in areas of limited space. A sand and Portland Cement slurry (2 sacks per cubic-yard of slurry mix) shall be used in limited space areas for shallow backfill near final pad grade, and pea gravel shall be placed in deeper backfill near drainage systems.
8. AESEGI shall observe the placement of fill and conduct in-place field density tests on the compacted fill in order to check adequacy of in-situ water content and relative compaction.

APPENDIX E

Where measured in-situ density of compacted fill soil is lower than the required relative compaction, the soil shall be water-conditioned and recompacted until adequate relative compaction is achieved.

9. The Contractor shall achieve with the specified relative compaction out to the finish slope face of fill slopes, buttresses, and stabilization fills, as set forth in the specifications for compacted fill. This may be achieved either by overbuilding the slope and cutting back as necessary, by direct compaction of the slope face with suitable equipment, or by other procedures which produce the required result.

10. Any abandoned underground structures such as cesspools, cisterns, mining shafts, tunnels, septic tanks, wells, pipelines, or others not discovered prior to grading are to be removed or treated to the satisfaction of the Geotechnical Engineer and/or the controlling agency for the project.

11. The Contractor shall have suitable and sufficient equipment during a particular operation to handle the volume of fill being placed. When necessary, fill placement equipment shall be shut down temporarily in order to permit proper compaction of fill, correction of deficient areas, or to facilitate required field testing.

12. The Contractor shall be responsible for the satisfactory completion of all earthwork in accordance with the project plans and specifications.

13. Final reports shall be submitted after completion of earthwork and after the Geotechnical Engineer and Engineering Geologist have finished their observations of the work. No additional excavation or filling shall be performed without prior notification to the Geotechnical Engineer and/or Engineering Geologist.

14. Whenever the words “supervision”, “inspection”, or “control” are used, they shall mean observation of the work and/or testing of the compacted fill by AESEGI to assess whether substantial compliance with plans, specifications and design concepts has been achieved. However, these words do not refer to direction by AESEGI of the actual work of the Contractor or the Contractor’s workers.

APPENDIX E

RECOMMENDED SPECIFICATIONS
FOR PLACEMENT OF TRENCH BACKFILL

1. Trench excavations in which backfill will be placed shall be free of trash, debris or other deleterious materials prior to backfill placement, and shall be observed by a representative of Allan E. Seward Engineering Geology, Inc. (AESEGI).

2. Except as stipulated herein, soils obtained from the excavation may be used as backfill if they are free of organics and other deleterious materials.

3. Rocks generated by trench excavation operations that do not exceed three (3) inches in largest dimension may be used as trench backfill material. However, material larger than 3-inches in dimension may not be placed within 12 inches of the top of pipes. No more than 30 percent of the backfill volume shall contain particles larger than 1-½ inches in dimension, and particles larger than 1-½ inches in dimension shall be well mixed with finer soil.

4. Clean aggregates with a Sand Equivalent (SE) greater than or equal to 30 (as determined by ASTM Standard Test Method D2419) or other soils authorized by the Geotechnical Engineer or his representative in the field, may be used for bedding and shading material in pipe trenches.

5. Trench backfill other than bedding and shading shall be compacted by mechanical methods as tamping sheepsfoot, vibrating or pneumatic rollers, or other mechanical tampers to achieve the specified density. The backfill materials shall be brought to Optimum Moisture Content or above, thoroughly mixed during spreading to obtain a near uniform water content and uniform blend of materials, and then placed in horizontal lifts with a pre-compaction thickness not exceeding 8 inches. Trench backfills shall be compacted to the specified percentage of Maximum Dry Density determined in accordance with ASTM Test Method D1557.

6. The Contractor shall select the equipment and procedure for achieving the specified density without damage to the pipe, the adjacent ground, existing improvements, or completed work.

7. Observations and field tests shall be performed during construction by AESEGI to confirm that the required degree of compaction has been achieved. Where achieved compaction is less than that specified value, the water content shall be adjusted as necessary and additional compactive effort shall be made until the specified compaction is achieved. Field density tests may be omitted at the discretion of the Geotechnical Engineer or his

APPENDIX E

representative in the field.

8. Whenever, in the opinion of AESEGI or the Owner's Representative(s), an unstable condition is being created either by cutting or filling, the work shall not proceed until an investigation has been made and the excavation plan has been revised, if deemed necessary.

9. Fill material shall not be placed, spread, or rolled during unfavorable weather conditions. When the work is interrupted by heavy rain, fill operations shall not be resumed until field tests by AESEGI indicate the water content and density of the fill materials and of the fill surface over which they are to be compacted satisfy the requirements of the specifications.

10. Whenever the words "supervision", "inspection", or "control" are used, they shall mean observation of the work and/or testing of the compacted fill by AESEGI to assess whether substantial compliance with plans, specifications and design concepts has been achieved.

APPENDIX E

DRAINAGE AND EROSION CONTROL RECOMMENDATIONS

Slopes and pads for this project shall be designed to direct surficial runoff away from structures and to reduce water-induced surficial erosion/sloughing. Permanent erosion control measures shall be initiated immediately following completion of grading. All constructed slopes will undergo some erosion when subjected to sustained water influx. To maintain appropriate long-term drainage and erosion control, the following points shall be incorporated in slope protection, landscaping, irrigation, and modifications to slopes, pads and structures:

1. All interceptor ditches, drainage terraces, down-drains and any other drainage devices shall be maintained and kept clear of debris. A qualified Engineer should review any proposed additions or revisions to these systems in order to evaluate their impact on slope erosion.
2. Retaining walls shall have adequate freeboard to provide a catchment area for minor slope erosion. Periodic inspection, and if necessary, cleanout of deposited soil and debris shall be performed, particularly during and after periods of rainfall.
3. The future developers shall be made aware of the **potential problems**, which may develop **when drainage is altered** by landscaping and/or by construction of retaining walls and paved walkways. Ponded water, water directed over slope faces, leaking irrigation systems, **over-watering,** or other conditions which could lead to excessive soil moisture, **must be avoided**.
4. Surficial slope soils may be subject to water-induced mass erosion. Therefore, a suitable proportion of slope planting shall have root systems which will extend well below three feet. We suggest consideration of drought-resistant shrubs and low trees for this purpose. Intervening areas can then be planted with lightweight surface plants with shallower root systems. All plants shall be lightweight and require low moisture. Any loose slough generated during planting of shrubs, trees, and other surface plants shall be removed from slope faces.
5. Construction delays, climate/weather conditions, and plant growth rates may necessitate additional short-term, non-plant erosion control measures such as matting, netting, plastic sheets, deep (5-ft) staking, etc.
6. Significant erosion can be initiated by seemingly insignificant events such as rodent burrowing, human trespass (footprints, etc.), small concentrations of uncontrolled surface/subsurface water, or poor compaction of utility trench backfill on slopes.
7. High and/or fluctuating water content in slope materials is a major factor in slope erosion

APPENDIX E

and/or slope failures. Therefore, all possible precautions shall be taken to maintain moderate and uniform soil moisture in soil and rock slopes. Slope irrigation systems shall be properly operated and maintained and irrigation system controls shall be placed under strict control.

EROSION CONTROL REFERENCES

1. "Slope Protection for Residential Developments", National Academy of Sciences, Washington D.C. (1969).

2. "Guide for Erosion and Debris Control in Hillside Areas", Department of Building and Safety, City of Los Angeles. (1970).

3. "Slope Stability Report", Orange County Department of Building and Safety (1973).

4. "Guides for Erosion and Sediment Control", Soil Conservation Service, Davis, California, U.S. Department of Agriculture (1977).

5. "Rain-Care and Protection of Hillside Homes", brochure undated, published by Building and Safety Division, Los Angeles County Engineer.

6. "Guidelines for Erosion and Sediment Control Planning and Implementation: Office of Research and Monitoring", U.S. Environmental Protection Agency (1972).

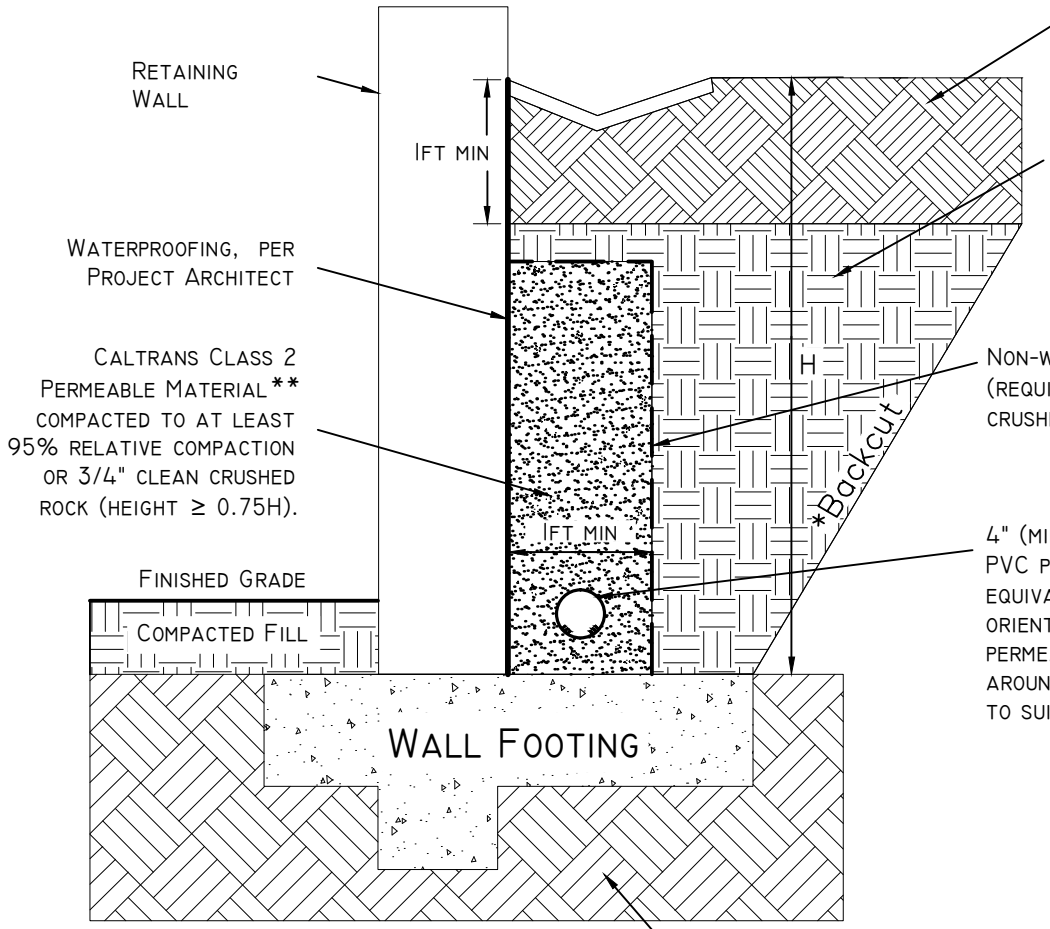
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10. "Grading Guidelines (8 pages, stapled sheets)", Building and Safety Division, Department of County Engineer, County of Los Angeles (undated, but probably about 1977).

11. "Biotechnical Slope Protection and Erosion Control", Donald H. Gray and Andrew T. Leiser, Robert E. Krieger Publishing Company, Malabuv, Florida, 1989.



Not to Scale

**Specifications for Caltrans Class 2 Permeable Material

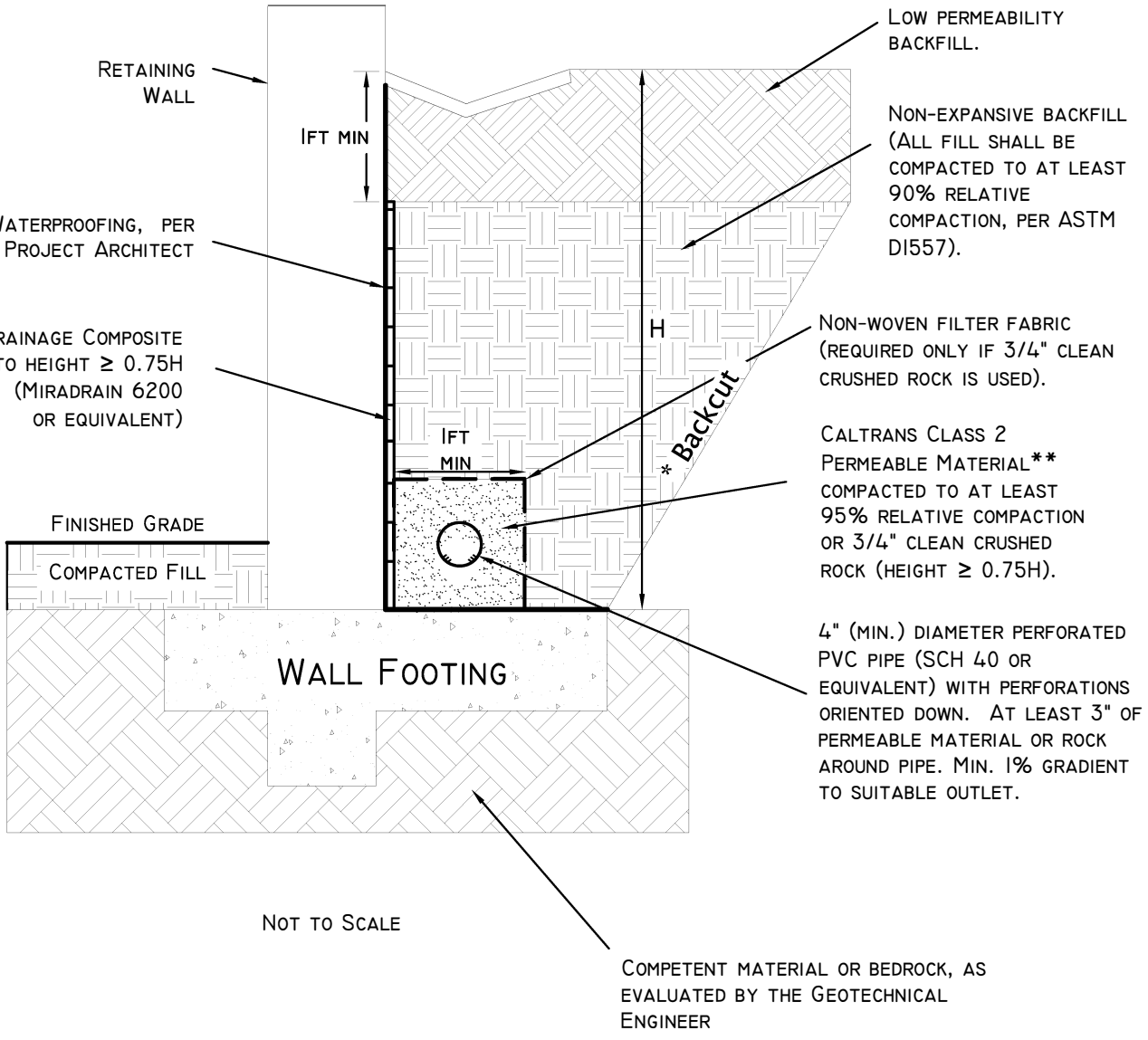
U.S. Standard Sieve Size	% Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

Sand Equivalent >75

* All backcuts shall be in accordance with OSHA standards, unless site-specific backcut and backfill recommendations are made by this office.

Allan E. Seward
Engineering Geology, Inc.
Geologic and Geotechnical Consultants

Retaining Wall Drainage Detail



**Specifications for Caltrans Class 2 Permeable Material

U.S. Standard Sieve Size	% Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

Sand Equivalent >75

* All backcuts shall be in accordance with OSHA standards, unless site-specific backcut and backfill recommendations are made by this office.

Allan E. Seward
Engineering Geology, Inc.
Geologic and Geotechnical Consultants

Alternate Retaining Wall Drainage Detail

ALLAN E. SEWARD
ENGINEERING GEOLOGY, INC.
Geological And Geotechnical Consultants

GEOTECHNICAL MAP

DATE: 10/14/20 | JOB No.: 20-2653-5
SCALE: 1" = 20' | FILE NAME: 20.10.14 PLATE 1 GEOTECHNICAL MAP.DWG
PLATE 1 | GEOLOGY BY: A | DRAWN BY: A | REVISED:

LEGEND

- af — ARTIFICIAL FILL
- Qal — ALLUVIUM
- af/Qal — ARTIFICIAL FILL/ALLUVIUM UNDIFFERENTIATED
- TQs — SAUGUS FORMATION BEDROCK
- GEOLOGIC CONTACT
- 2 — 2' — CROSS SECTION
- HS-5 — HOLLOW-STEM AUGER BORING
- PB-2 — PERCOLATION BORING
- R=10' — RECOMMENDED REMOVAL AND RECOMPACTION
- REMOVAL LIMITS FOR PROPOSED BUILDING

TQs
af/Qal
Qal
PB-1
PB-2
HS-1
HS-2
HS-3
HS-4
HS-5
LIMITS OF GRADING
EXIST. ST. R/W
EXIST. E.P.
EX. RIP-RAP CHANNEL
PROPERTY LINE
EXISTING PRIVATE DRIVEWAY AND FIRE LANE
PRIVATE DRWY. & FIRE LANE
OPERATION DEPT. GARAGE
LOPEZ CANYON CONCRETE CHANNEL P.D. # 1274
EXIST. STORAGE AREA
EX. DIRT CHANNEL
END CONCRETE CHANNEL PER P.D. # 1274 BEGIN DIRT CHANNEL
N00° 28' 30"E 1339.43'
GROUND FLOOR =1422.00 PE =1421.33
FIRST FLOOR =1434.00 PE =1433.33
SECOND FLOOR =1449.00
R=12"
R=10'
"A" "B" "C" "D" "E" "F"

GRAPHIC SCALE (IN FEET)
1 inch = 20 ft.

GROUND FLOOR / PARKING EXHIBIT
SCALE 1"=20'

SECTION "A-A"
NOT TO SCALE

PROP. BLDG. — RESIDENTIAL UNITS — 2nd FLOOR 1449 — KITCHEN — 1st FLOOR 1434 — ELECTRICAL ROOM — GROUND FLOOR 1422 — PRVT. DRWY. AND FIRE LANE — EXISTING SLOPE — PROPOSED LONGITUDINAL GUTTER S.P.P.W.C. STD PLAN 122-2, W=4' — PROP. 3" AC. PAVEMENT OVER 5" AB OR PER SOILS ENGINEER RECOMENDATION — PROPOSED 6" CURB PER S.P.P.W.C. STD PLAN 120-2, A1-150 — EXISTING CONCRETE CHANNEL TO REMAIN — JOIN EX. GRADE

SECTION "B-B"
NOT TO SCALE

PROP. BLDG. — RESIDENTIAL UNITS — 2nd FLOOR 1449 — KITCHEN — 1st FLOOR 1434 — LOADING — ELECTRICAL ROOM — GROUND FLOOR 1422 — PRVT. DRWY. AND FIRE LANE — EXISTING SLOPE — PROPOSED RET. WALL — PROPOSED LONGITUDINAL GUTTER S.P.P.W.C. STD PLAN 122-2, W=4' — PROP. 3" AC. PAVEMENT OVER 5" AB OR PER SOILS ENGINEER RECOMENDATION — PROPOSED 6" CURB PER S.P.P.W.C. STD PLAN 120-2, A1-150 — EXISTING CONCRETE CHANNEL TO REMAIN — JOIN EX. GRADE

SECTION "C-C"
NOT TO SCALE

PROP. BLDG. — 3rd FLOOR 1459 — RESIDENTIAL UNITS — 2nd FLOOR 1449 — RESIDENTIAL UNITS — 1st FLOOR 1434 — 18' PARKING — 20' PER PLAN — PRVT. DRWY. AND FIRE LANE — PROPOSED RET. WALL — PROPOSED LONGITUDINAL GUTTER S.P.P.W.C. STD PLAN 122-2, W=4' — PROP. 3" AC. PAVEMENT OVER 5" AB OR PER SOILS ENGINEER RECOMENDATION — PROPOSED 6" CURB PER S.P.P.W.C. STD PLAN 120-2, A1-150 — JOIN EX. GRADE

SECTION "D-D"
NOT TO SCALE

PROP. BLDG. — 3rd FLOOR 1459 — RESIDENTIAL UNITS — 2nd FLOOR 1449 — TRACT BDRY — SIDEWALK — EXISTING GRADE — COVERED PLAY AREA — 20' PER PLAN — PROPOSED RET. WALL — SECOND FLOOR FF=1449

SECTION "E-E"
NOT TO SCALE

PROP. BLDG. — 3rd FLOOR 1459 — RESIDENTIAL UNITS — 2nd FLOOR 1449 — TRACT BDRY — SIDEWALK — RESIDENTIAL UNITS — 1st FLOOR 1434 — 20' PER PLAN — PROPOSED RET. WALL — EXISTING GRADE — FIRST FLOOR FF=1434

NOTES

5. EXISTING CHAIN LINK FENCE
9. EXISTING FIRE HYDRANT
15. EXISTING SIGNAGE
56. EXISTING CATCH BASIN
45. EXISTING CONTAINER STORAGE AREA
49. EXISTING FIRE HYDRANT TO BE RELOCATED
54. EXISTING 24' WIDE GATE TO BE WIDEN TO 28'
55. PROPOSED RETAINING WALL
56. PROPOSED 28' WIDE PRIVATE DRIVEWAY AND FIRE LANE SEE DETAIL ON SHEET 1
57. PROPOSED 26' WIDE PRIVATE DRIVEWAY AND FIRE LANE SEE DETAIL ON SHEET 1
58. PROPOSED FIRE APPARATUS TURNAROUND
59. PROPOSED DELIVERY RAMP
60. PROPOSED CATCH BASIN
61. PROPOSED STORM DRAIN LINE
62. PROPOSED STORM DRAIN OUTLET/RIP-RAP
63. WIDEN EXISTING CULVERT AS REQUIRED
64. PROPOSED 28' WIDE DRIVEWAY WIDENING
65. EXISTING DRAINAGE CULVERT TO REMAIN
66. PROPOSED "NO PARKING FIRE LANE" SIGN
67. PROPOSED RELOCATED FIRE HYDRANT
68. PROPOSED SIDEWALK
69. INSTALL 6-SHORT TERM BICYCLE PARKING SPACES (RACKS)
70. INSTALL 11-LONG TERM ENCLOSED BICYCLE SPACES (BIKE LOCKER STORAGE) INTENDED FOR RESIDENTS ONLY

OWNER/DEVELOPER:
UNION RESCUE MISSION
545 S. SAN PEDRO ST. LOS ANGELES, CA 90013
PH.: (213) 347-6300

LEGAL DESCRIPTION:
A.P.N.2846-001-017, 2846-001-018
A.P.N.2846-001-019, 2846-001-020

CUP EXHIBIT "A"
HOPE GARDEN SEQUOIA BUILDING
UNION RESCUE MISSION
12249 LOPEZ CANYON ROAD
CITY OF SYLMAR, CA 91342
IN THE UNINCORPORATED TERRITORY OF COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

DRAWN BY: LDC
CHECKED BY: S.H.
DESIGNED BY: LDC

DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER — ROBERT R. SIMS — No. 21649 — EXP. 9-30-21 — CIVIL — STATE OF CALIFORNIA

PREPARED BY:
LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
800 Royal Oaks Dr., Suite 140, Monrovia, California 91016
Ph.: (626) 578-7000, Fax: (626) 578-7373
http://www.ldcla.com

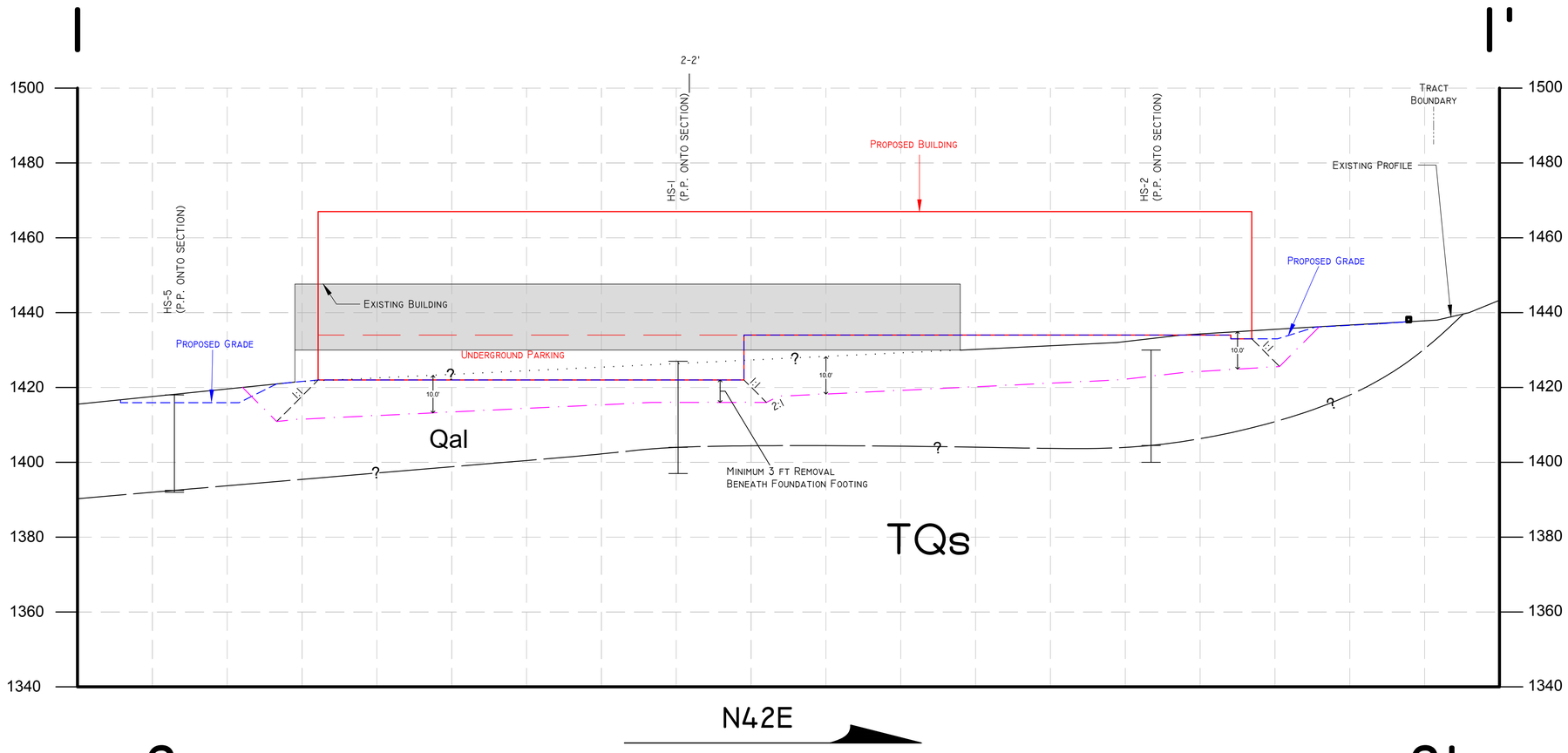
Robert R Sims, R.C.E. No. 21649 — 08/25/2020 DATE

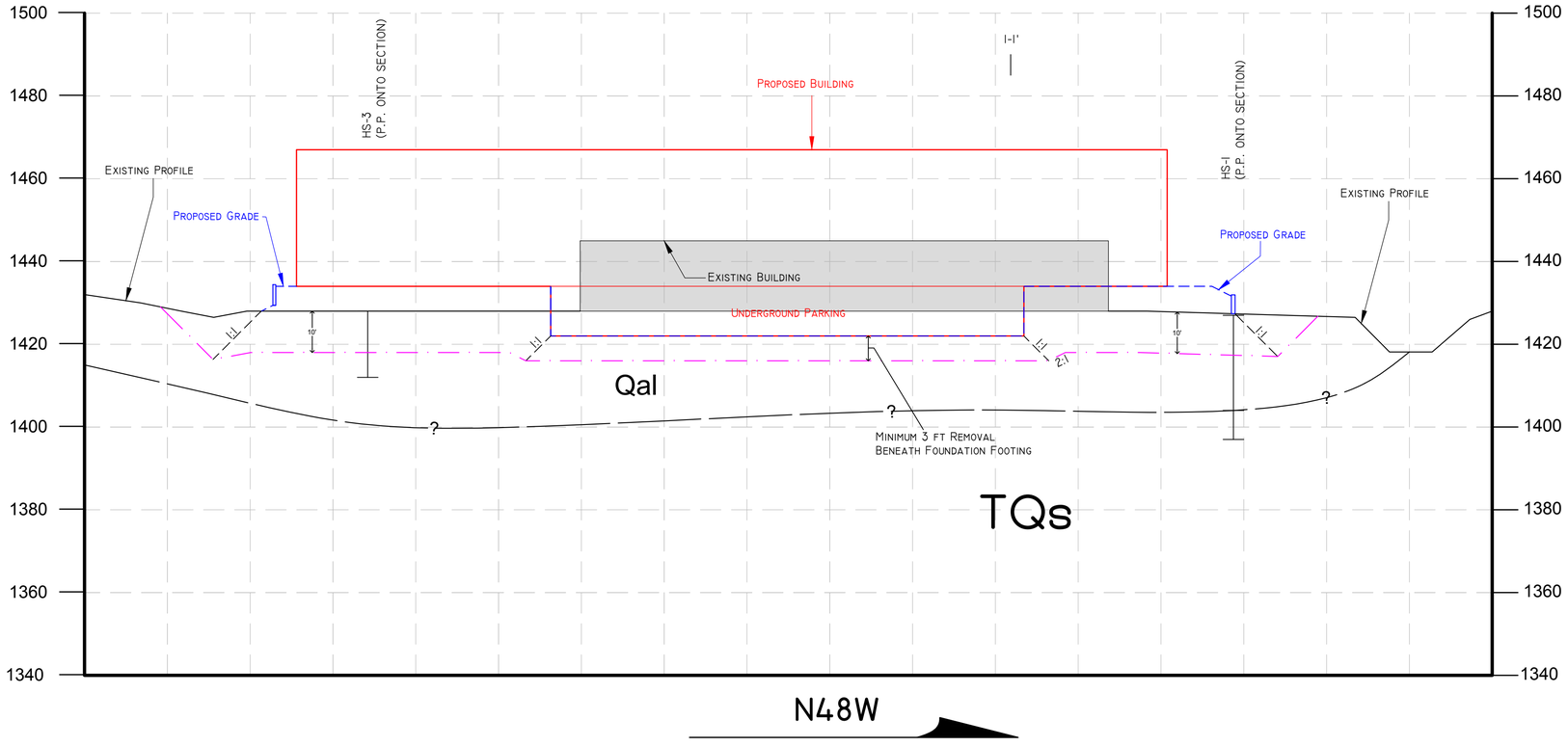
LDC

Project. No. 17019-005

SHEET 13 OF 13

G:\2653 docs\Vn Progress\VMS 20.11.04 Geotechnical Map CAD base.dwg Nov 05, 2020 9:39 am VICTOR





ALLAN E. SEWARD
ENGINEERING GEOLOGY, INC.
Geological And Geotechnical Consultants

CROSS SECTIONS I-I' & 2-2'

DATE: 10/14/20	JOB NO.: 20-2653-5
SCALE: 1" = 20'	FILE NAME: XS PLATE LAYOUT
PLATE II	GEOLOGY BY: x
	DRAWN BY: x
	REVISED:

Appendix 4.4-1

Tribal Cultural Resources AB 52 Information

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
Marshall McKay
Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
[**Vacant**]

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[**Vacant**]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

September 22, 2020

Soyeon Choi
Department of Regional Planning

Via Email to: schoi@planning.lacounty.gov

Re: Hope Gardens Center Project, Los Angeles County

Dear Ms. Choi:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: steven.quinn@nahc.ca.gov.

Sincerely,

Steven Quinn
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Los Angeles County
9/22/2020

Barbareno/Ventureno Band of Mission Indians
Julie Tumamait-Stenslie, Chairperson
365 North Poli Ave
Ojai, CA, 93023
Phone: (805) 646 - 6214
jtumamait@hotmail.com
Chumash

Barbareno/ Ventureno Band of Mission Indians
Patrick Tumamait,
992 El Camino Corto
Ojai, CA, 93023
Phone: (805) 216 - 1253
Chumash

Barbareno/ Ventureno Band of Mission Indians
Eleanor Arrellanes,
P. O. Box 5687
Ventura, CA, 93005
Phone: (805) 701 - 3246
Chumash

Barbareno/ Ventureno Band of Mission Indians
Raudel Banuelos,
331 Mira Flores
Camarillo, CA, 93012
Phone: (805) 427 - 0015
Chumash

Chumash Council of Bakersfield
Julio Quair, Chairperson
729 Texas Street
Bakersfield, CA, 93307
Phone: (661) 322 - 0121
chumashtribe@sbcglobal.net
Chumash

Coastal Band of the Chumash Nation
Mariza Sullivan, Chairperson
P. O. Box 4464
Santa Barbara, CA, 93140
Phone: (805) 665 - 0486
cbcntribalchair@gmail.com
Chumash

Fernandeno Tataviam Band of Mission Indians
Jairo Avila, Tribal Historic and Cultural Preservation Officer
1019 Second Street, Suite 1
San Fernando, CA, 91340
Phone: (818) 837 - 0794
Fax: (818) 837-0796
jairo.avila@tataviam-nsn.us
Tataviam

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

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

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

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

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com
Gabrielino

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

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Hope Gardens Center Project, Los Angeles County.

Northern Chumash Tribal Council
Fred Collins, Spokesperson
P.O. Box 6533 Chumash
Los Osos, CA, 93412
Phone: (805) 801 - 0347
fcollins@northernchumash.org

San Fernando Band of Mission Indians
Donna Yocum, Chairperson
P.O. Box 221838 Kitanemuk
Newhall, CA, 91322 Vanyume
Phone: (503) 539 - 0933 Tataviam
Fax: (503) 574-3308
ddyocum@comcast.net

San Luis Obispo County Chumash Council
Mark Vigil, Chief
1030 Ritchie Road Chumash
Grover Beach, CA, 93433
Phone: (805) 481 - 2461
Fax: (805) 474-4729

Santa Ynez Band of Chumash Indians
Kenneth Kahn, Chairperson
P.O. Box 517 Chumash
Santa Ynez, CA, 93460
Phone: (805) 688 - 7997
Fax: (805) 686-9578
kkahn@santaynezchumash.org

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This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Hope Gardens Center Project, Los Angeles County.

Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead

Amy J. Bodek, AICP
Director

October 16, 2020

Andrew Salas, Chairman
Gabrieleno Band of Mission- Kizh Nation
P.O. Box 393
Covina, CA 91723

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of the Proposed Project pursuant to Public Resources Code (PRC) §21080.3.1.

The Los Angeles County Department of Regional Planning is issuing this formal notification of the proposed project. Below please find a description of the proposed project, a map showing the project location, and our contact information along with the name of our point of contact, pursuant to PRC §21080.3.1(d).

Proposed Project: Hope Gardens Family Center
Project No. R2020-000397 – (5)
Conditional Use Permit No. RPPL2020000694
Oak Tree Permit No. RPPL2020000706
Environmental Review No. RPPL2020003232

Project Description: To replace an existing 22,470-square foot residential building with 25 units and replace with a new four-story, 106,410-square foot 117-unit residential building with supportive services and 22 subterranean parking spaces within the existing Hope Gradens Family Center. (See attached Project Narrative)

Project Location: 12249 Lopez Canyon Road,
APN 2846-001-017, 2846-001-018, 2846-001-019, 2846-001-020

Lead Agency Contact Information:

Soyeon Choi
Zoning Permit North Section
Department of Regional Planning
320 W. Temple Street, Room 1360
Los Angeles, CA 90012
Tel: (213) 974-6411
Email: schoi@planning.lacounty.gov

Pursuant to PRC §21080.3.1(b), you have 30 days from the receipt of this letter to request consultation, in writing or via email, with the Department of Regional Planning. Written request must be submitted to the contact information listed above.

Our office hours are Monday through Thursday, 7:00 a.m. to 5:30 p.m. We are closed on Fridays.

Sincerely,
DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP
Director



Soyeon Choi, Senior Regional Planner
Zoning Permits North Section

Encl: Map of Project Location, Project Narrative

SD, SC

Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead

Amy J. Bodek, AICP
Director

October 16, 2020

Jairo Avila, Tribal Historic and Cultural Preservation Officer
1019 Second Street
San Fernando CA, 91340

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DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP
Director



Soyeon Choi, Senior Regional Planner
Zoning Permits North Section

Encl: Map of Project Location, Project Narrative

SD, SC

Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead

Amy J. Bodek, AICP
Director

October 16, 2020

Anthony Morales, Chief of San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, CA 91778

RE: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of the Proposed Project pursuant to Public Resources Code (PRC) §21080.3.1.

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Sincerely,
DEPARTMENT OF REGIONAL PLANNING
Amy J. Bodek, AICP
Director



Soyeon Choi, Senior Regional Planner
Zoning Permits North Section

Encl: Map of Project Location, Project Narrative

SD, SC

Appendix 4.5-1

Emergency Evacuation Evaluation

Gibson transportation consulting, inc.

MEMORANDUM

TO: Kent Tsujii
Los Angeles County Public Works

FROM: Richard Gibson

DATE: June 28, 2023

RE: Evacuation Evaluation for the
Hope Gardens Expansion Project
County of Los Angeles, California **Ref:** J2053

Gibson Transportation Consulting, Inc. (GTC) prepared an evacuation evaluation for the expansion of Hope Gardens (Project) at 12249 Lopez Canyon Road (Assessor's Parcel Numbers 2846-001-017, 2846-001-018, 2846-001-019, and 2846-001-020), generally located near the intersections of Lopez Canyon Road & Bailey Road and Lopez Canyon Road & Paxton Street in the County of Los Angeles (County), California. The methodology and assumptions used in this analysis were established in conjunction with the County. This memorandum summarizes our analysis.

PROJECT DESCRIPTION

Hope Gardens is a transitional housing facility that assists in transitioning families and seniors experiencing homelessness to independence over a 12-to-36-month period. The existing facility provides a total of 121 rooms, including 96 family rooms and 25 rooms for seniors. The Project proposes to build 117 new rooms and demolish 25 existing rooms, for a total of 92 net new rooms and a total of 213 rooms upon completion of the Project. The Project is expected to be completed by 2026. A site plan for the proposed new building is shown in Figure 1.

TRIP GENERATION

Figure 2 depicts the boundaries of the Project's evacuation shed (the vicinity of the Project that would utilize that same evacuation route as the Project) analyzed in this study. The trip generation for this evacuation analysis was based on the total number of residents and employees in the evacuation shed, as provided in multiple sets of demographic data.[1]

[1] Data obtained from replicahq.com in June 2023.

Due to the structure of the data sets, the analyzed area includes some portions of the County that would not add trips to the evacuation route on Lopez Canyon Road and, therefore, the analysis of 382 employees/students and 425 residents in the evacuation shed presented below is conservative. In addition, the analysis assumed that both the daytime and evening populations would be present in the area when the evacuation order is given. This is a very conservative assumption as many residents would be away from the area at work or school during the day and most people who work or attend school in the area during the day would not be in the area during the evening/night.

EVACUATION EVALUATION

As part of this analysis of consistency with *Los Angeles County General Plan 2035* (County Department of Regional Planning, Adopted October 6, 2015) (General Plan), the evacuation evaluation focused primarily on residential evacuations from the foothill neighborhoods to provide insight, based on the Project's proposed residential land uses and its location in Lopez Canyon, on the potential roadway operation of a mass evacuation event. The evaluation included the determination of the approximate vehicular delays that would be experienced during an evacuation if all evacuating traffic from Lopez and Kagel Canyons were forced to travel south on Lopez Canyon Road toward Paxton Street. The analysis focused on the intersections of Lopez Canyon Road & Bailey Road and Lopez Canyon Road & Paxton Street under Future with Project Conditions (2026). The nearest fire department facilities were also identified as part of this evaluation.

Methodology

The evacuation analysis was based on the following:

- The designated route evacuates traffic in a southbound direction on Lopez Canyon Road from the Project site toward I-210. This is the most direct evacuation route for Project traffic to get out of Lopez Canyon. While a more direct route exists for residents of Kagel Canyon, to provide for a conservative analysis, this study assumed that more direct route would be blocked by fire or fire-fighting activity and the Kagel Canyon traffic was included in this study.

- In the event of an emergency in the study area, it was assumed that traffic would be prohibited from entering the area and would be diverted away from the area at Foothill Boulevard on the south and west and Gladstone Avenue on the east. There are no routes to the north out of Lopez Canyon.

- Additional trip generation from adjacent parcels was estimated based on Traffic Analysis Zone (TAZ) information developed for the General Plan and distributed through the evacuation route.

- While a lane of traffic along an arterial street can accommodate up to 1,900 vehicles per lane per hour of green time, a reduced vehicular flow rate of 1,280 vehicles per lane per hour was assumed to be the capacity of the evacuation routes in order to account for confusion and emergency vehicles.

- The roadway lane configurations were assumed to be the lane configurations that exist today.

The evaluation considered the total time needed to evacuate the Project site and adjacent parcels through Lopez Canyon Road. The total time for evacuation was calculated by dividing the total number of vehicles by the flow rate of 1,700 vehicles per lane per hour. The critical point of congestion was presumed to be the movement that would take the longest for traffic to clear.

Under true evacuation conditions (and as noted in the General Plan), there are many variables the City may utilize that would change the assumptions in this evaluation. These include, but are not limited to, traffic control officers stationed at intersections, signal timing changes, turning movement restrictions, and strategically rerouting traffic away from the area. The time of day, whether school is in session, and the location of the evacuation areas may also affect this analysis. To account for the nature of an evacuation scenario, this analysis assumed that the key intersections along evacuation routes would be closed to all non-evacuation traffic to allow the canyon to clear as efficiently as possible.

Evacuation Trip Generation

Trip generation estimates were developed from the population and employment projections. Both the population and employment projections were expressed as number of persons, which requires conversion into vehicle trips for the purposes of this analysis.

- The population projections were understood to represent residents; to convert into vehicle trips, an Average Vehicle Ridership (AVR) of two persons per vehicle was conservatively assumed for evacuation purposes.

- The employment projections were understood to represent employees; to convert into vehicle trips, an AVR of one person per vehicle was conservatively assumed for evacuation purposes.

The table below summarizes the assumptions by specific TAZ and the trip generation development.

		Persons [a]		Trips [b]		
TAZ	Location / Description	Resident	Employee	Resident	Employee	Total TAZ [c]
Study Area	Kagel Canyon e/o I-210	425	382	213	382	595

Notes:

[a] Resident and employee/student populations identified by data sets

[b] Resident trips assumed at 2.0 AVR and employee/student trips assumed at 1.0 AVR

[c] Trips as estimated for purposes of evacuation evaluation

In total, approximately 595 resident and employee trips were distributed through the analyzed intersections along the evacuation routes for Future without Project Conditions.

To obtain Future with Project Conditions, the expected increase in residents of the Project was added to the total shown above. With the addition of 212 residents, the total trips generated by the

area surrounding the Project increases by 106 to 701 (assuming two people per car). This is a very conservative assumption as a majority of Project residents will not have access to their own personal vehicles and will utilize the Project's shuttle system for emergency evacuations.

Future with Full Project Conditions (2027)

The evacuation delay evaluation was based on the intersection approach volumes that would be generated by the evacuating neighborhood. The adjacent TAZ trips were distributed through the network and added to the selected intersections to estimate the volume of evacuating traffic through the designated routes. The time to clear the intersection (congestion) was calculated by dividing the total volume by the evacuation flow rate (flow rate multiplied by number of lanes).

Table 1 presents the estimated evacuation volume through the selected intersections, along with the estimated time to clear the intersection for future conditions without the Project. As shown, evacuation along southbound Lopez Canyon Road is estimated to experience 28 minutes of congestion to clear the Bailey Road intersection and an additional 28 minutes to clear congestion at Paxton Street, for a total evacuation time of 56 minutes.

Table 2 presents the estimated evacuation volume through the selected intersections, along with the estimated time to clear the intersection for Future conditions with the Project. As shown, evacuation along southbound Lopez Canyon Road is estimated to experience 33 minutes of congestion to clear the Bailey Road intersection and an additional 33 minutes to clear congestion at Paxton Street, for a total evacuation time of 66 minutes. The Project could cause an increase of, at most, 10 minutes to total evacuation times from Lopez and Kagel Canyons utilizing the most conservative assumptions available. Given that a majority of Project residents will utilize the Project's existing shuttle system for emergency evacuation, the actual difference between with Project and without Project evacuation times is likely negligible.

These evacuation times represent highly conservative, worst-case conditions assuming that no alternate evacuation routes would be available, lane capacity would be reduced by approximately 50%, all area residents, employees, and students would be present at the same time, and Project residents would utilize personal vehicles to evacuate the Project.

Emergency Services Access

The ability of emergency services to access the evacuation area is a corresponding component of this evaluation. This evaluation reasonably assumed that law enforcement or other emergency services will institute access restrictions into the emergency area and traffic diversions within the evacuation area itself, effectively creating a reduced traffic volume condition along the evacuation routes. This operating condition will allow emergency service vehicles to more freely travel to the emergency evacuation site because they will effectively be going against the flow of evacuating traffic for at least the final portion of their trips.

For informational purposes, the Fire Department facilities within the County, along with nearby facilities from adjacent agencies, the approximate distances,[2] and the estimated travel times[3] to the Project site are summarized below.

As shown, one County Fire Department facility, one Wildland Fire Explorer Post, and one United States Forest Service (USFS) station are located in the vicinity of the Project site. The estimated travel time to reach the Project site from the nearest facility, County Station #74 located to the east approximately 1.3 miles away from the Project site, is 6.0 minutes. The furthest facility, USFS Little Tujunga Fire Station, is located to the southeast approximately 2.3 miles away from the Project site and the estimated travel time to the Project site is approximately 13.0 minutes.

In the event assistance is requested from outside agencies, the nearest facility is Los Angeles Fire Department Station #98, located 3.0 miles southwest of the Project site. Travel time to the Project site is estimated to be approximately 8.0 minutes.

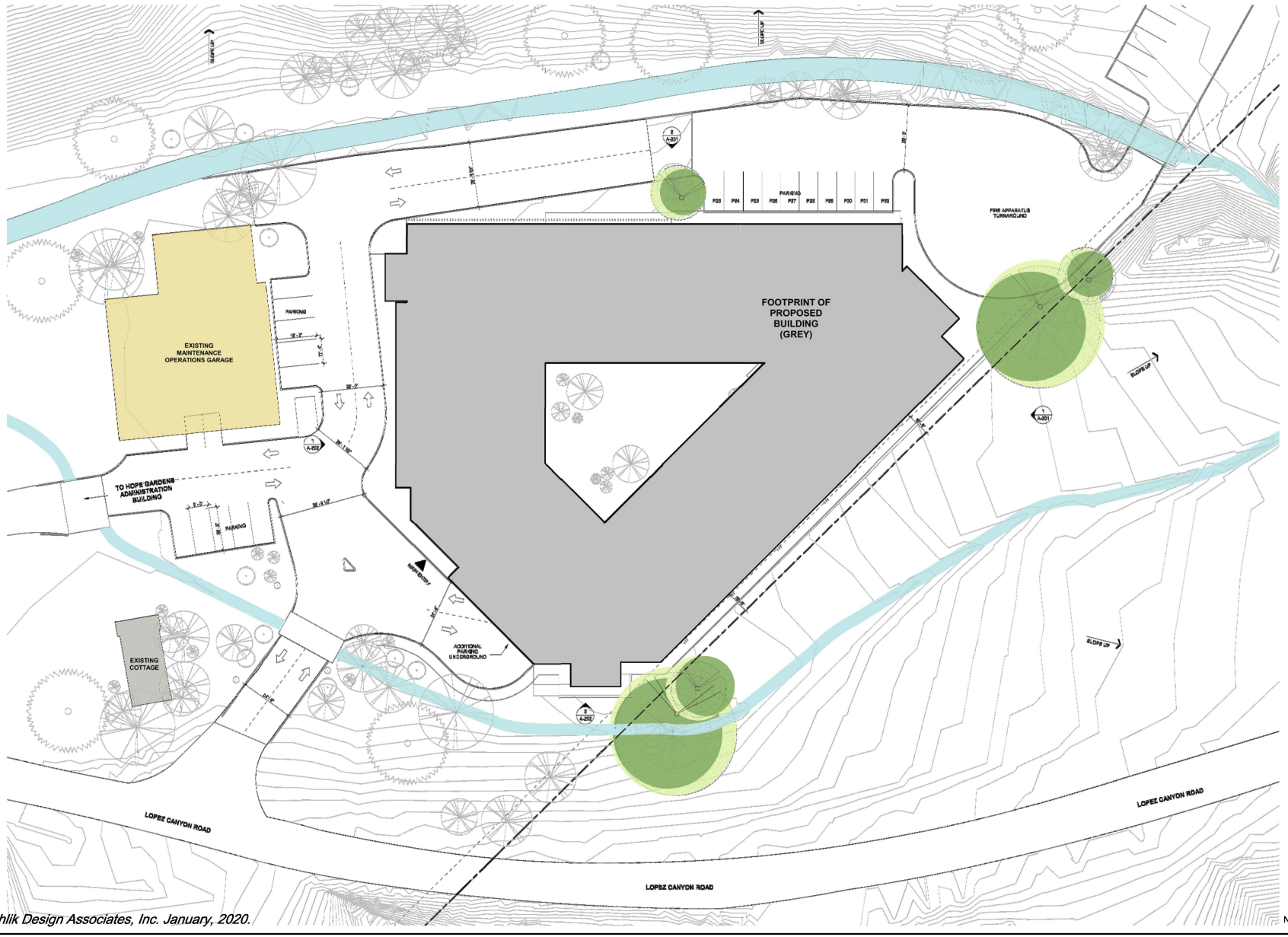
At intersections outside of the evacuation area or along congested segments, the emergency service vehicles are reasonably anticipated to utilize lights, sirens, public address systems, and signal pre-emption equipment to inform traffic to pull over and may also use opposite lanes or other means to bypass traffic where necessary.

SUMMARY

An evaluation of evacuation conditions and emergency services access was conducted. Using extremely conservative assumptions including no alternate evacuation routes would be available, lane capacity was reduced by approximately 50%, all area residents, employees, and students are present at the same time, and Project residents are utilizing personal vehicles to evacuate the Project, the Project would add at most 10 minutes to the total evacuation time out of Lopez and Kagel Canyons. Given that a majority of Project residents will utilize the Project's existing shuttle system for emergency evacuation, the actual difference between with Project and without Project evacuation times is likely negligible.

[2] Approximate distances estimated from the facility to the evacuation cordon and from the cordon to the Project site, based on routing from Google Maps.

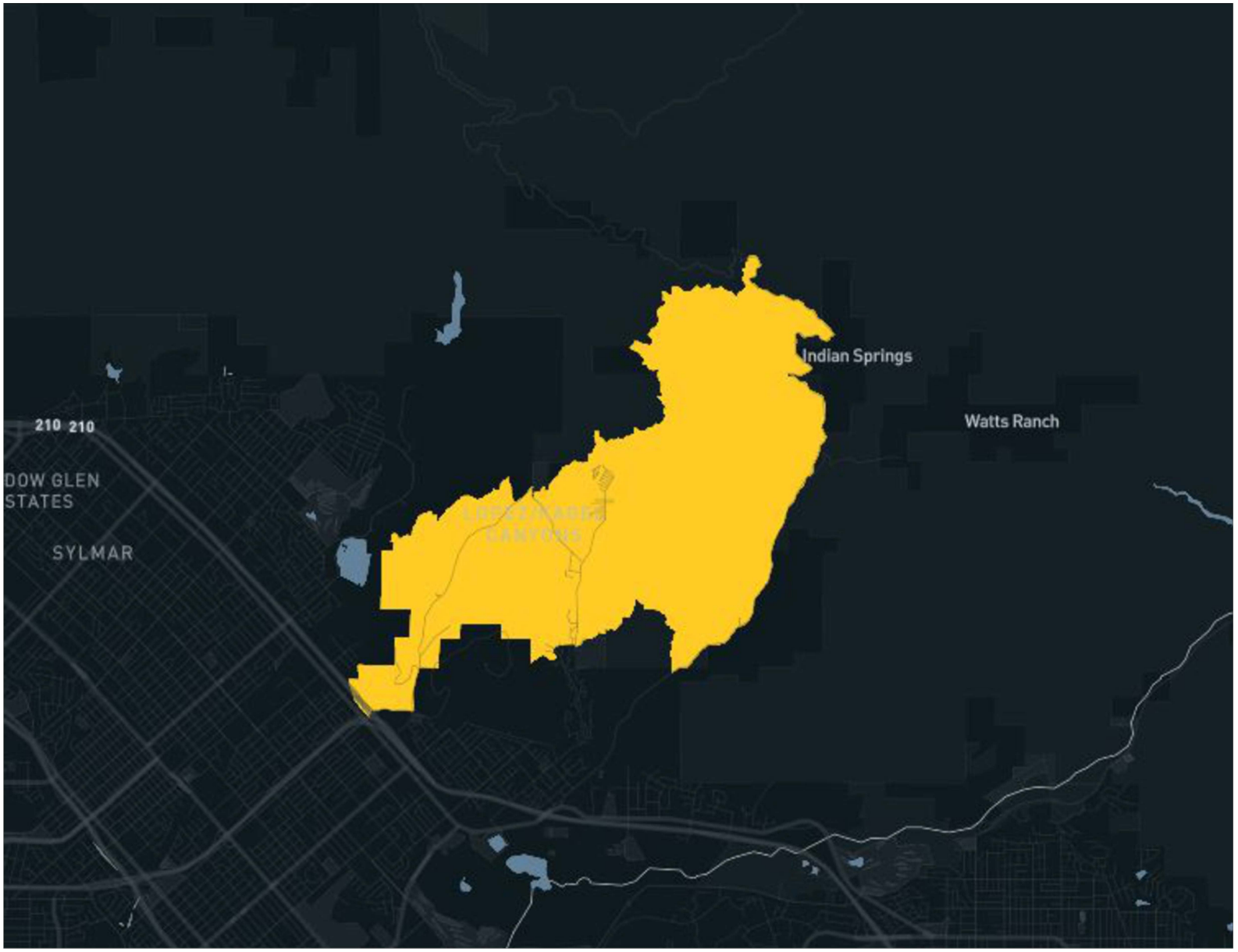
[3] Approximate travel times based on an assumed speed of 20 miles per hour outside the evacuation cordon and 40 miles per hour inside the evacuation cordon.



Source: Puchlik Design Associates, Inc. January, 2020.

PROJECT SITE PLAN

FIGURE 1



EVACUATION SHED

FIGURE
2

TABLE 1
SUMMARY OF EVACUATION DELAY
FUTURE WITHOUT PROJECT CONDITIONS

Future without Project Conditions					
Intersection	**Approach**	**Approach Lanes**	**Volume [a]**	**Capacity [b]**	**Minutes to Clear [c]**
Lopez Canyon Road & Bailey Road	Southbound	1	595	1,280	28
Lopez Canyon Road & Paxton Street	Southbound	1	595	1,280	28
CONGESTION = 56 MINUTES (0.9 HOURS)					

Notes:

[a] Volume assumes the Future 2027 without Project Conditions with trip generation assumptions from adjacent developments.

