

9.0 FINAL SECTION 4(f) EVALUATION

9.1 INTRODUCTION

9.1.1 OVERVIEW OF THE SECTION 4(f) PROCESS

Section 4(f) of the Department of Transportation Act of 1966 prohibits the Secretary of Transportation from approving any program or project that:

... requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state or local significance as determined by federal, state, or local officials having jurisdiction thereof, or any land from an historic site of national, state, or local significance as so determined by such officials unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from such use...

(Department of Transportation Act of 1983, 49 USC Section 21).

A use of a Section 4(f) resource occurs when (1) land from Section 4(f) site is acquired for a transportation project; (2) there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose; or (3) the proximity impacts of the transportation project on the Section 4(f) site, without acquisition of land, are so great that the purposes for which the Section 4(f) site exists are substantially impaired. The latter type of use is also known as a "constructive" use.

Section 4(f) also applies to historic properties and archaeological resources only when the resource is included on, or eligible for, the National Register of Historic Places (NRHP). The criteria for eligibility for the NRHP are as follows:

... the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or*
- B. that are associated with the lives of persons significant in our past; or*
- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
- D. that have yielded, or may be likely to yield, information important in prehistory or history. ...*
(36 CFR 60.4)

The selection process for projects with Section 4(f) concerns involves a series of tests. The first test determines which alternatives are considered feasible and prudent. An alternative may be rejected as not being feasible and prudent for various reasons, such as whether the alternative meets the purpose and need, has excessive cost of construction, has severe operational/safety issues, has unacceptable adverse social, economic and/or environmental impacts, or causes serious community disruption. When sufficient analysis has been completed and demonstrates that an alternative is not feasible and prudent, no additional analysis of that alternative is required.

Once the alternatives that are not feasible and prudent have been eliminated, a determination must be made on whether one or more of the remaining alternatives avoids the use of land with Section 4(f) resources. If alternatives that avoid Section 4(f) resources exist, one of them must be selected. However, if all of the remaining feasible and prudent alternatives use Section 4(f) resources, then an analysis must be conducted to determine the alternative that is the least damaging to Section 4(f) resources. The feasible and prudent alternative that is the least damaging to Section 4(f) resources must be selected.

9.1.2 PROPOSED ACTION

State Route 22 is a six-lane freeway originally built in the 1960s. Peak-hour operating conditions are currently at LOS F (very high congestion levels, very low mobility) in each direction of travel throughout most of the study area. Traffic forecasts indicate that traffic volumes are expected to increase along most segments, which could intensify the existing congestion problem.

The study area has insufficient capacity to accommodate travel demand within as well as to and from the study area. Additionally, the study area suffers from a lack of continuous parallel arterial roadways, insufficient arterial/intersection capacity, an absence of HOV lanes for carpools and express transit services, and a lack of TSM strategies.

To address these problems, OCTA initiated the SR-22/West Orange County Connection (SR-22/WOCC) project in 1997. The SR-22/WOCC project was proposed to help improve mobility, maximize cost-effectiveness of improvements, minimize adverse and maximize beneficial environmental impacts, minimize negative and maximize positive economic impacts, and improve operations (including safety) of the study area transportation system. The study area traverses the jurisdictions of Seal Beach, Rossmore (unincorporated Orange County), Westminster, Garden Grove, Santa Ana, Orange and Tustin.

The purpose of and need for the project are discussed in Section 1.0 of the Final EIR/EIS, while detailed descriptions of the project alternatives are provided in Section 2.0. In addition, this Section 4(f) evaluation includes a discussion of alternatives developed to avoid uses of the Section 4(f) properties along the alignment of the build alternatives, called "Avoidance Alternatives."

9.2 4(f) RESOURCES

As stated in Section 9.1, a 4(f) resource is defined as any publicly owned land (e.g. public park, recreation area, or wildlife and waterfowl refuge) of national, state or local significance or any land from an historic site of national, state, or local significance. This section outlines the 4(f) resources in the project vicinity. However, the proposed Pacific Electric Right-of-Way Trail and the Pacific Electric Santa Ana River Bridge are the only identified 4(f) resources in the SR-22/West Orange County Connection project area, which would be directly used. Only the Full Build Alternative, which has not been identified as the Preferred Alternative, would use the bridge and the proposed trail. ***The (Enhanced) Reduced Build Alternative would not affect any 4(f) resources.***

9.2.1 Recreation Areas

PACIFIC ELECTRIC RIGHT-OF-WAY TRAIL (PROPOSED)

The Pacific Electric Right-of-Way Trail is a proposed Class I trail along the former Pacific Electric right-of-way (refer to Figure 3.10-2). The City of Santa Ana *General Plan* designates the entire Pacific Electric right-of-way as open space and contains a specific plan for development of a Class I trail along the existing right-of-way (Santa Ana, 1998).

The former Pacific Electric right-of-way was investigated in the course of cultural resources fieldwork. All tracks and associated rail features, such as switches, signals, poles and overheads, were removed following abandonment of the line in 1950. Much of the alignment has been graded and, in several locations, sections of the right-of-way have been leased for commercial or industrial use. Development along the right-of-way, with the exception of the Pacific Electric Santa Ana River Bridge and some buildings near the east end of the project limits, dates from the period following abandonment of the line. The historic character of the rail corridor is no longer expressed. Because of its loss of integrity, the former Pacific Electric right-of-way itself is not considered a historical resource and is not eligible for the National Register.

Although the City of Santa Ana proposes the trail, OCTA owns the former Pacific Electric right-of-way. Most of the former railroad right-of-way is vacant, and signs posted adjacent to the right-of-way prohibit access. As of July 2000, no schedule for developing the trail or financing it had been established.

SANTA ANA RIVER TRAIL

The Santa Ana River Trail, owned and maintained by the County of Orange Public Facilities and Resources Department (OCPF&RD), is an existing Class I trail along the Santa Ana River. The trail is fully grade-separated from cross traffic for its entire length in Orange County. This includes an existing grade separation at SR-22, where the trail “dips” down into the Santa Ana River floodway to cross under the SR-22 Santa Ana River bridge. In many locations, the bicycle uses and pedestrian/equestrian uses are separated, such as where the trail crosses the former Pacific Electric right-of-way. At this location, the bike trail is on the east side of the river, while the pedestrian/equestrian trail is on the west.

SANTIAGO CREEK TRAIL

This unpaved hiking trail, also owned by OCPF&RD, crosses beneath SR-22 near Glassell Avenue in the City of Orange.

There are no other hiking/biking trails in the project area.

9.2.2 Parks and Schools

BLUE BELL PARK

This small, neighborhood park is located in Seal Beach along the north side of SR-22. Its area is 0.53 hectare, and it has picnic tables and a basketball court.

ALMOND PARK

This small, neighborhood park is also located in Seal Beach beside SR-22. It is 0.73 hectare in area, with play equipment, open space and tennis and basketball courts. Both Almond and Blue Bell Parks are the property of the City of Seal Beach.

GARDEN GROVE PARK

This large park (14.6 hectares, or 36 acres) is located beside and just south of the existing SR-22, west of Bolsa Grande High School. It contains a playground as well as a swimming pool, baseball fields and soccer fields. The City of Garden Grove owns and maintains the park.

RIVER VIEW PARK

River View Park is a public golf course with a clubhouse and maintenance facilities, much of which is situated in the riverbed of the Santa Ana River. The City of Santa Ana owns the River View Park.

