One Alexandria Square Project

Cultural Resources Study

December 2021 | 00022.00007.001

Submitted to:

City of San Diego
Development Services Department
1222 First Avenue
San Diego, CA 92101

Prepared for:

Alexandria Real Estate Equities, Inc.
10996 Torreyana Road, Suite 250
San Diego, CA 92121

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Cultural Resources Group Manager

Prepared by:

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7578 El Cajon Boulevard
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National Archaeological Database Information

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Firm:	HELIX Environmental Planning, Inc.
Client/Project:	Alexandria Real Estate Equities, Inc. / One Alexandria Square Project
Report Date:	November 2021
Report Title:	Cultural Resources Study for the One Alexandria Square Project, San Diego, California
Submitted to:	City of San Diego, Development Services Department, 1222 First Avenue, San Diego, CA 92101
Type of Study:	Cultural Resources Study: archival research and pedestrian survey
New Sites:	None
Updated Sites:	P-37-012581 (CA-SDI-12581 [SDM-W-6])
USGS Quad:	Del Mar 7.5' Quadrangle
Acreage:	Approximately 25 acres: 22-acre project site and approximately 3-acre off-site parcel
Key Words:	San Diego County; Township 14 South, Range 3 West and 4 West; City of San Diego; P-37-012581 (CA-SDI-12581/SDM-W-6)

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AMSL	above mean sea level
B.P.	Before Present
Caltrans	California Department Transportation
CCR	California Code of Regulations
CDP	Coastal Development Permit
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
City	City of San Diego
CRHR	California Register of Historical Resources
EIR	Environmental Impact Report
FAR	fire altered rock
HELIX	HELIX Environmental Planning, Inc.
HRB	Historical Resources Board
HRG	Historical Resources Guidelines
Museum	San Diego Museum of Man
NAHC	Native American Heritage Commission
NDP	Neighborhood Development Permit
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
project	One Alexandria Square Project
PRC	Public Resources Code
Red Tail	Red Tail Environmental, Inc.
SCIC	South Coastal Information Center
SDP	Site Development Permit
TCP	Traditional Cultural Properties
TCR	Tribal Cultural Resources

ACRONYMS AND ABBREVIATIONS (cont.)

UC	University of California
USGS	U.S. Geological Survey
WESTEC	WESTEC Services, Inc.

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EXECUTIVE SUMMARY

HELIX Environmental Planning, Inc. (HELIX) was contracted by Alexandria Real Estate Equities, Inc. to provide cultural resources services for the One Alexandria Square Project (project) in the City of San Diego (City), San Diego County, California. The approximately 22-acre project area is currently developed with office/scientific research uses, one building of which also contains a restaurant. The applicant proposes to redevelop the project site, retaining some of the existing buildings/features. Proposed uses include additional research and development office/lab space (including underground parking), a parking structure, and accessory supporting uses such as an amenity village, wellness center, food and beverage and retail.

A cultural resources study including a records search, Sacred Lands File search, Native American outreach, review of previous archaeological studies of the project site, a review of historic aerial photographs and maps, and a pedestrian survey was conducted for the project area and an off-site parcel potentially to be used as a biological mitigation area. This report details the methods and results of the cultural resources study and has been prepared to comply with the California Environmental Quality Act (CEQA) and City of San Diego historic resources regulations and guidelines.

The records search conducted at the South Coastal Information Center (SCIC) on January 9, 2020 indicated that 111 previous cultural resources studies have been conducted within three-quarter mile of the project area, two of which occurred within the project area. The records search results also indicated that a total of 52 cultural resources have been previously recorded within three-quarters mile of the project area; one of which, P-37-012581 (CA-SDI-12581 [SDM-W-6]) has been documented within the project site. Several archaeological studies have been conducted at P-37-012581, beginning with work by Malcolm Rogers of the San Diego Museum of Man in the 1920s or 1930s. Previous research at P-37-012581 recommended the site as a significant cultural resource; while disturbed by previous developments on the property, any intact portions of the site would likely meet criteria for inclusion in the California Register of Historical Resources (CRHR) (Eighmey and Cheever 1992).

The field investigations for the current project included intensive pedestrian survey of the portion of the project area that currently remains undeveloped and of the off-site parcel by HELIX archaeologist Mary Villalobos and Kumeyaay Native American monitor Shuuluk Linton (Red Tail Environmental) on December 12, 2019. The survey resulted in the identification of cultural material associated with P-37-012581 within the portion of the project site that does not currently support development.

P-37-012581 is a historical resource (i.e., significant cultural resource) under CEQA and the City's historic resources guidelines and regulations. The site is also recommended as eligible for designation by the City's Historical Resources Board. Therefore, impacts to the site would constitute significant effects and must be avoided or mitigated to below a level of significance. As currently proposed, the One Alexandria Square project would avoid development within the existing open space/preservation area, which was previously identified as the most significant area of the site. In addition, a portion of the existing surface parking lot within the significant resource would be repaved and restriped without ground disturbance; thus, avoiding impacts to the resource. The portion of the significant resource that is not within dedicated open space or the direct encroachment area would be placed in a non-build easement to protect it from future encroachment. Project development would encroach less than 25 percent into the archaeological site (21.3 percent), and impacts to portions of P-37-012581 that would be affected by project development will be mitigated through the development and implementation of a research design and data recovery program.

Due to the potential for cultural material to be present outside the mapped boundaries of P-37-012581 and the potential for encountering significant cultural material even after the implementation of the data recovery program, a monitoring program is recommended for all ground-disturbing activity for the project. The monitoring program would follow the City's standard monitoring requirements.

1.0 INTRODUCTION

HELIX Environmental Planning, Inc. (HELIX) was contracted by Alexandria Real Estate Equities, Inc. to provide cultural resources services for the One Alexandria Square Project (project) in the City of San Diego (City), San Diego County, California. A cultural resources study was conducted by HELIX in 2019-2020 to assess whether the project would have significant effects to cultural resources and to provide recommendations to address these potential effects. The cultural resources study included a records search, Sacred Lands File search, Native American outreach, extensive review of past cultural resources studies for the project site, a review of historic aerial photographs and maps, and a pedestrian survey of currently undeveloped portions of the project site and an off-site parcel proposed as a potential biological mitigation parcel. This report details the methods and results of the cultural resources study and has been prepared to comply with the California Environmental Quality Act (CEQA) and the requirements of the City's historical resources regulations and guidelines.

1.1 PROJECT LOCATION

The One Alexandria Square Project is located on Torrey Pines Mesa in the University City community of the City in western San Diego County (Figure 1, *Regional Location*), within an unsectioned portion of Township 14 South and 15 South, Range 3 West and 4 West, on the U.S. Geological Survey (USGS) 7.5' Del Mar quadrangle (Figure 2, *USGS Topography*).

The approximately 22-acre project site property is bound by Callan Road to the north, North Torrey Pines Road to the west, Torreyana Road to the east, and Science Park Road to the south, excluding the southeast quadrant of the block (Figure 3, *Aerial Photograph*). The proposed off-site mitigation parcel is an approximately 2.9-acre property located immediately to the north, across Callan Road from the project site.

1.2 PROJECT DESCRIPTION

The project consists of the redevelopment of the current Alexandria Tech property, which is comprised of several commercial buildings used for office/scientific research uses; one building also contains a restaurant. The proposed project consists of a Site Development Permit (SDP) and Coastal Development Permit (CDP) to amend existing development permits, a Neighborhood Development Permit (NDP) to process setback deviations, and a Tentative Map to allow for the development of a 10-building Research and Development campus with supporting and ancillary uses, surface parking lots, and parking structure. The project includes the complete demolition of the existing buildings located at 10931 North Torrey Pines Road, 10933 North Torrey Pines Road, and 10975 North Torrey Pines Road. Eight of the ten buildings are proposed to be new structures and two would include improvements to existing structures. The improved existing structures include the structure located at 10996 Torreyana Road and surface improvements along the frontage of the existing building located at 3010 Science Park Road. The total project gross floor area at build-out would be 428,160 square feet. All parking would be provided on-site. The proposed project plan is illustrated in Figure 4, *Project Plan* and Figure 5*, Project Plan on Aerial Photograph*.

1.3 REGULATORY FRAMEWORK

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance. Significant resources are those resources that are listed on or have been found eligible to the California Register of Historical Resources (CRHR), National Register of Historic Places (NRHP), and/or local historic registers (e.g., properties designated by the City's Historical Resources Board), as applicable.

1.3.1 California Environmental Quality Act

CEQA, Public Resources Code (PRC) 21084.1, and California Code of Regulations (CCR) Title 14 Section 15064.5, address determining the significance of impacts to archaeological and historic resources and discuss significant cultural resources as "historical resources," which are defined as:

- resource(s) listed or determined eligible by the State Historical Resources Commission for listing in the CRHR (14 CCR Section 15064.5[a][1]);

- resource(s) either listed in the NRHP or in a "local register of historical resources" or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, unless "the preponderance of evidence demonstrates that it is not historically or culturally significant" (14 CCR Section 15064.5[a][2]); and

- resources determined by the Lead Agency to meet the criteria for listing on the CRHR (14 CCR Section 15064.5[a][3]).

For listing in the CRHR, a historical resource must be significant 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;

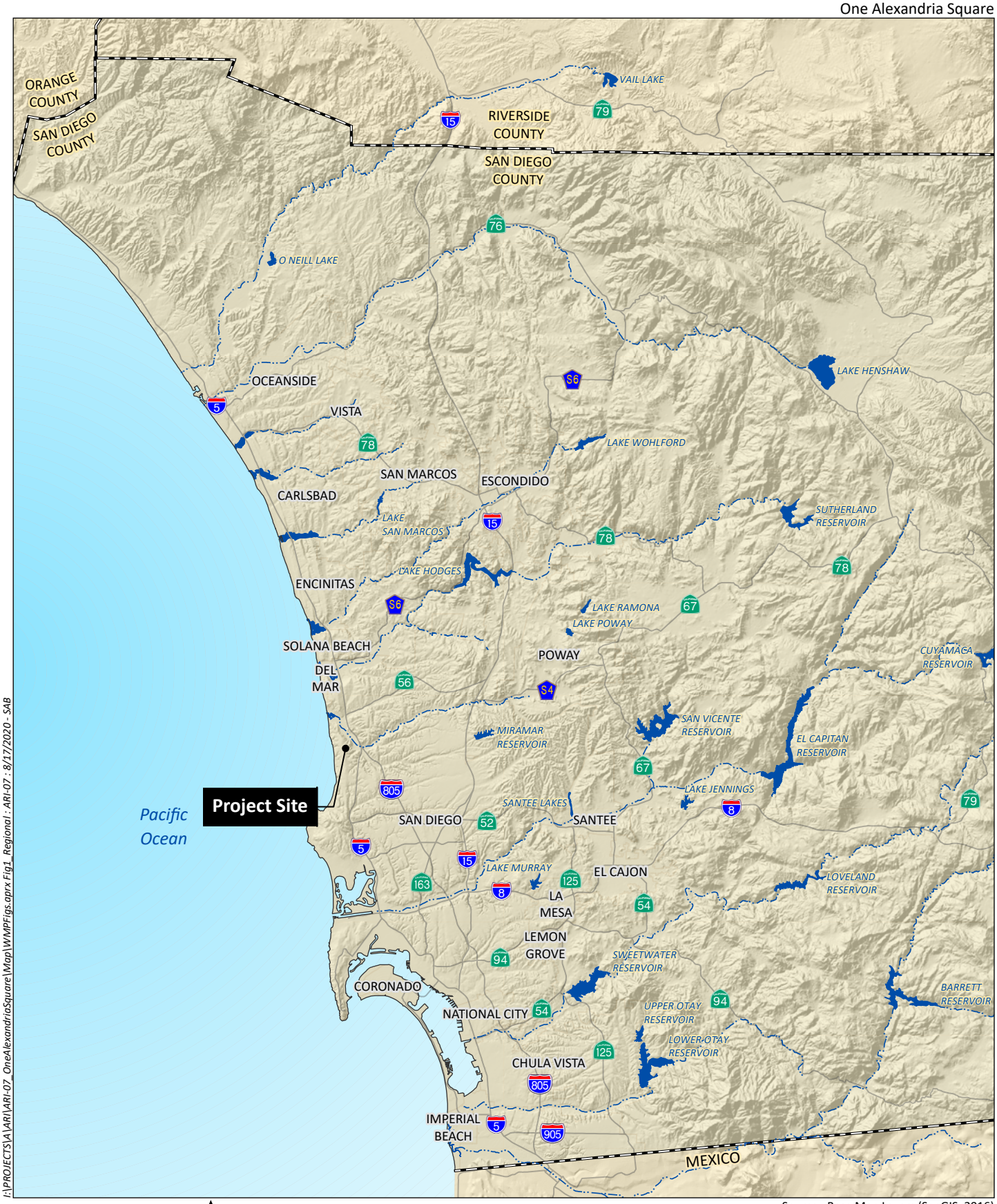
(2) It is associated with the lives of persons important to local, California, or national history;

(3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; and/or

(4) It has yielded or has the potential to yield information important to the prehistory or history of the local area, California, or the nation.

Under 14 CCR Section 15064.5(a)(4), a resource may also be considered a "historical resource" for the purposes of CEQA at the discretion of the lead agency.

All resources that are eligible for listing in the NRHP or CRHR must have integrity, which is the authenticity of a historical 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 historical 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. In an archaeological deposit, integrity is assessed with reference to the preservation of material constituents and their culturally and historically meaningful



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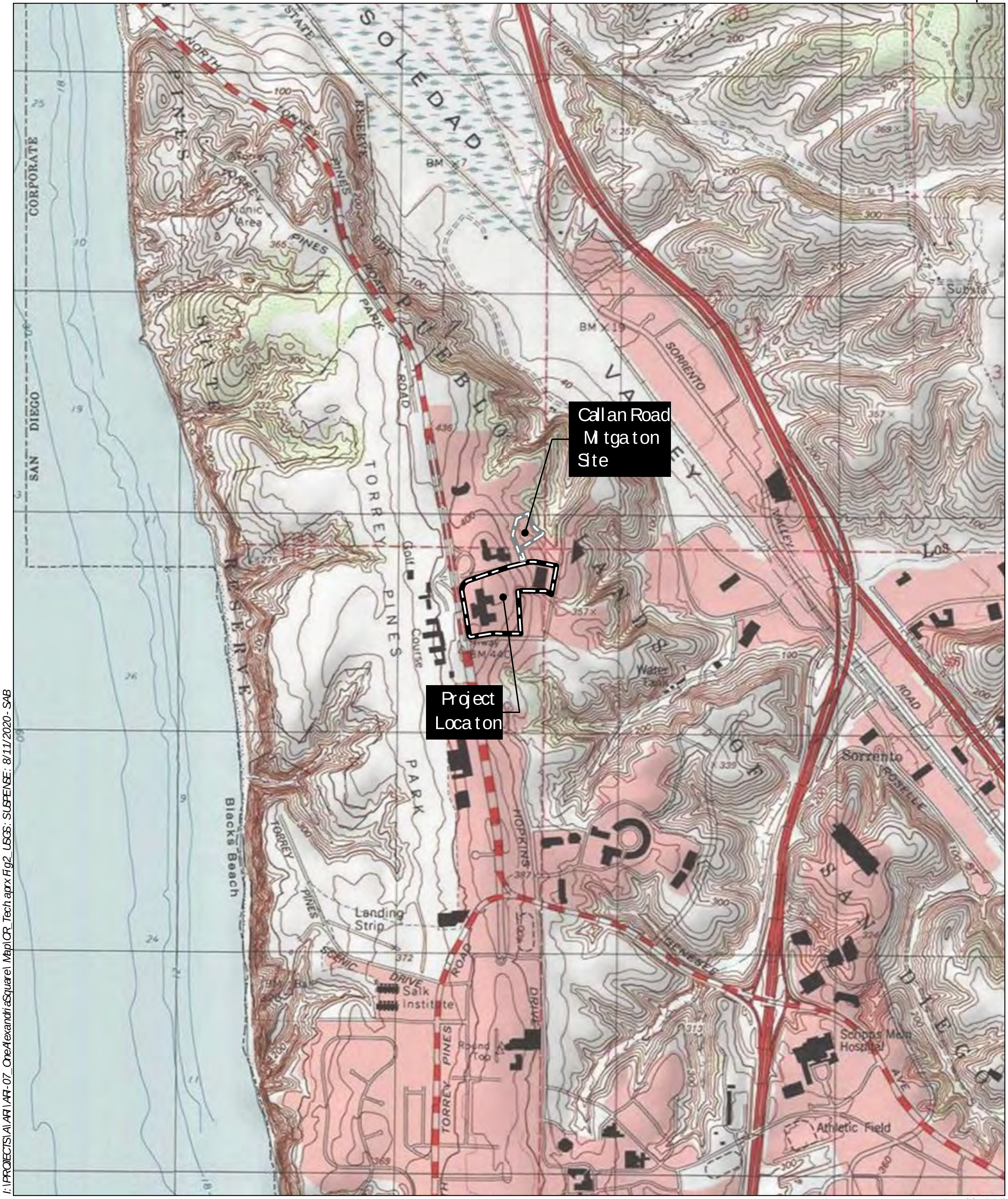
Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1



Source: DEL MAR 7.5' Quad (USGS)

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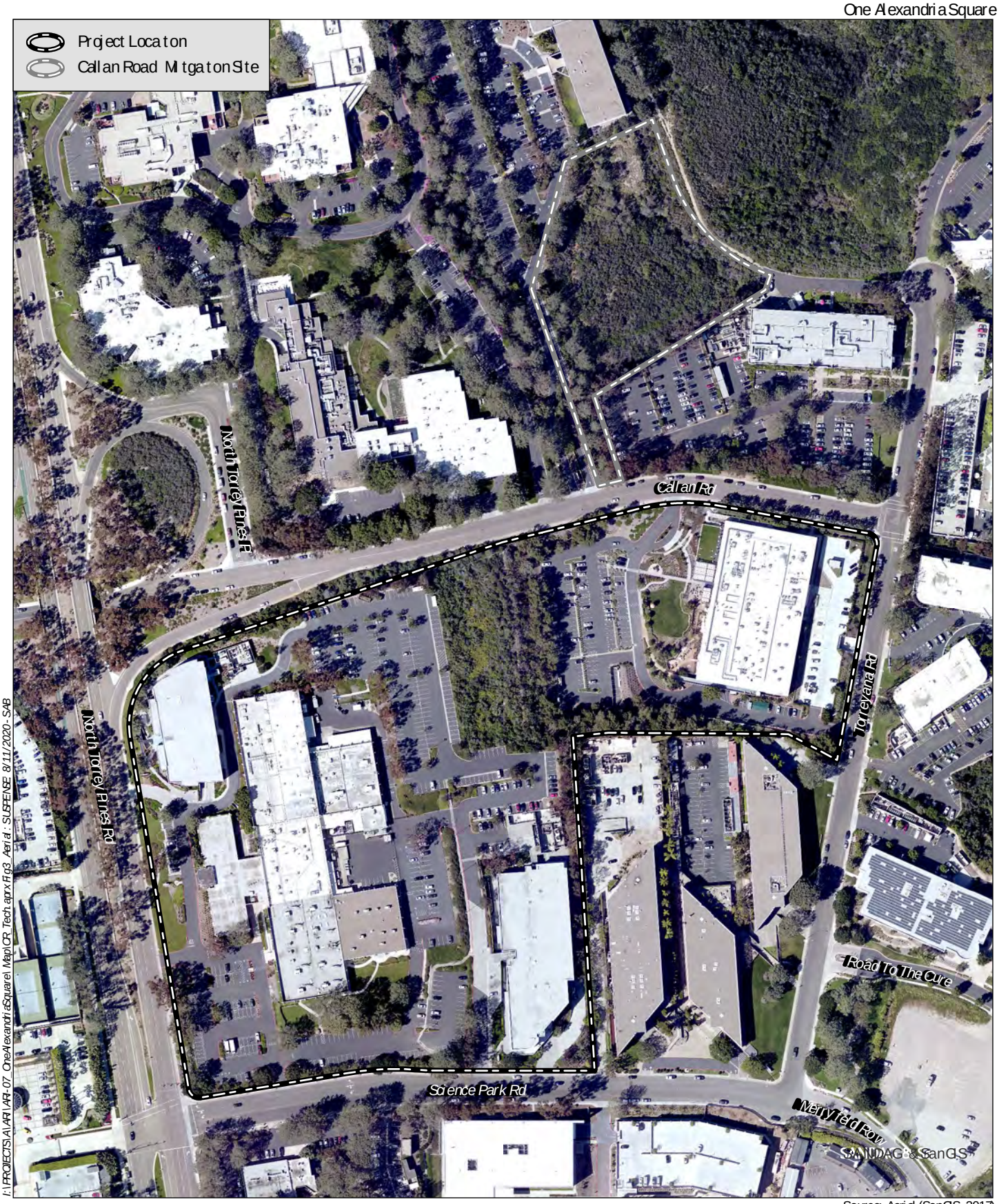
HELIX Environmental Planning

