

San Ysidro Land Port of Entry Improvements Project

San Ysidro, California

Draft Environmental Impact Statement



Prepared by the
United States General Services Administration



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GENERAL INFORMATION ABOUT THIS DOCUMENT

The U.S. General Services Administration (GSA) proposes the reconfiguration and expansion of the existing San Ysidro Land Port of Entry (LPOE). The San Ysidro LPOE is located along Interstate 5 at the U.S.-Mexico border in the San Ysidro community of San Diego, California. The GSA has prepared this Draft Environmental Impact Statement (EIS), which examines the reason the Project is being proposed; alternatives for the Project; the existing environment that could be affected by the Project; the potential impacts resulting from each of the alternatives; and the proposed avoidance, minimization, and/or mitigation measures.

Comments on the Draft EIS may be submitted through the end of the 45-day comment period (by June 22, 2009), which will commence with the U.S. Environmental Protection Agency's publication of the *Federal Register* Notice of Availability for this document. Comments may be submitted in writing or by electronic mail to the GSA at the address, phone number, or email listed below.

After comments are received from the public and reviewing agencies, the GSA may (1) give environmental approval to the Project, (2) undertake additional environmental studies, or (3) abandon the Project. If the Project is given environmental approval and funding is appropriated, the GSA could design and construct all or part of the Project.

For individuals with sensory disabilities, this document can be made available in alternate formats. To obtain a copy in an alternate format, please call or write to the phone number, address or e-mail listed below.

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SUMMARY

SUMMARY

S.1 OVERVIEW OF THE PROJECT STUDY AREA

The General Services Administration (GSA) proposes the reconfiguration and expansion of the existing San Ysidro Land Port of Entry (LPOE). The San Ysidro LPOE is located along Interstate 5 (I-5) at the United States (U.S.)-Mexico border in the San Ysidro community of San Diego, California. The proposed San Ysidro LPOE improvements are herein referred to as the "Project."

The Project is located on the southern boundary of the San Ysidro Community Plan (SYCP) Area, which encompasses approximately 1,800 acres and is located about 14 miles southeast of Downtown San Diego. The SYCP Area is surrounded by the Tijuana River Valley to the west, State Route 905 (SR-905) and the Otay Mesa-Nestor community to the north, the Otay Mesa community to the east, and the U.S.-Mexico International Border to the south. The topography of the SYCP Area is mostly level, except for the northeast portion, which is dominated by hilly terrain. The Tijuana River Valley comprises most of the SYCP Area west of I-5. The topography transitions to steeper slopes immediately east of the Project Study Area.

The total area of the Project Study Area, which comprises the anticipated maximum extent of disturbance, including improvements, staging areas, and temporary impacts resulting from Project construction, encompasses approximately 50 acres. The central portion of the Project Study Area is currently occupied with transportation uses (i.e., roadways and freeways) and border facilities. Much of the remaining land, along the western and eastern sides of this central corridor, is occupied by a number of commercial establishments serving employees of the LPOE and the border-crossing population. Near the eastern edge of the Project Study Area is the terminus of the blue line trolley, which is located adjacent to the San Ysidro Intermodal Transportation Center. Just to the east of the transportation center is a small commercial strip, which includes a privately owned and operated long-haul bus depot, several retail shops, a market, and several fast food restaurants. At the northernmost end of this strip is a small paid parking lot. Across I-5 and along Camiones Way are a duty-free shop and a larger paid parking lot.

Land uses surrounding the Project Study Area are largely transportation-related (I-5, I-805, the freight rail line, the blue line trolley, and other transit facilities) and commercial. The central and western areas immediately surrounding the LPOE tend to be oriented toward those traveling to and from Mexico. The Plaza de Las Americas shopping center is a regional destination and occupies a large expanse of commercial land east of the LPOE along Camino de la Plaza. In the central commercial area that extends northward from the border between the I-5/I-805 interchange and the rail line is a more diverse assemblage of commercial spaces. Businesses in this area include paid parking lots, restaurants, motels, and Mexican insurance and currency exchange establishments. North of the I-5/I-805 interchange, along West San Ysidro Boulevard, is a mix of commercial, residential, and civic (i.e. schools and parks) land uses.

S.2 PURPOSE AND NEED

Purpose of the Project

The purpose of the Project is to improve operational efficiency, security, and safety for cross-border travelers and federal agencies at the San Ysidro LPOE.

Project goals include:

- Increase vehicle and pedestrian inspection processing capacities at the San Ysidro LPOE;
- Reduce northbound vehicle and pedestrian queues and wait times to cross the border;
- Improve the safety of the San Ysidro LPOE for vehicles and pedestrians crossing the border, and for employees at the LPOE;
- Modernize facilities to accommodate current and future demands and implementation of border security initiatives, such as the Western Hemisphere Travel Initiative (WHTI), the United States Visitor and Immigrant Status Indicator Technology program (US-VISIT), and the Secure Border Initiative (SBI).

Need for the Project

Capacity and Transportation Demand

The San Diego and Tijuana region is the largest urban border area along the entire U.S.-Mexico border, with a combined population of over four million people. The combined population of this area is anticipated to grow to over 5.5 million by 2020 (San Diego Association of Governments [SANDAG]/Caltrans 2006).

Two international LPOEs, San Ysidro and Otay Mesa, currently link San Diego and Tijuana, while a third LPOE is located east of the San Diego metropolitan area at Tecate. A fourth LPOE, Otay Mesa East, is currently in the early planning stages. Together, these LPOEs are intended to serve as the gateway for all pedestrian traffic and vehicular movement of people and goods between the San Diego region and Baja California, Mexico.

The San Ysidro LPOE is the busiest land port in North America. It is open 24 hours per day, seven days per week, and handles passenger vehicle, pedestrian, bus, and limited use rail traffic (commercial traffic in the region is currently restricted to the Otay Mesa and Tecate LPOEs). The San Ysidro LPOE currently processes approximately 50,000 northbound vehicles and 26,000 northbound pedestrians per day (SANDAG 2007). The existing San Ysidro LPOE has become a bottleneck in the system of interchange between the two countries, increasingly restricting the movement of passenger vehicles during peak times. Recent studies have estimated that existing wait times for vehicles at the San Ysidro LPOE average 1.5 to 2 hours during the commuter peak period (weekdays between 7:00 a.m. and 9:00 a.m.; KOA Corporation 2009). Queues of passenger vehicles during the same commuter peak period have been estimated to number approximately 2,900 vehicles (KOA Corporation 2009).

Improvements to the San Ysidro LPOE are needed because the capacities of the existing LPOEs in the region and the San Ysidro LPOE specifically are currently being exceeded, causing excessive border wait times. Cross-border travel is forecasted to continue to grow due to projected local and regional growth, and border delays are expected to increase correspondingly, placing a strain on existing border facilities and infrastructure at the San Ysidro

LPOE. It is estimated that maximum wait times would exceed three hours during the commuter peak period by the year 2014, and 10 hours by the year 2030 (KOA Corporation 2009). Pedestrian and passenger vehicle border crossings between the U.S. and Mexico have risen dramatically in the past decade, reaching over 60 million people in 2006 in the San Diego County/Baja California border area alone (SANDAG/Caltrans 2006). At the San Ysidro LPOE, it is anticipated that the total number of primary inspections will increase by approximately 28 percent by 2025 (Caltrans/GSA 2007). This increase in cross-border travel, in combination with recent increases in U.S. security requirements has resulted in facility and infrastructure-related challenges. The existing facilities and infrastructure were not designed to handle the current and projected traffic volumes processed at the San Ysidro LPOE.

In addition, over 750 U.S. Government employees work at the San Ysidro LPOE. Existing on-site parking is not adequate to meet around-the-clock employee parking demands. Large areas of the secondary inspection area have been converted to employee parking. Additional employee parking spaces are needed to improve operational efficiency and accommodate employee parking demands.

Because growth is outstripping capacity at the existing LPOE, improvements are necessary to expand capacity, improve processing efficiency, and reduce border wait times.

Safety and Border Security

In addition to the need to expand the San Ysidro LPOE to improve operational efficiencies, the Project will address public and employee safety and border security concerns. The layout of the existing facility compromises public and employee safety. The overcrossing is located directly above the primary inspection area, creating a potential risk in the event of a criminal incident within the inspection area below. The overcrossing also serves as the pedestrian route from East San Ysidro Boulevard into Mexico. No inspection of the southbound pedestrian traffic occurs on this overcrossing, creating similar potential safety and security issues in the event of criminal incidents. In addition, the LPOE Administrative Building is not sufficiently remote from the inspection area.

As previously discussed, large areas originally designed for secondary inspection have been converted to expand employee parking and accommodate a vehicle impound area. Movement through the remaining, constrained secondary inspection area is confusing for the public and creates the potential for vehicular and pedestrian conflicts because there is no clear separation between vehicular and pedestrian circulation.

Furthermore, the mandated implementation of border security programs, such as WHTI, US-VISIT, and SBI, requires modernization and facility upgrades. These programs require U.S. Department of Homeland Security (DHS) to implement new inspection technologies to track cross-border traffic at the San Ysidro LPOE. The WHTI plan, as directed by the Intelligence Reform and Terrorism Prevention Act of 2004, is designed to enhance U.S. border security while facilitating legitimate travel and trade. Under WHTI, travelers entering the U.S. must present specified documentation that proves both identity and citizenship. US-VISIT is a program that uses biometric data (digital finger scans and photographs) to verify travelers' identity and to check against a database of known criminals and suspected terrorists. The SBI is a multi-year plan to add more border patrol agents; expand illegal immigrant detention and removal capabilities; and upgrade border control technology, including manned/unmanned aerial assets, and detection technology; increase investment in border infrastructure improvements; and increase interior enforcement of U.S. immigration laws. In order to

implement these security programs, an increase in staff, space, and systems is needed, which cannot be accommodated within the existing configuration of the LPOE.

In summary, reconfiguration and expansion of the San Ysidro LPOE are necessary because: (1) the existing facility is undersized and requires modernization due to mandated security programs; and (2) the current configuration is inefficient and increases the potential for safety hazards and security concerns.

S.3 PROJECT DESCRIPTION

The Project entails the phased reconfiguration and expansion of the existing LPOE to improve operational efficiency, security, and safety for cross-border travelers and federal agencies at the San Ysidro LPOE. Two Project build alternatives were considered by a multi-disciplinary team during the Project design process, following a scoping meeting and consultation with the community. Because the Project concerns improvements to a LPOE, alternative Project locations were not considered since the precise location of such a facility requires a formal agreement between the Governments of the U.S. and Mexico. Improvements at the existing Otay Mesa LPOE and development of a new LPOE at Otay Mesa East have been shown to be needed with or without the Project, and plans to move forward at these other LPOEs are currently in process. Consequently, all the build alternatives considered represent design/operational variations at the existing LPOE location. The alternatives described and evaluated in this Draft Environmental Impact Statement (EIS) include the Preferred Alternative, the Pedestrian Crossing Alternative, and the No Build Alternative. After full consideration of the technical studies and analysis contained in this Draft EIS, GSA has identified the Preferred Alternative as the build alternative that would achieve the Project purpose and need while avoiding or minimizing environmental impacts.

Preferred Alternative

The Preferred Alternative would demolish most of the existing facilities and new facilities would be constructed, including new primary and secondary inspection areas, an administration building, a pedestrian building, a central plant, one pedestrian bridge, a parking structure, and other support structures. The only building considered for retention and renovation is the Old Customs House, which is currently undergoing a Section 106 consultation with the State Historic Preservation Officer (SHPO), pursuant to the National Historic Preservation Act (NHPA). The expanded facility would consist of approximately 210,000 gross square feet (gsf) of building space, 31 northbound inspection lanes, six southbound inspection lanes, two new southbound pedestrian crossings, and a new southbound roadway connecting with Mexico's planned El Chaparral LPOE facility. The Preferred Alternative would be constructed in three phases over a period of approximately four years, with some overlap of phases occurring. Each phase described below could function independently from subsequent phases without disrupting ongoing operations at the LPOE.

Phase 1 – Northbound Facilities

Proposed improvements in Phase 1 would primarily entail reconfiguration of the northbound facilities to increase inspection processing capacity and operational efficiency. Construction of Phase 1 is anticipated to begin in winter 2009/2010 with an estimated duration of 18 to 24 months.

Primary Inspection Area

The northbound primary vehicle inspection area would be reconfigured to include 24 inspection lanes, consisting of 23 standard vehicular lanes (12 feet wide) and one bus lane (14 feet wide). The standard vehicular lanes would include 46 horizontally stacked inspection booths. Stacked booths consist of two booths arranged in tandem that allow for the concurrent inspection of two cars per lane. The bus lane would include a single inspection. A portion of the primary vehicle inspection area would be covered with canopies. Vehicles cleared to enter the U.S. from the primary inspection area would be directed to northbound lanes that merge with I-5. A total of six northbound lanes (12 feet wide) would be constructed; three along the eastern portion of the LPOE, and three in the middle of the LPOE, creating a central island for secondary inspections and operations.

Secondary Inspection Area

The existing northbound secondary inspection area would be demolished, and a new secondary inspection and operations center island would be constructed. The new secondary inspection area would contain up to 35 inspection spaces and up to 19 inspection booths and would be covered with canopies. The access points to the secondary inspection area would be equipped with non-intrusive inspection facilities, such as gamma ray scanning equipment. A new east-west connector road would be constructed to the north of the secondary inspection area that would connect to the northbound lanes merging onto I-5.

Auto Seizure and Impound Facilities

North of the secondary inspection area, an approximately 2,700-gsf auto seizure building and impound facility would be constructed. This facility would include an impound parking lot to accommodate approximately 45 spaces for impounded vehicles, as well as two disabled spaces for employees at the auto seizures building. A portion of this area would be covered with canopies. Access would be provided from the new east-west connector road.

Operations Center

A new operations center building would be constructed immediately east of the secondary inspection area. The operations center building would encompass approximately 50,000 gsf on two floors, and would contain a new head house and an auto breakdown facility.

Employee Parking Structure

A multi-story employee parking structure would be constructed on the west side of southbound I-5 during Phase 1. The proposed parking structure would provide approximately 300 parking spaces on five levels (one below grade, and four above grade). A staff pedestrian bridge would also be constructed between the parking structure and the operations center. This structure would require the demolition of the former U.S. Border Patrol (USBP) building and reconfiguration of the Camiones Way turn-around. The existing Camiones Way turn-around would be relocated slightly to the north and would terminate just west of I-5. Access to the parking structure would be provided from the reconfigured Camiones Way turn-around.

Pedestrian Facilities

Phase 1 would include construction of an east – west pedestrian bridge over the I-5 and LPOE, between the San Ysidro Intermodal Transportation Center and Camino de la Plaza. The proposed pedestrian bridge would connect to Camino de la Plaza from a bridge landing that would include a pedestrian ramp to the reconfigured Camiones Way turn-around. The pedestrian bridge would cross over southbound I-5, and the LPOE, and then would ramp down to the San Ysidro Intermodal Transit Center. In addition to the pedestrian ramp, a staircase also would be constructed at the eastern end of the bridge, connecting to the San Ysidro Intermodal Transit Center. A pedestrian walkway would be constructed between Camiones Way and the border to channel pedestrians around the new employee parking structure and into Mexico. An existing staff pedestrian bridge that spans the East San Ysidro Boulevard freeway ramps and connects an employee parking lot with a walkway to the existing Pedestrian Inspection Building would be demolished. The existing elevated Administration Building would remain in place and operational during Phase 1, but public access to the existing pedestrian bridge along the existing Administration Building would be closed once the new east-west pedestrian bridge is constructed.

Southbound Pedestrian Crossing

A new southbound pedestrian crossing would be provided in the eastern portion of the LPOE near the Old Customs House. It is anticipated that this new pedestrian crossing could require modifications to the Old Customs House. Per Section 106 of the NHPA, GSA is currently in consultation with the SHPO, Advisory Council on Historic Preservation, and other parties regarding the potential future use of the Old Customs House.

Central Plant

Phase 1 would include construction of a new central plant on the eastern side of the LPOE. Two existing buildings along Rail Court (currently occupied by a Payless Shoe Store and a privately owned and operated long-haul bus station) would be demolished, and a two-story central plant encompassing approximately 24,000 gsf would be constructed to house electrical and mechanical equipment. An employee surface parking lot with approximately 35 spaces would be constructed on the east side of the central plant.

Other Features

Other proposed features during Phase 1 would include construction of a detainee holding facility at the LPOE, and a telecommunications tower in the vicinity of the employee parking structure.

Phase 2 – Northbound Buildings

Phase 2 improvements would involve the reconfiguration of the eastern operational area and construction of new buildings. Construction of Phase 2 is anticipated to begin in 2011 with an estimated duration of 24 to 30 months.

The existing Pedestrian Building would be demolished, and a new Administration and Pedestrian Building would be constructed east of the reconfigured northbound inspection facilities. The proposed Administration and Pedestrian Building would encompass approximately 100,000 gsf on three levels, and an approximately 20,000-gsf underground central detention facility. A new north–south pedestrian ramp would be constructed to channel

northbound pedestrians and bicyclists from Mexico to the inspection processing facilities on the second level of this structure. During construction of the Administration and Pedestrian Building, pedestrian processing operations would temporarily be transferred to the Old Customs House. The Old Customs House would be renovated to accommodate these interim uses, and a new pedestrian sidewalk would be constructed between the border crossing and the renovated building. Following construction of the proposed improvements, the existing Administration Building and bridge (supporting the Administration Building) would be demolished.

Phase 3 – Southbound Facilities

Proposed Phase 3 improvements primarily would entail the reconfiguration of the southbound facilities to connect with Mexico's planned El Chaparral facility. The reconfiguration of the southbound facilities would require removal of existing structures and Camiones Way. The existing commercial retail building (UETA Duty Free Shop) and large surface parking lots between Virginia Avenue and I-5 would be demolished. Construction of the proposed southbound roadway also would remove Camiones Way. Construction of Phase 3 is estimated to begin as early as 2011, or as late as 2013, depending on the schedule provided by Mexico for their construction of the El Chaparral facility, and would last approximately 20 to 24 months.

Primary Inspection Area

The primary southbound inspection area would contain six inspection lanes, consisting of five standard vehicular lanes (12 feet wide) and one 14-foot-wide bus inspection lane. The inspection lanes would include 12 stacked inspection booths. A portion of the primary vehicle inspection area would be covered with canopies. A bypass lane would be included south of the primary inspection area to provide employees controlled access to the LPOE. In addition, a last-chance turn-around lane would be provided on the east side of the southbound roadway to allow vehicles to make a direct U-turn from the southbound roadway to northbound I-5.

Secondary Inspection Area

A secondary southbound inspection area would be constructed northeast of the employee parking structure, and would include up to 17 inspection spaces and up to nine inspection booths covered with canopies. The access points to the secondary inspection area would be equipped with non-intrusive inspection facilities, such as gamma ray scanning equipment. The secondary inspection area also would include an auto inspection/breakdown building. This building would encompass approximately 9,000 gsf on two floors.

The east-west connector road (constructed during Phase 1) would be extended to the west to connect the east and west portions of the LPOE and provide access to the secondary vehicle inspection area, employee parking, the USBP facility, and the southbound roadway.

Southbound Roadway

A new southbound roadway would be constructed at the terminus of southbound I-5, just south of the Camino de la Plaza overcrossing, and would curve southwestward within the LPOE to connect with the planned El Chaparral LPOE in Mexico. The roadway would consist of six southbound lanes (12 feet wide) at the primary inspection area. Approximately 1,000 feet southwest of the primary inspection area, the roadway would widen to 14 lanes (12 feet wide) and would divide just prior to the international border. This configuration of the roadway

terminus would match the design of the planned El Chaparral LPOE in Mexico. Additionally, the westernmost southbound lane would include an gated emergency access road to Camino de la Plaza.

Pedestrian Facilities

A new southbound pedestrian crossing facility would be constructed in the western portion of the LPOE at Virginia Avenue during Phase 3. The new facility would include a new crossing and a southbound pedestrian building. The pedestrian crossing would connect to Mexico's planned El Chaparral LPOE. Once the new pedestrian crossing is constructed and operational, the existing southbound pedestrian crossing would be removed. In addition, a pedestrian ramp would be constructed between the east–west pedestrian bridge (to be completed during Phase 1), and a proposed sidewalk that would connect with Virginia Avenue to the east.

Transit Facility

As described above, the new southbound roadway would remove Camiones Way, which includes a bus turn-around at its terminus. A new turn-around and loading facility would be constructed in the western portion of the LPOE along Virginia Avenue to accommodate buses, taxis, jitneys, and privately owned vehicles.

USBP Facility

A new USBP station would be constructed in the southern portion of the LPOE, between the new southbound roadway and the U.S.-Mexico border. The station would consist of an approximately 3,500-gsf building, a small parking area with for USBP employees, and a repatriation gate. Vehicular access to the new USBP station would be provided from the internal east-west connector road.

Employee Parking Area

An employee parking area would be constructed in the southern portion of the LPOE between the new southbound roadway, the employee parking structure, the U.S.-Mexico border, and the USBP facility. This area would provide approximately 300 surface parking spaces, and possibly storm water retention facilities.

Northbound Primary Inspection Area Expansion

During Phase 3, the northbound primary inspection area would be expanded by seven lanes on the west side with 14 stacked inspection booths, resulting in a total of 31 new lanes (24 lanes would be constructed in Phase 1).

Pedestrian Crossing Alternative

The Pedestrian Crossing Alternative is similar to the Preferred Alternative, but would entail a different cross-border pedestrian circulation scheme. While the Preferred Alternative proposes to remove the existing southbound pedestrian crossing and construct two new southbound pedestrian crossings (one at Virginia Avenue and one east of the Old Customs House), the Pedestrian Crossing Alternative would provide a single southbound pedestrian crossing at its existing location.

The Pedestrian Crossing Alternative would demolish most of the existing LPOE facilities, except for the existing southbound pedestrian crossing facility and the Old Customs House. New facilities to be constructed, including new primary and secondary inspection areas, an administration building, a pedestrian building, a central plant, pedestrian bridges, a parking structure and other support structures, would generally be the same as the Preferred Alternative, with some variations in configuration and location within the LPOE. This alternative would be constructed in three phases that would correspond to those of the Preferred Alternative (i.e., Phase 1 would construct the northbound facilities, Phase 2 would construct northbound buildings, and Phase 3 would construct the southbound facilities). Construction of this alternative would occur over a period of approximately four years within the same estimated time frames as the Preferred Alternative identified above. Construction phases would overlap, but each phase could function independently from successive phases.

Phase 1 – Northbound Facilities

Proposed improvements in Phase 1 would entail construction of new northbound facilities similar to those described above for the Preferred Alternative. Figure 2-4 shows the proposed improvements during Phase 1. The proposed new northbound primary and secondary inspection areas, operations center, employee parking structure, and reconfiguration of the Camiones Way turn-around would be the same as proposed under the Preferred Alternative. The auto seizure and impound facilities and central plant would be constructed at the same location as the Preferred Alternative, but the configuration would be slightly different.

The east-west pedestrian bridge would be constructed over I-5 and the LPOE, but instead of landing at the San Ysidro Intermodal Transportation Center, it would land on the north side of the East San Ysidro Boulevard/I-5 freeway ramp. The west end of the pedestrian bridge would connect to an elevated bridge deck extending from Camino de la Plaza. This deck would be larger than the bridge landing proposed under the Preferred Alternative.

Phase 2 – Northbound Buildings

Proposed improvements during Phase 2 under the Pedestrian Crossing Alternative would be the same as the Preferred Alternative identified above. Figure 2-5 illustrates proposed improvements during Phase 2.

Phase 3 – Southbound Facilities

Proposed Phase 3 improvements would primarily consist of the construction of new southbound facilities similar to those described above for the Preferred Alternative. Figure 2-6 depicts proposed improvements during Phase 3.

The proposed southbound primary and secondary inspection areas, the pedestrian ramp connecting to the east-west pedestrian bridge (constructed in Phase 1), the removal of Camiones Way, and the northbound primary inspection area expansion would be the same as proposed under the Preferred Alternative. The southbound roadway would be the same as proposed under the Preferred Alternative except that an exit lane to Virginia Avenue would be provided from the westernmost southbound lane.

A new north–south pedestrian bridge would be built over the proposed southbound roadway, connecting the proposed elevated bridge deck and main east–west pedestrian bridge (to be

completed during Phase 1) to the pedestrian walkway at the existing southbound pedestrian crossing facility.

The USBP station would be constructed in the southern portion of the LPOE, just west of the employee parking structure and north-south pedestrian bridge.

This alternative would not construct the bus-turn around facility in the western portion of the LPOE along Virginia Avenue proposed under the Preferred Alternative, but would provide a smaller turn-around at the south leg of the Camino de la Plaza/I-5 southbound ramps intersection.

No Build Alternative

The No Build Alternative is included and analyzed to provide a baseline for comparison with impacts from the Project, and also to satisfy federal requirements for analyzing “no action” under the National Environmental Policy Act (NEPA; 40 Code of Federal Regulations [CFR] 1502.14(d)). This alternative assumes that no improvements to the existing San Ysidro LPOE would be implemented. The No Build Alternative would not meet the purpose and need of the Project, as operational constraints and safety/security deficiencies would not be corrected, and the wait times to cross the border would be expected to increase.

S.4 PROJECT IMPACTS

Table S-1 summarizes Project impacts and avoidance, minimization, and mitigation measures for each alternative. Detailed discussion and analysis of Project impacts are provided in Chapter 3.0 of this Draft EIS. Avoidance, minimization, and mitigation measures are listed in Appendix A, Summary of Avoidance, Minimization, and Mitigation Measures.

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project			Avoidance, Minimization and/or Mitigation Measures
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	
Land Use			
<i>Existing and Future Land Uses</i>			
Consistent with existing and planned land uses in the SYCP Area, and with zoning and land use designations.	Consistent with existing and planned land uses in the SYCP Area and underlying zoning and land use designations.	No impacts to existing or planned land uses would occur.	<u>Preferred Alternative, Pedestrian Crossing Alternative, and No Build Alternative:</u> No avoidance, minimization, or mitigation measures are required.
<i>Consistency with State, Regional, and Local Plans</i>			
Consistent with relevant land use plans.	Potentially inconsistent with certain policies in SANDAG's RCP, the City's General Plan Mobility and Economic Prosperity Elements, the SYCP and the SYRP.	Would not comply with SANDAG's RCP, RTP, and RTIP, and would not be consistent with the General Plan, SYCP, and SYRP.	<u>Preferred Alternative and No Build Alternative:</u> No avoidance, minimization, or mitigation measures are required. <u>Pedestrian Crossing Alternative:</u> Impacts could only be avoided through Project redesign.
<i>Parks and Recreational Facilities</i>			
No impacts to public parks or recreational facilities.	No impacts to public parks or recreational facilities.	No impacts to public parks or recreational facilities.	<u>Preferred Alternative, Pedestrian Crossing Alternative, and No Build Alternative:</u> No avoidance, minimization, or mitigation measures are required.
Community			
<i>Community Character and Cohesion</i>			
No impacts to community character or cohesion would occur.	Potential adverse impacts to community cohesion due to inefficiencies in pedestrian circulation plan and access to transit facilities.	No impacts to community character or cohesion, but would result in further degradation of traffic, circulation, and access for the community and the region.	<u>Preferred Alternative:</u> Although no avoidance, minimization, or mitigation measures are required. A Traffic Management Plan (TMP) would be implemented during construction to maintain through traffic and access to businesses. <u>Pedestrian Crossing Alternative:</u> A TMP would be implemented during construction. Adverse impacts could only be avoided through Project redesign. <u>No Build Alternative:</u> No avoidance, minimization, or mitigation measures are required.
<i>Relocations</i>			
No impacts related to relocation of six on-site businesses, because property acquisitions in progress are following guidelines of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act.	No impacts related to relocation of six on-site businesses, because property acquisitions in progress are following guidelines of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act.	Property acquisitions in progress would occur and would follow the guidelines of the Federal Uniform Relocation Assistance and Real Property Acquisition	<u>Preferred Alternative, Pedestrian Crossing Alternative, and No Build Alternative:</u> No avoidance, minimization, or mitigation measures are required.

