

## **APPENDIX B**

---

# **Final Extended Phase I Cultural Resources Assessment Report**

**EXTENDED PHASE I CULTURAL RESOURCES ASSESSMENT  
HOUSING EXPANSION PHASE 1 – HOUSING ADMINISTRATION AND  
COMMONS BUILDING PROJECT  
CALIFORNIA STATE UNIVERSITY, LONG BEACH  
LOS ANGELES COUNTY, CALIFORNIA**



***Prepared for:***

California State University, Long Beach  
Office of Physical Planning and Sustainability  
1331 Palo Verde Avenue  
Long Beach, CA 90815

***Prepared by:***

AECOM  
300 S. Grand Avenue, Suite 200  
Los Angeles, CA 90071

***Authors:***

Marc A. Beherec, Ph.D., RPA  
With contributions by Jay Rehor, M.A., RPA

April 2020

U.S.G.S. Quadrangle: Los Alamitos, CA

Keywords: Gabrielino, Juaneño, Puvungna, Puvunga Indian Village  
Historic District, CA-LAN-234, CA-LAN-235, CA-LAN-306, Lillian  
Valenzuela Robles



## TABLE OF CONTENTS

<b><u>Section</u></b>	<b><u>Page</u></b>
EXECUTIVE SUMMARY .....	v
INTRODUCTION .....	1
Report Organization.....	1
Project Personnel .....	1
PROJECT DESCRIPTION.....	3
Project Location and Setting.....	3
Project Description.....	3
SETTING.....	9
Environmental Setting .....	9
Geologic Setting.....	9
Cultural Setting .....	11
Prehistoric Overview .....	11
Historic Overview.....	12
ARCHIVAL RESEARCH.....	19
Previous Cultural Resources Investigation Reports.....	19
Previously Recorded Cultural Resources Site Records .....	22
Previous Archaeological Investigations at CA-LAN-234 and CA-LAN-235.....	24
Historic Maps and Aerial Photographs .....	28
Geoarchaeological Analysis.....	31
Sacred Lands File Search.....	36
SURFACE SURVEY AND SUBSURFACE PROBING .....	37
Methodology .....	37
Results.....	38
Surface Survey .....	38
Subsurface Probing.....	38
IMPACTS ASSESSMENT AND MANAGEMENT RECOMMENDATIONS .....	53
Regulatory Setting .....	53
National Register of Historic Places .....	53
California Register of Historical Resources .....	53
National Register of Historic Places and California Register of Historical Resources Listing Status .....	54
Recommendations.....	59
Archaeological Recommendations .....	59
REFERENCES CITED.....	61



## APPENDICES

- A Resumes
- B “Of the Creation of the World According to Those Residing on the Sea-Coast” (excerpt from Boscana 1978)
- C Ancestor Walk 2019 flyer
- D “Previous Work at Sites CA-LAN-234 and CA-LAN-235” (Altschul 1994a)
- E Sacred Lands File Search Results
- F Department of Parks and Recreation Forms (*Confidential*)

## LIST OF FIGURES

<b><u>Figure</u></b>	<b><u>Page</u></b>
Figure 1 Project Vicinity .....	6
Figure 2 Project Location Map.....	7
Figure 3 Proposed Site Plan .....	8
Figure 4 Geologic Map.....	10
Figure 5 Project Area Overlaid on 1965 Aerial Photograph .....	27
Figure 7 CSULB Infrastructure.....	32
Figure 8 Project Area Soils Map .....	33
Figure 9 Archaeological Probe Locations (Shovel Test Pits) .....	39

## LIST OF PLATES

<b><u>Plates</u></b>	<b><u>Page</u></b>
Plate 1: Puvungna in Relation to Rancho Los Alamitos Ranch House (Robinson 1942: Centerfold). .....	14
Plate 2: STPs 7 and 8 in Earl Warren Drive Median, Overview, View South. ....	40
Plate 3: STP 9 in Earl Warren Drive Median, Overview, View North.....	40
Plate 4: STPs 5, 4, 3, and 2 in West Lawn, Overview, View North. ....	44
Plate 5: STP 6, Overview, View Southeast.....	44
Plate 6: Obsidian Shatter from STP 6. ....	45
Plate 7: East Lawn STPs 15 and 14, Overview, View North. ....	48
Plate 8: East Lawn STPs 11, 12, and 13, Overview, View Southwest. ....	48

## LIST OF TABLES

<b><u>Tables</u></b>	<b><u>Page</u></b>
Table 1. Previous Investigations Conducted within 0.5 Mile of the Project Area.....	19
Table 2. Previously Recorded Cultural Resources within 0.5 Mile of the Project Footprint .....	22
Table 3. Radiocarbon dates from CA-LAN-235 (Boxt and Raab 2000:57) .....	26
Table 4. Summary of Official Soil Series Descriptions for Project Area .....	34
Table 5. STP 8 Stratigraphy and Findings .....	41
Table 6. STP 7 Stratigraphy and Findings .....	41
Table 7. STP 9 Stratigraphy and Findings .....	42
Table 8. STP 1 Stratigraphy and Findings .....	42
Table 9. STP 10 Stratigraphy and Findings .....	43
Table 10. STP 6 Stratigraphy and Findings .....	45
Table 11. STP 5 Stratigraphy and Findings .....	46
Table 12. STP 4 Stratigraphy and Findings .....	46
Table 13. STP 2 Stratigraphy and Findings .....	47
Table 14. STP 3 Stratigraphy and Findings .....	47
Table 15. STP 15 Stratigraphy and Findings .....	49
Table 16. STP 14 Stratigraphy and Findings .....	49
Table 17. STP 13 Stratigraphy and Findings .....	50
Table 18. STP 12 Stratigraphy and Findings .....	50
Table 19. STP 11 Stratigraphy and Findings .....	51



## EXECUTIVE SUMMARY

AECOM was retained by California State University, Long Beach (CSULB) to conduct an Extended Phase I cultural resources assessment to identify potential impacts to cultural resources in compliance with provisions of the California Environmental Quality Act (CEQA) resulting from the Housing Expansion Phase 1 – Housing Administration and Commons Building Project (project). The project site is located on the CSULB campus in the eastern portion of the City of Long Beach, California (Figure 1). The project site is centrally located within Hillside College (Figure 2). Hillside College is bounded by the campus border with the Veterans Affairs Long Beach Healthcare System campus to the south, Earl Warren Drive to the west, the campus's Parking Lot G4 and the Bouton Creek channel to the north, and Merriam Way and Student Health Services to the east.

The proposed project would demolish the existing 5,700-square-foot Hillside Office/Commons building and construct in its place a new two-story, 8,000-square-foot commons building and a new one-story, 4,500-square-foot Housing and Residential Life (HRL) office building (Figure 3). Existing building-serving utilities, including storm drain, electrical, and water and wastewater, would be removed and replaced to appropriately serve the new buildings. The existing median of Earl Warren Drive would be reshaped, pedestrian pathways installed, and a bioretention area placed in the northwest lawn. Construction would also involve the removal of up to 55 trees. CSULB's "Campus Forest" initiative aims to replace trees on at least a one-for-one basis either within the project site or elsewhere on campus, and therefore up to 55 new trees would be planted as part of the project. New landscaping would also be installed as part of the proposed project. Construction-related disturbance would encompass an area of approximately 2 acres (project area). Excavations within the disturbance area would extend to a maximum depth of 10 feet below ground surface (bgs).

A records search in connection with this project was conducted at the South Central Coastal Information Center (SCCIC) housed at California State University, Fullerton. The records search revealed that the entire project area has been the subject of previous cultural resources surveys conducted between 1974 and 2011. Twenty previous studies encompass portions of the project area, and one cultural resource has been recorded in an area partially overlapping the project area. As presently mapped, Site CA-LAN-235 (P-19-000235) overlaps the western boundary of the project area, encompassing Earl Warren Drive and a portion of the western lawns in front of the existing Hillside Office/Commons building. The site is a contributor to the Puvunga Indian Village Historic District, which is a complex of three sites listed on the National Register of Historic Places (NRHP). The other two sites in the district are located in the vicinity of CA-LAN-235. CA-LAN-234 is located to the south of the project site overlapping the CSULB campus and the Veterans Administration campus. The third site, CA-LAN-306 is located to the southeast in the vicinity of Bixby Ranch. However, CA-LAN-235 has never been evaluated for NRHP eligibility as an individual property. Site records and other studies, initially prepared in 1960, indicate this site extended from the surface to a depth of up to approximately 1 meter (within the boundaries of CA-LAN-235 just west of the project area). The study found that the project area is situated on an uplifted Pleistocene marine landform with substantial soil development at the surface. This landform is capped with imported fill and disturbed/redeposited

native sediments of variable depths but is generally found between 30 and 100 cm bgs. This disturbed fill includes shell fragments and a small quantity of out-of-context historic and prehistoric artifacts. Disturbed archaeological sites generally have diminished scientific data potential, but may retain some cultural importance, particularly to descendant Native American groups.

A Sacred Lands File search conducted for the Housing Expansion project by the Native American Heritage Commission (NAHC) was positive. The NAHC identified five Gabrielino tribal organizations that it recommended contacting for more information. Each of these tribes, in addition to one Juaneño tribe not identified by the NAHC but known by CSULB to have an interest in the area, has been contacted by CSULB under Assembly Bill (AB) 52 consultation.

A portion of the Puvunga Indian Village Historic District known as “the 22 acres,” located to the west of Earl Warren Drive, is actively used for ceremonies by Native American groups. The proposed project will have no impact on that particular part of the district.

A field survey was conducted as part of this assessment to determine whether any archaeological resources are present in the project area. The field survey covered the entire project area that would be subject to ground-disturbing activities, including that portion of CA-LAN-235 which extends into the project area. No evidence of CA-LAN-235 was observed on the ground surface where the archaeological site overlaps with the project area. A small amount of fragmentary marine shell was observed on the east lawn outside the recorded boundary of CA-LAN-235, but no artifacts were observed. However, because the ground surface was obscured by pavement, buildings, and lawns, the field survey was deemed inconclusive.

Because the field survey was inconclusive, limited subsurface probes using a combination of shovel test pits and augers were conducted within the project area. All work was conducted in the presence of a qualified Gabrielino/Tongva Native American monitor. A total of 15 such probes were opened within the project area, nine of which were located within the recorded boundary of CA-LAN-235. Thirteen of the probes revealed historic refuse or active utilities to depths of up to 50 cm. A small amount of very fragmentary shell was found in 14 of the 15 probes. One small fragment of what may be chipped stone waste was recovered alongside recent refuse from the top 10 cm of one probe. No other cultural materials were observed in the probes. These findings correlate with the tentative profile established in the desktop geoarchaeological study, which indicated that a layer of disturbed, redeposited soil including a small quantity of contemporary artifacts and possibly some prehistoric artifacts, overlies the Pleistocene terrace that predates human occupation of the site. It is likely that the portion of the archaeological site located within the project area was destroyed during the construction of the existing Earl Warren Drive and Hillside buildings in 1969 to 1970 and the subsequent maintenance of these structures.

CA-LAN-235 is listed on the NRHP as a contributor to the Puvunga Indian Village Historic District because of its significance under all four NRHP criteria for evaluation. However, the project is anticipated to have no impact on the site’s or district’s significance under any of the NRHP criteria. Under Criterion A/1, implementation of the proposed project will not reduce the importance the site has and Puvungna had for Native American religious development, and the public’s and the tribes’ ability to access the property and conduct ceremonies as well as the

Ancestor Walk would not be impeded by implementation of the proposed project, and it would continue to be used as a cultural gathering place. Under Criterion B/2, with implementation of the proposed project the site will retain its importance in its connection to gods or culture heroes and would not impact the site's association with Ouiot, Chinichnich, Lillian Robles, or any of the other supernatural beings and prophets who made their careers there. Under Criterion C/3, the proposed project would be limited to the portion of the site that is already disturbed and built-upon, and will not impact the undeveloped 22-acre portion of the site that serves as the site's most symbolic remnant of Puvungna and that was historically important in the struggle led by Lillian Robles. Under Criterion D/4, as no intact archaeological deposits were encountered during the archaeological probing, it is anticipated that no intact deposits exist within the project area.

Although no intact cultural deposits were identified within the project area during the course of the field survey or probes, archaeological resources may be located within the project area. It is recommended that, after the demolition of the existing buildings and hardscaping, but before construction of the new proposed facilities, limited geoarchaeological trenching be conducted within the project area. The purpose of the trenching is to: (1) confirm that no archaeological deposits are present within the existing building footprints where testing was not possible; and (2) create a master stratigraphy of the project area to verify the stratigraphic conclusions drawn in this report, regarding the redeposition of shell-bearing sediments and emplacement over a culturally sterile Pleistocene landform.

Due to the sensitivity of the project area, it is recommended that a project-specific cultural resources monitoring and discovery plan (CRMDP) be developed in consultation with the State Historic Preservation Officer (SHPO). The monitoring plan should identify what activities require monitoring, describe monitoring procedures, and outline the protocol to be followed in the event of a find. Criteria should be outlined and triggers identified when further consultation is required for the treatment of a find. Key staff should be identified, and the process notification and consultation should be specified within the CRMDP. A curation plan should also be outlined within the CRMDP. All work should be conducted under the direction of a qualified archaeological Principal Investigator who meets the Secretary of the Interior's standards for archaeology.

In accordance with mitigation measures established by the CSULB Master Plan Update, dated May 2008 (Master Plan Archaeological Resources MM-1), CSULB employs archaeological and Native American monitors during ground-disturbing activities associated with university construction. Native American monitoring should be conducted by a qualified Native American monitor. The monitor should be chosen from the tribes who have shown interest in the project and who are traditionally and culturally affiliated with the geographic area of the proposed project, as determined by CSULB in consultation with the NAHC.

In the event archaeological resources are encountered during archaeological monitoring, the archaeological monitor should halt work in the immediate vicinity until the discovery is assessed by the qualified project archaeologist, and appropriate treatment determined by CSULB in keeping with the CRMDP and, as appropriate, in consultation with the SHPO. If archaeological resources of Native American origin are encountered, interested Native American parties should

be consulted in order to apprise them of the findings and solicit any comments they may have regarding appropriate treatment and disposition of the resources. It is recommended that the tribal cultural monitor maintain logs of all activities monitored, and that this documentation be made available to all consulting Native American parties.

If human remains are discovered, work in the immediate vicinity of the discovery should be suspended and the Los Angeles County Coroner contacted. If the remains are deemed Native American in origin, the Coroner will contact the NAHC and identify a Most Likely Descendant pursuant to Public Resources Code Section 5097.98 and California Code of Regulations Section 15064.5. Work may be resumed at the university's discretion but should only commence after consultation and treatment have been concluded. Work may continue on other parts of the proposed project while consultation and treatment are conducted.

## INTRODUCTION

This report documents an Extended Phase I cultural resources assessment in connection with the Housing Expansion Phase 1 – Housing Administration and Commons Building Project (proposed project). The proposed project proposes to demolish the existing 5,700-square-foot Hillside Office/Commons building and construct in its place a new two-story, 8,000-square-foot commons building and a new one-story, 4,500-square-foot Housing and Residential Life (HRL) office building on the California State University, Long Beach (CSULB) campus in the City of Long Beach, Los Angeles County, California. Associated improvements will also be made surrounding the building and within Earl Warren Drive.

This document supports an Environmental Impact Report prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq. and the State CEQA Guidelines, California Code of Regulations Section 15000 et seq.

## REPORT ORGANIZATION

This report is organized following the *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format* guidelines, Department of Parks and Recreation, Office of Historic Preservation, State of California, 1990. These guidelines provide a standardized format and suggested report content, scaled to the size of the proposed project. This report first includes a project description including project location and setting, and proposed project work. Next, the environmental and cultural settings of the proposed project area are presented. This is followed by the archival research methods and results. Then survey methodology and results are described. The next section summarizes the results of the cultural resources investigation and provides conclusions for project mitigation. The final section provides evaluation and management recommendations.

## PROJECT PERSONNEL

AECOM personnel involved in the cultural resources assessment are as follows: Marc A. Beherec, Ph.D., RPA, served as principal report author, conducted archival research, and conducted archaeological survey; Jay Rehor, M.A., RPA prepared the geoarchaeological section; Frank Humphries, M.S., RPA, assisted in the archaeological survey; Edgar Perez and Samuel Dunlap, both of the Gabrielino/Tongva Nation, provided Native American monitoring; Andrew York, M.A., RPA, performed senior review; and Alec Stevenson, M.A., RPA, provided graphics and geographic information system support. Resumes of key personnel are included in Appendix A.





## **PROJECT DESCRIPTION**

### **PROJECT LOCATION AND SETTING**

The proposed project site is located on the CSULB campus in the eastern portion of the City of Long Beach, California (Figures 1, 2). The CSULB campus encompasses 322 acres and is bounded by East Atherton Street to the north, Palo Verde Avenue to the east, East 7th Street to the south, and Bellflower Boulevard to the west. Primary vehicular access to the campus is via Earl Warren Drive and Merriam Way from East Atherton Street, State University Drive from Palo Verde Avenue, West Campus Drive and East Campus Drive from East 7th Street, and Beach Drive from Bellflower Boulevard. Interstate 405 (I-405) runs east to west north of the campus and provides regional access to the campus via access ramps at Palo Verde Avenue and Bellflower Boulevard. State Route 22 (SR-22) provides direct access to East 7th Street just southeast of the campus. Interstate 605 (I-605) terminates at I-405 and SR-22 approximately 1 mile east of campus.

The proposed project site is centrally located within the campus's Hillside College residence hall complex, as shown in Figure 3. The Hillside College complex is bounded by the campus border with the Veterans Affairs to the south, Earl Warren Drive to the west, the campus's Parking Lot G4 and the Bouton Creek channel to the north, and Merriam Way and Student Health Services to the east. Merriam Way provides vehicular access to the Hillside College surface parking lot from the east. Earl Warren Drive is a two-lane road that provides primary north-south vehicular access to the campus. The portion of Earl Warren Drive fronting the existing Hillside College complex is a fire lane and a stop for the campus Beachside Shuttle. No parking is allowed.

The proposed project site includes the existing Hillside Office/Commons building, which fronts Earl Warren Drive, and is generally bound by the Hillside College complex's surface parking lot (Lot G2) to the west, Hillside residence halls to the north and south, and the Hillside Dining Hall to the east. The existing one-story building was constructed in 1969 in a Mid-Century Modern style, which is characterized by wood or steel framing, rectilinear building forms, open interior planning, flat or low-pitched roofs, and integration of building and landscape. The building is irregularly shaped with a brick exterior and features a flat roof, which extends into a covered walkway that connects the building to the dining hall to the east.

The proposed project is located on a gentle hill, sloping from the southeast towards the north and northwest towards Bouton Creek. Elevations range from approximately 45 feet above mean sea level (amsl) to approximately 20 feet amsl. Historic maps indicate the project location formerly stood overlooking the Bouton Creek floodplain, which in turn emptied into estuaries and marshes of Alamitos Bay, approximately 1.25 miles to the southeast.

### **PROJECT DESCRIPTION**

The project proposes to demolish the existing 5,700-square-foot Hillside Office/Commons building and construct two new buildings in its place: a two-story, 8,000-square-foot commons

building and a single-story, 4,500-square-foot HRL office building. The proposed commons building would be a maximum of 38 feet tall and the proposed HRL building would be a maximum of 26 feet tall. The two buildings would flank a canopy-covered central courtyard that would serve both, and the main entrances to the two buildings would face each other across the courtyard. The proposed commons building would replace the commons area in the existing Hillside Office/Commons building and would serve a similar purpose, providing study and recreational areas for students. Five one- and two-bedroom apartments and an outdoor terrace would be included on the second floor of the proposed commons building to replace two one-bedroom apartments that would be lost to demolition of the in the existing Hillside Office/Commons building. The proposed commons building would be ADA-accessible and include an elevator in the northeastern portion of the building as well as two staircases on the east and west sides of the building. Existing building-serving utilities, including storm drain, electrical, and water and wastewater, would be removed and replaced to appropriately serve the new buildings. Recycled water pipelines would be installed to save approximately 4,300 gallons of potable water daily. Up to 55 landscape trees would be removed with the proposed project to allow for construction. New landscaping would also be installed as part of the project. CSULB's "Campus Forest" initiative aims to replace trees on at least a one-for-one basis either within the project site or elsewhere on campus, and therefore up to 55 new trees would be planted as part of the project.

Bioswales with native riparian planting would be installed throughout the western and northern perimeters of the project site and flow towards the proposed bioretention area. Bioswale, open space, and rainwater management would capture and/or infiltrate 100 percent of stormwater for groundwater recharge.

To construct the proposed project, pedestrian and vehicular access in the area would be modified. Concrete in pathways surrounding the existing Hillside Office/Commons building would be removed and replaced to appropriately serve the proposed buildings. The median on Earl Warren Drive in front of the existing Hillside Office/Commons building would be removed to accommodate the proposed buildings, which extend farther west than the existing building. Additionally, the existing northern and southern medians would be shortened for the section of road along the project site where the curb is shifted. This would require demolition of asphalt, repaving, and restriping. The two northbound and two southbound lanes on Earl Warren Drive would be maintained in the vicinity of the proposed project. Additionally, the drop-off/pick-up zone would remain in front of the proposed HRL office building and proposed commons building. The campus shuttle zone would be slightly shifted to the north of the existing zone. The project would not include additional parking facilities. The proposed project is not expected to generate additional vehicle trips during operation since the buildings would serve existing students.

Construction-related disturbance would encompass an area of approximately 2 acres; would be excavated to a maximum depth of 10 feet; and would involve several phases, including demolition, site preparation, structural work, and architectural coating. The demolition phase would take approximately 2 months and include utilities work; hazards abatement, as necessary; demolition of the existing Hillside Office/Commons building; and clearing and grubbing of the area. Following demolition, foundations would be constructed for the proposed HRL office

building and proposed commons building, utilities would be installed underground, and concrete slabs would be poured. Once the foundations are completed, structural work for the buildings would begin, including erecting the steel structures, metal decking, and reinforcing and fireproofing the structures. Following structural work, the buildings' exteriors would be completed. Lastly, interior construction, finishes, and installation of mechanical, electrical, and plumbing systems would occur.

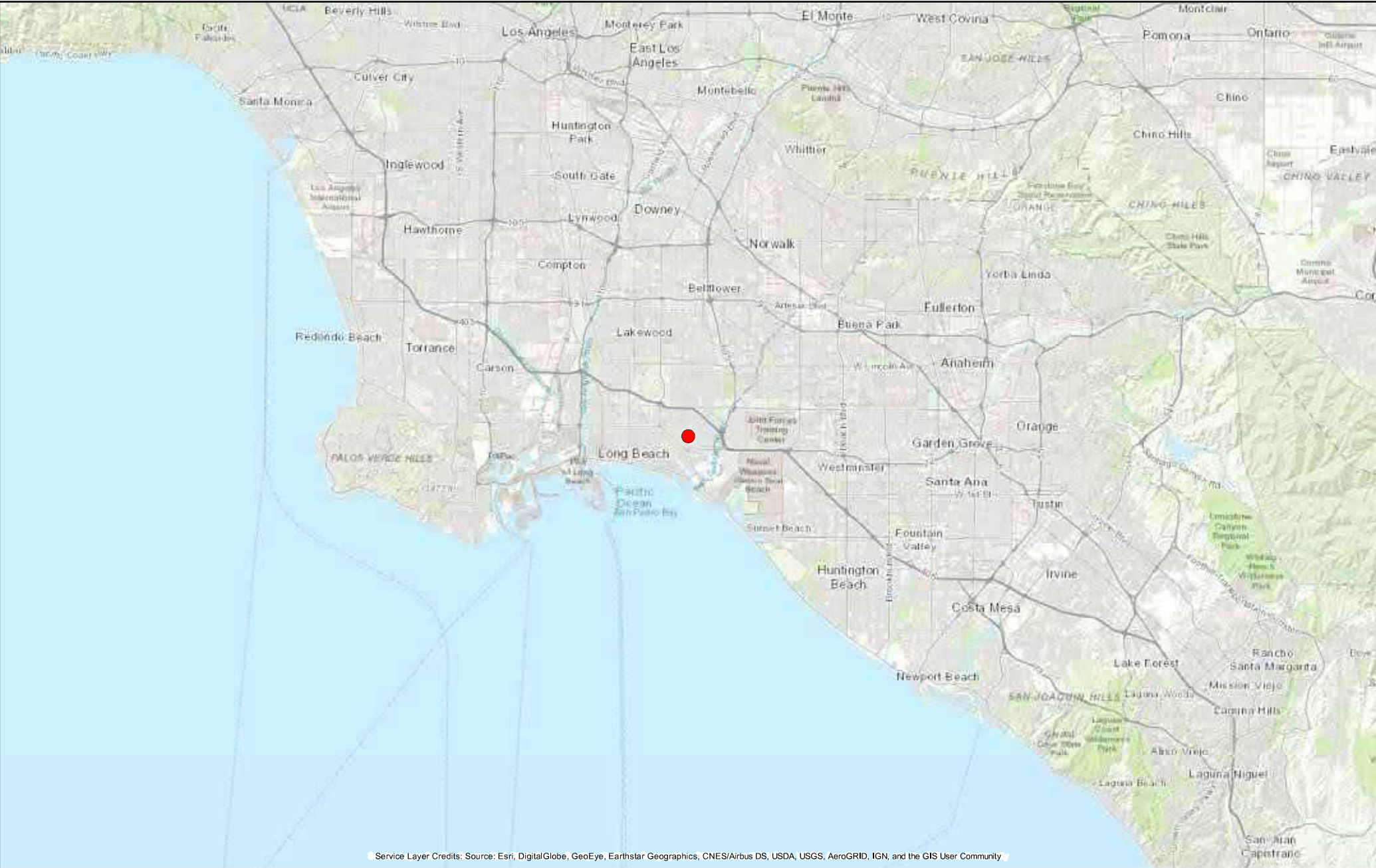
Construction activities for Earl Warren Drive would disturb approximately 0.75 acre and generally be excavated up to 2 feet, and include demolition, site preparation, and paving. Limited utility trenching for a reclaimed water line would require excavation of 4 to 6 feet along the northern section of the northbound lanes of Earl Warren Drive for approximately 270 linear feet. Prior to demolition, the area would be cleared and grubbed. The existing concrete asphalt pavement would be demolished, graded and compacted, and restriped.

A temporary partial closure of Earl Warren Drive would be required during most construction activities. Earl Warren Drive would be reduced to a single lane in each direction during construction hours for equipment and material deliveries. In addition, Earl Warren Drive would be reduced to one lane for approximately three to six weeks to resurface the street. The southbound lane of Earl Warren Drive closest to parking lot G2 would remain open and access to lot G2 would be maintained throughout the project duration. A vehicular and pedestrian traffic management plan addressing partial closure of Earl Warren Drive would be developed and approved prior to the start of construction.

Approximately 4,000 cubic yards of excavated soil and 1,060 tons of demolition debris would be hauled to Puente Hills Materials Recovery Facility, located approximately 23 miles north of the project site.

Five locations have been identified within the campus as potential areas for a construction laydown yard for the proposed project. One identified location is on Earl Warren Drive within the project site in the lane closest to the existing Hillside Office/Commons building. Additionally, two locations in existing parking lots and two locations within the Hillside College complex have been identified. The potential construction laydown yard locations within existing parking lots would either be in Lot R2, located north of the Bouton Creek flood control channel and east of Earl Warren Drive, or Lot R1, located east of the Hillside Dining Hall. If chosen as the construction laydown yard location, a portion of the existing parking lot would be fenced off and temporarily unavailable to park in as the space would be used for stockpiling soils until they can be hauled off-site. Access to the parking lot entrance would be maintained, and parking spaces would be restored following construction activities. The potential construction laydown yard locations within the Hillside College complex would either be in the open area between Los Cerritos Hall and Beach Drive, or in the open area between of Los Alamitos Hall and surface parking lot G4. The open areas would be restored following completion of construction activities.

Following construction, the proposed project would generally serve the same function as the existing Hillside Office/Commons building currently does, providing office space and a location for students to study and lounge. It is anticipated that the new HRL office building and new commons building would be open to students on a 24-hour basis, 7 days a week. In addition, the fire lane and bus stop along Earl Warren Drive would be restored.

