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**A CULTURAL RESOURCES INVESTIGATION
OF ASSESSOR PARCEL NO. 136-220-016,
TTM 36317, LOCATED IN THE CITY
OF RIVERSIDE, RIVERSIDE
CO., CALIFORNIA**

by,

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INTRODUCTION

McKenna et al. (Appendix A) initiated this cultural resources investigation of Assessor Parcel No. 136-220-016, consisting of 8.8 acres of land in the City of Riverside, Riverside County California, at the request of Adkan Engineers, Riverside, California. This investigation and evaluation of cultural resources has been prepared in compliance with the City of Riverside Historic Resources Division and the California Environmental Quality Act (CEQA), as amended. This study also fulfills any requirements for compliance with California Subdivision Map Act, as amended.

PROJECT LOCATION AND DESCRIPTION

The current project area is located at the southern extent of the City of Riverside, Riverside County, California (Figure 1). More specifically, the project area is located within Township 3 South, Range 6 W, and portions of Sections 24 and 25, as illustrated on the current USGS Riverside West Quadrangle (Figure 2). This 8.8 acre parcel, currently dominated by orange trees, has no street address (never had a street address), but is cross-referenced by the Riverside County Assessor as Assessor Parcel No. 136-220-016 (Figure 3). The property is oriented on a 45° angle and bounded to the northwest by Victoria Avenue; to the southwest by La Sierra Avenue; and to the northeast by Millsweet Place (Figure 4). Historically, this area was within the Rancho El Sobrante de San Jacinto.

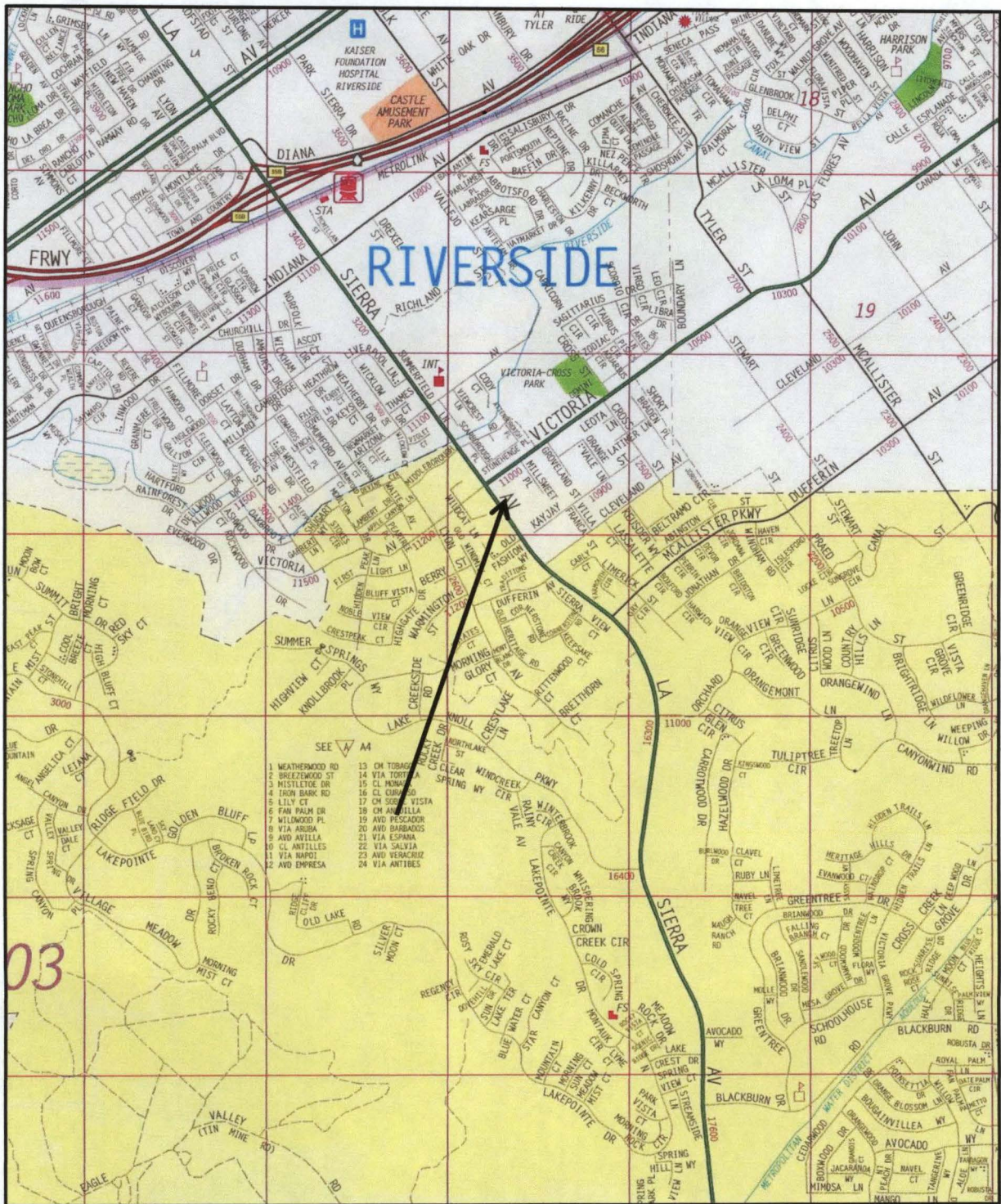


Figure 1. General Location of the Project Area.