ELDRIDGE PARK

This city-owned park in Santa Ana, less than one-half hectare in size, consists only of open space with no playground amenities.

HART PARK

This large park, owned and maintained by the City of Orange, borders historic Old Towne. It contains baseball fields and tennis courts, a swimming pool and picnic tables. The park is adjacent to the Santiago Creek Trail.

PACIFIC ELECTRIC COMMEMORATIVE AREA

This small landscaped area is located in the right-of-way of the old rail line beside SR-22 at Newhope Avenue. It contains no play equipment or open space, providing only a sidewalk with

minor landscaping and a stone bench. It measures about 15 meters in length, and is about 6 meters wide. It is maintained by the City of Garden Grove.

Spurgeon Intermediate School Field

The playground adjoining Spurgeon Intermediate School of Santa Ana is open to the public, although the schoolground is a closed campus. It has soccer fields and baseball diamonds. Its west edge abuts the Santa Ana River, just south of the Pacific Electric right-of-way.

As indicated in Section 3.10 of the Final Environmental Impact Statement / Report (FEIS/EIR), all of the schools within the project study area are closed campuses, accessible to the general public only by permission of school authorities. They are therefore not considered to be 4(f) resources and are not included in this analysis.

9.2.3 Historic Resources

PACIFIC ELECTRIC SANTA ANA RIVER BRIDGE

An Historic Property Survey Report (HPSR) (Appendix B in Volume IV of this FEIS/EIR) has been prepared pursuant to Section 106 of the National Historic Preservation Act of 1966 (NHPA). Those properties within the Area of Potential Effect (APE) examined or determined as eligible for listing on the NRHP were documented in the HPSR and are addressed in this Section 4(f) evaluation. The HPSR, summarized in Section 3.5, concluded that only one property in the project area was determined to be eligible for the NRHP, the former Pacific Electric Railway Bridge over the Santa Ana River in Santa Ana (see Figure 9.2-1). No prehistoric or historic archaeological resources were identified within the project area.

Only the Full Build Alternative would directly affect the Pacific Electric Bridge. This structure is a two-span iron through-truss bridge, constructed in 1905. As the only Santa Ana River crossing for the Pacific Electric Railway, the bridge, is an integral part of the transportation history of Orange County. The bridge was determined eligible for the NRHP in 1988 under Criterion A for its association with events that have made a significant contribution to the broad patterns of history, and under Criterion C, as embodying the distinctive characteristics of a type, period and method of construction.

The structure is an example of the "Pegram Truss" type of bridge, which was used throughout the nation from the late 1880s to the early 20th century. (George H. Pegram originally filed for a patent for this truss in 1883, with the patent rights granted in 1885.) In the Pegram Truss design, the upper chords of the truss are all of equal length. Examples of this type of bridge construction are extremely rare in California. This structure is the only known existing use of the Pegram truss in Southern California.

After the Pacific Electric railway went out of business, the bridge was temporarily used as a bicycle path, but the entrances to the bridge are now barricaded with iron bars and barbed wire. Despite alterations throughout the years, the structure retains a high degree of architectural, historical and engineering integrity. In addition, the unique design of the Pegram Truss and the visual impact of the abandoned roadbed impart a strong overall sense of time and place to this structure.



**Figure 9.2-1
Pacific Electric Santa Ana
River Bridge**

9.2.4 Wildlife Refuges

There are no federal, state or locally designated wildlife refuges located in the vicinity of any SR-22/WOCC alternative.

9.3 USES OF SECTION 4(F) PROPERTIES

The potential uses of these 4(f) properties by the SR-22/WOCC alternatives are discussed in the following sections. The proposed Pacific Electric Right-of-Way Trail and the Pacific Electric Santa Ana River Bridge would be the only identified 4(f) resources in the SR-22/WOCC project area, which would be directly used. Only the Full Build Alternative, which has not been identified as the Preferred Alternative, would use the bridge and the proposed trail. ***The (Enhanced) Reduced Build Alternative will not affect any 4(f) resources.***

9.3.1 Pacific Electric Right-of-Way Trail (Proposed)

A. (ENHANCED) REDUCED BUILD ALTERNATIVE

The Pacific Electric Arterial proposed feature in the Full Build Alternative is not part of the (Enhanced) Reduced Build Alternative. Thus, the (Enhanced) Reduced Build Alternative would not result in any use of the proposed Pacific Electric Right-of-Way Trail. As noted, the three major elements not included in the (Enhanced) Reduced Build Alternative are the new arterial in the former Pacific Electric right-of-way, the HOV connectors between SR-22 and I-5, and the HOV connectors between SR-22 and SR-55. These elements were eliminated in order to reduce environmental impacts related primarily to right-of-way acquisition and historic property.

B. NO BUILD ALTERNATIVE

Because there would be no construction associated with the No Build Alternative, other than that addressed in other environmental documents, this alternative would not result in a use of the proposed Pacific Electric Right-of-Way Trail.

C. TSM/EXPANDED BUS SERVICE ALTERNATIVE

Because there would be no construction within the former Pacific Electric right-of-way associated with the TSM/Expanded Bus Service Alternative, this alternative would not result in a use of the proposed Pacific Electric Right-of-Way Trail.

D. FULL BUILD ALTERNATIVE

The proposed Pacific Electric Right-of-Way Trail is within the Pacific Electric right-of-way segment of the Full Build Alternative. As part of this alternative, a new arterial would be placed in the former Pacific Electric right-of-way from SR-22 to Santa Ana Boulevard and/or Civic Center Drive. The roadway would be a limited access, four-lane divided arterial with a transit reserve within the median. Access/egress would only be provided at SR-22, Santa Ana Boulevard and Civic Center Drive. Along some areas, the arterial would be above grade on retained fill material or elevated on structures at street crossings. Only a small portion of the facility is proposed to be at or below grade. The arterial would be depressed where it crosses Harbor Boulevard and Westminster Avenue. There would be no provision for any class of trail, primarily due to the limited access to cross streets. The width of the arterial is proposed to be approximately 30.4 meters (99.74 feet), which for the most part is the width of the current right-of-way. An arterial in the proposed location of the Pacific Electric Right-of-Way Trail would be a direct use as defined by the Department of Transportation Act of 1983, 49 USC Section 21.

9.3.2 Santa Ana River Trail

A. (ENHANCED) REDUCED BUILD ALTERNATIVE

As part of the (Enhanced) Reduced Build Alternative, two new crossings of the Santa Ana River Trail would be constructed and the existing SR-22 crossing would be widened slightly. The widened SR-22 crossing and the new northbound I-5/southbound SR-57 to westbound SR-22 connector crossing would be elevated and would not require the use of the trail or interfere with its use. The new crossing for the southbound SR-57 off-ramp to Metropolitan Drive/The City Drive would be nearly at grade with the existing Santa Ana River Trail, severing the existing bike trail. Mitigation is proposed in Section 4.10 to vertically re-align the trail at this location to provide a grade separation and allow continued and full use of the Santa Ana River Trail, once construction is completed. Therefore, there would be no direct use of the Santa Ana River Trail since it would continue the current use of this facility. There would be temporary easements required for construction that would necessitate detours for the trail. Coordination with the OCPF&RD and with bicycle advocacy groups will be undertaken as part of the Traffic Management Plan to create detours (see Section 4.15).