USGS Topography

Figure 2



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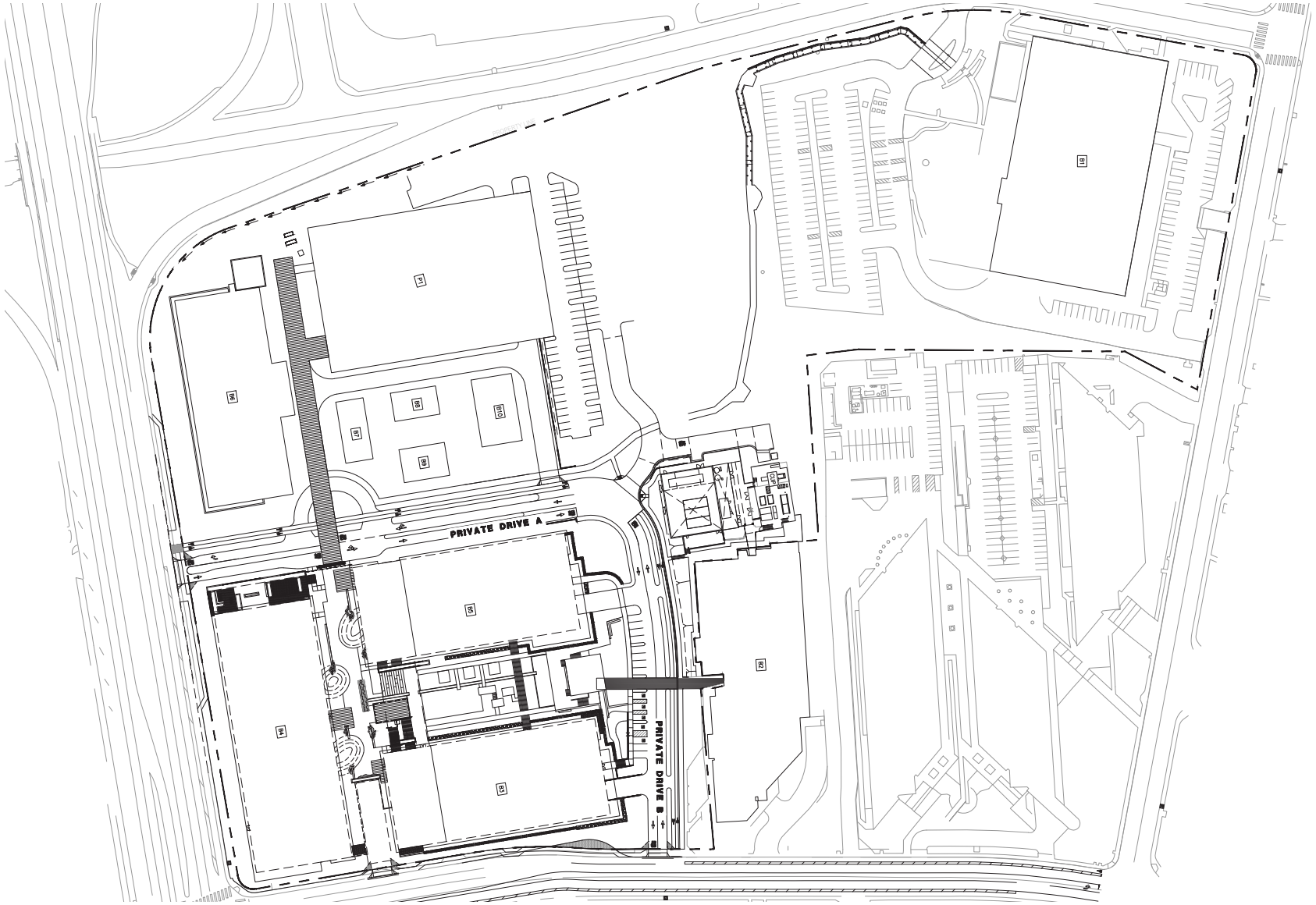
Source: Aerial (SanGIS, 2017)

HELIX Environmental Planning

Aerial Photograph

Figure 3

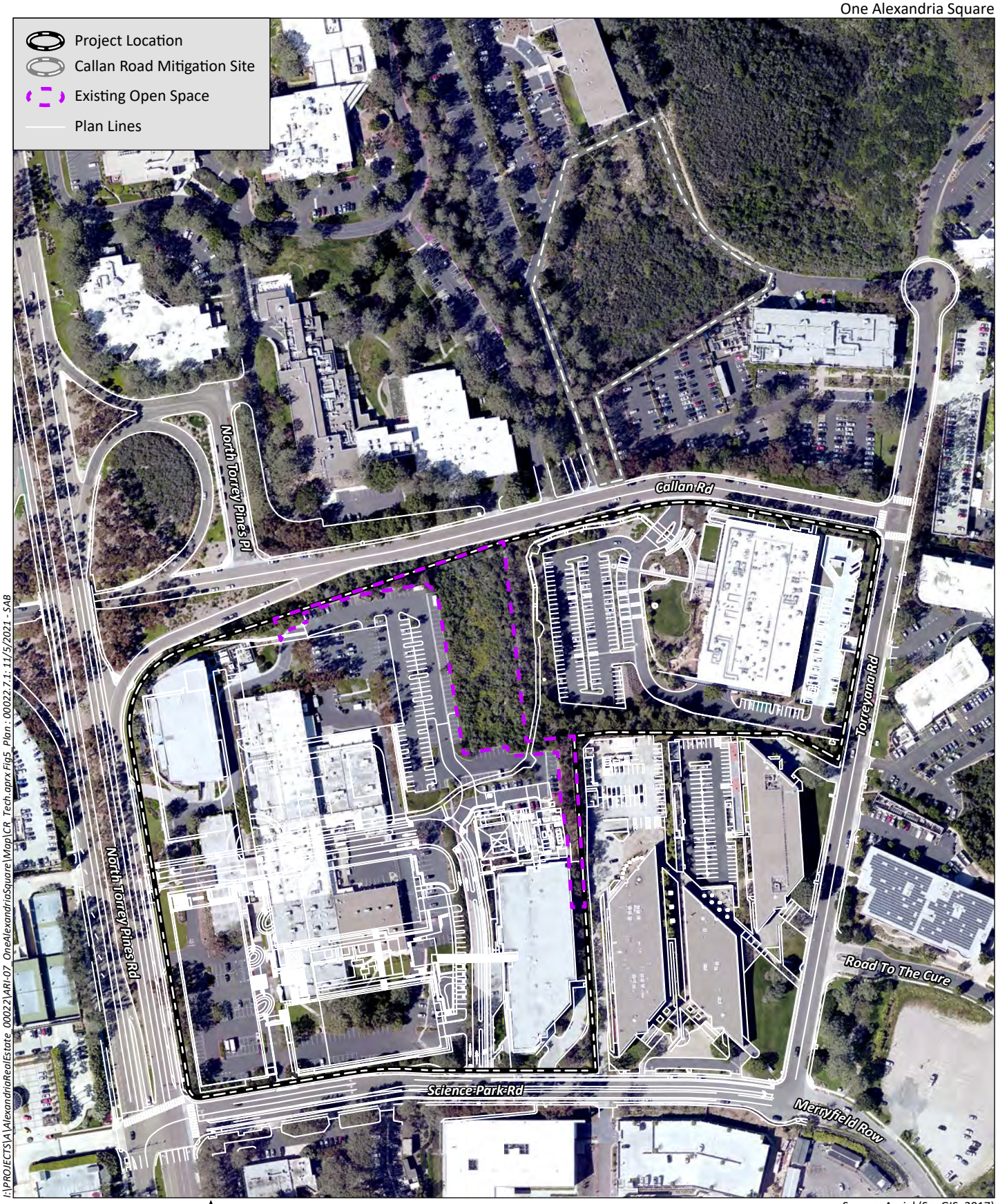


Source: Rick Engineering (2021)

HELIX Environmental Planning

Project Plan

Figure 4



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Source: Aerial (SanGIS, 2017)

HELIX Environmental Planning

Project Plan on Aerial Photograph

Figure 5

spatial relationships. A resource must also be judged with reference to the particular criteria under which it is proposed for nomination. Under Section 106 of the National Historic Preservation Act (NHPA), actions that alter any of the characteristics that qualify a property for eligibility for listing in the NRHP "in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association" (36 Code of Federal Regulations [CFR] 800.5[a]) constitute an adverse effect to the historic property.

1.3.2 City of San Diego Historical Resources Regulations

The purpose of the City's Historical Resources Regulations (Land Development Code Chapter 14, Division 3, Article 2) is to protect, preserve and, where damaged, restore the historical resources of San Diego, which include historical buildings, historical structures or historical objects, important archaeological sites, historical districts, historical landscapes, and traditional cultural properties (City 2020). These regulations are intended to assure that development occurs in a manner that protects the overall quality of historical resources. It is further the intent of these regulations to protect the educational, cultural, economic, and general welfare of the public, while employing regulations that are consistent with sound historical preservation principles and the rights of private property owners.

The regulations apply to proposed development when the following historical resources are present on the site, whether or not a Neighborhood Development Permit or Site Development Permit is required: designated historical resources; historical buildings; historical districts; historical landscapes; historical objects; historical structures; important archaeological sites; and traditional cultural properties. Where any portion of a premises contains historical resources, the regulations shall apply to the entire premises.

The property owner or applicant shall submit required documentation and obtain a construction permit, a Neighborhood Development Permit, or a Site Development Permit, as required pursuant to this division before any development activity occurs on a premise that contains historical resources. The regulations delineate which types of permits are required for a project, based on the type of development proposal and the types of historical resources that would potentially be affected by the project.

1.3.2.1 City of San Diego Historical Resources Guidelines

The purpose and intent of the City's Historical Resources Guidelines (HRG), located in the City's Land Development Manual (City of San Diego 2001) is to protect, preserve and, where damaged, restore the historical resources of San Diego. The HRG states that if a project will potentially impact a resource, the resource's significance must be determined, even if it is not listed in or previously considered eligible for the California Register or a local register (Section II.D.5).

Eligible resources, which may include an improvement, building, structure, sign, interior element and fixture, feature, site, place, district, area, or object, are designated to the City's Register of Designated Historical Resources by the City's Historical Resources Board (HRB) at a publicly noticed hearing.

The City's HRG also states that if a project will potentially impact a resource, the resource's significance must be determined, even if it is not listed in or previously considered eligible for the CRHR or a local register (Section II.D.5). The City has established baseline resource significance criteria based upon CEQA as follows:

> An archaeological site must consist of at least three associated artifacts/ecofacts (within a 50-square meter area) or a single feature and must be at least 45 years of age. Archaeological sites containing only a surface component are generally considered not significant, unless demonstrated otherwise. Such site types may include isolated finds, bedrock milling stations, sparse lithic scatters, and shellfish processing stations. All other archaeological sites are considered potentially significant. The determination of significance is based on a number of factors specific to a particular site including site size, type, and integrity; presence or absence of a subsurface deposit, soil stratigraphy, features, diagnostics, and datable material; artifact and ecofact density; assemblage complexity; cultural affiliation; association with an important person or event; and ethnic importance (City 2001:15).

Non-significant resources are addressed in Section II.D.6 as including sites with no subsurface component, such as isolates, lithic scatters, isolated bedrock milling stations, and shellfish processing stations.

1.3.2.2 City HRB Significance Criteria

The HRG identifies the criteria under which a resource may be historically designated. It states that any improvement, building, structure, sign, interior element and fixture, site, place, district, area, or object may be designated a historical resource by the City's HRB if it meets one or more of the following designation criteria:

A. exemplifies or reflects special elements of the City's, a community's, or a neighborhood's, historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping, or architectural development;

B. identified with persons or events significant in local, state, or national history;

C. embodies distinctive characteristics of a style, type, period, or method of construction or is a valuable example of the use of indigenous materials or craftsmanship;

D. is representative of the notable work or a master builder, designer, architect, engineer, landscape architect, interior designer, artist, or craftsman;

E. is listed or has been determined eligible by the National Park Service for listing on the National Register of Historic Places or is listed or has been determined eligible by the State Historical Preservation Office for listing on the State Register of Historical Resources; or

F. is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest, or aesthetic value or which represent one or more architectural periods or styles in the history and development of the City.

The seven aspects of integrity noted above for a resource to be eligible for listing on the NRHP or CRHR also apply to eligibility for listing by the HRB. That is, in addition to meeting one or more the criteria above (A-F), a resource must also retain at least some degree of integrity with regard to these seven aspects:

- Location: The place where the historic property was constructed or the place where the historic event occurred.
- Design: The combination of elements that create the form, plan, space, structure, and style of a property.
- Setting: The physical environment of a historic property. Setting includes elements such as topographic features, open space, viewshed, landscape, vegetation, and artificial features.
- Materials: The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- Workmanship: The physical evidence of the labor and skill of a particular culture or people during any given period in history.
- Feeling: A property's expression of the aesthetic or historic sense of a particular period of time.
- Association: The direct link between an important historic event or person and a historic property.

1.3.3 City of San Diego Development Regulations for Important Archaeological Sites

Section 143.0253 of the City's Land Development Code addresses important archaeological sites.

Section 143.0253 Development Regulations for Important Archaeological Sites

In addition to the general development regulations in Section 143.0250, the following regulations apply to *important archaeological sites*.

(a) *Important archaeological sites* shall be preserved in their natural state, except that *development* may be permitted as provided in this section or as provided in Section 143.0260.

(1) *Development* may be permitted in areas containing *important archaeological sites* if necessary to achieve a reasonable development area, with up to 25 percent *encroachment* into any *important archaeological site* allowed. This 25 percent encroachment includes all *grading*, *structures*, public and private streets, brush management except as provided in Section 143.0225, and any project-serving utilities.

(2) An additional *encroachment* of up to 15 percent, for a total *encroachment* of 40 percent, into *important archaeological sites* may be permitted for essential public service projects that are sited, designed, and constructed to minimize adverse impacts to *important archaeological sites*, where it has been demonstrated that there is no feasible, less environmentally damaging location or alternative. Essential public service projects include publicly owned parks and recreation facilities, fire and police stations, publicly owned libraries, public *schools*, major *streets* and primary arterials, and *public utility* systems.

(b) Any *encroachment* into *important archaeological sites* shall include measures to mitigate for the partial loss of the resource as a condition of approval. Mitigation shall include the following methods, consistent with the Historical Resources Guidelines of the Land Development Manual:

(1) The preservation through avoidance of the remaining portion of the *important archaeological site*; and

(2) The implementation of a research design and *excavation* program that recovers the scientific value of the portion of the *important archaeological site* that would be lost due to *encroachment*.

(c) The following types of *development* shall not be considered *encroachment* provided that no *structures*, other than portable *structures* are erected or maintained on the premises and that adequate measures to preserve and protect the *important archaeological site*, consistent with the Historical Resources Guidelines of the Land Development Manual, are included as conditions of approval:

(1) Parks and playgrounds;

(2) Low-intensity, passive recreational uses such as trails, access paths, and public viewpoints; and

(3) Parking lots

Section 143.0260 addresses Deviations from the Historical Resources Regulations:

(a) If a proposed *development* cannot to the maximum extent feasible comply with this division, a deviation may be considered in accordance with decision Process Four.

(b) The minimum deviation to afford relief from the regulations of this division and accommodate *development* may be granted only if the decision maker makes the applicable *findings* in Section 126.0504.

(c) If a deviation for demolition or removal of a *designated historical resource* or a contributing structure within a *historical district* is approved, the *applicant* shall obtain approval for new *development* on the same *premises* before issuance of a Demolition/Removal Permit.

Under Section 143.0210 (e) of the Historical Resources Regulations, an SDP in accordance with Process Four is required for a development that proposes to deviate from the development regulations for historical resources as described in this division, except for any *capital improvement program project* or *public project* (City of San Diego 2020:2).

1.3.4 Native American Heritage Values

Federal and state laws mandate that consideration be given to the concerns of contemporary Native Americans with regard to potentially ancestral human remains, associated funerary objects, and items of cultural patrimony. Consequently, an important element in assessing the significance of the study site

has been to evaluate the likelihood that these classes of items are present in areas that would be affected by the proposed project.

Potentially relevant to prehistoric archaeological sites is the category termed Traditional Cultural Properties (TCP) in discussions of cultural resource management performed under federal auspices. According to Patricia L. Parker and Thomas F. King (1998), "Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices. Cultural resources can include TCPs, such as gathering areas, landmarks, and ethnographic locations, in addition to archaeological districts. Generally, a TCP may consist of a single site, or group of associated archaeological sites (district or traditional cultural landscape), or an area of cultural/ethnographic importance.

In California, the Traditional Tribal Cultural Places Bill of 2004 requires local governments to consult with Native American Tribes during the project planning process, specifically before adopting or amending a General Plan or a Specific Plan, or when designating land as open space for the purpose of protecting Native American cultural places. The intent of this legislation is to encourage consultation and assist in the preservation of Native American places of prehistoric, archaeological, cultural, spiritual, and ceremonial importance. State Assembly Bill (AB) 52, effective July 1, 2015, introduced the Tribal Cultural Resource (TCR) as a class of cultural resource and additional considerations relating to Native American consultation into CEQA. As a general concept, a TCR is similar to the federally defined TCP; however, it incorporates consideration of local and state significance and required mitigation under CEQA. A TCR may be considered significant if included in a local or state register of historical resources; or determined by the lead agency to be significant pursuant to criteria set forth in PRC §5024.1; or is a geographically defined cultural landscape that meets one or more of these criteria; or is a historical resource described in PRC §21084.1, a unique archaeological resource described PRC §21083.2; or is a non-unique archaeological resource if it conforms with the above criteria.

1.4 PROJECT PERSONNEL

Mary Robbins-Wade, M.A., RPA served as the principal investigator for the cultural resources study and co-author of this report; Theodore Cooley, M.A., RPA served as co-author of this report. Ms. Robbins-Wade and Mr. Cooley both meet the qualifications of the Secretary of Interior's Standards and Guidelines for archaeology. HELIX staff archaeologist Mary Villalobos, B.A., conducted the field survey accompanied by Kumeyaay Native American monitor Shuuluk Linton from Red Tail Environmental, Inc. (Red Tail). Resumes of key HELIX personnel are included as Appendix A.

2.0 PROJECT SETTING

2.1 NATURAL SETTING

The project area is located within the coastal plain of western San Diego County, where the climate is characterized as semi-arid steppe, with warm, dry summers and cool, moist winters (Hall 2007; Pryde 2004). This coastal plain lies along the westernmost area of the Peninsular Ranges geomorphic province of southern California. The project area is situated on an ancient, elevated marine terrace, approximately 0.75 mile from the Pacific Ocean to the west, with the Soledad Valley/Peñasquitos

Lagoon approximately 0.65 mile to the north and east. Development in the project vicinity is characterized by a mixture of residential, large-scale recreational (golf course), commercial, and research and development facilities. The elevation of the project area ranges from approximately 350 to 455 feet above mean sea level (AMSL).

Geologically, the project area is underlain predominantly by the sedimentary deposits of the early Pleistocene age Lindavista Formation. This formation consists of near-shore marine beach deposits and nonmarine sediments deposited on a 10-kilometer-wide wave-cut terrace platform (Kennedy 1975a:29). At the project location, the marine beach deposits of this formation predominate (Kennedy 1975b). In several eroded ravines and canyons to the west and east of the project, Eocene age sedimentary formations are exposed, including the Ardath Shale, Torrey Sandstone, and Scripps formations (Kennedy 1975b).

Two natural soils associations are mapped for the project area. The Marina-Chesterton association, consisting of somewhat excessively drained to moderately well-drained loamy coarse sands and fine sandy loams that have a subsoil of sandy clay over a hardpan, predominates in the project location; in the immediately adjacent eroded ravines to the east, the Rough broken land-Terrace escarpments-Sloping gullied land association is present (Bowman 1973). The soils series mapped at the project site is the Carlsbad series, consisting of moderately well drained and well drained gravelly loamy sands that are moderately deep over a hardpan (Bowman 1973:34-35). Predominating in the project location is Carlsbad gravelly loamy sand, 5 to 9 percent slopes. In the adjacent ravine areas, Carlsbad gravelly loamy sand, 9 to 15 percent slopes is present (Bowman 1973:34-35). According to Bowman (1973:35), natural vegetation for this soils series is mainly chamise, black sage, sumac, and annual grasses and forbs. Various drainages in the vicinity including Peñasquitos Creek, would have made fresh water easily accessible to native populations living in the area.