Table S-1 SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES			
Potential Impacts of the Project			Avoidance, Minimization and/or Mitigation Measures
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	
Community (cont.)			
<i>Environmental Justice and Environmental Health and Safety Risks to Children</i>			
No adverse environmental justice impacts would be anticipated because the Project has been developed in compliance with EO 12898. No impacts related to environmental health and safety risks to children.	No adverse environmental justice impacts would be anticipated because the Project has been developed in compliance with EO 12898. No impacts related to environmental health and safety risks to children.	Adverse environmental justice impacts due to increasing congestion, and no economic benefits and improved access associated with the Project.	<u>Preferred Alternative, Pedestrian Crossing Alternative, and No Build Alternative:</u> No avoidance, minimization, or mitigation measures are required.
Utilities/Emergency Services/Life Safety			
<i>Utilities</i>			
Temporary construction-related utilities impacts could potentially occur during construction.	Temporary construction-related utilities impacts could potentially occur during construction.	No impacts to utilities would occur.	<u>Preferred Alternative and Pedestrian Crossing Alternative:</u> <ul style="list-style-type: none"> ▪ The construction contractor should coordinate with responsible utility providers to protect systems in place or arrange for the temporary or permanent relocation of existing utility lines. <u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.
<i>Emergency Services</i>			
Temporary construction-related impacts to emergency services could potentially occur during construction.	Temporary construction-related impacts to emergency services could potentially occur during construction.	No impacts to emergency services would occur.	<u>Preferred Alternative and Pedestrian Crossing Alternative:</u> <ul style="list-style-type: none"> ▪ A Traffic Management Plan (TMP) should be implemented to provide for emergency access on roadways that would be temporarily affected during the construction period. ▪ The construction contractor should contact local emergency service providers prior to the start of construction to ensure construction activities would not impede provision of emergency services within the Project area during the construction period. <u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project			Avoidance, Minimization and/or Mitigation Measures
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	
Utilities/Emergency Services/Life Safety (cont.)			
<i>Life Safety</i>			
No impacts to life safety with implementation of protective design measures.	No life safety impacts resulting from operations within the LPOE with implementation of protective design measures. Adverse life safety impacts due to pedestrian circulation plan.	No impacts to life safety would occur, but existing life safety deficiencies at the LPOE would not be corrected.	<p><u>Preferred Alternative:</u></p> <ul style="list-style-type: none"> ▪ Bollards and barriers should be used to protect structural elements from vehicle damage. Anti-ram barriers must be provided wherever moving vehicles approach booths or buildings. ▪ Exterior walls and interior walls in high-risk areas, such as lobbies and public screening spaces, should be reinforced with cast-in-place or precast reinforced concrete. ▪ Exterior windows and interior windows between high-risk areas and occupied space should be thermally tempered or laminated glass. ▪ Bullet resistant glazing should be provided on windows that face inspection areas, on-coming traffic, or the border. ▪ Building perimeters and doors between inspection areas should be designed to resist forced entry. ▪ Utilities critical to LPOE operations should be located within the Central Plant building, which would be structurally reinforced. ▪ Where utilities are located within occupied buildings they should be separated from inspection and public lobby areas by at least 25 feet or by reinforced walls and floors. ▪ Air intakes should be secured. ▪ Mechanical equipment should not be placed at grade and directly adjacent to vehicle movement pathways. ▪ Utilities and feeders should not be located adjacent to vehicle pathways, or on the Mexican side of the primary inspection lanes.

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project			Avoidance, Minimization and/or Mitigation Measures
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	
Utilities/Emergency Services/Life Safety (cont.)			
			<p><u>Pedestrian Crossing Alternative:</u> Implementation of the protective design measures identified for the Preferred Alternative would avoid life safety impacts associated with operations within the LPOE. Adverse life safety impacts related pedestrian circulation could only be avoided through Project redesign.</p> <p><u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p>
Traffic and Transportation/Pedestrian and Bicycle Facilities			
<i>Roadways, Freeways, and Intersections</i>			
<p>Traffic impacts to roadway segments under near-term (2014) conditions:</p> <ul style="list-style-type: none"> Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps <p>Traffic impacts to intersections under near-term (2014) conditions:</p> <ul style="list-style-type: none"> Camino de la Plaza/Virginia Avenue <p>Traffic impacts to roadway segments under horizon year (2030) conditions:</p> <ul style="list-style-type: none"> Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps East San Ysidro Boulevard, between the I-805 northbound ramps and Border Village Road Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps Via de San Ysidro, between the I-5 southbound off-ramp and Calle Primera 	<p>Traffic impacts to roadway segments under near-term (2014) conditions:</p> <ul style="list-style-type: none"> Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps <p>Traffic impacts to intersections under near-term (2014) conditions:</p> <ul style="list-style-type: none"> Camino de la Plaza/Virginia Avenue <p>Traffic impacts to roadway segments under horizon year (2030) conditions:</p> <ul style="list-style-type: none"> Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps East San Ysidro Boulevard, between the I-805 northbound ramps and Border Village Road Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps 	<p>Traffic impacts to roadway segments under near-term (2014) conditions:</p> <ul style="list-style-type: none"> Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps East San Ysidro Boulevard, between the I-805 northbound ramps and Border Village Road Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps Via de San Ysidro, between the I-5 southbound ramps and Calle Primera <p>Traffic impacts to intersections under near-term (2014) conditions:</p> <ul style="list-style-type: none"> Via de San Ysidro/Calle Primera Via de San Ysidro/I-5 northbound ramps <p>Traffic impacts to roadway segments under horizon year (2030) conditions:</p>	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u></p> <p>A primary Project goal in support of the Project purpose is to increase the processing capacity and efficiency of the LPOE in response to the need that is created by the current and projected demand for vehicles and persons to cross the border. Thus, the Preferred Alternative or Pedestrian Crossing Alternative does not directly generate a substantial volume of traffic, but would accommodate existing and projected border crossing demand. It would also modify the patterns of traffic flow in the Project area. The purpose and need for the Project does not include local roadway improvements; however, feasible improvements have been identified that may be implemented by others to achieve acceptable LOS, based on commonly accepted local roadway segment and intersection standards. These potential improvements to be implemented by others are described below.</p> <p>Implementation of the following avoidance, minimization, and mitigation measures would avoid or reduce traffic impacts to roadway segments and intersections for near-term (2014) conditions:</p> <ul style="list-style-type: none"> Widening the segment of Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps, to four-lane major standards. Installation of a traffic signal at the Camino de la Plaza/Virginia Avenue intersection. <p>In addition to the measures listed above under near-term conditions, implementation of the following avoidance, minimization, and mitigation measures would avoid or reduce traffic impacts to roadway segments and intersections for horizon year (2030) conditions:</p>

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project			
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	Avoidance, Minimization and/or Mitigation Measures
Traffic and Transportation/Pedestrian and Bicycle Facilities (cont.)			
<p>Traffic impacts to freeway segments under horizon year (2030) conditions:</p> <ul style="list-style-type: none"> Northbound I-5, between the international border and the I-805 interchange Northbound I-805, between the I-5 interchange and East San Ysidro Boulevard <p>Traffic impacts to intersections under horizon year (2030) conditions:</p> <ul style="list-style-type: none"> Camino de la Plaza/I-5 southbound ramps Camino de la Plaza/Virginia Avenue 	<ul style="list-style-type: none"> Via de San Ysidro, between the I-5 southbound off-ramp and Calle Primera <p>Traffic impacts to freeway segments under horizon year (2030) conditions:</p> <ul style="list-style-type: none"> Northbound I-5, between the international border and the I-805 interchange Northbound I-805, between the I-5 interchange and East San Ysidro Boulevard <p>Traffic impacts to intersections under horizon year (2030) conditions:</p> <ul style="list-style-type: none"> Camino de la Plaza/I-5 southbound ramps Camino de la Plaza/Virginia Avenue 	<ul style="list-style-type: none"> Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps East San Ysidro Boulevard, between the I-805 northbound ramps and Border Village Road Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps Via de San Ysidro, between the I-5 southbound off-ramp and Calle Primera <p>Traffic impacts to intersections under horizon year (2030) conditions:</p> <ul style="list-style-type: none"> Via de San Ysidro/Calle Primera Via de San Ysidro/I-5 northbound ramps Camino de la Plaza/I-5 southbound ramps Camino de la Plaza/Virginia Avenue 	<ul style="list-style-type: none"> Re-striping of the I-5 southbound ramps at Camino de la Plaza to one southbound left-turn lane, one southbound right-turn lane, one southbound shared through/right-turn lane, and one westbound through lane. <p>Adverse traffic impacts to three freeway segments under horizon year conditions would occur. No avoidance, minimization, or mitigation measures are identified to lessen these impacts; however, the benefits of greatly reducing congestion (wait times and vehicle queues) for northbound vehicles crossing the border would offset these impacts.</p> <p><u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p>
<i>Pedestrian, Bicycle, and Transit Facilities</i>			
No impacts to pedestrian, bicycle, or transit facilities.	Adverse impacts related to inefficient pedestrian circulation plan and access to transit facilities.	No impacts to pedestrian, bicycle, or transit facilities.	<p><u>Preferred Alternative and No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p> <p><u>Pedestrian Crossing Alternative:</u> Impacts could only be avoided through Project redesign.</p>
<i>Temporary Construction Impacts</i>			
Temporary construction-related traffic impacts could potentially occur during construction.	Temporary construction-related traffic impacts could potentially occur during construction.	No construction-related traffic impacts would occur.	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u> temporary impacts would be avoided with implementation of a TMP.</p> <p><u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p>

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project				Avoidance, Minimization and/or Mitigation Measures
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative		
Visual/Aesthetics				
No adverse visual impacts would occur.	No adverse visual impacts would occur.	No adverse visual impacts would occur.	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u> Although no adverse visual impacts would occur, implementation of the following minimization measures would provide increased visual quality within the Project Study Area:</p> <ul style="list-style-type: none"> ▪ A comprehensive landscape concept plan should be developed and implemented, including landscape features such as: <ul style="list-style-type: none"> ○ Drought tolerant and sustainable plant palettes. ○ Vine planting at fences and walls to reduce the visual scale and to act as a graffiti deterrent. ▪ Street trees and landscaping should be retained to the highest extent possible during Project construction. ▪ Architectural treatments should be consistent throughout the proposed LPOE buildings. ▪ Metal fencing and safety railing should be consistent throughout the proposed pedestrian walkways. ▪ Where possible, integrate new public art consistent with the international border setting. 	
Cultural Resources				
<i>Archaeological Resources</i>				
No impacts to archaeological resources are expected to occur, although unknown subsurface resources could be subject to disturbance during construction.	No impacts to archaeological resources are expected to occur, although unknown subsurface resources could be subject to disturbance during construction.	No construction or ground disturbing activities would occur; therefore, no impacts to archaeological resources would occur.	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u> If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area should be avoided until a qualified archaeologist can assess the nature and significance of the find.</p> <p><u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p>	
<i>Historical Resources</i>				
Interim renovation and ultimate future use of the NRHP-listed Old Customs House would result in an adverse direct impact to this historical property.	Interim renovation use of the NRHP-listed Old Customs House would result in an adverse direct impact to this historical property.	No impacts to historical resources would occur.	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u></p> <p>The following measures would avoid, minimize, or mitigate direct impacts to historical resources during renovation of the Old Customs House:</p>	

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project			Avoidance, Minimization and/or Mitigation Measures
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	
Cultural Resources (cont.)			
Construction of the Preferred Alternative's Central Plant building would indirectly impact the abutting International Building, which is recommended eligible to the NRHP, CRHP, and City Register.	Construction of the Preferred Alternative's Central Plant building would indirectly impact the abutting International Building, which is recommended eligible to the NRHP, CRHP, and City Register.		<ul style="list-style-type: none"> ▪ All renovation of the Old Customs House for interim pedestrian processing operations and any future use should conform to <i>The Secretary of the Interior's Standards for the Treatment of Historic Properties</i>. ▪ Prior to alteration or removal of building features, detailed documentation of the Old Customs House should be completed as agreed to in the Section 106 consultation process. <p>If all adverse effects cannot be avoided, then other mitigation measures will be determined through Section 106 consultation.</p> <p>The following measure would avoid, minimize, or mitigate indirect impacts to historical resources, including the International Building:</p> <ul style="list-style-type: none"> ▪ Measures consistent with <i>The Secretary of the Interior's Standards for the Treatment of Historic Properties</i> would be implemented as agreed to in the Section 106 consultation process. <p>If all adverse effects cannot be avoided, then other mitigation measures will be determined through Section 106 consultation.</p> <p><u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p>
Hydrology and Floodplain			
No short-term construction or long-term operational impacts with appropriate design and Best Management Practices (BMPs).	No short-term construction or long-term operational impacts with appropriate design and BMPs.	No construction or ground disturbing activities would occur; therefore, no hydrology or floodplain impacts would occur.	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u></p> <p>Recommendations to effectively avoid or address potential impacts related to hydrology and floodplain issues include BMPs with respect to appropriate design, sizing, and location of proposed storm drain facilities, incorporation of applicable recommendations from detailed geotechnical investigations, and consideration of the location and extent of proposed retention/infiltration basins with respect to potential surficial saturation issues.</p> <p><u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p>

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project			Avoidance, Minimization and/or Mitigation Measures
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	
Water Quality and Stormwater Runoff			
No short-term construction or long-term operational impacts with appropriate design and BMPs.	No short-term construction or long-term operational impacts with appropriate design and BMPs.	No construction or ground disturbing activities would occur; therefore, no water quality or stormwater runoff impacts would occur.	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u></p> <p>Water quality and storm water runoff impacts would be addressed through conformance with the applicable NPDES Construction Permit, Municipal Permit and related City standards. Associated BMPs and the Project SWPPP would define measures to address potential effects associated with short-term construction (erosion and sedimentation, construction-related hazardous materials, demolition-related debris generation, and disposal of extracted groundwater) and long-term operation and maintenance (site design/low impact development BMPs, source control BMPs, treatment control BMPs, and post-construction BMP monitoring/maintenance schedules and responsibilities).</p> <p><u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p>
Geology/Soils/Seismic/Topography			
No seismic or non-seismic impacts with compliance with Department standards, Uniform Building Code (UBC), and California Building Code (CBC), and incorporation of geotechnical recommendations.	No seismic or non-seismic impacts with compliance with Department standards, Uniform Building Code (UBC), and California Building Code (CBC), and incorporation of geotechnical recommendations.	No construction or ground disturbing activities would occur; therefore, no impacts would occur with respect to geology, soils, seismicity or topography.	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u> Would incorporate appropriate design and construction measures to accommodate potential seismic and non-seismic hazards, if applicable, pursuant to associated industry/regulatory standards (e.g., the IBC) and subsequent detailed geotechnical analysis.</p> <p><u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p>
Paleontology			
Could potentially affect previously undisturbed portions of the high sensitivity Otay Formation and Old Paralic Deposits, potentially resulting in the destruction of unique or significant paleontological resources.	Could potentially affect previously undisturbed portions of the high sensitivity Otay Formation and Old Paralic Deposits, potentially resulting in the destruction of unique or significant paleontological resources.	No construction or ground disturbing activities would occur; therefore, no impacts to paleontological resources would occur.	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u> Would prepare and implement a Paleontological Monitoring Plan, which would likely include the following types of measures in accordance with standard construction practices in southern California:</p> <ul style="list-style-type: none"> ▪ A Qualified Paleontologist should be present at pre-grading meetings to consult with grading/excavation contractors regarding the potential location and nature of paleontological resources and associated monitoring/recovery operations. ▪ A Qualified Paleontologist or Paleontological Monitor (working under the direction of the Qualified Paleontologist), should be on site to monitor for paleontological resources during all original grading/excavation activities involving previously undisturbed areas of the Otay Formation and/or Old Paralic Deposits.

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project			Avoidance, Minimization and/or Mitigation Measures
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	
Paleontology (cont.)			<ul style="list-style-type: none"> ▪ If paleontological resources are discovered, the Qualified Paleontologist (or Paleontological Monitor) should implement appropriate salvage operations, potentially including simple excavation, plaster-jacketing of large and/or fragile specimens, or quarry excavations for richly fossiliferous deposits. The Qualified Paleontologist and Paleontological Resources Monitor should be authorized to halt or divert construction work in salvage areas to allow for the timely recovery of fossil remains. ▪ Paleontological resources collected during the monitoring and salvage portion of the mitigation program should be cleaned, repaired, sorted, and cataloged pursuant to accepted industry methods. ▪ Prepared fossils, along with copies of all pertinent field notes, photos and maps, should be deposited in an approved scientific institution with paleontological collections. ▪ A final report should be prepared by the Qualified Paleontologist to describe the results of the mitigation program, including field and laboratory methods, stratigraphic units encountered, and the nature and significance of recovered paleontological resources. <p><u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p>
Hazardous Waste/Materials			
<p>Would result in potential adverse impacts due to possible soil and/or groundwater contamination at listed facilities of potential environmental concern, and former and current uses within the Project Study Area and LPOE. Additionally, potential adverse impacts could occur associated with aerially deposited lead (ADL), hazardous building materials, and polychlorinated biphenyls (PCBs).</p>	<p>Would result in potential adverse impacts due to possible soil and/or groundwater contamination at listed facilities of potential environmental concern, and former and current uses within the Project Study Area and LPOE. Additionally, potential adverse impacts could occur associated with ADL, hazardous building materials, and PCBs.</p>	<p>No construction or ground disturbing activities would occur; therefore, no impacts would occur with respect to hazardous waste or hazardous materials.</p>	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u></p> <ul style="list-style-type: none"> ▪ Soil sampling should be conducted in areas within the Project Study Area proposed to be disturbed and/or excavated prior to soil export, reuse, or disposal to characterize the soil for the presence of hazardous materials (e.g., metals, petroleum hydrocarbons, VOCs, pesticides, etc.). If contaminated soil is present, appropriate abatement actions should be implemented in accordance with applicable regulatory requirements.

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project			Avoidance, Minimization and/or Mitigation Measures
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	
Hazardous Waste/Materials (cont.)			<ul style="list-style-type: none"> ▪ Health risk assessments should be conducted for facilities within the LPOE in which contamination has been documented (e.g., former Red Cab facility) to evaluate whether the levels of contaminants would pose a risk to human health. ▪ Prior to commencement of excavation activities, a Site and Community Health and Safety Plan should be prepared to manage potential health and safety hazards to workers and the public. ▪ Prior to commencement of excavation activities, a Soil Management Plan should be prepared to address the notification, monitoring, sampling, testing, handling, storage, and disposal of contaminated media or substances that may be encountered during construction activities. ▪ Prior to commencement of excavation activities, a Groundwater Management Plan should be prepared to address the notification, monitoring, sampling, testing, handling, storage, and disposal of potentially contaminated groundwater. ▪ Existing transformers and elevator equipment within the Project Study Area should be sampled for PCB content if proposed to be disturbed and/or moved during construction activities. If PCBs are present, appropriate abatement actions for their disposal should be implemented in accordance with regulatory requirements, and soil beneath transformers and/or elevators should be evaluated for evidence of releases. If present in underlying soils, appropriate abatement actions for removal and disposal should be implemented in accordance with applicable regulatory requirements. ▪ Wastes and potentially hazardous waste on the Project site, including trash, debris piles, and equipment should be removed and disposed of off site in accordance with applicable regulatory requirements.

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project			
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	Avoidance, Minimization and/or Mitigation Measures
Hazardous Waste/Materials (cont.)			
			<ul style="list-style-type: none"> ▪ Prior to renovation or demolition of existing structures, surveys should be conducted to evaluate the presence, locations, and quantities of hazardous building materials (ACMs and LCSs). Suspect materials should be sampled and analyzed, and if present, appropriate abatement actions should be implemented in accordance with applicable regulatory requirements. ▪ Contract specifications should include references to the potential to encounter contaminated soil, groundwater, or other regulated wastes during construction activities. <p><u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p>
Air Quality			
No adverse construction or operational air quality impacts would occur. No adverse air quality impacts related to Mobile Source Air Toxics (MSATs) or global climate change would occur.	No adverse construction or operational air quality impacts would occur. No adverse air quality impacts related to MSATs or global climate change would occur.	No construction or ground disturbing activities would occur; therefore, no air quality impacts would occur.	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u> Although no adverse air quality impacts would occur, implementation of the following minimization measures would minimize air pollution emissions during construction:</p> <ul style="list-style-type: none"> ▪ Water or dust palliative should be applied to exposed soil surfaces at the construction site(s) and equipment as frequently as necessary to control fugitive dust emissions. ▪ Soil binder should be spread on any unpaved roads used for construction purposes, and all construction parking areas. ▪ Trucks should be washed off as they leave the construction site(s), as necessary, to control fugitive dust emissions. ▪ Construction equipment and vehicles should be properly tuned and maintained. Low sulfur fuel should be used in all construction equipment. ▪ Track-out reduction measures such as gravel pads should be used at access points to minimize dust and mud deposits on roads affected by construction traffic. ▪ Transported loads of soils and wet materials should be covered prior to transport, or adequate freeboard (space from the top of the material to the top of the truck) should be provided to reduce PM10 and deposition of particulate during transportation.

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project			Avoidance, Minimization and/or Mitigation Measures
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	
Air Quality (cont.)			
			<ul style="list-style-type: none"> ▪ Dust and mud that are deposited on paved, public roads due to construction activity and traffic should be removed to decrease particulate matter. ▪ To the extent feasible, construction traffic should be routed and scheduled to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times. ▪ Grading and earth moving should be suspended when wind gusts exceed 25 mph unless the soil is wet enough to prevent dust plumes. <p>To the extent that it is applicable or feasible, the following measures can help to reduce Project-related GHG emissions and potential climate change impacts:</p> <ul style="list-style-type: none"> ▪ Provide landscaping where possible, which reduces surface warming and decreases CO₂ through photosynthesis ▪ Use lighter color surfaces, such as Portland cement, which helps to reduce the albedo effect (i.e., surface reflectivity of the sun's radiation) and cool the surface ▪ Use of energy efficient lighting ▪ Limit idling times on trucks and equipment used during construction <p><u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p>

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project			Avoidance, Minimization and/or Mitigation Measures
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	
Energy			
<p>Potential short-term, construction-related energy impacts could occur during construction. No adverse operational energy impacts would occur. Energy consumption would not be excessive and would be reduced by Project achieving a LEED certification for the LPOE, as is currently planned, as well as compliance with the Energy Independence and Security Act.</p>	<p>Potential short-term, construction-related energy impacts could occur during construction. No adverse operational energy impacts would occur. Energy consumption would not be excessive and would be reduced by Project achieving a LEED certification for the LPOE, as is currently planned, as well as compliance with the Energy Independence and Security Act.</p>	<p>No construction or ground disturbing activities would occur; therefore, no short-term, construction-related energy impacts would occur. Over the long-term, however, the No Build Alternative would contribute to continued long delays to cross the border, with associated traffic congestion and inefficient energy use by idling vehicles, which would be expected to increase over time.</p> <p>In addition, the existing LPOE facilities would not be replaced with facilities that are designed to be more energy efficient.</p>	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u></p> <ul style="list-style-type: none"> ▪ Construction equipment and vehicles should be properly tuned and maintained. ▪ Idling times of construction equipment should be minimized, to the extent practical. ▪ To the extent feasible, construction traffic should be routed and scheduled to reduce congestion and related energy impacts caused by idling vehicles along local roads during peak travel times. <p><u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p>
Biological Resources			
<p>Would impact a total of 0.1 acre of disturbed habitat, 25.7 acres of developed land, and 0.07 acre of non-wetland Waters of the United States (WUS). Phase 1 would result in impacts to 0.1 acre of disturbed habitat and 11.3 acres of developed land; Phase 2 would result in impacts to 2.6 acres of developed land; and Phase 3 would result in impacts to 0.01 acre of disturbed habitat, 0.07 acre of non-wetland WUS, and 11.8 acres of developed land.</p> <p>No sensitive vegetation communities, sensitive plant species, or sensitive animal species would be impacted and therefore, no associated adverse impacts would occur.</p> <p>Potential for indirect impacts to biological resources due to decreased water quality.</p>	<p>Would impact a total of 0.2 acre of disturbed habitat, 22.1 acres of developed land, and 0.05 acre of non-wetland WUS. Phase 1 would result in impacts to 0.1 acre of disturbed habitat and 11.9 acres of developed land; Phase 2 would result in impacts to 2.9 acres of developed land; and Phase 3 would result in impacts to 0.07 acre of disturbed habitat, 0.05 acre of non-wetland WUS, and 7.3 acres of developed land.</p> <p>No sensitive vegetation communities, sensitive plant species, or sensitive animal species would be impacted and therefore, no associated adverse impacts to would occur.</p>	<p>No construction or ground disturbing activities would occur; therefore, no impacts to biological resources would occur.</p>	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u></p> <ul style="list-style-type: none"> ▪ During construction, jurisdictional areas and sensitive vegetation within the BSA should be fenced with orange plastic exclusionary fencing, and no personnel, debris, or equipment would be allowed within the jurisdictional areas. ▪ Impacts to 0.07 acre of non-wetland WUS under the Preferred Alternative or 0.05 acre of non-wetland WUS under the Pedestrian Crossing Alternative should be mitigated at a 1:1 ratio through purchase of mitigation credits equal to 0.07 acre (Preferred Alternative) or 0.05 acre (Pedestrian Crossing Alternative) of ephemeral drainage at an approved mitigation bank. <p>Potential indirect impacts to biological resources due to decreased water quality would be addressed through the measures identified above under Water Quality and Storm Water Runoff.</p> <p><u>No Build Alternative:</u> No avoidance, minimization, and/or mitigation measures are required.</p>

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project			
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	Avoidance, Minimization and/or Mitigation Measures
Biological Resources (cont.)			
	Potential for indirect impacts to biological resources due to decreased water quality.		
Cumulative Impacts			
<i>Traffic and Transportation/Pedestrian and Bicycle Facilities</i>			
<p>Traffic impacts to roadway segments under horizon year (2030) conditions:</p> <ul style="list-style-type: none"> Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps East San Ysidro Boulevard, between the I-805 northbound ramps and Border Village Road Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps Via de San Ysidro, between the I-5 southbound off-ramp and Calle Primera <p>Traffic impacts to freeway segments under horizon year (2030) conditions:</p> <ul style="list-style-type: none"> Northbound I-5, between the international border and the I-805 interchange Northbound I-805, between the I-5 interchange and East San Ysidro Boulevard <p>Traffic impacts to intersections under horizon year (2030) conditions:</p> <ul style="list-style-type: none"> Camino de la Plaza/I-5 southbound ramps Camino de la Plaza/Virginia Avenue 	<p>Traffic impacts to roadway segments under horizon year (2030) conditions:</p> <ul style="list-style-type: none"> Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps East San Ysidro Boulevard, between the I-805 northbound ramps and Border Village Road Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps Via de San Ysidro, between the I-5 southbound off-ramp and Calle Primera <p>Traffic impacts to freeway segments under horizon year (2030) conditions:</p> <ul style="list-style-type: none"> Northbound I-5, between the international border and the I-805 interchange Northbound I-805, between the I-5 interchange and East San Ysidro Boulevard <p>Traffic impacts to intersections under horizon year (2030) conditions:</p>	<p>Under the No Build Alternative, traffic volumes on traffic study area roadway segments and intersections would increase as the community is built out. Cumulative traffic impacts would occur to the following roadway segments and intersections:</p> <ul style="list-style-type: none"> Camino de la Plaza, between Virginia Avenue to the I-5 southbound ramps East San Ysidro Boulevard, between the I-805 northbound ramps and Border Village Road Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps Via de San Ysidro, between the I-5 southbound off-ramp and Calle Primera 	<p><u>Preferred Alternative and Pedestrian Crossing Alternative:</u></p> <p>Implementation (by others) of the following measures would avoid or reduce cumulative traffic impacts to roadway segments and intersections:</p> <ul style="list-style-type: none"> Widening of the segment of Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps to four-lane major standards. Installation of a traffic signal at the Camino de la Plaza/Virginia Avenue intersection. Re-striping of the I-5 southbound ramps at Camino de la Plaza to one southbound left-turn lane, one southbound right-turn lane, one southbound shared through/right-turn lane, and one westbound through lane. <p>Adverse traffic impacts to three freeway segments under horizon year conditions would occur. No avoidance, minimization, or mitigation measures are identified to lessen these impacts; however, the benefits of greatly reducing congestion (wait times and vehicle queues) for northbound vehicles crossing the border would offset these impacts.</p> <p><u>No Build Alternative:</u> As no action would occur, no avoidance, minimization, and/or mitigation measures are required.</p>

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project				Avoidance, Minimization and/or Mitigation Measures
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative		
Cumulative Impacts (cont.)				
	<ul style="list-style-type: none"> ▪ Camino de la Plaza/I-5 southbound ramps Camino de la Plaza/Virginia Avenue 	<ul style="list-style-type: none"> ▪ Camino de la Plaza/I-5 southbound ramps (LOS E during PM peak period) ▪ Camino de la Plaza/Virginia Avenue (LOS F during PM peak period) <p>Wait times for northbound traffic at the LPOE are forecast to exceed 10 hours if no improvements are made to the existing LPOE. This would result in extremely long queues of vehicles waiting to cross the border.</p>		
<i>Air Quality</i>				
No adverse cumulative operational or global climate change impacts would occur. Potential adverse cumulative construction impacts could occur if multiple projects within the SYCP Area are under construction at the same time.	Potential adverse cumulative construction impacts could occur if multiple projects within the SYCP Area are under construction at the same time.	No adverse cumulative air quality impacts would occur, but existing traffic congestion would not be reduced, so associated emissions would remain high.	Implementation of the following avoidance, minimization, and mitigation measures would reduce cumulative air quality impacts resulting from construction activities:	<ul style="list-style-type: none"> ▪ Water or dust palliative should be applied to exposed soil surfaces at the construction site(s) and equipment as frequently as necessary to control fugitive dust emissions. ▪ Soil binder should be spread on any unpaved roads used for construction purposes, and all construction parking areas. ▪ Trucks should be washed off as they leave the construction site(s), as necessary, to control fugitive dust emissions. ▪ Construction equipment and vehicles should be properly tuned and maintained. Low sulfur fuel should be used in all construction equipment. ▪ Track-out reduction measures such as gravel pads should be used at access points to minimize dust and mud deposits on roads affected by construction traffic.