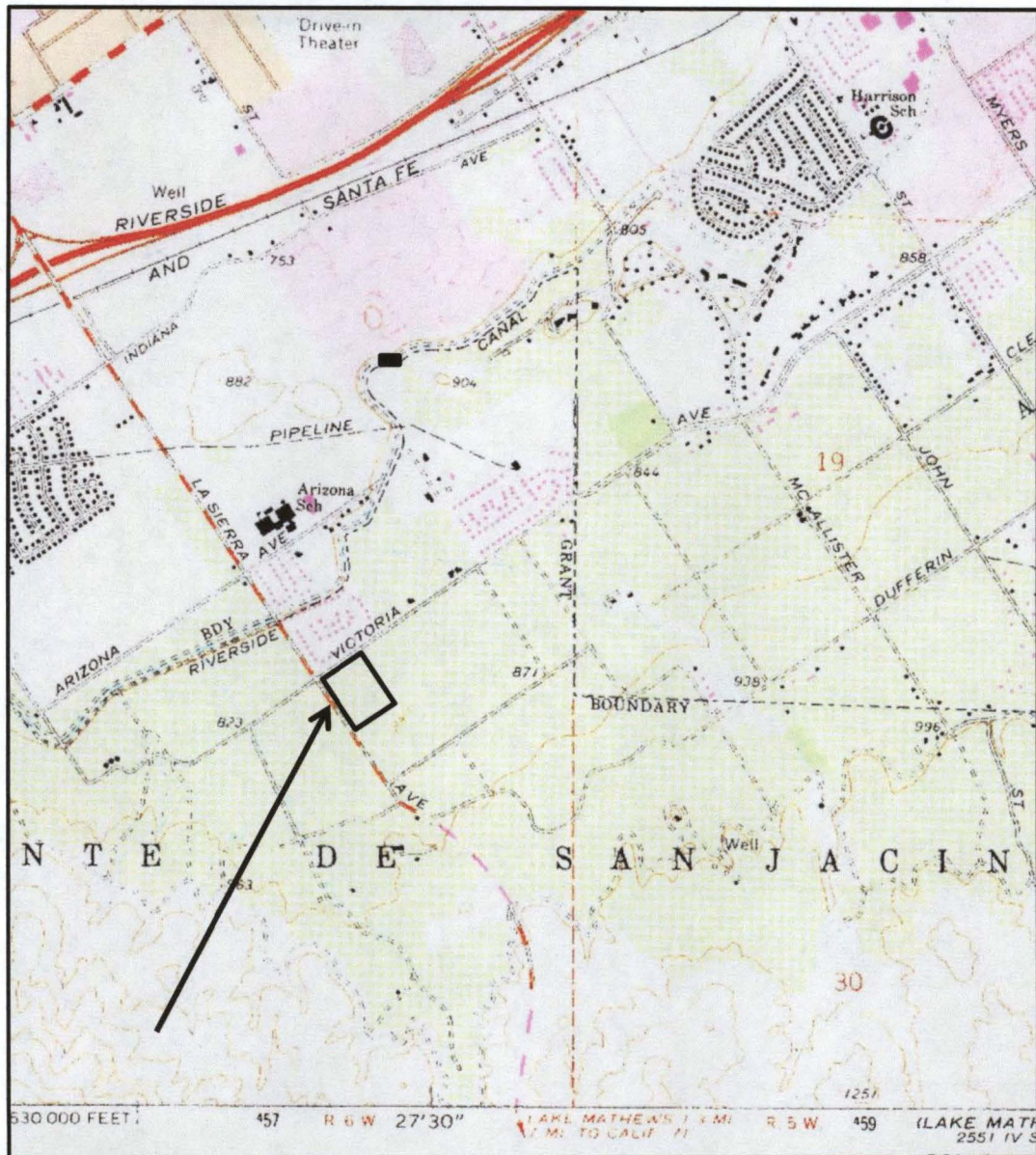


Figure 2. Specific Location of the Project Area (USGS Riverside West Quadrangle).

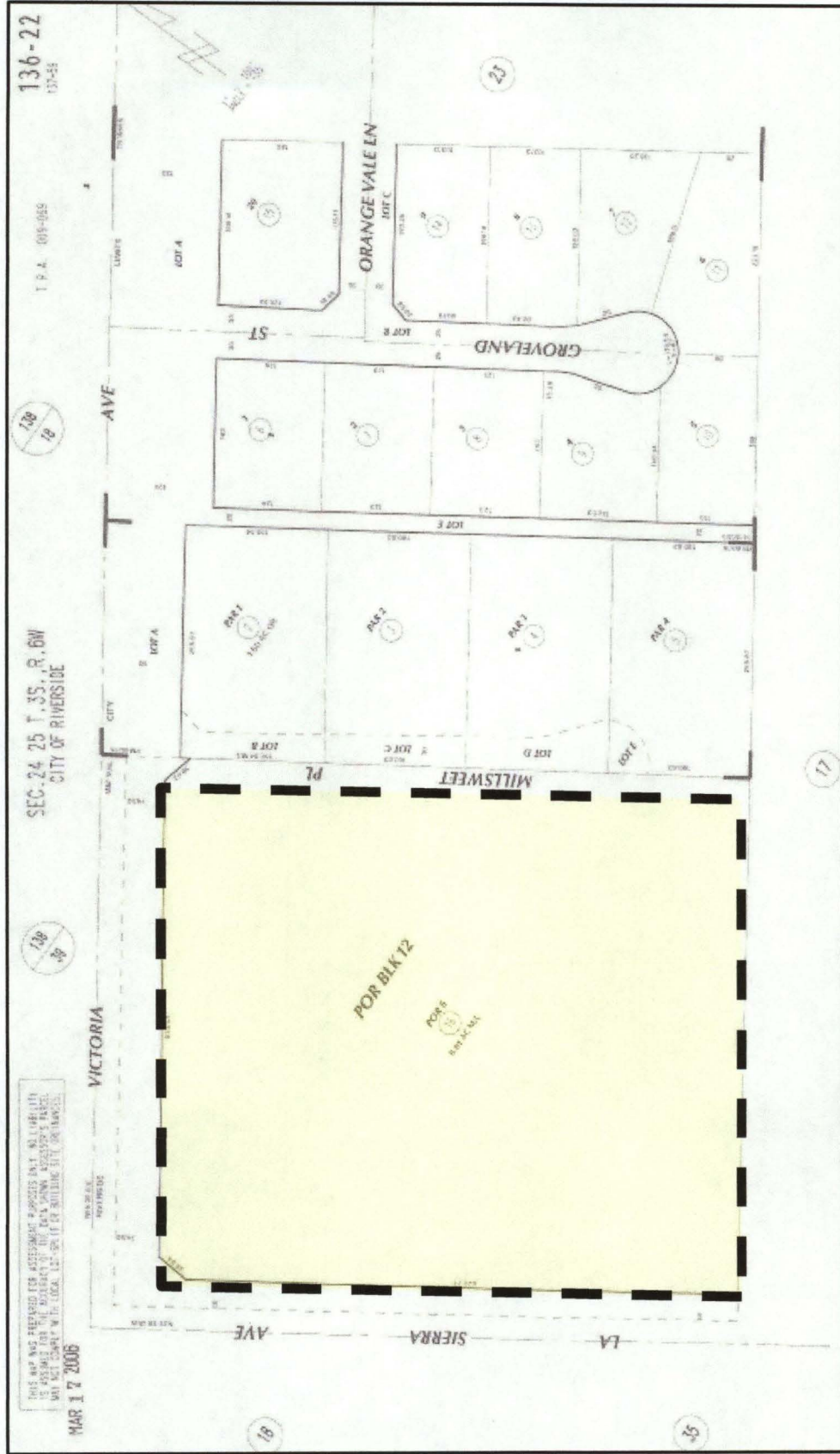


Figure 3. Assessor Parcel Map Illustrating the Current Project Area.



Figure 4. Aerial Photograph Illustrating the Project Area.

