SWCA
ENVIRONMENTAL CONSULTANTS

Archaeological Survey, Testing, and Evaluation of Three Bedrock Milling Feature Sites, and Evaluation of One-Built Environment Resource for the Stonemark Estates Project in Unincorporated San Diego County, California

Prepared for

Stonemark 26, LLC

Prepared by

SWCA Environmental Consultants

May 2008

ARCHAEOLOGICAL SURVEY, TESTING, AND EVALUATION OF THREE BEDROCK MILLING FEATURE SITES, AND EVALUATION OF ONE BUILT-ENVIRONMENT RESOURCE FOR THE STONEMARK ESTATES PROJECT IN UNINCORPORATED SAN DIEGO COUNTY, CALIFORNIA

Tentative Map: TM5479
DPLU Environmental Log Number: REZ 06-003

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USGS 7.5 Minute Topographic Quadrangle
San Marcos, CA (1968, Photorevised 1983)

SWCA Project No. 14004

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NATIONAL ARCHAEOLOGICAL DATA BASE INFORMATION

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Report Date:	May 2008
Report Title:	Archaeological Survey, Testing, and Evaluation of Three Bedrock Milling Feature Sites, and Evaluation of One Built-Environment Resource for the Stonemark Estates Project in Unincorporated San Diego County, California
Type of Study:	Archaeological survey, testing, and evaluation, and built-environment evaluation
New Sites:	CA-SDI-18742 (P-37-029301), CA-SDI-18743 (P-37-029302), CA-SDI-18744 (P-37-029303), P-37-029304, P-37-029305, and P-37-029306
Updated Sites:	None
USGS Quad:	San Marcos, CA (1968, Photorevised 1983)
Acreage:	*25.77 acres*
Permit Numbers:	TM5479; REZ 06-003
Key Words:	Phase I archaeological survey, Phase II testing and evaluation, built-environment resource evaluation, unincorporated San Diego County, CA-SDI-18742 (P-37-029301), CA-SDI-18743 (P-37-029302), CA-SDI-18744 (P-37-029303), P-37-029304, P-37-029305, and P-37-029306 (1240 Buena Vista Drive), significant archaeological sites, impacts less than significant with implementation of mitigation measures

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LIST OF ACRONYMS

AMSL	above mean sea level
APE	Area of Potential Effects
CEQA	California Environmental Quality Act
CRHR	California Register of Historical Resources
DPR	Department of Parks and Recreation
GIS	Geographic Information Systems
GPS	Global Positioning System
Local Register	San Diego County Local Register of Historical Resources
Ma	megaannum
NAHC	Native American Heritage Commission
NRHP	National Register of Historic Places
NAD27	North American Datum of 1927
PRB	Peninsular Ranges Batholith
PRC	Public Resources Code
RPO	San Diego County Resource Protection Ordinance
SCIC	South Coastal Information Center
SDMM	San Diego Museum of Man
STPs	Shovel test pits
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
WAAS	Wide Area Augmentation System
WPLT	Western Pluvial Lakes Tradition

EXECUTIVE SUMMARY

Purpose and Scope: Stonemark 26, LLC retained SWCA Environmental Consultants (SWCA) to prepare a cultural resources technical report that included the results of a Phase I archaeological survey conducted by BonTerra Consulting (BonTerra) and the results of Phase II archaeological testing and evaluation of three bedrock milling feature sites and the evaluation of one built-environment resource located on the Stonemark Estates property. This cultural resources study, prepared in support of the proposed Stonemark Estates project, has adhered to recent County of San Diego requirements (County of San Diego 2006, 2007).

Dates of Investigation: BonTerra requested the required literature searches on December 10, 2007. The California Historical Resources Information System records search and the San Diego Museum of Man records search were both conducted on December 11, 2007. The County of San Diego initiated a search of the Native American Heritage Commission's Sacred Lands File for traditional cultural resources and requested a list of Native American contacts. The County of San Diego consulted with local Native American groups on November 19, 2007. An archaeological survey of the Area of Potential Effects (APE) was conducted by BonTerra on January 4, 2008. SWCA conducted archaeological field work on February 20-21, 2008 in order to record and test the archaeological resources identified by BonTerra. SWCA recorded the built environment resource on February 15, 2008.

Findings of the Investigation: The records and literature search indicated that 14 cultural resources have been previously documented within the 1-mile search radius. The closest resource, W-3911, is an isolated bedrock milling feature that is located approximately 800 feet north of the project area; no other artifacts or midden were observed in the vicinity of the feature. The three next closest resources, CA-SDI-4930, CA-SDI-5792, and CA-SDI-9503, are within ½ mile of the project area; all are prehistoric archaeological sites. The Sacred Lands File search revealed that no Native American cultural resources are known in the project area. In addition, only one of the Native American contacts, the Pala Tribe, responded to the County's request for knowledge of Native American sacred lands or traditional cultural properties within the immediate project area. The Pala Tribe responded with no comments.

Three prehistoric bedrock milling feature sites (CA-SDI-18742, CA-SDI-18743, and CA-SDI-18744), two isolated prehistoric artifacts (P-37-029304 and P-37-029305), and one built environment resource (P-37-029306) were identified in the APE as a result of the archaeological survey. All but one resource (CA-SDI-18743) are located within the grading limits and will be destroyed as a result of implementation of the proposed project. Bedrock milling feature site CA-SDI-18743 is located within a proposed open space easement area outside of, but immediately adjacent to the proposed grading limits of the project.

Sites CA-SDI-18742, CA-SDI-18743, and CA-SDI-18744 are bedrock milling features with no associated surface artifacts and are considered significant under Criterion 4 of the California Register of Historical Resources (CRHR) and the Local Register. However, subsurface testing at each of the sites determined that they do not contain a subsurface cultural component. The lack of a significant subsurface deposit or the absence of subsurface components altogether, combined with the exhaustive recording of surface artifacts and bedrock milling features, indicates that these sites are not likely to yield additional information important to the further understanding of the prehistory of San Diego County beyond what has already been documented herein. The results of testing at these sites indicate that they are not significant cultural resources under the County's Resource Protection Ordinance (RPO). These cultural resources are evaluated as significant; however, impacts have been mitigated to a level below significant by recording, testing, and interpretation of the sites. Therefore, any impacts to these sites incurred through the Proposed Project would not be significant under CEQA or the County's RPO. However, because avoidance is the preferred mitigation strategy under CEQA and Site CA-SDI-18743 is located within a proposed open space easement area, SWCA recommends that Site CA-SDI-18743 is avoided.

Two isolates, P-37-029304 and P-37-029305, were discovered within the project area. Isolates, by definition, lack immediate cultural context and therefore lack the data potential required for consideration of eligibility for inclusion in the CRHR or Local Register, and do not meet the criteria for significance under the County's RPO. These resources are considered not significant. Therefore, any impacts to these isolates would be considered not significant under CEQA or the County's RPO.

The 1240 Buena Vista building and garage (P-37-029306) was found not eligible for the CRHR or the Local Register under any of the significance criteria and is not considered a significant cultural resource under the County's RPO, because the house has been substantially altered over the years, resulting in a lack of integrity. Alterations to the house include two room additions, and two different types of asphalt roof material which have totally altered the original appearance of the building. The altered residence does not retain requisite integrity of attributes, design, materials, or workmanship for consideration. The resource is not associated with events that have made a significant contribution to broad patterns of California's history and cultural heritage, it does not have a direct association with someone important to our past, it does not embody the distinctive characteristics of a type, period or region, construction method, represent work important creative persons, high artistic values or contain information important in prehistory or history. Thus, the investigations by SWCA determined that the buildings are not historically significant and any impacts to them would not be significant under CEQA or the County's RPO.

Investigation Constraints: The project site has been used for agricultural purposes and has been grazed extensively. The Phase II archaeological testing program occurred during a light rain.

Recommendations: Two sites considered significant under the CRHR and the Local Register, CA-SDI-18742 and CA-SDI-18744, are within the grading limits and will be destroyed as a result of the proposed project. Impacts to these sites have been mitigated to a level of less than significant by recording and testing; therefore, any impacts to them incurred through the Proposed Project would not be significant under CEQA or the County's RPO. No additional mitigation is recommended.

A third site, CA-SDI-18743, also considered significant under the CRHR and the Local Register, is located in a proposed open space easement area, just outside of the grading limits of the proposed project. Avoidance is the preferred mitigation strategy for archaeological resources and is the recommended treatment for Site CA-SDI-18743 because of its location within a proposed open space easement area. The site's proximity to the grading limits could potentially result in indirect impacts to this resource and potentially result in direct impacts should the grading area be inadvertently extended in the direction of the site. Protection of the resource through the installation of an orange construction/safety fence between the grading limits and the bedrock outcrop will prevent damage by construction-related activities. Therefore, temporary fencing will be placed around the site during grading to ensure that the site is protected will further lessen the significance level of impacts to cultural resources.

In addition to the three prehistoric archaeological sites and two isolated prehistoric artifacts recorded within the project area, 12 prehistoric resources are known from the surrounding area (within one mile). These data indicate that the project area and its vicinity are highly sensitive for prehistoric archaeological resources. Due to the sensitivity of the project's vicinity, there exists the potential for buried archaeological deposits to occur within the project area; therefore, archaeological monitoring is warranted for this project. Implementation of a grading monitoring and data recovery program would further reduce potentially significant impacts to a less than significant level.

Finally, the project must comply with the San Diego County Grading, Clearing, and Watercourse Ordinance (§87.101-87.804), CEQA §15064.5(d), and §7050.5 of the Health & Safety Code in order to further reduce potentially significant impacts. Section 87.429 of the Grading, Clearance and Watercourse

Ordinance requires the suspension of grading operations when human remains or Native American artifacts are encountered.

Disposition of Data: This report will be filed with the County of San Diego Land Use and Environment Group, the South Coastal Information Center at San Diego State University, San Diego Museum of Man, Stonemark 26, LLC, and the South Pasadena, California, office of SWCA Environmental Consultants. All field notes, photographs, and records related to the current study are on file at SWCA's South Pasadena, California, office.

1.0 INTRODUCTION

This report presents the results of cultural resource studies conducted in support of the proposed Stonemark Estates project (project), located in unincorporated San Diego County, California. The study was initiated by BonTerra Consulting (BonTerra) and completed by SWCA Environmental Consultants (SWCA). BonTerra initiated the literature search and conducted the archaeological survey of the project area, the County of San Diego (County) initiated the Native American consultation, and SWCA conducted an archaeological testing and significance evaluation program at three bedrock milling feature sites, and evaluated one built-environment resource within the project area. The purpose of this study was to identify any cultural resources that may be located on the property and to evaluate those resources for historical significance in order to determine project impacts to significant cultural resources.

The format of this report follows the County's Report Format and Content Requirements for Cultural Resources: Archaeological and Historic Resources (County of San Diego 2007).

1.1 PROJECT DESCRIPTION

The proposed project is located on Assessor's Parcel Number 169-200-20-00, just east of the intersection of Buena Vista Drive and Mar Vista Drive in an area known as Sunset Island, in unincorporated San Diego County, California. The project is shown in Figure 1 on the U.S. Geological Survey (USGS) 7.5' San Marcos Quadrangle (1968; photorevised 1983) and is located in Section 31 of Township 11 South, Range 3 West, and Section 36 of Township 11 South, Range 4 West. The subject property is approximately 25.77 acres in size and currently contains a single family dwelling and an associated detached garage/storage building in a small portion of the property. The remainder of the parcel contains vacant land that is used for agriculture and livestock grazing. The proposed project will involve the demolition of the existing residence and clearing/grubbing of the property in order to develop 21 minimum one-acre lots there. Development will encompass the entire 25.77 acre property and will include improvements to Buena Vista Drive at the northwestern edge of the property and the extension of Park Hill Road from Oak Glen to Buena Vista Drive. All public utilities are currently available to the site. The development will be consistent with the North County Metropolitan Subregional Plan Area. No open space is proposed. The project site plan is included in Appendix A.

The Area of Potential Effects (APE) encompasses the entire 25.77-acre parcel. The area surrounding the project consists primarily of vacant land to the east, a modern residential development to the south, and rural residential properties to the north and west.

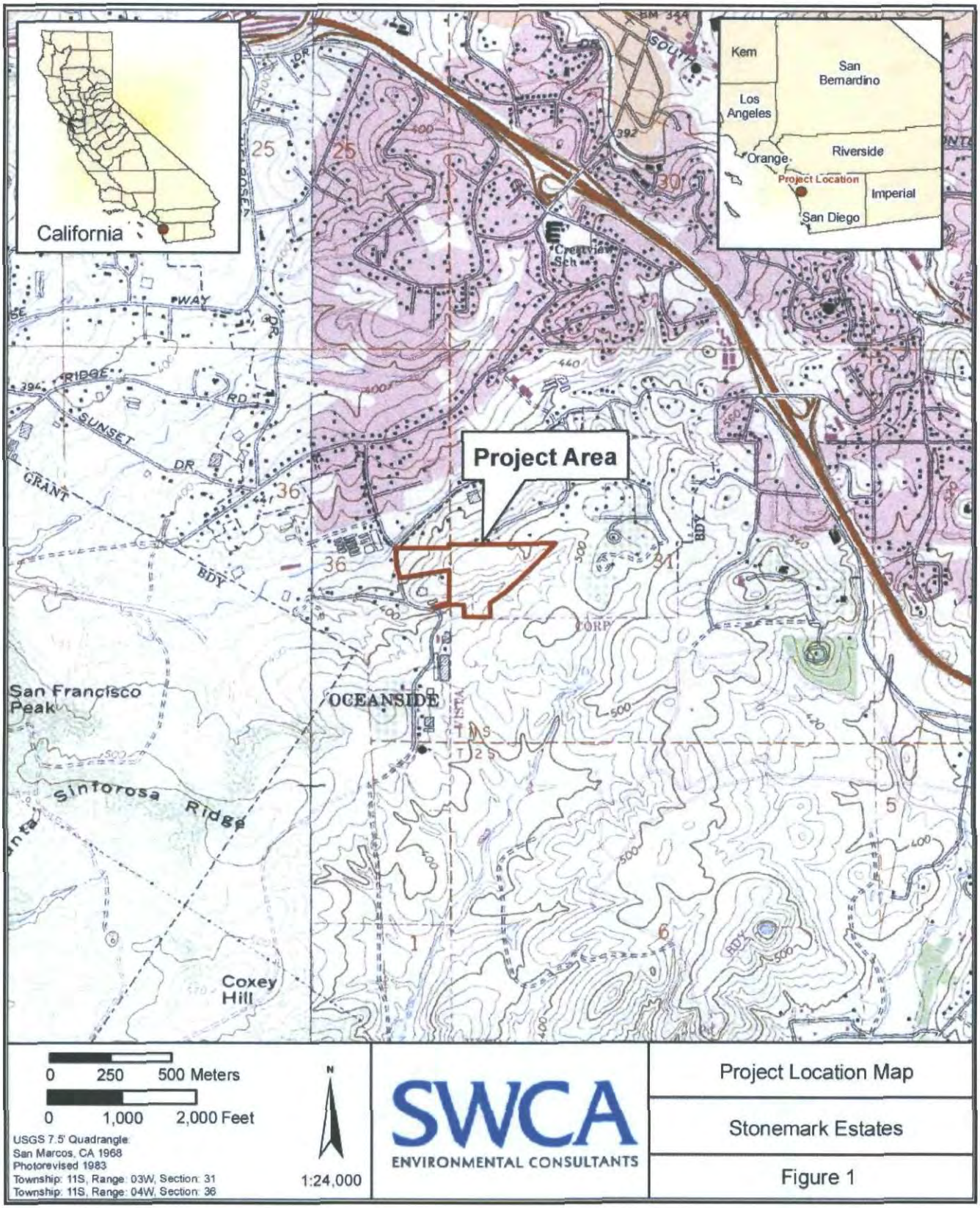


Figure 1. Project Location Map

1.2 EXISTING CONDITIONS

1.2.1 Environmental Setting

Natural Setting

The following discussion details the natural setting of the project area vicinity, including its physiography, hydrology, geology, climate, and ecology. Overview photographs of the project area are provided in Photographs 1-3.

Physiography and Hydrology

The project site is located within the northern region of the Peninsular Ranges province, which extends north to the foothills of the San Bernardino and Santa Monica Mountains, and south to the 28th parallel in Baja California, Mexico. The project area is situated in the Carlsbad Hydrologic Unit approximately 2.4 kilometers (1 ½ miles) southeast of Buena Vista Creek and approximately 3.2 kilometers (2 miles) north of Agua Hedonia Creek, The Buena Vista Creek watershed empties into Buena Vista Lagoon, and receives water from the southwestern flanks of the San Marcos and Merriam Mountains and the flanks of the several smaller hill ranges surrounding the creek. Agua Hedonia Creek water shed empties into Agua Hedonia Lagoon. Elevations within the project area range from approximately 110 to 152 meters (360 to 500 feet) above mean sea level (AMSL).

Geology

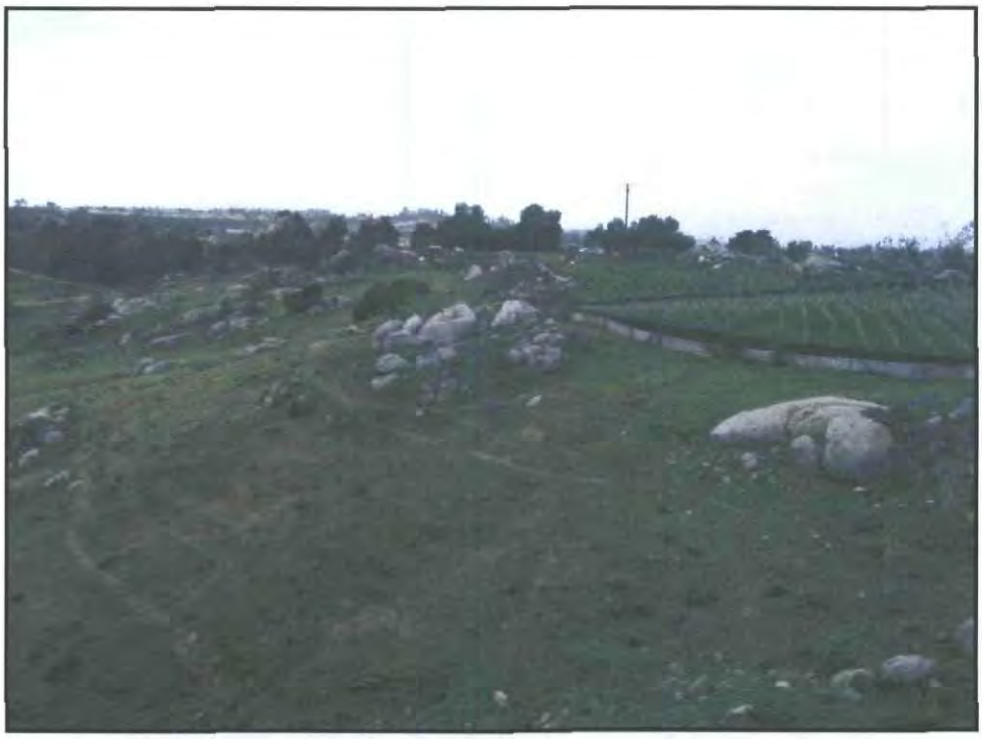
The oldest and most prominent geologic unit within the project area is Cretaceous age granitic rock (Tan and Kennedy 1996). The Cretaceous Period lasted from approximately 142 to 65 million years ago (Ma), during a time when the greatest volume of plutonic rocks in San Diego County and elsewhere in the Peninsular Ranges province formed. During much of this period, an eastward-moving oceanic plate was subducting beneath the western border of North America creating massive amounts of magma (Abbott 1999) that are now observed as the plutonic igneous rocks comprising mountains in San Diego such as the Laguna, In-Ko-Pah, and Jacumba mountains (Walawender 2000). These and other north-northwest trending mountain ranges are a part of the larger Peninsular Ranges Batholith (PRB).

The PRB consists of a 125-million-year-old mixture of igneous and metamorphic rocks, about 100 km wide and 1,000 km in length (Walawender, 2000). Tonalite underlies approximately 50 to 60 percent of the western zone of the PRB, therefore making it the most abundant component of the batholith. In general, tonalite consists of 70 percent plagioclase and quartz and 30 percent biotite, hornblende, and pyroxene. The radiometric ages of San Diego County's tonalite plutons have been determined utilizing the zircon U-Pb radiometric dating. They range in age from 102 Ma to 109 Ma, plus or minus one million years (Walawender 2000).