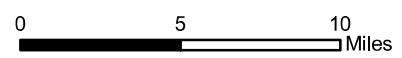


Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



**Legend:**

- Project Location



Scale: 1:380,000  
1 in = 6 miles

Date: 1/3/2020  
Projection: NAD 83 UTM Zone 11N



Hillside College

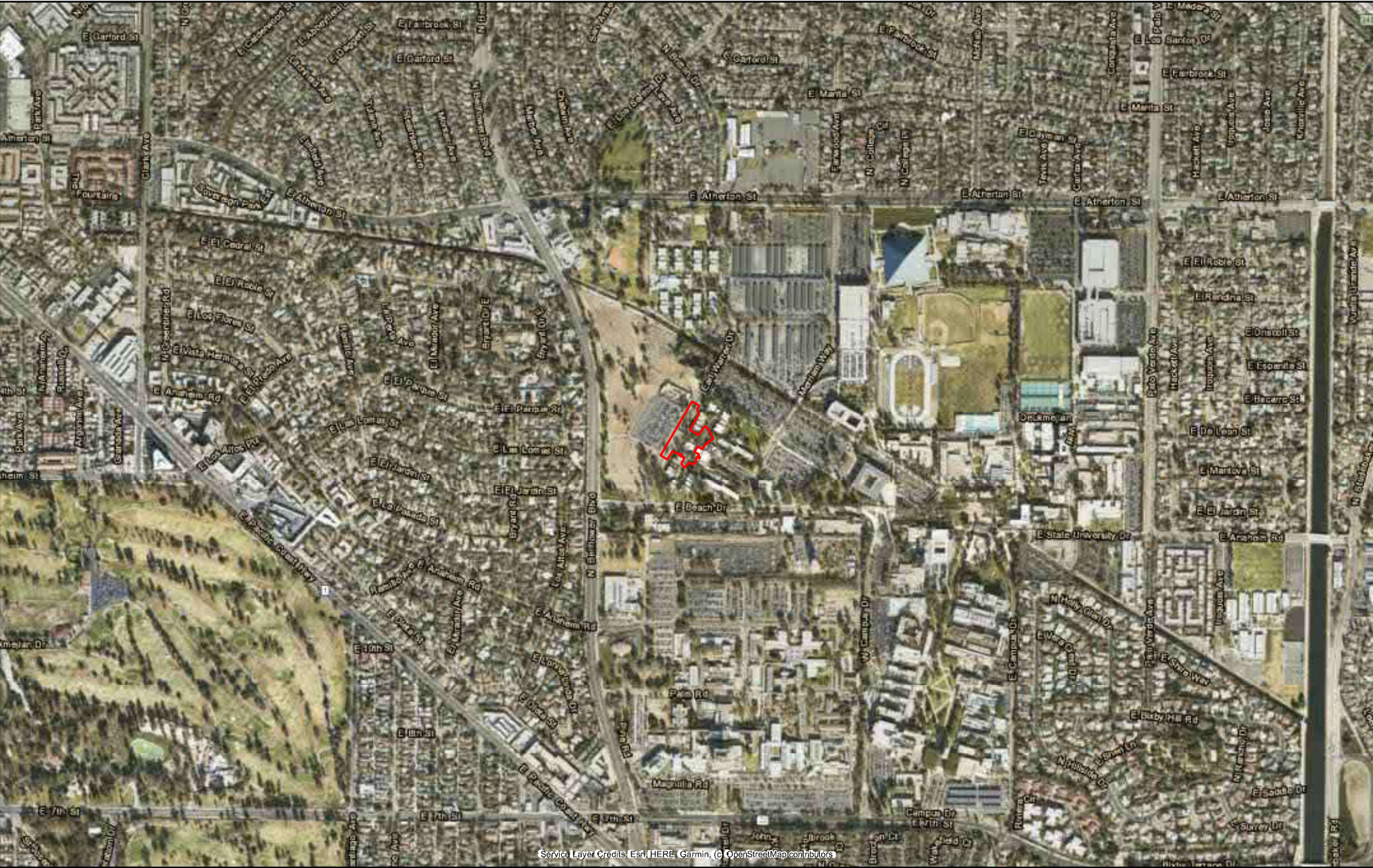
**Project Vicinity**

Project: 60614840



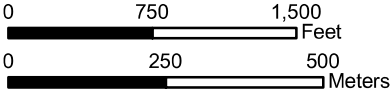
**Figure 1**





**Legend:**

 Project Area



Scale: 1:12,000  
1 in = 1,000 feet

Date: 1/3/2020  
Projection: NAD 83 UTM Zone 11N



Hillside College

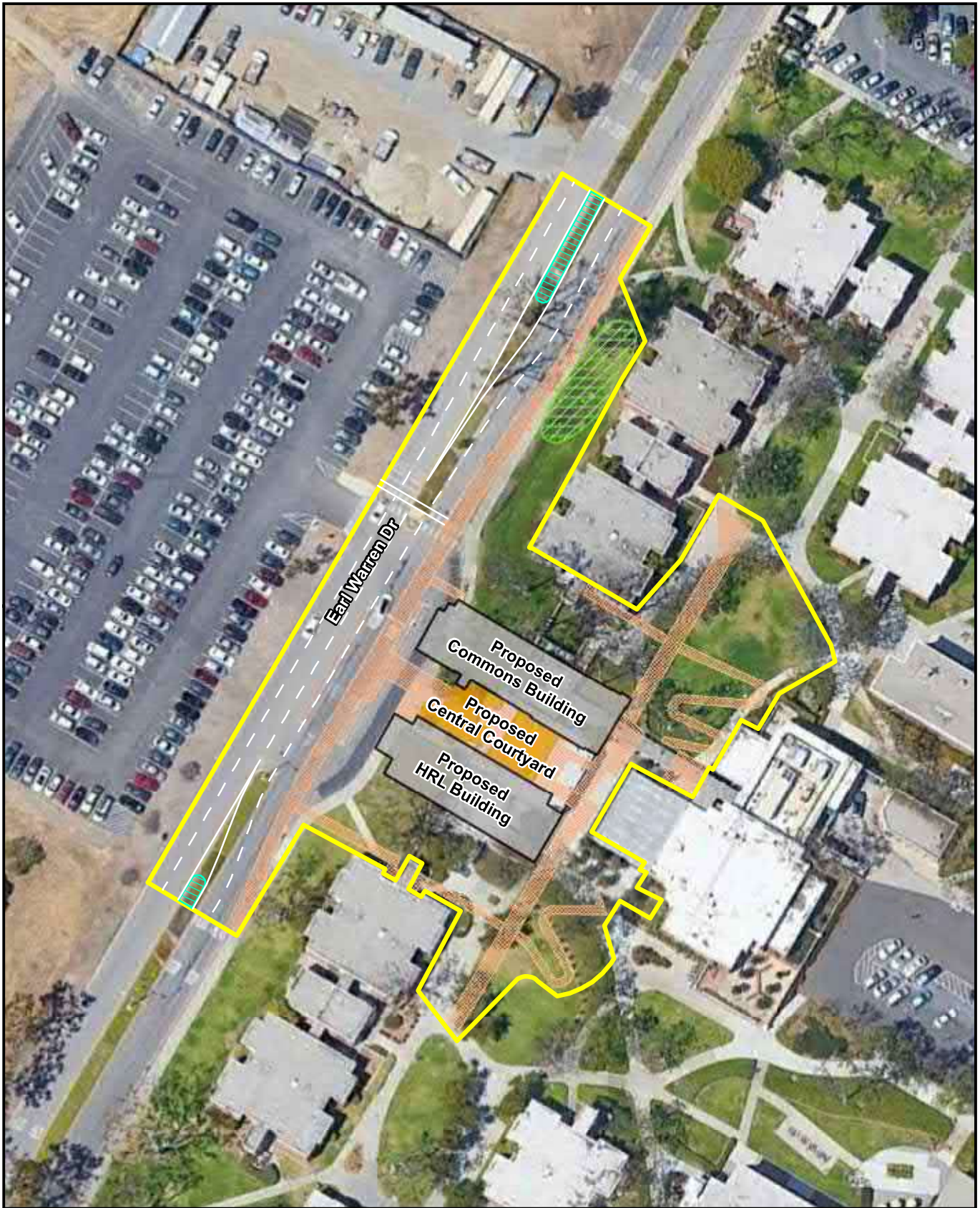
**Project Location**

Project: 60614840

**AECOM**

**Figure 2**





Source: Esri, 2019.



0 50 100 Feet



Project Site

Proposed Pedestrian Pathways



Proposed Bioretention Area



Proposed Median

**Figure 3**

**Project Components**

## SETTING

### ENVIRONMENTAL SETTING

The proposed project is located in coastal Los Angeles County, north of today's Port of Long Beach. Before the Port of Long Beach was dredged and modified in the late nineteenth through the middle twentieth centuries, the area was characterized by estuaries, marshes, and coastal mudflats. The project area is located on a slope overlooking Bouton Creek, on the opposite side of the ridge from the Port. The site's location would have given inhabitants access to the rich coastal ecosystem of Alamitos Bay but protected them from storms that battered the ocean coast (McCawley 1996).

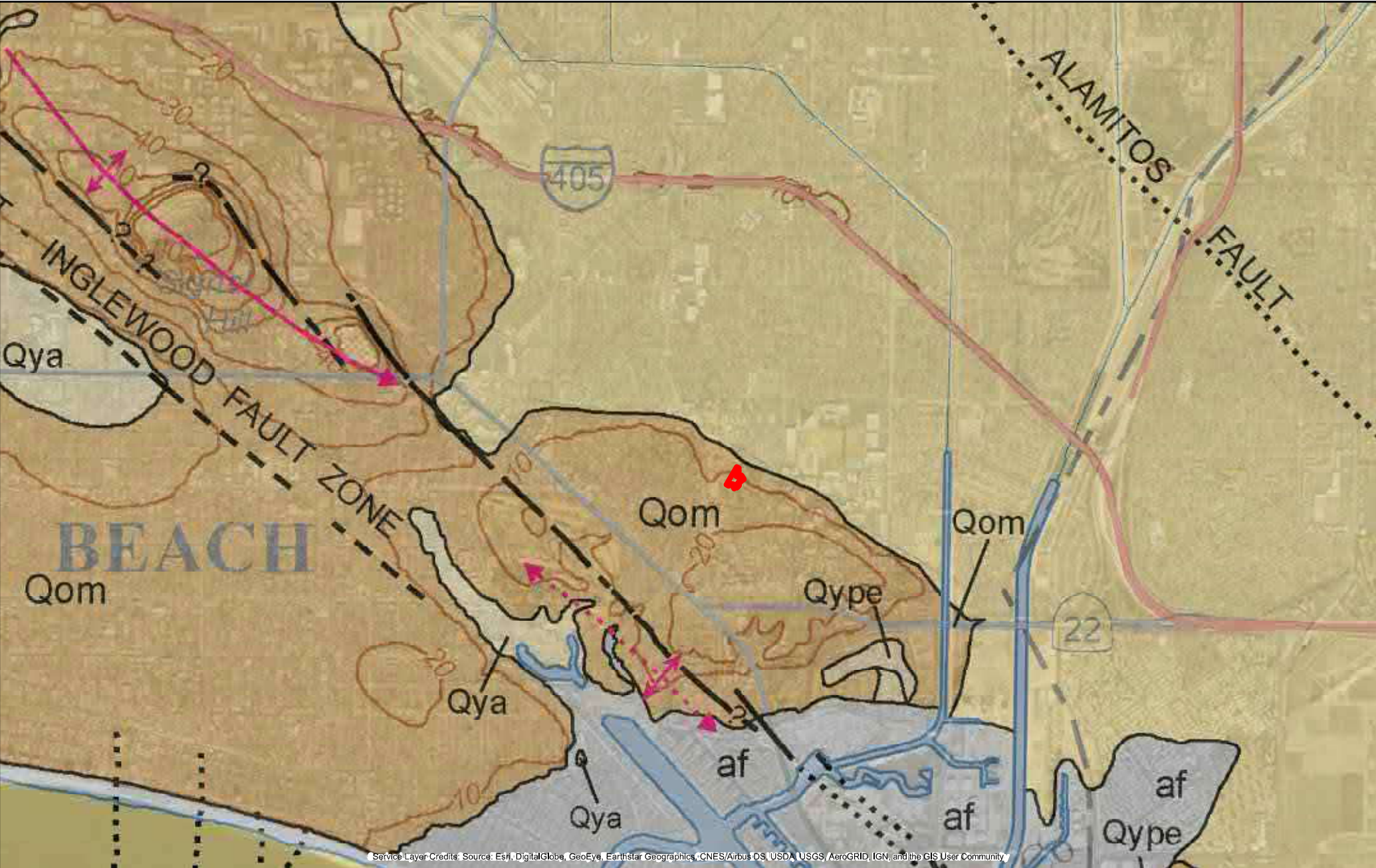
### GEOLOGIC SETTING

The landform on which the California State University, Long Beach campus was established is a hill that rises above the surrounding landscape to a maximum elevation of approximately 80 feet above mean sea level. The project area is located partially along the extreme northwestern edge of this hill.

Geologic maps vary in how this landform is described. *The Geologic Map of California* maps the landform as a Quaternary nonmarine terrace (Jennings 1962b). This State Map Unit designation is applied to terrestrial deposits dating to the Pleistocene epoch, which typically predates human activity on the North American continent (Jennings 1962a). The more recent California Geologic Survey *Map of the Long Beach 30' x 60' Quadrangle*, by contrast, indicates that the project area is situated on old shallow marine deposits (Qom; Figure 4), but agrees that it is Pleistocene in age (Saucedo et al. 2016). The Qom landform is described as “poorly sorted, moderately permeable, reddish-brown, interfingering strandline, beach, estuarine and colluvial deposits composed of siltstone, sandstone, and conglomerate. These deposits rest on the now emergent wave cut abrasion platforms preserved by regional uplift” along the Newport-Inglewood Fault Zone (Saucedo et al. 2016:17).

North of this landform, the flatlands surrounding Bouton Creek are mapped as Quaternary alluvium of the San Gabriel River watershed (Saucedo et al. 2016). Quaternary alluvium is among the most recent geologic deposits in the Long Beach area and consists of river- and creek-born gravels, sand, silt, and clay. These deposits are typically less than 10,000 years in age, dating to the Holocene epoch.





**Legend:**

Project Area

af: Artificial fill (only selected larger fills shown) - Recent/Modern  
 Qom: Old shallow marine deposits on wave-cut surface - Pleistocene  
 Qya: Young alluvium, undivided - Holocene  
 Qya2: Young alluvium, Unit 2 - Holocene  
 Qype: Young paralic estuarine deposits - Late Pleistocene to Holocene

0 600 1,200 2,400 3,600 4,800 Feet  
 0 200 400 800 1,200 Meters

Scale: 1:36,000  
 1 in = 3,000 ft

Date: 1/22/2020  
 Projection: NAD 83 UTM Zone 11N



Hillside College

**Geologic Map**

Project: 60614840



## **CULTURAL SETTING**

As a framework for discussing the types of cultural resources that might be encountered in the vicinity of the proposed project, the following section summarizes the current understanding of major prehistoric and historic developments in and around Long Beach. This is followed by a more focused discussion of the history of the project area itself.

### **Prehistoric Overview**

The earliest occupation of Southern California may be associated with the peoples who first colonized North America in the terminal Pleistocene and earliest Holocene (Arnold et al. 2004). Key indicators of these early cultures are fluted points, which have been reported at a number of locations in Southern California (Rondeau 2008). Closest to the project area, the Farpoint Site (CA-LAN-451) in Malibu, Los Angeles County, has yielded a fluted point, and its excavator argues the site should be associated with the Clovis culture (Stickel 2008). Clovis is the earliest universally recognized material culture in North America, and dates to approximately 11,500 radiocarbon years before present (B.P.).

The first incontestable evidence of human occupation in the Los Angeles area dates to at least 9000 years B.P. and is associated with a period known as the Millingstone Cultural Horizon (Wallace 1955; Warren 1968). Millingstone populations established permanent settlements that were located primarily on the coast and in the vicinity of estuaries, lagoons, lakes, streams, and marshes where a variety of resources, including seeds, fish, shellfish, small mammals, and birds, were exploited. Early Millingstone occupations are typically identified by the presence of handstones (manos) and millingstones (metates), while those Millingstone occupations dating later than 5000 B.P. contain a mortar and pestle complex as well, signifying the exploitation of acorns in the region.

Although many aspects of Millingstone culture persisted, by 3500 B.P., a number of socioeconomic changes occurred (Erlandson 1994; Wallace 1955; Warren 1968). These changes are associated with the period known as the Intermediate Horizon (Wallace 1955). Increasing population size necessitated intensified exploitation of existing terrestrial and marine resources (Erlandson 1994). This was accomplished in part through use of new technological innovations such as the circular shell fishhook on the coast, and in inland areas, use of the mortar and pestle to process an important new vegetal food staple, acorns. Use of the dart and atlatl (dart- or spear-thrower) resulted in a more diverse hunting capability. Evidence for shifts in settlement patterns has been noted at a variety of locations at this time and is seen by many scholars as reflecting increasingly territorial and sedentary populations. The Intermediate Horizon marks a period in which specialization in labor emerged, trading networks became an increasingly important means by which both utilitarian and nonutilitarian materials were acquired, and travel routes were extended.

The Late Prehistoric period, spanning from approximately 1500 years B.P. to the Spanish mission era, is the period associated with the florescence of contemporary Native American groups. The group occupying the southern Channel Islands and adjacent mainland areas of Los Angeles and Orange Counties came to be known as the Gabrielino, after Mission San Gabriel.

They are reported to have been one of the most populous, influential, and sedentary of the Southern California tribes (Bean and Smith 1978). The Gabrielino are estimated to have numbered around 5,000 in the pre-contact period (Kroeber 1925). Maps produced by early explorers indicate the existence of at least 40 Gabrielino villages, but as many as 100 may have existed prior to contact with Europeans (Bean and Smith 1978; McCawley 1996; Reid 1968 [1852]). In addition to Gabrielino, members of the tribe call themselves either Tongva or Kizh.

The Gabrielinos' southern coastal neighbors were known as the Juaneño, after Mission San Juan Capistrano. The Juaneño shared many cultural traits with both the Gabrielino and the nearby Luiseño, a related group living around and named for Mission San Luis Rey. The boundary between the Gabrielino and the Juaneño is commonly believed to be in the area of Aliso Canyon, approximately 25 miles southeast of CSULB (Bean and Shipek 1978; O'Neill 2014). The Juaneño also call themselves Acjachemen, which was the historic name of their village near Mission San Juan Capistrano.

Of particular note in the project area is the Los Altos Site (CA-LAN-270), approximately 0.75 mile north of CSULB campus. The Los Altos Site is a Late Prehistoric village site with associated burials encountered near the intersection of Bellflower Boulevard and Los Coyotes Diagonal during the construction of a shopping center in 1952. The site was excavated by Ethel Ewing, PhD, of what was then Long Beach State College (Bates 1972; R.D.S. 1953). The Los Altos Site is the largest village and burial archaeological site recorded in the project vicinity.

## **Historic Overview**

Spanish explorers made brief visits to Gabrielino territory in 1542 and 1602, and on both occasions the two groups exchanged trade items (McCawley 1996). At this time, the Gabrielino would have also been exposed to European diseases, which would have a catastrophic effect on their lives and society. Sustained contact with Europeans did not commence until the Spanish Period, which began in 1769 when Gaspar de Portola and a small Spanish contingent began their exploratory journey along the California coast from San Diego to Monterey.

Gabrielino villages are reported by early explorers to have been most abundant along the coast and the dominant rivers of the Los Angeles Basin, including the Los Angeles, San Gabriel, and Santa Ana Rivers. The Long Beach area was particularly favored by the Gabrielino due to its protected bays and inlets. The village of Puvungna was located on Rancho los Alamitos, and is generally believed to have existed within the vicinity of CSULB. As Bernice Eastman Johnston notes, "Long Beach abounds with evidences of its ancient inhabitants whose settlements might account, if it were possible now to learn their names, for many a 'lost' entry on the Mission registers" (Johnston 1962:86).

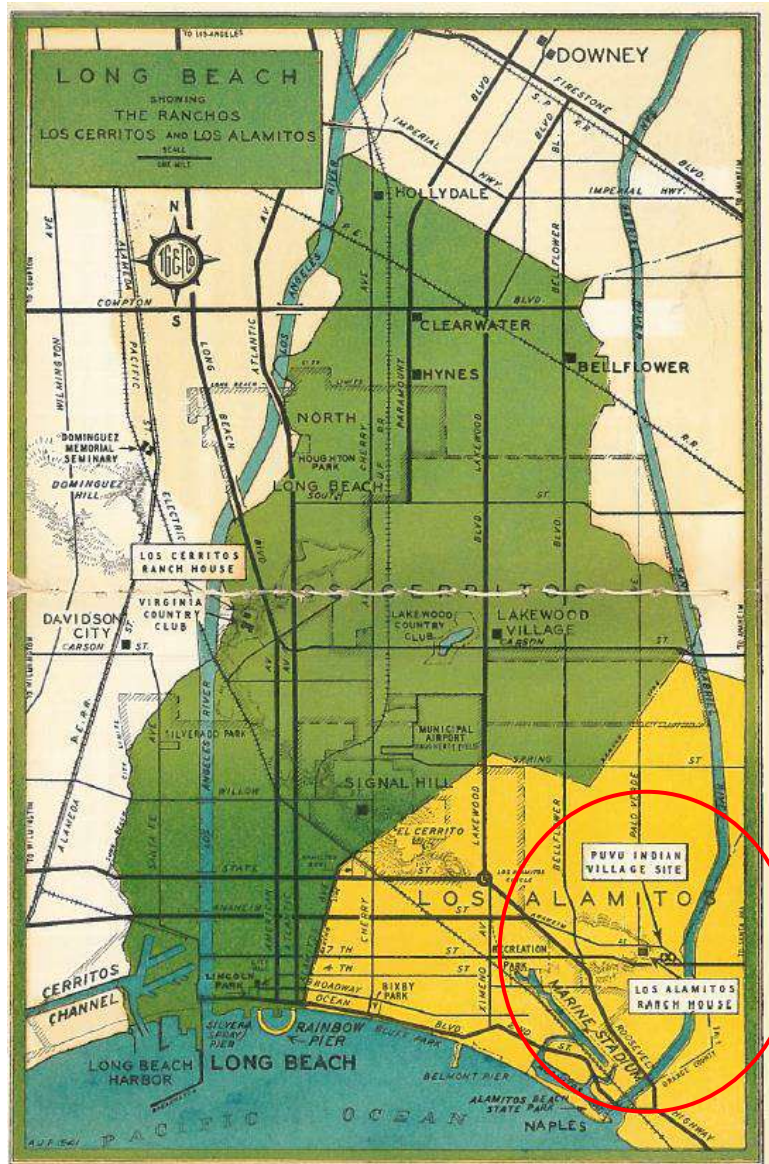
Native American informants pointed out a shell midden beside the spring near the old Rancho Los Alamitos ranch house and informed him this was the site of Puvungna. Both Harrington and local historians regarded this as the site of Puvungna as described by Boscana and Reid (Harrington 1978; Robinson 1966; Ruyle 2000). The site was later recorded as CA-LAN-306. From Harrington's time until the 1970s, this was generally regarded as the site of Puvungna, even appearing labeled as such in historical maps (Plate 1).

Puvungna is often associated by today's Juaneño with the place of creation. In the first quarter of the nineteenth century, a Spanish priest based at Mission San Juan Capistrano named Geronimo Boscana (1776–1836) prepared a document entitled *Chinigchinich; A Historical Account of the Origin, Customs, and Traditions of the Indians at the Missionary Establishment of St. Juan Capistrano, Alta California; Called the Acagchemem Nation* (Bright 1978). In one surviving version of the text, Puvungna is the scene of important activities by several culture heroes or gods. The chapter of the version of Boscana's work that mentions Puvungna is included as Appendix B of this document.

According to Boscana, an “invisible and all-powerful being called Nocuma made the world, the sea, and all that there is” (Boscana 1978:31). These were some of the Original People who preceded the humans we know today and had powers unlike ours, during a time when animals could speak and interact with people. Eventually, a descendant of these first people, named Ouiot, rose to prominence at Puvungna. “Out of the confines of a Rancheria, called *Pubuna* [also known as Puvungna], distant from St. Juan Capistrano N.E. about eight leagues, came the monster *Ouiot*,” Boscana declares (Boscana 1978:31). Ouiot came to power through kindness and generosity, and thereby came to rule not only Puvungna but also the surrounding villages. But over time, Ouiot began to persecute his subjects, and the people came to resent his heavy-handed rule. The people poisoned and killed him and then cremated him. It is known from other sources that Ouiot, or Wiyot, is a great culture hero to the Juaneño and Luiseño. Ouiot's career, death by poison or magic at the hands of his people, and cremation all parallel the story of the creator god, called Kukitat by the Serrano or Mukat by the Cahuilla (Bean 2017; Harrington 1978:116–127; Merriam 1955; Strong 1929). This was not universally said to have happened at Puvungna, however; different tribes sang that the god was cremated in different places.

After the cremation, the people came together to discuss “the collecting of grain or seeds of the fields, and flesh to eat, for up to this time they had fed upon a kind of clay” (Boscana 1978:33). At this time, a mysterious figure named Attajen, which means “man” or “rational being,” appeared at the council, selected various elders, and gave their lineages different powers: to create rain, cause various plants to grow, or create animals. But according to the inland people, Boscana tells us, Chinichnich appeared in the smoke of the cremation fire at this time and created modern people from the clay of a nearby lake. Where this happened he does not say, but many people conflate the two versions and state that this creation of modern humans from clay also happened at Puvungna.





**Plate 1: Puvungna in Relation to Rancho Los Alamitos Ranch House (Robinson 1942: Centerfold).**

The Chinichnich religion is generally considered relatively young. Beginning among the Gabrielino, it spread to the Luiseño, Juaneño, and Kumeyaay. It was intensely studied by twentieth-century anthropologists, many of whom believed it developed as a response to the illnesses and social disruption caused by European contact (Goldberg et al. 1999; Harrington 1978; Heizer 1978; Kroeber 1925; Strong 1929). Harrington believed Chinichnich was a prophet born at Puvungna who came to be divinized, but whether there was a historical Chinichnich is an unanswerable question by the modern historical method (Kroeber 1959:291–293).

By the early 1800s, the majority of the surviving Gabrielino population had entered the mission system. Mission San Gabriel Arcángel was founded September 8, 1771, and in 1776 moved to its present location. Mission San Juan Capistrano was also founded by Junipero Serra in 1776. The

establishment of the missions was associated with a decline in the traditional Native American economic and social systems as well as overall population due to epidemics and subsistence instabilities. This lifestyle change brought significant negative consequences for Gabrielino health and cultural integrity (Jackson 1999).

Alongside mission development was the foundation of the *El Pueblo de la Reyna de Los Angeles*, a secular community established by colonists in 1781. This community was formed by 11 families as part of a colonization effort that eventually became the City of Los Angeles (Poole and Ball 2002). *El Pueblo de la Reyna de Los Angeles* became established after the Mexican empire gained independence and formed what would become the state of Alta California in 1821. The authority of the California missions gradually declined, culminating with their secularization in 1834. Although the Mexican government directed that each mission's lands, livestock, and equipment be divided among its converts, the majority of these holdings quickly fell into non-indigenous hands. If mission life was difficult for Native Americans, secularization was equally problematic. After two generations of dependence on the missions, Native Americans were suddenly disenfranchised. After secularization, "nearly all of the Gabrielinos went north while those of San Diego, San Luis, and San Juan overran this county, filling the Angeles and surrounding ranchos with more servants than were required" (Reid 1968 [1852]:98).

The project area is located on what was Rancho Los Nietos, the largest and one of the earliest Spanish land grants in California. Governor Pedro Fages granted the property to Manuel Nieto, a former sergeant, in 1784. When Nieto died in 1804, the rancho was divided into five separate ranchos. The land within the project area became a part of Rancho Los Alamitos, the inheritance of his son Juan Jose. About 1806, Juan Jose built an adobe house on a hilltop near a spring approximately 0.9 miles southeast of the project area; this house, enlarged several times, still stands. In 1834, the Juan Jose sold the land to Governor Jose Figueroa. After Figueroa's death, it was sold to Abel Stearns, who took possession in 1842. After Stearns lost the land during the drought of 1866, Rancho Los Alamitos eventually came into the possession of the Bixby family, which ranged sheep on the property (Bixby Smith 1925; Jurmain and McCawley 2009; Jurmain et al. 2011; Kielbasa 1997; Robinson 1942; Salzer 1975).

Most of the labor on the rancho, from the late 1700s well into the 1840s, was performed by Native Americans, including both Gabrielinos and others who came to Los Angeles County in increasing numbers after the 1834 secularization of the missions. The Native Americans became vaqueros and workers in the service of the rancheros. Many Native Americans preferred the relative freedom of the ranchos, where they were not bound by the strict rules of the missions and did not have to convert to Christianity. For these reasons, and because the missionaries believed the ranchos were encroaching on mission land, tension existed between the missions and the ranchos that lasted until secularization (Phillips 2010).

The first party of U.S. immigrants arrived in Los Angeles in 1841, although surreptitious commerce had previously been conducted between Mexican California and residents of the United States and its territories. As the possibility of a takeover of California by the United States loomed large, the Mexican government increased the number of land grants in an effort to keep the land in the hands of upper-class *Californios* like the Dominguez, Lugo, and Sepulveda families (Wilkman and Wilkman 2006:14–17). Governor Pio Pico and his predecessors made

more than 600 rancho grants between 1833 and 1846, putting most of the state's lands into private ownership for the first time (Gumprecht 1999).