Biological surveys of the project site and the off-site parcel, recently conducted by HELIX, indicated that within the project area, mostly urban developed conditions are present (i.e., an absence of native vegetation), with native southern mixed chaparral vegetation and a tiny amount of Diegan coastal sage scrub present in only one area along the north-central edge of the property (HELIX 2020). Based on a review of the Environmental Impact Report (EIR) for the Calit-CBC project, review of historic aerial photos, and communication with James Eighmey, formerly of RECON, this native vegetation was planted subsequent to the 1992 study, in order to preserve the most significant portion of the cultural resource site while enhancing biological resources (Eighmey, personal communication, 2020). In the off-site mitigation property, large areas of native southern mixed chaparral and Diegan coastal sage scrub vegetation were observed to be present with a band of introduced eucalyptus woodland present along the southern margin of the property (HELIX 2020).

Prehistorically, the natural vegetation in the project area and vicinity likely consisted mostly of Diegan coastal sage scrub and southern mixed chaparral vegetation, possibly with areas of grassland intermittent in the scrub areas, and riparian and fresh water and salt marsh communities present along nearby slough and creek areas. The Diegan coastal sage scrub community would likely have covered most of the relatively level terrace areas, while southern mixed chaparral vegetation would have been present on the slopes of the ravines and canyons extending down from the terrace areas (Beauchamp 1986; Munz 1974).

Prehistorically, plants of the Diegan coastal sage scrub community likely included California sagebrush (*Artemisia californica*), white sage (*Salvia apiana*), flat-top buckwheat (*Eriogonum fasciculatum),* broom

baccharis (*Baccharis sarothroides*), wild onion (*Allium haematochiton*), laurel sumac (*Malosma laurina*), San Diego sunflower (*Bahiopsis laciniata*), golden-yarrow (*Eriophyllum confertiflorum*), sawtooth goldenbush (*Hazardia squarrosa*), yucca (*Yucca schidigera*, *Hesperoyucca whipplei),* prickly pear cactus (*Opuntia* sp.), and scrub oak (*Quercus dumosa*). This community would likely have covered most of the mesa and canyons in the area, interspersed with areas of native grassla*nds (Stipa*, *Elymus*, *Poa*, *Muhlenbergia*). In addition to some of the plants in the scrub community, plants characteristic of the southern mixed chaparral include toyon *(Heteromeles arbutifolia*), chamise (*Adenostoma* spp.), mission manzanita (*Xylococcus bicolor*), wart stemmed ceanothus (*Ceanothus verrucosus*), and mariposa lilies (*Calochortus* sp.). Prior to historic and modern activities, adjacent major drainages such as Peñasquitos Creek likely contained extensive stands of riparian communities, with plants such as western sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), coast live oak (*Quercus agrifolia*), and willow (*Salix* sp.) (Beauchamp 1986; Lightner 2006; Munz 1974). Plant species naturally occurring in the project area and vicinity are known to have been used by native populations for food, medicine, tools, ceremonial and other uses, while many of the animal species living within these communities (such as deer, small mammals, and birds) would have been used by native inhabitants as well (Christenson 1990; Hedges and Beresford 1986; Luomala 1978).

Major wildlife species found in this environment prehistorically were coyote (*Canis latrans*); mule deer (*Odocoileus hemionus*); grizzly bear (*Ursus arctos*); mountain lion (*Puma concolor*); desert cottontail (*Sylvilagus audubonii*); jackrabbit (*Lepus californicus*); and various rodents, the most notable of which are the valley pocket gopher (*Thomomys bottae*), California ground squirrel (*Ostospermophilus beecheyi)*, and dusky footed woodrat (*Neotoma fuscipes*) (Head 1972). Desert cottontails, jackrabbits, and rodents were very important to the prehistoric diet; deer were somewhat less significant for food, but were an important source of leather, bone, and antler (Christenson 1990; Luomala 1978).

2.2 CULTURAL SETTING

2.2.1 Prehistoric Period

The project area is located along the southern San Diego coast, within the Southern Coast Archaeological Region of California (Moratto 1984). The following culture history outlines and briefly describes the known prehistoric cultural traditions in the vicinity of the study area. The approximately 12,000 years of documented prehistory of the San Diego region has often been divided into three periods: Early Prehistoric Period (San Dieguito tradition/complex), Archaic Period (Milling Stone Horizon, Encinitas tradition, and La Jolla and Pauma complexes), and Late Prehistoric Period (Cuyamaca and San Luis Rey complexes).

2.2.1.1 Early Prehistoric Period Traditions/Complexes

The Early Prehistoric Period represents the time period of the first known inhabitants in California. In some areas of California, it is referred to as the Paleo-Indian period and is associated with the Big-Game Hunting activities of the peoples of the last Ice Age, occurring during the Terminal Pleistocene (pre-10,000 years ago) and the Early Holocene, beginning circa 10,000 years ago (Erlandson 1994, 1997; Erlandson et al. 2007). In the western United States, most evidence for the Paleo-Indian or Big-Game Hunting peoples during this time period derives from finds of large, fluted spear and projectile points (Fluted-Point Tradition) at sites outside of California in places such as Clovis and Folsom in the Great Basin and the Desert southwest (Moratto 1984:79–88). In California, most of the evidence for the Fluted-Point Tradition derives from less substantial sites in the southeastern areas of the state along the

margins of the Great Basin and adjacent Mojave Desert and from isolated fluted point occurrences scattered elsewhere in the state (Dillon 2002; Rondeau et al. 2007). Some of these isolated finds, however, have occurred along or adjacent to the southern California coast (Erlandson et al. 1987; Fitzgerald and Rondeau 2012; Kline and Kline 2007), including some finds on the Baja Peninsula (Des Lauriers 2008; Hyland and Gutierrez 1995).

While one of these isolated fluted points has been found in the eastern mountains of San Diego County (Kline and Kline 2007), the most well-documented sites in the San Diego area dating to the Early Prehistoric Period belong to the San Dieguito Tradition, now documented to be over 9,000 years old (Warren et al. 1998; Warren and Ore 2011). The San Dieguito Tradition, with an artifact assemblage distinct from that of the Fluted-Point Tradition, has been documented mostly in the coastal area in San Diego County as well as in the southeastern California deserts (Carrico et al. 1993; Rogers 1966; Warren 1966, 1967; Warren and True 1961), with only sparse evidence for it discovered in the coastal area north of San Diego County (e.g., Sutton and Grenda 2012). The content of the earliest component of the C.W. Harris Site (CA-SDI-149/316/4935B), located along the San Dieguito River and approximately 15.3 kilometers (9.5 miles) to the northeast of the current project area, formed the basis upon which Warren and others (Vaughan 1982; Warren 1966, 1967; Warren and True 1961; Rogers 1966) identified the "San Dieguito complex," and which Warren later reclassified as the San Dieguito Tradition (1968). This tradition is characterized by an artifact inventory consisting almost entirely of flaked stone biface and scraping tools, but lacking the fluted points associated with the Fluted-Point Tradition. Diagnostic artifact types and categories associated with the San Dieguito Tradition include elongated bifacial knives; scraping tools; crescentics; and Silver Lake, Lake Mojave, and leaf-shaped projectile points (Rogers 1939; Warren 1967).

The subsistence system or emphasis of the San Dieguito Tradition, while not as yet entirely agreed upon, is suggested by Warren as having an orientation toward a hunting rather than gathering economy, based on an artifact assemblage of primarily hunting associated tools, in contrast to the more gathering-oriented complexes that were to follow in the Archaic Period (Warren 1967, 1968, 1987; Warren et al. 1998). Other researchers have interpreted the San Dieguito subsistence system to be possibly ancestral to, or a developmental stage for, the predominantly gathering-oriented "La Jolla/Pauma complex" of the subsequent Archaic Period (e.g., Bull 1983, 1987; Ezell 1987; Gallegos 1985, 1987, 1991; Koerper et al. 1991). Based on uncalibrated radiocarbon dates, Warren originally indicated this tradition to have begun sometime prior to 9,000 years before present (B.P.) and to have ended sometime between 8500 and 7500 B.P. (1967; 1968:4). Recent calibrations, however, have indicated these dates to be significantly earlier, extending to circa 10,000 B.P. (Warren et al. 1998:II-25; Warren and Ore 2011).

2.2.1.2 Archaic Period Traditions/Complexes

In the southern coastal region, the Archaic Period dates from circa 8600 B.P. to circa 1300 B.P. (Warren et al. 1998). A large number of archaeological site assemblages dating to this period have been identified at a range of coastal and inland sites. This appears to indicate that a relatively stable, sedentary hunting and gathering complex, possibly associated with one people, was present in the coastal and immediately inland areas of what is now San Diego County for more than 7,000 years. These assemblages, designated as the La Jolla/Pauma complexes, are considered part of Warren's (1968) "Encinitas tradition" and Wallace's (1955) "Early Milling Stone Horizon." In general, the content of these site assemblages includes manos and metates; shell middens; terrestrial and marine mammal remains; burials; rock features; bone tools; doughnut stones; discoidals; stone balls; plummets; biface points/knives; beads made of stone, bone, or shell; and cobble-based tools at coastal sites and increased

hunting equipment and quarry-based tools at inland sites (True 1958, 1980). As originally defined by True (1958), the "Pauma complex" aspect of this culture is associated with sites located in inland areas that lack shellfish remains but are otherwise similar in content to the La Jolla complex. The Pauma complex may, therefore, simply represent a non-coastal expression of the La Jolla complex (True 1980; True and Beemer 1982). Additional radiometric dating in the archaeological record has indicated that an increase in hunting activity and the gathering and processing of acorns may have begun during the latter half of the Archaic Period, with artifacts such as dart points and mortars and pestles becoming increasingly present in site assemblages dating after circa 5500 B.P. and being essentially absent during the early Archaic Period. This evidence in the archaeological record indicative of an increase in hunting activity and the gathering and processing of acorns for subsistence represents a major shift in the Encinitas/La Jolla/Pauma complex subsistence system in the southern coastal region at this time (Warren et al. 1998; Warren 2012).

While sites dating to the Archaic Period are numerous along the coast, including several in proximity to the study area, evidence in the archaeological record for sites associated with the Archaic Period in upper-elevation inland foothill and mountain areas of San Diego County is less common relative to the Late Prehistoric complexes that succeed them. McDonald (1995:14) has observed that "most sites in the Laguna Mountains can be expected to date from late prehistoric or ethnohistoric occupation of the region, and Archaic Period remains, while not unknown, are relatively rare." While inland archaeological sites containing Archaic Period assemblages are not unknown in the central area of San Diego County area (e.g., Cooley 1995; Cooley and Barrie 2004; Raven-Jennings and Smith 1999; Warren et al. 1961:10;), similar to the sites associated with the San Dieguito complex during the Early Prehistoric Period, most of the substantiating archaeological evidence for Archaic Period sites in present-day San Diego County is derived from sites located in near-coastal valleys and around estuaries and/or embayments that are present along the San Diego coast south of the San Luis Rey River. One such site dated to the Archaic Period, P-37-012581 (CA-SDI-12581), is located within the current project area. Subsurface investigations and other research previously conducted at the site documented an artifact and feature assemblage typical of the La Jolla complex and produced two uncalibrated radiocarbon dates spanning a period from circa (ca.) 6810 B.P. to 7570 B.P. (Eighmey and Cheever 1992:54). Another well documented Archaic Period site in proximity to the project area is site P-37-004629 (CA-SDI-4629; SDM-W-20), located approximately 3.2 kilometers (2.0 miles) to the northeast along the adjacent Peñasquitos Lagoon (Smith and Moriarty 1985). Mealey (2009:11) has also documented a number of sites radiocarbon dated to the Archaic Period in the nearby Torrey Pines State Reserve, to the north of the project area. Other central and southern coastal sites radiocarbon dated to the Archaic Period include the Scripps Estate Site, P-37-000525 (CA-SDI-525), in La Jolla (Moriarty et al. 1959; Shumway et al. 1961); site P-37-010238 (CA-SDI-10238) on San Dieguito Lagoon (Cooley et al. 2000; Smith 1986); site P-37-000603 (CA-SDI-603) on Batiquitos Lagoon (Crabtree et al. 1963); sites P-37-000210 (CA-SDI-210; UCLJ-M-15) (Moriarty 1967), P-37-0010965 (CA-SDI-10965; SDM-W-131) (Gallegos 1991; Gallegos and Carrico 1984), and the Allen O. Kelly Site, P-37-009649 (CA-SDI-9649) (Koerper et al. 1991) around Agua Hedionda Lagoon; site P-37-0011767 (CA-SDI-11767) (Cooley and Mitchell 1996) on the Lower San Diego River; and sites P-37-000048 (CA-SDI-48) (Gallegos and Kyle 1998) and P-37-0010945 (CA-SDI-10945) (Pigniolo et al. 1991) on San Diego Bay. Results from research already conducted at a site in the current project property (P-37-012581) and the location of the project area in proximity to these and other early archaeological sites along the coast, places it within an area where sites that can be definitely dated to the Archaic Period and that contain La Jolla or Pauma complex assemblages are the most common (Warren et al. 1998).

2.2.1.3 Late Prehistoric Period Traditions/Complexes

The beginning of the Late Prehistoric Period is marked by evidence of a number of new tool technologies and subsistence shifts in the archaeological record. Compared to those shifts noted for the middle and late Archaic Period, those occurring at the onset of the Late Prehistoric Period were rather abrupt changes. The magnitude of these changes and the short period of time within which they took place seem to indicate a significant alteration in subsistence practices in what is now San Diego County circa 1500 to 1300 B.P. The changes observed in the archaeological record during the Late Prehistoric Period include shifts in settlement patterning indicative of population increases; shifts in subsistence practices such as a reduction, in some areas, of shellfish gathering (possibly due to silting of the coastal lagoons), and an increase in the storage of foodstuffs such as acorns; new technologies such as the production of pottery and the use of the bow and arrow for hunting instead of atlatl and dart; and new traits such as the cremation of the dead instead of burial by inhumation (Gallegos 2002; McDonald and Eighmey 1998).

Movements of people during the last 2,000 years can account for at least some of these changes. Yuman-speaking people had occupied the Gila/Colorado River drainages of what is now western Arizona by 2,000 years ago (Moriarty 1968) and then continued to migrate westward. An analysis by Moriarty (1966, 1967) of materials recovered from the Spindrift site in La Jolla indicated a preceramic Yuman phase. Based on this analysis and a limited number of radiocarbon samples, Moriarty concluded that the Yuman speakers, lacking ceramic technology, penetrated into and occupied what is now the San Diego coastline circa 2000 B.P. Subsequently, approximately 1200 to 1300 B.P., ceramic technology diffused into the coastal area from the eastern deserts. Although these Yuman speakers may have shared cultural traits with the people occupying what is now eastern San Diego County before 2000 B.P., their influence is better documented throughout present-day San Diego County after 1300 B.P., with the introduction of small points, ceramics, Obsidian Butte obsidian, and the practice of cremation of the dead.

Early research by Meighan (1954) and True (1970), defined two distinct archaeological complexes for the Late Prehistoric Period in what is now San Diego County. True (1970) defined a Late Prehistoric Period complex for southern San Diego County, the Cuyamaca complex, that was distinct from one defined by Meighan (1954), the San Luis Rey complex in the northern county area. The presence or absence, or differences in the relative occurrence, of certain diagnostic artifacts in the archaeological assemblages at sites provide the principal distinctions between these archaeological complexes. Cuyamaca complex sites, for example, generally contain both Cottonwood Triangular-style points and Desert Side-notched arrow points, while Desert Side-notched points are quite rare or absent in San Luis Rey complex sites (Pigniolo 2004). Other examples include Obsidian Butte obsidian, which is far more common in Cuyamaca complex sites than in San Luis Rey complex sites, and ceramics. While ceramics are present during the Late Prehistoric Period throughout what is now San Diego County, they are more common in the southern or Cuyamaca complex portions of San Diego County, where they occur earlier in time and appear to be somewhat more specialized in form. Both complexes have produced a variety of vessel types, along with rattles, straight and bow-shaped pipes, and effigies. Interment of the dead at Cuyamaca complex sites is almost exclusively by cremation, often in special burial urns for interment, while archaeological evidence from San Luis Rey complex sites indicates both inhumation and cremation. Based on ethnographic data, including the areas defined for the Hokan-based Yuman-speaking peoples (Diegueño/Kumeyaay) and the Takic-speaking peoples (Luiseño) at the time of contact, it is generally accepted that the Cuyamaca complex is associated with the Diegueño/Kumeyaay and the

San Luis Rey complex with the Luiseño. Based on archaeological data, the proposed project lies within the area defined for the Cuyamaca complex.

Compared to Archaic Period sites, substantial Late Prehistoric Period sites attributable to the San Luis Rey or Cuyamaca complexes, while not absent, are less common in the near-coastal areas of the county. Gallegos (1995:200) stated that "for San Diego County, there is temporal patterning, as the earliest sites are situated in coastal valleys and around coastal lagoons. Late Prehistoric Period sites are also found in coastal settings but are more common along river valleys and interior locations." It has also been observed at some coastal sites with substantial Archaic Period occupations that evidence for Late Prehistoric occupation, when present, is often minimal in comparison to earlier occupations (e.g., Crabtree et al. 1963: 343). In contrast, numerous Late Prehistoric Period sites, attributable to the San Luis Rey or Cuyamaca complexes have been identified for the near-coastal inland foothill areas of the County through diagnostic artifacts and/or radiocarbon dating (e.g., Chace and Hightower 1979; Cooley and Barrie 2004; McCown 1945; Ravens-Jennings and Smith 1999; Willey and Dolan 2004). The best archaeologically documented site, and nearest site to the project area, with evidence of substantial Late Prehistoric Period occupation is site CA-SDI-4513/4609/5443, also known ethnographically as the ethnohistoric village of *Ystagua,* located approximately 2.1 kilometers (1.35 miles) to the southeast on the Peñasquitos Lagoon (Carrico and Taylor 1983; Gallegos et al. 1989). A total 38 radiocarbon dates spanning from approximately 5040 B.P. to circa 220 B.P. (Byrd and Reddy 2002), as well as documented occupation of the site in 1769 by the Spaniards (Carrico 1977a), indicate a pattern of settlement connected with the repeated occupation of the location and the surrounding vicinity, extending from the middle Archaic Period through to the Late Prehistoric Period and into ethnohistoric times. Other nearby coastal sites radiocarbon dated to the Late Prehistoric Period include site P-37-005017 (CA-SDI-5017), also recognized as the location of an ethnographic village occupied at the time of Spanish contact (Carrico 1977a), the village of *Jamo* (Rinconada), located at the mouth of the Rose Canyon drainage on Mission Bay (Winterrowd and Cardenas 1987); and site P-37-005213 (CA-SDI-5213; SDM-W-143/146), located to the north, near Buena Vista Lagoon (Robbins-Wade 1986).

Based on archaeological as well as ethnographic data, subsistence in the Late Prehistoric Period is thought to have been focused on the utilization of acorns and grass seeds, with small game serving as a primary protein resource and big game as a secondary resource. Fish and shellfish were also secondary resources, except immediately adjacent to the coast, where they assumed primary importance (Bean and Shipek 1978; Luomala 1978). The settlement system is characterized by seasonal villages where people used a central-based collecting subsistence strategy.

2.2.2 Ethnohistory

Based on ethnographic data, two linguistically distinct populations the Hokan-based Yuman-speaking peoples (Kumeyaay) and the Takic-speaking peoples (Luiseño), inhabited the San Diego County area. The name Luiseño derives from Mission San Luis Rey de Francia and has been used to refer to the Indian people associated with that mission, while the Kumeyaay people are also known as Ipai, Tipai, or Diegueño (named for Mission San Diego de Alcala). Agua Hedionda Creek, extending east from the coast and located north of the project, has often been described as the division between the territories of the Luiseño and the Kumeyaay people (Bean and Shipek 1978; Luomala 1978; White 1963), but Kroeber (1925) has the boundary farther south and encompassing the Escondido area.