**Table S-1
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Project			Avoidance, Minimization and/or Mitigation Measures
Preferred Alternative	Pedestrian Crossing Alternative	No Build Alternative	
Cumulative Impacts (cont.)			
			<ul style="list-style-type: none"> ▪ Transported loads of soils and wet materials should be covered prior to transport, or adequate freeboard (space from the top of the material to the top of the truck) should be provided to reduce PM₁₀ and deposition of particulate during transportation. ▪ Dust and mud that are deposited on paved, public roads due to construction activity and traffic should be removed to decrease particulate matter. ▪ To the extent feasible, construction traffic should be routed and scheduled to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times. ▪ Grading and earth moving should be suspended when wind gusts exceed 25 mph unless the soil is wet enough to prevent dust plumes. <p><u>Global Climate Change:</u> To the extent that it is applicable or feasible, the following measures can help to reduce GHG emissions and potential climate change impacts:</p> <ul style="list-style-type: none"> ▪ Provide landscaping where possible, which reduces surface warming and decreases CO₂ through photosynthesis ▪ Use lighter color surfaces, such as Portland cement, which helps to reduce the albedo effect (i.e., surface reflectivity of the sun's radiation) and cool the surface ▪ Use of energy efficient lighting <p>Limit idling times on trucks and equipment used during construction</p>

S.5 COORDINATION WITH PUBLIC AND OTHER AGENCIES

Permits and Approvals Needed

The following permits and approvals would be required for the Project:

- Presidential Permit from the U.S. Department of State
- Clean Water Act Section 404 Nationwide Permit from the U.S. Army Corps of Engineers
- Section 401 Water Quality Certification from the Regional Water Quality Control Board
- National Pollutant Discharge Elimination System General Construction Activity Permit from the State Water Resources Control Board
- General Groundwater Extraction Waste Discharge Permit from the Regional Water Quality Control Board
- Permits to Operate emergency generators from the San Diego Air Pollution Control District
- Section 106 consultation with the SHPO, pursuant to the NHPA
- GSA Public Buildings Service Commissioner approval of Project design

Consultation and Coordination with Public Agencies

GSA consulted with U.S. Fish and Wildlife Service (USFWS) on biological resource issues. USFWS Carlsbad Field Office was contacted in February 2009 via U.S. mail to request USFWS's assessment for potential presence of federally listed threatened, endangered, or proposed for listing species. A written response has not yet been received; however, USFWS discussed listed threatened, endangered, and proposed for listing species that may occur in the Project vicinity in a telephone conversation between USFWS staff and the environmental contractor on February 3, 2009.

The Native American Heritage Commission (NAHC) was contacted for a records search of their Sacred Lands files in December 2008. The results of the search indicated that no sacred lands are recorded in the Project area. Consultation with local Native American tribes was recommended, and a list of Native American contacts was provided. Letters describing the Project and a map of the study area were mailed to local Native American representatives in January and March 2009.

Per Section 106 of the NHPA, GSA is currently in consultation with the SHPO, Advisory Council on Historic Preservation, and other parties regarding the potential future use of the Old Customs House.

Ongoing coordination between GSA and DHS and Customs and Border Protection (CBP) has occurred regarding the design of Project. Caltrans, Federal Highway Administration (FHWA), SANDAG, and the City have also been consulted in regards to the Project and its interface with transportation and community facilities. Additionally, GSA is coordinating with the U.S. Department of State about obtaining a Presidential Permit.

Public Participation

A Notice of Intent (NOI) was prepared for the Project and published in the Federal Register on July 2, 2003. A public scoping meeting was held in the community on July 23, 2003 from 3:00 p.m. to 7:00 p.m. at the San Ysidro Multi-cultural Center, located at 4345 Otay Mesa Road, to give the community an opportunity to review and comment on the Project. The notice for the scoping meeting was published in the Federal Register as part of the NOI.

In addition to the public scoping process, GSA formed a Community Representative Committee (CRC) in 2004, which is comprised of key community representatives and stakeholders. GSA has been regularly hosting CRC meetings, as needed, in the San Ysidro community to facilitate coordination and maintain an open dialogue between GSA and the community regarding the Project.

CHAPTER 1.0

PURPOSE AND NEED FOR THE PROJECT

CHAPTER 1.0 – PURPOSE AND NEED FOR THE PROJECT

1.1 INTRODUCTION

The General Services Administration (GSA) proposes the reconfiguration and expansion of the existing San Ysidro Land Port of Entry (LPOE). The San Ysidro LPOE is located along Interstate 5 (I-5) at the United States (U.S.)-Mexico border in the San Ysidro community of San Diego, California. The proposed San Ysidro LPOE improvements are herein referred to as the “Project.” The total area of the Project Study Area, which comprises the anticipated maximum extent of disturbance, including improvements, staging areas, and temporary impacts resulting from Project construction, encompasses approximately 50 acres. Figure 1-1 illustrates the regional location of the Project, and Figure 1-2 shows the Project Study Area and the Project vicinity.

The Project is included in the San Diego Association of Governments’ (SANDAG) 2030 Regional Transportation Plan (RTP; SANDAG 2007); and the 2008 Regional Transportation Improvement Plan (RTIP; SANDAG 2008), which covers Fiscal Years (FY) 2009 through 2013.

1.2 PURPOSE AND NEED

1.2.1 Purpose of the Project

The purpose of the Project is to improve operational efficiency, security, and safety for cross-border travelers and federal agencies at the San Ysidro LPOE.

Project goals include:

- Increase vehicle and pedestrian inspection processing capacities at the San Ysidro LPOE;
- Reduce northbound vehicle and pedestrian queues and wait times to cross the border;
- Improve the safety of the San Ysidro LPOE for vehicles and pedestrians crossing the border, and for employees at the LPOE;
- Modernize facilities to accommodate current and future demands and implementation of border security initiatives, such as the Western Hemisphere Travel Initiative (WHTI), the United States Visitor and Immigrant Status Indicator Technology program (US-VISIT), and the Secure Border Initiative (SBI).

1.2.2 Need for the Project

Capacity and Transportation Demand

The San Diego and Tijuana region is the largest urban border area along the entire U.S.-Mexico border, with a combined population of over four million people. The combined population of this area is anticipated to grow to over 5.5 million by 2020 (SANDAG/California Department of Transportation [Caltrans] 2006).

Two international LPOEs, San Ysidro and Otay Mesa, currently link San Diego and Tijuana, while a third LPOE is located east of the San Diego metropolitan area at Tecate. A fourth LPOE, Otay Mesa East, is currently in the early planning stages. Together, these LPOEs are

intended to serve as the gateway for all pedestrian traffic and vehicular movement of people and goods between the San Diego region and Baja California, Mexico.

The San Ysidro LPOE is the busiest land port in North America. It is open 24 hours per day, seven days per week, and handles passenger vehicle, pedestrian, bus, and limited use rail traffic (commercial traffic in the region is currently restricted to the Otay Mesa and Tecate LPOEs). The San Ysidro LPOE currently processes approximately 50,000 northbound vehicles and 26,000 northbound pedestrians per day (SANDAG 2007). The existing San Ysidro LPOE has become a bottleneck in the system of interchange between the two countries, increasingly restricting the movement of passenger vehicles during peak times. Recent studies have estimated that existing wait times for vehicles at the San Ysidro LPOE average 1.5 to 2 hours during the commuter peak period (weekdays between 7:00 a.m. and 9:00 a.m.; KOA Corporation 2009). Queues of passenger vehicles during the same commuter peak period have been estimated to number approximately 2,900 vehicles (KOA Corporation 2009).

Improvements to the San Ysidro LPOE are needed because the capacities of the existing LPOEs in the region and the San Ysidro LPOE specifically are currently being exceeded, causing excessive border wait times. Cross-border travel is forecasted to continue to grow due to projected local and regional growth, and border delays are expected to increase correspondingly, placing a strain on existing border facilities and infrastructure at the San Ysidro LPOE. It is estimated that maximum wait times would exceed three hours during the commuter peak period by the year 2014, and 10 hours by the year 2030 (KOA Corporation 2009). Pedestrian and passenger vehicle border crossings between the U.S. and Mexico have risen dramatically in the past decade, reaching over 60 million people in 2006 in the San Diego County (County)/Baja California border area alone (SANDAG/Caltrans 2006). At the San Ysidro LPOE, it is anticipated that the total number of primary inspections will increase by approximately 28 percent by 2025 (Caltrans/GSA 2007). This increase in cross-border travel, in combination with recent increases in U.S. security requirements has resulted in facility and infrastructure-related challenges. The existing facilities and infrastructure were not designed to handle the current and projected traffic volumes processed at the San Ysidro LPOE.

In addition, over 750 U.S. Government employees work at the San Ysidro LPOE. Existing on-site parking is not adequate to meet around-the-clock employee parking demands. Large areas of the secondary inspection area have been converted to employee parking. Additional employee parking spaces are needed to improve operational efficiency and accommodate employee parking demands.

Because growth is outstripping capacity at the existing LPOE, improvements are necessary to expand capacity, improve processing efficiency, and reduce border wait times.

Safety and Border Security

In addition to the need to expand the San Ysidro LPOE to improve operational efficiencies, the Project will address public and employee safety and border security concerns. Buildings within the northbound inspection facility are approximately 35 years old and cannot effectively support U.S. Department of Homeland Security (DHS) infrastructure and enforcement operations. Due to the age and condition of the existing buildings, a complete retrofit and remodel is required to accommodate operational needs. A space needs evaluation concluded that an approximately 30-percent increase in building floor area is required to properly house existing tenants (Cannon Design 2002). Seismic and blast resistance upgrades; mechanical, electrical, and plumbing systems upgrades; and comprehensive improvements to the communications and data

infrastructure are needed. Additionally, the layout of the existing facility compromises public and employee safety. The overcrossing is located directly above the primary inspection area, creating a potential risk in the event of a criminal incident within the inspection area below. The overcrossing also serves as the pedestrian route from East San Ysidro Boulevard into Mexico. No inspection of the southbound pedestrian traffic occurs on this overcrossing, creating similar potential safety and security issues in the event of criminal incidents. In addition, the LPOE Administration Building is not sufficiently remote from the inspection area.

As previously discussed, large areas originally designed for secondary inspection have been converted to expand employee parking and accommodate a vehicle impound area. Movement through the remaining, constrained secondary inspection area is confusing for the public and creates the potential for vehicular and pedestrian conflicts because there is no clear separation between vehicular and pedestrian circulation.

Furthermore, the mandated implementation of border security programs, such as WHTI, US-VISIT, and SBI, requires modernization and facility upgrades. These programs require DHS to implement new inspection technologies to track cross-border traffic at the San Ysidro LPOE. The WHTI plan, as directed by the Intelligence Reform and Terrorism Prevention Act of 2004, is designed to enhance U.S. border security while facilitating legitimate travel and trade. Under WHTI, travelers entering the U.S. must present specified documentation that proves both identity and citizenship. US-VISIT is a program that uses biometric data (digital finger scans and photographs) to verify travelers' identity and to check against a database of known criminals and suspected terrorists. The SBI is a multi-year plan to add more border patrol agents; expand illegal immigrant detention and removal capabilities; and upgrade border control technology, including manned/unmanned aerial assets, and detection technology; increase investment in border infrastructure improvements; and increase interior enforcement of U.S. immigration laws. In order to implement these security programs, an increase in staff, space, and systems is needed, which cannot be accommodated within the existing configuration of the LPOE.

In summary, reconfiguration and expansion of the San Ysidro LPOE are necessary because: (1) the existing facility is undersized and requires modernization due to mandated security programs; and (2) the current configuration is inefficient and increases the potential for safety hazards and security concerns.

1.3 Existing Facilities

The existing San Ysidro LPOE was constructed in 1973 and consists of several buildings and infrastructure to support border inspection operations 24 hours a day, seven days a week. Existing buildings are located within the northbound inspection facility and include the Administration Building, Pedestrian Inspection Building, the East and West Head Houses, and the Old Customs House. Existing buildings encompass a total of approximately 70,000 square feet and are briefly described below.

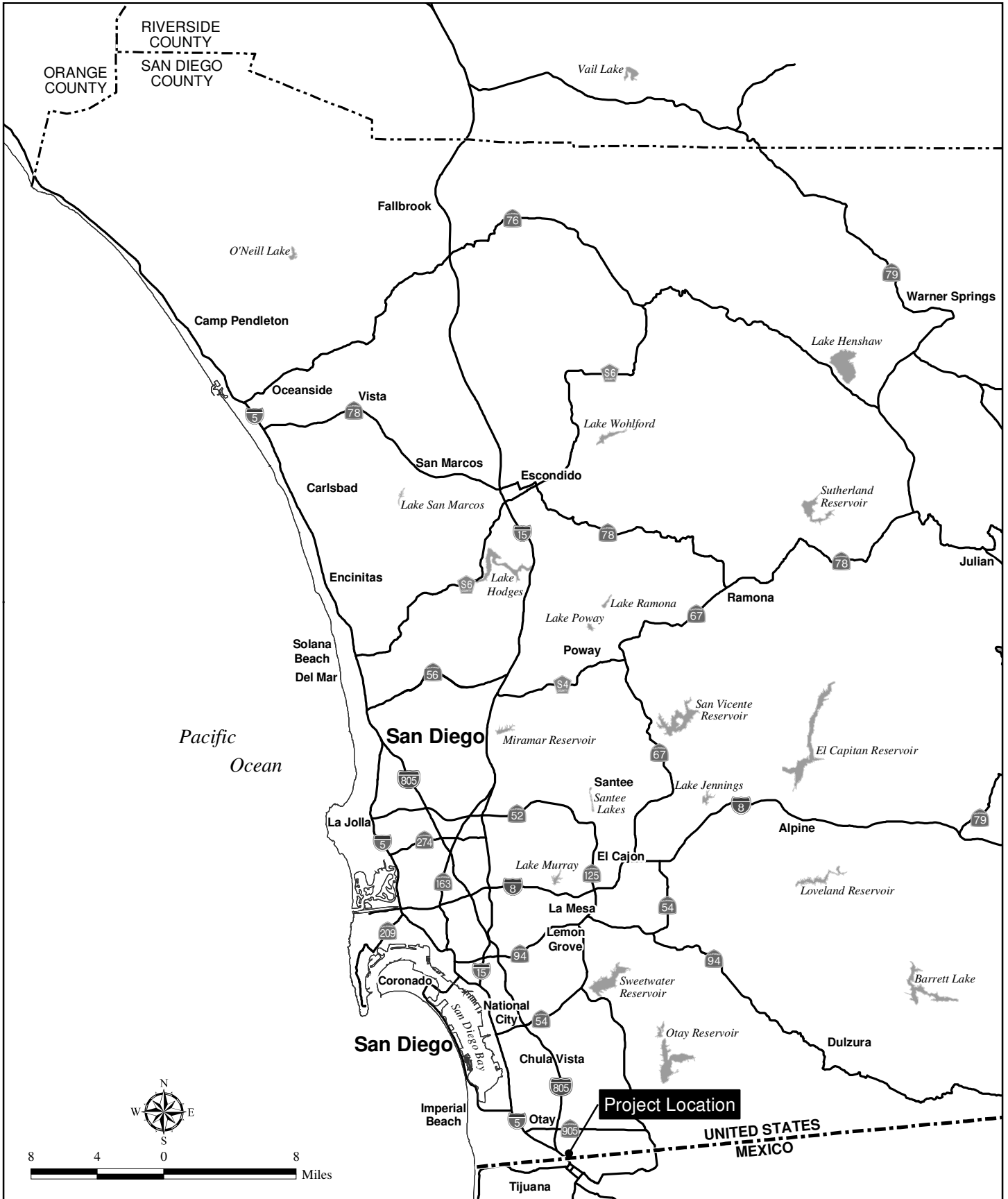
- **Administration Building:** The Administration Building was constructed as a bridge structure that spans the northbound primary vehicle inspection lanes. This elevated one-story building contains administrative offices and holding cells.

- **Pedestrian Inspection Building:** The Pedestrian Inspection Building is adjacent to the Administration Building and handles pedestrian and bicycle processing operations. This building also contains holding cells.
- **East and West Head Houses:** Two head house buildings are located immediately north of the Administration Building at ground level within the Secondary Inspection Area. The head houses provide operations offices for supervisors.
- **Old Customs House:** The Old Customs House, located on the east side of the northbound vehicular lanes, was constructed in 1932 and has been listed in the National Register of Historic Places (NRHP) since 1982. The two-story Old Customs House encompasses approximately 20,500 square feet of office space.

Other facilities and infrastructure within the northbound inspection facility include 24 vehicular lanes, inspection booths, and vehicle canopies within the Primary Inspection Area, as well as 72 vehicle inspection spaces, vehicle canopies, an impound lot, and parking areas within the Secondary Inspection Area. The 24 vehicular lanes within the Primary Inspection Area include four high occupancy vehicle (HOV) lanes, one dedicated bus lane, and one lane dedicated to the Secure Electronic Network for Travelers Rapid Inspection (SENTRI) program, which allows expedited automated processing for vehicles with special permits. Pedestrian access into the U.S. (northbound) is provided on the eastern side of the northbound inspection facility.

The southbound facility consists of six southbound traffic lanes and a pedestrian crossing that provide southbound access into Mexico. Figure 1-3 illustrates the existing configuration of the San Ysidro LPOE.

Current tenants include Customs and Border Protection (CBP), Immigration and Customs Enforcement (ICE), and the U.S. Border Patrol (USBP), all three of which are part of the DHS; the U.S. Department of Agriculture (USDA); and the Consulate of Mexico.



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Regional Location Map

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

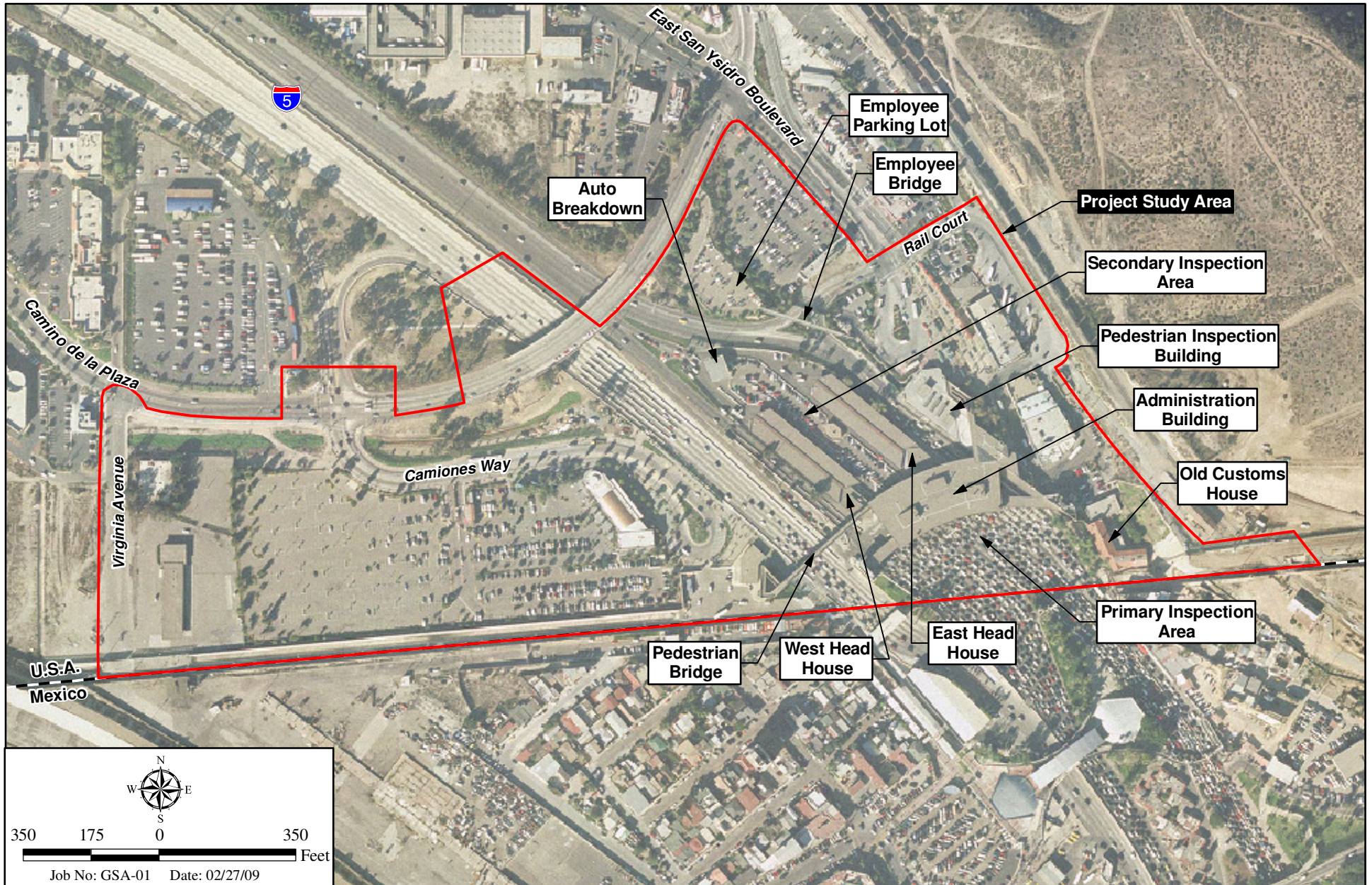
Figure 1-1



Project Vicinity Map

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 1-2



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Existing San Ysidro LPOE

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 1-3

PROJECT ALTERNATIVES

CHAPTER 2.0 –PROJECT ALTERNATIVES

2.1 PROJECT DESCRIPTION

The Project entails the phased reconfiguration and expansion of the existing LPOE to improve operational efficiency, security, and safety for cross-border travelers and federal agencies at the San Ysidro LPOE. Two Project build alternatives were considered by a multi-disciplinary team during the Project design process, following a scoping meeting and consultation with the community. Because the Project concerns improvements to a LPOE, alternative Project locations were not considered since the precise location of such a facility requires a formal agreement between the Governments of the U.S. and Mexico. Improvements at the existing Otay Mesa LPOE and development of a new LPOE at Otay Mesa East have been shown to be needed with or without the Project, and plans to move forward at these other LPOEs are currently in process. Consequently, all the build alternatives considered represent design/operational variations at the existing LPOE location. The alternatives described and evaluated in this Draft Environmental Impact Statement (EIS) include the Preferred Alternative, the Pedestrian Crossing Alternative, and the No Build Alternative. Alternatives considered and rejected are described in Section 2.2.

2.1.1 Preferred Alternative

The Preferred Alternative would demolish most of the existing facilities and new facilities would be constructed, including new primary and secondary inspection areas, an administration building, a pedestrian building, a central plant, one pedestrian bridge, a parking structure, and other support structures. The only building considered for retention and renovation is the Old Customs House, which is currently undergoing a Section 106 consultation with the State Historic Preservation Officer (SHPO), pursuant to the National Historic Preservation Act (NHPA). The expanded facility would consist of approximately 210,000 gross square feet (gsf) of building space, 31 northbound inspection lanes, six southbound inspection lanes, two new southbound pedestrian crossings, and a new southbound roadway connecting with Mexico's planned El Chaparral LPOE facility. The Project would be constructed in three phases over a period of approximately four years, with some overlap of phases occurring. Each phase described below could function independently from subsequent phases without disrupting ongoing operations at the LPOE.

Phase 1 – Northbound Facilities

Proposed improvements in Phase 1 would primarily entail reconfiguration of the northbound facilities to increase inspection processing capacity and operational efficiency. Figure 2-1 illustrates proposed improvements during Phase 1.

Primary Inspection Area

The northbound primary vehicle inspection area would be reconfigured to include 24 inspection lanes, consisting of 23 standard vehicular lanes (12 feet wide) and one bus lane (14 feet wide). The standard vehicular lanes would include 46 horizontally stacked inspection booths. Stacked booths consist of two booths arranged in tandem that allow for the concurrent inspection of two cars per lane. The bus lane would include a single inspection booth. A portion of the primary vehicle inspection area would be covered with canopies. Vehicles cleared to enter the U.S.

from the primary inspection area would be directed to northbound lanes that merge with I-5. A total of six northbound lanes (12 feet wide) would be constructed; three along the eastern portion of the LPOE, and three in the middle of the LPOE, creating a central island for secondary inspections and operations.

Secondary Inspection Area

The existing northbound secondary inspection area would be demolished, and a new secondary inspection and operations center island would be constructed. The new secondary inspection area would contain up to 35 inspection spaces and up to 19 inspection booths, and would be covered with canopies. The access points to the secondary inspection area would be equipped with non-intrusive inspection facilities, such as gamma ray scanning equipment.

A new east-west connector road would be constructed to the north of the secondary inspection area that would connect to the northbound lanes merging onto I-5.

Auto Seizure and Impound Facilities

North of the secondary inspection area, an approximately 2,700-gsf auto seizure building and impound facility would be constructed. This facility would include an impound parking lot to accommodate approximately 45 spaces for impounded vehicles, as well as two disabled spaces for employees at the auto seizures building. A portion of this area would be covered with canopies. Access would be provided from the new east-west connector road.

Operations Center

A new operations center building would be constructed immediately east of the secondary inspection area. The operations center building would encompass approximately 50,000 gsf on two floors, and would contain a new head house and an auto breakdown facility.

Employee Parking Structure

A multi-story employee parking structure would be constructed on the west side of southbound I-5 during Phase 1. The proposed parking structure would provide approximately 300 parking spaces on five levels (one below grade, and four above grade). A staff pedestrian bridge would also be constructed between the parking structure and the operations center. This structure would require the demolition of the former USBP building and reconfiguration of the Camiones Way turn-around. The existing Camiones Way turn-around would be relocated slightly to the north and would terminate just west of I-5. Access to the parking structure would be provided from the reconfigured Camiones Way turn-around.

Pedestrian Facilities

Phase 1 would include construction of an east – west pedestrian bridge over the I-5 and LPOE, between the San Ysidro Intermodal Transportation Center and Camino de la Plaza. The proposed pedestrian bridge would connect to Camino de la Plaza from a bridge landing that would include a pedestrian ramp to the reconfigured Camiones Way turn-around. The pedestrian bridge would cross over southbound I-5, and the LPOE, and then would ramp down to the San Ysidro Intermodal Transit Center. In addition to the pedestrian ramp, a staircase also would be constructed at the eastern end of the bridge, connecting to the San Ysidro Intermodal Transit Center. A pedestrian walkway would be constructed between Camiones Way and the

border to channel pedestrians around the new employee parking structure and into Mexico. An existing staff pedestrian bridge that spans the East San Ysidro Boulevard freeway ramps and connects an employee parking lot with a walkway to the existing Pedestrian Inspection Building would be demolished. The existing elevated Administration Building would remain in place and operational during Phase 1, but public access to the existing pedestrian bridge along the existing Administration Building would be closed once the new east-west pedestrian bridge is constructed.

Southbound Pedestrian Crossing

A new southbound pedestrian crossing would be provided in the eastern portion of the LPOE near the Old Customs House. It is anticipated that this new pedestrian crossing could require modifications to the Old Customs House. Per Section 106 of the NHPA, GSA is currently in consultation with the SHPO, Advisory Council on Historic Preservation, and other parties regarding the potential future use of the Old Customs House.

Central Plant

Phase 1 would include construction of a new central plant on the eastern side of the LPOE. Two existing buildings along Rail Court (currently occupied by a Payless Shoe Store and a privately owned and operated long-haul bus station) would be demolished, and a two-story central plant encompassing approximately 24,000 gsf would be constructed to house electrical and mechanical equipment. An employee surface parking lot with approximately 35 spaces would be constructed on the east side of the central plant.

Other Features

Other proposed features during Phase 1 would include construction of a detainee holding facility at the LPOE, and a telecommunications tower in the vicinity of the employee parking structure.

Construction of Phase 1 is anticipated to begin in winter 2009/2010 with an estimated duration of 18 to 24 months.

Phase 2 – Northbound Buildings

Phase 2 improvements would involve the reconfiguration of the eastern operational area and construction of new buildings. Figure 2-2 illustrates proposed improvements during Phase 2.

The existing Pedestrian Building would be demolished, and a new Administration and Pedestrian Building would be constructed east of the reconfigured northbound inspection facilities. The proposed Administration and Pedestrian Building would encompass approximately 100,000 gsf on three levels, and an approximately 20,000-gsf underground central detention facility. A new north–south pedestrian ramp would be constructed to channel northbound pedestrians and bicyclists from Mexico to the inspection processing facilities on the second level of this structure. During construction of the Administration and Pedestrian Building, pedestrian processing operations would temporarily be transferred to the Old Customs House. The Old Customs House would be renovated to accommodate these interim uses, and a new pedestrian sidewalk would be constructed between the border crossing and the renovated building. Following construction of the proposed improvements, the existing Administration Building and bridge (supporting the Administration Building) would be demolished.

Construction of Phase 2 is anticipated to begin in 2011 with an estimated duration of 24 to 30 months.

Phase 3 – Southbound Facilities

Proposed Phase 3 improvements primarily would entail the reconfiguration of the southbound facilities to connect with Mexico's planned El Chaparral facility. The reconfiguration of the southbound facilities would require removal of existing structures and Camiones Way. The existing commercial retail building (UETA Duty Free Shop) and large surface parking lots between Virginia Avenue and I-5 would be demolished. Construction of the proposed southbound roadway also would remove Camiones Way. Figure 2-3 illustrates proposed improvements during Phase 3.