B. NO BUILD ALTERNATIVE

Because there would be no construction associated with the No Build Alternative, other than that addressed in other environmental documents, this alternative would not result in a use of the Santa Ana River Trail.

C. TSM/EXPANDED BUS SERVICE ALTERNATIVE

Because there would be no construction within or adjacent to the Santa Ana River Trail right-of-way associated with the TSM/Expanded Bus Service Alternative, this alternative would not result in a use of the Santa Ana River Trail.

D. FULL BUILD ALTERNATIVE

As part of the Full Build Alternative, three new crossings of the Santa Ana River Trail would be constructed and the existing SR-22 crossing would be widened slightly. The widened SR-22 crossing, the new northbound I-5/southbound SR-57 to westbound SR-22 connector crossing, and the east end of the new Pacific Electric Arterial Bridge would be elevated and would not require use of the trail or interfere with its use. The new crossing for the southbound SR-57 off-ramp to Metropolitan Drive/The City Drive would be nearly at grade with the existing Santa Ana River Trail, severing the existing bike trail. In addition, the west end of the Pacific Electric Arterial Bridge would be nearly at grade with the pedestrian/equestrian portion of the Santa Ana River Trail, precluding that use on the west side of the river. Mitigation is proposed in Section 4.10 to vertically re-align the trail at both of these locations to provide grade separations and allow continued and full use of the Santa Ana River Trail once construction is completed.

The realignment of the trail would be temporary and minor in the scope of work. Temporary easements for construction would necessitate detours for the trail. Coordination with the OCPF&RD and with bicycle advocacy groups will be undertaken as part of the Traffic Management Plan (see Section 4.15). Furthermore, there is no anticipated permanent use or interference with the activities or purposes of the trail. Its current use would continue after construction.

9.3.3 Santiago Creek Trail**A. (ENHANCED) REDUCED BUILD ALTERNATIVE**

There would be no direct use of this trail. A small amount of vegetation would be removed, but this physical change would not constitute a constructive use as the trail would continue to function as a hiking trail.

B. NO BUILD

There would be no direct or constructive use of this trail as the No Build Alternative would not involve construction other than for projects already planned.

C. TSM/EXPANDED BUS SERVICE ALTERNATIVE

There would be no use of this trail arising from the TSM/Expanded Bus Service Alternative, as no construction would take place at or near the Santiago Creek Trail.

D. FULL BUILD ALTERNATIVE

See description under 9.3.3 A above, for the (Enhanced) Reduced Build Alternative.

9.3.4 Pacific Electric Santa Ana River Bridge**A. (ENHANCED) REDUCED BUILD ALTERNATIVE**

The Pacific Electric Arterial proposed in the Full Build Alternative would not be part of the (Enhanced) Reduced Build Alternative. Thus, the (Enhanced) Reduced Build Alternative would not result in any uses of the Pacific Electric Santa Ana River Bridge.

B. NO BUILD ALTERNATIVE

Because there would be no construction associated with the No Build Alternative, other than that addressed in other environmental documents, this alternative would not result in a use of the Pacific Electric Santa Ana River Bridge.

C. TSM/EXPANDED BUS SERVICE ALTERNATIVE

Because there would be no construction within the former Pacific Electric right-of-way associated with the TSM/Expanded Bus Service Alternative, this alternative would not result in a use of the Pacific Electric Santa Ana River Bridge.

D. FULL BUILD ALTERNATIVE

The Pacific Electric Santa Ana River Bridge is within the Pacific Electric right-of-way segment of the Full Build Alternative. As discussed above for the proposed Pacific Electric Right-of-Way Trail, a new arterial would be placed in the former Pacific Electric right-of-way, and a new bridge would be built across the Santa Ana River. This construction would require the removal of the Pacific Electric Santa Ana River Bridge, which has been determined to be eligible for the National Register of Historic Places. This would be a direct use as defined by the Department of Transportation Act of 1983, 49 USC Section 21 and an adverse effect under Section 106 of the NHPA.

9.3.5 Parks and Schools

A. (ENHANCED) REDUCED BUILD ALTERNATIVE

There would be no direct use of any of the parks listed in Section 9.2.1. Possible constructive use of parks is discussed in the following sections. All schools in the project study area are not considered 4(f) resources (see Sections 3.10.3, and 9.2.2, above).

9.3.5.1 Parks

Noise levels are expected to worsen slightly at Almond Park and Blue Bell Park in the City of Seal Beach (see Table 4.9-5). Existing soundwalls will remain in place; at 4.9 to 5.5 meters, these are the highest walls available and replacement is not feasible. Noise level changes at Almond Park (68 to 70 dBA) and at Blue Bell Park (67 to 69 dBA) are unlikely to affect the use of the park (children's play equipment and tennis and basketball courts), as these activities do not require low noise levels. No vegetation would be removed and there would be no reduction in access to the parks; therefore, there would be no constructive use of either park.

Noise levels at Garden Grove Park (same location as Bolsa Grande High School athletic area) would drop with mitigation proposed (from 69 to 64 dBA). Some landscaping would be removed near the freeway right-of-way; however, substantial foliage would remain in this large park. Accessibility to the park would not be impeded. Therefore, no constructive use would occur.

At the Pacific Electric Commemorative Area, traffic noise levels are predicted to lessen (from 70 to 62 dBA) with proposed mitigation. There would be no loss of vegetation or accessibility, so there would be no constructive use of the Pacific Electric Commemorative Area.

There would be no constructive use of Eldridge Park as no landscaping would be removed and (with proposed sound walls) there would be no increase in traffic noise. Access would remain uninterrupted, both during and after construction.

Neither Riverview Municipal Golf Course nor Hart Park in Orange would lose any vegetation, and no increase in traffic noise is predicted (see Section 4.9). Accessibility would not be affected. Both of these resources are about 0.75 km from the project perimeter. No constructive use would occur at either park.

Accessibility would not be affected at the athletic fields adjoining Spurgeon Intermediate School. However, traffic noise would increase by 9 dBA, even with proposed mitigation. This would constitute a constructive use of this resource.

B. NO BUILD ALTERNATIVE

There would be no direct or constructive use of any parks as there would be no construction (other than what has already been programmed in other documents).

C. TSM/EXPANDED BUS SERVICE ALTERNATIVE

There would be no direct or constructive use of any parks as there would be no construction at or near the parks and schools listed in 9.2.1.

D. FULL BUILD ALTERNATIVE

See discussion above under the (Enhanced) Reduced Build Alternative. Construction of the Pacific Electric Arterial would directly use both the Pacific Electric Right-of-Way Trail (proposed) and the Pacific Electric Santa Ana River Bridge, as described in Section 9.3, above.

9.4 AVOIDANCE ALTERNATIVES

Alternatives that would avoid use of the Pacific Electric Right-of-Way Trail and Pacific Electric Santa Ana River Bridge were either identified from previous alternatives that were withdrawn from consideration or developed as part of the Section 4(f) analysis. The identified Preferred Alternative, the (Enhanced) Reduced Build, does not use any Section 4(f) resource directly, and therefore, does not appear to be a constructive use. A summary of the alternatives is provided at the end of this section in Tables 9.4-1 and 9.4-2. The discussions of Alternatives Withdrawn from Consideration and the Avoidance Alternatives for the Pacific Electric Right-of-Way Trail and the Pacific Electric Santa Ana River Bridge pertain ONLY to the Full Build Alternative, as this is the only alternative which would use these two resources.

