Section 3.4
Cultural Resources

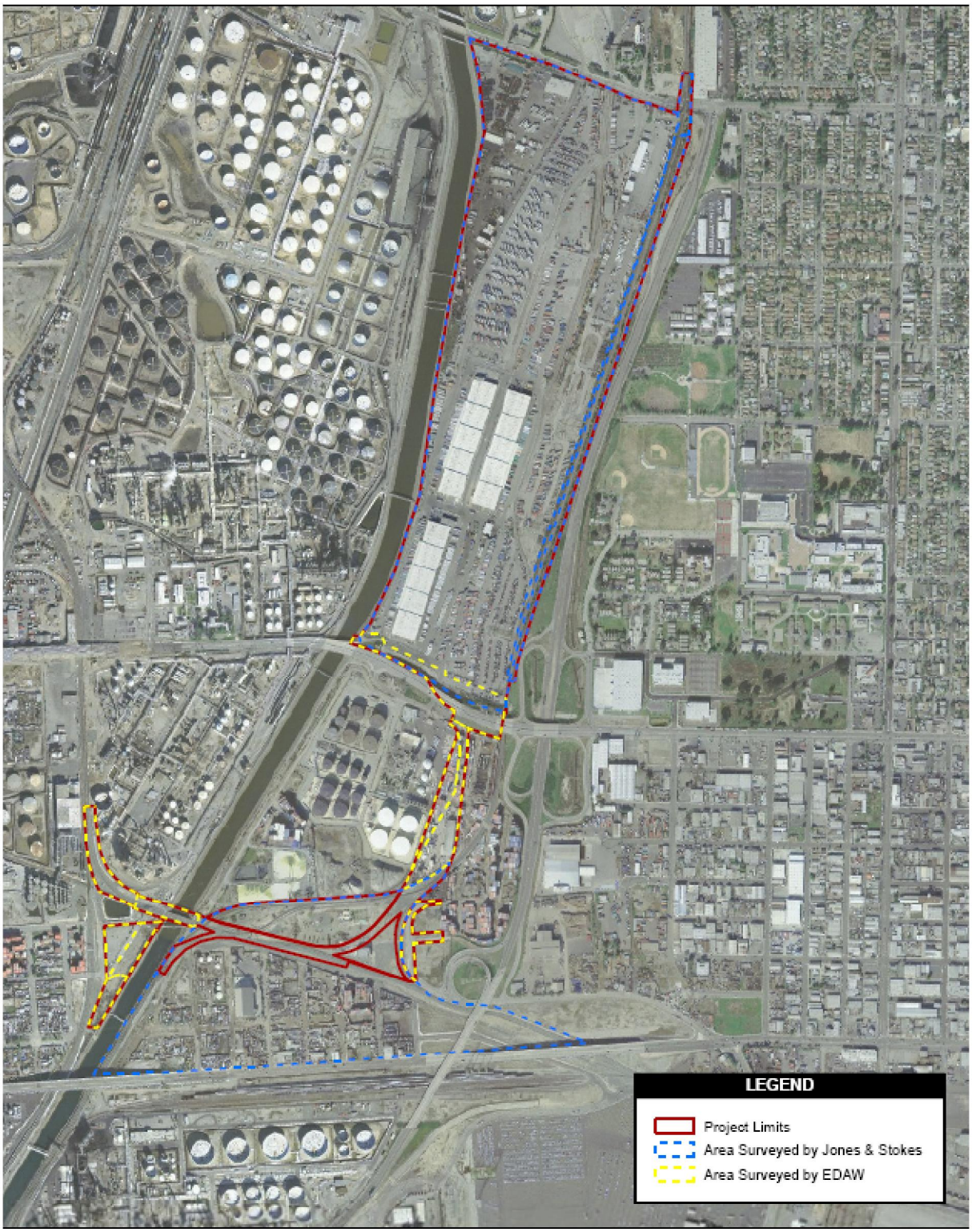
3.4.1 Introduction

This section addresses potential impacts on cultural and paleontological resources that could result from the proposed Project. Cultural resources include archaeological, historical and ethnographic resources. Paleontological resources include fossils pre-dating human occupation.

3.4.2 Environmental Setting

Historical, archaeological, and paleontological assessments (Jones & Stokes, 2008a, 2008b, 2009; ICF International, 2010; AECOM [EDAW], 2010) were prepared to evaluate resources within the Project area as in Figure 3.4-1. The results of these evaluations are summarized below, and the full reports are included in Appendix D. A comprehensive historic setting for the Project area was prepared by Jones & Stokes in January 2008. Previous studies have also been conducted (POLA, 2007) and provide information on the prehistoric and ethnographic setting of the Port area.

Figure 3.4-1. Cultural Resources Survey Area.



3.4.2.1 Prehistoric Setting

Evidence of human occupation in Southern California extends back in time at least 10,000 years. A number of chronological schemes have been proposed for subdividing that time span into developmental periods (King, 1981; Wallace, 1955; and Warren, 1968). Cultural evolution has been consistently defined in four general periods: the Early Period from 10,000 to 8,000 before present (BP); the Millingstone Period from 8,000 to 3,500 BP; the Intermediate Period from 3,500 to 800 BP; the Late Prehistoric Period from 800 BP to the Spanish missionization of California, in this case the founding of Mission San Gabriel in 1771, and the Historic Period from 1782 to the present.

The Early Period material culture is characterized by large, fluted projectile points that imply heavy reliance on large game for subsistence that is mostly likely supplemented with plants and small game. Sites dating to the Early Period appear primarily along the eastern portions of southern California (China Lake, Lake Tulare, and Borax Lake); however, the La Brea skeleton has been dated to 9,000± 80 BP.

The Milling Stone Period material culture is characterized by portable milling stones and manos for processing its primary subsistence base of wild seeds. Some terrestrial hunting was practiced during this period, and there is some evidence of marine resources in Milling Stone sites (Wallace, 1978:28). Sites attributed to this complex have been dated as early as 8,000 BP. In Los Angeles County, the best known site from this period is the Topanga Culture defined by Treganza and Malamud (1950).

The subsistence base diversified during the Intermediate Period to include a wider variety of plant foods, as evidenced by the appearance of mortars and pestles, and greater reliance on marine resources within the small-animal protein dietary component (Wallace, 1978:30). The 1,250 BP (AD 700) modal radiocarbon date falls toward the end of this period.

By the Late Prehistoric Period, the southern coast of California was occupied by a maritime-adapted people who lived in populous, semipermanent coastal villages and had a high reliance on animal proteins, both terrestrial and marine (Rogers, 1929). These people used seagoing canoes that enabled them to deep sea fish, hunt for sea mammals, and travel the coastal and channel island trade networks. Sites CA-LAN-47 (Marine del Rey) and CA-LAN-43 (Encino) are among the Late Prehistoric village sites identified in Los Angeles County (CH2M HILL, 2003).

3.4.2.2 Ethnographic Setting

Ethnographic resources include sites, areas, and materials important to Native Americans for religious, spiritual, or traditional uses. These can encompass the sacred character of physical locations (mountain peaks, springs, and burial sites) or particular native plants, animals, or minerals that are gathered for use in traditional ritual activities. All prehistoric archaeological sites (including villages, burials, rock art, and rock features) along with traditional hunting, gathering, or fishing sites are generally considered by contemporary Native Californians as important elements of their heritage.

Native Americans prehistorically inhabited the region and occupied a vast area of territory, including the entire Los Angeles basin and the Pacific Coast from Aliso Creek to Topanga Creek. As the population was distributed over diverse environmental habitats, strategies for food collection were variations on hunting and gathering. They maintained a sophisticated level of social organization in their chiefdoms, and lived in a number of

villages located along the coast and major water courses. Relatively wealthy and populous thanks to an accessible variety of natural resources, their trade network extended as far as the San Joaquin Valley, the Colorado River, and Baja California. Their decorative arts and ritual ornaments using shell inlay in asphaltum, rare minerals, and soapstone were cultural trademarks of this group.

After the establishment of the Spanish Mission San Gabriel in 1771, the Native Americans were forcibly baptized and became known as the Gabrielino. Native villages and activities were disrupted with the introduction of mission life and agricultural practices that altered the landscape and the distribution of natural resources. By the time mission lands were secularized in 1834, there were approximately 1,000 neophytes living at Mission San Gabriel, and the native population had been decimated by European diseases. With secularization and Mexican control of the missions, the missions and their holdings were liquidated. By the time the United States annexed California in 1848, most of the Gabrielino population had fled the region. Few Gabrielino survived against smallpox, starvation, and violence into the 20th century.