[b] Capacity based on total approach lanes and 1,280 vehicles per hour per lane

[c] Minutes t Indicates highest congestion for exiting Canyon traffic

Indicates highest congestion for evacuating traffic.

TABLE 2
SUMMARY OF EVACUATION DELAY
FUTURE WITH PROJECT CONDITIONS

Future with Project Conditions					
Intersection	**Approach**	**Approach Lanes**	**Volume [a]**	**Capacity [b]**	**Minutes to Clear [c]**
Lopez Canyon Road & Bailey Road	Southbound	1	701	1,280	33
Lopez Canyon Road & Paxton Street	Southbound	1	701	1,280	33
CONGESTION = 66 MINUTES (1.1 HOURS)					

Notes:

[a] Volume conservatively assumes the Future 2027 Project Full Buildout Conditions

[b] Capacity based on total approach lanes and 1,280 vehicles per hour per lane

[c] Minutes t Indicates highest congestion for exiting Canyon traffic

Indicates highest congestion for evacuating traffic.

Appendix 4.5-2

Hope Gardens Family Center Fire Prevention Plan

Union Rescue Mission

Hope Gardens Family Center

Fire Prevention Plan

Introduction

California Regulations

Under California law, a **written FPP (8 CCR 3221) is required for every employer with more than 10 employees**. The written FPP must be kept in the workplace and be made available to employees for review.

- **Subchapter 7. General Industry Safety Orders**
- **Group 1. General Physical Conditions and Structures Order**
- **Article 2. Standard Specifications**
- **Section 3221. Fire Prevention Plan**

A fire needs three elements - **heat, oxygen and fuel**. Without heat, oxygen and fuel a fire will not start or spread. A key strategy to prevent fire is to remove one or more of heat, oxygen or fuel.

Scope

The purpose of the Fire Prevention Plan is to ensure fire prevention is a functional process for eliminating hazards from the workplace in compliance with California Code of Regulations (CCR), Title 8, § 3221. It provides staff, guests and vendors with information and guidelines that will assist them in recognizing, reporting, and controlling fire hazards.

This plan applies to all personnel of the Union Rescue Mission (URM). Outside contractors will be expected to comply with the URM's Code of Safe Practices as well as sound fire prevention techniques and methods during their contracted jobs.

Responsibilities

The Director of Facilities is responsible for the following:

1. Identifying and managing the installation of fire detection and fire suppression systems for new construction and existing facilities' renovation projects.
2. Controlling the accumulation of flammable and combustible materials and wastes in their respective laboratories, common and storage areas.
3. The control of accumulation of combustible waste materials in buildings.

Potential Fire Hazards and their Proper Storage and Handling Procedures

A. Electrical Hazards

To prevent electrical fires, employees shall:

1. Ensure worn wires, plugs, or cords are replaced;
2. Never use extension cords as substitutes for permanent wiring;
3. Use only approved power strips or surge protectors [i.e., those with the Underwriters Laboratory (UL) or FM Global (FM) label];
4. Don't overload power strips or surge protectors with high drawing current electrical devices;
5. Never "gang" or "daisy chain" multiple power strips or surge protectors;
6. Never break off a third prong (Ground Pin) on a plug in order to plug it into a two-pronged outlet;
7. Always disconnect an electrical plug from an outlet by pulling the plug not the cord;
8. Check wiring in hazardous locations where the risk of fire is especially high; and
9. Check electrical equipment to ensure that it is either properly grounded or double insulated.

B. Portable Heaters

Portable electrical heaters shall have tip-over protection that automatically shuts off the unit if it is tipped over. Adequate clearance between the heater and combustible furnishings or other materials shall be maintained at all times. Do not overload power strips or surge protectors with multiple portable heaters.

C. Office Fire Hazards

1. Avoid overloading circuits with office equipment;
2. Turn off nonessential electrical equipment at the end of each work day;
3. Keep storage areas clear of rubbish; and
4. Ensure that power strips or surge protectors are not placed under carpets, rugs, or other walking surfaces.

D. Cutting, Welding, and Open Flame Work

1. Ensure all necessary hot work permits have been obtained and fire watches will be established prior to work;
2. Cutting or welding is prohibited in sprinkled areas while sprinkler protection is out of service;
3. Cutting and welding are done in designated areas whenever possible by authorized personnel;
4. Adequate ventilation is provided;
5. Torches, regulators, pressure-reducing valves, and manifolds are United Laboratories (UL) or FM Global (FM) approved;
6. Oxygen-fuel gas systems are equipped with listed and/or approved backflow valves and pressure relief devices;
7. Cutting or welding is prohibited in areas where explosive atmospheres of gases, vapors or dusts could develop in confined spaces.

E. Flammable and Combustible Material

1. Class A Combustibles

These include common combustible material such as wood, paper, cloth, and some plastics that can act as fuel. To handle Class A combustibles safely:

- Keep trash in receptacles;
- Dispose of waste in a timely manner;
- Keep work areas clean;
- Keep combustibles away from potential ignition sources;
- Store oily rags in metal bins with lids; and
- Do not store excessive amounts of combustibles.

1. Class B Flammables or Combustibles

These include flammable and combustible liquids (oils, greases, and lacquers), flammable gases, and flammable aerosols. To handle Class B flammables and combustibles safely:

- Use only approved pumps to dispense liquids from tanks, barrels, drums, or similar containers;
- Do not dispense flammable liquids into containers unless the nozzle and container are electrically interconnected by contact or by a bonding wire, and either the container or nozzle is grounded;
- Store, handle, and use Class B flammables only in approved locations where vapors are prevented from reaching ignition sources such as heating or electric equipment, open flames, or mechanical or electric sparks.
- Class B Flammables or Combustibles

1. Class B Flammables or Combustibles - *Continued*

- Five gallons or more of a Class B flammable must be stored in a flammable liquid storage cabinet equipped with a self-closing mechanism;
- Always store materials such as oxidizers and organic peroxides in an area separate from flammable liquids and gases;
- Do not use, handle, or store Class B flammables or combustibles near exits or stairwells;
- Do not weld, cut, grind, or use unsafe electrical equipment near Class B flammables; and
- Do not generate heat or allow an open flame near Class B flammables.

F. Fire Extinguisher Class Ratings

Class of Fire	**Description**
Class A Fires	Fires in ordinary combustible materials, such as wood, cloth, paper, rubber, and many plastics.
Class B Fires	Fires in flammable liquids, combustible liquids, petroleum greases, tars, oils, oil-based paints, solvents, lacquers, alcohols, and flammable gases.
Class C Fires	Fires that involve energized electrical equipment.
Class D Fires	Fires in combustible metals, such as magnesium, titanium, zirconium, sodium, lithium, and potassium.
Class K Fires	Fires in cooking appliances that involve combustible cooking media (vegetable or animal oils and fats).

Potential Ignition Sources

Ignition Source	Control Procedures	
Vegetation	See “Special Fire Prevention Note”	
Brazing and Welding	Control procedures are outlined in the URM’s “Hot Work Permit Program”	
Electrical	Control procedures are outlined in the URM’s “Electrical safety Program”	
Natural Gas	Building natural gas meters have seismic shutoff devices installed on them and Maintenance staff has been instructed on shut off locations for natural gas meters.	
Liquid Chlorine	The Waste Water Treatment Plan has barrels of liquid Chlorine (Sodium Hypochlorite) to treat the site’s building’s sewage. The Maintenance staff has been instructed on shut off locations for the liquid Chlorine.	
Smoking	Smoking locations will have signage posted at their locations. Locations include: Outside smoking stations near the Administration and Sequoia outside parking lots.	

Waste Water Treatment Plant (WWTP) Area

The WWTP is located at the southern end of the developed property of the HGFC site. This area consists of the waste water treatment ponds, liquid Chlorine barrels, electrical equipment, Propane tank and power generator. The liquid Chlorine barrels and tubing needs to be inspected daily for leaks and repaired as needed. Chlorine can become combustible and toxic when mixed with other chemicals. The Propane tank needs to be checked daily for leaks and is also flammable. Call the fire department if the chlorine liquid becomes gaseous and has a strong odor or the propane tank has an uncontrolled leak.

Housekeeping Practices

The following practices are used to control accumulations of flammable and combustible materials and wastes at HGFC:

Type of Fire Hazard		
Flammable and combustible liquids	Fire Prevention Practices are outlined in the “Chemical Hygiene Plan”.	
	Inspections are conducted under the IIPP.	
Flammable Gases	Fire Prevention Practices are outlined in the “Chemical Hygiene Plan”.	
	Inspections are conducted under the IIPP.	
Paper	Office trash cans are emptied daily.	
Plastic	Recycling Cans are emptied on a weekly basis	

Fire Protection Systems

Fire Protection Maintenance and Inspection Frequencies

The Director of Facilities is responsible for the annual, semi-annual, and five year testing of the Institute's fire suppression and detection systems. These systems include:

- Fire sprinkler systems including wet, dry, pre-action, deluge, and Gaseous extinguishing agents;
- Heat, smoke, and infrared detection systems.

The Director of Facilities is also responsible for the monthly fire extinguisher inspections and the annual servicing of fire extinguishers.

Fire Evacuation Notification and Procedures – also see "Emergency Action Plan"

In the event of a fire, a building's fire detection system will activate and put the building into alarm. Upon hearing the alarm, building occupants will evacuate and proceed to the buildings' Emergency Assembly Area to await further instructions.

If the building does not have a fire detection system, employees should evacuate the building, notify Security at extension 7050, and proceed to the Emergency Assembly Areas and await further instructions.

Training

Supervisors will ensure that their employees have been trained about fire hazards associated with the materials and processes in this Fire Prevention Plan, and document this training. Employee training will include the following:

- The elements of this Fire Prevention Plan;
- Good housekeeping practices;
- Proper response and notification in the event of a fire; and
- Evacuation procedures.

Program Review

This program shall be reviewed annually or sooner if necessary to maintain compliance with California Code of Regulations (CCR), Title 8, § 3221.

Special Fire Prevention Note:

Los Angeles City Brush Clearance Requirements Ordinance

Revised – February 9, 2017

CLEARANCE REQUIREMENTS

The HGFC property is designated by the Los Angeles City as a Very High Fire Hazard Severity Zone (VHFHSZ) and must maintain this property in accordance with the Fire Code (L.A.M.C. 57.322). Year-round compliance shall be maintained as described below on all native brush, weeds, grass, trees and hazardous vegetation within 200 feet of any structures/buildings, whether those structures are on the owner's property or adjoining properties, and within 10 feet of any combustible fence or roadway/driveway used for vehicular travel.

1. Areas within 200 feet of structures and/or 10 feet of roadside surfaces or combustible fence: Grass shall be cut to three inches in height. Native brush shall be reduced in quantity to three inches in height. This does not apply to individual native shrubs spaced a minimum of 18 feet apart, provided such shrubs are trimmed up from the ground to 1/3 of their height with all dead material being removed (see diagram below).

2. For trees taller than 18 feet, trim lower branches so no foliage is within six feet of the ground, and remove all dead material. For trees and shrubs less than 18 feet, remove lower branches to 1/3 of their height, and remove all dead material (see diagram below).

3. Trees shall be trimmed up so the foliage is no closer than 10 feet from the outlet of a chimney (see diagram below).

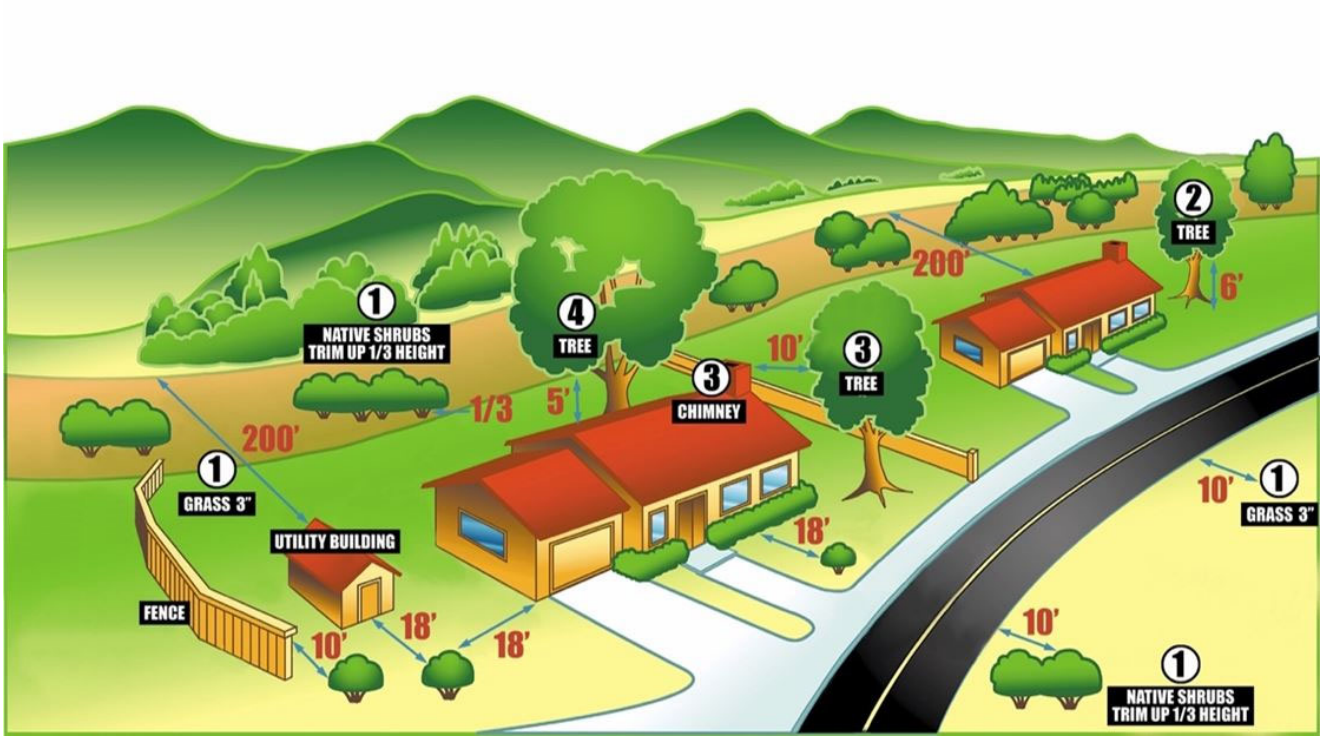
4. All roof surfaces shall be maintained free of substantial accumulation of leaves, needles, twigs and any other combustible matter. Maintain five feet of vertical clearance between roof surfaces and portions of overhanging trees (see diagram below).

5. All cut vegetation and debris shall be removed in a legal manner. Cut vegetation may be machine processed (i.e., chipped) and spread back onto the property at a depth not to exceed three inches within 30 feet of structures and six inches beyond 30 feet of structures. In addition, spread material shall not be placed within 10 feet of any usable roadside (in accordance with Fire Prevention Bureau Procedure No. 25)

The above general requirements also apply to landscape vegetation.
To Review ALL Enforceable Brush Clearance requirements, visit VMS3.lafd.org "Clearance Requirement."

VEGETATION MANAGEMENT IS A YEAR-ROUND RESPONSIBILITY

Clear Early, Clear Often.



Appendix 4.5-3

Hope Gardens Family Center Emergency Action Plan

UNION RESCUE MISSION®
The Way Home

HOPE GARDENS FAMILY CENTER

EMERGENCY ACTION PLAN

12249 N. Lopez Canyon Rd.
Sylmar, CA.91342
(213) 347-6300

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I

INTRODUCTION

INTRODUCTION

The objective of this Emergency Action and Evacuation Plan (Emergency Plan) is to develop procedures that will allow persons responsible for the Union Rescue Mission Facility in Sylmar, Ca. (Hope Gardens Family Center), achieve successful solutions to various emergencies.

This plan is designed with the intention to be a comprehensive, thorough and easy to use handbook, which can be utilized during any major emergency. The plan addresses emergency procedures to follow in cases of fire, flood, power failure, earthquakes, explosions, chemical spills, bomb threats and medical emergencies. Also included are major areas of supervisory responsibilities, logistical sources, and maps and post emergency procedures.

II

ORGANIZATIONAL EMERGENCY RESPONSE

ORGANIZATIONAL EMERGENCY RESPONSE

The following section gives a brief overview of the major areas of responsibility, which need to be addressed during most emergencies.

Each area includes a brief statement of general responsibilities and an action checklist to assist the individual overseeing each area. Remember that the checklist is only a guide and is not intended to limit initiative, collaboration or common sense.

No one can predict in advance how quickly and serious an emergency or incident may become. It is extremely important for staff to understand the need to establish an Emergency Plan Organizational Chart and a chain of command. Properly planned and implemented, these measures will assist the staff in doing what they would normally do, without interference and with greater efficiency.

Someone must be in charge of an emergency. All members of the staff may volunteer information, suggestions and opinions, but each one must be prepared to take orders as well.

The Line of Succession is based upon The HGFC & URM staff positions, not individuals, in order to eliminate the need to keep up with personnel changes.

It is the job of the Emergency Advisor (person in charge) to decide which jobs are needed, and when.

In the event that an emergency occurs at a time when none of the people in a given line of succession are present, the person who assumes the role of Emergency Advisor must make the necessary staff assignments.

NOTE: If an emergency occurs during off-hours, the Security staff on duty may be required to juggle a number of responsibilities with severely limited staff personnel, until additional help can be summoned. These duties will then be turned over to appropriate staff personnel as soon as they arrive or take charge at the Hope Gardens Family Center (HGFC).

All staff, and particularly those in the line of succession, needs to spend time periodically reviewing their various possible roles and their responsibility in the overall picture. Familiarization and training are the keys to success in any emergency situation.

EMERGENCY ADVISOR

During an emergency situation when it becomes necessary to implement the Emergency Plan, the following personnel, in the order indicated, will be responsible for the execution of the plan.

LINE OF SUCCESSION

1. Emergency Advisor
2. President
3. CFO
4. VP of Operations
5. VP of Emergency Services
6. Director of Facilities
7. Security Supervisor

During the time when the above staff personnel are absent from the HGFC, the Security Shift Supervisor on duty will be in charge until relieved by the Emergency Advisor.

RESPONSIBILITIES: Assesses the need for the Emergency Plan and declares it to be operational, when necessary. Directs all operations while the HGFC is in emergency status; continues to assess the emergency accurately, its progress, potential damages, and directs the staff based on these assessments; and determines cessation of state of emergency.

ACTION CHECKLIST

__ Assesses incident and declares the Emergency Plan is in effect; must evaluate any incident, which may become a serious emergency.

__ Declares that all radio traffic, storage and charging of radio batteries be routed through the - emergency command post, the location and composition of which is determined by the needs of the emergency. All radio traffic will be on the main Security Department frequency (Channel 1), unless directed otherwise.

__ Quickly gathers information and develops initial strategy based on staff available and the nature of the emergency.

__ Takes immediate steps to reduce or eliminate risk (for example: stop the flow of water, unclog the drain, etc.).

__ When applicable appoints security shift supervisor, staff managers, maintenance lead, public relations director, safety coordinator, and duty chaplains.

EMERGENCY ADVISOR *(continued)*

__ Obtains a two-way radio and a First-Aid/Emergency kit.

__ Establishes a command post and clearly announces its location and who is in charge.

Possible Locations:

- Gate 3
- Gate 4
- Operations Building
- Administration Building

__ Arranges for chronological documentation of significant events using an assistant if possible.

__ Receives and evaluates reports from all subordinates.

__ Coordinates with officials of the Union Rescue Mission.

__ Ensures the protection of guests, program residents and staff during the emergency.

__ Authorizes the mutual aid efforts with other service providers. (See fact sheets on Other Service Providers).

__ Continually reevaluates state of emergency and priorities.

__ Ensures long-term clean-up and salvage operations are initiated.

__ Thoroughly briefs his/her replacement.

__ Declares emergency is over.

Facilities Director

RESPONSIBILITIES: The Human Resource Department or their designee as Safety Coordinator is responsible for general safety and welfare of persons on the property during emergency operations.

ACTION CHECKLIST

__ Quickly gathers information and develops initial strategy based on available staff and the nature of the emergency.

__ Assembles and directs a team of workers trained in first aid when possible. Coordinates with the Security Supervisor, Maintenance Manager and Site VP.

__ Establishes and maintains the first aid station(s).

__ Supervises evacuation of the sick and injured as possible.

__ Reports hospitalization needs of the injured to the Emergency Advisor.

__ Coordinates the identification, removal and storage of deceased persons.

__ Arranges for chronological documentation of activities using an assistant if possible.

__ Regularly reports to Emergency Advisor on progress/problems.

__ Thoroughly briefs his/her replacement.

SECURITY SUPERVISOR

RESPONSIBILITIES: Maintains the security of all buildings and grounds to ensure the protection of guests, program resident sand staff. Supervises the staff personnel assigned to this team and is responsible for their development as well as the enforcement of all emergency security regulations.

ACTION CHECKLIST

__ Quickly gathers information and develops initial strategy based on personnel available and the nature of the emergency.

__ Investigates all accidents, injuries, or deaths related to the emergency, and maintains accurate chronological records, including confidential lists of the injured and dead, citing causes when know. Reports this information to the Emergency Advisor.

__ Obtains the necessary supplies from the emergency supply kit and a portable radio.

__ Oversees immediate distribution of emergency supplies and assigns available two-way radios to key personnel.

__ Assembles and directs a team of workers, primarily using security department staff personnel when possible. Uses runners as necessary. **Coordinates staffing needs with the Safety Coordinator and Emergency Advisor.**

__ Is responsible for locating and establishing a command post; assigns additional operators as necessary.

__ Arranges for the coverage of the minimum necessary security posts and establishes security and fire prevention patrols in the HGFC site buildings and grounds as appropriate.

__ Provides security for designated areas, such as kitchens and food storage, warehouse, Operations Building, parking lots, etc.

__ Establishes perimeter security.

__ Provides security for the Emergency Advisor command post.

__ Maintains Emergency Key Log.

__ Enforce The HGFC rules and regulations, adapting for emergency conditions. Uses sound judgment.

__ Attempts to deter trespassing, looting and other violations. May detain violators by citizen's arrest if necessary.

SECURITY SUPERVISOR *(continued)*

__ Coordinates with local law enforcement on all internal security matters.

__ Assesses impact of the emergency upon overall security efforts and reports to Emergency Advisor.

Traffic Control

__ Coordinates evacuation of visitors, guests, program residents and staff.

__ Enforces emergency traffic patterns.

__ Screens all incoming traffic.

__ Controls all pedestrian traffic

__ Thoroughly briefs his/her replacement.

__ Arrange for the chronological documentation of significant events, using an assistant if possible.

__ Regularly reports to Emergency Advisor on progress/problems.

HUMAN RESOURCES COORDINATOR

RESPONSIBILITIES: Under the direction of the Emergency Advisor, is responsible for the efficient deployment and redeployment of all staff personnel on The HGFC property. This includes utilizing essential personnel and establishing a safe area for non-essential personnel outside of the emergency area(s). Must make rapid decisions based on existing conditions and available staff.

ACTION CHECKLIST

__ Quickly gathers information and develops initial strategy based on personnel available and the nature of the emergency.

__ Establishes a base of operations, which can accommodate the anticipated staffing pool, and clearly announces its location.

__ Assembles all available personnel and deploys them individually or in teams to report to other managers or staff as needed, based upon primary skills.

__ Under the direction of the Emergency Advisor, establishes and continually revises the relative staffing priorities of various teams.

__ Maintains emergency notification files and handles the recall of off-duty staff as necessary.

__ Maintains a status board of all current deployment of onsite personnel. (See attached emergency Line of Succession.)

__ Clearly instructs all personnel to return to the personnel pool, as determined by Human Resources Coordinator, for reassignment upon completion of task and release by the requesting manager.

__ Identifies whether any personnel are missing and believed trapped in hazardous areas, and informs the Safety Coordinator.

__ Coordinates the use of arriving staff, ensuring that all needs are met.

__ Surveys available visitors and program participants for special skills.

__ Recruits outside medical personnel as required.

__ Regularly reports to Emergency Advisor on progress/problems.

__ Establishes records of known missing, injured or deceased persons, and coordinates to information with Public Relations Coordinator. Thoroughly briefs his/her replacement.

__ Arranges for chronological documentation of significant events, using an assistant if possible.

MAINTENANCE COORDINATOR

RESPONSIBILITIES: Maintains the maximum functioning of all physical plant systems. Reduces or eliminates risk to people, buildings, and objects through repair work and anticipation of structural, electrical, mechanical and other problems.

ACTION CHECKLIST

__ Quickly gathers information and develops initial strategy based on personnel available and the nature of the emergency.

__ Obtains a two-way radio. The Universal Channel for emergencies is: **1**

__ Assembles and directs a team of workers, primarily from Maintenance Department, to immediately conduct initial structural, systems and utility damage assessments. Report location(s) and severity of problems to the Emergency Advisor, and the Maintenance Coordinator.

__ Provides emergency power. Coordinates use of the emergency generator.

__ Directs necessary emergency shutdown procedures for heating, ventilating, air conditioning, water, and electrical systems.

__ Shuts off water heaters and gas supply lines as necessary. Earthquake gas valve automatically shuts off all gas equipment and manual reset is necessary.

__ Restores and maintains essential services as possible.

__ Repairs emergency equipment by priority, including alarms.

__ Inspects and clearly marks hazards and hazardous areas.

__ Constructs emergency facilities as needed, in coordination with Safety Coordinator. Provides mechanical maintenance as necessary.

__ Secures contractor support (establishes phone list of sources) to supplement staff in the repair of damaged utilities, buildings, fire protection systems, equipment, etc.

__ Regularly reports to Emergency Advisor on progress/problems.

__ Arranges for chronological documentation and time line for records of significant events, using an assistant if possible. Thoroughly briefs his/her replacement.

PROJECT COORDINATOR

RESPONSIBILITIES: Designated by the Emergency Advisor, coordinates all procurement, supply and maintenance of equipment and services.

ACTION CHECKLIST

__Quickly gathers information and develops initial strategy based on staff available and the nature of the emergency.

__ Arranges for sanitation and disposal of human waste. Refer to the "ADDITIONAL EMERGENCY RESPONSE INFORMATION" in Section VI of this document.

__ Obtains the emergency supply kits and conducts an audit of available supplies.

__ Establishes a base of operations and clearly identifies its location.

__ Ascertains the logistical needs of the Emergency Advisor; his/her staff and institutes a plan to fill those needs; ensuring that all needs are met by priority.

__ Coordinates the contacts with outside suppliers.

__ Arranges for outside support for identification and removal of hazardous materials.

__ Continually reevaluates state of emergency, priorities and submit report to the Emergency Advisor.

__ Arranges for chronological documentation of all activities using an assistant if possible.

__ Regularly reports to Emergency Advisor and Facilities Manager on progress/problems.

__ thoroughly briefs his/her replacement.

PUBLIC RELATIONS COORDINATOR

RESPONSIBILITIES: The Public Relations Coordinator oversees all external communications for the duration of the emergency. Gathers, compiles, and coordinates information for dissemination through the media and acts as liaison with outside agencies and the community through the Public Affairs Department. Works closely with Safety Coordinator to ensure appropriate information is circulated about emergency. Serves as liaison to families of employees (through Human Resources Department) and visitors, and manages all outside telephone communications.

ACTION CHECKLIST

__ Quickly gathers information and develops an initial strategy based on staff available and the nature of the emergency.

__ Prepares a media statement and appropriate key messages.

__ Obtains a portable radio.

__ Prepares key messages for URM's internal audience. Establishes a base of operations preferably in an area with functional telephones (e.g., HGFC Administration Building or URM's 2nd Floor Conference Room), and clearly announces its location.

__ Coordinates all media management operations.

__ Sets up and facilitates Press conference(s) if necessary.

__ Receives all external communications and requests for information.

__ Disseminates information through the media; including updates on the emergency and changes in daily procedures, hours of operation, etc. Organizes press releases and any information released to the public.

__ Updates information for website.

__ Arranges for chronological documentation of significant events

__ Regularly communicates with Emergency Advisor on progress/problems/status.

__ Thoroughly briefs his/her replacement.

__ Participates in a debriefing session after the emergency is over.

DUTY CHAPLAIN

RESPONSIBIILITIES: Responsible for the physical, spiritual and emotional welfare of all persons on the property.

ACTION CHECKLIST

__ Establishes food and shelter station(s).

__ Provides special services as required for the care of unaccompanied children, the aged and the handicapped.

__ Coordinates with Public Relations Coordinator to facilitate outside communications with concerning guests, program participants, visitors and staff.

__ Coordinates with Red Cross as appropriate.

__ Arranges for chronological documentation of significant events, using an assistant if possible.

__ Regularly reports to Emergency Advisor on progress/problems.

__ Provides counseling and spiritual support.

__ Thoroughly briefs his/her replacement.

III

EMERGENCY PROCEDURES

EMERGENCY PROCEDURES

The following section provides a brief overview of some of the types of emergencies, which the HGFC might face in the future. As you read the material, understand that it is intended to assist a staff member as an individual in understanding what to expect and how to respond initially.

The key to effective response in any emergency is prior familiarization and training in the use of the emergency plan.

INTRODUCTION TO MEDICAL EMERGENCIES

The Safety Committee Team will provide bi-annual training in first aid and cardiopulmonary resuscitation (CPR) to all designated URM staff. The Safety Committee shall also maintain first aid kits, in clearly marked locations, in buildings occupied by employees.

In the event you see or are informed of a medical emergency, please stay calm and follow the instructions on the following pages.

MEDICAL EMERGENCIES

When a person appears to be ill or injured:

1. Notify Security at extension **7050 IMMEDIATELY,** or tell a Security Officer if one is nearby.

2. Security will dispatch First-Aid trained responders with first-aid supplies to the medical emergency. **Two adults will examine the person in need of medical assistance**. The first-aid responders will render the minimum first aid necessary and determine what additional treatment is required (i.e., call the Fire Department, paramedics, ambulance, etc.)

3. Security (Gate 3) will be responsible for the notification of emergency personnel.

4. Do not attempt to move a person who has fallen and who appears to be in pain.

5. Avoid unnecessary conversation with, or about, the ill or injured employee, guest, visitor, or members of his/her party. You might increase the person's distress or fears, and thereby contribute to medical shock. Limit your communication to quiet reassurances.

6. Do not discuss the possible cause of an accident or any conditions that may have contributed to the cause.

7. Under no circumstances should an employee or security officer discuss any insurance information with members of the public.

8. After the person's needs have been taken care of, and the incident is concluded, remain on call to assist the investigating Security Shift Supervisor or HGFC manager with pertinent information for an accident/incident report.

9. Contact the Human Resources Department at extension 2205 to report the employee medical emergency, request paperwork to fill out an accident report and for any questions concerning Workers' Compensation.

POWER FAILURE

A. General Procedures

1. Note of the time of the power failure time (i.e.am-pm) and log the length of time.

2. Contact the following staff members:

    a. HGFC Maintenance Manager
        i. VP responsible for the Site (Site VP)
        ii. VP of Operations
        iii. Director of Facilities
        iv. Safety Coordinator

3. Remain calm. Do not panic.

4. Be alert for potential vandalism or theft.

5. The Operations (Maintenance) Department shall respond with the appropriate equipment to a power failure.

6. All staff members will remain in there assigned areas and stand by for further instructions.

7. Hope Gardens is equipped with emergency lighting which will be energized in the event of a power failure. When feasible, staff members will also pull open the drapes/blinds covering the windows for additional lighting.

8. Security will assist residents as needed if an evacuation is necessary.

9. Security and Operations will check to see if anyone is stranded in a functioning site elevator(s). **The HGFC site elevators are currently turned off.**

10. If a HGFC Site evacuation is required, it will begin with an announcement to evacuate the buildings. Security and Operations will assist with a controlled, calm evacuation of the Site.

11. The Maintenance Manager, the Site VP or assigned building monitors will coordinate a walk through and inspection of all areas, securing doors and ensuring everyone has left the Site buildings.

12. If the emergency continues, the Safety Coordinator shall ensure that the following are contacted:
    a. Los Angeles County Sheriff's Department
    b. L. A. Department of Water & Power
    c. The Gas Company
    d. Other emergency services as needed

POWER FAILURES *(continued)*

B. Normal Office Hours Procedures

1. Contact the following staff members:
    a. HGFC Maintenance Manager
    b. Site VP or Director
    c. Security
2. If an evacuation is required, all persons will need to obtain their personal items and proceed to designated exits.
3. Security will assist with the evacuation.
4. The Security Supervisor, Maintenance Manager and/or assigned building monitors will coordinate a walk-through and inspect all areas to ensure that all employees, residents, and visitors are out of all the buildings and located at the designated evacuation site areas.

C. After Hours Procedures

1. Contact the following staff members:
    a. HGFC Maintenance Manager
    b. Site VP or Director
    c. Security
2. Secure the perimeter of the Hope Gardens Family Center (HGFC).
3. The Security Supervisor, Maintenance Manager and/or assigned building monitors will coordinate a walk-through and inspect all areas to ensure that all employees, residents, and visitors are safe, sheltered-in-place or evacuated to the designated evacuation site areas.
4. The Los Angeles County Sheriff's Department and the Los Angeles Department of Water and Power (DWP) will need to be contacted and, if possible, for cause of the power failure and the anticipated duration of the power outage.
5. Conduct continuous checks of Hope Garden Campus perimeter until power is restored.
6. All security personnel shall remain on post (duty) until relieved.

FIRE PROCEDURES

When discovering a fire:

1. Move residents, staff, and visitors in immediate danger away from the fire.
2. Confine the fire by closing all necessary doors and windows.
3. Activate the nearest fire alarm pull station or call Security Gate 3 and,
4. Notify Security and they will notify the Los Angeles County Fire Department.

In case of a wildfire in the canyon or surrounding areas:

1. The HGFC will be notified by the the Fire Department or HGFC will notify the Fire Department of the canyon wildfire.
2. Employees working or living on the premises (Site) and the HGFC Department heads will be informed.
3. A general alarm or notification will be made at the HGFC.
4. All employees and residents will meet in the front of the Administration or Sequoia Building's Front Parking Area until further instructions are given.
5. The necessary vehicle drivers will be contacted and prepared to evacuate employees and residents off of the premises depending on fire location in the canyon.
6. The Site VP will determine if the residents need to be transported to the Union Rescue Mission or a predetermined off-site location.
7. Security, the Maintenance Manager and/or assigned building monitors will check the HGFC buildings, **if it is safe to do so**, make sure everyone is out, accounted for and then secure all the buildings.
8. Appropriate arrangements will be made at the Union Rescue Mission or off-site location(s) for residents to stay temporarily if needed.

FIRE ALARM REPORT FORM

Fire Alarm Report

REMAIN CALM DO NOT USE THE ELEVATOR DURING A FIRE ALARM!

Fire Department will be notified only in an actual fire incident

Name _____ Department _____ IR# _____

Date of Alarm _____ Time of Alarm _____

Location of the Alarm according to the Alarm panel _____

Reason for alarm (Please circle) Actual Fire Pull Station Smoke Detector Duct Detector

Exact Location of the Fire / Incident. (Example: Floor, Room, Hall, etc.)

_____

_____

_____

Please circle the correct responses below:

Was the building evacuated? Yes No Were there any injuries? Yes No

Was the Fire Department notified? Yes No

The time the Fire Department was called: _____ Arrival time: _____

Fire Station Responding: _____ Unit Number: _____

Name of Fire Captain: _____

Signature: _____ Department: _____ Date: _____

Maintenance / Facilities Supervisor Report Only:

Service required? Yes No Service Requested: Date _____ Company _____

Alarm Condition: Active Inactive Disabled

Signature: _____ Date: _____ Time: _____

EARTHQUAKE

Even in a severe earthquake, much can do to prevent or minimize personal injuries or damage to HGFC's property.

DURING AN EARTHQUAKE

If you are inside of a building:

1. Stay inside.
2. Watch for falling objects.
3. Crawl under and hold onto a table, desk or find safe place and cover you head with your arms.
4. Stay away from windows, mirrors, overhead fixtures, filing cabinets, bookcases, and electrical equipment.

If you are outside:

1. Move to an open area away from trees, buildings, and power lines.
2. If forced to stand near a building watch for falling objects.

If you are in a vehicle:

1. Stop your vehicle in the nearest open area. Avoid bridges and overhead wires.
2. Stay in the vehicle until the shaking stops.

AFTER AN EARTHQUAKE

1. Remain calm.
2. Be prepared for after-shocks (additional earthquakes).

1. Do not move seriously injured persons unless they are in obvious, immediate danger (i.e. fire, building collapse, etc.) and they consent to being moved.
3. Do not use elevators. Use stairways only.
4. Avoid using telephones.
5. Do not announce or discuss private information.
6. If an evacuation is ordered, Security, Site VP and/or the Maintenance Manager will guide you.
7. The evacuation will begin with an announcement to all persons on site, with instructions to exit through the nearest safest exit. Security will assist in a controlled and calm manner to help evacuate the premises.

8. The designated point of refuge is in front of the Administration Building or the open grass area in front of the Sycamore Building. The HGFC Managers will ensure that all persons are accounted for.

9. The Site VP and/or the Maintenance Manager will coordinate a walk through and inspection of the property, securing all doors and ensuring that all persons have left the building.

10. **If the emergency continues, contact the following**:

Los Angeles County Fire Department (fire/rescue)	**911 or (818) 889-8017**
Los Angeles County Sheriff's Department (crime)	**911 or (818) 898-2773**
Department of Water & Power	**800-342-5397**
Gas Company	**800-427-2200**
TelePacific (Voice and Data Communications)	**800-399-4925**

AFTER HOURS

1. Security Officers must maintain radio contact with fellow officers.

2. Security will attempt to ascertain any damage to the HGFC.

3. Security will contact the Site VP, Director of Facilities and the HGFC Maintenance Manager.

4. Be prepared to brief the persons in charge on the HGFC's Site condition.

BOMB THREATS AND SUSPICIOUS OBJECTS

It is possible, that any staff member may receive a suspicious telephone call, a letter, or suspicious parcel.

If you receive a telephone threat:

1. Remain calm.
2. Listen carefully. Be polite and show interest. Try to keep the caller talking, so that you can gather more information about the caller and the nature of the conversation.
3. If possible write a note and send a person to inform security or as soon as the caller hangs up, notify security.
4. DO NOT USE THE TELEPHONE – REMEMBER, THAT THERE MAYBE MORE THAN ONE EXPLOSIVE DEVICE, SO BEWARE OF SECONDARY DEVICES. Security will notify appropriate law enforcement and public safety agencies.
5. Promptly complete a bomb threat report (see security forms) for writing down as many details as you can remember. Security and the local law enforcement agencies (Police) will need this information.
6. Do not discuss the threat with other staff.
7. Security and the Police will give you instructions if an evacuation is ordered.

NOTE: Please be aware that as a matter of policy, Everyone with the exception of Security personnel will be evacuated from HGFC Campus prior to a bomb search is conducted.

If you receive or find a threatening letter or suspicious envelope:

1. Remain calm.
2. Take the letter or envelope to or your manager. If the envelope is sealed, contact the Police. Do not try to open the envelope.
3. The Security Supervisor, Maintenance Manager and the Police will give you instructions if an evacuation is ordered.
4. Promptly complete a Bomb Threat Report (see attached form) for writing down as many details as you can remember. The HGFC Security and the local Police will need this information.

If you receive or find a suspicious object (i.e. explosive device):

1. Do not handle the object. Have a person (runner) go to Gate 3 Security Post immediately and have the Security Supervisor come to the object’s location.
2. Do not give the runner any information regarding the threat.
3. Keep anyone from handling it or going near it.
4. Where an explosive device or devices are involved ALL RADIO USE SHALL BE TERMINATED IMMEDIATELY - BEWARE OF SECONDARY DEVICES. Any further communication should be conducted orally to avoid possible detonation.

BOMB THREATS AND SUSPICIOUS OBJECTS *(continued)*

5. DO NOT USE ANY TYPE OF PHONES or TWO-WAY RADIOS. Security will notify appropriate law enforcement and public safety agencies.
6. Promptly write down everything you can remember about finding the object. The Security and Police Departments will need this information.

Note: Please beware that as a matter of policy, all visitors and staff will be evacuated from the Mission prior to conducting a bomb search.

ACTIVE SHOOTER

Safe response is imperative because active shooter incidents are often over within 10 to 15 minutes and before law enforcement arrives. It is imperative that employees know how to respond.

First Option: Run
The U.S. Department of Homeland Security recommends you should “Run, Hide, Fight” if an active shooter strikes. If there’s an accessible escape path, attempt to evacuate the building. Remember to:
• have an escape route in mind
• evacuate regardless if co-workers agree to follow
• leave your belongings behind
• help others escape, if possible, and
• call 911 when you’re safe.

Second Option: Hide
If evacuation isn’t possible, find a place to hide where the shooter isn’t likely to find you. Your hiding place should:
• be out of the shooter’s view
• provide protection if shots are fired in your direction, and
• not trap you or restrict your options for movement.
To prevent a shooter from entering your hiding place, you should:
• lock or barricade the door
• silence your cell phone and keep quiet, and
• hide behind large items, like desks and cabinets.
If evacuation or hiding isn’t possible, remain calm and dial 911. If you can’t speak, leave the line open to let the dispatcher listen.

The Last Resort: Fight
As a last resort, and only when your life is in danger, attempt to disrupt the shooter by:
• acting as aggressively as possible toward him or her
• yelling
• throwing items and improvising weapons, and
• committing to your actions.

When Law Enforcement Officers arrive they will usually:
• arrive in teams of four
• wear regular patrol uniforms or bulletproof vests, Kevlar helmets and other equipment, and
• shout commands and push people to the ground for their safety.
• **you should react by:** remaining calm and following their instructions; putting down any items in your hands (such as bags, jackets, etc.); keeping your hands visible at all times; not stopping to ask for help – just evacuate in the direction the officers are entering from; and not grabbing onto officers for safety or making any quick movements toward them.

Telephone Bomb Threat Report and Procedures

Write the conversation down verbatim. Be calm. Be courteous. Obtain this vital data if not volunteered by the caller:

[ ] Bomb location(s) _____

[ ] Time set for detonation(s) _____

[ ] Time & date of call _____ [ ] Line or extension _____

[ ] Size of bomb(s) _____

[ ] report of secondary device(s) _____

Keep the caller talking until the vital data above is obtained. The text of conversation. Be accurate. Listen for other sounds.

_____ _____

Signature Date

If caller is willing to continue conversation, ask:

Why our company? _____

Where are you? _____

What is your name? _____

What is your address? _____

Phone number? Etc. _____

IMPORTANT INSTRUCTIONS:

Before reporting to security, complete in writing, the five items on the checklist and submit your report in person. Refer all questions from outside organizations or individuals to the **Communications Director.** Following initial report, complete the "**Bomb Threat Profile Questionnaire"** while the incident is fresh in your mind.

BOMB THREAT PROFILE QUESTIONNAIRE

(To be completed immediately following bomb threat)

Submitted by: _____

Position: _____

Date of Threat: _____ Time of Threat: _____

Caller Data: Sex ____ Estimated age _____ Voice Accent & type _____

Voice

Characteristics

[ ] Loud
[ ] High pitch
[ ] Raspy
[ ] Intoxicated
[ ] Soft
[ ] Deep
[ ] Pleasant
[ ] Other _____

Language

[ ] Excellent
[ ] Fair
[ ] Foul
[ ] Good
[ ] Poor
[ ] Other _____

Background Noises

[ ] Factory Machines
[ ] Bedlam
[ ] Music
[ ] Office Machines
[ ] Mixed
[ ] Street Traffic
[ ] Trains
[ ] Animals
[ ] Quiet
[ ] Airplanes

Speech

[ ] Fast
[ ] Distinct
[ ] Stutter
[ ] Slurred
[ ] Slow
[ ] Distorted
[ ] Nasal
[ ] Lisp
[ ] Muffled
[ ] Other _____

Language

[ ] Calm
[ ] Party Atmosphere
[ ] Rational
[ ] Coherent
[ ] Deliberate
[ ] Righteous
[ ] Angry
[ ] Irrational
[ ] Incoherent

Accent

[ ] Local
[ ] Foreign _____
[ ] Race _____
[ ] Not Local Region

Phrases or words used repeatedly: _____

Other Remarks: _____

Note: Use a separate report if more than one caller. – Signature: _____

FLOODING AND WATER DAMAGE

Serious water damage can occur from a number of sources: Faulty water sprinkler heads, ruptured water pipes, clogged drains, broken windows or rain water runoff from surrounding hills.

If a water leak occurs:

1. Remain calm.

2. Notify Security and the HGFC Maintenance Manager immediately. Convey the exact location and severity of the leak or flooding. Security or the Maintenance Manager will notify the appropriate people including the Fire Department if conditions dictate.

3. Also notify your supervisor if possible of the extent and location of the leak. If it is a faulty sprinkler head, immediately notify the Maintenance Manager.

4. If there are electrical appliances, electrical outlets and/or electrical power cables near the leak, DO NOT GO NEAR THE AREA OR WALK OR STAND IN ANY WATER. If there is any possible danger to people, evacuate the area.

5. If you know the source of the water and are confident of your ability to stop it (i.e., unclog the drain, turn off the water, etc.) do so cautiously. Inform Security and the Maintenance Manager of what the problem is and any actions taken to control it.

6. Be prepared to assist others.

EMERGENCY RAIN PROCEDURES – All Hours

In the event of prolonged periods of rainfall, the Security and Operations staff on duty will:

1. Conduct a continuous visual check of exterior drains. Check underground equipment vaults and basements for flooding.
2. Notify Gate 3, Site VP and the Maintenance Manager of any emergency conditions. They will ensure proper notifications are made.
3. If conditions so dictate contact Los Angeles County Fire Department prior to any other notifications. (Security and or the Maintenance Manager will ensure the fire department has been notified).
4. Be prepared to assist others.

CHEMICAL SPILLS

If a chemical spill occurs:

1. Notify Gate 3 at extension 7050, the HGFC Maintenance Manager and identify the location, type of spill (i.e. liquid, solid, fumes) and if the chemical has been identified. The Maintenance Department will assemble trained HAZWOPER personnel and equipment, and investigate the reported chemical spill.

2. Restrict persons from getting near the chemical spill location. If there is any possible danger (i.e. toxic or flammable liquid, dust or fumes) evacuate the immediate area(s) **uphill and upwind**.

3. If the chemical is known, go directly to the Right to Know Station, if nearby, and check the chemical information on the SDS (MSDS). Read Sections V-VIII.

4. If toxic chemicals come in contact with your skin, immediately flush the affected area with clear water for 15 minutes.

5. Notify your supervisor of the extent and location of the spill, if possible.

If a chemical fire occurs:

1. Remain calm.

2. Notify Security, at extension 7050, and the Maintenance Manager IMMEDIATELY. Try to identify and locations of the chemicals burning.

3. Refer to the EMERGENCY FIRE PROCEDURES.

Special Note:

1. If a liquid Chlorine leak is found at the Waste Water Treatment Plant (WWTP):
    a. Contact the Maintenance Department or Site Security and explain the leak condition.
    b. If a moderate to strong Chlorine odor is in the air, move all persons 150 ft. away from the spill/leak, notify Maintenance and Security about the odor and contact the Fire Department (HAZWOPER team).
    c. Be available to any HAZWOPER team that responses to the spill or leak.

EXPLOSIONS

Chemical accidents, leaking gas, faulty boilers, bomb threats, vehicle accidents or even falling aircraft could all be the cause of life endangering explosions.

1. Remain calm.
2. Be prepared for possible further explosions.
3. Contact Security and the Maintenance Manager. Refer to **EVACUATION PROCEDURES**.
4. Stay away from windows, mirrors, overhead fixtures, filing cabinets, bookcases, and electrical equipment.
5. Security and assigned Staff will guide you to your designated area of refuge if an evacuation is ordered. Do not move seriously injured persons unless they are in obvious immediate danger (i.e. fire, building collapse, etc.) and they consent to being moved.
6. Open doors carefully. Watch for falling objects.
7. Do not use the elevators. Use stairways only.
8. Use telephones for emergencies only.
9. Do not announce private information.

EXPLOSIONS - AFTER HOURS

1. Remain calm.
2. Be prepared for further explosions.
3. Stay away from windows, overhead fixtures and be aware of falling objects.
4. Contact Security and the Maintenance Manager. Refer to **EVACUATION PROCEDURES**
5. **Additional Contact Procedures**:
    - Gate 3 Security at extension 7050. Gate 3 will contact:
        - Los Angeles County Fire Department (fire/rescue) 911 or (818) 889-8017
        - Los Angeles County Sheriff's Department (crime) 911 or (818) 898-2773
        - HGFC Site VP
        - HGFC Maintenance Manager
6. Secure perimeters of the HGFC Site if necessary.
7. Await further instructions from the Emergency Advisor or the person in charge.

IV

EMERGENCY NUMBERS & INFORMATION

UNION RESCUE MISSION – HGFC CAMPUS (Sylmar, CA)
EMERGENCY PLAN PHONE LISTING
For Emergency Use Only

URM Department	User Name	Cell Phone No.	Phone Ext. No.
CEO/President	Andy Bales	Contact numbers will be listed at Gate 3	
VP of Emergency Svcs.	Latonja Lindsey	Contact numbers will be listed at Gate 3	
VP of Operations	Joy Flores	Contact numbers will be listed at Gate 3	
Director of Facilities	Maurice Ochoa	Contact numbers will be listed at Gate 3	
HGFC Maint. Manager	David Fuentes	Contact numbers will be listed at Gate 3	
Transportation Manager	Albert Juanico	Contact numbers will be listed at Gate 3	
VP of Public Relations	Kitty Davis-Walker	Contact numbers will be listed at Gate 3	
Human Resources	Yeilen Willis	Contact numbers will be listed at Gate 3	
Safety Coordinator	Brian Hall	Contact numbers will be listed at Gate 3	

Support Agencies	Telephone No.
Los Angeles Department of Water and Power	(800) 342-5397
The Southern CA Gas Company	(213) 427-2200
Los Angeles County Sheriff's Department (Non- Emergency)	(818) 898-2773
Los Angeles County Fire Department (Non-Emergency)	(818) 889-8017
Telephone and Data Service (TelePacific)	(800) 399-4925
ProHealth Medical Group (Workman's Comp. - Medical)	(818) 933-4440
Olive View – UCLA Medical Center (Hospital)	(818) 364-1555
Providence Holy Cross Medical Center (Hospital)	(818) 365-8051

OFF SITE RESOURCES

PUBLIC SAFETY AGENCIES

California Highway Patrol -Los Angeles 24hr#	(323) 906-3444
Cal-Trans Highway Condition Information	(800) 427-7623
FBI 24hr#	(310) 477-6565
Los Angeles County Coroner	(323) 343-0512
Los Angeles County Health Department	(213) 240-8203
Los Angeles County Sheriff Department-Los Angeles	(323) 526-5541
Los Angeles Police Department -Central Division	(213) 485-3294
Los Angeles Fire Department	
Emergency	911
Non-Emergency	(213) 485-6290
Weather Bureau	(213) 554-1212
Los Angeles Disaster Preparedness/Emergency Operating Ctr.	911
Non-Emergency	(800) 675-4911
Community Relations & Services	(800) 675-4911
Information (24 hours)	(800) 675-4911
Radio Stations -County Civil Defense Notification System	
KFI (640 AM)	(818) 559-2252
KNX (l07.0AM)	(323) 460-3000
Verizon	
Los Angeles Water & Power	(800) 342-5397
Power Emergency-After Hours Trouble Calls Only	(800) 342-5397
Water Emergency -After Hours Trouble Calls Only	(800) 821-5278
The Southern CA Gas Company	(213) 244-1200
Poison Control	(800) 876-4766
Arson Hotline	(800) 233-3473
National Response Center for Toxic Chemical/Oil Spills	(800) 424-8802
Abducted, Abused/Exploited Children (Child Quest Int'l.)	(800) 248-8020
California Missing Children Hotline	(800) 222-3463
California Youth Crises	(800) 843-5200
Hotline Child Abuse Hotline	(800) 540-4000
Domestic Violence Hotline	(800) 978-3600
Los Angeles Commission on Assaults Against Women Rape and Battering Hotline – Los angeles County	(316) 392-8381

V

UTILITIES SHUT OFFS & EMERGENCY INFORMATION

SHUT OFFS AND GENERATOR

At Hope Gardens there are two ways of shutting off the utilities. The type of disaster we are experiencing will determine where and which utilities will be shut off. The utilities can be shut off at each building or the whole facility can be shut off. If the whole facility is shut off the emergency generator will automatically go on to provide emergency service. The Operations department will assess situations and shut off what is necessary at the time of incident.

GAS: All shut off valves are color coded "red" and wrenches are at the valve site.

1. **SEQUOIA: In the basement near the garage door, color coded by a yellow pipe, the wrench is on the shut off valve.**
2. **CHILD CARE CENTER: Basement of the Administration Building.**
3. **ADMINISTRATION BUIDING: Basement of building.**
4. **SYCAMORE: North end of building. Next to the electrical room.**
5. **CURRIE COURT: South end of the building, behind on the first floor.**
6. **OPERATIONS BUILDING: Under the stairwell of the operations, near the gardener's area.**

WATER: All shut off valves are color coded "blue" and no equipment is needed to turn off.

1. **SEQUOIA: In the basement near the garage door color coded by a blue shut off valve. Turn the wheel to the left until it stops.**
2. **CHILD CARE CENTER : Inside the mechanical closet by Room 9**
3. **ADMINISTRATION BUILDING: Basement of building.**
4. **SYCAMORE: Inside the boiler room on the second floor near Room 105.**
5. **CURRIE COURT: Inside the Fire Hydrant closet by the first floor center stairwell.**
6. **OPERATIONS BUILDING: Under the stairwell of the operations near the gardener's area.**
7. **ENTIRE FACILITY: City water pump across the bridge leading to the sewage area and the water tower on top of the hill across from the facility.**

ELECTRIC: All electric shut off with the use of a clearly labeled switch(s).

1. **SEQUOIA: In the basement in the "Electric Panel Room" located next to the laundry area.**
2. **CHILD CARE CENTER : In the linen room in the closet labeled "Fire Alarm Panel"**
3. **ADMINISTRATION BUILDING: In the basement. When entering the basement, go to the right and towards the middle of the basement, take the steps down and main is located against the wall.**
4. **SYCAMORE: On the bottom floor, past the stairwell by Rm. 98 in the electrical room.**
5. **CURRIE COURT: On the bottom floor, behind the elevator and next to the center stairwell in the electrical room.**
6. **OPERATIONS BUILDING: Behind the Operations Building.**
7. **ENTIRE FACILITY: In the basement. When entering the basement, go to the right towards the middle of the basement, take the steps down and the main is located against the wall.**

SHUT OFFS AND GENERATOR *(continued)*

GENERATORS: There is one fixed power generator for this campus that is fueled by a propane gas tank. This fixed generator serves the Sewer Plant at the south end of the campus. There are also portable generators, located in the Operations Building, that operate with the use of gasoline. These portable power generators can be placed throughout the campus during power emergencies.

1. **The stationary generator fuel storage is located at a nearby propane gas tank. Propane gas can be obtained from "Proflame" (818-7681988).**
2. **The portable generator's fuel storage is located in two "Hazardous Materials Cabinets" located outside the Operations Building.**

CHLORINE BARRELS: Chlorine barrels are required for the operation of our sewage treatment plant. These cylinders are located in a secured area of the treatment plant (far southwest of the facility property). The cylinders are secured and monitored for leakage at the treatment plant. Chlorine is provided by Hills Brothers Chlorine (818-333-2251)

ELEVATOR SHUT OFFS: The facility has two resident elevators and one food transport lift.