Primary Inspection Area

The primary southbound inspection area would contain six inspection lanes, consisting of five standard vehicular lanes (12 feet wide) and one 14-foot-wide bus inspection lane. The inspection lanes would include 12 stacked inspection booths. A portion of the primary vehicle inspection area would be covered with canopies. A bypass lane would be included south of the primary inspection area to provide employees controlled access to the LPOE. In addition, a last-chance turn-around lane would be provided on the east side of the southbound roadway to allow vehicles to make a direct U-turn from the southbound roadway to northbound I-5.

Secondary Inspection Area

A secondary southbound inspection area would be constructed northeast of the employee parking structure, and would include up to 17 inspection spaces and up to nine inspection booths covered with canopies. The access points to the secondary inspection area would be equipped with non-intrusive inspection facilities, such as gamma ray scanning equipment. The secondary inspection area also would include an auto inspection/breakdown building. This building would encompass approximately 9,000 gsf on two floors.

The east-west connector road (constructed during Phase 1) would be extended to the west to connect the east and west portions of the LPOE and provide access to the secondary vehicle inspection area, employee parking, the USBP facility, and the southbound roadway.

Southbound Roadway

A new southbound roadway would be constructed at the terminus of southbound I-5, just south of the Camino de la Plaza overcrossing, and would curve southwestward within the LPOE to connect with the planned El Chaparral LPOE in Mexico. The roadway would consist of six southbound lanes (12 feet wide) at the primary inspection. Approximately 1,000 feet southwest of the primary inspection area, the roadway would widen to 14 lanes (12 feet wide) and would divide just prior to the international border. This configuration of the roadway terminus would match the design of the planned El Chaparral LPOE in Mexico. Additionally, the westernmost southbound lane would include a gated emergency access road to Camino de la Plaza.

Pedestrian Facilities

A new southbound pedestrian crossing facility would be constructed in the western portion of the LPOE at Virginia Avenue during Phase 3. The new facility would include a new crossing and a southbound pedestrian building. The pedestrian crossing would connect to Mexico's planned El Chaparral LPOE. Once the new pedestrian crossing is constructed and operational, the existing southbound pedestrian crossing would be removed.

In addition, a pedestrian ramp would be constructed between the east–west pedestrian bridge (to be completed during Phase 1), and a proposed sidewalk that would connect with Virginia Avenue to the east.

Transit Facility

As described above, the new southbound roadway would remove Camiones Way, which includes a bus turn-around at its terminus. A new turn-around and loading facility would be constructed in the western portion of the LPOE along Virginia Avenue to accommodate buses, taxis, jitneys, and privately owned vehicles.

USBP Facility

A new USBP station would be constructed in the southern portion of the LPOE, between the new southbound roadway and the U.S.-Mexico border. The station would consist of an approximately 3,500-gsf building a small parking area for USBP employees, and a repatriation gate. Vehicular access to the new USBP station would be provided from the internal east-west connector road.

Employee Parking Area

An employee parking area would be constructed in the southern portion of the LPOE between the new southbound roadway, the employee parking structure, the U.S.-Mexico border, and the USBP facility. This area would provide approximately 300 surface parking spaces, and possibly storm water retention facilities.

Northbound Primary Inspection Area Expansion

During Phase 3, the northbound primary inspection area would be expanded by seven lanes (12 feet wide) on the west with 14 stacked inspection booths, resulting in a total of 31 new lanes (24 lanes would be constructed in Phase 1).

Construction of Phase 3 is estimated to begin as early as 2011, or as late as 2013, depending on the schedule provided by Mexico for their construction of the El Chaparral facility, and would last approximately 20 to 24 months.

2.1.2 Pedestrian Crossing Alternative

The Pedestrian Crossing Alternative is similar to the Preferred Alternative, but would entail a different cross-border pedestrian circulation scheme. While the Preferred Alternative proposes to remove the existing southbound pedestrian crossing and construct two new southbound pedestrian crossings (one at Virginia Avenue and one east of the Old Customs House), the Pedestrian Crossing Alternative would provide a single southbound pedestrian crossing at its existing location.

The Pedestrian Crossing Alternative would demolish most of the existing LPOE facilities, except for the existing southbound pedestrian crossing facility and the Old Customs House. New facilities to be constructed, including new primary and secondary inspection areas, an administration building, a pedestrian building, a central plant, pedestrian bridges, a parking structure and other support structures, would generally be the same as the Preferred Alternative, with some variations in configuration and location within the LPOE. This alternative would be constructed in three phases that would correspond to those of the Preferred Alternative (i.e., Phase 1 would construct the northbound facilities, Phase 2 would construct northbound buildings, and Phase 3 would construct the southbound facilities). Construction of this alternative would occur over a period of approximately four years within the same estimated time frames as the Preferred Alternative identified above. Construction phases would overlap, but each phase could function independently from successive phases.

Phase 1 – Northbound Facilities

Proposed improvements in Phase 1 would entail construction of new northbound facilities similar to those described above for the Preferred Alternative. Figure 2-4 shows the proposed improvements during Phase 1. The proposed new northbound primary and secondary inspection areas, operations center, employee parking structure, and reconfiguration of the Camiones Way turn-around, would be the same as proposed under the Preferred Alternative. The auto seizure and impound facilities and central plant would be constructed at the same location as the Preferred Alternative, but the configuration would be slightly different.

The east-west pedestrian bridge would be constructed over I-5 and the LPOE, but instead of landing at the San Ysidro Intermodal Transportation Center, it would land on the north side of the East San Ysidro Boulevard/I-5 freeway ramp. The west end of the pedestrian bridge would connect to an elevated bridge deck extending from Camino de la Plaza. This deck would be larger than the bridge landing proposed under the Preferred Alternative.

Phase 2 – Northbound Buildings

Proposed improvements during Phase 2 under the Pedestrian Crossing Alternative would be the same as the Preferred Alternative identified above. Figure 2-5 illustrates proposed improvements during Phase 2.

Phase 3 – Southbound Facilities

Proposed Phase 3 improvements would primarily consist of the construction of new southbound facilities similar to those described above for the Preferred Alternative. Figure 2-6 depicts proposed improvements during Phase 3.

The proposed southbound primary and secondary inspection areas, the pedestrian ramp connecting to the east-west pedestrian bridge (constructed in Phase 1), the removal of Camiones Way, and the northbound primary inspection area expansion would be the same as proposed under the Preferred Alternative. The southbound roadway would be the same as proposed under the Preferred Alternative except that an exit lane to Virginia Avenue would be provided from the westernmost southbound lane.

A new north–south pedestrian bridge would be built over the proposed southbound roadway, connecting the proposed elevated bridge deck and main east–west pedestrian bridge (to be

completed during Phase 1) to the pedestrian walkway at the existing southbound pedestrian crossing facility.

The USBP station would be constructed in the southern portion of the LPOE, just west of the employee parking structure and north-south pedestrian bridge.

This alternative would not construct the bus-turn around facility in the western portion of the LPOE along Virginia Avenue proposed under the Preferred Alternative, but would provide a smaller turn-around at the south leg of the Camino de la Plaza/I-5 southbound ramps intersection.

2.1.3 No Build Alternative

The No Build Alternative is included and analyzed to provide a baseline for comparison with impacts from the Project, and also to satisfy federal requirements for analyzing “no action” under the National Environmental Policy Act (NEPA; 40 Code of Federal Regulations [CFR] 1502.14(d)). The No Build Alternative assumes that no improvements to the existing San Ysidro LPOE would be implemented. This alternative would not meet the purpose and need of the Project (as identified in Chapter 1.0 of this Draft EIS), as operational constraints and safety/security deficiencies would not be corrected, and the wait times to cross the border would be expected to increase.

2.2 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER DISCUSSION

In addition to the Preferred Alternative and the Pedestrian Crossing Alternative, the Freeway Realignment Alternative was considered as a potential build alternative during the Project design process. This alternative and the reasons for its elimination from further analysis are discussed below.

2.2.1 Freeway Realignment Alternative

The Freeway Realignment Alternative would have consisted of a new southbound inspection facility along Virginia Avenue, expanded northbound vehicle inspection lanes, and reconfigured northbound inspection facilities. Figure 2-7 illustrates the Freeway Realignment Alternative.

This alternative would have realigned the southernmost segments of I-5 and I-805 to the west to connect with Mexico’s planned El Chaparral LPOE. The new southbound inspection facility would have been located on the west side of Virginia Avenue and would have consisted of 12 primary vehicular inspection lanes, one bus inspection lane, a head house building, a secondary inspection area for passenger vehicles, an impound vehicle area, a drop-off area, and parking. A dedicated pedestrian path and bicycle lane also would have been constructed to provide access into Mexico. To accommodate the southbound facilities, Camino de la Plaza would have been realigned, which would have required demolition of the existing overcrossing and a new overcrossing structure to the north. Access to the new southbound facility would have been provided from I-5, I-805, and Camino de la Plaza.

The existing northbound facility would have been expanded to include between 40 and 50 primary inspection booths in a stacked configuration, a new secondary inspection area, a new single head house building, and a new pedestrian inspection facility. A new administration building would have been constructed above the secondary inspection area, and parking areas would have been built.

The Freeway Realignment Alternative was eliminated as a viable build alternative due to non-standard design features, potential community impacts, safety concerns, and cost. Most noteworthy, the realignment of the I-5 and I-805 segments to connect with the planned El Chaparral LPOE would have required a horizontal curve that would not meet the American Association of State Highway and Transportation Officials (AASHTO) design speed criteria.

Moreover, the implementation of this alternative could have further divided the San Ysidro community. The overall development footprint of this alternative is greater when compared to the Preferred Alternative. The northbound facilities (e.g., buildings and inspection areas) would have been separated from the southbound facilities by a distance of approximately 1,700 feet, with parking areas between them. The realignment of the southbound freeway segments would have created large areas between the realigned southbound lanes and the existing northbound lanes. This design configuration could have created the perception of a larger LPOE, further bifurcating the east and west sides of the community. Additionally, the distance between the northbound and southbound facilities and connections to surrounding areas would have required longer walking distances to and from the LPOE, impacting mobility within the community.

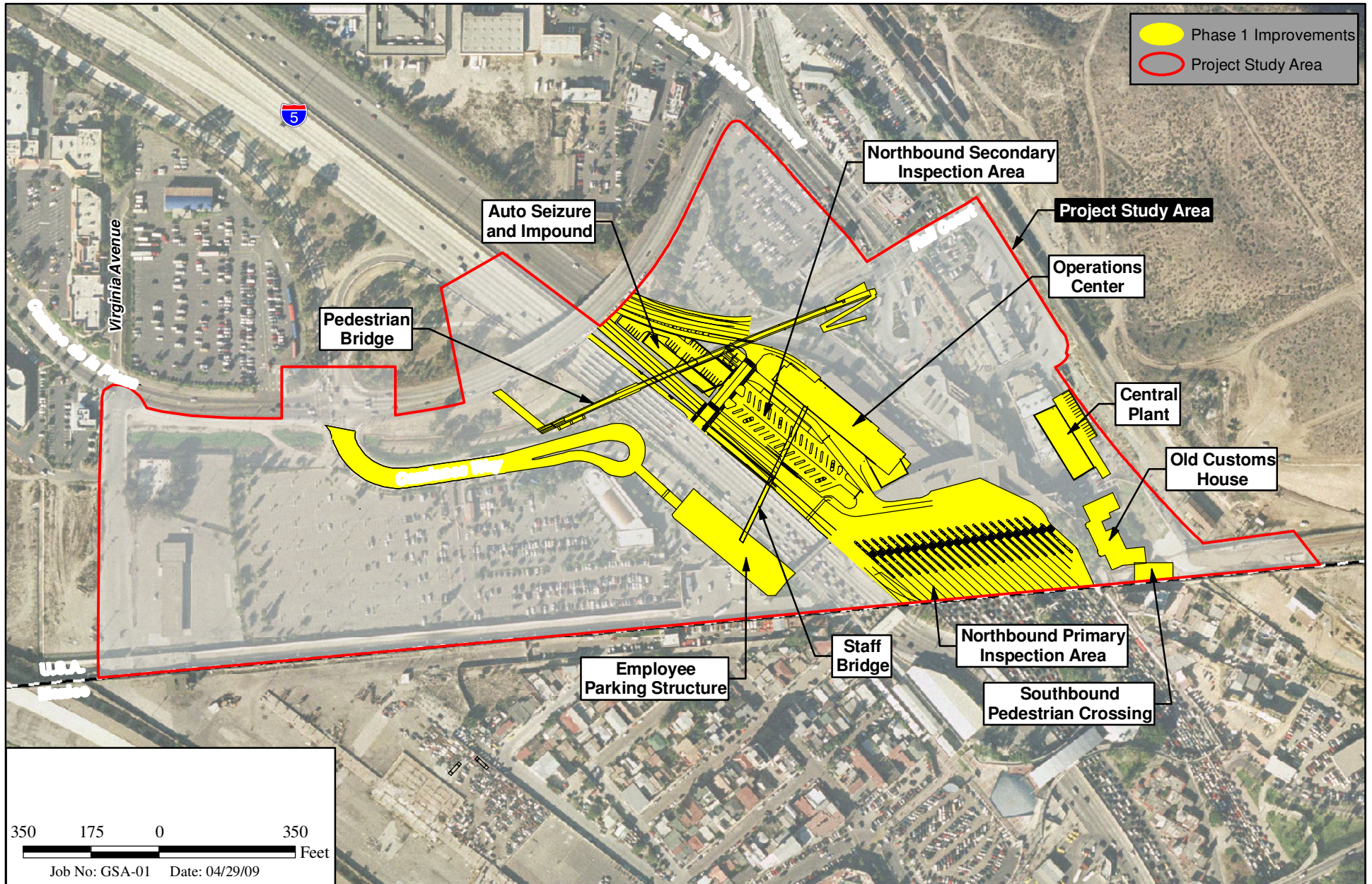
Construction of the Administrative Building above inspection facilities would not improve the safety and security concerns currently present at the existing LPOE facility. Federal employee safety would have continued to be at risk because, like the current configuration, federal offices would have been located directly above the primary inspection area. This would have created a potential risk in the event of a criminal incident within the inspection area below. Therefore, the goal of improving safety for employees, as identified in Chapter 1.0, would not have been met.

Finally, the cost to realign the freeway and the Camino de la Plaza overcrossing was substantially higher than that identified for the proposed Project for a less preferred design.

2.3 PERMITS AND APPROVALS NEEDED

The following permits and approvals would be required for the Project:

- Presidential Permit from the U.S. Department of State
- Clean Water Act Section 404 Nationwide Permit from the U.S. Army Corps of Engineers (Corps)
- Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB)
- National Pollutant Discharge Elimination System (NPDES) General Construction Activity Permit from the State Water Resources Control Board
- General Groundwater Extraction Waste Discharge Permit from the RWQCB
- Permits to Operate emergency generators from the San Diego Air Pollution Control District (APCD)
- Section 106 consultation with the SHPO, pursuant to the NHPA
- GSA Public Buildings Service Commissioner approval of Project design

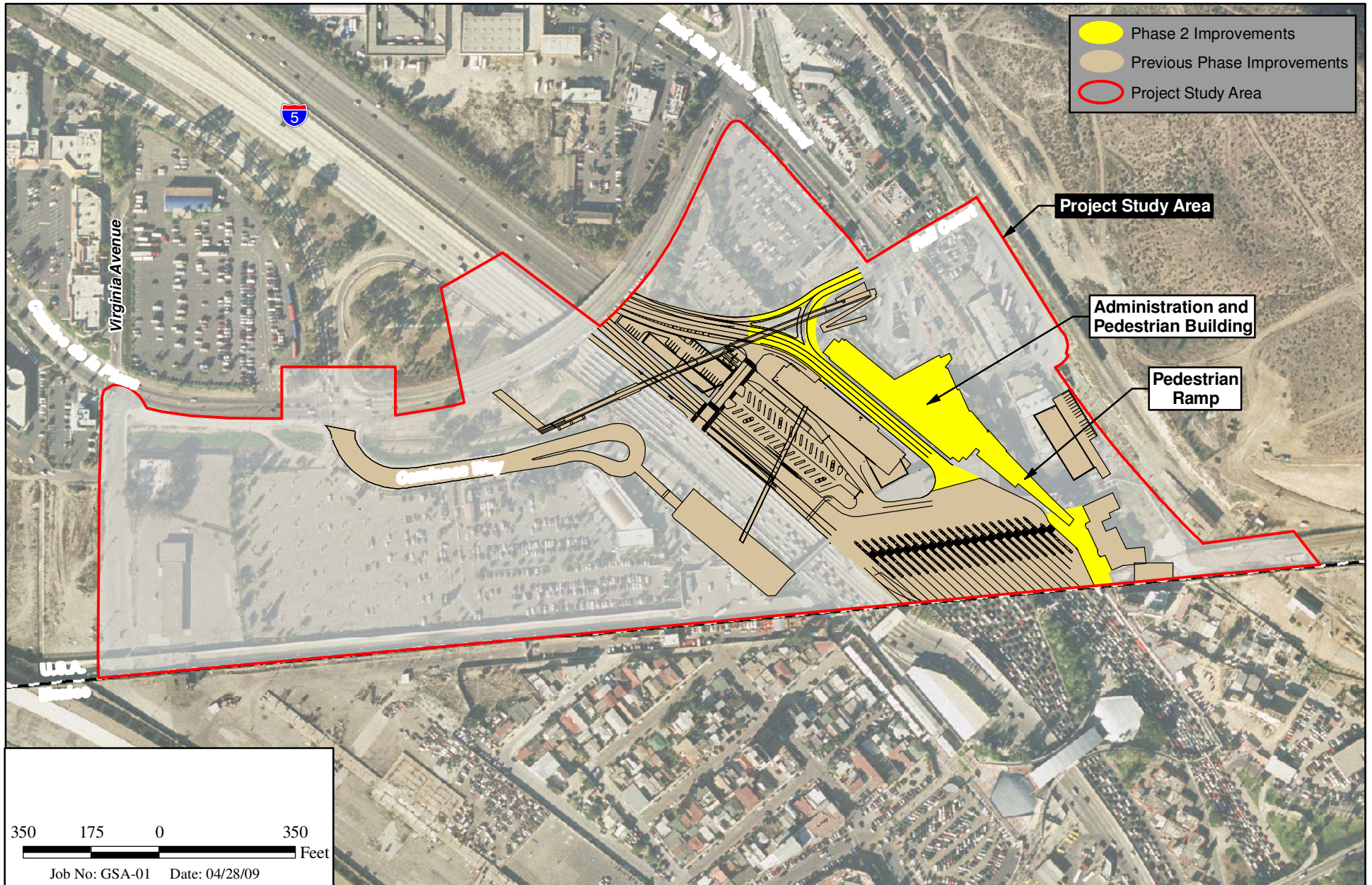


Preferred Alternative - Phase 1 Improvements

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 2-1

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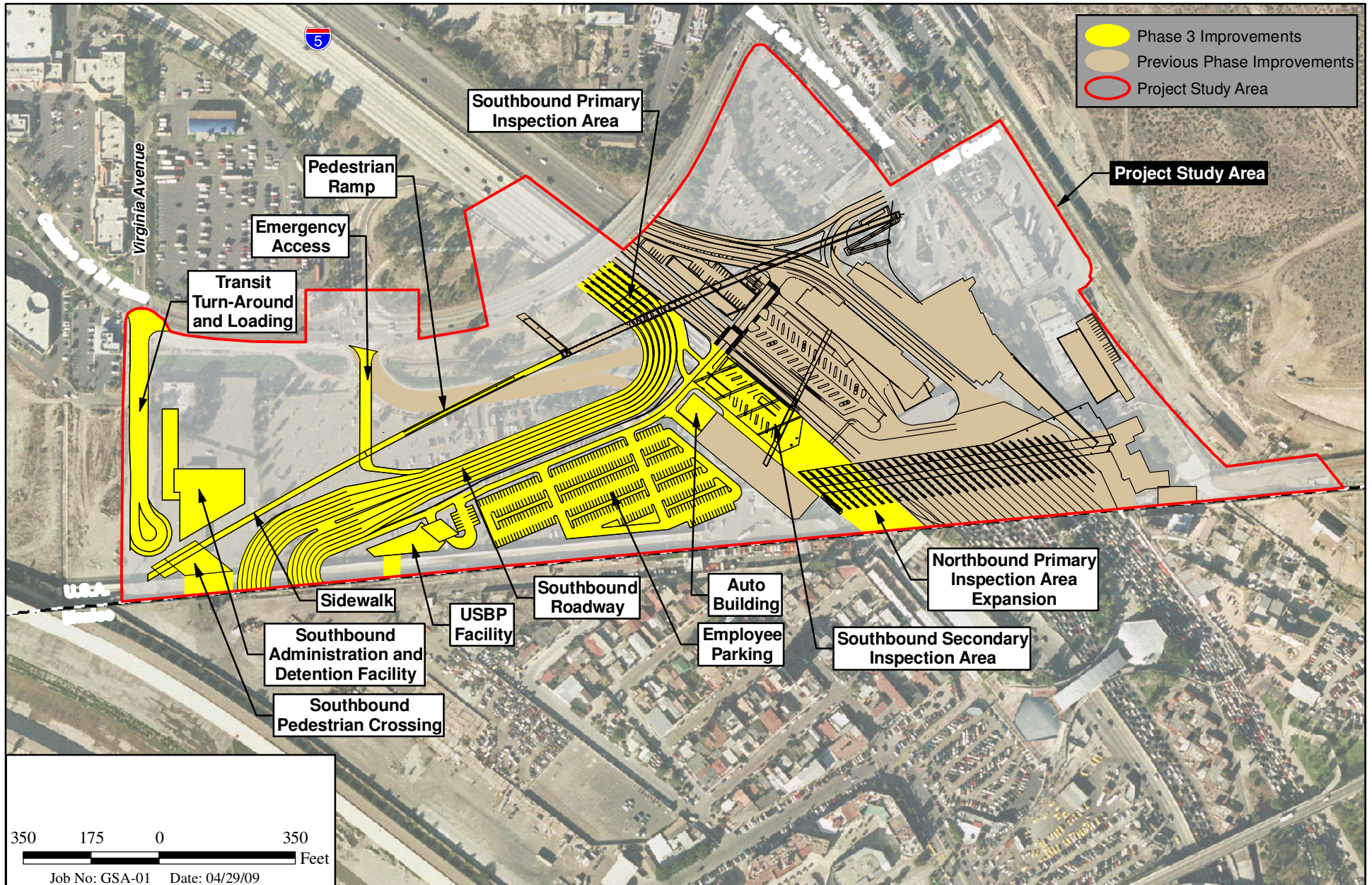


Preferred Alternative - Phase 2 Improvements

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 2-2

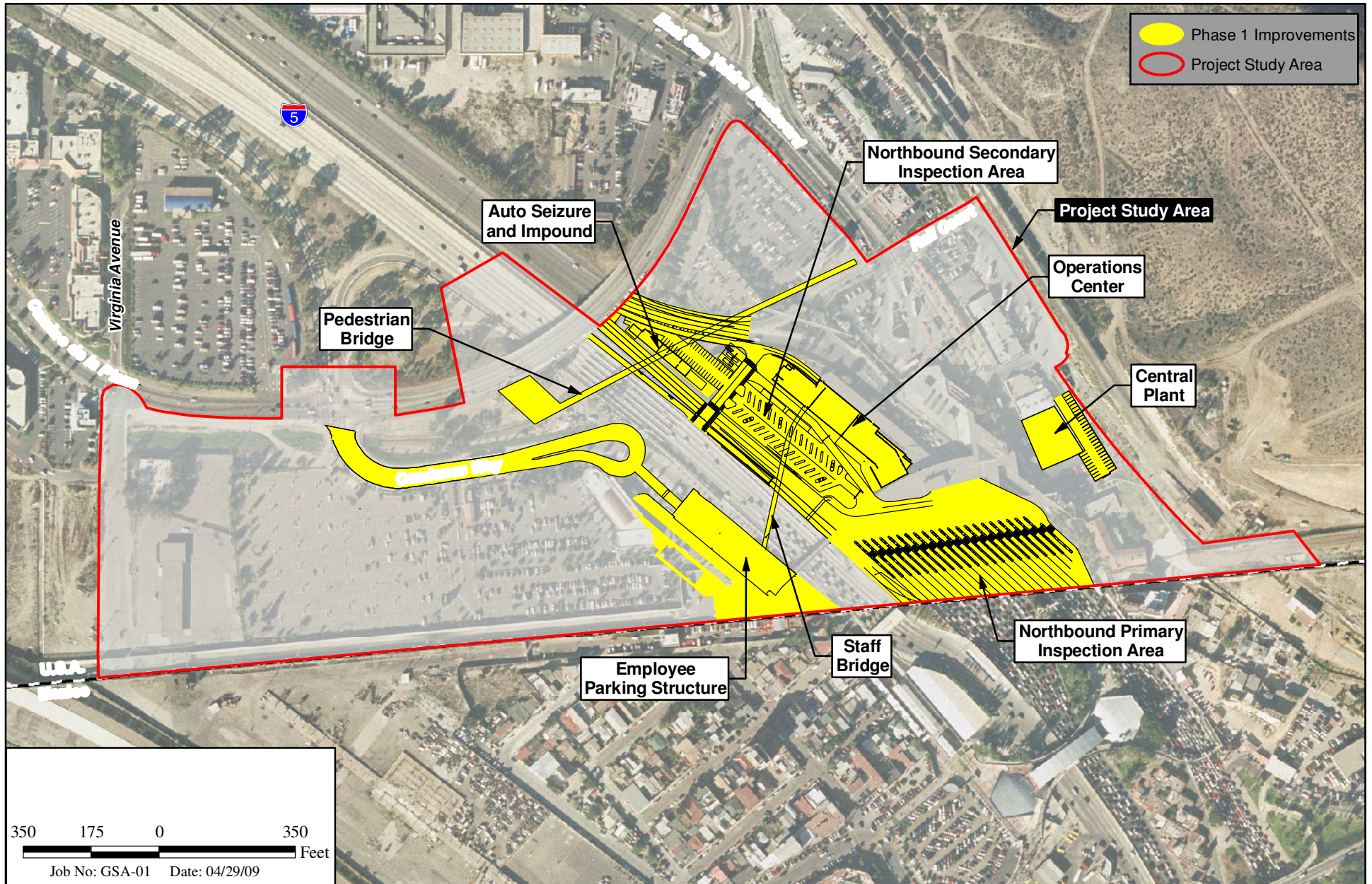
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Preferred Alternative - Phase 3 Improvements

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 2-3

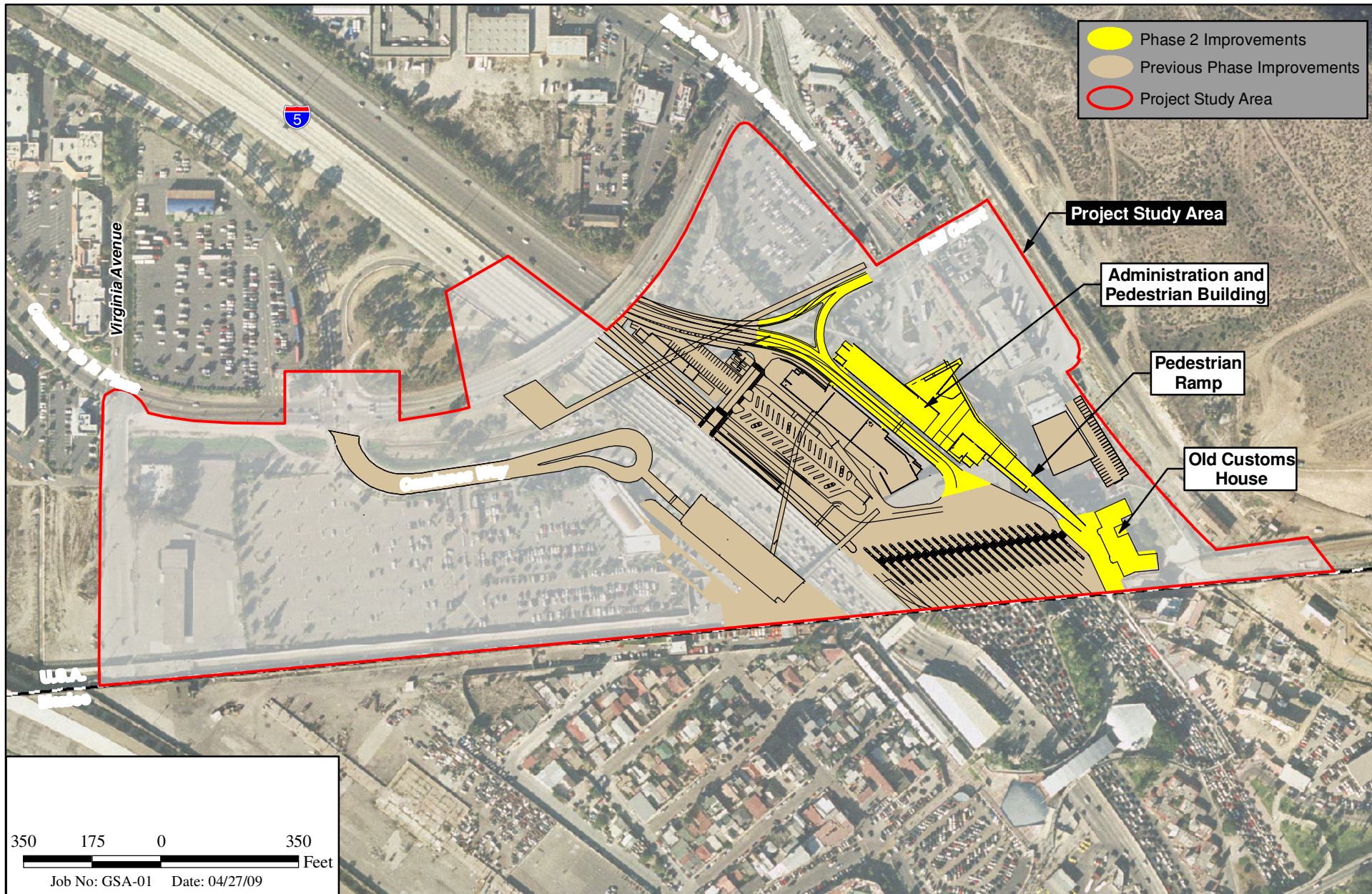


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Pedestrian Crossing Alternative - Phase 1 Improvements