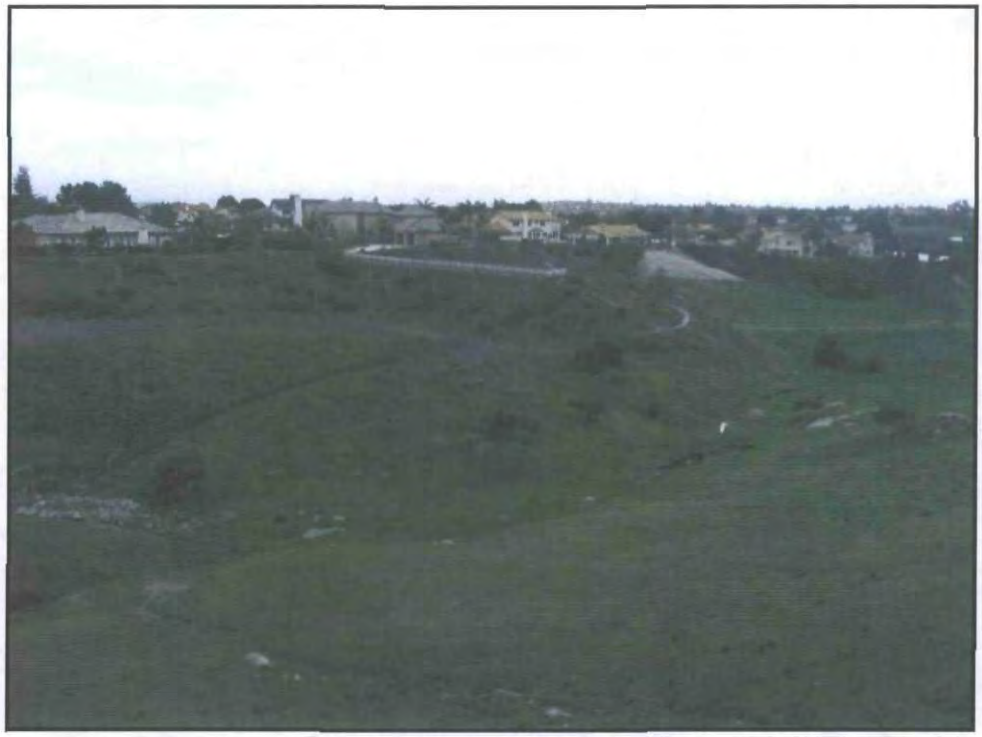
Within the northwestern portion of the project area and to the west and south of the project area is the Santiago Formation of Eocene age. The Santiago Formation, deposited approximately 40 to 49 Ma, is composed of poorly bedded, poorly indurated medium grained sandstone with interbeds of claystone and siltstone. This formation is broadly correlative with the majority of the middle Eocene stratigraphic units occurring in San Diego County (Demere and Walsh 2003). Within the project area, the Santiago Formation is locally coarse grained and conglomeratic and interfingers with Torrey Sandstone (Tan and Kennedy 1996).

Climate

The climate of the project vicinity is characterized by the Mediterranean climate typical of coastal southern California. The area is characterized by hot, dry summers and cool, wet winters. Annual precipitation for the area averages approximately 11 inches. Average winter temperatures ranges from 45 to 55 degrees F, and average summer temperatures average from 60 to 74 degrees F. The area typically receives westerly winds off of the Pacific Ocean. The current Mediterranean climatic conditions did not prevail during the entire span of time that humans have been present in the area.



Photograph 1. Overview of subject property, view to the northwest.



Photograph 2. Overview of subject property, view to the west.

Photograph 3. Overview of subject property, view to the east.

Ecology

Vegetation Communities

The project area currently consists of agricultural fields and pastureland. Vegetation within the entire project area has been highly modified from native vegetation to a nonnative vegetation community dominated by nonnative grassland species typical of pasturelands, including brome grasses (*Bromus* spp.), wild oats (*Avena* spp.), black mustard (*Brassica nigra*), and redstem filaree (*Erodium cicutarium*).

Prior to this intensive modification to native vegetation, local vegetation communities present within the vicinity included coast live oak woodland, Diegan coastal sage scrub, and valley and foothill grassland in upland habitats and southern riparian scrub along drainages (Holland 1986, Oberbauer 1996). This is evident in remnant patches of vegetation observed throughout the vicinity. Both upland and riparian habitats were probably present within the project area prior to disturbance. Common species that occur in these communities, along with their cultural significance, are summarized in Table 1.

Table 1. List of Plant Species in the General Project Area, the Edible Parts and Seasons/Months of Availability

Common Name	Scientific Name	Edible Part (medicinal uses not considered)	Season Available
Coast Live Oak Woodland Vegetation			
Toyon	*Heteromeles arbutifolia*	Edible berries	Winter (Dec.-March)
Laurel sumac	*Malosma laurina*	Edible dried, mashed raw fruit	Fall (Sept.-Dec.)
Coast live oak	*Quercus agrifolia*	Processed acorns (*Most important food source)	Summer (June-Sept.)
Scrub oak	*Quercus berberidifolia*	Processed acorns	Summer (June-Aug.)
Blackberry	*Rubus ursinus*	Edible berries	Summer (June-Sept.)
Poison-oak	*Toxicodendron diversilobum*	None known	
Diegan Coastal Sage Scrub Vegetation			
Chamise	*Adenostoma fasciculatum*	None known	
California sagebrush	*Artemisia californica*	Leaves used in cooking as a spice and can also be made into tea.	Late winter- mid-summer (Feb.-July)
California buckwheat	*Eriogonum fasciculatum*	Seeds are eaten raw and ground into meal.	Early fall (Sept.-Oct.)

Table 1. List of Plant Species in the General Project Area, the Edible Parts and Seasons/Months of Availability (Continued)

Common Name	Scientific Name	Edible Part (medicinal uses not considered)	Season Available
Deer weed	*Lotus scoparius*	None known	
Laurel sumac	*Malosma laurina*	Edible dried, mashed raw fruit	Summer (June-Sept.)
Bush monkeyflower	*Mimulus aurantiacus*	None known	Not Applicable
Coast prickly-pear	*Opuntia littoralis*	Edible fruits and succulent pads	Late summer-early fall (Aug.-Oct.)
Branching phacelia	*Phacelia ramosissima*	Leaves used as cooked greens	Late winter, spring (Jan-June)
Lemonade berry	*Rhus integrifolia*	Edible mashed and dried berries	Late summer (July-Sept.)
Sugar bush	*Rhus ovata*	Edible mashed and dried berries	Late summer (July-Sept.)
Currant, Gooseberry	*Ribes* spp.	Edible berries	Summer (June-Sept.)
White sage	*Salvia apiana*	Seeds are eaten raw, cooked, or are ground into a meal. Leaves used in cooking as a flavoring. Young stalks and stem tops can be eaten raw.	Seeds: Summer (June-Sept.) Leaves: Spring (March-June) Stalk/stems: Spring (March-June)
Purple sage	*Salvia leucophylla*	Edible seeds, leaves used for teas	Seeds: Late summer (Aug.-Sept.) Leaves: Spring- mid-summer (March-July)
Black sage	*Salvia mellifera*	Edible seeds, leaves used for teas	Seeds: Late summer (Aug.-Sept.) Leaves: Spring- mid-summer (March-July)
Mexican elderberry	*Sambucus mexicana*	Flowers and fruits can be eaten raw or cooked	Flowers: Mid-spring – early summer (April-July) Fruit: Late summer-fall (Aug.-Oct.)
Chaparral yucca	*Yucca whipplei*	Fruit eaten raw or cooked. Flowering stem eaten raw or cooked. Seed can be ground into a powder or cooked.	Flowers and stalk: Spring (March-June) Seed: Late Summer (Aug.-Sept)

Table 1. List of Plant Species in the General Project Area, the Edible Parts and Seasons/Months of Availability (Continued)

Common Name	Scientific Name	Edible Part (medicinal uses not considered)	Season Available
Valley and Foothill Grasslands Vegetation			
Common goldenstar	*Bloomeria crocea*	Bulb	Spring- mid-summer (March-July)
Blue dicks	*Dichelostemma capitatum*	Bulb	Spring- mid-summer (March-July)
Blue wildrye	*Elymus glaucus*	Seeds can be eaten raw or ground into a flour	Late summer (Aug.-Sept.)
California fescue	*Festuca californica*	Seeds can be eaten raw or ground into a flour	Late summer (Aug.-Sept.)
Junegrass	*Koeleria macrantha*	Seeds can be eaten raw or ground into a flour	Late summer (Aug.-Sept.)
Needlegrass	*Nassella* spp.	Seeds can be eaten raw or ground into a flour	Late summer (Aug.-Sept.)
One-sided bluegrass	*Poa secunda*	Edible seeds	Late summer (Aug.-Sept.)
Purple sanicle	*Sanicula bipinnatifida*	Corms (storage-root) are eaten raw or cooked	Early summer (June-July)
Chia	*Salvia columbariae*	Edible seeds	Late spring and summer (April-Aug.)
Southern Riparian Scrub Vegetation			
Mugwort	*Artemisia douglasiana*	Leaves are eaten and used as a tea	Year-round
Coyote brush	*Baccharis pilularis*	None known	
Mulefat	*Baccharis salicifolia*	Cooked young leaves	Spring (March-June)
California sycamore	*Platanus racemosa*	Sap used as sweetener/syrup	Spring (March-June)
Fremont cottonwood	*Populus fremontii*	Catkins eaten raw or cooked.	Late winter-Spring (Feb.-June)
Narrowleaf willow	*Salix exigua*	Leaves used to make juice	Spring-early fall (March-Oct.)
Arroyo willow	*Salix lasiolepis*	None known	
Mexican elderberry	*Sambucus mexicana*	Flowers and fruits can be eaten raw or cooked	Flowers: Mid-spring – early summer (April-July) Fruit: Late summer-fall (Aug.-Dec.)

*The table was created from information contained in Anderson 2005, Heizer 1978, and Hickman 1993.

Faunal Resources

Wildlife species common to the vegetation communities in the vicinity of the project and available for exploitation by the local prehistoric peoples would have included mule deer (*Odocoileus hemionus*), cottontail (*Sylvilagus auduboni*), black-tailed jackrabbit (*Lepus californicus*), wood rats (*Neotoma* spp.), California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), and various species of reptiles, including western pond turtle (*Emys marmorata*). Predators include mountain lion (*Felis concolor*), coyote (*Canis latrans*), gray fox (*Urocyon cineroagenteus*), and bobcat (*Lynx rufus*).

Cultural Setting

Prehistoric Overview

California prehistory is divided into three broad temporal periods that reflect similar cultural characteristics throughout the state: Paleoindian Period (ca. 10,000–6000 B.C.), Archaic Period (6000 B.C.–A.D. 500), and Emergent Period (A.D. 500–Historic Contact). The Archaic is divided further into Lower (6000–3000 B.C.), Middle (3000–1000 B.C.), and Upper (1000 B.C.–A.D. 500) Periods, generally governed by climatic and environmental variables, such as the drying of pluvial lakes at the transition from the Paleoindian to the Lower Archaic.

The project area lies in what generally is described as the San Diego subregion of the Southern Coast Archaeological Region, which is one of eight arbitrary organizational divisions of the state (Moratto 1984:Fig. 1). This subregion extends southward along the coast from Santa Monica Bay to the border with Mexico, and includes southern Los Angeles County, all of Orange County, the southwest corner of San Bernardino County, and western Riverside and San Diego Counties.

Numerous chronological sequences have been devised to understand cultural changes for various areas within southern California over the past 75 years or more (e.g., M.J. Rogers 1939, 1945, 1966; Wallace 1955, 1978; Moriarty 1966; Warren 1967, 1968; also see Moratto 1984).

Since the project area is within the San Diego subregion of the Southern Coast Archaeological Region, the following prehistoric overview is provided. The following framework is divided into three major periods: Paleoindian, Archaic, and Late Prehistoric. Within each of these is a discussion of the subdivisions of cultural history proposed by past researchers.

Paleoindian Period/San Dieguito Complex (ca. 9500–6500 B.C.)

For more of the last century, there has been a lack of archaeological evidence for the presence of humans on the southern California coast prior to 6,000 B.C. (or before 8000 years ago). As recently summarized by Erlandson and Colten (1991), however, there are some 75 southern and central California coast sites dating to more than 7,500 years ago. The earliest accepted dates for human occupation of the southern California coast are from two of the Northern Channel Islands, located off the coast from Santa Barbara. On San Miguel Island, Daisy Cave clearly establishes the presence of people in this area about 10,000 B.P. (Erlandson 1991:105). On Santa Rosa Island, human remains have been dated from the Arlington Springs site to approximately 13,000 years ago (Johnson et al. 2002).

One of the early researchers in southern California, Malcolm Rogers, recorded a large number of sites, completed many excavations, and defined cultural periods and their characteristics. His work, beginning in the late 1920s, formed the basis for later archaeological research in the region. Rogers (M.J. Rogers 1939, 1945) had identified an early culture that he named San Dieguito and a later one he called La Jolla.

Cultures similar to the San Dieguito were being defined in the areas to the east. Later researchers, seeing the similarities, subsumed all these early cultures into the San Dieguito Complex, and later, the Western Pluvial Lakes Tradition (WPLT) (Wallace 1962; Warren 1968; Bedwell 1970).

All of these early sites share certain characteristics that distinguish them from Archaic and Late Prehistoric Period assemblages. Moratto (1984:93) describes sets of traits and cultural aspects for the WPLT that essentially mirror those found at San Dieguito sites in southern California. These sites tend to be located on or near the shores of former pluvial lakes and marshes or along old stream channels. There is a dependence on hunting various animals, fowling, and collecting vegetal products. There is a general absence of ground stone artifacts, suggesting that hard seeds were not part of their diet. They had a developed flaked stone industry that included percussion flaked foliate (leaf shaped) knives or points, Lake Mojave and Silver Lake points, and lanceolate bifaces. Their tool kit included chipped stone crescents, large flake and core scrapers, choppers, scraper planes, hammerstones, several types of cores, drills, gravers, and diverse flakes.

The local type site for definition of the San Dieguito is CA-SDI-149, the C. W. Harris site, located on the San Dieguito River some 15 km from the current coast. Malcolm Rogers first investigated the site in 1938 and Warren and True accomplished additional excavations in 1961. The San Dieguito component of the deposit was interpreted as a series of campsites on gravel bars within the broad river floodplain. Radiocarbon dates established that the occupation occurred between 7430 and 6140 B.C. Artifacts recovered from the San Dieguito component included ovoid bifaces that may be knife blanks, two forms of leaf shaped knives, a crescent, leaf shaped points, short bladed shouldered points, gravers, choppers, core and pebble hammerstones, cores, and a variety of scrapers. The San Dieguito suite of identifying characteristics, listed above, was originally derived from these data (Warren 1968).

Ezell and Kaldenberg excavated a site in 1974 that revealed another facet of San Dieguito adaptation (Kaldenberg 1976). This site, SDM-W-49, also referred to as Rancho Park North, Site A, is located about 3.5 km southwest of Batiquitos Lagoon. The San Dieguito tool kit at SDM-W-49 was quite similar to that from CA-SDI-149 and radiocarbon dates established that occupation occurred between 6410 and 5970 B.C. The major difference in the two deposits was the presence of large quantities of shellfish remains at SDM-W-49, while very few such remains were present at CA-SDI-149. It is clear that the people near the coast relied heavily on marine resources. The shell midden associated with the San Dieguito component at SDM-W-49 is 1 m in depth and was accumulated in only a few hundred years, clearly demonstrating a heavy reliance on marine resources.

Numerous researchers have discussed the relationship between San Dieguito and later La Jolla sites over the last 20 years (e.g., Bull 1983, 1987; Gallegos et al. 1987; Moriarty 1969; Warren 1985, 1987; Warren et al. 1993). The main issues are threefold: (1) if San Dieguito or La Jolla (Archaic) sites are earliest; (2) if all early sites lack groundstone implements; and (3) if bifacial tools are characteristic of the Archaic. Alternately, San Dieguito and La Jolla sites may be functional variants of one system, with the San Dieguito assemblages representing specialized quarrying or hunting activities (Bull 1987; Gallegos et al. 1987). This latter interpretation, which reduces the emphasis on "big-game hunting behavior" as the hallmark of the Paleoindian Period, finds support among recent studies of sites along the central and southern California coast where the economy was a diverse mixture of hunting and gathering, with a major emphasis on aquatic resources in many areas (e.g., Erlandson and Colten 1991; Jones 1991).

Archaic Period/La Jolla and Pauma Complexes (ca. 6500 B.C.–A.D. 500)

A terminological distinction is made between southern California coastal and inland sites within the Archaic Period. The La Jolla complex is characterized by shell midden sites near the coast, and is usually distinguished from inland Archaic sites that do not have shell middens. These inland sites in northern San Diego County are usually termed the Pauma complex (True 1958). The La Jolla complex is characterized by shell middens, seed grinding implements, flaked cobble tools, scrapers, and discoidals. La Jolla sites typically have metates with deep basins, unshaped manos (handheld milling stones), many flaked cobble tools, a few Pinto-style projectile points, and infrequent perforated stones. Burials tend to be flexed, head northward and under cairns that frequently contain many broken tools.

The two sites discussed above with San Dieguito (Paleoindian) components, CA-SDI-149 and SDM-W-49, also contained assemblages related to the La Jolla complex. At CA-SDI-149, the San Dieguito deposits were separated from the Archaic La Jolla component by nearly 1 m of sterile riverine deposits. In contrast, the two components were in direct contact at SDM-W-49. Radiocarbon dates for the two deposits established occupation between roughly 4600 and 2600 B.C. Dating efforts at other sites have extended the La Jolla period from about 6500 B.C. to perhaps as late as 500 B.C.

Occupation along the San Diego coastline during the Archaic varied depending upon the availability of marine and terrestrial resources. By about 3,000 years ago, many of the coastal sites in central San Diego County were abandoned, and this has been attributed to the sedimentation of coastal lagoons and the resulting deterioration of fish and mollusk habitats, as documented at Batiquitos Lagoon (Miller 1966; Gallegos et al. 1987, 1992). Along the northern and southern San Diego coastline where larger drainages remained open to the ocean, human exploitation of marine resources apparently continued without interruption (Byrd 1998). At Camp Pendleton, data from several drainages indicate a continued occupation of shell midden sites until the close of the period, indicating that coastal sites were not entirely abandoned during this time (Byrd 1998).

In contrast to the coastal shell midden sites of the La Jolla complex, Pauma complex sites are located in inland valleys and sheltered canyons (True 1958; Warren et al. 1961; Meighan 1954). By definition, Pauma Complex sites share a predominance of grinding implements (manos and metates), lack shellfish remains, and have a greater tool variety (including atlatl dart points, quarry-based tools, and crescentics). The Pauma sites have been interpreted as expressing a more sedentary lifestyle, with a subsistence economy based on the use of a broad variety of terrestrial resources. It was also suggested that perhaps the Pauma complex was similar to earlier San Dieguito (Paleoindian) sites (True 1980). More recent research (True and Pankey 1985; Smith et al. 1996; Tuma 2004) indicates that the inland Pauma complex sites may represent seasonal components within an annual subsistence round by La Jolla complex populations.

Compared to the preceding San Dieguito (Paleoindian) Period, subsistence practices during the Archaic Period were more diversified and focused on gathering activities. Sites on the coast emphasized reliance on plant resources, fish, and shellfish during this period. One major question related to the shift from San Dieguito (Paleoindian) cultural adaptations to La Jolla (Archaic) is whether the differences resulted from internal development in response to changing environmental conditions or from external influences related to migration of people into the area from the east.

Late Prehistoric Period/San Luis Rey and Cuyamaca Complexes (A.D. 500–Historic Contact)

The period from the end of the La Jolla (Archaic) period to European contact was a time of complex and ongoing change in material culture, burial practices, and subsistence focus. These changes most likely reflect both in situ cultural adaptations in response to shifts in environmental conditions, as well as

influences from outside the area. Such influence includes the major migration into the greater project region of Takic-speaking people (Uto-Aztecan language group) from inland desert regions to the east, previously referred to as the "Shoshonean wedge" (Warren 1968), which apparently extended over at least several centuries. This terminology is generally no longer employed in order to avoid confusion with ethnohistoric and modern Shoshonean groups who spoke Numic languages (Heizer 1978:5; Shipley 1978:88, 90). Modern Takic-speaking groups in the region (Gabrielino/Tongva, Juaneño, and Luiseño) are considered the descendants of the prehistoric Uto-Aztecan populations that settled along the California coast during this period, or perhaps somewhat earlier.

In addition to small triangular and triangular side-notched points similar to those found in the desert regions in the Great Basin and Lower Colorado River, pottery and the introduction of cremation in the archaeological record are diagnostic of the Late Prehistoric Period in the San Diego region. This combination certainly suggests a strong influence from the desert region. Their influence extended northward to about the Los Angeles/Ventura County line (excluding the Chumash) and southward to approximately Agua Hedionda Lagoon. South of that lagoon were Yuman-speaking (formerly referred to as "Diegueño-speaking") people who were apparently not displaced by the Takic migration. There was also an increased emphasis on plant collecting and processing during this period, as well as an expansion of trade networks.

The introduction of the mortar and pestle, probably from the north, was critical to exploitation of the acorn as a food resource. Since large quantities of acorns were available, and since they could be stored for long periods of time, the impact on local populations was significant. The emphasis shifted from the immediate coastal regions to upland areas to the east containing the most favored oak species. This shift in emphasis was probably driven in part by changing environmental conditions. The rate of sea level increase had slowed dramatically, and the stable levels meant that lagoons and estuaries began to silt up. The silting seriously degraded resources previously exploited. Thus, the change in emphasis from coastal to inland regions was probably driven not only by the appearance of a new technology, but also by natural degradation of what had been staple resources.