Surrounding properties are currently dominated by residential developments and the La Sierra Avenue alignment defines the southern boundary of the incorporated city. At this time, the proposed project consists of removal of the existing orange tree orchard and the redevelopment of the parcel. Associated features (e.g. irrigation system and wind turbine, and fencing) will also be removed.

ENVIRONMENTAL SETTING

The current project area is located within the City of Riverside, Riverside County, California. In this case, the property is located on the eastern/southeastern side of Victoria Avenue and north/northeast of La Sierra Avenue, two major thoroughfares in the City of Riverside. The surrounding acreage, once dominated by citrus groves, is now dominated by residential properties. This suburban setting is relatively recent and consists mainly of modern improvements within the area. Prior to the modern improvements, this area (generally referred to as Arlington Heights) was considered rural and covered with citrus orchards, especially east of Victoria Avenue.

In general, this area is considered to be southeast of the Pedley Hills and Jurupa Mountains. The Santa Ana River is approximately 4.5 miles north of this area and elevations within the project area average 870 feet above sea level. The property is essentially flat, with hills rising to the south. Drover (1979) characterized the area as part of the Peninsular Range geologic province with granitic outcrops and occasional pools of standing water.

Citing Drover (1979:3-4), the soils in this area are described as "... decomposing granite and are relatively shallow, erosional cuts showing two feet in depth with more significant gradation in the valley bottoms. Some basalt outcrops are also present, rock thereof showing thermal cracking from local brush fires some of which appear to have occurred recently." Gray (1961:57) noted that marine sedimentation occurred in the early Miocene and probably continued in to the Pliocene epochs, resulting in the formation of the Santa Ana Mountains. Geological testing by Leighton and Associates, Inc. (1988) has dated the older alluvium to approximately 25,000 years B.P. (before present).

The general area is dominated by the presence of sandy top soils and some exposed bedrock outcroppings in surrounding hills (to the south). The area was originally characterized as a Desert Sage Scrub habitat, but this habitat has been replaced by twentieth century developments and/or agricultural uses ... in this case, citrus orchards. Indigenous sage and deer weed may still be present in surrounding hillsides (Bean and Saubel 1972; Mead 1972; Drover 1979; and ARMC 1980).

This particular area of the larger Riverside County is reported to have been considerably different during prehistoric times (Bissell 1993:3-4; petrified cypress tree remains have been recovered from the nearby Puente Hills, R. Reynolds 1994, Personal Communication). Heusser (1978) postulates pines once covered the general area between 10,000 and 6000 B.C. These dates are synonymous with the Early Prehistoric Horizon (pre 6000 B.C.) currently accepted by Southern California archaeologists, though little evidence of the Early Prehistoric Horizon has been documented. A shift in weather conditions (i.e. warmer weather) resulted in the replacement of pines with oak woodland and, eventually, grasslands.

According to Heusser (1978), the grasslands were replaced by sage scrub and chaparral during the Late Prehistoric Horizon (post A.D. 750). Natural resources available to prehistoric (and historic) populations can be found within a short distance of the current project area. These include the resources associated with the nearby Coastal Communities (i.e. saltwater estuaries, beach and coastal strand habitats, and the marine community).

Remnants of the riparian woodlands, fresh water marsh lands, grasslands, oak woodlands, additional scrub communities, and chaparral can all be identified in the general area. Studies of a basin identified south and west of the current project area yielded archaeological data addressing the presence of a fresh water marsh/estuary exploited by prehistoric populations (McKenna 1992).

CULTURE HISTORY BACKGROUND

The geographical area associated with Northwestern Riverside County is generally considered to be within the traditional Luiseño territory, although many have argued that it is highly likely that the area is also associated with the Gabrielino, Cahuilla, and/or Serrano (see McKenna 1992 and 1995). Lando's summary of ethnographic research for the area (1978) concluded that any number of Native American populations may be represented: the Gabrielino, as argued by Strong (1929), Johnston (1962), and Leonard (1975); the Serrano, as discussed by Reid (1968); and/or the Luiseño. While Sparkman (1908) argues strongly that the area is NOT Luiseño, others (e.g. Kroeber 1908 and 1925; Lando 1978), agree by general consensus is that the area was occupied seasonally by Luiseno, Gabrielino, Serrano, and/or Cahuilla populations (Kroeber 1925:615-619, 692-708).

Parr and Wilke (1989:3-4) state the project area is located in a triangle that included the Luiseno, Cahuilla and Serrano, but not the Gabrielino. These three populations were

related linguistically (Shipley 1978:90) and were hunters and gatherers, as were most Southern California Native Americans prior to European contact. During the Late Prehistoric Period and into the proto-historic period, there is some evidence of village development and the beginning of agricultural activity.

Despite the various opinions, this area can be strongly associated with the Cahuilla (Strong 1929:88-143) and Serrano. Early studies of the Cahuilla and Serrano, as well as the Luiseno (see Smith and Taggart 1909; Benedict 1924; Bolton 1927; Robinson 1939; and Kroeber 1925) emphasized anthropological/ethnographic studies. More recently, however, the investigations have relied on archaeological data (i.e. Drover 1980; Koerper, Drover, and Langenwalter 1983; McKenna 1985 and 1986; Hudson 1969 and 1971; Rice and Cottrell 1976; Wallace 1955; Warren 1968; Greenwood 1978; and Mason et al. 1994; etc.). Additional studies have been presented in association with the Society for California Archaeology, presenting updated information on Southern California in general.

Archaeological data and correlations with ethnographic data have resulted in the determination of a chronology for Southern California prehistoric times. Data provided by Wallace (1955), Warren (1968) and later by Koerper and Drover (1983) and Mason (1984; summarized in McKenna 1986).

Investigations of sites in the Newport Bay/Irvine area of Orange County (Mason and Peterson 1994) have yielded significant data resulting in refinements of the Coastal Chronology. Their conclusions were based on the radiocarbon dates from 326 samples representing thirty-one archaeological sites or cultural contexts. Summarizing their results, Mason and Peterson (1994:55) found that the majority of sites were occupied during the Milling Stone (Horizon) period or the Late Prehistoric (Horizon) period "... without much overlap ...". Only four sites yielded results suggesting occupation during more than one cultural period (i.e. CA-ORA-64). In a few instances, dates suggested occupation during the Intermediate (Horizon) period. Mixtures of dates appeared in limited areas and could be directly associated with areas of agricultural activities.

Future studies of sites yielding statistically valid artifact assemblages and radiocarbon samples can be conducted to further the understanding of Native American activities in the area of Southern California and in understanding the relative lack of data for the Intermediate Horizon/period.