A. ALTERNATIVES WITHDRAWN FROM CONSIDERATION

Section 2.3 of the FEIS/EIR discusses reasons why each of the alternatives listed in this section was not included for further consideration.

Alternative 3: Fixed Guideway. The Fixed Guideway would link two existing systems extending from the Santa Ana Transportation Center/Metrolink station on the east to the Los Angeles County Metropolitan Transportation Authority (MTA) Blue Line on the west. The Fixed Guideway alignment running between the Los Angeles County/Orange County line in Seal Beach and the Santa Ana Transportation Center would follow along SR-22, the Pacific Electric Right-of-Way, Santa Ana Boulevard, and Fourth Street through central Santa Ana. This alternative would directly use the Pacific Electric right-of-way and the Pacific Electric Santa Ana River Bridge.

Alternative 4A: General- Purpose Lanes. This alternative would include the addition of a general-purpose lane on SR-22 in each direction from I-405 to SR-55. The Pacific Electric arterial would not be part of this alternative. Thus, Alternative 4A would not result in any uses of the proposed Pacific Electric Right-of-Way Trail.

Alternative 5: HOV Lanes on SR-22. The HOV Lane on SR-22 alternative would add an HOV lane to SR-22 between Valley View Street and SR-55, as incorporated in the SCAG 1998 *Regional Transportation Plan*². The HOV lane in each direction would end at the terminal freeway-to-freeway interchanges. The Pacific Electric arterial would not be part of this alternative. Thus, this alternative would not result in any uses of the proposed Pacific Electric Right-of-Way Trail.

Alternative 6B: HOV Lanes Full System Alternative. This alternative would include the addition of one HOV lane on SR-22 in each direction from I-605 to SR-55 (an additional HOV lane in each direction would be added to the segment of I-405 between I-605 and SR-22). This sub-alternative would also include HOV direct connector ramps at the I-605/I-405 interchange, I-405/SR-22 interchange, I-5/SR-22 interchange, and the SR-22/SR-55 interchange. The Pacific Electric arterial would not be part of this alternative. Thus, this alternative would not result in any uses of the proposed Pacific Electric Right-of-Way Trail.

B. SECTION 4(f) AVOIDANCE ALTERNATIVES

Arterial to the North. Realigning the arterial to the north and immediately adjacent to the former Pacific Electric right-of-way would avoid use of the proposed Pacific Electric Right-of-Way Trail, but could result in increased noise levels and visual impacts to future trail users. While avoiding any direct use of the proposed trail, this avoidance alternative would result in substantial right-of-way impacts. This alternative would require the additional acquisition of at least 25 businesses and 50 residences and result in substantial new noise and visual impacts to surrounding properties.

In addition, the realignment would result in direct impacts to the Pacific Electric Santa Ana River Bridge. The elevated noise, change in the visual and aesthetic qualities of the bridge due to the

² Available at OCTA.

change in the setting, and vibration impacts may result in degrading the qualities that make this Section 4(f) property eligible for the NRHP. This alternative would not avoid use of all Section 4(f) properties, due to the proximity impacts of the proposed adjacent arterial and its potential constructive use of the Pacific Electric Santa Ana River Bridge.

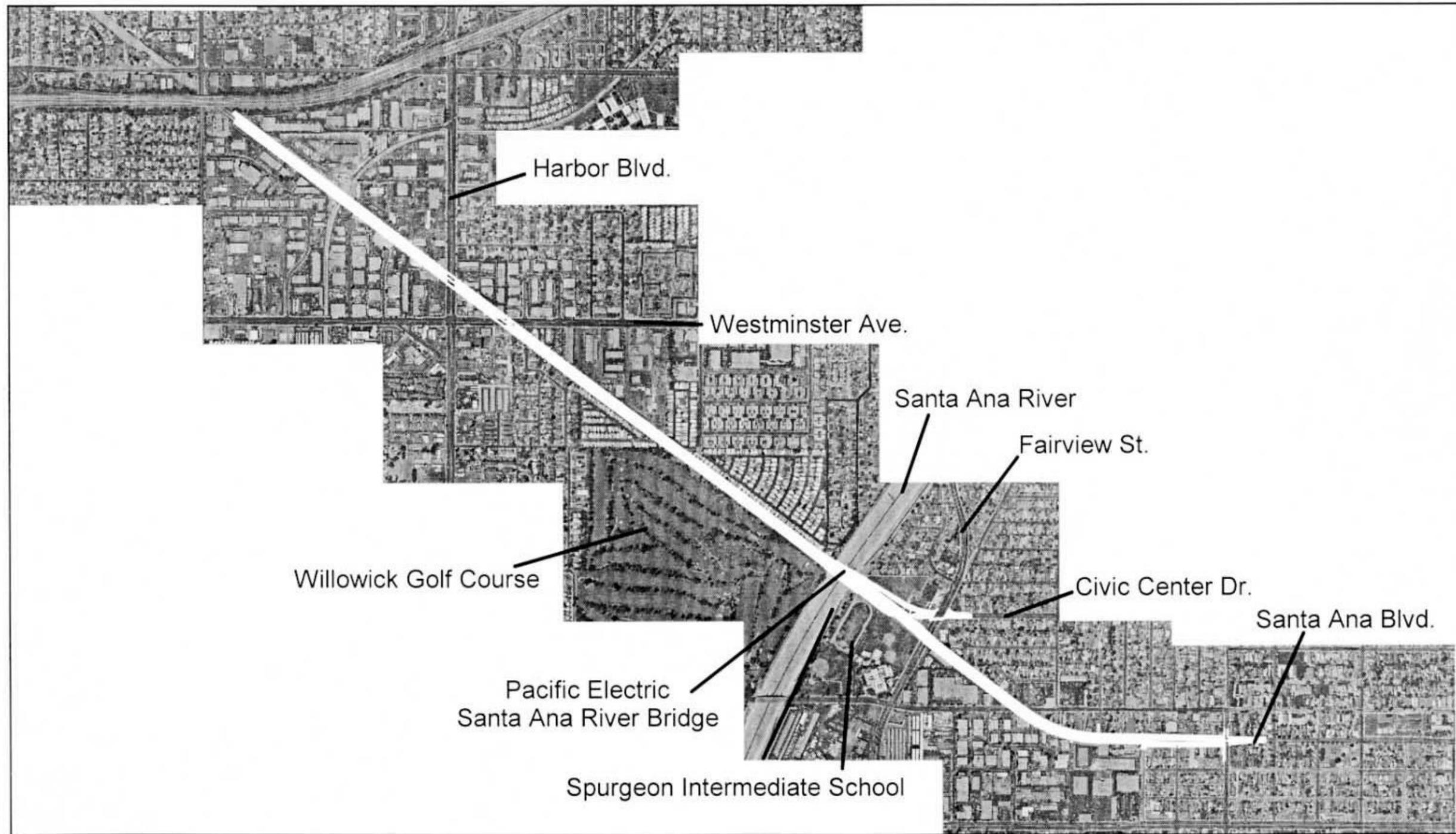
Arterial to the South. Realigning the arterial to the south and immediately adjacent to the former Pacific Electric right-of-way would not result in a use of the proposed Pacific Electric Right-of-Way Trail, but could result in increased noise levels and visual impacts to future trail users. This avoidance alternative would also result in substantial right-of-way impacts, requiring additional acquisition of at least 20 businesses and 30 residences. It would result in substantial new noise and visual impacts to surrounding properties, and would also result in partial acquisition of the Willowick Golf Course and recreational fields at Spurgeon Intermediate School, both Section 4(f) resources.