Two different cultural complexes have been defined during the Late Prehistoric for San Diego County: the San Luis Rey complex in the north and the Cuyamaca complex to the south. The San Luis Rey complex most likely represents the forebears of the Takic-speaking Luiseño/Juaneño, who inhabited northern San Diego County during the Ethnohistoric Period. The San Luis Rey complex is generally divided into two phases, San Luis Rey I and II, based upon the presence of ceramics, cremations, and rock paintings (pictographs) during phase II (Meighan 1954; True et al. 1974). Pre-ceramic San Luis Rey I dates from as early as 1000 B.C. to A.D. 1769, and San Luis Rey II during the contact period until approximately 100 years ago. After contact, glass beads and metal knives were present in the phase II assemblages (True et al. 1974; True and Waugh 1982).

San Luis Rey I is characterized by the use of portable shaped or unshaped slab metates, non-portable bedrock milling features, shaped or unshaped manos and pestles, and small triangular points. Cremations, bone awls, and stone and shell ornaments are also prominent in the material culture. Beginning as early as A.D. 1200, the San Luis Rey II cultural assemblage is augmented by pottery cooking and storage vessels, cremation urns, and polychrome pictographs. The fluorescence of rock art likely appeared as the result of increased populations sizes and increased sedentism (True et al. 1974). Cottonwood Triangular series are dominant, but Desert Side-notched, Dos Cabazas Serrated, leaf-shaped, and stemmed projectile points also occur. Subsistence probably focused on the utilization of acorns, a storable species that allowed for relative sedentism and increased population sizes.

True and Waugh (1982) proposed that settlement during the San Luis Rey I phase was characterized by small camps with high residential mobility during the year. In contrast, during phase II settlement

becoming more territorial along drainage systems, shifting between permanent summer camps in the mountains and permanent winter villages/camps in the western foothills. As evidenced by the bedrock milling stations, acorns and other nuts were exploited at the highland summer camps. Further, the lower portions of the drainage system likely had sedentary villages at least partially dependent on marine resources (True 1993:17).

During San Luis Rey II, research demonstrates that the settlement pattern on the base within the lower Santa Margarita River drainage (York 2005:63-67) is analogous to that described by True and Waugh (1982) for the upper San Luis Rey River drainage system. Larger habitation areas downstream are abandoned concurrent with a decline in lagoonal resources along the coast. Resource procurement and temporary occupation at subsidiary sites is consolidated around settlement at major villages within the river valleys, such as the village of *Topomai* (CA-SDI-10,156/12,599/H). This change in settlement pattern to an inland focus during the San Luis Rey II phase coincides with an increase in the exploitation of plant resources and the hunting of large mammals, corresponding with increased use of the bow and arrow, along with a decrease of coastal resources in the diet.

Ethnographic Overview

Luiseño

The project area inhabits the territory that was historically occupied by the Native American society known as the Luiseño, a Takic-speaking southern California native social group (Kroeber 1925; Bean and Shipek 1978). Luiseño is a term that was derived for Native Americans who were administered by the Mission San Luis Rey, and later applied specifically to the Payomkawichum ethnic nation who were present in the region where the mission was founded. Meaning the "western people," the name Payomkawichum can also be applied to the closely related coastal Luiseño who lived north of the mission. The Luiseño language is derived from the Cupan segment of the Takic language branch, a part of the Uto-Aztecan linguistic family (Mithun 2001:539-540).

Luiseño territory was situated in the north half of San Diego County and the western edge of Riverside County. Their lands encompassed the southern Santa Margarita Mountains and the Palomar Mountains, and their foothills to the Pacific Ocean. It extended eastward into the San Jacinto Valley and the western foothills of the San Jacinto Mountains. Their neighbors to the north were the Juaneño (Acjachemen) who spoke a Luiseño dialect; the Cahuilla and Cupeño to the east who spoke other Takic Cupan languages; and the Ipai to the south who spoke a California-Delta Yuman language. Today, many contemporary Juaneño and coastal Luiseño identify themselves as descendents of the indigenous people living in the local area, termed the Acjachemen Nation.

The Luiseño resided in permanent villages and associated seasonal camps. Village population ranged from 50–400 with social structure was based on lineages and clans. A single lineage was generally represented in smaller villages, while multiple lineages and a dominant clan presided in larger villages. According to Boscana, one of the Franciscan missionaries, "All rancherias were composed of a single relationship" (Harrington 1934:32). Each clan/village owned a resource territory and was politically independent, yet maintained ties to others through economic, religious, and social networks in the immediate region.

Luiseño nuclear families resided in dome-shaped dwellings (*kish*) made of willow poles covered with interlaced tule reeds. The chief's residence was generally larger in order to accommodate his large family, ceremonial regalia, and ceremonial food processing. Other village structures included a ceremonial enclosure (*vamkech*), semi-subterranean sweat lodge, and menstrual huts. Simple lean-tos were

constructed in the upper foothills during acorn harvest season. The ceremonial enclosure and the chief's home were generally located in the center of the village.

There were three hierarchical social classes—an elite class consisting of chiefly families, lineage heads, and other ceremonial specialists; a "middle class" of established and successful families; and, finally, people of disconnected or wandering families and war captives (Bean 1976:109–111). Native leadership focused on the *Nota*, or clan chief, who conducted community rites and regulated ceremonial life in conjunction with a council of elders (*puuplem*) composed of lineage heads and ceremonial specialists. The council discussed and decided matters of community significance, these decisions were then implemented by the *Nota* and his staff.

The hereditary village chief held an administrative position that combined and controlled religious, economic, and warfare powers. His assistant had important religious duties and was also a messenger. Ritual specialists and shamans specialized in ritual magic or some aspect of the environment, and had hereditary membership on the council. Each was responsible for training a successor from his lineage or family. Hence, intra- and inter-lineage affairs dominated the political landscape, both within and between villages.

The center of the Luiseño religion was *Chinigchinich*, the last of a series of heroic mythological figures. The heroes were originally from the stars, and their sagas were the foundation of Luiseño religious beliefs. The most obvious expression of the religion at the time of arrival of the Spanish was the *Wamkech*, a brush-enclosed area where religious observations were performed. The *Wamkech* apparently contains an inner enclosure housing a representation of Chinigchinich, a coyote skin stuffed with feathers, horns, claws, beaks, and arrows.

Young men and women went through puberty initiation rites. Endurance trials and a hallucinogenic extract from *Datura wrightii* enabled the young men's search for a spirit helper. Young women stayed several days in a stone-heated, branch-lined pit and fasted, and were then tattooed after competing in a race at the end of the initiation period. The Luiseño practiced both cremation and burial of the dead. Specific individuals managed the cremations and were compensated for their services; a specialist practiced ritual cannibalism on high-ranking shamans. The death of at least those of higher rank was commemorated on the first anniversary.

Like other indigenous California groups, the primary food staple was the acorn (Bean and Shipek 1978:552), supplemented by other plant resources, fish, shellfish, waterfowl, and marine and terrestrial mammals. Villages were situated near reliable sources of water, needed for the daily leaching of milled acorn flour. Acorn mush (*weewish*) was prepared in various ways and served as gruel, cakes, or fried; it might be sweetened with honey or sugar-laden barriers; and could be made into a stew with added greens and meat. Other plant foods included pine nuts and the seeds from grass, manzanita, sunflower, sage, chia, lemonade berry, wild rose, holly-leaf cherry, prickly pear, lamb's-quarter. Seeds were parched, ground, and prepared similar to weewish variations. Greens included thistle, miner's lettuce, white sage, and clover, among others; thimbleberries, elderberries, and wild grape were eaten raw or dried. Cooked yucca buds, blossoms, pods, and stalks provided a sizable addition to the community's food resources. The diet also included underground bulbs, roots, and tubers, as well as mushrooms and tree fungus. Various teas or medicinal cures were made from flowers, fruits, stems, or roots.

Large and small prey included deer, antelope, rabbit, jackrabbit, wood rat, mice, and ground squirrel, as well as quail, ducks, and other birds. Fish, such as trout and salmon, were caught in rivers and creeks. Near the project segment route, the Luiseño were predominantly a coastal people whose diet relied on marine resources. Sea mammals, fish, and crustaceans were obtained from the shoreline and from the open sea using reed and dugout canoes. Shellfish included abalone, turbans, mussel, and other species

from the rocky shores; clams, scallops, and univalves from the sandy beaches; and *Chione* and bubble shells, among other species, from the estuaries.

Raymond White (1962) proposed that for the coastal Luiseño diet, fish and marine animals accounted for 50–60 and terrestrial game 5–10 percent. Plant foods comprised the remaining 30–60 percent, as follows: acorns 10–25 percent, seeds 5–10 percent, greens 5–10 percent, and bulbs, roots and fruits 10–15 percent. These percentages would have varied as a reflection of village placement and size, the surrounding environment, and annual variations in weather, sea temperature, and oceanic currents.

The first direct European contact with the Luiseño occurred in July 1769 with the Spanish expedition led by Gaspar de Portolá. During the next six years, eight missions and forts were founded north and south of Luiseño territory. In 1776, Mission San Juan Capistrano was founded less than ten miles north, and the populations of five northern Luiseño villages had been halved within 15 years. In 1798, Mission San Luis Rey was established within Luiseño territory and the proselytizing among the Payomkawichum began in earnest (Engelhardt 1921:8). The Luiseño were not moved to the mission and consequently, the disruption of traditional lifeways and deaths from introduced diseases were not as devastating as experienced by many other indigenous Californian groups.

Several Luiseño leaders signed the statewide 1852 treaty, locally known as the Treaty of Temecula (an interior Luiseño village), but the United States Congress never ratified it. By 1875, however, reservations for the Luiseño were established in the Palomar Mountains and nearby valleys, including Pala, Pauma, Rincon, Pechanga, La Jolla, and San Pasqual. No reservations were established for the remaining coastal people, whose lands had already been usurped by the Mexican ranchos. Today, the San Luis Rey group is actively petitioning the Bureau of Indian Affair's Office of Federal Acknowledgement to review their request for federal recognition. By 2003, there were 1,340 enrolled members on four Luiseño reservations; today there are over 2,000 Luiseño, including non-enrolled but active members of the community.

Historic Overview

Post-contact history for the state of California generally is divided into three specific periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). Although there were brief visits by Spanish, Russian, and British explorers from 1529–1769, the beginning of Spanish settlement in California occurred in 1769 with a settlement at San Diego and the first (Mission San Diego de Alcala) of 21 missions established from 1769–1823. After the end of the Mexican Revolution (1810–1821) against the Spanish crown, all Spanish holdings in North America (including both Alta and Baja California) became part of the new Mexican republic. With the Mexican period, an era of extensive land grants was begun, in contrast to the Spanish colonization through missions and presidios. Most of the land grants to Mexican citizens in California (*Californios*) were in the interior, granted to increase the population away from the more settled coastal areas where the Spanish had concentrated their settlements. The Mexican Period is also marked by exploration by American fur trappers west of the Sierra Nevada Mountains.

With the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican–American War, California became a territory of the United States. The discovery of gold in 1848 at Sutter's Mill near Sacramento and the resulting Gold Rush era influenced the history of the state and the nation. The rush of tens of thousands of people to the gold fields also had a devastating impact on the lives of indigenous Californians, with the introduction and concentration of diseases, the loss of land and territory (including traditional hunting and gathering locales), violence, malnutrition, and starvation. Thousands of settlers and immigrants continued to pour into the state, particularly after the completion of the transcontinental railroad in 1869.

With continued growth, California continues to be a national leader in agriculture and poultry production, ranching (cattle and sheep), aerospace and communications industries, as well as the film and entertainment business. The wealth of California's natural resources (e.g., lumber, petroleum deposits, minerals, fish) also continues to contribute to its growth and development.

San Diego County

The history of San Diego County dates back to the early Spanish explorations of the area. In 1542 Juan Rodriguez Cabrillo claimed the bay for Spain and named the site "San Miguel." In 1602, Sebastian Vizcaíno surveyed today's Mission Bay and Point Loma, and named the area for the a Catholic saint, St. Didacus (commonly known as San Diego), and then celebrated the feast day of San Diego on November 12, 1602. The first of the chain of 21 Spanish missions was established in San Diego in 1969. Founded by Friar Junípera Serra, it was named the Mission San Diego de Alcala. The San Diego Presidio, a military outpost, was built about six miles west of the mission in 1774; by 1835, the bourgeoning settlement at San Diego became a pueblo.

Much of the following information on the history of San Diego County was obtained from Pourade (1960, 1961, 1963, 1964, 1965, and 1967), unless otherwise noted.

In 1850, San Diego County was created as one of the original California counties, encompassing all land between the Pacific Ocean and the Colorado River, as well as a large portion of present-day San Bernardino and Riverside Counties. The town of San Diego was also incorporated in 1850. By 1860, the population of San Diego was 734, with a countywide population of 4,324.

Severe droughts hit southern California between 1863 and 1865; in 1877, another drought decimated the cattle industry. The railroad arrived in San Diego in 1885 (Pourade 1964:165-166). A number of dams were built in San Diego County during the 1890s and early twentieth century, and included Bear Valley (now Wohlford) near Escondido, upper and lower Otay, Morena, and Barrett, all east of San Diego. The secession of Riverside County in 1893 reduced the size of San Diego County. In 1907, the Imperial County secession left San Diego County with its current boundaries.

In 1917 as a result of World War I, a military installation named Camp Kearney was built near San Diego. The war also prompted the purchase of North Island in San Diego Bay, used jointly by the Army and Navy until 1939. In 1919, San Diego Bay was chosen as home for the U.S. Pacific Fleet. During the 1910s, the U.S. Marine Corps set up a recruit-training depot, and a naval training center at Point Loma. In 1939, the naval air base at Miramar was built, replacing Camp Kearney.

In 1944, an aqueduct was constructed from the Colorado River to bring water to San Diego, and the San Diego Water Authority was formed. In 1946, the Metropolitan Water District took over the San Diego Water Authority, and the aqueduct opened in 1947. As the county continued to grow, the 1950s witnessed the opening of Interstate 8, and a near doubling of the population between 1950 and 1960, from 600,000 to over a million. The University of California, San Diego opened its 1,000-acre campus in La Jolla in 1964. In 1970, San Diego was ranked California's second largest city, next to Los Angeles. By 2000, the population of San Diego County had reached close to three million.

1.2.2 Records Search Results

To determine if prehistoric or historic resources were previously recorded within the project area the California Historical Resources Information System's South Coastal Information Center (SCIC), located at San Diego State University, San Diego, performed a cultural resources records search for the proposed

project area on behalf of BonTerra on December 11, 2007. The records search included a 1-mile radius around the project area. The following sources of information were consulted by the SCIC as part of the records search:

- *National Register of Historic Places – Listed Properties* (2007)
- California Register of Historic Resources (2007)
- California Inventory of Historic Resources (1976 and updates)
- California State Historic Landmarks (1996 and updates)
- California Points of Historical Interest (1992 and updates)
- *Directory of Properties in the Historical Resources Inventory* (Office of Historic Preservation 2007)
- California Department of Transportation (Caltrans) State and Local Bridge Survey (1989 and updates)
- Historic maps

A record search was also undertaken by the San Diego Museum of Man (SDMM) on December 11, 2007. The following sources of information were consulted by the SDMM as part of the records search:

- Archaeological site and artifact records
- Bibliographic information

Correspondences from the SCIC and SDMM can be found in Appendix B.

Previous Studies

The SCIC records search identified 39 previously conducted cultural resources studies within a 1-mile search radius. The SDMM records search identified 15 previously conducted cultural resources studies within a 1-mile search radius; 10 of which were also identified by the SCIC. Five studies were identified by the SDMM that were not contained in the SCIC's records. All of these studies are listed in Table 2. One of the studies, Report No. 1120840, covers a portion of the project area; no resources were identified within the project area during the study. One additional study, 1121473, covers the area immediately south of the southern project boundary; the results of this study were negative for cultural resources in the immediate vicinity of the project area.

Table 2. Cultural Resources Studies within a 1-Mile Radius of the Project Area.

SCIC Report Number/ (SHPO ID)*	SDMM Report Number	Title	Author and Date	Distance from Project Area
1120092/ (APEC 80-12)	EIS-380	Test Excavation of the Ramsay Property TPM 16307, Log # 77-8-248.	American Pacific Environmental Consultants, Inc, 1991; G. Harris, 1980	More than ¾ mile south of project area
1120167/ (JBerryman 81-12)	EIS-500	Archaeological Testing Program SDI-5634, Shadow Ridge Site, Vista California	J. Berryman, 1981	More than ¾ mile southeast of project area
1120296/ (Bull 73-34)		Archaeological Impact Statement for A. F. Anzlover of Centurion International.	C. Bull and P. Ezell, 1973	Approximately ¼ mile north of the project area
1120359/ (Carrico 75+98, and Carrico 75-98)		Archaeological Survey of the TMI Project	R. Carrico, 1975	Approximately ¼ mile southwest of the project area
1120574/ (Carrillo 79+4)		McMillin North Pointe: Archaeological Studies of SDM W 2133, Oceanside, CA	C. Carrillo and C. Bull, 1979	More than ½ mile west of the project area
1120575/ (Carrillo 80-06)	EIS-383	Archaeological Survey of the Radestock Property, Vista, CA	C. Carrillo, 1980	Approximately ½ mile north of the project area
1120690/ (Fink 75-42)		Archaeological Survey for the Proposed Vista Center Addition, Vista, CA	G. Fink, 1975	Approximately 1 mile northwest of the project area
1120840/ (Laylander 80-06)		An Archaeological and Paleontological Survey of the Karlin Property in the City of Vista, CA.	D. Laylander, 1980	Survey covers a portion of the project area
1121473/ (SRS 81-19)	EIS-502	Archaeological Report on a Portion of the Shadowridge Development Project located in the City of Vista, CA.	SRS, 1981	Abuts the southern project boundary
1121502/ (Wade 86+1)		Archaeological Testing of SDM-W-413, and SDM-2-2132 Oak Riparian Park City of Oceanside, CA	S. Wade, 1986	Approximately 1 mile to the west of the project area
1121672/ (Walker 80T6)		An Archaeological Test Investigation of Seven Cultural Resources for Leisure Village Oceanside, CA	C. Walker and C. Bull, 1980	Approximately ¼ mile to the west of the project area
1121913/ (Hatley 78-9)	EIS-304	A Cultural Resources Inventory and Impact Analysis of the Ramsay Property Annexation	M. J. Hatley, 1978	More than ¾ mile south of the project area

Table 2. Cultural Resources Studies within a 1-Mile Radius of the Project Area (Continued).