1. **SYCAMORE: Electric Room by Room 95. (NOT IN OPERATION)**
2. **CURRIE COURT: Electric Room, first floor, by the center stairwell. (NOT IN OPERATION)**
3. **FOOD TRANSPORT LIFT: "Key" shut off is located next to the lift near the Administration, basement entrance. (NOT IN OPERATION)**

EMERGENCY SYSTEMS

Fire alarm systems:

Local - These alarms only alert the facility personnel.

Testing Requirements:

1. **Testing shall be conducted so that individual manual pull stations and other system components are tested at least annually. This is done by the Operations/Maintenance Department.**
2. **A record must be kept current and available upon request by authorized persons or agencies.**

FIRE ALARM CONTROL PANEL

The following extra supplies shall be maintained by the Operations Department and kept ready for emergencies.

- **Manual pull station tool and accessories**

SHUT OFFS AND GENERATOR *(continued)*

FIRE SPRINKLER SYSTEM

This device will automatically distribute water upon a fire in sufficient quantity to extinguish a fire or prevent it from spreading. These sprinkler heads operate at an individual predetermined temperature.

A sprinkler test will include a pressure test and a flow test. Extra sprinkler heads will be available on the premises.

<u>Testing requirements:</u>

- **The fire sprinkler systems will be tested as required by local fire regulations and by a certified fire sprinkler service vendor.**
- **A record of these tests will be kept and available upon request by authorized fire agencies.**

Fire doors and or smoke barrier doors will be maintained and kept in a proper working condition.

Smoke Detectors will be continuously maintained in reliable operating conditions at all times. Proper testing shall be made at specific intervals required by local fire codes.

Note: Smoke/Heat detectors are connected to the Fire Alarm System in Currie Court.

EMERGENCY POWER

1. **The generator provides automatic restoration of power for emergency circuits within 10 seconds after a power failure.**
2. **The following services will be powered by the emergency generator:**
    - **All electrical sewer equipment and lighting.**

A written record of inspections, performance, and repairs will be maintained and available for inspection by the local regulatory agency.

Note: Extra flashlights must be available at the HGFC to support the portable power generators.

VI

EVACUATION PROCEDURES & PLAN

EVACUATION PLAN
GENERAL EVACUATION PROCEDURES

1. INTRODUCTION

The emergency evacuation of the URM Facility - Hope Gardens Family Center (HGFC) is a serious undertaking. Moreover, the need to evacuate staff, program residents, guest and visitors from the buildings or the campus can be unpredictable. Evacuations are certain to occur infrequently and each one will be unique: Why are we evacuating? Is staff present? Will staff, program residents, guests and visitors be allowed to reenter the Building(s) or campus later, or will they be sent away and/or relocated?

The evacuation of the HGFC will have certain public relations consequences, and the very act of moving large numbers of people rapidly is accompanied by a certain level of risk (the possibility of sprains, or of panic, etc). In all cases, those responsible for activating the evacuation plan will have to think on their feet. And, as with all other aspects of disaster preparedness, prior knowledge, training and rehearsal are the keys to effective building and campus (site) evacuations.

2. DECISION AND ANNOUNCEMENT

A decision to evacuate the HGFC Building(s) or campus will be made by the Emergency Advisor or other personnel, noted in Section II of this plan. If the emergency plan has already been put into operation or in the event of a situation requiring an urgent response, the ranking HGFC employee on the premises will make the decision to evacuate. In addition, any given site area might be spontaneously evacuated in response to a local emergency. These activities will be reported immediately to Security to assure the appropriate response which might require, for example, further evacuation measures.

The order to evacuate will be communicated to staff, program residents, guests and visitors by two principal means:

a. **Direct Notification by Security and HGFC Management -** This is the primary means of giving notice to all staff, program residents, guests and visitors who are in the Facility.

   In the event of an evacuation, HGFC Security and Management will be dispatched as quickly as possible to follow up on the evacuation of all staff, program residents, guests and visitors. However, if the evacuation occurs during off-hours, Security will be fully engaged in directing and assisting on duty staff members, program residents and guests.

   Therefore, it is imperative that staff members are trained to always respond promptly and to wait for direct confirmation by Security and Operations personnel. In an emergency that calls for full evacuation, any delay could be dangerous or even fatal. It is also possible that direct notification by Security, Operations and Program personnel would be selected as the primary means of ordering staff to evacuate. This could occur, for example, in a situation where extreme haste is not required, or where discretion demands a quiet, unobtrusive exit.

GENERAL EVACUATION PROCEDURES *(continued)*

3. EVACUATION ROUTES

a. Diagrams will be posted throughout the buildings.

4. DESIGNATED ASSIGNMENTS, ASSEMBLY AREAS AND ROLL CALL

a. Staff

i. Each department will assign an initial evacuation area for all staff members.

b. Guests

i. All guests staying at the HGFC Site will be directed by HGFC Security or Staff to the evacuation assembly area until further notice.

c. Visitors

i. Outside persons who are visiting a particular department or staff member at the time of the evacuation should be escorted by those staff members to the evacuation assembly area until further notice.

d. The Primary General Evacuation (mustering) Area at HGFC will be in front of the Administration and Sequoia Buildings area's parking lot and wait for further instructions.

e. If the emergency is in the Administration or Sequoia Building, please evacuate to the Secondary Evacuation (mustering) Area located at the grassy area in front of the Sycamore Building.

f. A temporary evacuation (mustering) area, in the Sequoia Building's front parking lot, will be used to evacuate all personnel in the Sequoia Building.

g. One person from each department will report a head count to the assigned Safety Program Coordinator. If an assigned Safety Program Coordinator is not on site report the head count to the Security Supervisor, the HGFC Facilities Manager or the Site VP.

Note: **When it is safe to do so**, please assist any employees, residents, or visitors, who may have physical disabilities, to exit a building in a timely manner.

5. PERSONNEL TRAINING

a. In advance, each staff person and resident should be trained to:

i. Understand this evacuation plan.

ii. Know at least two ways out of each building.

iii. When you are told to evacuate the building:

1. Remain calm.
2. Immediately shut down operations
3. Leave quickly

iv. When evacuating and if it safe to do:

1. Help direct others to your evacuation area.
2. Quickly check nearby restroom, copier rooms, closets, etc.
3. Accompany and assist handicapped personnel, visitors and any co-worker who appear to need calm direction or assistance.

v. Take your car keys, purse or briefcase with you, but do not attempt to take large or heavy objects.

vi. Shut all doors behind you as you go. Closed doors can slow the spread of fire, smoke, and water.

vii. Proceed as quickly as possible, but in an orderly manner. Do not push or shove. Once out of your assigned building, move away from the area and go to the area of refuge in front of the Administration Building.

viii. Once out of the building, move away from the structure to the designated evacuation area.

GENERAL EVACUATION PROCEDURES *(continued)*

PERSONNEL TRAINING *(Continued)*

ix. Go to your assigned assembly area. All roadways that emergency vehicles might use should not be blocked. The Safety Program Coordinator or Security Supervisor on duty shall obtain a complete head count from each department at each designated area.
x. Remain in your assigned area of refuge until all staff, residents, and visitors have been accounted for and/or until instructed to leave.
xi. Unless conditions dictate otherwise, all staff, residents, and visitors will be instructed to exit to the nearest building exit.

6. FIRE ALARMS AND PANELS

1. Security & Operations as a team (one person per dept.) will proceed to the fire panel(s) or fire area and assess the situation. After the inspection team has evaluated all areas, the “ALL CLEAR” will be given.

At no time shall anyone enter the HGFC building(s) or campus after any fire alarm(s) has been activated and reset until the inspection team has given the “All Clear” signal by two way radio, telephone, or a runner. All HGFC employees who have radios shall have them in their possession in order to stay updated of all radio communications.

ADDITIONAL EMERGENCY RESPONSE INFORMATION

REMOVING TRAPPED PASSENGERS FROM AN ELEVATOR DURING A POWER FAILURE

Note: <u>All Building elevators and lifts are currently NOT IN USE</u>.

ESTABLISHING A TEMPORARY MORGUE

In the event of a major disaster within Los Angeles County, it may be some time before bodies can be collected and cared for by the L.A. County Coroner's Office. Therefore, mortality management guidelines have been prepared by the Department of the Chief of Medical Examiner-Coroner to assist our staff in handling the dead until the Coroner's Office can respond and assume responsibility.

When it becomes necessary to remove bodies from disaster sites due to rescue work or the health and safety of others, a set of specific procedures must be followed:

1. Do not remove any personal effects from the body. The personal effects must remain with the body at all times.
2. Obtain body identification tags from the Safety Coordinator and use two (2) or more identification tags for each body.
3. Attach one identification tag to the body with the following information:
    a. Date and time found.
    b. Exact location where found, including floor/room number.
    c. Name and address of decedent, if known.
    d. Identified, how and when.
    e. Name and department of person making identification or filling out tag.
    f. If the body is contaminated, state it on the tag.
4. Place the body in a disaster pouch or in plastic sheeting and tie securely to prevent unwrapping. Attach a second tag to the sheeting or pouch.
5. If personal effects are found and thought to belong to the body, place them in a separate container and tag it. Do not assume any loose effects belong to a body.
6. Move all properly tagged bodies with their personal effects to one location. The suggested site for a temporary morgue at the HGFC will be the Oaks building area not currently being used. Secure or safeguard the temporary morgue at all times until the arrival of Coroner's Office staff. Notify the Los Angeles County Sheriff’s Department of the location.

ADDITIONAL EMERGENCY RESPONSE INFORMATION *(continued)*

SANITATION OF HUMAN WASTE

In disaster situations, our plumbing may not be usable due to broken sewer or water lines, unsafe building conditions, or other causes. Repairs might take days, or even weeks. Under these circumstances it is especially important to handle human waste in a sanitary manner to avoid sepsis and the possible spread of disease.

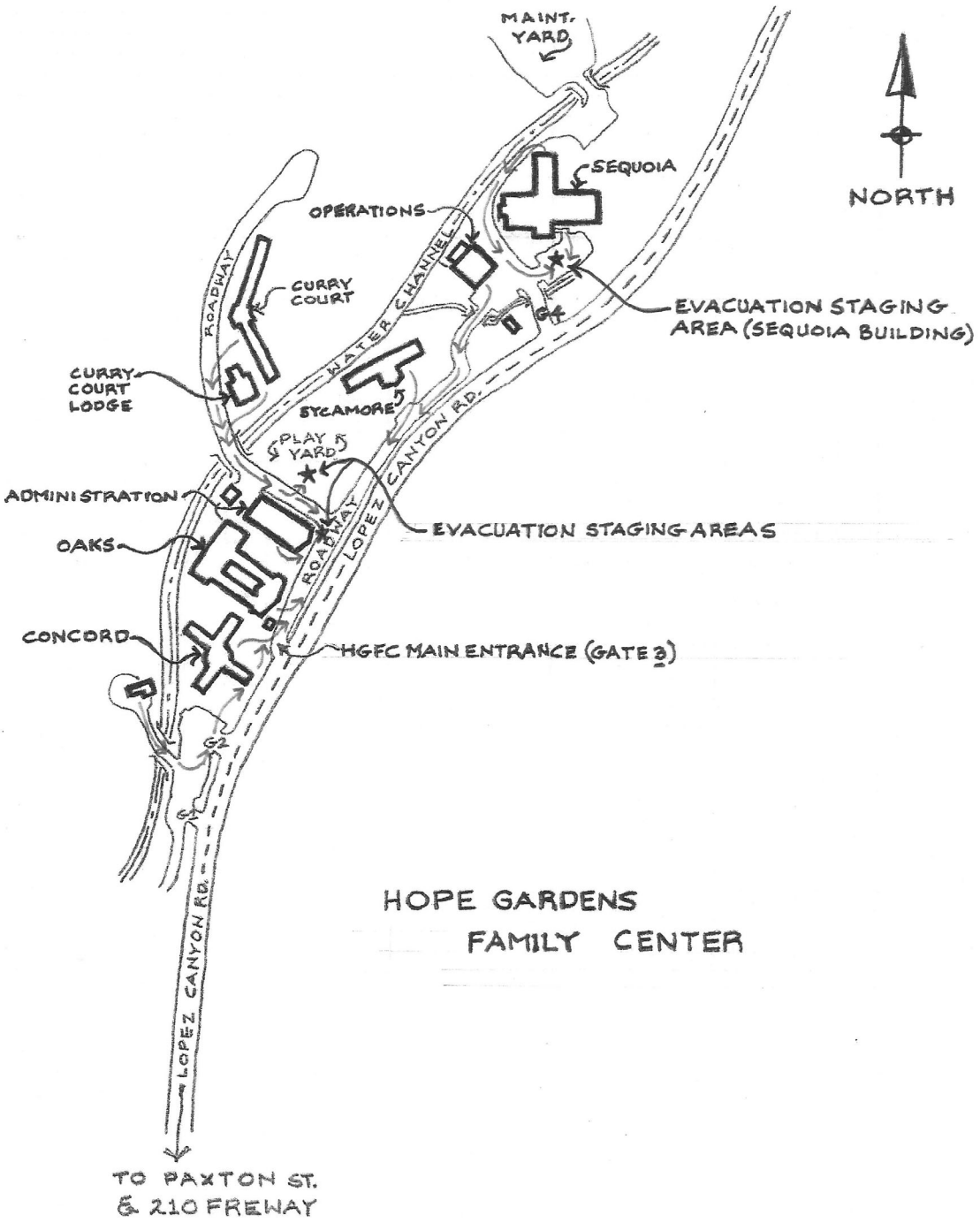
If the water or sewer lines are broken portable toilets may be utilized, if not feasible the toilet themselves are still usable, toilet bowls may be lined with plastic bags to collect waste and the toilets can then be used but not flushed. A small amount of disinfectant must be added to the waste bag. The bag should then be tightly sealed or placed in a covered container. The Environmental Services Group (EVS) will be in charge of sanitation and responsible for placing all necessary supplies in each location, with instructions for their use.

Covered plastic trash cans containing sealed bags of waste must be periodically removed to a collection station away from people and from anticipated activity on the ground.

VI

EVACUATION ROUTES

HGFC CAMPUS


MAINT. YARD
SEQUOIA
NORTH
OPERATIONS
ROADWAY
CURRY COURT
WATER CHANNEL
EVACUATION STAGING AREA (SEQUOIA BUILDING)
CURRY COURT LODGE
SYCAMORE
PLAY YARD
LOPEZ CANYON RD.
ADMINISTRATION
ROADWAY
EVACUATION STAGING AREAS
OAKS
CONCORD
HGFC MAIN ENTRANCE (GATE 3)
HOPE GARDENS
FAMILY CENTER
LOPEZ CANYON RD.
TO PAXTON ST.
& 210 FREWAY

Hope Gardens Family Center (HGFC) Emergency Evacuation Procedures for Guests and Families

Guests and families who are staying at the HGFC will need to be prepared to evacuate quickly during and emergency including wildfires and flooding. The following information will help to prepare to move to a safer area or location during the emergency.

- **Evacuation Notifications**. Notifications to you to evacuate your room or area will be communicated to the following ways:
    - A building emergency fire alarm will activate in your building.
    - An HGFC employee, Security officer, Fire dept. person or a Police officer will come to your group area or knock on your room door and announce the type of emergency and direct you to the appropriate area for further instructions.
    - An emergency response person will communicate with you by a megaphone or loud speech to and announce the type of emergency and direct you to the appropriate area for further instructions.
- **Guests, Families, Visitors and Employees Response**. Once you hear or see a fire alarm or receive instructions from the emergency response person:
    - Gather you belongings and family members and proceed to your planned or instructed gathering area.
    - Gather your emergency backpack or bag if you are told you will be evacuating the HGFC Campus.
    - Please check-in with your assigned HGFC Program employee, if possible, for roll call and coordination with your transportation to evacuate. The transportation will include your personal vehicle or HGFC supplied transportation.
    - Please make sure you receive information on the location where all HGFC persons will be relocating. The off-site relocation areas could include:
        - The San Fernando Home Depot parking lot, located at:
            - 12960 Foothill Blvd., San Fernando, CA 91340
        - The Union Rescue Mission in Downtown Los Angeles.
            - 545 S. San Pedro Street, Los Angeles, CA 90013
- **Special Considerations.**
    - Please input the URM/HGFC emergency contact numbers on your cell phone or on a piece of paper that you can keep with you.
    - Do your best to stay calm and focus on the evacuation. Your calm attitude will help others to stay calm.

See page 2 for the HGFC Campus Evacuation Plan and gathering areas. Thank you.

Hope Gardens Family Center (HGFC) Emergency Backpack or Bag for Guests and Families

Guests and families who are staying at the HGFC will need to have an emergency backpack or bag in the event of an evacuation offsite. This bag will need to be kept in your room, packed and easy to take with you in the event of an emergency evacuation. The bag(s) should include the following items for you and/or your family to use for 2 days or more.

- **Water**. This includes 2 -16 oz. bottles of water for each person per day.
- **Food and plastic utensils**. This includes 2 to 3 low sugar, high calorie energy bars in sealed rappers for each person per each day. Infants will need baby formula, bottles, baby food and small plastic spoons.
- **Clothing and shoes.** This includes a change of underwear, diapers, compactable soft clothing and walking shoes for each person.
- **Medical supplies and prescriptions.** This includes epi pens and medicines for 2 weeks. A chemically activated "cold" packs in a plastic thermal bag can be used for refrigerated medicines.
- **Personal care**. This includes liquid soaps, sanitary wipes, tissues, paper towels, disposal bags, shampoo, skin lotions, deodorants and feminine hygiene items.
- **ID's, important documents and money.** This includes a driver's license, government documents, credit cards and cash in small denominations and coins.
- **Electronics devices.** This includes cell phones, battery chargers, batteries and a small radio.
- **Flashlight or light sticks.** The flashlight(s) and batteries need to be kept separated until used.
- **Emergency blankets or jackets.** These items need to be light and compactable.
- **A small First-Aid kit.**

Note: Please check the expirations dates on the perishable items stored in the backpacks or bags <u>every three months</u>. These items include water, food, medicines, personal care, batteries and First-Aid items.

Appendix 4.5-4

Fire Flow Report

Inspection, Testing, and Maintenance Cover Sheet
NFPA25 as amended by CCR, Title 19

Property Information:

Name:	UNION RESCUE MISSION	Occupancy/Use:	R2
Address:	12249 LOPEZ CANYON ROAD	Construction Type:	Type III-B
City:	SYLMAR	No. Stories:	3
ZIP:	91342	Year Constructed:	1967, 1969, 1975
Contact:	MAURICE OCHOA		
Telephone:	(213) 407-1767		

STATE OF CALIFORNIA – STATE FIRE MARSHAL

Contractor Information:

Name:	GENE PIRA INC.
Address:	17501 CHASE STREET
City:	NORTHRIDGE
State:	CALIFORNIA
Telephone:	(818) 342-4744
CA License#:	918756
Job #:	PRIVATE FIRE HYDANTS
Performed by:	PHILIP PIRA

GENE PIRA INC. 818-342-4744 REG. #4 FIRE TESTING SERVICE

Number of System Risers

Copy sent to:

- ☑ Owner Date: 05/10/23
- ☐ Fire AHJ Date:
- ☐ Contractor Date:

NOTES:

1) For specific inspection, testing, and maintenance requirements and information, see NFPA 25, 2011 Edition as amended by California Code of Regulations, Title 19, §901 to §906.

2) Inspection items may be performed by the owner in accordance with California Code of Regulations, Title 19, §904.1(a)

Check box for each system inspected and enter the number of forms used for inspection.
Check boxes (Fail or Pass) to indicate status of inspected system at end of inspection.

Forms Included with this Report	NFPA 25 Chapter	Number of Forms	N/A	Fail*	Pass
☐ Automatic Sprinkler System	5	0	☑	☐	☐
☐ Standpipe and Hose System	6	0	☑	☐	☐
☑ Private Water Supply System	7	5	☐	☐	☑
☐ Fire Pump	8	0	☑	☐	☐
☐ Water Storage Tank	9	0	☑	☐	☐
☐ Water Spray System	10	0	☑	☐	☐
☐ Foam Water Sprinkler System	11	0	☑	☐	☐
☐ Water Mist System	12	0	☑	☐	☐
☐ Concerns that are not deficiencies (i.e. Non-Sprinklered Areas)				☐ Yes	☐ No

*See "Deficiencies and Comments" section at end of each respective form.

Property Information		Contractor or Licensed Owner Information
Building Name UNION RESCUE MISSION		Name GENE PIRA INC.
Address 12249 LOPEZ CANYON ROAD		Address 17501 CHASE STREET
		City NORTHRIDGE St. CA Zip 91325
City SYLMAR	License #	Phone (818) 342-4744
Contact Person MAURICE OCHOA	☐ SFM	Job # PRIVATE FIRE HYDRANTS
Phone (213) 316-2732	☑ CSLB 918756	Misc.

5 Year Inspection, Testing and Maintenance

Includes ALL Quarterly and Annual Inspections, Tests, and Maintenance Items

I = Inspection T = Test M = Maintenance *P = Pass F = Fail N/A = Not Applicable*

Item		Description	NFPA 25 CA ed. Reference	Date	Comments Only	P, F, N/A
1.1	I	Control Valves – Identification Sign	13.3.1			N/A
1.2	I	Control Valves – Inspection	13.3.2			N/A
1.3	I	Hose Houses	7.2.2.7			N/A
1.4	I	Fire Department Connections	13.7			N/A
1.5	I	Pressure Reducing Valves	13.5.1.1			N/A
1.6	I	Backflow Preventers	13.6.1			N/A
1.7	I	Monitor Nozzles	7.2.2.6			N/A
1.8	I	Hydrants *(Dry Barrel and Wall)*	7.2.2.4 Table 7.2.2.4			N/A
1.9	I	Hydrants *(Wet Barrel)*	7.2.2.5 Table 7.2.2.5	05/10/23		P
1.10	I	Mainline Strainers	7.2.2.3 Table 7.2.2.3			N/A
1.11	I	Piping *(Exposed)*	7.2.2.1 Table 7.2.2.1.2	05/10/23		P
1.12	I	Hose	7.1.4 NFPA 1962			N/A
2.1	T	Control Valve - Positions	13.3.3.1	05/10/23		P
2.2	T	Control Valve - Operation	13.3.3	05/10/23		P
2.3	T	Monitor Nozzles	7.3.3			N/A
2.4	T	Hydrants - Flush	7.3.2	05/10/23		P
2.5	T	Supervisory Devices	13.3.3.5			N/A
2.6	T	Backflow Preventer Assemblies	13.6.2			N/A
2.7	T	Piping *(Exposed and Underground Evaluation)*	7.3.1.1	05/10/23	**Record results in Deficiencies and Comments section**	P
2.8	T	Water Supply Evaluation *(If required by 7.3.1.2)*	7.3.1.2	05/10/23	**Record results below in *Table for Water Supply Test Evaluation***	P
2.9	T	Pressure Reducing Valve *Full Flow Test*	13.5.1.2			N/A
2.10	T	Hose	7.1.4 NFPA 1962			N/A

Standpipe and Hose System	California Code of Regulations - Title 19 Inspection, Testing, and Maintenance	5-Year Report	3 of 7

Property Information		Contractor or Licensed Owner Information
Building Name UNION RESCUE MISSION		Name GENE PIRA INC.
Address 12249 LOPEZ CANYON ROAD		Job # PRIVATE FIRE HYDRANTS
City SYLMAR		

5-Year Inspection, Testing and Maintenance

Includes ALL Quarterly and Annual Inspections, Tests, and Maintenance Items

I = Inspection T = Test M = Maintenance — *P = Pass F = Fail N/A = Not Applicable*

Item		Description	NFPA 25 CA ed. Reference	Date	Comments Only	P,F,N/A
3.1	M	Control Valves	13.3.4	05/10/23		P
3.2	M	Mainline Strainers	7.2.2.3 Table 7.2.2.3			N/A
3.3	M	Hose Houses	7.2.2.7 Table 7.2.2.7			N/A
3.4	M	Hydrants	7.4.2	05/10/23		P
3.5	M	Monitor Nozzles	7.4.3			N/A
3.6	M	FDC - Backflush	14.3.2.3 14.3.2.4			N/A
3.7	M	Internal Pipe Inspection: See Deficiencies and Comments Section for Results	14.2			N/A
3.8	M	Obstruction Investigation required. If "Yes", see Deficiencies and Comments Section for Results	14.3		☐ Yes ☐ No	N/A
3.9	M	System Returned to Service	4.5.3 15.7	05/10/23	☑ Yes ☐ No	P

If required by 7.3.1.2 - Table for Water Supply Test Evaluation *(Item 2.8)*

Flow Rate (gpm)	1,000	Static Pressure (psi)	75
Hose Stream Allowance (gpm)	500	Residual Pressure (psi)	35
Total System Demand (gpm)	8,000	Flow Rate (gpm)	1,000
Required Pressure at Source (psi)	20 PSI	Available Pressure at Total System Demand (psi)	35

D = Deficiency C = Comment *(Indicate type)*

Item	Date	Riser	D	C	Deficiencies and Comments *Indicate all equipment, devices and parts that were repaired or replaced*
					NO DEFECTS REVEALED
	05/10/23			X	**11 PRIVATE HYDRANTS LOCATED THROUGHOUT COMPLEX**

☐ Check here if additional Deficiencies and Comments are listed on Form AES9 — Number attached:

☐ See Correction Form AES 10 for corrected deficiencies. — Number attached:

I hereby certify that the fire protection equipment listed above has been fully inspected, tested, and maintained on this date by the company indicated above, in accordance with CCR, Title 19, Sections 901 to 906 and that the equipment is fully operable except as noted in the "Deficiencies and Comments" section of this form.

Print Name	PHILIP PIRA		
Signature		Date	05/10/23

Continuation Form for Deficiencies and Comments	California Code of Regulations - Title 19 Inspection, Testing, and Maintenance	4 of 7

Property Information		Contractor or Licensed Owner Information	
Building Name	UNION RESCUE MISSION	Name	GENE PIRA INC.
Address	12249 LOPEZ CANYON ROAD	Job #	PRIVATE FIRE HYDRANTS
City	SYLMAR		

D = Deficiency C = Comment *(Indicate type)*

Item	Date	Riser	D	C	Deficiencies and Comments (cont.) *Indicate all equipment, devices and parts that were repaired or replaced*
	05/10/23			✓	**PRIVATE FIRE HYDRANT INVENTORY:**
	05/10/23			✓	**#1 SOUTH OF GATE 3 ENTRY**
					GREENBERG 97A
					TWO (2) GANG HYDRANT
					ONE (1) - 4", ONE (1) - 2 1/2"
					FLOWED 1,000 GPM AT 70 PSI
	05/10/23			✓	**#2 SOUTH OF ADMINISTRATIONS**
					GREENBERG 97A
					TWO (2) GANG HYDRANT
					ONE (1) - 4", ONE (1) - 2 1/2"
					FLOWED 1,000 GPM AT 70 PSI
	05/10/23			✓	**#3 SOUTHWEST OF CURRIE COURT**
					RICH 550
					TWO (2) GANG HYDRANT
					ONE (1) - 4", ONE (1) - 2 1/2"
					FLOWED 1,000 GPM AT 65 PSI
	05/10/23			✓	**#4 WEST CURRIE COURT**
					RICH 550
					TWO (2) GANG HYDRANT
					ONE (1) - 4", ONE (1) - 2 1/2"
					FLOWED 1,000 GPM AT 60 PSI

☐ See Correction Form AES 10 for corrected deficiencies. Number attached:

I hereby certify that the fire protection equipment listed above has been fully inspected, tested, and maintained on this date by the company indicated above, in accordance with CCR, Title 19, Sections 901 to 906 and that the equipment is fully operable except as noted in the "Deficiencies and Comments" section of this form.

Print Name	PHILIP PIRA		
Signature		Date	05/10/23

Continuation Form for Deficiencies and Comments	California Code of Regulations - Title 19 Inspection, Testing, and Maintenance	5 of 7

Property Information		Contractor or Licensed Owner Information	
Building Name	UNION RESCUE MISSION	Name	GENE PIRA INC.
Address	12249 LOPEZ CANYON ROAD	Job #	PRIVATE FIRE HYDRANTS
City	SYLMAR		

D = Deficiency C = Comment *(Indicate type)*

Item	Date	Riser	D	C	Deficiencies and Comments (cont.) Indicate all equipment, devices and parts that were repaired or replaced
	05/10/23			✓	**#5 NORTH CURRIE COURT**
					RICH 550
					TWO (2) GANG HYDRANT
					ONE (1) - 4", ONE (1) - 2 1/2"
					FLOWED 1,000 GPM AT 70 PSI
	05/10/23			✓	**#6 WEST OF SYCAMORE LODGE**
					GREENBERG 97A
					TWO (2) GANG HYDRANT
					ONE (1) - 4", ONE (1) - 2 1/2"
					FLOWED 1,000 GPM AT 70 PSI
	05/10/23			✓	**#7 SOUTH OF OPERATIONS**
					GREENBERG 97A
					TWO (2) GANG HYDRANT
					ONE (1) - 4", ONE (1) - 2 1/2"
					FLOWED 1,000 GPM AT 65 PSI
	05/10/23			✓	**#8 SOUTH OF SEQUOIA LODGE**
					RICH 850
					TWO (2) GANG HYDRANT
					ONE (1) - 4", ONE (1) - 2 1/2"
					FLOWED 1,000 GPM AT 65 PSI

☐ See Correction Form AES 10 for corrected deficiencies. Number attached:

I hereby certify that the fire protection equipment listed above has been fully inspected, tested, and maintained on this date by the company indicated above, in accordance with CCR, Title 19, Sections 901 to 906 and that the equipment is fully operable except as noted in the "Deficiencies and Comments" section of this form.

Print Name	PHILIP PIRA		
Signature		Date	05/10/23

Continuation Form for Deficiencies and Comments	California Code of Regulations - Title 19 Inspection, Testing, and Maintenance	6 of 7

Property Information		Contractor or Licensed Owner Information	
Building Name	UNION RESCUE MISSION	Name	GENE PIRA INC.
Address	12249 LOPEZ CANYON ROAD	Job #	PRIVATE FIRE HYDRANTS
City	SYLMAR		

D = Deficiency C = Comment *(Indicate type)*

Item	Date	Riser	D	C	Deficiencies and Comments (cont.) Indicate all equipment, devices and parts that were repaired or replaced
	05/10/23			✓	**#9 NORTH OF SEQUOIA LODGE**
					RICH 850
					TWO (2) GANG HYDRANT
					ONE (1) - 4", ONE (1) - 2 1/2"
					FLOWED 1,000 GOM AT 65 PSI
	05/10/23			✓	**#10 WEST OF DONATIONS**
					RICH 850
					TWO (2) GANG HYDRANT
					ONE (1) - 4", ONE (1) - 2 1/2"
					FLOWED 1,000 GPM AT 70 PSI
	05/10/23			✓	**#11 NORTH OF DONATION**
					RICH 850
					TWO (2) GANG HYDRANT
					ONE (1) - 4", ONE (1) - 2 1/2"
					FLOWED 1,000 GPM AT 65 PSI
	05/10/23			✓	**ALL PRIVATE FIRE HYDRANTS FLUSHED AND FLOWED 1,000 GPM WITH 70 PSI**
					STATIC AND RESIDUAL PRESSURES BETWEEN 25 PSI TO 60 PSI
	05/10/23			✓	**NOTE:**
					FLOWED MOST REMOTE FIRE HYDRANTS #3, 4, 5 SIMULTANEOUSLY 3,000 GPM
					WAS FLOWED FOR 25 MINUTES UNINTERUPTED WITH A RESIDUAL PSI OF 60 PSI

☐ See Correction Form AES 10 for corrected deficiencies. Number attached:

I hereby certify that the fire protection equipment listed above has been fully inspected, tested, and maintained on this date by the company indicated above, in accordance with CCR, Title 19, Sections 901 to 906 and that the equipment is fully operable except as noted in the "Deficiencies and Comments" section of this form.

Print Name	PHILIP PIRA		
Signature		Date	05/10/23

Continuation Form for Deficiencies and Comments	California Code of Regulations - Title 19 Inspection, Testing, and Maintenance	7 of 7

Property Information		Contractor or Licensed Owner Information	
Building Name	UNION RESCUE MISSION	Name	GENE PIRA INC.
Address	12249 LOPEZ CANYON ROAD	Job #	PRIVATE FIRE HYDRANTS
City	SYLMAR		

D = Deficiency C = Comment *(Indicate type)*

Item	Date	Riser	D	C	Deficiencies and Comments (cont.) *Indicate all equipment, devices and parts that were repaired or replaced*
	05/10/23			✓	**NOTE:**
					8,000 GPM WAS FLOWED WITH 10 FIRE HYDRANTS FLOWING SIMULTANEOUSLY
					WITH A RESIDUAL PRESSURE OF 35 PSI

☐ See Correction Form AES 10 for corrected deficiencies. Number attached:

I hereby certify that the fire protection equipment listed above has been fully inspected, tested, and maintained on this date by the company indicated above, in accordance with CCR, Title 19, Sections 901 to 906 and that the equipment is fully operable except as noted in the "Deficiencies and Comments" section of this form.

Print Name	PHILIP PIRA		
Signature		Date	05/10/23

Appendix 5-1

Review of Preservation Alternatives

May 2, 2023

Brad Perrine
EcoTierra Consulting
633 W. 5th Street, 26th Floor
Los Angeles, California 90071

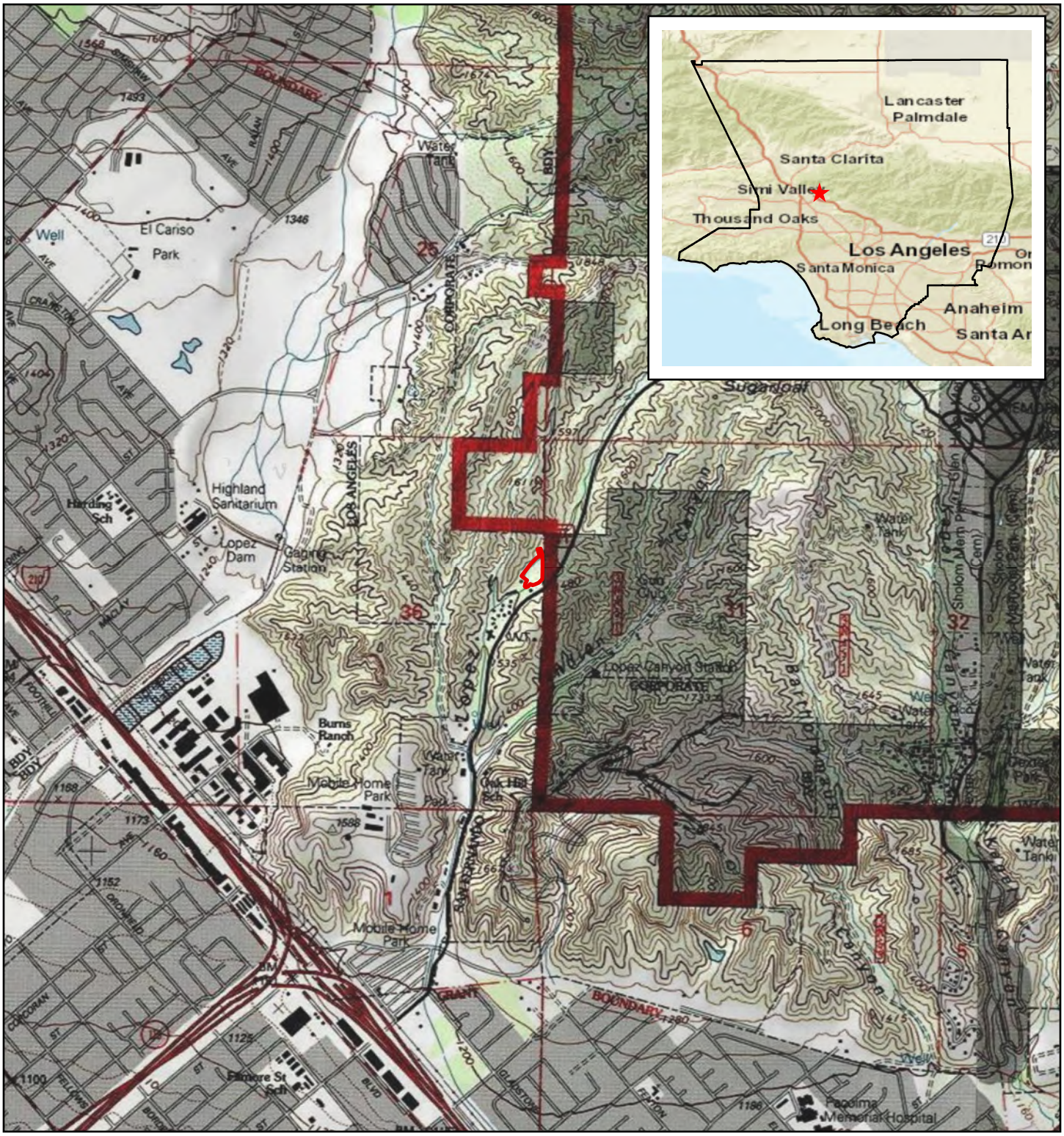
RE: Review of Preservation Alternatives for the Hope Gardens Sequoia Building Project, Los Angeles County, California

Dear Brad:

South Environmental was retained to review project-specific preservation alternatives developed for the Hope Gardens Sequoia Building Project (project) Environmental Impact Report (EIR). The Project site is located at 12249 Lopez Canyon Road in unincorporated Los Angeles County on Assessor's Identification Number (AIN) 2846-001-017 (Figure 1). The project proposes to demolish the Sequoia Lodge Building and construct a new four story, 106,410-square-foot building to provide long term homeless housing (Attachment A).

The Sequoia Lodge Building was recently identified as a contributor to the Forester Haven Historic District, which, in connection with review under the California Environmental Quality Act (CEQA), was evaluated as eligible for inclusion in the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), and as a Los Angeles County Landmark under designation criteria A/1/1 and C/3/3, making it an historical resource as defined in Section 15064.5 of the California Environmental Quality Act (CEQA) Guidelines.

In accordance with CEQA, an EIR must analyze a reasonable range of alternatives prior to any discretionary approvals by the Lead Agency. For the proposed project, this includes consideration of 1) a no project alternative; 2) an adaptive reuse/preservation alternative that maintains the building's major character-defining features as part of a compatible new use; and 3) a partial preservation alternative that includes partial retention of the historic building combined with new construction. These alternatives are considered below in the context of the goals and objectives of the proposed project and overall feasibility. The Sequoia Lodge is not individually eligible as an historic resource. For this reason, it is necessary to analyze preservation alternatives in consideration of the larger resource (the Forester Haven Historic District).



Source: ESRI USA Topo Maps 2021

Hope Gardens Redevelopment Project

Figure 1. Project Location



0 2,000 4,000 Feet

N

Project Footprint (1.97-acres)

Project Footprint is in unincorporated Los Angeles County on the USGS San Fernando 7.5-minute quadrangle map in Section 36 of Township 03 North (T03N) and Range 15 West (R15W)

Center Coordinate (decimal degrees):
Latitude: 34.3027N Longitude: -118.3969W

SOUTH ENVIRONMENTAL

Proposed Project

The purpose of the proposed project is to provide long term homeless housing. The proposed new development would support 117 family residential units and associated support services including kitchen, dining, recreation, daycare, education, medical clinic, library, and offices. The new development would also construct additional driveways and parking areas and enhance the landscaping. The new development will occur in areas that are currently developed with the Sequoia Lodge Building, driveways, and parking areas. It will consist of the new building, reconfigured parking and paving, and updated landscaping (Attachment A).

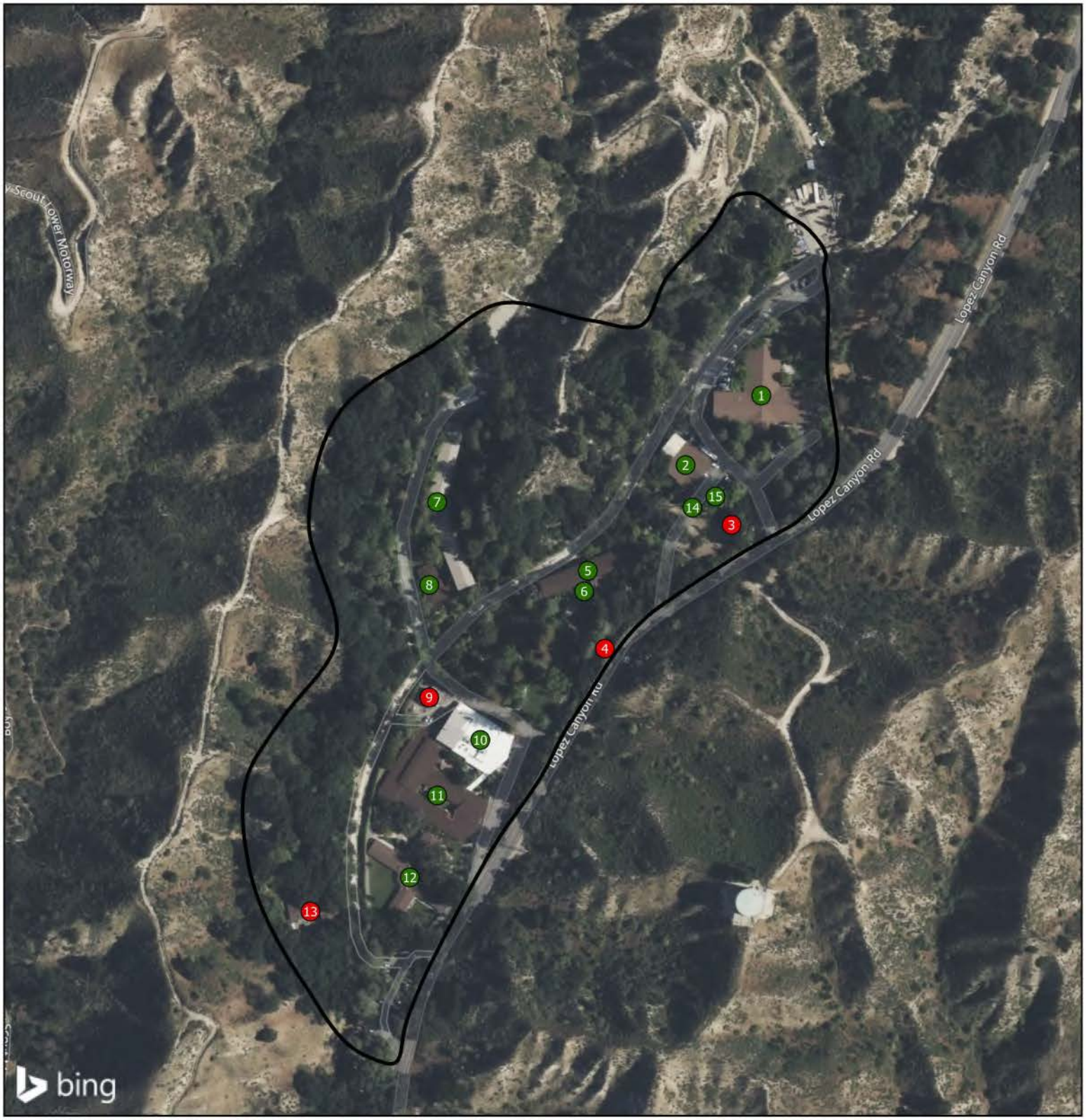
Background

Forester Haven Historic District

The Forester Haven Historic District was identified as part of the *Cultural Resources Technical Report Hope Gardens Sequoia Building Project, Los Angeles County, California* prepared by South Environmental in March 2023 in connection with CEQA of the proposed project.

The Sequoia Lodge Building is part of a campus of buildings and structures, the majority of which were constructed between 1962 and 1975 as part of the Independent Order of Forester's (IOF's) Forester Haven, a retirement community/nursing facility for its aged members. These buildings were designed by local architect and IOF member, Robert F. Moyer in the Contemporary style, which gave the campus a cohesive, lodge-like feel. This effect is achieved through use of simple, natural materials that are repeated in buildings throughout the campus, including: wood post-and-beam construction, Japanese-inspired plywood paneling, and broad, uninterrupted expanses of brick and stone. Design cohesion is also evident in elements repeated throughout the campus, such as: use of the site's natural topography, window walls, trapezoidal windows, exposed roof beams, wide overhanging eaves with exposed rafters, low-pitch gable and slanted roof forms, punctuated greenspaces, and intentional connections between interior and outdoor spaces.

All buildings and structures located within the historic boundary of the Forester Haven Historic District were recorded and evaluated for historical significance (see Figure 2 and Table 1). As a result, 11 buildings and structures were identified as contributing resources to the Forester Haven Historic District under NRHP, CRHR, and County Criteria A/1/1 for their important historical associations with the IOF (c. 1913-1975) and under Criteria C/3/3 for embodying the distinctive character-defining features of the Contemporary style of architecture, which unite them aesthetically and create a cohesive campus of rustic, lodge-style buildings designed by an IOF member for an IOF retirement home (1962-1975).



Source: BING Aerial Basemap 2023

Hope Gardens Sequoia Building Project

Figure 2. Forester Haven Historic District

0 150 300 Feet

N

Historic District Boundary

Buildings

- Contributor
- Non-Contributor

SOUTH ENVIRONMENTAL

Table 1. Forester Haven Historic District Contributing and Non-Contributing Resources

Building ID#	Current Name/Description	Built Date	Historic District Status	Applicable NRHP/CRHR/County Criteria
1	Sequoia Lodge	1975	Contributing	A/1/1 and C/3/3
2	Operations Department/Garage	1968	Contributing	A/1/1 and C/3/3
3	Cottage	c.1913-1937	Non-contributing	n/a
4	Gazebo	c.2012-2013	Non-contributing	n/a
5	Sycamore	1968	Contributing	A/1/1 and C/3/3
6	Sycamore Hall	1968	Contributing	A/1/1 and C/3/3
7	Palm Court	1971	Contributing	A/1/1 and C/3/3
8	Palm Court Hall	1971	Contributing	A/1/1 and C/3/3
9	Utility building	c. 2000s	Non-contributing	n/a
10	Administration	1968	Contributing	A/1/1 and C/3/3
11	Oaks	1968	Contributing	A/1/1 and C/3/3
12	Concord Hall	1962	Contributing	A/1/1 and C/3/3
13	Caretaker's Cottage	c. 1970s	Non-contributing	n/a
14	Stone bridge and channel features	c. 1913	Contributing	A/1/1
15	IOF footbridge	c. 1934	Contributing	A/1/1

Secretary of the Interior's Standards for the Treatment of Historic Properties

Where maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction of the historical resource will be conducted in a manner consistent with the Secretary of the *Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (the Standards, Weeks and Grimmer 1995, revised 2017), the project's impact on historical resources would be considered mitigated to below a level of significance and, thus, not significant (14 CCR 15126.4(b)(1)). In most cases, a project that demonstrates conformance with the Standards is categorically exempt from CEQA (14 CCR 15331), as described in the CEQA Guidelines.

The Standards are a series of concepts focused on maintaining, repairing, and replacing historic materials, as well as designing new additions or making alterations. They function as common-sense historic preservation principles that promote historic preservation best practices. There are four distinct approaches that may be applied to the treatment of historical resources:

- Preservation focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time.
- Rehabilitation acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character.
- Restoration depicts a property at a particular period of time in its history, while removing evidence of other periods.
- Reconstruction recreates vanished or non-surviving portions of a property for interpretive purposes.

The choice of treatment depends on a variety of factors, including the property's historical significance, physical condition, proposed use, and intended interpretation. Rehabilitation was determined to be the most appropriate treatment option for the proposed project because it allows for a compatible use for the property through repair, alterations, and additions while preserving those portions or features that conveys its historical and architectural values.

The Secretary of the Interior's Guidelines provide general design and technical recommendations to assist in applying the Secretary of the Interior's Standards to a specific property. Together, the Standards and the Guidelines provide a framework that guides important decisions concerning proposed changes to a historic property.

Standards for Rehabilitation

The Standards and Guidelines for Rehabilitation (below) provide the framework in which the project preservation alternatives were reviewed.

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Preservation Alternatives Considered

No Project Alternative

This project alternative would not demolish or build anything at all. This would include no improvements and no impacts to historical resources. Therefore, there would be no impact on historical resources. However, this alternative would not achieve any of the goals and objectives of the project, which is to provide long-term homeless housing.

Full Preservation/Adaptive Reuse Alternative

This project alternative would maintain the Sequoia Lodge Building as it appears today, making limited exterior alterations to the building in conformance with the Secretary of the Interior's Standards for Rehabilitation such that it would remain eligible as a contributing building and

would not result in a significant impact to the Forester Haven Historic District. All exterior character-defining features of the building that make the building eligible as a contributor to the Forester Haven Historic District would remain intact while the interior of the building would be altered for a compatible new use. Although this alternative would eliminate significant impacts to historical resources by preserving the exterior of the Sequoia Lodge Building as it appears today (with minor loss of interior character-defining features) and conforming to the Secretary of the Interior's Standards for Rehabilitation, it would not achieve the goals and objectives of the project, which is to provide 117 family residential units and associated support services including kitchen, dining, recreation, daycare, education, medical clinic, library, and offices. Adaptive reuse of the Sequoia Lodge Building without additional new construction would substantially limit the number of units from 117 to 26, as well as the support services that could be provided. Attempting to incorporate more units by modifying/adding windows on a secondary elevation (Attachment B) would likely meet the Standards for Rehabilitation but would only result in an additional 6 residential units (Attachment B). Under both scenarios (26 units and 32 units), the full preservation alternative would not achieve the goals and objectives of the project and would substantially reduce the number of possible units.

Partial Preservation with New Construction Alternative

This project alternative would retain the front, southern portion of the Sequoia Lodge Building (which includes the major character-defining features of the building) and would demolish the rear, northern portion of the building to construct a new 3-story building behind the original building (Attachment C). Although this alternative would somewhat lessen impacts to historical resources by preserving the front half of the building, as opposed to demolishing it altogether, it would still remove half of the building and introduce new, incompatible, large-scale construction to the historic district. Further, this alternative would reduce the number of residential units from 117 to 68. Partial preservation of the Sequoia Lodge Building with new construction to the rear would substantially limit the number of units and support services that could be provided and would not fully achieve the goals and objectives of the project.

Analysis of Conformance with the Standards for Rehabilitation

The partial preservation alternative was analyzed in consideration of its ability to conform to the Secretary of the Interior's Standards for Rehabilitation. (Table 2). As demonstrated below under Standards 9 and 10, the proposed partial preservation alternative fails to fully meet the Standards for Rehabilitation and would likely still result in the loss of a contributing building. Therefore, the partial preservation alternative would still result in a significant impact to historical resources under CEQA and would reduce the number of possible units that could be constructed.

Table 2. Project Design Review for Conformance with the Standards for Rehabilitation

Standard	Project in Conformance?	Analysis	Recommendations?
1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.	Yes	The district will continue to perform the same function that it has since the early 2000s, providing housing and health services to homeless women and children. This use is compatible with the historical use of the property, which was to provide health services for IOF members.	No
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.	Yes	The historic character of the district will be retained and preserved, in that all other buildings will remain and will still convey the distinctive materials, features, and spatial relationships that characterize the district.	No
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.	Yes	No conjectural features are proposed as part of the new design that would create a false sense of historical development within the district. The proposed new building addition will be clearly distinguished as new construction and will not incorporate elements from other historical properties.	No
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.	n/a	There are no alterations proposed to elements of the historic district that have acquired significance in their own right.	No
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.	Yes	Although the rear half of the Sequoia Lodge Building will be removed and replaced with new construction, the other buildings within the district can still convey the distinctive materials, construction techniques, and craftmanship that characterizes the historic district.	No

Table 2. Project Design Review for Conformance with the Standards for Rehabilitation

Standard	Project in Conformance?	Analysis	Recommendations?
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.	Yes	Any deteriorated features on the historic portion of the building will be repaired rather than replaced.	No
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.	Yes	No harsh chemical or physical treatments are proposed. Should any exterior treatments be required, they will be undertaken in the gentlest means possible such as not to further impact the exterior of the partially preserved building.	No
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.	n/a	No archaeological resources have been identified within the proposed project site. Refer to the Cultural Resource Assessment prepared by South Environmental for the project under separate cover.	No

Table 2. Project Design Review for Conformance with the Standards for Rehabilitation

Standard	Project in Conformance?	Analysis	Recommendations?
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.	No	Although the district would remain eligible after completion of the partial preservation alternative, the proposed new addition would not be compatible with the size, scale and proportion or massing of the rest of the district. However, it would be differentiated from other buildings in the district and would not create a false sense of historical development. While materials such as wood, stone, and glass are compatible with the existing historic materials of the district, corrugated metal paneling is not in line with the style or aesthetic of the historic lodge-style buildings. While the new addition would be located to the rear, it would not be subordinate. The building would rise above the roofline of the original building and does not appear to be sympathetic to the Contemporary style of architecture present throughout the rest of the district. Overall, the partial preservation alternative cannot be said to be in conformance with Standard 9. Although the district would still remain eligible, the partial preservation alternative would likely still result in the loss of a contributing building.	A smaller addition that is subordinate to the historic building would be more appropriate. Further, the use of a gabled roof would help the new addition to be more in line with the aesthetic of the rest of the district, while still clearly reading as new construction. As currently designed, the proposed new construction would likely overpower the existing building and would be incompatible with the architectural style of the district.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.	No	Although the district would remain eligible after completion of the partial preservation alternative, if the Sequoia Lodge addition were to be removed in the future, only half of the original building would remain and its essential form and integrity as a contributing building would be impaired. As such, the partial preservation alternative would likely still result in the loss of a contributing building.	Under this alternative, the district would remain eligible and would retain its essential form, however the Sequoia Lodge Building would likely no longer be a contributor.

Impacts to the Forester Haven Historic District

The Sequoia Lodge Building is located in the northernmost portion of the Forester Haven Historic District, somewhat topographically isolated, and surrounded by trees and other vegetation. The building lacks visibility from nearly all other vantage points in the historic district. Therefore, although the partial preservation alternative does not meet the Standards for Rehabilitation in its proposed massing, scale, and materials (see Table 2), the building's general lack of visibility from other parts of the historic district indicates that construction of this alternative will not significantly impact the integrity of the remaining Forester Haven Historic District buildings and structures, such that the district will remain eligible for NRHP, CRHR, and local designation, as demonstrated below:

- **Location:** The district's integrity of location will be retained. The remaining district buildings will continue to be sited in their original locations and orientations.

- **Design:** The district's integrity of design will be retained but diminished. Given that the district will lose a unique contributor that exhibits character-defining features that justify the district's eligibility, partial retention of the Sequoia Lodge Building with new construction would impact the district's integrity of design.

- **Setting:** The district will retain integrity of setting. It will continue to be located in a forested canyon surrounded by mature trees.

- **Materials:** The district's integrity of materials will be retained but diminished. While the remaining district contributors will maintain their essential materials, including paneled wood, brick, fieldstone, glass window walls, aluminum slider windows, etc. The Sequoia Lodge will only partially retain its original materials on the front half of the building, while the new addition would introduce new material types to the district. While materials such as wood, stone, and glass are compatible with the existing historic materials of the district, corrugated metal paneling is not in line with the style or aesthetic of the historic lodge-style buildings and would impact its integrity of materials.

