

**FINAL EIR APPENDIX D
CULTURAL HISTORY AND ARCHAEOLOGY REPORT**

LOS ANGELES STATE HISTORIC PARK CULTURAL HISTORY AND ARCHAEOLOGY

Prepared by: California Department of Parks and Recreation
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Prehistory

Paleoindian people, also referred to as Paleo-Coastal in California coastal regions, colonized the northern Channel Islands at least 12,000 years before present, based upon evidence from Arlington Springs on Santa Rosa Island. Daisy Cave on San Miguel Island provided good evidence for occupation dating back to 9500 years ca. BC. Paleo-Coastal people reportedly regularly used Daisy Cave from 8000 to 6600 ca. BC with abundant evidence of shellfish gathering and fishing (Erlandson et al. 2007:57). The above archaeological data provides the earliest evidence of human use in California, and indicated the use of seaworthy boats in California date from the Terminal Pleistocene. Erlandson et al. (2007:Table 4.1) reported the earliest reliable date for human occupation in the Los Angeles Basin as 8520 cal. BC, based upon a date taken on a human bone from Pit 10 of the La Brea Tar Pits, documented as site CA-LAN-159. The find in Pit 10 consisted of a nearly complete skull and portions of post-cranial skeletal remains (Wallace 1955:215-217). Little is known about the early inhabitants in the Los Angeles Basin and nearby areas, as few sites have been found and studied. At Malaga Cove, a site near Redondo Beach, a culture level that may date to the earliest stages of the Holocene and predate the Millingstone Horizon component was uncovered and labeled Level 1 (Walker 1951; Wallace 1955:217-218). This lowermost level at the Malaga Cove site yielded chert flakes, flake knives, microliths, pendants, beads, tarring pebbles, hammerstones, red ochre, incised stones, asphaltum, plus abundant shellfish remains and sea mammal bones (Wallace 1955:217-218; Moratto 1984:130, 132). One intriguing find at Malaga Cove was the apparent presence of an extinct sea duck (*Chendytes lawi*); this extinct species has been dated in other California coastal sites at between 11,250-10,280 calendar years before present and 2,720-2,350 calendar years before present (Jones et al. 2008:4106, Table 1).

The earliest well defined, geographically-broad cultural occupation in the Southern California coastal and near-coastal regions is the Millingstone Horizon or Period (Wallace 1955:219-221; Moratto 1984:124-133; Glassow et al. 2007:192-196; Jones 2008:137-139, 142-144). Sutton (2010:2-3, Figure 3) and Sutton and Gardner (2010:7, Table 1) propose to label this time period as the Encinitas Tradition, a concept first introduced by Claude Warren to integrate all the regional variations of the Millingstone cultural pattern (Moratto 1984:160, 162-163). Within the Los Angeles Basin, the revised Encinitas Tradition is labeled as “the Topanga Pattern” by Sutton and Gardner (2010: Table 1, 9-18). The Millingstone Horizon is now recognized as reaching back in time to around 10,000 years before present (Jones 2008:144). Sutton and Gardner (2010:8-9) place their earliest culture (The Topanga Pattern, Phase I) beginning at 8,500 years before present. King’s (2000:70) Early Period begins at 6000 BC, so it is similar in time depth. Many of these early coastal Millingstone sites have similar characteristics exhibiting a strong marine influence with subsistence remains dominated by shellfish, fish, marine mammals, and large and small terrestrial mammals, along with bone tools, beads, points, scrapers, manos, metates, and hammerstones as the dominant tools found. The inland Millingstone sites due to

their geographic position show little to no evidence for use of marine resources (Wallace 1954; Wallace et al. 1956:41-42; Basgall and True 1985:3.16-3.55; Dallas 2003; Glassow et al. 2007:192-196; Jones 2008). Interestingly, it has been recently argued that Millingstone does not represent "...a logical adaptive outgrowth from Paleoindian hunting or hypothesized Paleo-Coastal hunting/shellfish gathering" (Jones 2008:146). The technology and subsistence strategies reflected in Millingstone culture sites differ markedly from the preceding Paleoindian cultural remains and may represent a separate coastal migration, according to Jones (2008:146).

Sites in or close to the Los Angeles Basin considered to be part of the regional Millingstone cultural pattern include, CA-LAN-1 (Tank site), CA-LAN-2, Level 2 at Malaga Cove, CA-LAN-225 (Century Ranch), Zuma Mesa, Parker Mesa, Sweetwater Mesa, CA-LAN-111 (Encino), CA-VEN-1 (Little Sycamore Shellmound), and a variety of sites in San Bernardino County (Wallace 1955:219-221; Basgall and True 1985:3.16-3.55). The Millingstone Horizon is variously identified as ending within most areas of Southern California at "about 5500 to 5000 B. C." (Glassow et al. 2007:196) or over time between 5000 and 4000 years ago (Jones 2008:144). Basgall and True (1985:10.20-10.21) concluded based upon data from Crowder Canyon that "... Milling Stone manifestations persisted in the interior Transverse Ranges until at least 1000 years ago." Both Jones (2008:144) and Sutton (2009:61) agreed that the Sayles Complex referred to by Basgall and True is the latest date for Millingstone in California. Basgall and True (1985:10.20) point out that archaeological data from other areas of Southern California, if reevaluated in detail, may also yield evidence of relatively late dates for Millingstone.

The period of time immediately postdating the Millingstone Horizon, identified as the latter part of Topanga Pattern, Phase I and Topanga Pattern, Phase II in the Encinitas Tradition by Sutton and Gardner (2010:Table 1, 14-17), was a time of considerable changes in cultural traits (Glassow et al. 2007:199-200). Glassow et al. (2007:196-200) date this post-Millingstone time period at 4500 to 2000 cal. BC This period is situated squarely within the Early Period in the Santa Barbara Channel chronological scheme (King 2000:70). It is at this period that mortars and pestles first appear in Southern California, along with higher numbers of projectile points, according to Glassow et al. (2007:199). Sutton and Gardner (2010:Table 1, 14) place the appearance of the mortar and pestle in the region in their Topanga Pattern, Phase II, which begins at approximately 5,000 years before present. Both artifact innovations, the mortar and pestle and increased use of projectile points, are indicative of significant dietary changes, including, exploiting a larger variety of plant and animals. Shifts in settlement use are also observed at this time (Glassow et al. 2007:199).

New groups of people speaking Takic languages of the Northern Uto-Aztecan language family began to migrate into this area at the end of Millingstone times on the Southern California coast (Sutton 2009). One of these groups was the Gabrielino/Tongva (Kroeber 1925; McCawley 1996:2-3; Sutton 2009:37-39). Sutton (2009:61-62) argued that these Takic speaking people originated from the southern San Joaquin Valley. The entry of Takic-speaking people into the Los Angeles Basin who became the Gabrielino (Tongva) is hypothesized to have occurred about 3,500 years before present (Sutton 2009:39, 65-67). People adapted to living in the southern San Joaquin valley and adjoining interior valleys would have found familiar environmental conditions in the interior and foothill portions of the Los Angeles Basin (cf. McCawley 1996:23-27, 115-116). These same newly arrived people rapidly acquired the technological skills and

knowledge of environments to effectively exploit coastal resources; note, for example, the adaptability of prehistoric people in the Great Basin to rapidly changing environmental conditions (Mehringer 1986:34-37; see also Baumhoff 1978). These same Takic speaking people occupied the southern Channel Islands by 3,200 years before present. Evidence for the population change is seen in artifacts and burial data, linguistic data, and biological data (skeletal metrics and DNA) (Sutton 2009:41-62). The Gabrielino actually replaced the earlier people who likely spoke a Hokan language and little is known of what happened to these early Hokan speakers. The movement of Takic speaking people into the Los Angeles Basin may have been less a wholesale displacement of existing populations than settlement into a region that was sparsely populated at the time. Wallace (1955:221) stated, for example: "An impressive gap lies between the milling stone assemblages and the rich and elaborate artifact inventories of the late prehistoric period." Glassow et al. (2007: 196) pointed out that few sites [within the Los Angeles Basin and Santa Barbara Channel regions] dated between 3000 and 2000 cal. BC and attribute the decline to a poorly understood "environmental shift" after 3000 cal. BC. Although, Sutton (2009:65, 67) characterized the replacement thusly: "...it seems probable that the Hokan groups were either forced to move south or east or were eliminated." Hokan speakers may not have fully disappeared from this region; many no doubt blended into Gabrielino (Tongva) culture by marriage and some moved out of the area.

Mason et al. (1997:58-60) found that the San Joaquin Hills and adjoining coastal zone in Orange County was largely abandoned at the same time as the Takic expansion proposed by Sutton (2009). According to Koerper et al. (2002:67-68), there are significantly fewer radiocarbon dates between ca. 2000 BC and 1000 BC in the Newport Bay area and Orange County in general which suggests a lower population here. The existing population did not move out of the region entirely, but rather concentrated into fewer settlements near reliable water sources, e.g., Bolsa Chica. If a similar concentration of existing people took place in the expansive Los Angeles Basin around 3500 BP, it would have left vast areas open for settlement by the Takic speakers who migrated into the region.

Wallace's (1955:221-223) Horizon III, otherwise known as the Intermediate Period or Horizon, is identified in many regional chronologies as immediately following the Millingstone Horizon. Koerper et al. (2002:67-68) placed the date of the beginning of the Intermediate Period at approximately 1400 BC, which coincides with the break between the Middle Holocene and Late Holocene. In the Santa Monica Mountains region, this inception of the Intermediate Period corresponds to the later part of the Early Period (King 2000:70). In the Los Angeles Basin and Santa Barbara Channel region, there are important changes in settlement, e.g., increasing numbers of coastal sites, increasing evidence of sedentism, subsistence, technology, indicators of status differentiation during the period of 2000 cal. BC to cal. AD 1 (Glassow et al. 2007:200-203). It is during this time that Sutton (2010:7-10) sees the end of the revised Encinitas Tradition (Sutton and Gardner 2010) and the inception of what he terms the "Del Rey Tradition." According to Sutton (2010:14-16), an new "funerary complex" is introduced in the Los Angeles Basin around 2600 years before present which may be the precedent for the Mourning Ceremony seen in this region later (see discussion in McCawley 1996:161-165). According to Sutton (2010:14-15), archaeological evidence for what he terms the "Angeles Funerary Complex" consists of large rock features that contain broken ground stone and flaked stone tools, many of which are burned or ritually broken, cremated human remains, and faunal remains. According to

King (2000:72), Early Period people were distributed differently than settlement organization during the Middle Period and Late Period. Although there are numerous seasonally occupied sites identified to the Early Period, the degree of sedentism during the Early period differed little from settlement patterns observed at Spanish contact (King 2000:72-73). The Middle Period begins at 800 BC (King 2000:73).

Glassow et al. (2007:203-204) argued that a number of important innovations in technology and changes in social and economic systems took place in the time following, identified as AD 1 to AD 1000. There is evidence of population growth in the region and increasing status differentiation in which power is concentrated in specific individuals, such as the hereditary control of power (King 2000:73-74; Glassow et al 2007:204). King (2000:73-74) found at this time an "...increase in the importance of political integration of large areas to protect the operation of the economic system." In other words, warfare was greatly reduced throughout the region to facilitate trade. Glassow et al. (2007: 2003-2004) pointed out that the plank canoe and the bow and arrow are first in evidence at this time.

The Late Period, dated by King (2000:70, 74) at AD 1100 up to the 1800s, reflects a diversified subsistence, concentration of population into villages, diverse tools, extensive trade networks, rituals, the development of new economic systems, and dense settlements with conspicuous midden deposits (Moratto 1984:159-165; King 2000:74-75; see, also, Sutton 2010:21-27). These villages were large community centers and many are noted as the ethnographic villages in the Spanish mission registers. Glassow et al. (2007:205-210) similarly see the late prehistoric times from AD 1000 to Spanish colonization as a period of change in the Chumash and Gabrielino territories, although, they argue that the cultural patterns recorded in historic times were in place by AD 1300. Populations grew to their highest point in this region after AD 1000 (Glassow et al. (2007:209). On the coast, settlements are located near estuaries or near large fresh water sources. A new economic subsystem is indicated in specialized artifact types (King 2000:74-75). Sutton (2010:23) argued that general settlement in the Los Angeles Basin between AD 700 and AD 1150 changed from a series of "major seasonal villages" to a pattern of "fewer and larger permanent villages." The Gabrielino in late times may have resided in large, politically autonomous, socially stratified villages, however, archaeological evidence for them is relatively low (Glassow et al. 2007:210). Sutton (2010:25) similarly found that information on settlement patterns in the period from AD1150 to AD 1500 was lacking; he refers to this period as "The Angeles Pattern, Phase V." Along with economic changes were social and political changes necessary to pool and redistribute the food resources in order to serve the inhabitants. These changes allowed the inhabitants to take advantage of the diverse environment (including plants and animals) that they occupied (McCawley 1996:111-142; King 2000:19-46). The trade in steatite from Catalina Island increased markedly after AD1150 (McCawley 1996:136-137; Sutton 2010:25). The religious system was becoming more institutionalized and powerful as the influence of Chinigchinich cult spread (McCawley 1996:142-169).

The explorers who encountered indigenous people on land and sea voyages provide early accounts of the Gabrielino. Cabrillo's expedition in AD 1542 probably was the first known to make contact with the Alta California's indigenous people, however the group on Santa Catalina mentioned they had seen Spaniards on the mainland, which may be a reference to Spanish explorers who had visited the region along the Colorado River (McCawley 1996:4). In these

brief descriptions, though details are few and limited, they provide a fascinating glimpse into the Gabrielino lifestyle. It shows a successful, friendly, and creative people with technological innovations that even impressed the Spanish. In an account of the 1602 Vizcaino expedition, the Spanish noted the Indian canoes could hold more than twenty people at a time (McCawley 1996:4-5). During the Cabrillo voyage they documented 8-10 Indians in the canoes known as *te'aat* (McCawley 1996:4, 2002:46). The Spanish also noted fishing equipment, water vessels, excellent pots, and mortars of stone. A Spanish expedition under the leadership of Don Gaspar de Portola passed through present-day downtown Los Angeles and possibly through the present-day park on August 2, 1769 and crossed the Los Angeles River the following day (Dillon 1994:28-29; McCawley 1996:5-6; California State Parks 2006:28). The expedition was visited by local Indian people from a village thought to be *Yaanga*.

Ethnographic Data on the Gabrielino (Tongva)

Los Angeles State Historic Park (SHP) lies in the traditional territory of the Indian group known as the Gabrielino or Tongva (Bean and Smith 1978:Fig. 1; McCawley 1996:3, 23-24). They occupied the area encompassed by the Los Angeles Basin, San Fernando Valley, San Gabriel Valley, San Bernardino Valley, and along the coast from general area of Topanga Canyon down coast to Newport Bay (Bean and Smith 1978:539; McCawley 1996:23-24). A reexamination of Spanish mission register data indicates that the Chumash-Gabrielino boundary may have been slightly east of Topanga Canyon on the coast and at the western edge of the San Fernando Valley further inland (King and Johnson 1999:91-92; King 2000:66). O'Neil (2004:85) cited recent research indicating that the San Gabriel Mountains were not part of traditional Gabrielino territory, but rather those mountains belonged to the Serrano. O'Neil (2004:79-86), based upon the results of his recent ethnohistoric research, ended Gabrielino territory along the Santa Ana River at the coast and kept their territory on the lowlands; the Juaneño or Acjachemen people occupied the San Joaquin Hills just to the south of Newport Bay. The Gabrielino are credited with occupying the southern Channel Islands including, San Clemente, San Nicholas, and Santa Catalina (Bean and Smith 1978:Fig. 1; McCawley 1996:Map 2). Santa Barbara Island appears to have been considered part of Gabrielino territory, but it was never occupied long-term by Indian people (Bean and Smith 1978:Fig.1; McCawley 1996:24, 85). According to McCawley (2002:44), a smaller, less-habitable island such as Santa Barbara Island would have a place "...to hunt, gather seabird eggs, or collect lithic materials not available on other islands."

The name "Gabrielino" was applied to the indigenous people of the Los Angeles since so many of them were recruited to San Gabriel Mission in the late 1700s and early 1800s (McCawley 1996:3, 9). The term *Tongva* or *Tong-vā*, which apparently refers to a specific village in the San Gabriel area, has been adopted by many contemporary Indian people in the region as their tribal name (McCawley 1996:9-10). It is now believed the Gabrielino (Tongva) have occupied the Los Angeles Basin and surrounding areas for about 3500 years based on archeological, biological, and linguistic data (McCawley 1996:2-3, 20-21; Golla 2007:74; Sutton 2009:62, 65-67).

The exact Gabrielino population prior to Spanish colonization of Alta California is unknown, but historic accounts suggest that between 50-100 villages were noticed by the early explorers and that the average population of each village at the time of European contact was between 50-100 people (Bean and Smith 1978:540). If we use the high figures for a population estimate of early culture, we can see that maybe as many as 10,000 people of Gabrielino stock could have

occupied the mainland and the southern Channel Islands. Cook (1978:Fig. 1) does not give a specific population figure for the Gabrielino. He gives a figure of 18,500 for the Chumash and about 20,000 for the area of the remainder of Southern California that includes the Gabrielino, Tataviam, Kitanemuk, Western Mono, Serrano, Cahuilla, Juaneno, Luiseno, and Kumeyaay. According to McCawley's (1996:25) research, a population figure "...in excess of 5,000 is easily justified." Life in Spanish missions, however, exacted a heavy toll on the Gabrielino people as well as other California Indian groups in terms of population due to the introduction of diseases, crowded conditions, poor nutrition, and other factors (Castillo 1978:99-104; Johnson 1989:371-373; McCawley 1996:195-198)

One major ethnographic Gabrielino village close to Los Angeles SHP was the village of *Yaanga* (also referred to as *Yangna*, *Yanga*, and *Yabit*) reportedly located in the general vicinity of Pueblo of Los Angeles or the Los Angeles Civic Center (Dillon 1994:28-31; McCawley 1996:56-57; Gumprecht 1999:29, Fig. 1.6; King 2000:64). This village was first encountered by the Portola expedition on August 2, 1769 (Goldberg 1999:152-153; King 2000:64; California State Parks 2006:28). In 1771, Mission San Gabriel was established by the Spanish colonists; this mission was the closest to the present-day park. Other manifestations of this village name could be *Jana*, *Janga*, or *Geveronga*, because this is also listed in the Mission San Gabriel records as adjacent to the Pueblo of Los Angeles. It could be the aboriginal name was reinterpreted by different native groups, hence the name difference although the location remains consistent with the historic accounts (McCawley 1996:56-57). Several recruits were listed from this village in the records of Mission San Gabriel between 1788-1809. This is consistent with the date of the founding of the Pueblo de Los Angeles in 1781. According to King's (2000:65) mission register research, 179 Gabrielino people were recruited to San Gabriel Mission from *Yaanga* or *Yanga* and 1 individual from the village was recruited to San Fernando Mission. The relatively large number of mission recruits indicates this village in present-day downtown Los Angeles was one of the largest Gabrielino villages in the entire region.