3.4.2.3 Historic Setting

3.4.2.3.1 Early History

Spanish explorers visited the area in 1542 and in 1602, but did not sustain contact until the 1769 expedition led by Gaspar de Portola traveled between San Diego and Monterey, stopping in the Los Angeles area. Mission San Gabriel was founded as a self-sustaining community for the religious conversion of the Native Americans. Spanish control ended in 1821, with Mexico's successful bid for independence. The authority of the missions declined as secular settlers came to the area. The Mexican government divided mission lands into land grants for Mexican settlers in anticipation of annexation to the United States. With annexation in 1848 and the gold rush of 1849, the area experienced an influx of American settlers.

The Project area lies at the juncture of three former historic ranchos: Rancho San Pedro, Rancho Los Palos Verdes, and Rancho Los Cerritos. While ranching was the primary industry of the ranchos, the Project area remained underused. By 1830, San Pedro was the leading west coast center of export and hide production. Ships anchored along the western edge of San Pedro Bay, which was shallow, unprotected, and affected by silt deposits from flooding.

3.4.2.3.2 Development of the San Pedro Bay Ports (1857-1950)

In 1857, Phinneas Banning constructed new docks at San Pedro to capitalize on the increasing trade coming in and out of Los Angeles. Banning shuttled materials coming into San Pedro on smaller boats to his base located in Wilmington. Originally known as New San Pedro at the time of its founding in 1858, the community that developed around Banning's Wharf was renamed Wilmington in 1863. A small cluster of buildings grew up around the landing along Canal Street. Wilmington continued to grow as port industries expanded. During the Civil War, Banning donated 60 acres to the U.S. military to establish Camp Drum in Wilmington. The U.S. Army built barracks, quartermaster's headquarters, and a supply depot.

In 1869, the first railroad in Southern California, the Los Angeles and San Pedro Railroad, was completed, marking the beginning of a new era in harbor activities with the first reliable means of moving cargo from San Pedro Harbor to the City of Los Angeles. The burgeoning growth of Los Angeles fueled increased demand for construction

supplies and consumer goods, much of which arrived on ships that docked at San Pedro. The U.S. Army Corps of Engineers (USACE) constructed two jetties in 1871 and deepened the channel leading to the Wilmington landing in 1880. The USACE began construction on the breakwater in 1900.

The growth of commerce in Los Angeles demanded the establishment of an official harbor. The San Pedro Harbor site was authorized by Congress in March 1897. Although Wilmington became an incorporated town in 1872, the original act of incorporation was repealed in 1887, and it reverted back to Los Angeles County. After the City of Long Beach failed in its attempts to annex Wilmington in 1905, the City of Los Angeles began to promote the $10 million improvement to the harbor and the annexation of Wilmington and San Pedro.

POLA and LAHD were officially created in December 1907, and numerous harbor improvements followed. These improvements included completion of the 2.22-mile breakwater, broadening and dredging the main channel, completion of the first major wharf by the Southern Pacific Railroad (Southern Pacific), construction of the Angel's Gate lighthouse, and construction of the first municipal pier and wholesale fish market. Despite fierce controversy, by 1909, both San Pedro and Wilmington were consolidated into Los Angeles.

The Port of Long Beach (POLB) was established in 1911, before the onset of the war, and became a rival to POLA in shipping and in shipbuilding. By 1913, the two ports, led by POLA, constituted the largest lumber importer in the world.

During World War I, the U.S. Navy acquired part of the harbor to use as a training and submarine base. Related industries employed the majority of area residents, particularly in shipbuilding enterprises. Improvements to transportation systems in the harbor area also facilitated the growth of trade. By 1917, a vast railroad network existed around the harbor and the Los Angeles region. After World War I, both ports were increasingly used for lumber and raw materials shipping. The overwhelming import was lumber to satisfy the demand for new buildings caused by rapid population growth; the dominant export was crude oil. Despite improvements made during the 1920s, traffic through the San Pedro bay ports slowed during the Depression.

During World War II, POLA and POLB were major Pacific ports and fully involved in defense activities. Between 1941 and 1945, ship and aircraft production facilities in the harbor area produced more than 15 million tons of war equipment. Hundreds of thousands of military and civilian personnel shipped out and returned through the two ports. Following the war, the ports launched major restoration programs as harbor facility maintenance had been delayed during the war.

Methods of shipping changed dramatically following World War II with the advent of containerization. Prior to containerization, cargo loading and unloading was labor intensive because of the irregularity of individual pieces of cargo. Containerization integrated truck, railroad and shipping transportation of goods by containing them in compatible, standardized units (20- or 40-foot-long). This required the maritime industry to adapt with specially designed ships, truck trailers, rail cars, cargo cranes, and new port facilities. Major improvements to both San Pedro Bay ports in the 1970s included the deepening of the main channels to accommodate larger container vessels, the purchase and creation of land to expand terminals, and the replacement of older wharves that could not bear the increased weight of the new containers. In addition to changes in the San Pedro Bay ports, port-related industries in the surrounding communities changed to accommodate shipping containers, rather than the bagged, palleted, and drummed cargos

that had formerly been handled. Accordingly, large warehouses were supplemented by container storage and handling facilities.

3.4.2.3.3 Railroad History

The Burlington Northern Santa Fe Railway (BNSF) Harbor Subdivision was for many decades the single-track main line of the BNSF that stretched 26 miles between the rail yards of downtown Los Angeles and POLA and POLB. It provided the primary link between two of the world's busiest harbors and the transcontinental rail network. The Harbor Subdivision grew in segments over the decades. It was originally built to serve Port Ballona in the early 1880s; the development of a port at Redondo Beach brought an extension there in 1888. However, with the construction of the outer breakwater in the early 1900s, the Port of Los Angeles in San Pedro became dominant, and the Harbor Subdivision line was extended through Torrance to Wilmington in the early 1920s. With the development of the Watson Yard in Wilmington and an extension from Wilmington to Long Beach, the line took its final form. In 2002 the Harbor Subdivision line was displaced by the more direct Alameda Corridor on April 15, 2002, which used former Southern Pacific track (the SP had been incorporated into the UPRR in 1996). Today, the Harbor Subdivision is used only for local industry switching.

The advent of containerization prompted the railroads to adapt to this new mode of shipping by providing intermodal service. Containers were loaded onto specially designed rail cars either in the marine terminals or in more remote railyards, and the rail cars were assembled into long, unit trains to be hauled to destinations as far away as the East Coast. This change required new operating practices and equipment, and also necessitated new rail facilities, including sturdier track and larger rail-car loading facilities. An example of the changes that occurred is the BNSF Hobart Yard, in East Los Angeles. In the 1960s the yard was converted from a standard classification yard to a facility largely dedicated to loading and unloading truck trailers onto and off of flatcars, in an early example of intermodalism that remains an important business area for railroads. The huge increases in container traffic in the 1970s and 1980s caused the yard to be adapted in the 1980s to handle containers as well as trailers.

Similar changes took place at UPRR's nearby East Los Angeles Yard. Both of those yards are located approximately 26 miles from the ports they serve, making it necessary to dray containers long distances to their trains. In the late 1980s the San Pedro Bay ports formed a joint powers authority to build an intermodal facility closer to the ports. That facility, the Intermodal Container Transfer Facility, is located in Carson, approximately 4 miles north of the ports, and is operated by the UPRR. At the same time, the ports began to incorporate intermodal railyards into new and redeveloped container terminals; those facilities are served by both Class I railroads (BNSF and UPRR). The in-terminal, or "on-dock" railyards, as well as the ICTF, use the Alameda Corridor to move container trains.

3.4.2.4 Paleontological Setting

Any rock material that contains fossils has the potential to yield fossils that are unique or significant to science. However, paleontologists consider that geological formations having the potential to contain vertebrate fossils are more "sensitive" than those likely to contain only invertebrate fossils. Invertebrate fossils found in marine sediments are usually not considered by paleontologists to be unique resources, because the geological contexts in which they are encountered are widespread and fairly predictable. Invertebrate fossil species are usually abundant and well-preserved. In contrast, vertebrate fossils are much rarer than invertebrate fossils, and are often poorly preserved. Therefore, when found in a

complete state, vertebrate fossils are more likely to be a significant resource than are invertebrate fossils. As a result, geologic formations having the potential to contain vertebrate fossils are considered the most sensitive. Vertebrate fossil sites are usually found in non-marine, upland deposits. Occasionally, vertebrate marine fossils such as whale, porpoise, seal, or sea lion can be found in marine rock units such as the Miocene Monterey Formation and the Pliocene Sisquoc Formations known to occur throughout Central and Southern California.