- **Workmanship:** The district's integrity of workmanship would be retained but diminished. The physical evidence of the craftsmanship required to create the Sequoia Lodge Building would be partially lost by the partial preservation alternative.

- **Feeling:** The district's integrity of feeling would be retained but diminished. When walking through the campus, the property's isolated setting, varying topography, mature trees, and rustic Contemporary style buildings evokes the feeling of a lodge or camp. While it would not be highly visible on the campus, the introduction of new, large scale, incompatible construction would somewhat impact the integrity of feeling.

- **Association:** The district's integrity of association would be retained but diminished. Despite the loss of a contributing building, the district will still be associated with the IOF, as conveyed through the remaining buildings, which were designed by a member architect for the IOF using cost-saving construction techniques and provide a rustic interpretation of the Contemporary style in a natural, forested setting. However, the loss of the Sequoia Lodge Building as a contributor would alter the district's period of significance under Criteria C/3/3, which currently ends in 1975 with the construction of the Sequoia Lodge Building.

In summary, the partial preservation alternative would somewhat lessen impacts to historical resources by preserving the front half of the Sequoia Lodge Building, as opposed to demolishing it altogether, but it would still remove half of the building and introduce new, incompatible, large-scale construction to the historic district. Further, it is unlikely that the Sequoia Lodge Building would remain a contributor. Although the Forester Haven Historic District will remain eligible after completion of this alternative, the loss of a uniquely designed contributing building that represents the end of the period of significance under Criteria C/3/3 would still result in a significant impact to historical resources under CEQA.

Conclusions

South Environmental reviewed three project alternatives in consideration of their ability to conform to the Secretary of the Interior's Standards for Rehabilitation, reduce impacts on historical resources, and achieve the goals and objectives of the project: 1) a no project alternative; 2) an adaptive reuse/preservation alternative that maintains the building's major character-defining features as part of a compatible new use; and 3) a partial preservation alternative that includes partial retention of the historic building combined with new construction.

While the no project and adaptive reuse alternatives would eliminate all significant impacts to historical resources, they would not achieve the goals and objectives of the project. The no project alternative would not meet any goals and objectives, and the adaptive reuse alternative would significantly limit the number of new units that could be provided from 117 to 32.

The Partial Preservation/New Construction Alternative would somewhat lessen impacts to historical resources by preserving the front half of the Sequoia Lodge Building, as opposed to demolishing it altogether, but it would still remove half of the building and introduce new, incompatible, large-scale construction to the historic district. As demonstrated under Standards 9 and 10 (Table 2), the partial preservation alternative fails to fully meet the Standards for Rehabilitation and would likely still result in the loss of a contributing building. Although the Forester Haven Historic District will remain eligible after completion of this alternative, the loss of a uniquely designed contributing building that represents the end of the period of significance under Criteria C/3/3 would still result in a significant impact to historical resources under CEQA. Therefore, the partial preservation alternative would result in a significant impact to historical resources under CEQA and would reduce the number of possible units that could be constructed from 117 to 68.

If you have any questions about this report of its findings, please contact me directly at smurray@southenvironmental.com or (818) 458-1162.

Respectfully Submitted,



Samantha Murray, MA
Principal Architectural Historian

Attachment A: Proposed Project Design Plans and Renderings
Attachment B: Total Preservation Conceptual Floorplan
Attachment C: Partial Preservation Conceptual Floorplan and Diagram

Attachment A:
Proposed Project Design Plans and Renderings

SEQUOIA BUILDING

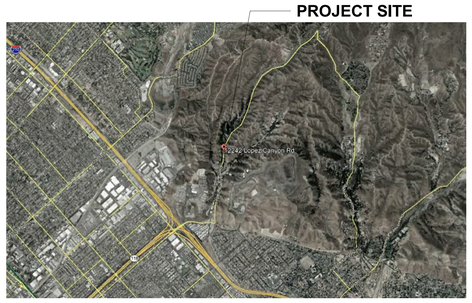
HOPE GARDEN

SYLMAR, CA

ABBREVIATIONS

ACC	ACCESSIBLE
ACT	ACOUSTICAL CEILING TILE
ADD'N	ADDITION
ADJ.	ADJACENT
A.F.F	ABOVE FINISH FLOOR
A.H.J.	AUTHORITY HAVING JURISDICTION
ALT	ALTERNATE
ALUM.	ALUMINUM
AMD.	ACOUSTICAL METAL DECK
ANOD.	ANODIZED
A.P.	ACCESS PANEL
APPROX.	APPROXIMATE
AUTO.	AUTOMATIC
AWP	ACOUSTICAL WALL PANEL
BET.	BETWEEN
BD.	BOARD
BLK(G)	BLOCK(ING)
BLDG.	BUILDING
B.M.	BENCHMARK
BOT.	BOTTOM
BSMT.	BASEMENT
CAB.	CABINET
CB	CATCH BASIN,
CBU	CEMENTITIOUS BACKER UNIT
CEM.	CEMENT
CER.	CERAMIC
C.F.C.I.	CONTRACTOR FURNISHED, CONTRACTOR
CL	CENTER LINE
CLG.	CEILING
CLO.	CLOSET
CLR	CLEAR
CJ	CONTROL JOINT
COMPO.	COMPOSITION
CMU	CONCRETE MASONRY UNIT
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
CORR.	CORRUGATED
CPT	CARPET
CSK.	COUNTERSUNK, CONCRETE SEALER
CT	CERAMIC TILE
C.U.	CLEAN UTILITY
DET.	DETAIL
DEG.	DEGREE
DIA.	DIAMETER
DIAG.	DIAGONAL
DIM.	DIMENSION
DN.	DOWN
D.S.	DOWN SPOUT
DWG.	DRAWING
DWR.	DRAWER
(E)	EXISTING
E/ELEC.	ELECTRICAL
EA.	EACH
E.B.	EXPANSION BOLT
E.F.	EACH FACE
EMBED.	EMBEDMENT
ENCLO.	ENCLOSURE
E.P.	ELECTRICAL PANEL
EQ.	EQUAL
EQUIPT.	EQUIPMENT
EST.	ESTIMATED
E.W.C.	ELECTRICAL WATER COOLER
EXP.	EXPOSED
EXT.	EXTERIOR
F	FACTORY FINISH
F.D.	FLOOR DRAIN
F.E.	FIRE EXTINGUISHER
F.F.	FLOOR FINISH
F.H.E.C.	FIRE HOSE EXTINGUISHER CABINET
FIN	FINISH
FLASH	FLASHING
FLR.	FLOOR
FND.	FOUNDATION
F.O.C.	FACE OF CONCRETE
F.O.F.	FACE OF FINISH
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
FR	FIRE RATED; FIRE RESISTANT
FRP	FIBERGLASS REINFORCED PANELS
FRS	FIRE SPRINKLER
FX	LIGHT FIXTURE
GA.	GAUGE
GALV.	GALVANIZED
GB	GYPSUM BOARD
GBMR	MOISTURE RESISTANT GYPSUM BOARD
GBMRX	FIRE RATED MOISTURE RESISTANT GYPSUM
GBX	FIRE RATED GYPSUM BOARD
GBX-AR	FIRE RATED GYPSUM BOARD ABRASIVE
GD.	GRADE
GL	GLASS
GLZ	GLAZING
G.S.S.	GALVANIZED STEEL SHEET
GRD.	GROUND
GYP.	GYPSUM
H.C.	HANDICAP ACCESSIBLE
H.B.	HOSE BIBB
H.D.	HEAVY DUTY
HDWR.	HARDWARE
H.M.	HOLLOW METAL
HR.	HOUR
HSKPG	HOUSEKEEPING
HT.	HEIGHT
H.V.A.C.	HEATING, VENTILATING, AND AIR CONDITIONING
HWD.	HARDWOOD
I.D.	INSIDE DIAMETER
INCLU.	INCLUDED
INT.	INTERIOR
INSUL.	INSULATION
LAM.	LAMINATE
LAV.	LAVATORY
LP	LAMINATE PLASTIC
LPT	LOW POINT
LT.	LIGHT
M/MECH.	MECHANICAL
MACH.	MACHINE
MAT'L	MATERIAL
MAS.	MASONRY
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MTL.	METAL
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MT.	MOUNTED
N.	NORTH
N.A.	NOT APPLICABLE
NAT'L	NATURAL
N.I.C.	NOT INCLUDED, NOT IN CONTRACT
NO.	NUMBER
NOM.	NOMINAL
NR	NOT RATED
N.T.S.	NOT TO SCALE
O.A.	OUTSIDE AIR
O.C.	ON CENTER
O.C.E.W	ON CENTER EACH WAY
O.D.	OUTSIDE DIAMETER
O.F.O.I.	OWNER FURNISHED, OWNER INSTALLED
O.F.C.I.	OWNER FURNISHED, CONTRACTOR INSTALLED
OSHPD	OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
OPP.	OPPOSITE
OPNG.	OPENING
P	PLUMBING
PART.	PARTITION
PATHO.	PATHOLOGY
PC	PORTLAND CEMENT
PF	PRE FINISHED
PL.	PROPERTY LINE
PLAM.	PLASTIC LAMINATE
PLAS.	PLASTER
PNL.	PANEL
PORT.	PORTABLE
PREFAB.	PREFABRICATED
P.S.I	POUNDS PER SQUARE INCH
PT.	POINT, PAINT
P.T.	PRESSURE TREATED
P.V.C.	POLYVINLYLCLORIDE
P.W.J.	PLYWOOD WEB JOIST
Q.T.	QUARRY TILE
R.	RADIUS
RB	RESILIENT BASE
RBT	RESILIENT RUBBER TILE
RCP	REFLECTED CEILING PLAN
R.D.	ROOF DRAIN
RECEP.	RECEPTOR
REQ.	REQUIRE
REV.	REVISION
RM.	ROOM
R.O.	ROUGH OPENING
RSF	RESILIENT SHEET FLOORING
RWF	RESILIENT WOOD FLOORING
S	SOUTH
S.C.	SOLID CORE
SCHED.	SCHEDULE
SECT.	SECTION
SF	STOREFRONT WINDOW SYSTEM
SHWR.	SHOWER
SHT.	SHEET
SIM.	SIMILAR
SL.	SLEEVE
S.M.S	SHEET METAL SCREWS
S.O.G	SLAB ON GRADE
SPEC.	SPECIFICATIONS
SQ.	SQUARE
SS	STAINLESS STEEL
STL.	STEEL
STD.	STANDARD
STO.	STORAGE
STRUCT	STRUCTURAL
S.U.	SOILED UTILITY
SUSP.	SUSPENSION/SUSPENDED
SYM.	SYMMETRICAL
T.	TILE
TEL.	TELEPHONE
TEMP	TEMPORARY
THK.	THICK
THRES.	THRESHOLD
T.I.	TENANT IMPROVEMENT
TLT.	TOILET
TMPD	TEMPERED
T.O.B.	TOP OF BEAM
T.O.P.	TOP OF PARAPET
T.O.PLY.	TOP OF PLYWOOD
T.O.SC.	TOP OF SCUPPER
T.O.R.	TOP OF ROOF
T.O.R.D.	TOP OF ROOF DRAIN
TOIL.	TOILET
TOS	TOP OF SLAB
TOSTL	TOP OF STEEL
TOW	TOP OF WALL
TREAT.	TREATMENT
TYP.	TYPICAL
UNF	UNFINISHED
U.N.O.	UNLESS NOTED OTHERWISE
UR.	URINAL
VB	VENTILATING BASE
VCT	VINYL COMPOSITION TILE
VER.	VERIFY
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
VT	VINYL TILE
VWC	VINYL WALL COVERING
W.	WIDE / WIDTH
W/	WITH
W/O	WITHOUT
W.C.	WATER CLOSET
WCT.	WAINSCOT
WD.	WOOD. RESILIENT WOOD FLOOR FINISH
W.G.	WIRE GLASS
WH.B	WHEEL BUMPER
WH.CH.	WHEELCHAIR
W.I.	WROUGHT IRON
WP	WORKING POINT
WPM	WATERPROOF MEMBRANE
WR	WATER RESISTANT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

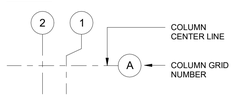
VICINITY MAP



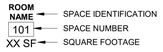
DRAWING SYMBOLS

NOTE: NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED FOR THIS PROJECT.

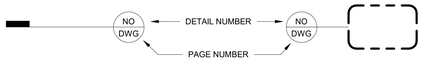
GRID LINES



SPACE NAME



DETAIL INDICATORS



SECTION INDICATOR



ELEVATION IDENTIFIER



EXTERIOR ELEVATION



INTERIOR ELEVATION



CEILING HEIGHT IDENTIFIER (ABOVE FINISH FLOOR)



MATCH LINE INDICATOR



WINDOW TYPE IDENTIFIER



DOOR IDENTIFIER



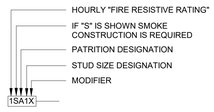
DATUM LINE AND INDICATOR (SECTIONS AND ELEVATIONS)



FINISHED FLOOR ELEVATION INDICATOR (SITE AND FLOOR PLANS)



WALL TYPE IDENTIFIER



REVISION INDICATOR



KEYNOTE IDENTIFIER



EQUIPMENT IDENTIFIER



NORTH INDICATOR



PROJECT TEAM

OWNER
Union Rescue Mission
545 South San Pedro St.
Los Angeles, CA 90013
T (310) 337-2881

FACILITY
Hope Garden
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Sylmar, CA 91342
T (310) 337-2881

ARCHITECT
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T (626) 304-9215

CIVIL ENGINEER
Land Design Consultants, Inc.
800 Royal Oaks, Suite 104
Monrovia, CA 91016
T (626) 578-7000

LAND-USE ATTONERY
Charles Moore
2057 Amherst Dr.
South Pasadena, CA 91030
Email: CHJOMO2@GMAIL.COM

PROJECT SUMMARY

NEW FOUR STORY 106,410 SQ.FT. LONG TERM HOMELESS HOUSING BUILING ON A 1 ACRE SITE. THE NEW BUILDING IS TO SUPPORT 117 FAMILY RESIDENTIAL UNITS AND ASSOCIATED SUPPORT SERVICES INCLUDING KITCHEN, DINING, RECREATION, DAYCARE, EDUCATION, MEDICAL CLINIC, LIBRARY AND OFFICES.

SHEET INDEX

SHEET NUMBER	DESCRIPTION	Issue / Revision 1	Issue / Revision 2	Issue / Revision 3	Issue / Revision 4	Issue / Revision 5	Issue / Revision 6	Issue / Revision 7
GENERAL								
G-001	TITLE SHEET							
ARCHITECTURAL								
A-100	CONCEPT PLAN - ENLARGED SITE							
A-101	CONCEPT PLAN - GROUND FLOOR							
A-102	CONCEPT PLAN - FIRST FLOOR							
A-103	CONCEPT PLAN - SECOND FLOOR							
A-104	CONCEPT PLAN - THIRD FLOOR							
A-105	CONCEPT PLAN - ROOF							
A-201	EXTERIOR ELEVATIONS							
A-202	EXTERIOR ELEVATIONS							
A-301	DIAGRAMMATIC SECTIONS							

PROJECT INFORMATION

UNIT COUNT:	117
	AVERAGE SIZE: 371 SQFT
PROPOSED SETBACK:	SIDE YARD: 10'-0"
PROPOSED BUILDING HEIGHT:	39' - 0"
PROPOSED NUMBER OF STORIES:	3 LEVELS + BASEMENT
PARKING:	93

Room Schedule

Level	Name	Area
MAIN FLOOR	RECEPTION/ SECURITY	211 SF
MAIN FLOOR	LOBBY	1385 SF
MAIN FLOOR	ELECTRICAL	859 SF
MAIN FLOOR	BOILER	480 SF
MAIN FLOOR	SOILED UTILITY	135 SF
MAIN FLOOR	DENTAL EXAM	308 SF
MAIN FLOOR	DENTAL WORK AREA	139 SF
MAIN FLOOR	DENTAL OFFICE	84 SF
MAIN FLOOR	PUMP RM	39 SF
MAIN FLOOR	THERAPY RM	86 SF
MAIN FLOOR	THERAPY RM	76 SF
MAIN FLOOR	STAFF TOILET	68 SF
MAIN FLOOR	THERAPY RM	86 SF
MAIN FLOOR	PATIENT TOILET	55 SF
MAIN FLOOR	MEDICAL STAFF	289 SF
MAIN FLOOR	STAFF TOILET	54 SF
MAIN FLOOR	EXAM	93 SF
MAIN FLOOR	PED EXAM	166 SF
MAIN FLOOR	EXAM	131 SF
MAIN FLOOR	LAB	106 SF
MAIN FLOOR	CLEAN LINEN/ MED STORAGE	251 SF
MAIN FLOOR	CONFERENCE	204 SF
MAIN FLOOR	BEHAVOURAL HEALTH WORK AREA	399 SF
MAIN FLOOR	WAITING AREA	110 SF
FIRST FLOOR	DINING HALL	3859 SF

Room Schedule

Level	Name	Area
FIRST FLOOR	KITCHEN	2151 SF
FIRST FLOOR	MULTIPURPOSE	2467 SF
FIRST FLOOR	DAYCARE	4894 SF
FIRST FLOOR	ELEV. MACHINE	139 SF
FIRST FLOOR	RECREATION	1337 SF
FIRST FLOOR	WOMENS	185 SF
FIRST FLOOR	MENS	180 SF
FIRST FLOOR	CASE MGR	89 SF
FIRST FLOOR	DIRECTORS OFFICE	100 SF
FIRST FLOOR	CASE MGR	100 SF
FIRST FLOOR	CASE MGR	100 SF
FIRST FLOOR	CASE MGR	100 SF
FIRST FLOOR	PROGRAM CASE MGR	120 SF
FIRST FLOOR	P.A./INTAKE	130 SF
FIRST FLOOR	P.A./ INTAKE	130 SF
FIRST FLOOR	LAB	60 SF
FIRST FLOOR	YOUTH DEV MGR	101 SF
FIRST FLOOR	CHAPLAIN	101 SF
FIRST FLOOR	CHAPLAIN	99 SF
FIRST FLOOR	COMPUTER/ CLASSROOM	832 SF
FIRST FLOOR	PATIENT TOILET	57 SF
FIRST FLOOR	STAFF TOILET	56 SF
FIRST FLOOR	EXEC. ASSIST. AREA	115 SF
FIRST FLOOR	ELEVATOR MACHINE ROOM	170 SF
SECOND FLOOR	ELECTRICAL	450 SF
SECOND FLOOR	IDF	174 SF

Room Schedule

Level	Name	Area
SECOND FLOOR	STORAGE	486 SF
SECOND FLOOR	SECURITY	72 SF
SECOND FLOOR	STORAGE	361 SF
SECOND FLOOR	LAUNDRY	753 SF
SECOND FLOOR	JAN.	31 SF
SECOND FLOOR	CASE MGR	157 SF
SECOND FLOOR	COMMON AREA	533 SF
SECOND FLOOR	COMMON AREA	749 SF
THIRD FLOOR	ELECTRICAL	450 SF
THIRD FLOOR	IDF	174 SF
THIRD FLOOR	STORAGE	486 SF
THIRD FLOOR	SECURITY	72 SF

Room Schedule

Level	Name	Area
THIRD FLOOR	COMMON AREA	748 SF
THIRD FLOOR	LAUNDRY	753 SF
THIRD FLOOR	JAN.	31 SF
THIRD FLOOR	JAN.	47 SF
THIRD FLOOR	STORAGE	361 SF
THIRD FLOOR	CASE MGR	157 SF
THIRD FLOOR	COMMON AREA	533 SF
THIRD FLOOR	COMMON AREA	428 SF

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626.304.9215 puchlikdesign.com

Client:

Project:
SEQUOIA BUILDING

Project Address:
12249 LOPEZ CANYON RD
SYLMAR, CA 91342

Consultant:

CONSULTANT LOGO

Stamp:

ARCHITECT STAMP

CONSULTANT STAMP

Agency Approval:

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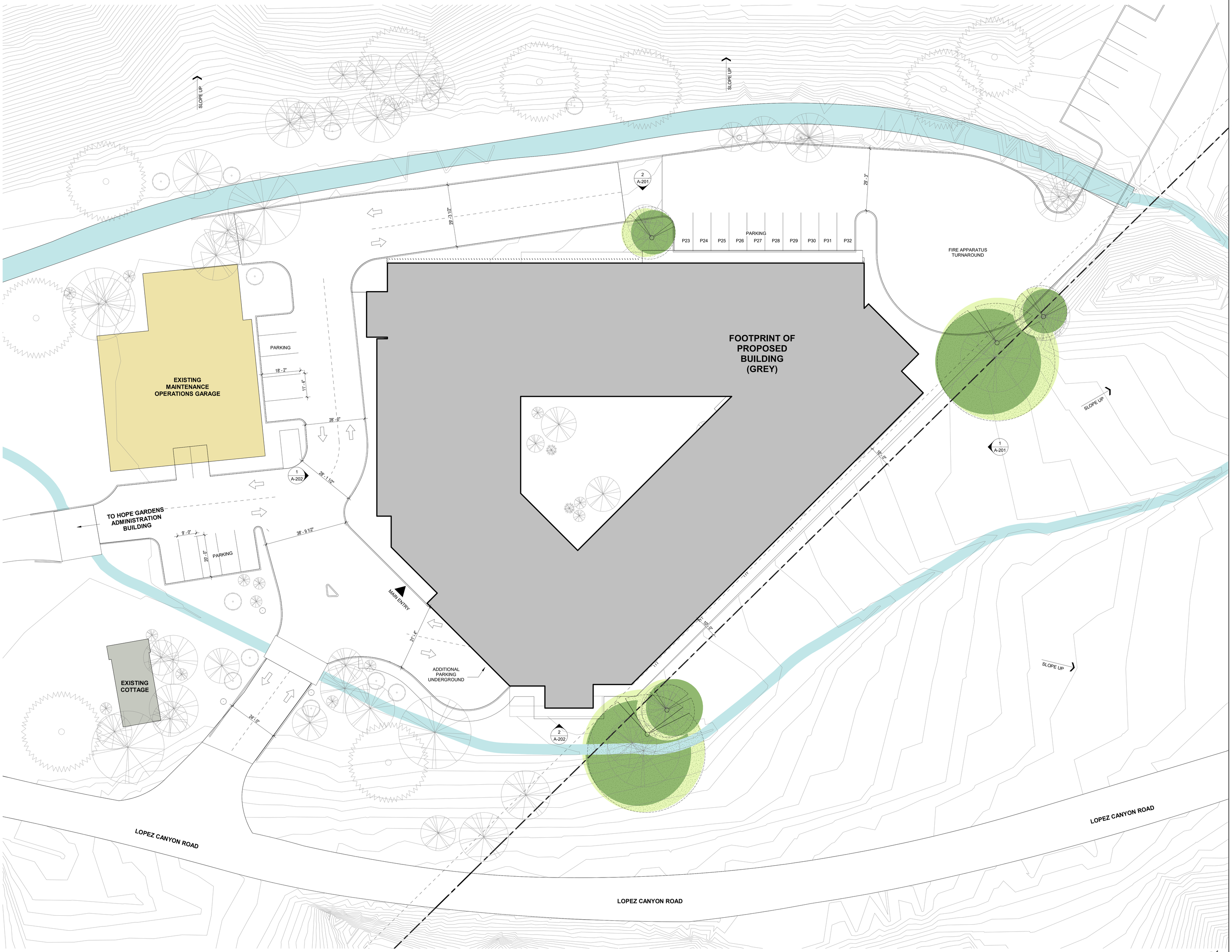
Revisions:

#	DATE	DESCRIPTION
1	01/16/2020	Conceptual Design Submission

Drawing Title:
TITLE SHEET

PDA Project No: **601-18-090**
Date: **08/26/2019**
Phase: **SD**
Checked By: **CF**
Drawn By: **SLP**
Plan Check No: **####**

Drawing No:
G-001



ENLARGED SITE PLAN
SCALE: 1/16" = 1'-0"

1

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UNION RESCUE MISSION®
The Way Home

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SYLMAR, CA 91342

Consultant:

CONSULTANT LOGO

Stamp:

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#	DATE	DESCRIPTION
	01/16/2020	Conceptual Design Submission

Drawing Title:
CONCEPT PLAN - ENLARGED SITE

PDA Project No:	**601-18-090**
Date:	**08/26/2019**
Phase:	**SD**
Checked By:	**CF**
Drawn By:	**SLP**
Plan Check No:	**####**

Drawing No:
A-100



PROGRAM LEGEND

- ADMINISTRATION
- BEHAVOURAL HEALTH
- CLINIC
- DAYCARE
- GUEST COMMON AREA
- OUTDOOR SPACE
- SUPPORT
- TRAINING

LEVEL 00 - GROUND

SCALE: 3/32" = 1'-0"

1

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1	01/16/2020	Conceptual Design Submission

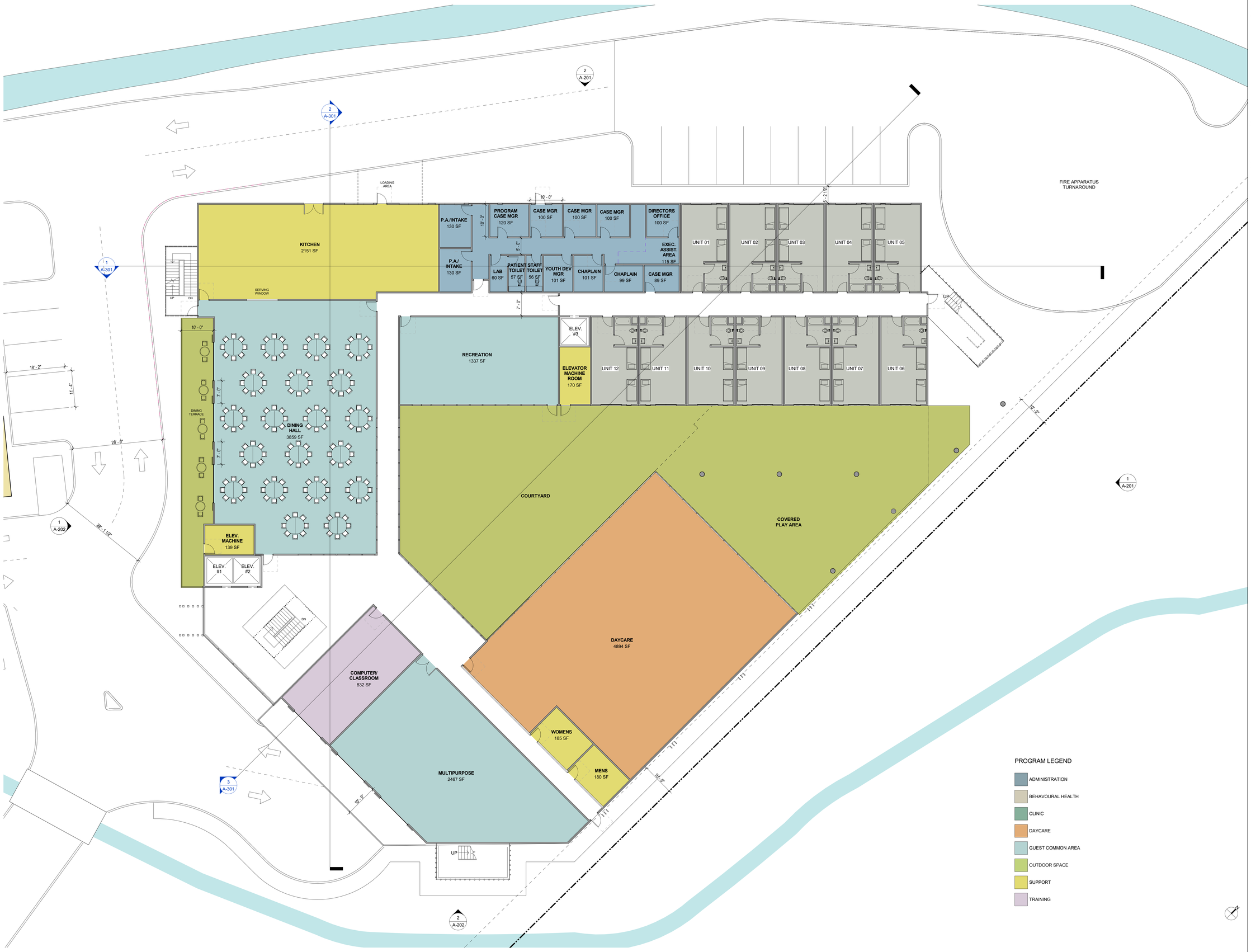
Drawing Title:

CONCEPT PLAN - GROUND FLOOR

PDA Project No:	**601-18-090**
Date:	**08/26/2019**
Phase:	**SD**
Checked By:	**GP**
Drawn By:	**SLP**
Plan Check No:	**#####**

Drawing No:

A-101



PROGRAM LEGEND

- ADMINISTRATION
- BEHAVOURAL HEALTH
- CLINIC
- DAYCARE
- GUEST COMMON AREA
- OUTDOOR SPACE
- SUPPORT
- TRAINING

LEVEL 01 - FIRST FLOOR

SCALE: 3/32" = 1'-0"

1

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Revisions:

#	DATE	DESCRIPTION
	01/16/2020	Conceptual Design Submission

Drawing Title:

CONCEPT PLAN - FIRST FLOOR

PDA Project No: **601-18-090**
Date: **08/26/2019**
Phase: **SD**
Checked By: **GP**
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Plan Check No: **####**

Drawing No:

A-102



LEVEL 02 - SECOND FLOOR

SCALE: 3/32" = 1'-0"

1

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Stamp:

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Agency Approval:

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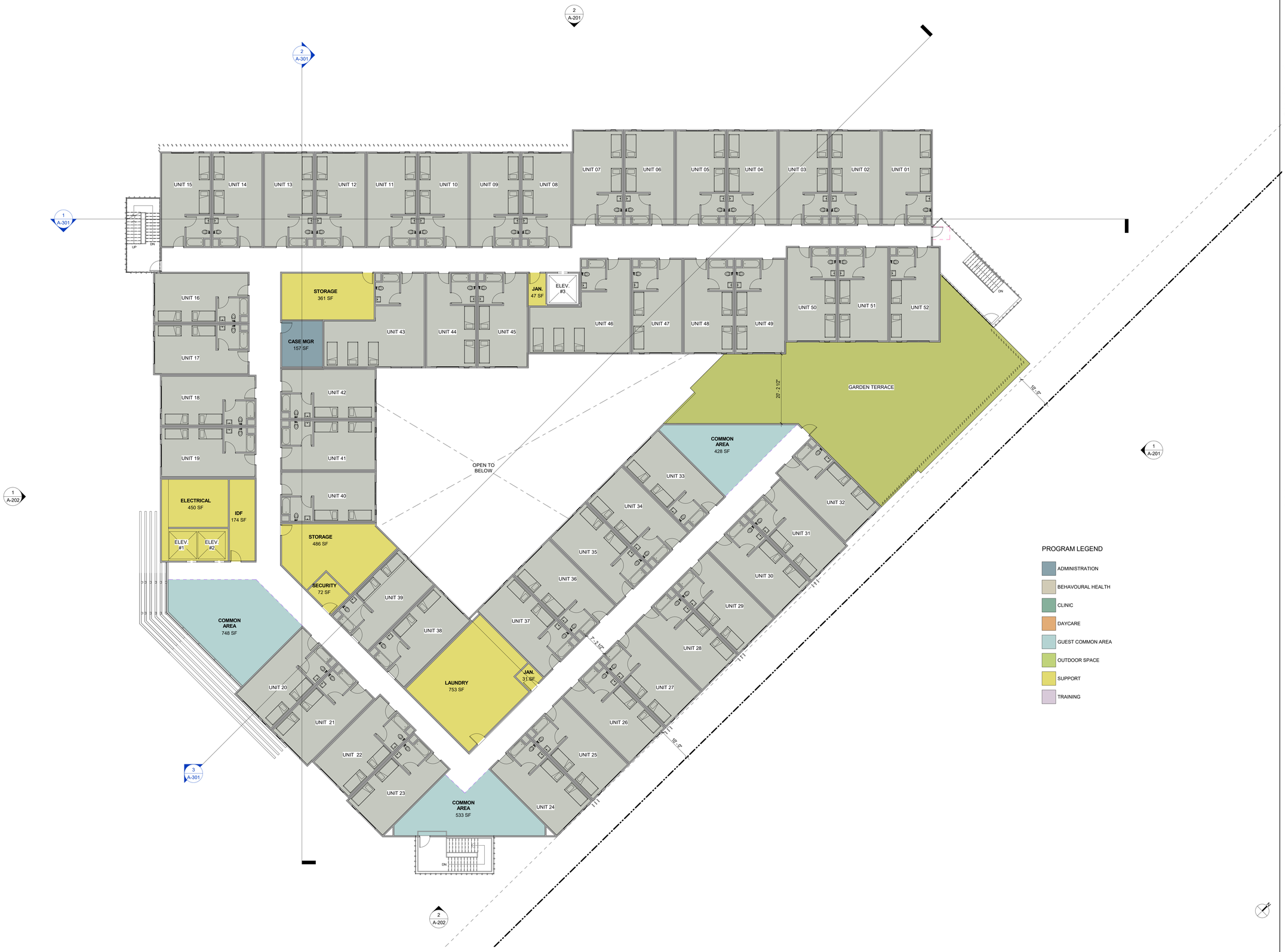
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	01/16/2020	Conceptual Design Submission

Drawing Title:
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PDA Project No: **601-18-090**
Date: **08/26/2019**
Phase: **SD**
Checked By: **GP**
Drawn By: **SLP**
Plan Check No: **####**

Drawing No:
A-103



PROGRAM LEGEND

- ADMINISTRATION
- BEHAVOURAL HEALTH
- CLINIC
- DAYCARE
- GUEST COMMON AREA
- OUTDOOR SPACE
- SUPPORT
- TRAINING

LEVEL 03 - THIRD FLOOR

SCALE: 3/32" = 1'-0"

1

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	01/16/2020	Conceptual Design Submission

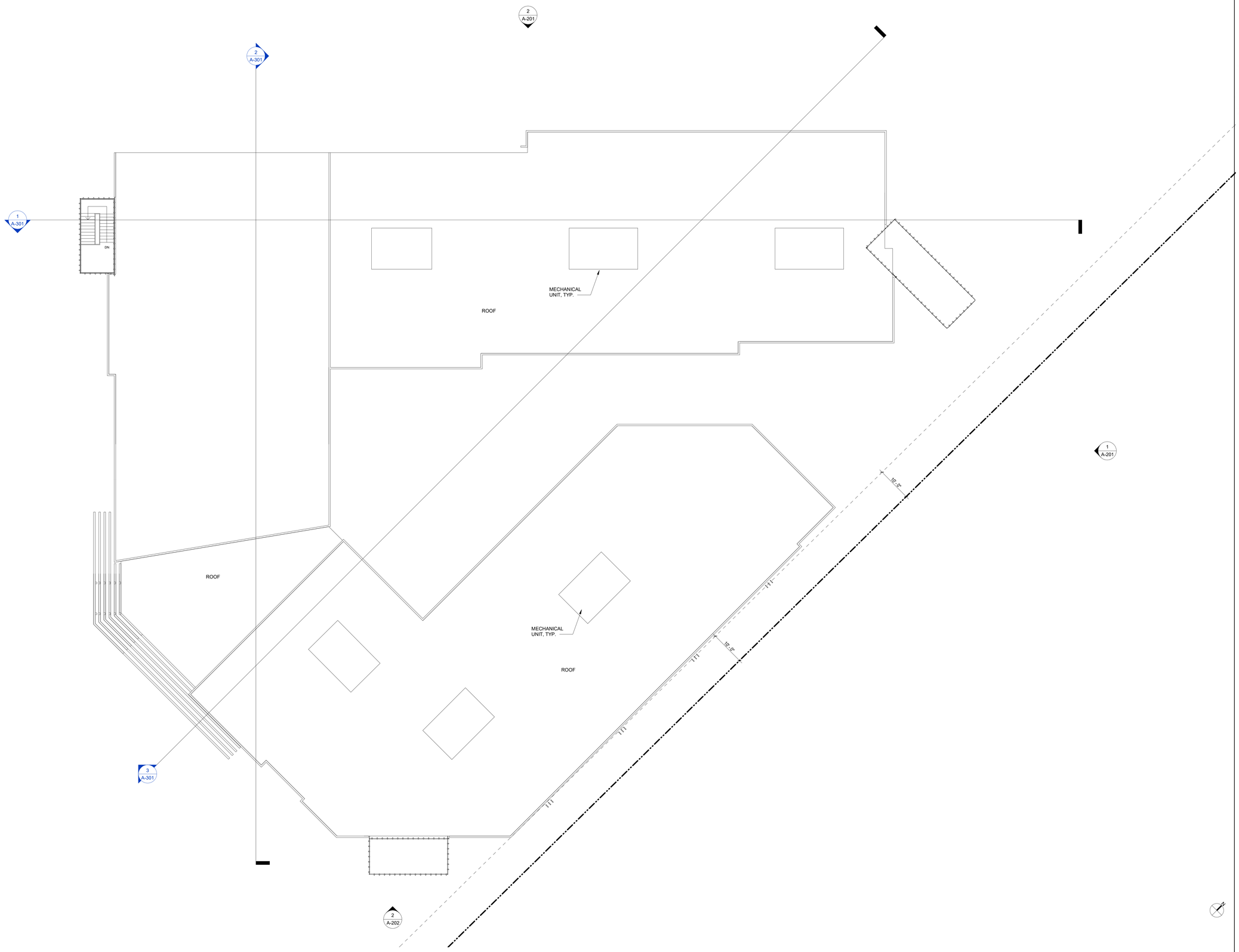
Drawing Title:

CONCEPT PLAN - THIRD FLOOR

PDA Project No:	**601-18-090**
Date:	**08/26/2019**
Phase:	**SD**
Checked By:	**GP**
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Plan Check No:	**####**

Drawing No:

A-104



LEVEL 04 - FOURTH FLOOR

SCALE: 3/32" = 1'-0"

1

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Consultant:

CONSULTANT LOGO

Stamp:

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CONSULTANT STAMP

Agency Approval:

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Revisions:

#	DATE	DESCRIPTION
1	01/16/2020	Conceptual Design Submission

Drawing Title:
CONCEPT PLAN - ROOF

PDA Project No:	**601-18-090**
Date:	**08/26/2019**
Phase:	**SD**
Checked By:	**CF, GP**
Drawn By:	**SLP**
Plan Check No:	**#####**

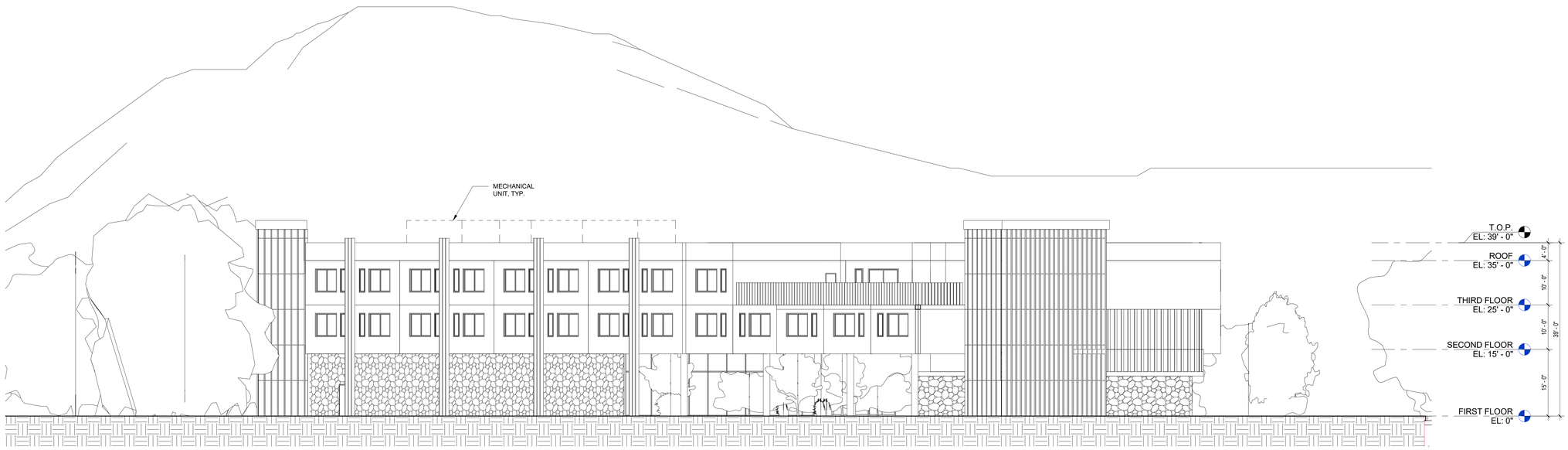
Drawing No:
A-105



NORTHWEST ELEVATION

SCALE: 3/32" = 1'-0"

2



NORTHEAST ELEVATION

SCALE: 3/32" = 1'-0"

1

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Stamp:

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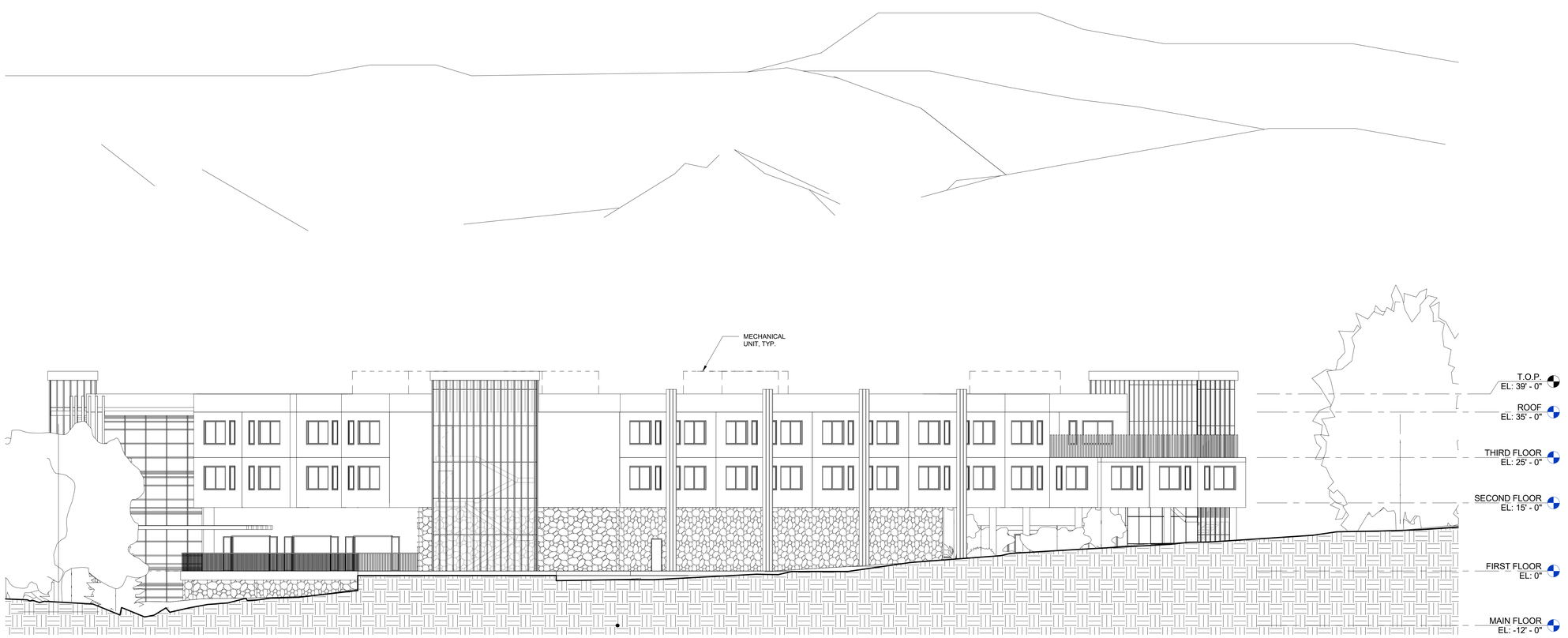
Revisions:

	DATE	DESCRIPTION
1	01/16/2020	Conceptual Design Submission

Drawing Title:
EXTERIOR ELEVATIONS

PDA Project No:	**601-18-090**
Date:	**08/26/2019**
Phase:	**SD**
Checked By:	**CF, GP**
Drawn By:	**SLP**
Plan Check No:	**####**

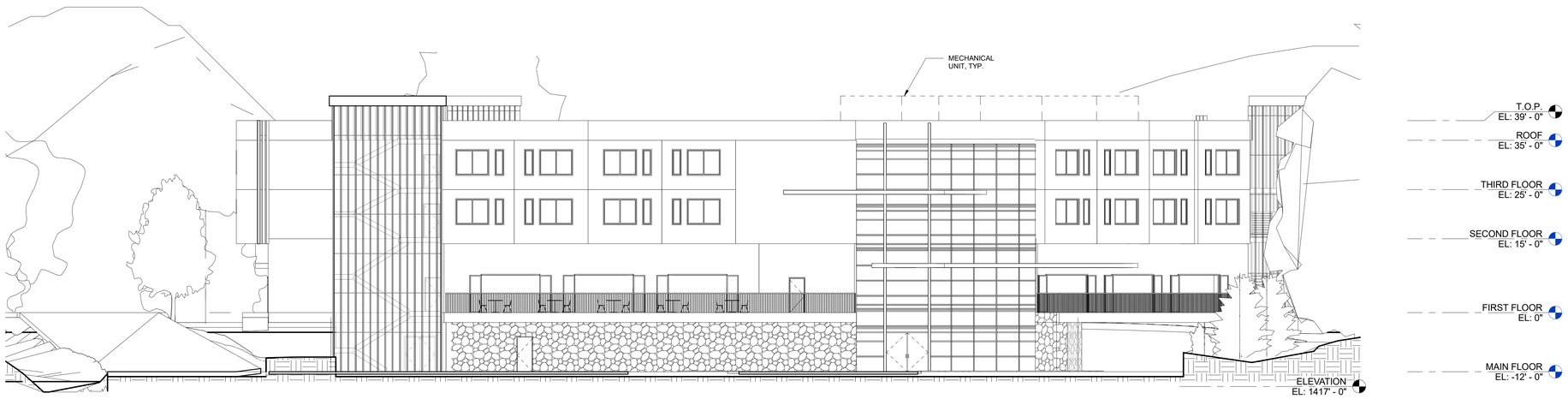
Drawing No:
A-201



SOUTHEAST ELEVATION

SCALE: 3/32" = 1'-0"

2



SOUTHWEST ELEVATION

SCALE: 3/32" = 1'-0"

1

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Drawing Title:
EXTERIOR ELEVATIONS

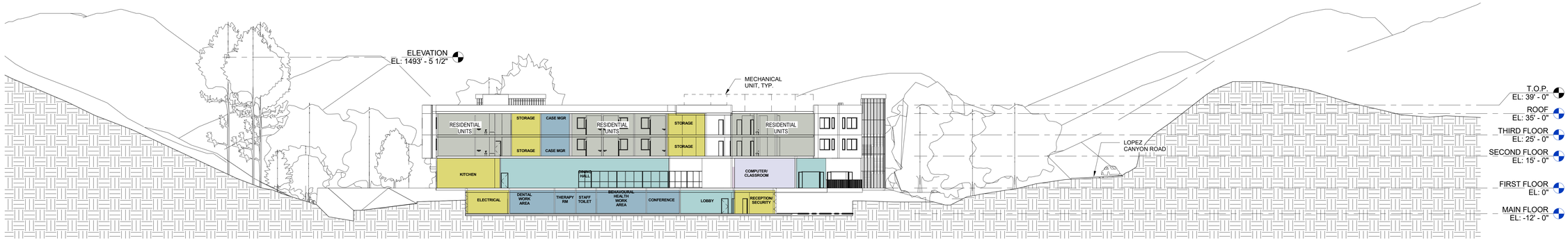
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Date:	**08/26/2019**
Phase:	**SD**
Checked By:	**CF, GP**
Drawn By:	**SLP**
Plan Check No:	**####**

Drawing No:
A-202



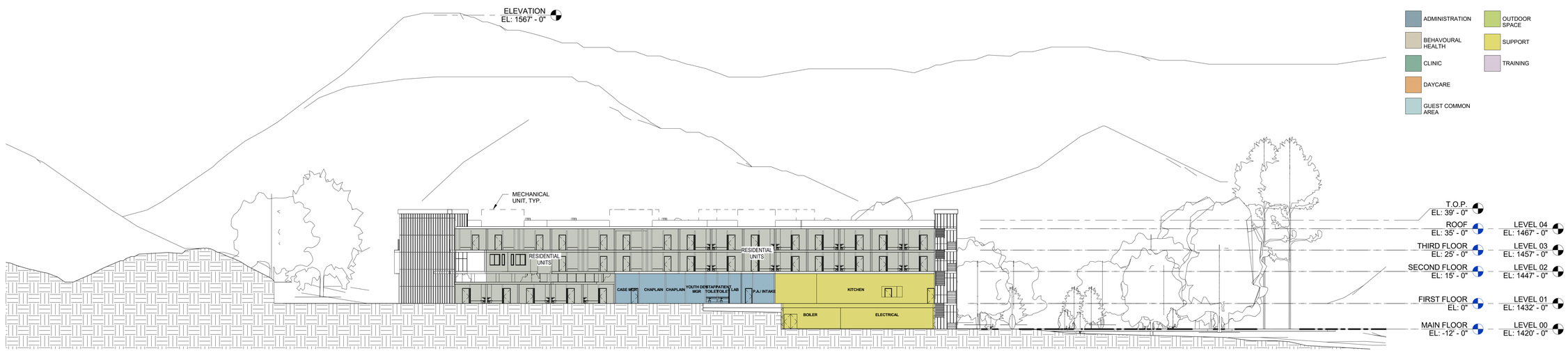
Section 3
SCALE: 1" = 20'-0"

3



Section 2
SCALE: 1" = 20'-0"

2



Section 1
SCALE: 1" = 20'-0"

1

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Client:

UNION RESCUE MISSION®
The Way Home

Project:
SEQUOIA BUILDING

Project Address:
12249 LOPEZ CANYON RD
SYLMAR, CA 91342

Consultant:

CONSULTANT LOGO

Stamp:

ARCHITECT STAMP

CONSULTANT STAMP

Agency Approval:

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Revisions:

	DATE	DESCRIPTION
1	01/16/2020	Conceptual Design Submission

Drawing Title:
DIAGRAMMATIC SECTIONS

PDA Project No:	**601-18-090**
Date:	**08/26/2019**
Phase:	**SD**
Checked By:	**Checker**
Drawn By:	**SLP**
Plan Check No:	**####**

Drawing No:
A-301



UNION RESCUE MISSION®
The Way Home

SEQUOIA BUILDING - HOPE GARDENS - CONCEPT DESIGN

Union Rescue Mission

Street Level View - Main Entrance

Date: 01/09/2020

PDA IS NOW HED



UNION RESCUE MISSION
The Way Home

SEQUOIA BUILDING - HOPE GARDENS - CONCEPT DESIGN

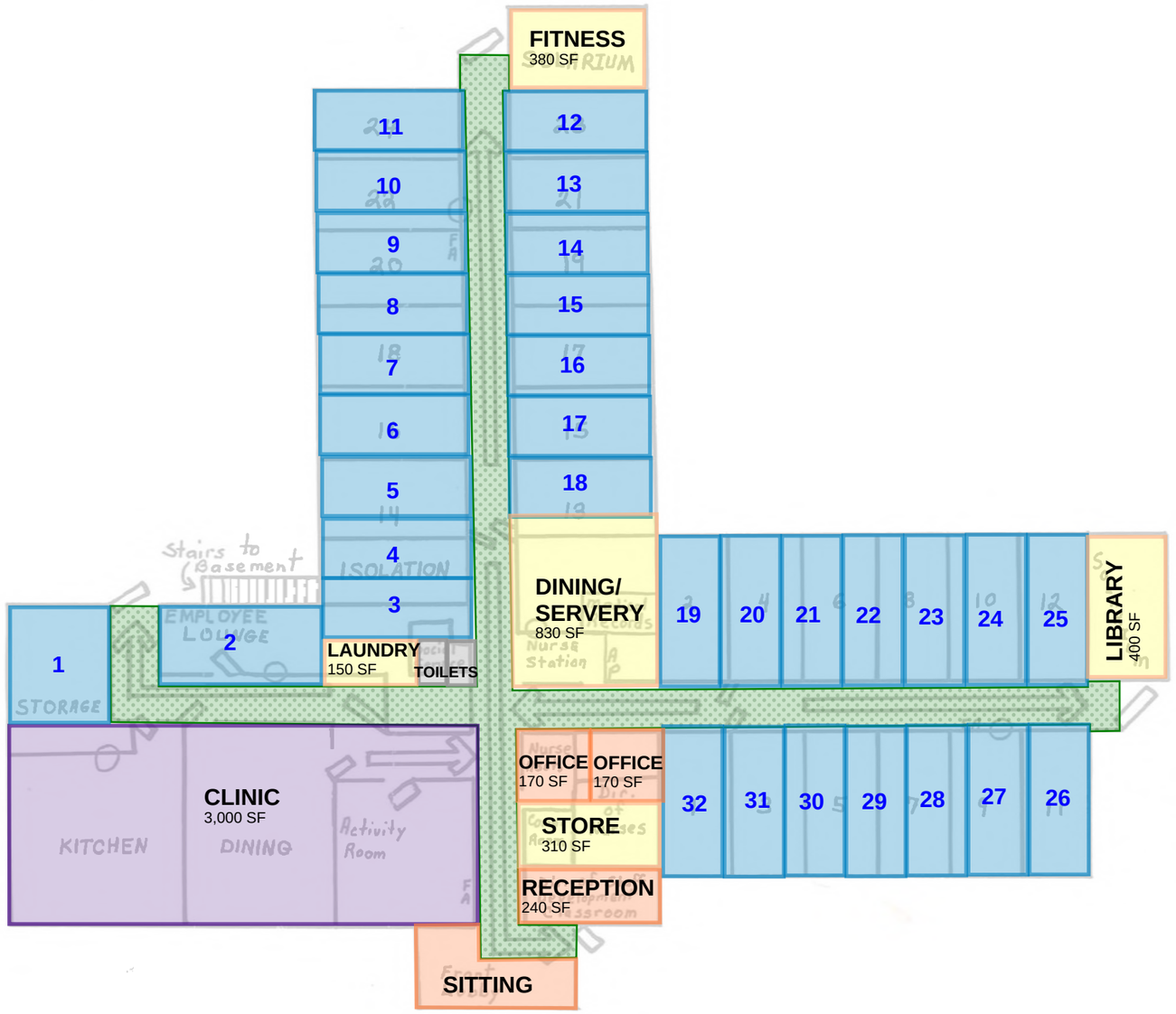
Union Rescue Mission

View From Lopez Canyon Road - North Approach

Date: 01/09/2020

PDA IS NOW HED

Attachment B:
Total Preservation Conceptual Floorplan



TOTAL PRESERVATION - CONCEPTUAL FLOOR PLAN

NORTH

PROJECT INFORMATION

UNIT COUNT

PROVIDED	32 UNITS
ORIGINALLY PROPOSED	117 UNITS

PROJECT DESCRIPTION

EXTERIOR FACADE AND ROOF TO BE MAINTAINED WITH FEW EXCEPTIONS (WINDOWS AT RESIDENTIAL UNITS ARE RECONFIGURED AND ADDED TO ACCOMODATE ADDITIONAL UNITS).