In the 1770s, the Spanish padres, under the direction of Junipero Serra, began the process of establishing a series of missions throughout Alta California, as California was then known. The mission system continued to supervise these large tracts of land until

the Mexican government declared its independence from Spain and issued orders for the secularization of the Missions (ca. 1824).

By 1833-34, the majority of Mission lands were taken from the Catholic Church and re-issued to individuals who had served as Spanish or Mexican soldiers, settlers, financiers, etc. The Mexican government hoped to initiate a pattern of settlement in Alta California by relocating populations from other Mexican settlements to recently established Alta California settlements (Hanna 1951; McWilliams 1973; Dumke 1944; and Scott 1974). Maps provided by Avina (1932); the Bureau of Land Management; and Beck and Haase (1977) illustrate the extent of the Rancho/Grant system.

In this case, the project area is inside the historic boundaries of Rancho El Sobrante de San Jacinto. Therefore, the area was not subdivided by the U.S. Government after acquisition of Alta California in ca. 1848. In defining the specific location of the project area, McKenna et al. determined it was within Township 3 South, Range 6 West, and portions of Sections 24 and 25 (see Figure 2).

The Rancho El Sobrante de San Jacinto was originally granted to and Maria del Rosario Estudillo de Aguirre, daughter of Jose Antonio Aguirre, by Mexican Governor Pio Pico in 1846. This rancho covered five square leagues and was originally located in San Diego County prior to the defining of San Bernardino and/or Riverside Counties (Avina 1932:89). It was confirmed to the Aguirres in 1867 by the U.S. Government as consisting of 48847.27 acres CACAA 083204). A brief history (Robinson 1997) of the ranchos associated with Aguirre is presented below:

Rancho San Jacinto Sobrante was a 48,847-acre (197.68 km²) Mexican land grant in present day Riverside County, California given in 1846 by Governor Pío Pico to María del Rosario Estudillo de Aguirre ... The Rancho San Jacinto Sobrante grant was of the surplus or "sobrante" of Jose Antonio Estudillo's Rancho San Jacinto Viejo and Miguel Pedrona's Rancho San Jacinto Nuevo y Potrero. The grant encompassed present day Lake Mathews. At the time of the US patent, Rancho San Jacinto Sobrante was a part of San Bernardino County. The County of Riverside was created by the California Legislature in 1893 by taking land from both San Diego and San Bernardino Counties ... María del Rosario Estudillo was the daughter of José Antonio Estudillo, grantee of Rancho San Jacinto Viejo. José Antonio Estudillo was appointed administrator and majordomo at Mission San Luis Rey in 1840. Three grants, comprising over 133,000 acres (538 km²) of the former Mission San Luis Rey lands in the San Jacinto area were made to the Estudillo family: Rancho San

Jacinto Viejo to José Antonio Estudillo in 1842; Rancho San Jacinto Nuevo y Potrero to his son-in-law, Miguel Pedorena, in 1846; and the five square league Rancho San Jacinto Sobrante to his daughter, María del Rosario Estudillo, in 1846 ... María del Rosario Estudillo was married to José Antonio Aguirre (1799–1860). Before she died, Aguirre had been married to María del Rosario's sister, Francisca Estudillo, eldest daughter of José Antonio Estudillo. José Antonio Aguirre owned one-half of Rancho El Tejon.^[4] In 1853, José Antonio Aguirre bought Rancho San Jacinto Nuevo y Potrero from the estate of Aguirre's brother-in-law Miguel Pedorena.

With the cession of California to the United States following the Mexican-American War, the 1848 Treaty of Guadalupe Hidalgo provided that the land grants would be honored. As required by the Land Act of 1851, a claim for Rancho San Jacinto Sobrante was filed with the Public Land Commission in 1852 ... In 1854, the Commission found that María del Rosario Estudillo de Aguirre was entitled to five square leagues of land. The US District Court in 1855, however, held that the claimant was entitled to eleven square leagues, if so much should be found within the sobrante, and to all that was found therein if it were less than that amount. An appeal taken to the US Supreme Court in 1863, affirmed the eleven square leagues ... and the grant was patented to María del Rosario Estudillo de Aguirre in 1867.

Soon after the 1855 District Court decision, the grant was purchased by a group mostly connected with the US Land Office - including Upson, the Surveyor General, Edward Conway, the chief clerk in his office, and Thompson, the deputy who was directed to make the survey, and Joseph H. Wilson, the Commissioner of the General Land Office at Washington. It was alleged that the location of the grant was moved to make it contain valuable tin ores ... not within its limits if fairly surveyed. In 1888, the United States unsuccessfully sought to have the US Supreme Court declare the patent void based upon the grounds of a fraudulent survey by persons who the beneficiaries thereof.

Based on the information presented by Robinson (1997), the current project area was held within the Mexican rancho until after 1888 and when it was purchased by the consortium of the three individuals identified above. Between 1893 and 1895, the area was known as the San Jacinto Estates, but undivided except by Sections. By 1896, the current project area and much of its surrounding acreage was owned by J.F. Moulton and H.B. Praed as investment land (all of Section 25 and approximately one half – irregularly shaped – in Section 24 (Figure 5). The project area is predominantly in Section 24.