The United States took control of California after the Mexican–American War of 1846, and the discovery of gold in northern California led to an enormous influx of American citizens in the 1850s and 1860s, and these settlers rapidly displaced the old rancho families.

The City of Long Beach emerged out of the 1880s land boom. The first subdivision within what became Long Beach was conducted in 1882, and the American Colony was founded. In 1887, the Long Beach Land and Water Company was organized, and the official map of Long Beach was filed on July 30, 1887. Over the course of the last quarter of the nineteenth century and into the twentieth century, the City of Long Beach followed much the same course of rapid development as the rest of Los Angeles County (Robinson 1942).

In 1949, Governor Earl Warren signed Assembly Bill (AB) 8 establishing Los Angeles-Orange County State College, now CSULB. Over the course of the 1970s, CSULB and the surrounding community developed most of the remaining undeveloped land on and surrounding the university campus. The Rancho Los Alamitos Adobe became completely surrounded by a gated community. While visitors can still visit site CA-LAN-306 next to the adobe, they can only do so during specific times and under conditions set by Rancho Los Alamitos and the gated community that surrounds it. The 22 acres of site CA-LAN-235 west of Earl Warren Drive is therefore often seen as the only part of Puvungna that remains undeveloped.

By 1993, CA-LAN-235 was listed on the National Register of Historic Places (NRHP), and the 22-acre undeveloped portion of the site was considered a center of religious devotion. However, in that year, CSULB initiated plans to develop the property. A Juaneño woman named Lillian Valenzuela Robles became one of the leaders in the opposition to construction on the 22 acres. Robles shaped ceremonial practice at Puvungna as it exists today. As one biography puts it, “Lillian wondered what to do? She went out in her yard and looked up into the sky. Her ancestors told her, ‘Go to the land, stay on the land, and protect the land’” (Harper 2017:17). Robles was driven off the organic garden, but the 76-year-old Robles took a tent and occupied a location across the street from the site. She and other protesters used Hillside College as a base (*Los Angeles Times* 1993). Robles often said it was her ancestors whom she felt moving around the land and who instructed her (Dodds et al. 2003). In the available documents and news reports, she generally credited her ancestors but did not specifically credit Chinichnich or any other entity with inspiring her (Coffman 2011; Dillow 1993; Dodds et al. 2003; Harper 2017; Loewe 2016; Perez 1991). Not all Gabrielino, Juaneño, and Luiseño believed CA-LAN-235 was sacred in the same way as Robles, but her vision has had significant impact among these tribes and others (Baksh 1994).

CSULB abandoned plans to develop the 22 acres in 1995. In 1997, Robles initiated the Ancestor Walk—a multi-county vehicular pilgrimage visiting several sites in San Diego, Orange, and Los Angeles Counties culminating at the 22-acre site. Later, she invited Bear Dancers to perform the Bear Dance at the conclusion of the Ancestor Walk. The Ancestor Walk was held at CA-LAN-235 for the 22nd consecutive year in 2019 (Appendix C). Today, those who take part in the Ancestor Walk pilgrimage and the Bear Dance include not only Juaneño and Gabrielino, but also

many Native Americans from other tribal backgrounds. Their numbers even include those whose tribal origins lay outside California. An estimated 500 people attended the Ancestor Walk and Bear Dance in 2019 (Barnes 2019).





## ARCHIVAL RESEARCH

### Previous Cultural Resources Investigation Reports

Archival research was conducted by Dudek on March 6, 2019, of the entire CSULB campus and within a 0.5-mile radius of the campus records at the South Central Coastal Information Center (SCCIC) housed at California State University, Fullerton. The SCCIC is the Information Center of the California Historical Resources Information System (CHRIS), which maintains information about recorded cultural resources in Ventura and Los Angeles Counties. This search included their collections of mapped prehistoric, historic, and built environment resources; Department of Parks and Recreation Site Records; technical reports; and ethnographic references. Additional sources included historical maps of the proposed project site, the NRHP, the California Register of Historical Resources (CRHR), the California Historic Property Data File, and the lists of California State Historical Landmarks, California Points of Historical Interest, and the Archaeological Determinations of Eligibility.

Results of the cultural resources records search indicated that 39 previous cultural resource studies have been conducted within a 0.5-mile (800 meters) of the project site between 1974 and 2011. Of these 39 studies, 20 overlap all or a portion of the project site. Table 1, below, summarizes all 39 previous cultural resource studies.

**Table 1. Previous Investigations Conducted within 0.5 Mile of the Project Area**

<b>Report No. (LA-)</b>	<b>Author</b>	<b>Description</b>	<b>Date</b>
00057	Leonard, Nelson N., III	A Reconnaissance and Evaluation of the Archaeological Resources of the Veterans Administration Hospital, Long Beach, California	1974
00083	Rosen, Martin D.	Evaluation of the Archaeological Resources and Potential Impact of the Joint Outfall System's Improvements on Sewer Treatment Plants and Installation Routes for New Large Diameter Sewers, Los Angeles County	1975
00263*	Scientific Resource Surveys, Inc.	Archaeological Test Report on the Japanese Garden Arboretum/museum Site Located on the Campus of the California State University at Long Beach	1980
00451	Desautels, Roger J.	Archaeological/Paleontological Survey Report on the Proposed Arboretum Japanese Garden Project Located at California State University Long Beach Job No. 11542 - Service Agreement No. 371-068-SC-367	1978
00491*	Dixon, Keith A.	Inventory of Archaeological Resources, CSULB Campus	1977
00503	Dixon, Keith A.	Archaeological Resources and Policy Recommendations of Long Beach	1980
00561	Desautels, Roger J.	Archaeological/Historical Report on Archaeological Sites LAN-235, LAN-1003, LAN-1004, and the Historical Resources Project No. C-06-1137-110 Located at California State University at Long Beach, California	1979

<b>Report No. (LA-)</b>	<b>Author</b>	<b>Description</b>	<b>Date</b>
01075	Desautels, Roger J.	Archaeological Survey Report on Two Proposed Parking Areas (Parking 79) Located on the Campus at California State University, Long Beach, Agreement #371-069-SC-392	1980
01540	Whitney- Desautels, Nancy A.	Archaeological Monitoring for the Trench for Joint Outfall Unit 5a, Section 3, Trunk Sewer Replacement, Part II, Across the Campus of California State University at Long Beach	1986
01541	Whitney- Desautels, Nancy A., Vickie Clay, Lorraine S. Gross, and Kevin J. Peter	Archaeological Test Investigations of a Segment of the Joint Outfall Section 3 Trunk Sewer Replacement Part	1986
02792*	Dixon, Keith A., and Jane Rosenthal	Review of "Initial Study and Negative Declaration, Arboretum II, Museum/Gallery"; with "Archaeological Test Report on the Japanese Garden Arboretum/museum Site (LAN-235) ..." prepared by Scientific Resource Surveys, Inc., Santa Ana, December 1980	1981
02793*	Desautels, Roger J.	Dixon/Rosenthal Rebuttal: LAN-1003 and LAN- 1004	1981
02795*	Desautels, Roger J., Keith Dixon, and M. Rosen	Correspondence Between R. Desautels, K. Dixon, and M. Rosen	1979
02864*	Dixon, Keith A.	Comment on Second Incomplete Draft of Implementation Guidelines for the Preservation of Archaeological Resources in Campus Development Project, California State University, Long Beach; Work in Progress as of July 1993	1993
02870*	Drover, Christopher E.	Letter to Mr. Douglas Wood Concerning LAN-235	1993
03303	Whitney- Desautels, Wayne H. Bonner, and Diane F. Bonner	Cultural Resources Assessment of Parking Lot "O" (CA-LAN-1002) Long Beach, Los Angeles County, California (A Scientific Contribution to Non-site Archaeology)	1993
03583	Bucknam, Bonnie M.	The Los Angeles Basin and Vicinity: A Gazetteer and Compilation of Archaeological Site Information	1974
04091*	Milliken, Randell, and William R. Hildebrandt	Assessment of Archaeological Resources at the Rancho Los Alamitos Historic Ranch and Gardens	1997
04268*	Boxt, Matthew A.	Case No. Bc 087212: Declaration of Dr. Matthew A. Boxt in Opposition to the Plaintiff's Motion for Stay of Judgement	1995
04270*	Underwood, Jackson	Archaeological Testing for the Information Booth Project, California State University, Long Beach	1993
04274*	Underwood, Jackson	Archaeological Survey and Testing for the Pipeline Project California State University, Long Beach	1993
04275*	Underwood, Jackson	Archaeological Testing at the Central Plant Site, California State University, Long Beach	1993
04276*	Underwood, Jackson	Archaeological Testing of Phase I, the Pedestrian Walkway, Parking Structure B California State University, Long Beach	1993
04277*	Underwood, Jackson	Archaeological Testing at the Ticket Booth Site, California State University, Long Beach	1993
04355*	Widell, Cherilyn E.	A Cultural Resources Management Plan for the California State University, Long Beach	1994

<b>Report No. (LA-)</b>	<b>Author</b>	<b>Description</b>	<b>Date</b>
04364	Carter, Chris, and Nill Neitzel	Report on Salvage Excavation at CA-LAN-705 in Long Beach, California	1977
04480	Desautels, Roger J.	Archaeological Survey Report on Two Proposed Parking Areas (Parking 79) Located on the Campus at California State University, Long Beach Service Agreement #371-069-SC-392 (3-19-80)	1980
05215	McKenna, Jeanette A.	A Cultural Resources Investigation of the Proposed Long Beach Ocean Desalination Project, Long Beach, Los Angeles County, California	2001
06160*	Baksh, Michael, Christopher J. Doolittle, David D. Earle, Donn R. Grenda, and William McCawley	Puvunga: A Review of the Ethnohistoric, Archaeological, and Ethnographic Issues Surrounding a Gabrielino Rancheria Near Alamitos Bay, Los Angeles County, California, Draft	1994
06829*	Rogle, Eugene	Lies, Bribes, and Archaeology	1993
08489	Duke, Curt, and Judith Marvin	Cultural Resource Assessment: Cingular Wireless Facility No. SM 118-03, Long Beach, Los Angeles County, California	2003
08495*	URS	California State University, Long Beach Northeast Campus Improvements Environmental Impact Report (EIR) Appendix F: Cultural Resources Technical Report	2003
08497*	Raab, Mark L., and Matthew Box	A Research Design and Implementation Guidelines for the Preservation of Archaeological Resources in Campus Development Projects, California State University, Long Beach: Work in Progress As of 27 October, 1993	1993
08498*	Raab, Mark L., and Matthew Box	A Cultural Resources Management Plan for the California State University, Long Beach, Work in Progress as of 3-19-1994	1994
09208	Bonner, Wayne H.	Cultural Resources Records Search and Site Visit Results for T-Mobile Candidate LA02552A (MOD) (VA Hospital), 5901 East 7th Street, Long Beach, Los Angeles County, California	2007
09839	Taniguchi, Christeen	Historic Architectural Survey Report: Long Beach VA Hospital Seismic Corrections Project, Long Beach, Los Angeles County, CA	2006
09840	Wills, Carrie	Phase I Cultural Resources Assessment, Long Beach VA Hospital Seismic Corrections Project, Long Beach, Los Angeles County, California	2006
10799	Wlodarski, Robert J.	Record Search and Field Reconnaissance for Proposed AT&T Wireless Telecommunications Site LA0188, Located at 5500 East Atherton Street, Long Beach, California, 90815	2010
12224	Mason, Roger, Cary Cotterman, and Josh Smallwood	Phase I Archaeological Survey and Phase II Historic Building Evaluations for the Seismic Corrections, Mental Health and Community Living Center Project Depart of Veterans Affairs Medical Center, Long Beach, Los Angeles County, California	2011

\*Indicates a study overlapping the project area.

Of the 20 studies that overlap the project site, one is an inventory of archaeological resources at the CSULB campus (LA-0491), and one is an inventory of resources at Rancho Los Alamitos

(LA-04091). Seven were prepared in support of various developments or improvements at CSULB (LA-00263, LA-04270, LA-04274, LA-04275, LA-04276, LA-04277, and LA-08495). Six are comments, reviews, and correspondence associated with the archaeological resources and assessments on the CSULB campus (LA-02792, LA-02793, LA-02795, LA-02864, LA-02870, and LA-04268). Three of the overlapping reports are cultural resource management plans and research designs for the preservation of archaeological resources at the CSULB campus (LA-04355, LA-08497 and LA-08498). One is an article discussing the relationship between CSULB and Native American groups (LA-06829). The final overlapping report presents a review of the ethnographic, ethnohistoric, and archaeological information available regarding the Native American village of Puvungna, which was located within the general area of the CSULB campus (LA-06160).

### Previously Recorded Cultural Resources Site Records

A total of 27 previously recorded cultural resources have been documented within 0.5 mile of the proposed project site. The project site partially overlaps one of these 27 resources (CA-LAN-000235). The remaining 26 resources within the 0.5-mile records search area include two historic buildings (P-19-187656 and P-19-189991), one historic site (CA-LAN-4797/H), two multi-component sites (CA-LAN-705 and CA-LAN-2630/H), and 21 prehistoric sites (CA-LAN-234, CA-LAN-703, CA-LAN-704, CA-LAN-1000, CA-LAN-1002, CA-LAN-1003, CA-LAN-1004, CA-LAN-1005, CA-LAN-1006, CA-LAN-2616, CA-LAN-2629, P-19-120040, P-19-120041, P-19-120042, P-19-120043, P-19-120044, P-19-120045, P-19-120046, P-19-120047, P-19-120052, and P-19-120053). All 27 resources are summarized in Table 2, below, followed by a brief summary of site CA-LAN-000234 and CA-LAN-000235.

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

<b>Primary Number (P-19-)</b>	<b>Permanent Trinomial (CA-LAN-)</b>	<b>Other Identifier</b>	<b>Description</b>	<b>Date Recorded/ Revisited</b>
000234	000234	Puvunga Indian Village Historic District	Shell midden; lithic scatter; habitation debris	1960; 1972; 1974; 1981; 2017
000235	000235	Puvunga Indian Village Historic District	Lithic scatter; burial; habitation debris	1960; 1972; after 1974 merged with P-19-000234
000703	000703	Park Estates Site	Shell midden; lithic scatter; habitation debris; possibly redeposited material	1974; 1994
000704	000704	None	Incorporated into 19-000703	1974
000705	000705	CSULB Isabel Patterson Child Development Center Site	Refuse deposit; lithic scatter; shell midden; habitation debris	1974; 1993
001000	001000	CSULB Swimming Pool Site	Shell midden	1979; 1994
001002	001002	None	Shell midden	1979
001003	001003	None	Shell and lithic material	1979; 1994
001004	001004	None	Shell and lithic material	1979; 1994

<b>Primary Number (P-19-)</b>	<b>Permanent Trinomial (CA-LAN-)</b>	<b>Other Identifier</b>	<b>Description</b>	<b>Date Recorded/ Revisited</b>
001005	001005	None	Shell and lithic material	1979; 1994
001006	001006	None	Shell midden	1979
002616	002616	None	Lithic scatter; shell midden; habitation debris	1997
002629	002629	None	Lithic scatter; shell midden; habitation debris	1977; 1994; 1998
002630	002630/H	None	Privies/dumps/trash scatters; lithic scatter; shell midden; ceramic scatter; habitation debris	1994; 1998
004797	004797/H	Navy Hospital Refuse Deposit	Historic refuse deposit	2015
120040	None	None	Shell and lithics; probable secondary deposit	1977
120041	None	None	Shell and lithics; probable secondary deposit	1977
120042	None	None	Shell and lithics; probable secondary deposit	1977
120043	None	None	Shell and lithics; probable secondary deposit	1977
120044	None	None	Shell and lithics; probable secondary deposit	1977
120045	None	None	Shell and lithics; probable secondary deposit	1977
120046	None	None	Shell and lithics; probable secondary deposit	1977
120047	None	None	Shell and lithics; probable secondary deposit	1977
120052	None	None	Shell and lithics; probable secondary deposit	1977
120053	None	None	Shell and lithics; probable secondary deposit	1977
187656	None	Long Beach Veterans Medical Center	Military hospital	2002; 2006; 2010
189991	None	Olan and Aida Hafley House	Single-family residence	2011

Important archaeological sites are documented on and around CSULB campus; however, many of the archaeological sites documented in the records search were recorded by Keith Dixon in the 1970s. Those archaeological sites were subsequently reexamined and tested by multiple archaeologists and found not to be archaeological sites, or to consist only of sediment containing archaeological material which was redeposited from elsewhere (Desautels 1979; Raab and Boxt 1993, 1994; Underwood 1993a, 1993b). These resources consist primarily of dark-colored soil with some shell, potentially dug up elsewhere and brought to its current location by landscaping or construction. In many cases, no artifacts were located in these deposits, and they may represent natural sediment and not valid archaeological resources. Redeposited archaeological material generally has diminished data potential because its original context has been lost.

However, displaced artifacts and even soils may still retain their cultural significance, particularly for descendant Native American communities. Locations where archaeological sites were at one time recorded, but which now have been found to consist only of redeposited soils, include 19-001003, 19-001004, 19-001005, 19-001006, 19-002616, 19-120040, 19-120041, 19-120042, 19-120043, 19-120044, 19-120045, 19-120046, 19-120047, 19-120052, and 19-120053.

A complete study of the history of archaeological exploration at CA-LAN-235 from the time it was first documented in 1960 until 1994 was prepared by Jeffrey H. Altschul (Altschul 1994a). No major field studies have been conducted on the portion of CA-LAN-235 located on CSULB property since 1994. Altschul had access to all the studies housed at the SCCIC, as well as the results of field school excavations that are documented in reports presumably housed at CSULB but not available at the SCCIC. That document is attached as Appendix D.

### **Previous Archaeological Investigations at CA-LAN-234 and CA-LAN-235**

The following discussion focuses specifically on the site boundaries and vertical extent of CA-LAN-234 and CA-LAN-235, as they relate to the project area, and briefly summarizes the results of radiocarbon dating.

Archaeological sites CA-LAN-234 and CA-LAN-235 were initially recorded as two discrete and separate archaeological sites by Keith Dixon in 1960. Dixon did not excavate at the sites but rather documented what he could see on the ground's surface. Dixon's locational descriptions are based on buildings and infrastructure that existed at CSULB in 1960. At that time, little was developed in this part of the university.

Site CA-LAN-234 was recorded as a scatter of shell and chipped stone south of today's Beach Drive.

Site CA-LAN-235, meanwhile, consisted of another scatter of shell and chipped stone measuring 30 meters east-west by 150 meters north-south, "west of dormitories, at east edge of (and northeast of) parking lot; north of Anaheim Road [Beach Drive]" (Dixon 1960). The dormitories—Residence Halls RH-2 and RH-3—still stand, and additional buildings have been constructed west of those dormitories. The parking lot is now gone, and Earl Warren Drive has been graded through the site. When compared to an aerial photograph dated 1963, this description places CA-LAN-235 as originally described approximately extending on both sides of Earl Warren Drive at the southwest portion of the project area (Figure 5). At the time it was initially recorded, site CA-LAN-235 was said to encompass just over 1.11 acres.

In 1972, a human burial was uncovered at CA-LAN-235 during trenching for a sprinkler system and documented by Keith Dixon. The exposed remains, consisting of most of the right side of the body, were collected. The rest of the skeleton was left in place. Dixon did not see the remains in situ, but did see a cross-section of the trench. Dixon states, "The midden does not appear to be over 60 centimeters (cm) deep in the area around the probable burial location" (Dixon 1972a). This indicates that, in Dixon's estimation, the midden and the burial were less than 2 feet deep. Altschul incorrectly states that the burial was located south of the intersection when, in fact, it is north (Altschul 1994a:5-3). Dixon's site map shows the burial beside Earl Warren Drive north of

its intersection with what is now Beach Drive. The map notes that the site of the find is located 104 meters north of the intersection and 7 meters west of west side of Earl Warren Drive. This would place the original burial location south of today's Parking Lot G2 (formerly Parking Lot 20) and directly west of Earl Warren Drive from today's Building A, and approximately 20 meters southwest of the project area.

Subsequent studies have led to expanding the mapped boundaries of both CA-LAN-234 and CA-LAN-235 such that they are practically a single large site separated only by Beach Drive. In 1974, Dixon nominated them to the NRHP as contributors to a historic district. He paced off a 6.4 acre area at the time which he designated CA-LAN-235, but he did not include a map in the NRHP nomination. Neither CA-LAN-234 nor CA-LAN-235 was evaluated for their NRHP eligibility as individual properties. Soon after, in 1974, N. Nelson Leonard expanded the boundary of CA-LAN-234 to the south, extending it into the Veterans' Administration property (Leonard 1974).

In 1977, at the behest of the Office of Physical Planning and Development, Dixon recorded all the archaeological sites on campus. Site CA-LAN-235 was at that time an organic garden. Gardening activities may have brought artifacts and shell to the surface. Shell-rich soil was likely also imported for agricultural purposes. As a result, Dixon recorded a much larger site than he had recorded in 1960 or 1974. The boundaries of CA-LAN-235 were now extended almost to Beach Boulevard, such that only the road separates CA-LAN-234 from CA-LAN-235. Much of the subsequent literature describes the two as essentially a single site, CA-LAN-234/235. At that time, CA-LAN-235 was mapped, and the boundaries of the archaeological site included an area of roughly 27.55 acres (Dixon 1977).

However, subsurface archaeological testing and monitoring between 1978 and 1986 have further refined our knowledge of the subsurface site boundaries of CA-LAN-234 and CA-LAN-235. These studies have generally decreased the known site boundary. CA-LAN-235 was encountered during construction-related excavations in the Japanese Garden, in a sewage pipeline excavation at the north end of the Bellflower Parcel, and in a planned but never constructed parking lot south of Beach Drive (Desautels 1978, 1980; Scientific Resource Surveys, Inc. 1980; Whitney-Desautels et al. 1986). The site was also encountered at the location of a CSULB field school (a practicum where field techniques are taught to student excavators), described by Altschul. The exact location of the field school excavation is not described by Altschul, but he mentions they dug through the buried surface of the 1960s-era parking lot and encountered intact shell midden deposits. This appears to indicate that soil was imported to the site and the 1960s parking lot was buried rather than removed. One area in the northeast portion of the Bellflower Parcel was found not to have any archaeological deposits, and, with the agreement of the Keeper of the Register, this was removed from the site boundary as recorded in the NRHP.

In 2000, Boxt and Raab published radiocarbon dates obtained from four shells obtained by Scientific Resource Surveys, Inc. (SRS) during SRS's excavations in 1980 (Table 3). All four samples were obtained from Unit 6 at depths of 30 to 80 cm. The dates range over a very broad period from cal. 1,640 B.C. to cal. 70 A.D. Boxt and Raab note that the earlier dates are among the earliest dates in a dataset of over 100 radiocarbon dates obtained from archaeological sites at CSULB. However, these are just four very widely spaced dates from one unit at the large



archaeological site. Whether these dates accurately represent occupation in that part of the archaeological site remains to be seen. In addition, it is unknown whether that location is representative of the rest of the archaeological site. Much remains to be learned about the age of the site in terms of when exactly it was occupied, when it was abandoned, and when it was occupied relative to other sites in the region.

**Table 3. Radiocarbon dates from CA-LAN-235 (Boxt and Raab 2000:57)**

Lab. No.	Material	Location	Radiocarbon Age	Calibrated Age AD/BC	RCYBP
Beta-76720	<i>Argopecten aequiscalcatus</i>	Unit 6, 40-60 cm	2,420±70	295 BC-80 AD (cal. 85 BC)	2,083
Beta-76723	<i>Laevicardium</i> sp.	Unit 6, 40-60 cm	2,510±90	175 BC-290 AD (cal. 70 AD)	1,880
Beta-76722	<i>Chione undatella</i>	Unit 6, 60-80 cm	3,910±70	1855 BC-1440 BC (cal. 1640 BC)	3,638
Beta-76721	<i>Argopecten aequiscalcatus</i>	Unit 6, 60-80 cm	3,780±80	1695 BC-1285 BC (cal. 1480 BC)	3,478

RCYBP = radiocarbon years before present



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



**Legend:**

 Project Area

0 200 400 800 1,200 1,600 Feet

0 50 100 200 300 Meters

Scale: 1:12,000  
1 in = 1,000 ft

Date: 1/3/2020  
Projection: NAD 83 UTM Zone 11N



Hillside College

**Project Area Overlaid on  
1965 Historic  
Aerial Photograph**

Project: 60614840



**Figure 5**

Very few archaeological studies appear to have been conducted at CA-LAN-234 after 1986. In the 1990s, planned archaeological testing for the portion of CA-LAN-235 located on the 22-acre Bellflower Parcel was held up in court for several years and ultimately abandoned (Loewe 2016). The only archaeological work that appears to have been conducted on CSULB property within the boundaries of CA-LAN-234 between 1986 and 2019 is a study conducted by Carl Lipo, CSULB Anthropology, for the construction of a vault for the reburial of human remains. The reinterred remains were recovered from the Los Altos Site (CA-LAN-270) (Bates 1972; R.D.S. 1953). The vault is located south of Beach Drive. CSULB is in the process of updating the district record for CA-LAN-234/ based on Lipo's findings.

Archaeological work conducted south of CSULB, on the Veterans Affairs (VA) Long Beach Healthcare System Campus, has failed to yield any significant archaeological deposits. CA-LAN-234 was initially assumed to occupy the entire VA campus. Numerous archaeological monitoring projects and probes have failed to support this (Gust 2017a). "Based on archaeological work conducted on the VA campus between 2015-2017, no intact midden or features indicative of a prehistoric site are present on most of the VA campus. Sparse lithic and shell only has been recovered. observed [*sic*]" (Gust 2017b). The site boundary was redrawn to include only the northwest corner of the Healthcare Systems Campus, where no archaeological testing took place, and excluding the rest of the Healthcare Systems Campus.

In summation, the project area overlaps a portion of CA-LAN-235. The portion of the project area within Earl Warren Drive overlaps the originally recorded boundaries of CA-LAN-235 and appears to be located approximately 20 meters northeast of a human burial encountered by construction activities in 1972. The 1972 excavations indicate that the archaeological deposit is less than 60 cm deep in that location. Those portions of the site that have been scientifically excavated indicate that much of the site is heavily disturbed. Only one archaeological feature and no diagnostic artifacts have yet been reported from CA-LAN-235. The only major advancement in our knowledge since 1994 is a reduction of the site boundary and the publication of four radiocarbon dates from CA-LAN-235.

### **Historic Maps and Aerial Photographs**

Historic map research based on U.S. Geological Survey (USGS) topographic maps was conducted to gain an understanding of the level of disturbance in the area as well as identify possible location of archaeological sensitivity in the project footprint. Historic Sanborn Fire Insurance maps, which are generally helpful in such a study, were found not to cover the project area; the site was not annexed to the City of Long Beach until the middle twentieth century, and therefore is not included in most Long Beach atlases. The following discussion is supplemented with reference to aerial photographs.

The project area appears on the 1899, 1901, 1902 Downey, California 1:62500 USGS maps. The project area appears on the gentle north slope of the hill on which CSULB was later founded, overlooking Bouton Creek. The Rancho Los Alamitos Adobe and two other buildings are located on the east end of the hill, overlooking the creek, the Los Angeles River, and the marshes.



The area remains mostly undeveloped in the 1924 and 1925 Long Beach 1:24000 USGS maps (Figure 6) and the 1942 and 1943 Downey 1:62500 USGS map. A few buildings stand within the vicinity of CA-LAN-235, but not within the project area.

The Naval Hospital, which later became the Veterans' Administration complex, appears in the 1949 and 1950 Los Alamitos 1:24000 USGS maps. A small cluster of buildings stand just west of the project area.