Like the Arterial to the North Alternative, realignment to the south may still result in substantial direct impacts on the Pacific Electric Santa Ana River Bridge. The elevated noise, change in the visual and aesthetic qualities of the bridge due to the change in the setting, and vibration impacts may result in degrading the qualities that make this Section 4(f) property eligible for the NRHP. This alternative would not avoid use of all Section 4(f) properties, due to the proximity impacts of the proposed adjacent arterial and its potential use of the Willowick Golf Course, Spurgeon Park, and the Pacific Electric Santa Ana River Bridge, as well as the additional displacement impacts.

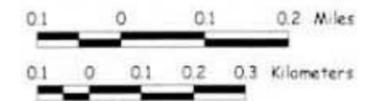
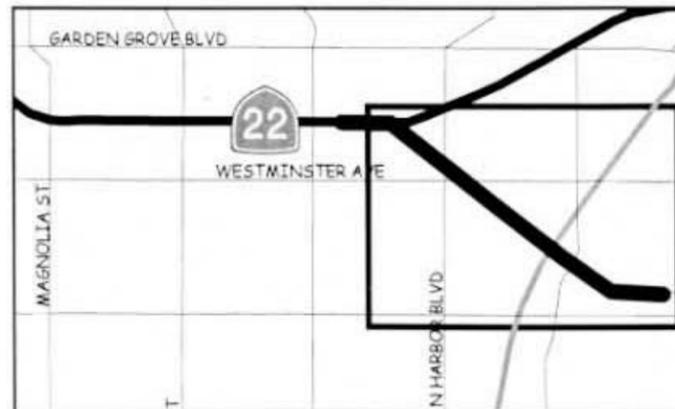
Contra-Flow Arterial within Existing Right-of-Way. This alternative would provide two contra-flow arterial lanes and the transit reserve within the existing Pacific Electric right-of-way in addition to providing space for the proposed Pacific Electric Right-of-Way Trail. A contra-flow facility would operate as a one-way facility during peak traffic hours in the direction of the peak demand (probably south in the morning and north in the evening peak hours). This alternative, while not precluding the trail, could result in substantial noise and visual impacts on future trail users. This alternative would not require additional acquisition of properties, but would still require removal of the Pacific Electric Santa Ana River Bridge. This alternative would therefore not avoid use of all Section 4(f) properties.

Contra-Flow Arterial within Existing Right-of-Way terminating at Harbor Boulevard. In this alternative, the contra-flow facility would terminate southeast at Harbor Boulevard, thereby avoiding use of the Pacific Electric Santa Ana River Bridge. While feasible, this alternative would not be prudent because the purpose of providing an arterial in this location (either bi-directional or contra-flow) would be to give traffic a more direct route between SR-22 and downtown Santa Ana. Terminating at Harbor Boulevard does not provide direct access to downtown Santa Ana and would only add to increasing congestion on this roadway.

Roadway within Santa Ana River Terminating at First Street. This avoidance alternative would include constructing a limited-access facility within the Santa Ana River between SR-22 and First Street in Santa Ana. The facility would be constructed on a structure the entire length of the river. This alternative would avoid any use of the proposed Pacific Electric Right-of-Way Trail and also the Pacific Electric Santa Ana River Bridge. It would, however, require the removal of the River View Golf Course and potentially result in a constructive use of the Santa Ana River Trail due to noise and visual impacts. Both the golf course and trail are Section 4(f) properties located within and along the Santa Ana River. It is also likely that other substantial environmental impacts on surrounding properties would occur such as increased noise levels and visual impacts of an elevated structure. Providing an elevated arterial within the river would be feasible. This alternative, however, would not avoid all Section 4(f) resources due to the use of River View Golf Course and potential constructive use of the Santa Ana River Trail.

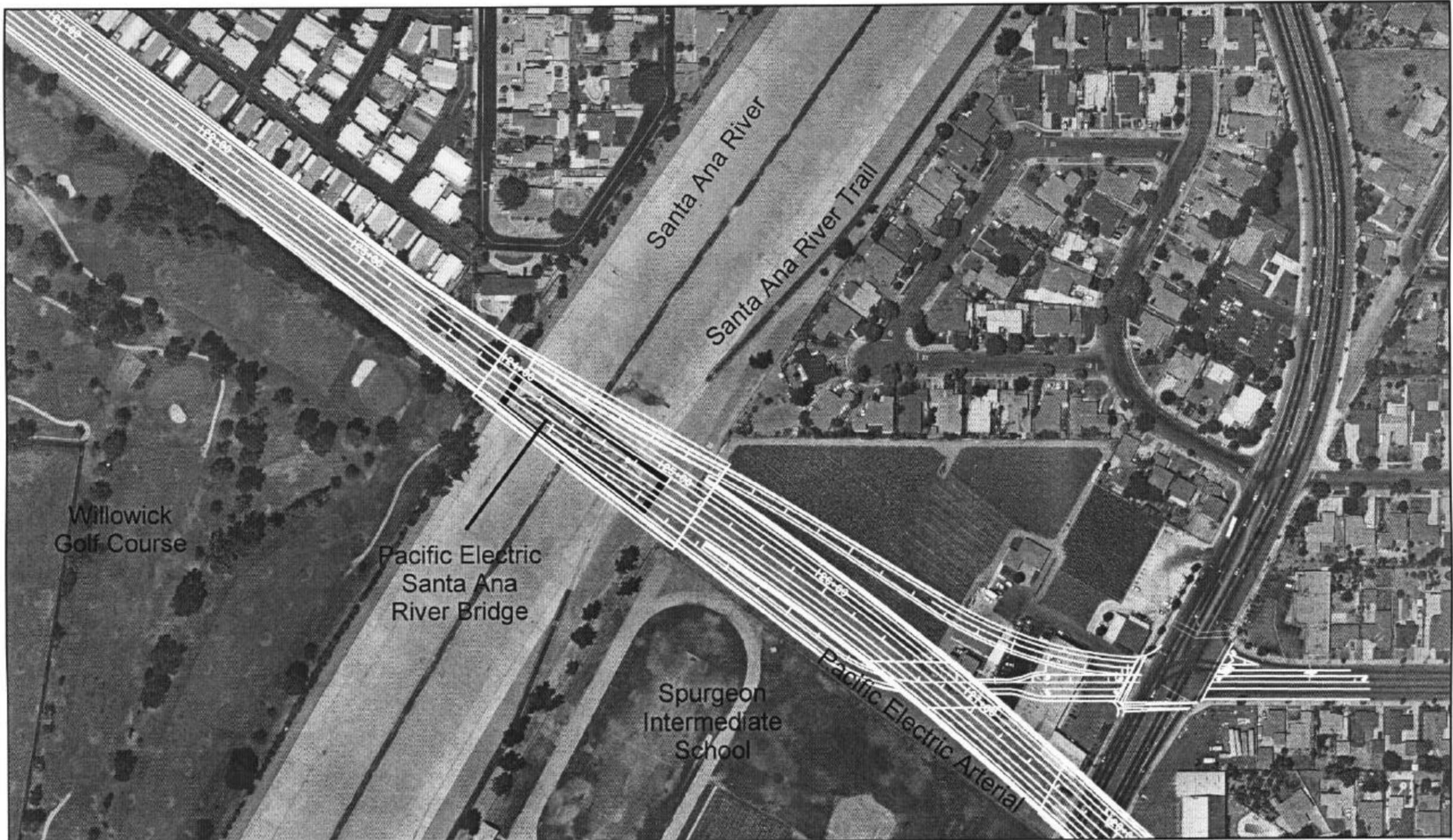


Source: ESRI 1998; Orthographic Photography: Landata Airborne Systems, Inc. January, 1997.