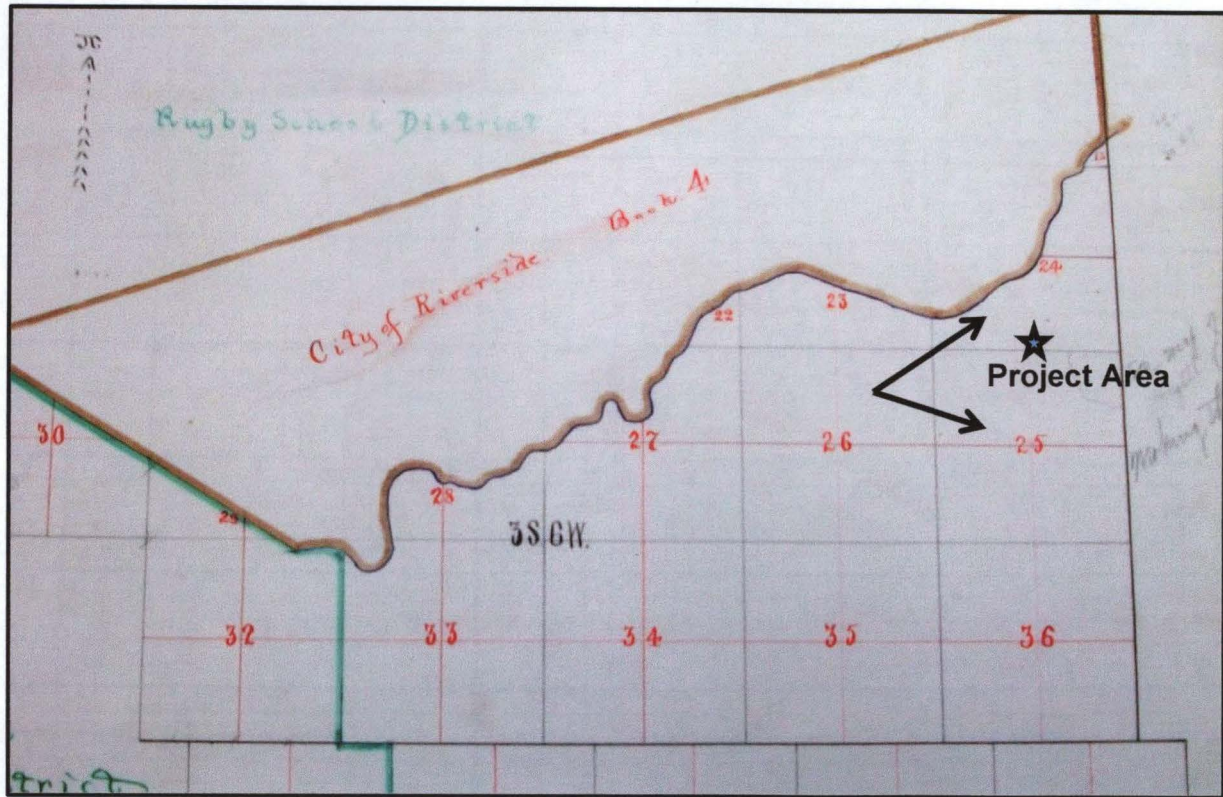


Figure 5. Map of the W ½ Rancho El Sobrante de San Jacinto (1892-1895).

Moulton and Praed were Englishmen who invested heavily in land throughout Southern California. The never occupied the properties and likely never visited them. Rather, through representatives, they managed their lands. Moulton and Praed filed a "Resubdivision of Lands of J.F. Moulton and H.B. Praed" in ca. 1897 (Map Book 1, Pages 49 and 50), represented by W.E. Pedley (Figure 6). As subdivided, the current project area was identified as Lot 6 of the Moulton and Praed Subdivision, while a cross-reference to the property identified it as part of the San Jacinto Estates property until 1895 and only associated with Moulton and Praed after 1896.

As illustrated in Figure 6, the current project area is identified as Lot 6 of Block 12 of the Moulton and Praed Subdivision, consisting of 10.01 acres. Research at the Riverside County Archives showed Lot 6 of Block 12 was assessed to Moulton and Praed between 1896 and 1899. No improvements were noted. In 1900, the land was listed under J.D. Gray with an assessed land value of \$1000. In 1902, Gray improved the property with an assessed \$400 improvement in trees (citrus). Between 1902 and 1910, Gray's investment in trees was increased to \$2000, likely reflecting the maturing of the trees and the increased harvesting yield. Gray sold the property in 1911 to D.J. Wilson (10.01 acres). Subsequent owners and property assessments following the acquisition by Wilson are listed in Table 1, below.

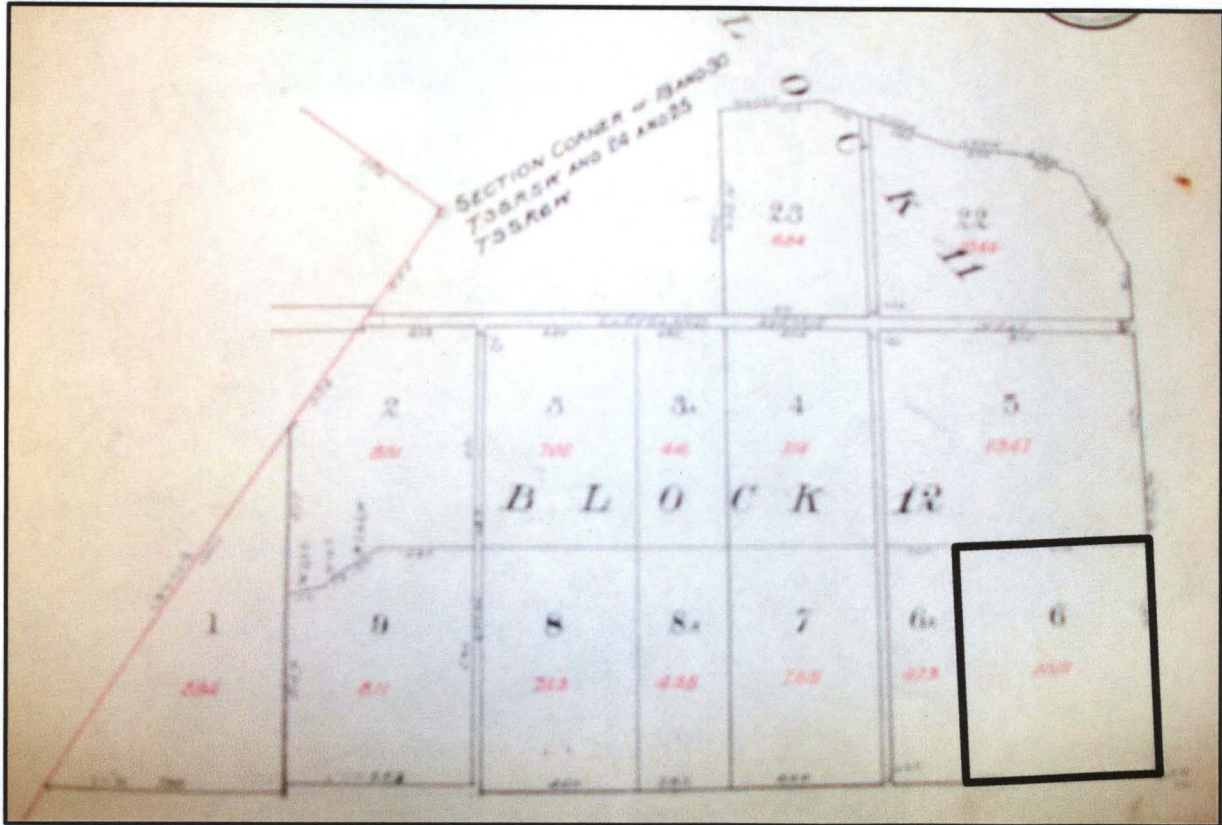


Figure 6. A Portion of the Moulton and Praed Subdivision Map (ca. 1897) with the Current Project Area Delineated.