SCIC Report Number/ (SHPO ID)*	SDMM Report Number	Title	Author and Date	Distance from Project Area
1122294/ (Smith 91-206)		Archaeological Survey of the Vista Centre Project	B. Smith, 1991	More than ¾ mile northwest of the project area
1123075/ (Carrico 95-166)	EIS-1614	Historic Property Survey Report for the State Route 78 Corridor Enhancement Project II-SD-78, PM> 5.3-9.8, 965100, City of Vista, CA	R. Carrico, A. Pigniolo, B. Glenn and K. Crawford, 1995	More than ¾ mile northeast of the project area
1124112/ (Recon 78-31)		Draft EIR for the Ramsay Property Annexation	Recon, 1978	More than ¾ mile south of the project area
1124116/ (Cityvis 78-02)		EIR for the Rancho Vista Area	City of Vista, 1978	Approximately 1 mile north of the project area
1127802/ (Whiter 90-10)	EIS-1084	Archaeological Assessment of 13.91 Acre Parcel Located Immediately SW of the Intersection of Hilo Drive and Hilo Way in Vista	R. White, 1990; R. White, 1991	Approximately ½ mile east of the project area
1121016/ (Gallegos 87-32)	EIS-754	Cultural Resource Survey of the Mar Vista OV1 Trunk Sewer Line, Vista, CA	D. Gallegos, and A Pigniolo, 1987	Abuts the northwestern corner of the property
1122694/ (Mooney 93-9)		Archaeological Survey Report for a Portion of Adams Street Widening Project in the City of Carlsbad, CA	B. Mooney, and J. Cook, 1993	Less than ¼ mile west of the project area
1122916/ (Peak 90+1)		Cultural Resources Assessment of AT&T Proposed San Bernardino to San Diego Fiber Optic Cable, San Bernardino, Riverside, and San Diego Counties	Peak and Associates, 1990	More than ¾ mile northeast of the project area
1123528/ (Gross 98-41)		Archaeological Testing of a Portion of SDI-14,809, and Archaeological Site on a Segment of the South Agua Hedionda Trunk Sewer, Carlsbad, CA	T. Gross and R. Alter, 1998	Approxomately ¾ mile west of the project area
1123894/ (Duke 00-257)		Cultural Resource Assessment for the Pacific Bell Wireless Facility SD 297-08	C. Duke, 2000	Approximately ¼ mile southwest of the project area
1124835/ (Corum 82-68)		Summary report for an Archaeological Test Excavation at Site CA-SDI-9473, Oceanside, CA	J. Corum, 1982	More than ¾ mile northwest of the project area
1125078/ Robbins 01-61)		Cultural Resources Inventory for the Taylor Street Extension and Escondido Ave Extension, Vista	M. Robbins-Wade, 2001	Approximately ½ mile north of the project area

Table 2. Cultural Resources Studies within a 1-Mile Radius of the Project Area (Continued)

SCIC Report Number/ (SHPO ID)*	SDMM Report Number	Title	Author and Date	Distance from Project Area
1127274/ (Carrico 95-254)		Historic Property Survey Report for the State Route 78 Corridor Enhancement Project 11-SD-78	R. Carrico, 1995	More than ¾ mile northeast of the project area
1127785/ (Pierson 01-74)		Results of a Visual Impact Analysis for Sprint Project SD-648	L. Pierson, 2001	Approximately ¾ mile south of the project area
1128113/ (Duke 02-228)		Cultural Resource Assessment Cingular Wireless Facility SD 922-01	C. Duke, 2002	Approximately ¾ mile south of the project area
1128453/ (Duke 03-250)		Request for SHPO Review of FCC Undertaking for Project 507 Mar Vista Dr	C. Duke, 2003	Approximately ¾ mile northeast of the project area
1128730/ (Roth 81-35)		Archaeological Investigation at Leisure Village Oceanside	L. Roth and D. Flower, 1981	Approximately 1 mile southwest of the project area
11228746/ (APRA 79-32)		Archaeological Report Broadmoor-Oceanside Subdivision Phase II	Advance Planning and Research, 1979	Approximately ¾ mile west of the project area
1128755/ (Flower 81-08)		Archaeological Investigations of South Ridge Trails Oceanside	D. Flower, L. Roth, 1981	Approximately ¼ mile west of the project area
1129291/ (Robbins 04-128)		Buie Condominium Project-Archaeology	M. Robbins-Wade, 2004	Approximately 1 mile northwest of the project area
1121014/ (Gallego 87-34)	EIS-750	Cultural Resource Survey of the Proposed South Melrose Drive Street Improvements, Vista, CA	D. Gallegos and A. Pigniolo, 1987	Approximately 1/2 mile west of the project area
1121023/ (Gallegos 86-25)	EIS-721	Cultural Resource Survey of the Barsby Trunk Line and Melrose Way Sewer, Vista, CA	D. Gallegos and D. Cheever, 1986	More than ¾ mile west of the project area
1129546/ (Guerrem 01-06)		Cultural Resource Test Report for Oceanside-Escondido Rail Project	Gallegos & Associates, 2001	Approximately 1 mile northeast of the project area
1129645/ (Kyle 01-300)		Cultural Resource Assessment/Evaluation for Cingular site SD 611-01	C. Kyle, 2001	Approximately ½ mile southwest of the project area
1130062/ (Eckhardw 75-23)		Archaeological Survey for TMI Oceanside Property	W. Eckhardt, 1975	Approximately ¼ mile west of the project area

Table 2. Cultural Resources Studies within a 1-Mile Radius of the Project Area (Continued)

SCIC Report Number/ (SHPO ID)*	SDMM Report Number	Title	Author and Date	Distance from Project Area
1130264/ (Bonnew 06-48)		Cultural Resource Records Search and Site Visit Results for Cricket SAD-123 D	W. Bonner and M. Aislin-Kay, 2006	Approximately 1 mile west of the project area
1130791/ (Brandes 84-69)		Nomination Form for the Charles A. Braun House/Willard and Susan Michlin House	R. Brandes and R. Alexander, 1984	More than ¾ mile north of the project area
	EIS-171	Excerpt from: Draft Environmental Impact Report for the Ramsay Property Annexation.	J. Hatley, 1978	More than ¾ mile south of project area
	EIS-642	Salvage Excavations at the Shadow Ridge Site (SDI-5643): A Late Prehistoric and Historic Campsite	D. Van Horn and J. Murray, 1984	More than ¾ mile southeast of project area
	EIS-656	Highway Project on State Route 76, 11-SD-76, R2.4/R8.0	D. Rosen, 1991	Unknown
	EIS-940	Cultural Resource Survey of Improvements to Melrose Drive and North Santa Fe Avenue, Vista	D. Gallegos and A. Pigniolo, 1989	Approximately 1/2 mile west of the project area
	EIS-1364	Archaeological Resources Located within Southridge Trails Area C (Recon No. R-1936), San Diego	D. Cheever, 1989	Approximately ¼ mile west of the project area

*Reports are on file at the South Central Information Center, San Diego State University, San Diego.

Previously Recorded Sites Adjacent to Study Area

According to SCIC and SDMM records, 14 cultural resources have been previously documented within the 1-mile search radius. The closest resource, W-3911, is an isolated bedrock milling feature that is located approximately 800 feet north of the project area; no artifacts or midden were observed in the vicinity of the feature. The three next closest resources, CA-SDI-4930, CA-SDI-5792, and CA-SDI-9503, are within ½ mile of the project area. Site CA-SDI-4930 is a prehistoric site consisting of ground and flaked stone scatter. Site CA-SDI-5792H was recorded as the traditional Indian trail from Mission San Luis Rey to the Cuyamaca Mountains. Site CA-SDI-9503 is a milling feature site with an associated ground and flaked stone scatter. Two sites are approximately ¾ mile from the project area. Eight sites are within one mile of the project area. Twelve of the recorded resources are prehistoric and two are historic in nature. These resources are listed in Table 3, below. There are no known resources within the current project boundaries, nor are there National Register, California Register, California Points of Historical Interest, or California State Historic Landmarks within the project area. Maps depicting the locations of the previously recorded cultural resource sites can be found in Confidential Appendix C.

An examination of historic maps was also conducted. An historic road and trails map from 1769-1885 was examined; no roads or trails were located within the project area. An 1872 San Diego County map indicates that very little development occurred in the vicinity of the project area. The 1901 Escondido 15 minute Topographic Map and the 1901 San Luis Rey 30 minute Topographic Map show dirt roads in the vicinity of the project area, but no buildings or structures. Both the 1942 Escondido 15 minute Topographic Map and the 1948 San Marcos 7.5 minute Topographic Map show Buena Vista and Mar Vista Drives in their current configurations and one building in the project area.

Table 3. Previously Recorded Cultural Resource Sites within a 1-Mile Radius of the Project Area

SCIC Primary Number/Site Number	SDMM Site Number	Resource Description	Site Dimensions	Source and Date *	Distance from Project Area
P-37-024185		Isolated piece of angular shatter (prehistoric)	n/a	P. De Barrow, 2000	More than ½ mile south of the project area
CA-SDI-4918	W-2138	Bedrock Milling Site-3 oval basin milling surfaces	~200 ft. x 125 ft.	R. Norwood, 1979	More than ¾ mile west of the project area
CA-SDI-4920	W-2135	Shell midden deposit, with flakes and FAR	70 m x 55 m	R. Norwood, 1979	Approximately 1-mile southwest of the project area
CA-SDI-4928	W-2136	1 flake and 1 mano, petrified wood-not worked	45 m x 15 m	R. Norwood, 1979	More than ¾ mile southwest of the project area
CA-SDI-4930	W-2139 A-K	Site consists of isolated artifacts scattered throughout the project area	Unknown	R. Norwood, 1979	Approximately ½ mile southwest of the project area
CA-SDI-5634	W-1541	Millingstone site with shell on surface	35 m x 60 m	R. Franklin, 1977; update M. Desautels 1981	Approximately 1-mile southeast of the project area
CA-SDI-5778	W-1728B	Lithic workshop with 8 flakes, 1 hammerstone and 1 scraper	30 m x 20 m	R. Kardash, 1978	More than ¾ mile south of the project area
CA-SDI-5779	W-1729	Millingstone site-2 slicks on two separate boulders	~15 m apart	MJ Hatley, M Weidauate, 1978	Approximately 1-mile south of the project area
CA-SDI-5790	W-1796	Homestead of Charles Kelly (no address)	Unknown	M.J. Hatley, 1978	Approximately ¾ mile south of the project area

Table 3. Previously Recorded Cultural Resource Sites within a 1-Mile Radius of the Project Area (Continued)

SCIC Primary Number/Site Number	SDMM Site Number	Resource Description	Site Dimensions	Source and Date *	Distance from Project Area
CA-SDI-5792H	W-1723	Traditional Indian Trail from Mission San Luis Rey to the Cuyamaca Mountains	Unknown	M.J. Hatley, 1978	Approximately ½ mile southwest of the project area
CA-SDI-9503	W-3289	Millingstone site with manos and flakes	45 m x 60 m	M. Desautels, 1981	Approximately ½ mile southeast of the project area
P-37-028770		Charles Bergodol Braun House, (Willard and Susan Michlin House) 790 Vale View Drive, Listed in the National Register	Unknown	Marben-Laird Associates, 1987 D. Landis, 1993	Approximately ¾ mile north of the project area
	W-3911	Isolated bedrock milling feature	Unknown	A. Pigniolo, 1987	Approximately 800 feet north of the project area
CA-SDI-11,629	W-4352	Bedrock milling station with 2 slicks on 2 outcrops	10 m x 30 m	A. Pigniolo and Briggs, 1989	Approximately 1 mile north of the project area

*Site records are on file at the South Central Information Center, San Diego State University, San Diego.

1.2.3 Initial Native American Consultation

The County contacted the Native American Heritage Commission (NAHC), requesting a search of their Sacred Lands File for traditional cultural resources, as well as a list of Native American contacts that may have additional knowledge of cultural resources in the area. The reply from NAHC, dated November 2, 2007, stated that the search failed to indicate the presence of Native American sacred lands or traditional cultural properties within the immediate project area (Appendix D). The County sent letters to the contacts provided by NAHC on November 19, 2007. At the time of this report only the Pala Tribe had responded with no comments.

1.3 APPLICABLE REGULATIONS

Resource importance is assigned to districts, sites, buildings, structures, and objects that possess exceptional value or quality illustrating or interpreting the heritage of San Diego County in history, architecture, archaeology, engineering, and culture. A number of criteria are used in demonstrating resource importance. Specifically, criteria outlined in CEQA, RPO, and the San Diego County Local Register provide the guidance for making such a determination. The following sections detail the criteria that a resource must meet in order to be determined important (County of San Diego 2006:41).

1.3.1 California Environmental Quality Act (CEQA)

This study was completed under the provisions of the California Environmental Quality Act (CEQA). Public Resources Code Section 5024.1, Section 15064.5 of the Guidelines, and Sections 21083.2 and 21084.1 of the Statutes of CEQA were also used as the basic guidelines for the cultural resources study (Governor's Office of Planning and Research 1998). Public Resources Code (PRC) Section 5024.1 requires evaluation of historical resources to determine their eligibility for listing on the California Register of Historical Resources (CRHR). The purposes of the CRHR are to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change.

As defined by Section 15064.5(a) of the CEQA Guidelines, the term "historical resource" includes the following:

A resource listed in, or determined eligible for, listing in the CRHR (PRC Sections 5024.1);

A resource included in a local register of historical resources, or identified as significant in an historical resource survey meeting the requirements Section 5024.1(g) of the PRC. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant;

- Any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the lead agency's determination is supported by substantial evidence in light of the historical record;

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets at least one of the four criteria for listing in the CRHR (PRC Section 5024.1[a]), which are as follows.

(1) It is associated with events that have made a significant contribution to the broad patterns of California history and cultural heritage;

(2) It is associated with the lives of persons important in our past;

(3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(4) Has yielded, or may be likely to yield, important information in prehistory or history.

The fact that a resource is not listed in, or determined eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to section 5020.1 (k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1 (g) of the Public Resource Code does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code section 5020.1(j) or 5024.1.

Section 15064.5 also includes a discussion on archaeological resources that may meet the definition of a "unique archaeological resource" in Section 21083.2 of the PRC. If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment.

1.3.2 San Diego County Local Register of Historical Resources

The County requires that resource importance be assessed not only at the State level as required by CEQA, but at the local level as well. If a resource meets any one of the following criteria as outlined in the San Diego County Local Register of Historical Resources (Local Register), it will be considered an important resource.

(1) Is associated with events that have made a significant contribution to the broad patterns of San Diego County's history and cultural heritage;

(2) Is associated with the lives of persons important to the history of San Diego County or its communities

(3) Embodies the distinctive characteristics of a type, period, San Diego County region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(4) Has yielded, or may be likely to yield, information important in prehistory or history.

1.3.3 San Diego County Resource Protection Ordinance (RPO)

The County of San Diego's RPO protects significant cultural resources. The RPO defines "Significant Prehistoric or Historic Sites" as follows:

> Location of past intense human occupation where buried deposits can provide information regarding important scientific research questions about prehistoric or historic activities that have scientific, religious, or other ethnic value of local, regional, State, or Federal importance. Such locations shall include, but not be limited to: any prehistoric or historic district, site, interrelated collection of features or artifacts, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places or the State Landmark Register; or included or eligible for inclusion , but not previously reject, for the San Diego County Historical Site Board List; any area of past human occupation located on public or private land where important prehistoric or historic activities and/or events occurred; and any location of past or current sacred religious or ceremonial observances protected under Public Law 95-341, the American Indian Religious Freedom Act or Public Resources Code Section 5097.9, such as burial(s), pictographs, petroglyphs, solstice observatory site, sacred shrines, religious ground figure, and natural rocks or places which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group

The RPO does not allow non-exempt activities or uses damaging to significant prehistoric or historic lands on properties under County jurisdiction. The only exempt activity is scientific investigation authorized by the County. All discretionary projects are required to be in conformance with applicable County standards related to cultural resources, including the noted RPO criteria on prehistoric and historic sites. Non compliance would result in a project that is inconsistent with County standards (County of San Diego 2006:21-22; County of San Diego 2007:45)

2.0 GUIDELINES FOR DETERMINING SIGNIFICANCE

A project that causes a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines is a significant effect on the environment. Any of the following constitute a potentially significant effect on the environment:

(1) The project causes a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines. The destruction, disturbance or any alteration of characteristics or elements of a resource that cause it to be significant in a manner not consistent with the Secretary of Interior Standards.

(2) The project causes a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the State CEQA Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.

(3) The project disturbs any human remains, including those interred outside of formal cemeteries.

(4) The project proposes activities or uses damaging to significant cultural resources as defined by the Resource Protection Ordinance (RPO) and fails to preserve those resources.

The County of San Diego selected the Guidelines listed above for the following reasons:

Guidelines 1 and 2 are derived directly from CEQA. Sections 21083.2 of CEQA and 15064.5 of the State CEQA Guidelines recommend evaluating historical and archaeological resources to determine whether or not a proposed action would have a significant effect on unique historical or archaeological resources.

Guideline 3 is included because human remains must be treated with dignity and respect and CEQA requires consultation with the "Most Likely Descendant" as identified by the Native American Heritage Commission (NAHC) for any project in which human remains have been identified.

- Guideline 4 was selected because the RPO requires that cultural resources be considered when assessing environmental impacts. Any project that would have an adverse impact (direct, indirect, and cumulative) on significant cultural resources as defined by these Guidelines would be considered a significant impact. The only exemption is scientific investigation.

All discretionary projects are required to be in conformance with applicable County standards related to cultural resources, including the noted RPO criteria on prehistoric and historic sites, as well as requirements listed in the Zoning Ordinance, General Plan, and the Grading, Clearing and Watercourses Ordinance (§87.429). Non-compliance would result in a project that is inconsistent with County standards (County of San Diego 2006:21-22).

3.0 RESEARCH DESIGN

Following discovery of prehistoric bedrock milling feature sites and consultation with County archaeological staff, SWCA developed a research design to guide the Phase II evaluation of sites CA-SDI-18742, CA-SDI-18743, and CA-SDI-18744 for the CRHR, to ensure that the archaeological investigation was accomplished in a systematic and scientific manner. This research design is divided into themes pertinent to the assessment of the CA-SDI-18742, CA-SDI-18743, and CA-SDI-18744 milling feature sites. These themes include site formation processes, age and probable cultural affiliation, subsistence and settlement strategies, and technology. The role of each site within the local area and region is also considered. The research design was prepared in accordance with the guidelines established by the Office of Historic Preservation (1991).

3.1 SITE FORMATION PROCESSES

A variety of cultural and natural post-depositional processes potentially affect the character and condition of archaeological sites. A site's integrity can be seriously impacted by natural transformations (e.g., burrowing rodents, erosion), cultural transformations (e.g., historic plowing, trenching or disking, or prehistoric site maintenance activities), or both. During these processes, artifacts potentially move horizontally or vertically out of their original context and differences between stratigraphic layers may become blurred. Understanding these processes is important because much of the information learned from archaeological sites is not contained solely by the artifacts themselves, but by their context and relationship to other artifacts recovered from the site.

The identification and evaluation of natural site formation processes has been an expanding avenue of research since the early 1980s (e.g., Bonnichsen and Sorg 1989; Butzer 1982; Schiffer 1983, 1987). Rodents, insects, and other burrowing animals are known bioturbative agents that move artifacts horizontally and vertically. Research demonstrates that each species of burrowing animal has a characteristic behavior pattern, relating to the animal's size, burrow depth, rate of burrowing, density of the underlying sediments, and the material each brings into their burrows. Archaeologists have studied these behaviors to discern their influence on archaeological deposits (e.g., Bonnichsen and Sorg 1989; Johnson 1990; Wood and Johnson 1978; Schiffer 1987).

Subsurface disturbance by rodents is particularly pervasive in many archaeological sites, and can impact the integrity of cultural features and the site stratigraphy. Researchers who have studied the effects of rodent activity on coastal California sites (Bocek 1986; Erlandson 1984; Gross 1992) note that vertical movement, especially of smaller sediment particles and artifacts, are a major impact on archaeological sites. Where rodent activity is vigorous, large cobbles and artifacts may move downward and create a "stone line" or "pavement" comprised of the heavier material near the bottom of the burrowing activity. Cobble features may even mimic archaeological ones and resemble a hearth or other type of cultural feature. Gophers also displace dirt and even small artifacts onto the surface (Bocek 1986:600–601). Rodent disturbances more profoundly affect the vertical rather than horizontal distribution of artifacts. Efforts will be made to identify the presence of rodent activity through the identification of rodent holes (usually indicated by discolored or soft sediment or both) and the presence of bones of rodents and their commensals.

Site structure also varies between geomorphic settings. Steep ridgelines are usually nondepositional environments that tend to be erosional areas where weathering and gravity force sediments or artifacts down slope. Hillsides represent colluvial environments. The steepness of the slope affects the degree of deposition: steep hill sides may represent a net loss situation where erosion is significant and limited (if any) deposition occurs; relatively flat areas near the toe of a slope often represent net gain situations where deposition is significant and buried deposits may occur; and in midslope areas a sort of equilibrium

is achieved between erosion and deposition. Drainages can act as collectors of sediment and thus buried deposits, or, when active, can transport archaeological assemblages to completely new settings and erode sites from their original site context.

Subsurface deposits, if present, may represent discrete temporal periods or episodes of utilization. Post-depositional processes potentially affect subsurface evidence of cultural activities, however, and if these deposits are encountered they will be assessed for their geomorphological context using standard pedological and geological terminology and methods. Such processes have the potential to impact the integrity of archaeological sites.

3.1.2 Research Questions

Have the sites been heavily impacted by post-depositional processes, whether natural, cultural, or both? Is there evidence for movement of cultural material downslope, resulting in a deflated depositional context?

Are discrete concentrations of artifacts present across each site horizontally? Do such concentrations reflect resource procurement during different periods? Are the concentrations affected by the presence of hillsides or drainages or other natural elements, and have they been disturbed by post-depositional processes?

- Are subsurface deposits present? If so, do the subsurface deposits retain integrity? Can discrete temporal periods or episodes of resource exploitation be identified? Have the subsurface deposits been heavily impacted by post-depositional processes, whether natural, cultural, or both?

3.2 CHRONOLOGY AND DATING

Chronology is of basic importance to any archaeological research endeavor because it provides the foundation for addressing all other research issues. Thus, the precision and accuracy of dates are critical since they form the baseline for the other research topics. For example, chronological data could potentially contribute to our understanding of the nature and timing of population movements in the area, and to other sites in the local or broader region. Chronological determinations may also assist in refining regional or local cultural historical sequences.

Absolute dating techniques are preferable to relative dating of diagnostic artifacts since absolute dating (e.g., radiocarbon, obsidian hydration) is an independent assessment of the age of the site. If suitable materials (e.g., charcoal, bone, obsidian, shell) for dating are found in a good, subsurface stratigraphic context, multiple samples will be submitted to obtain the absolute date of the site. These dates will be used in conjunction with diagnostic time-marker artifacts, if present, to assess the age of the site. If only diagnostic artifacts are available, then they will be used to broadly assess a site's age.

Chronological control of the bedrock milling sites may contribute to issues broader than the age of the site. Chronological data could potentially contribute to our understanding of the nature and timing of population movements in the area. The sites may also have data crucial to understanding the relationships between the different periods or phases of established cultural sequences, or to understanding the relationship between findings from research conducted in other parts of San Diego County.

3.2.1 Research Questions

When were the sites utilized?

Do the sites include single or multiple components? Have the sites been utilized during different periods?

Is there strong evidence of use during the Archaic, Late Prehistoric, or Ethnohistoric Periods? Can such evidence be related to other sites in the area?

Do the chronological data contribute to our understanding of the nature and timing of population movements in the area?