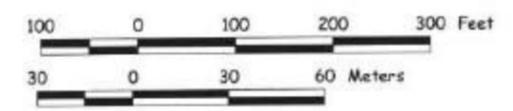
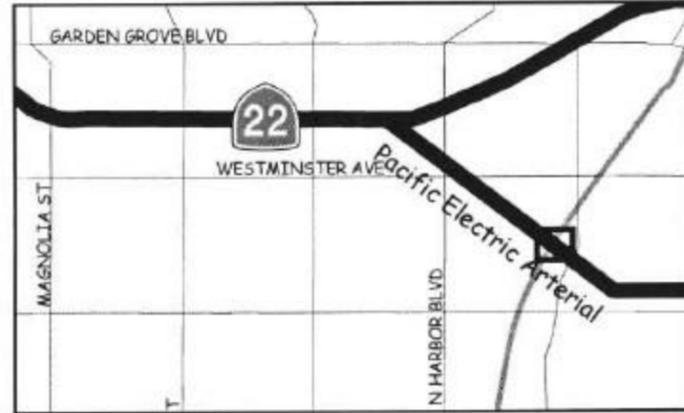


SR-22 / West Orange County Connection Project
 Full Build Alternative - Pacific Electric Arterial

Figure 9.3-1



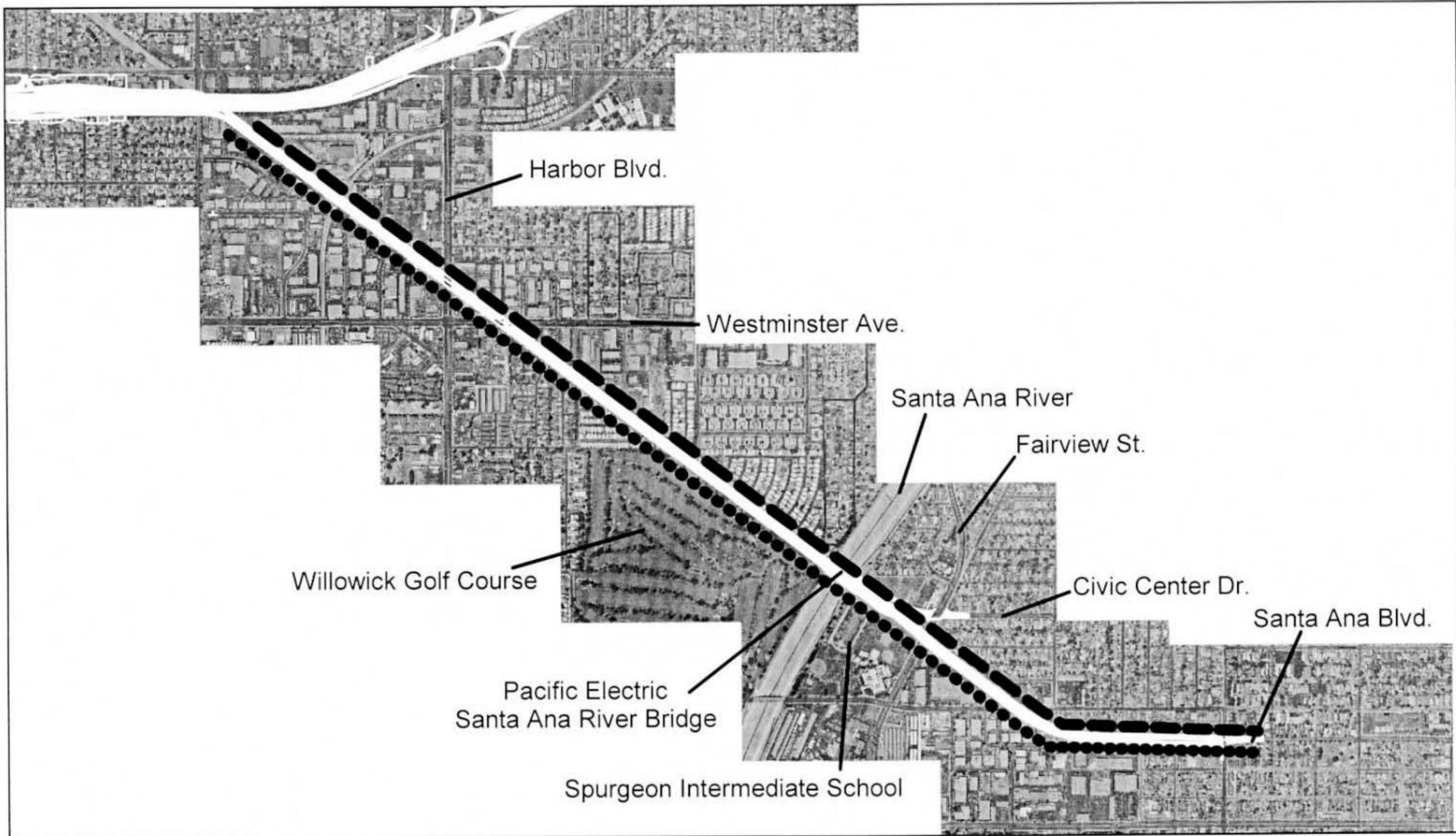
Source: ESRI 1998; Orthographic Photography: Landata Airborne Systems, Inc. January, 1997.



SR-22 / West Orange County Connection Project

Full Build Alternative Impacts on Pacific Electric Santa Ana River Bridge

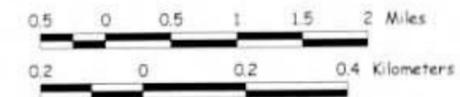
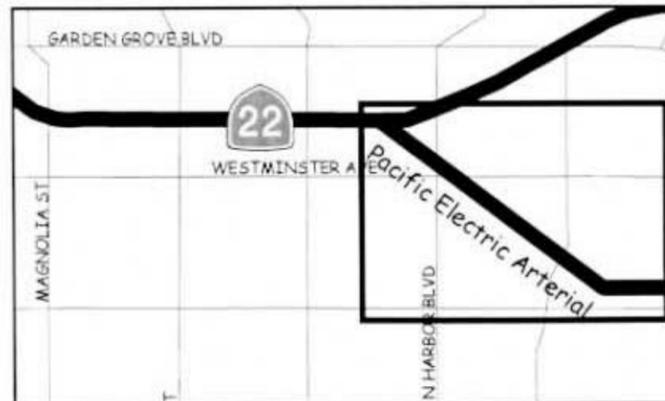
Figure 9.3-2



Source: ESRI 1998; Orthographic Photography: Landata Airborne Systems, Inc. January, 1997.