The village of *Yaanga* was later instrumental in the founding of Pueblo de Los Angeles as the Mexican governor (Neve) wanted a Native American village population to support the new community with labor and materials (California State Parks 2005:17-18). Later in time the public demanded the relocation of the native village of *Yaanga* or *Yangna* from the civic center to southeast corner of Commercial and Alameda streets and renamed it "Rancheria of Poblanos [settlement of the people]" (Robinson 1952:15-17 in McCawley 1996:202). Later it was moved again across the river to a site where Cesar E. Chavez Ave. and Mission Rd. now meet.

The Gabrielino who lived in the present-day Los Angeles area were known to themselves as *Kumi'vit* (Bean & Smith 1978:548); McCawley (1996:10) spelled this name *Komiivet*. Gabrielino is a Cupan language in the Tatic family, which is part of the Uto-Aztecan linguistic stock; the Gabrielino throughout their territory reportedly spoke three or more dialects (McCawley 1996:11, 90). They were, next to the Chumash, one of the richest, most powerful, and wealthiest Indigenous groups in California (Kroeber 1953:621-622; Bean and Smith 1978:538; McCawley 1996:111-142). Their influence was far reaching and they held territory in a large section of Southern California including southern Channel Islands. They were similar to the Chumash in technology, craftsmanship, wealth, influence, and population.

A major difference between the Chumash and the Gabrielino (Tongva) was their burial practices. The Gabrielino (Tongva) had a long mourning ceremony (Bean and Smith 1978:545-546; McCawley 1996:161-165) and they both buried their dead and cremated them (Kroeber 1953:633; McCawley 1996:157; see, also, Goldberg 1999 and Sutton 2009:55-60). The annual mourning ceremony may have spread from the Gabrielino to most of the other Southern California native groups (Bean and Smith 1978:546). One of the other religious beliefs was the appearance of a god *Chinigchinich*. This deity spoke to the populace and gave them a set a tribal laws and religion. It manifested itself into elaborate temples at villages or sacred enclosures, which later spread to other native groups by the time of the Spanish Era (Bean and Smith 1978:548; McCawley 1996:143-145).

The Tongva or Gabrielino had a complex social system that was as complicated and successful as the Chumash, their neighbors to the north. The leader of the village involved a chief known as a *tomyaar* (or *tumia:r*) who headed each lineage group: had political authority over the group, economic control over resources, organized the extensive trade networks, often oversaw visiting dignitaries, and was given high social standing in the community (McCawley 1996:90). Villages were politically autonomous composed of non-localized lineages (Bean and Smith 1978:543). Professional groups formed organizations such as guilds that performed specialized skills such as canoe building, healing (shamans), and other crafts (such as bowl-makers) much as the Chumash did north of Tongva territory. Trade guild members also were held in high esteem within the villages.

The Gabrielino (Tongva) economic system centered on control of the natural resources and the redistribution of wealth (McCawley 1996:111-114). The exact means by which this redistribution of wealth occurred is not known, but it seems that each person had to bring a portion of the food collected each day to the *tomyaar* as a tribute. So the *tomyaar* controlled the vast food resources of his lineage and possibly the tribe (McCawley 1996:90-91). This system taught members a sense of community and the importance of a larger social group than the family unit, which was characteristic of most early hunter and gatherer groups.

Gabrielino society was organized into patrilineal lineages (King 2000:6), whereas the neighboring Chumash Society were not organized by lineage. More than likely, Tongva settlements used moiety organization of local lineages, where wives would also reside with their husbands. Patrilineal bands are one of the earliest and simple (common) organizational structure of hunter and gatherer societies (King 2000:6). “Patrilineal bands had local exogamy, group sizes of fifty to a hundred, political autonomy, patrilineal descent and land inheritance, patrilocal residence, and communal land ownership” (Kelly 1995:11). Most of this description of patrilineal bands among hunter-gatherer societies fits what we know of Gabrielino (Tongva) tribal organization. The Gabrielino, similar to the Chumash, did have a hereditary chieftainship. King (2000:4-5) noted that the Gabrielino (Tongva) had ceremonial managers who were in charge of secret dancing societies and were called *paha*.

Extensive networks of trade and ritual union are reported to have linked the Gabrielino with the Cahuilla, Chumash, Serrano, and Luiseno (Bean and Smith 1978:547; McCawley 1996:112-114). These networks or alliances were often sealed with a marriage between the Gabrielino with the neighboring group. King and Johnson (1999:78-79) concluded that extensive marriage

ties existed between the Chumash village of *Humaliwo* and Gabrielino (Tongva) villages along the western end of their territory, based upon data in mission registers. Indeed, King (2000:66) argued that "...*Humaliwo* was the political capitol of both the Santa Monica Mountains Chumash and the Western Tongva (Gabrielino or Tongva settlements west of the present Los Angeles River and on the Southern Channel Islands)."

Three social classes based on hierarchy are known among the Gabrielino: (1) an elite class which included chiefs, their family, and the very rich, (2) a middle class from long established lineage (such as guild families), and (3) the lower class which included everyone else (Bean and Smith 1978:543). Other classes were also known including a poor class or undesirable class, plus a still lower class of slaves usually losers of a battle (McCawley 1996:108).

One of the most useful early accounts of Gabrielino life is Father Boscana's book "Chinigchinich" which was the first comprehensive study of a California Indian group. Father Geronimo Boscana describes the Indians of Mission San Juan Capistrano. A large portion of the account, describing the rituals and beliefs, of the Chinigchinich deity, comes from Gabrielino sources (McCawley 1996:7-8). First published in 1846 by Alfred Robinson, it has been printed several times, all in very limited editions. It is an important source, as it is one of the earliest and most complete ethnographic accounts on the lives of the Juaneno and Gabrielino Indians. It also details the creation myth for the Gabrielino people (McCawley 1996:7-8, 143-145).

Hugo Reid was another historic person to study the Gabrielino. He was married to a Gabrielino woman Victoria, a daughter of a chief from the tribe *Comicranga*. His letters were published in the Los Angeles Star newspaper starting in 1852 (McCawley 1996:8-9). McCawley mentions that he also compiled an English-Indian language manual for the Indians of Southern California. They are reportedly unavailable or lost. Many other scholars studied the Gabrielino and produced linguistic and/or ethnographic data such as Taylor has a dictionary (1860), Loew (n.d) in 1875, Merriam in 1903 (published in 1979), Kroeber (1925), Henshaw (n.d.), and others. Many of these compiled extensive vocabulary lists. McCawley (1996:237-288) has reproduced some of these vocabulary words. In total, it represents an impressive vocabulary covering people, places, things, body parts, human conditions, emotions, clothing, weapons, dwellings, and ritual items.

The Gabrielino had an extensive oral literature, rituals, myths, songs, and stories. This oral literature included stories about Coyote (Kroeber 1953:624). Their stories also involved the constellations (such as the Pleiades). The sun and moon figured in their cosmology. Crow, Raven, Owl, and Eagle were recognized as sacred animals. What association these figures had in rituals is not known. The erection of temples is known where formal tribute to Chinigchinich deity occurred (Johnston 1962). This is similar to some Chumash sacred sites.

The Chinigchinich religion began with the Gabrielino and involved the use of Toloache and may have been a "crisis cult" based on the conditions arising from European contact (McCawley 1996:143-145). There is evidence that this cult was widespread prior to European contact (Harrington 1962). This religious system probably underwent change as a result of contact with the Europeans and the resulting conflict, chaos, and death that followed. This religion focused on their god Chinigchinich, who created their world out of chaos. Though several different versions or stories exist, the Gabrielino received their tribal law, religion, and moral code from

this deity (Bean and Smith 1978:548). Gabrielino (Tongva) influence was so widespread that this religious system spread to other neighboring groups in the historic or proto-historic period.

Many rituals are noted in the literature including mourning rituals, toloache ceremony, possible puberty, and dances (McCawley 1996:143-169). It is known that girls upon entering puberty underwent a ceremony, but it is not known whether all males underwent a puberty ceremony (Bean and Smith 1978:545). Rituals served as the binder to the society that reinforced norms and values. The behavior tied them into their Chinigchinich deity as well.

Houses were domed, circular in shape with thatched roofs composed with tule, fern, or Carrizo; house on the islands at times differed in materials (McCawley 1996:Plate 1, 29). They would often use whale vertebra stools and the houses had a central fire pit. Brush ceremonial structures known as a *yuva'r* (Bean and Smith 1978:542; McCawley 1996:28). The *yuva'r* was a ceremonial structure used to pay tribute to Chingichinich. Other structures common in villages included sweat lodges, menstrual huts, and a practice ceremonial hut. Sometimes gaming areas were also noted.

Two of the more important events to occur during the Portola expedition of 1769-1770 were the naming of Los Angeles by Fray Juan Crespi on August 2, 1769 and naming of redwoods. He named a spot near the Los Angeles River as “Nuestra Senora de los Angeles de la Porciuncula- this being the name we have christened it with because, in our Order, this day when we have come to it is when that known indulgence is to be gained...” (Brown 2001:339). His diaries were important, as they documented the potential of settling this new land and establishing missions. His accounts are noteworthy for many things, early descriptions of the Native Americans, the landscape, natural harbors, rivers, and other natural resources.

Mission San Gabriel was established first in this area in 1771. Nearby Mission San Fernando was established in 1797. The local Native Americans were recruited into these two missions. The mission system changed the lives of the indigenous Native American population dramatically (Milliken 1995; McCawley 1996:191-198). Their cultural lifestyle underwent fundamental changes as they lost people to the mission system. Pressures from the mission influenced settlement pattern changes that relocated Native American Villages to more isolated and less fertile areas. A variety of factors influenced the Native people to join the missions.

Native Americans were drawn into Spanish missions for a variety of reasons. Glass beads or other European manufactured goods were used as an incentive for recruitment in Chumash territory (Johnson 1989:366-367) and other areas of Alta California (Milliken (1995:104-105). The glass beads had the effect of disrupting normal mechanisms of exchange, and the Spanish possessed other material goods that interested Indian people (Johnson 1989:366-368). The livestock roaming the lands around the mission devastated the plant communities Indian people depended upon for foods. The opportunity for advancement and stability might have influenced some, with the opportunity to escape hierarchical ranking and status conscious Chumash culture for example (Johnson 1989:368). Johnson (1989:368) pointed out “there were undoubtedly non-economic motives as well: religious, psychological, social, and political.” Milliken (1995:104-107, 129-136) identified a variety of economic, social, and psychological reasons that Indian groups in the San Francisco Bay region joined the Spanish missions; the fact that their normal

everyday lives had been significantly disrupted by the Spanish that usurped their lands and aspects of their culture. This fact might have influenced groups such as the Gabrielino as well. This was an opportunity for lower status Native Americans to achieve success within a new social order, an everyday fact that would have been important to Chumash or Gabrielino people. Certainly the economic and social security of the missions was an enticement and after this recruitment process began, it no doubt perpetuated itself (Johnson 1989:373; Allen 1998:93-94).

Mission life differed dramatically from traditional lifestyle. Men and women's activities changed (McCawley 1996:194-196). Men learned how to farm, make metal tools, tend animals, make adobe blocks and tiles, as well as to construct adobe buildings and features. Women in contrast learned how to craft, sew, and cook, as well as maintaining more traditional activities. The Native Americans worked much longer hours than before, working in the agricultural fields or doing crafts from early morning until dark. Many Native Americans probably did not understand the regimen of work needed for agricultural production, as it is much more labor intensive than their traditional hunting, gathering, and fishing lifestyle. While they received regular meals, the meals were not substantial enough at some missions for the hard work the missions demanded (Castillo 1978:103; Walker 1989). Mission food for the Native Americans was constantly subsidized by traditional food (Walker 1989:352-355; Allen 1998:58-63; Carrico 2008:25-26). Other missions did supply their neophytes with meats from domestic animals and other cultivated plant foods that provided an adequate diet, although the neophytes continued to hunt and gather and consume traditional foods (Milliken 1995:86-88; Allen 1998:55-68).

Walker studied the bones of neophytes from La Purisima Mission and compared those of their prehistoric and Protohistoric predecessors and found that the long bones of Mission Indians were smaller, reflecting retarded growth, possibly attributable to nutritional deficiency of the mission diet or the combined effects of poor nutrition and infectious diseases (Walker 1989:354-355). Diseases had profound effects upon Indian people of the San Francisco Bay region who had been recruited into the missions, with mortality rates increasing significantly from pre-Contact times (Milliken 1995:91-92, 137-138, 172-176). Specific details on the effects of Spanish mission life on the Native Americans are extensive (Cook 1976; Bean and Smith 1978:Table 1; Castillo 1978:99-104, 1989; Hornbeck 1989; Hoover 1989; Milliken 1995; McCawley 1996:191-200; O'Neil 2004:158-174).

The California Indians resisted Mission incarceration almost from the beginning of Spanish occupation. In fact, Mission San Gabriel was one of the missions that the natives actually opposed the initial founding (McCawley 1996:189-191). In one incident, a show of force by the native Gabrielino (Tongva) against the Spanish colonists occurred when one of the soldiers in a Spanish party had raped the local chief's wife (McCawley 1996:190). The Chief was killed during the subsequent raid on the Mission and his head was placed on a pole at the site as a deterrent to future insurrections. Later, many of the other missions were sites of conflicts or open rebellion between Spanish and Native Americans (Kroeber 1953:711-712; Castillo 1978:103-104; McCawley 1996:198-200). Resistance was common and the degree that it existed and how widespread that resistance was, is unclear. Recently, scholars such as Farnsworth (1998:44-50) have indicated that Native American resistance was a form of "cultural negotiation." This can be viewed as a means of trying to hold-on to their traditional culture. Resistance was practiced in many forms including fugitivism, work slow downs, feigned sickness, loss of tools,

misunderstanding directions, theft of tools and supplies, infanticide, abortions, etc. (Hoover 1989:402; Farnsworth 1998:45).

Farnsworth (1998) documents that at Mission Soledad, traditional Native American activities were clearly evident near the Neophyte housing, while at the kitchen area and at the Missionaries garbage pit such evidence is slight. While this is probably not a comprehensive examination as the three features examined clearly represent different ethnic backgrounds, his research reflects a similar conclusion to Deetz' (1963) earlier study at La Purisima Mission's neophyte quarters. The key is that the Native Americans were continuing to make traditional tools, eat traditional foods, and probably practice traditional religion at the missions (Cook 1943:145-153) even with the threat of corporal punishment hanging over them. Clearly the Native American lifestyle was changing and men's behavior was more modified than women's behavior: for example, at La Purisima Mission (Deetz 1963:42). Men's roles changed more in the missions as their duties involved more construction, maintenance, and agricultural chores (Deetz 1963:32, 42-47) and less with traditional duties such as tool making, hunting, gaming, and others. There is an archeological site recorded at La Purisima Mission that reflects more of these traditional activities.

The skills learned from Mission Life in part prepared the neophytes as a potential labor force as hired hands or servants for the ranches during the subsequent Mexican Period. And, the Mexican government policies left them few choices (Bean and Smith 1978:Table 1; Castillo 1978:104-106; McCawley 1996:203-207; Carrico 2008:40-46). The main point germane to this study is once the missions were secularized (in the 1830's) and then sold by Governor Pio Pico mostly to his Mexican compatriots, there were few options for the Native Americans. The best aboriginal lands were now Mexican ranchos. Many of the missionized Indians went to live and work on the ranches that formed from former Mission lands (Castillo 1978:105). Some Indians petitioned the U.S. government for the local land and often they could substantiate and support their claims to the land (Carrico 2008:52-58).

A few Gabrielino people received shares of mission land and one of these was Victoria Reid (wife of Hugo Reid). Victoria supposedly received Rancho Huerta de Cuati of 128 acres (Pear Orchard) and Hugo received Rancho Santa Anita (McCawley 1996:204; Cowan 1956:31). However, V. Reid and Workman were denied the Mission San Gabriel claim. Seven other Indians received 3 grants: Rancho Escorpion of about 1110 acres to three Indians and Rancho El Encino to three Indians, and a small grant to an Indian Simeon near San Gabriel (Cowan 1956:78, 34 and McCawley 1996:204). This was the original goal of secularization, but these examples were the exception rather than the rule. Epidemics also continued to take alarming tolls on specific groups that had avoided many of these diseases earlier due to their remote locations away from the missions (McCawley 1996:204-205).

Just prior to the Mexican-American war, Mexican aggression and reprisal against any Native American violence or protest was brutal and extreme (Castillo 1978:104-107; Cook 1943). In fact, one of the bloodiest campaigns of the Mexican-American War was a Mexican reprisal on the Luiseno at Temecula in 1847 (Castillo 1978:106-107). Some Luiseno were suspected of killing 11 Hispanos at Agua Caliente and they slaughtered between 33-100 Natives at the

Temecula rancheria. Later in the American Period, things did not improve as the relations turned into unsanctioned “Indian Wars”. This period included the Clear Lake massacre in 1849. The army stated that about 135 men, women, and children were killed, many brutally.