Do the chronological data at these sites contribute to our understanding of the relationships between different periods or phases within established cultural sequences, or between archaeological sites in San Diego County?

- Do the chronological data at these sites contribute to the creation of a local, radiocarbon-based chronology for prehistoric sites in San Diego County?

3.3 SUBSISTENCE AND SETTLEMENT STRATEGIES

Beyond the depositional and cultural historical considerations discussed thus far, the recordation and excavation of sites potentially provides valuable information regarding prehistoric behaviors. Here the focus is on elucidating aspects of the subsistence economy and settlement strategies on a seasonal basis. Such analyses provide a context to better understand the diet of the prehistoric inhabitants at a site, as well as how they positioned themselves in relation to the biotic resource structure (plants, animals) on a seasonal basis. Understanding the season during which, for example, plant resources were ripe and available for processing can shed valuable information on settlement strategies. Such analyses provide clues to which resources were available, when the project area likely had the most food resources available, and can provide an estimate as to where sites might fall in the overall settlement pattern or round.

To facilitate these analyses it is important to establish the biotic resource structure in the project area, with the assumption that they were similar to the period of time of site formation. Based on the phenology of ripening of floral resources in the project area and period of exploitation by prehistoric hunter-gatherers, it is possible to estimate the season or seasons during which the three bedrock milling sites were likely used, and to estimate which plant parts they likely exploited during these times. It also provides a basis to assess how these single bedrock milling feature sites fit into the regional pattern of subsistence exploitation.

3.3.1 Research Questions

How do the three bedrock milling sites fit into the settlement-subsistence pattern? During which season were the sites likely used? What was being processed? What do these patterns indicate about the regional settlement and subsistence pattern?

Do the sites contain evidence of multiple activities? What activities were conducted at the sites based on the milling features and any recovered artifacts?

- Do the sites reveal evidence of intra-regional interaction and/or mobility?

3.4 TECHNOLOGY

Sites CA-SDI-18742, CA-SDI-18743, and CA-SDI-18744, on the surface, are each represented by a single bedrock milling feature with one milling slick. The technology of the milling slicks will be described, but more can be learned about the sites if other types of technology (e.g., chipped stone, ground stone, bone tools, hearths, or ceramics) are recovered during the testing procedures. The presence of such technologies can provide valuable information regarding site function, range of on-site activities, technological organization, mobility, subsistence, chronology, etc., and can help elucidate each site's role within the local and regional landscape pattern.

Specialized studies of certain tool types provide important information useful for expanding on a variety of questions. Ground stone, for example, can be analyzed for the presence and variety of starches, phytoliths, pollen, and protein residues. These analyses assess whether ground stone tools (e.g., mano, metate, mortar) were used to process plants (seeds, roots, tubers) or animals, and provide insights about the past climate. Protein residue analysis conducted on chipped and ground stone tools provides insights into the types of animals (usually identified to the family level, sometimes to the species level) a tool was used to process. Only artifacts from subsurface contexts with good stratigraphic integrity will be considered for these analyses. Technical illustrations of certain tool types (usually projectile points) not only provide a clearer portrayal of the tool itself than can often be achieved through photographs, but are valuable for documenting attributes of the technology used in its manufacture.

Chipped stone also can provide valuable information regarding the organization of technology. Patterns of lithic raw material procurement, tool production, tool use, and discard provide important information regarding the behaviors expressed at sites, particularly in terms of the movement of lithic raw materials and tools through a site.

3.4.1 Research Questions

- Are there artifacts associated with any of the bedrock milling feature sites? If so, are they limited to milling implements such as manos? What can they tell us about the site function, technological organization, subsistence, mobility, and chronological relationships?

4.0 ANALYSIS OF PROJECT EFFECTS

4.1 METHODS

4.1.1 Survey Methods

Archaeological Resources

Pedestrian Survey

BonTerra archaeologists Brian Glenn and Paul Shattuck conducted a pedestrian survey of the entire 25.77-acre parcel on January 4, 2008. Systematic transects were spaced no farther than 10-15 meters (33-50 feet). All of the rock outcrops were carefully inspected for the presence of milling features. Portions of the project area consisted of cropland and pastureland; visibility was generally good to very good (75-100%) throughout the survey area, except in areas that had dense crop growth. Three prehistoric archaeological sites, two isolated prehistoric artifacts and one built environment resource were identified during the survey.

A Garmin Global Positioning System (GPS) Garmin V unit, corrected by the Wide Area Augmentation System (WAAS), was used to map the location of the resources identified within the APE using Universal Transverse Mercator (UTM) measurements taken in relationship to the North American Datum of 1984 (NAD84). Photographs were taken with a Nikon CoolPix 5600 digital camera. The survey required approximately 16-person hours to complete.

Site Recordation

SWCA archaeologists Robert Ramirez and Michael Hares revisited the project area on February 20-21, 2008 in order to record the three archaeological sites (CA-SDI-18742, CA-SDI-18743, and CA-SDI-18744) and two isolated artifacts (P-37-029304 and P-37-029305) on the appropriate State of California Department of Parks and Recreation (DPR) 523 forms. This entailed a surface examination of the area surrounding the boulders that contained the milling features to identify any artifacts or ecofacts that might be on the ground surface to assist in the establishment of a site boundary. A site datum was established for each site. All features were measured and recorded in the field. A Trimble GeoXT GPS unit was used to record location information in the field. Detailed drawings of bedrock milling features were also completed as part of the site recordation process. SWCA archaeologist Caprice (Kip) Harper took photographs of the bedrock milling slicks on March 9, 2008. Photographs were taken with a Nikon Coolpix 5600 or other digital camera. Archaeological site recordation required approximately 16-person hours to complete.

Built Environment Resources

Archival Research

Archival research included telephone interviews with family members of the original property owners, property specific research of San Diego County Assessor data, and the Social Security Death Index. SWCA architectural historian Francesca Smith interviewed Mary Gamboni Blackburn and Phillip Blackburn, the daughter and son-in-law of Victor and Barbara Gamboni, two of the previous owners of the property via telephone on February 13, 2008.

Site Recordation

SWCA architectural historian Francesca Smith reviewed aerial photographs and photographs of the project area taken by BonTerra. Upon review of the photographs it was determined that a field visit was not necessary. The resource was recorded on DPR forms on February 15, 2008. Information obtained during the archival research was included into the DPR forms.

4.1.2 Test Methods

Test Plan

SWCA prepared an archaeological testing plan and submitted it to the County on February 7, 2008. The County approved the testing plan on February 14, 2008.

SWCA's work plan proposed a total of 4 to 8 STPs at each site to determine the presence or absence of a cultural deposit. Had a significant subsurface deposit or feature been encountered, the work plan included excavation of one 1-meter by 1-meter unit to evaluate the significance of the deposit. Since no subsurface deposit was located at any of the sites, this method was not employed. During the fieldwork, excavation of additional STPs was not needed because of the sterile nature of the soil at all of the STP locations. A total of four STPs at each site was deemed adequate to sample the site.

The test plan also included a provision for the discovery of human remains. No human remains were discovered during the testing program. However, if human remains, grave goods, ceremonial objects, or objects of cultural patrimony had been identified, SWCA personnel would have ceased work in the immediate area and contacted the County Coroner pursuant to state law. Fieldwork would have resumed only after proper authorization was received from the County Coroner.

Surface Collection

SWCA archaeologists Robert Ramirez and Michael Hares made a concerted effort to locate and collect any artifacts observed on the ground surface at each of the archaeological sites within the project area on February 20, 2008. This was achieved by walking 2 to 5 meter transects in the immediate vicinity of the three prehistoric milling feature sites (CA-SDI-18742, CA-SDI-18743, and CA-SDI-18744).

Shovel Test Pits

Shovel test pits (STPs) were used to determine the nature and extent of the subsurface deposit(s) present at each of the three prehistoric milling feature sites (CA-SDI-18742, CA-SDI-18743, and CA-SDI-18744). On February 21, 2008, SWCA archaeologists Robert Ramirez and Michael Hares hand excavated four 30-cm diameter STPs around each site/bedrock milling feature to identify whether subsurface archaeological deposits were present and to assess the horizontal and vertical extent of any deposits. The STPs were intuitively placed around the boulders and were excavated in arbitrary 10-cm levels to a maximum depth of 50 cm below surface, or until bedrock/decomposing granite or sterile soil was encountered. All soils from the STP excavations were screened through one-eighth inch hardware mesh. Excavation of the STPs required approximately 16-person hours to complete.

4.1.3 Native American Participation/Consultation

SWCA contracted with Saving Sacred Sites, whose sole proprietor is a member of the San Luis Rey Band of Mission Indians, to perform Native American monitoring during ground disturbances associated with the excavation of the STPs. On February 21, 2008, Mindy Mojado was present during all ground disturbance related to the excavation of the STPs.

4.1.4 Forms

State of California DPR forms and a copy of this report will be filed with SCIC and SDMM in addition to copies filed with the County.

4.2 RESULTS

4.2.1 Pedestrian Survey

The survey was conducted over the entire 25.77 acres of the project area. Land use within the project area consisted of agricultural cropland, grazing pastures, and a single-family residence with an associated garage several goat pens, and corral enclosures.

The majority of the survey area was sparsely covered with non-native grasses and ruderal weeds. Portions of the project area with croplands (beans or peas) were characterized by vegetation cover that varied from none in areas where fields had been recently plowed, to completely obscured in areas where crops and/or weeds were extremely dense. Outside of these areas, visibility was generally good to very good (75-100%) throughout the survey area. Observed disturbances to surface soils included trampling in livestock grazing areas, disking in agricultural fields, and disturbances associated with the construction of the existing house and garage. The project area is surrounded by intense urban development.

During the pedestrian survey, BonTerra identified three prehistoric milling feature sites (CA-SDI-18742, CA-SDI-18743, and CA-SDI-18744), two isolated artifacts (P-37-029304 and P-37-029305), and one built environment resource (P-37-029306) that would require recordation, documentation, and evaluation.

4.2.2 Resource Recording and Testing

The three sites, two isolated artifacts and one built environment resource were recorded by SWCA. The results of the recordation are provided below; a map showing the locations of the resources within the project area are presented in Confidential Appendix E; and DPR forms for each of the resources are presented in Confidential Appendix F.

Archaeological Resources

<u>CA-SDI-18742</u>

Site Description

Site CA-SDI-18742 (P-37-029301) is a granitic bedrock milling feature site with one milling slick (Photographs 4 and 5; Figures 2 and 3). The site is located on the flat summit of a northeast-southwest trending ridge, with a slope of approximately 10 degrees to the east. An unnamed northeast-southwest trending seasonal drainage is located approximately 90 meters to the south. The granitic outcrop measures

4.3 meters (N/S) by 4.5 meters (E/W), with a maximum height of 1.3 meters above the ground surface. The milling slick measures 34 cm long by 29 cm wide and is located at the northwest quadrant of the bedrock outcrop. The slick depression is very shallow and not visible to the naked eye, but is distinct to the touch.

Photograph 4–see Confidential Appendix E

Photograph 4. Overview of CA-SDI-18742 facing south.

Photograph 5. View of CA-SDI-18742 milling surface

Testing Results

The testing regime for CA-SDI-18742 consisted of the excavation of four STPs around the perimeter of the bedrock outcrop (Figure 2). The STPs were placed on the north side of the site based on field observations that indicated these areas appeared to have the most potential to encounter more than 10 cm of undisturbed soil. A decision was made to not place an STP unit in the recently disked agricultural field. Soils within the STPs consisted predominately of a shallow, eroded very dark grayish brown (2.5Y 3/2) to black (10YR 2/1) sandy loam topsoil overlying a dark brown (7.5YR 3/2) to dark reddish brown (5YR 2.5/2) decomposed granite subsoil. The soils exhibited low to moderate compaction. A photograph of STP 1, which shows a typical STP profile at the site, is presented in Photograph 6.

The STPs proved sterile for prehistoric cultural material (Table 4). As well, no prehistoric cultural materials were observed on or around the surface of the bedrock milling feature, indicating that the site is restricted to the bedrock outcrop.

Photograph 6. Plan view of CA-SDI-18742 STP 1, showing soil horizons.

Table 4. Results of Subsurface Testing at CA-SDI-18742.

STP #	Distance From Datum	Unit Diameter (cm)	Level (cm)	Cultural Materials?	Sediment Description	Munsell	Comments
1	9 m	30	0-10	None	Sandy loam with low compaction	2.5Y 3/2	Very dark grayish brown
1	9 m	30	10-20	None	Sandy loam/ decomposing granite with moderate compaction	10YR 3/6	Dark yellowish brown
1	9	30	20-30	None	Sandy loam/ decomposing granite with moderate compaction	10YR 3/6	Dark yellowish brown
2	7 m	30	0-10	None	Sandy loam with low compaction	10YR 2/2	Very dark brown
2	7 m	30	10-20	None	Sandy loam/decomposed granite with moderate compaction	10YR 3/6	Dark yellowish brown
2	7 m	30	20-30	None	Sandy loam/decomposed granite with moderate compaction	10YR 3/6	Dark yellowish brown
3	8 m	30	0-10	None	Sandy loam with low compaction	10YR 2/1	Black
3	8 m	30	10-20	None	Sandy loam with low compaction	10YR 2/1	Black
3	8 m	30	20-30	None	Sandy loam with low compaction	7.5 YR3/2	Dark brown
3	8 m	30	30-40	None	Sandy loam/decomposed granite with low compaction	7.5YR 3/2	Dark brown
4	8 m	30	0-10	None	Sandy loam/decomposed granite with low compaction	5YR 2.5/2	Dark reddish brown
4	8 m	30	10-20	None	Sandy loam/decomposed granite with low compaction	5YR 2.5/2	Dark reddish brown

Figure 2–see Confidential Appendix E

Figure 2. CA-SDI-18742 site map.

Figure 3–see Confidential Appendix E

Figure 3. CA-SDI-18742 site detail.

CA-SDI-18743

Site Description

Site CA-SDI-18743 (P-37-029302) is a granitic bedrock milling feature site with one milling slick (Photographs 7 and 8; Figures 4 and 5). The site is located adjacent to and within 10 meters of a northeast-southwest trending drainage, with a slope of approximately 5 to 10 degrees to the southeast. The granitic outcrop measures 2.8 meters (N/S) by 2.3 meters (E/W), with a maximum of height of 0.45 meters above the ground surface. The milling slick measures 20 cm long by 15 cm wide and is located in the northeast quadrant of the bedrock outcrop. The slick depression is very shallow and not visible to the naked eye, but is distinct to the touch.

Testing Results

The testing regime for CA-SDI-18743 consisted of the excavation of four STPs around the perimeter of the bedrock outcrop. The STPs were placed on the north, west, and south sides of the site based on field observations that indicated these areas appeared to have the most potential to encounter more than 10 cm of soil. Soils within the STPs consisted predominately of a fairly well developed very dark grayish brown (2.5Y 3/2) sandy loam topsoil overlying a dark yellowish brown (10YR 4/6) to very dark gray (10YR 3/1) silt loam subsoil. STP 4 contained lenses of a fine silt loam between layers of sandy loam, indicating periods of rapid alluvial deposition, which was consistent with the location of the bedrock outcrop near a seasonal drainage. Photographs were not taken at the completion of STPs for Site CA-SDI-18743.

The STPs proved sterile for prehistoric cultural material (Table 5). As well, no prehistoric cultural materials were observed on or around the surface of the bedrock milling feature, indicating that the site is restricted to the bedrock outcrop.

Photograph 7–see Confidential Appendix E

Photograph 7. Overview of **CA-SDI-18743**, facing south

Photograph 8. View of CA-SDI-18743 milling surface.

Table 5. Results of Subsurface Testing at CA-SDI-18743.

STP #	Distance From Datum	Unit Diameter (cm)	Level (cm)	Cultural Materials?	Sediment Description	Munsell	Comments
1	5 m	30	0-10	None	Sandy loam	10YR 3/2	Very dark grayish brown; Soil is wet.
1	5 m	30	10-20	None	Sandy loam	10YR 3/2	Very dark grayish brown; soil is wet
1	5 m	30	20-30	None	Sandy loam	10YR 3/2	Very dark grayish brown
1	5 m	30	30-40	None	Sandy loam	10YR 3/2	Very dark grayish brown; soil change at 40 cm
1	5 m	30	40-50	None	Silt loam	10YR 4/6	Dark yellowish brown
2	5 m	30	0-10	None	Sandy loam	10YR 3/2	Very dark grayish brown; soil is wet
2	5 m	30	10-20	None	Sandy loam	10YR 3/2	Very dark grayish brown
2	5 m	30	20-30	None	Sandy loam	10YR 3/2	Very dark grayish brown

Table 5. Results of Subsurface Testing at CA-SDI-18743 (Continued)

STP #	Distance From Datum	Unit Diameter (cm)	Level (cm)	Cultural Materials?	Sediment Description	Munsell	Comments
2	5 m	30	30-40	None	Sandy loam	10YR 3/2	Very dark grayish brown
2	5 m	30	40-50	None	Sandy loam	10YR 3/2	Very dark grayish brown
3	8 m	30	0-10	None	Sandy loam	10YR 3/2	Very dark grayish brown
3	8 m	30	10-20	None	Sandy loam	10YR 3/2	Very dark grayish brown
3	8 m	30	20-30	None	Silt loam	10YR 3/1	Very dark gray
3	8 m	30	30-40	None	Silt loam	10YR 3/1	Very dark gray
4	8 m	30	0-10	None	Sandy loam	10YR 3/2	Very dark grayish brown; soil is wet
4	8 m	30	10-20	None	Sandy loam	10YR 3/2	Very dark grayish brown
4	8 m	30	20-30	None	Sandy/silt loam	10YR 4/1 and 10YR 3/2	Dark gray and very dark grayish brown; silt loam lens from 20 cm to 27 cm then transition back to sandy loam
4	8 m	30	30-40	None	Sandy/silt loam/	10YR 3/2 and 10YR 3/2	Both the sandy loam and the silt loam are very dark grayish brown
4	8 m	30	40-50	None	Silt loam	10YR 3/2	Very dark grayish brown

Figure 4–see Confidential Appendix E

Figure 4. CA-SDI-18743 site map.

Figure 5–see Confidential Appendix E

Figure 5. CA-SDI-18743 site detail.

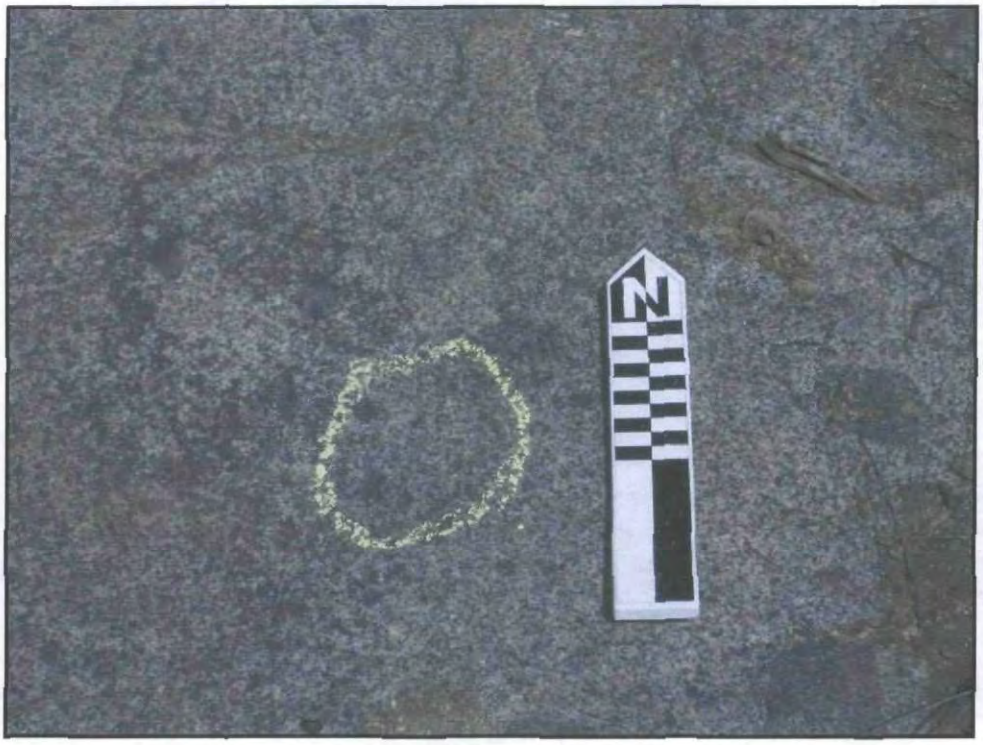
CA-SDI-18744

Site Description

Site CA-SDI-18744 (P-37-029303) is a granitic bedrock milling feature site with one milling slick (Photographs 9 and 10; Figures 6-7). The site is located near the crest of a northeast-southwest trending ridge, with a slope of approximately 20 degrees to the south. An unnamed northeast-southwest trending seasonal drainage is located approximately 50 meters to the southeast. The granitic outcrop measures 6.7 meters (N/S) by 3.8 meters (E/W), with a maximum height of 1.7 meters above the ground surface. The milling slick measures 13 cm long by 10 cm wide and is located in the northeast quadrant of the bedrock outcrop. The slick depression is very shallow and not visible to the naked eye, but is distinct to the touch.