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 2-4

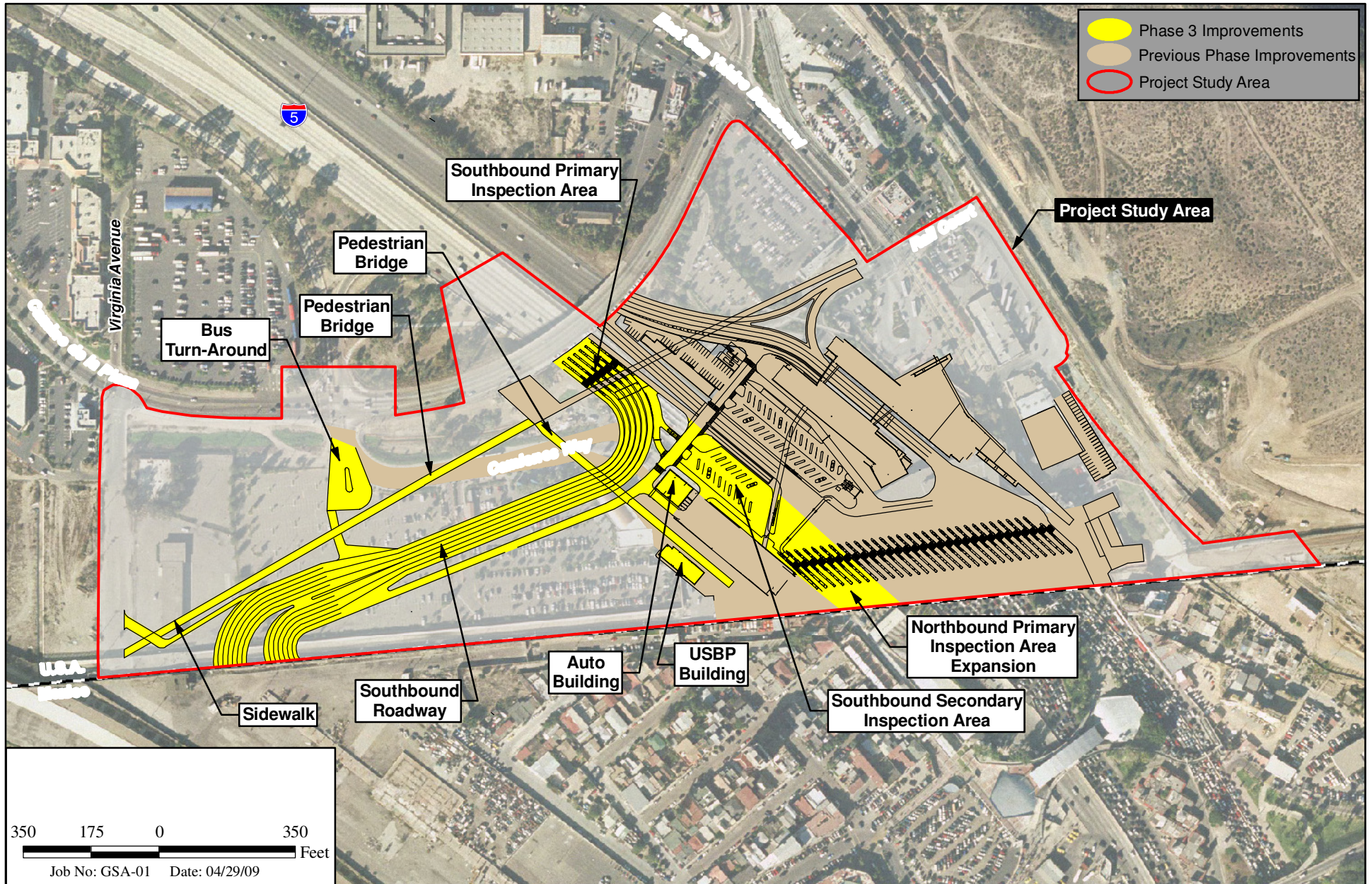


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Pedestrian Crossing Alternative - Phase 2 Improvements

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 2-5

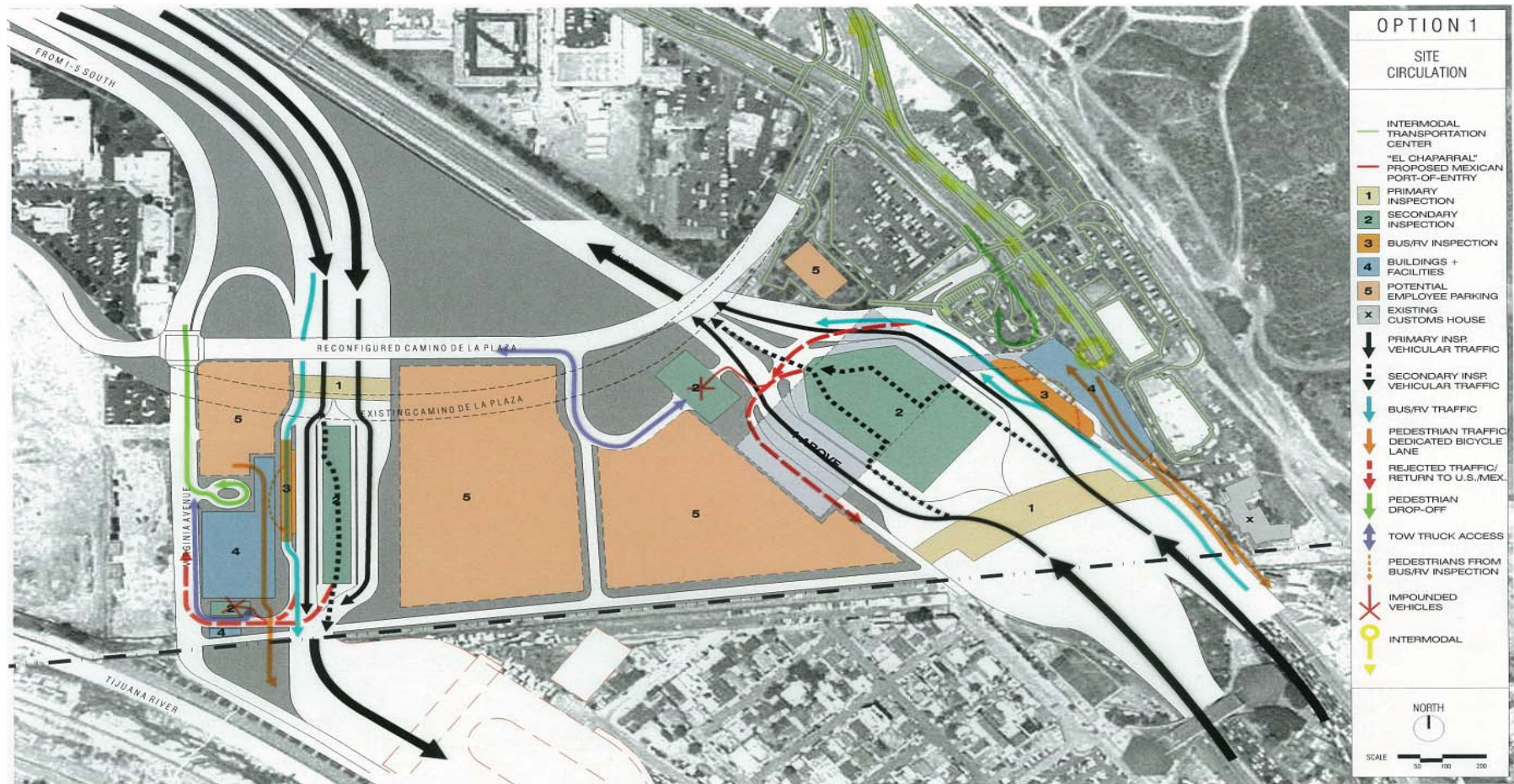


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Pedestrian Crossing Alternative - Phase 3 Improvements

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 2-6



Source: GSA; Cannon Design

Freeway Realignment Alternative

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 2-7

CHAPTER 3.0

AFFECTED ENVIRONMENT; ENVIRONMENTAL CONSEQUENCES; AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

CHAPTER 3.0 – AFFECTED ENVIRONMENT; ENVIRONMENTAL CONSEQUENCES; AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

This chapter discusses existing conditions and addresses the environmental impacts of the Project alternatives, as well as identifies avoidance, minimization, and mitigation measures that could be implemented in conjunction with the Project.

As part of the scoping and environmental analysis conducted for the Project, the following environmental issues were considered, but no impacts were identified. Consequently, there is no further discussion of these issues in this Draft EIS:

Farmland: The Project Study Area is not located on land under a Williamson Act contract and no agricultural resources are located in the vicinity. Project implementation would not convert farmland to non-agricultural uses or affect any farmlands.

Noise: The Project Study Area is located in a developed urban area predominantly comprised of commercial uses. No noise-sensitive receptors are located within the Project Study Area. The closest such receptors include four hotels/motels to the north along East San Ysidro Boulevard and Border Village Road. The three closest hotels/motels do not contain outdoor areas of frequent human use (i.e., swimming pools, patios), and the fourth contains a swimming pool that is shielded by the motel buildings. The closest school, Willow Elementary School, is located approximately 0.4 mile to the northwest, adjacent to I-5, and the closest park (Cesar Chavez Community Center and Larsen Field) is located approximately 0.5 mile to the west. Given the distance from the Project Study Area, noise generated by routine operations at the improved San Ysidro LPOE would not be highly perceptible at the school or park. As a result, no adverse noise impacts would occur from Project implementation.

With regard to potential cross-border impacts in Mexico, Council on Environmental Quality (CEQ) Guidance on NEPA Analysis for Transboundary Impacts (July 1, 1997) states: "... in the context of international agreements, the parties may set forth a specific process for obtaining information from the affected country which could then be relied upon in most circumstances to satisfy agencies' responsibility to undertake a reasonable search for information." In this case, since Mexico is undertaking a corresponding LPOE project on their side of the border, Mexican agencies are addressing potential environmental impacts of concern to Mexico.

The basis for the referenced CEQ guidance is President Carter's Executive Order (EO) 12114. Subchapter 2.5 of this EO provides exemptions that include Presidential actions. Historically, the Department of State (DOS) has taken the position that transboundary impacts are generally not considered (unless they are outside the exemption created by EO 12114). Therefore, potential project-level and cumulative impacts in Mexico associated with the Project are not addressed in this Draft EIS.

HUMAN ENVIRONMENT

3.1 LAND USE

This subchapter of the Draft EIS assesses the potential for existing land use patterns and development trends within the study area to affect, or be affected by, implementation of the Project. The study area evaluated for land use issues encompasses the *San Ysidro Community Plan* (1974, as amended; SYCP) Area, which is depicted in Figure 3.1-1. A Community Impact Assessment, (CIA; *Community Impact Assessment for the San Ysidro Land Port of Entry Improvements Project*, April 2009), was completed for the Project; relevant portions of this report are summarized in this subchapter of the Draft EIS.

3.1.1 Existing and Future Land Use

Affected Environment

The San Ysidro Community Plan Area

The Project is located on the southern boundary of the SYCP Area, which encompasses approximately 1,800 acres and is located about 14 miles southeast of downtown San Diego. The SYCP Area is surrounded by the Tijuana River Valley to the west, State Route 905 (SR-905) and the Otay Mesa-Nestor community to the north, the Otay Mesa community to the east, and the U.S.-Mexico International Border to the south. The topography of the SYCP Area is mostly level, except for the northeast portion, which is dominated by hilly terrain. The Tijuana River Valley comprises most of the SYCP Area west of I-5. The topography transitions to steeper slopes immediately east of the Project Study Area.

San Ysidro began as a small agricultural community and continued to retain this identity, even as its importance in, and dependence upon, border commerce began to grow. Today the SYCP Area is an international crossroads, a border community hosting the busiest land port of entry in North America. Currently, the SYCP Area is densely populated with primarily residential and commercial uses; only a few agricultural parcels remain near the margins of the SYCP Area and remote from the Project Study Area. Commercial areas are largely associated with international border activities; they are concentrated around the LPOE and continue northward along a strip between the I-5/I-805 interchange and the trolley and railroad tracks. Additional commercial and industrial uses are located along both sides of I-5. The northern part of the SYCP Area (generally bound by SR-905, I-5, and I-805) primarily contains residential uses.

Land Use Designations and Zoning

Zoning designations in the Project vicinity are defined in the SYCP and the *City of San Diego General Plan* (General Plan). The City of San Diego (City) updated zoning designations in the Municipal Code (Chapter 14, Land Development Code) in January 2000, superseding the SYCP's 1990 zoning designations. The current zoning designations in the SYCP Area are depicted in Figure 3.1-1 and include the following:

- IL-2-1: Industrial – Light: allows a mix of light industrial and office uses with limited commercial
- CV-1-1: Commercial – Visitor; allows a mix of large-scale, visitor-serving uses, and residential uses
- CO-1-2: Commercial – Office; allows a mix of office and residential uses that serve as an employment center
- OF-1-1: Open Space - Floodplain
- OP-1-1: Open Space - Park
- AR-1-1: Agriculture – Residential; 10-acre minimum lot sizes
- AR-1-2: Agriculture – Residential; one-acre minimum lot sizes
- RS-1-1: Single Family Residential – Urbanized Community – Minimum 5,000-square-foot lots
- RS-1-7: Single Family Residential – Urbanized Community – Minimum 40,000-square-foot lots
- RM-1-1: Residential - Multiple Unit; one unit per 3,000-square-foot lot
- RM-2-5: Residential - Multiple Unit; one unit per 1,500-square-foot lot
- RM-3-7: Residential – Multiple Unit; one unit per 1,000-square-foot lot
- RM-4-10: Residential – Multiple Unit; one unit per 400-square-foot lot
- SYIO-CT-2-3: San Ysidro Implementing Ordinance – commercial center area with independent internal circulation and parking
- SYIO-CSF-2 (also -2-3, -2-4, and -3): San Ysidro Implementing Ordinance – commercial strip development with parking in the front or on the side of the building
- SYIO-CSR-1 (also -2 and -3): San Ysidro Implementing Ordinance – commercial strip development with parking to the rear or side of the building
- SYIO-I-1: San Ysidro Implementing Ordinance – Industrial uses

As illustrated in Figure 3.1-1, within the 52.5-acre Project Study Area, approximately 50.8 acres are zoned commercial (19.2 acres of SYIO-CSR-3 and 31.6 acres of SYIO-CT-2-3), while 1.7 acres on the eastern margin are zoned industrial (SYIO-I-1).

Existing Land Use Patterns

As illustrated in Figure 3.1-2, the central corridor of the Project Study Area is currently occupied with transportation uses (i.e., roadways and freeways) and border facilities. Much of the remaining land, along the western and eastern sides of this central corridor, is occupied by a number of commercial establishments serving employees of the LPOE and the border-crossing population. Near the eastern edge of the Project Study Area is the terminus of the blue line trolley, which is located adjacent to the San Ysidro Intermodal Transportation Center. Just to the east of the transportation center is a small commercial strip, which includes a privately owned and operated long-haul bus depot, several retail shops, a market, and several fast food restaurants. At the northernmost end of this strip is a small paid parking lot. Across I-5 and along Camiones Way are a duty-free shop and a larger paid parking lot.

Land uses surrounding the Project Study Area are largely transportation-related (I-5, I-805, the freight rail line, the blue line trolley, and other transit facilities) and commercial (refer to Figure 3.1-2). The central and western areas immediately surrounding the LPOE tend to be oriented toward those traveling to and from Mexico. The Plaza de Las Americas shopping center is a regional destination and occupies a large expanse of commercial land east of the LPOE along Camino de la Plaza. In the central commercial

area that extends northward from the border between the I-5/I-805 interchange and the rail line is a more diverse assemblage of commercial spaces. Businesses in this area include paid parking lots, restaurants, motels, and Mexican insurance and currency exchange establishments. North of the I-5/I-805 interchange, along West San Ysidro Boulevard, is a mix of commercial, residential, and civic (i.e., schools and parks) land uses.

A diversity of residential types exists in San Ysidro beyond the LPOE and commercial uses in the immediate vicinity. The neighborhood nearest the LPOE is known, according to the SYCP, as the "Southern Neighborhood." The Southern Neighborhood is located north and northeast of the Plaza de Las Americas shopping center and surrounds a large community park, known as the Cesar Chavez Community Center and Larsen Field. On the north side of the park is a development of older single-family residences, and on the east and west sides are newer multi-family housing developments. A mobile home park is located north of Sipes Lane. On the south side of Sipes Lane and just north of Camino de la Plaza is the Coral Gate subdivision, a newer single-family residential neighborhood with a small community park, Coral Gate Park.

The other neighborhood in the general vicinity of the Project Study Area is known in the SYCP as the "East Beyer and Hill Street Neighborhood." This area is a small strip of mostly single- and some multi-family residences located east of East San Ysidro Boulevard and west of the trolley tracks.

Other residential neighborhoods in the SYCP Area include the historic "El Pueblito Viejo" in the geographic center of San Ysidro, which includes mostly single family homes; the "Sunset Neighborhood" west of the El Pueblito Viejo neighborhood, which includes a mix of single- and multi-family residences; and the northern, western and easternmost portions of the SYCP Area, which are called the "Suburbs," and contain mostly single-family tract homes built in the 1970s and early 1980s, as well as several medium- to large-scale multi-family developments.

Existing land uses in the area are generally consistent with the SYCP, but discrepancies do exist. For instance, in the area surrounding West San Ysidro Boulevard, there is a mix of residential and commercial uses, although the area is zoned commercial and is designated as community-serving commercial in the SYCP. Additionally, where the SYCP specifies commercial uses oriented towards servicing the community in the area south of I-5 and just west of the split with I-805, currently there is a mix of community- and tourist-serving establishments, including gas stations and motels. Further northeast of this area, along I-5, the land is designated as industrial, but is currently developed as primarily residential. Similarly, the SYCP designates the area east of Cesar Chavez Community Center and Larsen Field (which is in the southern part of the SYCP Area, northwest of Plaza de Las Americas) as agricultural; the land is currently occupied by a mobile home park.

Although San Ysidro is a north-south portal and connector between San Diego and Tijuana, it is also divided between east and west. The physical division by the I-5 and I-805 freeways is bridged in few places over or under the freeways. Camino de la Plaza is the roadway nearest the LPOE that crosses the I-5 freeway. There is also a pedestrian bridge over southbound I-5 and the LPOE at the border facility. The physical division of the community results in a social division of the community as well.

According to the SYCP, transportation corridors create a division that limits pedestrian activity, and bars social, visual, and physical connections, all of which contribute to an image of a divided community. The SYCP therefore sets as a goal an image of a more integrated community by reducing barriers and encouraging connectivity.

On the Mexican side of the border, commercial land uses predominate to the west and southwest of the LPOE, although a residential area is located immediately across the border from Camiones Way and the adjacent parking lot. Residential uses predominate to the east and southeast of the LPOE in Tijuana. Housing prices in the Tijuana area that are much lower than prices in San Diego have resulted in live-work commute patterns in which many Tijuana area residents commute daily to work at jobs on the U.S. side of the border.

Development Trends

The SYCP Area continues to develop with residential, commercial, and industrial/business park uses, as called for in the SYCP. Employment in the SYCP Area is projected to increase by 36 percent (rising from 10,285 to 13,959 jobs) by 2030 compared to 2004 levels¹, while population is projected to increase by 24 percent (from 27,486 to 34,189) in the same time period (SANDAG 2009). Recent land development proposals include single and multi-family residential, commercial, office, industrial (warehouse), and community/institutional uses.

As a border community, development in San Ysidro has been oriented toward both the community and tourists. Plaza de Las Americas is a dominant commercial presence that serves tourists. A number of new housing developments have been constructed for residents. Redevelopment projects also are planned to address the need for community-oriented services, including a future specific plan in the area of San Ysidro Boulevard west of I-805 to encourage linkages and mixed-use type development in the San Ysidro Boulevard corridor. The SYCP is planned to be updated to encourage market-rate housing; community-oriented commercial development; pedestrian-scale development to encourage connectivity; and improvements in transit and mobility.

A few parcels in San Ysidro are designated for industrial uses, but, as the SYCP notes: "Industrial development in San Ysidro faces formidable competition from Otay Mesa, the developing community to the east, which has a significant amount of land designated for industrial use" (SYCP, as amended 2003).

Figure 3.1-3 and Table 3.1-1 present recent and proposed land development and public projects in the SYCP Area. Projects listed in the table include those within about a two-mile radius of the Project Study Area.

¹ As of February 2009, the most recent available employment data are for 2004.

**Table 3.1-1
LAND DEVELOPMENT AND PUBLIC PROJECTS IN THE SYCP AREA**

No. ¹	Project Name	Location	Type	Description
1	Las Palmas	122 Alverson Road	Single and Multi-family Residential	Demolish existing structures and construct 17 rental units - 16 multi-family units and one single family residence. Permits were issued.
2	El Pedregal Apartments	104 Averil Road	Multi-family Residential	Site Development Permit for 44 rental apartments and one manager apartment, and a 1,200-square-foot community center on a 2.26-acre site.
3	Verbena Apartments	3774 Beyer Blvd.	Residential	80-unit affordable housing complex.
4	San Ysidro Health Center	4004, 4050 Beyer Blvd.	Medical	25,000 square-foot medical facility. Under construction.
5	Villas Andalucia	4225 Beyer Blvd	Multi-family Residential	24 dwelling units on a 1.47-acre site.
6	Blackshaw Lane Villas	549 Blackshaw Lane	Residential	11-12 condo units on a 0.94-acre site. Requires Community Plan Amendment.
7	Vista Lane Villas	3481 Vista Lane	Multi-family Residential	Community Plan amendment, Planned Development Permit, Rezone, and Tentative Map to construct 38 units on a 1.92-acre site.
8	Mission Villas	3515 Vista Lane	Residential	14 condominiums on a 1.92-acre site. Requires Community Plan Amendment.
9	7 th Day Adventist Church	521 Blackshaw Lane	Community	Conditional Use Permit amendment for a 5,943 square-foot addition to existing church on a 1.88-acre site.
10	Camino de la Plaza	Along Camino de la Plaza	Public Improvement	Current street improvements including sidewalks, curbs and gutters, streetlights, and benches.
11	4191 Camino de la Plaza	4191 Camino de la Plaza	Retail	New 1-story storefront and trash enclosure for future restaurant at existing mall.
12	815 W. San Ysidro Blvd.	815 W. San Ysidro Blvd.	Multi-family Residential	22 multi-family units.
13	Tuscan Villas	517 W. San Ysidro Blvd.	Multi-family Residential	17 multi-family units.
14	1010 W. San Ysidro Blvd.	1010 W. San Ysidro Blvd.	Single Family Residential	125 single family dwelling units.
15	Pilot Village – Mi Pueblo	W. San Ysidro Blvd., between Cottonwood and I-805	Mixed-use	Mixed-use development on a 14-acre site with approximately 1,000 new housing units and 150,000 square feet of retail/commercial space, parking, park land, and civic space.
16	Pilot Village – Living Rooms at the Border	114 West Hall Ave.	Mixed-use	Mixed-use development and rehabilitation of a historic church into a community facility and higher density affordable rental housing.
17	Pilot Village - Willow Road Mixed Use	120 Willow Road	Mixed-use	Approximately 3,100 square feet of retail/commercial and 36 multi-family residences.
18	1975 1/3 Smythe Ave.	1975 1/3 Smythe Ave	Residential	Planned Development Permit to develop a 4.35-acre parcel into 40 residential condominiums.
19	129 W. San Ysidro Blvd.	129 W. San Ysidro Blvd.	Industrial	Approximately 1,800 square feet of warehouse.
20	151 W. San Ysidro Blvd.	151 W. San Ysidro Blvd.	Commercial	Commercial building on vacant lot.
21	198 W. San Ysidro Blvd.	198 W. San Ysidro Blvd.	Community	One-story firehouse.
22	Ponce de Leon Duplex	344 Sunrise Drive	Residential	Two-story duplex.
23	Las Americas	3905 1/3 Camino de la Plaza	Commercial Retail	67-acre mixed use project.
24	Pilot Village – Las Americas	3905 1/3 Camino de la Plaza	Multi-family	156 residential units at the existing Las Americas center.
25	Willow Elementary School	Willow Road	Institutional	Replacing 80,000 square feet, including 43 classrooms, primarily portable buildings.

¹ Number corresponds to location in Figure 3.1-3.

Land Uses and Growth Trends in Tijuana

On the Mexican side of the border, planned development includes the El Chaparral LPOE to be developed opposite Virginia Avenue, and the 12-acre Puerta Bicentenario project on the eastern side of the current Mexican LPOE, which would include a multi-modal transportation terminal with extensive commercial space, public parking, and a pedestrian plaza.

According to the Municipality of Tijuana's urban development program for the period 2002 to 2025, the growth rate for the northern coastal urban areas of Baja California is predicted to slow in the future, from a five percent growth rate in Tijuana in 2004, to 3.8 percent in 2010 and 2.8 percent in 2025. Nevertheless, Tijuana's population is expected to double its 2004 population of nearly 1.4 million by 2025, reaching 2.9 million people (Secretaría de Desarrollo Urbano 2002).

Environmental Consequences

Preferred Alternative

The Preferred Alternative would be consistent with existing and planned land uses in the SYCP Area. The Preferred Alternative entails replacement of existing border facilities at the San Ysidro LPOE. The new facilities would function and integrate with surrounding uses in the same manner as the existing LPOE facility. The improved LPOE would be compatible with surrounding commercial uses and transportation facilities. It would provide direct connections to existing regional freeways (1-5 and 1-805), as well as a planned LPOE in Mexico (i.e., El Chaparral LPOE), and would connect to the local pedestrian and street system (at Camino de la Plaza, East San Ysidro Boulevard, Camiones Way, and Virginia Avenue), providing access to major activity centers and residential uses.

The Preferred Alternative would occur on land primarily designated and zoned for commercial uses, with the eastern edge of this land area designated for industrial uses. Proposed uses at the LPOE would include vehicle and pedestrian processing/inspection areas, office space, parking, roadways, and a central plant, all of which would be compatible uses within the underlying commercial and industrial land use designation/zones.

Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative, and would be equally consistent with existing and planned uses and underlying zoning and land use designations.

No Build Alternative

Under the No Build Alternative, the San Ysidro LPOE would not be improved or renovated within the Project Study Area. Because no construction would occur, no impacts to existing or planned land uses would occur.

Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

The Preferred Alternative would be consistent with existing and planned land uses, and therefore, no avoidance, minimization, or mitigation measures would be required.

Pedestrian Crossing Alternative

Like the Preferred Alternative, the Pedestrian Crossing Alternative would be consistent with existing and planned land uses, and therefore, no avoidance, minimization, or mitigation measures would be required.

No Build Alternative

The No Build Alternative would not result in impacts to existing or planned land uses. No avoidance, minimization, or mitigation measures would be required.

3.1.2 Consistency with State, Regional, and Local Plans

The Public Buildings Amendments of 1988 (40 U.S. Code [U.S.C.] 3312) requires GSA to comply with, to the extent feasible, national building codes, consider local zoning laws, and consult with State and local government. This law does not subject the U.S. Government to local requirements; rather, it mandates consultation and informed decision making. GSA strives to comply, to the extent possible, with local regulations, including land use plans.

Affected Environment

Relevant Land Use Plans, Policies, and Ordinances

Plans, policies, and ordinances that pertain to land use and transportation planning within the Project area are contained in elements and policies of SANDAG's Regional Comprehensive Plan (RCP), RTP, and RTIP; the General Plan, the SYCP, the San Ysidro Redevelopment Plan (SYRP), and the Multiple Species Conservation Program (MSCP). These land use plans and ordinances are described below.

The Project is located outside the Coastal Zone, and there are no wild and scenic rivers in the Project Study Area; therefore, policies related to these issues are not discussed. In addition, the source for all construction funding associated with this project is the Federal Building Fund; because no U.S. Department of Transportation (DOT) funds are involved, compliance with Section 4(f) of the DOT Act of 1966, as amended and codified in 49 U.S.C. Section 303, is not required.