In addition to the type of fossil, its stratigraphic/geological context is important in determining whether a fossil is unique or otherwise significant. A fossil's age is often identified by the formation in which it occurs, the type of environment in which it lived and died can be inferred from the nature of the surrounding rock, and the orientation of a fossil in the geological matrix can convey information about the organism's habits and behavior. Fossils discovered outside their context are of limited value; for example, fossils discovered in excavated material cannot be evaluated as to their age because there is no way to determine the original context. In general, therefore, only fossils discovered intact in their original stratigraphic/geological context are considered potentially significant.

3.4.2.5 Site-Specific Setting

The Primary Project Area is located in an industrial section of Wilmington, in a large area generally used for cross-docking, warehousing, and container and trailer maintenance. Port-related industrial support activities occur to the north, west, and south of the Project area, and a residential area is situated just across the Terminal Island Freeway to the east. Records from the U.S. Department of Defense (DOD) indicate that the Primary Project Area was built by the USACE as the "Wilmington Classification and Hold Yard," and used as an ordnance depot from 1944 to 1946. A site survey summary sheet prepared under the Defense Restoration Program for Formerly Used Defense Sites indicates that the property was acquired during 1943 and 1944 and used as a yard to store equipment prior to shipment. Improvements to the site from that time frame included three warehouses, a railroad spur, and sewer and water lines.

Other land uses in the adjacent Project sites have traditionally been light industrial, consisting of small machine and welding shops, storage warehouses, and automotive repair and salvage shops. Two of the larger industrial enterprises are a sulfur refining plant and a welding and machine shop. Several truck repair shops are on the site. Also in the vicinity are miscellaneous service businesses and retail shops.

The 1896 Downey USGS 15-minute quadrangle map depicts the Project area as a relatively open piece of land on the east side of a series of sloughs formed by Compton Creek. Compton Creek ran in a meandering north–south direction, draining into Watson Lakes just northwest of the Project site; the creek continued to the point where it flowed into the Pacific. On the east side of the Project site, the Los Angeles River is depicted as meandering in a north–south direction, with many tributaries branching off as it neared the coast, forming, along with Compton Creek, a broad marsh area on the east side of the coastal town of Long Beach. Already in place by 1896 was the Southern Pacific Railroad, with a north–south line that cut across Watson Lakes and a Long Beach branch that proceeded east from Thenard Junction to Long Beach. Sepulveda Boulevard was already in place at its present location, beginning at the small community of Watson Crossing, on the Southern Pacific line, and proceeding across the north end of the Project area. Three structures were mapped in the Project area at that time.

The 1942 and 1943 Downey USGS 15-minute quadrangle maps depict a vastly changed landscape. Oil fields and storage tank facilities for oil products surrounded Watson Crossing and Thenard Junction. Watson Lakes and the marsh area along the coast were no longer in existence. Cerritos Channel and the Inner Harbor were developed, with a number of Pacific Electric lines threading through the area. The City of Long Beach had expanded to the north, surrounding Signal Hill and extending west along the coast. Sepulveda Boulevard, Pacific Coast Highway and Alameda Street were in existence, and Compton Creek and the Los Angeles River had been channelized, with Compton Creek then known as Dominguez Channel.

3.4.2.5.1 Archaeological Resources

A cultural resources literature and record search conducted at the South Central Coastal Information Center included a review of all recorded archeological and historical resources and a review of cultural resource reports on file for the Project area and a one-mile radius. The record search revealed that the majority of the Project area had been previously surveyed in thirty-seven previous cultural resource studies. No archaeological resources have been recorded within the Project area, including the relocation sites. Five archaeological sites have been identified within a one-mile radius of the Project area. No archaeological isolates (artifacts not associated with a site) have been identified within a one-mile radius of the Project area.

Field reconnaissance surveys of the Project area were conducted by Jones & Stokes in April 2007 and July 2008; and by EDAW in February 2009. The field inspections found that the Project area is largely covered with buildings, asphalt, and concrete; open areas surveyed by EDAW in 2009 (AECOM [EDAW], 2010) are disturbed. No archaeological resources were found during the site visits.

The Project's setting, a former creek and marsh environment, would have been attractive for prehistoric human occupation. While the area has undergone extensive development in the 20th century, including earthmoving and the placement of imported fill, nearby projects (the ARCO refinery in the 1980s and the Alameda Corridor in the 1990s) uncovered intact prehistoric human burials in industrial areas just to the west of the Project site. Accordingly, the Project site has the potential to contain buried cultural resources, including human remains.

3.4.2.5.2 Ethnographic Resources

Ethnographic resources include sites, areas, and materials important to Native Americans for religious, spiritual or traditional uses. All prehistoric archaeological sites, including villages, burials, rock art, rock features; and traditional hunting, gathering, or fishing sites, are generally considered by contemporary Native Californians as important elements of their heritage. No ethnographic resources were identified during the site visits, but the Project area has the potential to contain buried ethnographic resources in the form of prehistoric archaeological resources.

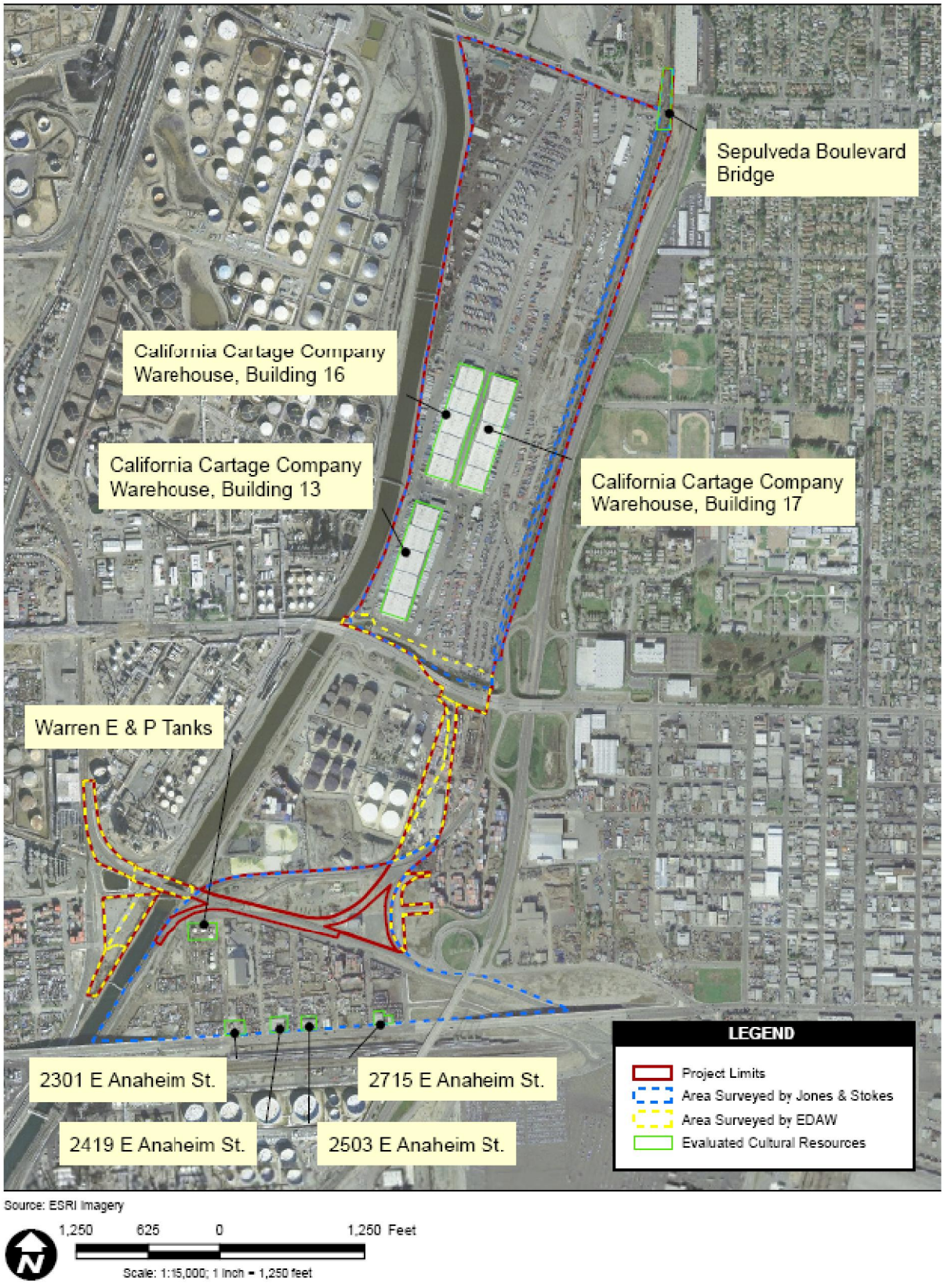
3.4.2.5.3 Historical Resources

Field reconnaissance surveys of the Project area were conducted by Jones & Stokes in October 2006, April 2007, April 2008, July 2008, and March 2010; and by EDAW in February 2009. The field inspections found nine buildings and two structures in the survey area that were 50 years of age or older that warranted further evaluation. Several

other miscellaneous service buildings and structures in the survey area that were less than 50 years old or lacked sufficient integrity were not evaluated.