In 1850 authorities passed a law that if Native Americans were found guilty of vagrancy (a vague situation: open to interpretation), they could be sold as slaves to the highest bidder. Children could also be bound to a white citizen for a period of years. This made for a life of slavery for the unfortunate victims. One individual Cave Couets used the indenture process with impunity. He was the local Indian agent, a justice of the peace, and a landowner and friend of John Forster (brother in law of Pio Pico) and much of his ranching labor was Native American listed as “monthly laborer” in the 1860 census (Swanson 1994). It was not a pleasant time for the Native Americans. Their rebellion to this treatment was then seen as aggression, tantamount to a declaration of war and was treated as such.

Then in 1853 Congress authorized the establishment of no more than five military reservations for \$250,000 (Castillo 1978:110). Despite the humanitarian intentions, it was subject to the greed and graft of its agents. The first two agents Beale and Henly were both removed under charges of massive corruption. The system was a failure because the agents had little oversight by the government, kept poor records, and they took advantage of the Indians to make more money. In general, the state of Native Americans continued to deteriorate until 1870. “In 1863, a smallpox epidemic raged in Los Angeles and took a heavy toll in the Indian and Mexican Districts” (Newark 1930: 202-203).

However, the last major insurrection was the Modoc War of 1872-1873. Native American population continued to decline as well as their social and economic upheaval inherent in hard times. In 1870, the first reservation in the southern part of the state established the San Pasqual Pala Reservation. Over the next several decades, new reservations were established to house the “Mission Indians.” Most of these reservations were located in southern California (14 of 17). These reservations were established on land that was considered barren, lacking water, and generally worthless to the public (Castillo 1978:116). Indian day schools were attempted in order to better assimilate natives into white society. This attempt met resistance from the Indian families themselves. Also at many of the schools, the older Indians saw this assimilation as a threat to tribal life and rebelled, often burning the schools (Castillo 1978:115-116). There were no reported major disease outbreaks or epidemics during this period, until the 20th Century. Southern California Indians got relief when the state created 13 separate reservations for mission Indians in 1875-1877 (Castillo 1978:114).

Archaeological Records Review

An official information search was conducted by the Department of Parks and Recreation for the subject parcel in May 2002. The results of that search were that no prehistoric archaeological sites were found within a ½ mile radius of the proposed park. Two historic archaeological sites were found within a ½ mile radius of the park (19-002929 and 30-002959). Ten recorded historic buildings and sites were identified within a half-mile radius of the park. One was located within the project area (19-150329).

Landmarks found near Los Angeles SHP consist of the following:

#144. Nuestra Senora La Reina de Los Angeles La Iglesia de Nuestra Senora la Reina de Los Angeles-the Church of Our Lady the Queen of the Angels. It was dedicated on December 8, 1822. Originally known as La Iglesia de Nuestra Senora de Los Angeles, the church was the only Catholic Church for the pueblo. Today it primarily serves the Hispanic population of Los Angeles. Located at 535 North Main Street near Macy Street.

#145 Avila Adobe. This adobe house was built ca. 1818 by Don Francisco Avila, Alcade (mayor) of Los Angeles in 1810. Later, the adobe residence was used as Commodore Robert Stockton's headquarters in 1847. Avila Adobe was repaired by private subscription in 1929-1930 when Olvera Street was opened as a Mexican marketplace. It is the oldest existing house in Los Angeles. Located in El Pueblo de Los Angeles, Olvera Street, Los Angeles. 19-167019

#156 Los Angeles Plaza. This site is a part of the original pueblo land of El Pueblo de la Reina de Los Angeles de Porniciuncula founded in 1781 under Spanish Laws for the Indies during the reign of King Carlos III. The current Plaza is located close to the site of the original plaza. It was the center of the settlement founded by Governor Felipe de Neve. When the Plaza Church was completed in 1822, this site was reserved as a public plaza. It was landscaped in 1871 and has since served that date as a public park. Located in El Pueblo de Los Angeles, 500 block of North Main Street, Los Angeles. 19-173141.

#159 Pico House (Hotel) Pio Pico constructed the Pico House in 1869-1870. The first three-story hotel built in Los Angeles, it had about eighty rooms, large windows, a small interior court and a grand staircase. Located in El Pueblo de Los Angeles, 400 block of Main Street, Los Angeles. 19-171572

#171 Merced Theatre. The Merced Theatre, erected in 1870 on North Main Street next to the Pico House, was the first building built expressly for theatrical purposes in Los Angeles. It was built by William Abbot, a cabinet maker, and named in the honor of his wife, Merced Garcia. Located in EL Pueblo de Los Angeles, 420 North Main Street, Los Angeles. 19-171566

#301 Lugo Adobe (site of). The Lugo adobe site, said to have been built in the 1840's by Don Vincent Lugo, was one of the very few two-story houses in the Pueblo of Los Angeles. In 1867, Lugo donated this house on the Plaza to St. Vincent's School (later became Loyola University). From the 1880's until it was razed in 1951, the building was occupied by the Chinese. Located in El Pueblo de Los Angeles, southeast corner of Los Angeles and Alameda Streets, Los Angeles. 19-1749008.

#655 Portola Trail Campsite (no 1). Spanish colonization of California began in 1769 with the expedition of Don Gaspar de Portola from Mexico. With Captain Don Fernando Rivera y Moncada, Lieutenant Don Pedro Fages, Sgt. Jose Francisco Ortega, and Father's Juan Crespi and Francisco Gomez, he and his party camped near this spot on August 2, 1769, en route to Monterey. Located at the entrance to Elysian Park at the northwest corner of North Broadway and Elysian Park Drive, Los Angeles. 19-174919.

#730 Old Plaza Firehouse This was the first building constructed as a fire station in Los Angeles. Built in 1884, it served as a firehouse until 1897. After this it was used for various purposes until restored in 1960 and opened as a museum of fire-fighting equipment of the late 19th Century. It is dedicated to the firemen of the Los Angeles Fire Department, who have served the City since 1871. Located in El Pueblo de Los Angeles, 501 North Los Angeles Street, Los Angeles. 19-174924

#822 First Jewish site in Los Angeles . The Hebrew Benevolent Society of Los Angeles (1854), first charitable organization in the city, acquired this site from the city council by deed of April 9, 1855. This purchase of a sacred burial ground represented the first organized community effort by the pioneer Jewish settlers. Located at Chavez Ravine, behind the U. S. Naval and Marine Corps Reserve Center, 800 West Lilac Terrace near Lookout Dr., Los Angeles. 19-174899

#972 Navy and Marine Corps Reserve Center. Designed as the largest enclosed structure without walls in the world by noted California architects Robert Clements and Associates. This Art Deco building, constructed between 1938 and 1941 by a Works Progress Administration crew, is the largest and second oldest Navy Reserve Center in the United States. It has served as the induction, separation, and training center for more than 100,000 sailors since World War II as well as the filming site for countless motion pictures and television shows. Located at 1700 Stadium Way, Los Angeles. 19-173143

There are also two properties on the National Register of Historic Places within a ½ mile radius of the project area:

Los Angeles: Los Angeles Plaza Historic District, roughly bounded by Spring, Macy, Alameda, and Arcadia Streets, and Old Sunset Blvd, Los Angeles 11/03/72. 72000231

Los Angeles: Los Angeles Union Passenger Terminal, 800 N. Alameda St., Los Angeles 11/30/80 80000811

Twenty-three studies have been conducted with a half-mile radius of the project. Three are within the project area.

Ten properties for City of Los Angeles Cultural Monuments within a ½ mile radius.

| Monument | Number | date | Location | Description |
|--------------------|--------|-----------|------------------------|--|
| Plaza Church | 3 | 1822 | 535 N. Main St. | Oldest established church in the city |
| First Cemetery | 26 | 1823-1844 | Adjacent to Church | First graveyard, may still contain aboriginal Gabrielino from Yaanga village |
| The Castle | 27 | 1882 | 325 S. Bunker Hill Ave | 19 th Century craftsmanship, classic suburban residential development, burned to ground by vandals. |
| San Antonio Winery | 42 | 1917 | 737 Lamar St. | Last remaining winery in LA |

| | | | | |
|------------------------------------|-----|---------|--|--|
| River Station Area/SP railroad | 82 | 1875 | N. Broadway-N. Spring- LA river-Elysian Park | Vestiges of 19 th Century station, yard, warehouse, tracks, switch houses, etc. |
| Union Station-Terminal | 101 | 1933 | 800 N. Alameda St. | Streamline Modern and Spanish style station. |
| Grantile –Block Paving | 211 | No date | Bruno St. | This short industrial street, only surviving St. with hand – hewn granite blocks. |
| Cathedral High School | 281 | 1923 | 1253 Bishops Rd. | Reported to be oldest Catholic High School in city. |
| Albion Cottages and Milagro market | 442 | 1870 | 1813 Albion St. | Cottages and turn of the century market are a window into the past. |
| Lincoln heights Jail/LA city Jail | 587 | 1931 | 401-449 North Ave. 19 | Art Deco and Modern additions |

Historic Resources

The City of Los Angeles Cultural Monument #82 is within the current park boundaries. Remnants of Southern Pacific’s River Station, sometimes referred to as “Cornfield,” consisting of buried features related to this railroad yard and station. A myriad of cultural features are present, including some railroad tracks, foundations for several of the buildings, possible trash pits, and other linear features such as utilities.

Archaeological Sites Near Los Angeles SHP

Site CA-LAN-7/H, initially recorded in 1951, was reportedly located across Alameda Street from Union Station but was largely destroyed during construction of State Highway 101, the Santa Ana Freeway. This site had been located in the earliest Chinatown in Los Angeles. During a visit to CA-LAN-7/H in 1980, a scatter of historic artifacts was observed between streets (Dillon 1994:5; Goldberg 1999:29). Sites CA-LAN-887H lies under Placita de Dolores (Dillon 1994:5) and CA-LAN-1112H is located in the general vicinity of El Pueblo de Los Angeles; both contain remains from the early Spanish Pueblo, as well as later 19th century cultural features and deposits (Dillon 1994:5; Goldberg 1999:30). A later Chinatown was documented and recorded as CA-LAN-1595H during work on the Metro Red Line and partially underlies buildings associated with Union Station. A variety of historic-period artifacts and structural remains and one burial have been recovered from this site (Dillon 1994:6; Goldberg 1999:30). Refer to Dillon (1994) for additional information on historical resources in the area of downtown located a few blocks southwest of Los Angeles SHP.

In July and August 1996, Applied Earthworks archaeologists conducted the excavation of a prehistoric and early historic Gabrielino cemetery (CA-LAN-1575/H) in downtown Los Angeles (Goldberg 1999). The site is currently located underneath the headquarters of the Metropolitan

Water District of Southern California on Alameda Street next to the Hollywood/Santa Ana Freeway. The excavations yielded evidence of 23 cultural features, 19 of which were human interments or human cremations. A variety of stone artifacts were also recovered within the cemetery, consisted of 703 shell beads, seven stone beads, a few shell ornaments, a few pieces of basketry, eight projectile points (7 were Cottonwood Triangular style points), a pestle fragment, bowl mortar fragment, ground stone items, 69 flakes, a few bone artifacts, and some ochre (Goldberg 1999:71-115). The shell bead assemblage was noteworthy for the presence of 230 shell beads with incised markings (Goldberg 1999:103-110). Radiocarbon dates on the human remains from the cemetery ranged from 1000 ± 40 BP to 130 ± 40 BP. Goldberg and her associates evaluated the possibility that this cemetery represented the village of *Yaanga*, but they concluded the site is not part of that historically known Gabrielino village (Goldberg 1999:153-156). There was no evidence of activities associated with long-term occupation of a village site (Goldberg 1999:71-115, 154). Significantly, an analysis of the stratigraphy on-site clearly showed that the cemetery stood within the former floodplain of the Los Angeles River, yet the prehistoric people buried their dead here. Goldberg (1999:153-154) points out that other Gabrielino sites similarly had burials placed in floodplains suggesting that they used such areas due to the ease of excavating mortuary pits.

HISTORICAL BACKGROUND FOR LOS ANGELES SHP

Upon establishment of El Pueblo de Los Angeles, a main irrigation ditch known as *Zanja Madre* was constructed along the base of the slope next to present-day Los Angeles SHP. The *Zanja Madre* conveyed water from the Los Angeles River, at a point just below today's North Broadway Bridge, to the plaza in the Pueblo and to fields (California State Parks 2006:29). Much later in the 19th century the city of Los Angeles covered the *Zanja Madre* in brick, as it is seen from the park today.

The earliest agricultural enterprise in the present-day park apparently began in 1804, when Francisco Avila established vineyards here. By 1817, the Pueblo of Los Angeles was reported to have 53,000 vines in cultivation. Viticulture continued to be the top agricultural product in the Los Angeles area until the 1860s (California State Parks 2006:29).

By at least 1858, a waterwheel was operated by a man named William Dryden on the slope just west of the park to divert water from the *Zanja Madre* onto the bluff top where North Broadway is located and then distributed the water to the Plaza. A flood in 1861 apparently destroyed the waterwheel (California State Parks 2006:38).

The site of the 19th century River Station, also known as Los Angeles Junction when it first opened (Mullaly and Petty 2002:10), was a Southern Pacific Railroad facility situated within the current park boundaries (California State Parks 2005:19-25). This regionally significant railroad transportation hub was first established in 1875; Southern Pacific opened a freight house and depot at this time to complement the newly constructed sets of tracks (Mullaly and Petty 2002:15-17; California State Parks 2005:19-20). In 1879, a hotel was built next to the existing depot to expand services for passengers (California State Parks 2005:20); the depot and hotel buildings stood approximately where landscaping features along side the northeastern-most parking lot now is found. River Station continued to expand soon after its initial opening and

eventually consisted of a roundhouse with turntable, freight house, blacksmith shop, machine shop, transfer table, car shop, paint shop, coal dock, and other facilities (Mullaly and Petty 2002:10; California State Parks 2005:20; Sanborn Insurance Maps). River Station served as the key transportation center for Southern Pacific in Southern California during the 19th century, although, much of Southern Pacific's passenger service was moved to its Arcade Depot in downtown Los Angeles in 1889 (Mullaly and Petty 2002:32-33; California State Parks 2005:21-24). The River Station Roundhouse was expanded in size on its southwest end sometime subsequent to 1881, as observed by comparing the 1881 Sanborn Insurance map with the 1894 Sanborn Insurance map. By the 1880s, Southern Pacific had become the largest employer in Los Angeles, with River Station being the headquarters for its operations in Southern California (California State Parks 2005:20).

The building remains and artifacts at Los Angeles SHP are a reminder of the important role Los Angeles played in the building of the southern transcontinental railroad line connecting San Francisco with El Paso and New Orleans. In its first years, Southern Pacific's Los Angeles terminal served as a major logistical center and was shipping many carloads of equipment and supplies a day to the railhead as the line advanced toward El Paso. "The success of the Southern Pacific railroad also helped sell Southern California and Los Angeles to the rest of the country" (California State Parks 2005:21). River Station where Los Angeles SHP is located today served as the arrival point for thousands of travelers and immigrants who flocked to the Southland in the late 19th century, such as, during the Great Boom of the 1880s (Mullaly and Petty 2002:9, 20-22). Railroad historians Larry Mullaly and Bruce Petty (2002:9) point out that Southern Pacific was "...always *the* railroad of Southern California [emphasis in original]."

Construction on a new modern and expanded general shops facility, located in the Lincoln Heights community of Los Angeles, was begun in 1902 by Southern Pacific and completed two years later (*Los Angeles Times* February 22, 1902; *Los Angeles Times* November 8, 1903; Mullaly and Petty 2002:66-69). A statement in a November 8, 1903 article of the *Los Angeles Times* reported as follows:

From time to time others [steam hammers] will be brought over from River Station, where the machine shops of the company are located. It is the intention of the Southern Pacific to transfer its business eventually to the new site, taking all the mechanical department from River Station and bringing over the dispatchers, making the new shops the virtual center of the system.

The shops buildings and associated functions that were the subject of the 2004, 2008-2011 Southern Service Center test excavation program were removed from the present-day Los Angeles SHP by 1904 to its new Lincoln Heights facility. Southern Pacific continued to use the land in the current state park as an important freight operations facility after 1904, including, the current areas of investigation (Mullaly and Petty 2002:33-36, 51-65; California State Parks 2005:21-24). Photographs from the 20th century of present-day Los Angeles SHP (on file at California State Parks) clearly demonstrate that the Southern Pacific freight yard was a very busy place fitted tightly with tracks and associated support structures. Southern Pacific ceased all operations in what is today Los Angeles SHP except for "...a few spur tracks of the neighboring Bull Ring Yard" [the Bull Ring Yard stood at the northeast end of the parcel] in October 1992

(Mullaly and Petty 2002:260; California State Parks 2005:25). Southern Pacific ended existence as a corporate entity in September 1996 (Mullaly and Petty 2002:262).

By 1999, the 32-acre parcel that was to become the State Park was being considered for development of a large warehouse and manufacturing complex by Majestic Realty, a real estate developer. A grassroots organization, Friends of the Los Angeles River, and other community organizations joined forces under the name “Chinatown Yards Alliance for the Cornfield” to stop the proposed development and instead stimulate support for park and open space uses here. [The name “Cornfield” had been a nickname given to the lower freight yard at this location by railroad workers.] The ad hoc community group received legal assistance from the Environmental Justice in Los Angeles Project, and successfully fought the proposed development in 2001. In 2001, California State Parks conducted a study to determine the feasibility of adding the 32-acre parcel to the California State Park System. That feasibility study identified the parcel as worthy of consideration given its historical significance and its potential use as part of a larger Los Angeles River Parkway. Subsequently, Proposition 12 Park Bond funds were allocated to purchase the property for California State Park. The Trust for Public Lands had already negotiated an option to purchase the land from Majestic Realty.