Regional Comprehensive Plan for the San Diego Region

The RCP (SANDAG 2004) is the strategic planning framework for the San Diego region. It creates a regional vision and provides a broad context in which local and regional decisions can be made that foster a healthy environment, vibrant economy, and high quality of life for all residents. The RCP balances regional population, housing and

employment growth with habitat preservation, agriculture, open space, and infrastructure needs. A major focus of the RCP is improving connections between land use and transportation using smart growth principles. The RCP addresses the major elements of planning for the San Diego region, including urban form, transportation, housing, healthy environment, economic prosperity, public facilities, and border issues. The RCP recognizes that many of the region's major transportation facilities are operating at or beyond their current capacities. The Transportation and Border Elements of the RCP are discussed below.

Transportation Element. The Transportation Element of the RCP discusses the vision for the San Diego region in 2030 with regard to transportation, and includes a description of existing conditions, key issues, and recommended goals, policy objectives, and actions. Applicable policy objectives include:

- Implement the 2030 MOBILITY Network in an efficient and cost-effective manner.
- Provide a wide range of convenient, efficient, and safe travel choices.
- Create more walkable and bicycle-friendly communities consistent with good urban design concepts.
- Improve the connectivity of different transportation modes where it will result in better overall mobility.
- Provide equitable and accessible transportation services for all residents, regardless of income, age, or ability.
- Ensure that the benefit and potential burdens of transportation projects are equitable.

Since the Project is included in the 2030 Revenue Constrained RTP adopted in 2007, it would constitute an integral part of the realization of the RCP's goals.

The 2030 MOBILITY Network program includes major projects to improve access to international border crossings, expand freight rail service and intermodal connections, and coordinate commercial vehicle crossings, with the goal of modernizing and transforming transportation infrastructure along the U.S./Mexico border in the region.

Border Element. The Border Element of the RCP discusses the vision for the San Diego region in 2030 with regard to the area's borders with other regions, including Mexico. It includes a description of existing conditions, key issues, and recommended goals, policy objectives, and actions. Applicable policy objectives include:

- Increase collaborative economic development, transportation, and housing strategies throughout San Diego County in coordination with our neighbors.
- Encourage better job accessibility in housing-rich areas and housing accessibility in job-rich areas in our greater interregional and binational area.
- Develop and implement transportation strategies and facilities to address international and interregional commute patterns.
- Coordinate regional transportation systems across our borders.

- Ensure an efficient flow of people and goods across the international ports of entry and along key trade and interregional commuting corridors.
- Reduce future long-distance interregional and binational commuting.
- Ensure protection of residents, infrastructure, and resource delivery systems within our greater border region.
- Balance the implementation of homeland security measures with efficient cross-border and interregional travel and economic prosperity.

Regional Transportation Plan

In November 2007, the SANDAG Board of Directors approved the 2030 RTP (SANDAG 2007). The RTP is the adopted long-range transportation planning document for the San Diego region. It is used as the basis for funding decisions made through the RTIP (SANDAG 2008), which is discussed below. The plan covers public policies, strategies, and investments to maintain, manage, and improve the regional transportation system through 2030. The RTP's study area is the San Diego metropolitan area, encompassing approximately the western half of San Diego County.

The core policy goals of the RTP are the following:

- Livability – Promote livable communities
- Mobility – Improve the mobility of people and freight
- Efficiency – Maximize the efficiency of the existing and future transportation system
- Accessibility – Improve accessibility to major employment and other regional activity centers
- Reliability – Improve the reliability and safety of the transportation system
- Sustainability – Minimize effects on the environment
- Equity – Ensure an equitable distribution of the benefits among various demographic and user groups

The RTP includes a Revenue Constrained Scenario of facilities and programs that would best maintain mobility in the region, if the funding levels for transportation do not increase before 2030. The RTP also includes a Reasonably Expected Revenue Scenario (if more funding becomes available) and an Unconstrained Scenario. The Project is included in the Revenue Constrained scenario of the RTP (SANDAG 2007a).

Regional Transportation Improvement Program

The RTIP is a key component of the RTP and other planning efforts for the region. The RTIP is consistent with the RTP and incrementally implements the vision presented in the RTP. The RTIP is a five-year capital improvement program for transportation projects that is updated by SANDAG every two years and reflects the region's priorities for short-range transportation system improvements. The currently adopted 2008 RTIP (SANDAG 2008) covers fiscal years 2008/2009 through 2012/2013. Funding for the

transportation projects in the RTIP comes from federal, state, and local revenue sources, including TransNet, the local transportation sales tax program. The 2008 RTIP (SANDAG 2008), includes the Project, and allocates \$12.3 million for project engineering, right-of-way, and initial construction costs.

City of San Diego General Plan

The General Plan (City of San Diego 2008) represents the comprehensive long-term plan for the physical development of the City and provides a foundation for land use decisions within the City. In order to achieve this plan, the General Plan includes a series of elements that address specific aspects of the City's development. The General Plan elements that relate to the Project are the Mobility Element and the Economic Prosperity Element.

Mobility Element. The Mobility Element contains goals and policies intended to attain a balanced, multi-modal transportation network. Specific policies within the Mobility Element of the General Plan that pertain to the Project include the following (lettering/numbering system is that of the General Plan; policies that do not pertain to the Project have been omitted):

ME-A.1 Design and operate sidewalks, streets, and intersections to emphasize pedestrian safety and comfort through a variety of street design and traffic management solutions.

ME-A.2 Design and implement safe pedestrian routes.

- a. Collaborate with appropriate community groups, and other interested private and public sector groups or individuals to design and implement safe pedestrian routes to schools, transit, and other highly frequented destinations. Implement needed improvements and programs such as wider and non-contiguous sidewalks, more visible pedestrian crossings, traffic enforcement, traffic calming, street and pedestrian lighting, pedestrian trails, and educating children on traffic and bicycle safety.
- f. Provide adequate levels of lighting for pedestrian safety and comfort.

ME-A.4 Make sidewalks and street crossings accessible to pedestrians of all abilities.

- a. Meet or exceed all federal and state requirements.
- b. Provide special attention to the needs of children, the elderly, and people with disabilities.
- c. Maintain pedestrian facilities to be free of damage or trip hazards.

ME-A.5 Provide adequate sidewalk widths and clear path of travel as determined by street classification, adjoining land uses, and expected pedestrian usage.

- a. Minimize obstructions and barriers that inhibit pedestrian circulation.

ME-B.1 Work closely with regional agencies and others to increase transit ridership and mode share through increased transit service accessibility, frequency, connectivity, and availability.

ME-B.3 Design and locate transit stops/stations to provide convenient access to high activity/density areas, respect neighborhood and activity center character,

implement community plan recommendations, enhance the users' personal experience of each neighborhood/center, and contain comfortable walk and wait environments for customers.

- ME-C.2 Provide adequate capacity and reduce congestion for all modes of transportation on the street and freeway system.
- ME-C.6 Locate and design new streets and freeways and, to the extent practicable, improve existing facilities to: respect the natural environment, scenic character, and community character of the area traversed, and to meet safety standards.
- ME-C.9 Implement best practices for multi-modal quality/level of service analysis guidelines to evaluate potential transportation improvements from a multi-modal perspective in order to determine optimal improvements that balance the needs of all users of the right of way.
- ME-E.4 Promote the most efficient use of the City's existing transportation network.
- ME-G.1 Provide and manage parking so that it is reasonably available when and where it is needed.
- ME-I.2 Support intermodal stations to facilitate transfer of passengers between modes and expand the convenience, range, and usefulness of transportation systems implemented in the City.

Economic Prosperity Element. The Economic Prosperity Element of the General Plan is intended to increase wealth and the standard of living of all San Diegans with policies that support a diverse, innovative, competitive, entrepreneurial, and sustainable local economy. Specific policies within the Economic Prosperity Element of the General Plan that pertain to the Project include the following:

- EP-J.1 Participate in and support regional and binational efforts that develop strategies for key border issues (such as the alleviation of long border wait times, infrastructure improvements, public safety, economic development, border inspection and national security at the international border and surrounding area).
- EP-J.5 Support measures to encourage frequent border crossers to participate in ports of entry programs. These measures should also facilitate the application process for people and vehicles.
- EP-J.7 Create international connections that improve port-of-entry efficiency, enhance linkages, and improve border appearance to foster a more welcoming environment.

San Ysidro Community Plan

The Project is located within the SYCP Area (see Figure 3.1-1). The SYCP, first adopted in 1974 and most recently revised in 2003, is consistent with the goals of the General Plan, but applies these goals more directly to the community of San Ysidro.

The Project Study Area (52.5 acres) comprises approximately 2.9 percent of the 1,800-acre SYCP Area.

According to the Planned Land Use Map contained in the SYCP, the Project Study Area and surroundings are located within Commercial Districts 3 and 6, which are both designated as “Visitor-serving Commercial.” The SYCP recommends development of these districts with community- and visitor-serving commercial establishments.

Land designated as Industrial in the 1990 SYCP is located just east of the rail line, although the more recent amendments to the General Plan indicate that the Industrial zoning now extends further west, overlapping the Project Study Area on its eastern edge.

The SYCP also contains an International Gateway Element, which focuses on the area extending along East San Ysidro Boulevard north of the existing San Ysidro LPOE, and south of I-805, along Camino de la Plaza and Tia Juana Street, west of I-5. The SYCP’s primary goals for the International Gateway are to:

- Develop the border crossing as an international gateway – a grand entrance into the United States, the City of San Diego, and the community of San Ysidro that serves as a center of cultural exchange and commerce serving both the tourist and the resident population.
- Recognize and capitalize on the opportunities provided by the North America’s busiest border crossing. Tap this outstanding economic opportunity and invest it back into the community.
- Foster an active working relationship, a cultural exchange and an economic partnership with Mexico.
- Develop an international gateway that is sensitive to the security and safety issues associated with undocumented immigration and crime.
- Reduce dependency on the Mexican consumer and provide incentives for tourists traveling to Tijuana to linger and purchase goods and services in San Ysidro.

An important specific objective of the International Gateway Element of the SYCP is to “improve the transportation system at the border to provide for the smooth flow of traffic and minimize conflicts between vehicles and pedestrians.”

The Cultural and Historic Resources Element of the SYCP contains the applicable goal of preserving historic structures on-site and in their historic context whenever possible.

The Transportation and Circulation Element of the SYCP contains the following applicable primary goals:

- Develop a circulation system that provides for the smooth flow of vehicular traffic while allowing for a response to the social and economic needs of the community.

- Provide for smooth traffic flow and good accessibility to and from San Ysidro and outlying communities, including Mexico.
- Develop parking strategies that support planned land uses.
- Eliminate the barriers to pedestrian activity and enhance the pedestrian environment.
- Provide for an increased use of bicycles as a major means of transportation throughout the community.
- Improve the mass transportation system and increase its accessibility for San Ysidro residents, visitors and business people.

Specific applicable objectives of the SYCP's Transportation and Circulation Element include the following:

- Minimize pedestrian/auto conflict on San Ysidro Boulevard, at the border crossing and on Beyer Boulevard.
- Develop pedestrian pathways throughout San Ysidro.
- Locate transit stops (bus and trolley) to maximize access and optimize transit service and pedestrian and bikeway connections.

The SYCP includes the following applicable specific recommendations:

- Explore the feasibility of opening a new pedestrian and bicyclist border crossing at Virginia Avenue (site of the existing commercial gate) to facilitate tourist traffic flow between San Ysidro and Avenida Revolucion, the main shopping district in Tijuana, and to ease pedestrian loading and unloading facilities.
- Identify the major entrances to the community using landscaping and attractive signage, architectural forms, or other markers.
- Improve pedestrian accessibility to tourist-oriented portions of the community by enhancing the design of pedestrian bridges across I-5 and I-805.
- With the assistance of MTDB, develop a multi-modal transit terminal at the border gate to incorporate the existing trolley station, bus stations, taxi stands, jitney stops, bicycle racks and lockers, and passenger drop offs and to safely separate these vehicular uses from pedestrians. Include effective signage to direct traffic to and from the area.

San Ysidro Redevelopment Plan

The Project is located in the southernmost portion of the SYRP Area which encompasses the central portion of the SYCP Area. The SYRP, adopted in 1996, is oriented toward providing economic growth and urban renewal in the plan area. Applicable goals include:

- Eliminate and prevent the spread of blight and deterioration, and conserve, rehabilitate, and redevelop the SYRP Area in accordance with the General Plan, specific plans, and local codes and ordinances.
- Increase parking, enhance the quality of pedestrian and vehicular mobility, and improve transportation facilities, which support the vitality, safety, and viability of San Ysidro.
- Enhance infrastructure facilities which improve the community and support public safety, health, and local vitality.
- Recognize, preserve, and rehabilitate historically and architecturally significant buildings, districts, landscaped areas, archaeological sites and the urban environments.
- Promote San Ysidro's international gateway to attract tourism and border crossing traffic to San Ysidro's commercial districts.

The Project is located within the portion of the SYRP Area designated for border use, in a commercial district. The objectives of the SYRP in this area are to improve the appearance of the international gateway area, and take advantage of all opportunities to promote commerce provided by the border and neighboring communities.

Multiple Species Conservation Program

The City, the County of San Diego, U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), and other local jurisdictions joined together in the late 1990s to develop the MSCP. The MSCP is a comprehensive, long-term habitat conservation plan that addresses the needs of multiple species by identifying key areas for preservation as open space in order to link core biological areas into a regional wildlife preserve.

The City adopted its MSCP Subarea Plan (Subarea Plan) in March 1997 to meet the requirements of the Natural Community Conservation Program (NCCCP) Act of 1991, the federal Endangered Species Act (ESA), and the California ESA. The Subarea Plan regulates effects on natural communities throughout the City and identifies preserve areas within the City as the Multi-Habitat Planning Area (MHPA). The Project is located within the City's Subarea Plan, but not within the MHPA.

Environmental Consequences

Preferred Alternative

Consistency with the Transportation Element of the Regional Comprehensive Plan for the San Diego Region

The Preferred Alternative would contribute to implementation of the goals presented in the RCP and key policy objectives of its Transportation Element. Delay times for vehicles and pedestrians to cross the U.S.-Mexico border would be reduced with implementation of the Preferred Alternative, and safety for both travelers and LPOE employees would be enhanced, thus increasing the range of convenient, efficient, and safe travel choices available, promoting walkable and bicycle-friendly communities, and

improving overall mobility in the region. The Preferred Alternative, with its two new southbound pedestrian crossings, pedestrian bridge, walkways, and accommodation of transit needs, is designed to improve the connectivity of different transportation modes, facilitate equitable and accessible transportation services, and distribute the potential benefits and burdens of the Project in an equitable manner. Accordingly, the Preferred Alternative would be consistent with the Transportation Element of the RCP.

By reducing border wait times and improving LPOE safety, the Preferred Alternative would also promote increased collaborative economic development and transportation strategies; encourage better job accessibility; address international commute patterns; ensure an efficient flow of people and goods across the border; reduce binational commuting times; ensure protection of residents and infrastructure, and balance the implementation of homeland security measures with efficient cross-border and interregional travel and economic prosperity. Accordingly, the Preferred Alternative would be consistent with the Border Element of the RCP.

Consistency with the Regional Transportation Plan

As previously stated, the 2030 RTP (SANDAG 2007) includes the Project in its Revenue Constrained scenario. Consistent with key policy objectives of the RTP, the Project would increase vehicle and pedestrian inspection processing capacities, and reduce queues and wait times at the San Ysidro LPOE, thus improving the mobility of people, and accessibility to major employment and other regional activity centers. Implementation of border security initiatives and other improvements at the LPOE would positively impact the reliability and safety of the overall regional transportation system. At the same time, the Preferred Alternative would help improve the efficiency of the existing and future transportation system by improving the border bottleneck, while minimizing effects on the environment. In summary, the expansion and renovation of the San Ysidro LPOE would improve the efficiency, reliability, and sustainability of the existing LPOE, thus improving mobility and access to regional activity centers.

As discussed in Subchapter 3.14, Biological Resources, the Project has been designed to avoid effects on biological resources. The Project has also been designed to be compatible with the surrounding community of San Ysidro. The LPOE would continue to operate as a non-toll facility, which would promote an equitable distribution of benefits to users. The Project is included in the Revenue Constrained scenario of the RTP (SANDAG 2007a). Therefore, the Preferred Alternative would be consistent with the RTP.

Consistency with the Regional Transportation Improvement Program

The Preferred Alternative would be consistent with the project description provided in the RTIP. The 2008 RTIP, as amended, (SANDAG 2008), includes the "I-5/I-805 Port of Entry Expansion" as MPO ID CAL56. The RTIP description states, "From US/Mexico Border to San Ysidro Blvd – on I-5 from US/Mexico Border to San Ysidro Blvd.; I-5 Modification and Port of Entry Expansion." In addition to LPOE expansion, the Preferred Alternative would entail modification of I-5 in that it would alter the connection of the freeway with a proposed new southbound roadway within the LPOE that would provide access into Mexico. The Preferred Alternative would therefore be consistent with the RTIP.

Consistency with the Mobility and Economic Prosperity Elements of the City of San Diego General Plan

The Preferred Alternative would be consistent with applicable policies contained in the Mobility and Economic Prosperity Elements of the General Plan (listed above under Affected Environment). As promoted in the Mobility Element, the proposed multi-lane expansion and renovation of the San Ysidro LPOE would help provide adequate capacity and reduce congestion for cross-border transportation; be designed to facilitate safe and accessible pedestrian and bicycle movement and multi-modal transportation through provision of two new southbound pedestrian crossings, walkways and a pedestrian bridge; and promote the efficient use of the City's existing transportation network. In particular, the Preferred Alternative has been designed to optimize pedestrian safety and connections to transit options to the extent possible.

The Economic Prosperity Element contains a number of policies related to improvements in LPOE efficiency, enhanced linkages, improved border appearance, border security, use of border technology, and international cooperation; the Preferred Alternative would be consistent with these policies since it would add lanes to reduce wait times, redesign the LPOE to current urban design standards, implement programs such as US-VISIT, SBI and WHTI, and coordinate with the Mexican authorities for optimum binational cooperation in LPOE design and operations.

The Preferred Alternative would therefore be consistent with the Mobility and Economic Prosperity Elements of the General Plan.

Consistency with the San Ysidro Community Plan

In the SYCP, the San Ysidro LPOE is designated as the "International Gateway," which is envisioned as a grand entrance to the U.S. that is sensitive to security and safety issues. The Preferred Alternative would renovate, expand, and modernize the existing LPOE to improve its functioning, appearance, security, and safety. The Preferred Alternative would encourage and continue a positive working relationship with the government of Mexico, as recommended in the SYCP. It would also preserve the historic Old Customs House on-site and in its historic context to the extent possible. Although the interior of the Old Customs House would be renovated to accommodate interim pedestrian processing uses during Phase 2, the building itself would be preserved. Pursuant to Section 106 of the NHPA, GSA is currently in consultation with the SHPO, Advisory Council on Historic Preservation, and other parties regarding the potential future use of the Old Customs House. In addition, this alternative would implement several of the applicable specific recommendations of the SYCP, including opening a new pedestrian and bicyclist border crossing at Virginia Avenue; effectively using landscaping and attractive signage, architectural forms, or other markers to highlight the LPOE as an entrance to the U.S.; and supporting connectivity to the San Ysidro Intermodal Transportation Center, which was developed subsequent to the adoption of the SYCP. This alternative would optimize pedestrian access to transit and minimize pedestrian/vehicle conflicts in the area, as directed in the SYCP. The Preferred Alternative would, therefore, be consistent with the goals and policies of the International Gateway, Cultural and Historic Resources, and Transportation and Circulation Elements of the SYCP.

The Preferred Alternative also would not preclude actions by other entities such as private commercial enterprises to take advantage of the economic opportunity that the LPOE represents (i.e., a conduit for large volumes of potential consumers).

In addition, the Preferred Alternative would be consistent with SYCP land use designations. The Project Study Area is designated and zoned for commercial uses, with the exception of its eastern edge, which is designated for industrial uses (refer to Figure 3.1-2). Proposed uses at the LPOE would include vehicle and pedestrian processing/inspection areas, office space, parking, roadways, and a central plant, all of which would be compatible uses within the underlying commercial and industrial land use designation/zones.

Consistency with the San Ysidro Redevelopment Project

Consistent with the SYRP, proposed improvements to the LPOE would promote increased traffic flow, which could increase the number of visitors to San Ysidro's commercial districts. The Preferred Alternative also would increase vehicular and pedestrian mobility through the community by increasing processing capacity and constructing two new southbound pedestrian crossings and a pedestrian bridge that would provide direct access to the San Ysidro Intermodal Transportation Center. In addition, the Preferred Alternative would renovate, expand, and modernize the existing LPOE, which would enhance public safety in and around LPOE, as well as improve the overall appearance of the international border. Although the Preferred Alternative would remove the existing paid parking lot in the western portion of the Project Study Area (near the Duty Free store), additional parking areas are located in the general area. Additionally, as stated above, the Preferred Alternative would not preclude actions by other private commercial enterprises to take advantage of the economic opportunity that the LPOE represents, including potential parking lots.

The Project would affect the historic Old Customs House in a manner to be determined. Per Section 106 of the NHPA, GSA is currently in consultation with the SHPO, Advisory Council on Historic Preservation, and other parties regarding the potential future use of the Old Customs House.

Consistency with the MSCP

As discussed in Subchapter 3.14, Biological Resources, implementation of the Preferred Alternative would not impact sensitive biological resources that are protected under the MSCP. Thus, the Preferred Alternative would not conflict with the MSCP.

Pedestrian Crossing Alternative

The Pedestrian Crossing Alternative would occur within the same Project Study Area as the Preferred Alternative, but would entail a different cross-border pedestrian circulation scheme. Like the Preferred Alternative, this alternative would be consistent with SANDAG's RTP, RTIP and the MSCP, but it would not be consistent with the RCP, the City's General Plan Mobility and Economic Prosperity Elements, the SYCP and the SYRP, as described below.

Consistency with the Transportation Element of the Regional Comprehensive Plan for the San Diego Region

The RCP Transportation Element includes policy objectives encouraging the creation of more walkable and bicycle-friendly communities consistent with good urban design concepts, and improvement of connectivity among different transportation modes to improve overall mobility. The Pedestrian Crossing Alternative makes some provisions

for pedestrians and connectivity among transportation modes, but the fact that this alternative would have only a single southbound pedestrian crossing and an east-west bridge that would provide only indirect access to the San Ysidro Intermodal Transportation Center, would make it potentially inconsistent with certain policies of the RCP Transportation Element.

Consistency with the Mobility and Economic Prosperity Elements of the City of San Diego General Plan

Policies ME-A.2 and ME-A.5 of the Mobility Element of the City's General Plan address the design and implementation of safe pedestrian routes to schools, transit, and other highly frequented destinations, minimizing obstructions and barriers that inhibit pedestrian circulation. Policy ME-C.9 refers to the implementation of best practices to evaluate potential transportation improvements from a multi-modal perspective in order to determine optimal improvements that balance the needs of all users of the right of way. Policy ME-I.2 refers to the support of intermodal stations to facilitate transfer of passengers between transportation modes. Because the Pedestrian Crossing Alternative would have only a single southbound pedestrian crossing location and its east-west pedestrian bridge would land north of the East San Ysidro Boulevard/I-5 freeway northbound ramp intersection, it would not be optimally safe and convenient for pedestrians exiting from public transit options (buses and the trolley) to enter Mexico on foot, and therefore, would not be consistent with these policies.

Similarly, the Economic Prosperity Element of the General Plan promotes improved efficiency of international connections, and enhanced linkages as part of the improved border crossing. The fact that the Pedestrian Crossing Alternative would have only the single southbound pedestrian crossing and a less-than-optimal east-west bridge landing would make this alternative potentially inconsistent with certain policies of the Economic Prosperity Element of the General Plan.

Consistency with the San Ysidro Community Plan

Like the Preferred Alternative, the Pedestrian Crossing Alternative would be consistent with SYCP land use designations and would not preclude actions by other entities, such as private commercial enterprises, to take advantage of the economic opportunity that the LPOE represents. It would also improve overall vehicle traffic through the LPOE, and would use landscaping and architectural elements to highlight the LPOE as an entrance to the U.S. The Pedestrian Crossing Alternative would not, however, optimize pedestrian access to transit or minimize pedestrian/vehicle conflicts in the area. It would not implement certain applicable specific recommendations of the SYCP, including opening a new pedestrian and bicyclist border crossing at Virginia Avenue; and supporting connectivity to the San Ysidro Intermodal Transportation Center. Consequently, this alternative would not be fully consistent with the SYCP.

Consistency with the San Ysidro Redevelopment Project

SYRP goals include enhancement of the quality of pedestrian and vehicular mobility, and improvement of transportation facilities supporting the vitality, safety, and viability of San Ysidro. As noted above, the Pedestrian Crossing Alternative makes some provisions for pedestrians and connectivity among transportation modes. However, the fact that this alternative would have only a single southbound pedestrian crossing and an east-west bridge that would provide only indirect access to the San Ysidro Intermodal

Transportation Center limits the quality of pedestrian and vehicular mobility, and makes the Pedestrian Crossing Alternative potentially inconsistent with certain policies of the SYRP.

The above plans and policies emphasize walkable communities, good urban design, connectivity of transportation modes, public safety, and enhanced pedestrian mobility. While both build alternatives make provisions to comply with these policies, the Pedestrian Crossing Alternative would be less successful in achieving compliance than would the Preferred Alternative. The Pedestrian Crossing Alternative, with a single southbound pedestrian crossing location and an east-west pedestrian bridge landing location that would be north of the East San Ysidro Boulevard/I-5 freeway northbound ramp intersection, would be less safe and less convenient for pedestrians exiting from transit options to enter Mexico on foot. These plan policy inconsistencies would constitute an adverse land use impact.

No Build Alternative

The No Build Alternative would not comply with SANDAG's RCP, RTP, and RTIP, since the Project is included in the 2008 RTIP, but would not be implemented under this alternative, and thus would not achieve the goals of the RCP and the RTP. The No Build Alternative also would not be consistent with the City's General Plan, SYCP and SYRP, because it would do nothing to achieve the goals of these plans with respect to improved border efficiency, safety, and mobility.

Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

Because the Preferred Alternative would be consistent with relevant land use plans, no avoidance, minimization, and/or mitigation measures are required.

Pedestrian Crossing Alternative

Implementation of the Pedestrian Crossing Alternative would result in a land use impact related to plan policy consistency. This impact could only be avoided through Project redesign. Specifically, the proposed east-west pedestrian bridge could be redesigned to land at the San Ysidro Intermodal Transportation Center on the south side of the intersection. In addition, a redesigned larger transit turn-around and drop-off/loading facility could be provided on the west side of the LPOE along Virginia Avenue to accommodate anticipated transit operations. Finally, provision of two southbound pedestrian crossings: one on the west side and one on the east side of the LPOE could be constructed to provide improved mobility. These features have been incorporated into the Preferred Alternative.

No Build Alternative

The No Build Alternative would not comply with SANDAG's RCP, RTP, and RTIP, and would not be consistent with the General Plan, SYCP, and SYRP. Nonetheless, as no action would occur, no avoidance, minimization, and/or mitigation measures are required.

3.1.3 Parks and Recreational Facilities

Regulatory Setting and Affected Environment

Five neighborhood parks and two community parks are located within the SYCP Area. The nearest to the Project Study Area, at approximately 0.5 mile distance, is the Cesar Chavez Community Center and Larsen Field, followed by the Coral Gate Park, a community park approximately one mile to the west. Other parks in the area are located northeast of I-5 and include the Col. Irving J. Salomon Community Center located on Diza Road, the Vista Terrace Park on Athey Avenue, and Howard Lane Park on Plantel Way. The San Ysidro Recreation Center is a linear park between East and West Park Avenues. This park and community center include recreational facilities, a senior center, and the public library. A 6.78-acre lot east of I-805 is designated as Beyer Neighborhood Park, but is currently undeveloped. Table 3.1-2 below summarizes the existing parks in the SYCP Area.

Table 3.1-2 PARKS WITHIN THE SYCP AREA			
Parks	Size (Acres)	Park Type	Major Facilities
San Ysidro Recreation Center	3.6	Community	Tennis and Basketball, Tot Lot, Picnic Area, Library, Senior Center, Gymnasium, Mexican American Activity Center
Vista Terrace Park	6.7	Neighborhood	Swimming Pool, Soccer/Baseball Fields
Howard Lane Park	6.6	Neighborhood	Playing Field, Basketball, Tot Lot, Picnic Area
San Ysidro Community Activity Center (aka Col. Irving J. Salomon Community Center)	1.5	Neighborhood	Gymnasium, Game Area, Meeting Rooms
San Ysidro Athletic Center (Larsen Field) (aka Cesar Chavez Community Center)	16.0	Neighborhood	Lighted Playing Fields, Soccer Field, Baseball Diamond, Recreation Building
Beyer Neighborhood Park	20 (undeveloped)	Neighborhood	Unimproved
Coral Gate Park	3	Community	Playground, Picnic Areas
Total	57.4		

In addition to these parks, another recreational facility, the San Ysidro Community Service Center, is located on East Beyer Boulevard to the northeast of the Project Study Area. Existing bicycle facilities in the SYCP Area are described in Subchapter 3.4, Traffic and Transportation/Pedestrian and Bicycle Facilities, of this Draft EIS.