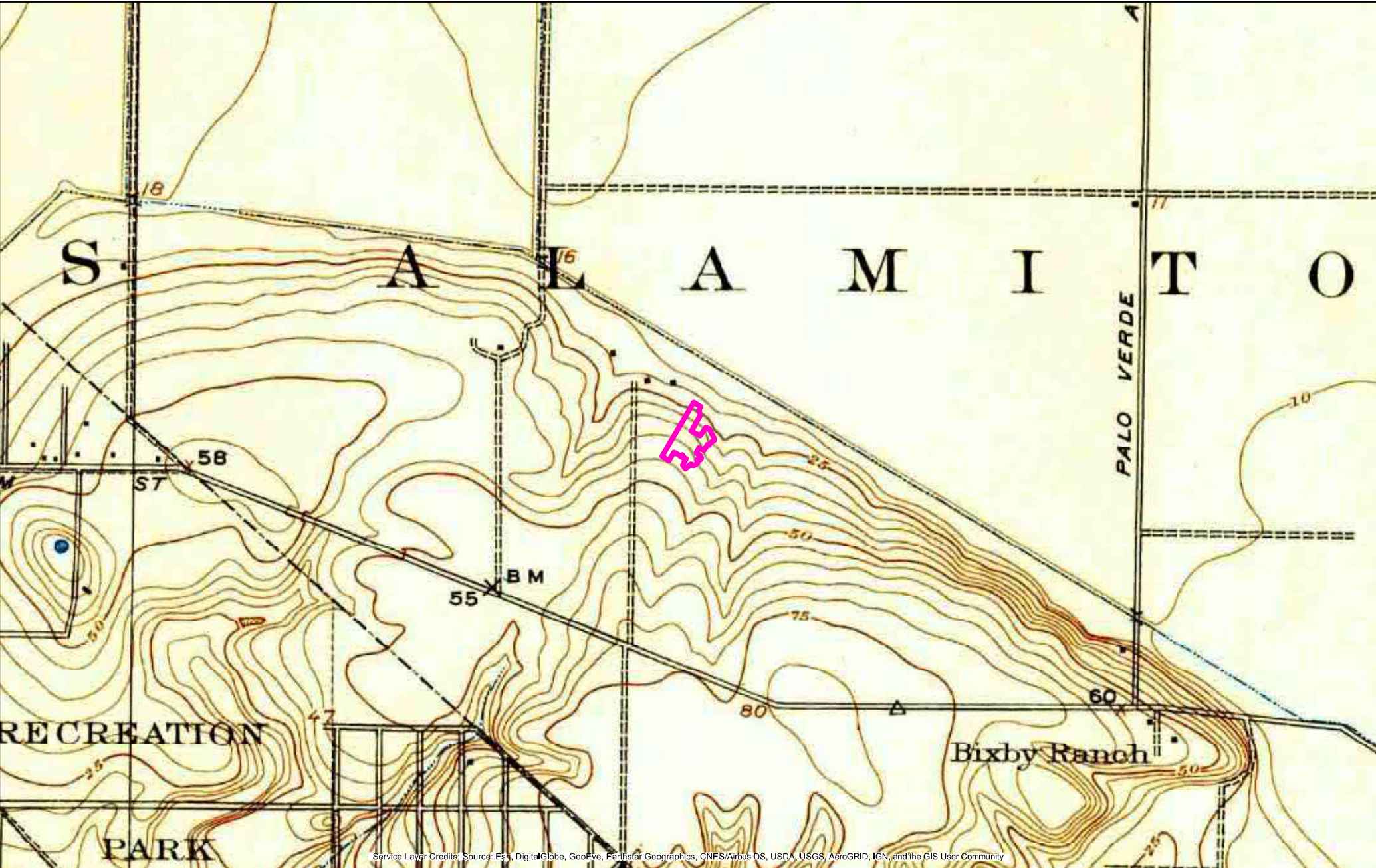
Aerial photographs dated 1952 and 1953 show the project area is entirely undeveloped, but possibly plowed. Earl Warren Drive does not yet exist in these photographs (Nationwide Environmental Title Research 2019).

By the time of the 1964 Los Alamitos 1:24000 map, the buildings west of the project area have disappeared, and large cross-shaped residence halls appear for the first time.

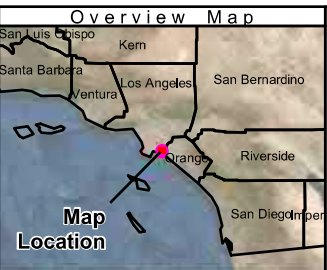
Aerial photographs dated 1963 and 1965 show the cross-shaped residence halls to the east of the project area. The southern half of the project area is occupied by a parking lot (Figure 5; Nationwide Environmental Title Research 2019).

A 1972 aerial photograph, and the 1974 Los Alamitos 1:24000 map, show the project area much as it is today. The HRL appears, as does Earl Warren Drive. Parking Lot G2 has not yet been constructed (Nationwide Environmental Title Research 2019).

A utilities map of campus indicates that the Hillside area is densely underlain with utilities, particularly in the lawns east of the existing building. Irrigation, domestic water, and storm drain lines are located beneath Earl Warren Drive. A storm drain is located beneath the lawn west of the existing building. Electrical power, telecommunications, hot water, chilled water, natural gas, and sanitary sewer lines are located beneath the lawns at the west end of the project area (Figure 7).



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



**Legend:**

 Project Area

0 200 400 800 1,200 1,600 Feet

0 50 100 200 300 Meters

Scale: 1:12,000  
1 in = 1,000 ft

Date: 1/22/2020  
Projection: NAD 83 UTM Zone 11N



Hillside College

**1925 Historic  
USGS Historic Map**

Project: 60614840

**AECOM**

**Figure 6**

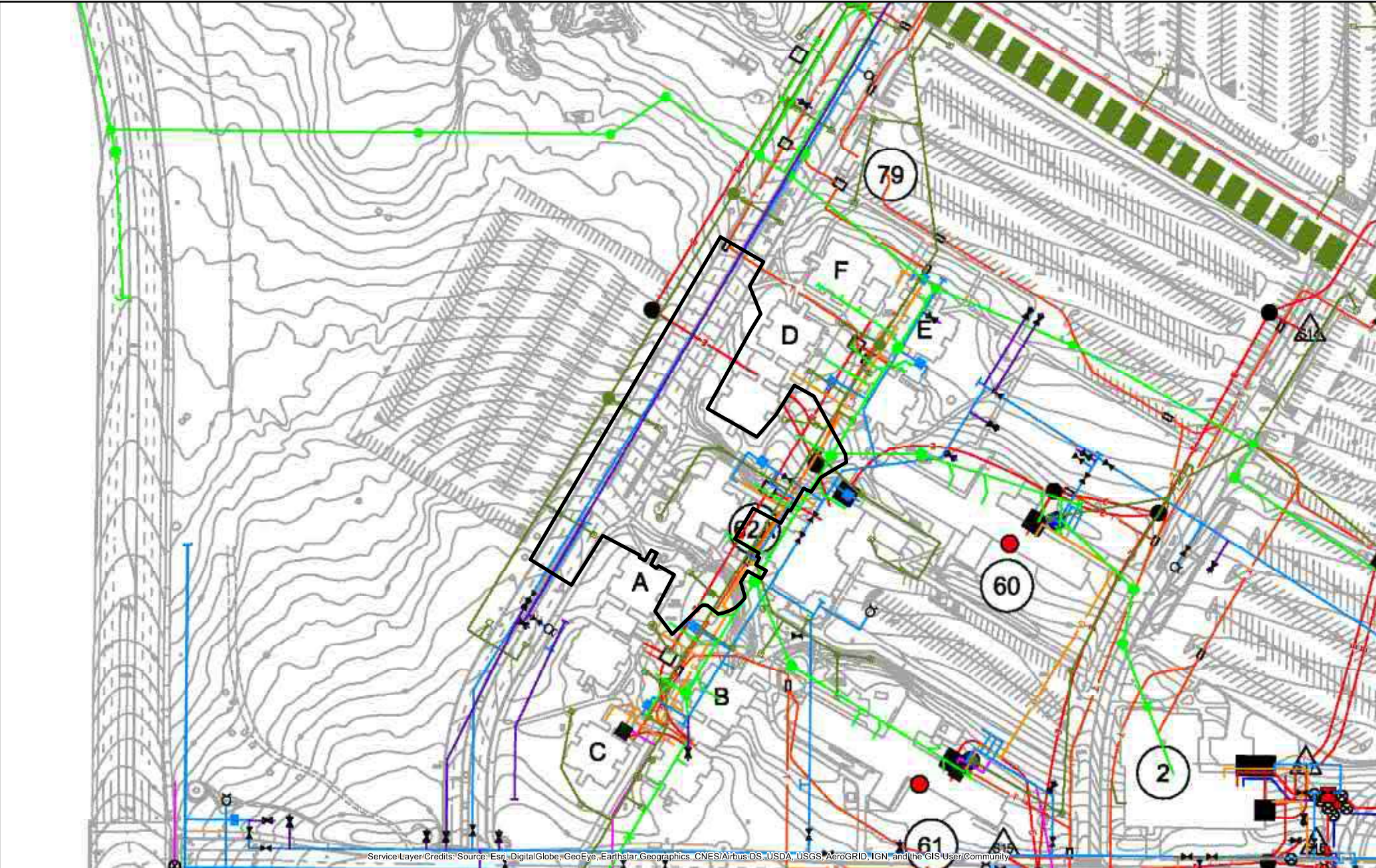
## **GEOARCHAEOLOGICAL ANALYSIS**

By Jay Rehor, M.A., RPA

The potential for landforms to harbor buried archaeological components is primarily a function of the landform's age and origin. In general, landforms and associated deposits formed during the Holocene have some potential to contain buried sites, whereas latest Pleistocene or older landforms have virtually no potential, given that they were deposited prior to human entry into California circa 14,000 years ago. As described above, Quaternary mapping shows that the project area is situated on uplifted marine sediments deposited during the middle to late Pleistocene (Figure 4) which would generally be considered too old to contain buried archaeological deposits, though archaeological resources could be deposited at the surface of the landform.

Soils mapping for the project area is consistent with the Quaternary geologic mapping, in that older well-developed soils are present, which are consistent with in-place weathering of older Pleistocene deposits. The project location is mapped as Thums-Windfetch Complex soils (Figure 8). Both Thums series and Windfetch series soils are formed on older landforms and contain well developed subsurface pedogenic horizons (multiple calceric argillic horizons), indicative of formation over a long period of time. Table 4 provides a summary of the general master horizons for these two soil series. Stratigraphic units (strata) and soil horizons are defined by the U.S. Department of Agriculture using soil taxonomy based on physical characteristics such as composition, color, superposition, textural transitions, and pedogenic properties (i.e., relative soil development) (Soil Survey Staff 2006). Most horizons and layers are given a single capital letter symbol where: "A" is the organic-rich upper horizon developed at or near the original ground surface; "B" is the horizon formed in the middle of a profile, with concentrations of illuviated clays, minerals, and general changes in soil structure; and "C" is the relatively unweathered parent material upon which the other soil horizons formed. These master horizons are preceded by Arabic numerals (2, 3, etc.) when the horizon is associated with a different stratum (e.g., different depositional event); where number 1 is understood but not shown, and lower numbers indicate superposition over larger numbers. Lowercase letters are used to indicate the important characteristics of each major stratum and soil horizon, from which inferences can be drawn. Various soil characteristics—such as blocky structure associated with silicate clay accumulation, or the accumulation of other minerals in the soil horizon—are indications of the amount of time that a landform was exposed at the surface prior to burial (i.e., its stability) and the environmental conditions to which the landform was subject prior to and after burial.













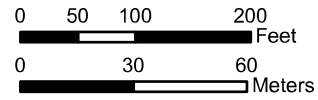


Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



**Legend:**

-  Project Area
-  Natural Gas
-  Electrical Power
-  Domestic Water
-  Telecommunications
-  Storm Drain
-  Heating Hot Water
-  Sanitary Sewer
-  Chilled Water
-  Irrigation



Scale: 1:2,000  
1 in = 167 ft

Date: 12/20/2019  
Projection: NAD 83 UTM Zone 11N



Hillside College

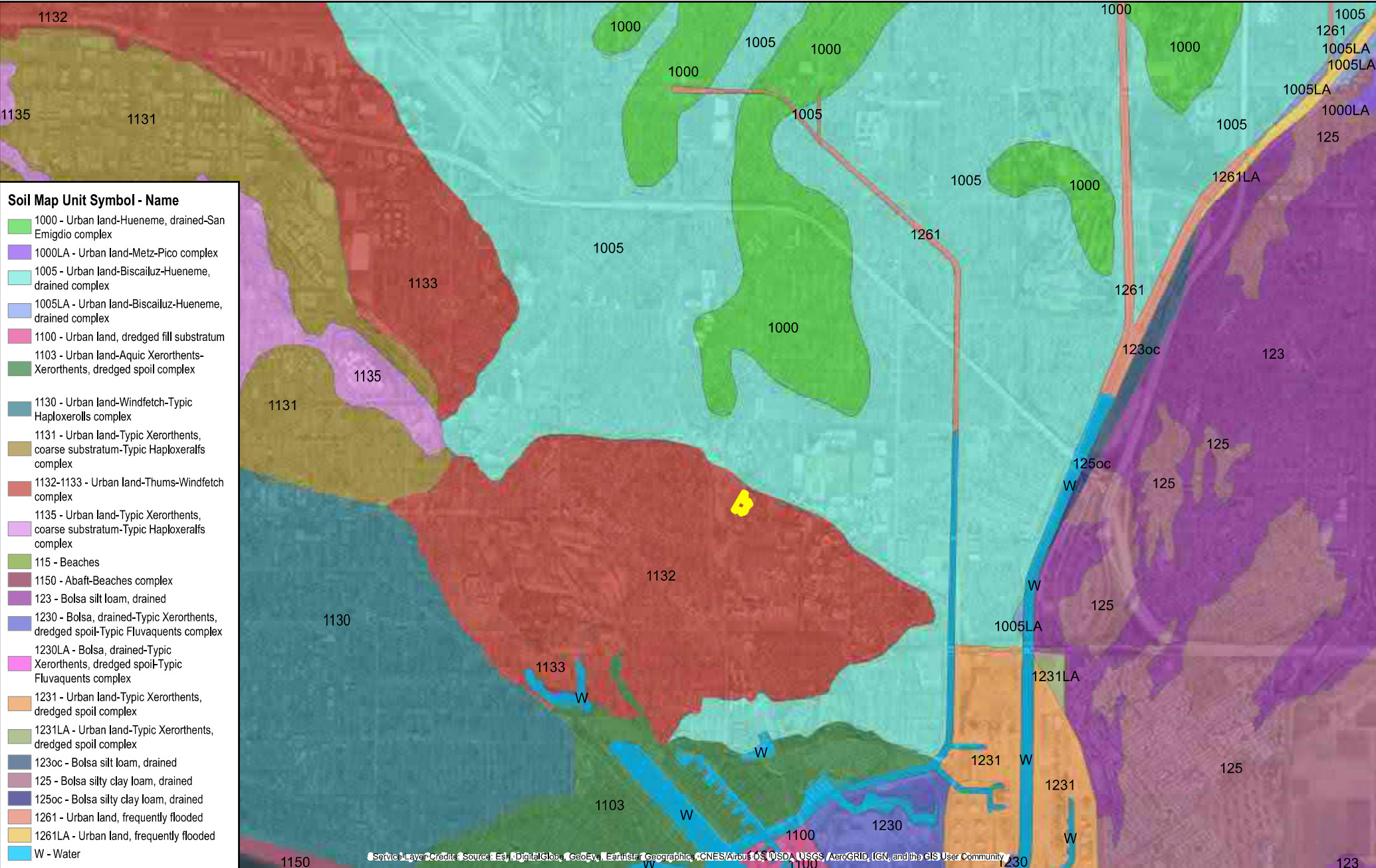
**CSULB Infrastructure**

Project: 60614840



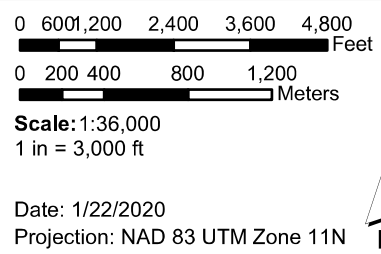
**Figure 7**





**Legend:**

Project Area



Hillside College

**USDA Soils Mapping**

Project: 60614840

**AECOM**

**Figure 8**



**Table 4. Summary of Official Soil Series Descriptions for Project Area**

Thums Series		Windfetch Series		Definition of Soil Horizons	
Horizon	Depth	Horizon	Depth	Subordinate Character	Description
^A	0-6 cm	^A	0-10 cm	^	Human-transported material (imported fill)
^Cu	6-26 cm	^Au	10-30 cm	k	Accumulation of pedogenic carbonates, commonly calcium carbonate (calceric horizon)
2Btk1	26-95 cm	2Bt	30-67 cm	t	Accumulation of subsurface silicate clay (argillic horizon)
2Btk2	95-115 cm	2Btk1	67-94 cm	n	Accumulation of subsurface salts
2Btkn	115-170 cm	2Btk2	94-120 cm	u	Presence of human-manufactured materials (modern, historic, and/or prehistoric)
		2Btk3	120-160 cm		

Both the soils and Quaternary geologic mapping point to the conclusion that the landform that the project area is located on predates human occupation of California and, therefore, is too old to reasonably contain deeply buried archaeological deposits (i.e., the project area has low geoarchaeological sensitivity). Any archaeological deposits that are present would only occur at or near the surface. However, this assessment is complicated by the history of modern development of the project area, and the possible presence of imported sediments that may obscure the pre-contact native ground surface. The official soil series descriptions for both Thums and Windfetch series soils contain upper horizons of “human transported materials at the surface” overlying uplifted alluvium from marine and other mixed rock sources (Soil Survey Staff 2019). This suggests that shell and other artifacts (both historic and prehistoric), consistently noted by prior archaeological surveys at the surface across much of the CSULB campus, are associated with imported sediments (fill) and are not necessarily the result of manufacture and discard of artifacts at the location where they were recorded. However, the surface of the buried native landform (i.e., the 2B horizon) below the fill horizons does have the potential for harboring buried archaeological deposits. Given the age of the landform, these buried deposits, if present, would not be expected to extend to any significant depth. The official soil series description for the Windfetch series notes that the maximum depth of the surficial fill sediments is approximately 50 cm (Soil Survey Staff 2019).

Several geotechnical reports from subsurface investigations within and directly adjacent to the project site were reviewed for data relevant to the general stratigraphic profile of the area, in an attempt to better define the specific subsurface conditions and geoarchaeological potential within the project site. None of the reports or associated bore logs documented differences between surficial fill/disturbed deposits and underlying in-place sediments, nor did they note the presence of ecofacts (shell, etc.) or artifacts (prehistoric or historic). As such, the geotechnical reports were not detailed enough to provide information relevant to the current geoarchaeological discussion.

The prior archaeological investigations described above were also reviewed for information relevant to an interpretation of the subsurface conditions, and geoarchaeological potential, within the project area. The most relevant of these are the subsurface investigations conducted by SRS

in the late 1970s and 1980s. Although none of these investigations used standard soil horizon nomenclature (as described above), which would have greatly aided in the identification of imported fill strata versus intact native soils, the reports do contain some valuable analysis of subsurface conditions and a focus on the geomorphic setting of the archaeological sites that gives credence to the subsequent interpretations. A general summary of these investigations is attached here as Appendix D.

Of particular note is SRS's 1980 subsurface investigation of a large portion of CA-LAN-235, including numerous mechanical trenches and at least one 1.5-by-1.5-meter hand excavation unit directly west of Earl Warren Drive from the current project area (Figure 9). These excavations extended up to 175 cm below surface and revealed profiles of redeposited sediments with intermixed shell and historic/modern debris, overlying a culturally sterile Pleistocene landform. The authors conclude that:

The majority of the materials found included highly weathered shell fragments and historic debris. The depth and extent of the historic/modern debris coupled with the complex geologic strata indicate that the area has been continually naturally and historically disturbed. Distribution of the infrequently found prehistoric items ... indicates that an aboriginal Indian site was located on the Long Beach land mass in the vicinity of the subject property. (SRS 1980:23)

The identified prehistoric materials, other than shell, included less than 10 pieces of debitage and groundstone fragments, none of which were encountered in the excavations adjacent to Earl Warren Drive. Only limited shell deposits were encountered in these excavations. A master profile for the site was developed using a 76-meter-long trench placed just west of the area of the current large parking lot. This profile indicates that soil disturbance extends below 70 cm throughout the entire investigation area, with indications of older disturbance apparent down to depths in excess of 150 centimeters. Below this is a transitional zone grading into the undisturbed and noncultural geologic formations. While the depth of disturbance interpreted by SRS is much greater than what would be expected given the soil series descriptions above, there is certainly room for local variation in the intensity of historic cut and fill episodes, and the general sequence of disturbed/imported fill overlying an older Pleistocene landform is consistent.

Subsequent limited testing of three 1-by-1-meter hand excavation units by a CSULB field school, in an area immediately west of SRS's T5 (Figure 9), found much higher densities of fragmentary shell compared to the 1980 investigation, along with very sparse debitage (n=6) and faunal bone. These deposits were interpreted as evidence of an *in situ* prehistoric food processing site. However, these three units were only excavated to between 40 and 100 cm below surface and were not excavated deep enough to encounter the underlying sterile Pleistocene landform. As such, aside from the increased density of shell, it is unclear by what measure these shell deposits were interpreted as being intact, rather than part of a fill episode that simply contained more shell.

SRS (1980) provides a history of the extensive historic and modern disturbances at CA-LAN-235, which supports the prior stratigraphic interpretations. These disturbances include "plowing since the early 1900s, grading, and infilling... suggest[ing] that archaeological remains in the

area, if present, will be either mixed by plowing or buried by filling” (Whitney-Desautels et al 1986). During and after World War II, the Navy apparently used the area around current day Earl Warren Drive for construction equipment storage and refuse disposal. According to a local informant, “much of the excavated dirt from various construction sites around the [CSULB] campus contained marine shell and was spread around the subject property [CA-LAN-235]” (SRS 1980:20). The university did not keep formal records of these dumping/fill episodes, but they were apparently ongoing and extensive.

Based on a review of existing geologic, soils, geotechnical, and archaeological reports, it is not possible to define the specific stratigraphic profile and evolution of the current project site. However, a general stratigraphic profile and landform evolutionary history is apparent for the project area, which informs the potential for encountering intact archaeological deposits. All evidence suggests that the project area is situated on an uplifted Pleistocene marine landform with substantial soil development at the surface. This landform is capped with imported fill and disturbed/redeposited native sediments of variable depths, but generally between 30 and 100 cm deep. These disturbed upper deposits contain variable amounts of marine shell, the source of which has not been adequately demonstrated. Naturally occurring shell is associated with the estuarine deposits located in the flatlands to the north (downslope) of the project area and the Pleistocene marine deposits underlying the project area. In addition, the various archaeological sites that have been recorded around the CSULB campus have been documented as containing human-processed shell. It is possible that shell within the project area is derived from any (or all) of these various sources. While redeposited shell and potentially associated artifacts (e.g., lithic debitage) may be present at or near the surface of the project area, the greatest potential for encountering intact archaeological deposits is at the surface of the buried native landform. Any such deposits are unlikely to have significant depth, given the age of the underlying landform.

## **SACRED LANDS FILE SEARCH**

A Sacred Lands File (SLF) search was requested from the NAHC of the project area and vicinity. A letter was prepared and emailed to the NAHC on March 6, 2019. The letter requested that an SLF check be conducted for the proposed project and that contact information be provided for Native American groups or individuals that may have concerns about cultural resources in the project site. The NAHC responded to the request in a letter sent via email and dated March 14, 2019. The letter stated that the SLF search had been conducted, and: “The results were positive. Please contact the tribes on the attached list for more information.” The letter also provided a list of Native American groups to contact for their interests in this proposed project. The list named five Gabrielino tribes “who may also have knowledge of cultural resources in the project area.” The results of the SLF search are included in Appendix E.

## **SURFACE SURVEY AND SUBSURFACE PROBING**

### **METHODOLOGY**

A pedestrian archaeological field survey of the project area was conducted by Marc Beherec, Ph.D., RPA, on October 18, 2019. All unpaved and unbuilt upon portions of the project area were examined for the presence of cultural resources. Those areas investigated during the pedestrian survey included the median of Earl Warren Drive; the lawns west of the existing buildings; and the lawns east of the existing buildings.

Additional subsurface probing was conducted by Dr. Beherec and Frank Humphries, M.S., RPA, between November 5 and November 8, 2019. The intent of the probes was to identify the locations of possibly intact subsurface archaeological deposits within unpaved portions of the project area that were not visible on the surface due to the extensive landscaping. All work was conducted in the presence of Edgar Perez, who is a qualified Gabrielino-Tongva Native American monitor under contract with CSULB.

Before fieldwork began, 17 potential probe locations were plotted within the project area on an aerial photograph. The probes were spaced approximately 15 m apart within the road median and in the western and eastern lawn areas. These locations were then marked in the field by CSULB Construction Manager Satish Sadhu. DigAlert was called and marked the locations of utilities on the property. On the morning of November 5, Dr. Beherec, Mr. Sadhu, and CSULB Inspector of Record Danny Blakely held a field conference and consulted utilities maps. Two of the shovel test pit (STP) locations were rejected due to anticipated utilities conflicts, and others were moved to avoid anticipated conflicts.

The probes began as STPs measuring approximately 35 to 40 cm in diameter. The STPs were excavated in 10-cm increments to depths ranging from 40 to 60 cm. An auger measuring approximately 8 cm in diameter was then used to bore by hand into the base of each STP. The augers were also excavated in 10-cm increments. The auger added depth to each STP, and the probes reached depths ranging from 60 cm to 190 cm.

All soil from the STPs and augers was dry-sieved through 1/8-inch screens. All shell and all artifacts (including both prehistoric artifacts and recent refuse) were collected. No faunal bone was encountered, but any bone recovered would likewise have been collected.

The probes were documented on standard forms. Soil types were described and Munsell readings taken. Stratigraphy and soil changes were documented.

After the probes were complete, all recovered materials were brought to AECOM's laboratory in Los Angeles. There they were categorized, cleaned, and weighed. Because of their fragmentary nature, the shells were not individually speciated, but only fragmentary clam and scallop shells were noted in the collection.

## RESULTS

### Surface Survey

During the pedestrian survey on October 18, all unpaved or unbuilt upon areas of planned ground disturbance within the project area were examined. However, visibility was generally less than 10 percent in these locations due to the landscaping and well-maintained lawns. Approximately 10 small marine shell fragments were observed on the ground surface beneath the hedges in the southeast lawn. No artifacts were observed during the survey.

### Subsurface Probing

The subsurface probes were conducted because of the indeterminate nature of the surface survey. Fifteen probes were placed in the unpaved portions of the project area: five within the median of Earl Warren Drive; five within the lawns west of the existing buildings; and five within the lawns east of the existing buildings (Figure 9).

#### *Earl Warren Drive Median*

From south to north, the STPs in the median of Earl Warren Drive were STP 8, 7, 9, 1, and 10 (Plates 2, 3). All of the STPs within the median are located within the mapped boundary of site CA-LAN-235. The southwesternmost probe is STP 8, which is located closest to the location of the burial. STP 8 is also located on the hillside on which Hillside Commons is built, at an elevation of approximately 45 feet amsl. As one proceeds northward, the STPs are located farther and farther downhill, until STP 10, at the northern end of the project area within the median, which is located at approximately 25 feet amsl.

The five STPs located in the median showed considerable levels of disturbance, including recent debris, up to approximately 50 to 60 cm in depth (Tables 5 through 9). Despite the precautions taken to avoid buried utilities, two of the five STPs in the median encountered active polyvinyl chloride (PVC) water lines (STPs 9 and 10; Tables 7 and 9). These STPs were terminated upon reaching these pipes, and augers were dug beside the pipes.

The most complicated stratigraphy observed in any of the probes within the project area was within STP 10, the probe located farthest downhill and closest to Bouton Creek. Alternating layers of sand and silty clay were observed in the lower, augered levels of this probe, between approximately 80 and 190 cm in depth (Table 9).





Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



- Legend:**
- Probe
  - Project Area

0 50 100  
Feet

0 15 30  
Meters

**Scale:** 1:1,007  
1 in = 84 ft

Date: 1/22/2020  
Projection: NAD 83 UTM Zone 11N



Hillside College

**Archaeological Probe Locations**

Project: 60614840

**AECOM**

**Figure 9**





**Plate 2: STPs 7 and 8 in Earl Warren Drive Median, Overview, View South.**



**Plate 3: STP 9 in Earl Warren Drive Median, Overview, View North.**

**Table 5. STP 8 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	Green plastic lid fragment	1	1.44	Dark yellowish brown (10YR 3/4) sandy silt with calcium carbonate inclusions, compact
		Shell fragments	8	3.73	
		Styrofoam fragment	1	0.07	
	10-20	Shell fragments	4	1.13	
	20-30	Shell fragments	27	19.14	
	30-40	Twine fragment	1	0.16	
		Rusted nail	1	14.57	
		Shell fragments	47	22.99	
	40-50	Shell fragments	16	6.09	
		Glass fragment	1	1.44	
Auger	50-60	Shell fragments	6	0.91	
	60-70	Shell fragments	3	0.41	
	70-80	Shell fragments	3	0.15	
	80-90	-	-	-	
	90-100	-	-	-	
	100-110	Shell fragment	1	0.09	
	110-120	-	-	-	
	120-130	-	-	-	
	130-140	-	-	-	
	140-150	-	-	-	
	150-160	-	-	-	
	160-170	-	-	-	
	170-180	-	-	-	
	180-185	-	-	-	

**Table 6. STP 7 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	Landscaping fabric	1	5.16	Brown (10YR 5/3) sandy silt with abundant calcium carbonate inclusions, very compact, dry
		Candy wrapper	2	<0.01	
	10-20	Candy wrapper	1	<0.01	
	30-40	Shell fragments	1	0.2	
	40-50	Shell fragments	2	2.73	
		Asphalt fragments	2	6.89	
Auger	50-60	Shell fragments	4	0.52	
	60-70	Shell fragments	3	0.79	
	70-80	Shell fragments	2	0.54	
	80-90	-	-	-	
	90-100	-	-	-	
	100-110	-	-	-	



**Table 7. STP 9 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	Shell fragments	5	1.99	Dark yellowish brown (10YR 4/4) clayey sandy silt, compact
	10-20	Shell fragments	4	1.25	
	20-30	Shell fragments	13	5.32	
	30-40	-	-	-	
	40-50	Shell fragments	2	1.9	
		Asphalt fragment	1	0.13	
Auger	50-60	Shell fragment	1	0.12	
		Active PVC water pipe at 55 cm	1	Not available	
	60-70	-	-	-	
	70-80	-	-	-	
	80-90	-	-	-	
	90-100	-	-	-	
	100-110	-	-	-	
	110-120	-	-	-	
	120-130	-	-	-	
	130-140	-	-	-	
	140-150	-	-	-	
	150-160	-	-	-	
	160-170	-	-	-	
	170-180	-	-	-	
	180-190	-	-	-	

**Table 8. STP 1 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	Fist-sized concrete chunk (not collected)	1	Not available	Very dark grayish brown (10YR 3/2) loose dry loamy sandy silt
		Plastic fragment	1	<0.01	
	10-20	-	-	-	Dark grayish brown (10YR 4/2) compact clayey silt Terminated without auger due to dense tree roots.
	20-30	-	-	-	
	30-40	-	-	-	
	40-50	Shell fragments	5	3.99	
	50-60	Shell fragments	2	0.32	

**Table 9. STP 10 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	Plastic wrapper fragments	2	0.72	Very dark grayish brown (10YR 3/2) clayey silt
	0-10	Shell fragment	1	0.29	
	10-20	Glazed white porcelain	1	3.06	
	20-30	-	-	-	
	30-40	-	-	-	
	40-50	Active PVC water pipe at 47 cm	1	Not available	
Auger	50-60	-	-	-	Light yellowish brown (10YR 6/4) coarse rounded sand with small rounded quartz pebbles, dry
	60-70	-	-	-	
	70-80	-	-	-	
	80-90	-	-	-	
	90-100	-	-	-	Very dark grayish brown (10YR 3/2) silty clay
	100-110	-	-	-	
	110-120	-	-	-	Very dark grayish brown (10YR 3/2) silty clay with some sand; appears to be silty clay with sand lenses
	120-130	-	-	-	
	130-140	-	-	-	
	140-150	-	-	-	Brown (10YR 4/3) clayey silt with some sand
	150-160	-	-	-	
	160-170	-	-	-	
	170-180	-	-	-	
	180-190	-	-	-	

### ***West Lawn***

Five probes were placed within the lawn west of the existing buildings. From south to north, the STPs in the west lawn were STPs 6, 5, 4, 3, and 2 (Plates 4 and 5). Like the median, the land here slopes slightly from south to north. The northernmost STP, which was placed in the yard southwest of the existing building, is located at an elevation of approximately 40 feet amsl, while the northernmost STP in this line, STP 2, is located at an elevation of approximately 27 feet amsl. STP 3 and STP 2 are located within the planned bioswale. All of the STPs in the west lawn, with the exception of STP 6, are located within the mapped boundary of CA-LAN-235.

The sediment in all of the STPs in the west lawn was very compact clayey silt (Tables 10 through 14). It tended to be a very compact homogenous dark grayish brown to a depth of 130 to 150 cm. The top 50 cm tended to have small quantities of very fragmentary shell mixed with modern refuse. The one exception was STP 2, in which no shell or artifacts of any kind were encountered.

The only prehistoric artifact encountered during the probing was recovered from STP 6. One small fragment of greenish-black vitreous stone shatter, probably obsidian, was recovered from the top 10 cm of this STP (Plate 6). The object does not display a bulb of percussion, striking platform, or flake scars. The object measures 8.69 millimeters (mm) long by 5.94 mm wide by

5.49 mm thick, and weighs 0.24 grams. Modern refuse, including glass and candy wrapper fragments, were also recovered from the top 10 cm of STP 6.



**Plate 4: STPs 5, 4, 3, and 2 in West Lawn, Overview, View North.**



**Plate 5: STP 6, Overview, View Southeast.**



**Plate 6: Obsidian Shatter from STP 6.**

**Table 10. STP 6 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	Obsidian shatter	1	0.24	Very dark gray (10YR 3/1) clayey silt, compact, wet
		Glass fragments	2	2.55	
		Asphalt fragments	4	1.09	
		Plastic wrapper fragments	2	<0.01	
		Shell fragments	36	20.28	
	10-20	Shell fragments	7	1.08	
	30-40	Shell fragments	3	6.3	
	40-50	Shell fragment	1	0.08	
Auger	50-60	-	-	-	Dark grayish brown (10YR 4/2) clayey silt; compact, wet
	60-70	-	-	-	
	70-80	-	-	-	
	80-90	-	-	-	
	90-100	-	-	-	
	100-110	-	-	-	
	110-120	-	-	-	
	120-130	-	-	-	
	130-140	-	-	-	Yellowish brown (10YR 5/8) sandy silt
	140-150	-	-	-	
	150-160	-	-	-	
	160-170	-	-	-	
	170-180	-	-	-	
	180-190	-	-	-	

**Table 11. STP 5 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	Shell fragments	11	1.59	Very dark brown (10YR 2/2) clayey sandy silt mottled with yellowish brown (10YR 5/4) clayey sandy silt, compact
		Candy wrapper	2	<0.01	
	10-20	Shell fragments	17	6.23	
		Paper fragment	1	<0.01	
	20-30	Shell fragments	3	0.6	
	30-40	-	-	-	
Auger	40-50	Shell fragments	2	2.47	Very dark grayish brown (10YR 3/2) clayey silt, compact
	50-60	-	-	-	
	60-70	-	-	-	
	70-80	-	-	-	
	80-90	-	-	-	
	90-100	-	-	-	
	100-110	-	-	-	
	110-120	-	-	-	
	120-130	-	-	-	
	130-140	-	-	-	
	140-150	-	-	-	
	150-160	-	-	-	Compact dark yellowish brown (10YR 4/4) clayey silt
	160-170	-	-	-	
	170-180	-	-	-	
	180-185	-	-	-	

**Table 12. STP 4 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	-	-	-	Very dark brown (10YR 2/2) clayey sandy silt mottled with yellowish brown (10YR 5/4) clayey sandy silt, compact
		-	-	-	
	10-20	Paper candy wrapper fragment	1	<0.01	
	20-30	Paper candy wrapper fragment	1	<0.01	
	30-40	Paper candy wrapper fragment	1	<0.01	
	40-50	Paper candy wrapper fragment	1	<0.01	
Auger	50-60	-	-	-	Very dark brown (10YR 2/2) clayey sandy silt, no mottling, very compact
	60-70	-	-	-	
	70-80	-	-	-	
	80-90	-	-	-	
	90-100	-	-	-	
	100-110	-	-	-	
	110-120	-	-	-	
	120-130	-	-	-	
	130-140	-	-	-	
	140-150	-	-	-	

**Table 13. STP 2 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	-	-	-	Black (10YR 2/1) clayey sandy silt, very compact, moist
	10-20	-	-	-	
	20-30	-	-	-	
	30-40	-	-	-	
	40-50	-	-	-	
	50-60	-	-	-	
Auger	60-70	-	-	-	
	70-80	-	-	-	
	80-90	-	-	-	
	90-100	-	-	-	
	100-110	-	-	-	
	110-120	-	-	-	
	120-130	-	-	-	
	130-140	-	-	-	
	140-150	-	-	-	

**Table 14. STP 3 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	Shell fragments	1	0.88	Dark grayish brown (10YR 4/2) very compact clayey to sandy silt; compaction increases with depth
	10-20	White glazed ceramic building tile fragment	1	13.6	
	20-30	-	-	-	
	30-40	-	-	-	
	40-50	-	-	-	
Auger	50-60	-	-	-	
	60-70	-	-	-	
	70-80	-	-	-	
	80-90	-	-	-	
	90-100	-	-	-	
	100-110	-	-	-	
	110-120	-	-	-	
	120-130	-	-	-	
	130-140	-	-	-	
	140-150	-	-	-	

***East Lawn***

From south to north, the STPs in the east lawn were STPs 15, 14, 13, 12, and 11 (Plates 7, 8). These shovel tests all lay to the east of and outside the recorded boundary of site CA-LAN-235. They range in elevation from approximately 45 feet amsl at the south end of the project area to approximately 30 feet amsl at the north end. In this area, dark brown sandy silt overlay a very compact yellowish-brown silt cemented with abundant calcium carbonate that increased with



depth (Tables 15 through 19). Very small shell fragments and recent refuse were recovered, but no prehistoric artifacts were encountered.



**Plate 7: East Lawn STPs 15 and 14, Overview, View North.**



**Plate 8: East Lawn STPs 11, 12, and 13, Overview, View Southwest.**

**Table 15. STP 15 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	Plastic fragment	1	<0.01	Dark brown (10YR 3/3) sandy silt, compact, dry
		Shell fragments	9	3.43	
		Styrofoam fragment	1	0.09	
	10-20	Shell fragments	41	17.12	
	20-30	Shell fragments	46	14.86	
	30-40	Shell fragments	25	15.67	
Auger	40-50	Shell fragments	13	1.96	Yellowish brown (10YR 5/4) silt, compact; terminated at unknown obstruction
	50-60	Shell fragments	3	0.44	
	60-70	Shell fragments	14	1.82	
	70-80	Shell fragments	2	1.38	
	80-90	Shell fragments	6	0.76	
	90-100	Shell fragments	1	0.08	
	100-107	Shell fragments	8	3.75	

**Table 16. STP 14 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	Plastic fragment	1	5.45	Very dark grayish brown (10YR 3/2) clayey silt, compact, dry
		Shell fragments	3	2.01	
	10-20	-	-	-	
	20-30	Plastic fragment	1	0.44	
		Candy wrapper	1	<0.01	
		Shell fragments	8	9.01	
	30-40	Shell fragments	22	20.81	
		Brick fragment	1	2.49	
	40-50	Brick fragments	2	17.16	
		Shell fragment	1	0.38	
Auger	50-60	Shell fragments	2	2.73	Dark yellowish brown (10YR 4/6) silt
	60-70	Brick fragment	1	0.32	
	70-80	Shell fragments	2	0.09	
	80-90	-	-	-	
	90-100	-	-	-	
	100-110	-	-	-	
	110-120	-	-	-	
	120-130	-	-	-	
	130-140	-	-	-	
	140-150	-	-	-	
	150-160	Shell fragments	2	0.75	
	160-170	Shell fragments	2	0.18	
	170-180	-	-	-	
	180-190	-	-	-	



**Table 17. STP 13 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	Candy wrapper fragments	3	0.14	Very dark grayish brown (10YR 3/2) silt, compact, wet
		Knotted copper pendant	1	3.52	
		Styrofoam fragment	1	0.09	
		Shell fragments	4	0.92	
	10-20	Shell fragments	19	11.11	
	20-30	Shell fragments	11	15.12	
		Candy wrapper	1	<0.01	
	30-40	Shell fragment	1	0.01	
Auger	40-50	-	-	-	Dark yellowish brown (10YR 4/4) clayey silt, compact, dry
	50-60	-	-	-	
	60-70	-	-	-	
	70-80	-	-	-	
	80-90	-	-	-	
	90-100	-	-	-	
	100-110	-	-	-	
	110-120	-	-	-	
	120-130	-	-	-	
	130-140	-	-	-	
	140-150	-	-	-	
	150-160	-	-	-	
	160-170	-	-	-	
	170-180	-	-	-	
	180-190	-	-	-	

**Table 18. STP 12 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	Candy wrapper	1	0.15	Very dark brown (10YR 2/2) clayey silt, very compact, to approximately 23 cm
	10-20	Candy wrapper	1	<0.01	
		Shell fragments	2	1.05	
	20-30	Shell fragments	3	4.19	Brownish yellow (10YR 6/6) sandy silt, very compact with abundant calcium carbonate concretions increasing with depth
	30-40	Shell fragment	1	1.23	
Auger	40-50	-	-	-	
	50-60	-	-	-	
	60-70	-	-	-	
	70-80	-	-	-	
	80-90	-	-	-	
	90-100	-	-	-	
	100-110	-	-	-	
	110-120	-	-	-	
	120-130	-	-	-	
	130-140	-	-	-	
	140-150	-	-	-	

**Table 19. STP 11 Stratigraphy and Findings**

Excavation Type	Depth (cm)	Findings	Count	Weight (g)	Soil Description
STP	0-10	-	-	-	Brown (10 YR 4/3) clayey silt, very compact
	10-20	Shell fragment	1	0.05	
	20-30	-	-	-	
	30-40	-	-	-	
Auger	40-50	-	-	-	
	50-60	-	-	-	
	60-70	-	-	-	
	70-80	-	-	-	
	80-90	-	-	-	
	90-100	-	-	-	
	100-110	-	-	-	
	110-120	-	-	-	
	120-130	-	-	-	
	130-140	-	-	-	
	140-150	-	-	-	
	150-160	-	-	-	
	160-170	-	-	-	
	170-180	-	-	-	
	180-190	-	-	-	
					Yellowish brown (10YR 5/4) clayey silt with abundant calcium carbonate increasing with depth, compact, very dry

## SUMMARY AND CONCLUSIONS

AECOM conducted a pedestrian survey and limited subsurface probes. A total of 15 probes were excavated. The probes were distributed approximately evenly across the unpaved and unbuilt-upon areas of the project area, both within and outside the mapped boundary of CA-LAN-235. The intent was to identify the presence of any intact midden deposits within the project area.

No midden deposits were encountered. The top 50 cm of soil throughout most of the project area appeared to be heavily disturbed. It included recent refuse and was very compact, and may have been excavated and recompacted during the construction of Hillside College.

One isolated prehistoric artifact, a piece of obsidian shatter, was recovered alongside recent refuse in the top 10 cm of STP 6, in the west lawn, in the south-central portion of the project area. This artifact was recovered from an STP just east of the mapped boundary of the archaeological site, in an area that, in 1965, was covered by a parking lot.

In addition, a total of 544 fragments of shell weighing 325.95 grams were also recovered from 14 of the 15 STPs. The shell, which consisted of scallop and clam, was all extremely fragmentary. No complete shells were recovered, and the average shell fragment was very small, weighing less than 0.6 gram. Most or all of the shell may be naturally occurring within the soil deposited within the project area due to the proximity of marshes and estuaries that existed near the project area up until relatively recent times and redeposited within the project area by landscapers. In this area shell from former estuaries commonly occurs in dredge spoil that is incorporated into soil used for landscaping. Alternatively, the soil may be derived from prehistoric sites in the

vicinity and secondarily deposited within the project area. The soil resembles soil found secondarily deposited across the CSULB campus (Desautels 1979, 1980; Raab and Boxt 1993, 1994; Underwood 1993a, 1993b).

No intact archaeological deposits were encountered in the project area. The archaeological site in this area was recorded in 1960, and Earl Warren Drive and Hillside College were not constructed until about 1969. It is presumed that any portion of CA-LAN-235 that once existed at this location was destroyed by the construction and subsequent maintenance of Earl Warren Drive and Hillside College. Based on these findings, it is concluded that no intact archaeological deposits appear to be present within the proposed project area.

# **IMPACTS ASSESSMENT AND MANAGEMENT RECOMMENDATIONS**

## **REGULATORY SETTING**

Cultural resources in California are protected by a number of federal, state, and local regulations, statutes, and ordinances. Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance. State and federal laws use different terms for cultural resources. California state law discusses significant cultural resources as “historical resources,” whereas federal law uses the terms “historic properties” and “historic resources.” In all instances where the term “resource” or “resources” is used, it is intended to convey the sense of both state and federal law.

### **National Register of Historic Places**

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.

All resources or properties nominated for listing in the NRHP must retain integrity, which is the authenticity of a historic resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the particular criteria under which a resource is proposed for nomination.

### **California Register of Historical Resources**

The CRHR was created to identify resources deemed worthy of preservation on a state level and was modeled closely after the NRHP. The criteria are nearly identical to those of the NRHP but focus on resources of statewide, rather than national, significance. The CRHR consists of properties that are listed automatically as well as those that must be nominated through an application and public hearing process. Resources listed on the NRHP are automatically listed on the CRHR.

The criteria for eligibility for listing in the CRHR are based on NRHP criteria but are identified as 1 through 4 instead of A through D. To be eligible for listing in the CRHR, a property must be at least 50 years of age and possess significance at the local, state, or national level, under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
2. It is associated with the lives of persons important to local, California, or national history; or
3. It embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important in the prehistory or history of the local area, California, or the nation.

In addition to meeting one or more of the above criteria, historic resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be able to convey the reasons for their significance. Such integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association.

### **National Register of Historic Places and California Register of Historical Resources Listing Status**

The western portion of the project area, including all of the project area within Earl Warren Drive and its median and most of the lawn west of the existing building, is within the mapped boundary of site CA-LAN-235. Site CA-LAN-235 has never been independently evaluated for inclusion in either the CRHR or the NRHP. However, the site is a contributor to the Puvunga Indian Village Historic District, which is listed in the NRHP and thus was automatically listed in the CRHR. Dixon's original nomination did not include a detailed application of the four criteria for evaluation. However, a page in the updated site forms for CA-LAN-234 headed "Puvunga Indian Village Sites" gives the following rationale for listing the district on the NRHP under all four criteria:

#### **NRHP Criteria of Evaluation: (Opinion)**

Item 1 (A) – EVENTS – Moderate: development of Gabrielino religion

Item 2 (B) – PERSONS – Minor: legendary deities [*sic*]

Item 3 (C) – TYPE & PERIOD – Moderate: Indian village site

Item 4 (D) – INFORMATION YIELD – Strong potential

(Sutherland 1981)

## IMPACTS EVALUATION

Of the three archaeological sites that comprise Puvunga Indian Village Historic District (CA-LAN-234, CA-LAN-235, and CA-LAN-306), two are located outside the project area. Site CA-LAN-234 is located approximately 0.1-mile southwest of the project area, partially on the CSULB campus and partially on the VA Long Beach Healthcare System campus. Site CA-LAN-306 is located off campus, approximately 0.9-mile southeast of the project area, on land owned by the City of Long Beach and administered by the Rancho Los Alamitos Foundation. Sites CA-LAN-234 and CA-LAN-306 are physically disconnected from the project area and project work; therefore, neither site will be impacted by the proposed project.

The following analysis considers the potential impacts to the eligibility of the Puvunga Indian Village Historic District through its potential impacts to CA-LAN-235. Potential impacts of the project to the eligibility of the district for inclusion in the NRHP and CRHR are considered related to the district's significance under each criterion, followed by a consideration of the potential impacts of the project on the site and district's integrity. The proposed project is not anticipated to impact the eligibility of site CA-LAN-235 or the Puvunga Indian Village Historic District, under any of the four CRHR or NRHP criteria, nor is it anticipated to have a lasting impact on the district's historic integrity.

### *Criterion A/1: EVENTS (Moderate: development of Gabrielino religion)*

Site CA-LAN-235 is listed in the NRHP as a contributor to the Puvunga Indian Village Historic District. CA-LAN-235 is a contributor to this district, which is "associated with events that have made a significant contribution to the broad patterns of our history", because of Puvungna's importance to the development of Gabrielino religion. If CA-LAN-235 is a part of the ethnohistoric Puvungna, then it remains an important location in the development of Gabrielino, Juaneño, Luiseño, and Kumeyaay religion. Whether or not CA-LAN-235 is the historic village of Puvungna is disputed, both among archaeologists and within the Native American community (Baksh 1994; Boxt and Raab 2000a, b; Dixon 2000; Lightfoot 2000; Ruyle 2000). But regardless of whether CA-LAN-235 is the site of the ethnohistoric Puvungna, the 22-acre undeveloped portion west of Earl Warren Drive has become important to the development of Gabrielino and Juaneño religion over the past approximately 48 years since human remains were discovered on the property in 1972, and particularly in the 40 years since those remains were reinterred within the boundaries of CA-LAN-234. The 22-acre location was the site of further cultural innovation and development in 1995 with the introduction of the Ancestor Walk, a completely new religious ritual but one that is rooted in veneration of the ancestors. Finally, the site is important in the recent introduction of the Bear Dance from northern California to the Los Angeles area (Rigby 2012).

The project will not impact the significance of CA-LAN-235 as a contributor or the continued eligibility of the Puvunga Indian Village Historic District under Criterion A/1. Regardless of whether or not CA-LAN-235 is the ethnohistoric village of Puvungna, construction will be limited to the portion of the site that was previously disturbed for the construction of Earl Warren Drive and the existing Hillside Office/Commons building in 1969 to 1970, before the Puvunga Indian Village Historic District was nominated and added to the NRHP. Implementation of the



proposed project will not reduce the importance the site has and has had for Native American religious development.

Moreover, the undeveloped 22-acre portion of the site west of Earl Warren Drive will not be temporarily or permanently impacted by the proposed project. Project improvements will be restricted to the portion of the site that is already developed, within and east of Earl Warren Drive. At the end of construction, CA-LAN-235 will be restored to approximately its current state; Earl Warren Drive will be replaced and two new buildings will sit atop the approximate location of the existing building. The unpaved and undeveloped part of CA-LAN-235 west of Earl Warren Drive will not be paved, built upon, used to stage equipment or materials, or otherwise temporarily or permanently modified. Ceremonial features that exist at the site (such as, but not limited to, fire pits, ancestor poles, dance floor, and decorated trees) will not be impacted. The public's and the tribes' ability to access the property and conduct ceremonies likewise will not be infringed by the project during construction or operation. Implementation of the proposed project will have no impact to the eligibility of CA-LAN-235 individually or the Puvunga Indian Village Historic District as a whole under Criterion A/1.

*Criterion B/2: PERSONS (Minor: legendary deities)*

The Puvunga Indian Village Historic District is listed in the NRHP because it is "associated with the lives of persons significant in our past," in this case, Native American deities and culture heroes. Project work will not impact the district's significance under Criterion B/2. During and after project construction, CA-LAN-235 will retain its importance in its connection to gods or culture heroes such as Ouiot and Chinichnich. Regardless of whether CA-LAN-235 is part of the ethnohistoric site of Puvungna, and regardless of whether Chinichnich was a historical individual who was born or taught there (both of which are disputed anthropologically, archaeologically, and within the Native American population), the district is important in the collective consciousness as the area where Ouiot was cremated and Chinichnich taught, and the site is a symbolic contributor to that district. Moreover, the site has added importance in its connection to latter-day prophets such as Lillian Valenzuela Robles, who, like Chinichnich, took an existing traditional religion and revitalized it by changing it. A human burial was found at CA-LAN-235, which increases its importance to the Native American community, and Lillian Roble's struggle to prevent development of the 22 acres further contributes to the site's contribution to the historic district. Project implementation will not impact the site's association with Ouiot, Chinichnich, Robles, or any of the other supernatural beings and prophets who made their careers there. Implementation of the proposed project will have no impact on CA-LAN-235's status as a contributor to the Puvunga Indian Village Historic District, or to the continued eligibility of the Historic District, under Criterion B/2.

*Criterion C/3: TYPE & PERIOD (Moderate: Indian village site)*

It has been determined that the Puvunga Indian Village Historic District displays "distinctive characteristics of a type [and] period" as an ethnohistoric Native American village. No portion of the ethnohistoric village that embodies the distinctive characteristics of a type, period, or method of construction has yet been documented at CA-LAN-235. Archaeological work may (or may not) reveal features that embody distinctive characteristics of Gabrielino villages or ceremonial sites of the ethnohistoric era. The relatively new religious structures now found on the site (such

as ancestor poles and the dance floor) post-date the 1974 NRHP nomination and are therefore not evaluated or cited for their contribution to the site's eligibility.

However, discussions of the Puvunga Indian Village Historic District generally do not discuss buildings, structures, or objects at the three archaeological sites that comprise the district. Instead, such discussions generally revolve around the undeveloped nature of these sites, as contrasted against the urbanized nature of surrounding Long Beach. The proposed project would be limited to the portion of the site that is already disturbed and built upon, and will not impact the undeveloped 22 acres which contribute most strongly to this undeveloped feeling.

Accordingly, implementation of the proposed project will have no impact on the eligibility of CA-LAN-235 as a contributor to the Puvunga Indian Village Historic District, or on the continued eligibility of the Historic District under Criterion C/3.

*Criterion D/4: INFORMATION YIELD (Strong potential)*

Criterion D/4 applies to locations that "have yielded, or may be likely to yield, information important in prehistory or history." It has been determined that the Puvunga Indian Village Historic District has the potential to yield significant archaeological data. Portions of CA-LAN-235 that contain undisturbed archaeological deposits have the potential to contribute archaeological data that, in the context of the historic district, are important to prehistory.

Some archaeological data has been obtained from CA-LAN-235, and what has been obtained hints at the potential for further significant data to be obtained from the site. Radiocarbon dates from CA-LAN-235 are among the earliest obtained for the archaeological sites on and around the CSULB campus (Boxt and Raab 2000). Other than the single burial, no archaeological features or diagnostic artifacts have yet been documented at the site. The most significant parts of CA-LAN-235 yet explored—the human burial and the location from which the radiocarbon dates were obtained—are located within the undeveloped 22-acre portion of the site and will not be impacted by project construction. Moreover, any significant archaeological remains that may exist at the site are most likely to survive within the undeveloped 22 acres.

The boundaries of CA-LAN-235 were arbitrarily mapped by Dixon in 1960, 1974, and 1978 based solely on what was visible on the ground surface and what he believed may exist underground. Each time Dixon described the site he drew a larger site boundary, gradually increasing the site size from 1.11 acres in 1960 to 27.5 acres in 1978. Dixon's most recent recordation appears to have been made after soil was imported to the site to bury an existing parking lot and during the period when the area was used as an organic garden. Subsequent research has indicated that these boundaries are not only imprecise but are also inaccurate.

Archaeological testing has shown that the soils of the CSULB campus have been disturbed so extensively and over such a long period of time that the surface is a poor indication of what lies beneath. Investigations of the various archaeological sites documented across the CSULB campus revealed that at least 15 of the 27 archaeological sites documented within 0.5 mile of the project area are in fact not archaeological sites, but rather are redeposited soil, probably taken from wetlands or archaeological sites, and used as topsoil (Desautels 1979, 1980; Raab and Boxt 1993, 1994; Underwood 1993a, 1993b).

In one particularly notable example, that of CA-LAN-1005, a test unit was excavated in the dark soil which was previously recorded as a midden deposit. Marine shell was encountered, but no artifacts were recovered. Beneath the dark soil, archaeologists found a soil change and a utilities trench, indicating that the utilities trench was dug before the dark soil was deposited on the location (Underwood 1993b). Such soil redeposition destroys the archaeological context of any site it impacts, reducing its data potential.

The archaeological probing conducted for the proposed project was intended to identify the boundary of site CA-LAN-235 and locate any undisturbed site material that might either be preserved in place or subjected to data recovery. The test probes were set out in a rough grid pattern that encompassed the entire project area/area of anticipated ground disturbance, including but not limited to the recorded limits of CA-LAN-235. Locations which were believed least likely to have been previously impacted by either utilities or other construction were deliberately selected to be tested. However, the tests did not indicate that archaeological deposits exist within that portion of the site that overlaps the project area.

The test probes were excavated to a depth below which previous investigations indicate the site should have been found, if it were preserved within the project area. The site form for CA-LAN-235 indicates that the burial that was encountered in 1972 is located approximately 20 meters from the project area. In that excavation, the midden deposits were noted to be within 60 cm (approximately 2 feet) of the ground surface. However, mechanical trench excavations and at least one 1-by-1-meter shovel unit excavated by SRS in 1980 in the vicinity of the large paved parking lot directly west of Earl Warren Drive, immediately west of the current project area and north of the 1972 burial, did not encounter any archaeological materials. The 1980 excavations extended up to 175 cm below surface and revealed profiles of redeposited sediments with intermixed shell and historic/modern debris, overlying a culturally sterile Pleistocene landform. The archaeological probes conducted for the proposed project also extended well below the 60 cm depth identified in 1972 and failed to find intact archaeological deposits.

It is believed that any archaeological deposits that may have existed within the project area were destroyed during the construction of Earl Warren Drive and Hillside College. Moreover, it is unclear if an intact archaeological site ever existed within the project area. It is likely that any artifacts and shell were deposited within the project area by historic and contemporary construction and landscaping activities and therefore lack scientific value, although they may retain value for descendant Native American communities.

Because no intact archaeological deposits were encountered during the archaeological probing, it is anticipated that no intact deposits exist within the project area. Therefore, it is anticipated that implementation of the proposed project will have no impact to the data potential of CA-LAN-235. Therefore, there will be no impact to the eligibility of the Puvunga Indian Village Historic District under Criterion D/4.