LEGEND

-  North Avoidance Alternative
-  South Avoidance Alternative



SR-22 / West Orange County Connection Project
 Arterial to the North and South - Avoidance Alternative

Figure 9.4-1

9.4.2 Pacific Electric Santa Ana River Bridge

A. ALTERNATIVES WITHDRAWN FROM CONSIDERATION

Refer to Section 9.4.1 for a description of the following alternatives. Section 2.3 of the FEIS/EIR includes a discussion as to why each of the alternatives was not included for further consideration.

Alternative 3: Fixed Guideway. As discussed above, this alternative may avoid use of the proposed Pacific Electric Right-of-Way Trail, but would still require the removal of the Pacific Electric Santa Ana River Bridge and would therefore not avoid use of all Section 4(f) properties.

Alternative 4A: General-Purpose Lanes. The Pacific Electric Arterial would not be part of this alternative and would therefore not result in any uses of the Pacific Electric Santa Ana River Bridge.

Alternative 5: HOV Lanes on SR-22. The Pacific Electric Arterial would not be part of this alternative and would therefore not result in any uses of the Pacific Electric Santa Ana River Bridge.

Alternative 6B: HOV Lanes Full System Alternative. The Pacific Electric Arterial would not be part of this alternative and would therefore not result in any uses of the Pacific Electric Santa Ana River Bridge.

B. AVOIDANCE ALTERNATIVES

Arterial to the North. Realigning the arterial to the north and immediately adjacent to the former Pacific Electric right-of-way may still result in substantial indirect uses of the Pacific Electric Santa Ana River Bridge. The indirect uses of the bridge could result in degrading the qualities that make this Section 4(f) property eligible for the NRHP. This alternative would not avoid use of all Section 4(f) properties, due to its potential use of the Pacific Electric Santa Ana River Bridge as well as the additional displacement impacts that would occur.

Arterial to the South. Realigning the arterial to the south and immediately adjacent to the former Pacific Electric right-of-way would result in partial acquisition of the Willowick Golf Course and recreational fields at Spurgeon Intermediate School, both Section 4(f) properties. This alternative may still result in substantial indirect uses of the Pacific Electric Santa Ana River Bridge and may result in degrading the qualities that make this Section 4(f) property eligible for the NRHP. This alternative would not avoid use of all Section 4(f) properties due to its potential use of the Willowick Golf Course, Spurgeon Intermediate School, and the Pacific Electric Santa Ana River Bridge, as well as the additional displacement impacts that would occur.

Contra-Flow Arterial within Existing Right-of-Way. As discussed above, although this alternative avoids the use of the Pacific Electric Right-of-Way Trail, the alternative and would still require removal of the Pacific Electric Santa Ana River Bridge. This alternative would therefore not avoid use of all Section 4(f) properties

Contra-Flow Arterial within Existing Right-of-Way Terminating at Harbor Boulevard. This alternative avoids any use of the Pacific Electric Santa Ana River Bridge, but would not be prudent because the purpose of providing an arterial in this location would not be met as discussed in Section 9.4.1.

Roadway within Santa Ana River Terminating at First Street. This avoidance alternative would avoid any use of the Pacific Electric Santa Ana River Bridge and the proposed Pacific Electric Right-of-Way Trail. This alternative, however, would use the River View Golf Course and potentially result in constructive use of the Santa Ana River Trail, located within and along the Santa Ana River. Furthermore, this alternative would not be prudent due to the high cost associated with constructing an arterial roadway on a structure from SR-22 to First Street.

9.5 MEASURES TO MINIMIZE HARM

9.5.1 Measures to Minimize Harm at the Proposed Pacific Electric Right-of-Way Trail

The identified Preferred Alternative avoids use of the Pacific Electric Right-of-Way Trail.

Since the Full Build Alternative was not identified as the Preferred Alternative, use of the proposed Pacific Electric Right-of-Way Trail would not be considered for full discussion in this Final 4(f) Evaluation. Should the Full Build Alternative be identified as the Preferred Alternative at a later time, a Section 4(f) evaluation would then be undertaken.

9.5.2 Measures to Minimize Harm at the Pacific Electric Santa Ana River Bridge

The identified Preferred Alternative avoids any use of the Pacific Electric Santa Ana River Bridge.

Since the Full Build Alternative was not identified as the Preferred Alternative as part of this proposed project, use of the Bridge by this alternative would not be considered for full discussion in this Final 4(f) Evaluation.

9.5.3 Temporary Easement during Construction

Temporary construction easements would be required at the Santa Ana River Trail/Bikeway for either build alternative. Based upon stipulations included in the FHWA 4(f) Policy Paper (September 24, 1987, Revised June 7, 1989), this would not constitute a use of this resource under Section 4(f) because:

- Occupancy and use of the Trail/Bikeway will be of short duration and less than the time needed for construction of the project;
- Ownership of the resource will not change;
- There will be no temporary or permanent adverse change to the activities, features or attributes of the trail; and
- A minor amount of the trail will be occupied during construction of the project. The trail is approximately 35 kilometers (21.5 miles) long; about 1 km of this length would be occupied for construction easement. The Traffic Management Plan (TMP) will address establishment of safe alternate routes for cyclists and pedestrians during construction on adjacent surface streets. Most of the trail will remain accessible to the public during construction as well. Once construction is complete, the trail will re-open along its original route, with no reduction in landscaping or accessibility.

The County of Orange Public Facilities and Resources Department indicated on June 27, 2002, that for the above-listed reasons, temporary occupancy of the bicycle trail is not a use under 23 CFR 771.135 (p)(7)(v). (See Appendix H).

9.6 COORDINATION WITH PUBLIC AGENCIES AND PROPERTY OWNERS REGARDING SECTION 4(f) PROPERTIES

Institutions and agencies consulted between April 1998 and July 1999 during the course of cultural resources and other Section 4(f) property investigations included the following:

- State Historic Preservation Office (SHPO)
- Orange County Historical Commission
- Orange County Historical Society
- Santa Ana Historical Preservation Society
- University of California, Los Angeles, South Central Coastal Information Center
- California Department of Transportation, District 12, Environmental Planning Branch
- Native American Heritage Commission, Sacred Lands File
- Gabrieleno/Tongva Tribal Council
- Juaneno Band of Mission Indians

- Gabrieleno Tribe
- City of Orange Planning Department
- City of Garden Grove Planning Department
- City of Westminster Planning Department
- City of Santa Ana Planning Department
- City of Seal Beach Planning Department
- Santa Ana Public Library
- Orange County Public Facilities Department (See Appendix H)

Public input during the investigation process for cultural resources was solicited using letters of request, telephone contact and personal interviews conducted during the physical survey. Contacts included the Native American Heritage Commission, historical societies for each municipality, cultural resource division of local planning departments, and oral histories taken from property owners. In addition, the SHPO was contacted for documentation of the Pacific Electric Santa Ana River Bridge. The SHPO provided a copy of the State (Historical) Resource Inventory form on file for the bridge structure.

Other coordination efforts included the following:

- Publication of the Notice of Intent in the *Federal Register* on June 3, 1998;
- Distribution of the Notice of Preparation of a Draft EIR/EIS to all the local city councils, the State Native American Heritage Commission, the State Department of Parks and Recreation, and other interested agencies and members of the public;
- Three public information meetings held in December of 1997; and
- A Public Scoping meeting held on June 23, 1998.