Photograph 9–see Confidential Appendix E

Photograph 9. Overview of CA-SDI-18744, facing south



Photograph 10. View of CA-SDI-18744 milling surface.

Photograph 11. Plan view of CA-SDI-18744 STP 1, showing soil horizons.

Testing Results

The testing regime for CA-SDI-18744 consisted of the excavation of four STPs around the perimeter of the bedrock outcrop. The STPs were placed on the north, east, and west sides of the site based on field observations that indicated these areas appeared to have the most potential to encounter more than 10 cm of soil. Soils within the STPs consisted predominately of a shallow, eroded dark brown (10YR 3/3) sandy loam topsoil overlying a dark brown (10YR 3/3) decomposed granite subsoil. A photograph of STP 1, which shows a typical STP profile at the site, is presented in Photograph 11.

The STPs proved sterile for prehistoric cultural material (Table 6). As well, no prehistoric cultural materials were observed on or around the surface of the bedrock milling feature, indicating that the site is restricted to the bedrock outcrop.

Table 6. Results of Subsurface Testing at CA-SDI-18744.

STP #	Distance From Datum	Unit Diameter (cm)	Level (cm)	Cultural Materials?	Sediment Description	Munsell	Comments
1	7 m	30	0-10	None	Sandy loam	10YR 3/3	Dark brown; soil is wet
1	7 m	30	10-20	None	Sandy loam	10YR 3/3	Dark brown; soil change to decomposed granite at 18 cm below ground surface
1	7 m	30	20-30	None	Decomposed granite	10YR 3/3	Dark brown
2	7 m	30	0-10	None	Sandy loam/ decomposed granite	10YR 3/3	Dark brown; upper 5 cm is loamy sand that transitions to decomposed granite
2	7 m	30	10-20	None	Decomposed granite	10YR 3/3	Dark brown
3	7 m	30	0-10	None	Sandy loam/ decomposed granite	10YR 3/3	Dark brown; topsoil transitions to decomposed granite at 2 cm below the ground surface; soil conditions require excavation to terminate at 10 cm
4	10 m	30	0-10	None	Sandy loam/ decomposed granite	10YR 3/3	Dark brown
4	10 m	30	10-20	None	Sandy loam/ decomposed granite	10YR 3/3	Dark brown

Figure 6–see Confidential Appendix E

Figure 6. CA-SDI-18744 site map.

Figure 7–see Confidential Appendix E

Figure 7. CA-SDI-18744 site detail.

P-37-029304/Isolated Artifact

Isolate P-37-029304 is a single flake (Photograph 12). The artifact was found on the ridge top in a flat area within an exposed area of an existing dirt road. An unnamed northeast-southwest trending seasonal drainage is located approximately 115 meters to the south. The artifact measures 4 cm long by 2 cm wide by 0.3 cm thick and was made from a metavolcanic material. There are at least three flake scars on the dorsal side and a prepared platform measuring 0.5 cm.

Photograph 12. View of flake P-37-029304.

P-37-029305/Isolated Artifact

Isolate P-37-029305 is a single flake (Photograph 13). The artifact was found on a 20 degree slope to the southeast. An unnamed seasonal northeast-southwest trending drainage is located approximately 45 meters to the south. The artifact measures 8 cm long by 6 cm wide by 3 cm thick and was made from a metvolcanic material. There are four flake scars on the dorsal side; however, one appears to be recent and may have been the result of farming/disking activity or animal trampling. The platform appears to be unprepared and a patina is present over much of the artifact.

Photograph 13. View of flake P-37-029305.

Built Environment Resources

P-37-029306/1240 Buena Vista Drive Building and Garage

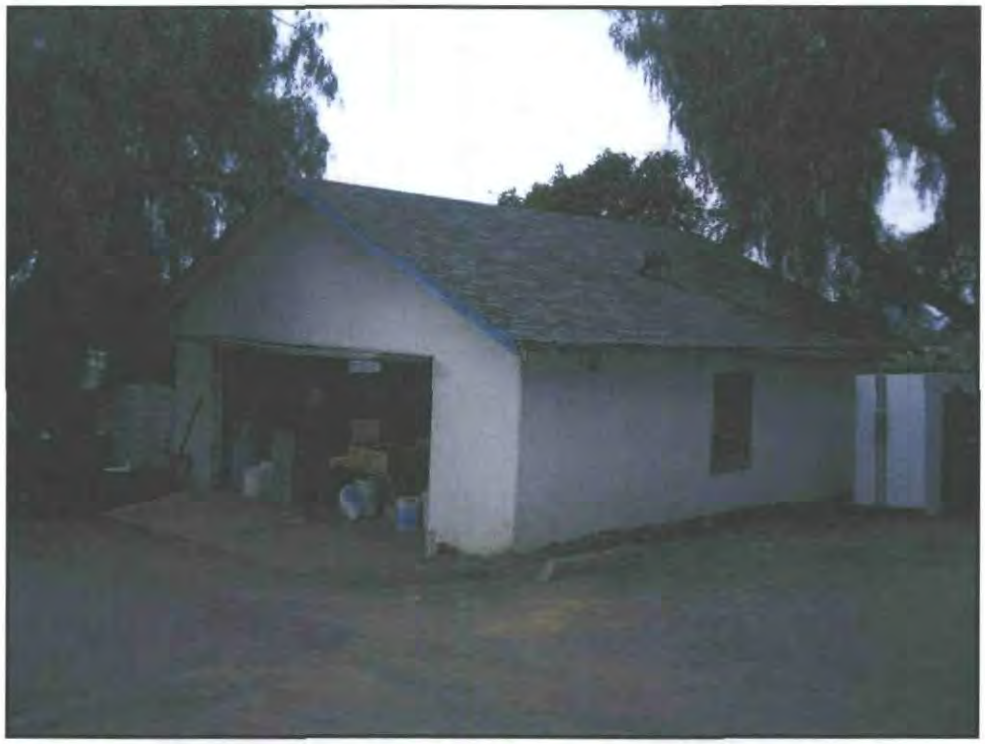
The property at 1240 Buena Vista Drive (P-37-029306) consists of two buildings, a single-family residence and a garage built in 1931 (Photographs 14 and 15). The residence is located at APN 169-200-20-00, is one story in height, and is configured in an irregular rectangle with two, roughly square, side and rear additions to the northeastern and southern sides of the building (dates unknown). It is vernacular in style, clad in smooth stucco and has no decorative embellishments. The endwall of the rectangle is arranged asymmetrically, the two bays contain a simple entrance door balanced by a large, fixed, wood sash, multi-light 3-3-3, picture window. The entrance is concealed by an informal, unpainted vestibule wall. The front-facing, medium-pitched, gabled roof covers most of the building, and the northeastern addition has a barely canted, nearly flat roof. The roof is clad in a variety of asphalt shingle materials. All eaves are overhanging, with exposed rafter tails. The side elevations have various punched openings and a rear chimney is partially plastered. The residence is located on a large agricultural parcel at the end of an unpaved road surrounded by mature trees, including pepper and orange trees. The simple, stucco-clad garage has a front-facing, gabled roof and large opening.

The subject property was originally over 70 acres in size. It is not known when it was first platted, but the subject property was purchased by Victor and Barbara Gamboni from a retired pharmacist who was a "gentleman farmer" in the early 1960s (date unknown, Blackburn). The subject property was primarily planted in "hay and grasses" at the time of their acquisition. DPR forms can be found in Confidential Appendix F.

Victor Gamboni was born in 1898 in Vogarno, Switzerland. He came to the United States with two brothers, in 1921. Mr. Gamboni briefly lived in Long Beach, California, where he met his future wife,

Barbara Cruz (b. 1914, Gamboni Blackburn). The Gambonis established a dairy farm in Artesia before purchasing the subject property.

Photograph 14. Overview of P-37-029306–the residence at 1240 Buena Vista Drive (north façade), facing south.



Photograph 15. Overview of P-37-029306–the garage at 1240 Buena Vista Drive, facing northeast.

In the late 1960s or early 1970s, the Gambonis purchased an additional 5 acres that included the remaining residence and garage and afforded better access to their original parcel. Visual examination of the residence reveals at least three major additions, one on the side, another on the rear and another addition near the entrance endwall. No-longer-extant buildings and structures include: a main residence with three barns. One barn was used as a "hospital" for sick livestock, one for hay storage and another for equipment storage (Ganboni Blackburn). Those buildings and structures were located 1/3- to ½-mile from the existing residence and garage, and were demolished sometime after 1998.

The remaining residence and garage were used by the Gambonis as an additional source of income, renting to various vegetable farmers, while the family lived in the larger house. The main property was used to raise milk and beef cattle and sheep (Mary Gamboni Blackburn and Phillip Blackburn, personal communication with Francesca Smith, February 13, 2008). After Mr. Gamboni's death in 1986, Mrs. Gamboni continued to live in the main residence until her death in 1998 (Social Security Death Index 2008).

5.0 INTERPRETATION OF RESOURCE IMPORTANCE AND IMPACT IDENTIFICATION

5.1 RESOURCE IMPORTANCE

5.1.1 Archaeological Resources

The following discussion considers questions posed in the research design to interpret data recovered from sites CA-SDI-18742, CA-SDI-18743, CA-SDI-18744 collected during the testing procedure. Though these interpretations are based on limited data, it is likely that further excavation or data recovery would yield the same results and not change the overall interpretation of each site. The isolated artifacts (P-37-029304 and P-37-029305) are not considered significant under the County's criteria for determining resource importance or CEQA and are not discussed further.

Site Formation Processes

The site formation processes affecting sites CA-SDI-18742, CA-SDI-18743, CA-SDI-18744 appear to be of natural origin. The location of the bedrock outcrops on slopes with high potential for erosion and the dispersal of artifacts is a factor that could explain the lack of artifacts at each site. Thus, the bedrock milling features characterized the entire extent of each site.

Chronological Context

Relatively little can be said about the chronological context of sites CA-SDI-18742, CA-SDI-18743, CA-SDI-18744 due to the complete lack of datable material, much less datable material in a good stratigraphic context. Researchers commonly suggest that bedrock milling features are indicative of the Late Prehistoric Period/ San Luis Rey and Cuyamaca Complexes (ca. A.D. 500–A.D. 1769).

Subsistence and Settlement Strategies

Bedrock milling features were typically used for processing food resources, frequently plant resources and sometimes animal resources. The types of resources processed on the milling slicks at sites CA-SDI-18742, CA-SDI-18743, CA-SDI-18744 remain unknown, though the likelihood exists that they were used for processing plants. The bedrock milling features fit into a broader pattern of prehistoric archaeological sites in the one mile search radius, several of which are bedrock milling features with milling slicks. The preponderance of bedrock milling features likely relates to the unnamed seasonal drainages that are located in the immediate vicinity of the project area, water for plant processing, and vegetation communities. Animals also would have been attracted to areas with water.

Technology

Little can be said regarding how the bedrock milling features contribute to our knowledge of the technology employed by each of the site's users. The flat surfaces of the milling slicks would have been most conducive to seed grinding rather than acorn grinding for which mortars were more often employed. The grinding slicks also suggest that a mano, rather than a pestle, was used for the processing activities. Without having found other types of technology at the sites, little else can be interpreted.

Significance Evaluations

Site CA-SDI-18742 is a bedrock milling site with four granitic outcrops and one milling slick. Site CA-SDI-18743 is a bedrock milling site with two granitic outcrops and one milling slick. Site CA-SDI-18744 is a bedrock milling site with one granitic outcrop and one milling slick. No surface artifacts were found in association with any of these sites during the archaeological survey, recordation, or testing. Additionally, subsurface testing at each of the sites determined that they do not contain a subsurface cultural component.

The results of testing at sites CA-SDI-18742, CA-SDI-18743, and CA-SDI-18744 indicate that they are significant cultural resources under Criterion 4 of the County's criteria for determining resource importance which makes the sites eligible under the CRHR and Local Register (County of San Diego 2006:15-16). However, the lack of a significant subsurface deposit or the absence of subsurface components altogether, combined with the exhaustive recording of surface artifacts and bedrock milling features, indicates that these sites are not likely to yield additional information important to the further understanding of the prehistory of San Diego County. The results of testing at these sites indicate that they are not significant cultural resources under the County's Resource Protection Ordinance (RPO). Furthermore, the sites are not "unique archaeological resources" under CEQA, Section 15064.5 criteria because they are unlikely to answer important scientific questions. These cultural resources are evaluated as significant cultural resources because they meet the criteria for inclusion in the CRHR and the Local Register; however, impacts have been mitigated to a level below significant through recording and testing of the sites. Therefore, these cultural resources are evaluated as not significant under CEQA or the County's RPO, any impacts incurred through the Proposed Project would not be significant.

Two isolates, P-37-029304 and P-37-029305, were discovered within the project area. Isolates, by definition, lack immediate cultural context and therefore lack the data potential required for consideration of eligibility for inclusion in the CRHR, or Local Register and do not meet the criteria to be significant under the County's RPO. Therefore, any impacts to these isolates would be considered not significant under CEQA or the County's RPO.

5.1.2 Built Environment Resources

P-37-029306/1240 Buena Vista Drive Building and Garage Significance Evaluation

As a result of the cultural resources survey and literature review, buildings at 1240 Buena Vista Drive (P-37-029306), which were associated with Victor and Barbara Gamboni and include the single-family residence and garage, were recorded and evaluated for historical significance. These buildings are located in the northwestern portion of the 25.77-acre APE. The house has been substantially altered over the years, resulting in a loss of integrity. Alterations to the house include two room additions to the northeastern and southern sides of the house, which include a variety of asphalt shingle roof finish materials. These alterations have completely altered the appearance of the house. The altered residence does not retain requisite integrity of attributes, design, materials, or workmanship for consideration. Research further indicates that the buildings are not eligible for the CRHR or Local Register separately or as contributors to a historic district under any of the significance criteria because the resource is not associated with events that have made a significant contribution to broad patterns of California's history and cultural heritage (Criterion 1), it does not have a direct association with someone important to our past (Criterion 2), it does not embody the distinctive characteristics of a type, period or region, construction method, represent work important creative persons, high artistic values (Criterion 3) or contain information important in prehistory or history (Criterion 4). In addition, the residence and garage do not meet the criteria for significance under the County's RPO. Thus, the results of the archival

research and review of the residence reveals that the house and garage are not historically significant buildings. Because the buildings and property are not significant under CEQA or the County's RPO, the proposed project is not expected to result in any effects to built environment cultural resources.

5.2 IMPACT IDENTIFICATION

5.2.1 Archaeological Resources

Two sites, CA-SDI-18742 and CA-SDI-18744, are within the grading limits of the proposed project and will be destroyed during implementation of the project. The lack of a significant subsurface deposit or the absence of subsurface components altogether, combined with the exhaustive recording of surface artifacts and bedrock milling features, indicates that these sites are not likely to yield additional information important to the further understanding of the prehistory of San Diego County beyond the information documented herein. Thus, the recordation, testing program, and site interpretation have captured all available information from each site, and have exhausted their research potential, thereby lessening the level of impacts to these sites to a level of less than significant. Since these cultural resources have been mitigated to a level of less than significant, any impacts incurred through the Proposed Project would not be significant.

A third site, CA-SDI-18743, is located within a proposed open space easement area just outside of the grading limits. Though project plans indicate that CA-SDI-18743 will not be destroyed, its proximity to the proposed grading limits could potentially result in indirect and possible direct impacts to this resource if grading should extend to the east. Therefore, temporary fencing will be placed around the site prior to grading to ensure that the site is avoided and not impacted.

The isolates, P-37-029304 and P-37-029305, have been recommended not eligible for the CRHR or Local Register and do not meet the criteria to be significant under the County's RPO, no mitigation measures beyond the documentation contained in this report are recommended.

5.2.2 Built Environment Resources

P-37-029306, consisting of a house and garage, is located within the proposed grading limits and will be destroyed as a result of the project. This resource has been recommended not eligible for the CRHR or Local Register, and is not significant under the County's RPO; therefore no mitigation measures beyond the documentation contained in this report are recommended.

6.0 MANAGEMENT CONSIDERATIONS – MITIGATION MEASURES AND DESIGN CONSIDERATIONS

6.1 MITIGATED IMPACTS

6.1.1 Mitigation Measures and Design Considerations

Two sites, CA-SDI-18742 and CA-SDI-18744, are within the grading limits and will be destroyed as a result of the proposed project. The lack of a significant subsurface deposit or the absence of subsurface components altogether, combined with the exhaustive recording of surface artifacts, subsurface artifacts, and bedrock milling features, indicates that these sites are not likely to yield additional information important to the further understanding of the prehistory of San Diego County beyond what has already been documented herein. Thus, the recordation, testing program, and site interpretation have captured all available information from each site, and have exhausted their research potential, thereby lessening the level of impacts to these sites to a level of less than significant. Since these cultural resources have been mitigated to a level of less than significant, any impacts incurred through the Proposed Project would not be significant.

A third site, CA-SDI-18743, is located in a proposed open space easement area just outside of the grading limits of the proposed project. The current project design indicates that the site will not be directly impacted. The level of impact has been lessened through the completion of the current recordation, testing program, and site interpretation. Though project plans indicate that CA-SDI-18743 will not be destroyed by the proposed project, its proximity to the proposed grading limits could potentially result in indirect impacts to this resource. Direct impacts could also occur if grading accidentally extends into the open space area. Avoidance is the preferred mitigation strategy for archaeological resources and is recommended for Site CA-SDI-18743 because of its location within a proposed open space easement area. Protection of the resource through the installation of an orange construction/safety fence between the grading limits and the bedrock outcrop will prevent damage by construction-related activities. Therefore, temporary fencing will be placed around the site prior to grading to ensure that the site is protected and not impacted to further lessen the significance level of impacts. Further details regarding the installation of temporary fencing are provided below.

In addition to the three prehistoric archaeological sites and two isolated prehistoric artifacts recorded within the project area, 12 prehistoric resources are known from the surrounding area (within one mile). These data indicate that the project area and its vicinity are highly sensitive for prehistoric archaeological resources. Due to the sensitivity of the project's vicinity, there exists the potential for buried archaeological deposits to occur within the project area; therefore, archaeological monitoring is warranted for this project. Implementation of a grading monitoring and data recovery program would further reduce potentially significant impacts to a less than significant level. Further details regarding monitoring of the grading are provided below.

Finally, the project must comply with the San Diego County Grading, Clearing, and Watercourse Ordinance (§87.101-87.804), CEQA §15064.5(d), and §7050.5 of the Health & Safety Code in order to further reduce potentially significant impacts. Section 87.429 of the Grading, Clearance and Watercourse Ordinance requires the suspension of grading operations when human remains or Native American artifacts are encountered.

Completion of the current study and documentation effort, compliance with the San Diego County Grading, Clearing, and Watercourse Ordinance, (§87.101-87.804), CEQA §15064.5(d), and §7050.5 of the Health & Safety Code and the implementation of the following standard conditions and mitigation measures will reduce the level of impacts to a level of less than significant.

Grading Monitoring and Data Recovery Program

The County has recently published Conditions for Cultural Resources (County of San Diego 2008) for use in making decisions regarding cultural resources within project areas. The following details the County's requirements for a grading monitoring and data recovery program for mitigation of potential impacts to cultural resources within the Stonemark Estates project area.