Although unlikely, given the known disturbances associated with the construction and maintenance of Hillside College and Earl Warren Drive, relict intact portions of site CA-LAN-235 may exist within the project area. Such resources are particularly possible in areas that could

not be probed, such as beneath the paved surface of Earl Warren Drive. Any such intact archaeological deposits are likely to be significant. Any impacts to significant archaeological deposits may reduce the significance of that portion of CA-LAN-235 that is impacted and thereby impact the eligibility of the Puvunga Indian Village Historic District. Therefore, the recommendations section below outlines means of identifying and avoiding or treating archaeological materials that may be uncovered after demolition or during construction, thereby reducing the impacts to a less than significant level.

## RECOMMENDATIONS

### Archaeological Recommendations

The project area partially overlaps the mapped boundary of CA-LAN-235. Site CA-LAN-235 is listed on the NRHP as a contributor to the Puvunga Indian Village Historic District. The site was initially recorded in 1960. However, major construction projects took place within the site boundary in 1969, specifically, the construction of Earl Warren Drive and Hillside College. This Extended Phase I study found a single isolated artifact alongside recent refuse in a disturbed deposit outside the mapped boundary of the archaeological site. Shell found across the entire project area, both within and outside the mapped boundary of the archaeological site, does not appear to be indicative of an archaeological site, and is consistent with redeposited shell found in fill sediments by prior investigations elsewhere in the vicinity. One isolated artifact, but no evidence of an archaeological site, was observed during the probings within the project area.

However, the potential remains that archaeological deposits may exist within the project area, particularly in areas that could not be sampled during this Extended Phase I study because they are built or paved over. Non-destructive methods of subsurface investigation such as ground-penetrating radar (GPR) were considered but are limited in their detail and unlikely to yield unambiguous data regarding subsurface features, and would provide no data regarding stratigraphy.

Due to the project site overlapping with a NRHP-listed archaeological site, it is recommended that, after the demolition of the existing buildings and hardscaping, but before construction of the new proposed facilities, limited geoarchaeological trenching be conducted within the project area. The purpose of the trenching is to: (1) confirm that no archaeological deposits are present within the existing building footprints and hardscaped areas where prior testing was not possible; and (2) create a master stratigraphy of the project area to verify the stratigraphic conclusions drawn in this report, regarding the redeposition of shell-bearing sediments and emplacement over a culturally sterile Pleistocene landform. The testing will consist of approximately 5 or 6 small geoarchaeological test pits excavated by backhoe throughout the project area in order to develop a master soil profile of the project area. Bucket samples of the soil will be screened and the pits will be examined for evidence of archaeological materials, as well as evidence of pedogenic development and/or prior disturbance, which will provide direct evidence of the age and nature (*in situ* soil versus redeposited sediment) of each major stratigraphic unit. If intact archaeological deposits are encountered during the geoarchaeological testing, additional work may be required in accordance with the terms specified in the CRMDP.

Moreover, it is recommended that CSULB comply with the existing mitigation measures of the Campus Plan Master Update, dated May 2008 (HDR Engineering 2008:84-85). These mitigation measures require that all construction-related ground-disturbing activities that occur on campus be monitored by a professional archaeologist and Native American monitor. Due to the sensitivity of the project area, it is recommended that a project-specific CRMDP be developed in consultation with SHPO. The monitoring plan will identify what activities require monitoring, describe monitoring procedures, and outline the protocol to be followed in the event of a find. Criteria thresholds will be outlined, and triggers identified when further consultation is required for the treatment of a find. Key staff will be identified, and the process of notification and consultation will be specified within the CRMDP. A curation plan will also be outlined within the CRMDP. All work should be conducted under the direction of a qualified archaeological Principal Investigator who meets the Secretary of the Interior's standards for archaeology.

It is CSULB policy to retain tribal cultural monitors who are culturally affiliated with the geographic area during all ground-disturbing construction activities on campus. If archaeological resources of Native American origin are encountered, consultation with interested Native American parties is recommended in order to apprise them of the findings and solicit any comments they may have regarding appropriate treatment and disposition of the resources. It is recommended that the tribal cultural monitor maintain logs of all activities monitored, and that this documentation be made available to all consulting Native American parties. Consulting Native American parties are anticipated to include those parties with whom CSULB is consulting pursuant to AB 52 in addition to the internal CSULB Committee on Native American Burial Remains and Cultural Patrimony established by Academic Senate Policy Statement 96-04, although it is recognized that the Committee does not have the rights granted to tribal governments under AB 52. All Native American consultation will be conducted in addition to consultation with SHPO.

If human remains are discovered, work in the immediate vicinity of the discovery will be suspended and the Los Angeles County Coroner contacted. If the remains are deemed Native American in origin, the Coroner will contact the NAHC and identify a Most Likely Descendant (MLD) pursuant to Public Resources Code Section 5097.98 and California Code of Regulations Section 15064.5. Work may be resumed at the university's discretion but will only commence after consultation and treatment have been concluded. Work may continue on other parts of the project while consultation and treatment are conducted.

## REFERENCES CITED

Altschul, Jeffrey H.

1994a Previous work at Sites CA-LAN-234 and CA-LAN-235. Pp. 5-1 through 5-12 in *Puvunga: A Review of the Ethnohistoric, Archaeological, and Ethnographic Issues Surrounding a Gabrielino Rancheria Near Alamitos Bay, Los Angeles County, California*. Report No. LA-06160. Document on file, South Central Coastal Information Center, California State University, Fullerton.

Altschul, Jeffrey H., Editor

1994b *Puvunga: A Review of the Ethnohistoric, Archaeological, and Ethnographic Issues Surrounding a Gabrielino Rancheria Near Alamitos Bay, Los Angeles County, California*. Report No. LA-06160. Document on file, South Central Coastal Information Center, California State University, Fullerton. Online: <http://www.sripress.com/free-downloads/puvunga-a-review-of-the-ethnohistoric-archaeological-and-ethnographic-issues-surrounding-a-gabrielino-rancheria-near-alamitos-bay-los-angeles-county-california/>. Accessed November 19, 2019.

Arnold, Jeanne E., Michael Walsh, and Sandra E. Hollimon

2004 The Archaeology of California. *Journal of Archaeological Research* 12(1):1–73.

Baksh, Michael

1994 Native American Beliefs Regarding Puvunga and the Bellflower Property. Pp. 8-1 through 8-20 in *Puvunga: A Review of the Ethnohistoric, Archaeological, and Ethnographic Issues Surrounding a Gabrielino Rancheria Near Alamitos Bay, Los Angeles County, California*. Edited by Jeffrey H. Altschul. Report No. LA-06160. Document on file, South Central Coastal Information Center, California State University, Fullerton. Online: <http://www.sripress.com/free-downloads/puvunga-a-review-of-the-ethnohistoric-archaeological-and-ethnographic-issues-surrounding-a-gabrielino-rancheria-near-alamitos-bay-los-angeles-county-california/>. Accessed November 19, 2019.

Barnes, Rachel

2019 Long Beach Native American Community Rallies ‘Respect Our Past and Our Future’ During Indigenous People’s Day. *Daily Forty-Niner*. 13 October. Online: <https://daily49er.com/news/2019/10/13/long-beach-native-american-community-rallies-for-indigenous-peoples-day/> Accessed November 19, 2019.

Bates, Eleanor

1972 Los Altos (LAN-270): A Late Horizon Site in Long Beach, California. *Pacific Coast Archaeological Society Quarterly* 8(2):1–56.

Bean, Lowell John

2017 *Mukat’s Last Gift*. Banning, CA: Malki-Ballena Press.



- Bean, Lowell John, and Florence C. Shippek  
1978 Luiseño. In *Handbook of North American Indians*, vol. 8, pp. 550–563. Robert F. Heizer, editor. Smithsonian Institution, Washington, D.C.
- Bean, Lowell John, and Charles R. Smith  
1978 Gabrielino. In *Handbook of North American Indians*, vol. 8, pp. 538–549. Robert F. Heizer, editor. Smithsonian Institution, Washington, D.C.
- Bixby Smith, Sarah  
1925 *Adobe Days*. Cedar Rapids: Torch Press.
- Boscana, Geronimo  
1978 *Chinigchinich*. A Revised and Annotated Version of Alfred Robinson's Translation. Annotated by John P. Harrington. Banning, CA: Malki Museum Press.
- Boxt, Matthew A., and L. Mark Raab  
2000a Puvunga and Point Conception: A Comparative Study of Southern California Indian Traditionalism. *Journal of California and Great Basin Anthropology* 22(1):43–67.  
  
2000b Reply. *Journal of California and Great Basin Anthropology* 22(1):84–91.
- Bright, William  
1978 Preface. Pp. i–vii in *Chinigchinich*, by Geronimo Boscana. Banning, CA: Malki Museum Press.
- Coffman, Candace  
2011 *The Juaneño-Acjachema: Exploring Identity and the Reproduction of Culture*. Dubuque, IA: Kendall Hunt Publishing.
- Coker, Matt  
2001 This Is Where We Pray. *OC Weekly*. 1 November. Online: <https://ocweekly.com/this-is-where-we-pray-6388192/>. Accessed November 19, 2019.
- Desautels, Roger J.  
1978 *Archaeological/Paleontological Survey Report on the Proposed Arboretum Japanese Garden Project Located at California State University Long Beach Job No. 11542 - Service Agreement No. 371-068-SC-367*. Report No. LA-00451. Document on file, South Central Coastal Information Center, California State University, Fullerton.

1979 *Archaeological/Historical Report on Archaeological Sites LAN-235, LAN-1003, LAN-1004, and the Historical Resources Located at California State University at Long Beach, California, Project No. C-06-1137-110.* Report No. LA-00561. Document on file, South Central Coastal Information Center, California State University, Fullerton.

1980 *Archaeological Survey Report on Two Proposed Parking Areas (Parking 79) Located on the Campus at California State University, Long Beach, Agreement #371-069-SC-392.* Report No. LA-00561. Document on file, South Central Coastal Information Center, California State University, Fullerton.

Dillow, Gordon

1993 No Common Ground. *Los Angeles Times*, 19 June: B1, B2. Los Angeles, California.

Dixon, Keith A.

1960 Archaeological Site Survey Record, 19-000235. Document on file, South Central Coastal Information Center, California State University, Fullerton.

1964 Archaeological Site Survey Record, 19-000306. Document on file, South Central Coastal Information Center, California State University, Fullerton.

1972a Revised Archaeological Site Survey Record and Supplementary Sheet, 19-000235. Document on file, South Central Coastal Information Center, California State University, Fullerton.

1972b Reviving Puvunga. *The Masterkey* 46(3):84–92.

1974 National Register of Historic Places Inventory—Nomination Form, Puvunga Indian Village Sites. Archaeological Site Survey Record, 19-000234. Document on file, South Central Coastal Information Center, California State University, Fullerton.

1977 *Inventory of Archaeological Resources, CSULB Campus.* Report No. LA-00491. Document on file, South Central Coastal Information Center, California State University, Fullerton.

2000 Comment on ‘Puvunga and Point Conception...’ by Matthew A. Box and L. Mark Raab. *Journal of California and Great Basin Anthropology* 22(1):67-73.

Dodds, J. Scott, Lynne C. Gray, and Tom Beaver

2003 *Sacred Lands, White Man’s Laws.* Princeton, NJ: Films for the Humanities and Sciences.

Erlandson, Jon M.

1994 *Early Hunter-Gatherers of the California Coast.* Plenum Press, New York.

Goldberg, Susan K., Bradley J. Adams, Carole Denardo, Scott A. Williams, Marilyn J. Wyss, Mark C. Robinson, Jill A. Onken, Cari M. Inoway, Melinda C. Horne, Kenneth Moslak, Suzanne Griset, Virginia S. Popper, Steve L. Martin, M. Steven Shackley, Thomas M. Origer, Janet L. McVickar, Beta Analytic, Inc., Suzanne Bircheff, Susan Rapp, and Patrick Knisely

1999 *The Metropolitan Water District of Southern California Headquarters Facility Project. The People of Yaanga?: Archaeological Investigations at CA-LAN-1575/H*. Document prepared by Applied Earth Works and the Metropolitan Water District of Southern California for Union Station Partners. Report No. LA-006382. Document on file, South Central Coastal Information System.

Gumprecht, Blake

1999 *The Los Angeles River: Its Life, Death and Possible Rebirth*. John Hopkins University Press, Baltimore, MD.

Harper, Karen S.

2017 *Lillian Valenzuela Robles (Making a Difference: Long Beach)*. Long Beach: Long Beach Unified School District and Historical Society of Long Beach.

Harrington, John P.

1934 *A New Original Version of Boscana's Historical Account of the San Juan Capistrano Indians of Southern California*. Washington, DC: Smithsonian Institution.

1978 Annotations. Pp. 91–247 in *Chinigchinich*, by Geronimo Boscana. Banning, CA: Malki Museum Press.

Hawthorne, Christopher

2006 Hooray for Sprawlywood. *Los Angeles Times*. 3 December:S6. Los Angeles.

Heizer, Robert F.

1968 Notes. Pp. 105–135 in *The Indians of Los Angeles County: Hugo Reid's Letters of 1852*, by Hugo Reid. Edited and annotated by Robert F. Heizer. Los Angeles: Southwest Museum.

1978 Mythology: Regional Patterns and History of Research. In *Handbook of North American Indians*, vol. 8, pp. 654–657. Robert F. Heizer, editor. Smithsonian Institution, Washington, D.C.

Jackson, Robert H.

1999 Agriculture, Drought & Chumash Congregation in the California Missions (1782-1834), *California Mission Studies Association*. Articles, May Newsletter.

Jennings, Charles W.

1962a *Explanatory Data: Long Beach Sheet, Geologic Map of California*. Sacramento: California Division of Mines and Geology.

1962b *Geologic Map of California, Long Beach Sheet*. 1:250,000 scale map. Sacramento: California Division of Mines and Geology.

Johnston, Bernice Eastman

1962 *California's Gabrielino Indians*. Los Angeles: Southwest Museum.

Jurmain, Claudia, David Lavendar, and Larry L. Meyer

2011 *Rancho Los Alamitos: Ever Changing, Always the Same*. Berkeley, CA: Heyday Books.

Jurmain, Claudia, and William McCawley

2009 *O, My Ancestor: Recognition and Renewal for the Gabrielino-Tongva People of the Los Angeles Area*. Berkeley, CA: Heyday Books.

Kielbasa, John

1997 *Historic Adobes of Los Angeles County*. Pittsburgh: Dorrance Publishing Company.

Kroeber, Alfred L.

1925 *Handbook of Indians of California*. *Bureau of American Ethnology Bulletin 78*, Smithsonian Institution, Washington D.C.

1959 *Ethnographic Interpretations 7–11*. *University of California Publications in American Archaeology and Ethnology* 47(3):235–310.

Layne, J. Gregg

1957 *Water and Power for a Great City*. Los Angeles: Department of Water and Power.

Lightfoot, Kent

2000 *Comments on 'Puvunga and Point Conception: A Comparative Study of Southern California Indian Traditionalism,' by Matthew A. Bost and L. Mark Raab*. *Journal of California and Great Basin Anthropology* 22(1):74-77.

Loewe, Ronald

2016 *Of Sacred Lands and Strip Malls: The Battle for Puvungna*. Lanham, MD: Rowman and Littlefield.

*Los Angeles Times*

1993 *Long Beach Woman Arrested in Clash Over College Garden Site*. 10 June: 2. Los Angeles, California.

McCawley, William

1994 An Ethnohistoric Survey of *Povuu'nga*-Rancho Los Alamitos. Pp. 2-1 through 4-21 in *Puvunga: A Review of the Ethnohistoric, Archaeological, and Ethnographic Issues Surrounding a Gabrielino Rancheria Near Alamitos Bay, Los Angeles County, California*. Report No. LA-06160. Document on file, South Central Coastal Information Center, California State University, Fullerton.

1996 *The First Angelinos: The Gabrielino Indians of Los Angeles*. Malki Museum Press. Banning.

Merriam, C. Hart

1955 The Ko-too-mut Ke-hi-ah or Festival for the Dead: A Mortuary Ceremony of the Tong-va of Tejon. Pp. 77–86 & Plate 24 in *Studies of California Indians* by C. Hart Merriam, edited by the Staff of the Department of Anthropology of the University of California. Berkeley and Los Angeles: University of California Press.

Meyer, L.

1981 *Los Angeles, 1781–1981*. A special bicentennial issue of *California History*, Spring 1981. California Historical Society, Los Angeles.

Mozingo, Joe

1999 In Search of the Lost Gabrielinos. *Los Angeles Times*, 16 July: 1. Los Angeles, California.

Nationwide Environmental Title Research

2019 Historic Aerials by NETROnline. Online: <https://www.historicaerials.com/>. Accessed January 14, 2020.

O'Neil, Stephen

2014 *The Acjachemen (Juaneño) Indians of Coastal Southern California*. Banning, CA: Malki-Ballena Press.

Perez, Mary Anne

1991 Los Pobladores 200 to Walk the Path That Settlers Took. *Los Angeles Times*, 29 August: 2. Los Angeles, California.

Phillips, George Harwood

2010 *Vineyards and Vaqueros: Indian Labor and the Economic Expansion of Southern California, 1771–1877*. Norman, OK: Arthur H. Clark Co.

Poole, Jean Bruce, and Tevvy Ball

2002 *El Pueblo: The Historic Heart of Los Angeles*. Los Angeles: Getty Conservation Institute and the J. Paul Getty Museum.

Raab, L. Mark, and Matthew A. Buxt

1993 *A Research Design and Implementation Guidelines for the Preservation of Archaeological Resources in Campus Development Projects, California State University, Long Beach*. Report No. LA-08498. Document on file, South Central Coastal Information Center, California State University, Fullerton.

1994 *A Cultural Resources Management Plan for the California State University, Long Beach*. Report No. LA-08498. Document on file, South Central Coastal Information Center, California State University, Fullerton.

R.D.S. [Ruth D. Simpson]

1953 Shoshonean Burial Ground Excavated. *The Masterkey* 27(2):69.

Reid, Hugo

1968 [1852] *The Indians of Los Angeles County: Hugo Reid's Letters of 1852*. Edited and annotated by Robert F. Heizer. Los Angeles: Southwest Museum.

Rigby, Julia Edith

2012 A Celebration of Ceremony Among the Juaneño Band of Mission Indians, Acjachemen Nation. *Scripps Senior Theses*. 78. Online: [https://scholarship.claremont.edu/scripps\\_theses/78](https://scholarship.claremont.edu/scripps_theses/78). Accessed November 19, 2019.

Robinson, W. W.

1942 *Long Beach: A Calendar of Events in the Making of a City*. Title Guarantee and Trust Company. Los Angeles, CA.

1966 Los Alamitos: The Indian and Rancho Phases. *California Historical Society Quarterly* 45(1):21–30.

Rondeau, Michael F.

2009 Fluted Points of the Far West. *Proceedings of the Society for California Archaeology* 21:265–274.

Ruyle, Eugene E.

2000 A Comment on “Puvunga and Point Conception: A Comparative Study of Southern California Indian Traditionalism,” by Matthew A. Buxt and L. Mark Raab. *Journal of California and Great Basin Anthropology* 22(1):77–84.

Salzer, George

1975 *Rancho los Alamitos*. Ramona, CA: Acoma Books.

Saucedo, George J., H. Gary Greene, Michael P. Kennedy, and Stephen P. Bezore

2016 *Geologic Map of the Long Beach 30' x 60' Quadrangle, California*. Sacramento: California Department of Conservation, California Geological Survey.



Scientific Resource Surveys, Inc. [SRS]

1980 *Archaeological Test Report on the Japanese Garden Arboretum/Museum Site Located on the Campus of the California State University at Long Beach*. Report No. LA-00263. Document on file, South Central Coastal Information Center, California State University, Fullerton.

Soil Survey Staff

2006 *Keys to Soil Taxonomy*. United States Department of Agriculture Natural Resources Conservation Service. Available at: [https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_052172.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052172.pdf) Accessed January 3, 2020.

2019 Official Soil Series Descriptions for Thums and Windfetch Series Soils. Available online at <https://soilseries.sc.egov.usda.gov/osdname.aspx>

Soil Conservation Service

1969 *Report and General Soil Map, Los Angeles County, California*. Lancaster, CA: Soil Conservation Service.

State of California Office of Historic Preservation

1990 *Archeological Resource Management Reports (ARMR) Guidelines*. Department of Parks and Recreation, State of California, Sacramento.

Stickel, E. Gary

2008 The Farpoint Site (CA-LAN-451): A Unique Clovis Culture Site of the First Americans on the Malibu Coast. Available at <http://farpointsite.blogspot.com/2008/02/farpoint-site-ca-lan-451-unique-clovis.html> Accessed November 21, 2019.

Strong, William Duncan

1929 Aboriginal Society in Southern California. *University of California Publications in American Archaeology and Ethnology* 26:1-358.

Sutherland, Donald R.

1981 Amendment to National Register of Historic Places Inventory—Nomination Form, Puvunga Indian Village Sites. Archaeological Site Survey Record, 19-000234. Document on file, South Central Coastal Information Center, California State University, Fullerton.

Whitney-Desautels, Nancy A., Vickie Clay, Lorraine S. Gross, and Kevin J. Peter

1986 Archaeological Test Investigations of a Segment of the Joint Outfall Section 3 Trunk Sewer Replacement Part

Underwood, Jackson

1993 *Archaeological Survey and Testing for the Pipeline Project, California State University, Long Beach*. Report No. LA-04274. Document on file, South Central Coastal Information Center, California State University, Fullerton.

1993 *Archaeological Testing of Phase I, The Pedestrian Walkway, Parking Structure B, California State University, Long Beach*. Report No. LA-04276. Document on file, South Central Coastal Information Center, California State University, Fullerton.

United States Geological Survey (USGS)

1899 Downey, California 1:62500 Topographic Map. Reston, VT: United States Geological Survey.

1901 Downey, California 1:62500 Topographic Map. Reston, VT: United States Geological Survey.

1902 Downey, California 1:62500 Topographic Map. Reston, VT: United States Geological Survey.

1924 Long Beach, California 1:24000 Topographic Map. Reston, VT: United States Geological Survey.

1925 Long Beach, California 1:24000 Topographic Map. Reston, VT: United States Geological Survey.

1942 Downey, California 1:62500 Topographic Map. Reston, VT: United States Geological Survey.

1943 Downey, California 1:62500 Topographic Map. Reston, VT: United States Geological Survey.

1949 Los Alamitos, California 1:24000 Topographic Map. Reston, VT: United States Geological Survey.

1950 Los Alamitos, California 1:24000 Topographic Map. Reston, VT: United States Geological Survey.

1964 Los Alamitos, California 1:24000 Topographic Map. Reston, VT: United States Geological Survey.

1974 Los Alamitos, California 1:24000 Topographic Map. Reston, VT: United States Geological Survey.

University of California, Santa Barbara (UCSB)

1928 Aerial Photograph, Flight AMI-LA-65, Frame 571B. Image on file, Maps & Imagery Library, Special Research Collections, University of California, Santa Barbara.

Wallace, William J.

1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11(3):214–230.

Warren, Claude N.

1968 Cultural Traditions and Ecological Adaptation on the Southern California Coast. In *Archaic Prehistory in the Western United States*, edited by Cynthia Irwin-Williams. Eastern New Mexico University Contributions in Anthropology 1(3):1–14.

Wilkman, Nancy, and Jon Wilkman

2006 *Picturing Los Angeles*. Gibbs Smith Publishers, Salt Lake City.

# **APPENDIX A**

## **RESUMES**

## Marc A. Beherec, PhD, RPA Project Archaeologist

### Education

PhD, Anthropology, University of California, San Diego, La Jolla, CA, 2011  
MA, Anthropology, University of California, San Diego, La Jolla, CA, 2004  
BA, Anthropology (Geology minor), University of Texas, Austin, Austin, TX, 2000

### Professional Affiliations

Member, Society for American Archaeology  
Member, Society for California Archaeology

### Licenses/Registrations

Register of Professional Archaeologists (RPA), Registrant # 989598  
Hazardous Waste Operations and Emergency Response (HAZWOPER) 40-hour  
Training  
HAZWOPER Supervisor Training  
Occupational Safety and Health Administration (OSHA) 30-hour Outreach  
Training

### Selected Publications

"The Archaeology of the Plague in Los Angeles, 1924." *Proceedings of the Society for California Archaeology* 32 (2018): 224-245. Online at: <https://scahome.org/wp-content/uploads/2018/12/18-Beherec.pdf>  
"Bay Tree Spring: From Make Work Well to Sacred Spring." *Proceedings of the Society for California Archaeology* 30 (2016): 291-300. Online at: <https://scahome.org/wp-content/uploads/2017/03/24-Beherec-Marc.pdf>

Dr. Marc Beherec is an archaeologist who has been involved in the field of cultural resources management for nearly twenty years. He has worked in California, Texas, and the Midwest on projects within Federal and State regulatory framework, and is experienced in the identification and analysis of both prehistoric and historic era artifacts. He has worked with a variety of local, state, and federal agencies, including the Los Angeles Bureau of Engineering (LABOE), California Department of Transportation (Caltrans), the Federal Transit Authority (FTA), and the Federal Aviation Administration (FAA). At the same time, he has written cultural resources assessments for several clients to satisfy requirements of both the National Environmental Protection Act and the California Environmental Quality Act.

### Selected Project Experience

#### Beacon Street Temporary Homeless Shelter Caltrans Documents, 2019

##### Client: Los Angeles Bureau of Engineering

Prepared Archaeological Survey Report (ASR) and Historic Properties Survey Report (HPSR) for the Beacon Street Temporary Housing Project, a City project on Caltrans property, to comply with CEQA and Section 106 of the National Historic Preservation Act (NHPA). Tasks included archival research including researching known sites at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton; conducting archaeological and built environment surveys; assessing archaeological sensitivity; writing reports of findings according to Caltrans specifications in compliance with the Standard Environmental Reference (SER).

#### Downtown Los Angeles Temporary Homeless Shelter Monitoring and Mitigation, 2018

##### Client: Los Angeles Department of Engineering

Conducted cultural resources monitoring and resource impact mitigation for the City of Los Angeles within El Pueblo de Los



Angeles Historic Monument to comply with CEQA. Tasks included archival research at the El Pueblo de Los Angeles archives; the University of California, Los Angeles and the South Central Coastal Information Center (SCCIC) at California State University, Fullerton; conducting archaeological monitoring; recovering and documenting artifacts; assessing finds for inclusion on the California Register of Historical Resources (CRHR); writing reports of findings.

**Purple Line Portal Widening and Metro Operations and Control Center Cultural Resources Assessments**

**Client: Los Angeles County Metropolitan Transportation Authority**

Prepared Phase I archaeological surveys for the Purple Line Portal Widening Project and the Operations and Control Center Project, to comply with CEQA and Section 106 of the National Historic Preservation Act (NHPA). Metro and the Federal Transportation Authority were lead agencies. Tasks included archival research including researching known sites at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton; conducting archaeological and built environment surveys; assessing archaeological sensitivity; writing reports of findings.

**Regional Connector Cultural Resources Compliance Monitoring, 2012-2017**

**Client: Los Angeles County Metropolitan Transportation Authority (Metro)**

Monitoring Coordinator and Project Archaeologist for cultural resources compliance monitoring, including paleontological and archaeological monitoring, of the 1.9-mile Regional Connector subway corridor and associated stations. Tasks involved instructing construction teams in cultural resources compliance; the scheduling and coordination of multiple concurrent archaeological monitors on diverse construction efforts throughout the alignment; compilation, QA/QC, and delivery of daily monitoring logs and other documentation for all on-site monitors; serving as a liaison between archaeological monitors, construction crew, and client project team; assessing finds for inclusion on the California Register of Historical Resources (CRHR) and the National Register of Historic Places (NRHP); assisting client with Federal Transportation Administration and State Historic Preservation Office consultation; ensuring overall cultural resources compliance within the permitted conditions of the project.

**Regional Connector Zanja Discovery Program, 2012**

**Client: Los Angeles County Metropolitan Transportation Authority (Metro)**

Conducted archival research and assembled historical data to determine the location and construction history of the Los Angeles Zanja System; the city's first irrigation system. Included research within city archives and published records to determine the probable locations and significance of underground portions of this miles-long system, which is treated as an eligible resource for the National Register of Historic Places. Information was used to guide cultural resources compliance during construction of the Regional Connector subway corridor.

**Crenshaw/LAX Cultural Resources Compliance Monitoring, 2012-2017**

**Client: Los Angeles County Metropolitan Transportation Authority (Metro)**

Monitoring Coordinator and Project Archaeologist for cultural resources compliance monitoring, including paleontological and archaeological monitoring, of the 8.5-mile Crenshaw light rail transit corridor and associated stations. Tasks involved instructing construction teams in cultural resources compliance; the scheduling and coordination of multiple concurrent archaeological monitors on diverse construction efforts throughout the alignment; compilation, QA/QC, and delivery of daily monitoring logs and other documentation for all on-site monitors; serving as a liaison between archaeological monitors, construction crew, and client project team; assessing finds for inclusion on the California Register of Historical Resources (CRHR) and the National Register of Historic Places (NRHP); assisting client with Federal Transportation Administration and State Historic Preservation Office consultation; ensuring overall cultural resources compliance within the permitted conditions of the project.