MAINTAIN THE NORTH, EAST AND SOUTH EXISTING SOLARIUM FENESTRATION.

RECONFIGURE INTERIOR TO MAXIMIZE THE NUMBER OF RESIDENTIAL UNITS AND ACCOMODATE MINIMAL PROGRAM ELEMENTS.

INTERIOR BEARING WALLS AT CORRIDORS TO BE RELOCATED TO ALLOW FOR INCREASED USABLE AREA.

RECONFIGURE WEST CORRIDOR TO ALLOW FOR MORE EFFICIENT USABLE SPACE LAYOUT

EXISTING RESIDENTIAL UNIT DEMISING WALLS RELOCATED TO INCREASE AMOUNT OF RESIDENTIAL UNITS.

PROGRAM

CLINIC	3,000 SF
RESIDENT LAUNDRY	150 SF
COMMON TOILETS	100 SF
FITNESS ROOM	380 SF
DINING/SERVERY	830 SF
LIBRARY	400 SF
MANAGERS OFFICE	170 SF
ADMINISTRATION OFFICE	170 SF
STORE	310 SF
RECEPTION/SECURITY	240 SF
SITTING AREA LOBBY	320 SF

Attachment C:
Partial Preservation Conceptual Floorplan and Diagram



BASEMENT FLOOR PLAN

SCALE: 1" = 30'-0"

1

HED 2022-UR008-001
01/10/2023

UNION RESCUE MISSION
The Way Home

SEQUOIA LODGE



PROJECT INFORMATION

UNIT COUNT

PROVIDED	68 UNITS
ORIGINALLY PROPOSED	117 UNITS

PARKING COUNT

PROVIDED	37 SPACES

1ST FLOOR UNIT COUNT

(SENIORS SINGLE ROOM UNITS)

PROVIDED	28 UNITS
ORIGINALLY PROPOSED	*12 UNITS*

1ST FLOOR PROGRAM

CLINIC	4357.9 SF
ADMIN. OFFICE	622.7 SF
RECEPTION OFFICE	230.9 SF
STORAGE	64 SF
DINING/SERVERY	640 SF
LIBRARY	214.7 SF
FITNESS	406.1 SF
LAUNDRY	140.2 SF
MANAGER OFFICE	278.2 SF
PUBLIC TOILET	142.5 SF
SITTING AREA (LOBBY)	184.6 SF
SITTING AREA (RESIDENT)	103.1 SF
ELEVATOR MACHING RM	268.8 SF
ELEC. CLOSET	100 SF
DAYCARE	1151 SF
DAYCARE OUTDOOR SPACE	2094 SF

FIRST FLOOR PLAN

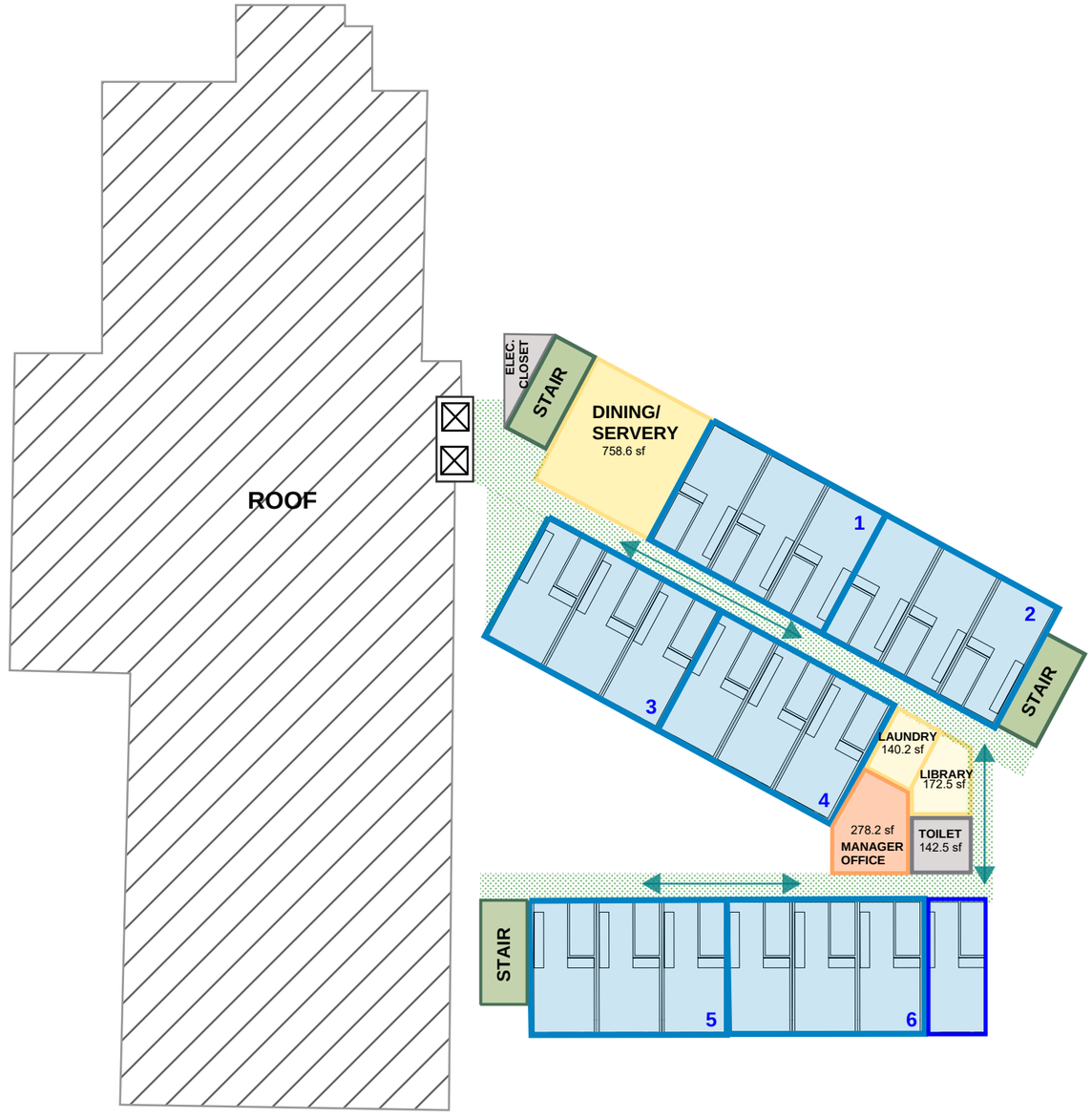
SCALE: 1" = 30'-0"

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HED *2022-UR008-001*
01/10/2023

UNION RESCUE MISSION
The Way Home

SEQUOIA LODGE



2ND FLOOR UNIT COUNT

(PERMANENT 3-ROOM UNITS)
PROVIDED 6 UNITS

(PERMANENT SINGLE ROOM UNITS)
PROVIDED 1 UNIT

TOTAL 19 ROOMS

ORIGINALLY PROPSED *53 ROOMS*

2ND FLOOR PROGRAM

DINING/SERVERY	758.6 SF
LIBRARY	172.5 SF
LAUNDRY	140.2 SF
MANAGER OFFICE	278.2 SF
PUBLIC TOILET	142.5 SF
ELEC. CLOSET	100 SF

SECOND FLOOR PLAN

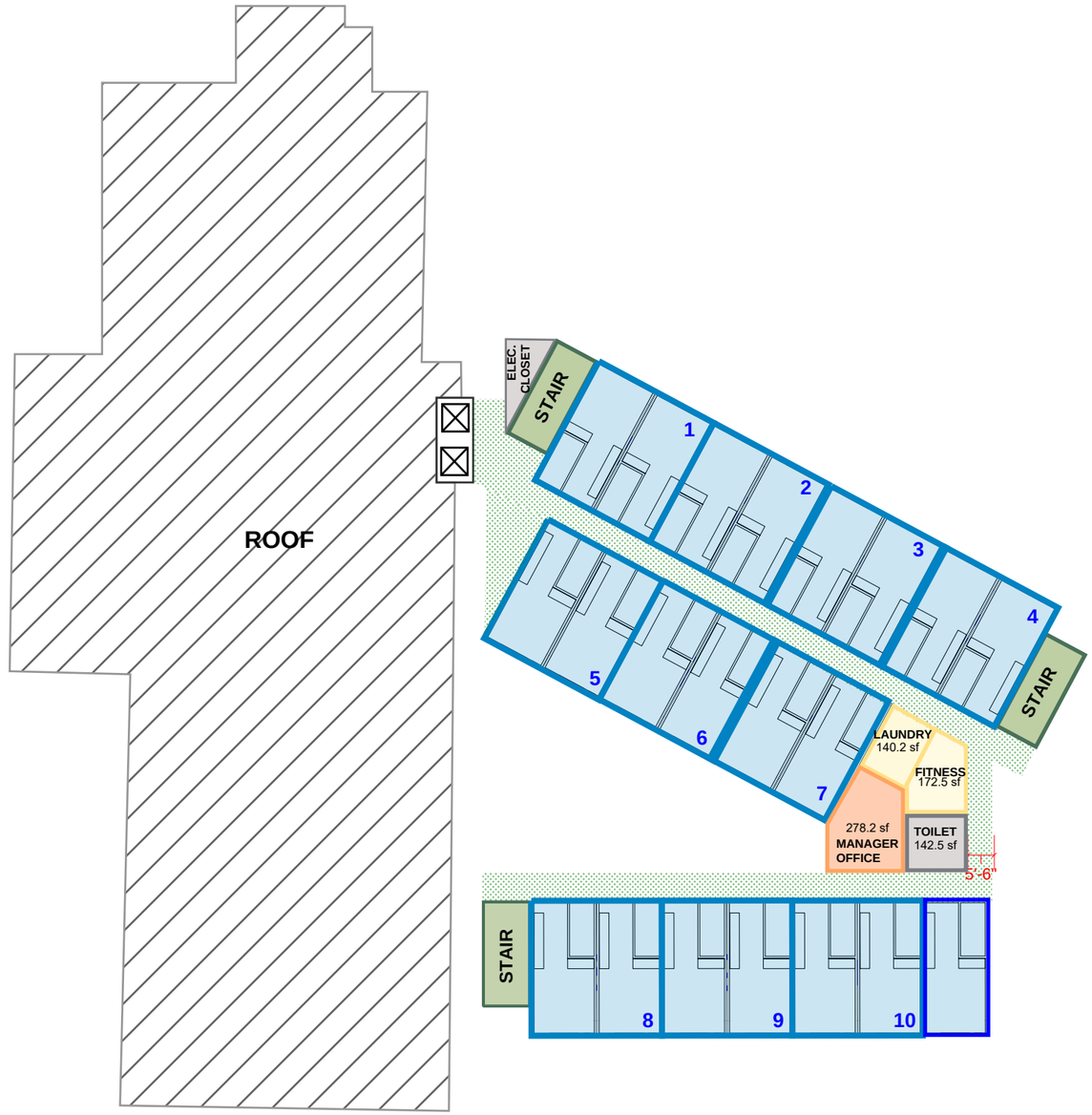
SCALE: 1" = 30'-0"

1

HED *2022-UR008-001*
01/10/2023

UNION RESCUE MISSION
The Way Home

SEQUOIA LODGE



3RD FLOOR UNIT COUNT

(TEMPORARY 2-ROOM UNITS)
PROVIDED 10 UNITS

(TEMPORARY SINGLE ROOM UNITS)
PROVIDED 1 UNIT

TOTAL 21 ROOMS

ORIGINALLY PROPOSED 52 ROOMS

3RD FLOOR PROGRAM

FITNESS	172.5 SF
LAUNDRY	140.2 SF
MANAGER OFFICE	278.2 SF
PUBLIC TOILET	142.5 SF
ELEC. CLOSET	100 SF

THIRD FLOOR PLAN

SCALE: 1" = 30'-0"

1

HED *2022-UR008-001*
01/10/2023

UNION RESCUE MISSION
The Way Home

SEQUOIA LODGE



3D MASSING DIAGRAM 1

Appendix 6-1

Air Quality/Greenhouse Gas Report

Hope Gardens Expansion Project Air Quality and Global Climate Change Analysis

Prepared for:

Los Angeles County Department of Regional Planning
Foothills Development Services
320 West Temple Street, 13th Floor
Los Angeles, CA 90012

Prepared By:

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EcoTierra Consulting, Inc.

June 2023

EcoTierra consulting

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I. INTRODUCTION AND SUMMARY

1. PURPOSE OF ANALYSIS AND STUDY OBJECTIVES

The purpose of this air quality, global climate change, and energy impact analysis is to provide an assessment of the impacts resulting from development of the Hope Gardens Expansion Project and to identify measures that may be necessary to reduce potentially significant impacts. This study was performed to address the possibility of regional/local air quality impacts and global climate change impacts, from project-related air emissions. The objectives of the study include:

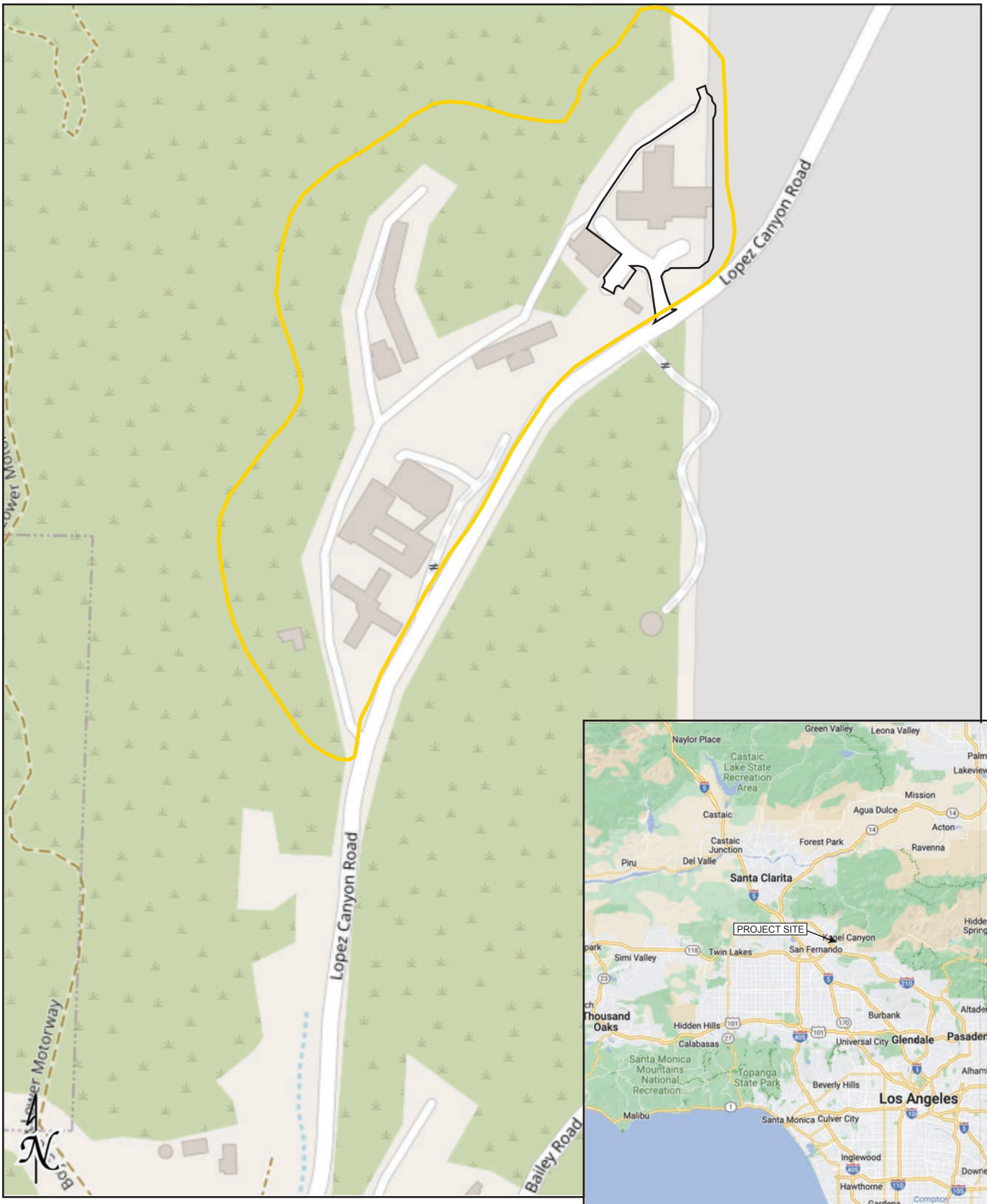
- documentation of the atmospheric setting
- discussion of criteria pollutants and greenhouse gases
- discussion of the air quality and global climate change regulatory framework
- discussion of the air quality and greenhouse gases thresholds of significance
- analysis of the construction related air quality and greenhouse gas emissions
- analysis of the operations related air quality and greenhouse gas emissions
- analysis of the conformity of the proposed project with the SCAQMD AQMP
- analysis of the project's energy use during construction and operation.
- recommendations for mitigation measures

The County of Los Angeles is the lead agency for this air quality, greenhouse gas, and energy analysis, in accordance with the California Environmental Quality Act authorizing legislation. Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with terms unique to air quality and global climate change, a definition of terms has been provided in Appendix A.

2. PROJECT LOCATION

The Project Site encompasses approximately 77.4 gross acres in the foothills of the San Gabriel Mountains, adjacent to the Angeles National Forest, in an area known as Lopez Canyon at 12249 Lopez Canyon Road. The Project Site is located on unincorporated County land and is associated with Los Angeles County Assessor's Identification Numbers (AIN) 2846-001-017, -018, -019, and -020. The Development Site includes the Sequoia Lodge building site and surrounding area, which generally encompasses approximately one acre near the rear northeast corner of the Project Site on AIN 2846-001-017. The Development Site also includes the areas of proposed new paving and internal roadway circulation improvements associated with the proposed building.

Regional access to the Project Site is provided by the Foothill Freeway (Interstate 210 [I-210]) and Ronald Reagan Freeway (State Route 118 [SR-118]), approximately one mile to the southwest. Local access to the Project Site is provided by Lopez Canyon Road, which can be accessed from Paxton Street to the south and Kagel Canyon Road to the north. The Project Site is not served by existing public transit service; however, on-site shuttle services are available for residents travelling to and from the Project Site, including during emergencies. A vicinity map showing the project location is provided in **Figure 1, Project Location Map**.



— Project Site
— Development Site Area

Source: OpenStreetMaps, May 2023.

Figure 1
Project Location Map

3. PROJECT DESCRIPTION

The 77.4-gross-acre Project Site is owned and operated by URM, who purchased the property in 2005 and has been operating the Hope Gardens Family Center there since 2007, which consists of multiple structures in a forest camp retreat-like setting. Up until the fall of 2004 and prior to URM's acquisition of the property, the Project Site was used for senior retirement homes, including a convalescent hospital. For the Hope Gardens Family Center, URM utilized the existing buildings and infrastructure previously constructed at the Project Site.

Hope Gardens Family Center provides transitional housing and supportive services to women of all ages experiencing homelessness and their children (under the age of 18). The facility provides a total of 128 living units, including 96 family living units and 25 living units for seniors. The facility does not include any adult male residents. The facility includes support services such as individual counseling, various education and training, childcare, healthcare (including dental and general medical examinations), and youth development. The existing facility includes kitchens, classrooms, congregation, recreation, maintenance, and staff housing. Under the current CUP (approved in 2007 and last modified in 2019), the allowed maximum capacity is 300 formerly homeless women and children. There are full-time staff and volunteers working three shifts, including three staff members who reside onsite full-time and one staff member who resides onsite part-time. Currently, 109 of the 128 living units are occupied with a resident population of 248 individuals, including 79 adults, 146 children, and 23 seniors. Additionally, the facility currently employs 32 individuals.

The Project proposes a new CUP to increase the on-site maximum residential capacity from 300 to 525 formerly homeless single women and their children (less than 18 years old) at the Project Site, and the demolition of the existing one-story, approximately 22,470-square-foot Sequoia Lodge at the Project's Development Site and construct a new, larger multi-use building (hereinafter the "New Sequoia Building") to accommodate the residential capacity increase as well as increase the ability of URM to provide support services and life skills training for residents as they transition from homelessness to a position of financial stability to provide for their own housing.

Proposed Development Site

The proposed New Sequoia Building would include 3 stories plus a main ground floor basement (owing to the topography and slope of the Development Site) encompassing approximately 106,410 square feet of building space and a covered parking structure in the ground floor basement. The proposed building would consist of 117 living units, supportive services, reception area, case manager area, counseling offices, administrative offices, security office, dental/medical examination rooms, daycare center, computer lab, classroom, multipurpose room, kitchen, communal dining, and an open-air courtyard in the center of the building. As the project would demolish the existing 25-living unit Sequoia Lodge, a total of 92 net living units would be added to the project site for a campuswide total of 213 living units. The typical

housing unit would be 371 square feet and can accommodate up to 4 people. Each living unit would include a bathroom, but kitchens are not included in any living units. All food services for residents would be provided in the first-floor dining room. At present, the most staff on site at any one time is 20 employees, and the Project is anticipated to add approximately 30 more employees during the peak for a total of 50 employees during peak daytime shift.

The healthcare clinic and behavioral health offices would be on the main ground floor. Administration offices, guest common areas, outdoor courtyard, daycare, computer classroom and 12 living units would be on the first floor. An outdoor garden terrace and 53 living units would be on the second floor. Guest common areas, outdoor garden terrace, and 52 living units would be on the third floor. The conceptual site plan and respective floor plans for the New Sequoia Building are shown in Figures 3-9 through 3-13 in Section 3.0, Project Description and Environmental Setting, of the Draft EIR.

The proposed average building height would be 39 feet tall as measured from the first floor's finished floor elevation with a maximum height of 44 feet to the top of the stairwells. The height of the New Sequoia Building, particularly in spatial relationship with surrounding hillsides is shown in Figure 3-14, New Sequoia Building Sections Diagram, in Section 3.0, Project Description and Environmental Setting, of the Draft EIR.

The proposed design of the New Sequoia Building is intended to draw inspiration from the color palette of the surrounding oak woodlands and reflect the Project's location in a mountainous canyon. The building would incorporate architectural rainscreen/exterior cladding system with extruded green metal panels, architectural louver system with metal aluminums louvers and slats with wood-like finish, and a river rock wall assembly/retaining wall.

Development Site improvements also include new paving and resurfacing of internal roadways and hardscapes around the proposed building footprint for circulation and building access as well as widen the existing on-site bridge that is accessed from Lopez Canyon Road at Hope Gardens Access Gate 4 adjacent to the New Sequoia Building.

Parking

The proposed partially subterranean parking structure on the main ground floor basement would provide parking for 22 spaces for staff and visitors, which includes 4 ADA spaces. The parking basement would provide enclosed storage for 11 long-term bicycle parking spaces as well as racks for 6 short-term bicycle parking spaces. Ten surface parking spaces would be reconstructed along the western side of the building just before the fire truck turnaround. In total, 32 parking spaces would be provided in or adjacent to the New Sequoia Building. The existing parking spaces located elsewhere within the Project Site would

continue to be used for staff and general parking for a campuswide post-Project total of 96 parking spaces. **Figure 2, Site Plan**, illustrates the proposed site plan.

Project Construction

The Project would be constructed in one phase over approximately 34 months and is anticipated to commence no sooner than October 2024. The area that would be demolished and disturbed is approximately 80,000 square feet in area (~1.84 acres), which includes the existing 22,470-square-foot Sequoia Lodge and driveways, walkways, parking area, and grading associated with the New Sequoia Building and access. Demolition, grading, bridge widening, and underground utilities are expected to take 10 months to complete. Grading would consist of approximately 3,200 cubic yards of cut and fill that would be balanced on site; no hauling of dirt on or off-site would be required. Building construction from foundations to occupancy is expected to take 24 months to complete. The project is anticipated to be operational in 2027.

Temporary Rehousing

The existing Sequoia Lodge includes 25 living units for senior women. Currently, there are 23 seniors living at the Sequoia Lodge. Senior women living at Sequoia Lodge at the time of construction would be temporarily housed in a vacant living unit on-site, then rehoused in the New Sequoia Building upon completion. If a living unit is not available, other feasible options would be considered as may necessary. No senior woman housed at Sequoia Lodge would be permanently displaced by this Project. URM is committed to continuing to house all affected seniors during Project construction.

4. SENSITIVE RECEPTORS IN PROJECT VICINITY

Those who are sensitive to air pollution include children, the elderly, and people with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities (South Coast Air Quality Management District 2008). Commercial and industrial facilities are not included in the definition because employees do not typically remain on-site for 24 hours.

The nearest sensitive receptors to the project site are the single-family residential use located off of Angeles Trail Way and Valley Vista Way, approximately 0.45 miles (725 meters) northwest of the western project boundary and the scattered single-family residential uses located approximately 0.28 miles (443 meters) east of the eastern project boundary. Other air quality sensitive land uses are located further from the project site and would experience lower impacts.

5. SUMMARY OF IMPACTS

A. Construction-Source Emissions

Project construction-source emissions would not exceed applicable regional or local thresholds of significance established by the South Coast Air Quality Management District (SCAQMD).

As discussed herein, the project will comply with all applicable SCAQMD construction-source emission reduction rules and guidelines. Project construction source emissions would not cause or substantively contribute to violation of the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS) or result in toxic air contaminant (TAC)-related impacts.

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less than significant.

B. Operational-Source Emissions

The project operational-sourced emissions would not exceed applicable regional or local thresholds of significance established by the SCAQMD. Additionally, project-related trips will not cause or result in CO concentrations exceeding applicable state and/or federal standards (CO “hotspots”). Project operational-source emissions would therefore not adversely affect sensitive receptors within the vicinity of the project.

The project's emissions meet SCAQMD regional thresholds and will not result in a significant cumulative impact. The project does not propose any such uses or activities that would result in potentially significant operational-source toxic air contaminants or odor impacts. Potential operational-source odor impacts are therefore considered less than significant.

C. Greenhouse Gases

The Project’s emissions will not exceed the draft SCAQMD GHG emissions threshold of 3,000 MTCO2e/year for all land uses. The project will also comply with the goals and strategies of the LA County CCAP; therefore, the project would not conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases and impacts are considered to be less than significant.



Source: Puchlik Design Associates, Inc., January 2020.

Figure 2
Site Plan

II. AIR QUALITY ANALYSIS

1. EXISTING AIR QUALITY CONDITIONS

A. Local Air Quality

The project site is located in Lopez Canyon in unincorporated Los Angeles County; which is part of the South Coast Air Basin (Basin). The Basin includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. Bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, the Basin is an area of high air pollution potential. The regional climate within the Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. Air quality within the Basin is influenced by a wide range of emissions sources—such as dense population centers, heavy vehicular traffic, and industry. Climate change within the Basin is influenced by a wide range of emission sources, such as utility usage, heavy vehicular traffic, industry, and meteorology.

The annual average temperature varies throughout the Basin, ranging from the low to mid 60s to over 100 degrees during the summer, measured in Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas.

The Basin experiences a persistent temperature inversion, which is characterized by increasing temperature with increasing altitude. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer.

Aside from a persistent temperature inversion, the vertical dispersion of air contaminants in the Basin is also affected by wind conditions. The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. Conversely, on days of no inversion or high wind speeds, ambient air pollutant concentrations are the lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas in the Basin are transported eastward, predominantly into Riverside and San Bernardino Counties. Santa Ana winds, which are strong and dry north or northeasterly winds that occur during the fall and winter months, disperse air contaminants differently through the Basin, generally resulting in worse air conditions in the inner basin areas. Santa Ana conditions tend to last for several days at a time. Wind speeds in San Fernando area average about 5.3 to 7.1 miles per hour (mph)[1].

[1] *Weather Spark, Average Weather in San Fernando, website: https://weatherspark.com/y/1723/Average-Weather-in-San-Fernando-California-United-States-Year-Round*

The majority of annual rainfall in the Basin occurs between December and March. Summer rainfall is minimal and generally limited to scattered thundershowers in coastal regions. The annual average total of rainfall in the San Fernando area is approximately 17 inches[2].

In the winter, light nocturnal winds result mainly from the drainage of cool air off of the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of the basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

The temperature and precipitation levels for the San Fernando area (San Fernando, CA Station), the closest monitoring station to the project site, are shown below in **Table 1, Local Monthly Climate Data**. Table 1 shows that August is typically the warmest month and December is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table 1
Local Monthly Climate Data

Descriptor	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Max. Temperature	65.8	70.5	73.0	74.5	78.4	85.5	91.6	91.7	86.6	80.5	68.0	65.1
Avg. Min. Temperature	43.1	44.5	44.3	45.1	49.7	54.7	59.2	60.4	55.7	49.7	42.3	42.1
Avg. Total Precipitation (in.)	3.41	2.00	1.33	0.31	0.15	0.02	0.00	0.03	0.01	0.40	1.57	2.90
Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7759 *Data from the San Fernando, CA station (047759) for period 1971 to 2000*												

B. Pollutants

Pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or

[2] *Best Places, Climate in San Fernando, California, website: https://www.bestplaces.net/weather/city/california/san_fernando*

avoidance of nuisance conditions). A summary of federal and state ambient air quality standards is provided in the Regulatory Framework section.

i) Criteria Pollutants

The criteria pollutants consist of: ozone, nitrogen dioxide, carbon monoxide, sulfur dioxide, lead, and particulate matter. These pollutants can harm your health and the environment, and cause property damage. The Environmental Protection Agency (EPA) calls these pollutants "criteria" air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria for setting permissible levels. The following provides descriptions of each of the criteria pollutants.

ii) Nitrogen Dioxides

Nitrogen Oxides (NOx) is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NOx are colorless and odorless, concentrations of nitrogen dioxide (NO_2) can often be seen as a reddish-brown layer over many urban areas. NOx form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NOx are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NOx reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO_2, which cause respiratory problems. NOx and the pollutants formed from NOx can be transported over long distances, following the patterns of prevailing winds. Therefore, controlling NOx is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

iii) Ozone

Ozone (O_3) is not usually emitted directly into the air but at ground-level is created by a chemical reaction between NOx and volatile organic compounds (VOC) in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NOx and VOC that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Because NOx and VOC are ozone precursors, the health effects associated with ozone are also indirect health effects associated with significant levels of NOx and VOC emissions.

iv) Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes about 56 percent of all CO

emissions nationwide. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust.

Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves, gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are indoor sources of CO. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air. CO is described as having only a local influence because it dissipates quickly. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. The health threat from lower levels of CO is most serious for those who suffer from heart disease such as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

v) Sulfur Dioxide

Sulfur Oxide (SOx) gases (including sulfur dioxide [SO2]) are formed when fuel containing sulfur, such as coal and oil is burned, and from the refining of gasoline. SOx dissolve easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and the environment.

vi) Lead

Lead (Pb) is a metal found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been motor vehicles and industrial sources. Due to the phase out of leaded gasoline, metal processing is now the primary source of lead emissions to the air. High levels of lead in the air are typically only found near lead smelters, waste incinerators, utilities, and lead-acid battery manufacturers. Exposure of fetuses, infants, and children to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

vii) Particulate Matter

Particulate matter (PM) is the term for a mixture of solid particles and liquid droplets found in the air. Particulate matter is made up of a number of components including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are less than 10 micrometers in diameter (PM10) are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter (PM2.5) have been designated as a subset of PM10 due to their increased negative health impacts and its ability to remain suspended in the air longer and travel further.

viii) Reactive Organic Gases (ROG)

Although not a criteria pollutant, reactive organic gases (ROGs), or volatile organic compounds (VOCs), are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably. Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM10 and lower visibility.

C. Other Pollutants of Concern

i) Toxic Air Contaminants

In addition to the above-listed criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. Sources of toxic air contaminants include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least forty different toxic air contaminants. The most important of these toxic air contaminants, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to toxic air contaminants can result from emissions from normal operations as well as from accidental releases. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

Toxic air contaminants are less pervasive in the urban atmosphere than criteria air pollutants, however they are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of toxic air contaminants with varying degrees of toxicity. Sources

of toxic air contaminants include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to the 2013 California Almanac of Emissions and Air Quality (CARB 2013), the majority of the estimated health risk from toxic air contaminants can be attributed to relatively few compounds, the most important of which is diesel particulate matter (DPM). Diesel particulate matter is a subset of PM2.5 because the size of diesel particles are typically 2.5 microns and smaller. The identification of diesel particulate matter as a toxic air contaminant in 1998 led the California Air Resources Board (CARB) to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles in September 2000. The plan's goals are a 75-percent reduction in diesel particulate matter by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot". Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of diesel particulate matter as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to diesel particulate matter is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources.

ii) Asbestos

Asbestos is listed as a TAC by the ARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. Naturally occurring asbestos is not present in Los Angeles County. The nearest likely locations of naturally occurring asbestos, as identified in the General Location Guide for Ultramafic Rocks in California prepared by the California Division of Mines and Geology, is located at Asbestos Mountain in the San Jacinto Valley, over 120 miles southeast of the site. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

2. REGULATORY SETTING

The proposed project is addressed through the efforts of various international, federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality

through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality are discussed below.

A. Federal – United States Environmental Protection Agency

The EPA is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The NAAQS pollutants were identified using medical evidence and are shown below in **Table 2, State and Federal Criteria Pollutant Standards**.

The EPA and the California Air Resource Board (CARB) designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or 'form' of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the Federal annual PM2.5 standard is met if the three-year average of the annual average PM2.5 concentration is less than or equal to the standard. Attainment status is shown in **Table 3, South Coast Air Basin Attainment Status**.

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The SIP must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP.

As indicated below in Table 3, the South Coast Air Basin has been designated by the EPA as a non-attainment area for ozone (O_3) and suspended particulates (PM10). Currently, the Basin is in attainment with the ambient air quality standards for carbon monoxide (CO), lead, sulfur dioxide (SO_2), nitrogen dioxide (NO_2) and particulate matter (PM2.5).

Table 2
State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone (O_3)	0.09 ppm/1-hour 0.07 ppm/8-hour	0.070 ppm/8-hour	(a) Decline in pulmonary function and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage.
Carbon Monoxide (CO)	20.0 ppm/1-hour 9.0 ppm/8-hour	35.0 ppm/1-hour 9.0 ppm/8-hour	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses.
Nitrogen Dioxide (NO_2)	0.18 ppm/1-hour 0.03 ppm/annual	100 ppb/1-hour 0.053 ppm/annual	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
Sulfur Dioxide (SO_2)	0.25 ppm/1-hour 0.04 ppm/24-hour	75 ppb/1-hour 0.14 ppm/annual	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
Suspended Particulate Matter (PM_{10})	50 µg/m^3/24-hour 20 µg/m^3/annual	150 µg/m^3/24-hour	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; (c) Increased risk of premature death from heart or lung diseases in elderly.
Suspended Particulate Matter ($PM_{2.5}$)	12 µg/m^3 / annual	35 µg/m^3/24-hour 12 µg/m^3/annual	
Sulfates	25 µg/m^3/24-hour	No Federal Standards	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) property damage.
Lead	1.5 µg/m^3/30-day	0.15 µg/m^3/3-month rolling	(a) Learning disabilities; (b) Impairment of blood formation and nerve conduction.
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer-visibility of 10 miles or more due to particles when humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

Source: http://www3.epa.gov/climatechange/ghgemissions/gases.html.

Table 3
South Coast Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment (Extreme)
Carbon monoxide	Attainment	Attainment/Unclassified
Nitrogen dioxide	Attainment	Attainment/Unclassified
Sulfur dioxide	Attainment	Attainment/Unclassified
PM10	Nonattainment	Attainment (Maintenance)
PM2.5	Nonattainment	Nonattainment (Moderate)

Source (Federal and State Status): California Air Resources Board, November 2022.

B. State – California Air Resources Board

The CARB, which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. The CAAQS for criteria pollutants are shown in Table 2. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g., hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

The SCAQMD-portion of the South Coast Air Basin (SCAB) has been designated by the CARB as a nonattainment area for ozone, PM10 and PM2.5. Currently, the SCAB is in attainment with the ambient air quality standards for CO, lead, SO_2, NO_2, and sulfates and is unclassified for visibility reducing particles and Hydrogen Sulfide.

On June 20, 2002, the CARB revised the PM10 annual average standard to 20 µg/m3 and established an annual average standard for PM2.5 of 12 µg/m3. These standards were approved by the Office of Administrative Law in June 2003 and are now effective. On September 27, 2007 CARB approved the South Coast Air Basin and the Coachella Valley 2007 Air Quality Management Plan for Attaining the Federal 8-hour Ozone and PM2.5 Standards. The plan projects attainment for the 8-hour Ozone standard by 2024 and the PM2.5 standard by 2015.

On December 12, 2008 the CARB adopted Resolution 08-43, which limits NOx, PM10 and PM2.5 emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order R-09-010 was adopted that codified Resolution 08-43 into Section 2025, Title 13 of the California Code of Regulations. This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4) or latter emission standards. In the interim period, this regulation provides annual interim targets for fleet owners to meet. This regulation also provides a few exemptions including a once-per-year 3-day pass for trucks registered outside of California.

The CARB is also responsible for regulations pertaining to toxic air contaminants. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly) was enacted in 1987 as a means to establish a formal air toxics emission inventory risk quantification program. AB 2588, as amended, establishes a process that requires stationary sources to report the type and quantities of certain substances their facilities routinely release into the South Coast Air Basin. The data is ranked by high, intermediate, and low categories, which are determined by: the potency, toxicity, quantity, volume, and proximity of the facility to nearby receptors.

i) AB 617 Nonvehicular Air Pollution: Criteria Air Pollutants and Toxic Air Contaminants

This bill requires the state board to develop a uniform statewide system of annual reporting of emissions of criteria air pollutants and toxic air contaminants for use by certain categories of stationary sources. The bill requires those stationary sources to report their annual emissions of criteria air pollutants and toxic air contaminants, as specified. This bill required the state board, by October 1, 2018, to prepare a monitoring plan regarding technologies for monitoring criteria air pollutants and toxic air contaminants and the need for and benefits of additional community air monitoring systems, as defined. The bill requires the state board to select, based on the monitoring plan, the highest priority locations in the state for the deployment of community air monitoring systems. The bill requires an air district containing a selected location, by July 1, 2019, to deploy a system in the selected location. The bill would authorize the air district to require a stationary source that emits air pollutants in, or that materially affect, the selected location to deploy a fence-line monitoring system, as defined, or other specified real-time, on-site monitoring. The bill authorizes the state board, by January 1, 2020, and annually thereafter, to select additional locations for the deployment of the systems. The bill would require air districts that have deployed a system to provide to the state board air quality data produced by the system. By increasing the duties of air districts, this bill would impose a state-mandated local program. The bill requires the state board to publish the data on its Internet Web site.

C. Regional

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin. To that end, as a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

i) 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. Although SCAG is not an air quality management agency, it is

responsible for developing transportation, land use, and energy conservation measures that affect air quality. SCAG's 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) identifies growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the South Coast Air Quality Management District.

On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS or Plan). The Plan is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The Plan charts a course for closely integrating land use and transportation – so that the region can grow smartly and sustainably. It outlines more than $556.5 billion in transportation system investments through 2040. The Plan was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses, and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. In June 2016, SCAG received its conformity determination from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) indicating that all air quality conformity requirements for the 2016 RTP/SCS and associated 2015 FTIP Consistency Amendment through Amendment 15-12 have been met.

On May 7, 2020, SCAG's Regional Council adopted Connect SoCal (2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy) for federal transportation conformity purposes only. In light of the COVID-19 pandemic, the Regional Council will consider approval of Connect SoCal in its entirety and for all other purposes within 120 days from May 7, 2020. Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. Connect SoCal outlines more than $638 billion in transportation system investments through 2045. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura.

ii) South Coast Air Quality Management District (SCAQMD)

The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. The SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs.

1) *AQMP*

On June 30, 2016, the SCAQMD released its Draft 2016 AQMP. The 2016 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time. As with every AQMP, a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures is updated with the latest data and methods. The most significant air quality challenge in the Basin is to reduce nitrogen oxide (NOx) emissions sufficiently to meet the upcoming ozone standard deadlines. On March 23, 2017 the CARB approved the 2016 AQMP. The primary goal of this Air Quality Management Plan is to meet clean air standards and protect public health, including ensuring benefits to environmental justice and disadvantaged communities. The Plan was approved by the EPA on June 15, 2017.

Every three (3) years the SCAQMD prepares a new AQMP, updating the previous plan and having a 20-year horizon. In May 2022, the SCAQMD completed the 2022 Draft AQMP. The 2022 Draft AQMP is focused on attaining the 2015 8-hour ozone standard (70 ppb) for the South Coast Air Basin and Coachella Valley. The Draft 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emission technologies, when cost-effective and feasible, and low NOx technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 8-hour ozone standard. The 2022 AQMP was adopted December 2, 2022, by SCAQMD Governing Board. The 2022 AQMP was approved and adopted by CARB on January 26, 2023. The 2022 AQMP strategy includes the following:[3]

- Wide adoption of zero emissions technologies anywhere available.
- Low NOx technologies where zero emissions aren't feasible.
- Federal Action.
- Zero emissions technologies for residential and industrial sources such as water and space heaters in buildings and homes regionwide.
- Incentive funding in environmental justice areas.
- Prioritize benefits on the most disadvantaged communities.

[3] SCAQMD 2022 AQMP Infographic. http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/2022-aqmp-infographic

2) *SCAQMD Rules*

During construction and operation, the project must comply with applicable rules and regulations. The following are rules that the project may be required to comply with, either directly, or indirectly:

a) SCAQMD Rule 402

Prohibits a person from discharging 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.

b) SCAQMD Rule 403

Governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors. Rule 403 measures may include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code section 23114.

c) SCAQMD Rule 445

Prohibits permanently installed wood burning devices into any new development. A wood burning device means any fireplace, wood burning heater, or pellet-fueled wood heater, or any similarly enclosed,

permanently installed, indoor or outdoor device burning any solid fuel for aesthetic or space-heating purposes, which has a heat input of less than one million British thermal units per hour.

d) SCAQMD Rule 481

Applies to all spray painting and spray coating operations and equipment. The rule states that a person shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

(1) The spray coating equipment is operated inside a control enclosure, which is approved by the Executive Officer. Any control enclosure for which an application for permit for new construction, alteration, or change of ownership or location is submitted after the date of adoption of this rule shall be exhausted only through filters at a design face velocity not less than 100 feet per minute nor greater than 300 feet per minute, or through a water wash system designed to be equally effective for the purpose of air pollution control.

(2) Coatings are applied with high-volume low-pressure, electrostatic, and/or airless spray equipment.

(3) An alternative method of coating application or control is used which has effectiveness equal to or greater than the equipment specified in the rule.

e) SCAQMD Rule 1108

Governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

f) SCAQMD Rule 1113

Governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of the project must comply with SCAQMD Rule 1113.

g) SCAQMD Rule 1143

Governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

h) SCAQMD Rule 1186

Limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency, or special district such as water, air, sanitation, transit, or school district.

i) SCAQMD Rule 1403

Asbestos Emissions from Demolition/Renovation Activities, specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM).

3) *SCAQMD and CEQA*

Although the SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the South Coast Air Basin. Instead, this is controlled through local jurisdictions in accordance with the California Environmental Quality Act (CEQA). In order to assist local jurisdictions with air quality compliance issues the CEQA Air Quality Handbook (SCAQMD CEQA Handbook) prepared by the SCAQMD (1993) with the most current updates found at http://www.aqmd.gov/ceqa/hdbk.html, was developed in accordance with the projections and programs of the AQMP. The purpose of the SCAQMD CEQA Handbook is to assist Lead Agencies, as well as consultants, project proponents, and other interested parties in evaluating a proposed project's potential air quality impacts. Specifically, the SCAQMD CEQA Handbook explains the procedures that the SCAQMD recommends be followed for the environmental review process required by CEQA. The SCAQMD CEQA Handbook provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant, and how to mitigate these impacts. SCAQMD is in the process of developing an "Air Quality Analysis Guidance Handbook" to replace the CEQA Air Quality Handbook approved by the AQMD Governing Board in 1993. The 1993 CEQA Air Quality Handbook is still available but not online. In addition, there are sections of the 1993 Handbook that are obsolete. In order to assist the CEQA practitioner in conducting an air quality analysis while the new Handbook is being prepared, supplemental information regarding: significance thresholds and analysis, emissions factors, cumulative impacts emissions analysis, and other useful subjects, are available at the SCAQMD website[4].

D. Local – County of Los Angeles

Local jurisdictions, such as the County of Los Angeles, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the County is responsible

[4] *http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook.*

for the assessment and mitigation of air emissions resulting from its land use decisions. The County is also responsible for the implementation of transportation control measures as outlined in the 2022 AQMP and SCAQMD Attainment Plans. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the County assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

3. MONITORED AIR QUALITY

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates of the existing emissions in the Basin provided in the Final 2022 Air Quality Management Plan prepared by SCAQMD (December 2022) indicate that collectively, mobile sources account for 46 percent of the VOC, 85 percent of the NOx emissions, 89 percent of the CO emissions and 29 percent of directly emitted PM2.5, with another 18 percent of PM2.5 from road dust.

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified". National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or 'form' of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the Federal annual PM2.5 standard is met if the three-year average of the annual average PM2.5 concentration is less than or equal to the standard. Attainment status is shown in **Table 4, Air Quality Monitoring Summar**y.

Table 4
Air Quality Monitoring Summary

Pollutant (Standard)[1]		Year		
		2019	2020	2021
Ozone:	Maximum 1-Hour Concentration (ppm)	0.122	0.142	0.110
	Days > CAAQS (0.09 ppm)	**14**	**33**	**4**
	Maximum 8-Hour Concentration (ppm)	0.094	0.115	0.083
	Days > NAAQS/CAAQS (0.070 ppm)	**34**	**62**	**31**
Carbon Monoxide:	Maximum 8-Hour Concentration (ppm)	*	*	*
	Days > CAAQS (9 ppm)	0	0	0
	Days > NAAQS (9 ppm)	0	0	0

Table 4
Air Quality Monitoring Summary

Pollutant (Standard)[1]		Year 2019	2020	2021
Nitrogen Dioxide:	Maximum 1-Hour Concentration (ppm)	0.064	0.050	0.054
	Days > CAAQS (0.18 ppm)	0	0	0
Inhalable Particulates (PM10):[2]	Maximum 24-Hour Concentration (µg/m^3)	93.9	185.2	138.5
	Days > NAAQS (150 µg/m3)	0	*	0
	Days > CAAQS (50 µg/m3)	**15**	**34**	**14**
	Annual Average (µg/m3)	34.0	34.0	34.0
Ultra-Fine Particulates (PM2.5):	Maximum 24-Hour Concentration (µg/m3)	30.0	73.8	55.5
	Days > NAAQS (35 µg/m3)	0	**3**	**3**
	Annual Average (µg/m3)	11.9	11.0	11.6

Notes:
Source: http://www.arb.ca.gov/adam/topfour/topfour1.php. Data from the Reseda 18330 Gault Street Monitoring Station, unless otherwise noted.
(1) CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million
(2) Data obtained from the Los Angeles - North Main Street Station.
** Means there was insufficient data available to determine value.*

The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in the San Gabriel Mountains Source Receptor Area (SRA 15). The nearest air monitoring station to the project site is the 18330 Gault Street Monitoring Station (Reseda Station). The Reseda Station is located approximately 10.5 miles southwest of the project site. Table 4 presents the monitored pollutant levels from the Reseda Station. However, it should be noted that due to the air monitoring station distance from the project site, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the project site. As PM-10 data was not available for the Reseda station, data was obtained from the Los Angeles- North Main Street Station.

Table 4 summarizes 2019 through 2021 published monitoring data, which is the most recent 3-year period available. The data shows that during the past few years, the project area has exceeded the State ozone and Particulate Matter (PM10) standards.

A. Ozone

During the 2019 to 2021 monitoring period, the State 1-hour concentration standard for ozone was exceeded between 4 and 33 days at the Reseda Station. The State/Federal 8-hour ozone standard has been exceeded between 31 and 62 days each year over the past three years at the Reseda Station. Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant

concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

B. Carbon Monoxide

CO is another important pollutant that is due mainly to motor vehicles. The Reseda Station did not record an exceedance of the state or federal 8-hour CO standard for the last three years.

C. Nitrogen Dioxide

The Reseda Station did not record an exceedance of the State or Federal NO_2 standards for the last three years.

D. Particulate Matter

From 2019 to 2021, the State 24-hour concentration standards for PM10 was exceeded between 14 and 34 days at the Reseda Station. There was insufficient data to determine the number of days the Federal standards for PM10 were exceeded. Over the past three years, the Federal 24-hour standards for PM2.5 was exceeded for 3 days at the Reseda Station.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

4. AIR QUALITY STANDARDS

A. Significance Thresholds

i) Appendix G of the State CEQA Guidelines

Appendix G of the State CEQA Guidelines states that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make a significance determination. Pursuant to Appendix G, the project would result in a significant impact related to air quality if it would:

- Conflict with or obstruct the implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;

- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The CEQA Guidelines Section 15064.7 provides the significance criteria established by the applicable air quality management district or air pollution control district, when available, may be relied upon to make determinations of significance. The potential air quality impacts of the Project are, therefore, evaluated according to thresholds developed by SCAQMD in their CEQA Air Quality Handbook, Air Quality Analysis Guidance Handbook, and subsequent guidance, which are listed below.[5] Therefore, the project would result in a potentially significant impact to air quality if it would:

AIR-1: Conflict with or obstruct the implementation of the applicable air quality plan;

AIR-2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation as a result of:
- Criteria pollutant emissions during construction (direct and indirect) in excess of the SCAQMD's regional significance thresholds,
- Criteria pollutant emissions during operation (direct and indirect) in excess of the SCAQMD's regional significance thresholds.

AIR-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

AIR-4: Expose sensitive receptors to substantial pollutant concentrations that would:
- Exceed SCAQMD's localized significance thresholds,
- Cause or contribute to the formation of CO hotspots.

AIR-5: Create objectionable odors affecting a substantial number of people.

B. Regional Air Quality

Many air quality impacts that derive from dispersed mobile sources, which are the dominate pollution generators in the basin, often occurs hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. Therefore, the SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the South Coast

[5] *While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, Project construction and operation would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from industrial land use projects such as the Project. As a result, lead emissions are not further evaluated herein.*

Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes to this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in **Table 5, SCQAMD Air Quality Significance Thresholds.**

Table 5
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds		
Pollutant	**Construction (lbs/day)**	**Operation (lbs/day)**
NOx	100	55
VOC	75	55
PM10	150	150
PM2.5	55	55
SOx	150	150
CO	550	550
Lead	3	3
Toxic Air Contaminants, Odor and GHG Thresholds		
TACs	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index > 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO2e for industrial projects	
Ambient Air Quality Standards		
Pollutant	**SCAQMD Standards**	
NO2 -1-hour average Annual arithmetic mean	0.18 ppm (338 µg/m^3) 0.03 ppm (state) and 0.0534 (federal)	
PM10 -24-hour average Construction Operations Annual average	 10.4 µg/m^3 2.5 ug/m^3 1.0 µg/m^3	
PM2.5 -24-hour average Construction Operations	 10.4 µg/m^3 2.5 µg/m^3	
SO2 1-hour average 24-hour average	 0.25 ppm (state) and 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
CO 1-hour average 8-hour average	 20 ppm (23,000 µg/m^3) 9 ppm (10,000 µg/m^3)	
Lead 30-day average Rolling 3-month average Quarterly average	 1.5 µg/m^3 0.15 µg/m^3 1.5 µg/m^3	

Source:http://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25

C. Local Air Quality and Localized Significance Thresholds

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significance Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. The SCAQMD has also provided Final Localized Significant Threshold Methodology (LST Methodology), June 2003 (revised July 2008), which details the methodology to analyze local air emission impacts. The Localized Significant Threshold Methodology found that the primary emissions of concern are NO_2, CO, PM10, and PM2.5.

The significance thresholds for the local emissions of NO_2 and CO are determined by subtracting the highest background concentration from the last three years of these pollutants from Table 4 above, from the most restrictive ambient air quality standards for these pollutants that are outlined in the Localized Significant Thresholds. Table 5 shows the ambient air quality standards for NO_2, CO, and PM10 and PM2.5.

D. Toxic Air Contaminants (TACs)

i) Construction

Temporary TAC emissions associated with DPM emissions from heavy construction equipment would occur during the construction phase of the Project. According to the Office of Environmental Health Hazard Assessment (OEHHA)[6] and the SCAQMD *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (August 2003),[7] health effects from TACs are described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 30-year lifetime will contract cancer based on the use of standard risk-assessment methodology. Additionally, the SCAQMD CEQA guidance does not require a HRA for short-term construction emissions. Construction activities associated with the project would be sporadic, transitory, and short-term in nature (approximately 34 months). Thus, construction of the project would not result in a substantial, long-term (i.e., 30-year) source of TAC emissions. Nonetheless, a qualitative assessment of TAC emissions associated with short-term construction TAC emissions is provided in the analysis section below.

[6] *Office of Environmental Health Hazard Assessment, Air Toxic Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessment, February 2015, https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.*

[7] *South Coast Air Quality Management District, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, August 2003,http://www.aqmd.gov/docs/default-source/ceqa/handbook/mobile-source-toxics-analysis.doc?sfvrsn=2.*

ii) Operation

CARB published the *Air Quality and Land Use Handbook* in April 2005 to serve as a general guide for considering impacts to sensitive receptors from facilities that emit TAC emissions. The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day; (2) avoid siting sensitive receptors within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week); (3) avoid siting sensitive receptors within 300 feet of any dry cleaning operation using perchloroethylene and within 500 feet of operations with two or more machines; and (4) avoid siting sensitive receptors within 300 feet of a large gasoline dispensing facility (3.6 million gallons per year or more) or 50 feet of a typical gasoline dispensing facility (less than 3.6 million gallons per year). The project proposes residential uses, is located over a mile (5,775 feet) from the 210 freeway, and will not be located near any distribution centers, dry cleaners, or gas stations; therefore, operational TAC-related impacts are not anticipated.

E. Odor Impacts

The SCAQMD CEQA Handbook states that an odor impact would occur if the proposed project creates an odor nuisance pursuant to SCAQMD Rule 402, which states:

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 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.

The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

If the proposed project results in a violation of Rule 402 with regards to odor impacts, then the proposed project would create a significant odor impact.

5. SHORT-TERM CONSTRUCTION EMISSIONS

Construction activities associated with the proposed project would have the potential to generate air emissions, toxic air contaminant emissions, and odor impacts. Assumptions for the phasing, duration, and required equipment for the construction of the proposed project were obtained from the project applicant. The construction activities for the proposed project are anticipated to include: demolition of an

existing 22,470 SF building and approximately 58,300 square feet (SF) of existing paving[8] site preparation, construction of a 106,410 SF, 117-unit homeless care facility, 22-space, approximately 8,800 SF subterranean parking garage, approximately 0.5 acres of paving, and application of architectural coatings. See Appendix A for more details.