California State Parks took possession of the 32-acre parcel where the Southern Pacific Railroad facility once stood in 2001 (California State Parks 2006:6, 13, 26). Subsequently, a committee of community members known as the Cornfield Advisory Committee was established by Senate Bill 1177 to work with California State Parks, along with input from public meetings, to create a vision for the park, to help formulate an interim use plan, provide input on park planning documents, and assist in creating name for the new park (California State Parks 2005:6-10, 26-28, 2006:6-7). This advisory group consisted of 36 members representing the neighboring communities, business leaders, educators, local governmental agencies, historians, environmental justice and civil rights organizations, and non-profit groups. The Cornfield Advisory committee also had five ex-officio members and one adviser from National Park Service. This committee prepared a report and presented it to the California State Parks Director in April 2003. The report contains four “Essential Themes” identified as Connectivity, cultural/historical, recreation, and transportation (California State Parks 2005:56-57).

The California Department of Toxic Substances Control required the removal of soil within the 32-acre parcel containing arsenic, lead, and total petroleum hydrocarbons above concentrations of 10mg/kg, 255 mg/kg, and 1,000 mg/kg before being opened for public use. The soil-removal work took place in 20 locations within the park from December 2002 through February 2003. An estimated 5,238 tons of contaminated soil was removed from Los Angeles SHP (Shaw Environmental 2003; California State Parks 2005:52-53). The testing and soil removal activities were monitored by archaeologists from Greenwood and Associates, Inc. under contract to the Trust for Public Land (Messick et al. 2003); see below for information on their findings. The hazardous waste removed from the park was disposed of at Chemical Waste Management’s Kettleman Hills Facility (Shaw Environmental 2003:5-3). The material removed was replaced by 4,850 tons of clean fill from the Gypsum Canyon Quarry in Anaheim (Shaw Environmental 2003:6-1). Soil monitoring wells that examine the groundwater and readings of soil gas are still in-place within specific areas of Los Angeles SHP. The groundwater under Los Angeles SHP continues to yield evidence of toxic compounds (California State Parks 2005:52-53).

As a result of negotiations between the Annenberg Foundation and officials from State Parks Angeles District and the Southern Service Center, a large-scale public art project, identified as “Not a Corn Field,” was installed and displayed by a local artist within Los Angeles SHP From March 2005 through early 2006. The public art display involved large-scale plantings of corn and other vegetation. The park was closed to normal public use and archaeological test excavations by State Parks staff were put on-hold during that time. Work on the proposed State Parks Interim Park Use Plan, which would have constructed public facilities, was suspended for the duration of this public art demonstration. The public art project necessitated the importation of ca. 20,000 cubic yards of fill soils, construction of a decomposed gravel perimeter road, excavation of utility lines and water lines, installation of an irrigation system, and landscaping primarily in the northeastern half of the park.

The park, the former site of Southern Pacific’s River Station, was designated a State Historic Park at the June 10, 2005 California State Parks and Recreation Commission meeting (California State Parks 2006:7). The Interim Public Use Plan devised by State park staff with considerable community input was implemented beginning in spring 2006 with construction of the park facilities that are in-place today. Construction of the existing park facilities was completed in summer 2006. Today, Los Angeles SHP is enjoyed by park visitors who walk or jog in the park, hold picnics, relax, fly kites and play ball, and other activities. The park today is also the location of a variety of special events, including, a circus, community events and festivals, and large-scale concerts, as well as interpretive events facilitated by Los Angeles Sector Interpreters.

Chronology for Los Angeles State Historic Park and surrounding communities:

- 1872 Voters approve referendum granting Southern Pacific Rail Road (SP) \$600,000 in cash, control over rail line to San Pedro, and 600 acres for a rail yard (including LASHP site), thus joining a national rail network and undercutting San Diego’s bid as a rail port; SP hires journalist Charles Nordhoff, to write *California for Health, Pleasure, and Residence* reinventing Southern California as a place of agricultural riches, sunny skies and healthy climate to lure wealthy travelers and settlers.
- 1873 SP starts laying tracks from current park toward San Francisco; Chinese laborers blast a tunnel through mountains above San Fernando; first trolleys roll on L.A. streets.
- 1875 Pasadena is founded; Los Angeles and Independence Railroad begins running from downtown to the Santa Monica wharf; **River Station is under construction.**
- 1876 SP, headed by Leland Stanford, completes rail link between L.A. and San Francisco at Soledad Canyon (Sept. 5) thus changing Southern California forever; Calvary cemetery located on Buena Vista (No. Broadway, at today’s Catholic High School).
- 1877 **River Station and Pacific Hotel opens for business (June); SP arrival sparks land boom with ripple effects in Pasadena, El Monte, Pomona, and Long Beach;** future water czar, William Mulholland, arrives in L.A, works as a *zanjero*.
- 1878 Wolfskill family sends first shipment of oranges east via SP and it arrives in St. Louis in good shape—sparks a commercial agricultural boom.

- 1879 William N. Monroe, owner of Pacific Hotel, is elected to city council.
- 1880 City population nearly doubles in 10 years, reaching 11,183; county population is 33,381.
- 1881 SP completes rail link with New Orleans; brick roundhouse is in operation at River Station.
- 1882 **First L.A. telephone is installed at River Station**; first electric street lights are installed downtown; U.S. Exclusion Act prevents further migration of Chinese to the U.S.
- 1884 Fire House No. 1 opens on the Plaza; Capital Mill expands old mill on Spring St.
- 1885 Santa Fe Railway completes second national rail line into Los Angeles, triggering the Boom of the Eighties, greatest land boom in U.S. history.
- 1886 City establishes Elysian Park.
- 1887 SP brings 120,000 boomers to Los Angeles; first electric streetcars begin running on L.A. streets; ranchos are subdivided, and \$100 million in real estate is sold this year; Sepulveda House hotel opens on Main St.
- 1888 SP adds small buildings to River Station (from 1888 to 1894); but also opens more elaborate Arcade Station, and closes River Station; cable cars run northward from downtown to Cornfield, cross bridge spanning rail yard and also the Downey St. Bridge into fashionable Boyle Heights; Boom of the Eighties collapses.
- 1890 County population is 101,454; city population, 50,395; Garnier Building on Pico-Garnier Block is built especially for the Chinese Benevolent Society.
- 1892 Oil is discovered in downtown, begins major oil boom.
- 1893 SP closes Pacific Hotel, converts building to a freight depot; Fruit Growers Exchange founded to partners with railroads in promoting oranges; economic depression; L.A. labor movement leads national crusade for Chinese exclusion; Chavez Ravine Arboretum established.
- 1894 Semi-Tropic Homestead Co. develops housing tract at Cornfield, builds bridge to span rail yard, linking housing with North Broadway.
- 1897 An angeleno builds an automobile at cost of \$30,000.
- 1899 Massive "Free Harbor Jubilee" in San Pedro celebrates start of breakwater construction.
- 1903 SP builds new bridge over the river; Solano and Elysian reservoirs are built to store water; Henry E. Huntington begins trolley empire.
- 1904 Since so much agricultural land has been subdivided and developed, city abandons zanjas.
- 1905 A third major railroad, the Los Angeles, San Pedro and Salt Lake Railway (now the Union Pacific) arrives in Los Angeles; railroads have brought so many people that city needs a new water supply; voters approve bond to build L.A. Aqueduct for Owens River water.
- 1908 Aqueduct construction begins that eventually replaces river water for domestic uses.
- 1910 Mexican Revolution activates large emigration to U.S.; county population reaches 504,131; city population was 310,198.
- 1912 Presidential hopeful Theodore Roosevelt speaks at Shrine auditorium; Southwest Museum is built; community of Arroyo Seco is annexed to L.A.

- 1913 Completion of aqueduct.
- 1914 SP opens Central Railroad Station at northwest corner of Fifth St. and Central Ave., closes Arcade Station; city builds new port facilities at San Pedro to benefit from the completion of Panama Canal.
- 1915 County, with 750,000 people, leads nation with 55,000 privately owned cars; San Fernando Valley is annexed to Los Angeles.
- 1917 San Antonio Winery is founded in Lincoln Heights.
Pio Pico Mansion in Whittier becomes first state-owned “monument” in Southern California
- 1920 Population of Southern California surpasses that of Northern California.
- 1925 City population reaches 896,000; LAPD Academy opens in Elysian Park.
- 1928 New City Hall is built on Spring St., displacing a Mexican barrio.
State Park Department Established
- 1929 San Pedro becomes leading U.S. harbor; blue ribbon committee unveils visionary Olmstead Brothers plan for preserving the natural cityscape.
- 1930 Olvera Street is dedicated as a historical site; L.A. is fifth largest city in the nation, but leads in failed businesses; its population is 1,238,048; population of El Pueblo area and north includes Mexicans, Anglos, Chinese, Italians, French, Germans and Japanese.
- 1931 To reduce social service costs, County begins repatriating 12,600 Mexicans, many from Chavez Ravine.
- 1937 Elysian Park landslide crashes onto Riverside Drive; flood destroys Dayton Ave. Bridge.
- 1938 City forcibly relocates Chinatown businesses to its present location (previous Sonora Town); deadly flood destroys SP bridge built in 1903; U.S. Army Engineers and County Flood Control begin process of encasing river in concrete, creating the world's most extensive flood control basin.
- 1939 Union Station opens with festive three-day celebration.
- 1940 Six-mile Arroyo Seco Parkway (Pasadena Freeway) is completed; U.S. builds Naval and Marine Corps Armory on Stadium Way.
- 1942 Start of wartime incarceration of Japanese; "Sleepy Lagoon murder" evokes racial attacks on Mexicans.
- 1943 GIs stationed in Chavez Ravine spark “Zootsuit riot” in downtown.
- 1950 City starts evicting 1,000 Chavez Ravine families to build a huge, racially integrated, federally subsidized public housing project; some resisters are jailed; state demolishes part of historic El Pueblo area for Hollywood/Santa Ana Freeway; city population reaches 1,970,358, county is 4,151,687.
- 1951 Housing industry leads crusade against public housing as “creeping Socialism” and “federal domination”; council cancels redevelopment plan.
- 1953 State dedicates El Pueblo area as a state historic monument (park), protects Plaza, Avila Adobe, Merced Theatre, Masonic Temple, Garnier Building, Fire House No. 1, and Pico House.
- 1957 Fort Moore Pioneer Memorial, honoring the memory of US military in the Mexican War, is unveiled near Plaza.
- 1958 Brooklyn Dodgers move to Los Angeles.

- 1960 County has 500,000 people of Mexican background; city population reaches 2,479,015, county's reaches 6,038,771.
- 1961 Start of construction on Dodger Stadium.
- 1962 Dodgers first season in Chavez Ravine.
- 1964 Los Angeles becomes nation's second most populous city.
- 1970 County population is 7,055,800; Los Angeles city population is 2,811,801.
- 1971 Chicano Moratorium demonstration in East L.A. to end Viet Nam War; City designates River Station as Cultural Monument #82.
- 1973 State establishes Malibu Creek State Park.
- 1978 Fire destroys old freight house [a portion being part of the original Pacific Hotel].
- 1980 New Asian and Latino immigration changes demographics; ethnic population of Southern California is: 24% Hispanic, 61% white, 9% African American, and 6% Asian; city population is 2,967,000; county population is 7,477,503.
- 1984 San Fernando Valley archaeological excavations uncovers remains of Tongva village (CA-LAN-43) near Los Encinos State Historic Park.
- 1985 Louis McAdams founds Friends of the Los Angeles River.
- 1986 Monterey Park becomes nation's first suburban Chinatown.
- 1990 City's population reaches 3,485,390, and county's 8,769,944.
- 1992 Southern Pacific begins dismantling of River Station/Bull Ring (Cornfield) Yard
- 1998 Environmental conference explores redevelopment of Taylor Yard.
- 1999 Cornfield Yard, slated to become an industrial park, is subjected to first archaeological survey and evaluation.
- 2000 An archaeological testing report on Zanja Madre is made for Pasadena Blue Line; UCLA planning issues "Past History of the Cornfields: A Window to Future Uses."
- 2001 **Trust for Public Land buys former Southern Pacific Railroad site, resells it to State for a major park.**
- 2001 Cornfield Advisory Committee established to assist Department staff with planning for interim and permanent land uses in Los Angeles SHP.
- 2003 Soil Remediation work completed. Park is declared ready for public use.
- 2005 The park is leased to a local artist and used to produce large-scale public art.
- 2006 Construction of interim park facilities completed.
- 2008 Director Ruth Coleman holds a press conference at the park.

MAP AND PHOTOGRAPH RESOURCE LIST

LOS ANGELES STATE HISTORIC PARK

(M) = Map (P) = Photograph (B) = Book (C) = Collection

LOS ANGELES PUBLIC LIBRARY

- (P) River Station
- (P) River Station
- (P) Viaduct
- (P) New China Town
- (P) Viaduct

- (P) Water Wheel
- (P) Plaza Church
- (M) Map of Los Angeles Plaza 1876, AJ Stahlberg, copy
- (M) Map of Old Los Angeles, 1875, Kelleher, copy
- (P) Los Angeles Plaza c. 1862 (Security Pacific National Bank Collection)
- (P) Los Angeles Plaza c. 1870 (Security Pacific National Bank Collection)
- (P) 1935 Aerial Horse Corral (Security Pacific National Bank Collection)
- (P) 1889 LA Cable Railway Viaduct
- (B) Los Angeles City Directory

BANCROFT LIBRARY

Charcoal Sketch, Elysian Park

- (C) Robert B. Honeyman Jr. Collection of Early Californian and Western American Pictorial Material, Los Angeles
- (M) Plan of El Pueblo de la Reina
- (M) "City of Los Angeles: 1871 Koch
- (P) River Yard 1883 Combination Depot and Hotel
- (P) 1900 River Station Yard
- (C) Graves (Roy D) Pictorial Collection
- (C) Polhemus (Charles B) Papers
- (M) Map of the City of Los Angeles Compiled from Surveys 1886

UNIVERSITY OF SOUTHERN CALIFORNIA

- (P) Image of Sonoratown (image on L Drive listed from USC)

CA STATE RAILROAD MUSEUM

- (P) Round House
- (C) Technical Drawings, Southern Pacific, River Station
- (C) Employee Timetables, Southern Pacific, Los Angeles
- (C) MS10 Southern Pacific Railroad Company Collection
- (C) MS469 Annual Reports to Government Agencies Collection

WHITTIER FAIRCHILD PHOTOGRAPH COLLECTION

Historic Aerial Photos – (State Parks)

CITY OF LOS ANGELES, DEPARTMENT OF WATER AND POWER

- (P) View of Plaza, 1869
- (M) 1978 City of Los Angeles Department of Water and Power Map from Water Engineering and Design Division

CITY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

- (M) "Fire Insurance and Real Estate Atlas" Dakin 1883-1887
- (M) "Real Estate Atlas and Surveys of Los Angeles" Baist, 1921

CITY OF LOS ANGELES BUREAU OF ENGINEERING

- (M) Map of the Irrigation System of Los Angeles, 1884

(M) Map of Los Angeles Street Extension, Eaton 1887

LOS ANGELES CITY OF ENGINEER'S OFFICE

(M) Los Angeles City Survey No. 150, G. Hansen

(M) Plan of the town of Los Angeles, U.S. Army Lt. Edward Otho Cresap Ord, August 29, 1849

(M) Plan of Alignment, William Moore 1864-1868

(M) Map of Los Angeles, M. Kelleher, May 7, 1875

(M) Plan of the Los Angeles Town Center, A.J. Stahlberg, 1876

(M) Grading Map of Los Angeles City, California, 1870

(M) Map of the Los Angeles Plaza Center, 1874

(M) Capt Wm Moore's Map of the Old Los Angeles Water Works

(M) Map of Sewers in the City of Los Angeles

(M) Map of the Old Portion of the City, Surrounding the Plaza

(M) Map Showing Areas of Paved Streets, 1902

HUNTINGTON LIBRARY

(P) Los Angeles 1847, sketch by Major William Rich Hutton, *California Drawings*

(C) Banning Co. Collection

(B) History of the Jews of Los Angeles

SECURITY TRUST AND SAVINGS BANK

(M) Battle of La Mesa, just outside of Los Angeles, January 9, 1847, sketch 1928:5

SEAVER CENTER

(P) El Pueblo de Los Angeles, 1857

(M) Map of the City of the Los Angeles Showing the Water Service

THOMPSON AND WEST, 1880

(P) Antonio F. Coronel's 53-acre vineyard

(P) Capitol Mills c. 1879

History of Los Angeles County, Wilson 1880:31

(P) Historical lithograph of Southern Pacific's River Station Depot and Hotel

STANFORD UNIVERSITY ARCHIVE

(C) Southern Pacific Railroad Company Records, 1895-1991

(C) Hopkins Transportation Collection, 1844-1969

DONALD DUKE COLLECTION (PRIVATE)

(P) River Station Facility 1894

(P) 1890 River Station Yard

(P) Switching Crew

(P) Rail Yard

CALIFORNIA STATE ARCHIVES

- (P) 1918 River Station Depot
- (P) River Station
- (P) Lower Yards
- (P) Panoramic 1918
- (C) Public Utilities Commission Records Part I & II
- (C) McCartney (Henry M) Collection

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

- (P) 1918 Water Tank
- (C) 193.2 Records of the Commissioner of Railroads
- (C) 193.3 Records of the US Pacific Railway Commission
- (C) Records of the Pacific Railway Commission

WILLIAM G. WULLENJOHN SR. COLLECTION (PRIVATE)

- (P) Nurses, October 12, 1898

JOHN SIGNOR COLLECTION (PRIVATE)