Dates	Owners	Assessments		
		Land	Improvements	Trees/Vines
1911-1914	D.J. Wilson	2000	0	500
1916-1920	J.G. Snyder	1000	0	500
1921-1923	D.B. Jack	1500	200	1500
1924	Mary Jack	1500	200	1500
1925	J.A. Barnett	1500	260	1500
1926-1927	Citizen's Mortgage Co.	1500	300	1500
1928-1939	Michael Mullins	2700	180	2400
1940-1942	A.V. Jester	2200	0	2400
1943-1944	C.L. Briggs et al.	2200	0	2800
1945-1953	R.C. Brewer	2750	0	2100
1954-1961	L-Bar Ranch	5000	250	3600

As late as 1961, Lot 6 of Block 12 still consisted of 10.01 acres and there was no record of any occupation of the property. A review of census data showed that Michael Mullins, the owner with the longest association with the property, lived elsewhere during the 1930s (on Magnolia Avenue in Riverside) with his extended family. The property on Victoria Avenue and La Sierra Avenue was always orchard land for supplemental income and not occupied as a residential property.

It should be noted that La Sierra Avenue was originally identified as Taylor Street (between 1920 and 1926). Victoria Avenue and Taylor Street are illustrated on the 1926 and 1932 maps of the subdivision. Taylor Street was renamed after 1932.

The 1901 USGS Riverside Quadrangle (15') illustrates Victoria Avenue ending abruptly at the boundary line between Ranges 5 West and 6 West (just east/northeast of the project area) and continuing as a meandering dirt road to the southwest, eventually crossing the road now identified as La Sierra Avenue. By 1942, the USGS Riverside Quadrangle (15') shows Victoria Avenue established past Taylor Street (La Sierra Avenue) to Fillmore Street. No structures area illustrated with the project area in 1942, suggesting the improvements attributed to Mullins were something other than a building – likely irrigation features.

The 1967 USGS Riverside West Quadrangle (7.5'), revised in 1980, illustrates the project area and surrounding properties as orchards. There is a post-1967 residential community to the west/northwest of Victoria Avenue and La Sierra Avenue and a few pre-1967 structures further north/northeast on Victoria Avenue. The improvements illustrated on the current aerial photograph are modern and post-date the completion of the 1980 USGS quadrangle (see Figure 4).

METHODOLOGY

The methodology for this investigation is designed to provide required information needed to fully assess the existing resources within the project area and to determine the potential adverse impacts to any resource identified as importation or significant. To complete this investigation, McKenna et al. completed the following tasks:

1. Evaluation Criteria: McKenna et al. reviewed the evaluation criteria the recognition of a cultural property. The federal guidelines (Section 106), state guidelines (CEQA), and local guidelines (City of Riverside) were reviewed.

2. Archaeological Records Check: A standard archaeological records check was completed through the University of California, Riverside, Eastern Information Center (UCR-EIC). The UCR-EIC provided information on previously surveyed properties, site records, some historic maps, and copies of all pertinent reports (Appendix B).
3. Native American Consultation: McKenna et al. contacted the Native American Heritage Commission and inquired into the presence/absence of any sacred or religious sites in the area. In addition, a listing of local Native American representatives was provided and used to contact local representatives, requesting consultation on known resources or areas of sensitivity. Responses are presented in Appendix C and discussed later in this report.
4. Paleontological Overview: McKenna et al. maintains a file of paleontological overviews and utilized a nearby study in application to this current project area (Appendix D).
5. Historic Research: Supplemental historic research was conducted to determine the land-use history of the properties in question. This research was completed to provide enough data to support the evaluation of the properties and to complete the documentation on the ownership and history of the properties. Research was conducted through the Riverside County Assessor's Office and Recorder's Office; the Riverside County Archives, the City of Riverside files of on-line permits and maps; a review of histories prepared for the area (published and unpublished); and a review of materials in the McKenna et al. in-house library, including U.S. Census data and city directories (Appendix E).
6. Field Investigations: The field investigations for this project were completed on February 4, 2014, Richard S. Shepard (MS/RPA), under the supervision of Jeanette A. McKenna (MA/RPA), Principal Investigator for McKenna et al. The property was readily accessible and all areas were visually inspected. The field survey was systematically conducted, using the existing tree rows as a control technique to determine the presence/absence of cultural resources and to document the current conditions. The field survey was supplemented by field notes (on file, McKenna et al., and a full photographic record (Appendix F).

7. Analysis of Data Compiled: All data compiled during the course of this investigation was used to ascertain the level of sensitivity for the project area to yield evidence of surface and subsurface cultural resources. The analysis also took into account the reason(s) for the study which, in this case, the removal of the remaining orange grove and the proposed redevelopment of the property. The analysis, as noted, was completed in compliance with federal, state, and local guidelines.
8. Preparation of the Technical Report: This technical report has been prepared in a format recommended by the Office of Historic Preservation, Sacramento, requested by the URC-EIC, and as outlined by the City of Riverside Historic Resources Division. Upon receipt of comments from the City Historic preservation Senior Planner, this final report was prepared.

PREVIOUS RESEARCH

Investigations into previous research were conducted through the University of California, Riverside, Eastern Information Center (UCR-EIC), Riverside, California (Appendix B). This research included a review of reports and resources identified within a one mile radius around the project area, a review of historic maps, and a review of the current Office of Historic Preservation Historic Property Listing. In addition, the research included a review of the current federal, state, and local listing of evaluated properties determined eligible or listing in one or more of the various listings for historic resources.

The UCR-EIC identified a minimum of ten cultural resources investigations and two general overviews have been completed within a one mile radius of the project area (Table 2). None of the identified studies involved the current project area and the nearest studies include the Corona Feeder alignment along Cleveland Avenue (McKenna 2003), the Sierra West survey southeast of Cleveland Avenue (Goodwin and Reynolds 2005), and the 19 acres survey southwest of La Sierra Avenue (White and White 2003).

This research also resulted in the identification of a minimum of fourteen cultural resources within a one mile radius of the project area (Table 3). Of these, six are identified as milling stations (all southeast of the Gage Canal); one is a prehistoric ceramic scatter; one is the site of two isolated prehistoric manos; one is a historic refuse deposit; and the remaining five are water transportation features, including the Gage Canal and the Riverside Canal. The nearest site to the current project area is the Riverside Canal, located approximately 1/8 mile to the northwest. The Riverside Canal was instrumental to the success of the citrus industry, including areas in and around Arlington Heights.

Table 2. Cultural Resources Investigations Completed within One Mile of the Current Project Area.			
Report	Citation	Description	Resources
RI-00031	Gardner 1971	Arlington Flood Control	0
RI-00219	Cottrell 1977	237 Acre Survey	2
RI-01169	Desautels 1979	Campeau Project	3
RI-01206	Drover 1981	Zone Change 6296	0
RI-01419	Drover 1982	TPM 18472	3
RI-04792	McCarthy 2003	TPM 31277	2
RI-04813	NPS 1993	Citrus Heritage	3
RI-04946	Hoover et al. 2005	Tract 30725	0
RI-05056	McKenna 2003	Corona Feeder Master Plan	4
RI-05314	Goodwin & Reynolds 2005	Sierra West Tract 30295	2
RI-05653	White & White 2003	19 Acre Survey	0
RI-08865	Tang et al. 2012	TPM 34690	2

Although Gage did not necessarily own the land surrounding the canal, his easements resulted in the establishment of a system that provided water to the various property owners through the water distribution companies that formed throughout the area.