The proposed project is anticipated to start construction no sooner than October 2024 and take approximately 34 months to complete. The project is anticipated to be operational in 2027.

A. Methodology

The following provides a discussion of the methodology used to calculate regional construction air emissions and an analysis of the proposed project's short-term construction emissions for the criteria pollutants. The construction-related regional air quality impacts have been analyzed for both criteria pollutants and GHGs.

Emissions are estimated using the CalEEMod (Version 2022.1.1.13) software, which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The input values used in this analysis were adjusted to be project-specific for the construction schedule and the equipment used was based on CalEEMod defaults. The CalEEMod program uses the EMFAC2021 computer program to calculate the emission rates specific for Los Angeles County for construction-related employee vehicle trips and the OFFROAD2017 computer program to calculate emission rates for heavy truck operations. EMFAC2021 and OFFROAD2017 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. Daily truck trips and CalEEMod default trip length data were used to assess roadway emissions from truck exhaust. The maximum daily emissions are estimated values for the worst-case day and do not represent the emissions that would occur for every day of project construction. The maximum daily

[8] *Parking lot is assumed to be 0.3 feet thick, which would yield 394 tons of asphalt.*

emissions are compared to the SCAQMD daily regional numeric indicators. Detailed construction equipment lists, construction scheduling, and emission calculations are provided in Appendix A.

The project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of the disturbed area of the Project (approximately 1.84 acres) a Fugitive Dust Control Plan or Large Operation Notification would not be required.

SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures is used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rule 403 would require the use of water trucks during all phases where earth-moving operations would occur. Compliance with Rule 403 has been included in the CalEEMod modeling for the proposed project.

Per SCAQMD Rule 1113 as amended on June 3, 2011, the architectural coatings that would be applied to buildings after January 1, 2014 will be limited to an average of 50 grams per liter or less. CalEEMod defaults have been adjusted accordingly.

The phases of the construction activities which have been analyzed below for each phase are: (1) demolition, (2) site preparation, (3) grading (4) building construction, (5) paving, and (6) application of architectural coatings. Details pertaining to the project's construction timing and the type of equipment modeled for each construction phase are available in the CalEEMod output in Appendix A of this technical report.

B. Construction-Related Regional Impacts

The construction-related criteria maximum daily pollutant emissions for each phase are shown below in **Table 6 Construction-Related Regional Pollutant Emissions**. Table 6 shows the worst-case of either summer or winter criteria pollutant emissions. As the existing Sequoia Lodge is attached to an HVAC plant which includes a chiller that provides air conditioning to surrounding structures in the northern portion of the Project Site which would need to be temporarily replaced during construction of the New Sequoia Building, the operational emissions from temporary HVAC-type equipment that would be set up would overlap with the construction emissions and have been shown below in Table 6 (as emissions from

temporary operational equipment) and added to the construction emissions. As one of the project's emissions will exceed regional thresholds. Therefore, a less than significant regional air quality impact would occur from construction of the proposed project.

Table 6
Construction-Related Regional Pollutant Emissions

Activity	Maximum Pollutant Emissions (pounds/day)					
	ROG	NOx	CO	SO_2	PM10	PM2.5
Maximum Daily Emissions[1,2,3]	**11.9**	**15.9**	**24.8**	**0.03**	**3.64**	**2.05**
Emissions from temporary operational equipment[4]	0.03	0.60	0.25	<0.005	0.05	0.05
Total Emissions	**11.93**	**16.5**	**25.05**	**0.035**	**3.69**	**2.1**
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No

Notes:
(1) Includes both on-site and off-site emissions. On-site emissions from equipment operated on-site that is not operated on public roads. On-site demolition and site preparation PM-10 and PM-2.5 emissions include compliance with SCAQMD Rule 403.
(2) Off-site emissions from equipment operated on public roads.
(3) Construction, painting, and paving phases may overlap.
(4) Operational emissions from the temporary equipment are assumed to be similar to, and correspond with, the energy-related emissions from the operation of the project.

Source: CalEEMod Version 2022.1.1.13.

C. Construction-Related Local Impacts

Construction-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The proposed project has been analyzed for the potential local air quality impacts created from: construction-related fugitive dust and diesel emissions; from toxic air contaminants; and from construction-related odor impacts. The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold Methodology prepared by SCAQMD (revised July 2008). The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. The emission thresholds were calculated based on the San Gabriel Mountains Source Receptor Area (SRA) 15 and a disturbance value of one acre per day (as the site will disturb approximately 1.84 acres). According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25-meter thresholds. The nearest sensitive receptors to the project site are: the single-family residential use located off of Angeles Trail Way and Valley Vista Way, approximately 0.45 miles (725 meters) northwest of the western project boundary and the scattered single-family residential uses located approximately 0.28 miles (443 meters) east of the eastern project

boundary; therefore, the SCAQMD 200-meter Look-up Tables was used.[9] **Table 7, Local Construction Emissions at the Nearest Receptors,** shows the on-site emissions from the CalEEMod model for the different construction phases and the LST emissions thresholds. Other air quality sensitive land uses are located further from the project site and would experience lower impacts.

The data provided in Table 7 shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Table 7
Local Construction Emissions at the Nearest Receptors

Activity	On-Site Pollutant Emissions (pounds/day)			
	NOx	**CO**	**PM10**	**PM2.5**
Demolition	13.2	12.2	1.56	0.67
Site Preparation	10.3	9.28	2.7	1.57
Grading	15.9	15.4	3.5	2.02
Building Construction	8.95	10.0	0.33	0.30
Paving	4.30	6.49	0.17	0.16
Architectural Coating	0.83	1.13	0.02	0.02
SCAQMD Thresholds[1]	**173**	**2,500**	**51**	**18**
Exceeds Threshold?	No	No	No	No

Notes:
(1) The nearest sensitive receptors to the site are: the single-family residential use located off of Angeles Trail Way and Valley Vista Way, approximately 0.45 miles (725 meters) northwest of the western project boundary and the scattered single-family residential uses located approximately 0.28 miles (443 meters) east of the eastern project boundary; therefore, the 200-meter threshold was used.
Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 1 acre, at a distance of 200 m in SRA 15 San Gabriel Mountains.

D. Construction-Related Toxic Contaminant Impacts

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. According to the Office of Environmental Health Hazard Assessment (OEHHA) and the SCAQMD Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (August 2003), health effects from TACs are described in terms of individual cancer risk based on a lifetime (i.e., 30-year) resident exposure duration. Given the temporary and short-term construction schedule (approximately 34 months), the Project would not result in a long-term (i.e., lifetime or 30-year) exposure as a result of project construction. Furthermore, the closest sensitive receptors are located over

[9] *The LST Look-Up tables have data for receptors located at 25, 50, 100, 200 and 500 meters from the source of emissions. To be conservative, the 200-meter thresholds were used.*

a ¼ mile from the project site boundary and construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds.

The project would comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. Therefore, impacts from TACs during construction would be less than significant.

E. Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement. The objectionable odors that may be produced during the construction process are of short-term in nature and the odor emissions are expected to cease upon the drying or hardening of the odor producing materials. Due to the short-term nature and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction of the proposed project. Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors.

6. LONG-TERM OPERATIONAL EMISSIONS

The on-going operation of the proposed project would result in a long-term increase in air emissions. This increase would be due to emissions from the project-generated vehicle trips and through other operational emissions from the on-going use of the proposed project. The following section provides an analysis of potential long-term air quality impacts due to: regional air quality impacts with the on-going operations of the proposed project.

A. Operations-Related Regional Air Quality Impacts

The operations-related criteria air quality impacts created by the proposed project have been analyzed through the use of the CalEEMod model. The operating emissions were based on the year 2027, which is the anticipated opening year for the proposed project. To be conservative, the operations for the full buildout of 213 rooms was analyzed. The operations daily emissions printouts from the CalEEMod model are provided in Appendix A. The CalEEMod analyzes operational emissions from area sources, energy usage, and mobile sources, which are discussed below.

i) Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been analyzed by inputting the project-generated trip generation data from the Transportation Impact Analysis Screening Analysis for the *Hope*

Gardens Expansion Project, Los Angeles County, California (TIA), prepared by Gibson Transportation Consulting Inc. (February 2, 2023) for the proposed project into the CalEEMod Model. The TIA showed that the project would generate 1.08 trips per room.[10] The CalEEMod program then applies the emission factors for each trip, which is provided by the EMFAC2021 model, to determine the vehicular traffic pollutant emissions.

ii) Area Sources

Area sources include emissions from consumer products, landscape equipment and architectural coatings. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. As specifics were not known about the landscaping equipment fleet, CalEEMod defaults were used to estimate emissions from landscaping equipment. No changes were made to the default area source parameters.

iii) Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site. No changes were made to the default energy usage parameters.

iv) Project Impacts

The worst-case summer or winter maximum daily criteria pollutant emissions created from the proposed project's long-term operations have been calculated and are shown in Table 8.

Table 8
Regional Operational Pollutant Emissions

Operational Activity	Pollutant Emissions (tons/year)					
	ROG	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Maximum Daily Emissions	**5.57**	**1.67**	**24.6**	**0.04**	**1.26**	**0.28**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No
Source: CalEEMod 2022.1.1.13.						

Table 8 shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds. Therefore, a less than significant regional air quality impact would occur from operation of the proposed project.

[10] *As there is no land use in CalEEMod for transitional housing for families and seniors experiencing homelessness, the closest land use of congregate care (assisted living) was used in the modeling which uses dwelling units in place of rooms.*

B. Operations-Related Local Air Quality Impacts

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The proposed project has been analyzed for the potential local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analysis analyzes the vehicular CO emissions, local impacts from on-site operations per SCAQMD LST methodology, and odor impacts.

i) Local CO Emission Impacts from Project-Related Vehicular Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards which were presented above.

To determine if the proposed project could cause emission levels in excess of the CO standards discussed above, a sensitivity analysis is typically conducted to determine the potential for CO "hot spots" at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, "hot spots" potentially can occur at high traffic volume intersections with a Level of Service E or worse.

The analysis prepared for CO attainment in the South Coast Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the South Coast Air Basin. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 Air Quality Management Plan (2003 AQMP) and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 1992 CO Plan, peak carbon monoxide concentrations in the South Coast Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of 1992 CO Plan and subsequent plan updates and air quality management plans. In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included: South Long Beach Boulevard and Imperial Highway (Lynwood); Wilshire Boulevard and Veteran Avenue (Westwood); Sunset Boulevard and Highland Avenue (Hollywood); and La Cienega Boulevard and Century Boulevard (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vehicles per day. The Los Angeles County Metropolitan Transportation Authority evaluated the Level of Service in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be Level of Service E during the morning peak hour and Level of Service F during the afternoon peak hour.

The TIA showed that the project would generate a net of approximately 100 daily vehicle trips and did not meet the County's threshold for a full transportation assessment. Therefore, as the project's traffic volumes would fall far short of 100,000 vehicles, no CO "hot spot" modeling was performed and no significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

i) Local Air Quality Impacts from On-Site Operations

Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, on-site usage of natural gas appliances as well as the operation of vehicles on-site may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The nearest sensitive receptors to the project site are: the single-family residential use located off of Angeles Trail Way and Valley Vista Way, approximately 0.45 miles (725 meters) northwest of the western project boundary and the scattered single-family residential uses located approximately 0.28 miles (443 meters) east of the eastern project boundary.

According to SCAQMD LST methodology, LSTs would apply to the operational phase of a project, if the project includes stationary sources, or attracts mobile sources (such as heavy-duty trucks) that may spend long periods queuing and idling at the site; such as industrial warehouse/transfer facilities. The proposed project consists of a transitional care facility for families and seniors experiencing homelessness , and does not include such uses. Therefore, due the lack of stationary source emissions, no long-term localized significance threshold analysis is warranted.

C. Operations-Related Odor Impacts

Potential sources that may emit odors during the on-going operations of the proposed project would include odor emissions from the intermittent diesel delivery truck emissions and trash storage areas. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402 no significant impact related to odors would occur during the on-going operations of the proposed project.

7. CUMULATIVE AIR QUALITY IMPACTS

There are a number of cumulative projects in the project area that have not yet been built or are currently under construction. Since the timing or sequencing of the cumulative projects is unknown, any quantitative analysis to ascertain daily construction emissions that assumes multiple, concurrent construction projects would be speculative. Further, cumulative projects include local development as well as general growth within the project area. However, as with most development, the greatest source of emissions is from mobile sources, which travel well out of the local area. Therefore, from an air quality

standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered would cover an even larger area. The SCAQMD recommends using two different methodologies: (1) that project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality;[11] and (2) that a project's consistency with the current AQMP be used to determine its potential cumulative impacts.

A. Project Specific Impacts

The project area is out of attainment for ozone and in 2019 was out of attainment for PM10, as indicated in Table 3. Construction and operation of cumulative projects will further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on the quality of regional air quality will be the incremental addition of pollutants mainly from increased traffic volumes from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. However, in accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. As stated previously, the Air Basin is currently in non-attainment for ozone, PM10, and PM2.5.

The project would result in the emission of criteria pollutants for which the region is in nonattainment during both construction and operation. The emissions from construction of the project are not predicted to exceed any applicable SCAQMD regional or local impact threshold and therefore, are not expected to result in ground level concentrations that exceed the NAAQS or CAAQS. Therefore, the project would not result in a cumulatively considerable net increase for non-attainment pollutants or ozone precursors and would result in a less than significant impact for construction emissions.

Project operations would generate emissions of NOx, ROG, CO, PM10, and PM2.5, which would not exceed the SCAQMD regional or local thresholds and would not be expected to result in ground level concentrations that exceed the NAAQS or CAAQS. Since the project would not introduce any substantial stationary sources of emissions, CO is the benchmark pollutant for assessing local area air quality impacts from post-construction motor vehicle operations. As indicated earlier, no violations of the state and federal CO standards are projected to occur for the project, based on the magnitude of traffic the project is anticipated to create. Therefore, operation of the project would not result in a cumulatively considerable net increase for non-attainment of criteria pollutants or ozone precursors. As a result, the project would result in a less than significant cumulative impact for operational emissions.

[11] *South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution White Paper, 1993, http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook.*

B. Air Quality Compliance

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and Regional Plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD Air Quality Management Plan (AQMP). Therefore, this section discusses any potential inconsistencies of the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended General Plan Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP". Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

(2) Whether the project will exceed the assumptions in the AQMP in 2022 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated below.

i) Air Quality Compliance Analysis

a) Criteria 1 – Increase in the Frequency or Severity of Violations

Based on the air quality modeling analysis contained in this Air Quality Analysis, short-term construction impacts will not result in significant impacts based on the SCAQMD regional and local thresholds of significance. This Air Analysis also found that long-term operations impacts will not result in significant impacts based on the SCAQMD local and regional thresholds of significance.

Therefore, the proposed project is not projected to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

b) Criteria 2 – Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The 2020-2045 Regional Transportation/Sustainable Communities Strategy prepared by SCAG (2020) includes chapters on: the challenges in a changing region, creating a plan for our future, and the road to greater mobility and sustainable growth. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA.

For this project, the County of Los Angeles General Plan defines the assumptions that are represented in the AQMP.

The County General Plan 2035's land use designation for the Project Site is RL1 (Rural Land 1) within the County's Kagel/Lopez Canyons community area. Additionally, the Project Site is zoned A-2-2 (Heavy Agriculture – Two-Acre Minimum Required Lot Area) within the Mount Gleason zoned district. Adult residential facilities having seven or more persons are defined in the Los Angeles County Zoning Code Section 22.24.030 as uses requiring a CUP in the A-2-2 zone. The existing use of the Project Site conforms to General Plan and zoning requirements and the project proposes the expansion of the existing use. Therefore, the proposed project is consistent with the existing zoning/land use, would not exceed the AQMP assumptions for the project site, and is found to be consistent with the AQMP for the second criterion. Based on the above, the proposed project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact will occur.

III. GLOBAL CLIMATE CHANGE ANALYSIS

1. EXISTING GREENHOUSE GAS ENVIRONMENT

Constituent gases of Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in Earth's radiation amount by trapping infrared radiation emitted from Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Transportation is responsible for 41 percent of the State's greenhouse gas emissions, followed by electricity generation. Emissions of CO_2 and nitrous oxide (NOx) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the greenhouse gases and their global warming potential.

A. Water Vapor

Water vapor is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to "hold" more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop". The extent to which this positive feedback loop will continue is unknown as there is also dynamics that put the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

B. Carbon Dioxide (CO_2)

The natural production and absorption of CO_2 is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s. Each of these activities has increased in scale and distribution. CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, concentrations were fairly stable at 280 parts per million (ppm). The International Panel on Climate Change (IPCC Fifth Assessment Report, 2014) Emissions of CO_2 from fossil fuel combustion and industrial processes contributed about 78% of the total GHG emissions increase from 1970 to 2010, with a similar percentage contribution for the increase during the period 2000 to 2010. Globally, economic and population growth continued to be the most important drivers of increases in CO_2 emissions from fossil fuel combustion. The contribution of population growth between 2000 and 2010 remained roughly identical to the previous three decades, while the contribution of economic growth has risen sharply.

C. Nitrous Oxide (N_2O)

Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration of this GHG was documented at 314 parts per billion (ppb). N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is also commonly used as an aerosol spray propellant, (i.e., in whipped cream bottles, in potato chip bags to keep chips fresh, and in rocket engines and in race cars).

D. Hydrofluorocarbons (HFC)

HFCs are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

E. Perfluorocarbons (PFC)

PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two

common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). Concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

F. Sulfur Hexafluoride (SF_6)

SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 has the highest global warming potential of any gas evaluated; 23,900 times that of CO_2. Concentrations in the 1990s where about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

G. Aerosols

Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

H. Global Warming Potential

The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of carbon dioxide (CO_2). The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that time period. The time period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gases (e.g., to compile a national GHG inventory), and allows policymakers to compare emissions reduction opportunities across sectors and gases. A summary of the atmospheric lifetime and the global warming potential of selected gases are summarized in **Table 9, Global Warming Potentials and Atmospheric Lifetimes**. As shown in **Table 9,** the global warming potential of GHGs ranges from 1 to 22,800.

Table 9
Global Warming Potentials and Atmospheric Lifetimes

Gas	Atmospheric Lifetime	Global Warming Potential[1] (100 Year Horizon)
Carbon Dioxide (CO_2)	—[2]	1
Methane (CH_4)	12	28-36
Nitrous Oxide (NO)	114	298
Hydrofluorocarbons (HFCs)	1-270	12-14,800
Perfluorocarbons (PFCs)	2,600-50,000	7,390-12,200
Nitrogen trifluoride (NF_3)	740	17,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

Notes:
(1) Compared to the same quantity of CO_2 emissions.
(2) Carbon dioxide's lifetime is poorly defined because the gas is not destroyed over time, but instead moves among different parts of the ocean–atmosphere–land system. Some of the excess carbon dioxide will be absorbed quickly (for example, by the ocean surface), but some will remain in the atmosphere for thousands of years, due in part to the very slow process by which carbon is transferred to ocean sediments.

Source: http://www3.epa.gov/climatechange/ghgemissions/gases.html

2. GREENHOUSE GAS STANDARDS AND REGULATION

A. International

i) Montreal Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change (IPCC) to evaluate the impacts of global climate change and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan consists of more than 50 voluntary programs.

Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere—CFCs, halons, carbon tetrachloride, and methyl chloroform—were to be phased out, with the first three by the year 2000 and methyl chloroform by 2005.

ii) The Paris Agreement

The Paris Agreement became effective on November 4, 2016. Thirty days after this date at least 55 Parties to the United Nations Framework Convention on Climate Change (Convention), accounting in total for at least an estimated 55 % of the total global greenhouse gas emissions, had deposited their instruments of ratification, acceptance, approval, or accession with the Depositary.

The Paris Agreement built upon the Convention and – for the first time – attempted to bring all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort.

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework.

B. Federal

The United States Environmental Protection Agency (USEPA) is responsible for implementing federal policy to address GHGs. The federal government administers a wide array of public-private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The USEPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the ENERGY STAR labeling system for energy-efficient products) play a significant role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

In Massachusetts v. Environmental Protection Agency (Docket No. 05–1120), argued November 29, 2006 and decided April 2, 2007, the U.S. Supreme Court held that not only did the EPA have authority to regulate greenhouse gases, but the EPA's reasons for not regulating this area did not fit the statutory requirements. As such, the U.S. Supreme Court ruled that the EPA should be required to regulate CO_2 and other greenhouse gases as pollutants under the federal Clean Air Act (CAA).

In response to the FY2008 Consolidations Appropriations Act (H.R. 2764; Public Law 110-161), EPA proposed a rule on March 10, 2009 that requires mandatory reporting of GHG emissions from large sources in the United States. On September 22, 2009, the Final Mandatory Reporting of GHG Rule was signed and published in the Federal Register on October 30, 2009. The rule became effective on December 29, 2009. This rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions to submit annual reports to EPA.

On December 7, 2009, the EPA Administrator signed two distinct findings under section 202(a) of the Clean Air Act. One is an endangerment finding that finds concentrations of the six GHGs in the atmosphere threaten the public health and welfare of current and future generations. The other is a cause or contribute finding, that finds emissions from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare. These actions will not themselves impose any requirements on industry or other entities. However, it is a prerequisite to finalizing the EPA's proposed GHG emission standards for light-duty vehicles, which were jointly proposed by the EPA and Department of Transportation on September 15, 2009.

i) Clean Air Act

In Massachusetts v. Environmental Protection Agency (Docket No. 05–1120), the U.S. Supreme Court held in April of 2007 that the USEPA has statutory authority under Section 202 of the federal Clean Air Act (CAA) to regulate GHGs. The court did not hold that the USEPA was required to regulate GHG emissions; however, it indicated that the agency must decide whether GHGs cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare. On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA. The USEPA adopted a Final Endangerment Finding for the six defined GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) on December 7, 2009. The Endangerment Finding is required before USEPA can regulate GHG emissions under Section 202(a)(1) of the CAA consistently with the United States Supreme Court decision. The USEPA also adopted a Cause or Contribute Finding in which the USEPA Administrator found that GHG emissions from new motor vehicle and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. These findings do not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

ii) Energy Independence Security Act

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;

- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green jobs.[8]

iii) Executive Order 13432

In response to the Massachusetts v. Environmental Protection Agency ruling, the President signed Executive Order 13432 on May 14, 2007, directing the USEPA, along with the Departments of Transportation, Energy, and Agriculture, to initiate a regulatory process that responds to the Supreme Court's decision. Executive Order 13432 was codified into law by the 2009 Omnibus Appropriations Law signed on February 17, 2009. The order sets goals in the areas of energy efficiency, acquisition, renewable energy, toxics reductions, recycling, sustainable buildings, electronics stewardship, fleets, and water conservation. Light-Duty Vehicle Greenhouse Gas and Corporate Average Fuel Economy Standards.

On May 19, 2009, President Obama announced a national policy for fuel efficiency and emissions standards in the United States auto industry. The adopted federal standard applies to passenger cars and light-duty trucks for model years 2012 through 2016. The rule surpasses the prior Corporate Average Fuel Economy standards (CAFE)[9] and requires an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO2 per mile by model year 2016, based on USEPA calculation methods. These standards were formally adopted on April 1, 2010. In August 2012, standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. By 2025, vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO2 per mile. According to the USEPA, a model year 2025 vehicle would emit one-half of the GHG emissions

[8] *A green job, as defined by the United States Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.*

[9] *The Corporate Average Fuel Economy standards are regulations in the United States, first enacted by Congress in 1975, to improve the average fuel economy of cars and light trucks. The U.S Department of Transportation has delegated the National Highway Traffic Safety Administration as the regulatory agency for the Corporate Average Fuel Economy standards.*

from a model year 2010 vehicle.[10] In 2017, the USEPA recommended no change to the GHG standards for light-duty vehicles for model years 2022-2025.

In August 2018, the USEPA and NHTSA proposed the Safer Affordable Fuel-Efficient Vehicles Rule that would, if adopted, maintain the CAFE and CO2 standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE and CO2 standards for model year 2020 are 43.7 mpg and 204 grams of CO2 per mile for passenger cars and 31.3 mpg and 284 grams of CO2 per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. The proposal, if adopted, would also exclude CO2- equivalent emission improvements associated with air conditioning refrigerants and leakage (and, optionally, offsets for nitrous oxide and methane emissions) after model year 2020.[11]

On May 12, 2021, the National Highway Traffic Safety Administration (NHTSA) published a notice of proposed rulemaking in the Federal Register, proposing to repeal "The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program," published Sept. 27, 2019 (SAFE I Rule), in which NHTSA codified regulatory text and made additional pronouncements regarding the preemption of state and local laws related to fuel economy standards. Specifically, this document proposes to fully repeal the regulatory text and appendices promulgated in the SAFE I Rule. In addition, this document proposes to repeal and withdraw the interpretative statements made by the Agency in the SAFE I Rule preamble, including those regarding the preemption of particular state Greenhouse Gas (GHG) Emissions standards or Zero Emissions Vehicle (ZEV) mandates. As such, this document proposes to establish a clean slate with respect to NHTSA's regulations and interpretations concerning preemption under the Energy Policy and Conservation Act (EPCA).[12]

C. State of California

i) California Air Resources Board

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets state ambient air quality standards (California Ambient Air

[10] *United States Environmental Protection Agency, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks, August 2012, https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EZ7C.PDF?Dockey=P100EZ7C.PDF.*

[11] *National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA), 2018. Federal Register / Vol. 83, No. 165 / Friday, August 24, 2018 / Proposed Rules, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks 2018. Available at: https://www.gpo.gov/fdsys/pkg/FR-2018-08-24/pdf/2018-16820.pdf.*

[12] *https://www.federalregister.gov/documents/2021/05/12/2021-08758/corporate-average-fuel-economy-cafe-preemption*

Quality Standards [CAAQS]), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

In 2004, the California Air Resources Board (CARB) adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants (Title 13 California Code of Regulations [CCR], Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure generally does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given location with certain exemptions for equipment in which idling is a necessary function such as concrete trucks. While this measure primarily targets diesel particulate matter emissions, it has co-benefits of minimizing GHG emissions from unnecessary truck idling.

In 2008, CARB approved the Truck and Bus regulation to reduce particulate matter and nitrogen oxide emissions from existing diesel vehicles operating in California (13 CCR, Section 2025, subsection (h)). CARB has also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation, adopted by the CARB on July 26, 2007, aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. While these regulations primarily target reductions in criteria air pollutant emission, they have co-benefits of minimizing GHG emissions due to improved engine efficiencies.

The State currently has no regulations that establish ambient air quality standards for GHGs. However, the State has passed laws directing CARB to develop actions to reduce GHG emissions, which are listed below.

ii) Assembly Bill 1493

California Assembly Bill 1493 enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2005, the CARB submitted a “waiver” request to the EPA from a portion of the federal Clean Air Act in order to allow the State to set more stringent tailpipe emission standards for CO_2 and other GHG emissions from passenger vehicles and light duty trucks. On December 19, 2007 the EPA announced that it denied the “waiver” request. On January 21, 2009, CARB submitted a letter to the EPA administrator regarding the State’s request to reconsider the waiver denial. The EPA approved the waiver on June 30, 2009. EPA’s recent withdrawal of the waiver was upheld by the Ninth Circuit on February 10, 2021. Per CARB, while the federal action is in effect, CARB will administer the zero-emission vehicle program on a voluntary basis.

After adopting these initial greenhouse gas standards for passenger vehicles, CARB adopted continuing standards for future model years.

iii) Executive Order S-3-05

The California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs.

iv) Executive Order N-79-20

Executive Order N-79-20 Signed in September 2020, Executive Order N-79-20 establishes as a goal that where feasible, all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035. The executive order sets a similar goal requiring that all medium and heavy-duty vehicles will be zero-emission by 2045 where feasible. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment "requiring increasing volumes" of new zero emission vehicles (ZEVs) "towards the target of 100 percent." The executive order directs the California Environmental Protection Agency, the California Geologic Energy Management Division (CalGEM), and the California Natural Resources Agency to transition and repurpose oil production facilities with a goal toward meeting carbon neutrality by 2045. Executive Order N-79-20 builds upon the CARB Advanced Clean Trucks regulation, which was adopted by CARB in July 2020.

v) Assembly Bill 32 (California Health and Safety Code, Division 25.2. – California Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code [HSC], Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. HSC Division 25.5 defines GHGs as CO2, CH4, N2O, HFCs, PFCs, and SF6 and represents the first enforceable statewide program to limit emissions of

these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under HSC Division 25.5, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020.

vi) Senate Bill 32 and Assembly Bill 197

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 and AB 197 amends HSC Division 25.5 and establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and includes provisions to ensure the benefits of state climate policies reach into disadvantaged communities.

vii) Climate Change Scoping Plan (2008)

A specific requirement of AB 32 was to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020 (Health and Safety Code section 38561 (h)). CARB developed an AB 32 Scoping Plan that contains strategies to achieve the 2020 emissions cap. The initial Scoping Plan was approved in 2008, and contains a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the State's long-range climate objectives.

As required by HSC Division 25.5, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was originally set at 427 MMTCO2e using the GWP values from the IPCC SAR. CARB also projected the state's 2020 GHG emissions under no-action-taken (NAT) conditions – that is, emissions that would occur without any plans, policies, or regulations to reduce GHG emissions. CARB originally used an average of the state's GHG emissions from 2002 through 2004 and projected the 2020 levels at approximately 596 MMTCO2e (using GWP values from the IPCC SAR). Therefore, under the original projections, the state must reduce its 2020 NAT emissions by 28.4 percent in order to meet the 1990 target of 427 MMTCO2e.

viii) First Update to the Climate Change Scoping Plan (2014)

The First Update to the Scoping Plan was approved by CARB in May 2014 and builds upon the initial Scoping Plan with new strategies and recommendations. In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 MMTCO2e. CARB also updated the State's 2020 NAT emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that were recently adopted for motor vehicles and renewable

energy. CARB's projected statewide 2020 emissions estimate using the GWP values from the IPCC AR4 is 509.4 MMTCO2e.

ix) 2017 Climate Change Scoping Plan

In response to the 2030 GHG reduction target, CARB adopted the 2017 Climate Change Scoping Plan at a public meeting held in December 2017. The 2017 Scoping Plan outlines the strategies the State will implement to achieve the 2030 GHG reduction target of 40 percent below 1990 levels. The 2017 Scoping Plan also addresses GHG emissions from natural and working lands of California, including the agriculture and forestry sectors. The 2017 Scoping Plan considered the Scoping Plan Scenario and four alternatives for achieving the required GHG reductions but ultimately selected the Scoping Plan Scenario.

CARB states that the Scoping Plan Scenario "is the best choice to achieve the State's climate and clean air goals." [13] Under the Scoping Plan Scenario, the majority of the reductions would result from the continuation of the Cap-and-Trade regulation. Additional reductions are achieved from electricity sector standards (i.e., utility providers to supply at least 50 percent renewable electricity by 2030), doubling the energy efficiency savings at end uses, additional reductions from the LCFS, implementing the short-lived GHG strategy (e.g., hydrofluorocarbons), and implementing the mobile source strategy and sustainable freight action plan. The alternatives were designed to consider various combinations of these programs, as well as consideration of a carbon tax in the event the Cap-and-Trade regulation is not continued. However, in July 2017, the California Legislature voted to extend the Cap-and-Trade regulation to 2030. Implementing this Scoping Plan will ensure that California's climate actions continue to promote innovation, drive the generation of new jobs, and achieve continued reductions of smog and air toxics. The ambitious approach draws on a decade of successful programs that address the major sources of climate-changing gases in every sector of the economy:

- More Clean Cars and Trucks: The plan sets out far-reaching programs to incentivize the sale of millions of zero-emission vehicles, drive the deployment of zero-emission trucks, and shift to a cleaner system of handling freight statewide.
- Increased Renewable Energy: California's electric utilities are ahead of schedule meeting the requirement that 33 percent of electricity come from renewable sources by 2020. The Scoping Plan guides utilities to 50 percent renewables, as required under SB 350.
- Slashing Super-Pollutants: The plan calls for a significant cut in super-pollutants such as methane and HFC refrigerants, which are responsible for as much as 40 percent of global warming.

[13] *California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf*

- Cleaner Industry and Electricity: California's renewed cap-and-trade program extends the declining cap on emissions from utilities and industries and the carbon allowance auctions. The auctions will continue to fund investments in clean energy and efficiency, particularly in disadvantaged communities.
- Cleaner Fuels: The Low Carbon Fuel Standard will drive further development of cleaner, renewable transportation fuels to replace fossil fuels.
- Smart Community Planning: Local communities will continue developing plans which will further link transportation and housing policies to create sustainable communities.
- Improved Agriculture and Forests: The Scoping Plan also outlines innovative programs to account for and reduce emissions from agriculture, as well as forests and other natural lands.

The 2017 Scoping Plan also evaluates reductions of smog-causing pollutants through California's climate programs.

x) 2022 Climate Change Scoping Plan

CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality on November 16, 2022. The 2022 Scoping Plan lays out the sector-by-sector roadmap for California, the world's fifth largest economy, to achieve carbon neutrality by 2045 or earlier, outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state's climate target. The Plan addresses recent legislation and direction from Governor Newsom and extends and expands upon earlier plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. The plan also takes the unprecedented step of adding carbon neutrality as a science-based guide and touchstone for California's climate work. Specifically, this plan:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as driving principles throughout the document.

- Incorporates the contribution of natural and working lands (NWL) to the state's GHG emissions, as well as their role in achieving carbon neutrality.
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture.
- Evaluates the substantial health and economic benefits of taking action.
- Identifies key implementation actions to ensure success.

xi) Senate Bill 32, California Global Warming Solutions Act 2006

(1) The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases. The state board is required to approve a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions level in 1990 to be achieved by 2020 and to adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective greenhouse gas emissions reductions. This bill would require the state board to ensure that statewide greenhouse gas emissions are reduced to 40% below the 1990 level by 2030.

(2) This bill would become operative only if AB 197 of the 2015–16 Regular Session is enacted and becomes effective on or before January 1, 2017. AB 197 requires that the California Air Resources Board, which directs implementation of emission-reduction programs, should target direct reductions at both stationary and mobile sources. AB 197 of the 2015-2016 Regular Session was approved on September 8, 2016.

xii) Executive Order S-1-07

Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs the CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard and began implementation on January 1, 2011. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. CARB approved some amendments to the LCFS in December 2011, which were implemented on January 1, 2013. In September 2015, the Board approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural

deficiencies in the way the original regulation was adopted. In 2018, the Board approved amendments to the regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector.

The LCFS is designed to encourage the use of cleaner low-carbon transportation fuels in California, encourage the production of those fuels, and therefore, reduce GHG emissions and decrease petroleum dependence in the transportation sector. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded", with more reductions required in the last five years, than during the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

xiii) Senate Bill 97

Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to the CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009, the Natural Resources Agency adopted amendments to the state CEQA guidelines that address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporate GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance were provided and no specific mitigation measures were identified. The GHG emission reduction amendments went into effect on March 18, 2010, and are summarized below:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation".
- OPR's emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

xiv) Senate Bill 100

Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) which changed the target date to 2010. Executive Order S-14-08, which was signed on November 2008 and expanded the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

xv) Senate Bill 375

Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). The CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. The CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG) jurisdiction, which has authority to develop the SCS or APS. For the SCAG region, the targets set by the CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 19 percent below 2005 per capita GHG emissions levels by 2035. These reduction targets became effective October 2018.

xvi) Senate Bill X7-7

Senate Bill X7-7 (SB X7-7), enacted on November 9, 2009, mandates water conservation targets and efficiency improvements for urban and agricultural water suppliers. SB X7-7 requires the Department of Water Resources (DWR) to develop a task force and technical panel to develop alternative best management practices for the water sector. In addition, SB X7-7 required the DWR to develop criteria for baseline uses for residential, commercial, and industrial uses for both indoor and landscaped area uses. The DWR was also required to develop targets and regulations that achieve a statewide 20 percent reduction in water usage.

xvii) Assembly Bill 939 and Senate Bill 1374

Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling, or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004, suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

xviii) California Code of Regulations (CCR) Title 24, Part 6

CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy

consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008, and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. CalEEMod modeling defaults to 2008 standards. 2013 Standards were approved and have been effective since July 1, 2014. 2016 Standards were adopted January 1, 2017. 2019 standards were published July 1, 2019 and became effective January 1, 2020. All buildings for which an application for a building permit is submitted on or after January 1, 2020 must follow the 2019 standards. The 2016 residential standards were estimated to be approximately 28 percent more efficient than the 2013 standards, whereas the 2019 residential standards were estimated to be approximately 7 percent more efficient than the 2016 standards. Furthermore, once rooftop solar electricity generation is factored in, 2019 residential standards were estimated to be approximately 53 percent more efficient than the 2016 standards. Under the 2019 standards, nonresidential buildings are estimated to be approximately 30 percent more efficient than the 2016 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

Per Section 100 Scope, the 2019 Title 24, Part 6 Building Code now requires healthcare facilities, such as assisted living facilities, hospitals, and nursing homes, to meet documentation requirements of Title 24, Part 1 Chapter 7 – Safety Standards for Health Facilities. A healthcare facility is defined as any building or portion thereof licensed pursuant to California Health and Safety Code Division 2, Chapter 1, Section 1204 or Chapter 2, Section 1250. Section 120.1 Ventilation and Indoor Air Quality included both additions and revisions in the 2019 Code. This section now requires nonresidential and hotel/motel buildings to have air filtration systems that use forced air ducts to supply air to occupiable spaces to have air filters. Further, the air filter efficiency must be either MERV 13 or use a particle size efficiency rating specific in the Energy Code AND be equipped with air filters with a minimum 2-inch depth or minimum 1-inch depth if sized according to the equation 120.1-A. If natural ventilation is to be used the space must also use mechanical unless ventilation openings are either permanently open or controlled to stay open during occupied times. The 2019 version of the Code also completely revised the minimum ventilation requirements including DVC airflow rates within Section 120.1 Table 120.1–A. Table 120.1-A now includes air classification and recirculation limitations, these are based on either the number of occupants or the CFM/ft^2 (cubic feet per minute per square foot), whichever is greater.

Section 120.1 Ventilation and Indoor Air Quality also included additions for high-rise residential buildings. Requirements include that mechanical systems must provide air filters that and that air filters must be MERV 13 or use a particle size efficiency rating specified in the Energy Code. Window operation is no

longer a method allowed to meet ventilation requirements, continuous operation of central forced air system handlers used in central fan integrated ventilation system is not a permissible method of providing the dwelling unit ventilation airflow, and central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow to each dwelling unit. In addition, requirements for kitchen range hoods were also provided in the updated Section 120.1.

Per Section 120.1(a) healthcare facilities must be ventilated in accordance with Chapter 4 of the California Mechanical Code and are NOT required to meet the ventilations requirements of Title 24, Part 6. Section 140.4 Space Conditioning Systems included both additions and revisions within the 2019 Code. The changes provided new requirements for cooling tower efficiency, new chilled water-cooling system requirements, as well as new formulas for calculating allowed fan power. Section 140.4(n) also provide a new exception for mechanical system shut-offs for high-rise multifamily dwelling units, while Section 140.4(o) added new requirements for conditioned supply air being delivered to space with mechanical exhaust.

Section 120.6 Covered Processes added information in regards to adiabatic chiller requirements that included that all condenser fans for air-cooled converseness, evaporative-cooled condensers, adiabatic condensers, gas coolers, air or water fluid coolers or cooling towers must be continuously variable speed, with the speed of all fans serving a common condenser high side controlled in unison .Further, the mid-condensing setpoint must be 70 degrees Fahrenheit for all of the above mentioned systems.

New regulations were also adopted under Section 130.1 Indoor Lighting Controls. These included new exceptions being added for restrooms, the exception for classrooms being removed, as well as exceptions in regards to sunlight provided through skylights and overhangs.

Section 130.2 Outdoor Lighting Controls and Equipment added automatic scheduling controls which included that outdoor lighting power must be reduced by 50 to 90 percent, turn the lighting off during unoccupied times and have at least two scheduling options for each luminaire independent from each other and with a 2-hour override function. Furthermore, motion sensing controls must have the ability to reduce power within 15 minutes of area being vacant and be able to come back on again when occupied. An exception allows for lighting subject to a health or life safety statute, ordinance, or regulation may have a minimum time-out period longer than 15 minutes or a minimum dimming level above 50% when necessary to comply with the applicable law.

The 2022 Building Energy Efficiency Standards will become effective on January 1, 2023. [14] The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into onsite generation

[14] *California Energy Commission (CEC). 2022. Building Energy Efficiency Standards. https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency.*

by requiring solar PV on new homes, providing significant GHG savings. The 2022 update builds off this progress with expanded solar standards and the move to onsite energy storage that will help Californians save on utility bills while bolstering the grid. The 2022 Energy Code update focuses on four key areas in new construction of homes and businesses:

- Encouraging electric heat pump technology and use, which consumes less energy and produces fewer emissions than traditional HVACs and water heaters.
- Establishing electric-ready requirements when natural gas is installed, which positions owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options whenever they choose to adopt those technologies.
- Expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available onsite and complement the state's progress toward a 100 percent clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

The 2022 Energy Code affects homes by establishing energy budgets based on efficient heat pumps for space or water heating to encourage builders to install heat pumps over gas-fueled HVAC units; requiring homes to be electric-ready, with dedicated 240-volt outlets and space (with plumbing for water heaters) so electric appliances can eventually replace installed gas appliances; increasing minimum kitchen ventilation requirements so that fans over cooktops have higher airflow or capture efficiency to better exhaust pollution from gas cooking and improve indoor air quality; and allowing exceptions to existing solar PV standards when roof area is not available (such as for smaller homes). In addition, the effect on businesses includes establishing combined solar PV and battery standards for select businesses with systems being sized to maximize onsite use of solar energy and avoid electricity demand during times when the grid must use gas-powered plants; establishing new efficiency standards for commercial greenhouses (primarily cannabis growing); and improving efficiency standards for building envelope, various internal systems, and grid integration equipment, such as demand-responsive controls to buoy grid stability.[15,16]

xix) California Code of Regulations (CCR) Title 24, Part 11

CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy

[15] *https://www.lightnowblog.com/2021/08/california-energy-commission-adopts-2022-building-energy-efficiency-standards/*

[16] *State of California Energy Commission. 2022 Building Energy Efficiency Standards Summary. https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf*

consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008, and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. 2013 Standards were approved and were effective July 1, 2014. 2016 Standards were adopted January 1, 2017. 2019 standards were published July 1, 2019 and became effective January 1, 2020.

All buildings for which an application for a building permit is submitted on or after January 1, 2020 must follow the 2019 standards. The 2016 residential standards were estimated to be approximately 28 percent more efficient than the 2013 standards, whereas the 2019 residential standards are estimated to be approximately 7 percent more efficient than the 2016 standards. Furthermore, once rooftop solar electricity generation is factored in, 2019 residential standards are estimated to be approximately 53 percent more efficient than the 2016 standards. Under the 2019 standards, nonresidential buildings are estimated to be approximately 30 percent more efficient than the 2016 standards[17]. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

xx) California Green Building Standards

2022 CALGreen Code: During the 2022-2023 fiscal year, the Department of Housing and Community Development (HCD) updated CALGreen through the 2021 Triennial Code Adoption Cycle. The 2022 Cal green code built upon both the 2016 and the 2019 code.

a) 2016

In 2016 HCD adopted three new definitions related to electric vehicle charging regulations. These definitions provided clarity to the code user as to the differences between an electric vehicle charging space and an electric vehicle charging station. HCD replaced the term “electric vehicle charging stations” with “electric vehicle charging spaces” since the term “electric vehicle charging space” better describes a space available for future installation of electric vehicle supply equipment, but with no electric vehicle charger installed.

[17] *California Energy Commission, Efficiency Division, 2019 Building Energy Efficiency Standards, Frequently Asked Questions, website: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf, accessed: December 11, 2020.*

HCD also increased the required construction waste reduction from 50 percent to 65 percent of the total building site waste. This increase aids in meeting CalRecycle's statewide solid waste recycling goal of 75 percent for 2020 as stated in Chapter 476, Statutes of 2011 (AB 341). HCD adopted new regulations requiring recycling areas for multifamily projects of five or more dwelling units. This regulation requires developers to provide readily accessible areas adequate in size to accommodate containers for depositing, storage and collection of non-hazardous materials (including organic waste) for recycling. This requirement assists businesses that were required as of April 1, 2016, to meet the requirements of Chapter 727, Statutes of 2014 (AB 1826).

HCD adopted new regulations to require information on photovoltaic systems and electric vehicle chargers to be included in operation and maintenance manuals. Currently, CALGreen section 4.410.1 Item 2(a) requires operation and maintenance instructions for equipment and appliances. Photovoltaic systems and electric vehicle chargers are systems that play an important role in many households in California, and their importance is increasing every day. HCD incorporated these two terms in the existing language in order to provide clarity to code users as to additional systems requiring operation and maintenance instructions.

HCD updated the reference to Clean Air Standards of the United States Environmental Protection Agency applicable to woodstoves and pellet stoves. HCD also adopted a new requirement for woodstoves and pellet stoves to have a permanent label indicating they are certified to meet the emission limits. This requirement provides clarity to the code user and is consistent with the United States Environmental Protection Agency's New Source Performance Standards. HCD updated the list of standards which can be used for verification of compliance for exterior grade composite wood products. This list now includes four standards from the Canadian Standards Association (CSA): CSA O121, CSA O151, CSA O153 and CSA O325. HCD updated heating and air-conditioning system design references to the ANSI/ACCA 2 Manual J, ANSI/ACCA 1 Manual D, and ANSI/ACCA 3 Manual S to the most recent versions approved by ANSI. HCD adopted a new elective measure for hot water recirculation systems for water conservation. The United States Department of Energy estimates that 3,600 to 12,000 gallons of water per year can be saved by the typical household (with four points of hot water use) if a hot water recirculation system is installed.

b) 2019

2019 CALGreen Code: During the 2019-2020 fiscal year, the HCD updated CALGreen through the 2019 Triennial Code Adoption Cycle.

HCD modified the best management practices for stormwater pollution prevention adding Section 5.106.2 for projects that disturb one or more acres of land. This section requires projects that disturb one acre or more of land or less than one acre of land but are part of a larger common plan of development or sale must comply with the postconstruction requirement detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with

Construction and Land Disturbance Activities issued by the State Water Resources Control Board. The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff pre-project hydrology) with installation of postconstruction stormwater management measures.

HCD added sections 5.106.4.1.3 and 5.106.4.1.5 in regards to bicycle parking. Section 5.106.4.1.3 requires new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. In addition, Section 5.106.4.1.5 states that acceptable bicycle parking facility for Sections 5.106.4.1.2 through 5.106.4.1.4 shall be convenient from the street and shall meeting one of the following: (1) covered, lockable enclosures with permanently anchored racks for bicycles; (2) lockable bicycle rooms with permanently anchored racks; or (3) lockable, permanently anchored bicycle lockers.

HCD amended section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles.

HCD updated section 5.303.3.3 in regards to showerhead flow rates. This update reduced the flow rate to 1.8 GPM.

HCD amended section 5.304.1 for outdoor potable water use in landscape areas and repealed sections 5.304.2 and 5.304.3. The update requires nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resource's' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. Some updates were also made in regards to the outdoor potable water use in landscape areas for public schools and community colleges.

HCD updated Section 5.504.5.3 in regards to the use of MERV filters in mechanically ventilated buildings. This update changed the filter use from MERV 8 to MERV 13. MERV 13 filters are to be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

c) 2022

The 2022 California Green Building Standards Code will become effective on January 1, 2023.[18]

HCD amended Section 5.106.5.3 in regard to increasing the EV capable space percentages and adding a new requirement for installed Level 2 DCFC chargers.

HCD under Section 5.106.5.4 added new regulation for electric vehicle charging readiness requirements for new construction of warehouse, grocery stores, and retail stores with planned off-street loading spaces. [19]

[18] *California Building Standards Commission (CBSC). 2022. California Green Building Standards. Website: https://codes.iccsafe.org/content/CAGBC2022P1.*

[19] *https://www.dgs.ca.gov/BSC/Resources/2022-Title-24-California-Code-Changes*

xxi) Executive Order B-30-15

On April 29, 2015, Governor Brown issued Executive Order B-30-15. Therein, the Governor directed the following:

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

xxii) Executive Order B-29-15

Executive Order B-29-15, mandates a statewide 25 percent reduction in potable water usage. EO B-29-15 signed into law on April 1, 2015.

xxiii) Executive Order B-37-16

Executive Order B-37-16, continuing the State's adopted water reductions, was signed into law on May 9, 2016. The water reductions build off the mandatory 25 percent reduction called for in EO B-29-15.

xxiv) Senate Bill X1 2

Signed into law in April 2011, Senate Bill (SB)X1 2, requires one-third of the State's electricity to come from renewable sources. The legislation increases California's current 20 percent renewables portfolio standard target in 2010 to a 33 percent renewables portfolio standard by December 31, 2020.

xxv) Senate Bill 350

Signed into law October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard (RPS) eligible resources, including solar, wind, biomass, geothermal, and others. In addition, SB 350 requires the state to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. To help ensure these goals are met and the greenhouse gas emission reductions are realized, large utilities will be required to develop and submit Integrated Resource Plans (IRPs). These IRPs will detail how each entity will meet their customers resource needs, reduce greenhouse gas emissions, and ramp up the deployment of clean energy resources.

xxvi) Energy Sector and CEQA Guidelines Appendix F

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods. The 2019 update to the Energy Efficiency Standards for Residential and Nonresidential Buildings focuses on several key areas to improve the energy efficiency of renovations and addition to existing buildings as well as newly constructed buildings and renovations and additions to existing buildings. The major efficiency improvements to the residential Standards involve improvements for attics, walls, water heating, and lighting, whereas the major efficiency improvements to the nonresidential Standards include alignment with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1-2013 national standards. Furthermore, the 2019 update requires that enforcement agencies determine compliance with CCR, Title 24, Part 6 before issuing building permits for any construction.[20]

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality."21 As of January 1, 2011, the CALGreen Code is mandatory for all new buildings constructed in the state. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code was most recently updated in 2022 to include new mandatory measures for residential and nonresidential uses; the new measures took effect on January 1, 2023.

D. Regional – South Coast Air Quality Management District

The project is within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

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[20] *California Energy Commission, 2016 Building Energy Efficiency Standards, June 2015, http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf*

[21] *California Building Standards Commission, 2010 California Green Building Standards Code, (2010).*

i) SCAQMD Regulation XXVII, Climate Change

SCAQMD Regulation XXVII currently includes three rules:

- The purpose of Rule 2700 is to define terms and post global warming potentials.
- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified greenhouse gas emission reductions in the SCAQMD.
- Rule 2702, Greenhouse Gas Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a Greenhouse Gas Reduction Program for greenhouse gas emission reductions in the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

A variety of agencies have developed greenhouse gas emission thresholds and/or have made recommendations for how to identify a threshold. However, the thresholds for projects in the jurisdiction of the SCAQMD remain in flux. The California Air Pollution Control Officers Association explored a variety of threshold approaches, but did not recommend one approach (2008). The ARB recommended approaches for setting interim significance thresholds (California Air Resources Board 2008b), in which a draft industrial project threshold suggests that non-transportation related emissions under 7,000 MTCO2e per year would be less than significant; however, the ARB has not approved those thresholds and has not published anything since then. The SCAQMD is in the process of developing thresholds, as discussed below.

ii) SCAQMD Threshold Development

On December 5, 2008, the SCAQMD Governing Board adopted an interim greenhouse gas significance threshold for stationary sources, rules, and plans where the SCAQMD is lead agency (SCAQMD permit threshold). The SCAQMD permit threshold consists of five tiers. However, the SCAQMD is not the lead agency for this project. Therefore, the five permit threshold tiers do not apply to the proposed project.

The SCAQMD is in the process of preparing recommended significance thresholds for greenhouse gases for local lead agency consideration ("SCAQMD draft local agency threshold"); however, the SCAQMD Board has not approved the thresholds as of the date of the Notice of Preparation. The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.

- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:
  - All land use types: 3,000 MTCO2e per year
  - Based on land use type: residential: 3,500 MTCO2e per year; commercial: 1,400 MTCO2e per year; or mixed use: 3,000 MTCO2e per year.
  - Based on land type: Industrial (where SCAQMD is the lead agency), 10,000 MTCO2e per year.
- Tier 4 has the following options:
  - Option 1: Reduce emissions from business as usual (BAU) by a certain percentage; this percentage is currently undefined.
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures.
  - Option 3, 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO2e/SP/year for projects and 6.6 MTCO2e/SP/year for plans;
  - Option 3, 2035 target: 3.0 MTCO2e/SP/year for projects and 4.1 MTCO2e/SP/year for plans.
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD's draft threshold uses the Executive Order S-3-05 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap carbon dioxide concentrations at 450 ppm, thus stabilizing global climate. Specifically, the Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90 percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to a CEQA analysis, including a negative declaration, a mitigated negative declaration, or an environmental impact report, which includes analyzing feasible alternatives and imposing feasible mitigation measures. A GHG significance threshold based on a 90 percent emission capture rate may be more appropriate to address the long-term adverse impacts associated with global climate change because most projects will be required to implement GHG reduction measures. Further, a 90 percent emission capture rate sets the emission threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This assertion is based on the fact that staff estimates that these GHG emissions would account for slightly less than one percent of future 2050 statewide GHG emissions target (85 MMTCO2eq/year). In addition, these small projects may be subject to future applicable GHG control regulations that would further reduce their overall future contribution to the statewide GHG inventory. Finally, these small sources are already subject to BACT for criteria pollutants and are more likely to be single-permit facilities, so they are more likely to have few opportunities readily available to reduce GHG emissions from other parts of their facility.

E. Local – County of Los Angeles

In August 2015, the County of Los Angeles approved and adopted the *Unincorporated Los Angeles County Community Climate Action Plan 2020*. To reduce the impacts of climate change, the County set a target to reduce GHG emissions from community activities in the unincorporated areas of Los Angeles County by at least 11% below 2010 levels by 2020. This Community Climate Action Plan (CCAP) described the County's plan for achieving this goal, including specific strategy areas for each of the major emissions sectors, and provided details on the 2010 and projected 2020 emissions in the unincorporated areas. The CCAP was a component of the Los Angeles County General Plan.

Implementing State measures and the local measures in the CCAP would avoid the generation of more than 1.9 million metric tons of carbon dioxide equivalent (MTCO2e), which is equivalent to the following actions in 2020 (U.S. Environmental Protection Agency 2014):

- Removing more than 411,000 passenger vehicles from the road.
- Reducing gasoline consumption by more than 220 million gallons.
- Providing renewable energy to power over 178,000 homes.

The actions in the CCAP are priority actions and intended for near-term implementation, such that the County can achieve its GHG reduction goal for 2020 for the unincorporated areas of Los Angeles County.

The County of Los Angeles produced a revised draft of the 2045 Climate Action Plan on March 2023. The *2045 Los Angeles County Climate Action Plan* (2045 CAP) is LA County's path toward meeting the goals of the Paris Agreement and achieving carbon neutrality for unincorporated areas of the County. The 2045 CAP builds on previous climate action work from the Unincorporated Los Angeles County Community Climate Action Plan 2020 (2020 CCAP), adopted in October 2015 as a subcomponent of the Air Quality Element of the Los Angeles County General Plan 2035 (General Plan). The 2045 CAP identifies strategies, measures, and actions to mitigate emissions from community activities, which may include some municipal operations; however, municipal operations are not the focus of this plan.