The project area, in the southern area of the county, is in the traditional territory of the Kumeyaay people, whose population in San Diego in the late 1700s was estimated to be 20,000. The Kumeyaay

lived in semi-sedentary, politically autonomous villages or rancherias. Most rancherias were the seat of a clan, although it is thought that, aboriginally, some clans had more than one rancheria and some rancherias contained more than one clan, often depending on the season within the year (Luomala 1978). Each village was comprised of many households, and groups of villages were part of a larger social system, referred to as a consanguineal kin group (*cimuL*) (Carrico 1998). Campsites and villages were chosen based on proximity to water, boulder outcrops, environmental protection, and availability of plants and animals (Luomala 1978). Consequently, many of the Kumeyaay villages or rancherias were located in river valleys and along the shoreline of coastal estuaries (Bean and Shipek 1978; Carrico 1998; Kroeber 1925).

Several major Kumeyaay villages were ethnographically documented along the southern coastal area. In closest proximity to project area was the village of *Ystagua,* located approximately 2.1 kilometers (1.35 miles) to the southeast along Peñasquitos Lagoon (Carrico and Taylor 1983). The village was still occupied at the time of early European contact as documented by the Spaniards who visited it in 1769 (Carrico 1977a). Also, as noted above, archaeological evidence indicates that this village location was occupied repeatedly over a period of several thousand years. Another nearby ethnographic village, also documented by the Spaniards in 1769, was village of *Jamo* (Rinconada), located approximately 11.9 kilometers (7.36 miles) to the south of the project area, at the mouth of the Rose Canyon drainage on Mission Bay (Carrico 1977a; Winterrowd and Cardenas 1987).

2.2.3 Historical Background

2.2.3.1 Spanish Period

While Juan Rodriguez Cabrillo visited San Diego briefly in 1542, the beginning of the historic period in the San Diego area is generally given as 1769. In the mid-eighteenth century, Spain had escalated its involvement in California from exploration to colonization (Weber 1992) and in that year, a Spanish expedition headed by Gaspar de Portolá and Junípero Serra established the Royal Presidio of San Diego. Portolá then traveled north from San Diego seeking suitable locations to establish military presidios and religious missions in order to extend the Spanish Empire into Alta California.

Initially, both a mission and a military presidio were located on Presidio Hill overlooking the San Diego River. A small pueblo, now known as Old Town San Diego, developed below the presidio. The Mission San Diego de Alcalá was constructed in its current location five years later. The missions and presidios stood, literally and figuratively, as symbols of Spanish colonialism, importing new systems of labor, demographics, settlement, and economies to the area. Cattle ranching, animal husbandry, and agriculture were the main pursuits of the missions.

2.2.3.2 Mexican Period

Although Mexico gained its independence from Spain in 1821, Spanish patterns of culture and influence remained for a time. The missions continued to operate as they had in the past, and laws governing the distribution of land were also retained in the 1820s. Following secularization of the missions in 1834, large ranchos were granted to prominent and well-connected individuals, ushering in the Rancho Era, with the society making a transition from one dominated by the church and the military to a more civilian population, with people living on ranchos or in pueblos. With the numerous new ranchos in private hands, cattle ranching expanded and prevailed over agricultural activities.

2.2.3.3 American Period

American governance began in 1848, when Mexico signed the Treaty of Guadalupe Hidalgo, ceding California to the United States at the conclusion of the Mexican–American War. A great influx of settlers to California and the San Diego region occurred during the American Period, resulting from several factors, including the discovery of gold in the state in 1848, the end of the Civil War, the availability of free land through passage of the Homestead Act, and later, the importance of San Diego County as an agricultural area supported by roads, irrigation systems, and connecting railways. The increase in American and European populations quickly overwhelmed many of the Spanish and Mexican cultural traditions, and greatly increased the rate of population decline among Native American communities.

3.0 ARCHIVAL RESEARCH AND CONTACT PROGRAM

3.1 RECORDS SEARCH AND LITERATURE REVIEW

HELIX obtained a record search of the California Historical Resources Information System (CHRIS) from the South Coastal Information Center (SCIC) on January 9, 2020. The records search covered a three-quarter-mile radius around the project area and included the identification of previously recorded cultural resources and locations and citations for previous cultural resources studies. A review of the CRHR, the state Office of Historic Preservation (OHP) historic properties directory, and the City of San Diego Historical Resources Register (City 2019), was also conducted. The records search summary and map are included as Appendix B (Confidential Appendices, bound separately). In addition, previous reports and site information for the project area on file at HELIX were reviewed as well.

3.1.1 Previous Studies

The records search results identified 111 previous cultural resource studies within the record search limits, two of which occurred within the project area (Table 1, *Previous Studies within Three-Quarter Mile of the Project Area*). The majority of the 111 studies are cultural resource inventories consisting of record searches and field surveys; the remaining studies include subsurface investigations of prehistoric archaeological sites, historical resource investigations, architectural evaluations, and environmental impact reports. The two studies on file at the SCIC that occurred within the project area, Carrico (1977b) and Eighmey and Cheever (1992), involved archaeological investigations to assess prehistoric resources located within the project area and an adjacent property; P-37-012581 (CA-SDI-12581 [SDM-W-6]) is located within the current project area. In addition to these two studies, an archaeological survey conducted in the mid-1970s included the current project area as part of a larger study area for the Torrey Pines Science Park Unit No. 2 (Carrico 1976). As shown on a map in a 1977 report for that study area, of the six archaeological sites recorded within the Torrey Pines Science Park Unit No. 2 study area, only one (SDM-W-6; later recorded as P-37-012581) is located within the current project area (Carrico 1977b:Map 2). Unfortunately, this 1976 report is not on file at SCIC, and HELIX was not able to obtain a copy of it.

Table 1
PREVIOUS STUDIES WITHIN THREE-QUARTER MILE OF THE PROJECT AREA

Report Number	Year	Author	Report Title
SD-00007	1979	Day, Sandra, Randy Franklin, and Richard Carrico	Archaeological Investigation at Site W-1761: Torrey Pines Science Park Unit 3
SD-00182	1986	Barter, Eloise Richards	Torrey Pines State Reserves Resource Management Plan
SD-00281	1978	Carrico, Richard	Archaeological Study of the Proposed Sorrento West Industrial Complex San Diego, California
SD-00573	1979	Carrillo, Charles, and Charles Bull	Linkabit Data Recovery Archaeological Testing at SDM-W-1076 San Diego, CA
SD-00596	1986	Cheever, Dayle, and Dennis Gallegos	Cultural Resource Survey of Brown-Leary Office Site, Sorrento Valley, California
SD-00604	1986	Dugan, Diana L.	Proposed Mitigated Negative Declaration: Driving Range Relocation of Torrey Pines Golf Course
SD-00605	1986	Dugan, Diana L.	Proposed Mitigated Negative Declaration: Sorrento Northridge
SD-00773	1986	Cheever, Dayle, and Dennis Gallegos	Cultural Resource Survey and Test of SDI-5218, La Jolla, California
SD-00809	1985	Laylander, Don	Archaeological Survey Report for Proposed Widening and Ramp Construction Route I-5/Carmel Valley Road San Diego County
SD-00827	1989	Gallegos, Dennis, Roxana Phillips, Andrew Pigniolo, Tom Demere, and Patricia M. Masters	A Cultural and Paleontological Inventory Update for the University of California at San Diego and Scripps Institution of Oceanography
SD-00974	1986	Hector, Susan	Archaeological Survey of the Scripps Clinic Parking Structure
SD-01397	1979	Eidsness, Janet, Douglas Flower, Darcy Ike, and Linda Roth	Archaeological Investigation of the Sorrento Valley Road Pipeline Project Limited Linear Test, City of San Diego SDM-W-654
SD-01583	1985	Wade, Sue A.	Excavation of Five Sites in the Sorrento Hills Gateway Project Area SDM-W-2480, SDM-W-2481, SH-81-1, SH-81-2, and SH-81-3
SD-01628	1978	WESTEC Services, Inc.	Archaeological Reconnaissance for Torrey Pines Science Park Unit No. 3
SD-01638	1985	Woodward, Jim, and George Stammerjohan	Resource Inventory Cultural Resources San Diego Coast State Beaches
SD-01660	1985	Wade, Sue A.	Excavation of Five Sites in the Sorrento Hills Gateway Project Area SDM-W-2480, SDM-W-2481, SH-81-1, SH-81-2, and SH-81-3
SD-01695	1981	Polan, H. Keith	Soledad Valley West: An Archaeological Assessment
SD-01795	1981	RECON-Regional Environmental Consultants	Archaeological and Biological Survey Reports for the San Andres Project County of San Diego
SD-01853	1989	Hector, Susan, Dayle Cheever, and McMillan Davis	Significance Testing of a Portion of SDI-197: Torrey Enterprises-Sorrento Valley Property
SD-01869	1984	Hector, Susan	Torrey Pines Science Park Archaeology
SD-01920	1980	Hanna, David Jr.	A Cultural Resource Inventory of the University of California at San Diego

Report Number	Year	Author	Report Title
SD-02345	1991	Smith, Brian F.	Results of An Archaeological Study for the Genesee Avenue I-5 Interchange Project
*SD-02520	1992	Eighmey, James, and Dayle Cheever	Significance Testing on a Portion of SDI-12581 (SDM-W-6), A Coastal Archaic Site, San Diego
SD-02559	1992	Wade, Sue	Cultural Resources Reconnaissance for the SDG&E Reconductor Alignment City of San Diego
SD-02699	1992	Carrico, Richard, et al.	Phase 1 Historic Properties Inventory of the Mid-Coast Corridor Transportation Alternatives, San Diego, California
SD-02700	1992	Alter, Ruth, and Mary Robbins-Wade	Historic Properties Inventory for the North City Water Reclamation Plant Effluent Pipeline Project (North City and East Mission Bay Pipelines) Clean Water Program for Greater San Diego, San Diego, California
SD-03410	1991	Wade, Sue	Cultural Resource Survey of the La Jolla Spectrum Property
SD-03523	1998	Cheever, Dayle M., and Russell O. Collett	Results of Extended Phase II Sampling at CA-SDI-197, Sorrento Point Project, San Diego, California
SD-04174	1999	Gallegos, Dennis R., and Nina M. Harris	Cultural Resource Monitoring Report for 11388 Sorrento Valley Road City of San Diego, California
SD-04330	1986	WESTEC	Cultural Resource Survey: Test of SDI-5218, La Jolla
SD-04383	1989	ERCE Environmental and Energy Services	A Cultural and Paleontological Inventory Update for the University of California at San Diego and Scripps Institution of Oceanography
SD-04387	1977	WESTEC and Richard Carrico	Archaeological Investigations of the Proposed Scripps Clinic Extension
SD-04398	1995	Kyle, Carolyn	North Torrey Pines Bridge Over Los Peñasquitos Creek
SD-04480	1987	Rosen, Martin	2nd Supplemental Historic Property Survey – 11-SD-5, P.M. R29.51
SD-04622	2001	Wahoff, Tanya, and James Cleland	Cultural Resources Survey Sorrento Valley Trunk Sewer Project San Diego County, California
SD-04753	1977	Day, Sandra	Archaeological Investigation at Site W-1761: Torrey Pines Science Park Unit 3
*SD-04754	1977	Carrico, Richard	Results of Surface and Subsurface Testing and Mapping of Archaeological Sites on Torrey Pines Science Park Unit No. 2
SD-04813	1997	Mealey, Marla	Statewide Resource Management Program Project Status Report: Archaeological Site Reevaluation and Mapping at Torrey Pines State
SD-04911	1985	Laylander, Don	Archaeological Survey Report for Proposed Widening & Ramp Construction Route I-5/ Carmel Valley Road San Diego County
SD-05040	1985	Caltrans	Historic Property Survey 11-SD-5 R30.0-R34.1
SD-05147	2000	Berryman, Judy	Cultural Resources Survey of Sewer Pump Station 45, Task 19, City of San Diego
SD-05170	1997	City of San Diego	Public Notice of Draft Environmental Impact Report the Lodge at Torrey Pines
SD-05485	2002	Duke Curt	Cultural Resource Assessment Cingular Wireless Facility No SD.513-01 San Diego County CA
SD-06198	1986	Laylander, Don	First Supplemental Historic Property Survey 11-SD-5 P.M. R30.0-R34.5 11222-030100

Report Number	Year	Author	Report Title
SD-06417	1997	City of San Diego	EIR for the Lodge at Torrey Pines
SD-06918	1999	City of San Diego	Public Notice of Proposed Mitigated Negative Declaration Sorrento Pointe
SD-06941	1999	City of San Diego	Notice of Preparation of a Draft EIR-Sorrento Valley Road
SD-06945	1999	City of San Diego	Public Notice of Proposed Mitigated Negative Declaration-Sorrento Pointe
SD-06994	2000	City of San Diego	Public Notice of Draft Mitigated Negative Declaration Sorrento Creek Drainage Channel
SD-07059	2000	City of San Diego	Public Notice of Proposed Mitigated Negative Declaration-Sorrento Creek Drainage Channel
SD-07429	2002	City of San Diego	Public Notice of a Proposed Mitigated Negative Declaration 3377 Carmel Mountain Road Project, Torrey Pines
SD-07530	2002	LSA	Cultural Resource Assessment AT&T Wireless Services Facility #10002A-03
SD-07756	1991	Wade, Sue	Cultural Resource Survey of the La Jolla Spectrum Property, La Jolla, CA
SD-07758	1998	Cook, John R.	Letter Report for PID Permit No. 89-0269 CRM: The La Jolla Spectrum Development Project
SD-07759	2002	City of San Diego	Sidney Kimmel Cancer Center Site Development Permit and Coastal Development Permit
SD-07871	2002	Duke, Curt	Cultural Resource Assessment AT&T Wireless Services Facility No. 10002b San Diego County, California
SD-07896	1998	Cook, John R.	La Jolla Spectrum Development Project
SD-08026	2002	Kyle, Carolyn E.	Cultural Resources Survey for a Parcel Located on Carmel Valley Road in the Torrey Pines Community Plan Area City of San Diego, California
SD-08138	2002	Pallette, Drew	Letter Report Presenting the Results of an Archaeological Records Search and Monitoring of Construction at 3377 Carmel Mountain Road, San Diego County, CA
SD-08202	2002	City of San Diego	Public Notice of a Proposed Mitigated Negative Declaration; Sorrento Valley Trunk Sewer and Pump Station 89
SD-08280	2002	City of San Diego	Public Notice of a Draft Environmental Impact Report for Sorrento Valley Road Reuse
SD-08356	2003	Rosen, Martin	North Torrey Pines Bridge Bio
SD-08532	1976	Kaldenberg, Russell L.	An Archaeological Impact Survey for North Sorrento Valley West Industrial Park
SD-08534	1989	Smith, Brian F.	Results of An Archaeological Data Recovery Program at Sites CA-SDI-4618A, CA-SDI-4619, and CA-SDI-10915
SD-08535	1983	Fink, Gary	The Cultural Resources of Los Peñasquitos Regional Park, San Diego, California
SD-09145	1991	Gallegos, Dennis, and Carolyn Kyle	Cultural Resource Survey Report San Diego Bikeways Project San Diego, California
SD-09518	2005	Mealey, Marla	Archaeological Site Condition Assessment within Torrey Pines State Reserve for Storm Damage Following the 2004/2005 Rainfall Season

Report Number	Year	Author	Report Title
SD-09558	2002	Guerrero, Monica, and Gallegos, Dennis	Cultural Resource Survey for the Torrey Pines Reserve Habitat Restoration Site, San Diego, California
SD-10627	2007	Losee, Carolyn	Cultural Resources Analysis for Verizon Wireless Site # 61070112: 10350 North Torrey Pines Road, San Diego, CA
SD-10664	2006	Pierson, Larry J.	Mitigation Monitoring of the Torrey Pines Golf Course Improvements Project
SD-10758	1988	Cook, John R.	Cultural Resources Survey and Significance Evaluation of the La Jolla Pines Technology Center Project
SD-10885	2007	Mattingly, Scott A.	Archaeological and Geospatial Investigations of Fire-Altered Rock Features at Torrey Pines State Reserve, San Diego, California
SD-11103	2007	Robbins-Wade, Mary, and Andrew Giletti	Archaeological Monitoring: 10996 Torreyana, La Jolla, San Diego, California
SD-11318		Various	Torrey Pines Gliderport
SD-11414	2007	Robbins-Wade, Mary	Archaeological Survey Report, I-5/Genesee Avenue Interchange Project, San Diego, California
SD-11483	2007	Robbins-Wade, Mary	Historic Property Survey Report - I-5/ Genesee Avenue Interchange Project
SD-11689	2008	Pierson, Larry J.	Archaeological Resource Report Form: Mitigation Monitoring of the Torrey Pines Golf Course Clubhouse Replacement - Phase I Improvements - Parking Lot
SD-11761	2007	Dominici, Deb	Historic Property Survey Report, I-5 North Coast Widening Project
SD-11826	2008	Robbins-Wade, Mary	Archaeological Resources Analysis for the Master Stormwater System Maintenance Program, San Diego, California
SD-11878	2008	Bonner, Wayne H., Marnie Aislin-Kay, and Kathleen Crawford	Cultural Resource Records Search and Site Visit Results for AT&T Mobility, LLC Facility Candidate SD0942 (Torrey Pines Lodge), 11480 North Torrey Pines Road, La Jolla, San Diego County, California
SD-12071	2008	Burke Lia, Marie	Historical Assessment of 3344 Industrial Court
SD-12200	2009	City of San Diego	Draft Environmental Impact Report for the Master Storm Water System Maintenance Program (MSWSMP)
SD-12422	2001	Ní Ghabhláin, Sinéad, and Drew Pallette	A Cultural Resources Inventory for the Route Realignment of the Proposed Pf. Net /AT&T Fiber Optics Conduit Oceanside To San Diego, California
SD-12548	2008	Bonner, Wayne, Marnie Aislin-Kay, and Kathleen Crawford	Cultural Resources Records Search and Site Visit Results for Verizon Wireless Candidate "Scripps Green," North Torrey Pines Road, San Diego, San Diego County, California
SD-13006	2011	City of San Diego	Master Storm Water System Maintenance Program - Draft Recirculated Program Environmental Impact Report
SD-13135	1998	Cheever, Dayle, and Russell O. Collett	Results of Extended Phase II Sampling at Ca-SDI-197, Sorrento Point Project San Diego, California
SD-13462	2012	Daniels Jr., James T., and Micah J. Hale	Archaeological Testing and Evaluation for Sites CA-SDI-4624 and CA-SDI-20664, Torrey Pines City Park General Development Plan, San Diego, California

Report Number	Year	Author	Report Title
SD-13503	2011	Stropes, Tracy A., and Brian F. Smith	A Phase I Cultural Resources Study for the 11099 North Torrey Pines Road Project San Diego, California
SD-13916	2012	Caltrans	Interstate 5 North Coast Corridor Project Supplemental Draft Environmental Impact Report/ Environmental Impact Statement
SD-14065	2012	Ní Ghabhláin, Sinéad	Negative Cultural Resource Survey for the Sorrento Valley Double Track Project Mitigation Area, San Diego County, California
SD-14066	2012	Gunderman, Shelby, Sarah Stringer-Bowsher, and Sinéad Ní Ghabhláin	Cultural and Historical Resources Report for the Sorrento Valley Double Track Project
SD-14086	2012	Pham, Angela N., and Sinéad Ní Ghabhláin	Cultural and Historical Resources Constraints Report for the San Dieguito Bridge Replacement and Second Track Project; Del Mar Tunnel Alternatives Analysis
SD-14416	2012	Loftus, Shannon	Cultural Resource Records Search and Site Survey AT&T Site Ss0074 Hilton Torrey Pines 10950 Torrey Pines Road San Diego, San Diego County, California
SD-14495	2013	Caltrans	Interstate 5 North Coast Corridor Project Final Environmental Impact Report/Environmental Impact Statement and Section 4(F) Evaluation
SD-14506	2013	Bietz, Spencer	Letter Report: eTS 25436- Cultural Resources Monitoring Report for Replacement Activities for P63458 Anchor Replacement, Sorrento Valley, City of San Diego, California
SD-14615	2013	Caltrans	I-5 North Corridor Project Supplementals
SD-15681	2014	Price, Harry J.	Results of Historical Resources Survey of the Spectrum, 3013 Science Park Road Project
SD-15682	2015	Price, Harry J.	Results of the Controlled Destruction of CA-SDI-197 at the Sorrento Pointe Project, Sorrento Valley, San Diego
SD-15708	2014	Scharlotta, Ian	Archaeological Survey, Testing and Evaluation for Sites CA-SDI-200 and CA-SDI-9594, Torrey Pines North Golf Course General Development Plan, San Diego, California
SD-15996	2014	Stringer-Bowsher, Sarah, and Shannon Davis	Historical Resources Technical Report for Torrey Pines Golf Course, 11480 North Torrey Pines Road, San Diego, California
SD-16091	2014	Loftus, Shannon L.	Cultural Resource Records Search and Site Survey AT&T Site Ss0074 Hilton Torrey Pines 10950 Torrey Pines Road San Diego, San Diego County, California
SD-16104	2014	Perez, Don C.	Archaeological Sensitivity Assessment Science Park/Ensite #18294 (276768) 10905 Road to the Cure San Diego, San Diego County, California
SD-16127	2008	Dominici, Deb, and Don Laylander	2007 Cultural Resources Treatment Plan North Coast Interstate 5 Corridor
SD-16131	2013	Blake, Michelle	Sixth Supplemental Historic Property Survey Report (HPSR): Revised Area of Potential Effects (Ape) I-5 North Coast Corridor

Report Number	Year	Author	Report Title
SD-16172	2015	Williams, Brian	Archaeological Survey for San Diego Gas & Electric's Proposed P60971 Removal from Service and P60953 Anchor Installation Project, Torrey Pines State Natural Reservice, San Diego County, California
SD-16330	2015	Roy, Julie	Letter Report: eTS 30453 - Cultural Resources Survey for Pole Brushing Project, Various Locations, San Diego County, California
SD-16396	2015	Gunderman Castells, Shelby	North County Transit District (NCTD) Sorrento Valley Double Track ATCS Antenna Project at the New Control Point Torrey, Mile Post 247.8, San Diego, San Diego County, California
SD-16801	2015	Price, Harry J.	Archaeological Resources Report for the Spectrum 3 and 4, 3115 and 3215 Merryfield Row Project San Diego, California
SD-17050	2017	Mealey, Marla, and A. Del Rosario	Archaeological Survey Report TPSNR Utility Modernization Survey
SD-17051	2016	Lower, Kelly, and Kaitlin Brown	Archaeological Monitoring Report for Torrey Pines State Natural Reserve Trails and Overlooks Accessibility Project 2008-2015
SD-17103	2017	Foglia, Shannon E., Theodore G. Cooley, Monica Mello, Brian Spelts, Rachel Droessler, Tim Wolfe, and Earl Morales	Cultural Resources Survey Report for the Proposed San Diego Gas & Electric TL674a Reconfiguration & TL666d Removal Project, San Diego County, California
SD-17232	2017	Brunzell, David	San Diego 55 Fiber Project, San Diego County, California

* Overlaps project area.