Prior to issuance of any grading permit or approval of improvement plans, and prior to recordation of the final map, whichever comes first, the Applicant shall:

Implement a grading monitoring and data recovery program to mitigate potential impacts to undiscovered buried archaeological resources on the Stonemark Estates Project, TM5479/Log No. REZ 06-003 to the satisfaction of the Director of Planning and Land Use. This program shall include, but shall not be limited to, the following actions:

1. Provide evidence to the satisfaction of the Director of Planning and Land Use (DPLU) that a County certified archaeologist has been contracted to implement a grading monitoring and data recovery program. A letter from the Principal Investigator shall be submitted to the Director of Planning and Land Use. The letter shall include the following guidelines:
    a. The project archaeologist shall contract with a Native American monitor to be involved in the grading monitoring program as outlined in the County of San Diego Report Format and Content Guidelines (2006).
    b. The County certified archaeologist/historian and Native American monitor shall attend the pre-grading meeting with the contractors to explain and coordinate the requirements of the monitoring program as outlined in the County of San Diego Report Format and Content Guidelines (2006).
    c. The project archaeologist shall monitor all areas identified for development including off-site improvements.
    d. An adequate number of monitors (archaeological/historical/Native American) shall be present to ensure that all earth moving activities are observed and shall be on-site during all grading activities for areas to be monitored.
    e. During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and Native American monitor(s) shall be onsite full-time to perform full-time monitoring. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and location of inspections will be determined by the Project Archaeologist in consultation with the Native American monitor. Monitoring of cutting of previously disturbed deposits will be determined by the Principal Investigator.
    f. Isolates and clearly non-significant deposits shall be minimally documented in the field and the monitored grading can proceed.
    g. In the event that previously unidentified potentially significant cultural resources are discovered, the archaeological monitor(s) shall have the authority to divert or temporarily halt ground disturbance operations in the area of discovery to allow evaluation of potentially significant cultural resources. The Principal Investigator shall contact the

County Archaeologist at the time of discovery. The Principal Investigator, in consultation with the County staff archaeologist, shall determine the significance of the discovered resources. The County Archaeologist must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the Principal Investigator and approved by the County Archaeologist, then carried out using professional archaeological methods.

h. If any Native American burials, human skeletal or other remains including associated grave goods are discovered, the Principal Investigator shall contact the County Coroner. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant (MLD) as identified by the Native American Heritage Commission shall be contacted by the Principal Investigator in order to determine proper treatment and disposition of the remains.

i. Before construction activities are allowed to resume in the affected area, the artifacts shall be recovered and features recorded using professional archaeological methods. The Principal Investigator shall determine the amount of material to be recovered for an adequate artifact sample for analysis.

j. In the event that previously unidentified cultural resources are discovered, all cultural material collected during the grading monitoring program shall be processed and curated at a San Diego facility that meets federal standards per 36 CFR Part 79, and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County, to be accompanied by payment of the fees necessary for permanent curation. Evidence shall be in the form of a letter from the curation facility identifying that archaeological materials have been received and that all fees have been paid.

k. Monthly status reports shall be submitted to the Director of Planning and Land Use starting from the date of the notice to proceed to termination of implementation of the grading monitoring program. The reports shall briefly summarize all activities during the period and the status of progress on overall plan implementation. Upon completion of the implementation phase, a final report shall be submitted describing the plan compliance procedures and site conditions before and after construction. (Note: use this condition only if grading will take more than 1 month).

l. In the event that previously unidentified cultural resources are discovered, a report documenting the field and analysis results and interpreting the artifact and research data within the research context shall be completed and submitted to the satisfaction of the Director of Planning and Land Use prior to the issuance of any building permits. The report shall include Department of Parks and Recreation Primary and Archaeological Site forms.

m. In the event that no cultural resources are discovered, a brief letter to that effect shall be sent to the Director of Planning and Land Use by the consulting archaeologist that the grading monitoring activities have been completed.

2. Provide Evidence to the Director of Public Works (DPW) that the following notes have been placed on the Grading Plan:

   a. The County certified archaeologist/historian and Native American monitor shall attend the pre-construction meeting with the contractors to explain and coordinate the requirements of the monitoring program.

   b. The project archaeologist shall monitor all areas identified for development including off-site improvements.

c. During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and Native American monitor(s) shall be onsite full-time to perform full-time monitoring. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and location of inspections will be determined by the Project Archaeologist in consultation with the Native American monitor. Monitoring of cutting of previously disturbed deposits will be determined by the Principal Investigator.
d. In the event that previously unidentified potentially significant cultural resources are discovered, the archaeological monitor(s) shall have the authority to divert or temporarily halt ground disturbance operations in the area of discovery to allow evaluation of potentially significant cultural resources. The Principal Investigator shall contact the County Archaeologist at the time of discovery. The Principal Investigator, in consultation with the County staff archaeologist, shall determine the significance of the discovered resources. The County Archaeologist must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the Principal investigator and approved by the County Archaeologist, then carried out using professional archaeological methods.
e. The archaeological monitor(s) and Native American monitor shall monitor all areas identified for development.
f. If any Native American burials, human skeletal or other remains including associated grave goods are discovered, the Principal Investigator shall contact the County Coroner. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage Commission, shall be contacted by the Principal Investigator in order to determine proper treatment and disposition of the remains.
g. The Principal Investigator shall submit monthly status reports to the Director of Planning and Land Use starting from the date of the notice to proceed to termination of implementation of the grading monitoring program. The reports shall briefly summarize all activities during the period and the status of progress on overall plan implementation. Upon completion of the implementation phase, a final report shall be submitted describing the plan compliance procedures and site conditions before and after construction. (Note: use this condition only if grading will take more than 1 month).
h. Prior to rough grading inspection sign-off, provide evidence that the field grading monitoring activities have been completed to the satisfaction of the Director of Planning and Land Use. Evidence shall be in the form of a letter from the Principal Investigator.
i. Prior to Final Grading Release, submit to the satisfaction of the Director of Planning and Land Use, a final report that documents the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program. The report shall include the following:

- Department of Parks and Recreation Primary and Archaeological Site forms.

- Evidence that all cultural collected during the grading monitoring program has been curated at a San Diego facility that meets federal standards per 36 CFR Part 79, and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County, to be accompanied by payment of the fees necessary for permanent curation. Evidence shall be in the form of a letter from the curation facility identifying that archaeological materials have been received and that all fees have been paid.

Or

- In the event that no cultural resources are discovered, a brief letter to that effect shall be sent to the Director of Planning and Land Use by the Principal Investigator that the grading monitoring activities have been completed.

3. Prepare and implement a temporary fencing plan for the protection of archaeological site CA-SDI-18743 during any grading activities within one hundred feet (100') of the site, as shown herein. The temporary fencing plan shall be prepared in consultation with a County approved archaeologist. The fence should include a buffer sufficient to protect the archaeological site. The fence shall be installed under the supervision of the County approved archaeologist prior to commencement of grading or brushing and be removed only after grading operations have been completed. The temporary fencing plan shall include the following requirements:

Provide evidence to the Director of Public Works that the following notes have been placed on the grading plan:

(1) In the event that construction activities are to take place within 100 feet of archaeological site CA-SDI-18743, the temporary fencing plan shall be implemented under supervision of a County approved archaeologist that consists of the following:

a. The project archaeologist shall identify the site boundaries.

b. The project archaeologist shall determine an adequate buffer for the protection of the site in consultation with the County archaeologist.

c. Upon removal of the buffers, install fencing under the supervision of the project archaeologist.

d. Submit to the Department of Public Works for approval, a signed and stamped statement from a California Registered Engineer, or licensed surveyor that temporary fences have been installed in all locations of the project where proposed grading or clearing is within 100 feet of archaeological site CA-SDI-18743.

e. Fencing may be removed after the conclusion of construction activities.

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Rincon San Luiseno Band of Mission Indians
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- Carmen Mojado, Co-Chair

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Phillip Blackburn (son-in-law of Victor and Barbara Gamboni)

9.0 LIST OF MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Table 7. Mitigation Measures

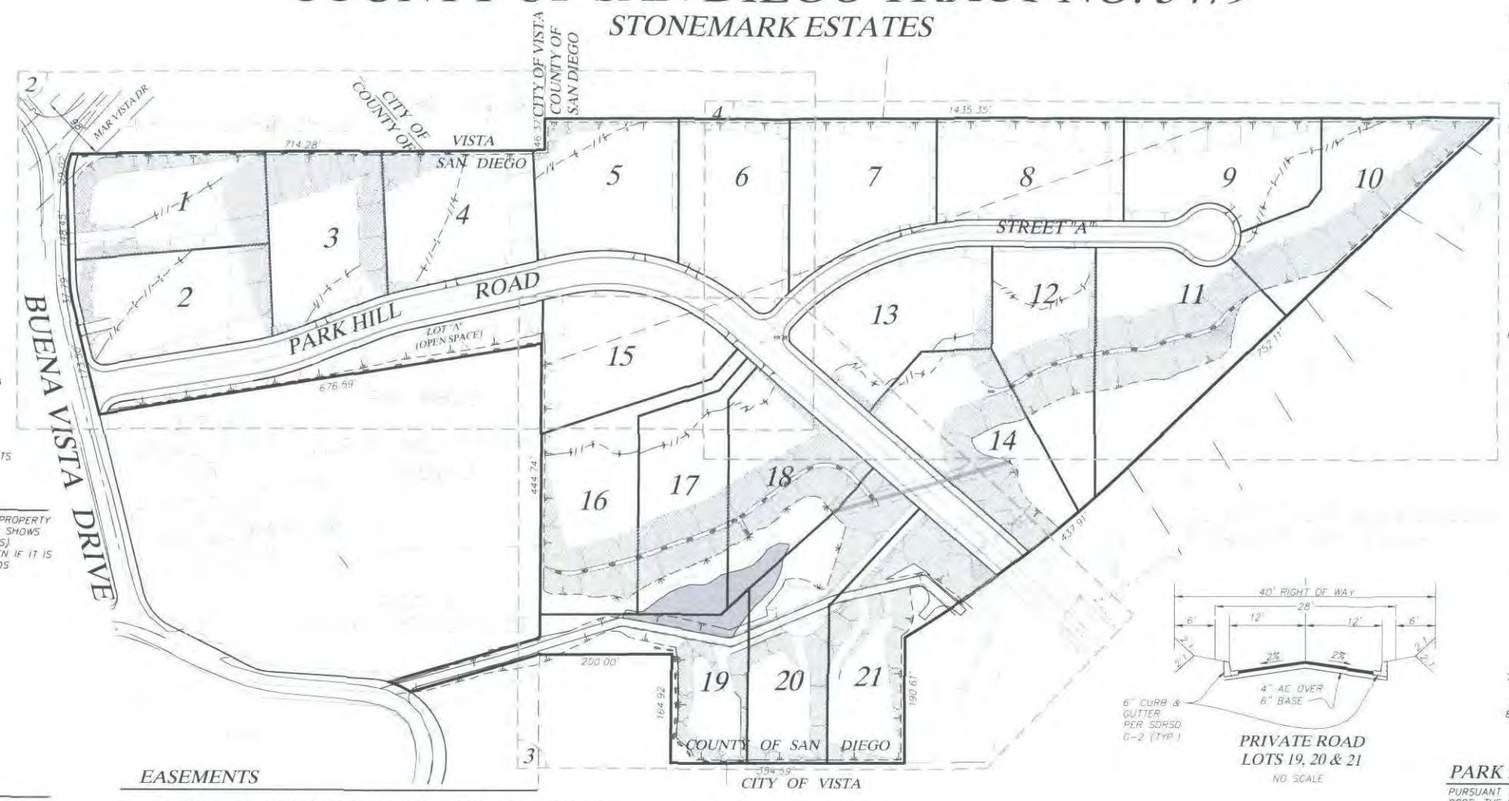
Resource Type	Mitigation Applied to Reduce Impacts to Below Significant	Level of Significance without Implementation	Level of Significance with Implementation
Archaeological Resources	Avoidance (CA-SDI-18743)	Potentially significant	Less than significant
	Temporary Fencing (CA-SDI-18743)	Potentially significant	Less than significant
	Grading Monitoring (including Native American monitor)	Potentially significant	Less than significant
Built Environment Resources	Archival Research, Recordation	Less than significant	Less than significant

Appendix A Site Plans

TENTATIVE SUBDIVISION MAP RPL # 1
COUNTY OF SAN DIEGO TRACT NO. 5479
STONEMARK ESTATES

LEGEND:

- PROPOSED FIRE HYDRANT
- EXISTING FIRE HYDRANT
- EXISTING CSP
- EXISTING SEWER
- PROPOSED SEWER
- PROPOSED SEWER MANHOLE
- 9 — PROPOSED LOT NUMBER
- PE 815 — PROPOSED PAD ELEVATION
- PROP FILL SLOPE (2:1 MAX)
- PROP CUT SLOPE (2:1 MAX)
- PROPOSED DAY LIGHT
- PROPOSED WATER LINE
- EXISTING WATER LINE
- EXISTING EASEMENT
- EXISTING CONTOURS
- PROPOSED BROW DITCH
- PROPOSED TYPE "B" CURB INLET
- PROPOSED TYPE "A" CO
- PROPOSED RETAINING WALL
- PROPOSED SITE DISTANCE AREA
- PROPOSED OPEN SPACE
- EXISTING DETENTION BASIN LIMITS



OWNERS / SUBDIVIDER

WE HEREBY CERTIFY THAT WE ARE THE RECORD OWNERS OF THE PROPERTY SHOWN ON THIS TENTATIVE SUBDIVISION MAP AND THAT SAID MAP SHOWS OUR ENTIRE CONTIGUOUS OWNERSHIP (EXCLUDING SUBDIVISION LOTS). WE UNDERSTAND THAT PROPERTY IS CONSIDERED CONTIGUOUS EVEN IF IT IS SEPARATED BY ROADS, STREETS, UTILITY EASEMENTS OR RAILROADS RIGHTS-OF-WAY.

STONE MARK 26, LLC
5422 NAPA STREET
SAN DIEGO CA, 92110
PHONE NUMBER: (619)-220-0775

BY: CESN COMMUNITIES, LLC
MANAGING MEMBER

BY: CESN CONSTRUCTION, INC
IT'S MANAGER

WALID ROMAYA, PRESIDENT — DATE
CESN CONSTRUCTION, INC.

ENGINEER OF WORK:

bHA, Inc.
land planning, civil engineering, surveying
5115 AVENIDA ENCINAS
SUITE "L"
CARLSBAD, CA 92008-4387
(760) 931-8700

RONALD L. HOLLOWAY RCE 29271 EXP. 3-31-09 — DATE

AERIAL TOPOGRAPHY

TOWILL
5933 SEA LION PLACE
SUITE 100
CARLSBAD, CA 92008

EARTHWORK QUANTITIES

CUT: 210,000 C.Y.
FILL: 210,000 C.Y.
EXPORT: 0 C.Y.

ASSESSOR'S PARCEL NUMBERS

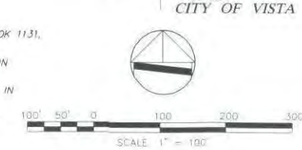
169-200-20
TAX RATE CODE: 20004 96047

LEGAL DESCRIPTION

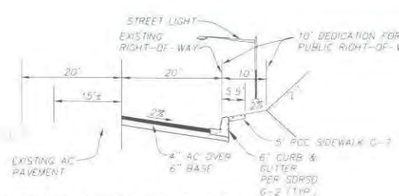
A PORTION OF LOT 6 OF SECTION 31, TOWNSHIP 11 SOUTH, RANGE 3 WEST, SAN BERNARDINO MERIDIAN TOGETHER WITH A PORTION OF LOT 12 AND LOT 13 OF RANCHO MAR VISTA, MAP NO. 2051, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA

EASEMENTS

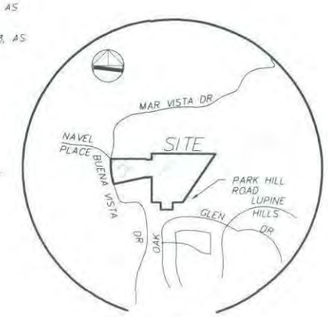
1. AN EASEMENT TO VISTA IRRIGATION DISTRICT, RECORDED OCTOBER 2, 1925, IN BOOK 1131, PAGE 145 OF O.R.
2. AN EASEMENT TO SAN DIEGO GAS AND ELECTRIC, RECORDED JANUARY 30, 1934, IN BOOK 274, PAGE 39 OF O.R.
3. AN EASEMENT TO SAN DIEGO GAS AND ELECTRIC, RECORDED DECEMBER 21, 1937, IN BOOK 720, PAGE 477 OF O.R.
4. AN EASEMENT TO VARIOUS PARTIES, RECORDED: MARCH 22, 1965, AS DOCUMENT # 50599 OF O.R.
5. AN EASEMENT TO LMD STONEGATE, LLC, RECORDED: OCTOBER 28, 2002 AS F/P 2002-0945813 OF O.R.
6. AN EASEMENT TO LMD STONE GATE, LLC, RECORDED: OCTOBER 28, 2002, AS F/P 2002-0945813 OF O.R.
7. AN EASEMENT TO LMD STONE GATE, LLC, RECORDED: OCTOBER 28, 2002, AS F/P 2002-0945813 OF O.R.
8. AN EASEMENT TO BUENA SANITATION DISTRICT, RECORDED: JUNE 18, 2003, AS F/P 2003-0718536 OF O.R.



KEY MAP



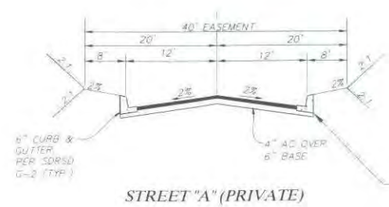
BUENA VISTA DRIVE(PUBLIC)
NO SCALE



VICINITY MAP
NTS
TB 1102 G-3

PRIVATE ROAD
LOTS 19, 20 & 21
NO SCALE

PARK HILL ROAD (PUBLIC)
NO SCALE



STREET "A" (PRIVATE)
NO SCALE

GENERAL NOTES:

1. STREET A WILL BE PRIVATE
2. GRADING AND IMPROVEMENTS SHALL BE IN ACCORDANCE WITH COUNTY OF SAN DIEGO STANDARDS
3. EASEMENTS OF RECORD NOT SHOWN HEREON SHALL BE HONORED, ABANDONED AND/OR RELOCATED TO THE SATISFACTION OF ALL INTERESTED PARTIES, AND PUBLIC UTILITY EASEMENTS NECESSARY TO SERVE THIS PROJECT WILL BE COORDINATED WITH SERVING UTILITY COMPANIES.
4. LOT DIMENSIONS AND AREAS SHOWN HEREON ARE APPROXIMATE. THE DIMENSIONS MAY BE ADJUSTED TO BE CONSISTENT WITH THE FINAL MAP.
5. ZONING REQUIREMENTS: APN #'S 169-200-20

	ZONE	EXISTING	PROPOSED
	USE REGULATIONS	A70	
	ANIMAL REGULATIONS	M	
DEVELOPMENT REGULATIONS	DENSITY	1.00	
	LOT SIZE	1 ACRE	
	BUILDING TYPE	C	
	MAXIMUM FLOOR AREA		
	FLOOR AREA RATIO		
	HEIGHT	G	
	LOT COVERAGE		
	SETBACK	C	H
	OPEN SPACE		
	SPECIAL AREA REGULATIONS		

6. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF THE PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON, AND AGREES TO OBTAIN VALID GRADING PERMISSIONS BEFORE COMMENCING SUCH ACTIVITY.

TOTAL LOTS AND AREA:
ACREAGE: 25.77 GROSS/22.66 NET ACRES
LOTS: (RESIDENTIAL) 21 + OPEN SPACE (1) + STREET A(1)
MIN. LOT SIZE: 1 AC MIN.
NO. DWELLING UNITS: 21
EXISTING GENERAL PLAN: RESIDENTIAL 1
REGIONAL CATEGORY: CURRENT URBAN DEVELOPMENT AREA
COMMUNITY PLAN: NORTH COUNTY METRO

UTILITIES:
SEWER: BUENA SANITATION DISTRICT
WATER: VISTA IRRIGATION DISTRICT
SCHOOLS: VISTA UNIFIED SCHOOL DISTRICT
FIRE: VISTA FIRE PROTECTION DISTRICT
TELEPHONE: AT&T
GAS & ELECTRIC: SAN DIEGO GAS & ELECTRIC CO

7. ALL CUT SLOPES ARE SHOWN AT 2:1 UNLESS OTHERWISE SHOWN ON THIS PLAN.
8. THIS SUBDIVISION USES CLUSTERING PURSUANT TO POLICY 1.1 OF THE RULE

PARK LAND DEDICATION STATEMENT

PURSUANT TO CHAPTER 1 OF DIVISION 10 OF TITLE 8, SAN DIEGO COUNTY CODE, THE SUBDIVIDER WILL PAY IN LIEU PARK FEES.

SPECIAL ASSESSMENT STATEMENT

NO SPECIAL ASSESSMENT ACT PROCEEDING IS REQUESTED FOR THIS PROJECT.

SOLAR ACCESS STATEMENT

ALL LOTS WITHIN THIS SUBDIVISION HAVE A MINIMUM OF 100 SQUARE FEET OF SOLAR ACCESS FOR EACH FUTURE DWELLING/COMMERCIAL/INDUSTRIAL UNIT ALLOWED BY THIS SUBDIVISION.

STREET LIGHTING STATEMENT

THE SUBDIVIDER INTENDS TO COMPLY WITH THE STREET LIGHT REQUIREMENTS AS SPECIFIED IN THE COUNTY STANDARDS. THIS SUBDIVISION IS PROPOSING ONLY PRIVATE STREETS.

ACCESS

ACCESS FROM PARK HILL ROAD AND BUENA VISTA DRIVE, ARE PUBLICLY MAINTAINED ROADS, TO THE BOUNDARY OF THE SUBJECT PROPERTY.