- (P) Delivery Trucks

SAN DIEGO STATE UNIVERSITY

- (B) San Gabriel Mission, Zephyrin
- (B) California's Black Pioneers
- (B) The Founding Documents of Los Angeles
- (B) Southern California Quarterly
- (B) The Land of Sunshine
- (B) Los Angeles and its environs in the Twentieth Century
- (B) Chiefs and Challengers
- (B) El Pueblo: The Historic Heart of Los Angeles
- (B) The Indians of Los Angeles County
- (B) Maps of Los Angeles, from Ord's Survey
- (B) The Better City: A Sociological Study
- (B) Chapters on the History of the Southern Pacific
- (B) The Southern Pacific: 1901-1985
- (B) Water and Politics
- (B) A History of the Los Angeles Labor Movement
- (B) Formative Years in the Far West
- (B) Henry E. Huntington and the Creation of Southern California
- (B) Southern California's First Railroad
- (B) An Historical Sketch of Los Angeles County

UNIVERSITY OF CALIFORNIA, SAN DIEGO

- (B) The Burning of China Town and Murder of Mock Law
- (B) Index to Historical Maps of Greater Los Angeles
- (B) Linking our Lives: Chinese American Women of Los Angeles

CAL POLY POMONA

(B) California's Pioneer Wine Families

SAN JOSE STATE UNIVERSITY

(B) Plan de la Ciudad de Los Angeles

CAL POLY SLO

(B) A Century of Spirit: UNOCAL

UNIVERSITY OF CALIFORNIA, LOS ANGELES

(C) Bound Manuscript Collection

(C) Cole Family Papers

(C) Ackerman (Fremont) Papers

LOYOLA MARYMOUNT UNIVERSITY

(C) Workman Family Papers

PUEBLO DE LOS ANGELES HISTORIC MONUMENT

(B) Zanja # 3: Brick Culvert Historic American Engineering

(B) EPLASHP: Resource Management Plan

HEADQUARTERS / SACRAMENTO

(B) Assessment of an Archaeological Feature

(B) Archaeological Investigations for the Sepulveda Block Restoration

(B) An Archaeological Research Design for the Sepulveda

(B) Archaeological Monitoring for Emergency Plumbing Repairs

(B) Archaeology of the Avila Adobe

(B) Flow of History of El Pueblo de Los Angeles Historic Park

PREVIOUS ARCHAEOLOGICAL WORK IN LOS ANGELES SHP**1999 Compass Rose Survey**

The 32-acre parcel that today is Los Angeles SHP was surveyed by archaeologists John Romani and Dan Larson from Compass Rose Archaeological Consultants on November 23, 1999. This project was conducted before California Parks owned the land. Prior to the fieldwork, the staff of Compass Rose conducted a records search at the South Central Coastal Information Center for documentation of previous cultural studies and archaeological sites within the parcel. According to Romani et al. (2000: 4), a linear archaeological survey had previously been conducted on "... the southeastern portion of the project parcel, above North Spring Street..." but the project area had no recorded archaeological sites. At that time of the Compass Rose work in 1999, a developer proposed to construct an industrial park here. The archaeologists working in 1999 found that the project area was covered by pavement at its southwestern end, while the northern and eastern portions of the project area were covered by gravels and fill soils. The parcel had

railroad tracks on it, but no standing structures. The November 23, 1999 archaeological fieldwork yielded neither evidence of buildings or artifacts associated with the 19th Century River Station nor any evidence of other culturally significant features (Romani et al. 2000:19-20). Romani et al. (2000:20-21) found substantial documentary evidence of the former presence of River Station within their project area, and therefore recommended a program of archaeological test excavation work in the project area. They further concluded that this site "...may qualify for National Register eligibility under Criterion (a) and...Criterion (d)" (Romani et al. 2000:20-21). The November 1999 archaeological project included no subsurface testing.

2000 Test Excavations by Applied Earthworks

Archaeological testing of limited scope in the form of nine backhoe trenches was conducted within the west end of the present-day park and within MTA right-of-way on September 13, 2000 (Horne 2003). This testing was conducted by Applied Earthworks archaeologists in response to the proposed construction of a MTA light rail line; specifically, they sought evidence of the early 19th century *Zanja Madre* water conveyance feature (recorded as site CA-LAN-3103). The trenches varied in length from 10 feet to 30 feet and 4.5 feet to 6 feet in depth (Horne 2003:Table 1). The September 2000 test excavations uncovered "a brick foundation and stem wall" in one trench that was interpreted as representing part of the 19th century River Station Roundhouse (Horne 2003:21-22, Fig. 11). No evidence for the *Zanja Madre* was detected in the nine trenches excavated at this time. Horne (2003:31) attributed this lack of structural remains for the *Zanja Madre* within their project area to grading performed by Southern Pacific during construction of the Roundhouse at River Station. Horne (2003:32) further concluded that the Roundhouse site, which is now located within Los Angeles SHP, is culturally significant and should be considered eligible to the National Register of Historic Places.

2002 State Parks Archaeological Survey

The 32-acre undeveloped parcel that is today Los Angeles SHP was surveyed by Southern Service Center Archaeologist Michael Buxton on May 9, 2002 (field notes on file at Southern Service Center). Buxton reported that the parcel had been graded flat to the level of North Spring Street at the time of his fieldwork. According to Buxton, the parcel was characterized by mottled brown and light tan soils mixed with angular gravels, which were identified as railroad track bedding. In places, Buxton observed darker colored, "greasy" soils. Buxton also observed modern trash, various metal objects from the abandoned rail yard, and construction debris within the park at the time of the fieldwork. Five cultural features were identified on-site during this fieldwork: one remnant of cobblestone or stone pavement, three separate railroad beds with ties and no rails, and one brick fragment cluster. The stone pavement, observed about 98 feet northeast of the wood hamburger stand (that is, next to the present-day park entrance), measured approximately 79 inches in width and stood only approximately 1¼ inches below the surface. Buxton stated that the pavement was intact. Some of the railroad-related metal objects observed on-site included railroad spikes and tie plates. No subsurface testing was attempted at this time.

2002 Long Beach State Geophysical Study

Geophysical testing was undertaken in the summer of 2002 by researchers from Long Beach State University under the direction of Dr. Daniel Larson and complemented by historical data from State Parks staff. The geophysical study sought to identify likely locations for buried evidence of historic building remains (Larson 2004). The Long Beach State University researchers were under contract to California State Parks, Southern Service Center. The geophysical surveys of 2002, which covered 56,780 square feet of the park, employed a cesium vapor magnetometer, a gradiometer, and OhmMapper resistivity. According to Larson (2004:15-16), several “geophysical signatures” identified during the fieldwork corresponded well with historic building locations documented on the 1888 Sanborn Fire Insurance map for River Station, such as, the Roundhouse, turntable, Machine Shop, Car Shop, the Depot, hotel, and an icehouse. Los Angeles SHP was undeveloped at the time of the 2002 geophysical surveys and not covered with fill soils as it is today.

2002-2003 Greenwood & Associates Remediation Monitoring

Between December 12, 2002 and January 23, 2003, archaeologists from Greenwood and Associates monitored soil remediation work within the 32-acre park parcel under contract to the Trust for Public Lands (Messick et al. 2003). The park parcel was undeveloped at the time of the soil remediation efforts. Soil removal was accomplished using an excavator and front-end loader; all excavation was closely monitored by two archaeologists and any cultural features were documented. The soil removal had been preceded by test borings at 115 locations around the 32-acre parcel to search for potentially contaminated soils (Messick et al. 2003:4). The contractor removed soils in areas designated as “grids” only where contaminants were detected. The Greenwood and Associates staff observations are significant to any future archaeological fieldwork, as they found cultural remains in the form of brick and concrete structural features and artifacts within eight of the 18 soil remediation excavation grids. Those structural features are vestiges of 19th century buildings associated with Southern Pacific’s River Station. Two additional grids yielded isolated artifacts finds only (Messick et al. 2003: 6, Figure 2). The linear brick structural features and brick support piers documented by the Greenwood and Associates archaeologists during soil remediation efforts (Messick et al. 2003: 6-18), which are thought to represent building foundations, are similar in construction and configuration to features that have been observed during the 2004, 2008-2011 Southern Service Center investigations.

Cultural features observed by Greenwood and Associates archaeologists in “Grid 34,” “Grid 36,” and “Grid 44” during the 2002-2003 soil remediation archaeological monitoring (Messick et al. 2003:6-14) are most likely located within the site of the 19th-century Southern Pacific Roundhouse. The features uncovered within “Grid 42” and “Grid 49” (Messick et al. 2003:Figure 2, 10, 15) probably were located within the site of the 19th century River Station Machine Shop. Soil remediation work at “Grid 77”, located 80 feet off of North Spring Street and close to the junction with Baker Street (Messick et al. 2003:Figure 2, Figure 15) uncovered a deposit of 19th century artifacts; the field workers labeled it as Feature 1. Greenwood and Associates monitors excavated a one-meter-square control unit in “Grid 77” to systematically sample this deposit (Messick et al. 2003:15, 18, Figure 15). Artifacts recovered in the “Grid 77” excavation unit consisted of ceramic items (including, plates, saucers, a dish, a pitcher, and a

sugar bowl), liquor bottles, soda water bottles, and other types of bottle glass, stoneware ink bottles, bone from food refuse, shell, glass and shell buttons, seeds, shoe leather, nails, and miscellaneous metal objects. The type of items recovered in the Greenwood and Associates test unit significantly are reflective of domestic refuse with little indication of a working rail yard. Messick et al. (2003:18) stated that the latter trash deposit "...is located just northeast of the 'printing room' depicted on the 1888 Sanborn Insurance Map..." which was part of the River Station depot and hotel. This area of Los Angeles SHP warrants additional investigation during future State Parks fieldwork. The artifacts recovered from the "Grid 77" excavation unit, cataloged under State Parks Accession Number P1303, are currently stored at the Southern Service Center in San Diego.

2004 SSC Archaeological Investigations

Archaeological test excavations took place within Los Angeles SHP on November 15-19, 2004 and on December 15-17, 2004 by Southern Service Center Archaeologists under the direction of Herb Dallas (Sampson 2010). The locations of the 2004 test excavation trenches were guided by data provided by the Long Beach State University geophysical surveys in 2002 (Larson 2004) and historical documents, in particular, 19th century Sanborn fire insurance maps. These initial archaeological exploratory efforts hoped to "ground truth" the geophysical signatures from the 2002 survey, examine and evaluate the extant structural remains from 19th century River Station, determine their current integrity, and interpret the findings to guide the location of future, more comprehensive archaeological investigations. A total of 30 backhoe trenches were excavated to explore the sites of the Roundhouse, turntable, and the River Station Depot and Hotel site (Sampson 2010:11-13, Figure 8, Figure 9).

A highly significant finding during the 2004 State Parks testing program was the exposure of the north portion of the River Station turntable (Sampson 2010:16-18, Figure 10). Once evidence of the turntable site was uncovered during backhoe trenching, the 2004 field crew opened a 35 feet east-west by 30 feet north-south pit using hand tools to more fully expose the massive wooden structural members and the adjoining brick flooring. This excavation work exposed an area of the wooden structural members of the turntable measuring about 30 feet by 25 feet. The discovery of the turntable wood support structure here confirmed the value of the geophysical survey work, demonstrated that this feature remained intact and in its original (historic) location, and provided data about its construction and size. A small portion of the Roundhouse was explored with backhoe trenches in 2004. The foundations for the Roundhouse uncovered in 2004 were large brick and concrete linear supports with at least eight courses of brick or about 3 feet in thickness; the underlying floor was also composed of brick.

The 2004 Southern Service Center explorations by backhoe in the Hotel and Depot site involved trenching across areas with geophysical "signatures," i.e., resulting from the 2002 geophysical surveys, and perpendicular to building foundations as depicted on the 19th century Sanborn insurance maps for River Station. The 2004 test trenches actually extended beyond and to the northeast of the Hotel and Depot sites (Sampson 2010:Figure 8). Linear brick and mortar wall features were encountered at a variety of places within the backhoe trenches within the Hotel and Depot site (Sampson 2010:19-20). The linear brick wall features exposed in the 2004 testing had stepped courses of brick at its bottom-most level to provide greater stability. Sampson (2010:16-

21, 29) hypothesized that most of the linear brick features seen in the 2004 exploratory trenches represent the vestiges of 19th-century buildings, presumably, the Hotel and Depot, Roundhouse, and other buildings in River Station. Some of the linear brick support features may have served as supports for railroad tracks in the 20th century Southern Pacific rail yard. Unfortunately, the 2004 archaeology crew was not given the opportunity to return to the park later to more fully expose these features as had been originally proposed in 2004. Additional, more intensive archaeological work the site of the River Station Depot and Hotel will help to more definitively address the function of the brick features.

A variety of artifacts and faunal remains were recovered during the 2004 test excavations, including, a brass lock, a metal pipe, nails, railroad spikes (10), miscellaneous metal items, window glass, fragmentary bottle glass, a broken glass candy dish, pieces of ceramic dishes and saucers, pieces of coal (19), miscellaneous wood, animal bone (67.17 oz.), and four cow teeth (Sampson 2010:Table 2, Table 3). One of the test trenches (Trench O) yielded 29 bones weighing 60.13 oz. and four cow teeth weighing 3.88 oz., and suggested evidence of a commercial butchering operation. The faunal remains from Trench O primarily consist of lower limb bones from a cow with a couple lower limb bones from a smaller mammal, probably, sheep or goat. Some bones from Trench O show irregular breaks and one bone (P1389-20-19) has been saw-cut. The faunal remains recovered in Trench O are not associated with 19th-century activities at River Station.

2005-2006 State Parks Archaeological Monitoring

In March through April 2005, M. Buxton, an archaeologist at the Southern Service Center, monitored initial construction work for park day-use facilities which was known as the Interim Public Use project (IPU) at Los Angeles SHP (Buxton 2008). Just prior to the commencement of the IPU construction work, Buxton had monitored as approximately 40,000 cubic yards of fill soils were imported onto the park parcel by trucks. The fill was placed within the park to protect the 19th-century cultural features associated with Southern Pacific's River Station. A series of 12 brick-and-mortar support piers were partially exposed on March 31, 2005 during grading for a new entrance road next to North Spring Street as part of the IPU development. The Southern Service Center archaeological monitor, Michael Buxton, stopped the grading and had the construction crew raise the elevation of the new road to avoid hitting the 12 brick piers. These brick piers now underlie the current park entrance road.

The 12 bricks support piers found in March 2005 were surrounded by a soil matrix of black, ashy material. The piers were aligned northeast-southwest which is the long axis of the park; this alignment paralleled the orientation of the stone pavement first observed in 2002 during the State Parks survey. Each pier is constructed of brick and mortar and each lie 8 feet-6 inches apart (measured center on center). Four piers were excavated to their base and found to rest upon moderately compact, light colored alluvial sands. One fully exposed pier was found to be pyramidal in shape and measured 21 inches square at its base. The thin horizontally trending black, ashy soil layer overlies the sands and contained artifacts such as bottle glass, ceramics, metal objects, coal, and bone. The black color in the exposed soils can be attributed to coal that is present throughout the site. Buxton collected a representative sample of artifacts and bone while the piers were uncovered. The items recovered, cataloged under Accession Number P1389

Lot 21, consisted of three pieces of brick and plaster, 12 nail fragments and two square nails, three pieces of coal, two pieces of ceramics, two mammal bones, and a fragmentary piece of wood. The piers were disturbed prior to the 2005 IPU work; this disturbance likely was caused by Southern Pacific at the time the 19th century buildings were removed from River Station.

From early 2005 through early 2006, a large-scale public art project was installed within Los Angeles SHP; the park was closed to normal public use and archaeological test excavations by State Parks staff were put on-hold during that time. Work on the State Parks IPU project was suspended for the duration of this public art demonstration. The public art project, identified as “Not a Corn Field,” included the importation of ca. 20,000 cubic yards of fill soils, construction of a decomposed gravel perimeter road, excavation of utility lines and water lines, installation of an irrigation system, and landscaping primarily in the northeastern half of the park. All of the work needed to install the “Not a Corn Field” public art project was monitored by Michael Buxton, archaeologist at the Southern Service Center (Buxton 2008).

The ca. 20,000 cubic yards of fill placed here in 2005 for the public art program was preceded by the placement of approximately 40,000 cubic yards of soils onto the park in 2004 under contract to the Southern Service Center. It is estimated that the surface grade of Los Angeles SHP was raised 36 inches over most of the park as a result of the fill soil importation. It should be noted that, even though Michael Buxton closely monitored the truck loads of fill soil, some of the imported fill contained historic-period artifacts (mostly fragmentary), such as, bottle glass, ceramics, bone, and metal. Careful consideration of stratigraphy can help separate any artifacts contained in the recently imported fill soils from items associated with 19th century River Station. State Parks archaeological excavations demonstrated that the 19th century layers are separated from the 20th century deposits by a very compact, horizontal, light gray colored, gravel-filled stratum, which is track bedding remaining from the 20th century Southern Pacific rail yard operations.

During the public art installation, a backhoe excavated a three-foot-wide, three-foot-deep trench to accommodate the main water supply line for irrigation and another water line for use at the park office. The trenching totaled 2300 feet in length; all excavation was monitored by M. Buxton. The irrigation line excavation penetrated below the fill soil layers in places and resulted in the recovery of historic artifacts and identification of three archaeological features. The three features were identified as concentrations of historic refuse within a horizontally trending cultural layer consisting of charcoal, coal cinders, bottle glass, milk glass pieces, historic ceramics, nails, spikes, unidentified metal, and some bone. This cultural layer ranged in thickness from 1 inch to 9 inches, but averaged 6-8 inches in thickness. This work yielded a total of 151 artifacts weighing 195.826 oz., with ceramics comprising 40.03% of the total by weight, metal 28.52% by weight, and glass 24.93% by weight. The remaining artifacts were small in number and total weight. The artifacts from this monitoring effort have been assigned the State Park Accession Number P1662 and are currently stored at the Southern Service Center. Maker’s marks and machine marks observed on some of the bottle glass and ceramics provided dates ranging from late 19th century to the early 1900s. The trash features are hypothesized to have originated from the River Station hotel, which formerly stood nearby this location (Buxton 2008).