Eleven resources within the survey area were evaluated for potential historic significance. These include three California Cartage Company Warehouse Buildings 13, 16, and 17 (2401, 2403 and 2415 E. Pacific Coast Highway); the Sepulveda Boulevard Bridge (Willow Street Underpass); two metal storage sheds; four properties (2301, 2419, 2503, and 2715 E. Anaheim Street); and Warren E and P Tanks (2209 E. I Street) (Figure 3.4-2). Only the California Cartage buildings, the Sepulveda Boulevard Bridge, and the two metal storage sheds are within the current Project area; the remaining resources (2301, 2419, 2503, and 2715 E. Anaheim Street and 2209 E. I Street) are on properties now outside of the Project area and are not considered further in this evaluation. All resources were recorded and evaluated by Jones & Stokes (Jones & Stokes, 2008a, 2008b, 2009, ICF International 2010). Evaluations were based on CRHR Criteria as defined in PRC§5024.1, Title 14 CCR, Section 4852(b)(c) (see Section 3.4.3 for discussion of CRHR Criteria).

Figure 3.4-2. Cultural Resources Evaluated.



California Cartage Company Warehouses

Built between 1943 and 1944 by the USACE, the three California Cartage Company Warehouses are practically identical 200,000-square-foot rectangular buildings. Designed by well-known Los Angeles industrial architects Edward C. Taylor and Ellis W. Taylor, the warehouses are vernacular, all-purpose storage buildings. The buildings have shallow barrel roofs over wood bowstring trusses on concrete piers, with frame and stucco walls. Each building consists of five 40,000-square-foot storage bays divided by stepped board-formed concrete or brick firewalls. Each storage bay opens to loading docks on the east and west sides of the buildings. Original fenestration typically had twelve-light fixed windows, but has since been replaced with aluminum sliding windows. These warehouses are located within the Primary Project Area.

The DOD acquired the property between 1943 and 1944 for the Wilmington Classification and Hold Yard, which was used as an ordnance depot from 1944 to 1946. An ordnance inventory, dated February 1944, indicated that weapons and various non-ordnance supplies were stored and transferred from Building 17 (then Warehouse 3) to POLA. The site became the property of the LAHD around 1960, with acquisition of the warehouses completed by 1964. A one-story building was added to Building 16 in 1974, and a second story was added in 1979. Offices were added to Building 16 in 1980 and to Building 13 in 1995. California Cartage Company leased the warehouses and added transfer docks and canopies, and continues to use the warehouses for storage. Despite the alterations, the warehouses retain integrity that demonstrates their association with World War II mobilization and construction efforts as part of the Wilmington Classification and Hold Yard.

Evaluation of the California Cartage Company Warehouses did not find the buildings to qualify for individual listing in the CRHR under Criteria 1, 2, 3 or 4. Under Criterion 1, the warehouses' individual association with World War II mobilization was not found to make a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States. The warehouses have no association with specific historical persons and therefore are not eligible under Criterion 2. The warehouses are vernacular all-purpose storage buildings with no distinctive character-defining features. Despite being designed by significant industrial architects, they are neither considered a master work nor highly artistic, and therefore are not eligible under Criterion 3. They have not yielded nor are likely to yield important information concerning prehistory or history, and are not eligible under Criterion 4.

The three California Cartage Company Warehouses do not qualify as historical resources because they do not meet at least one of the definitions of historical resources in §15064.5(a) of CEQA Guidelines.

Sepulveda Boulevard Bridge (Willow Street Underpass)

The Sepulveda Boulevard Bridge, California Department of Transportation (Caltrans) Bridge No. 53C0590, is a single-span, riveted steel half-through truss structure supported by a closed end-backfilled reinforced concrete seat abutment. The bridge carries the Union Pacific Railroad over five lanes of Willow Street with a vertical clearance of 15 feet 2 inches. Measuring 112 feet in length, the bridge has no skew and is placed on a tangential alignment. The Union Pacific Railroad presently owns the bridge.

The bridge was originally built in 1910 by Union Pacific Railroad as a Warren truss bridge with vertical supports for double-track main line use over Bitter Creek near Green River, Wyoming. Union Pacific built several similar bridges in the early 20th century

while expanding into western territory. While passenger railroad travel became popular between World War I and II, railroads increasingly depended on commercial and industrial consumers. To compete, rail companies sought more efficient operations and often relocated bridges from little used lines to more profitable locations. In1932, Union Pacific commissioned a route from Los Angeles to Terminal Island. The new route required six concrete and steel rail bridges. Two of bridges over Bitter Creek were removed in 1930 and sent to California for reuse on the Terminal Island line. One was relocated to the Willow Street location; the other at Del Amo Boulevard. Despite the Sepulveda Boulevard Bridge's double track capability, a parallel second track was never installed.

Art Deco-style foundations were constructed in 1932. The exterior composition consists of a concrete block formed into a series of five horizontal stepped piers. The face of the fifth pier exhibits Art Deco straight-line scoring, grouped into an abstract composition of shallow lines of varying length. Above the scoring is a rectangular space, which presumably held the bridge description plate, not extant. On the interior of each abutment, space has been carved out to receive the base engineering members: end floor beams, bottom chord, bottom lateral bracing and bearing, together with seated diagonal and vertical members. The structure is a typical example of the Warren truss with diagonal girders, alternately placed in tension and compression, then riveted to square pins at the base of the top chord channel. An unusual feature is the curved vertical members that brace the top chord, functioning as buttresses for the vertical members of the roadbed. Lacing is a prominent feature on the diagonal members. A recent survey performed in support of the proposed Project (M&N, 2011) found that despite its age and usage, the bridge is in good structural condition.

Evaluation of the Sepulveda Boulevard Bridge found that it qualified as eligible for listing in the CRHR under Criteria 1 and 3 (see Section 3.4.3.1.1 for a complete description of the CRHR Criteria). It is significant under Criterion 1 (significantly contribute to the broad patterns of local or regional history or cultural heritage) as a contributing resource to the history of the Union Pacific Railroad bridges within the context of railroad expansion to further economic development of extractive industries in the western United States at the beginning of the 20th century. Although the bridge was moved 22 years later, it acquired new significance under Criterion 1 within the context of city planning and development. Its use on a new line of the Union Pacific railroad was instrumental in clearing the center of the city of Long Beach from train operations in response to citizen-demanded modern development patterns that favored business expansion and burgeoning automobile use in the 1930s. It is also significant under Criterion 3 (embody the distinctive characteristics of a type, period, region, or method of construction) as an unusual example of truss bridge design utilizing curved vertical members. The Art Deco-style abutments, which date from the 1932 relocation, do not detract from the essential integrity of the 1910 truss design, and add characteristic architectural features. The bridge has retained substantial integrity despite the relocation of the truss from the original bridge in Wyoming. Although its location and setting changed in 1932, its present location imparts its integrity as a versatile component of the Union Pacific's historic nationwide network. Its design, materials, and workmanship have been preserved. Its association with the Union Pacific Railroad and its feeling as a functional railway bridge are also preserved.

The Sepulveda Boulevard Bridge is considered a historical resource under CEQA as it meets the definitions of historical resources in §15064.5(a) of CEQA Guidelines.

Storage Sheds

In the northern portion of the Project area, there are two corrugated metal storage sheds. Building 1 is a rectangular building carrying a flat wood roof with a metal lip and corrugated panel cladding. Fenestration consists of double-hung windows, probably wood, now covered with metal grills. Wide door openings accommodate loading for storage. Building 2 carries a shed roof and has similar cladding and door openings. It also appears to be used for storage.

Evaluation of the buildings found that neither qualifies for individual listing in the CRHR under Criteria 1, 2, 3 or 4, and there is no other evidence to suggest that either building is historically significant. Building 1 and Building 2 do not qualify as historical resources because they do not meet the definitions of historical resources in §15064.5(a) of CEQA Guidelines.