Table 3. Cultural Resources Identified within One Mile of the Project Area.			
Primary No.	Trinomial	Citation	Description
P-33-001136	CA-RIV-1136	Cowan 1976	Ceramic Scatter
P-33-001284	CA-RIV-1284	Drover 1982	Milling Station
P-33-002226	CA-RIV-2226	Desautels 1979	Milling Station
P-33-002242	CA-RIV-2242	McCarthy 1981	Milling Station
P-33-002243	CA-RIV-2243	McCarthy 1981	Milling Station
P-33-004791	CA-RIV-4791	McKenna 2005; Chandler et al. 2002; Gustafson and McGrath 2001; Wlodarski 1992	Riverside Canal
P-33-006005	CA-RIV-5672H	CRM Tech 1995	Irrigation Flumes
P-33-011221		White 2002	Irrigation Pipeline
P-33-013085	CA-RIV-7331	White 2003	Milling Station
P-33-013203	CA-RIV-7363	Carr 2001	Milling Station
P-33-014374	CA-RIV-7820	PCR Services Corp. 2004	Historic Refuse
P-33-014747		Fritz 2005	Isolated Manos
P-33-015962		Smallwood 2007	Irrigation Pipeline
P-33-017219		McCarthy 2003	Gage Canal

In Riverside, the "Lower Riverside Canal" was constructed in 1875 and abandoned by 1914. The southernmost portions of the canal are now used for flood control and not irrigation (Gustafson 2001:12).

No federal, state, or local listed properties were reported by the UCR-EIC. A review of the data on file at the City of Riverside, however, identified the alignment of Victoria Avenue (as far south at La Sierra Avenue) as local Cultural Heritage Landmark #8. Victoria Avenue is also a National Register of Historic Places property (No. 00001267).

Although McKenna et al. found one graphic suggesting the Historic Landmark boundary for Victoria Avenue extended as far as La Sierra Avenue, it is noted here that the actual boundary for the Landmark and the southwestern extent of the National Register of Historic Places property are the same and end at Boundary Lane. The registered Landmark does not extend to the current project area and, therefore, is not affected by the current project. Historically, Victoria Avenue ended at the City boundary (Boundary Lane) and has only been considered a formal extension of the roadway after the southern area was annexed into the City. In summary, the short segment of Victoria Avenue between Boundary Lane (the early city boundary) and La Sierra Avenue was not landscaped or considered part of the historic alignment when Landmark status was considered. The City of Riverside completed the extension of Victoria Avenue to La Sierra (the current City boundary) and landscaped the alignment to complement the historic segments to the north/northeast. "Victoria Avenue Forever" identifies the extension to La Sierra Avenue as part of the overall alignment, but not a part of the official Landmark or National Register property.

RESULTS OF THE FIELD INVESTIGATIONS

McKenna et al. complete the field survey of Assessor Parcel No. 136-220-016 on February 4, 2014. The survey was completed by Richard S. Shepard, MA/RPA, under the supervision of Jeanette A. McKenna, MA.RPA, Principal Investigator for McKenna et al. At the time of the survey, the property was easily accessed from Millsweet Place. All areas were available for visual inspection. Approximately $\frac{3}{4}$ of the property was still citrus groves. The eastern quarter (note property orientation) was covered in grass and exhibited evidence of modern uses (i.e. gardens and playground areas).

Research (Knecht's Soil Survey, 1971) identified the area as consisting of Hanford coarse sandy loam and Greenfield sandy loam. This soil tends to have a yellowish surface (when exposed) to a rusty color beneath the surface. The sandy loam also con-

tains decomposing granite from the surrounding hills. No native vegetation was present – mainly as a result of years of citrus cultivation.

The survey was completed by systematically walking between the tree rows. In this case, the rows averaged 22 feet apart (7 meters) and each line between the tree rows was covered. Ground visibility was fair, although there were some areas where it was excellent and others where it was quite poor.

In examining the orange trees, it was determined they were not the original trees (110+ years old) but representative of an orchard that was periodically replanted. Some of the trees currently on-site are moderate in size and some are not considered mature trees. No evidence of early agricultural equipment was identified on the property.

No significant artifacts were identified during the survey (historic or prehistoric). The only features identified included: 1) the orchard, itself; 2) the irrigation pipe and limited value system in the northern corner; and 3) the wind machine located near the center of the property. All other evidence of use within the property was determined to be of modern origin, including the small garden areas, play areas, and outdoor seating areas. The driveway leading to the circular turn-around is also modern, per aerial photographs.

The Orchard:

As previously noted, the initial planting within the project area occurred in ca. 1902 and is credited to J.D. Gray. Since 1902, the property has always been under cultivation and no record of any occupation was found during research of the field survey. Over the course of the past 110+ years, the trees within the orchard have been periodically replaced – either as individually required or as a group to keep the yield at a maximum (Figure 7). A properly maintained tree will yield fruit for up to 50 years. If this is the case, the trees within the current property may be the third generation of orchard. In any case, the existing orchard does not consist of the original trees, but is still an orchard indicative of the original planting. It is also evident the property boundaries have been altered over the years.

With the widening of La Sierra Avenue and Victoria Avenue, and the establishment of Millsweet Place, the original 10.01 acre property is now only 8.8 +/- acres. In addition, the fencing of the property, especially along Millsweet Place, suggests Millsweet Place may be widened, resulting in an additional loss of some acreage. At this time, only $\frac{3}{4}$ of the property is under trees (approximately 6 acres), with the remaining 2.8 +/- acres left as open space for modern uses.



Figure 7. An Example of the Orchard Tree Rows at the Time of the Recent Survey.

The Irrigation Pipe and Value System:

The irrigation pipe and value system identified within the property is quite typical of systems seen throughout Southern California. This particular type of system involves the establishment of one or more master valves that feed water into a buried concrete pipe system. These pipes have a series of “standpipe” distribution towers (above ground) with individual flow channels. The system is gravity fed and, in the case of the orchard development, a row of pipe may be placed every 3 to 6 rows, depending on the size of the orchard. The establishment of a system of irrigation pipes and the master valve system is a considerable investment. The first recorded indication of such an investment in the property is recorded in 1921 and credited to D.B. Jack.