WAIVERS

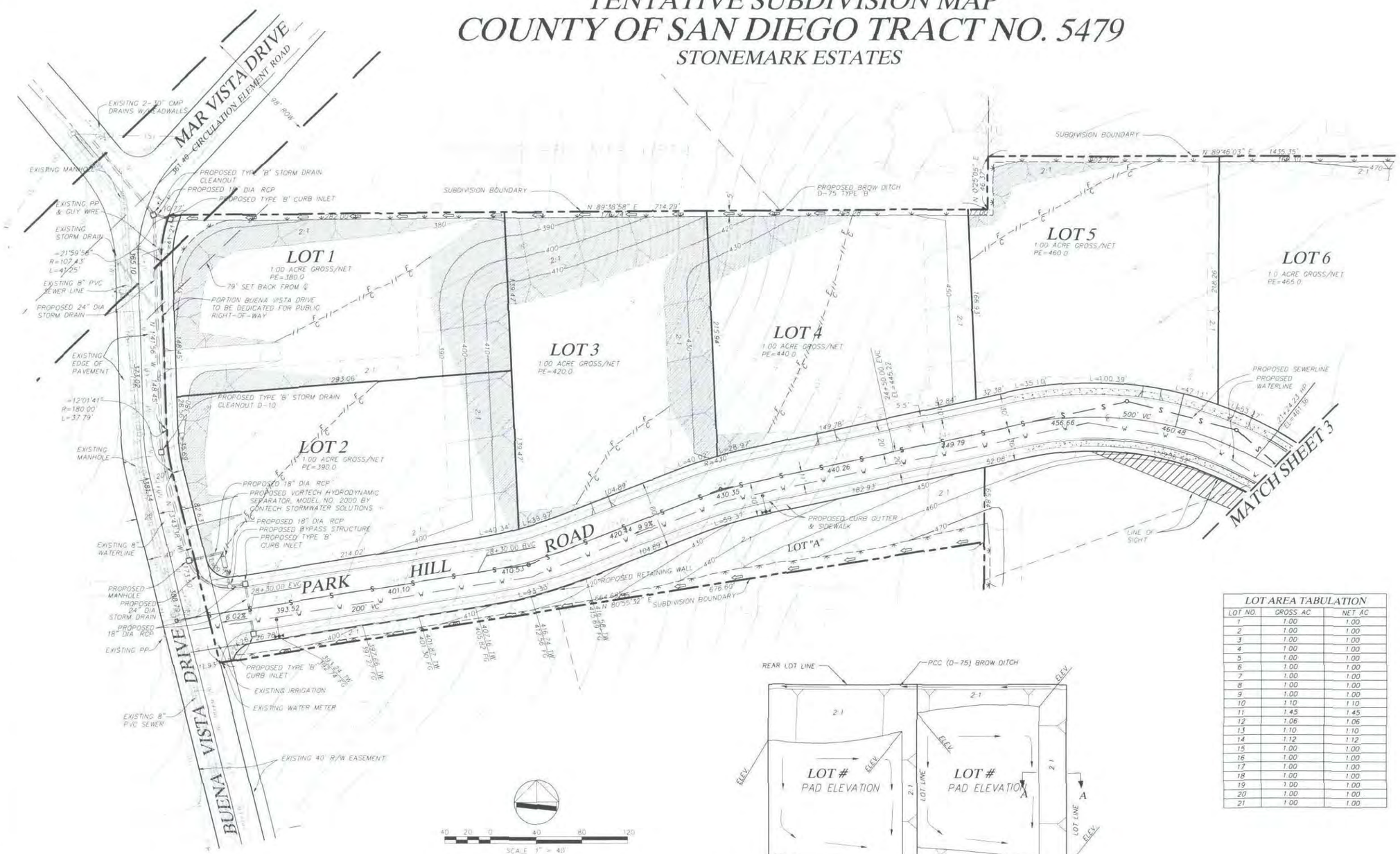
A WAIVER OF SECTION 81.401 (I) OF THE SUBDIVISION ORDINANCE IS REQUESTED FOR LOTS 20 & 21

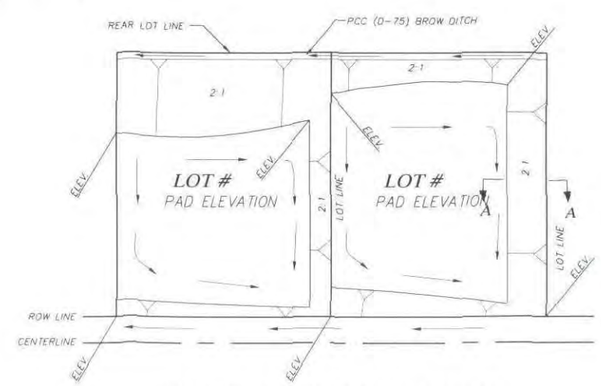
SHEET 1 OF 4

REVISIONS

No.	Description	Approved by	Date
1	REVISED LOTS		3/15/2007
2	ADDED (2) 6' BENCHES @ 30' FIRE TURN-AROUND, GENERAL NOTE 8 AND WAIVER NOTE. ALSO SWITCHED LOT NO'S 19 & 21		9/13/2007

TENTATIVE SUBDIVISION MAP
COUNTY OF SAN DIEGO TRACT NO. 5479
STONEMARK ESTATES





TYPICAL LOT GRADING - LOTS 1-21

NOT TO SCALE

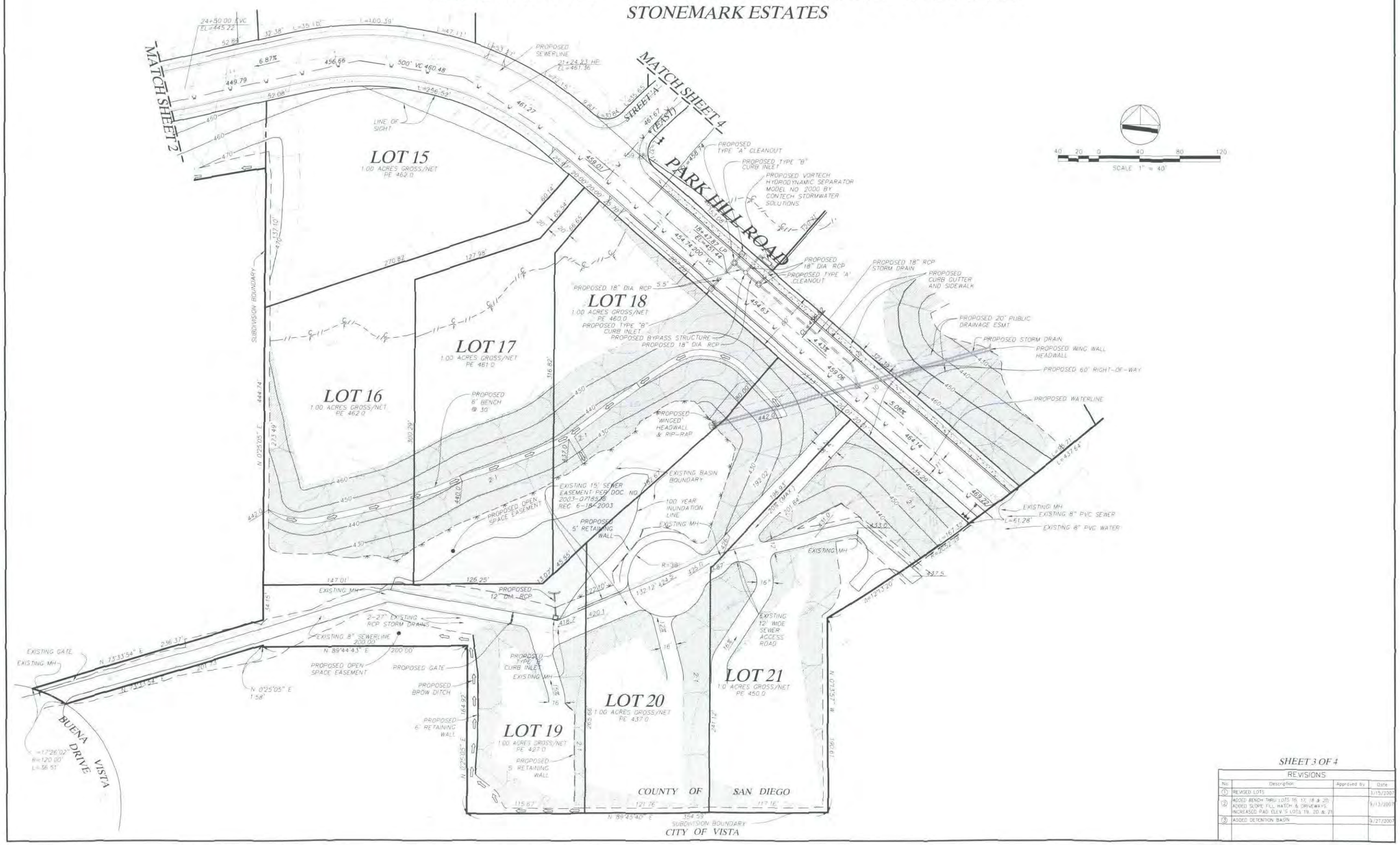
LOT AREA TABULATION		
LOT NO.	GROSS AC	NET AC
1	1.00	1.00
2	1.00	1.00
3	1.00	1.00
4	1.00	1.00
5	1.00	1.00
6	1.00	1.00
7	1.00	1.00
8	1.00	1.00
9	1.00	1.00
10	1.10	1.10
11	1.45	1.45
12	1.06	1.06
13	1.10	1.10
14	1.12	1.12
15	1.00	1.00
16	1.00	1.00
17	1.00	1.00
18	1.00	1.00
19	1.00	1.00
20	1.00	1.00
21	1.00	1.00

bHA, Inc.
land planning, civil engineering, surveying
5115 AVENIDA ENCINAS
SUITE "L"
CARLSBAD, CA. 92008-4387
(760) 931-8700

SHEET 2 OF 4

REVISIONS			
No.	Description	Approved by	Date
1	REVISED LOTS		3/15/2007
2	ADDED SLOPE FILL HATCH, DRIVEWAYS & 98' ROW @ MAR VISTA DRIVE		8/13/2007
3	ADDED STORMWATER BYPASS SYSTEM ADJACENT TO LOT 2		9/27/2007

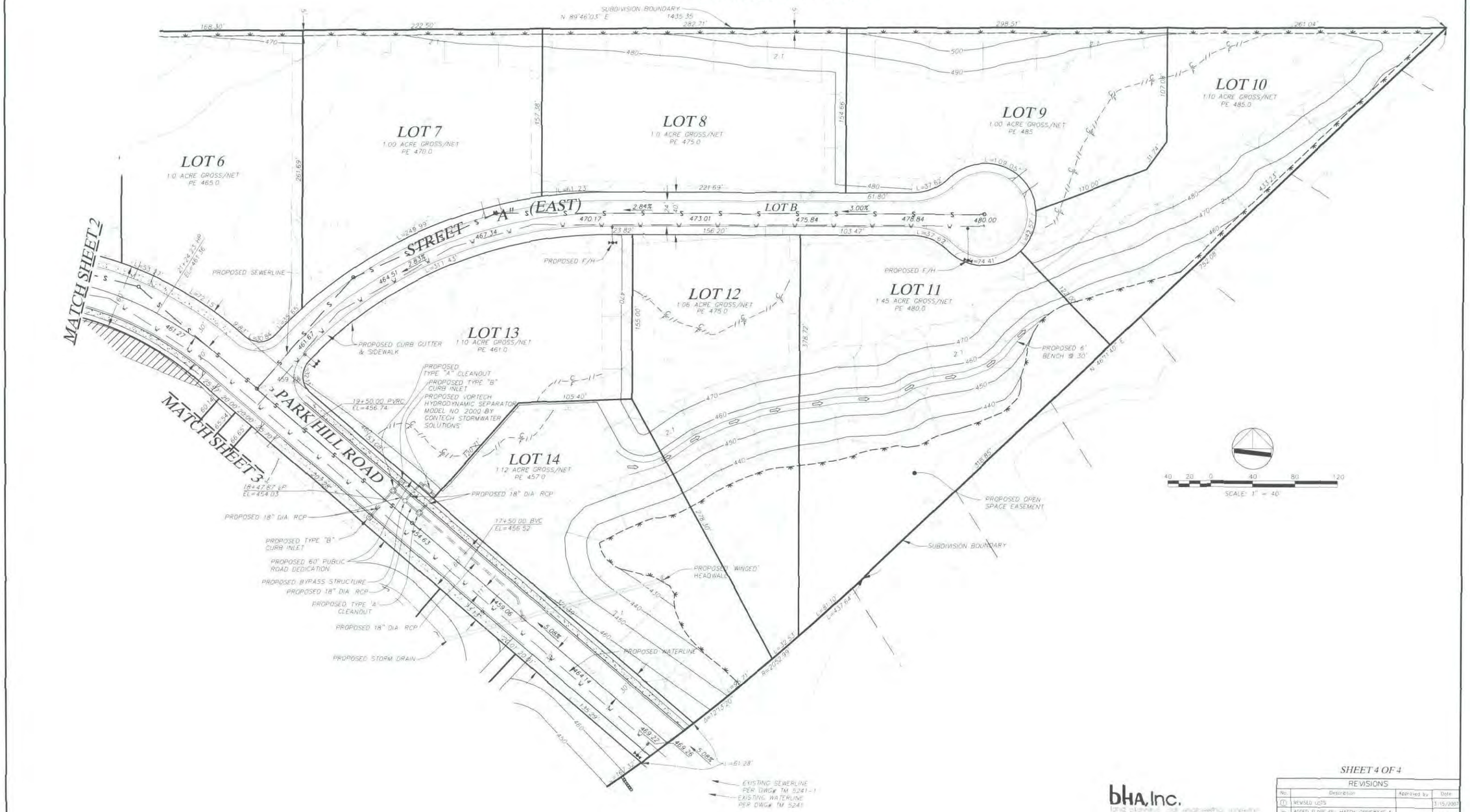
TENTATIVE SUBDIVISION MAP
COUNTY OF SAN DIEGO TRACT NO. 5479
STONEMARK ESTATES



SHEET 3 OF 4

REVISIONS			
No.	Description	Approved by	Date
1	REVISED LOTS		3/15/2007
2	ADDED BENCH THRU LOTS 16, 17, 18 & 20; ADDED SLOPE FILL, HATCH & DRIVEWAYS; INCREASED PAD ELEV'S LOTS 19, 20 & 21		9/13/2007
3	ADDED DETENTION BASIN		9/27/2007

TENTATIVE SUBDIVISION MAP
COUNTY OF SAN DIEGO TRACT NO. 5479
STONEMARK ESTATES



SHEET 4 OF 4

bHA, Inc.
land planning civil engineering surveying
5115 AVENIDA ENCINAS
SUITE 15
CARLSBAD, CA 92008-4387
(760) 931-8700

REVISIONS			
No.	Description	Approved by	Date
1	REVISED LOTS		3/15/2007
2	ADDED SLOPE, FILL, HATCH, DRIVEWAYS & 6' BENCH @ 30'		9/13/2007
3	ADDED STORMWATER BYPASS SYSTEM ADJACENT TO LOT 18		4/27/2009

Appendix B
Records Search Letters

SDSU
San Diego State University

South Coastal Information Center
College of Arts and Letters
4283 El Cajon Blvd., Suite 250
San Diego CA 92105
TEL: 619•594•5682

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM
SITE FILES RECORD SEARCH

Company: Bonterra Consulting

Company Representative: Brian Glenn

Date of Request: 12/11/2007

Date Processed: 12/11/2007

Project Identification: Stnmark J003: Stonemark 26

Search Radius: 1 mile

Historical Resources: SM **Date:** 12/11/2007

Trinomial (CA-SDI) and Primary (P-37) site maps have been reviewed. All sites within the project boundaries and the specified radius of the project area have been plotted. Copies of the site record forms have been included for all recorded sites.

Previous Archaeological Project Boundaries: SM **Date:** 12/11/2007

Project boundary maps have been reviewed. National Archaeological Database (NADB) citations for reports within the project boundaries and within the specified radius of the project area have been included.

Historic Maps: SM **Date:** 12/11/2007

The historic maps on file at the South Coastal Information Center have been reviewed, and copies have been included.

Historic Addresses: SM **Date:** 12/11/2007

A map and database of historic addresses (formerly Geofinder) has been included.

HOURS: 2 **COPIES:** 100 **RUSH:** yes

This is not an invoice. Please pay from the monthly billing statement

San Diego Museum of Man

REPORT ON ARCHAEOLOGICAL SITE FILES RECORD SEARCH

Source of Request:	**BonTerra Consulting**
Name of Project:	**Stnmark J003: Stonemark 26 Project Area**
Date of Request:	**December 10, 2007**
Date Request Received:	**December 11, 2007**

The Record Search for the above referenced project has been completed. Archaeological site file information is enclosed for the following sites located within a one-mile radius of the project area:

W – 1541
W – 1723
W – 1728 B
W – 1729
W – 1796
W – 2135
W – 2136
W – 2138
W – 2139 E, F, G, H, I, K
W – 3289
W – 3911
W – 4352

Bibliographic information is enclosed for the following archaeological environmental impact studies conducted within a one-mile radius of the project area:

EIS – 171
EIS – 304
EIS – 380
EIS – 383
EIS – 500
EIS – 502
EIS – 642
EIS – 656
EIS – 721
EIS – 750
EIS – 754
EIS – 940
EIS – 1084
EIS – 1364
EIS – 1614

SAN DIEGO MUSEUM of MAN
Teaching People About People

This Record Search is based only on information contained in the files of the San Diego Museum of Man. Archaeological site records and/or environmental impact studies pertaining to the project area may exist in other repositories.

Record Search completed by: _____
Garrett Knudsen

Date of Record Search: December 11, 2007

CONFIDENTIAL Appendix C
Maps of Previously Recorded Cultural Resources within 1-Mile of the Project Area

Appendix D
NAHC and Native American Correspondence

cc: Chip

County of San Diego

ERIC GIBSON
INTERIM DIRECTOR

DEPARTMENT OF PLANNING AND LAND USE

5201 RUFFIN ROAD, SUITE B, SAN DIEGO, CALIFORNIA 92123-1666
INFORMATION (858) 694-2960
TOLL FREE (800) 411-0017

November 19, 2007

TO:

La Jolla Band of Luiseno Indians
Mr. Rob Roy, Environmental Director
Pala Band of Mission Indians
Mr. Robert Smith, Chairman
Mr. Joseph Nixon, Cultural Resource Coordinator
Pauma/Yuima Band of Mission Indians
Mr. Christobal C. Devers Sr., Chairman
Rincon San Luiseno Band of Mission Indians
Mr. Vernon Wright, Chairman
Angela Veltrano, Rincon Cultural Committee
San Luis Rey Band of Mission Indians
Mr. Russell Romo, Chairman
Mr. Henry Contreras, Most Likely Descendent
Ms. Carmen Mojado, Co-Chair

RE: SACRED LANDS CHECK; Stonemark Est.; TM 5479;
Section: 31; Township:11S; Range:03W; Thomas Brothers: 1107 H3

The County of San Diego (County) requests your participation in the review process of the Stonemark Est. TM 5479. This project proposes a 33 lot subdivision. It is located at APN# 169-200-20-00 in the community planning area of North County Metro and is subject to the California Environmental Quality Act (CEQA), and the County of San Diego Resource Protection Ordinance (RPO). Staff contacted the Native American Heritage Commission (NAHC) who has requested that we contact you directly regarding the potential for the presence of Native American cultural resources that may be impacted by this project. The project is currently in the process of environmental review.

Any information you have regarding cultural places will be kept strictly confidential and will not be divulged to the public. Although we are providing to you for the purposes of your review this confidential information regarding the location of cultural places, this information is not available to the public.

The County of San Diego feels that your comments regarding decisions that may affect ancestral tribal sites are very important. Please forward any comments regarding this project to Gail Wright by December 19, 2007.

If you have any questions, you can reach me at (858) 694-3003; further contact information can be found below.

Sincerely,

Gail Wright

Gail Wright
Staff Archaeologist
Department of Planning and Land Use
5201 Ruffin Road, Suite B, MS 0650
San Diego, CA 92123-1666
(858) 694-3003
(858) 694-3373 fax
<mailto:gail.wright@sdcounty.ca.gov>

GW:gpg

Attachment
USGS San Marcos Map

cc: Stonemark 26 LLC, 5422 Napa St., San Diego, CA 92110
Ronald L. Holloway, 5115 Avenida Encinas Suite L, Carlsbad, CA, 92069
Terrence Powers, Project Manager, Department of Planning and Land Use, M.S. 0650
Chantal Saipe, Tribal Liaison, Chief Administrative Office, M.S. A-6

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

November 2, 2007

Ms. Gail Wright, Staff Archaeologist
COUNTY OF SAN DIEGO
5201 Ruffin Road, Suite B
San Diego, CA 92123-1666

Sent by FAX to: 858-694-3373
Number of pages: 3

Re: Tribal Consultation Per SB 18/Sacred Lands File Search for Project- **Stonemark Est, TM 5479 Project, Log No. 06-08-018; North County Metro Area; San Diego County, California**

Dear Ms. Wright:

Government Code §65352.3 and .5 requires local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of protecting, and/or mitigating impacts to cultural places. Attached is a Native American Tribal Consultation list of tribes with traditional lands or cultural places located within the requested plan boundaries

As a part of consultation, the NAHC recommends that local governments conduct record searches through the NAHC and California Historic Resources Information System (CHRIS) to determine if any cultural places are located within the area(s) affected by the proposed action.

A NAHC Sacred Lands File search was conducted based on the township, range, and section information included in your request and no sites were found within the area of potential effect you identified. However, local governments should be aware that records maintained by the NAHC and CHRIS are not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a cultural place. I suggest you consult with all of those on the accompanying Native American Contacts list, which has been included separately. If they cannot supply information, they might recommend others with specific knowledge about cultural resources in your plan area. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

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

If you have any questions, please contact me at (916) 653-6251.

Sincerely,

Dave Singleton
Program Analyst

Attachment: Native American Tribal Consultation List

CONFIDENTIAL Appendix E
Maps, Photographs, and Figures
of Cultural Resources Identified within the APE

CONFIDENTIAL Appendix F
DPR Forms