3.4.2.5.4 Paleontological Resources

A review was conducted of the paleontology collection records and locality and specimen data files by Dr. Samuel A. McLeod of the Natural History Museum of Los Angeles County. No vertebrate fossil localities recorded lie directly within the Project area. However, fossil localities exist nearby from the same or similar sedimentary deposits as those that occur in the Project area. The closest fossil locality lies west-northwest of the Project area, across Dominguez Channel at the intersection of Sepulveda Boulevard and Alameda Street. This locality, LACM 1165, produced a specimen of fossil bison (genus *Bison*) at an unrecorded depth. Southwest of the Project area, near the intersection of Anaheim Street and Henry Ford Avenue, fossil locality LACM 1163 produced another specimen of fossil bison (genus *Bison*) at a depth of 5 feet below the ground surface. Both of these finds were recovered from older Quaternary deposits that outcrop at a slightly higher elevation than that of the Project area. The results of the literature review, as well as the geological setting, suggest that the Project area has the potential to contain significant nonrenewable fossil resources.

Geological information indicates that surficial deposits in the Project area consist of younger Quaternary alluvium, probably derived from the Dominguez Channel to the west, as well as artificial fill, all of which have been disturbed by past development. These soils typically do not contain fossils, but they are underlain at a relatively shallow depth by older Quaternary alluvium from which fossils have been recovered to the west across Dominguez Channel. This older Quaternary alluvium may also underlie the Project area.

3.4.3 Applicable Regulations

3.4.3.1 State Regulations

3.4.3.1.1 Archaeological and Historical Resources

CEQA defines "historical resources" as:

(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4850 et seq)

(2) A resource included in a local register of historic resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical

resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852).

(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources . . . , or identified in an historical resources survey . . . does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1. (CEQA Guidelines, §15064.5 (a); see also Pub. Res. Code, §21084.1.)

A resource may be listed as an historical resource in the California Register if it meets any of the following National Register of Historic Places Criteria:

- The resource is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- The resource is associated with the lives of persons important to local, California, or national history;
- The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
- The resource has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation. (Pub. Res. Code, § 5024.1 (c); Cal. Code Regs. §4852(b).)

In addition to the above criteria, a resource less than 50 years old may be listed in the CRHR if it falls under the category of Special Considerations (PRC §5024.1, Title 14 California Code of Regulations (CCR) § 4852(d)(2)). If it can be demonstrated that sufficient time has passed to evaluate the historical importance of a resource, it may be found eligible for the CRHR.

Finally, if an archaeological resource does not fall within the definition of a historical resource, but does meet the definition of a "unique archaeological resource" (PRC 21083.2), then the site must be treated in accordance with the special provisions for such resources. An archaeological resource is unique if it:

- is associated with an event or person of recognized significance in California or American history or recognized scientific importance in prehistory;
- can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions;
- has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind.

3.4.3.1.2 Ethnographic Resources

The disposition of Native American burials is governed by Section 7050.5 of the California Health and Safety Code, and Sections 5097.94 and 5097.98 of the Public Resources Code, and falls within the jurisdiction of the Native American Heritage Commission (NAHC). Section 7052 of the Health and Safety Code establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives. Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. The Health and Safety Code also specifies that six or more human burials at one location constitute a cemetery (Section 8100).

Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historical or archaeological interest located on public or private lands, but specifically excludes the landowner. PRC Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, or historical, resources located on public lands.

3.4.3.1.3 Paleontological Resources

Section 5097.5 of the California PRC prohibits excavation or removal of any "vertebrate paleontological site or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands." Section 30244 requires reasonable mitigation of adverse impacts to paleontological resources from development on public land. Penal Code Section 623 spells out regulations for the protection of caves, including their natural, cultural, and paleontological contents. It specifies that no "material" (including all or any part of any paleontological item) will be removed from any natural geologically formed cavity or cave.

3.4.3.2 Local Regulations

3.4.3.2.1 Archaeological and Historical Resources

City guidelines for the protection of archeological resources are set forth in Section 3 of the City of Los Angeles General Plan Conservation Element, which, in addition to compliance with CEQA, requires the identification and protection of archaeological sites and artifacts as a part of local development permit processing.

Specifically, Los Angeles Municipal Code section 91.106.4.5 states that the Building Department "shall not issue a permit to demolish, alter or remove a building or structure of historical, archaeological or architectural consequence if such building or structure has been officially designated, or has been determined by state or federal action to be eligible for designation, on the NRHP, or has been included on the City of Los Angeles list of historic cultural monuments, without the department having first determined whether the demolition, alteration or removal may result in the loss of or serious damage to a significant historical or cultural asset. If the department determines that such loss or damage may occur, the applicant shall file an application and pay all fees for the CEQA Initial Study and Check List, as specified in Section 19.05 of the Los Angeles Municipal Code (LAMC). If the Initial Study and Check List identifies the historical or cultural asset as significant, the permit shall not be issued without the department first finding that specific economic, social or other considerations make infeasible the preservation of the building or structure."

3.4.3.2.2 Historical Resources

Five types of historic protection designations apply in the City of Los Angeles: (1) Historic-Cultural Monument designation by the city's Cultural Heritage Commission and approved by the City Council; (2) placement on the California Register of Historical Resources or (3) the National Register of Historic Places (1980 National Historic Preservation Act); (4) designation by the Community Redevelopment Agency (CRA) as being of cultural or historical significance within a designated redevelopment area; and (5) classification by the City Council (recommended by the planning commission) as an Historic Preservation Overlay Zone (HPOZ). These designations help protect structures and support rehabilitation fund requests (City of Los Angeles, 2001b).

The City Cultural Heritage Commission (CHC) was established by ordinance in 1962 to protect and/or identify architectural, historical and cultural buildings, structures and sites of importance in the city's history and/or cultural heritage. The CHC has designated over 700 sites as Historic-Cultural Monuments, including historic buildings, corridors (tree-lined streets) and geographic areas. Historical resources may also include resources listed in the State Historic Resources Inventory as significant at the local level or higher, and those evaluated as potentially significant in a survey or other professional evaluation (City of Los Angeles, 2001b). The HPOZ provision of the zone code, LAMC Section 12.20.3, was adopted in 1979, and was amended in 2001. It contains procedures for designation and protection of areas that have structures, natural features or sites of historic, architectural, cultural or aesthetic significance. HPOZ areas contain significant examples of architectural styles characteristic of different periods in the city's history. No area within the Port of Los Angeles has been designated as part of an HPOZ (City of Los Angeles, 2001b).

The significance of a historical resource is also based on (1) whether the site has been coded by the Department of Building and Safety with a Zoning Instruction number in the 145 series (which indicates prior identification of the property as historic); (2) whether the resource has been classified as historic in an historical resources survey conducted as part of the updating of the Community Plan, the adoption of a redevelopment area or other planning project; (3) whether the resource is subject to other federal, state, or local preservation guidelines; (4) whether the resource has a known association with an architect, master builder or person or event important in history such that the resource may be of exceptional importance; and (5) whether the resource is over 50-years-old and a substantially intact example of an architectural style significant in Los Angeles (City of Los Angeles CEQA Thresholds Guidelines 2006).

City of Los Angeles Historic-Cultural Monument Designation

In the City of Los Angeles, resources may be designated as Historic-Cultural Monuments under Sections 22.120, et seq., of the LAMC. An historical or cultural monument is defined as:

> *"[A]ny site (including significant trees or other plant life located thereon), building or structure of particular historic or cultural significance to the City of Los Angeles, such as historic structures or sites in which the broad cultural, political, economic or social history of the nation, state or community is reflected or exemplified, or which are identified with historic personages or with important events in the main currents of national, state or local history, or which embody the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period style or method of construction, or a*

notable work of a master builder, designer, or architect whose individual genius influenced his age."

City of Los Angeles Historic Preservation Overlay Zones (HPOZs)

HPOZs are essentially locally designated historic districts or groupings of historical resources. Under the HPOZ ordinance (LAMC Section 12.20.3.), to be significant, structures, natural features or sites within the involved area or the area as a whole shall meet one or more of the following criteria:

(A) have substantial value as part of the development, heritage or cultural characteristics of, or is associated with the life of a person important in the history of the city, state, or nation;

(B) are associated with an event that has made a substantial contribution to the broad patterns of our history;

(C) are constructed in a distinctive architectural style characteristic of an era of history;

(D) embody those distinguishing characteristics of an architectural type or engineering specimen;

(E) are the work of an architect or designer who has substantially influenced the development of the City;

(F) contain elements of design, details, materials or craftsmanship which represent an important innovation;

(G) are part of or related to a square, park or other distinctive area and should be developed or preserved according to a plan based on a historic, cultural, architectural or aesthetic motif;

(H) owing to its unique location or singular physical characteristics, represent an established feature of the neighborhood, community or City; or

(I) retaining the structure would help preserve and protect an historic place or area of historic interest in the City.