While the irrigation pipes are generally not marked, the master valve may have evidence of manufacturing. In this case, the master valve, identified along Victoria Avenue, was marked on the metal fixtures (gates, etc.). Here, the steel gate is marked

"SNOW MFG. CO., LA CAL." (Figure 8). The Snow Mfg. Co. of Los Angeles patented the "Gate Valve" in ca. 1933 (Serial No. 703,893), although its manufacturing and sales may easily have preceded 1933, as the Snow Manufacturing Company of Los Angeles was operating as early as 1912.



Figure 8. Steel Gate, Snow Mfg. Company of Los Angeles.

Despite its early manufacturing and implementation on the property, this system is not unique to the area or indicative of any unusual or intricate design. It is a simple, gravity fed system used to water orchards via water pumped into the master valve system from an off-site source. In this case, it is possible the main source of water prior to 1914 was the Riverside Canal. However, once the canal was abandoned, alternative sources of water were required. The exact source of water for this property has not been determined, but given the location of the master valve well to the east of Victoria Avenue, it is unlikely the source was the Gage Canal and more likely to be from a source from the north or northeast. This feature would be considered old enough to merit consideration as a historic feature.

The Wind Machine:

The wind machine was located in the center of the property and consists of a single, tall and hollow metal pole with a single propeller style fan. No markings were found on this feature, but it is noted the base was too heavily overgrown to find or identify any such markings. It is noted, however, that the Snow Manufacturing Co. also produced wind-mill and wind machines. Parsons (2010) notes that wind machines were often used to prevent frost damage to citrus. He states:

“Wind machines may regain popularity for citrus and blueberries. Wind machines are commonly used to protect crops in the western U.S. In calm conditions, an inversion of warmer air above the cold air at ground level can sometime develop. Wind machines mix the upper warmer air with the colder lower air and raise the temperature in the crop zone by a few degrees. The volume of air moved and area covered are related to propeller design and horsepower. Newer types of wind machines have become available in recent years, and they range from 15 to more than 150 horsepower. While these wind machines are only effective in radiation frost conditions and raise temperatures only slightly, they can be useful in borderline frost conditions.”

The design of the wind machine within the project area appears to be a later addition to the property, as it powered by electricity (not a gas driven system, as the earlier models were) and is made of galvanized steel. Between 1941 and 1958, no improvements were noted for this property, but in 1958, a \$250 improvement is recorded and is presumed to be a reference to the installation of this feature.

McKenna et al. suggests this investment reflects the establishment of the wind machine by the owners of the L-Bar ranch. Assuming this feature dates to or before 1958, it is one of the historic (over 50 years of age) elements of the overall agricultural activities on the property.

EVALUATION CRITERIA

In evaluating the potential significance of the improvements within the current project area, McKenna et al. considered federal, state, and local guidelines (see Appendix B). Summarized here, the criteria for eligibility are presented.

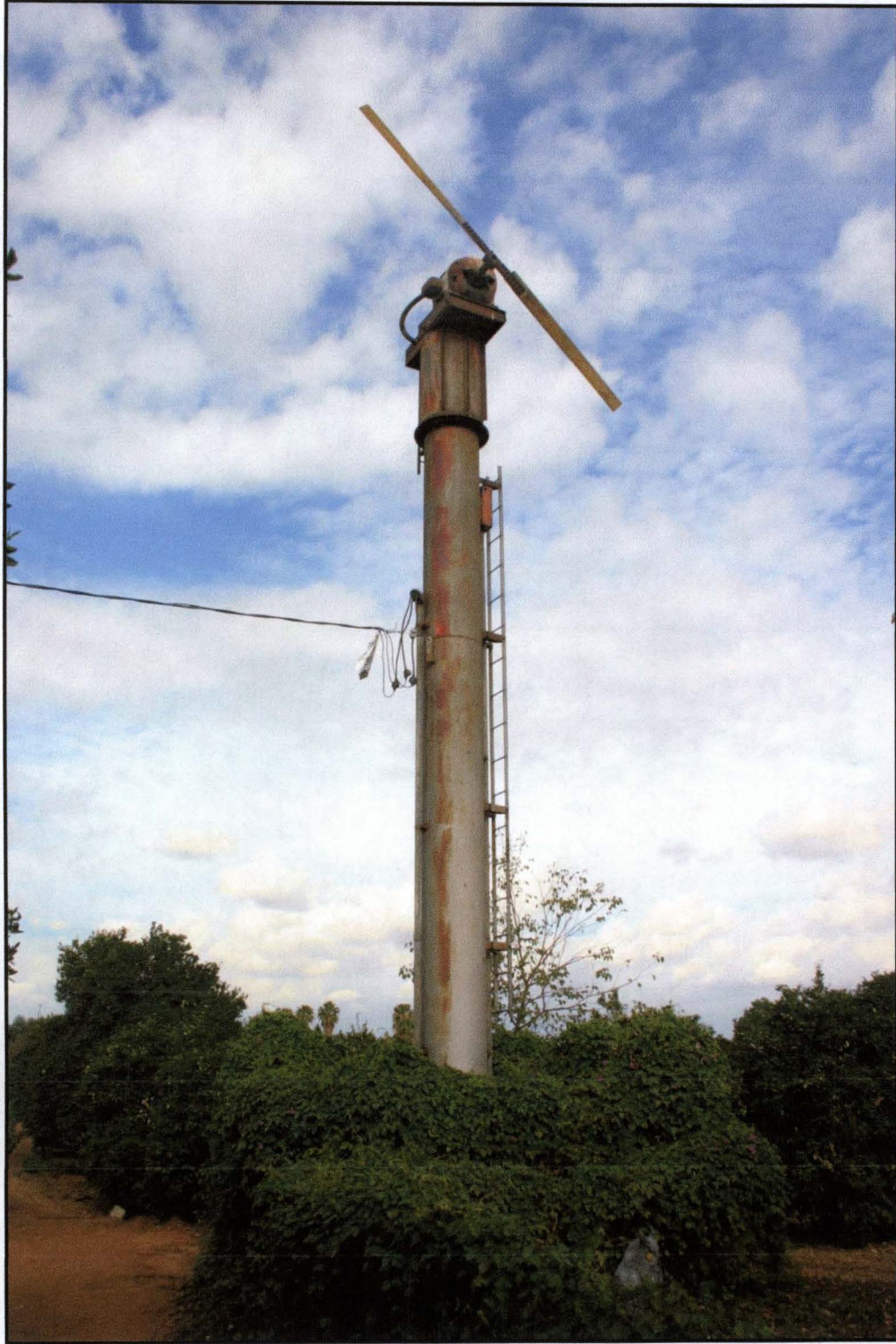


Figure 9. Wind Machine in Center of Property.