2008 State Parks Archaeological Testing

Archaeological test excavations were conducted in Los Angeles SHP during August and September 2008 by Southern Service Center archaeologists under the direction of Michael Sampson. The 2008 fieldwork examined the following building sites: the southwest end of the turntable, a portion of the Machine Shop, and small portions of the Roundhouse. This testing effort was guided by the results of the 2004 testing program, historical maps, and data from ground-penetrating radar surveys performed in May 2008 at the specifications of Southern Service Center Archaeologist Michael Sampson (Becker 2008). A backhoe operated by a State Parks Equipment Operator was employed during the 2009 testing program to remove lawn and fill materials that presently overlie the 19th century archaeological remains.

The wooden foundation of the turntable was exposed in a 10 foot by 9 foot excavation pit at its southwestern end. The main wood structural members of the turntable were found at a depth of 76 inches below the present lawn area. Those excavations showed that the main wood structural members consist of 12 inch by 12 inch redwood planks that are supported by 8 inch by 8 inch redwood planks. The 8-inch-square planks are underlain by two 12 inch by 8 inch planks laid horizontally. Two 9 inch by 2 inch redwood boards are set diagonally at each joint of the 12-inch-square main planks, as support. These diagonal braces extend outward about another 4 to 5 feet [our excavation only exposed 40 inches of these diagonal braces]. The turntable planks all had the strong smell of creosote. The top of the 12 inch by 12 inch planks was painted red; a conservator from Historic Resources Group of Los Angeles who visited the excavations took a sample of the paint (Historic Resources Group 2008).

During our 2008 excavations of the turntable site, iron tie rods were encountered at 62 inches below the lawn prior to reaching the depth of the wood planks. The one-inch diameter tie rods protrude from the top of the 12 inch by 12 inch wood planks, and are set 28 inches apart. Where the two main planks join, the tie rods are only 8 inches apart. A notch measuring 6 inches wide and $\frac{3}{4}$ inch deep was cut into the top of the main planks where each tie rod sits. A metal connector plate measuring 9 inches by 5 $\frac{1}{4}$ inches by 1 inch sits atop the 12-inch-square plank next to its joint with another plank. This plate has two 5-inch long spikes fastening it to the plank.

A brick and mortar floor was only partially exposed within Unit 1 in our excavations of the turntable, in the interest of limiting excavation. This floor adjoins the wood structural members of the turntable to the northeast side [that is, the side facing inward]. The outward or southwest side of the exposed turntable has no such floor; only a loose sandy matrix was observed when excavated to a total depth of 90 inches below the lawn. Our excavations indicate the turntable sits upon this sand matrix. The brick and mortar floor lies 84 inches or 7 feet below the present lawn surface. It remains unknown how far inward the brick and mortar floor extends, but, the brick likely creates a pit floor extending up to the turntable center. A brick floor is also shown adjoining the northeast end of the turntable in photos taken during the November-December 2004 Southern Service Center excavations, similar to that found in our 2008 work.

A 6 foot by 5 foot backhoe test unit, designated Unit 2, was placed over a spot hypothesized to be the turntable center beginning August 7, 2008, based upon findings from 2004 and our own

calculations. The edge of a granite slab or block was initially encountered at 7 feet below the present lawn surface. This newly discovered structural feature, designated as Feature 9, was then excavated by trowel, whisk broom, and shop vacuum only. Further excavations of this feature revealed a broken, but well-made, dressed granite pedestal measuring at least 40 inches by 35 inches. Loose bricks with mortar attached were noted on top and to the side of the pedestal; the function of the bricks remains unclear but may be indicative of brick flooring. Such flooring is observed up against the outer wood structural members of the turntable remains. Another portion of this granite structural member only partially protrudes from the west sidewall but was not exposed during these August 2008 excavations. The exposed portion of the granite pedestal was estimated to represent about two-thirds of the entire turntable center support. The turntable bridge would have rested upon this granite pedestal.

The granite pedestal, referred to as the turntable center support hereafter, is tilted as if moved so that the lower end of its top portion measured 8 feet below the lawn. Excavations along one side of the turntable center support showed the granite slab to be 24 inches in thickness. The turntable center support was constructed within a brown sand matrix, not unlike the sand observed underlying the turntable. Five sides can be seen in the exposed portion of the dressed stone pedestal, and so, we have estimated the turntable center support likely is octagonal in shape. The turntable center support pier or pedestal exposed at this time has three 1¼ inch diameter iron machine mounts drilled into its top surface. These threaded mounts, each showing varying degrees of ferrous corrosion, are 4 inches tall. One threaded mounting bolt is fully visible, one is encrusted with corrosion and rust, and the third is partially visible with a 8½" x 3½" x 2½" common brick attached to it and the bolt shows corrosion. Hairline cracks seen in the granite slab were apparently caused by the placement of these machine mounts into the slab. The cause of the break in the granite slab is open to debate, but, the hairline cracks created by emplacement of the machine mounts may have initiated the break by weakening the granite block. The turntable center support could have been broken as we see today, if the railroad attempted to move it when train maintenance functions were moved from River Station in 1904. The tilted position of the granite slab strongly connotes an attempt to reposition or remove it from its original location. The turntable center support pier or pedestal sits upon a granite "floor" or other form of solid granite foundation. The area excavated in August 2008 was too small and cramped to be more definitive about what underlies the turntable center. A broad exposure of the turntable center and surrounding area could help provide a more complete depiction of the latter feature and the turntable support structure. The turntable center was examined briefly by an architectural conservator (Historic Resources Group 2008).

With evidence of the turntable center and its two outer edges, the turntable was determined to be 70 feet in diameter. A turntable with a diameter of 70 feet dates to the 1890s, while turntables in the 1870s would be 51 feet to 56 feet in diameter (Larry Mullaly [railroad historian and expert on Southern Pacific], personal communication 2008; Kyle Wyatt [Historian at the California State Railroad Museum], electronic communication, 10/15/08). Southern Pacific must have upgraded and enlarged their original 1870s era turntable at River Station some time during the 1890s. A large-diameter turntable would have been needed to accommodate the addition of several new repair stalls in the River Station Roundhouse (see History section).

Unit 3 as noted above was placed where an anomaly interpreted as vestiges of a building had been identified in GPR Grid 8 (Becker 2008:4, Figure 14, Figure 16). The ultimate unit size was 18 feet northwest-southeast by 14 feet northeast-southwest, although much of the excavation took place in two, parallel backhoe trenches that were oriented northeast-southwest. These 14-foot-long trenches stood 13 feet apart and were positioned to extend through the GPR anomaly. The test excavations, primarily performed by backhoe, produced no evidence of 19th century River Station maintenance shops structural remains. The “anomaly” identified during the GPR survey consisted of a combination of a large rock, a metal pipe, a very compact clay layer, and a deposit of river cobbles underlying the clay layer. Unit 3 appears to have been positioned between the site of the Roundhouse and the Machine Shop site.

An area of 50 feet by 17 feet was excavated in 2008 to test the location of an anomaly identified by the May 2008 ground-penetrating radar survey. This excavation area, labeled as Unit 4, stood in the location of the Machine Shop and Forge Shop building identified on Sanborn Fire Insurance maps from the late 1800s. Two parallel brick-and-mortar wall foundations, measuring 48½ feet in length and trending northeast-southwest, were uncovered by a backhoe at 9 inches below the present ground surface; the two foundations stand 4 feet apart. An end wall of brick was found at the opposite ends. Dense brick rubble was found within the four-foot-wide pit area. The parallel brick foundations with end walls, designated as Feature 2, are interpreted as the remains of a single repair pit that stood inside the Machine Shop building. Two square brick support piers were uncovered about 5 feet southeast of both ends. The brick pier at the southwest end is Feature 3, while, the pier at the northeast end was labeled as Feature 4. An area lying just to the west of the northeast end of the parallel foundations showed a broad, dense horizontal layer of brick rubble, and was identified as Feature 1. Additional excavations will very likely reveal that the brick rubble is much larger in horizontal extent. An architectural conservator and a metal conservator examined structural remains at the Machine Shop site (Historic Resources Group 2008; Griswold et al. 2010).

Test excavations by backhoe were situated in a small area between lawn, walking path, and jogging path in 2008 (the excavators were asked not to excavate into a path to avoid disruption of foot traffic). Our review of the Sanborn maps indicated the west end of the Roundhouse had previously stood here. Two 13-inch-wide parallel, concrete wall foundations or structural supports were uncovered at 3 feet below the present ground surface. The four-foot-wide area in between the two concrete features was excavated and a brick floor was found at 67 inches below the surface. While only a small area of the feature was revealed, enough has been exposed to hypothesize the features represent the remains of a repair pit within the Roundhouse.

2009 State Parks Archaeological Testing

In 2009, new archaeological investigations were conducted by Southern Service Center staff under the direction of Michael Sampson. The focus of this fieldwork in Los Angeles SHP was to identify the areal extent of a dressed-stone pavement and to conduct excavations at the 19th century Car Shop site. The stone pavers are located on either side of the current park entrance on North Spring Street. The pavement had been installed along side the 19th century River Station freight warehouse. The Car Shop excavations consisted of a roughly 90 foot northeast-southwest by 60 foot northwest-southeast excavation pit that uncovered two corners of the building (west

and north), two brick exterior walls, and 19 additional brick structural support features within the building. A third (south) corner of the building was identified by measuring out from the west corner and use of a test trench. The 2009 excavations revealed that the Car Shop site consists of complex, expertly-made masonry architectural remains. Artifacts recovered during the Car Shop site investigation were cataloged under the State Parks Accession Number P1706. The items found during the 2009 investigations of the paver stones were assigned the Accession Number P1726; artifact findings were minimal during the work at the pavers.

An attempt was made to uncover structural remains of the Transfer Table, a structure in the general shops area. The Transfer Table is depicted on the 19th century Sanborn Fire Insurance maps for Southern Pacific's River Station as being situated northeast of the Machine Shop and southwest of the Car Shop. An area measuring 21 feet southeast-northwest by 21 feet southwest-northeast was opened by backhoe and hand excavation. No evidence of the Transfer Table was uncovered, although, the remains of this 19th century building may lie a short distance to the northeast of the 2009 test pit. The latter test pit did unearth a substantial eight-foot-square concrete support pier of unknown function. The concrete pier is similar to one uncovered in 2008 and appears to be in an alignment with the other concrete pier.

2010 State Parks Archaeological Testing

A limited amount of archaeological work was conducted within Los Angeles SHP in 2010 due to budgetary constraints, the lack of available heavy equipment to assist with the testing, and special events scheduled at the park. Archaeologists from the Southern Service Center under the direction of Michael Sampson conducted investigations at the northeast end of the Roundhouse site from June 9, 2010 until July 14, 2010. The brick foundations of four service bays within the Roundhouse (Repair Pits 1 to 4) and a long section of the northeast exterior wall foundation (designated Feature 15) were exposed during the month-long excavations. A small portion of one of the service bays was excavated to determine the depth and composition of the floor within the service bay. The latter work within the service bay revealed a heavily oil-impregnated wood floor. Twenty-nine new structural features associated with the 19th century Roundhouse were identified during the 2010 excavations. The artifacts (n=174), primarily metal objects, recovered during the 2010 fieldwork have been cataloged under State Parks Accession Number P 1723 and are currently stored at the Southern Service Center.

Also in 2010, a site record update for CA-LAN-3120 was completed by M. Sampson and M. Garrett and filed with the South Central Coastal Information Center. This site record update provides greater details of history and recent archaeological findings.

2011 State Parks Archaeological Testing

Archaeological investigations were conducted in Los Angeles SHP from late March 2011 through early May 2011 and in June 13-28, 2011 by Southern Service Archaeologists under the direction of Michael Sampson. That fieldwork had four objectives: (1) test areas under lawn for evidence of stone pavement, (2) expose a bridge support to determine their size and configuration, (3) continue excavations at the Roundhouse Site, and (4) examine the two ends of the Roundhouse to determine their configuration and to permit surveyors to obtain elevations.

The excavations in 2011 began with a series of 20 shovel test pits just southwest of the park entrance road to evaluate the horizontal extent of the stone pavement. All excavations for find stone pavers was performed within lawn that lies just west of the asphalt surface surrounding the restaurant next to the present park entrance. No evidence of a stone pavement was detected within the 20 test pits. Only a small number of artifacts were recovered during the 2011 excavations.

A series of four adjacent bridge supports were uncovered in the open grassy field northeast of the end of the parking area and 63 feet southeast of the long decomposed granite NE-SW trending footpath. These concrete supports are massive with a base measuring 4 feet square, a height of 4 feet and a top measuring 2 feet square. The concrete piers held upright posts that supported the wooden walkway spanning the Southern Pacific rail yard in the 20th century.

In April and May, large portions of Repair Pits 3 and 4 in the Roundhouse were excavated. Plan-view drawings were made within the exposed foundations. Linear blocks of concrete, now broken in pieces, were uncovered within both repair pits. The concrete blocks may represent a portion of the repair wall foundations that formerly stood atop the earlier brick foundations, but had been knocked off the repair pit walls when the building was razed.

In June 2011, excavations were conducted at the two ends of the Roundhouse. The building was semicircular with two ends—one at the west edge and one at the east edge. This excavation work resulted in uncovering masonry structural features at the ends of the Roundhouse. The design team working on developing plans for a new park needed elevations at each end. Information about the Roundhouse was also required by the project architect to facilitate accommodating the building into the design of the new park.

EXISTING CONDITIONS

Los Angeles SHP is recorded at the South Central Coastal Information Center as site CA-LAN-3120; the site boundary encompasses the entire park. The most recent site record update is dated October 5-6, 2010. No evidence of prehistoric cultural deposits or historic cultural remains predating River Station has been discovered during any of the previous excavations within Los Angeles SHP. This is not surprising since the park is located within the historic floodplain of the Los Angeles River (California Department of Parks and Recreation 2005:34); the sandy sediments directly underlying the 19th century building foundations are a good indicator of fluvial deposits. Los Angeles SHP has no standing, intact historic-period buildings or structures, either from the 19th century or early 20th century. The park primarily contains 19th century masonry wall foundations and other structural remains, 19th century trash deposits, 20th century support structural elements (e.g., masonry and concrete support piers), 20th century trash deposits, and items associated with the 20th century rail yard. As noted above, all buildings dating to the time of Southern Pacific's River Station facility were demolished or dismantled in 1904. All buildings, structures, and tracks associated with the 20th century Southern Pacific rail yard formerly located within the park have also been removed.

Evaluations of particular structural elements within Los Angeles SHP were conducted by an architectural conservator and a metals conservator in 2008 (Historic Resources Group 2008; Griswold et al. 2010). The building sites examined at this time consisted of the turntable, the stone turntable center, a brick-and-mortar repair pit foundation within the Machine Shop, and a concrete support pier of unknown function. The wood elements in the turntable site were determined to be in relatively good condition. The metal objects examined throughout the park, such as, tie-rods, bolts, and machine mounts, were all found to exhibit active corrosion that make exposure to the elements problematic. All the metal needs treatment by a qualified conservator to arrest or at least slow the ongoing corrosion. Many of the bricks show cracks or have broken but these problems can be repaired by a trained conservator. The mortar is in relatively good condition, but, in places, the mortar is crumbling, cracked, or missing in all building sites within the park. The mortar can be repaired by a qualified architectural conservator. The concrete in the large-sized support pier was found to be in excellent condition, although, again, the metal reinforcing rods in the piers showed active corrosion. The dressed-stone pavers located next to the present park entrance were not examined by conservators; they appear to be in good condition given the hardness of the granitic rock used in their manufacture.

The results of previous archaeological and geophysical investigations in 2002, 2002-2003, and 2004, 2008-2011, and archaeological monitoring in 2005 and 2006 by a Southern Service Center Archaeologist, and historical research demonstrated that there are substantial remnants of the historic buildings and related features associated with the Southern Pacific River Station, dating from 1875 to about 1904 and the 20th century rail yard (1904-1992), within Los Angeles SHP (Buxton 2006, 2010; Messick et al. 2003; Larson 2004; California State Parks 2005; Sampson 2010; historical records and field notes on file at Southern Service Center). Historical research (e.g., Mullaly and Petty 2002; California State Parks 2006; newspaper accounts; Sanborn Insurance maps) and geophysical surveys (Becker 2008; Larson 2004) have assisted the archaeological work to define what buildings formerly stood at River Station and their potential locations, such as, the Roundhouse, Turntable, the depot, hotel, Car Shop, maintenance buildings, freight houses, and others. All 19th-century building and feature locations known to exist through historical research and geophysical surveys have not yet been identified by archaeological testing. At the northeastern and southwestern ends of the property, some remnants of rails and railroad ties may still be visible. The northeast end of the park has potential to yield historic-period trash deposits, based upon findings during monitoring for utility lines at the existing Los Angeles Sector administrative building. One area of dressed granite cobblestone pavement exists adjacent to the existing N. Spring Street park entrance. The stone pavement may extend underneath the asphalt pavement in the park maintenance area at the southwest end of the park, but no archaeological tests have been conducted in this area yet. No human remains have been recovered at Los Angeles SHP to date.

In 2005 and 2006, an estimated 60, 000 cubic yards of imported fill soils were brought into the park and placed on top of the existing ground surface. The fill soils were introduced as a means of protecting the underlying historic structural remains from the public art project (2005) and, later, the interim park facilities. These interim park facilities consist of roads, walking and jogging paths, lawn areas, picnic tables, parking lots, a demonstration garden, a maintenance yard, and an administrative office, and remain in-place today. The public roads and paths and the park administrative area at the extreme northeast end of the park have a decomposed granite

surface; only the park maintenance shop area at the southwest end of the park is paved with asphalt.