3.4.3.2.3 Ethnographic Resources

Relative to ethnographic resources, the City of Los Angeles CEQA Thresholds Guidelines (2006) states: "Consider compliance with guidelines and regulations such as the California Public Resources Code." No specific local regulations mandating the protection of ethnographic resources exist.

3.4.3.2.4 Paleontological Resources

City guidelines for the protection of paleontological resources are specified in Section 3 of the City of Los Angeles General Plan Conservation Element. The policy requires that the City's paleontological resources be protected for research and/or educational purposes. It mandates the identification and protection of significant paleontological sites and/or resources known to exist or that are identified during land development, demolition, or property modification activities.

3.4.4 Impacts and Mitigation Measures

The following historical resources analysis is based on review of the available technical reports and knowledge of the proposed type, intensity and duration of Project construction activities on the proposed Project sites.

3.4.4.1 Methodology

Impacts on significant or unique cultural resources from the proposed Project were evaluated by determining whether demolition, construction, or operational activities would affect areas that contain or could contain any significant or unique archaeological, paleontological, ethnographic, or historical resources.

State CEQA Guidelines §15064.5, *Determining the Significance of Impacts to Historical Resources and Unique Archaeological Resources*, has been applied to this project to determine the project's impacts on historical resources. Therefore, the project would result in a significant impact if it causes a substantial adverse change in the significance of an historical resource based on the following criteria established by the CEQA Guidelines:

(A) A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

(1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration in the resource or its immediate surroundings such that the significance of an historic resource would be materially impaired.

(2) The significance of an historical resource is materially impaired when a project:

(a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register of Historical Resources; or

(b) Demolishes or materially alters in an adverse manner those physical characteristics [of an historical resource] that account for its inclusion in a local register of historical resources (pursuant to PRC §5021.1(k)), or its identification in an historical resources survey meeting the criteria in PRC §5024.1(g), unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(c) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

(3) Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be

considered as mitigated to a level of less than a significant impact on the historical resource.

3.4.4.2 Thresholds of Significance

The following standards of significance are based on Appendix G of the CEQA Guidelines and the City of Los Angeles CEQA Thresholds Guide (City of Los Angeles, 2006). For purposes of this EIR, the proposed Project would have a significant adverse impact on cultural resources if it would:

CR-1 disturb, damage, or degrade an archaeological or ethnographic resource, or its setting, that is found to be important under the criteria of CEQA pursuant to §15064.5;

CR-2 cause a substantial adverse change in the significance of an important historical resource;

CR-3 directly or indirectly destroy or cause loss of access to a unique paleontological resource or site of regional or statewide significance.

3.4.4.3 Impacts and Mitigation

All impacts related to cultural resources would result from construction of the proposed Project. Operation of the proposed Project would not affect archaeological resources (including ethnographic resources) under Impact CR-1, historic resources under Impact CR-2, or paleontological resources under Impact CR-3 because it would only involve the movement of trains and trucks on established infrastructure. Accordingly, the following impact analyses only consider project construction. The analysis of the alternatives to the proposed Project is presented in Chapter 6.

Impact CR-1: Construction and operation of the proposed Project would potentially disturb, damage, or degrade unknown archaeological or ethnographic resources, and thus cause a substantial adverse change in the significance of such resources as defined in §15064.5.

As described in Section 2.4, the proposed Project would involve ground disturbing activities including, excavation and grading. Although no archaeological sites were discovered during the field surveys, no evidence of prehistoric or historic archaeological material was identified, no known archaeological sites are recorded within the Project area, and the site has undergone extensive development in the past, including earthmoving and fill placement, the Project area possesses the potential to contain buried archaeological and ethnographic resources.

There are no known recorded burial sites within the Project area. However, other excavations in the vicinity of the proposed Project have uncovered intact prehistoric human burials, just west of the current Project area. Accordingly, the Project area has the potential to contain buried unknown archaeological resources and human remains.

Impact Determination

Construction of the proposed Project could disturb, damage, or degrade intact resources and result in significant impacts to previously unidentified archaeological resources that may be eligible for the CRHR. Buried resources that were not identified during field surveys could be inadvertently unearthed during ground-disturbing activities that could result in demolition of or substantial damage to significant archeological or ethnographic

resources, thus creating a significant impact. As there is potential for the presence of unknown archeological resources and human remains, construction of the proposed Project would have a significant impact.

Project operations would have no effect on archeological or ethnographic resources because no further ground disturbances with the potential to encroach on unknown resources would occur. Therefore, operation of the proposed Project would have no impact on archaeological or ethnographic resources.

Mitigation Measures

Because the Project area has the potential to encompass unknown buried or otherwise obscured archaeological or ethnographic resources, mitigation is required.

MM CR-1: An archaeological monitor shall be present during all initial grading and excavation activities at the proposed Project site. In the event any cultural resources are encountered during earthmoving activities, the construction contractor shall cease activity in the affected area until the discovery can be evaluated by a qualified archaeologist in accordance with the provisions of CEQA §15064.5. The archaeologist shall complete any requirements for the mitigation of adverse effects on any resources determined to be significant and implement appropriate treatment measures. The treatment plan may include methods for: (1) subsurface testing after demolition of existing buildings, (2) data recovery of archaeological or ethnographic deposits, and (3) post-construction documentation. A detailed historic context that clearly demonstrates the themes under which any identified subsurface deposits would be determined significant would be included in the treatment plan, as well as anticipated artifact types, artifact analysis, report writing, repatriation of human remains and associated grave goods, and curation.

A preconstruction information and safety meeting should be held to make construction personnel aware of archaeological monitoring procedures and the types of archaeological resources that might be encountered. All construction equipment operators shall attend a pre-construction meeting presented by a professional archaeologist retained by LAHD that shall review types of cultural resources and artifacts that would be considered potentially significant, to ensure operator recognition of these materials during construction.

Human Remains: Prior to beginning construction, BNSF and LAHD shall ensure that applicable Native American groups (e.g., the Gabrieliño-Tongva Tribal Council) have been consulted regarding proposed ground-disturbing activities and offered an opportunity to monitor the construction along with the project archeologist. If human remains are encountered, there shall be no further excavation or disturbance of the site within 100 feet of the find or any nearby area reasonably suspected to overlie adjacent human remains. The Los Angeles County Coroner shall be contacted to determine the age and cause of death of the deceased. If the remains are not of Native American heritage, construction in the area may recommence after authorized by the coroner.

If the remains are determined to be Native American, state laws relating to the disposition of Native American burials that fall within the jurisdiction of the NAHC (PRC §5097) will be implemented by the appropriate parties. The coroner must contact the NAHC to determine the most likely living descendant(s). BNSF and LAHD shall consult with the most likely descendant(s) to identify a mutually acceptable strategy for treating and disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC§5097.98.

If the NAHC is unable to identify a most likely descendant, the descendant fails to make a recommendation within 24 hours of being notified by the NAHC and LAHD and the descendant are not capable of reaching a mutually acceptable strategy through mediation by the NAHC, the Native American human remains and associated grave goods shall be reburied with appropriate dignity on the proposed Project site in a location not subject to further subsurface disturbance.

Residual Impacts

Implementation of **MM CR-1** would reduce residual impacts to less than significant.

Impact CR-2: Construction of the proposed Project would cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.

The Sepulveda Boulevard Bridge is the only known historical resource in the Project area, as defined by CEQA Guidelines section 15064.5. The proposed Project would demolish and replace the bridge, thereby eliminating its historic materials and integrity. The replacement is necessary because the existing bridge cannot accommodate three tracks. As described in Section 2.4.2.3, BNSF intends to salvage noteworthy architectural features of the bridge, if possible, for re-use elsewhere in the region. However, there is no firm proposal regarding which elements would be salvaged and where they might be re-used.

In February and March 2011, the LAHD and BNSF undertook an effort (M&N, 2011) to locate an entity interested in accepting the bridge, or culturally significant elements of it (e.g., the abutment facades and the Warren truss sections). Based on the condition of the bridge structure, there is a potential for its continued use at another location. Relocation of the structure would require at least partial dismantlement. Issues that need to be addressed in moving the structure include partial dismantlement, due to size and/or weight restrictions on local or regional roads. The bridge has been painted and is known to contain lead-based paint. Measures to address lead paint contamination would also need to be put in place. A number of local government agencies and construction companies were contacted to assess the potential for the bridge being reused in part or whole at another location. Agencies contacted include the City of Los Angeles, the City of Long Beach, the City of Carson, the Los Angeles County Department of Public Works, the Alameda Corridor Transportation Agency, the Union Pacific Railroad Company (the bridge's current owner), and several regional construction firms, but none of the entities was interested in accepting the bridge nor did any know of any potential uses for the bridge.