Environmental Consequences

Preferred Alternative

The Preferred Alternative would not impact any public parks or recreational facilities in the Project vicinity (refer to Figure 3.1-2).

Pedestrian Crossing Alternative

The Pedestrian Crossing Alternative would occur within the same Project Study Area as the Preferred Alternative, and as indicated above, would not impact any public parks or recreational facilities in the Project vicinity.

No Build Alternative

Under the No Build Alternative, no construction would occur. Accordingly, public parks and recreational facilities would not be affected. No impacts would occur.

Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

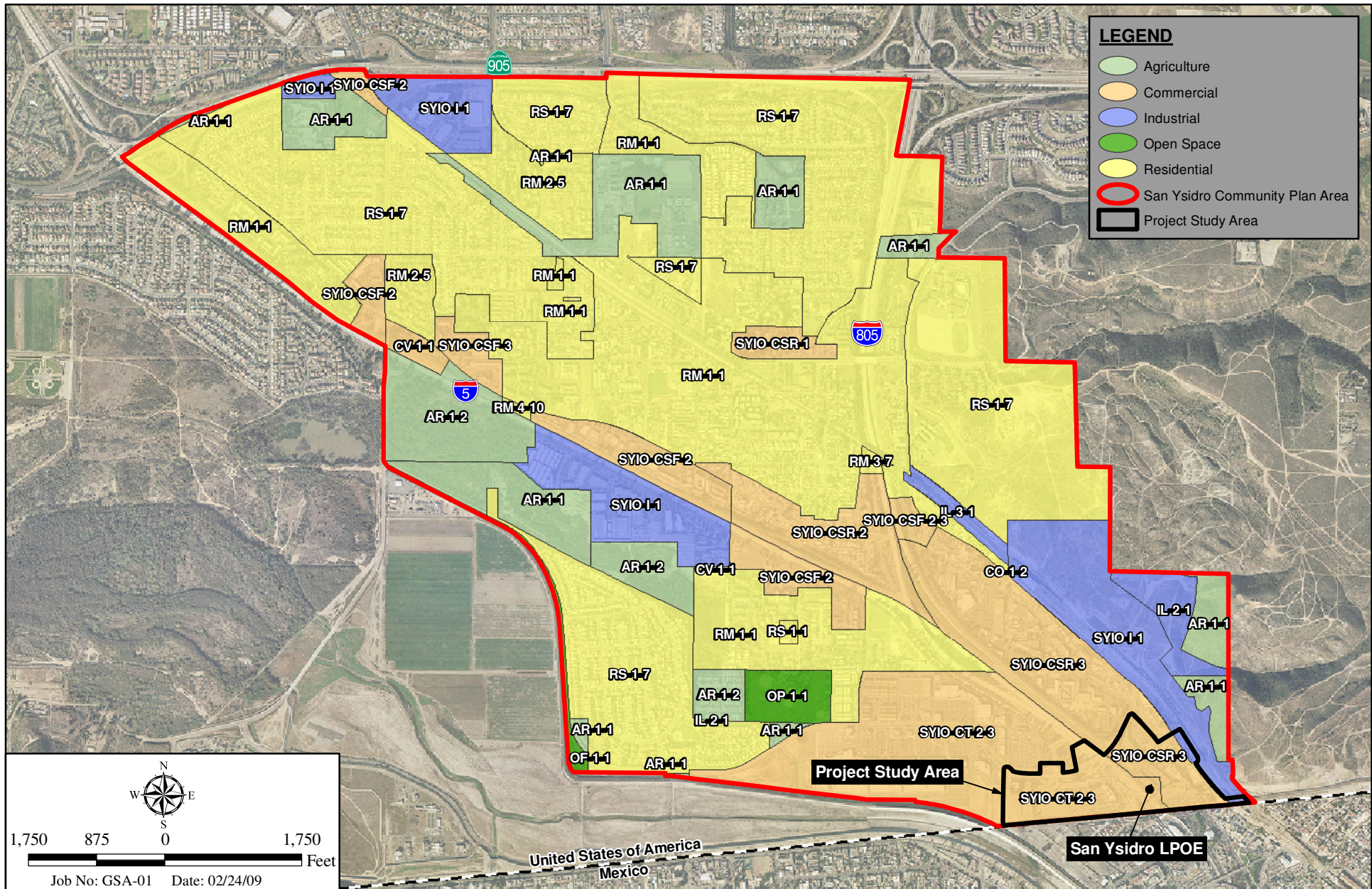
Because the Preferred Alternative would not result in impacts to parks or recreational facilities, no avoidance, minimization, and/or mitigation measures would be required.

Pedestrian Crossing Alternative

Because the Pedestrian Crossing would not result in impacts to parks or recreational facilities, no avoidance, minimization, and/or mitigation measures would be required.

No Build Alternative

Because the No Build Alternative would not result in impacts to parks or recreational facilities, no avoidance, minimization, and/or mitigation measures would be required.

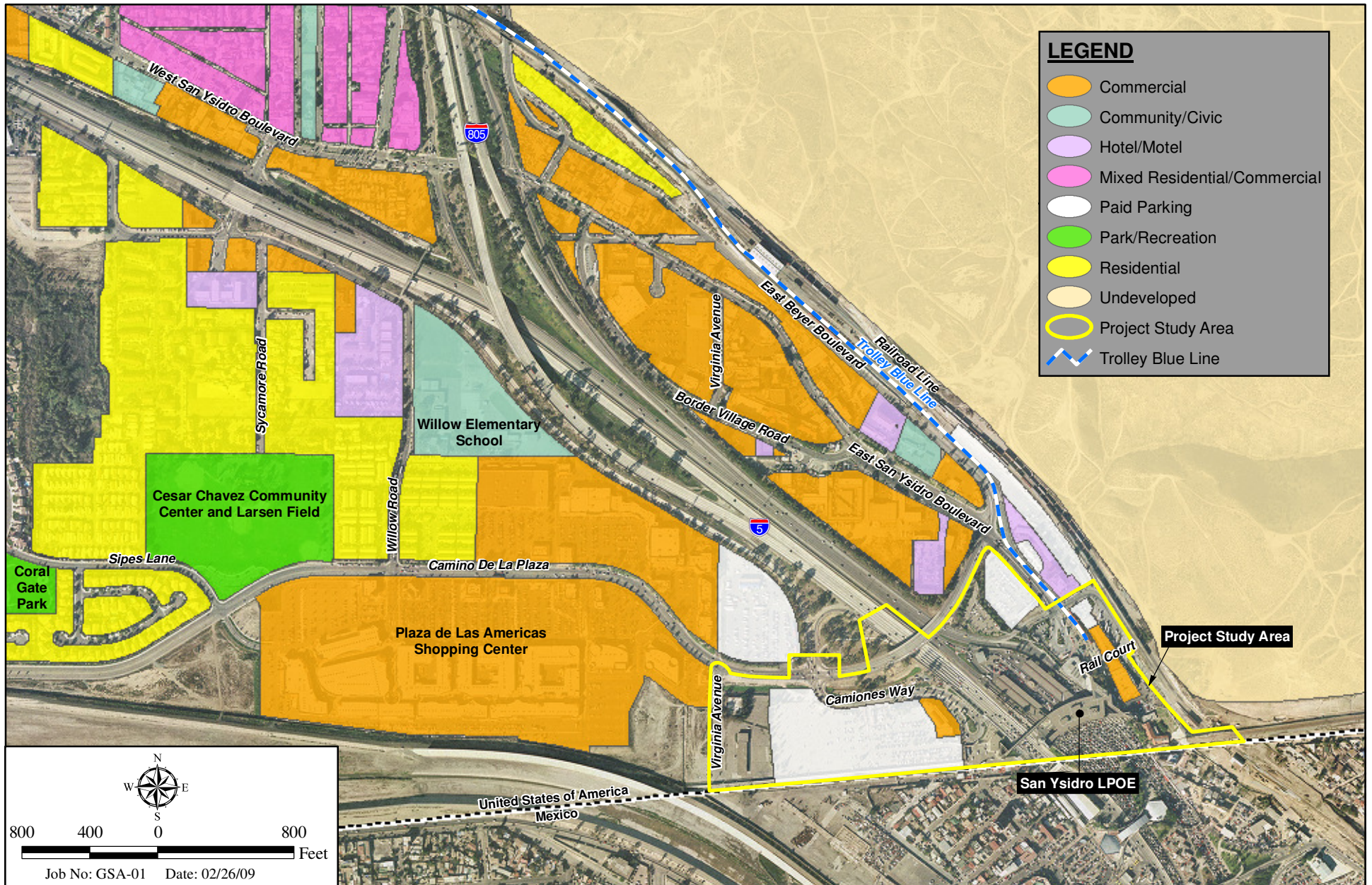


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San Ysidro Community Plan Area Zoning Designations

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.1-1



LEGEND

- Commercial
- Community/Civic
- Hotel/Motel
- Mixed Residential/Commercial
- Paid Parking
- Park/Recreation
- Residential
- Undeveloped
- Project Study Area
- Trolley Blue Line

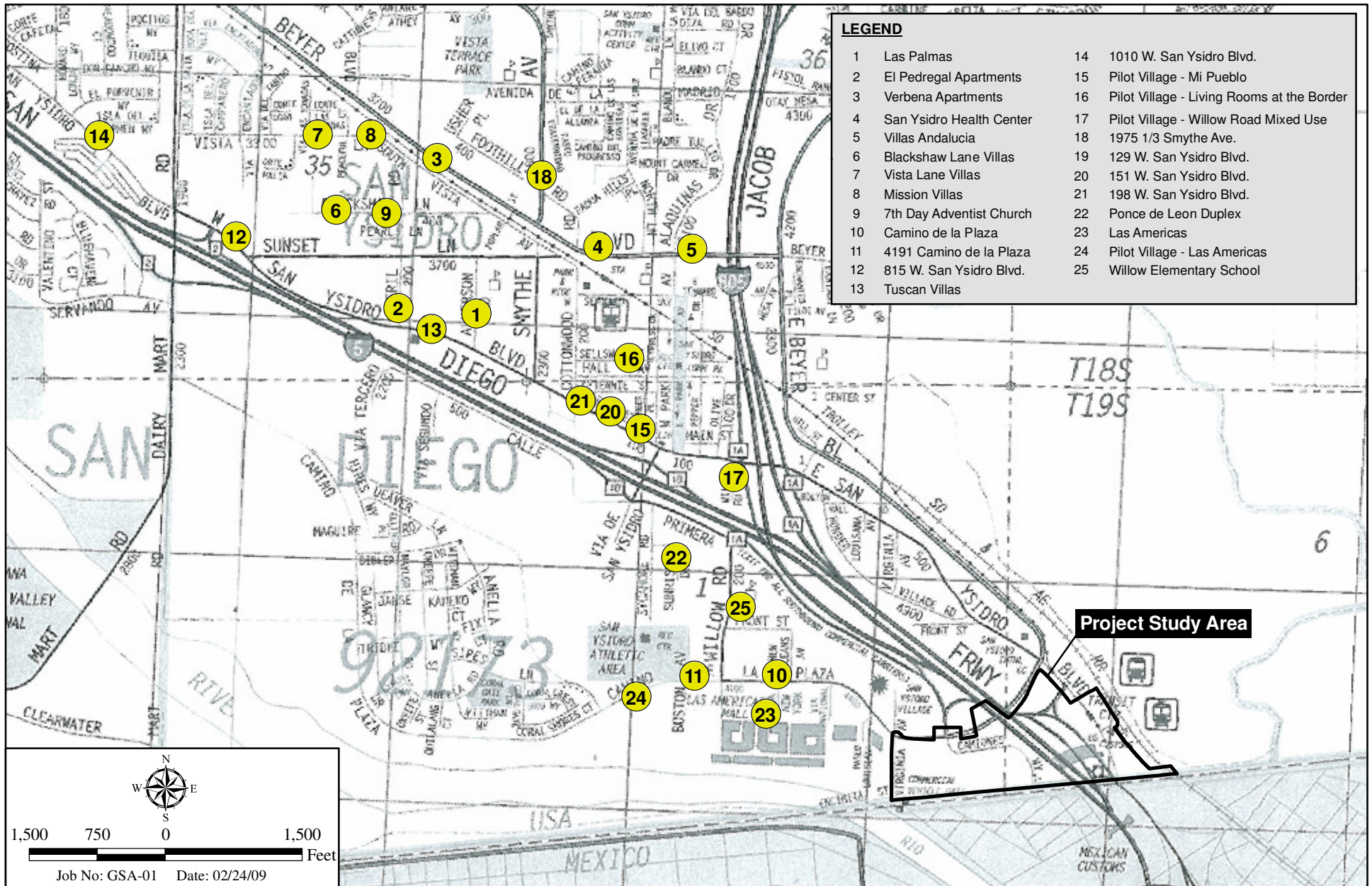
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Existing Land Uses in the Project Vicinity

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.1-2



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Land Development and Public Projects in the SYCP Area

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.1-3

3.2 COMMUNITY IMPACTS

3.2.1 Community Character and Cohesion

Regulatory Setting

NEPA established that the U.S. Government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings [42 U.S.C. 4331(b)(2)]. In its implementation of NEPA, GSA directs that final decisions regarding projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Affected Environment

A CIA was prepared for the Project (*Community Impact Analysis for the San Ysidro Land Port of Entry Improvements Project*, April 2009) evaluating the current land use, community facilities, and social and economic conditions for the Project Study Area (defined earlier in this EIS as the anticipated maximum extent of disturbance, including improvements, staging areas, and temporary impacts resulting from Project construction) and the larger socioeconomic study area (defined below as the SYCP Area). The analysis presented in this subchapter is based on the CIA, along with other applicable data.

While the San Ysidro LPOE would serve the larger binational region, the community of San Ysidro would experience the most direct and immediate effects of the Project. To analyze the affected environment and potential impacts, the CIA relies, in many cases, on statistics prepared by SANDAG. As the regional growth management agency for the San Diego area, SANDAG is responsible for compiling demographic and economic statistics and regional growth forecasts. SANDAG's demographic statistics are based on the 2000 U.S. Census, augmented by annual population and housing estimates that are developed in cooperation with local agencies and the California Department of Finance. SANDAG data are available at the regional, subregional, community, and census-tract levels. The Project is located in the SYCP Area, and data in the CIA and in this analysis are taken from the community level demographic profile provided by SANDAG. The study area analyzed for community impacts is the SYCP Area. For comparative purposes, data are also provided for San Diego County as a whole, and for the South Bay Subregional Area (SRA), which includes the City of Imperial Beach, the City (communities of Otay Mesa-Nestor, San Ysidro, Otay Mesa, and Tijuana River Valley), and the unincorporated community of Otay Mesa.

In addition to the SANDAG demographic data, the CIA includes a comprehensive analysis of on-line property records, San Diego County Assessor's maps, the SYCP, the SYRP, and numerous other sources of published information. The Project was discussed with community groups, public agency staff, and City community planners representing the affected area. Field investigations took place on December 10, 2008, and March 12, 2009.

Community Setting

The Project Study Area is located in the southern portion of the U.S.-Mexico border community of San Ysidro in the City of San Diego, California. San Ysidro is located approximately 14 miles southeast of downtown San Diego and lies directly across the Mexican border from Tijuana,

Baja California. The shape of the community generally follows the I-5 freeway from the San Ysidro LPOE past its merge with I-805 to encompass both freeways as they continue northward to their interchanges with SR-905. The LPOE, I-5 and I-805 are defining features of the San Ysidro community.

San Ysidro is an international crossroads that hosts North America's busiest border crossing. As a result, this community exhibits strong ties to Mexico and many of the community's commercial uses are oriented toward tourists and other cross-border travelers. Just as important to both border transport and community dynamics is the configuration of the transportation corridors. I-5 traverses northwest-southeast and I-805 traverses north-south through San Ysidro; and the two freeways merge in the central portion of the community, north of the LPOE. South of the junction, I-5 directs freeway traffic straight to the LPOE. The freeways, together with the northwest-southeast trolley corridor, expedite travel to and from the border crossing, but in doing so, create a physical partition of the SYCP Area. These physical divisions have translated into a social division of the community, since few bridges over or under the freeways and trolley line connect the distinct portions of the community. As noted in the SYCP, the transportation corridors create divisions that limit pedestrian activity, and bar social, visual, and physical connections, all of which contribute to a divided community.

Demographic Characteristics

San Ysidro's demographic characteristics reveal that San Ysidro differs in many respects from the South Bay SRA and the greater San Diego region. In general, the SYCP Area includes a relatively large population of residents who are very young (under 20 years of age). Residents in the SYCP Area are more likely to be Hispanic, less educated, have substantially lower median household incomes, and be below the poverty level, compared to residents of San Diego County overall. Table 3.2-1 presents a demographic profile of the SYCP Area, with data from the South Bay SRA and the San Diego County region provided for comparative purposes.

Table 3.2-1 SYCP AREA, SOUTH BAY SRA, AND SAN DIEGO COUNTY POPULATION AND HOUSING CHARACTERISTICS			
Characteristic	SYCP Area	South Bay SRA	San Diego County
2000 Population (U.S. Census)	26,953	124,020	2,813,833
2008 Population (SANDAG)	27,824	139,403	3,146,274
2010 Population Forecast (SANDAG)	28,270	144,319	3,245,279
Population % change (2000-2010)	4.9%	16.4%	15.3%
2030 Population Forecast (SANDAG)	34,189	193,430	3,984,753
Population % change (2000-2030)	26.8%	56.0%	41.6%
Gender (2000 Census)			
Male	47.2%	51.6%	50.3%
Female	52.8%	48.4%	49.7%

Table 3.2-1 (cont.) SYCP AREA, SOUTH BAY SRA, AND SAN DIEGO COUNTY POPULATION AND HOUSING CHARACTERISTICS			
Characteristic	SYCP Area	South Bay SRA	San Diego County
Age Distribution (2000 Census)			
Under 5 years	9.2%	7.6%	7.1%
5 to 19	31.7%	26.4%	21.8%
20 to 34	22.0%	24.5%	24.0%
35 to 54	23.3%	27.1%	28.8%
55 to 64	5.8%	6.6%	7.3%
65+	7.9%	7.9%	11.2%
Median Age (2000 Census)			
	26.0	29.6	33.2
Median Household Income (2000 Census)			
	\$26,772	\$37,398	\$47,067
Median Household Income (2008 SANDAG)			
	\$35,735	\$52,975	\$68,470
Families Below Poverty Level (2000 Census)			
	26.2%	14.8%	8.4%
Population 25+ yrs. College Graduates (2000 Census)			
	6.0%	10.2%	29.6%
Population by Race & Ethnicity (2000 Census)			
Non-Hispanic	11.0%	40.4%	73.3%
American Indian and Alaska Native	0.1%	0.3%	0.5%
Asian & Pacific Islander	3.2%	10.8%	9.1%
Black or African American	2.0%	5.3%	5.5%
White	4.7%	21.4%	55.0%
Other or Multiple Race	1.0%	2.6%	3.1%
Hispanic	89.0%	59.6%	26.7%
Language Spoken at Home (2000 Census)			
English only	12.7%	38.0%	67.0%
Spanish	84.9%	52.9%	21.9%
Asian Pacific Language	2.2%	8.3%	7.1%
Other Languages	0.2%	0.8%	4.0%
2000 Total Housing Units (2000 Census)			
	7,187	34,439	1,040,149
Total Occupied Units			
Owner-Occupied Housing	66.2%	47.5%	55.4%
Renter-Occupied	33.8%	52.5%	44.6%
2010 Housing Unit Forecast (SANDAG)			
	7,293	39,089	1,174,180
Housing units % change (2000-2010)	1.5%	13.5%	12.9%
2030 Housing Unit Forecast (SANDAG)			
	8,504	50,978	1,383,803
Housing units % change (2000-2030)	18.3%	48.0%	33.0%

Table 3.2-1 (cont.) SYCP AREA, SOUTH BAY SRA, AND SAN DIEGO COUNTY POPULATION AND HOUSING CHARACTERISTICS			
Characteristic	SYCP Area	South Bay SRA	San Diego County
Housing Unit Type			
Single Family Residence (detached)	31.8%	46.2%	51.0%
Attached Units	60.7%	45.9%	44.5%
Mobile Homes and Other	7.5%	7.8%	4.5%
Persons per Dwelling Unit			
	3.9	3.5	2.7
Average Rent			
	\$549	\$634	\$711
Median Housing Value			
	\$167,692	\$167,120	\$223,363
Housing Vacancy Rate			
	3.7%	3.4%	4.4%
Year Built			
1990 to 2000	13.3%	8.6%	13.9%
1980 to 1989	31.3%	24.7%	21.9%
1960 to 1979	45.4%	51.9%	41.3%
1940 to 1959	7.1%	13.0%	17.8%
1939 or earlier	2.9%	1.9%	5.1%
Unemployment Rate (16 years or older)			
	11.8%	9.7%	5.8%
Total Employment			
2000 Census	8,307	42,907	1,232,739
2010 Employment Forecast (SANDAG)	11,309	43,356	1,573,742
Employment % Change (2000-2010)	36.1%	1.0%	27.7%
2030 Employment Forecast (SANDAG)	13,959	78,701	1,913,682
Employment % Chnage (2000-2030)	68.0%	83.4%	55.2%
Occupation (2000 Census)			
Management, professional, and related occupations	16.6%	20.7%	37.5%
Service occupations	25.4%	21.1%	16.0%
Sales and office occupations	28.3%	30.1%	27.3%
Farming, forestry, and fishing	0.3%	0.5%	0.5%
Construction, extraction, and maintenance	12.9%	12.0%	8.7%
Production, transportation, and material	16.6%	15.6%	9.9%

Source: CIC Research 2009.

Population

Based on the 2008 population estimates from SANDAG, there were 27,824 residents in the SYCP Area and 139,403 residents in the South Bay SRA. The SYCP Area represents about one percent of the countywide population of 3,146,274, while the South Bay subregional area represents about four percent of the total county population.

Race and Ethnicity

A minority population dominates the SYCP Area. Based on the 2000 Census, almost nine out of ten residents (89 percent) in the SYCP Area were Hispanic, while only three out of ten residents (27 percent) countywide were Hispanic. Compared to the County overall, the SYCP Area also reported a low proportion of White Non-Hispanic residents (five percent versus 55 percent) and fewer Asian/Pacific Islanders (three percent versus nine percent). The SYCP Area also reported a smaller proportion of Black or African-American residents (two percent), compared to the South Bay SRA (five percent) and the County (six percent). The American Indian/Alaskan Native population represented a very small percentage of residents in the SYCP Area (0.1 percent), the South Bay SRA (0.3 percent) and the County (0.5 percent).

Median Age

The populations of the SYCP Area and the South Bay SRA are generally younger than the residents of the County overall. The median age for SYCP Area residents was 26 years compared to 29.6 for the South Bay SRA and 33.2 years for the County. The percentage of youth under age 20 in the SYCP Area is significantly higher than the County average (41 percent compared 29 percent), indicating a greater presence of large families.

Education

A lower percentage of the population over 25 years of age in the SYCP Area and the South Bay SRA had completed a college degree (six percent and 10 percent), compared to 30 percent of the countywide population.

Employment

At the time of the 2000 Census, the percentage of unemployed residents (over age 16) was much higher in the SYCP Area (12 percent) and the South Bay (10 percent) than the County (6 percent). Overall, the data indicated that fewer of the residents in the SYCP Area are employed in management and professional-related occupations (17 percent), and more are employed in the service occupations (25 percent) and in sales and office occupations (28 percent).

Household Income and Poverty

The 2008 estimated median household income for the SYCP Area residents was \$35,735, which constitutes about half the countywide median income of \$68,470, and two-thirds of the median income in the South Bay SRA (\$52,975). The lower median income for residents in the SYCP Area was consistent with the lower education level reported for area residents and also was consistent with the higher proportion of attached rental housing for residents of the SYCP Area compared to the County (61 percent versus 45 percent).

In the 2000 Census, a substantial percentage of families in the SYCP Area were reported as having incomes below the poverty level (26 percent). This was almost twice the percentage in poverty in the South Bay SRA (15 percent) and over three times higher than the countywide proportion (eight percent).

In 2008, about one-third of families in the SYCP Area reported incomes below the poverty guideline levels set by the U.S. Department of Health. The U.S. Department of Health and Human Services poverty guideline for 2009 was \$22,050 for a family of four and in 2000 was \$17,050 for a family of four. Nearly 31 percent of families with children in the SYCP Area were below the poverty level, compared with only 13 percent of families with children in San Diego County.

Housing

The 2000 Census reported a total housing inventory of 7,187 dwelling units in the SYCP Area, which represents about 0.7 percent of the 1,040,149 dwelling units in the County. About one-third of the residences in the SYCP Area were single family detached homes (32 percent), compared to 51 percent of the dwelling units in the County. In contrast, nearly 61 percent of the dwellings in the SYCP Area are attached units, compared with 45 percent of the dwelling units in the County overall. Most homes in the SYCP Area (76 percent) were built in the 1960s through 1980s, which is similar to the South Bay SRA (77 percent), but more than the County overall (63 percent).

There are five mobile home parks in the SYCP Area, which represented about eight percent of the housing inventory (compared to five percent for the County overall). These mobile home parks are generally located adjacent to or near freeways, where they are exposed to traffic noise.

The number of people per dwelling unit was 3.9 in the SYCP Area. This was higher than the number of people per dwelling unit in the South Bay SRA (3.5 people) and the County (2.8 people). The housing vacancy rate was 3.7 percent for the SYCP Area and 3.4 percent for the South Bay SRA. The countywide vacancy rate was 4.4 percent.

According to data reported by the Dataquick Information Service, the median sales price for a home (new and existing) in San Ysidro during 2008 was \$222,000, while nearby Nestor reported \$258,500, and Imperial Beach reported \$253,000. The median price of a home in San Ysidro was about 38 percent lower than the median price reported for the County (\$360,000). The number of units sold decreased in most areas of San Diego County during 2008 compared with 2007, and the inventory of for-sale housing units has continued to increase.

Data available from the San Diego Apartment Association indicates that the average monthly rent for a two-bedroom apartment in San Ysidro was \$1,091 in 2008, which was lower than the San Diego citywide average of \$1,586, and the countywide average of \$1,403, but higher than average rents in National City (\$880) and Imperial Beach (\$1,003). Monthly rental cost was a slightly higher in Otay Mesa (\$1,235) due to the newer, larger complexes. Vacancy rates for apartment units were lower in San Ysidro (1.6 percent) than in Imperial Beach (3.1 percent), National City (2.8 percent), and Otay Mesa (2.6 percent).

Growth Dynamics

Population, housing units, and employment are forecasted by SANDAG to the year 2030. The SYCP Area is expected to experience relatively slow growth during the forecast period relative to the South Bay SRA and San Diego County, because the SYCP Area is largely built out. The total number of residents in the SYCP Area was forecast by SANDAG to grow 27 percent from 26,953 in 2000 to 34,189 in 2030. This is significantly slower than the expected growth for the South Bay SRA (56 percent) and for the County (42 percent).

The total number of housing units in the SYCP Area was forecast by SANDAG to grow 18 percent from 7,187 units in 2000 to 8,504 units in 2030. This is about half the growth rate for the housing inventory for the County (33 percent) and only one-third the growth rate for the South Bay SRA (48 percent).

The total employment in the SYCP Area was forecast by SANDAG to grow 68 percent from 8,307 in 2000 to 13,959 employees in 2030. This is a higher rate of employment growth than that projected for the County (54 percent), but less than the growth in employment expected for the South Bay SRA (83 percent).

Local Schools and Parks

Three school districts serve the San Ysidro community: the South Bay Union Elementary School District, the San Ysidro Elementary School District, and the Southwestern Community College District. Figure 3.2-1 identifies the locations of schools in the SYCP Area. There are six public elementary schools and one public middle school in the SYCP Area as well as one private K-8 school and one private K-12 school. Willow Elementary School (which is public) is the only school located south of I-5, and is closest to the Project at a distance of approximately 0.5 miles; it is currently undergoing reconstruction. The community college district has a higher education center located on West San Ysidro Boulevard. The high schools serving the San Ysidro community are located to the east and west of the SYCP Area, in Nestor and Otay Mesa. Several other elementary schools within the two elementary school districts are located just outside the boundaries of the SYCP Area.

As discussed in Section 3.1.3, Parks and Recreational Facilities, five designated neighborhood parks and two community parks are located within the SYCP Area. The nearest park to the Project Study Area, the Cesar Chavez Community Center and Larsen Field, is approximately 0.5 mile to the northwest, followed by the Coral Gate Park, a community park approximately one mile away to the northwest. Figure 3.2-1 shows the location of parks in the SYCP Area.

Community Cohesion

Community cohesion is a measure of the connection residents experience in regard to their community, usually over longer periods of time. This measure may be associated with organizations, institutions, networks, and individual-level connections of friends and neighbors. While trends will vary from one place to another, some indicators of community cohesion can include age, ethnicity, household size, housing tenure, and community interaction. A large elderly population, a high percentage of single-family home ownership, long residential tenure, ethnic homogeneity, and the availability and centrality of nearby activity centers are all generally indicative of a higher degree of community cohesion.