3.1.2 Previously Recorded Resources

The SCIC has a record of 52 previously recorded cultural resources within a three-quarter-mile radius of the project, one of which, P-37-012581 (CA-SDI-12581 [SDM-W-6]), is located within the project area (Table 2, *Previously Recorded Resources within Three-Quarter Mile of the Project Area*). Of the 52 sites recorded within the search radius, 33 are prehistoric resources consisting of habitation and village sites, artifact scatters, tool stone quarries, and isolated artifacts. Two sites are multi-component sites, with one recorded as containing prehistoric artifacts and historic refuse, and the other prehistoric artifacts in soils beneath the historic North Course of the Torrey Pines Golf Course. The remaining cultural resources within the search radius are of historic age and include historic refuse scatters, former ranch sites, standing residences and properties, and segments of the Coast Highway and Atchison and the Topeka and Santa Fe Railway. P-37-012581 is described in detail below.

Table 2
PREVIOUSLY RECORDED RESOURCES WITHIN THREE-QUARTER MILE OF THE PROJECT AREA

Primary Number (P-37-#)	Trinomial (CA-SDI-#)	Age	Description	Recorder(s), Date
000200	200	Prehistoric	Lithic artifact scatter	Treganza, n.d.; Hines, Schwaderer, W. Wallace, and E. Wallace, 1986; Mealey, Muranaka, and Heimgaertner, 1996; Scharlotta and Quach, 2014
001010	1010	Prehistoric	Habitation site	McCown, 1952; Kidder 1979; Pallette, 2005
004625	4625	Prehistoric/Historic	Prehistoric artifact and marine shell scatter, hearths; historic trash	Gross and Bull, n.d.; Mealey, Muranaka, and Heimgaertner, 1996; Mealey and Shabel, 2002; Mealey, McFarland, Farmer, 2005; Mealey, Shabel, Ruston, and Lucas, 2010; Mealey, Turner, Plata, and Dickey, 2014; Mealey and Roland, 2014; Mealey, Lucero, Del Rosario, Lucida, Collier, and Allen 2016; Lucida and Del Rosario 2016
004647	4647	Prehistoric	No description given; area now developed	Harding, 1952; Pallette, 2005
005218	5218	Prehistoric	Artifact scatter	Norwood, 1977
007223	7223	Prehistoric	Artifact scatter	Ainsworth, 1978; Mealey, Muranaka, and Heimgaertner, 1996
007224	7224	Prehistoric	Shell midden	Ainsworth, n.d.
007225	7225	Prehistoric	Shell midden and lithic scatter	Ainsworth, n.d.
008211	8211	Prehistoric	Shell midden and artifact scatter	Hanna and Talley, 1979; Gallegos, Phillips, and Kyle, 1995
008212	8212	Prehistoric	Isolated mano	Hanna, 1979
008213	8213	Prehistoric	Isolated mano fragment	Hanna, 1979
008214	8214	Prehistoric	Lithic artifact scatter	Hanna, 1979; Gallegos, Phillips, and Kyle, 1995
008215	8215	Prehistoric	Lithic artifact scatter	Hanna, 1979; Gallegos, Phillips, and Kyle, 1995
008721	8721	Prehistoric	Lithic artifact scatter	Cardenas, 1981; Gallegos, Phillips, and Kyle, 1995
009594	9594	Prehistoric	Cobble quarry	Newman, Cerutti, and Parkman, 1982; Scharlotta and Quach, 2014
009863	9863	Prehistoric	Cobble quarry, shell	Newman, Cerutti, and Parkman, 1982; Scharlotta and Quach, 2014

Primary Number (P-37-#)	Trinomial (CA-SDI-#)	Age	Description	Recorder(s), Date
010815	10815	Prehistoric	Shell and artifact scatter	Hector, 1983
011223	11223	Prehistoric	Lithic artifact scatter	Cook, 1988; Gallegos, Phillips, and Kyle, 1995
011224	11224	Prehistoric	Lithic artifact scatter	Cook, 1988
011225	11225	Prehistoric	Artifact scatter	Cook, 1988
011226	11226	Prehistoric	Lithic artifact scatter	Cook, 1988; Gallegos, Phillips, and Kyle, 1995
011227	11227	Prehistoric	Lithic artifact scatter	Cook, 1988
012581*	12581	Prehistoric	Habitation site	Rogers, n.d.; Carter, 1982; Eighmey and Cheever 1992
013241	13241	Prehistoric	Shell midden	Ainsworth and Carrico, 1976
015860	14455H	Historic	Refuse scatter	Mealey, Heimgaertner, Muranaka, McFarland, Farmer, Shabel, and Jenkins, 1996-2009; Mealey, Shabel, and Ruston 2010; Mealey and Rolland, 2014; Mealey, Minnaugh, Rolland, and Callahan, 2015; Meling, 2016
017079	15112	Prehistoric	Artifact and shell scatter	Pierson, 1999
017177	-	Historic	Residence	Bevil, 1999
017178	-	Historic	Residence	Bevil, 1999
024739	16385H	Historic	Segment of the Atchison, Topeka, and Santa Fe Railway	Ballester and Woodard, 2002; McClean, 2010; Harper and Schultz, 2011; Ní Ghabhláin, 2012; Hall 2012; Castells 2013; Castells and Krintz 2013; Castells and Quach, 2014; Castells, 2015; Daley, 2015; Tift and Lennen, 2016; Courtney, 2017; Foglia, 2017
024764	-	Historic	Refuse scatter	Mealey, Shabel, and Jenkins, 2002
024767	-	Prehistoric	Isolated quartzite flake and fire altered rock (FAR) fragment	Mealey, Shabel, and Jenkins, 2002
024768	-	Historic	Isolated refuse scatter	Mealey, Shabel, and Jenkins, 2002
024776	16410	Prehistoric	Lithic artifact scatter and FAR	Mealey, Shabel, and Jenkins, 2002; Mealey and Ruston 2010; Mealey and Meling, 2016
024778	16412	Prehistoric	Lithic artifact scatter and FAR	Mealey, Shabel, and Jenkins, 2002; Mealey and Meling, 2015
026489	17385	Prehistoric	Artifact and shell scatter	Mealey, Shabel, and Jenkins, 2002

Primary Number (P-37-#)	Trinomial (CA-SDI-#)	Age	Description	Recorder(s), Date
026490	17386	Prehistoric	Shell midden; SDM-W-16	Rogers, n.d.
026495	17391	Prehistoric	"La Jollan cultural material"; SDM-W-340	Davis, 1968
033197	22051	Historic/Prehistoric	Historic Torrey Pines Golf Course – North Course (1957-1964); Prehistoric artifact and shell scatter	Stringer-Bowsher and Davis, 2014; Meling, Loveless, Linton, and Dittmer, 2016
033783 subsumed by 035638	21221	Historic	See P-37-035638 (CA-SDI-21221), below	See P-37-035638 (CA-SDI-21221), below
033784	-	Prehistoric	Isolated Cottonwood Triangular arrow point	DeCarlo, 2014
035214	-	Historic	Series of poured concrete walls, stairs, and walkways (ca. 1979)	Price and Zepeda-Herman, 2014
035638	21812	Historic	Historic ranch complex and trash scatter, concrete slabs/ foundations	Williams, 2015; Mealey, Callahan, Turner, and Allen, 2016
035666	21814	Prehistoric	Lithic artifact scatter and FAR	Mealey, Meling, and Graham, 2015
035837	21865	Prehistoric	Artifact and shell scatter	Turner and Minovi, 2016
036068	21943	Historic	Troughs and fence posts (1928-1957)	Allen and Minovi, 2016
036276	-	Historic	Isolated concrete foundation	Lucero, Mealey, Del Rosario, Lucidi, Anderson, Allen , and Collier, 2016
036277	21995	Historic	Isolated cement marker with a nail or metal protrusion	Lucero, 2016
036378	-	Historic	Rusted miscellaneous metal with markings found on slope and a ceramic mermaid figurine, as well as two modern Gatorade cans below the metal	Mealey, Callahan, Turner, and Allen, 2016
036414	-	Historic	Property at 3444 Tripp Court, built ca. 1965	Mello, 2016
036415	-	Historic	SDG&E Transmission line segment	Foglia and Spelts, 2016
036430	-	Historic	Property at 3336-3346 Industrial Court, built ca. 1965	Mello, 2016

Primary Number (P-37-#)	Trinomial (CA-SDI-#)	Age	Description	Recorder(s), Date
036624	-	Historic	Segment of historic Coast Highway/US 101 located within Torrey Pines State Natural Reserve	Mealey and Minnaugh, 2017

* Within project area.

3.1.3 P-37-012581 (CA-SDI-12581[SDM-W-6])

Archaeological site P-37-012581, located within the project area (Figure 6, *Location of P-37-012581*; Confidential Appendix C), was initially recorded by Malcolm Rogers of the San Diego Museum of Man (Museum) in the 1920s as SDM-W-6; it is one of a series of archaeological sites recorded on the Torrey Pines Mesa. Rogers' notes are on file at the Museum, but currently only Native American researchers can gain access to those notes, as the Museum is working on "decolonizing" its collections. However, HELIX was able to obtain some notes regarding the site through Mr. Clint Linton, the Director of Cultural Resources for the Kumeyaay Nation of Santa Ysabel. Unfortunately, the notes that were obtained did not shed additional light on the site except providing an inventory of cultural material from the site in the collections at the Museum (ground stone and flaked stone tools, flakes, shell, and one projectile point). Site records for P-37-012581 on file at SCIC are included as Confidential Appendix D to this report.

Rogers gave SDM-W-6 the site name "U.S. Plant Experiment Station", indicating its physical relationship to the agricultural station present on the property at the time of his recordation. He described the site as a highland shell midden covering four acres. Rogers collected artifacts from the site and apparently excavated at least two 6-foot-by-6-foot test units. The site record for SDM-W-6 notes "usual cobble hearths" and indicates one "house pit is cut into the bottom level"; he also noted one "Canalino [Channel Islands] chalcedony broken blade" (Rogers n.d.). The site record notes that no burials were found. Rogers attributed the site to the Archaic period; his "Lit. I" and "Lit II" equate to the La Jolla complex. Rogers' site record indicated:

> Lit. I people first camped on this high ridge bringing up mussels from the seacoast but not in the extent to form much of a midden. This level rests on marine sandstone or decomposed sandy parts of it, and is widespread and thin. Afterward Lit. II people settled here or camped here in great enough numbers to produce a much larger midden with a higher % of shell [Rogers n.d.].

The site record notes, "At the north end of W-6 where the City Reservoir was excavated a cache of 12 metates and one mortar was uncovered." This is interesting, because what appears to be a reservoir is shown on the 1928 aerial photo over 2000 feet north of the agricultural station. This suggests that the majority of SDM-W-6 may have been north of the current project site. However, a map of the site's location plotted on a USGS topographic map on file at the Museum shows it clearly within the current project area. No reservoir is shown on the 1930 USGS 15-minute La Jolla topographic map; so, the apparent reservoir on the aerial photo cannot be doublechecked. Buildings in the area of the agricultural station are first shown on the USGS topographic maps on the 1934 reprint of the 1903 15-minute La Jolla map (1:62,500), for which cultural features were updated in 1930, and on the 1930 15-minute La Jolla map. As discussed in Section 3.2 Other Archival Research, the agricultural station is shown on the 1928 tax factor aerial photo.

Since the initial recording and investigations at the site by Rogers, several investigations have taken place at the site. Investigations were apparently conducted at the site in the late 1940s and/or early 1950s by George Carter (1957:203-217). Carter, however, does not reference the site number and does not provide a map showing the location of his work. While he describes a number of artifact finds, like Rogers, he does not mention the occurrence of human remains. In 1961, Dr. James Moriarty and a group of students from University of California (UC), San Diego conducted an excavation at SDM-W-6. The information presented here regarding this excavation is taken from Eighmey and Cheever (1992: 22-23) and Carrico (1977b). The experimental agricultural station was still in use at the time of Moriarty's excavation; he noted that the site area had been plowed and there were no features on the surface of the site. Rogers had noted cobble hearths and one house pit on the SDM-W-6 site form; these features may have been destroyed by decades of use at the agricultural station. Moriarty recalled that as many as 30 units were hand-excavated on a grid system, but no map of the excavation units was found, nor were any field notes. Dr. Moriarty noted that SDM-W-6 was similar to the Scripps Estates site (P-37-000525 [CA-SDI-525]), a rich archaeological site located approximately 2.25 miles southwest of SDM-W-6, known for the controlled excavation of numerous burials in the 1950s documented in several published reports (e.g., Moriarty et al. 1959; Shumway et al. 1961). According to Moriarty, six burials were uncovered and recorded during his excavations at SDM-W-6 and were left in place. Moriarty recalled them as being flexed burials, two of which were young females. Various grave goods were found as well; there is no information given as to whether these were collected or left in place with the burials, which were found 2 to 3 feet below the ground surface. Dr. Moriarty "recalled similarities with the Scripps Estates burial features" (Eighmey and Cheever 1992:22).

Information regarding Moriarty's excavation was collected by Richard Carrico, who led an excavation conducted by WESTEC Services, Inc. (WESTEC) at a portion of SDM-W-6 in 1977. The work by WESTEC was conducted for the Torrey Pines Science Park Unit No. 2 project, located adjacent to and east of the former Calit-CBC (Calbiochem) project site and including the location of the existing Alexandria building at 10996 Torreyana Road and the associated parking lot, on the far eastern portion of the proposed One Alexandria Square project site. The same survey datum was used by WESTEC that had been used by Moriarty, which was located to the east of the Calbiochem property (Carrico 1977b:19 and Map 4). Only a small portion of SDM-W-6 extended into the Science Park Unit No. 2 project area; the majority of the site was to the west, within the current project area. The fact that Moriarty's survey datum was east of the Calbiochem property suggests that the area he excavated was in the eastern portion of that property and extending into the adjacent area to the east. Carrico (1977b:Map 3) shows SDM-W-6 located primarily in what is the now the biological conservation easement in the One Alexandria Square project area. In describing SDM-W-6, Carrico wrote:

> In summary, the data collected for this study coupled with the earlier excavation of W-6 (Moriarty 1976: Personal Communication) establish the repeatedly-occupied, intensive-use nature of the site. Cultural debris indicative of a major activity (campsite) area included human burials, beads, stone tools, shell refuse, grinding equipment, and an extensive midden [Carrico 1977b:44].

A 1982 site record update adds an element of confusion by stating that SDM-W-6, Torrey Pines Experimental Station (as the agricultural station was called), is "now part of the UC campus" and "has been largely destroyed by expansion of the campus" (Carter 1982).

The 1992 RECON report (Eighmey and Cheever 1992) documents testing conducted at P-37-012581 in 1991, consisting of 27 1-meter-by-1-meter test units and 28 shovel test pits (40 centimeters in

diameter). The testing program was to assess impacts associated with demolition of some of the existing buildings/structures on the property and construction of new buildings, in conjunction with the proposed Balit-CBC project. There are discrepancies in the report figures, and some figure numbers changed between versions of the report; so, it is not always certain that the figure referenced in the report is the correct one provided. While tables in the report provide a listing of cultural material recovered in excavation units 1 through 11 (phase 1 of the testing program), such tabular information is not given for units 12 through 27 (phase 2). Information regarding artifact recovery for units 12 through 23 is shown graphically, however. Despite the discrepancies in the report, a great deal of information is presented. Surface cultural material noted includes flaked lithic tools, cores, debitage, ground stone, and shell. Midden soils were noted in some areas, but much of the site had undergone extensive disturbance from agriculture, grading associated with the agricultural research station, roads, construction, and landscaping. Despite the disturbances, however, the site was noted as retaining areas of intact deposits and possessing important research potential. The site was assessed as a significant resource under CEQA and City guidelines, and an area of archaeological constraints was developed; the Balit-CBC project was redesigned to avoid impacts to the constrained area, which includes what is now the biological open space and the parking area immediately west of it (see Figure 3). Monitoring was required for any excavation near the area of archaeological constraints, as well as for removal of existing asphalt paving; a data recovery excavation would be required if cultural material were encountered in this monitoring. Due to the past grading associated with buildings that were already in place at the time of the 1991 testing program, it was suggested that no subsurface cultural material was present in most of the project area.

Between July 1999 and May 2000, Affinis conducted an archaeological monitoring program in conjunction with removal of some parking lot areas and a data recovery and monitoring program to mitigate impacts from ground-disturbing activities related to planters, light standards, electrical conduit, a bioswale, and a retaining wall in the previously identified area of archaeological constraints. Twenty-seven one-by-one-meter units were excavated. Cultural material collected in the data recovery excavation and in monitoring included bone awls, shell beads, projectile points, ground stone (manos and metates), flaked stone (cores, tools, debitage, and hammers), shell, and animal bone. Historic artifacts recovered included glass, ceramics, metal, and building materials, some of which were probably associated with the agricultural station and some of which were likely modern. Cultural material was recovered to a maximum depth of 60 centimeters in one excavation unit, but in general, cultural material was recovered to a depth of 30 to 40 centimeters.

In January 2002, an Affinis archaeologist monitored trenching for a sewer lateral partially within the site boundary of P-37-012581, in the northwestern portion of the parking area west of the preservation area. No cultural material was observed during this monitoring (Robbins-Wade 2002).

No mention of the occurrence of human remains is known from the early investigations at the site by Rogers or Carter, and no evidence of human remains or associated grave goods was found during any of the fieldwork conducted by WESTEC, RECON, or Affinis. Only during the unreported investigations by Moriarty in the early 1960s, as related by Carrico (1977b), have the occurrence of such remains at the site been indicated.