Impact Determination

There is no reasonable expectation that the Sepulveda Boulevard Bridge can be salvaged in its entirety for use elsewhere in the region, and the bridge cannot be retained in its present location. Accordingly, the proposed Project would result in a significant impact on a historical resource because it would materially alter, in an adverse manner, the physical characteristics of the bridge that convey its historical significance and justify its eligibility for inclusion in the CRHR.

Mitigation Measures

The following mitigation measures would be required in order to reduce the substantial adverse impact to the Sepulveda Boulevard Bridge that would result from the proposed Project.

MM CR-2: Prior to the start of construction of the new Sepulveda Boulevard railroad bridge, BNSF will prepare archival documentation and an interpretative display of the historical resource.

Documentation: A Historic American Engineering Record (Level II or less) will be prepared to provide a physical description of the historic bridge, discuss its significance under applicable CRHR criteria, and address the historical context for its construction, purpose, and function. Large-format black and white photographs will be taken showing the Sepulveda Boulevard Bridge in context, as well as details of its historic engineering features. The photographs will be fully captioned and processed for archival permanence. Copies of the report will be offered to the local historical society and any other repository or organization determined by LAHD.

Interpretive Display: An interpretive exhibit, in the form of a permanent plaque, will be prepared, and once construction of the new bridge is complete, the plaque will be installed at the bridge site that provides a brief history of the structure, a description of its engineering features and characteristics, and the reasons for and date of its demolition and replacement.

MM CR-3: Prior to the start of the Sepulveda Bridge component of the proposed Project, BNSF shall prepare a plan for salvaging noteworthy elements of the structure for re-use either elsewhere or in the new bridge. The plan shall identify the elements to be salvaged, which shall be determined in consultation with a qualified architectural historian. Suitable re-use would include as decorative elements either on the new bridge or elsewhere in the region, or as an interpretive display. The plan shall be approved by LAHD, and the existing bridge and abutments shall not be demolished or altered until said approval has been granted.

Residual Impacts

Implementation of **MM CR-2** and **MM CR-3** would reduce adverse effects to the historical resource, but the impact would remain significant and unavoidable. No further feasible mitigation is available to reduce this impact to less than significant.

Impact CR-3: Construction of the proposed Project would potentially disturb, destroy, or eliminate access to unknown unique paleontological resources.

As described in Section 2.4, the proposed Project would involve ground disturbing activities, including excavation and grading; with the exception of foundation pilings, ground disturbance would be shallow excavations for utilities and subgrade preparation. As discussed in Section 3.4.2.5.4, surficial deposits in the Project area consist of younger Quaternary alluvium, probably derived from the Dominguez Channel to the west, as well as artificial fill, all of which have been disturbed by past development. These soils typically do not contain fossils, but they are underlain at a relatively shallow depth by older Quaternary alluvium from which fossils have been recovered to the west across Dominguez Channel. No paleontological resources have been identified within the Project area, which is largely overlain by artificial fill. However, the results of the

literature review, as well as the geological setting, demonstrate that the Project area has the potential to contain significant nonrenewable fossil resources.

Impact Determination

Implementation of the proposed Project would have a significant impact on previously unidentified paleontological resources because of the potential for permanent loss of or loss of access to a paleontological resource of regional or statewide significance. Grading and excavation associated with Project construction activities would potentially expose subsurface paleontological resources. Any vertebrate fossils exposed by grading without appropriate professional, systematic recovery would be destroyed, and their ability to be preserved for future study would be lost. Accordingly, construction of the proposed Project would have a significant impact on paleontological resources. Operation of the proposed Project would have no impact on paleontological resources because it would not involve ground-disturbing activities.

Mitigation Measures

Because of the Project area's potential to contain buried paleontological resources, a paleontological monitoring program should be implemented during all initial grading and excavation activities. The following mitigation measure is provided in the event that paleontological resources are encountered during construction.

MM CR-4: Paleontological monitoring of ground disturbing activities shall be conducted by a qualified paleontologist. Ground disturbing activities include, but are not limited to, boring, trenching, grading, and excavating. A preconstruction information and safety meeting should be held to make construction personnel aware of paleontological monitoring procedures and paleontological sensitivity.

In the event that paleontological resources are encountered, the contractor shall stop construction within 10 meters (30 feet) of the exposure. A qualified paleontologist will evaluate the significance of the resource. Additional monitoring recommendations may be made at that time. If the resource is found to be significant, the paleontologist shall systematically remove and stabilize the specimen in anticipation of its preservation. Curation of the specimen shall be in a qualified research facility, such as the Los Angeles County Natural History Museum.

Residual Impacts

Implementation of **MM CR-4** would reduce impacts to paleontological resources that may be encountered during project construction to less than significant.

3.4.4.3.1 Summary of Impact Determinations

Table 3.4-1 summarizes the impact determinations of the proposed Project. Each potential impact is described with the impact determination and applicable mitigation measures.

3.4.5 Significant Unavoidable Impacts

A significant unavoidable adverse impact to a historical resource, the Sepulveda Boulevard Bridge, would occur as a result of the proposed Project after mitigation, as described in Impact CR-2.

Table 3.4-1. Summary Matrix of Potential Impacts and Mitigation Measures for Cultural Resources Associated with the Proposed Project.

Environmental Impacts*	Impact Determination	Mitigation Measures	Impacts after Mitigation
CR-1: Construction of the proposed Project would potentially disturb, destroy, or degrade unknown archaeological or ethnographic resources, and thus cause a substantial adverse change in the significance of such resources as defined in §15064.5.	**Significant impact**	**MM CR-1:** An archaeological monitor shall be present during all initial grading and excavation activities at the proposed Project site. In the event any cultural resources are encountered during earthmoving activities, the construction contractor shall cease activity in the affected area until the discovery can be evaluated by a qualified archaeologist in accordance with the provisions of CEQA §15064.5. The archaeologist shall complete any requirements for the mitigation of adverse effects on any resources determined to be significant and implement appropriate treatment measures. The treatment plan may include methods for: (1) subsurface testing after demolition of existing buildings, (2) data recovery of archaeological or ethnographic deposits, and (3) post-construction documentation. A detailed historic context that clearly demonstrates the themes under which any identified subsurface deposits would be determined significant would be included in the treatment plan, as well as anticipated artifact types, artifact analysis, report writing, repatriation of human remains and associated grave goods, and curation. A preconstruction information and safety meeting should be held to make construction personnel aware of archaeological monitoring procedures and the types of archaeological resources that might be encountered. All construction equipment operators shall attend a pre-construction meeting presented by a professional archaeologist retained by LAHD that shall review types of cultural resources and artifacts that would be considered potentially significant, to ensure operator recognition of these materials during construction. Human Remains: Prior to beginning construction, BNSF and LAHD shall ensure that applicable Native American groups (e.g., the Gabrieliño-Tongva Tribal Council) have been consulted regarding proposed ground-disturbing activities and offered an opportunity to monitor the construction along with the project archeologist. If human remains are encountered, there shall be no further excavation or disturbance of the site within 100 feet of the find or any nearby area reasonably suspected to overlie adjacent	Less than significant

Environmental Impacts*	Impact Determination	Mitigation Measures	Impacts after Mitigation
		human remains. The Los Angeles County Coroner shall be contacted to determine the age and cause of death of the deceased. If the remains are not of Native American heritage, construction in the area may recommence after authorized by the coroner. If the remains are determined to be Native American, state laws relating to the disposition of Native American burials that fall within the jurisdiction of the NAHC (PRC §5097) will be implemented by the appropriate parties. The coroner must contact the NAHC to determine the most likely living descendant(s). BNSF and LAHD shall consult with the most likely descendant(s) to identify a mutually acceptable strategy for treating and disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC§5097.98. If the NAHC is unable to identify a most likely descendant, the descendant fails to make a recommendation within 24 hours of being notified by the NAHC and LAHD and the descendant are not capable of reaching a mutually acceptable strategy through mediation by the NAHC, the Native American human remains and associated grave goods shall be reburied with appropriate dignity on the proposed Project site in a location not subject to further subsurface disturbance.	
CR-2: Construction of the proposed Project would require demolition of the existing Sepulveda Boulevard Bridge, and thus cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.	**Significant impact**	**MM CR-2:** Prior to the start of construction of the new Sepulveda Boulevard railroad bridge, BNSF will prepare archival documentation and an interpretative display of the historical resource. **Documentation:** A Historic American Engineering Record (Level II or less) will be prepared to provide a physical description of the historic bridge, discuss its significance under applicable CRHR criteria, and address the historical context for its construction, purpose, and function. Large-format black and white photographs will be taken showing the Sepulveda Boulevard Bridge in context, as well as details of its historic engineering features. The photographs will be fully captioned and processed for archival permanence. Copies of the report will be offered to the local historical society and any other repository or organization determined by LAHD.	**Significant and unavoidable**