The 2045 CAP is an update to the 2020 CCAP, and it sets new GHG emissions reduction targets beyond the 2020 time frame that are consistent with state goals. The 2045 CAP includes the following elements:

- A GHG emissions inventory from community-wide activities in unincorporated Los Angeles County in 2018, along with a baseline inventory for 2015.
- Projections of future emissions for 2030, 2035, and 2045.
- GHG reduction targets for 2030 and 2035
- A long-term aspirational goal for carbon neutrality by 2045.

- Climate strategies, measures, and actions to reduce GHG emissions from major sectors.
- Implementation and monitoring measures to ensure successful climate action.

Achieving carbon neutrality will require ambitious climate actions that address GHG emissions from all sectors and sources. To reduce emissions across all sectors, the 2045 CAP establishes two GHG emissions reduction targets and one long-term aspirational goal:

- *Target:* By 2030, reduce GHG emissions by 40 percent below 2015 levels.
- *Target:* By 2035, reduce GHG emissions by 50 percent below 2015 levels.
- *Aspirational Goal:* By 2045, achieve carbon neutrality in unincorporated Los Angeles County.

As the Draft 2045 CAP has not been fully approved and adopted, the adopted 2020 CCAP is the plan that is in force.

3. SIGNIFICANCE THRESHOLDS

A. Appendix G of State CEQA Guidelines

The CEQA Guidelines recommend that a lead agency consider the following when assessing the significance of impacts from GHG emissions on the environment:

- The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
- The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions[22].

B. Thresholds of Significance for this Project

To determine whether the project's GHG emissions are significant, this analysis uses the SCAQMD screening threshold of 3,000 MTCO2e per year for all land uses.

[22] *The Governor's Office of Planning and Research recommendations include a requirement that such a plan must be adopted through a public review process and include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.*

4. METHODOLOGY

CalEEMod Version 2022.1.1.13 was used to calculate the GHG emissions from the proposed project. This analysis quantifies the project's total annual GHG emissions, taking into account compliance with regulation and GHG emission reduction features that would be incorporated into the Project's design.

The proposed project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste, water, and construction equipment. The following provides the methodology used to calculate the project-related GHG emissions and the project impacts.

The CalEEMod annual emissions for year 2027 are available in Appendix B. Each source of GHG emissions is described in greater detail below.

A. Area Sources

Area sources include emissions from consumer products, landscape equipment and architectural coatings. No changes were made to the default area source emissions.

B. Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site. No other changes were made to the default energy usage parameters.

C. Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been analyzed by inputting the project-generated trip generation data from the Transportation Impact Analysis Screening Analysis for the Hope Gardens Expansion Project, Los Angeles County, California (TIA), prepared by Gibson Transportation Consulting Inc. (February 2, 2023), for the proposed project into the CalEEMod Model. The TIA showed that the project would generate 1.08 trips/room. See Section II for details.

D. Waste

Waste includes the GHG emissions generated from the processing of waste from the proposed project as well as the GHG emissions from the waste once it is interred into a landfill. AB 341 requires that 75 percent of waste be diverted from landfills by 2020. No other changes were made to the default waste parameters.

E. Water

Water includes the water used for the interior of the building as well as for landscaping and is based on the GHG emissions associated with the energy used to transport and filter the water. CALGreen requires

a 20 percent reduction in indoor water use and water efficient irrigation systems. To be conservative, no reductions were taken and no changes were made to the default water usage parameters.

F. Construction

The construction-related GHG emissions were also included in the analysis and were based on a 30-year amortization rate as recommended in the SCAQMD GHG Working Group meeting on November 19, 2009. The construction-related GHG emissions were calculated by CalEEMod using the methodology detailed above in *Section II, Air Quality Analysis*, of this technical report.

5. PROJECT GREENHOUSE GAS EMISSIONS

The GHG emissions have been calculated based on the parameters described above. A summary of the results is shown in Table 10 below. Table 10, shows that the project's total emissions would be 1,027.73 MTCO2e per year.

Table 10
Project-Related GHG Emissions

Emissions Source	Estimated Project Generated CO_2e Emissions (Metric Tons per Year)
Maximum Annual Project Operations	987
Construction Emissions	1,222
Amortized Construction Emissions	40.73
Project Total	**1,027.73**
Source: CalEEMod Version 2022.1.1.13 for Opening Year 2027.	

6. CONSISTENCY WITH APPLICABLE GREENHOUSE GAS REDUCTION PLANS AND POLICIES

The proposed project would have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

As stated previously, the 2020 LA County CCAP is the currently adopted plan for reducing GHG emissions in the County of Los Angeles. The 2020 CCAP has the following strategy areas to reduce GHG emissions:

- **Green building and energy:** Building energy consumption accounts for about 49% of the County's GHG inventory. The County has already developed and implemented a number of energy efficiency and renewable energy programs to reduce building energy related emissions. Additional strategies include expanding green building initiatives and popular efficiency programs that are not only cost-effective, but also deliver community co-benefits.

- **Land use and transportation**: As a significant portion of the County's emissions are from on-road transportation sources, which is the case with most communities in the state, developing realistic ways to reduce vehicle trips and vehicle miles traveled (VMT), improve vehicle fuel economy, and reduce the carbon intensity of transportation fuels is an important strategy for the CCAP (Urban Land Institute 2007). Opportunities to address transportation-related emissions include changes in density and mixed use, increased transit, enhanced pedestrian and bicycle trails, and expanded incentives and opportunities for alternative modes of transportation and electric vehicle (EV) charging.
- **Water conservation and wastewater**: Water conservation has been an important management objective for the County over the past several decades. Additional strategies to further reduce GHG emissions from community water consumption and wastewater generation focus on optimizing the operation of pumping infrastructure and expanding water conservation.
- **Waste reduction, reuse, and recycling**: While waste production represents a small portion of the County's inventory, a number of cost-effective and relatively simple activities can be undertaken to increase the volume of waste that is either recycled or composted.
- **Land conservation and tree planting**: The unincorporated areas support a diversity of natural resources and habitats. Expanding and enhancing these areas not only contributes to GHG emissions reductions, but also provides recreational opportunities and a variety of other community co-benefits.

The Project proposes a new CUP to increase the on-site maximum residential capacity from 300 to 525 formerly homeless single women and their children (less than 18 years old) at the Project Site, and the demolition of the existing one-story, approximately 22,470-square-foot Sequoia Lodge at the Project's Development Site and construct a new, larger multi-use building to accommodate the residential capacity increase as well as increase the ability of URM to provide support services and life skills training for residents as they transition from homelessness to a position of financial stability to provide for their own housing.

The objectives and underlying purposes of the Project are as follows:

1. Provide a new, modern facility adequately sized to increase the transitional housing capacity and associated support services at Hope Gardens Family Center for single women and their children less than 18 years of age as well as senior women experiencing homelessness in Los Angeles County.

2. Create an environmentally sensitive development by locating the new building in an optimal area of the existing campus that utilizes the existing built environment and graded, developed pads; avoids the loss of on-site recreational open spaces; and minimizes impacts to surrounding oak

woodlands and forestland, including the Angeles National Forest, and other ungraded, undeveloped areas of the campus.

3. Utilize existing properties owned and operated by Union Rescue Mission to expand the effectiveness of this faith-based nonprofit organization's mission to help those experiencing homelessness with housing and support services intended to get individuals and families back into a stable situation.

4. Provide modern construction that incorporates current building code requirements including design considerations for fire resistance to best safeguard residents and staff at the campus.

The Project will comply with the CCAP as follows:

- **Green building and energy:** The Project would comply with the requirements in the County's Green Building Code and Title 24, which requires buildings to be designed to include green building measures for energy efficiency, water conservation, recycling, light pollution reduction, electric vehicle charging stations, Energy Star-rated appliances, eco-friendly building materials, non-volatile organic compound paints/adhesives, drought-tolerant planting, and high-performance building envelopment.
- **Land use and transportation**: The Project involves the expansion of a homeless care facility. As many of the residents will not be driving vehicles, the Project would generate a low VMT (as shown in the Gibson TIA) and will not conflict with the County's goals and policies to reduce VMT and the emissions associated with transportation.
- **Water conservation and wastewater**: The Project will comply with CALGreen requirements regarding water conservation and will not conflict with the goals of CCAP.
- **Waste reduction, reuse, and recycling**: The Project will include recycling per CALGreen and Title 24 requirements and will not conflict with the goals of the CCAP.
- **Land conservation and tree planting**: As stated above, the Project will construct the new building in an optimal area of the existing campus that utilizes the existing built environment and graded, developed pads; avoids the loss of on-site recreational open spaces; and minimizes impacts to surrounding oak woodlands and forestland, including the Angeles National Forest, and other ungraded, undeveloped areas of the campus. Therefore, the Project is consistent with the goals of the CCAP.

Therefore, the Project will not conflict with the strategy areas of the CCAP and will not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Impacts are less than significant.

7. CUMULATIVE GREENHOUSE GAS IMPACTS

Although the project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. Therefore, in the case of global climate change, the proximity of the project to other GHG emission generating activities is not directly relevant to the determination of a cumulative impact because climate change is a global condition. According to CAPCOA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective."[23] The resultant consequences of that climate change can cause adverse environmental effects. A project's GHG emissions typically would be very small in comparison to state or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change.

The state has mandated a goal of reducing statewide emissions to 1990 levels by 2020, even though statewide population and commerce are predicted to continue to expand. In order to achieve this goal, CARB is in the process of establishing and implementing regulations to reduce statewide GHG emissions.

As discussed in the Consistency With Applicable Greenhouse Gas Reduction Plans and Policies section above, the project is consistent with the goals and objectives of the County's CCAP. Therefore, the project's incremental contribution to greenhouse gas emissions and their effects on climate change would not be cumulatively considerable.

[23] *Source: California Air Pollution Control Officers Association, CEQA & Climate change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, (2008).*

IV. EMISSIONS REDUCTION MEASURES

1. CONSTRUCTION MEASURES

Adherence to SCAQMD Rule 403 is required.

2. OPERATIONAL MEASURES

None required.

V. LIST OF ACRONYMS AND ABBREVIATIONS

AQMP	Air Quality Management Plan
BACT	Best Available Control Technologies
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCAR	California Climate Action Registry
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH_4	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DPM	Diesel particulate matter
EPA	U.S. Environmental Protection Agency
GHG	Greenhouse gas
GWP	Global warming potential
HIDPM	Hazard Index Diesel Particulate Matter
HFCs	Hydrofluorocarbons
IPCC	International Panel on Climate Change
LCFS	Low Carbon Fuel Standard
LST	Localized Significant Thresholds
$MTCO_2e$	Metric tons of carbon dioxide equivalent
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NOx	Nitrogen Oxides
NO_2	Nitrogen dioxide
N_2O	Nitrous oxide
O_3	Ozone
OPR	Governor's Office of Planning and Research
PFCs	Perfluorocarbons
PM	Particulate matter
PM10	Particles that are less than 10 micrometers in diameter
PM2.5	Particles that are less than 2.5 micrometers in diameter

PMI	Point of maximum impact
PPM	Parts per million
PPB	Parts per billion
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SSAB	Salton Sea Air Basin
SF_6	Sulfur hexafluoride
SIP	State Implementation Plan
SOx	Sulfur Oxides
TAC	Toxic air contaminants
VOC	Volatile organic compounds

VI. REFERENCES

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APPENDICES

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APPENDIX A: CALEEMOD MODEL EMISSIONS PRINTOUTS

Hope Gardens Construction Only Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Hope Gardens Construction Only
Construction Start Date	10/1/2024
Lead Agency	Los Angeles County
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	24.2
Location	12249 Lopez Canyon Rd, Sylmar, CA 91342, USA
County	Los Angeles-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	3692
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.13

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Congregate Care (Assisted Living)	117	Dwelling Unit	0.70	106,410	0.00	—	346	—

Enclosed Parking with Elevator	22.0	Space	0.20	8,800	0.00	—	—	—
Other Asphalt Surfaces	0.50	Acre	0.50	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.9	14.2	24.8	0.03	0.45	1.66	2.11	0.42	0.39	0.81	—	4,921	4,921	0.20	0.14	6.00	4,973
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.9	15.9	23.8	0.03	0.74	2.89	3.64	0.68	1.37	2.05	—	4,840	4,840	0.16	0.22	0.16	4,885
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.65	7.07	11.2	0.02	0.24	0.89	1.13	0.22	0.21	0.43	—	2,431	2,431	0.10	0.08	1.74	2,461
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.48	1.29	2.04	< 0.005	0.04	0.16	0.21	0.04	0.04	0.08	—	403	403	0.02	0.01	0.29	407

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.46	9.83	16.4	0.02	0.33	1.27	1.60	0.31	0.30	0.61	—	3,460	3,460	0.14	0.12	5.66	3,504
2026	1.35	9.39	15.9	0.02	0.30	1.27	1.57	0.27	0.30	0.57	—	3,427	3,427	0.14	0.12	5.21	3,471
2027	11.9	14.2	24.8	0.03	0.45	1.66	2.11	0.42	0.39	0.81	—	4,921	4,921	0.20	0.14	6.00	4,973
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.69	15.9	16.1	0.03	0.74	2.89	3.64	0.68	1.37	2.05	—	3,272	3,272	0.15	0.22	0.09	3,342
2025	1.45	9.89	15.5	0.02	0.33	1.27	1.60	0.31	0.30	0.61	—	3,396	3,396	0.14	0.12	0.15	3,436
2026	1.35	9.45	15.0	0.02	0.30	1.27	1.57	0.27	0.30	0.57	—	3,366	3,366	0.14	0.12	0.14	3,405
2027	11.9	14.4	23.8	0.03	0.45	1.66	2.11	0.42	0.39	0.81	—	4,840	4,840	0.16	0.14	0.16	4,885
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.23	2.25	2.14	< 0.005	0.10	0.36	0.46	0.09	0.15	0.24	—	407	407	0.02	0.01	0.10	412
2025	1.03	7.07	11.2	0.02	0.24	0.89	1.13	0.22	0.21	0.43	—	2,431	2,431	0.10	0.08	1.74	2,461
2026	0.96	6.78	10.9	0.02	0.21	0.89	1.11	0.19	0.21	0.41	—	2,416	2,416	0.10	0.08	1.61	2,445
2027	2.65	5.68	9.37	0.01	0.17	0.74	0.91	0.16	0.18	0.33	—	2,039	2,039	0.07	0.07	1.20	2,061
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.04	0.41	0.39	< 0.005	0.02	0.07	0.08	0.02	0.03	0.04	—	67.4	67.4	< 0.005	< 0.005	0.02	68.2
2025	0.19	1.29	2.04	< 0.005	0.04	0.16	0.21	0.04	0.04	0.08	—	403	403	0.02	0.01	0.29	407
2026	0.18	1.24	1.99	< 0.005	0.04	0.16	0.20	0.04	0.04	0.07	—	400	400	0.02	0.01	0.27	405
2027	0.48	1.04	1.71	< 0.005	0.03	0.14	0.17	0.03	0.03	0.06	—	338	338	0.01	0.01	0.20	341

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.38	13.2	12.2	0.02	0.57	—	0.57	0.52	—	0.52	—	1,913	1,913	0.08	0.02	—	1,919
Demolition	—	—	—	—	—	0.99	0.99	—	0.15	0.15	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.72	0.67	< 0.005	0.03	—	0.03	0.03	—	0.03	—	105	105	< 0.005	< 0.005	—	105
Demolition	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	17.4	17.4	< 0.005	< 0.005	—	17.4
Demolition	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	100	100	< 0.005	< 0.005	0.01	102
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	1.63	0.60	0.01	0.02	0.33	0.35	0.02	0.09	0.11	—	1,259	1,259	0.07	0.20	0.08	1,321
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.58	5.58	< 0.005	< 0.005	0.01	5.66
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	69.0	69.0	< 0.005	0.01	0.07	72.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.92	0.92	< 0.005	< 0.005	< 0.005	0.94
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.4	11.4	< 0.005	< 0.005	0.01	12.0

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.04	10.3	9.28	0.01	0.46	—	0.46	0.42	—	0.42	—	1,496	1,496	0.06	0.01	—	1,501

Dust From Material Movement	—	—	—	—	—	2.24	2.24	—	1.15	1.15	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.56	0.51	< 0.005	0.03	—	0.03	0.02	—	0.02	—	82.0	82.0	< 0.005	< 0.005	—	82.3
Dust From Material Movement	—	—	—	—	—	0.12	0.12	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.6	13.6	< 0.005	< 0.005	—	13.6
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.32	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	66.9	66.9	< 0.005	< 0.005	0.01	67.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.72	3.72	< 0.005	< 0.005	0.01	3.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.62	0.62	< 0.005	< 0.005	< 0.005	0.62
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.65	15.9	15.4	0.02	0.74	—	0.74	0.68	—	0.68	—	2,454	2,454	0.10	0.02	—	2,462
Dust From Material Movement	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.87	0.84	< 0.005	0.04	—	0.04	0.04	—	0.04	—	134	134	0.01	< 0.005	—	135

Dust From Material Movement	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.3	22.3	< 0.005	< 0.005	—	22.3
Dust From Material Movement	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.06	0.64	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	< 0.005	0.01	135
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.44	7.44	< 0.005	< 0.005	0.01	7.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.23	1.23	< 0.005	< 0.005	< 0.005	1.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	6.37	7.15	0.01	0.23	—	0.23	0.22	—	0.22	—	1,283	1,283	0.05	0.01	—	1,287
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.16	1.30	< 0.005	0.04	—	0.04	0.04	—	0.04	—	212	212	0.01	< 0.005	—	213
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.38	6.12	0.00	0.00	1.15	1.15	0.00	0.27	0.27	—	1,216	1,216	0.05	0.04	4.45	1,234
Vendor	0.01	0.50	0.25	< 0.005	0.01	0.12	0.13	< 0.005	0.03	0.04	—	443	443	0.02	0.06	1.21	463
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.42	5.19	0.00	0.00	1.15	1.15	0.00	0.27	0.27	—	1,152	1,152	0.05	0.04	0.12	1,167
Vendor	0.01	0.52	0.25	< 0.005	0.01	0.12	0.13	< 0.005	0.03	0.04	—	443	443	0.02	0.06	0.03	462
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.33	3.88	0.00	0.00	0.81	0.81	0.00	0.19	0.19	—	833	833	0.04	0.03	1.37	844
Vendor	0.01	0.38	0.18	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	315	315	0.01	0.04	0.37	329
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.71	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	138	138	0.01	< 0.005	0.23	140
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	52.2	52.2	< 0.005	0.01	0.06	54.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.12	7.11	0.01	0.21	—	0.21	0.19	—	0.19	—	1,286	1,286	0.05	0.01	—	1,291
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.12	1.30	< 0.005	0.04	—	0.04	0.04	—	0.04	—	213	213	0.01	< 0.005	—	214
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.34	5.68	0.00	0.00	1.15	1.15	0.00	0.27	0.27	—	1,191	1,191	0.05	0.04	4.03	1,209
Vendor	0.01	0.48	0.23	< 0.005	0.01	0.12	0.13	< 0.005	0.03	0.04	—	435	435	0.02	0.06	1.18	455
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.38	4.85	0.00	0.00	1.15	1.15	0.00	0.27	0.27	—	1,129	1,129	0.05	0.04	0.10	1,143

Vendor	0.01	0.50	0.24	< 0.005	0.01	0.12	0.13	< 0.005	0.03	0.04	—	435	435	0.02	0.06	0.03	454
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.30	3.62	0.00	0.00	0.81	0.81	0.00	0.19	0.19	—	819	819	0.04	0.03	1.25	830
Vendor	0.01	0.36	0.17	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	311	311	0.01	0.04	0.36	325
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.66	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	136	136	0.01	< 0.005	0.21	137
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	51.4	51.4	< 0.005	0.01	0.06	53.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	8.25	9.91	0.02	0.26	—	0.26	0.24	—	0.24	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.97	8.25	9.91	0.02	0.26	—	0.26	0.24	—	0.24	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.51	5.41	0.01	0.14	—	0.14	0.13	—	0.13	—	983	983	0.04	0.01	—	987
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.82	0.99	< 0.005	0.03	—	0.03	0.02	—	0.02	—	163	163	0.01	< 0.005	—	163
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31	0.30	5.28	0.00	0.00	1.15	1.15	0.00	0.27	0.27	—	1,169	1,169	0.05	0.04	3.64	1,186
Vendor	0.01	0.46	0.22	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.04	—	426	426	0.02	0.06	1.11	446
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31	0.38	4.48	0.00	0.00	1.15	1.15	0.00	0.27	0.27	—	1,108	1,108	0.02	0.04	0.09	1,121
Vendor	0.01	0.48	0.22	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.04	—	427	427	0.02	0.06	0.03	445
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.21	2.57	0.00	0.00	0.62	0.62	0.00	0.14	0.14	—	614	614	0.01	0.02	0.86	622
Vendor	0.01	0.26	0.12	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	233	233	0.01	0.03	0.26	243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.04	0.47	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	102	102	< 0.005	< 0.005	0.14	103

Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.6	38.6	< 0.005	0.01	0.04	40.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	4.30	6.49	0.01	0.17	—	0.17	0.16	—	0.16	—	992	992	0.04	0.01	—	995
Paving	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	4.30	6.49	0.01	0.17	—	0.17	0.16	—	0.16	—	992	992	0.04	0.01	—	995
Paving	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.53	0.80	< 0.005	0.02	—	0.02	0.02	—	0.02	—	122	122	< 0.005	< 0.005	—	123
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.10	0.15	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.2	20.2	< 0.005	< 0.005	—	20.3
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.75	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	166	166	0.01	0.01	0.52	169
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.64	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	157	157	< 0.005	0.01	0.01	159
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.7	19.7	< 0.005	< 0.005	0.03	20.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.26	3.26	< 0.005	< 0.005	< 0.005	3.30
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	9.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	9.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.9	24.9	< 0.005	< 0.005	—	25.0
Architectural Coatings	1.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.12	4.12	< 0.005	< 0.005	—	4.13

Architectu Coatings	0.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	1.06	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	234	234	0.01	0.01	0.73	237
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.08	0.90	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	222	222	< 0.005	0.01	0.02	224
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.9	41.9	< 0.005	< 0.005	0.06	42.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.94	6.94	< 0.005	< 0.005	0.01	7.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	10/1/2024	10/29/2024	5.00	20.0	—
Site Preparation	Site Preparation	10/30/2024	11/26/2024	5.00	20.0	—
Grading	Grading	11/27/2024	12/24/2024	5.00	20.0	—
Building Construction	Building Construction	1/2/2025	10/6/2027	5.00	720	—
Paving	Paving	8/2/2027	10/2/2027	5.00	45.0	—
Architectural Coating	Architectural Coating	7/3/2027	10/6/2027	5.00	68.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41

Grading	Tractors/Loaders/Backh	Diesel	Average	2.00	7.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backh oes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	7.50	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	17.9	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	18.5	LDA,LDT1,LDT2

Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	87.9	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	13.9	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.6	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	215,480	71,827	388	43.1	1,824

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	1,428	—
Site Preparation	—	—	8.75	0.00	—
Grading	—	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.70

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Congregate Care (Assisted Living)	—	0%

Enclosed Parking with Elevator	0.20	100%
Other Asphalt Surfaces	0.50	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	349	0.03	< 0.005
2025	0.00	349	0.03	< 0.005
2026	0.00	346	0.03	< 0.005
2027	0.00	346	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	17.6	annual days of extreme heat
Extreme Precipitation	5.85	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	8.48	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Exposure Indicators	—
AQ-Ozone	97.1
AQ-PM	50.4
AQ-DPM	0.76
Drinking Water	78.9
Lead Risk Housing	46.0
Pesticides	12.3
Toxic Releases	48.5
Traffic	72.4
Effect Indicators	—
CleanUp Sites	88.8
Groundwater	56.1
Haz Waste Facilities/Generators	11.1
Impaired Water Bodies	0.00
Solid Waste	94.7
Sensitive Population	—
Asthma	27.8
Cardio-vascular	10.6
Low Birth Weights	—
Socioeconomic Factor Indicators	—
Education	61.4
Housing	—
Linguistic	—
Poverty	61.3
Unemployment	—

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—
Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—

Health Outcomes	—
Insured adults	—
Arthritis	0.0
Asthma ER Admissions	55.4
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	0.0
Cognitively Disabled	43.0
Physically Disabled	73.0
Heart Attack ER Admissions	66.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	0.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	57.0
SLR Inundation Area	0.0

Children	99.4
Elderly	32.8
English Speaking	0.0
Foreign-born	0.0
Outdoor Workers	49.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	97.3
Traffic Density	0.0
Traffic Access	23.0
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	—
Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Site is suburban.
Land Use	117 unit, 106,410 SF homeless care facility. Improvement footprint area is ~ 1.84 total acres, building footprint is 30,640 SF (0.7 acres)
Construction: Construction Phases	Project to start construction ~October 2024 and take ~ 3 years to complete.
Construction: Off-Road Equipment	Partial demolition of building only and minor site prep.
Construction: Architectural Coatings	Per SCAQMD Rule 1113 paints limited to 50g/L VOC

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Hope Gardens Operational
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	24.2
Location	12249 Lopez Canyon Rd, Sylmar, CA 91342, USA
County	Los Angeles-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	3692
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.13

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Congregate Care (Assisted Living)	213	Dwelling Unit	0.70	151,666	0.00	21,700	630	—

Enclosed Parking with Elevator	22.0	Space	0.20	8,800	0.00	—	—	—
Other Asphalt Surfaces	0.50	Acre	0.50	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.57	1.67	24.6	0.04	0.07	1.19	1.26	0.07	0.21	0.28	325	4,870	5,196	32.8	0.16	12.0	6,076
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.43	1.64	10.8	0.03	0.07	1.19	1.26	0.07	0.21	0.28	325	4,699	5,024	32.8	0.16	2.19	5,896
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.20	1.74	19.7	0.04	0.07	1.19	1.26	0.07	0.21	0.28	325	4,759	5,084	32.8	0.17	6.29	5,960
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.95	0.32	3.60	0.01	0.01	0.22	0.23	0.01	0.04	0.05	53.8	788	842	5.43	0.03	1.04	987

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.90	0.96	11.9	0.03	0.02	1.19	1.21	0.02	0.21	0.23	—	3,254	3,254	0.12	0.11	10.1	3,300
Area	4.63	0.12	12.5	< 0.005	< 0.005	—	< 0.005	0.01	—	0.01	0.00	33.9	33.9	< 0.005	< 0.005	—	34.0
Energy	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,530	1,530	0.14	0.01	—	1,536
Water	—	—	—	—	—	—	—	—	—	—	15.2	52.8	68.0	1.57	0.04	—	118
Waste	—	—	—	—	—	—	—	—	—	—	310	0.00	310	31.0	0.00	—	1,085
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.93	1.93
Total	5.57	1.67	24.6	0.04	0.07	1.19	1.26	0.07	0.21	0.28	325	4,870	5,196	32.8	0.16	12.0	6,076
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.89	1.05	10.6	0.03	0.02	1.19	1.21	0.02	0.21	0.23	—	3,116	3,116	0.12	0.12	0.26	3,155
Area	3.51	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,530	1,530	0.14	0.01	—	1,536
Water	—	—	—	—	—	—	—	—	—	—	15.2	52.8	68.0	1.57	0.04	—	118
Waste	—	—	—	—	—	—	—	—	—	—	310	0.00	310	31.0	0.00	—	1,085
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.93	1.93
Total	4.43	1.64	10.8	0.03	0.07	1.19	1.26	0.07	0.21	0.28	325	4,699	5,024	32.8	0.16	2.19	5,896
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.88	1.06	10.9	0.03	0.02	1.19	1.21	0.02	0.21	0.23	—	3,153	3,153	0.12	0.12	4.36	3,196
Area	4.28	0.08	8.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	23.2	23.2	< 0.005	< 0.005	—	23.3
Energy	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	1,530	1,530	0.14	0.01	—	1,536
Water	—	—	—	—	—	—	—	—	—	—	15.2	52.8	68.0	1.57	0.04	—	118
Waste	—	—	—	—	—	—	—	—	—	—	310	0.00	310	31.0	0.00	—	1,085
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.93	1.93

Total	5.20	1.74	19.7	0.04	0.07	1.19	1.26	0.07	0.21	0.28	325	4,759	5,084	32.8	0.17	6.29	5,960
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.16	0.19	1.99	0.01	< 0.005	0.22	0.22	< 0.005	0.04	0.04	—	522	522	0.02	0.02	0.72	529
Area	0.78	0.01	1.56	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	3.84	3.84	< 0.005	< 0.005	—	3.86
Energy	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	253	253	0.02	< 0.005	—	254
Water	—	—	—	—	—	—	—	—	—	—	2.52	8.74	11.3	0.26	0.01	—	19.6
Waste	—	—	—	—	—	—	—	—	—	—	51.3	0.00	51.3	5.13	0.00	—	180
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.32	0.32
Total	0.95	0.32	3.60	0.01	0.01	0.22	0.23	0.01	0.04	0.05	53.8	788	842	5.43	0.03	1.04	987

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	0.90	0.96	11.9	0.03	0.02	1.19	1.21	0.02	0.21	0.23	—	3,254	3,254	0.12	0.11	10.1	3,300
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Total	0.90	0.96	11.9	0.03	0.02	1.19	1.21	0.02	0.21	0.23	—	3,254	3,254	0.12	0.11	10.1	3,300
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	0.89	1.05	10.6	0.03	0.02	1.19	1.21	0.02	0.21	0.23	—	3,116	3,116	0.12	0.12	0.26	3,155
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.89	1.05	10.6	0.03	0.02	1.19	1.21	0.02	0.21	0.23	—	3,116	3,116	0.12	0.12	0.26	3,155
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	0.16	0.19	1.99	0.01	< 0.005	0.22	0.22	< 0.005	0.04	0.04	—	522	522	0.02	0.02	0.72	529
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.16	0.19	1.99	0.01	< 0.005	0.22	0.22	< 0.005	0.04	0.04	—	522	522	0.02	0.02	0.72	529

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	—	741	741	0.07	0.01	—	745
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	30.8	30.8	< 0.005	< 0.005	—	31.0
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	771	771	0.07	0.01	—	776
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	—	741	741	0.07	0.01	—	745
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	30.8	30.8	< 0.005	< 0.005	—	31.0
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	771	771	0.07	0.01	—	776
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Congregate	—	—	—	—	—	—	—	—	—	—	—	123	123	0.01	< 0.005	—	123
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	5.10	5.10	< 0.005	< 0.005	—	5.13
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	128	128	0.01	< 0.005	—	128

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	758	758	0.07	< 0.005	—	760
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	758	758	0.07	< 0.005	—	760
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Congregate Care (Assisted Living)	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	758	758	0.07	< 0.005	—	760
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.60	0.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	758	758	0.07	< 0.005	—	760
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	126	126	0.01	< 0.005	—	126
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.11	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	126	126	0.01	< 0.005	—	126

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	3.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.12	0.12	12.5	< 0.005	< 0.005	—	< 0.005	0.01	—	0.01	—	33.9	33.9	< 0.005	< 0.005	—	34.0
Total	4.63	0.12	12.5	< 0.005	< 0.005	—	< 0.005	0.01	—	0.01	0.00	33.9	33.9	< 0.005	< 0.005	—	34.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	3.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3.51	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	0.59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	0.14	0.01	1.56	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.84	3.84	< 0.005	< 0.005	—	3.86
Total	0.78	0.01	1.56	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	3.84	3.84	< 0.005	< 0.005	—	3.86

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	15.2	52.8	68.0	1.57	0.04	—	118
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	15.2	52.8	68.0	1.57	0.04	—	118
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	15.2	52.8	68.0	1.57	0.04	—	118

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	15.2	52.8	68.0	1.57	0.04	—	118
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	2.52	8.74	11.3	0.26	0.01	—	19.6
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	2.52	8.74	11.3	0.26	0.01	—	19.6

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	310	0.00	310	31.0	0.00	—	1,085
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	310	0.00	310	31.0	0.00	—	1,085
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	310	0.00	310	31.0	0.00	—	1,085
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	310	0.00	310	31.0	0.00	—	1,085
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	51.3	0.00	51.3	5.13	0.00	—	180

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	51.3	0.00	51.3	5.13	0.00	—	180

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.93	1.93
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.93	1.93
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congregate Care (Assisted Living)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.93	1.93
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.93	1.93
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Congregate	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.32	0.32
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.32	0.32

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Congregate Care (Assisted Living)	230	230	230	83,965	4,267	4,267	4,267	1,557,421
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Congregate Care (Assisted Living)	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0

Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
307123.64999999997	102,375	388	43.1	1,824

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Congregate Care (Assisted Living)	780,823	346	0.0330	0.0040	2,365,758
Enclosed Parking with Elevator	32,485	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)

Congregate Care (Assisted Living)	7,939,319	304,333
Enclosed Parking with Elevator	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Congregate Care (Assisted Living)	575	—
Enclosed Parking with Elevator	0.00	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Congregate Care (Assisted Living)	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Congregate Care (Assisted Living)	Household refrigerators and/or freezers	R-134a	1,430	0.22	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	17.6	annual days of extreme heat
Extreme Precipitation	5.85	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	8.48	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Exposure Indicators	—
AQ-Ozone	97.1
AQ-PM	50.4
AQ-DPM	0.76
Drinking Water	78.9
Lead Risk Housing	46.0
Pesticides	12.3
Toxic Releases	48.5
Traffic	72.4
Effect Indicators	—
CleanUp Sites	88.8
Groundwater	56.1
Haz Waste Facilities/Generators	11.1
Impaired Water Bodies	0.00
Solid Waste	94.7
Sensitive Population	—
Asthma	27.8
Cardio-vascular	10.6
Low Birth Weights	—
Socioeconomic Factor Indicators	—
Education	61.4
Housing	—
Linguistic	—
Poverty	61.3
Unemployment	—

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—
Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—

Health Outcomes	—
Insured adults	—
Arthritis	0.0
Asthma ER Admissions	55.4
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	0.0
Cognitively Disabled	43.0
Physically Disabled	73.0
Heart Attack ER Admissions	66.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	0.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	57.0
SLR Inundation Area	0.0

Children	99.4
Elderly	32.8
English Speaking	0.0
Foreign-born	0.0
Outdoor Workers	49.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	97.3
Traffic Density	0.0
Traffic Access	23.0
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	—
Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Characteristics: Project Details	Site is suburban
Land Use	Full buildout will have 213 rooms.
Operations: Vehicle Data	1.08 trips per room (DU) per TIA.
Operations: Architectural Coatings	Per SCAQMD Rule 1113 paints limited to 50g/L VOC
Operations: Hearths	No fireplaces or woodstoves.

Appendix 6-2

Energy Worksheets

Construction Transportation Energy Worksheet

Emission Source	Emissions ($MTCO_2$) [1]	
	Diesel-Powered	Gasoline-Powered
Demolition (2024)		
Off-Road	17.4	--
Vendor	0.00	--
Hauling	12.0	--
Worker	--	0.94
Site Preparation (2024)		
Off-Road	13.6	--
Vendor	0.00	--
Hauling	0.00	--
Worker	--	0.62
Grading (2024)		
Off-Road	22.3	--
Vendor	0.00	--
Hauling	0.00	--
Worker	--	1.25
Building Construction (2025)		
Off-Road	213	--
Vendor	54.5	--
Hauling	0.00	--
Worker	--	140
Building Construction (2026)		
Off-Road	214	--
Vendor	53.7	--
Hauling	0.00	--
Worker	--	137
Building Construction (2027)		
Off-Road	163	--
Vendor	40.2	--
Hauling	0.00	--
Worker	--	103
Paving (2027)		
Off-Road	20.3	--
Vendor	0.00	--
Hauling	0.00	--
Worker	--	3.30
Architectural Coating (2027)		
Off-Road	4.13	--
Vendor	0.00	--
Hauling	0.00	--
Worker	--	7.02
Total Emissions in $MTCO_2$	*828.13*	*393.13*
Total Emissions in pounds CO_2 [2]	*1,826,027*	*866,852*
Total Fuel Consumption [3]	**82,476 gallons**	**44,227 gallons**

$MTCO_2$ = metric tons of carbon dioxide

1 *$MTCO_2$ emissions for each phase of construction taken from the CalEEMod output sheets prepared for the Project.*

2 *1 MT of CO_2 = 2,205 pounds of CO_2.*

3 *Diesel fuel has a CO_2 factor of 22.14 pounds of CO_2 per 1 gallon of diesel fuel. Gasoline has a CO_2 factor of 19.6 pounds of CO_2 per 1 gallon of gasoline. Source: U.S. Energy Information Administration, Environment Carbon Dioxide Emissions Coefficients, Release date: February 2, 2016.*

Operational Transportation Energy Worksheet

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: County
Region: Los Angeles
Calendar Year: 2027
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	Calendar Year	Vehicle Categor	Model Year	Speed	Fuel	Total VMT	Fuel Consumption	MPG
Los Angeles	2027	HHDT	Aggregate	Aggregate	Diesel	2239136626	354785.0971	6.31124769
Los Angeles	2027	LDA	Aggregate	Aggregate	Diesel	70036243.65	1665.438524	42.0527342
Los Angeles	2027	LDT1	Aggregate	Aggregate	Diesel	317797.899	13.19062895	24.0927025
Los Angeles	2027	LDT2	Aggregate	Aggregate	Diesel	83915469.12	2504.962338	33.4996929
Los Angeles	2027	LHDT1	Aggregate	Aggregate	Diesel	939171041.2	45169.21424	20.792282
Los Angeles	2027	LHDT2	Aggregate	Aggregate	Diesel	422343840.8	23952.03411	17.6329008
Los Angeles	2027	MDV	Aggregate	Aggregate	Diesel	154520909.6	6187.176699	24.9743812
Los Angeles	2027	MH	Aggregate	Aggregate	Diesel	21036858.7	2110.015429	9.97000231
Los Angeles	2027	MHDT	Aggregate	Aggregate	Diesel	820128977	90810.2505	9.03123791
Los Angeles	2027	OBUS	Aggregate	Aggregate	Diesel	49882639.07	7026.304713	7.09941301
Los Angeles	2027	SBUS	Aggregate	Aggregate	Diesel	11778945.33	1580.947838	7.45055912
Los Angeles	2027	UBUS	Aggregate	Aggregate	Diesel	772868.0169	135.0547802	5.72262615
						Total:	**535,939,687**	
Los Angeles	2027	HHDT	Aggregate	Aggregate	Gasoline	791982.7104	181.9173778	4.35352972
Los Angeles	2027	LDA	Aggregate	Aggregate	Gasoline	44211710201	1434647.508	30.817124
Los Angeles	2027	LDT1	Aggregate	Aggregate	Gasoline	3848674184	150215.9735	25.6209383
Los Angeles	2027	LDT2	Aggregate	Aggregate	Gasoline	24002342021	940250.4001	25.5276063
Los Angeles	2027	LHDT1	Aggregate	Aggregate	Gasoline	1647348123	114407.5701	14.3989434
Los Angeles	2027	LHDT2	Aggregate	Aggregate	Gasoline	231590955.9	18499.83909	12.5185389
Los Angeles	2027	MCY	Aggregate	Aggregate	Gasoline	361668687.4	8694.798658	41.5959819
Los Angeles	2027	MDV	Aggregate	Aggregate	Gasoline	13168623492	633660.0953	20.7818412
Los Angeles	2027	MH	Aggregate	Aggregate	Gasoline	49405826.47	10203.29837	4.84214268
Los Angeles	2027	MHDT	Aggregate	Aggregate	Gasoline	246915825.6	46369.9162	5.32491421
Los Angeles	2027	OBUS	Aggregate	Aggregate	Gasoline	41672128.76	8035.413377	5.18605911
Los Angeles	2027	SBUS	Aggregate	Aggregate	Gasoline	22712586.26	2493.166233	9.10993658
Los Angeles	2027	UBUS	Aggregate	Aggregate	Gasoline	9967782.029	2149.168586	4.63797121
						Total:	**3,369,809,065**	
Los Angeles	2027	HHDT	Aggregate	Aggregate	Electricity	34684885.22	0	
Los Angeles	2027	LDA	Aggregate	Aggregate	Electricity	3753020861	0	
Los Angeles	2027	LDT1	Aggregate	Aggregate	Electricity	24629680.41	0	
Los Angeles	2027	LDT2	Aggregate	Aggregate	Electricity	256205912.1	0	
Los Angeles	2027	LHDT1	Aggregate	Aggregate	Electricity	97286742.59	0	
Los Angeles	2027	LHDT2	Aggregate	Aggregate	Electricity	24027927.86	0	
Los Angeles	2027	MDV	Aggregate	Aggregate	Electricity	271463716.4	0	
Los Angeles	2027	MHDT	Aggregate	Aggregate	Electricity	30370026.79	0	
Los Angeles	2027	OBUS	Aggregate	Aggregate	Electricity	1221669.238	0	
Los Angeles	2027	SBUS	Aggregate	Aggregate	Electricity	799967.1385	0	
Los Angeles	2027	UBUS	Aggregate	Aggregate	Electricity	10406974.91	0	
Los Angeles	2027	HHDT	Aggregate	Aggregate	Natural Gas	124283793.5	20462.57432	
Los Angeles	2027	MHDT	Aggregate	Aggregate	Natural Gas	14694203.87	1797.260555	
Los Angeles	2027	OBUS	Aggregate	Aggregate	Natural Gas	6203748.628	694.0621975	
Los Angeles	2027	SBUS	Aggregate	Aggregate	Natural Gas	13380752.64	3142.741064	
Los Angeles	2027	UBUS	Aggregate	Aggregate	Natural Gas	132036051.5	42501.11876	
Los Angeles	2027	LDA	Aggregate	Aggregate	Plug-in Hybri	1708401265	28875.84151	
Los Angeles	2027	LDT1	Aggregate	Aggregate	Plug-in Hybri	19572251.29	301.2425611	
Los Angeles	2027	LDT2	Aggregate	Aggregate	Plug-in Hybri	350158920.6	5638.226032	
Los Angeles	2027	MDV	Aggregate	Aggregate	Plug-in Hybri	199125291.7	3265.142801	

Total VMT	Diesel VMT	Gasoline VMT	Average Diesel MPG*	Average Gasoline MPG*
99,728,440,655	4,813,042,217	87,843,423,797	12	27
Percent of Total	4.83	88.08		

* weighted by percentage of VMT for each vehicle category

Appendix 6-3

Transportation Impact Analysis Screening Analysis

Gibson transportation consulting, inc.

MEMORANDUM

TO: Kent Tsujii
Los Angeles County Public Works

CC: Aaron Clark
Armbruster Goldsmith & Delvac LLP

FROM: Richard Gibson

DATE: June 28, 2023

RE: Transportation Impact Analysis Screening Analysis for the Hope Gardens Expansion Project
Los Angeles County, California **Ref:** J2053

Gibson Transportation Consulting, Inc. applied the Los Angeles County (County) screening thresholds to the proposed Hope Gardens expansion project (Project) to determine whether a transportation impact analysis would be required. This memorandum summarizes our analysis.

PROJECT DESCRIPTION

Hope Gardens is a transitional housing facility at 12249 Lopez Canyon Road (Assessor's Parcel Numbers 2846-001-017, 2846-001-018, 2846-001-019, and 2846-001-020) in the County that assists in transitioning families and seniors experiencing homelessness to independence over a 12-to-36-month period. The existing facility provides a total of 121 rooms, including 96 family rooms and 25 rooms for seniors. The Project proposes to build 117 new rooms and demolish 25 existing rooms, for a total of 92 net new rooms and a total of 213 rooms upon completion of the Project. The Project is expected to be completed by 2027. A site plan for the proposed new building is shown in Figure 1.

TRANSPORTATION ASSESSMENT SCREENING

Transportation Impact Analysis Guidelines (County Department of Public Works, July 23, 2020) (TIAG) provides screening criteria to determine whether a traffic analysis is required under the California Environmental Quality Act (CEQA). CEQA analysis is based on vehicle miles traveled (VMT) that could be generated by the Project.

The TIAG, on page 3, states that a development project requires preparation of a transportation impact analysis if it is estimated to generate a net increase of 110 or more daily vehicle trips from on-road passenger vehicles.[1] The Project trip generation was estimated to determine whether this criteria is satisfied.

Project Trip Generation Estimates

The TIAG allows the use of empirical data to estimate daily trips for the purpose of screening a development project based on recommendations found in *Trip Generation Manual, 11th Edition* (Institute of Transportation Engineers, 2021). In this case, empirical data was provided by Hope Gardens for its existing uses at the Project site. This is the best type of data to utilize as it is collected from the exact same use that is proposed. The following data points were provided by Hope Gardens in order to determine the daily trip generation of the Project land uses:

- Total Rooms available: 121 (includes 96 family rooms, and 25 rooms for seniors)
- Currently Occupied: 109 (86 family rooms, and 23 senior rooms)
- Total Employees: 32
- Total parking spaces: 85 spaces
- Current Resident Population: 248 (includes 79 adults, 146 children, and 23 seniors)
- Current residents with job: 12
- Current residents with cars: 42 (32 families and 10 seniors)

In addition to the information provided above, a third-party security firm that monitors the access points at Hope Gardens conducted a traffic survey to determine current usage patterns and daily demands. The surveys were conducted over the course of eight days, including six weekdays and two weekend days, between January 11 and January 18, 2023 and includes all traffic to and from the facility including employee traffic. While the number of employees is expected to remain the same upon completion of the Project, to be conservative, this analysis assumed that employee trips will increase at the same rate as all other trips to the facility.

Entry gate logs are provided Attachment A and summarized in Table 1. The surveys shown in the Attachment are separated by user with the “clicker” logs showing resident traffic and the other log showing all other traffic.

As shown in Table 1, the peak weekday demand was 168 total daily trips and the average demand over the course of seven weekdays was 117.7 daily trips. It is important to note that the peak and average weekend demands are lower than the peak and average weekday demands.

Application of the six-day average of 117.7 daily vehicle trips/day of demand to the 109 occupied resident rooms results in an average demand rate of 1.08 trips/room. Application of that average rate to the Project’s 92 net new rooms results in daily vehicle trip demand of 100 vehicles (92 rooms @ 1.08 trips/room = 99.36 daily vehicle trips).

[1] The TIAG also states that a transportation impact analysis could be required by County ordinance, regulation, resolution, court order, or directive from the Board of Supervisors, Regional Planning Commission, apart from the trip generation threshold. This analysis did not review whether any such ordinance or regulation may apply to the Project.

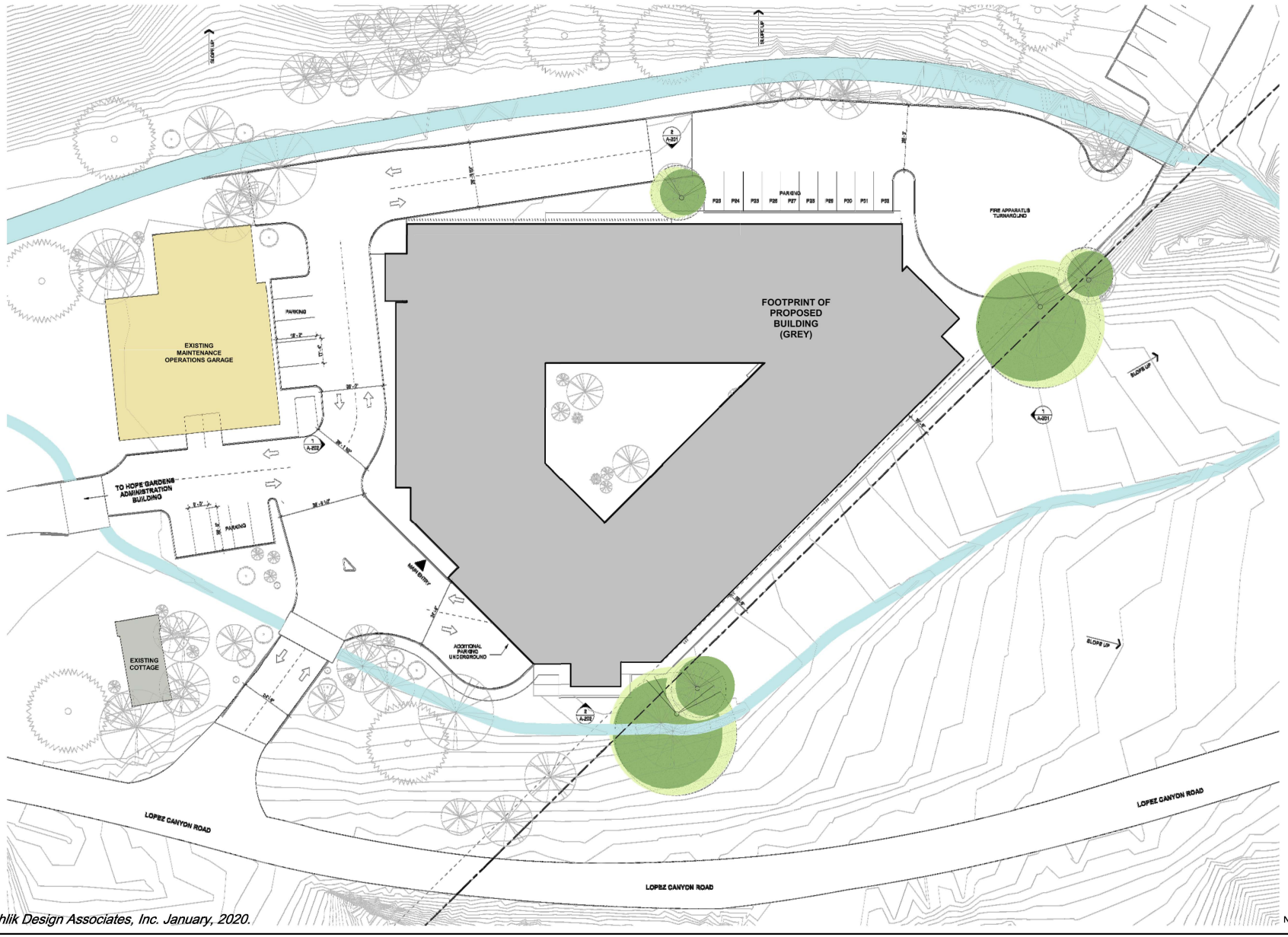
Project Construction Trip Generation Estimates

Construction of the Project will include multiple phases, including demolition, grading, construction, foundations, finishing, and final paving. The building construction phase will have the highest number of construction workers on-site, with approximately 45 construction workers on-site simultaneously. Assuming a worst-case scenario where every worker arrives by single-passenger vehicle results in a total of 90 vehicle trips per day. This is a very conservative assumption, as carpooling is a common practice among construction workers. The most intense phase of construction will include five to 10 deliveries per day; however, truck traffic is not considered when conducting VMT screening or evaluating VMT impacts. The most impactful stage, building construction, generates fewer trips than the 110-trip threshold and can, therefore, be assumed have a less than significant transportation impact.

The construction phasing schedule was prepared by PNG Builders, a contractor with experience at facilities similar to Hope Gardens, and is provided in Attachment B.

CONCLUSION

Based on the Project's trip generation estimate detailed above, the Project would generate approximately 100 net new daily vehicle trips on average on a weekday and, as such, would not meet the minimum trip threshold of 110 trips. Construction of the Project would also generate fewer than 110 daily trips during all phases. Therefore, operation and construction of the Project is presumed to have a less than significant transportation impact on VMT under CEQA, and further analysis is not required.



Source: Puchlik Design Associates, Inc. January, 2020.