The 19th century building remains associated with River Station are buried under fill soils varying in depth from 9 inches to 8 feet or more, depending upon their location in the park. Building remains located underneath lawn areas or under the broad undeveloped grassy area northeast of the lawns have approximately 6 to 7 feet of fill on top of them, based upon previous excavations. Portions of the Roundhouse site currently are buried under depths of fill exceeding 6 feet due to the landscape mound created during the IPU development. The pavement of dressed granite stone next to the park entrance lies much closer to the surface, varying in depth from 3 inches below surface to 12 inches below surface. A section of stone pavement is exposed on the surface in one area on the southwest side of the existing restaurant. Excavations conducted within the park at historic building sites have revealed that a thin horizontal layer of very compact, gravelly, light gray colored sediments separates the 20th century fill soils from the 19th century cultural deposits. This conspicuous stratum provides a convenient means of identifying the 19th century cultural layers during archaeological excavations.

As of July 2011, all archaeological excavations within Los Angeles SHP have been backfilled and safety fences moved off-site. Patches of lawn that were removed to accommodate excavations have been replaced. Additional trees have planted by park volunteers throughout the park within the past year.

TREATMENTS for ARCHAEOLOGICAL REMAINS

Introduction

The Los Angeles SHP Park Development Plan is specifically designed to minimize impacts to significant archaeological features, artifacts, and historic buildings and structures located within and adjacent to the park. California State Parks is confident that protection of these resources will be effectively managed by the careful planning outlined in this document, by following the *Secretary of the Interior's Standards for Treatment of Historic Properties*, by following Department policies and guidelines (e.g., the Department Operations Manual, Cultural Resources Section), and the policies outlined in the 2005 Los Angeles SHP General Plan/Final Environmental Impact Report. The interpretation of the intact, in-place significant historic features in the park represents a key component of the development plan.

Southern Service Center cultural staff has undertaken an investigation of previous records, surface reconnaissance work through geophysical techniques, and archaeological testing of selected building sites to better understand the limits, configuration, content, and integrity of existing cultural resources. Refer to the discussion above. This work can provide valuable information to assist the project designers, provide cultural data to park interpreters and help with the assessment of any potential impacts to archaeological resources. Architectural conservators, too, have studied the remains of certain 19th century buildings to ascertain the structural integrity of the masonry and wood components. It is the position of Department archaeologists that no direct impacts to intact structural remains or cultural deposits will occur

during the project, if planned appropriately. This is accomplished through avoidance and by placing improvements in areas to which deposits are deeply buried and lie below planned project-related ground disturbance. Any building remains will be evaluated and chosen for interpretation to the public based upon the conservators' guidelines and assessments by Department designers. In addition, the Department will be undertaking additional archaeological study and testing, as needed, to assist with project planning and future park interpretive programs.

Policies and Laws Related to Historical Resources

Projects located within units of the California State Park System are subject to mandates codified in State law and Department policies, such as, the Department Operations Manual. Projects at Los Angeles SHP are additionally mandated to be consistent with the Goals and Guidelines related to the stewardship of cultural resources outlined in the Los Angeles SHP General Plan (California State Parks 2005). State laws that are most relevant to the proposed project in Los Angeles SHP include, the California Environmental Quality Act, Public Resources Code 5024.5, Health and Safety Code Section 7050.5, Public Resources Code 5097.94, and Public Resources Code Section 5097.98. Public Resources Code 5024.5 states: "(a) No state agency shall alter the original or significant historical features or fabric, or transfer, relocate, or demolish historical resources on the master list..." This same law obligates the Department to "...adopt prudent and feasible measures that will eliminate or mitigate..." any possible adverse effects the proposed project may have upon a listed historical resource. Two goals from the Los Angeles SHP General Plan of particular relevance to the proposed project are as follows: (1) Identify, document, evaluate, and interpret cultural resources at the park; (2) Protect, stabilize, and preserve significant cultural resources within the park. The 2005 Los Angeles SHP General Plan also set a standard for treatment of cultural resources that states: "New facilities shall be designed and constructed to avoid archaeological remains to the extent possible." The General Plan calls for preparation and implementation of "a recovery plan" in the event specific impacts to archaeological remains are found to be unavoidable (California State Parks 2005:133-134).

Health and Safety Code Section 7050.5, Public Resources Code 5097.94, and Public Resources Code Section 5097.98 outline procedures to be followed in the event human remains were discovered during the course of a State of California project. If human remains were encountered, all work must stop at that location and the County Coroner must be immediately notified and advised of the finding. The County Coroner will investigate "the manner and cause of any death" and make recommendations concerning treatment of the human remains. The coroner must make their determination within two working days of being notified. If the human remains are determined to be Native American, the Coroner shall contact the California Native American Heritage Commission. The Commission would in turn "...immediately notify those persons it believes to be most likely descended from the deceased Native American." The descendants then can inspect the site and make recommendations for the disposition of the discovered human remains. This recommendation from the Most Likely Descendants can include the scientific analysis of the remains and associated items.

Future Archaeological Evaluations

Proposed Work Locations

California State Parks Archaeologists will continue a program of archaeological test excavations as part of the park development planning process. The needs for archaeological exploration within Los Angeles SHP include (but are not necessarily limited to) the following locations: (1) testing within the locations of the proposed new buildings, specifically, a visitor center and an operations building, (2) an investigation of the areal extent of the stone pavement at the southwest end of the park, (3) investigation of a location marked as “Retention Area” on the design concept where water from the Los Angeles River may be conveyed in a future phase of the project, (4) testing at the northeast end of the park where new administrative facilities are proposed, (5) investigation of the Machine Shop site and the Paint Shop site to provide data to park planners on location, conservation needs, and interpretation of these two building sites, (6) testing at the locations of new park entrances and exits, (7) testing along the proposed alignments of new utility lines within the park needed to support the proposed new buildings, (8) test areas of the park where dense plantings of trees are proposed, in particular, where historic building sites are known to be present.

The above locations proposed for archaeological testing likely will reveal 19th century building sites, trash deposits associated with the River Station hotel and depot, structural elements associated with operation of general shops and rail yard, and other archaeological remains. The proposed location for a new operations building, as seen in the park design concept drawing, may be located upon part of the River Station hotel and depot site. The proposed location of the visitor center may be situated upon a portion of the River Station freight warehouse. The “Retention Area” is situated in a part of the park that has previously yielded evidence of 19th century trash deposits (Messick et al. 2003:Figure 2, 15-18; 2005-2006 State Parks Monitoring, see discussion above). No archaeological studies have been conducted at either the existing park maintenance yard in the southwest end of the park or the maintenance yard at the northeast end of the park. However, archaeological monitoring in 2008 for the Los Angeles Sector office construction yielded a deposit of historic artifacts along the east side of that building. A dense planting of trees is shown on the current design concept along the southeastern edge of the park; the remains of the 19th century freight warehouse and the depot and hotel may be present in this same general area.

The choice of specific locations in which to excavate will be determined on a combination of where new facilities are proposed, data from previous geophysical surveys (Larson 2004; Becker 2008), data gleaned from Sanborn Fire Insurance Company maps and other historical evidence, and evidence from previous excavations in the park. All excavation units from previous State Parks excavations and historic features uncovered during that work were mapped using a GPS unit; those data have been mapped and are now stored on the Southern Service Center Server. The known location of the turntable center can be used a point from which to measure out to other shops buildings using the scaled distance derived from the Sanborn maps. This technique was successfully employed in relocating the Car Shop building site in 2009. Masonry structural remains uncovered during the soil remediation work of 2002-2003 are plotted on a map in

Messick et al. (2003:Figure 2) and can be roughly sited from inspection of photographs in Messick et al. (2003:Figure 9, Figure 11).

Recommendations for Fieldwork Procedures

The schedule of proposed new excavations should be coordinated with the Los Angeles Sector Special Events facilitator to avoid conflicts that might necessitate hasty reburial of excavations areas and removal of fencing prior to completion of the fieldwork. Prior to the commencement of excavations, park maintenance staff must be advised to shut off any irrigation in or near the excavation site. This request should be given repeatedly during the course of the excavations to prevent park staff from accidentally turning on sprinklers that could flood the excavation area. Similarly, any sprinklers located next to the excavation area that might spray water into the excavation pit or onto the interpretive signs posted on the surrounding fence should be shut off.

Any archaeological fieldwork conducted within Los Angeles SHP shall follow standard professional practices as well procedures employed in previous work, where they have been found to be successful. A backhoe is required to strip off the fill soils that currently overlie the 19th century building sites. Two or more archaeologists are needed to carefully monitor the backhoe work to insure that building remains are not inadvertently damaged by the backhoe bucket and to hand excavate loosened soils upon approaching the depth of the historic deposits. The 19th century cultural deposits associated with River Station are separated from the overlying 20th century rail yard materials and recent introduced fill by a conspicuous horizontal, very compact, light gray colored gravelly stratum. This layer is referred to as track bedding, and has been interpreted as the foundational material installed within the 20th century Southern Pacific freight yard to underlie the tracks. When monitoring the backhoe in uncovered historic features, the archaeologist must watch carefully of ceramic pipes, as they are easily broken by a backhoe bucket. Ceramic pipes can be expected along the base of repair pits within the Roundhouse and other shops buildings, as well as where utility lines are drawn on Sanborn maps.

Typically, historic building remains, such as wall foundations, repair pits within shops building, and other structural features, are most advantageously investigated by opening a broad area for examination and documentation. This technique was used effectively in 2008 to examine the turntable foundation structure, in 2009 to study the Car Shop building site in detail and find its four corners and in 2010 and 2011 to comprehend the layout of repair pits within the Roundhouse. All areas of excavation must be fenced to keep the visiting public out and provide a level of security to the exposed building site when no field workers are present. It is recommended that temporary interpretive signs be placed on the fence or next to the fence to explain what is being found in the excavation site. Information about the ongoing archaeological work can also be conveyed to the public through news items posted on the Los Angeles SHP Blog that is operated by the Los Angeles Sector interpretive staff.

When excavations are ongoing, it is recommended that any metal objects discovered during the fieldwork be protected from the elements by reburial after they have been measured and photographed. Any fragile structural features uncovered during the excavation must be left exposed for as short a period of time as necessary to adequately document them. Then, these features should be carefully reburied. Historic structural remains exposed during excavations

should be immediately reburied prior to completion of all documentation if rainfall is imminent. Ideally, most archaeological excavation work will be carried out in Los Angeles SHP during periods of time when the threat of rain is nonexistent or negligible, due to the fact that flooding of historic structural features will place them at great risk.

Archaeological Collection Procedures and Report Preparation

It is recommended that artifact collection be kept to a minimum during any future archaeological evaluations within Los Angeles SHP. A good sample of artifacts and faunal remains has already been obtained during prior archaeological work. The principal focus of the archaeological investigations is the architectural remains; therefore, only artifacts that are necessary to complement the interpretations of building function are significant for the project. Exceptions can be made to this recommendation in the event a concentration of artifacts is uncovered that can provide data on the human element at Los Angeles SHP, such as, trash deposits from the hotel and passenger depot, trash deposits associated with the 19th century railroad workers, or in the event evidence of site uses predating River Station were discovered. All artifacts and faunal remains will be cataloged under a State Parks Accession Number that is specific to the project year and building site within Los Angeles SHP using standard State Parks procedures and placed into the Museum System® (TMS). The curation of the artifacts and faunal remains will follow Departmental standards. A report documenting the building site or historic feature location, the fieldwork and analytic procedures followed, and the project results should be completed.

Excavation of Archaeological Features Scheduled for In-Place Interpretation

The remains of specific 19th century buildings associated with Southern Pacific's River Station are scheduled to left exposed and incorporated into the design of the new park, for example, the Roundhouse. The structural features left exposed will serve as in-place interpretive elements. Any 19th century structural feature, such as, masonry wall foundations, masonry repair pits inside the Roundhouse site, wooden foundation elements of the 19th century turntable, or remains from other River Station buildings, proposed for incorporation into the park design must be excavated following standard professional archaeological procedures and procedures identified in the Department Operations Manual; also, see recommendations above under subsection labeled "Archaeological Evaluation." And, the actual excavations of the features must be conducted by professional archaeologists employed by California State Parks, or, their designee, if an adequately sized crew of State Parks archaeologists is not available.

Conservation Measures for Interpreted 19th Century Building Sites

Previous evaluations by architectural and metal conservators (Historic Resources Group 2008; Griswold et al. 2010) have addressed the feasibility of interpreting portions of the 19th century masonry and wood building remains at Los Angeles SHP and they have proposed certain treatments. The particular building remains proposed to be left exposed for public interpretation within the project design should be evaluated by an architectural conservator. A metal conservator shall be hired to assess the condition of any metal objects if present in the structural features proposed for interpretation by exposure for public viewing. Any stabilization and treatment measures formulated by the architectural conservator or by the metals conservator

based upon any new evaluations shall be implemented. General recommendations for the conservation treatment of wood, brick and mortar, clinkers, slag, and coal, and metal are available in the report by Griswold Conservation Associates (Griswold et al. 2010:6-9). The park design team shall give consideration to designing a shelter that covers the historic-period building features left exposed for viewing. This shelter can help lessen the effects of rainfall, sunlight, and other natural forces. Building elements left open to the public should be incorporated into the park design in manner that protects them from foot traffic, service vehicles, routine park maintenance activities (such as, hosing down walkways and other tasks), and irrigation. The exposed historic features should also be the subject of periodic monitoring by park staff to update their condition, as well as periodic maintenance by conservation specialists.

Treatment for Historic Architectural Remains

Historic Resources Group, an architectural conservation consultant firm in Los Angeles, was hired in 2008 to provide materials conservation guidelines and interpretive guidance for historic-period archaeological features present within Los Angeles SHP (Historic Resources Group 2008). An important component of the evaluation by Avigail Charnov and Peyton Hall from Historic Resources Group involved identifying measures by which wood or masonry structural features from 19th century River Station could be left exposed to be viewed by the visiting public. The 2008 Historic Resources Group report outlined four basic alternatives by which to conserve, display, and interpret the historic building remains at Los Angeles SHP: (1) reburial of all historic resources in the park, (2) reburial of a portion of the building remains while leaving a portion exposed for interpretation and public viewing, (3) expose all of the building remains at the park, and (4) construct a building over the building remains in Los Angeles SHP. With any of the four alternatives, documentation of the architectural features within the park is recommended. Relocation or destruction of any of the historic architectural features is not recommended (Historic Resources Group 2008:7-9). Options for potential display are also predicated upon an evaluation of the historic structural remains by a qualified materials conservator. The wood, the bricks and mortar, and the metal each have differing degrees of deterioration and specific requirements for effective conservation. All historic resources in the park will require periodic maintenance and monitoring. The four alternatives are discussed below.

Reburial of All Structural Remains

The alternative of reburying all of the historic structural remains, as they are today, is considered the most effective option for long-term conservation of the historic resources in Los Angeles SHP. The 2008 report does recommend that an architectural conservator and civil engineer provide advice on the reburial procedures. A site drainage system must be formulated and implemented to assure “optimum subgrade conditions” (Historic Resources Group 2008:7). A long-term monitoring plan is recommended under the reburial alternative. The alternative to rebury all historic features is also the one that necessitates the least amount of maintenance over time (Historic Resources Group 2008:3).

Partial Exposure of Specific Building Sites

The second alternative permits both public viewing of portions of the 19th century building remains and long-term conservation of the portions that remain buried (Historic Resources Group 2008:7-8). It is desirable from a public interpretation perspective to allow a view of the actual architectural features, such as, brick-and-mortar wall foundations or masonry repair pits within the Roundhouse. That option should help the visiting public better comprehend the scale, complexity, and craftsmanship of the 19th century buildings that formerly comprised River Station. An architectural conservator must evaluate the section of building proposed for exposure, and then implement any treatments recommended as a result of that evaluation. The exposed structural features may need to have shelter placed over it to lessen the damage caused by rain, wind, sunlight, and blowing debris. Site drainage must be carefully planned with this alternative due to difference in soil levels. State Parks could also construct a section of masonry wall on the surface in the exact location of the underlying feature as a means of interpreting the architectural features of River Station. If the latter interpretive measure were taken, the newly reconstructed section must be clearly differentiated from the original 19th century structural features. Historic Resources Group (2008) recommended use of the partial building exposure option by California State Parks at Los Angeles SHP, whereby only portions of 19th century architectural remains are left exposed for public viewing and the remaining features are protected by burial.

Full Exposure of All or Most Building Sites

The alternative to leave all 19th century architectural features exposed may be desirable for public interpretation purposes, but it represents the most potentially destructive option. Again, Historic Resources Group (2008:8) recommended a detailed evaluation by an architectural conservator before making a decision on the exposure of masonry and wood structural remains in Los Angeles SHP, as well as consideration of placing a shelter over the top of exposed features. Brick-and-mortar wall foundations and structural elements such as those found in the park could be provided a level of protection by constructing a layer of modern brick on top of the 19th century bricks (Historic Resources Group 2008:8). This alternative would require a massive effort by Department archaeologists to carefully excavate the features; such an endeavor may be infeasible from a personnel standpoint and a financial one.

Construction of a Building over the Exposed Building Remains

The alternative to construct a building over the 19th century architectural features represents the most expensive and intrusive option. The enclosed building does allow for a climate controlled environment with greater security. Such building would provide opportunities for introducing a variety of interpretive devices (Historic Resources Group 2008:8). Such a building must have a design that is appropriate to the site and would be compatible with the proposed design of the park.