3.2 OTHER ARCHIVAL RESEARCH

Various additional archival sources were also consulted, including historic topographic maps and aerial imagery. These include historic aerials from 1928 (tax factor aerials on file at SCIC), 1953, 1964, and

1980 (NETR Online 2019) and several historic USGS topographic maps, including the 1903 and 1930 La Jolla (1:62,500); 1943 Del Mar (1:31680); and 1953, 1967, and 1975 Del Mar (1:24,000) topographic maps (USGS Online Historical Topographic Map Explorer 2019). Also consulted were the imagery figures contained in Eighmey and Cheever (1992). The purpose of this research was to identify historic structures and land use in the project area to assess the level of past disturbance to cultural resources and the potential for encountering historic archaeological resources. No structures or buildings are shown in the project location and vicinity on the 1903 La Jolla topographic map, but five buildings are shown on the 1930 map, one on which appears to be within the current project area. Three buildings are indicated on the 1943 Del Mar topographic map, but they are not shown in the same configuration as on the 1930 La Jolla map. On the 1953 Del Mar map, there are 10 buildings present in the project vicinity, but, again, the pattern of their occurrence has changed. On the 1967 Del Mar topographic map, no structures are shown on the property. On the 1975 Del Mar map, the buildings currently present on the property are shown. The buildings shown on the 1930 map are likely the first buildings constructed for the experimental agricultural station, and while the configuration has changed, some of the buildings shown on the 1943 and 1953 maps are likely also associated with this facility.

The experimental agricultural station is visible within the project area on aerial photos from 1928, 1953, and 1964 (NETR Online 2019; Appendix E, *Historic Aerials*, confidential, bound separately). As noted in the 1992 Eighmey and Cheever report:

> In a 1928 aerial photograph of the Torrey Pines Mesa, including the project area, there are at least nine buildings in the vicinity of the agricultural station and a large, cleared area which corresponds with the mapped location of SDI-12581 (SDM-W-6) (See Section V.A). In the middle of this cleared area is one large structure which also corresponds with the general vicinity of SDI-12581 (SDM-W-6) [Eighmey and Cheever 1992:21].

This is consistent with Moriarty's recollection that the station was still in use at the time of his excavations in 1961. Based on aerial photography, portions of the project site were graded between 1966 and 1970 (Eighmey and Cheever 1992: Figure 6), with the main building and much of the parking developed by 1978 (Eighmey and Cheever 1992: Figure 7) and additional parking in place by 1980 (NETR Online 2019). Although much of the project site was graded for development of the main building, it is not known how deep the excavation was in this area and whether it removed the cultural material present; no as-builts or records of the depth of excavation for this building have been located for this study. Subsequent construction was outside the area identified in 1992 as the area of archaeological constraints, i.e., outside the significant archaeological resource.

3.3 NATIVE AMERICAN CONTACT PROGRAM

HELIX contacted the Native American Heritage Commission (NAHC) on December 3, 2019 for a Sacred Lands File search and list of Native American contacts for the project area. The NAHC indicated in a response dated December 17, 2019 that no known sacred lands or Native American cultural resources are within the project area. Letters were sent on May 7, 2020 to Native American representatives and interested parties identified by the NAHC. One response has been received to date (Table 3, *Native American Contact Program Responses*). If any additional responses are received, they will be forwarded to City staff. Native American correspondence is included as Appendix F (Confidential, bound separately).

Table 3
NATIVE AMERICAN CONTACT PROGRAM RESPONSES

Contact/Tribe	Response
San Pasqual Band of Mission Indians	Responded on May 18, 2020; although the project is outside the boundaries of the recognized San Pasqual Reservation, it is within the area the Tribe recognized as it Traditional Use Area. The Tribes wishes to be kept in the information loop as the project progresses and receive reports of investigations or documentation of previously recorded sites' the Tribe may recommend monitoring pending the results site surveys and records searches.

4.0 SURVEY

4.1 SURVEY METHODOLOGY

On December 12, 2019, a pedestrian survey of the project site property on the south side of Callan Road and the off-site parcel located on the north side of Callan Road was conducted by HELIX staff archaeologist Mary Villalobos and Red Tail Kumeyaay Native American monitor Shuuluk Linton. Most of the approximately 22-acre project site property is developed, with the ground surface not visible due to the presence of buildings, paved parking lots, and aspects of landscaping such as lawn and planted shrubbery; consequently, these areas could not be surveyed. One area of the project property, the "preservation area", is not developed but contains a dense growth of mostly native sage scrub and chaparral plants. This preservation area represents less than 7 percent of the project site property. Because the vegetation in this area was very dense, systematic parallel-transect survey was not feasible (Plate 1). The method employed, therefore, consisted of walking through the brush, where possible, and observing any ground surface areas that were visible.

In the off-site parcel, a thick growth of native, southern mixed chaparral and Diegan coastal sage scrub vegetation was present in most areas (Plate 2), with bands of introduced eucalyptus woodland present along the western and southern margins of the parcel. As with the existing preservation area in the project property, because the density of this vegetation made systematic parallel-transect survey infeasible, the survey method employed consisted of walking through the brush where possible and observing any ground surface areas that were visible. Due to the very dense brush in both the project preservation area and the off-site parcel, ground visibility was mostly about 2 percent, with a few scattered pockets of 50 percent visibility. Leaf duff littered the ground throughout both locations. In some areas, the brush was too dense to get through, but most areas were accessible with effort. Both the project area and the of-site parcel were somewhat disturbed and contained scatterings of modern bottles, cans, and general trash, with several modern (i.e., non-historic age) cement-lined ditches present within the existing preservation area (Plate 3) and manholes indicating the present of a sewer line along the southern edge of the off-site property (Plate 4).

4.2 RESULTS

As discussed throughout this report and described in detail in Section 3.1.3 above, prehistoric site P-37-012581 has been previously documented with the project area. While the recorded boundary of this site, as defined by several archaeological investigators, has varied somewhat over time, a comprehensive testing program conducted by Eighmey and Cheever (1992) defined the site area to lie

predominately in the area of the Balit-CBC project buildings and associated paved parking lots, which lie just to west of the existing preservation area of the project property, as well as within the preservation area itself. They indicated that the existing preservation area contained a "heavy prehistoric surface scatter" (1992), but due to the high density of cultural material and apparent midden soil, very limited excavation was conducted in what is now the preservation area; rather this area was left in open space in order to avoid significant impacts to cultural resources (Eighmey, personal communication to Mary Robbins-Wade, 2020). As previously discussed, the area to the west of the preservation area contains large buildings and a paved parking lot, which precluded visual examination during the current survey. The existing preservation area was available to survey, and despite mostly poor visibility (generally less than 2 percent), three prehistoric cultural items (two metavolcanic flakes [Plates 5 and 6] and a light density scatter of marine shell [Plate 7]) were observed in the area. These materials were recorded and mapped but not collected. These were the only cultural materials observed during the survey within the project site property. The entire off-site parcel was available to survey, but visibility was poor, also mostly less than 2 percent, due to dense vegetation. No cultural materials were observed during the survey of the off-site parcel.

Plate 1. Dense vegetation in the existing preservation area; view south

Plate 2. Dense vegetation in the off-site property; view south

Plate 3. Cement-lined ditch in the existing preservation area; view north

Plate 4. Sewer line utility access hole along southern edge of the off-site property; view south

Plate 5. Metavolcanic flake #1 in P-37-012581 in the existing preservation area; plan view

Plate 6. Metavolcanic flake #2 in P-37-012581 in the existing preservation area; plan view

Plate 7. Scatter of marine shell fragments in P-37-012581 in the existing preservation area; plan view

4.2.1 Site Description: P-37-012581 (CA-SDI-12581 [SDM-W-6])

As described in detail in Section 3.1.3 above, a number of archaeological investigations have occurred at P-37-012581 since it was originally recorded by Rogers in the 1920s or 1930s, beginning with Rogers in 1920s and 1930s, followed by Carter in the 1950s (1957, 1982), Moriarty in the 1960s (in Carrico 1977b), Carrico in the 1970s (1977b), Eighmey and Cheever in the 1990s (1992), and Affinis in 1999. No mention of the occurrence of human remains is known from any of these investigations except during the unreported investigations by Moriarty in the early 1960s, as described in Carrico (1977b). Of these previous studies, the most extensive and most well-documented is the investigation by Eighmey and Cheever (1992). Based on the results of an extensive surface collection and mapping, and subsurface testing investigation at the site, they concluded that, while portions of the original site may have been destroyed and considerable disturbance has occurred in some of the remaining areas at the site, intact deposits, some as deep as 1.6 meters, were still present in some areas and that any such intact deposits still remaining represented significant cultural resources (1992:69). During the current field survey by HELIX, prehistoric cultural material was observed in the only area of the project within open ground, the current preservation area, despite the poor ground visibility in this area. The remainder of the recorded site boundary is currently obscured by buildings, paved parking lots, or lawn.

5.0 PROJECT IMPACTS AND SIGNIFICANCE OF IMPACTS

5.1 PROJECT IMPACTS

As shown in Figure 7 (*Location of P-37-012581 in Relation to Project Plan*, Confidential Appendix C), the project has been designed to avoid impacts to P-37-012581 to a large extent, through preservation within the existing open space/preservation area, as well as through repaving and restriping existing surface parking to improve the parking area without ground disturbance (see Figure 7). For the most part, proposed buildings and structures are outside the known site area, as determined by the 1992 testing program. A portion of the existing surface parking lot will be removed/excavated to accommodate a new parking structure, and another portion of the existing surface lot will be repaved/ regraded for a driveway. A section of the existing parking lot hardscape will be removed and is proposed as new planted area. It is anticipated that the elevation will be raised in this planted area adjacent to the new driveway to daylight. These impact areas are shown in Figure 7. Table 4, *P-37-012581: Acreage of Preservation/Avoidance and Impacts*, summarizes the acreage of the portions of P-37-012581 within the existing open space and the development footprint. As shown in this table, the proposed development encroaches into 21.3 percent of the archaeological site (0.54 acre). The portion of the archaeological site that will remain beneath the existing surface parking will be placed in a non-build easement, so as to avoid any future impacts to this preserved portion of the site.

Table 4
P-37-012581: ACREAGE OF PRESERVATION/AVOIDANCE AND IMPACTS

Portion of P-37-012581	Acreage	Percent of Total Site
Within existing open space (no impacts)	1.15	45.3
Within existing surface parking lot to remain as surface parking (no impacts)	0.85	33.4
Within impact area for driveway	0.18	7.1
Within impact area for parking structure	0.28	11.0
Within impact area, miscellaneous	0.08	3.2
Total site area	**2.54**	**100.0**

The vertical encroachment into the site is not possible to quantify based on available information. While the 1992 report graphically depicts areas with cultural deposits of 30 to 90 centimeters below surface and 30 to 160 centimeters below surface, the actual depths of cultural material are only provided for the first 11 of the 27 excavation units, half of which are outside the area identified as having significant deposits. It can be said that the majority of P-37-012581 has deposits to a maximum depth of 90 centimeters, with areas of deposits up to 160 centimeters in the southwestern portion of the archaeological site (see Figure 6). The encroachment/project impact for the driveway is in an area shown as having deposits to a depth of 160 centimeters, although no test units were excavated within the proposed driveway footprint. The vast majority of the area noted as deeper deposits will remain beneath surface parking and will not be subject to impacts.

The portion of the site that will be affected by the parking structure is depicted as having deposits up to 90 centimeters deep; test units excavated in this area were units 18, 20, and 21. Eighmey and Cheever (1992:50) noted, “In Units 18 and 20 these fill levels are especially complex, suggesting that these areas may have constituted a lower portion of the site to which various elements of the topsoil were transported and mixed with portions of graded subsoil”. Unit 21 was noted as having less of this disturbance. All three of these units exhibited soil group 2, midden soil, and none exhibited soil group 4, which appeared to be the most intact deposits.

In summary, while the vertical encroachment cannot be quantified, it appears that areas with the potentially deepest and most intact cultural deposits will remain beneath the existing surface parking and will be essentially capped, with the only encroachment into this area being for portion of the existing surface lot that will be regraded for a driveway and with no other future encroachment into these areas. However, although the upper levels of the portions of the site within the remainder of the development footprint have suffered disturbances, they retain significant research potential.

5.2 SITE SIGNIFICANCE

P-37-012581 was previously assessed as a significant resource under CEQA (Eighmey and Cheever 1992), and the existing open space was designed to protect what was thought to be the most significant portion of the site. Despite extensive past disturbance, the site

> has been demonstrated to retain an undisturbed stratigraphic component. Based on the quantity and quality of materials, the presence of intact deposits, the potential for Native American burials, and the potential role of this site in understanding regional

> settlement patterns, SDM-W-6 should be considered an important scientific resource [Eighmey and Cheever 1992:69].

Thus, the site would be now considered eligible for the CRHR and described as a historical resource under CEQA and the City's HRG.

5.2.1 Application of City HRB Significance Criteria

Per City guidelines, the site must be evaluated against the HRB significance criteria, which are presented in Section 1.3.2.2, *City HRB Significance Criteria* and addressed below. It must be noted that for the most part, these criteria are better suited to the evaluation of historic built environment resources than archaeological resources.

In order to be designated as a historical resource by the City's HRB, one or more of the following criteria must be met:

A. exemplifies or reflects special elements of the City's, a community's, or a neighborhood's, historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping, or architectural development;

B. identified with persons or events significant in local, state, or national history;

C. embodies distinctive characteristics of a style, type, period, or method of construction or is a valuable example of the use of indigenous materials or craftsmanship;

D. is representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist, or craftsman;

E. is listed or has been determined eligible by the National Park Service for listing on the National Register of Historic Places or is listed or has been determined eligible by the State Historical Preservation Office for listing on the State Register of Historical Resources; or

F. is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest, or aesthetic value or which represent one or more architectural periods or styles in the history and development of the City.

Criterion A: It is important to note that Criterion A states that a resource must exemplify or reflect special elements of development. Special elements of development refer to a resource that is distinct among others of its kind or that surpasses the usual in significance. For a resource to qualify under Archaeological Development, it must exemplify archaeological development through subsurface deposits and may include associated surface features. P-37-012581 has been demonstrated to contain deep deposits rich in cultural material with the potential to address important research questions; pockets of intact cultural deposits have been identified to depths of up 160 centimeters. Dr. James Moriarty described the site as one of the largest and richest of the La Jolla period that he had excavated and compared it to the Scripps Estates site (P-37-000525), which yielded a great deal of important research information, as well as human burials. Radiocarbon samples from Moriarty's excavation at P-37-012581 ranged from circa 4,500 to 6,000 years ago. Two shell samples from the 1992 excavation were submitted for radiocarbon analysis; these yielded dates of 7570 ± 60 B.P. and 6810 ± 60. Although

the variety of stone tools recovered in the 1992 excavation was somewhat limited, there was enough variety to address types of activities that took place at the site and possibly changes in activities over time. The shell and faunal bone assemblages also provide information regarding diet and dietary changes over time. In short, the site has the potential to address a variety of research avenues. Therefore, the site is eligible under Criterion A.

Criterion B: P-37-012581 is not associated with specific persons or events significant in local, state, or national history. Therefore, it is not eligible for HRB designation under Criterion B.

Criterion C: This criterion is generally applicable to built environment resources, rather than archaeological sites. Although "cobble hearths" and one housepit were noted by Rogers at W-6, no prehistoric cultural features have been definitively identified at P-37-012581 since Rogers' original work there in the 1920s-1930s, and the site does not embody distinctive characteristics of a style, type, period, or method of construction nor is it a valuable example of the use of indigenous materials or craftsmanship. As such, it is not eligible for HRB designation under Criterion C.

Criterion D: This criterion is similar to Criterion C and is not generally applicable to archaeological resources. As noted above, no definitive cultural features have been identified at P-37-012581, and the site is not representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist, or craftsman. Based on this, the site is not eligible for HRB designation under Criterion D.

Criterion E: The site is not listed nor has it been determined eligible by the National Park Service for listing on the NRHP; it is not listed nor has it been determined eligible by the OHP for listing on the CRHR. Therefore, P-37-012581 it is not eligible for HRB designation under Criterion E.

Criterion F: P-37-012581 does not constitute a finite group of resources related to one another in a clearly distinguishable way or a geographically definable area or neighborhood containing improvements which have a special character, historical interest, or aesthetic value or which represent one or more architectural periods or styles in the history and development of the City. Therefore, the site is not eligible for HRB designation under Criterion F.

5.2.2 Integrity

As previously discussed, in order to be eligible for HRB designation as a historical resource, a resource must not only meet one of more of the criteria outlined above, but it must retain some degree of integrity, that is, the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. In the case of P-37-012581, the period of significance is the entire period of use/occupation of the site.

As addressed in the *Guidelines for the Application of Historical Resources Board Designation Criteria:*

> The significant aspects of integrity for a property significant under Criterion A may vary depending upon the aspect of development for which the resource is significant. For instance, design, materials, workmanship, and feeling may be especially important for aspects of aesthetic, engineering, landscape, and architectural development. Location, setting, feeling and association may be especially important for aspects of historical, archaeological, cultural, social, economic, and political development. It is critical for the evaluator to clearly understand the context and why,

where, and when the property is significant in order to identify which aspects of integrity are most important to the resource [City of San Diego 2011:14].

- **Location:** P-37-012581 retains integrity of location, as evidenced by the results of the 1992 testing program. The site retains intact cultural deposits indicating that the cultural material associated with the site is in the location in which it was originally deposited.

- **Design:** "For an archeological site, integrity of design generally refers to the patterning of structures, buildings, or discrete activity areas relative to one another" (Little et al. 2000: 39). Although "cobble hearths" and one housepit were noted by Rogers at W-6, no cultural features or discrete activity areas were identified at P-37-012581 during the 1992 testing program, and features that may have existed prior to development have likely been destroyed Thus, integrity under this criterion cannot be assessed.

- **Setting:** Although P-37-012581 retains areas of intact cultural deposits, integrity of setting has been severely compromised by decades of development, beginning with the agricultural station in the early part of the twentieth century. For the past roughly 45 years, the site and its immediate surroundings have supported office and scientific research uses with associated infrastructure, parking lots, and landscaping features. Thus, the site does not retain integrity of setting.

- **Materials:** For resources that are significant due to research potential, "integrity of materials is usually described in terms of the presence of intrusive artifacts/features, the completeness of the artifact/feature assemblage, or the quality of artifact or feature preservation" (Little et al. 2000:41-41). Despite the disturbance to the site from grading/development and decades of use, P-37-012581 does retain areas of intact cultural deposits, and there is no evidence of instructive materials that have disrupted the site. Thus, the site retains integrity of materials.

- **Workmanship:** At archaeological sites for which significance is based on research potential, integrity of workmanship is generally addressed "indirectly in terms of the quality of the artifacts or architectural features. The skill needed to produce the artifact or construct the architectural feature is also an indication at of workmanship" (Little et al. 2000:41). At P-37-012581, the assemblage consists mainly of cobble-based tools, debitage, and ground stone implements; no finely made tools such as projectile points or beads were recovered, and no cultural features were identified. Thus, integrity of workmanship cannot be assessed for the site.

- **Feeling:** "A property has integrity of feeling if its features in combination with its setting convey a historic sense of the property during its period of significance" (Little et al. 2000:42). As previously addressed, P-37-012581 does not retain integrity of setting, and no cultural features were identified during the 1992 testing program; thus, the site does not retain integrity of feeling.

- **Association:** At sites significant for their research potential, "integrity of association is measured in terms of the strength of the relationship between the site's data or information and the important research questions" (Little et al. 2000:42). P-37-012581 appears to hold the potential to address important research questions with data already gathered and what can be gathered both from additional data recovery and from further analysis of existing collections. Thus, P-37-012581 retains integrity of association.

Although P-37-012581 does not retain integrity of setting or feeling, and integrity of design and workmanship cannot be assessed, it does retain integrity of location, materials, and association. Thus, the site retains enough integrity to qualify for HRB designation.

5.2.3 Summary of Significance and Integrity

In summary, P-37-012581 is eligible for HRB designation under Criterion A. As such, it is subject to Section 143.0253 of the City's Land Development Code. The project, as currently designed is in conformance with Section 143.0253, as encroachment into the important archaeological site is less than 25 percent (i.e., 21.3 percent). Impacts to the portion of the site that would not be preserved through avoidance would constitute significant impacts. Mitigation of impacts to the portion of the site within the development footprint would be accomplished through implementation of a data recovery program as discussed in Chapter 7, *Management Considerations*. The data recovery plan is presented in Chapter 6, *Research Design and Data Recovery Plan*.

6.0 RESEARCH DESIGN AND DATA RECOVERY PROGRAM

The research design and data recovery program shall be reviewed by Kumeyaay Native American representatives and shall be approved by City staff prior to implementation. Fieldwork for the data recovery program shall be completed prior to any ground-disturbing activity occurring within the mapped site boundaries of P-37-012581. The research design is modeled in part on a research design previously developed by Robbins-Wade and Gross (2009) and modified to address P-37-012581.