PROJECT SITE PLAN

FIGURE 1

TABLE 1
HOPE GARDENS TRIP LOG SUMMARY

Day of Week	Date	Clicker Check-ins	Visitor Logs	Total Check-ins	Total Daily Trips
Wednesday	1/11/2023	12	51	63	126
Thursday	1/12/2023	10	66	76	152
Friday	1/13/2023	14	24	38	76
Sat	*1/14/2023*	*17*	*24*	*41*	*82*
Sun	*1/15/2023*	*6*	*44*	*50*	*100*
Monday	1/16/2023	6	54	60	120
Tuesday	1/17/2023	11	73	84	168
Wednesday	1/18/2023	8	24	32	64
Weekday Average		**10.2**	**48.7**	**58.8**	**117.7**
Weekend Average		*11.5*	*34*	*45.5*	*91*

Attachment A

Entry Gate Log

CLICKER ONLY

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor	Staff Y/N
9/28		602						~~602pm~~ 4:19pm	
9/25		214						4:47 pm	
9/25		417						4:49 pm	
9/25		433						7:40 pm	
9		[redacted]						[redacted] no clicker	
9		110						10:30 pm	
9		507						9:34 am	
9		429						11:50 am	
9		419						11:55 am	
10		427						12:14	
10		22						~~1:~~ 1:30 pm	
10		2						1:37 pm	
10		108						3:43 pm	
10		317						3:48 pm	
10		213						4:26 pm	
10		321						6:07 pm	
10		109						6:43 pm	
10		433						7:20 pm	
10		213						7:38 ~~AM~~	
11		210						10 30	
11		416						1045	
11									
11		602						3:58 pm	
11		416						4:31 pm	

Clicker Only

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor	Staff Y/N
1-11		317						5:30 pm	
1-11		109						6:13 pm	
1-11		427						7:08 pm	
1-11		433						7:10 pm	
1-11		allard 119						8:16 pm	
1-11		213						9:01 pm	
1-11		110						10:55 pm	
1/12		505						8:05 am	
1/12		501						9:16 am	
1/12								9:27 am	
1-12		119						10:28 am	
1-12		604						12:00 pm	
1-12		108						1:10 pm	
1-12		602						4:34 pm	
1-12		416						4:50 pm	
1-12		417						6:09 pm	
1-12		604						8:12 pm	
1-13		509						8:15 am	
1-13		106						9:20 am	
1-13		602						11:15 am	
1-13		321						11:30 am	
1-13		429						11:50 am	
1-13		215						12:22 pm	
1-13		507						12:40 pm	

~~VET~~ CLICKER ONLY

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor	Staff Y/N
1/13		416						12:51	
1/13		226						1:07	
1/13		219 ~~240~~						1:13	
1/13		215						2:06	
1/13		429							
1/13		211						915 pm	
1/13		219						9:28 pm	
1/14/us		213						11:45 am	
1/14		219						12:35 PM	
1/14		~~429~~ ~~422~~							
1/14		~~422~~	(Honda Van - Silve.)					1:00 PM - 68	
1/14		514						1:20	
1/14		604						1:25	
1/14		417						2:35 pm	
1/14		612						7:46 pm	
1/14		109						8:09	
1/14		211						834 PM	
1/14		505						8:50 pm	
1/14		321						9:18 pm	
1/14		416						10:09 pm	
1/14		220						11:45 AM	
1/14		221						1:15 PM	
1/14		108						1:45	
1/14		210						3:10	

Clicker Only

1/15/23

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor	Staff Y/N
1-15		433						4:37 pm	
1-15		602						4:48 pm	
1-15		215						6:00 pm	
1-15		221						6:50 pm	
1-15		315						7:36 pm	
1-15		417						8:21 pm	
1-16		219						8:12 AM	
1-		602						11:50 am	
1-16		507						1:00 pm	
1-16		915						8:30 pm	
1-16		214						[redacted] 6:27 pm	
1-16		604						9:00 pm	
1/17		108						7:30 am	
1/17		602						7:40 am	
1-17		317						3:40 pm	
1-17		602						3:54 pm	
1-17		214						5:32 pm	
1-17		433						[redacted] 7:16 pm	
1-17		211						[redacted] 7:42 pm	
1-17		604						10:52 pm	
1-17		110						10:41 pm	
1-17		602						7:55 AM	
1-18		109						8:07 AM	
1-18		507						1:58 pm	
1-18		429						2:50 pm	

clicker

Covid Questions/Checkin log

Date/Time		Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor	Staff
1-18		108						5:23pm	
1-18		321						6:30 pm	
1-18		416						6:34 pm	
1-18		109						7:09 pm	
1/18		213						8:00 pm	
1/18		221						8:18 pm	
1/19		602						8:03 AM	
1/19		25						8:17 AM	
1-19		110						11:30 AM	
1-19		501						1:15 PM	
1-19		321						1:40	
1-19		509						150	
1-19		310						9:10	
1-19		906						10:30	
1-19		110						11:20	
1-20		~~505~~						12:16	
1-20		420						12:40	
1/20		429						1:00	
1/20		119						1:00	
1/20		115						1:37	
1/20		501						2:15	
1/20		220						2:35	
1/20		505						2:50	
		417							

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor	In	Out	Staff Y/N
1-17		90.2	X	X	X		109	Toyota	6:13	6:17	
1-17		93.6	X	X	X		611	Lexus	6:16	6:26	
1-17		91.7	X	X	X		N/A	Honda	6:52	6:58	
1-17		95.2	X	X	X		431	Honda	7:10	7:12	
1-17		93.1	X	X	X		Geef	211 onsite	7:32		
1-17		97.2	X	X	X		Honda	420 Drop	7:33		
1-17		95.2	X	X	X		Nissan	John Drop	9:42	9:46	
1-17		96.2	X	X	X		Dodge	110 onsite	10:41		
1-17		97.1	X	X	X		Honda	604 onsite	10:49		
1-17		95.2	X	X	X		115	Picking up	7:05	7:10	
1-17		92.7	X	X	X		—	School Bus	7:20	7:30	
1-17							—	School Bus	7:22	:30	
1-17		97.2	X	X	X			219/Amazon	7:35		
1-17		97.2	X	X	X		Bus	f. of students	8:03		
1-17		97.1	X	X	X		Bus	321 S.P	8:04	8:11	
1-17		97.1	X	X	X		Bus	f. of Student	8:30		
1-17		97.1	X	X	X		Audi	S.P S03 Teacher	9:20	9:40	
1-17		96.3	X	X	X						
1-17		97.2	X	X	X			Payton/514			
1-17		98.1	X	X	X			Texas	11:08	11:09	
1-17		94.2	X	X	X			toyota			
1-17		T/C	X	X	X		Truck	P	11:14	11:18	
1-17		97.3	X	X	X		Tour	Grand Cor	1128		
1-17		97.3	X	X	X		Audi	429/Amazon	11:27	11:32	

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor		Staff Y/N
11/7		96.4	X	X	X			School Bus	6:51	6:53
11/7		93.3	X	X	X			School Bus	6:52	7:04
11/7		97.1	X	X	X		Toyota	drop/off	7:30	7:33
11/7		96.2	X	X	X		Benz	Bible study	7:44	7:55
11/7		94.4	X	X	X		Honda	Bible Study	7:48	
11/7		96.1	X	X	X		Truck	[illegible] first 8th	[illegible]	
11/7		95.3	X	X	X		Tesla	UPS	10:22	10:24
11/7		94.6	X	X	X		Honda	Uber	10:55	
11/7		97.1	X	X	X		Toyota	Walmart	11:18	11:
11/7		98.2	X	X	X		Acura	Fedex/308	11:35	11:47
11/7		96.3	X	X	X		Toyota	114/Lyft/Pick up	11:40	11:42
11/7		94.2	X	X	X		Chevy	428/visit	11:58	X
11/7		93.1	X	X	X		Jeep	112/[illegible] visit	12:00	
11/8		94.6	X	X	X		Tesla	211/Boerdeh	12:02	12:04
11/8		97.3	X	X	X		Nissan	319/Boerdeh	12:06	12:11
11/17		96.5	X	X	X		Van	ASAP	12:28	
11/17		95.6	X	X	X		Food	417 Visit	12:32	
11/17		94.7	X	X	X			Cob Pump	12:51	
11/17		97.2	X	X	X		Hyundai	422 Visit	12:59	12:59
11/17		96.2	X	X	X		BMW	321 Visit	1:10	
11/17		95.8	X	X	X		BMW	Staff Pick up	1:15	
11/17		96.2	X	X	X		Toyota	114 Drop off	1:16	
11/17		94.7	X	X	X		Honda	Staff	1:18	
11/17		94.5	X	X	X		Truck	USPS	7:26	
11/17		95.2	X	X	X		[illegible]	Toyota Staff Visit	1:30	

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor			Staff Y/N
1-16	First Stu	94.5	X	X	X		Bus	First Stu	148	150	
1-17	LAUSD	95.9	X	X	X		Bus	LAUSD	223	2"	
1-17	Letisha	94.3	X	X	X		Honda-512	Visit	214		
1-17	Sera	95.4	X	X	X		Ford	507 Visit	248		
1-17	Ontrac	96.5	X	X	X		Truck	OnTrac	248	250	
1-17	Abelina - Sp.	94.5	X	X	X		Honda	420 Pkup	251	258	
1-17	Celine Sp	95.4	X	X	X		Toyota	608 Visit	259		
1-17	First Stu	95.9	X	X	X		Bus	First Stu	300		
1-17	Martin - Sp	94.5	X	X	X		Toyota	308 Visit	326		
1-17	Ricardo	95.6	X	X	X		Ford	508 Dlvy	327		
1-17	Rigo - Sp	96.5	X	X	X		Ford	313 Visit	329		
1-17		90.5	X	X	X						
1-17	Sp. / on	96.3	X	X	X		317	Toyota	3:37	3:39	
1-17	Amazon / Drop	92.1	X	X	X		117	Toyota	3:38	3:43	
1-17	Sp. / on	95.7	X	X	X		313	Toyota	3:48	3:50	
1-17	walmart / Drop	96.6	X	X	X		113	Toyota	4:04		
1-17	Sp. / on	92.3	X	X	X		313	Toyota	4:16		
1-17	Sp. / on	95.4	X	X	X		110	Hundi	4:22		
1-17	School / Drop	90.1	X	X	X		N/A	First Stu	4:25	4:42	
1-17	Sp. / on	92.5	X	X	X		313	Toyota	4:26	4:30	
1-17	Sp. / on	96.1	X	X	X		512	Toyota	4:34	4:36	
1-17	Sp. / on	93.4	X	X	X		321	Toyota	5:10	5:30	
1-17	Uber eats / Drop	95.1	X	X	X		422	Honda	5:30		
1-17	Uber / pick	97.5	X	X	X		611	Toyota	5:43	5:45	

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor		Staff Y/N
1-16-23	Uber	97.5	X	X	X		308	pick up toyota	2:40	2:45
1-16-23	Walmart	96.3	X	X	X		113	Delivery SUV	3:10	3:20
1-16-23	Walmart	94.2	X	X	X		511	Delivery toyota	3:15	3:20
1-16-23	Amazon Fresh	98.1	X	X	X		611	Delivery toyota	3:30	3:32
1-16-23	Denis Ewel	97.7	X	X	X		Ford	219 onsite	407	409
1-16-23	Joseph	94.8	X	X	X		Toyota	321 onsite	453	454
1-16-23	Uber	97.7	X	X	X		Honda	508 pkup	454	456
1-16-23	Lyft	96.5	X	X	X		W	117 Dloff	458	501
1-16-23	Doordash	94.7	X	X	X		Honda	433 onsite	5:00	500
1-16-23	Shop Target	95.2	X	X	X		W	608 food del	518	520
1-16-23	Uber	95.6	X	X	X		Toyota	422 del.	534	536
1-16-23	Ygatha	96.5	X	X	X		Nissan	508 Dloff	540	542
1-16-23	Doordash	98.3	X	X	X		Nissan	221 onsite	548	550
1-16-23	Effrane	96.5	X	X	X		Honda	215 food del	556	559
1-16	DoorDash/Drop	97.5	X	X	X		Toyota	320 Dloff	602	608
1-16	Door Dash/Drop	90.1	X	X	X		Cell	Toyota	6:26	6:32
1-16	Maine	92.5	X	X	X		Cell	Toyota	6:34	
1-16	Kelsey	98.3	X	X	X		Toyota	318 Kid Dloff	647	651
1-16	MM Pharm	96.5	X	X	X		Toyota	108 onsite	647	648
1-16	Alma	95.6	X	X	X		[illegible]	11 Medical	701	705
1-16	E.L /Drop	94.6	X	X	X		Toyota	603 Dloff	705	707
1-16		90.1	X	X	X		208	Ford	7:45	7:48
1-16		95.2	X	X	X					
1-16		97.5	X	X	X					

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor		Staff Y/N
1/16/23	Uber	94.7	X	X	X		Nissan	SOS food del.	1018	1020 ✓
1/16/23	Carmila	96.5	X	X	X		Toyota	Volunteers	1049	1021 ✓
1/16	Davy	94.5	X	X	X		Toyota	Volunteers	1032	
1/16	Sarah	97.1	X	X	X		Benz	Donations	1038	1028
1/16	Doordash	96.2	X	X	X		Toyota	611 food del	1053	1056
1/16	Ontrac	95.3	X	X	X		Truck	Ontrack	1056	1100
1/16	Carisa	96.2	X	X	X		Jeep	218 Visit	1102	
1/16	Fedex	97.2	X	X	X		Truck	Fedex	1124	1127
1/16	Fed Ex	92.3	X	X	X		—	Fed ex	11:30	11:35
1/16	Amazon	92.7	X	X	X		7	Delivery	11:40	11:45
1/16	Amazon fresh	93.8	X	X	X		208	Delivery	11:45	11:50
1/16	Frankie	94.7	X	X	X		505	Drop off toyota	12:00	12:05
1/16	miquett	95.2	X	X	X		208	pick up / nissan	12:05	12:10
1/16	Doordash	94.2	X	X	X		117	pick up	12:25	12:30
1/16	Door Dash	92.7	X	X	X		503	Delivery	12:30	12:35
1/16	Uber	93.8	X	X	X		216	Drop off	1:00	1:10
1/16	Door Dash	94.8	X	X	X		424	Delivery	1:25	1:30
1/16	Hanna	91.7	X	X	X		503	Sp / Visit Website	1:35	
1/16	Uber	96.5	X	X	X		—	Picking up kitchen	1:25	1:27
1/16	Mary	94.8	X	X	X		Benz	Donations	130	134
1/16	Doordash	92.1	X	X	X		Toyota	422 food	1:33	
1/16	Alma	93.5	X	X	X		420	pick up Van	2:20	2:40
1/16	Amazon Fresh	94.6	X	X	X		612	Delivery	2:25	2:30
1/16	Door Dash	95.8	X	X	X		113	Delivery	2:30	2:35
	I Cart	92.7	X	X	X		611	Delivery	2:40	2:45

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor			Staff Y/N
1/15/23	D.off 319	97.2	x	x	x		TOY	Drop/off	1:40	1:44	Y
1/15/23	314	98.8	x	x	x		TOY	D/off	1:45	1:49	
1/15/23	UBER ~~314~~	98.1	x	x	x			~~Pick~~			
1/15/23	UBER 314	97.7	x	x	x		TOY	Drop off	2:15	2:25	
1/15/23	218 ~~218~~	96.9	x	x	x		Sub	Drop-off	3:05	3:10	Y
1/15/23	JADIA 116 ~~EMP~~	97.0	x	x	x		~~HYN~~	Hyn. P/up			
1/15/23	C03	96.2	x	x	x		TOY	Lorena D/off	3:11	3:15	
1-15	DoorDash / Drop	90.5	x	x	x		208	Hondi	3:50	3:52	
1-15	Sp. / on	91.7	x	x	x		113	~~Hondi~~ Nissan	3:57	4:25	
1-15	Uber eats / Drop	96.3	x	x	x		109	Honda	5:59	6:03	
1-15	Uber eats / Drop	92.2	x	x	x		314	Nissan	6:11	6:13	
1-15	DoorDash / Drop	95.1	x	x	x		315	Ford	6:21	6:23	
1-15	DoorDash / Drop	97.3	x	x	x		510	Toyota	6:35	6:37	
1-15	B.S. / pick	90.5	x	x	x		113	Hondi	7:01		
1-15	Amazon / Drop	95.4	x	x	x		603	Nissan	7:08	7:11	
1/15	Keilonie 612	93.2	x	x	x		612	Drop off	746	749	
1/15	Alexandra	94.7	x	x	x		422	Pick up	804	806	
1/16	Doordash	96.3	x	x	x		Toyota	424 food del	7~~11~~	7~~15~~	
1/16	Denise	97.1	x	x	x		Ford	219 onsite	812	813	
1/16	Amazon	98.2	x	x	x		Toyota	314 Amazon	820	822	
1/16	Fedex	97.2	x	x	x		Truck	Fedex	955	9:10	
1/16	Fire dept	96.5	x	x	x		Truck	Fire dept	955		
1/16	RVs operators	98.5	x	x	x		Nissan	Shaft	1002		
1/16	Chips	95.6	x	x	x		Truck	Ups	1015	1019	
1/16	Uber	96.5	x	x	x		2	Toyota- 216 pick up	1026		

Covid Questions/Checkin log

IN OUT

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor			Staff Y/N
1/14	SP / 319	96.3	X	X	X		Honda	visit	8:22		
1/14	SP / 321	94.2	X	X	X		Toyota	visit	8:27	CHK2	
1/14	Ricardo / 508	96.2	X	X	X		Ford	pickup	8:28		
1/14	SP / 319	97.1	X	X	X		Lexus	~~visit~~ dropoff	8:30	8:33	
1/14	SP 319	95.3	X	X	X		HON	visit	8:40		Y
1/14	SP / 434	94.6	X	X	X		Chevy	visit	8:46	9:46	
1/14	John (Dav	93.4	X	X	X		CHEVY	Donations	9:25	9:28	Y
1/14	Amazon / 422	96.7	X	X	X		FORD	Amazon / 422	9:30	9:35	
1/14	SP 311	94.4	X	X	X		MATSU	SP D/off P/up	9:34	9:39	Y
1/14	Pedro 506	95.3	X	X	X		TOY		9:50	10:03	Y
1/14	SP 430	96.7	X	X	X		HON	P/up	10:00	10:02	Y
1/14	Celia	97.1	X	X	X		BMW	Donations	10:04	10:20	
1/14	Uber eats / 206	93.2	X	X	X		Chevy	drop off	10:33	10:40	X
1/14	Kitchen vol	95.2	X	X	X		Nissan	vol	10:35		
1/14	Pedro SCG	96.3	X	X	X		Nissan	drop off	10:37	10:40	X
1/14	Taxi / 609	95.2	X	X	X		Honda	pick up	10:38	10:41	X
1/14	Christine 121	95.9	X	X	X		BMW	Drop	11:00	11:03	Y
1/14	WENDY 215	96.4	X	X	X		HON	RESIDENT - HEAD EAR	11:05	11:10	
1/14	111	96.2	X	X	X		HON	Arrival			
1/14	SP / 501	96.9	X	X	X		Volks	visit	11:25	12:15	
1/14	Amazon 422	94.2	X	X	X		Honda	drop off	11:31	11:32	
1/14	Rose 113	95.6	X	X	X		NISS	visit	12:10	12:20	X
1/14	Eva 319	96.3	X	X	X		HON	P/up	12:20		Y
1/14	319	97.1	X	X	X		TESLA	P/up	12:25	12:45	Y

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor			Staff Y/N
1-15-23	Kitchen STAFF	95.7	X	X	X		TOYOTA	STAFF		5:20	—
1-15-23	SANDRA DAR	94.3	X	X	X		HONDA	VOLUNTEER		6:00	
1-15-23	Robert Lui	96.4	X	X	X		VOLKS	VOLUNTEER		6:12	
1-15-23	AIMG	96.1	X	X	X		TOYOTA	VOLUNTEER		5:45	
1-15-23	P/up 430 ABelena	95.4	X	X	X		Hond	430 PICK UP		5:07	
1-15-23	Staff	94.4	X	X	X		TOY	Staff		7:35	
1-15-23	Volunteer	92.7	X	X	X		Marden	Volunteer		6:03	Y
1-15-23		93.8	X	X	X		~~TOY~~ Ford	P/up	8:20	~~8:21~~	X
1-15-23	YPT	95.5	X	X	X		Toyota	Deliv/Pulp	8:55	9:05	
1-15-23	K.t Crew Vol	96.3	X	X	X		Ford	SOS/Pick	9:15	9:17	Y
1-15-23	SOS	93.2	X	X	X		Buic	Church	9:52	9:58	
1-15-23	Church	93.8	X	X	X		Hond	SOS/Pulp	10:00	10:00	Y
1-15-23	Celebre	96.6	X	X	X		Hon	P/up	11:00	11:15	
1-15-23	CARLA 121	97.3	X	X	X		Ford	D/off	11:05	11:19	
1-15-23	Grocery 503	96.6	X	X	X		KIA	FOOD Del.	11:10	11:16	Y
1-15-23	Door Dash 503	93.8	X	X	X		Hyn.	P/up	11:12	11:17	Y
1-15-23	UBER 221	96.1	X	X	X		TOY	Drop-off	11:30	11:40	Y
1-15-23	UBER 502	97.2	X	X	X		~~HON~~				
1-15-23	~~220~~	96.9	X	X	X		MITSU	~~9A7~~ FOOD Del	12:10	12:15	Y
1-15-23	UBER 609	97.2	X	X	X		HON	D/off	12:10	12:19	Y
1-15-23	UBER 312	98.1	X	X	X		HON	Food del.	12:20	12:28	Y
1-15-23	Delivery Cocinita 608	97.5	X	X	X		Jeep	D/off	12:50	12:57	Y
1-15-23	Walmart 431	97.1	X	X	X						
1-15-23	Resident ~~Denise~~ 211	98.4	X	X	X		Hon	D/off	1:20		
	Melissa 311	97.2	X	X	X		~~HON~~				

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor		Staff Y/N
1-18	Sp. Rose	95.6	X	X	X		Toyota	111 Visit	1223	
1-18	Ana	94.4	X	X	X		Kia	Intern	1226	
1-18	USPS	98.2	X	X	X		Truck	USPS	1226	1230
1-18	Jery	97.6	X	X	X		Lexus	Intern	1244	
1-18	Taylor	98.2	X	X	X		Toyota	Stays plus	1258	101
1-18	Amazon	95.6	X	X	X		Dodge	Amazon	120	124
1-18	Amazon	94.7	X	X	X		Honda	Amazon	125	129
1-18	Amazon	95.6	X	X	X		Toyota	Amazon	130	135
1-18	First stu.	96.5	X	X	X		Bus	First stu	220	226
1-18	W. mart	95.6	X	X	X		Truck	W. Mart	227	230
1-18	Uber	94.7	X	X	X		Toyota	Shop	300	302
1-18	Emily	94.6	X	X	X		Toyota	S16	309	
1-18	Walmart	95.6	X	X	X		Audi	113 del	310	313
1-18	LAUSD	94.7	X	X	X		Bus	LAUSD	311	312
1-18	Sp / on	90.5	X	X	X		514	Toyota	3:48	4:16
1-18	School bus / Drop	96.1	X	X	X		N/A	First stu	4:26	
1-18	Sp. / on	94.5	X	X	X		513	Toyota	4:27	
1-18	DoorDash / Drop	92.1	X	X	X		425	Toyota	4:29	
1-18	Med / Drop	95.7	X	X	X		N/A	Chevy	4:34	4:35
1-18	Walmart / Drop	90.3	X	X	X		117	Toyota	4:45	4:49
1-18	DoorDash / Drop	92.9	X	X	X		508	Hundi	5:24	5:26
1-18	Uber eats / Drop	95.3	X	X	X		431	Honda	5:43	5:45
1-18	walmart / drop	95.7	X	X	X		219	Honda		
1-18	Sp / on	91.3	X	X	X		121	Via	6:10	612

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor		Staff Y/N
1·13	Bob	92.3	q	q	q			Visit contractor	10:00	
1·13	tracy	92.7	q	q	q		316	picking up	10:10	10:20
1·13	Denise 1508	95.6	x	x	x		Honda	pick up	10:23	10:30
1·13	CDCR2 25	94.3	x	x	x		Ford	drop off	10:25	
1·13	Kesha 612	96.2	x	x	x		Landrover	pick up	10:31	10:40
1·13	Lyft	92.7	x	x	342		342	pick up	10:45	10:50
1·13	Lyft	95.7	q	q	q		117	pick up	11:05	11:10
1·13	FED EX	94.8	q	q	q		—	FED EX	11:05	11:12
1·13	Uber	92.7	q	q	q		511	Drop off	11:25	11:30
1·13	Amazon Fresh	93.7	q	q	q		108	Deliver	11:30	11:32
1·13	Karla 124	96.5	x	x	x		volkswagen	pick up	11:42	11:45
1/13	Geordash/611	93.9	x	x	x		Lexus	drop off	12:00	12:05
1/13	SP/visit / 246	96.2	x	x	x		Nissan	visit	12:00	
1/13	Maria / 321	97.1	x	x	x		Ford	drop off	12:04	12:08
1/13	Debra	95.3	x	x	x		Lexus	donations	12:07	12:18
1/13	[redacted] Uber eats	94.2	x	x	x		Lexus	drop off	12:14	12:17
1/13	Uber eats / 218	93.7	x	x	x		Honda	drop off	12:19	12:19
1/13	Brianna	92.1	x	x	x		Gmc	donations	12:22	12:33
1/13	SP/visit 317	96.3	x	x	x		scion	visit	1:01	
1/13	SP 606	94.7	x	x	x		dodge	pick up	1:01	1:05
1/13	Lyft 502	94.4	x	x	x		Toyota	drop off	1:24	1:25
1/13	Mildred	95.5	x	x	x		Toyota	donations	2:03	2:15
1/13	Sheri	96.3	x	x	x		[redacted]	donations	2:06	2:17
1/13	Julie	95.1	x	x	x		nissan	donations	2:07	2:15

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor		Staff Y/N	
1-12	Sp. / on	90.3	X	X	X		513	Dodge	3:40		
1-12	Uber / pick	92.3	X	X	X		422				
1-12	Amazon / Drop	91.5	X	X	X		216	Kia	4:19	4:24	
1-12	DoorDash / Drop	97.1	X	X	X		Cell	Toyota	4:34	4:37	
1-12	School bus / Drop	93.3	X	X	X		N/A	Bus	4:37		
1-12	Fedex / Drop	94.5	X	X	X		N/A	Truck	4:44	4:46	
1-12	Sp. / on	92.2	X	X	X		208	Kia	4:57		
1-12	Sp. / on	91.7	X	X	X		~~208~~ 112	Toyota	4:58		
1-12	Amazon / Drop	95.2	X	X	X		112	Toyota	5:01	5:05	
1-12	Sp. / on	90.7	X	X	X		112	Jeep	5:20		
1-12	Sp. / on	93.2	X	X	X		311	Honda	5:37		
1-12	DoorDash / Drop	90.5	X	X	X		434	~~Kia~~ Nissan	6:18	6:22	
1-12	App. / on	93.1	X	X	X		428	Kia	6:19	6:30	
1-12	Uber eats / Drop	95.7	X	X	X		310	Hundi	6:46	6:48	
1-12	DoorDash / Drop	90.1	X	X	X		211	Honda	6:52	6:53	
1-12	Marissa	92.5	X	X	X		2211	~~Toyota~~	538	540	
1/12	Jenny (Volunteer)	97.3	X	X	X			VW	6:00pm		
1/12	Magda (Volunteer)	99.1	X	X	X			Truck	6:01		
1/12	Amazon Drop/Van	98.3	X	X	X		N/A	Honda	7:31	8:30	
1/12	Lyft	95.2	X	X	X		511	toyota	8:15		
1/12	School Bus	92.3	X	X	X			school Bus	8:15	825	
1/12	Sp. on	95.7	X	X	X			fitness	8:25		
1/12	~~Josh~~	96.3	X	X	X			Volunteer	9:15		
1/12	Jim	92.1	X	X	X		0=	pick up /	9:30	9:40	
1/12	BOB/	92.3	X	X	X			Declutor	10:00		
	Lyft	923	X	X	X	967526	502	pick up			

~~Lyft~~ ~~Uber~~ - SIT

~~HA 215~~ 417

~~B 2107~~ sicup 3550 94

In / out

Crain - paul

IN/OUT

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor			Staff Y/N
1/12	SP/visit 508	95.4	X	X	X		Toyota	Visit	11:03	12:20	
1/12	Tracy 216	94.6	X	X	X		Honda	drop/off	11:19	11:22	
1/12	Vallem	96.4	X	X	X		428	pick up VW	11:30	11:35	
1/12	Vince	97.1	X	X	X		—	Kitchen / Contract tunnel	12:00	1255	
1/12	Hanna	93.4	X	X	X		315	SP/Visit/Jeep	12:15		
1/12	adell	96.2	X	X	X		428	pick up	12:40	1250	
1/12	target	95.3	X	X	X		-	Delivery Truck	1200	1105	
1/12	Sibeth	93.4	X	X	X		909	SP/Visit	1140		
1/12	ticoche	92.6	X	X	X		—	Drop off	12:15	12:20	
1/12	Amazon	94.3	X	X	X		—	Delivery	1205	1:20	
	Susan	95.2	X	X	X		604	White Jeep SP/Visit	1222		
1/12	SP/Claudia 604	96.2	X	X	X		Hyundai	pick up	1:03	1:05	
1/12	SP/ 321	95.2	X	X	X		Kyota	Visit	1:06	1:20	
1/12	taxi / Alma	9502	a	a	a			Truck / white	130		
1/12	fed Ex	95.2	a	a	a		—	fedex	1:34	1:40	
1/12	Remy	96.5	a	x	x		512	SP/Visit toyota	1:35	2:40	
1/12	Hale	952	x	a	a		917	SP Visit	2:30		
1/12	Martin	95.2	x	x	a		308	SP/Visit	3:00		
1/12	Monique	95.2	x	x	a		513	SP/Visit	3:10		
1/12	School Bus	92.3	x	x	x		—	School Bus	3:12	3:15	
1/12	School Bus	92.5	a	a	a		—	School Bus	3:15		
1/12	Door Dash / Drop	90.4	a	a	a		611	Mercedes	3:46		
1/12	Door Dash / Drop	95.7	x	x	x		611	Toyota	3:45	3:51	
1/12	SP / Drop	91.3	a	x	x		308	Mercades	3:45		

Glen oaks 3 / Herbert

12 vendor

501

428 visitor. Belen Carmona

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor	In	Out	Staff Y/N
1-11	Sp.	90.2	X	X	X		513		4:42		
1-11	SP	97.1	X	X	X		420	Droff	456	507	Y
1-11	Uber	95.3	X	X	X		319	Drop off	507	509	Y
1-11	VISTOR SP	93.3	X	X	X		508	pickup	513	514	Y
1-11	DOOR DASH	91.1	X	X	X		319	Drop off	513		Y
1-11	Sp. / on	97.5	X	X	X		208	BMW	5:21	5:23	
1-11	Amazon / Drop	93.6	X	X	X		116	Toyota	5:47	5:49	
1-11	DoorDash	96.5	X	X	X		Cell.	KIA	6:39	6:40	
1-11	Sp. / on	91.7	X	X	X		121	Kia	6:55	6:57	
1-11	Med / Drop	96.1	X	X	X		2	infinity	6:57	6:59	
1-11		93.4	X	X	X						
1-11	Alma	92.3	X	X	X		435		6:37		
1-12-23	MGT - 435 pickup	95.6	X	X	X		[illegible]				
1-12-23	Bible study teacher	96.3	X	X	X		Benz	Bible study	7:46	8:57	
1-12-23	Camera	93.4	X	X	X		Honda	Bible Study	7:50	8:59	
1-12-23	School Bus	94.7	X	X	X		N/A	School Bus	8:06	8:20	
1-12-23	Bible Study teacher bag	95.4	X	X	X		Ford	Bible Study	8:53	10:18	
1-12-23	Louie ville High	96.6	X	X	X		Chevy	Service	8:56	10:20	
1-12-23	Teacher	94.3	X	X	X		Lexus	teacher	9:01	10:02	
1-12-23	Abilina 420	94.4	X	X	X		Honda	pick up	9:35	9:40	
1-12-23	Uber 115	97.1	X	X	X		Ford	pick up	10:06	10:06	
1-12-23	Rachael *	93.6	X	X	X		Honda	kitchen vol.	10:52	12:16	
1-12-23	SP/Visit 60	94.2	X	X	X		Mazda	visit	10:57		
1-12-23	Brian	95.7	X	X	X		Hyundai	kitchen vol			

[redacted]

417

Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor			Staff Y/N
									1:55 IN	1:55 OUT	
1/11/23	Jamal	98.4	X	X	X		W	intern	11:27		
1/11/23	Jeff	95.9	X	X	X		Lexus	intern	11:30		
1/11/23	Intern	97.1	X	X	X		Ford	intern	11:44	11:48	Y
1/11/23	Amazon	96.3	X	X	X		Trans	Amazon	1:54	12:02	
1/11/23	S.P	97.1	X	X	X		Toyota	313/S.P V.ST	12:04	12:54	
1/11/23	Amazon	96.8	X	X	X		Benz	602/Amazon	12:06	12:21	
1/11/23	S.P	97.1	X	X	X		Kia	316/S.P Ust	12:13		
1/11/23	Uber eats	96.3	X	X	X		Toyota	116/Foodell	12:46	12:48	Y
1/11/23	UPS	95.8	X	X	X		Tesla	UPS	12:51		
1/11/23	431	99.9	X	X	X		VW	431/Foodel	12:54	12:57	Y
1/11/23	S.P - 208	97.1	X	X	X		Ford	208/S.P	1:00		
1/11/23	Med del	96.3	X	X	X		Kia	Med del	1:05	1:07	Y
1/11/23	429	96.4	X	X	X		Toyota	429 - Amazon flex	1:10	1:14	
1/11/23	434 - S.P	97.1	X	X	X		Toyota	434/S.P	1:54		
1/11/23	Uber - 209	96.3	X	X	X		Toyota	209/Uber	1:56	1:58	
1/11/23	Postmates	97.1	X	X	X		Chevy	Postmates	2:10	2:21	Y
1/11/23	AMZ - S.P	96.3	X	X	X			502/S.P V.ST	2:18		
1/11/23	door dash	96.3	X	X	X		Toyota	505/doordash	2:22	2:24	Y
1/11/23	School bus	97.1	X	X	X		Bus	First Stu	3:02	3:0	
1/11/23	School Bus	97.1	X	X	X		Bus	LAUSD	3:04	3:07	
1/11/23	505/Instacart	96.9	X	X	X		Kia	505/Instacart	3:17	3:19	
	[redacted]	93.1	X	X	X		2—				
1-11	S.P. / on	96.2	X	X	X		217	Honda	3:59		
1-11	Fred / on	92.1	X	X	X		219	Nissan	4:03	4:09	

6050

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Covid Questions/Checkin log

Date/Time	Name	Temp	COVID Symptomns	Flu like Symptomns	Exposed to Covid 19	License plate	Room #	Vendor	In / out	Staff Y/N
1-10	SP Hamlin	91.7	X	X	X					
1-10	mechanic	95.2	X	X	X					
1-10	Amazon / Drop	93.1	X	X	X					
1-10	DoorDash / Drop	96.4	X	X	X					
1-10	Mcd / Drop	97.1	X	X	X					
1-10	Abelina-sp	93.3	X	X	X					
1-10	Crystal	90.2	X	X	X					
1-10	Valerie	92.1	X	X	X					
1-10	School Bus	93.6	X	X	X					
1-11	School Bus	99.3	X	X	X					
1-11	Union Missin Film crew	95.6	X	X	X					
1-11	Film crew	96.1	X	X	X					
1-11	School Bus	94.3	X	X	X					
1-11	Chap Ana	96.5	X	X	X					
1-11	Adrienne	94.5	X	X	X					
1-11	Mary	96.3	X	X	X					
1-11	SP-Rose	97.1	X	X	X					
1-11	Grady's	96.2	X	X	X					
1-11	SP-Nelly	97.2	X	X	X					
1-11	Josh	96.1	X	X	X					
1-11	Micheal	92.1	X	X	X					
1-11	USPS	94.5	X	X	X					
1-11	Stephany-ube	96.5	X	X	X					
1-11	Ana	94.5	X	X	X					
							Honda	110 Visit.	4:40	
							Toyota	Mechanic	4:42	
								Chevy	5:52	5:59
							611	Ford	6:13	6:19
							N/A	Infinity	6:58	7:01
							Toyota	420 Drop off	8:08	8:08
							Honda	Customer	10:34	10:35
							Honda	Customer	10:44	10:45
							N/A	School Bus	6:48	6:50
							N/A	School Bus	6:54	7:00
							Toyota	Film crew	7:01	7:08
							BMW	Film crew	7:09	
							N/A	School Bus	6:02	
							Honda	Staff	8:34	
							Honda	Staff	8:34	
							Ford	Teacher	9:38	
							Ford	SP 3 Drop off	9:39	9:45
							Infinity	248 Visit	9:40	
							Toyota	512 Drop off	10:20	10:25
							Toyota	Volunteer	10:26	
							Sub	Volunteer	10:28	
							Ford	USPS	10:36	10:40
							Cadillac	1842	Film crew	
							Van	ASAP	10:55	

Attachment B

Construction Schedule

Hope Gardens Project

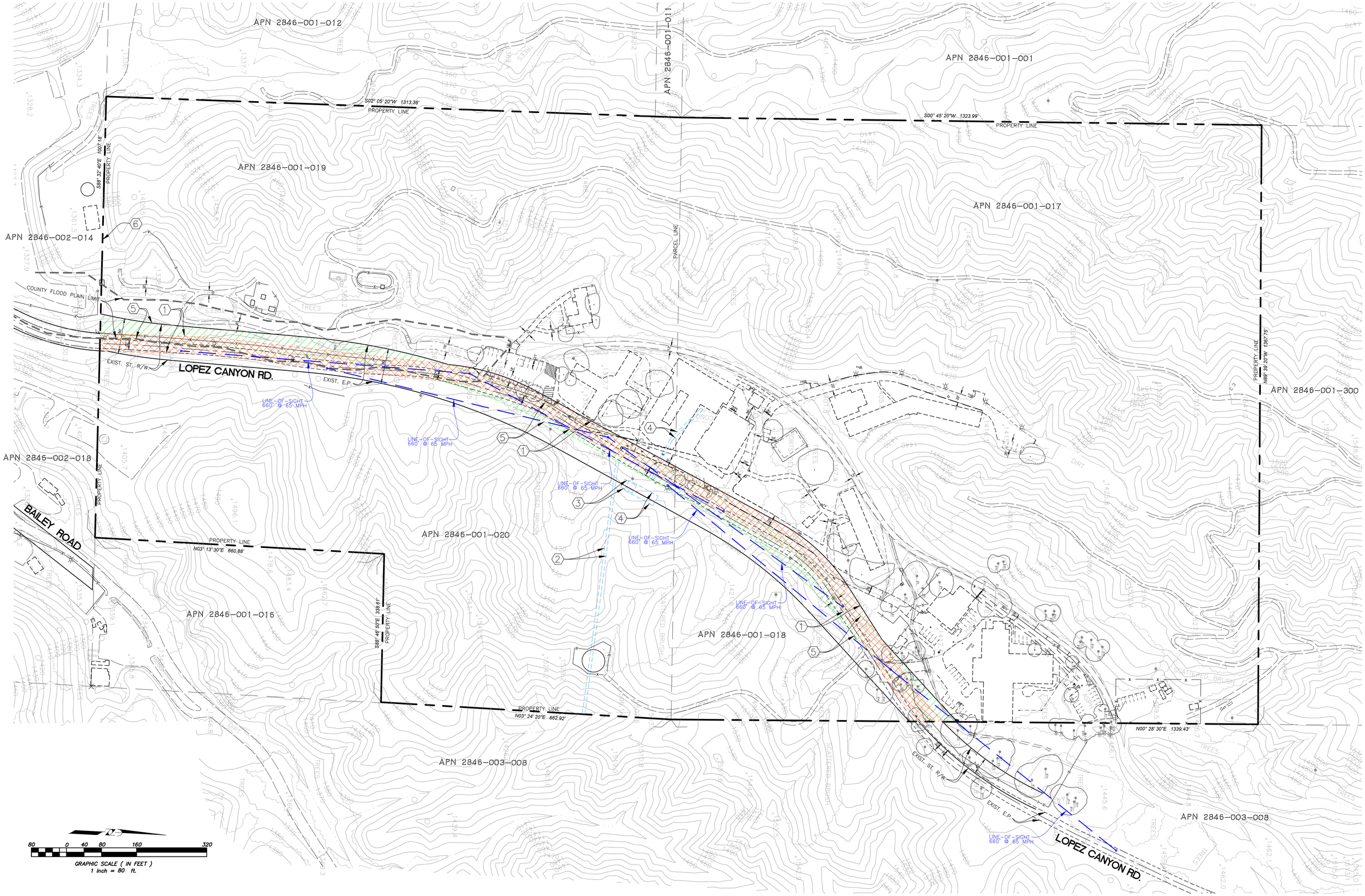
Air Quality Analysis Assumptions

									Construction (Sq Ft)		
Construction Details	**Start Date**	**End Date**	**Duration (Months)**	**Work Days**	**Max Daily Employees On-Site**	**Max Daily Hauls**	**Total Hauls**	**Max Daily Deliveries**	**Residential**	**Non-Residential**	**Parking (Spaces)**
Overall Duration	**7/2/2024**	**5/8/2026**	**23**	579	45.0	5.0	80.0	5.0			
Demolition	7/2/2024	7/23/2024	1	16	10	1	10	1			
Grading/Excavation	7/23/2024	8/22/2024	1	23	15	2	10	3			
Mat Foundation			-	-							
Building Foundation	9/1/2024	9/26/2024	1	19	20	1	10	5			
Building Construction	9/26/2024	2/8/2026	16	357	45	2	30	10			
Paving/Landscape	2/8/2026	5/8/2026	3	65	35	5	20	10			

Appendix 6-4

Line-of-Sight Exhibit

STOPPING LINE-OF-SIGHT EXHIBIT



EASEMENT NOTES

1. A 40' easement
   Granted to: County of Los Angeles
   Purpose: public road and highway purposes
   Recorded: August 20, 1931, inBook 11060, Page 182, of Official Records
   Affects: Lopez Canyon Road

2. A variable easement
   Granted to: Southern California Edison Company, a Corporation
   Purpose: Public utilities
   Recorded: June 10, 1949, in Book 30293, Page 88, of Official Records
   Affects: That portion of Parcel 2 as described therein

3. An easement
   Granted to: Southern California Edison Company, a Corporation
   Purpose: Public utilities
   Recorded: September 20, 1965, as Instrument No. 3731, of Official Records
   Affects: a strip of land 20 feet in width as more particularly described therein.

4. An easement
   Granted to: Southern California Edison Company, a Corporation
   Purpose: Public utilities
   Recorded: September 20, 1965, as Instrument No. 3732, of Official Records
   Affects: A strip of land 6 feet in width and a strip of land 25 feet in width as more particularly described therein.

5. An easement
   Granted to: County of Los Angeles
   Purpose: public road and highway purposes
   Recorded: August 18, 1971, as Instrument No. 3602, of Official Records
   Affects: Lopez Canyon road

6. An easement
   Granted to: James Moe
   Purpose: ingress and egress and private roadway purposes
   Recorded: May 9, 1983, as Instrument No. 83-517096, of Official Records
   Affects: That portion of said land as more particularly described therein.
   NOT PLOTTABLE.

OWNER/DEVELOPER:
UNION RESCUE MISSION
545 S. SAN PEDRO ST. LOS ANGELES, CA 90013
Ph: (213) 347-6300

LEGAL DESCRIPTION:
A.P.N. 2846-001-017, 2846-001-018
A.P.N. 2846-001-019, 2846-001-020

CUP EXHIBIT "A"
HOPE GARDEN SEQUOIA BUILDING
UNION RESCUE MISSION
12249 LOPEZ CANYON ROAD

IN THE UNINCORPORATED TERRITORY OF COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

DRAWN BY: LDC	12/07/2020		VERSION 2
CHECKED BY: S.H.			
DESIGNED BY: LDC			
	DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER ROBERT R. SIMS No. 21649 EXP. 9-30-23 CIVIL STATE OF CALIFORNIA

PREPARED BY:
LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
800 Royal Oaks Dr., Suite 140, Monrovia, California 91016
Ph.: (626) 578-7000, Fax: (626) 578-7373
http://www.ldcla.com

Robert R Sims, R.C.E. No. 21649 — 09/26/2022 DATE

Project. No. 17019-005
SHEET 5 OF 6

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Appendix 6-5

Wastewater Generation Analysis

PACE
Advanced Water Engineering

Technical Memorandum

REGISTERED PROFESSIONAL ENGINEER
DUONG T. DO
C 62802
Exp.6/30/2022
CIVIL
STATE OF CALIFORNIA

Date: November 10, 2020

To: Mr. Kevin Dretzka
Union Rescue Mission

From: Duong Do, P.E.
PACE Advance Water Engineering

Re: New Sequoia Hope Garden Building Expansion
Wastewater Generation Analysis # B748E

1.1 Objective and Project Background

The purpose of this analysis is to address the initial comments from the LA County Department of Public Health by providing an evaluation of the existing Non-Conventional Onsite Wastewater Treatment System (NOWTS) at the Hope Gardens Family Center Transitional Housing Facility. The analysis will determine if the facility can accommodate additional wastewater flow generation from the proposed development of a new 117 unit building to replace an existing 25-unit Sequoia Lodge building, resulting in a total increase of 92 additional units. Currently, the maximum allowed resident occupancy is 300 along with a maximum of 40 employees. The center is proposing to increase up to a maximum of 525 residents with a maximum of 40 staff employees.

The Hope Gardens Family Center Transitional Housing Facility is a transitional housing campus that offers assistance to women and children who are experiencing homelessness. In order to provide additional assistance to those in need, the Center proposes to make improvements to the existing 25-unit Sequoia Lodge Building located within the Center's 71-acre property located in Sylmar, CA. The improvements will increase the occupancy of the building from 25 units to 117 units. Figure 1 illustrates the propose Sequoia Lodge improvements.

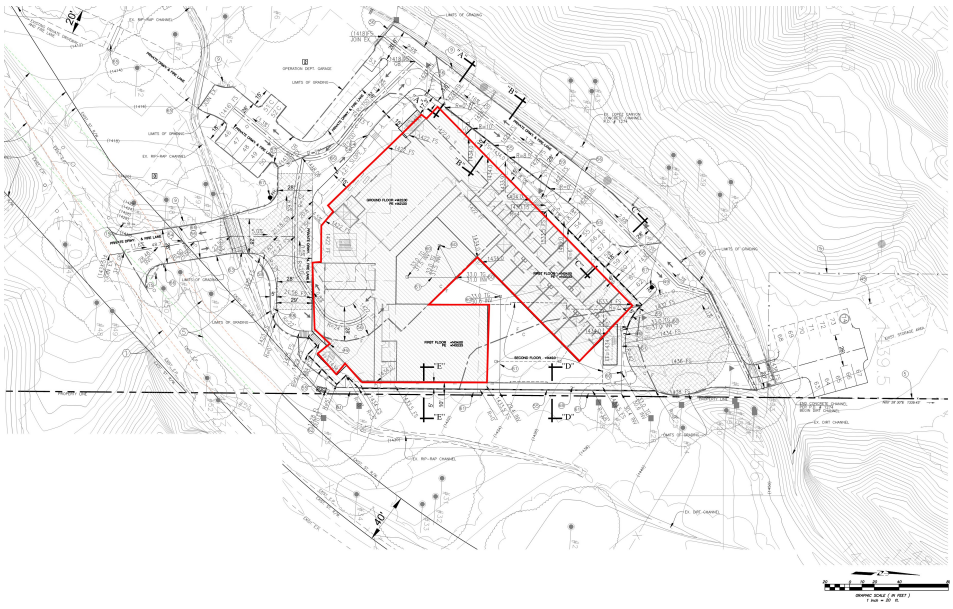


Figure 1 – Proposed Sequoia Lodge Development Plan

1.2 Existing Non-Conventional Onsite Wastewater Treatment System (NOWTS)

The existing operational facility was constructed in 1975 and is designed as a tertiary-class plant with extended aeration activated sludge, filtration and chlorine disinfection. Modification to the plant in 2006, provided a dedicated anoxic zone to improve process stability and provide denitrification capability. The plant currently consists of a manual bar screen, influent splitter box, two package secondary activated sludge plants, a secondary effluent metering station, a single secondary effluent clear well, two filter feed pumps, two pressure filters and a liquid sodium hypochlorite disinfection system. The NOWTS has a rated treatment capacity of 30,000 gpd per package system or 60,000 gpd combined. Currently, only the newer treatment package is in service. Table 1 summarizes the capacity of the existing facility. Figure 2 shows the process flow schematic for the facility.

Table 1 – NOWTS Treatment Components and Rated Capacity[1]

Unit Process Description	Rated Capacity
Manual Bar Screen	60,000 GPD
Extended Aeration Package Plants	30,000 GPD/ Unit
Filter Feed Pump Station and Tank	60,000 GPD
Rapid Sand Pressure Filter	60,000 GPD
Liquid Chlorine Disinfection	60,000 GPD

[1] Rated Capacity as evaluated in Union Rescue Mission WWTP Rehabilitation Plan Technical Memo dated December 18, 2012 (PACE).

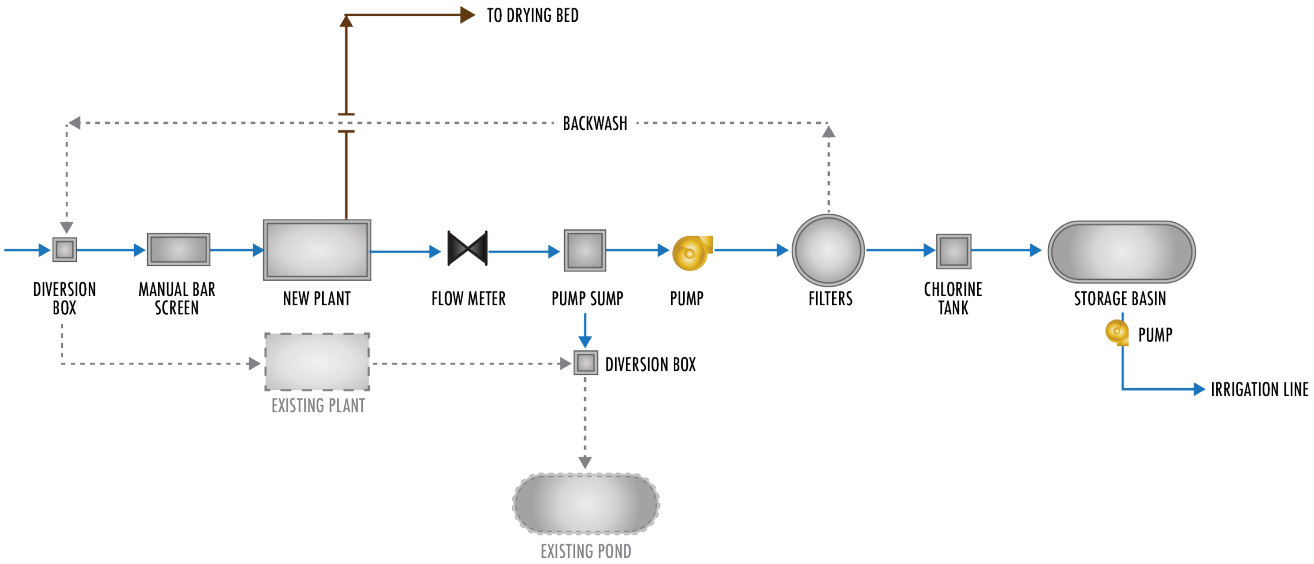
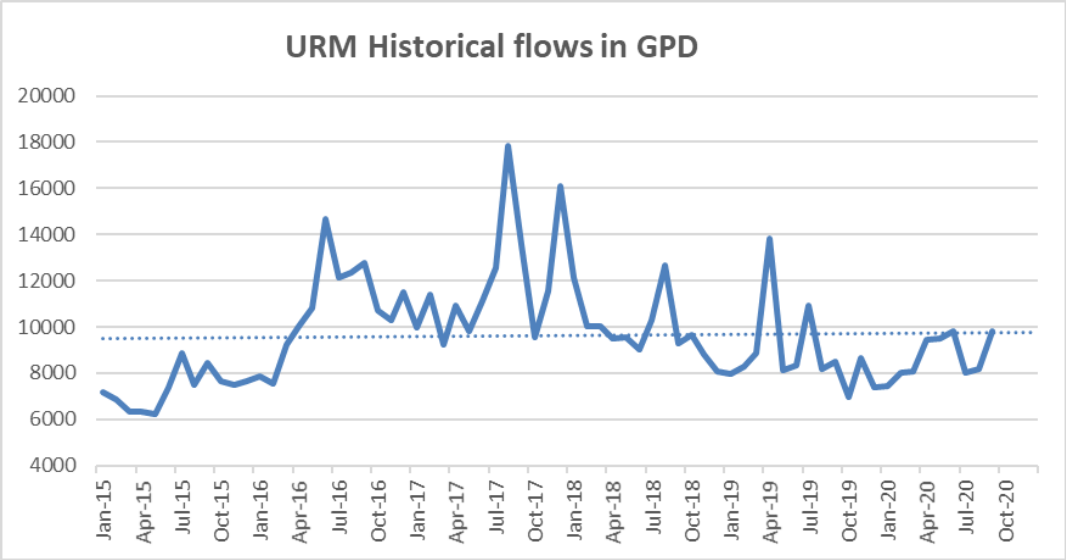


Figure 2 –NOWTS Process Flow Schematic

1.3 Existing Wastewater Flow and Wastewater Generation Rates

Wastewater flow data for the NOWTS is available for the past 5 years as measured by the existing flow meter at the NOWTS. The monthly average daily flow is approximately 9,600 gpd, with the highest and lowest monthly average daily flows of approximately 17,900 gpd (in August 2017) and 6,250 gpd (in May 2015), respectively. The monthly average daily flow for the past year is approximately 8,450 gpd. This is approximately 28% of the NOWTS treatment capacity with one package unit operating. Figure 3 illustrates the flow data from the past five years.

Figure 3 – Historical Wastewater Monthly Average Daily Flow[1]



[1] Flow data provided by NOWTS operator.

The wastewater generation rate of the Center can be determined by comparing the number of full-time residents with the wastewater flow generated each day. Table 2 shows the monthly wastewater generation rates for the Center. The average wastewater generation rate is 38.7 gpd/capita. The maximum month wastewater generation rate is 47.7 gpd/capita.

Table 2 – Hope Garden Center Wastewater Generation Rates

Date	Ave Daily Flow (GPD)	No. of Occupants[1]	Current Employees	Current Tot Population	WW Generation Rates (GPD/cap)
Oct-19	6951	235	0	235	29.6
Nov-19	8653	242	0	242	35.8
Dec-19	7398	233	0	233	31.8
Jan-20	7457	233	0	233	32.0
Feb-20	8035	214	0	214	37.5
Mar-20	8066	216	0	216	37.3
Apr-20	9463	218	0	218	43.4
May-20	9483	219	0	219	43.3
Jun-20	9823	213	0	213	46.1
Jul-20	8021	203	0	203	39.5
Aug-20	8199	203	0	203	40.4
Sep-20	9833	206	0	206	47.7
				Ave	**38.7**
				Max	**47.7**

[1]Occupancy data provided by the Hope Garden Center

During the evaluation period, there were 29 staff employees that worked at the Center. These employees contribute to the wastewater flow; however, their contributions are typically limited to daytime use and are

significantly less than full time residents (i.e, approximately 16 -20% of full-time residents[1]). To be conservative in determining the wastewater generation rate, the employees were not included in the total population at the center.

1.4 Projected Wastewater Flow

The proposed expansion of the Sequoia Lodge from 25 units to 117 units will allow the Center to increase its total residents at the Center up to a maximum of 525 residents, along with a maximum of 40 staff employees. Using the average and maximum wastewater generation rates, the wastewater flow is projected to increase to approximately 18,200 gpd and 22,280 gpd, respectively. This includes considering a 20% contribution of flow from employees for additional conservatism to the projected wastewater flow. This would represent approximately 60% and 74%, respectively, of the rated treatment capacity of the NOWTS using one package treatment system. Table 3 shows the projected wastewater flow at build-out.

Table 3 – Hope Garden Center Wastewater Flow Project at Build-out

WW Generation Rates (GPD/cap)	Build-Out Max Residents	Max Employees[1]	Build-Out WW Flow (GPD)
34.2	525	40	18,204
41.8	525	40	22,279

[1]Employee contributes 20% of typical resident's wastewater flow.

1.5 Analysis Conclusion

With a projected flow at build-out of approximately 22,280 gpd using the maximum wastewater generation rate of 47.7 gpd/capita, the existing NOWTS will only be a 74% of its rated treatment capacity. Therefore, it is concluded that the NOWTS will have sufficient treatment capacity to handle additional wastewater flow from the development of the new Sequoia Lodge Building.

[1] Based on Daily Usage data from CalGreen Guidelines and USEPA Water Conservation Guidelines.

Appendix 6-6

Los Angeles County Public Works TIA Approval Memo

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100

http://dpw.lacounty.gov

MARK PESTRELLA, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460
IN REPLY PLEASE
REFER TO FILE: T-4

August 21, 2023

Mr. Richard Gibson
Gibson Transportation Consulting Incorporated
555 West 5th Street, Suite 3375
Los Angeles, CA 90013

Dear Mr. Gibson:

12249 LOPEZ CANYON ROAD
TRANSPORTATION IMPACT ANALYSIS SCREENING ANALYSIS
HOPES GARDEN EXPANSION PROJECT (JUNE 28, 2023)
UNINCORPORATED KAGEL/LOPEZ CANYONS AREA

Public Works reviewed the Transportation Impact Analysis Screening Analysis for the proposed Hopes Garden Expansion Project located at 12249 Lopez Canyon Road in the unincorporated Kagel/Lopez Canyons area.

For the project's transportation impact determination, we evaluated the project using Los Angeles County Public Works Transportation Impact Analysis guidelines (July 23, 2020). According to the County's Transportation Impact Analysis guidelines, a development project that is not estimated to generate a net increase of 110 or more daily vehicle trips is presumed to have less than significant impact on the trip generation in the project area. Since the project will generate 100 net new daily trips, the project is presumed to have a less than significant transportation impact.

We generally agree with the findings in the Transportation Impact Analysis Screening Analysis and the project is assumed to have a less than significant transportation impact.

If you have any questions, please contact Mr. Stephen Lamm, Traffic Safety and Mobility Division, at (626) 300-4764 or slamm@dpw.lacounty.gov.

Very truly yours,

MARK PESTRELLA, PE
Director of Public Works

for ELAINE KUNITAKE
Assistant Deputy Director
Traffic Safety and Mobility Division

JH:al
SP:\TSM\STUDIES\LTR&MEMO\20230808 ESTU2023000084HOPEGRDN