Ongoing coordination with the SHPO includes their review of the HPSR and related materials. The SHPO concurred on February 9, 2001 that the Full Build Alternative would have adverse effects on the Pacific Electric/Santa Ana Bridge. It also concurred that the Reduced Build Alternative, if selected as the Preferred Alternative, will have no effect on historic properties. This letter is available in Appendix E in Volume II of the August 2001 DEIR/EIS.

The SHPO also concurred in June 2002 that no properties within the APE are eligible for the NRHP other than the Pacific Electric Santa Ana River Bridge (previously determined eligible).

CONCLUSION

The (Enhanced) Reduced Build has been identified as the Preferred Alternative for the SR-22/West Orange County Connector. Based upon the foregoing discussions, no direct or constructive use of any 4(f) resource has been identified for this alternative.

**Table 9.4-1
COMPARISON OF ALTERNATIVES AT THE PACIFIC ELECTRIC RIGHT-OF-WAY TRAIL**

	Uses of other Section 4(f) Resources	Other Right-of-Way Needed	Additional Property Acquisitions	Engineering Considerations	Benefits
(Enhanced) Reduced Build	None	None	None	None	<ul style="list-style-type: none"> • Avoids proposed Trail & Santa Ana River Bridge • Minimizes environmental impacts • Avoids proposed Trail and Santa Ana River Bridge
No Build	None	None	None	None	
TSM/Expanded Bus Service	None	None	None	None	<ul style="list-style-type: none"> • Minimizes environmental impacts • Avoids proposed Trail and Santa Ana River Bridge
Full Build	<ul style="list-style-type: none"> • Use of the Pacific Electric Right-of-Way Trail and Pacific Electric Santa Ana River Bridge • Removal of Pacific Electric Santa Ana River Bridge 	None	None		<ul style="list-style-type: none"> • None
Fixed Guideway	<ul style="list-style-type: none"> • Increased noise levels on Trail • Visual impacts on Trail • Use of Santa Ana River Bridge 	None	None	None	<ul style="list-style-type: none"> • Avoids proposed Trail
General-Purpose Lanes	None	None	None	None	<ul style="list-style-type: none"> • Avoids proposed Trail & Santa Ana River Bridge
HOV Lanes on SR-22	None	None	None	None	<ul style="list-style-type: none"> • Avoids proposed Trail & Santa Ana River Bridge
HOV Lanes Full System Alternative	None	None	None	None	<ul style="list-style-type: none"> • Avoids proposed Trail & Santa Ana River Bridge
Arterial to the North	<ul style="list-style-type: none"> • Increased noise levels on Trail • Visual impacts on Trail • Indirect impacts on Santa Ana River Bridge 	6.68 hectares (16.5 acres)	<ul style="list-style-type: none"> • 25 Businesses • 50 Residences 	None	<ul style="list-style-type: none"> • Avoids proposed Trail & Santa Ana River Bridge
Arterial to the South	<ul style="list-style-type: none"> • Increased noise levels on Trail • Visual impacts on Trail • Indirect uses of Santa Ana River Bridge • Use of Willowick Golf Course & Spurgeon Intermediate School 	6.68 hectares (16.5 acres)	<ul style="list-style-type: none"> • 20 Businesses • 30 Residences 	None	<ul style="list-style-type: none"> • Avoids proposed Trail & Santa Ana River Bridge
Contra-Flow Arterial within Existing Right-of-Way	<ul style="list-style-type: none"> • Increased noise levels on Trail • Visual impacts on Trail • Use of Santa Ana River Bridge 	None	None	None	<ul style="list-style-type: none"> • Avoids proposed Trail
Contra-Flow Arterial within Existing Right-of-Way Terminating at Harbor Boulevard	<ul style="list-style-type: none"> • Increased noise levels on Trail. • Visual impacts on Trail. 	None	None	None	<ul style="list-style-type: none"> • Avoids proposed Trail & Santa Ana River Bridge
Roadway within Santa Ana River Terminating at First Street	<ul style="list-style-type: none"> • Use of River View Golf Course • Potential constructive use of Santa Ana River Trail 	Easement within Santa Ana River	None	Major issues with building in the river	<ul style="list-style-type: none"> • Avoids proposed Trail & Santa Ana River Bridge

**Table 9.4-2
COMPARISON OF ALTERNATIVES AT THE PACIFIC ELECTRIC SANTA ANA RIVER BRIDGE**

Avoidance Alternative	Uses of Other Section 4(f) Resources	Other Right-of-Way Needed	Additional Property Acquisitions	Engineering Considerations	Benefits
(Enhanced) Reduced Build	None	None	None	None	<ul style="list-style-type: none"> • Avoids Santa Ana River Bridge and proposed Trail • Minimizes environmental impacts • Avoids Santa Ana River Bridge and proposed Trail
No Build	None	None	None	None	
TSM/ Expanded Bus Service	None	None	None	None	<ul style="list-style-type: none"> • Minimizes environmental impacts • Avoids Santa Ana River Bridge and proposed Trail
Full Build	<ul style="list-style-type: none"> • Use of the Pacific Electric Right-of-Way Trail and Pacific Electric Santa Ana River Bridge • Removal of Pacific Electric Santa Ana River Bridge 	None	None		<ul style="list-style-type: none"> • None
Fixed Guideway	<ul style="list-style-type: none"> • Increased noise levels on Trail • Visual impacts on Trail 	None	None	None	<ul style="list-style-type: none"> • Avoids proposed Trail
General-Purpose Lanes	None	None	None	None	<ul style="list-style-type: none"> • Avoids Santa Ana River Bridge and proposed Trail
HOV Lanes on SR-22	None	None	None	None	<ul style="list-style-type: none"> • Avoids Santa Ana River Bridge and proposed Trail
HOV Lanes Full System Alternative	None	None	None	None	<ul style="list-style-type: none"> • Avoids Santa Ana River Bridge and proposed Trail
Arterial to the North	<ul style="list-style-type: none"> • Increased noise levels on Trail • Visual impacts on Trail • Indirect uses of Santa Ana River Bridge 	6.68 hectares (16.5 acres)	<ul style="list-style-type: none"> • 25 Businesses • 50 Residences 	None	<ul style="list-style-type: none"> • Avoids Santa Ana River Bridge and proposed Trail
Arterial to the South	<ul style="list-style-type: none"> • Increased noise levels on Trail • Visual impacts on Trail • Indirect uses of Santa Ana River Bridge • Use of Willowick Golf Course & Spurgeon Intermediate School 	6.68 hectares (16.5 acres)	<ul style="list-style-type: none"> • 20 Businesses • 30 Residences 	None	<ul style="list-style-type: none"> • Avoids Santa Ana River Bridge and proposed Trail
Contra-Flow Arterial within Existing Right-of-Way	<ul style="list-style-type: none"> • Increased noise on Trail • Visual impacts on Trail 	None	None	None	<ul style="list-style-type: none"> • Avoids proposed Trail
Contra-Flow Arterial within Existing Right-of-Way Terminating at Harbor Boulevard	<ul style="list-style-type: none"> • Increased noise levels on Trail • Visual impacts on Trail 	None	None	None	<ul style="list-style-type: none"> • Avoids Santa Ana River Bridge and proposed Trail
Roadway within Santa Ana River Terminating at First Street	<ul style="list-style-type: none"> • Use of River View Golf Course • Potential constructive use of Santa Ana River Trail 	Easement within Santa Ana River	None	Major issues with building in the river	<ul style="list-style-type: none"> • Avoids Santa Ana River Bridge and proposed Trail

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