Park Development and Everyday Uses: Treatment of Potential Effects

The construction activities necessary to manifest the proposed park design and the ultimate uses of the park both have a potential to cause damage to underlying 19th century building remains (cf. Historic Resources Group 2008:9). Therefore, the designers of the new development in Los Angeles SHP will give consideration to the known locations of underlying 19th century building sites and structural elements when planning locations of new facilities. A sufficient depth of fill soils must be placed over any building sites and other historic-period features (e.g., trash pits, pavement of dressed-stone, structural features from the elevated walkway, and others) to protect them from compression damage, infiltration of irrigation water or rainfall, and the movement of heavy mechanical equipment during park construction. A subsurface site drainage plan is also needed at Los Angeles SHP as part of the park development work. That plan will study the location and depth of the water table, the location and depth of hazardous materials, seasonal water conditions, assess the existing soil types in the parks and the consistency and permeability any soils proposed to be introduced as fill, and give consideration to irrigation requirements and proposed park uses. Building elements proposed to remain exposed for purposes of public viewing will be evaluated by an architectural conservator. And, where metal objects may be left exposed, a metal conservator should be hired to implement conservation treatments, as needed (see, for example, the recommendations in Griswold et al. 2010). Conservation studies of this kind likely require testing, limited sampling of materials, and laboratory analysis. Security and public safety measures relative to the exposed architectural features must be part of the park development plans.

In summary, the following measures are recommended for the building sites and other historic resources within Los Angeles SHP (site CA-LAN-3120):

- 1) All building sites should remain in-place.
- 2) All building sites and historic resources shall be well documented.
- 3) Continue historical research to provide additional details concerning the architecture of Southern Pacific general shops buildings and the technological innovations that occurred during the time River Station was in operation.
- 4) Interpretation of all historic resources should be undertaken.
- 5) Any interpretive program should be feasible, given the constraints of conditions of the building sites, fragility of the 19th century building materials, recommendations from conservators, funding and staffing limitations, and other issues.
- 6) A protection plan will be needed during the construction phase of the proposed development.
- 7) Long-term conservation of historic building sites should be part of the park design.
- 8) Avoidance of significant historic resources within the park is the preferred project design alternative.
- 9) Sufficient fill soils and well planned drainage systems will be placed over the 19th century building sites and other historic resources to provide protection from construction activities, everyday park uses, and infiltration by irrigation of landscaping or plant roots.
- 10) Landscaping, in particular, trees, and landscape features should be planned to avoid major building sites, to prevent the potential of water or root damage to structural remains.

11) Prepare reports for all archaeological investigations undertaken at the park.

Archaeological Monitoring

This plan will identify the cultural resource monitoring, evaluation, and treatment procedures to be implemented during construction activities of the Los Angeles SHP construction project. The following procedures consist of the steps to be taken in the event of discovery of previously unknown archaeological materials during construction of the new buildings, landscape features, roads, and associated facilities. It is necessary to have in place a cultural resource monitoring and discovery plan prior to construction in order to protect, document and evaluate any exposed resources. It may also be necessary to formulate and implement a site-specific treatment plan should any archaeological resources be exposed during construction. Archaeological monitoring of construction activities is also necessary to ensure that inadvertent impacts to cultural resources outside of the APE do not occur. If these impacts do occur, California State Parks will initiate measures to protect the outside sites from further impacts, prepare damage assessment documents, evaluate the resources, and incorporate them into further investigations, as warranted.

A single cultural resource monitor normally will be sufficient to cover the construction activity planned for the Los Angeles SHP park construction project. All construction activities that even minimally disturb the soil will be closely monitored by qualified California State Parks field archaeologists. An archaeological monitor must be on-site during all demolition and surface-disturbing construction work. No matter how shallow the disturbance, e.g., removal of asphalt and plants, an archaeological monitor or monitors must be present. Multiple archaeological monitors are required to adequately observe and monitor when the daily construction activities necessitate simultaneous work at multiple locations within the project APE. Large construction projects have variable, frequently-changing work plans due to personnel issues, equipment, weather, or other factors. The State Representative must insure that proper coverage is available to perform adequate monitoring, or, delay specific proposed work tasks, if not.

A California State Parks archaeologist and the State Representative will conduct cultural resource sensitivity orientation prior to the initiation of construction in order to inform all construction field personnel of state legal requirements with regard to cultural resources. The orientation will provide information on California State Parks Cultural Staff/Construction Staff coordination, the types of cultural resources expected in the area, how to recognize a potentially significant discovery, procedures to be followed in the event of a discovery, specific instructions regarding discovery of human remains, and the consequences of non-compliance. Project-specific requirements and the penalties for non-compliance will also be stressed. An explanation of the Discovery Policy will also be provided.

General Monitoring Procedures

California State Parks archaeologist or their designees will be utilized as monitors on the project. They will meet permitting standards and qualifications as determined by the California State

Parks. Archaeological monitors will be present during any and all ground disturbing activities, no matter how shallow the disturbance, as deemed appropriate by the State Parks Project Archaeologist or Project Managers.

Archaeological monitors also will oversee the avoidance of areas within the APE where documented significant cultural resources exist, in particular, structural remains, trash deposits, or other cultural remains that are not covered by fill of sufficient depth. Similarly, the archaeologist will oversee the avoidance of other identified cultural resources outside but adjacent to the APE. When appropriate or as necessary, cultural features both in and outside the Area of Potential Effect and cultural remains adjacent to the project APE will be fenced for avoidance prior to the initiation of construction activities. Flagged laths or similar conspicuous markings indicating that the area should not be disturbed will be posted in the general area of a cultural site or feature, but will not specifically identify the excluded zone as a cultural resource.

In the event that unanticipated cultural resources are encountered during construction, the archaeological monitor will implement the appropriate level of documentation necessary to evaluate the finding. The discovery of human remains will, however, necessitate implementation of a separate set of requirements (see below and refer to discussion of relevant laws above). General monitoring procedures followed for this project are based upon California State Parks guidelines and standard professional procedures. Health and Safety Code Section 7050.5, Public Resources Code 5097.94, and Public Resources Code Section 5097.98 outline procedures to be followed in the event human remains are discovered during the course of a State of California project.

The archaeological monitor has the authority to temporarily halt construction operations within 100 feet (30 meters) of a find or exposed resource. The monitor will take measures to eliminate further impact to a resource by temporarily halting operations near the discovery, evaluating the resource and potential impacts to the resource, and immediately notifying the State Representative and Construction Supervisor, and the Project Archaeologist. A decision will be made by the State Parks project archaeologist in consultation with the State Representative and Project Manager to allow construction to proceed beyond the area of discovery or remain halted until the discovery can be further investigated. Then, the discovery will be fully assessed and documented by California State Parks Archaeologists. In the event that an archaeological monitor is not present when a resource is uncovered, the lead engineer/contractor or construction supervisor on-site is responsible for notifying the monitor and the State Representative.

A daily log/monitor form will be completed by the archaeological monitor. The log will identify the name of the monitor, time spent at a location/site with a crew, the crew being monitored and their activities, the construction supervisor, any sites/features inspected, and will provide a narrative of the day's activities (including any cultural resource problems or concerns). A monitoring report will be prepared at the conclusion of construction summarizing monitoring procedures and results. Any artifacts or faunal remains recovered during monitoring must be mapped in-place, cataloged, analyzed, and curated following standard Department procedures.

Discovery Plans

This Discovery Plan describes the procedures to be implemented in the event that an unanticipated historic property is encountered during construction of buildings and park facilities in Los Angeles SHP. Procedures are outlined to evaluate cultural resources detected during construction. In the event that the evaluation determines that the resource cannot yield significant information and there are no potential human remains within the resource area, and California State Parks cultural staff concurs, then no further work is required. If it is determined that the resource will yield significant information, then the resource will either be avoided or the adverse effects mitigated by a plan developed by the State Parks Project Archaeologist.

Discoveries are newly identified resources that meet significance criteria under CEQA. All newly discovered resources must be evaluated. Newly discovered resources include the following:

- Previously unidentified archaeological features, including, building remains (foundations, wall remnants, etc.), trash pits and trash scatters, isolated historic structures, artifact concentrations signifying an activity area, utility pipe (in particular, ceramic pipe or late 19th or early 20th century metal) alignments, remnants of historic roads (such as alignments of stone pavers).
- Previously determined ineligible sites which during construction yield distinct cultural material not previously identified.
- Cultural resources identified adjacent to, but beyond the boundaries of a known, eligible site as previously determined from surface observations.
- Evidence of human remains in any context. All bone discoveries should be treated by construction personnel as potential human remains until taxonomic identity can be determined.

Examples of cultural resource indicators that could be uncovered in Los Angeles SHP include bricks, pieces of brick-and-mortar, stone, ceramic, glass, metal, or faunal artifacts, wooden structural remains, non-human bone, human bone, human cremations, soil discoloration or charcoal stains, oil impregnated wood, architectural remains, and cultural features. Isolated artifacts, whether prehistoric or historic, do not qualify as discoveries. Similarly, cultural materials that post-date 1950 do not typically qualify as “discoveries” that require formal documentation.

The procedures for handling potential discoveries (other than human remains) identified during construction are as follows:

- When a discovery is encountered, all construction activity in the immediate vicinity will cease. As soon as possible, all other ground disturbing activity within 100 feet of the discovery will also be redirected.

- A discovery encountered by construction personnel will be reported immediately to the archaeological monitor/project archaeologist.
- All traffic through the construction area where a discovery has been made will be re-directed. Only traffic necessary to remove vehicles and equipment within the area will be allowed to continue. In most cases laths with flagging, traffic cones, or temporary fencing will be installed at the discovery location as markers to prevent accidental impact by construction equipment or other sources.
- The archaeological monitor will evaluate and verify the discovery. During verification and evaluation of the discovery, the archaeological monitor will have the authority to probe and shovel, and otherwise investigate the find to the extent necessary to determine whether the remains qualify as a discovery. If it is determined that the potential discovery is non-cultural, or not culturally significant the archaeological monitor will notify the State Representative that work can resume.
- If the archaeological monitor determines that the find is cultural but does not qualify as a discovery (i.e., an isolated occurrence, materials less than 50 years old, displaced cultural remains that are obviously out of primary context, or due to another specific reason), the monitoring archaeologist will confer with the project archaeologist and will document the find in the daily log, on project maps, and acquire GPS data for the find.

Following these procedures, the archaeological monitor will notify the State Representative that construction activity can resume. As above, no other notifications will be made at that time. In situations where the monitoring archaeologist determines that the find does qualify as a discovery, he or she will confer with the project archaeologist to assess the potential significance of the resource. In most cases, it is anticipated that the discovery of a cultural resource will be made during inspection of construction surface disturbance or the backdirt removed from the construction activity. If the discovery appears to have been only partially exposed by construction, then no further work will be allowed in the area until the discovery has been adequately investigated. If the monitoring archaeologist determines that no further impact to the discovery will result from continued construction and that the investigation of the discovery will not be impeded by construction activity, then he or she will instruct the State Representative to proceed without additional delay.

- If a discovery has been made, and the documentation of the discovery will entail continued investigation, then an area of at least 30 feet (10 meters) surrounding the discovery will be fenced with safety fencing. The archaeological monitor will immediately notify the on-site State Representative and the Project Archaeologist of the discovery. In the event of a discovery, an initial discovery report will be completed by the archaeological monitor. The report will document the location of the resource, the date and circumstances of the discovery, a description of the discovery, photographs, recommendations, and agencies involved. In the event that the discovery entails construction impacts to a previously known, flagged cultural resource within the APE, or a known or unknown cultural resource beyond the APE, the initial report will identify

whether the site is new or existing, how the damage was discovered, the date and time of the damage, the party responsible for the damage and his or her supervisor, witnesses to the damage, a detailed description of the damage, agencies notified of the damage and actions taken as a result of the damage.

- A comprehensive Discovery/Damage Report incorporating all of the project discoveries and damage assessment situations will be prepared and submitted to the responsible agencies following completion of construction activities and field documentation. This report will include a narrative description of each discovery or damage assessment (including a justification for the evaluation), the context, USGS quadrangle map locations, drafted site maps, feature plan maps, profiles, photographs, analytical results (e.g., artifacts recovered, samples analyzed), interpretation of the resources within the context of the project research design, and recommendations.
- An updated site record form will be completed and submitted to the South Central Coastal Information Center and to park offices.
- As a final step, any artifacts recovered during monitoring will be curated with California State Parks. The artifacts and faunal remains should be cataloged under a State Parks accession number different from the accession numbers used during the evaluation and study phases of the Los Angeles SHP Park Planning Project.

Procedures Concerning the Discovery of Human Remains

The discovery of human remains during construction of the Los Angeles SHP Park project undertaking will entail a specific set of procedures. If potential human remains are encountered during construction, work will stop immediately and appropriate measures (see below) will be taken to protect the remains from further disturbance until they have been fully evaluated. The on-site State Representative will be consulted on the discovery so that they can advise the construction contractor about the issue.

The archaeological monitor and the Project Archaeologist, in coordination with the County Coroner, if necessary, will verify whether the remains are human in origin. If the remains are determined to be non-human and not a cultural resource, the construction will resume as necessary.

- Notification Procedures: If the monitor(s) believe that the remains are human, the procedures include notifying the Los Angeles County Coroner. The Coroner evaluates the finding, identifies the remains, determines the cause of death, and makes a recommendation for further action. If the human remains are determined to be Native American and not a modern-day individual, the coroner will notify the California Native American Heritage Commission. The County Coroner will determine disposition of historic-period human remains that are not Native American.

- Notification and treatment will conform with appropriate state and federal statutes, regulations and guidance, including Health and Safety Code 7050.5, California Public Resource Code, Section 5097.94 and 5097.98, and the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) (25 United States Code (USC) § 3001-3013). As used below, the term “human remains” will apply to any remains satisfying the definition in this federal act. This definition includes human remains as well as associated funerary and sacred objects. For Native American burials and cremations, the Native American Heritage Commission will designate a California tribal group or individual as the most likely descendant of the burial.
- Vehicles and equipment will be removed in such a way as to prevent any disturbance of the remains.
- Human remains and objects will be excavated and provided initial analysis by an archaeologist following standard human burial excavation procedures and documentation and as requested by the Most Likely Descendant. Under all circumstances, the human remains will be treated with consideration and respect in consultation with local agency officials, descendants, or the Most Likely Descendant of the California Indian tribe designated by NAHC, if the remains are Native American. Additional analyses of the human remains (e.g., osteological studies, DNA, and radiocarbon dating) and analyses of associated items may be performed, if requested by the Most Likely Descendant. The Most Likely Descendant will determine place of reburial if the human remains are Native American.
- Once documentation, excavation, and analysis have been completed, California State Parks will notify the appropriate agencies, park stakeholders, and individuals.
- The Project Archaeologist will prepare a comprehensive Archaeological Data Recovery/Burial Treatment Report. The report will include the following: project overview, circumstances of each burial discovery, recovery procedures and techniques, artifact analysis, faunal analysis, osteological analysis and interpretation, and conclusions and interpretations. In addition to agency review, the report will be reviewed by the Native American group having cultural affinity or any other interested Native American representative(s) within the same time period as accorded any other reviewers.
- California State Parks Project Manager will determine if any further actions must be conducted by the Project Archaeologist before the resumption of construction activities.

The specific procedures regarding the investigation of human remains discoveries in California are as follows:

State of California

- With regard to prehistoric human remains, the county coroner is responsible for contacting and relinquishing responsibility to the Native American Heritage Commission (NAHC) within 24 hours of notification. The NAHC then designates and notifies a Most

Likely Descendant (MLD). The MLD has 24 hours to provide recommendations for the proper treatment and disposition of the human remains and any associated grave goods. The notification will state that the MLD may inspect the burial site. The MLD may wish to consult other Native Americans during the process. If the NAHC is unable to identify a MLD, or the MLD fails to make a recommendation or the landowner or his or her authorized representative rejects the recommendation of the MLD and mediation fails, the human remains and associated materials shall be re-interred with appropriate dignity on the property in an area that will not be further disturbed. News releases, photographs, videotapes, and written articles regarding the remains and associated items will not be allowed for security reasons unless approved by the MLD and California State Parks.

- If the remains and grave goods will not be subject to further disturbance, the MLD may recommend no further action and they may be left *in situ*. They should be documented archaeologically and carefully reburied to avoid further disturbance. If the remains and associated cultural items will be further disturbed by project construction, the MLD may recommend that they be exhumed.
- At the discretion of the MLD, the remains and grave goods may be documented and analyzed prior to reburial by a qualified archaeologist, physical anthropologist or osteologist. The analysis will be conducted at a location agreed upon by the MLD. Typically, this analysis shall be non-destructive and completed within a time period stipulated by the MLD. However, the MLD can agree to radiocarbon dating of the bone or DNA testing of the bone. Documentation pertaining to the analyses conducted shall be provided to the Native American community.
- The remains and associated objects shall be reburied by persons designated by the MLD and according to the provisions of California Public Resource Code 5097.98(a) and (b). The location of the burial will be documented, filed with the NAHC and the California Historical Resource Information System (CHRIS), and treated as confidential information.
- The Archaeological Data Recovery/Burial Treatment Report will be reviewed by the MLD or any other interested Native American representative(s).

Unexpected Discoveries

Unanticipated discoveries may occur in areas of the project outside those known to contain historic-period features. There are basic general steps to be taken in the event of unanticipated discoveries or impacts to cultural deposits within the APE during the course of the project. We should keep in mind, for example, the experience during construction of the Metropolitan Water District Headquarters in 1996 (Goldberg 1999), in which a small prehistoric cemetery was uncovered within the former floodplain of the Los Angeles River. Unique characteristics of each discovery event will require treatments specific to the discovery. If unexpected cultural resources are encountered during the demolition or construction phases of this undertaking, work will stop at this specific location. A State Park Archaeologist will examine the discovery and suggest further action, which could include, archaeological testing. Archaeological tests will be

conducted by State Parks archaeologists or their designee, as needed, to determine the integrity of the cultural remains or deposit, the content and configuration of the discovery, areal extent and depth, and to help formulate the next step to protect the cultural remains thus discovered. Avoidance of the cultural resource will typically be the preferred treatment. If the cultural deposit cannot be avoided, treatment plans would need to be changed to conduct a full data recovery excavation and perform adequate recordation of architectural features.

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