6.1 RESEARCH DESIGN

6.1.1 Chronology

Chronological control is critical to answering most of the kinds of questions that archaeologists ask. It is necessary to control for time in analysis of both intrasite and intersite patterning, for if the archaeological entities being compared are of different ages, they cannot be part of the pattern that results from the operation of a particular prehistoric cultural system.

Based on radiocarbon dating and the artifact assemblage, P-37-012581 appears to have been used/occupied during the Archaic (La Jolla) period.

> Based on this sample and additional information provided by Dr. Moriarty, this assemblage can be typologically assigned to the archaic coastal tradition, specifically the La Jolla culture complex. Until a proper radiocarbon series and larger sample are obtained, this assignment must be considered tentative. Based on general typological forms, no Late Prehistoric or Paleo-Indian associations have been detected on this site to date [Eighmey and Cheever 1992:67].

Radiocarbon analysis would be conducted to obtain dates on samples from the site. The 1992 testing program obtained two radiocarbon dates on individual shell samples. Submitting individual large shells or large pieces of charcoal for analysis is preferable to submitting bulk samples, to minimize the chance for error by grouping shell or charcoal that may be of different ages. Accelerator mass spectrometry

(AMS) analysis requires substantially less material than conventional radiocarbon dating; this is one option for samples from the site.

Question: What is the occupational history of P-37-012581? What is the range of dates of the occupation of the site?

Data requirements: Collection of suitable sample sizes of datable material, such as shell, charcoal, and/or obsidian, would be required. Radiocarbon samples from features are desirable as they would date the cultural features directly. A series of samples from the same unit would be useful, as would samples from several units across the site. Information from this data recovery project would be compared with data from previous work at nearby sites to refine the occupational history of the area.

Question: Is P-37-012581 contemporaneous with other nearby sites in the surrounding area?

Data requirements: Datable material at P-37-012581 and information on chronology from other sites that have been studied would be necessary.

6.1.2 Subsistence Strategies/Settlement Patterning

Subsistence strategies and settlement systems are interrelated to such a degree that it is difficult to address one without the other. The study of settlement patterning is dependent upon data from a number of sources, as settlement systems are the result of many interrelated factors. Variables involved include chronology, topographic setting, environmental conditions, essential food and nonfood resources, desirable (but nonessential) resources, and demographic arrangements. Understanding (or simply discerning) settlement patterning is dependent upon the archaeological visibility of elements of the settlement system. Archaeological visibility is a function not only of site type and history of use, but of natural and cultural site formation processes, both depositional and post-depositional.

As discussed in the 1992 testing report:

> SDI-12581 (SDM-W-6) represents a central node within the archaic period settlement patterns on the San Diego coast. It is at least spatially associated with a large variety of limited activity sites located along the margins of Torrey Mesa. Temporal, cultural, and functional relationships between these sites and major sites such as SDI-12581 (SDM-W-6) have not been addressed in detail and represent an important element in constructing models for archaic subsistence patterns [Eighmey and Cheever 1992:68].

Regarding subsistence, Eighmey and Cheever noted, “there is a real possibility that the relatively high survival rate of the shellfish remains has biased our assessments of these sites against ancillary procurement patterns. Analysis of the alternative resource use patterns should be part of any future research on these coastal sites. The remnant of SDI-12581 (SDM-W-6) may still be able to contribute important data to this end” (Eighmey and Cheever 1992:68).

Analysis of the variety of tools found at the site, as well as animal bone, shellfish, and other food remains, would be used to address subsistence and the types of activities that were undertaken at the site, which will help to elucidate the relationship of P-37-012581 with other sites on Torrey Mesa and the surrounding area. Pollen, starch, and macrobotanical analyses would be useful in addressing plant resources used. Blood protein residue analysis would complement faunal studies to address animal resources used by inhabitants of the site. Comparison of the assemblage and location of the site with

other sites that have been studied in the area will add to our understanding of the settlement system at work. Good chronological data is essential for addressing these research issues.

Eighmey and Cheever (1992) proposed that "large stands of Torrey pines may have provided a significant resource to La Jolla complex cultures and that the locations of these stands within estuary catchment basins formed important locational nodes within a long-lived foraging economy" (Eighmey and Cheever 1992:68). This line of research could be pursued through the analysis of pollen, starch, and macrobotanical samples.

Question: What were the subsistence practices at P-37-01581?

Data requirements: Faunal remains (shell and bone) and subsistence-related artifacts, such as milling equipment, various flaked stone tools, or projectile points, would be required to address this issue. Pollen, starch, and macrobotanical samples from ground stone could be used to address what plant resources were used at the site. Such samples from hearths or other in situ features would also be of value if encountered. Protein residue samples gathered from ground stone surfaces, projectile points, and the edges of various flaked stone tools could be used to address animal resources used by inhabitants of the site.

6.1.3 Trade and Travel

Trade networks are another important topic receiving attention in Southern California archaeological studies today. Exchange of material operates in a cultural system to provide for the flow of materials from areas of availability to areas of need and can form a network of links that are important in the social realm, as well. The nature and mechanisms of prehistoric exchange are important topics of research (Earle and Ericson 1977; Ericson and Earle 1982; Fry 1980).

Exchange is inferred in the archaeological record based on the distributions of non-local goods recovered at archaeological sites. The distribution of lithic raw materials that do not occur locally, such as obsidian and various types of chert, are indicative of trade networks or travel to bring these materials from a distance. Certain shell beads are also indicators of trade, as are some kinds of ceramics. Again, chronological control is necessary to understand these relationships, but the mere presence of such materials can indicate the potential for addressing these lines of inquiry. Other trade items may include shell artifacts from species that do not occur in local waters or foods that are considered desirable but are not found nearby (such as black oak acorns, as opposed to coast live oak acorns). No exotic materials were noted during the 1992 testing program, but Rogers' site record for W-6 noted a "Canalino chalcedony broken blade".

Laylander and Christenson (1988) have compiled information on obsidian exchange in San Diego County, which provides a context in which exchange in obsidian can be evaluated. Falloff in density of obsidian with distance from the source is suggested in these data. Patterning in the specific sources used as a function of time has also been suggested (Winterrowd 1987). These types of questions are addressed by sourcing and measuring hydration thickness on obsidian samples collected at sites. Although no obsidian was collected at P-37-012581 during the 1992 testing program, there is a potential that such material could be recovered during a data recovery program.

Besides the distribution of the obsidian, other aspects of exchange can also be addressed. Analysis of the nature of the obsidian items in terms of technology can yield interesting results. The ratio of finished tools to debitage will indicate whether obsidian was being brought to the site as tools or as raw

material. The nature of the debitage should indicate whether obsidian artifacts were repaired and rejuvenated more often than items of locally available raw materials. This type of technological analysis can be applied to other non-local raw materials as well.

Question: Is there evidence of trade at P-37-012581?

Question: Were items of non-local materials obtained as finished items or were they manufactured locally from traded raw materials?

Question: Were non-local items treated differently from those of local raw materials, as reflected by rejuvenation and repair frequencies?

Question: Is there a difference in obsidian sources used at different times in local prehistory?

Question: Does a falloff model describe the distribution of obsidian at San Diego County archaeological sites?

Data requirements: Exotic materials such as obsidian, various cherts, shell beads from the Chumash area, ceramic sherds made from desert clays, or *Olivella dama* beads (from the Gulf of California) would be required.

Obsidian source analysis would be important in addressing questions of trade and travel, as well as chronology (when combined with obsidian hydration). Lithic analysis should also focus on the identification of locally available metavolcanic material in the assemblage, both through chemical analysis and hand specimen identification. The abundance of raw material suitable for lithic tool manufacture in the vicinity of the site was probably a draw for native populations, but the presence of exotic material is indicative of trade and travel as well. It would be interesting to determine if metavolcanic material from other, non-local sources is present at the site, as well as the local raw material.

Debitage analysis will be necessary to address questions of rejuvenation of tools and ratios of tools to debitage of non-local materials.

6.1.4 Intrasite Variability

Studies of intrasite variability can be used to address settlement patterning in terms of activity areas and changes in site use over time. Per Eighmey and Cheever:

> The spatial distribution of the artifacts recovered during this investigation suggest that both horizontal and vertical patterning still exist with the recognized midden deposit (see Confidential Attachment 3). The resolution of the sample strategy used during this investigation is not sufficient to adequately define the precise nature and extent of such patterning, but it is evident that artifact classes within this assemblage are not uniformly distributed. It is also evident that these classes vary independently in their distribution within the site area. The effects of sample error, random variation, and bioturbation upon these patterns is currently unknown [Eighmey and Cheever: 58].

Question: Are discrete activity areas discernable at P-37-012581?

Data requirements: Good chronological control through radiocarbon dating is required, to differentiate between variations in the artifact assemblage and faunal remains across the site that reflect contemporaneous activity areas versus those variations due to changes in site use over time. Analysis of features, tool types, debitage, faunal remains, and plant remains (pollen, macrobotanical, etc.) would be used to address activity areas.

Questions: Do differences in artifact sets and faunal remains across the site reflect use of various locations within the overall site area by different groups either seasonally or over time?

Data requirements: Again, chronological control is an important key to addressing this question. Recognizing technological differences among artifact sets would be an important factor; therefore, debitage analysis and technological analysis of ground stone and flaked stone tools would be required. Seasonality can be addressed through analysis of faunal remains, including otoliths, if recovered. Macrobotanical analysis may also contribute to the question of season of use of various site areas.

6.2 DATA RECOVERY PROGRAM

As previously discussed, P-37-012581 has been subject to past disturbances in the form of agriculture, leveled pads, roadbeds, and other impacts. Figures in the 1992 testing report show the area of “heavy prehistoric surface scatter” has been disturbed by agriculture (this is the area that is now dedicated open space); the area of “moderate to heavy prehistoric surface scatter (where exposed)” is shown as disturbed by leveled pads, roadbeds, and “unknown, possibly agriculture". The report indicates that “all of the extant midden area has been subjected to disturbance near the surface and to various degrees below the surface” but that significant deposits with important research potential remain (Eighmey and Cheever (1992). The data recovery program will include the following measures.

1. Prior to the start fieldwork, a thorough review of the mapping of soil groups and artifact recovery from the 1992 testing program, to guide placement of initial excavation units;

2. Monitoring by an archaeologist and a Kumeyaay Native American monitor of removal of the existing asphalt/hardscape within the encroachment area in preparation for the data recovery excavation;

3. Excavation of an initial 2.5 percent sample of the portion of P-37-012581 within the development footprint; that is, 55 1-meter-by-1-meter excavation units (or the equivalent thereof), to identify intact deposits/cultural features and to provide a representative sample of cultural material present at the site;

4. Block excavation to expose cultural features, if such features are encountered; block excavation would be part of the initial 2.5 percent sample;

5. Based on the quantities and types of cultural material recovered in the original 2.5 percent sample and the finding of cultural features, additional excavation may be recommended, to be determined through discussion with City staff and the Kumeyaay Native American representative for the project. The additional sample size would be dependent upon the nature and amount of cultural material recovered and is expected to be an additional 2.5 percent sample;

6. Screening of all excavated soil, using 1/8-inch mesh screen;

7. Stockpiling of screened soil from each excavation unit; so that in the event that potential human remains are identified, soils from the unit in which such remains were identified can be water-screened;

8. Cleaning, sorting, cataloging, and analysis of all cultural material collected;

9. Analysis of faunal material recovered;

10. Analysis of flaked stone and ground stone tools;

11. Detailed analysis of a sample of debitage collected;

12. Obsidian sourcing and hydration analysis on a sample of artifacts, as appropriate;

13. Other lithic raw material sourcing on a sample of artifacts, as appropriate;

14. Radiocarbon analysis;

15. Other special studies, such as protein residue analysis, as applicable;

16. Preparation of a comprehensive report detailing the methods and results of the data recovery program;

17. Curation of the cultural material collected during the data recovery program, as well as collections from previous studies by RECON and Affinis, at the San Diego Archaeological Center or other suitable repository meeting state and/or federal curatorial standards.

7.0 MANAGEMENT CONSIDERATIONS

A study was undertaken to identify cultural resources that are present in the One Alexandria Square Project area to determine the effects of the project on historical resources (i.e., significant cultural resources) per CEQA and the City's HRG. The cultural resources records search, archival research, and field survey identified prehistoric cultural resource P-37-012581 within a portion of the proposed project area. As described throughout this report, beginning with Rogers in 1920s and 1930s, several archaeological investigations have occurred at the site. No mention of the occurrence of human remains is known from any of these investigations except during the unreported investigations by Moriarty in the early 1960s, as described in Carrico (1977b). Of these previous investigations, the most extensive and most well-documented is the investigation by Eighmey and Cheever (1992). Based on the results of an extensive surface collection and mapping, and subsurface testing excavations at the site, they concluded that, while portions of the original site have been destroyed and considerable disturbance has occurred in some of the remaining areas at the site, intact deposits, some as deep as 1.6 meters, were still present in some areas, and that any such intact deposits still remaining represented significant cultural resources (1992:69). The existing preservation area was designated as open space and planted with native vegetation (maritime chaparral) in order to preserve the area thought to contain the most intact deposits. Additional construction subsequent to the 1992 study has been monitored and/or subject to data recovery excavation in order to avoid/mitigate significant impacts.

As addressed in Chapter 5, *Project Impacts and Significance of Impacts*, P-37-012581 is a historical resource (i.e., significant cultural resource) under CEQA and the City's HRG. Therefore, impacts to the site would constitute significant effects and must be avoided or mitigated to below a level of significance. As currently proposed, the One Alexandria Square project would encroach 21.3 percent into the significant archaeological resource; it would avoid development within the existing preservation area, which was previously identified as the most significant area of the site, and would avoid ground disturbance in much of the existing surface parking area, in which significant deposits are effectively capped by the existing parking lot pavement. However, the project would have significant impacts; impacts to portions of P-37-012581 that would be affected by project development will be mitigated through the development and implementation of a research design and data recovery program, as described in Chapter 6, *Research Design and Data Recovery Program*.

7.1 MONITORING PROGRAM

Due to the potential for cultural material to be present outside the mapped boundaries of P-37-012581 and the potential for encountering significant cultural material even after the implementation of the data recovery program, a monitoring program is recommended for all ground-disturbing activity for the project. The monitoring program would follow the City's standard monitoring requirements and will include attendance by the Principal Investigator and Native American monitor at a preconstruction meeting with the grading contractor and City Mitigation Monitoring Coordination (MMC) staff, the presence of archaeological and Native American monitors during all ground-disturbing activities in areas with a potential for cultural material (not excavations into formational material). Both archaeological and Native American monitors will have the authority to temporarily halt or redirect grading and other ground-disturbing activity in the event that cultural resources are encountered. If significant cultural material is encountered, the monitors will coordinate with the applicant and City staff to develop and implement appropriate mitigation measures.

In the event that human remains are discovered, the County Coroner shall be contacted. If the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the NAHC, shall be contacted in order to determine proper treatment and disposition of the remains. All requirements of Health & Safety Code §7050.5 and PRC §5097.98 shall be followed.

Should the project limits change to incorporate new areas of proposed disturbance, archaeological survey of these areas will be required.

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Appendix A

Resumes of Key Personnel

Mary Robbins-Wade, RPA

Cultural Resources Group Manager

Summary of Qualifications

Ms. Robbins-Wade has 41 years of extensive experience in both archaeological research and general environmental studies. She oversees the management of all archaeological, historic, and interpretive projects; prepares and administers budgets and contracts; designs research programs; supervises personnel; and writes reports. Ms. Robbins-Wade has managed or participated in hundreds of projects under the California Environmental Quality Act (CEQA), as well as numerous archaeological studies under various federal jurisdictions, addressing Section 106 compliance and National Environmental Policy Act (NEPA) issues. She has excellent relationships with local Native American communities and the Native American Heritage Commission (NAHC), as well as has supported a number of local agency clients with Native American consultation under State Bill 18 and assistance with notification and Native American outreach for Assembly Bill 52 consultation. Ms. Robbins-Wade is a Registered Professional Archaeologist (RPA) and meets the U.S. Secretary of the Interior's Professional Qualifications for prehistoric and historic archaeology.

Education

Master of Arts, Anthropology, San Diego State University, California, 1990

Bachelor of Arts, Anthropology, University of California, Santa Barbara, 1981

Registrations/ Certifications

Caltrans, Professionally Qualified Staff-Equivalent Principal Investigator for prehistoric archaeology, , Bureau of Land Management Statewide Cultural Resource Use Permit (California), permit #CA-18-35, , Register of Professional Archaeologists #10294, 1991

County of San Diego, Approved CEQA Consultant for Archaeological Resources, 2007 , Orange County Approved Archaeologist, 2016

Selected Project Experience

12 Oaks Winery Resort (2015 - 2018). Project Manager/ Principal Investigator for a cultural resources survey of approximately 650 acres for a proposed project in the County of Riverside. Oversaw background research, field survey, site record updates, Native American coordination, and report preparation. Met with Pechanga Cultural Resources staff to discuss Native American concerns. Worked with applicant and Pechanga to design the project to avoid impacts to cultural resources. Work performed for Standard Portfolio Temecula, LLC.

28th Street between Island Avenue and Clay Avenue Utilities Undergrounding Archaeological Monitoring (2014 - 2018). Project Manager/Principal Investigator for a utilities undergrounding project in a historic neighborhood of East San Diego. Responsible for project management; coordination of archaeological and Native American monitors; coordination with forensic anthropologist, Native American representative/Most Likely Descendent, and City staff regarding treatment of possible human remains; oversaw identification of artifacts and cultural features, report preparation, and resource documentation. Work performed for the City of San Diego.

Archaeological Testing for the F11 (2015 - 2017). Project Manager for a cultural resources study for a proposed mixed-use commercial and residential tower in downtown San Diego. Initial work included an archaeological records search and a historic study, including assessment of the potential for historic archaeological resources. Subsequent work included development and implementation of an archaeological testing plan, as well as construction monitoring and the assessment of historic archaeological resources encountered. Work performed for the Richman Group of Companies.

Blended Reverse Osmosis (RO) Line Project (2018 - 2019). Project Manager/ Principal Investigator for cultural resources monitoring during construction of a 24-inch recycled water pipeline in the City of Escondido. Oversaw monitoring program, including Worker Environmental Awareness Training; responsible for Native American outreach/coordination, coordination with City staff and construction crews, and general project management. Work performed for the City of Escondido.

Borrego Springs Community Library IS/MND (2015 - 2016). Cultural Resources Task Manager/ Principal Investigator for a cultural resources survey for a proposed development consisting of a public library, park, and police substation for the County of San Diego. The project is proposed on a 20.5-acre site on undeveloped land in the Borrego Springs community.

Buckman Springs Road Bridge Widening Technical Studies (2017 - 2020). Senior archaeologist for a cultural resources survey in support of the proposed Buckman Springs Road Bridge Widening Project, entails the rehabilitation and widening of the existing bridge crossing of Buckman Springs Road over Cottonwood Creek (Bridge No. 57C-0270). The project proponent is the County of San Diego Department of Public Works (DPW), with local assistance funding from the Federal Highway Administration. Provided senior technical oversight and quality assurance/quality control on deliverables.

Buena Sanitation District Green Oak Sewer Replacement Project (2016 - 2017). Project Manager/Principal Investigator for a cultural resources testing program in conjunction with a proposed sewer replacement project for the City of Vista. Oversaw background research, fieldwork, site record update, Native American coordination, and report preparation. Work performed for Harris & Associates, Inc., with the City of Vista as the lead agency.

Cactus II Feeder Transmission Pipeline IS/MND (2017 - 2018). Cultural Resources Task Lead for this project in the City of Moreno Valley. Eastern Municipal Water District proposed to construct approximately five miles of new 30-inch to 42 inch-diameter pipeline; the project would address existing system deficiencies within the City and provide supply for developing areas. Oversaw background research, field survey, and report preparation. Responsible for Native American outreach for cultural resources survey. Assisted District with Native American outreach and consultation under AB 52. Work performed under an as-needed contract for Eastern Municipal Water District.