**Groundwater Replenishment Project Cultural Resources Technical Study, 2014-2016**

**Client: Los Angeles Department of Water and Power**

Prepared Phase I Cultural Resources study of the project area for the City Trunk Line North replacement, City of Los Angeles, to comply with CEQA and the more stringent requirements of the California Water Boards Clean Water State Revolving Fund's CEQA-Plus, which also requires compliance with Section 106 of the National Historic Preservation Act (NHPA). Tasks included archival research including researching known sites at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton; conducting archaeological and built environment surveys; assessing finds for inclusion on the California Register of Historical Resources (CRHR) and the National Register of Historic Places (NRHP); writing reports of findings.

**Active Transportation Program Caltrans Technical Documents, 2015-2017****Client: City of Los Angeles Bureau of Engineering**

Served as technical lead in the preparation of Archaeological Survey Reports (ASRs) and, as applicable, Finding of Effect (FOE), and Environmentally Sensitive Area Action Plan (ESA Action Plan) for four local assistance pedestrian safety improvement projects, including Little Tokyo, Hollywood High, Seridan, and Dolores Huerta/Quincy Jones Elementary School Active Transportation Projects (ATPs) to comply with Section 106 of the National Historic Preservation Act and Caltrans guidelines. Tasks included archival research including researching known sites at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton; conducting archaeological and built environment surveys; assessing finds for inclusion on the California Register of Historical Resources (CRHR) and the National Register of Historic Places (NRHP); writing reports of findings, including a Finding of Effect and mitigation recommendations.

## **APPENDIX B**

### **“OF THE CREATION OF THE WORLD ACCORDING TO THOSE RESIDING ON THE SEA-COAST” (EXCERPT FROM BOSCANNA 1978)**

# Chapter III

## Of the Creation of the World According to Those Residing on the Sea-Coast

*[Excerpted from Geronimo Boscana, **Chinigchinich**, translated by Alfred Robinson, annotations by John P. Harrington. 1978. Banning, CA: Malki Museum. Pp. 31-35.]*

In the preceding chapter, we have been amused by the belief of the Indians, Serranos, relative to the creation of the world. Now, let us compare the same with that of the Playanos--that is, those who came to settle in the valley of St. Juan Capistrano. An invisible and all-powerful being called Nocuma made the world, the sea, and all that is therein contained, such as animals, trees, plants and fishes. In its form it was spherical, and rested upon his hands; but, being continually in motion, he resolved to secure the same by placing in its centre a black rock, called Tosaut, and it remained firm, and secure as at the present time. This black rock, the Indians say, is from a small island near the beach, and the fragments which they often collect, serve as trowels, with which they smooth their mud walls.

The sea, at that time, was no more than a small stream of water, running from the south to the north, encircling the world: so filled with fish, that they were literally piled one on top of another, in such a state of inconvenience, that they held a consultation, and some were for landing upon the earth; others were of opinion that it would be impossible, for they would perish when exposed to the air and the heat of the sun, and besides they had no legs and feet as other animals have. While conferring upon this matter, there came a large fish, bringing with him the rock Tosaut, which, having broken, they found in its centre a ball formed like a bladder, filled with gall. This they emptied into the water, and from its fresh state it was converted into a bitter condition. The water then immediately swelled, and overflowed upon the earth, covering the space which it does now, and the fishes were rejoiced to find themselves so amply supplied with room, and at the change effected in the taste.

Nocumo having created all the things contained in the world, and secured it with the rock Tosaut, as before remarked, created man, or the first Indian, out of the earth, and called him Ejoni. Afterwards he created woman, and gave her the name of A'é. It is not known of what she was made, but the supposition is that she was created from the earth, like the man. Many years after the creation of Ejoni and A'é, one of their descendants, called Sirout, (which signifies a handful of tobacco) and his wife called Ycaut, (which signifies above) had a son, and they gave him the name of Ouiot. This name, according to the explanation given by the Indians, signifies something which has taken root, denoting that in like manner, he would, in course of time, extend his power and dominion over the earth, as the largest trees spread their roots in every direction. I have not been enabled to ascertain if the name Ouiot, properly implying dominator, was given to him at the time of his birth, or at the time of his celebrity as the great Captain. Be it as it may, let us examine his history, or life.

Out of the confines of a *ranchería*, called Pubuna, distant from St. Juan Capistrano N.E. about eight leagues, came the monster Ouiot, and the Indians, at the present time, preserve the account in their annals. At that time, all the inhabitants were at peace, and quietly following their

domestic pursuits; but Ouiot, being of a fierce disposition, a warrior, ambitious, and haughty, soon managed to gain a supremacy over many of the towns adjoining that where he originated. During the commencement of his reign, he was pacific, kind and generous to such a degree, that every one appeared happy, and contented with their chief; but after the lapse of a few years, he gradually exposed his ferocity, and persecuted many of his vassals; cruelly treating them, and some he put to death. In fact, he soon became the detestation of all his subjects.

Having suffered so much from Ouiot, they determined to rid themselves of the tyrant, and release themselves from the oppression in which they had lived for so long a period. A consultation was held by the elders, and it was decided that he should receive his death by means of poison. The rock Tosaut was procured, and whilst in the act of pulverizing the ingredient, they were perceived by one called Cucumel, who immediately gave information to Ouiot, that they wished to destroy him by poison. Said Cucumel was a small animal inhabiting holes in the ground, from which, in the daytime, he issued to obtain his sustenance. The said Ouiot, believing he was hated and despised, and fearful of the death revealed to him by Cucumel, despatched messengers in every direction to ascertain the truth; threatening, at the same time, those who might have been concerned in the conspiracy; but, obtaining no information, he rather looked upon it as a jest. In the meantime, his enemies had secretly prepared the mixture, and were consulting how to administer the same, saying that it was so active and effective, that the mere application of it to the flesh, would cause almost instantaneous death. One of them was entrusted with its execution, and at night, finding Ouiot asleep, he placed a small quantity upon his breast. On waking, he experienced a sickness and weakness in his limbs, and fearing very much that he should die, he immediately called in, all the intelligent from the different towns. But the more they administered for his relief, the worse he became, until, at length, he died.

After his death they sent off couriers to all the towns, and settlements, which Ouiot had governed, summoning the people to the interment of their Grand Captain; and in a few days, so great a collection had assembled, that the City or Town of Pubuna could not contain them, and they were obliged to encamp in the outskirts. They consulted together as to the propriety of burning or interring the body, and they decided upon the former. The funeral pile was made, the deceased placed upon it, the pile was fired, and during the time of its burning, they danced and sang songs of rejoicing.

These ceremonies concluded, and before the return of the people to their different places of abode, a council was called to regulate the collecting of grain or seeds of the fields, and flesh, to eat; for up to this time they had fed upon a kind of clay. While conferring upon this subject, there appeared to them one, called "Attajen," which name implies man, or rational being; but they knew not from whence he came. To his enquiry, "Why they were thus congregated?" they answered "that their Grand Captain was dead, and that they had met together to assist at the funeral ceremonies; and now, previous to their retirement, the elders were consulting as to the manner they should subsist for the future, without the necessity of living upon clay as they had heretofore." "Attajen" was much pleased with the relation that he had heard, and said unto them, "Ye are not capable, nor can ye do what ye think, or wish to do. I am the only one that has power, and I will give it to ye, that ye may have an abundance to eat, in your habitations." And, accordingly, he selected from the multitude a few of the elders, and endowed them with the

power to cause the rain to fall, to make grain, and others to make animals, such as rabbits, hares, deer, &c., &c. And it was understood that such power was to descend to their successors.

Many years, and perhaps ages, having expired since the death of Ouiot, there appeared in the same town of Pubuna, one called Ouiamot," son of Tacu and Auzar. I imagine that this new character was not, or, at least, his parents were not inhabitants of the place, but had originated in some distant land. The said Ouiamot did not appear like Ouiot, as a warrior, but as a God. To him they were to offer presents. And this was the God Chinigchinich, so feared, venerated, and respected by the Indians, who taught first in the town of Pubuna, and afterwards in all the neighboring parts, explaining the laws, and establishing the rites and ceremonies necessary to the preservation of life.

The manner in which he commenced to dogmatise, manifesting his extravagances, was as follows. One day, at a very large congregation of the people, he danced before them, adorned in the robes which have been already described; his flesh painted black and red, and calling himself Tobet. He said that he had come from the stars to teach them those things of which they were ignorant. After dancing a considerable time, he separated the chiefs and elders from among them, and directed that they alone should wear the kind of dress which had adorned his person, and then taught them how to dance. To these Indians was given the name of *puplem*, who would know all things, and relieve the infirm and diseased. In other words, they would become the sorcerers or soothsayers, to whom the Indians might invariably apply for advice, and relief from their necessities. In the event of a scarcity of food, or any infirmity, they were told to appear, dressed like unto Tobet; that is, after the manner in which he appeared to them, dancing; to supplicate him, not in the name of Ouiamot, but of Chinigchinich, and their wants would be relieved. The sick would be cured, and the hungry receive food. In all cases they were to return thanks, and even now, to this day, whenever they chance to secure an animal of any kind, they say, "*guic Chinigchinich*," that is, "thanks to Chinigchinich, who has given me this."

This Chinigchinich, as we shall style him hereafter, taught them how to build the *vanquech*, which means temple, or church, and how they were to conduct themselves therein--forbidding any others than the chief and *puplem* entering its sanctuary. Here they were to teach only the laws and ceremonies, and those who entered, would be called Tobet, and the remainder of the people Saorem, which signifies, persons who do not know how to dance; that is, more properly, those who could not make use of the vestments of Chinigchinich. The name of Quaguar, was given to him when he died and ascended above, among the stars. This is the explanation of the three terms which is given in the preceding relation relative to Chinigchinich.

Chinigchinich having become seriously indisposed, and while instructing the elders how to rear the young, as well as in the rules they were to observe for the future, they enquired of him where, or to which one of his *rancherías* wished to go when he died? He answered, "to neither, for they were inhabited by people, and he should go where he would be alone, and could see the inhabitants of all the pueblos and *rancherías*." They offered to bury him, placing him under the earth, but he said "no," that they would walk upon him, and he would have to chastise them. "No!" said Chinigchinich, "when I die, I shall ascend above, to the stars, and from thence, I shall always see you; and to those who have kept my commandments, I shall give all they ask of me; but those who obey not my teachings, nor believe them, I shall punish severely. I will send unto



them bears to bite, and serpents to sting them; they shall be without food, and have diseases that they may die.” Chinigchinich, at length, died. His memory was so revered among the Indians, that they ever besought him in all their undertakings, and regarded him with fear and respect.

We have thus seen the belief of these Indians, respecting the creation of the world, and their God, and from its narration, we comprehend their religion, usages and customs. I do not understand why it is, that in neither of the two narrations, is there any mention made of the heavens, and that all their ideas of things appear to be confined to the earth, with the exception of the stars. What I should like to know, is, from whence they received such accounts? for, notwithstanding their imperfect, as well as fabulous description, they have some allusion to the truth. We have the six productions of the mother of Ouiot, corresponding to the six days of the creation of the world--The Indian formed of the earth or clay, like our first parent--and Ouiot, analogous to Nimrod of the Holy Scripture. I do not know to whom we may compare Ouiamot, unless it be to Simon Magus, as his teachings were idolatrous.

**APPENDIX C**

**ANCESTOR WALK 2019 FLYER**

# ANCESTOR WALK

October 5th, 2019

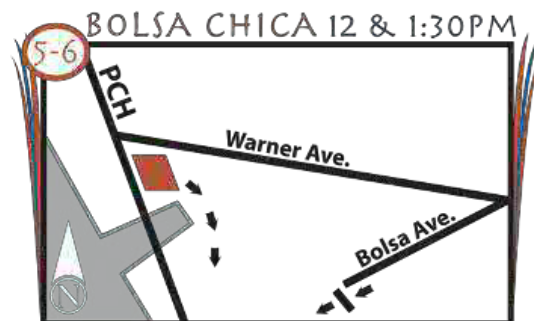
22ND ANNUAL PILGRIMAGE OF THE TONGVA & ACJACHEMEN PEOPLE, CARRYING PRAYERS FOR OUR ANCESTORS AND FUTURE GENERATIONS



4. This is the main portion of the village of Genga, located above the Santa Ana River. This site was a trade route to the desert. Protected in the open space of Fairview Park for years, it is now threatened by plans to build sports fields on it. Park at 2340 Canyon Drive Waldorf School of Orange County, Costa Mesa, CA 92627



1. Panhe is an ancient village nestled on the banks of San Mateo Creek. Throughout the years ceremony and reburials have taken place here. The site continues to be an important ceremonial site. We celebrate the efforts of all the community members who prevented the disruption of Panhe. This area is an irreplaceable spiritual and cultural site. We come together to pray for it's continued protection.



5. We gather in the parking lot and walk across the Bolsa Chica Mesa to the memorial gardens. Bolsa Chica is the home of the cog stones, unique disk shaped stones used in ceremonial rituals.

6. For decades tribal members and preservationists have worked to preserve Bolsa Chica as sanctified burial grounds. The area is a sacred site, eligible for the National Register of Historic Places. 174 ancestors were disturbed to build homes.



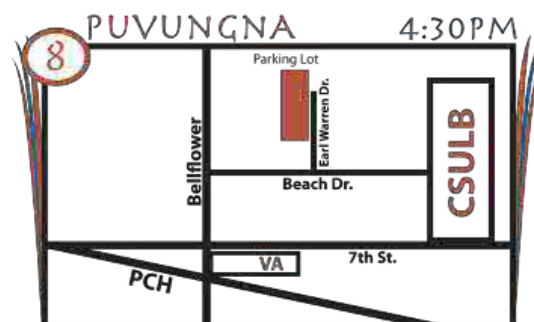
2. Putuidem, located in San Juan Capistrano, is the mother village of the Acjachemen people. Our leaders Oyison and Corrone lived here. We remember and honor them. Meet at Northwest Open Space— 30291 Camino Capistrano, San Juan Capistrano, CA.



7. We visit the memorial gardens, walk and pray. Here, Native American monitors stood in a circle to protect Ancestors from further desecration while threatened by workers and heavy equipment building homes. The building was stopped, and the housing project was redesigned. Four less houses were built. We honor and remember all who worked to protect the Ancestors here.



3. This site is very ancient. The village and ancestors were over 9,500 years old, ancient when the Egyptian pyramids were built. Over 600 ancestors were moved to build the Harbor Cove housing tract at Newport Back Bay. We pray that this kind of disruption will never occur again.



8. Join us at Puvungna, "The Gathering Place." This is all that remains of our creation site, located on the campus of CSU Long Beach. Attempts to build a strip mall and housing on the last open 22 acres of this sacred site were blocked by court order. Puvungna is listed on the National Register of Historic Places.

**APPENDIX D**

**“PREVIOUS WORK AT  
SITES CA-LAN-234 AND CA-LAN-235”  
(ALTSCHUL 1994A)**

## **CHAPTER 5**

### **PREVIOUS WORK AT SITES CA-LAN-234 AND CA-LAN-235**

Jeffrey H. Altschul

Part 2 of this report ties the ethnohistoric record presented in Part 1 with the extant archaeological record. The part is divided into three chapters, which move geographically and theoretically from the specific to the general. In this chapter, we focus on the history of investigations at one site. In Chapter 7, we expand our scope to the history of research first on the CSULB campus and second on the Alamitos Bay region. Chapter 8 presents a model through which archaeological phenomenon in the region as well as at CA-LAN-234/235 can be explained.

#### **INTRODUCTION**

This chapter outlines the history of archaeological investigations at the sites recorded as CA-LAN-234 and CA-LAN-235. We have two objectives in this endeavor. The first is to present the chronology of archaeological work. We want to present the reader with an idea of how much work was accomplished at various times and the interpretations that were based on that work. The second goal is to compile the extant data and present a composite picture of what is known about the sites.

The chapter is organized by investigation, with each investigation described in an individual section. A summary of previous work and a statement of our current knowledge is then provided.

#### **Original Site Recording - 1960**

According to Keith Dixon (personal communication, 1994), locals in the Long Beach area had known about a scatter of prehistoric artifacts near the intersection of Bellflower Road and University Drive for years prior to his arrival at the university. With his appointment to the department of anthropology at CSULB in 1958, Dixon was contacted repeatedly by amateur archaeologists and interested locales, who told of artifacts found in the area. In September 1960, Dixon formally completed site records for the scatter. Because University Drive, a paved 4-lane road, bisected the scatter from east to west, Dixon decided to record it as two sites, CA-LAN-234 consisting of the scatter north of University Drive and CA-LAN-235 composed of the scatter south of the road (Figure 5.1). At this time, Dixon described the CA-LAN-234 as "surface shell and some chipping waste" and CA-LAN-235 as "shell and some chipping waste." (Dixon 1960a, 1960b). Surface soil is described as "little darkening" and "adobe, slight darkening", respectively. Site sizes were estimated as "ca. 100 m diameter" for CA-LAN-234 and 30 m east-west by 150 m north-south for CA-LAN-235. Both sites were deemed worthy of further testing. Sketch maps and photographs were not made at this time.

#### **The Discovery of a Human Burial - 1972**

On February 12, 1972, workmen for the Acme Sprinkler Company were excavating a trench parallel to Earl Warren Drive as part of installing a sprinkler system. About 100 m south of Anaheim

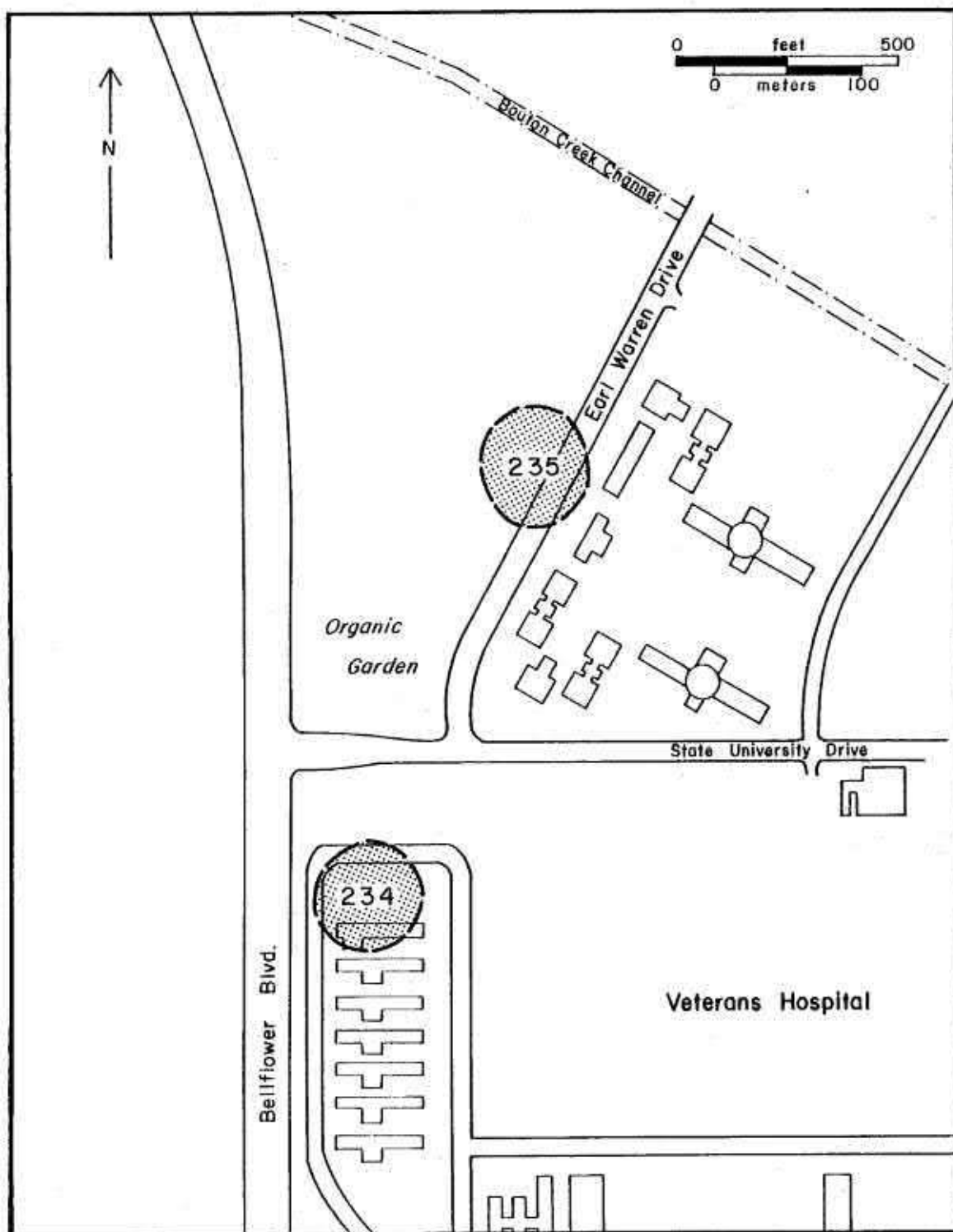


Figure 5.1. Original site plottings of CA-LAN-234/235.



Road (currently State University Drive), they uncovered human remains. Keith Dixon and Stewart Shermis visited the site. Dixon noted that the trench was already partially filled in by the time he arrived. He further states

The midden does not appear to be over 60 cm. deep in the area around the probable burial [see sketch map, reverse side of survey sheet]. The contact zone at the base is uneven due to penetration of the midden downward as a result of animal burrows and tree-root holes (Dixon 1972)

Otherwise, no new observations to add to survey sheet.

No construction or further modification is planned for this area in the foreseeable future, and I therefore recommend against excavation at this time.

An osteological analysis was conducted under the supervision of Shermis. Seventy-five bones were analyzed. He concluded that the remains were of an adult male, probably 25 to 35 years old. Most of the left side of the skeleton was missing from the collections, and was presumed to have been left in the ground.

The original site form was amended with the above information in June 1974.

### **Veteran's Hospital Survey and Borings - 1974**

The Archaeological Survey at UCLA conducted a survey and testing program of the Veterans Administration Hospital grounds, immediately south and west of CSULB in 1974. N. Nelson Leonard (1974) divided this project into three phases. Phase I was a literature search and site file check. Phase II consisted of a pedestrian survey of the parcel and Phase III involved power auger borings in the site area of CA-LAN-234.

Phase I alerted Leonard to the existence of CA-LAN-234 and its possible association with the Gabrielino rancheria of *Puvunga*. During the pedestrian survey, Leonard (1974) noted:

The site is in the northwestern corner of the property. Approximately 400 feet of deposit is visible along the north fence. The area of highest density occurs along the paved access road between Parking Lot O and the wooden bungalows; shell and other debris falls off in density to the east and west of this north/south line. The midden extends some 300 feet south of the north fence along this line. The deposit is probably 30 to 36 inches deep along the central axis of the site. Landscaping, road construction, and parking lot grading have not significantly disturbed these remains. The northernmost bungalows have probably destroyed the southwestern end of the deposit. These data suggest that the early record of LAN-234 recorded only the northern half of the site. No artifacts were observed during this investigation. At present little can be said of the site's antiquity; it is probably safe to assume that the deposit dates to the last 3000 years.

Although Leonard does not specify, we presume that the evidence for the depth of deposit derived from 15 auger borings he conducted on the site. Of these 15, nine contained shell, with some extending to a depth of 36 inches. One fish bone, but no artifacts were observed in the cores.

Leonard also identified three other areas of possible archaeological deposits on the hospital grounds. These were in the vicinity of the golf course, the towers, and the southwest corner of the grounds. Leonard (1974) concludes that:

Previous observations and two remnants of shell indicate that a light scatter probably extended across the area now occupied by the golf course, parking lots, the tower vicinity, and the grass field to the south of the towers. A fourth area of shell at the opposite end of the property may be the remnant of an additional archaeological site.

### **National Register of Historic Places Nomination - 1974**

In 1973, Dixon was approached by George Salzer, Director of the Rancho Los Alamitos Historical site, to prepare a National Register nomination form for the archaeological sites at Rancho Los Alamitos and the CSULB campus (Dixon 1993). Dixon chose to two sites, CA-LAN-306, the Bixby Ranch site, and the combined CA-LAN-234/235 site on CSULB, to nominate to the National Register. His rationale was that both sites could be associated with the ethnohistoric village of *Puvunga*, and that both met criterion D for listing on the National Register; that is, the potential to provide important information on history or prehistory. As Dixon (1973) stated in the nomination form:

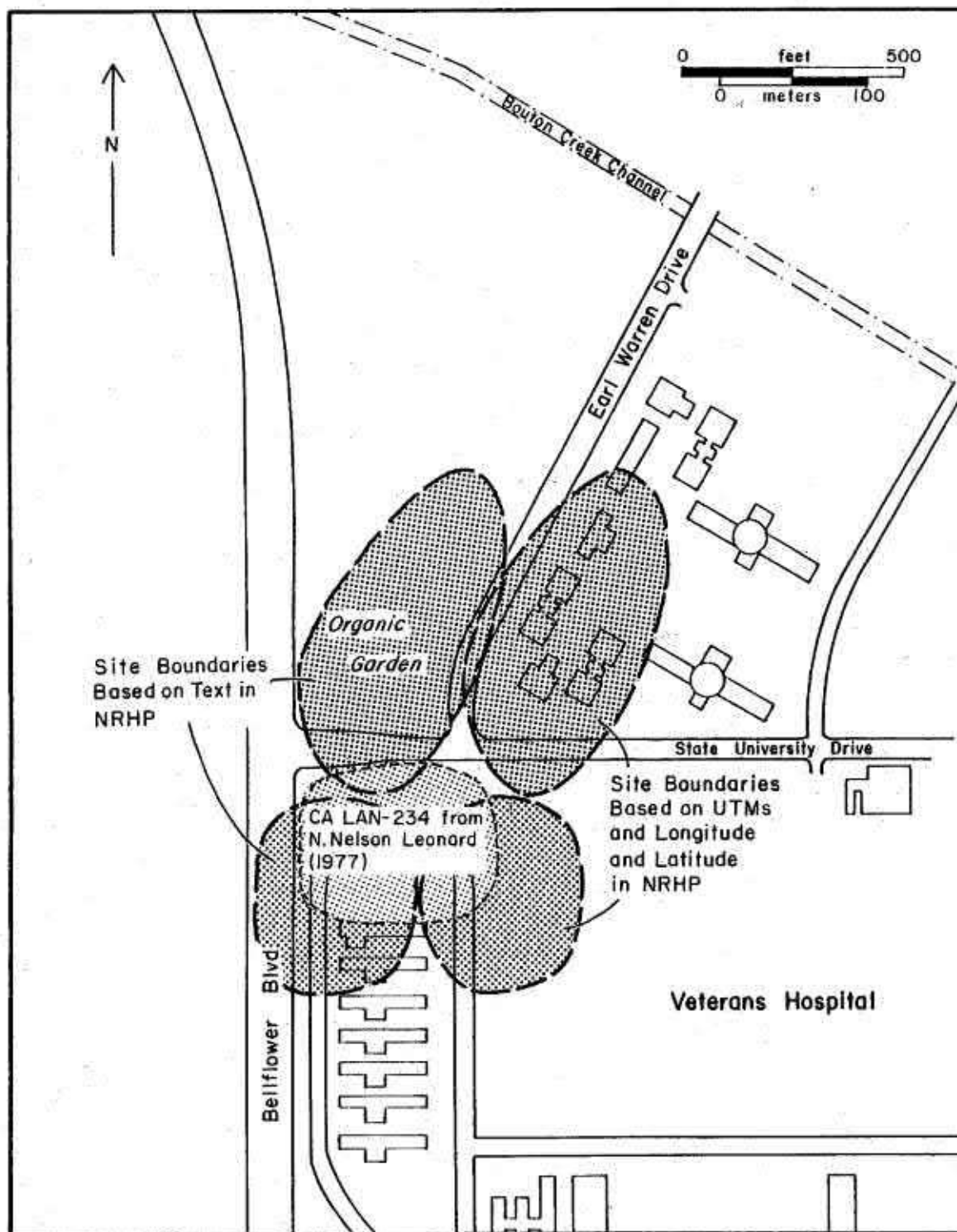
Although much of the evidence of the village sites has now been destroyed by construction and recent activities, archaeological work has shown that remnants of the living areas still exist in at least nine places in an area of about 500 acres. It is probable that the *Puvunga* village was moved around gradually over time within this small area. These village remnants now appear on the surface as areas of dark soil, with millions of broken shell (food remains), tool-chipping waste, and an occasional stone tool.

Sections where such living areas and burials are still preserved can best be seen at Rancho Los Alamitos city historical site (site LAN-306) and on the campus of California State University, Long Beach (site LAN-234/235). These two areas, which are currently visited by the public, are the only ones needed to represent *Puvunga* in the Register.