Environmental Impacts*	Impact Determination	Mitigation Measures	Impacts after Mitigation
		Interpretive Display: An interpretive exhibit, in the form of a permanent plaque, will be prepared, and once construction of the new bridge is complete, the plaque will be installed at the bridge site that provides a brief history of the structure, a description of its engineering features and characteristics, and the reasons for and date of its demolition and replacement. **MM CR-3:** Prior to the start of the Sepulvada Bridge component of the proposed Project, BNSF shall prepare a plan for salvaging noteworthy elements of the structure for re-use either elsewhere or in the new bridge. The plan shall identify the elements to be salvaged, which shall be determined in consultation with a qualified architectural historian. Suitable re-use would include as decorative elements either on the new bridge or elsewhere in the region, or as an interpretive display. The plan shall be approved by LAHD, and the existing bridge and abutments shall not be demolished or altered until said approval has been granted.	
CR-3: Construction of the proposed Project would potentially disturb, destroy, or degrade unknown paleontological resource, and thus directly or indirectly destroy a unique paleontological resource.	**Significant impact**	**MM CR-4:** Paleontological monitoring of ground disturbing activities shall be conducted by a qualified paleontologist. Ground disturbing activities include, but are not limited to, pavement/asphalt removal, boring, trenching, grading, excavating, and the demolition of building foundations. A preconstruction information and safety meeting should be held to make construction personnel aware of paleontological monitoring procedures and paleontological sensitivity. In the event that paleontological resources are encountered, the contractor shall stop construction within 10 meters (30 feet) of the exposure. A qualified paleontologist will evaluate the significance of the resource. Additional monitoring recommendations may be made at that time. If the resource is found to be significant, the paleontologist shall systematically remove and stabilize the specimen in anticipation of its preservation. Curation of the specimen shall be in a qualified research facility, such as the Los Angeles County Natural History Museum.	Less than significant

Table 3.4-2. Mitigation Monitoring for Cultural Resources.

CR-1: Construction of the proposed Project would potentially disturb, destroy, or degrade unknown archaeological or ethnographic resources, and thus cause a substantial adverse change in the significance of such resources as defined in §15064.5.	
Mitigation Measures	**MM CR-1:** An archaeological monitor shall be present during all initial grading and excavation activities at the proposed Project site. In the event any cultural resources are encountered during earthmoving activities, the construction contractor shall cease activity in the affected area until the discovery can be evaluated by a qualified archaeologist in accordance with the provisions of CEQA §15064.5. The archaeologist shall complete any requirements for the mitigation of adverse effects on any resources determined to be significant and implement appropriate treatment measures. The treatment plan may include methods for: (1) subsurface testing after demolition of existing buildings, (2) data recovery of archaeological or ethnographic deposits, and (3) post-construction documentation. A detailed historic context that clearly demonstrates the themes under which any identified subsurface deposits would be determined significant would be included in the treatment plan, as well as anticipated artifact types, artifact analysis, report writing, repatriation of human remains and associated grave goods, and curation. A preconstruction information and safety meeting should be held to make construction personnel aware of archaeological monitoring procedures and the types of archaeological resources that might be encountered. All construction equipment operators shall attend a pre-construction meeting presented by a professional archaeologist retained by LAHD that shall review types of cultural resources and artifacts that would be considered potentially significant, to ensure operator recognition of these materials during construction. Human Remains: Prior to beginning construction, BNSF and LAHD shall ensure that applicable Native American groups (e.g., the Gabrieliño-Tongva Tribal Council) have been consulted regarding proposed ground-disturbing activities and offered an opportunity to monitor the construction along with the project archeologist. If human remains are encountered, there shall be no further excavation or disturbance of the site within 100 feet of the find or any nearby area reasonably suspected to overlie adjacent human remains. The Los Angeles County Coroner shall be contacted to determine the age and cause of death of the deceased. If the remains are not of Native American heritage, construction in the area may recommence after authorized by the coroner. If the remains are determined to be Native American, state laws relating to the disposition of Native American burials that fall within the jurisdiction of the NAHC (PRC §5097) will be implemented by the appropriate parties. The coroner must contact the NAHC to determine the most likely living descendant(s). BNSF and LAHD shall consult with the most likely descendant(s) to identify a mutually acceptable strategy for treating and disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC§5097.98. If the NAHC is unable to identify a most likely descendant, the descendant fails to make a recommendation within 24 hours of being notified by the NAHC and LAHD and the descendant are not capable of reaching a mutually acceptable strategy through mediation by the NAHC, the Native American human remains and associated grave goods shall be reburied with appropriate dignity on the proposed Project site in a location not subject to further subsurface disturbance.
Timing	Prior to Project Construction (preconstruction information safety meeting) and during the Project Construction period (2013-2015)

Methodology	**MM CR-1** will be required in the contract specifications for construction. LAHD will monitor implementation of mitigation measures during construction.
Responsible Parties	BNSF construction contractor(s) for SCIG and construction contractor(s) for Relocated Tenants will be responsible for implementing the mitigation measures in the contract specifications reviewed and approved by LAHD Environmental Management Division.
Residual Impacts	Less than significant
CR-2: Construction of the proposed Project would require demolition of the existing Sepulveda Boulevard Bridge, and thus cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.	
Mitigation Measures	**MM CR-2:** Prior to the start of construction of the new Sepulveda Boulevard railroad bridge, BNSF will prepare archival documentation and an interpretative display of the historical resource. **Documentation:** A Historic American Engineering Record (Level II or less) will be prepared to provide a physical description of the historic bridge, discuss its significance under applicable CRHR criteria, and address the historical context for its construction, purpose, and function. Large-format black and white photographs will be taken showing the Sepulveda Boulevard Bridge in context, as well as details of its historic engineering features. The photographs will be fully captioned and processed for archival permanence. Copies of the report will be offered to the local historical society and any other repository or organization determined by LAHD. **Interpretive Display:** An interpretive exhibit, in the form of a permanent plaque, will be prepared, and once construction of the new bridge is complete, the plaque will be installed at the bridge site that provides a brief history of the structure, a description of its engineering features and characteristics, and the reasons for and date of its demolition and replacement. **MM CR-3:** Prior to the start of the Sepulvada Bridge component of the proposed Project, BNSF shall prepare a plan for salvaging noteworthy elements of the structure for re-use either elsewhere or in the new bridge. The plan shall identify the elements to be salvaged, which shall be determined in consultation with a qualified architectural historian. Suitable re-use would include as decorative elements either on the new bridge or elsewhere in the region, or as an interpretive display. The plan shall be approved by LAHD, and the existing bridge and abutments shall not be demolished or altered until said approval has been granted.
Timing	During the Project Construction period (2013-2015)
Methodology	**MM CR-2** and **MM CR-3** will be required in the contract specifications for construction. LAHD will monitor implementation of mitigation measures during construction.
Responsible Parties	BNSF construction contractor(s) for SCIG and construction contractor(s) for Relocated Tenants will be responsible for implementing the mitigation measures in the contract specifications reviewed and approved by LAHD Environmental Management Division.
Residual Impacts	Significant and unavoidable

CR-3: Construction of the proposed Project would potentially disturb, destroy, or degrade unknown paleontological resource, and thus directly or indirectly destroy a unique paleontological resource.	
Mitigation Measures	**MM CR-4:** Paleontological monitoring of ground disturbing activities shall be conducted by a qualified paleontologist. Ground disturbing activities include, but are not limited to, pavement/asphalt removal, boring, trenching, grading, excavating, and the demolition of building foundations. A preconstruction information and safety meeting should be held to make construction personnel aware of paleontological monitoring procedures and paleontological sensitivity. In the event that paleontological resources are encountered, the contractor shall stop construction within 10 meters (30 feet) of the exposure. A qualified paleontologist will evaluate the significance of the resource. Additional monitoring recommendations may be made at that time. If the resource is found to be significant, the paleontologist shall systematically remove and stabilize the specimen in anticipation of its preservation. Curation of the specimen shall be in a qualified research facility, such as the Los Angeles County Natural History Museum.
Timing	During the Project Construction period (2013-2015)
Methodology	**MM CR-4** will be required in the contract specifications for construction. LAHD will monitor implementation of mitigation measures during construction.
Responsible Parties	BNSF construction contractor(s) for SCIG and construction contractor(s) for Relocated Tenants will be responsible for implementing the mitigation measures in the contract specifications reviewed and approved by LAHD Environmental Management Division.
Residual Impacts	Less than significant