Dale 2199C Pressure Zone Looping Pipeline Project (2019 - 2019). Cultural Resources Task Lead for this project in Moreno Valley. Eastern Municipal Water District proposed construction of a new pipeline to connect two existing pipelines in the District's 2199C Pressure Zone. The pipeline would consist of an 18-inch-diameter pipeline between Kitching Street and Alta Vista Drive that would connect to an existing 12-inch-diameter pipeline in the northern end of Kitching Street and to an existing 18-inch-diameter pipeline at the eastern end of Alta Vista Drive. The project will improve reliability and boost the Dale Pressure Zone's baseline pressure and fire flow availabilities. Four potential alignments were under consideration; three of these bisect undeveloped land to varying degrees, while the other is entirely situated within developed roadways. Oversaw background research and field survey. Responsible for Native American outreach for cultural resources survey and co-authored technical report. Work performed under an as-needed contract for Eastern Municipal Water District.

Downtown Riverside Metrolink Station Track & Platform Project (2019 -). Cultural Resources Task Lead for this project involving changes to and expansion of the Downtown Riverside Metrolink Station. Overseeing records search and background information, archaeological survey, and report preparation. Responsible for coordination with Native American Heritage Commission, Riverside County Transportation Commission (RCTC), and Federal Transportation Authority (FTA) on Native American outreach. Work performed for Riverside County Transportation Commission as a subconsultant to HNTB Corporation.

Emergency Storage Pond Project (2018 - 2018). Project Manager/Principal Investigator for a cultural resources testing program in conjunction with the Escondido Recycled Water Distribution System - Phase 1. Two cultural resources sites that could not be avoided through project design were evaluated to assess site significance and significance of project impacts. Work included documentation of bedrock milling features, mapping of features and surface artifacts, excavation of a series of shovel test pits at each site, cataloging and analysis of cultural material recovered, and report preparation. The project is located in an area that is sensitive to both the Kumeyaay and Luiseño people, requiring close coordination with Native American monitors from both groups. Work performed for the City of Escondido.

Escondido Brine Line Project (2018 - 2019). Project Manager/Principal Investigator for cultural resources monitoring during construction of approximately 2.3 miles of a 15-inch brine return pipeline in the City of Escondido. The project, which is part of the City's Agricultural Recycled Water and Potable Reuse Program, enables discharge of brine recovered from a reverse osmosis facility that is treating recycled water; it is one part of the larger proposed expansion of Escondido's recycled water distribution to serve eastern and northern agricultural land. The project is located in an area that is sensitive to both the Kumeyaay and Luiseño people, requiring close coordination with Native American monitors from both groups. Oversaw monitoring program, including Worker Environmental Awareness Training; responsible for Native American outreach/coordination, coordination with City staff and construction crews, and general project management. Work performed for the City of Escondido.

Fox Tank Monitoring (2018 - 2019). Principal Investigator and Project Manager for the cultural resources monitoring program during construction of the Fox Tank Project. Oversaw the cultural resources monitoring program, including coordination with the District and the Native American tribal cultural monitors regarding cultural resources encountered during monitoring and their ultimate disposition. Work performed under an as-needed contract for Eastern Municipal Water District.

Hacienda del Mar EIR (2016 - 2020). Senior Archaeologist for a proposed commercial development project for a senior care facility in Del Mar. Assisted in the preparation of associated permit applications and an EIR. Oversaw background research, updated records search and Sacred Lands File search, monitoring of geotechnical testing, coordination with City staff on cultural resources issues, and preparation of updated report. Prior to coming to HELIX, served as Cultural Resources Task Lead for the cultural resources survey for the project, conducted as a subcontractor to HELIX. Work performed for Milan Capital Management, with the City of San Diego as the lead agency.

Haymar Easement Protection Project (2020 -). Cultural Resources Task Lead/Principal Investigator for an emergency repair project to protect a trunk sewer and associated access path badly damaged by erosion. Overseeing cultural resources monitoring during construction in this highly culturally sensitive area, including coordination with Luiseño tribal monitors and City staff.

Judson Potable Water Storage Tank and Transmission Pipeline IS/MND (2016 - 2019). Cultural Resources Task Lead for this project in the City of Moreno Valley. Eastern Municipal Water District is proposing the construction and operation of a steel, 2.2-million-gallon (MG) potable water storage tank, approximately 2,300 linear feet of 18-inch-diameter transmission pipeline, a paved access road, a detention basin, and other appurtenances to support tank operations. Oversaw background research and field survey. Responsible for Native American outreach for cultural resources survey and co-authored technical report. Assisted District with Native American outreach and consultation under AB 52. Work performed under an as-needed contract for Eastern Municipal Water District.

Lilac Hills Ranch (2014 - 2017). Project Manager/Principal Investigator of a cultural resources survey and testing program for an approximately 608-acre mixed-use development in the Valley Center area. Oversaw background research, field survey, testing, recording of archaeological sites and historic structures, and report preparation. Responsible for development of the research design and data recovery program, preparation of the preservation plan, and Native American outreach and coordination. The project also included recording historic structures, development of a research design and data recovery program for a significant archaeological site, and coordination with the Native American community and the client to develop a preservation plan for a significant cultural resource. The project changed over time, so additional survey areas were included, and a variety of off-site improvement alternatives were addressed. Work performed for Accretive Investments, Inc. with County of San Diego as the lead agency.

Moulton Niguel Water District Regional Lift Force Main Replacement (2017 - 2018). Cultural Resources Task Lead/Principal Investigator for the replacement of a regional lift station force main operated by Moulton Niguel Water District (MNWD). The project comprises an approximately 9,200 linear foot alignment within Laguna Niguel Regional Park in Orange County, in an area that is quite sensitive in terms of cultural resources. HELIX is supporting Tetra Tech throughout the preliminary design, environmental review (CEQA), and final design, including permitting with applicable state and federal regulatory agencies. The cultural resources survey will inform project design, in order to avoid or minimize potential impacts to cultural resources. Oversaw background research and constraints analysis, Native American coordination, cultural resources survey, coordination with MNWD and Tetra Tech, and report preparation. Work performed for MNWD, as a subconsultant to Tetra Tech.

Murrieta Hot Springs Road Improvements Project (2018 - 2020). Principal Investigator/Cultural Resources Task Lead for cultural resources survey in support of an Initial Study/Mitigated Negative Declaration (IS/MND) for the widening of Murrieta Hot Springs Road in the City of Murrieta. The project would widen or restripe Murrieta Hot Springs Road between Winchester Road and Margarita Road from a 4-lane roadway to a six-lane roadway to improve traffic flow, as well as provide bike lanes in both directions along this segment. A new raised median, light poles, signage, stormwater catch basins, retaining walls, and sidewalks would also be provided on both sides of the roadway, where appropriate.

The project area is in a location that is culturally sensitive to the Native American community. The cultural resources study included tribal outreach and coordination to address this cultural sensitivity.

Oceanside Water Utilities Dept On-Call Environmental Consulting Services, 2017-2022 (2018 - 2020). Cultural Resources Task Lead/Principal Investigator for three consecutive on-call contracts with the City of Oceanside Water Utilities Department. Oversees the preparation of cultural resource reports, coordinates with Native American tribes, and directs construction monitoring teams for projects as part of this contract. Project types include reservoirs, pump stations, lift stations, pipelines, and treatment plants.

Park Circle - Cultural Resources (2014 - 2019). Project Manager/Principal Investigator of a cultural resources survey and testing program for a proposed 65-acre residential development in the Valley Center area of San Diego County. The project is located along Moosa Creek, in an area that is culturally sensitive to the Luiseño people. Oversaw background research, historic study, field survey, testing, recording archaeological sites and historic structures, and report preparation. Responsible for Native American outreach and coordination. The cultural resources study included survey of the project area, testing of several archaeological sites, and outreach and coordination with the Native American community, as well as a historic study that addressed a mid-20th century dairy barn and a late 19th century vernacular farmhouse. Work performed for Touchstone Communities.

Peacock Hill Cultural Resources (2014 - 2017). Project Manager/Principal Investigator of a cultural resources study update for a residential development in Lakeside. Oversaw updated research, fieldwork, lab work, analysis by forensic anthropologists, report preparation, and Native American coordination. In the course of outreach and coordination with the Native American (Kumeyaay) community, possible human remains were identified, prompting additional fieldwork, as well as coordination with the Native American community and forensic anthropologists. Work performed for Peacock Hill, Inc.

Sky Canyon Sewer Environmental Consulting (2018 - 2019). Cultural Resources Task Lead for this project adjacent to the City of Murrieta in southwestern Riverside County. Eastern Municipal Water District (District) proposed to implement the Sky Canyon Sewer Main Extension Project to construct approximately 6,700 linear feet of new gravity-fed 36-inch-diameter sewer main to provide additional sewer capacity for planned development. The proposed 36-inch-diameter sewer main would extend the existing 36-inch-diameter French Valley Sewer at Winchester Road further downstream to Murrieta Hot Springs Road. Oversaw background research and field survey. Responsible for Native American outreach for cultural resources survey and co-authored technical report. Assisted District with Native American outreach and consultation under AB 52. Work performed under an as-needed contract for Eastern Municipal Water District.

Theodore G. Cooley, RPA

Senior Archaeologist

HELIX Environmental Planning

Summary of Qualifications

Mr. Cooley has over 45 years of experience in archaeological resource management. He has directed test and data recovery investigations, monitoring programs, and archaeological site surveys of large and small tracts, and has prepared reports for various cultural resource management projects. He is well-versed in National Historic Preservation Act, National Environmental Policy Act (NEPA), and California Environmental Quality Act (CEQA) regulations and processes. Mr. Cooley's experience also includes Native American consultation for monitoring of archaeological field projects, including some with human remains and reburial-related compliance issues.

Selected Project Experience

8016 Broadway Self Storage Project (2019 - Present). Senior Archaeologist for a Phase I pedestrian survey and cultural resource inventory program of the Lemon Grove Self-Storage project located in the City of Lemon Grove, San Diego County. Involvement included participation in the analysis of the results from the survey program and co-authorship of the technical report. Work performed for the Summit Environmental Group, Inc.

Briggs Road Walton Development Project (Assessor's Parcel Number 461-170-001) (2019 - Present). Senior Archaeologist for a Phase I pedestrian survey and cultural resource inventory program of the Briggs Road Residential project located in Riverside County. Involvement included participation in the analysis of the results from the survey program and co-authorship of the technical report. Work performed for the Walton International Group, LLC.

Brown Field and Montgomery Field Airport Master Plans (2019 - Present). Senior Archaeologist for Phase I cultural resource inventory and pedestrian survey programs at the Brown Field Municipal Airport and the Montgomery-Gibbs Executive Airport, in the City of San Diego, in support of updating of the Airport Master Plan and its Programmatic Environmental Impact Report. Involvement included participation in the analysis of the results from the survey programs and co-authorship of the technical reports. Work performed as a subconsultant to C&S Companies, with the City of San Diego as the lead agency.

Cubic Redevelopment Environmental Consulting (2019 - Present). Senior Archaeologist for a Phase I pedestrian survey and cultural resource inventory and assessment program in support of a 20-acre redevelopment project, located in the community of Kearny Mesa, City of San Diego. Involvement included participation in the analysis of the results from the survey program and preparation of the technical report. Work performed for Cubic Redevelopment Environmental Consulting, with the City of San Diego as lead agency.

Education

Master of Arts, Anthropology, California State University, Los Angeles, 1982

Bachelor of Arts, Anthropology, California State College, Long Beach, 1970

Registrations/ Certifications

Register of Professional Archaeologists #10621, 2019

City of San Diego, Certified Principal Investigator for Monitoring Projects

County or Riverside, Certified Cultural Resources Consultant Principal Investigator

County of Orange, Certified Cultural Resources Consultant Principal Investigator

County of San Diego, Approved Consultant for Archaeological Resources

Los Angeles, Ventura, San Luis Obispo, and Santa Barbara Approved Consultant

Theodore G. Cooley, RPA

Senior Archaeologist

French Valley 303 Project (2019 - Present). Senior Archaeologist for an archaeological construction monitoring program for the French Valley 303 Site residential development project, located in the French Valley area of unincorporated Riverside County. Involvement included participation in the analysis of the results from the monitoring program and co-authorship of the technical report. Work performed for Pulte Home Co., LLC.

Hiser Property Project (2019 - Present). Senior Archaeologist for a due diligence study prepared to summarize potential cultural resources constraints to the 9.2-acre Hiser Property development project, located in the Mission Gorge area of the City of Santee, San Diego County. The study consisted of background research including a record search and limited archival study, a field survey, and a review of the Sacred Lands File from the Native American Heritage Commission (NAHC). Involvement included participation in the analysis of the results and preparation of a summary letter report of the potential cultural resources-related constraints to the planned development. Work performed for KB Home.

Ponto Hotel Technical Studies (2019 - Present). Senior Archaeologist for a cultural resources assessment study for the Ponto Hotel development project in the City of Carlsbad, San Diego County, California. Involvement included participation in the analysis of the results from the assessment program and preparation of the technical report. Work performed for Kam Sang Company, with the City of Carlsbad as the lead agency.

R.M. Levy Water Treatment Plant Sewer Replacement (2019 - Present). Senior Archaeologist for a Phase I pedestrian survey and cultural resource inventory and assessment program in support of a water treatment plant, sewer pipeline, replacement project, located in the community of Lakeside, San Diego County. Involvement included participation in the analysis of the results from the survey program and preparation of the technical report. Work performed for HELIX Water District.

Salt Bay District Specific Plan EIR (2019 - Present). Senior Archaeologist for a Phase I pedestrian survey and cultural resource inventory program in support of the 46.6-acre Salt Bay Design District Specific Plan mixed-use wholesale/retail shopping and light industrial development project, in the cities of San Diego and Chula Vista. Involvement included participation in the analysis of the results from the survey program and co-authorship of the technical report. Work performed for M. & A. Gabaee, with the City of San Diego as lead agency.

San Jacinto Property Project (2019 - Present). Senior Archaeologist for a Phase I pedestrian survey and cultural resource inventory program of the 214 residential project located in Riverside County. Involvement included participation in the analysis

of the results from the survey program and co-authorship of the technical report. Work performed for the Walton International Group, LLC.

San Elijo Joint Powers Authority Roadway and Trail Addendum and Permitting (2019 - Present). Senior Archaeologist for Phase I cultural resource inventory, pedestrian survey, and resource testing at the San Elijo Water Reclamation Facility adjacent to San Elijo lagoon, in San Diego County, in support of the preparation by the San Elijo Joint Powers Authority of a Roadway and Trail Addendum for upgrades to the facility requiring verification of Nationwide Permit authorization from the U.S. Army Corps of Engineers (USACE). Involvement included participation in the analysis of the results from the survey and testing program and co-authorship of the technical report. Work performed as a subconsultant to Kimley-Horn & Associates, with the San Elijo Joint Powers Authority as lead agency.

Sycamore & Watson Project (2019 - Present). Senior Archaeologist for an archaeological construction monitoring program for the Sycamore & Watson residential development project, located in City of Vista, San Diego County. Involvement included participation in the analysis of the results from the monitoring program and preparation of the technical report. Work performed for Meritage Homes.

Sycamore Canyon/Goodan Ranch Public Access Plan IS/MND (2019 - 2019). Senior Archaeologist for Phase I pedestrian survey and cultural resource inventory in support of the preparation by the County of San Diego County Parks Department of a Public Access Plan for the Sycamore Canyon/Goodan Ranch Preserve located in coastal foothills of unincorporated west-central San Diego County. Involvement included participation in the analysis of the results from the survey program and co-authorship of the technical report. Work performed for the County of San Diego.

Sycuan/Sloane Canyon Trail IS/MND (2019). Senior Archaeologist for Phase I pedestrian survey and cultural resource inventory in support of the preparation by the County of San Diego County Department of a Parks and Recreation for the Sycuan/Sloane Canyon Trail project located in the coastal foothills of unincorporated southwestern San Diego County. Involvement included participation in the analysis of the results from the survey program and co-authorship of the technical report. Work performed for the County of San Diego.

The Enclave at Delpy's Corner Project (2019 - Present). Senior Archaeologist for a cultural resources monitoring and data recovery program in support of a proposed 124-unit townhome development project, in the City of Vista, San Diego County. Involvement included participation in the analysis of the prehistoric lithic artifacts and preparation of technical report sections containing the results of these analyses. Work performed for CalAtlantic Homes.

Mary Villalobos

Staff Archaeologist

HELIX Environmental Planning

Summary of Qualifications

Ms. Villalobos serves as a field archaeologist on a number of cultural resource projects in southern California, including surveys, testing programs, and monitoring. She has also served as a laboratory assistant for major universities, museums, and archaeological centers. She has expertise in cultural resource surveying, cataloging site excavation data, and monitoring. Ms. Villalobos' experience includes international work for a key archaeological project in Peru focused on a temple excavation.

Selected Project Experience

1125 S. Cleveland Street -Cultural & Native American Monitoring (2016). Archaeological monitor for a housing project in the City of Oceanside, CA. Responsible for field monitoring, coordination with construction crew and Native American monitors, identification of artifacts and cultural features, and daily field notes. Work performed for Hallmark Communities. Lead agency was City of Oceanside.

12 Oaks Winery Resort (2015 - 2018). Field Archaeologist for survey of an approximately 600-acre project near Temecula in Riverside County, CA. Responsibilities included identification of cultural material during field survey. Work performed for Standard Portfolio Temecula, LLC, with County of Riverside as the lead agency.

28th Street between Island Avenue and Clay Avenue Archaeological Monitoring (2016 - 2018). Archaeological Monitor for a utilities undergrounding project in a historic neighborhood of East San Diego, CA. Responsible for field monitoring, coordination with construction crew and Native American monitors, identification of artifacts and cultural features, and daily field notes. Work performed for the City of San Diego.

4th & J Project (2017). Archaeological monitor for a residential project in a historic neighborhood in the City of San Diego, CA. Responsible for field monitoring, coordination with construction crew and Native American monitors, identification of artifacts and cultural features, and daily field notes. Work performed for Legacy Partners, lead agency is City of San Diego.

Oceanside As-Needed Environmental Consulting Services (2015 - 2016). Archaeological Monitor for construction of a new facility at the Mission Basin Desalting Facility near the San Luis Rey River, in the City of Oceanside, CA. Responsible for field monitoring, coordination with construction crew and Native American monitors, identification of artifacts and cultural features, and daily field notes. Work performed for the City of Oceanside.

Education

Bachelor of Arts, Anthropology, concentration in Archaeology, University of California San Diego, CA, 2013

Registrations/ Certifications

Technical Safety Institute, HAZWOPER 40 Hour, Issue No. F183292: Hazardous Waste Operations and Emergency Response, 2018

City of San Diego As-Needed Permitting Assistance for O & M Activities and Emergencies (2016 - 2016). Archaeological monitor for the removal of sediment at culvert outlets at Hotel Circle, in the City of San Diego, CA, to help alleviate flooding in the area. Responsible for field monitoring, coordination with construction crew and Native American monitors, identification of artifacts and cultural features, and daily field notes. Work performed for the City of San Diego

Storage Buildings Construction Monitoring, San Marcos Campus (2017). Archaeological monitor for the construction of storage facilities on the campus of Palomar College in the City of San Marcos, California. Cultural resources are located near the project area. Responsible for field monitoring, coordination with construction crew and Native American monitors, identification of artifacts and cultural features, and daily field notes. Work performed for Palomar College.

Cemetery Area Water Pipeline Replacement (2015 - 2016). Archaeological Monitor for a water pipeline replacement project in eastern Escondido, CA. Responsible for field monitoring, coordination with construction crew and Native American monitors, identification of artifacts and cultural features, and daily field notes. Work performed for the City of Escondido.

Da Vinci (2018). Archaeological monitor during potholing to find existing utilities for the construction of a telecommunication tower. Responsible for field monitoring, coordination with construction crew, identification of artifacts and cultural features, and daily monitoring notes. Work performed for Terracon. Lead agency is Verizon.

DePratti, Inc. Telespan Lake Wohlford (2017). Field archaeologist for a testing program to determine the northern extent of an important archaeological site near Lake Wohlford in the community of Bear Valley in the County of San Diego, California. Responsibilities included excavation of test units, identification of cultural material, and preparation of field notes. Work performed for DePratti, Inc. Lead agency is County of San Diego.

El Camino Real Road Widening-Archaeological Monitoring (2016). Archaeological Monitor for a road widening project in an area with archaeological and cultural sensitivity in the City of Carlsbad, CA. Responsible for field monitoring, coordination with construction crew and Native American monitors, identification of artifacts and cultural features, and daily field notes. Work performed for the City of Carlsbad.

Magnolia Trails (2016). Archaeological Monitor for a residential development in the City of El Cajon, CA. Responsible for field monitoring, coordination with construction crew and Native American monitors, identification of artifacts and cultural features, and daily field notes. Work performed for KB Home. Lead agency was City of El Cajon.