On the National Register form Dixon (1973) listed the size of CA-LAN-234/235 as "approximately 350' by 800'". The site encompassed about 6.4 acres, or almost 6 times larger than the original site size measured in 1960. Dixon (1993) later wrote about how he chose the boundaries of the site for the National Register.

350 by 800 ft. = 6.4 acres. These are the dimensions I paced off for the purposes of the application, again (as in 1960 - Altschul's note) choosing the densest portion of the cultural material as it was visible on the surface at that time and under those conditions. After consultation with colleagues, this was deemed the most conservative approach for registration purposes, always considering that the boundaries could be revised and the Register notified.

The 1973 National Register form did not contain a scaled map of the site. The longitude and latitude of the center point of the combined CA-LAN-234/235 site was listed as well as the acreage covered. Based on this information we have plotted the location of the site as specified in the National Register form in Figure 5.2. The form also amends the size and location of CA-LAN-235 based on



**Figure 5.2.** Site boundaries of CA-LAN-234/235 based on information in the NRHP nomination and Leonard 1974.

Leonard's 1974 work. Northing and Easting UTM's are provided for the center point of the extension and the form appends Leonard's description of the dimensions. Using this information the location and size of the CA-LAN-235 extension is also plotted on Figure 5.2.

The location of CA-LAN-234/235 as specified on the National Register form appears about 100 m east of the description provided in the text. Dixon (1974) states that the densest part of the midden at CA-LAN-234/235 is centered over the organic garden. Further, Leonard (1974) states CA-LAN-235 extends from Bellflower Road east, which would place the extension in line with Dixon's text. Based on written statements in the National Register form, we have provided a second plotting of NRHP location of CA-LAN-234/235 in Figure 5.2.

It is important to point out that the lack of a detailed map of the site was not unusual in National Register nominations of the 1970s. Although today a map as well as an assessment of the integrity of the site through limited archaeological testing would be a prerequisite for consideration, such was not the case when Dixon nominated CA-LAN-234/235. The sites were formally listed on the National Register of Historic Places on January 21, 1974.

### **CSULB Campus Survey - 1977**

In 1977, Dixon surveyed the CSULB campus at the request of the Office of Physical Planning and Development. The survey was designed to inventory the property for all known cultural resources as an aid in planning. Ten "site areas" and 12 "midden traces" were identified. Two of the site areas (Site Areas 7 and 8) were coterminous with CA-LAN-235 and CA-LAN-234, respectively. At this time the two site boundaries combined were mapped variously at 27.55 or 22 acres (Figure 5.3). According to Dixon (1993):

This is the most complete map. The purpose in this case was to fulfill the administration's request to map all surface indications of archaeological materials as accurately and completely as possible for all campus sites. The first figure (27.55 acres - Altschul's note) represents the maximum extent of the visible continuously-distributed cultural deposits as mapped at that time for LAN-234, -235; the second is more conservative, since it would omit the northern arm of the deposits just south of the drainage line if that should be tested and be found to consist of cultural material washed down the hill from the main part of the site.

Dixon (1977:15) also noted that some or all of Site Areas 4, 5, 6, 7, and 8 (now designated CA-LAN-705, CA-LAN-1003, CA-LAN-1004, CA-LAN-235, and CA-LAN-234) may at one time have consisted of a continuous zone of prehistoric occupation or activity. In 1993, Dixon suggested that this zone might additionally include the area to the east of CA-LAN-235, designated in 1973 as Midden Trace F. This maximal area encompasses well over 50 acres.

### **Arboretum/Japanese Garden Survey - 1978**

This survey of 8.3 acres marks the beginning of a long relationship between CSULB and the cultural resource management firm of Scientific Resource Surveys, Inc. (SRS). SRS noted that the project area lies within the boundaries of CA-LAN-235. The pedestrian survey of the project area revealed shell scattered along the southern boundaries of the project area. As SRS (1978) stated

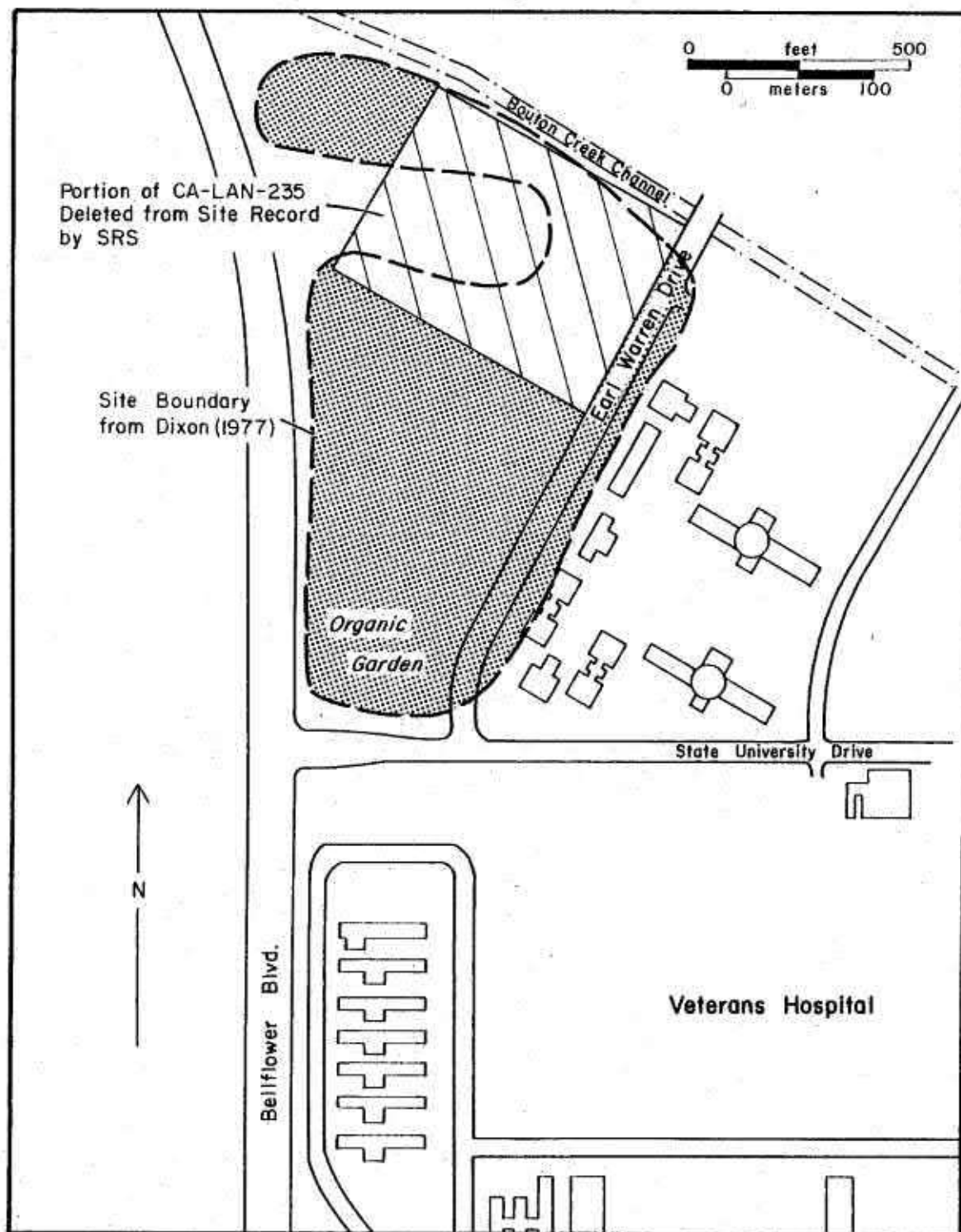


Figure 5.3. Site boundaries of CA-LAN-234 based on CSULB campus survey and SRS 1979 testing.



The physical walkover survey revealed that indeed, a large shell midden exists in the area described. The major concentration appears to be south of the subject property with part of the surface shell scatter extending to the southern portion of the project area . . . Finite boundaries cannot be determined due to the surface disturbance and intrusive dump materials scattered over the project area.

SRS also noted a concentration of historic material in the northwest portion of the survey area. Test excavations in both the prehistoric and historic scatters were recommended.

### **Japanese Arboretum/Wastewater Pipeline Testing Project - 1979**

In 1979 SRS was contracted by CSULB to evaluate the potential impacts of the construction of a Japanese Arboretum and a wastewater pipeline on three possible prehistoric cultural resources identified by Dixon in 1977 and one historic resource discovered by SRS in 1978. Prior to the fieldwork, SRS reviewed the literature and site files. Based on this research, they developed the "Puvunga Land Mass model". Essentially, SRS argued that during the Late prehistoric and protohistoric period, the Alamitos Bay region would have hosted an estuarine environment. The Signal Hill uplift would have divided this environment between saltwater bays and marshes to the south and freshwater creeks and marshes to the north. Dry land would have been at a premium in this environment, and much sought after by the prehistoric and ethnohistoric inhabitants. SRS uses a U.S.G.S. topographic map of Alamitos Bay created in 1863-64 as a proxy for pre-contact environmental conditions. By plotting known site locations on this map, they argue that areas below the 25 ft. contour would have been in the marsh, and therefore, largely uninhabitable. Areas above the 25 ft. contour are predicted to be prime locations for sites. SRS draws the following predictions for sites found on the CSULB campus:

. . . LAn-705 and the 1000 series of site numbers are located adjacent to the convergence of several drainages. Excavation of LAn-705 (Carter and Neitzel 1977) and 1003 and 1004 (SRS This Report) has shown that these three sites are all redeposited and/or natural shell scatters. It is predicted that the 1000 series surrounding these sites is also not aboriginal in depositional nature.

Excavation of LAn-234 (Leonard 1974), LAn-306 (Lockett 1966), LAn-271 (Stickel 1976) and LAn-275 (Stickel 1976) and the human burial recovered adjacent to LAn-235 during pipeline excavations activities, indicates that the sites above the 25-foot contour are predictably aboriginal deposits. LAn-702 is anomalous (sic) to this hypothesis since it falls on a small finger of land which may have been exposed during a late time period (recent) when the marshes were receding. This extension was solid land in 1893 but would have been marsh when most of the Puvunga land mass was inhabited during aboriginal times (sic).

SRS excavated three 1.5 m by 1.5 m units by hand and another 13 trenches by backhoe at CA-LAN-235 (excavations were also conducted at CA-LAN-1003 and CA-LAN-1004 as part of this project; these results are discussed in Chapter 6). These trenches were placed along the eastern and southern edge of the project area, where shell was observed on the surface. Soils observed consisted of alternating layers of silt and clayey silt, which were interpreted as culturally sterile. No cultural deposits or artifacts were observed. SRS recommended that this section of CA-LAN-235 be deleted from the site boundaries; an action to which the SHPO concurred. Another nine backhoe trenches were placed in the northwest section of the Japanese Arboretum site to investigate a scatter of historic



trash. SRS concluded that this deposit was not significant. John King, a Native American descendant from Los Angeles-Orange counties who was contracted by SRS to serve as a monitor for this project, concurred with the recommendations.

### **Parking Lot Surveys - 1980**

SRS conducted two projects in 1980 that impinged on CA-LAN-234/235. The first involved the development of two parking lots by CSULB. One of these parking lots, termed Area A, was sandwiched between State University Drive to the north and the CSULB boundary to the south. The eastern quarter of the parking lot overlapped the site boundary of CA-LAN-234 as defined by Dixon 1977 (see also Leonard 1974). The second parking lot, Area B, was located in the northeast part of the CSULB campus, covering a portion of site CA-LAN-1001; it is discussed in Chapter 6.

SRS conducted a walkover of Area A, at which time they concluded that the proposed impact area was covered by imported fill. Because the construction of the parking lot required no substantial subsurface excavation, SRS argued that even if intact cultural deposits lay below the fill, they would not be impacted by the proposed action. Construction monitoring was recommended, which occurred in April 1981. No cultural deposits or artifacts were observed during construction (SRS 1981).

### **Japanese Arboretum/Museum Site Test Excavations - 1980**

In the summer of 1980, SRS undertook the most ambitious test excavation program conducted to that point of CA-LAN-235. The purpose of the project was "to verify or negate the existence of a portion of site LAN-235, which has been officially recorded as existing within the proposed project boundaries" (SRS 1980b:1). To this end, SRS excavated six 1 m by 2 m units by hand and 20 trenches by backhoe (the report claims only to have excavated 17 trenches, but 20 are listed in Table 5 and shown on Figure 3). Most of the mechanical trenches were relatively small (on the order of 10 m), although one, long (76 m) trench, Trench 10, was excavated to provide a stratigraphic profile of the central portion of the project area.

The field results are interpreted in light of historic land use in the area. SRS details the history of modern disturbances to the project area. This information is combined with the mixed nature of the cultural assemblage to argue that intact prehistoric deposits are primarily absent. As SRS (1980b:23) states:

Prehistoric artifacts recovered from investigations of the subject property were extremely sparse. The majority of the materials found included highly weathered shell fragments and historic debris. The depth and extent of the historic/modern debris coupled with the complex geologic strata indicate that the area has been continually naturally and historically disturbed.

The presence of shell and a small number of artifacts found throughout the trenches and units suggested to SRS that an aboriginal site did exist in the vicinity of the project area. Historic disturbances, primarily those involving land moving operations, however, had destroyed these deposits, with one notable exception. In the northwest corner of the project area, SRS uncovered a relatively small intact prehistoric deposit, which they interpreted as a dry season campsite. SRS concludes that the LAN-234/235 area was a beach during the occupation of Puvunga, and that the burial uncovered in 1972 represented an isolated event.

SRS's conclusions did not go unchallenged. In a strident critical review, Dixon and Rosenthal (1981) commented at length on a variety of subjects. Two main points, however, were made concerning the archaeological interpretation of CA-LAN-234/235. First, Dixon and Rosenthal (1981:6) argue that SRS presented no evidence to support their interpretation of a beach setting. They point out that it is extremely unlikely that upper layers of silts which SRS interprets as water-laid flood deposits would form if the area was a beach. Second, and perhaps more importantly, is the differing interpretation of the stratigraphic profiles. SRS had argued that the alternating layers of silt and clayey silt indicated modern disturbance of such an extent that no intact cultural deposits existed outside the northwest corner of the project area. Dixon and Rosenthal (1981:6), in contrast, have the following to say about the deposits:

On pages 24-25 (which omits the midden bearing Unit 5) and Table 5 indicate midden-bearing layers even in what is considered to be a very disturbed area.

When Rosenthal and Dixon viewed the side-walls of Unit 5 (which had been left unfilled in the garder area) we were impressed by the apparent integrity of the exposed midden material. The report does not seem to give weight to this information in their conclusions. The low yield of artifacts per cubic meter is not unusual in local sites, which the report might have mentioned.

At the end of the 1980 testing program, there were more, not fewer, questions about the cultural deposits at CA-LAN-234/235. SRS's data seemed equivocal. Cultural and shell material was found throughout the area, but in relatively small amounts. Disagreement among professionals raged over such fundamental aspects as the integrity of the deposit, the environmental setting, and the dating of the prehistoric occupation. Clearly, more work was needed.

### CSULB Field Class Excavations - 1982

In part to resolve some of the questions left by the SRS 1980 testing project and in part in conjunction with an archaeological field methods class, a small testing project took place at CA-LAN-235 during the spring of 1982 (Bonner 1984; Rosenthal and Bonner 1984). Under the direction of E. Jane Rosenthal, the program had two objectives: (1) to determine if prehistoric cultural deposits were present and (2) to define the horizontal and vertical dimensions of such deposits (Rosenthal and Bonner 1984:4). Originally, Rosenthal expected to excavate ten 1 m by 1 m by hand. Placement of the units was judgmental, with emphasis placed in areas of proposed development. By semester end only three units had been excavated, none of which reached culturally sterile soil.

The small number of units opened by this project is a reflection of two factors. First, the project was operated as a fieldschool, which by nature tend to be slower and more methodical than excavations performed by professionally trained crew. Second, the upper levels of Units 1 and 2 were heavily compacted, with an asphalt roadway found about 11 cm below the surface. According to Rosenthal (personal communication, 1994) nearly half the fieldschool's excavation time was spent removing this disturbed layer.

Even though the number of units excavated was small, the results present the best unequivocal evidence of intact midden at CA-LAN-235. Midden and cultural material was found in all three units, with intact deposits extending from the base of the disturbed layer to the bottom of each test unit. Economic shell remains were found, dominated by *Ostrea lurida*, *Aequipecten circularis*, and *Chione* spp. In addition, shallow water and open beach fish remains, particularly those of the Yellow Fin Croaker, were recovered. Artifacts were limited to five flakes of Monterey chert. According to Rosenthal and Bonner (1984:9) the excavations confirmed that "the deposit is without question cultural

rather than natural in origin". The dimensions of the site as well as the age of occupation, however, could not be determined.

### **Outfall C, Unit 5A Testing and Monitoring - 1986**

In response to the proposed construction of a sewer pipeline across the northern section of CA-LAN-235, SRS performed a testing program of the right-of-way. The program consisted of a systematic auger program. Forty auger probes were placed systematically throughout the project area. Although shell, bone, and lithics were recovered from the probes, SRS argued that the mixture of the small number of potentially prehistoric remains with historic material argues that the area lacks contextual integrity. SRS (1986a:63) concludes, "whereas intact archaeological deposits may exist in the general vicinity to the south of these auger probe transects, the project area itself no longer includes any."

The testing program was then followed by a construction monitoring (SRS 1986b). During this operation, no intact cultural deposits were found. Shell was observed scattered throughout the fill, but no artifacts were noted. According to the SRS (1986b:11):

In every instance, modern trash co-occurred with the shell fragments. Primarily restricted in horizontal extent and distinct from one another, these shell deposits formed diffuse lenses; this configuration suggests that the deposits represent the residues of individual episodes of fill dumping. Therefore, these deposits potentially originated at more than one archaeological site and may not be related.

### **CONCLUSION**

After nearly 35 years of archaeological investigation, spanning 13 individual projects, our knowledge of CA-LAN-234/235 can best be described as rudimentary. To a certain extent, this result reflects the limited nature of past research. Since 1960, only about 1425 sq ft., or less than 0.1 percent of the site, has been excavated, most of it by mechanical means. Moreover, the vast majority of work at the site has focused on the northern periphery, where the deposits are heavily disturbed. We have no absolute dates for the site, no diagnostic artifacts, and precise few subsistence remains. We are not in a position to characterize the type of site (e.g., habitation or food extraction), its permanency, or the period of occupation.

Yet, even though we know little about the site, it has been at the center of considerable controversy and debate. Early on, the site was associated with the ethnohistoric Gabriellino village of *Puvunga*. This assessment is based more on logic than data, for without absolute dates or diagnostic artifacts there is simply no way to test this assertion. Beyond the issue of *Puvunga*, the basic features of the site are open to question. Between 1960 and 1977, the site grew from 1.14 acres to 27.55 acres in size. These changes reflect differences in the methods used to define a site. At first, Dixon was extremely conservative, including only those areas that most likely represented archaeological deposits. Later on, he changed to a more liberal approach that included all areas possibly containing archaeological deposits. Because these site definitions were based solely on surface observations, they were bound to be rather imprecise. Modern land disturbance activities were well documented for the area in and around CA-LAN-234/235, so the presence or absence of surface shell was not necessarily a good proxy for intact subsurface cultural deposits.

In this situation, one would suspect that the anchor supporting the circumstantial surface observations would come in the form of subsurface excavation data. Yet, it is precisely these data that are the most controversial. Leonard (1974) and Rosenthal and Bonner (1984) provide clear evidence that intact deposits exist, extending to depths in excess of 1 m. Surprisingly, units placed by SRS in similar parts of the site yielded very different results, or at least were interpreted very differently. SRS's conclusion that the deposit at CA-LAN-235 is largely secondary with the exception of a small deposit in the northwest portion of the site is hard to square with the data provided by others. After nearly 35 years of research, we still can say no more than an archaeological site of unknown age and unknown dimensions exists somewhere within a 27 acre area.

**APPENDIX E**

**SACRED LANDS FILE SEARCH RESULTS**

## Erica Nicolay

---

**From:** Erica Nicolay  
**Sent:** Wednesday, March 6, 2019 4:33 PM  
**To:** 'NAHC@NAHC'  
**Cc:** Linda Kry  
**Subject:** SLF Search and Consultation List Request - CSULB Housing Project 11674  
**Attachments:** SLF Request- Dudek - 11674.pdf

To whom it may concern,

Please find attached the SLF Search and Consultation List Request for the CSULB Housing Project (11674). The Project site is located in the northwest corner of the CSULB campus in the City of Long Beach, California. The CSULB campus encompasses 322 acres and is located 3 miles from the Pacific Ocean. The campus is bounded by East Atherton Street to the north, Palo Verde Avenue to the east, East 7th Street to the south, and Bellflower Boulevard to the west. The project would consist of demolition of the existing building on the site and construction of a 3- and 4-story residential building with 476 student beds. The building would be 136,317 gross square feet.

If you have any comments or concerns please contact me,

Erica Nicolay, MA  
Archaeologist

### **DUDEK**

[38 North Marengo Avenue](#)  
[Pasadena, California 91101](#)

O: [626.204.9830](tel:626.204.9830)

C: [760.936.7952](tel:760.936.7952)

Ext. 5230

[www.dudek.com](http://www.dudek.com)



## Sacred Lands File & Native American Contacts List Request

### NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd, Suite 100  
West Sacramento, CA 95501  
(916) 373-3710  
(916) 373-5471 – Fax  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)

*Information Below is Required for a Sacred Lands File Search*

Project: CSULB Housing Expansion Project (11674)

County: Los Angeles

USGS Quadrangle

Name: Los Alamitos

Township: 4S, 5S Range: 12W Section(s): 2, 3, 34, 35

Company/Firm/Agency:

Dudek

Contact Person: Erica Nicolay

Street Address: 38 North Marengo Avenue

City: Pasadena Zip: 91101

Phone: (760) 936-7952 Extension: N/A

Fax: (760) 632-0164

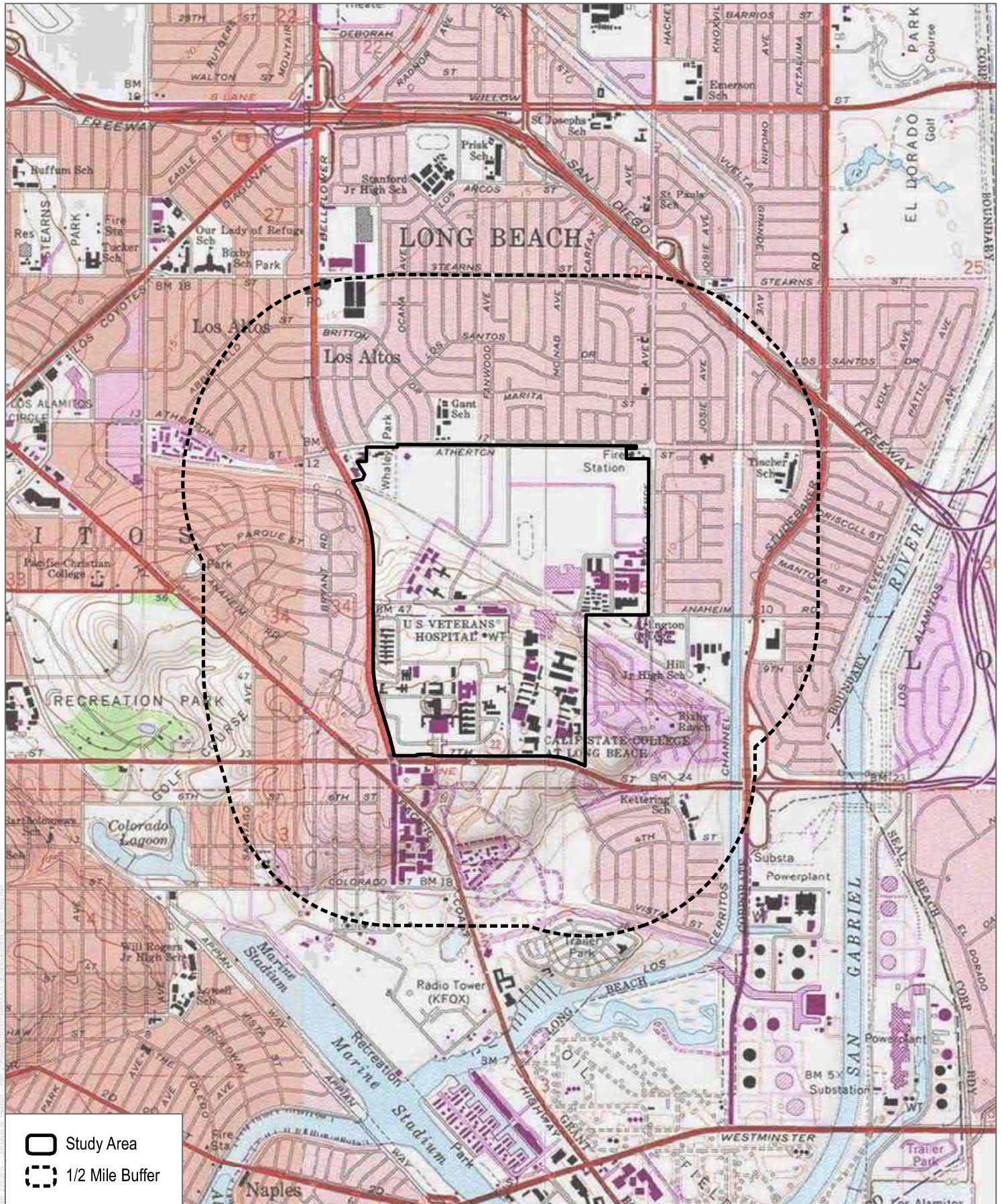
Email: enicolay@dudek.com

#### Project Description:

The Project site is located in the northwest corner of the CSULB campus in the City of Long Beach, California. The CSULB campus encompasses 322 acres and is located 3 miles from the Pacific Ocean. The campus is bounded by East Atherton Street to the north, Palo Verde Avenue to the east, East 7th Street to the south, and Bellflower Boulevard to the west. The project would consist of demolition of the existing building on the site and construction of a 3- and 4-story residential building with 476 student beds. The building would be 136,317 gross square feet.

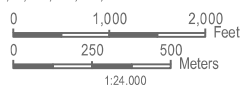
☒ Project Location Map is attached





SOURCE: SOURCE: USGS 7.5-Minute Series Los Alamitos & Long Beach Quadrangles  
Township 5S, 4S; Range 12W; Sections 2, 3, 26, 27, 34, 35

**DUDEK**



Records Search

CSULB Housing Extension Project



## Erica Nicolay

---

**From:** Quinn, Steven@NAHC <Steven.Quinn@nahc.ca.gov>  
**Sent:** Thursday, March 14, 2019 8:56 AM  
**To:** Erica Nicolay  
**Subject:** CSULB Housing Expansion Project, Los Angeles County  
**Attachments:** SLFAIICSULBHousing 3.14.2019.pdf; CSULBHousing 3.14.2019.pdf

Good Morning,

Attached is the response to the project referenced above. If you have any additional questions, please feel free to contact our office email at [nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov).

Regards,

### Steven Quinn

Native American Heritage Commission  
1550 Harbor Blvd., Suite 100  
West Sacramento, CA 95691  
[Steven.Quinn@nahc.ca.gov](mailto:Steven.Quinn@nahc.ca.gov)  
Direct Line: (916) 573-1033  
Office: (916) 373-3710

Confidentiality Notice: This communication with its contents may contain confidential and/or legally privileged information. It is solely for the use of the intended recipient(s). Unauthorized interception, review, use or disclosure is prohibited and may violate applicable laws including the Electronic Communications Privacy Act. If you are not the intended recipient please contact the sender and destroy all copies of the communication

## NATIVE AMERICAN HERITAGE COMMISSION

Cultural and Environmental Department

1550 Harbor Blvd., Suite 100

West Sacramento, CA 95691

Phone: (916) 373-3710

Email: [nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)Website: <http://www.nahc.ca.gov>

Twitter: @CA\_NAHC



March 14, 2019

Erica Nicolay  
Dudek

VIA Email to: [enicolay@dudek.com](mailto:enicolay@dudek.com)

RE: CSULB Housing Expansion Project, Los Angeles County

Dear Ms. Nicolay:

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 positive. Please contact the tribes on the attached list for more information. 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 the NAHC. 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](mailto:steven.quinn@nahc.ca.gov).

Sincerely,

A handwritten signature in blue ink that reads "Steven Quinn".

Steven Quinn  
Associate Governmental Program Analyst

Attachment

**Native American Heritage Commission  
Native American Contact List  
Los Angeles County  
3/14/2019**

***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 CSULB Housing Expansion Project, Los Angeles County.

## **APPENDIX F**

### **DEPARTMENT OF PARKS AND RECREATION FORMS (*CONFIDENTIAL*)**