San Ysidro is not a community that conforms in many ways to the typical indicators of community cohesion listed above. While the prevalence (in the 2000 Census) of individuals who identify themselves as Hispanic and speakers of the Spanish language indicates a possibility for strong social cohesion, the SYCP suggests that it may have the simultaneous effect of creating a connection to Mexico that is stronger than a connection to the community. More residents in San Ysidro rent their homes than own their homes, which in some cases is also an indicator of greater mobility and less community cohesion. The relatively young age of the population is another indicator of lower community cohesion. While an older population may be more likely to have settled and be invested in their community, a younger population tends to be more mobile and less connected to a single neighborhood or community. On the other hand, the younger populations in San Ysidro are primarily children and youth under age 20, indicating the presence of large families who may be relatively less mobile. In this case, community cohesion may be higher due to residents' interactions through the schools. Thus, demographic data give a mixed picture of the cohesiveness of the SYCP community.

In addition, as previously mentioned, the physical divisions of the community created by the I-5/I-805/trolley transportation corridors limit pedestrian activity, and impede social, visual, and physical connections across these barriers. These physical divisions represent another barrier to community cohesiveness.

Despite demographic and physical characteristics that would typically suggest a lower level of cohesiveness, San Ysidro is a dynamic and active community. Efforts on the part of community groups and partnerships with the City have contributed to a series of projects and programs intended to enhance community cohesion. These include the establishment and upgrading of community centers and parks, street improvements to improve walkability and interaction, newer housing and mixed-use developments, some of which offer home ownership opportunities to a variety of income levels, and the development of a community-serving central business district. These projects are designed to provide linkages and centers to encourage interaction and opportunities to extend a sense of place instill a sense of place and ownership among residents. As a consequence, despite the presence of physical division, the San Ysidro community has achieved a moderate level of cohesiveness, and continues to work toward increasing this level.

Economic Character and Fiscal Setting

Regional Economy

The San Diego region today includes about three million residents and 1.8 million jobs (HR & A 2006). Its Gross Regional Product (GRP) estimated in 2006 was \$149.9 billion and was forecast to increase 2.4 percent in 2007 to \$153.5 billion (San Diego Workforce Partnership 2007). Based on its current GRP, the San Diego region ranks among the 50 largest economies in the world. San Diego's regional economic significance is even greater when the economy in neighboring northern Baja California, Mexico is taken into consideration (HR & A 2006).

The median household income in the San Diego region in 2004 was \$47,268, similar to the California median of \$47,493 and about \$5,000 higher than the U.S. median income of \$41,994. The median household income for the region in 2007 was estimated at \$51,808, representing a 9.6 percent increase since 2004 (SANDAG 2008a).

The region suffered a serious recession between 1990 and 1994 that stemmed from national defense restructuring that devastated the economy's defense-related sectors. Between 1994 and 2008, the San Diego region maintained a steady economic recovery, aside from two brief slowdowns due to the "dot.com" bust in 2000 and the consequences of the September 11, 2001 terrorist attacks (HR & A 2006). The region's economic recovery during this time was guided by diversification into the high technology, foreign trade, tourism, and entertainment sectors. The region sustained significant economic benefits in the foreign sector following the enactment of the North American Free Trade Agreement (NAFTA), as well as from the stability in the Mexican economy in the past decade. The high technology sector in the region is predominantly supported by the presence of large institutions such as universities and research institutes, which have resulted in a strong, concentrated cluster of new firms that specialize in advanced development and testing. (HR & A 2006). The region's standard of living did not keep pace with the national average during this economic recovery period. The imbalance was created by two trends: first, more jobs were added at the low end of the pay scale than jobs at the high end. Second, a widening gap developed between wages received at the high and low ends of the pay scale (REPS 2007).

The compound annual population growth rate for the San Diego region was 1.6 percent for the period from 2000 to 2008, compared to the 3.1 percent annual real (inflation-adjusted) economic growth rate. The annual rate of economic growth (as measured by the change in the inflation-adjusted Gross Metropolitan Product or GMP) has ranged from as high as seven percent per year in 2000 to a low of -0.4 percent in 2008.

The San Diego economy recorded a decline that started in early 2008, about six to nine months ahead of the national economy. This was the first year of negative real growth for the local economy since the early 1990s. The economic problems for the San Diego region started in the housing market in 2007, when a significant slowdown in housing sales and median home prices was experienced. Construction employment declined in response to a drop in housing starts and then additional factors, such as high gasoline prices in the spring of 2008 and the financial crisis in the fall of 2008, compounded the weakness in the region. In the recent economic downturn, home prices in San Diego have declined more than 34 percent from their peak, and housing inventories are high, correlating with declining consumer spending, falling wealth, rising unemployment, and tight credit (Cox 2009). Economists indicate that recovery in the local economy is not expected to start until 2010, and employment growth is unlikely to demonstrate strong growth until 2011 (CIC Research 2009).

Local Retail Business Community

The four shopping centers/retail outlets closest to the Project site include the Plaza de Las Americas, the San Diego Factory Outlet Center, the Border Village Shopping Center, and the McDonald's Trolley Station shopping center (refer to Figure 3.1-1). These are briefly described below.

Located just west of the San Ysidro LPOE, adjacent to the U.S.-Mexico border, the 67-acre mixed-used Las Americas project is the largest redevelopment project in San Ysidro to date. At project buildout there will be over one million square feet of retail, residential, office, public space, and hotel uses, plus a parking structure. More than 559,000 square feet of retail space have been developed at the Las Americas site. A residential development is proposed to be developed on the western portion of the site; the Residences at Las Americas proposes approximately 300 new condominium units, 20 percent of which will be available to persons of low to moderate income.

The San Diego Factory Outlet Center consists of a 268,000-square-foot mall located across from Plaza de Las Americas. The Border Village Shopping Center is located on Border Village Road, east of I-805 and west of East San Ysidro Boulevard, and is comprised of 34,128-square feet of retail space. The McDonald's Trolley Station retail outlet encompasses 23,000 square feet and is located adjacent to the San Ysidro Intermodal Transportation Center.

In addition to these four shopping centers, numerous individual stores are located along Camino de la Plaza, East San Ysidro Boulevard, East Beyer Boulevard, and West San Ysidro Boulevard. Businesses along these streets include paid parking lots, restaurants, motels, and Mexican insurance and currency exchange establishments.

Market for Retail Space

In 2008, the San Ysidro retail market had about 995,000 square feet of retail space and recorded lower retail vacancy rates (1.7 percent) than the San Diego region as a whole (3.2 percent). Low vacancy rates are one indicator of a healthy retail market.

Countywide, the lowest vacancy rate was reported for the regional shopping center category (e.g., Plaza de Las Americas), which reported a 0.2 percent vacancy rate for 2008. The sharpest increase in available retail space was recorded for the larger community centers and power center categories, which rose to 5.0 percent and 4.3 percent of total space available, respectively. The highest rates of space available were reported for the neighborhood shopping center category and strip retail centers.

Leasing activity experienced a dramatic slowdown in the second half of 2008, primarily in the last quarter of the year. Specifically, new tenant leasing has slowed severely, and is focused in discount-related centers and strong grocery stores. With this lack of activity, rental rates are weakening and will continue to fall as more anticipated vacant space comes on the market. Additionally the retail leasing market is offering more concessions from landlords in the form of free rent and tenant improvements, particularly for those properties located in less desirable areas and those greatly affected by the housing crisis. The limited new tenant activity is coming from a wide range of uses including specialty grocery, cell phone distributors, certain fast-food restaurants, discount stores, banks and credit unions (CIC Research 2009).

Taxable Retail Sales

Retail sales within San Diego County were about \$47.5 billion in 2007, including about \$20.1 billion in the City. Retail sales within the City increased about 31 percent in the period of 2000 to 2007, and retail sales for the County also grew about 31 percent during the same period. Regional retail sales growth slowed in 2001 and 2002 along with the national economy. Retail sales recorded strong increases for 2003 through 2005, but slowed substantially in 2006, and sales within the region were essentially flat for 2007. When the data become available, it is expected that taxable sales will decline for 2008 and 2009, reflecting substantial weakness in the current local economy. Growth in retail sales is not expected for San Diego County until 2010 (CIC Research 2009).

Environmental Consequences

Impacts to community character and cohesion, under federal guidelines, are expected to occur when any of the following result:

- A disruption or division of the physical arrangement of an established community
- A conflict with established recreational, educational, religious, or scientific uses of the area

Impacts are based on the Project's effect on local residents' sense of belonging in relation to their neighborhood or the community at large, as well as anticipated changes in the physical character of the community. The Project would represent impacts to a community if it presents either a physical or psychological barrier to activity or recreational areas of the community.

Preferred Alternative

As discussed above, the area surrounding the San Ysidro LPOE currently experiences a moderate level of community cohesion due to existing community divisions caused by the presence of the I-5 and I-805 freeways, the trolley line, and the existing border facilities. A higher level of cohesion could not be assessed. There are no residents in the immediate vicinity of the Project Study Area, and the Project would not create a new facility, but rather would renovate and expand the existing LPOE. Therefore, it is unlikely that the Preferred Alternative would impair or destroy SYCP Area residents' feelings of social or cultural affiliation with the community. The Preferred Alternative would be consistent with the existing SYCP (refer to Subchapter 3.1, Land Use), and would not further divide the established community beyond the existing condition. On the contrary, the proposed east-west pedestrian bridge could restore some connectivity between the divided eastern and western sides of the community near its southern boundary, because it would provide an additional linkage over the freeway to improve connections within the community.

Access

Although the Preferred Alternative would result in impacts on local circulation (refer to Subchapter 3.4, Traffic and Transportation/Pedestrian and Bicycle Facilities), it is not expected to have an adverse impact on public access to educational or religious institutions, or recreation. The Preferred Alternative would improve pedestrian access to public transit serving the San Ysidro community, the border area, the San Diego region and beyond.

Access to businesses would be maintained throughout the construction period. Impacts to traffic flow and business access within the Project vicinity would be avoided or minimized during the construction period. Limited hours of construction activity along with best management practices would be followed to reduce the likelihood that commercial customers, residents, and recreational and other users would be discouraged by construction activities and related traffic congestion. Best management practices would include a Traffic Management Plan (TMP) to minimize interruptions to traffic patterns, and to avoid related safety hazards during construction. The residents and businesses of the local community could experience some temporary noise and accessibility restrictions during construction, but the Preferred Alternative would not adversely impact community cohesion and character in this regard.

Property Value Impacts

Property value impacts are not easily quantified without a thorough real estate appraisal for each individual property and therefore are discussed in the CIA in a general manner. Negative marginal impacts on property values due to construction activities would be temporary and would not be substantial. Potential negative effects could include traffic congestion, dust, noise, or visual effects expected to occur during the construction period. These temporary effects would be minimized by implementation of construction best management practices and the TMP.

The Preferred Alternative would generate positive marginal economic benefits derived from improved regional transportation in conformance with adopted regional land use plans. Improved regional transportation performance, better accessibility, and safer, more efficient border crossing operations would result in increased demand for residential and commercial properties within the local community and the greater San Diego region.

The marginal economic value to the region generated by the Preferred Alternative and the resulting decrease in border wait times (compared to the No Build Alternative) would be substantial and could be as large as \$13 to \$17 billion.¹

The CIA concludes that economic benefits from the Preferred Alternative would be equal to about five to seven percent of the San Diego regional economy today. Employment benefits would range from 90,000 to 130,000 new jobs created within the regional economy. The demand for real property within the region would be expected to increase with the growth of the local economy. The resulting countywide property values would likely increase at least proportionately with economic growth and could exceed the marginal economic growth, because of the finite supply of developable land within the region. As in the rest of the County, property values in the SYCP Area would be expected to increase at least proportionately with economic growth (CIC Research 2009).

Employment

The local community might also be expected to benefit to some degree from the employment opportunities that the Preferred Alternative would generate. Modeling presented in the CIA indicates that the average labor demand for construction of the Preferred Alternative would be about 400 jobs per year during the approximately four-year phased construction period. Operationally, the Project would be expected to provide work for approximately 100 to 150 more employees than it currently employs. As mentioned above, the Preferred Alternative would also be expected to indirectly generate 90,000 to 130,000 new jobs within the region.

Conclusions

Overall, the Preferred Alternative would not be expected to result in adverse impacts to community character or community cohesion.

¹ SANDAG, *Economic Impacts of Wait Times at the San Diego-Baja California Border*, January 2006. The study estimated a \$2.8 billion impact from a marginal 40 minute increased wait time. This study was never intended to measure the impacts of an 8.5 hour increase in border wait time. Yet, this is the most definitive study available for evaluating the potential benefits to the San Diego economy from the Project. A more conservative, five-hour maximum wait time was used for the economic impact analysis in the Project CIA.

Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative, and would be expected to result in similar effects on property values, employment and community character and cohesion. The pedestrian circulation plan under the Pedestrian Crossing Alternative would, however, be less desirable from the point of view of access to transit facilities.

Under the Pedestrian Crossing Alternative, the east-west pedestrian bridge would land on the north side of the East San Ysidro Boulevard/I-5 freeway ramp intersection, resulting in increased pedestrian/vehicle conflicts at this intersection. This intersection carries large volumes of pedestrians crossing East San Ysidro Boulevard and vehicles accessing the freeway and thus, currently operates at a dangerous level for pedestrians during the morning and evening peak periods due to congestion and interactions with vehicles (KOA 2009). Vehicles traveling through the intersection compete with pedestrian movement across the roadway, creating potential conflicts between pedestrians and vehicles. The configuration of the east-west pedestrian bridge under the Pedestrian Crossing Alternative would not resolve this problem, but rather would contribute additional pedestrian traffic to this intersection, increasing congestion and pedestrian/vehicle conflicts.

The Pedestrian Crossing Alternative would not provide direct connections between transit and pedestrian facilities. Because the east-west pedestrian bridge would land on the north side of the East San Ysidro Boulevard/I-5 freeway ramp intersection (instead of at the San Ysidro Intermodal Transportation Center as described for the Preferred Alternative), pedestrians would have to cross the busy intersection to and from the San Ysidro Intermodal Transportation Center located across the street. Furthermore, transit users at the relocated and shortened Camiones Way turn-around would have longer walking distances to and from the border crossing compared to the Preferred Alternative. Southbound travelers dropped off at this turn-around would be required to walk along the east-west pedestrian bridge, and then connect to the north-south pedestrian bridge before crossing the border. Northbound pedestrian access to the Camiones Way turn-around would require crossing the East San Ysidro Boulevard/I-5 freeway ramp intersection and walking the full length of the east-west pedestrian bridge to the turn-around. As a result, the Pedestrian Crossing Alternative would not provide the improved mobility for pedestrians that the Preferred Alternative would create.

Additionally, the Pedestrian Crossing Alternative would maintain a single southbound pedestrian crossing at its existing location. The two new southbound pedestrian crossings proposed under the Preferred Alternative would not be constructed, which would result in a less desirable pedestrian circulation pattern. Provision of only one southbound pedestrian crossing would result in greater walking distances to the southbound border crossing, which would not provide the improved mobility for pedestrians that the Preferred Alternative would create.

For these reasons, the Pedestrian Crossing Alternative would result in a potentially adverse impact to community character and cohesion.

No Build Alternative

The No Build Alternative would have no permanent or temporary impacts to community cohesion, but would result in further degradation of traffic, circulation, and access for the

community and the region. These worsening conditions over time are expected with growth in cross-border travel at the San Ysidro LPOE. Furthermore, the east-west pedestrian bridge proposed as part of the Project would not be built and therefore, the lack of connectivity between the divided eastern and western sides of the community would continue at the same level. In addition, the regional economy would not benefit from the proposed improvements, the reduced border wait times, and regional transportation efficiencies. These inefficiencies in cross-border travel would have a cumulative negative effect on property values. These negative economic impacts to the region would be adverse, based on the forecasted border wait times of up to 10 hours for the 2030 planning horizon.

Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

No avoidance, minimization or mitigation measures are required for the Preferred Alternative. As noted above, best management practices would include a TMP. Specific elements of this plan could include the use of flaggers and temporary lane realignments to maintain through traffic, concrete barriers, signage to direct traffic movements, and possible reduction of speed limits in construction zones. Access to existing businesses within the Project vicinity would be maintained during construction by creating temporary driveways, and/or providing alternate access points.

Pedestrian Crossing Alternative

Implementation of the best management practices described above for the Preferred Alternative would avoid short-term impacts during construction of the Pedestrian Crossing Alternative. Adverse community character and cohesion impacts could be avoided only through redesign of the Pedestrian Crossing Alternative. Such redesign could include: (1) landing the proposed east-west pedestrian bridge at the San Ysidro Intermodal Transportation Center; (2) providing a redesigned larger transit turn-around and drop-off/loading facility on the west side of the LPOE along Virginia Avenue; and (3) constructing two southbound pedestrian crossings, including one on the west side and one of the east side of the LPOE. These features have been incorporated into the Preferred Alternative.

No Build Alternative

Adverse community character and cohesion impacts would occur under the No Build Alternative. However, because no action would occur, no avoidance, minimization, or mitigation measures would be required.

3.2.2 Relocations

Regulatory Setting

GSA's relocation assistance program is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 CFR, Part 24. The purpose of GSA's relocation assistance program is to ensure that persons displaced as a result of a GSA project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate negative effects as a result of projects designed for the benefit of the public as a whole. All relocation services and benefits are administered without regard to race,

color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 U.S.C. 2000d, et seq.).

Affected Environment

A total of 20 parcels listed on the San Diego County Assessor's database are located within the Project Study Area. This includes eleven privately owned parcels (which consist of several paid parking lots, a duty-free store, a Payless Shoe Source store, and a private long-haul bus station), and nine publicly owned parcels. Two of the nine public parcels are owned by the San Diego Metropolitan Transit Development Board (MTDB); GSA owns the remainder. In addition, roadway and railroad rights-of-way (ROW) occur in the Project Study Area.

Environmental Consequences

Preferred Alternative

GSA is in the process of acquiring all the land parcels within the planned limits of Project construction, and expects the entire Project site to be federally owned before publication of the Project's Record of Decision (ROD). During this process, all requirements of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act (as amended) are being followed. The analysis below identifies the anticipated impacts of this acquisition process.

No residential relocations would occur as a result of the Preferred Alternative. Therefore, no associated community impacts due to relocation of residents would occur.

The Preferred Alternative would require acquisition of ROW from six parcels that are currently privately owned and in the process of being acquired by GSA, and would directly impact an additional nine publicly owned parcels (see Figure 3.2-2 and Table 3.2-2). Transfers of property ownership between the City, Caltrans, and GSA could also occur with street closures, freeway ramp reconstruction, and to allow development of local streets and public parking.

The total acquisition area for the six privately owned parcels is 9.95 acres and would include relocation of three businesses. The three businesses would include two retail stores and a private bus charter service. An estimated 60 employees would be displaced by the business relocations. The remaining private parcel acquisitions (one full parcel and two partial parcels) are fee-based parking lots (see Table 3.2-2). The acquisition and relocation activities required for the Preferred Alternative by GSA are currently in process, and are following all guidelines and regulations in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act (as amended).

The total impact area for the nine public parcels would be 10.6 acres. The public parcels contain the existing San Ysidro LPOE facilities, portions of I-5, and some adjacent land uses such as surface parking and roadways (see Table 3.2-3).

The six privately owned parcel acquisitions and nine public parcels comprise a total of 20.6 acres.

Table 3.2-2 ACQUISITION OF PRIVATELY OWNED PARCELS – PREFERRED ALTERNATIVE							
ID¹	APNs	Owner	Address	Acquisition Size/ Parcel Size (Acres)	Use	Annual Property Tax FY2009	Assessed Valuation²
1	666-342-07	S Y G Venture	5705 Camino Camiones Way	2.18/4.23	Parking Lot	\$ 31,491	\$ 2,683,554
2	666-342-08	S Y G Venture	5715 Camino Camiones Way	2.47/2.63	Parking Lot	\$ 36,121	\$ 3,077,040
3	666-342-09	S Y G Venture	5765 Camino Camiones Way	2.90/2.90	Parking Lot	\$ 41,818	\$ 3,568,896
4	666-342-10	S Y G Venture	5775 Camino Camiones Way	1.97/1.97	Duty Free Store and Parking Lot	\$ 63,040	\$ 5,382,600
5	667-030-09	Lois P. Mitchell Tr., V. Peck; Scott Peck Jr., Union Bank of CA Trustees each holding 1/4 Interest	799 E. San Ysidro Blvd.	0.21/0.21	Greyhound Lines Inc./ Crucero	\$ 2,595	\$ 219,247
6	667-030-10	Milo Express Inc.	795 E. San Ysidro Blvd.	0.22/0.22	Payless Shoe Source	\$ 26,870	\$ 2,294,370
TOTAL				9.95		\$ 201,935	\$ 17,225,707

¹ Number corresponds to location identified in Figure 3.2-2.

² By County Tax Assessor

Source: GSA, Public Buildings Service, Property Development Division, Existing Properties with Development Overlay, (undated).
San Diego County Assessors' Data, March 2009.

Property Tax Impacts

As noted above, the Preferred Alternative site overlays three privately owned parcels which are in the process of being acquired by GSA, and which are currently used as parking lots with no permanent structures, as well as three additional parcels, also being acquired by GSA, that are currently occupied with businesses, including the private, long-haul bus station, a Payless Shoe store, and the UTEA Duty Free Store. Property tax revenue would be reduced by the full or partial acquisition by GSA of the six privately owned parcels; they would become government-owned parcels and would not be subject to property tax. The total estimated annual property tax loss resulting from the acquisition of these six privately owned parcels is estimated at \$204,935 in fiscal year 2009 (see Table 3.2-3). The resulting loss of property tax revenues would represent less than 0.01 percent of total property tax revenue and would not be a substantial fiscal impact for the City or the County. The six impacted parcels are located within the SYRA, which was established in FY 1995-96, and receives revenues in the form of 100 percent of the property tax increment above the base year (FY 1995-96) for parcels within its boundaries. As reported by the San Diego County Auditor and Controller's Office, the tax increment portion of the \$204,935 in total property taxes generated by these specific six parcels

is \$95,882 for FY 2008-09. The total tax increment for the SYRA is \$3,936,853. The potential loss of \$95,882 in tax increment revenues for the SYRA would represent approximately 2.4 percent of the redevelopment area total revenue.

Although the tax increment paid to the SYRA would be reduced by the proposed parcel acquisitions, it is likely that there would not be a long-term net decrease in SYRA tax increment revenues. The land uses that would be displaced currently service a local demand and would need to be relocated to provide a similar land use elsewhere within the SYRA Area. Relocated businesses to replace those that would be affected by the Preferred Alternative (e.g., a parking garage, new bus terminal, or new retail establishments) would be likely to generate higher property tax revenues based on current or newer assessed market values, than older properties with lower (Proposition 13-controlled) assessed market values. Overall, the 2.4 percent loss in tax increment revenue would not be substantial and would not generate a socioeconomic impact for the community.

Table 3.2-3 ESTIMATED PROPERTY TAX IMPACTS FOR TAXABLE PARCELS ACQUIRED UNDER THE PREFERRED ALTERNATIVE				
ID	Areas of Acquired Parcels		Use	Estimated Annual Property Tax FY2009
	Acres	Percent of Total		
1	2.18	21.9%	Parking Lot	\$ 31,491
2	2.47	24.8%	Parking Lot	\$ 36,121
3	2.90	29.1%	Parking Lot	\$ 41,818
4	1.97	19.8%	UETA Duty Free Store	\$ 63,040
5	0.21	2.1%	Greyhound Bus Terminal	\$ 5,595
6	0.22	2.2%	Payless Shoe Source Store	\$ 26,870
	9.95	100.0%		\$ 204,935

Source: San Diego County Tax Assessor.

In addition, although the parcel acquisitions would result in the temporary regional loss of annual property tax revenues, the Preferred Alternative is expected to increase economic activity throughout the region over the longer term. Increased property values would be expected to offset a temporary loss in property tax revenue from the parcel acquisitions.

Sales Tax Impacts

City sales tax revenues are primarily attributed to retail land uses. Two of the three displaced businesses currently generate retail sales tax: a Payless Shoe store and the UTEA Duty Free Store. Total annual taxable sales for these businesses are estimated to range from \$7.5 million to \$10 million. The resulting potential loss of taxable revenues would represent less than 0.01 percent of total taxable sales in the County and the City. No permanent access or sales tax impacts would occur for the remaining retail businesses in the community. The loss of taxable sales from the two displaced retail businesses would not be a substantial fiscal impact, and it is also likely that these sales would be redistributed to a new location for the same business or to other businesses within the community.

Conclusions

In conclusion, six business relocations (two retail stores, one private bus transportation service, and three commercial parking lots with no structures) and the loss of about 60 jobs would result from the parcel acquisitions GSA is undertaking in advance of implementation of the Preferred Alternative. There is a high likelihood that these businesses would relocate within the community, near the border, given their business types. The parcel acquisitions, land use changes, and displacement of these businesses would not represent a substantial social or economic impact to the community. Sufficient resources exist within the local community for relocation. Acquisition of businesses and properties in progress are following the guidelines of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act (as amended). Following implementation of the Preferred Alternative, businesses relocated within the Project vicinity would be expected to benefit from the increased efficiency of cross-border travel, and the associated increased business demand and labor pool.

Pedestrian Crossing Alternative

The Pedestrian Crossing Alternative would occur within the same Project Study Area as the Preferred Alternative, and would require same parcel acquisitions currently in process by GSA. Land use changes, business relocations, and property tax and sales tax implications also would be the same as the Preferred Alternative. As in the case of the Preferred Alternative, acquisition of businesses and properties in progress are following the guidelines of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act (as amended). No adverse relocation impacts would be anticipated.

No Build Alternative

Since GSA is in the process of acquiring the parcels described above, the business relocations and associated economic impacts described above for the Preferred Alternative would also occur under the No Build Alternative. The improvements to the existing LPOE facilities and the associated benefits, however, would not occur.

Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

With implementation of the property acquisition requirements of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act (as amended), no substantial social or economic impacts to the community or the region are anticipated to result from the business relocations in progress. No avoidance, minimization, or mitigation measures would be required.

Pedestrian Crossing Alternative

As in the case of the Preferred Alternative, no adverse social or economic impacts to the community or the region are anticipated to result from the business relocations in progress, so no avoidance, minimization, or mitigation measures would be required under the Pedestrian Crossing Alternative.

No Build Alternative

The No Build Alternative would not result in any residential or business relocations. No avoidance, minimization, or mitigation measures would be required.

3.2.3 Environmental Justice and Environmental Health and Safety Risks to Children

Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President Clinton on February 11, 1994. This EO directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. It should be noted that, according to the CEQ: "under NEPA, the identification of a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Indian tribe does not preclude a proposed agency action from going forward, nor does it necessarily compel a conclusion that a proposed action is environmentally unsatisfactory. Rather, the identification of such an effect should heighten agency attention to alternatives (including alternative sites), mitigation strategies, monitoring needs, and preferences expressed by the affected community or population." Low income is defined based on the Department of Health and Human Services poverty guidelines. For 2009, this was \$22,050 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in the project.

Pursuant to EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, federal agencies are directed, as appropriate and consistent with the agency's mission, to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children. Agencies are encouraged to participate in implementation of the EO by ensuring that their policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

Affected Environment

As discussed above in the demographics section, the SYCP Area has a high minority population (95 percent, compared to 45 percent in the San Diego region overall). The population is also considered low-income, since 28 percent of the SYCP Area population has a household income below the poverty level. As noted above, the median household income in the SYCP Area reported in the 2000 Census was \$26,772, only 56 percent of the regional level. SANDAG estimates for 2008 indicate the SYCP Area median household income had risen to \$35,735, but was only 52 percent of the regional average. Consequently, any substantial, adverse, unmitigated impacts of the Project would be considered to fall disproportionately on a minority and low-income population.

For purposes of evaluating potential impacts related environmental health and safety risks to children per EO 13045, it should be noted that the closest school to the Project is Willow Creek School at approximately 0.5 mile distance, bordering the intersection of I-5 and I-805 on its western side. Similarly, the nearest residential areas are located approximately 0.5 mile away near the corner of Camino de la Plaza and Willow Road.

Environmental Consequences

Environmental Justice Impacts

Preferred Alternative

The Preferred Alternative would result in as improved public safety in the LPOE vicinity, as well as economic benefits to the SYCP Area population (which is a minority and low-income population) in the form of employment opportunities, increased property values and resultant SYRP tax revenues, and improved pedestrian access for cross-border visitors attracted to San Ysidro's retail establishments. However, this Draft EIS also identifies the following adverse Preferred Alternative impacts to the SYCP Area population:

- Economic losses experienced by businesses due to relocation, reduced access, and/or reduced parking during construction;
- Temporary construction impacts such as noise, air quality, and mobility delays or detours;
- Temporary visual impacts from construction activities;
- Brief interruptions in utility service where relocation or connections would be required;
- Traffic impacts on local roadways and freeways;
- Interruptions in border crossings where temporary lane obstructions would be required during construction; and
- Possible loss of the NRHP-listed Old Customs House.

Because these impacts would fall primarily on a minority and low-income population, EO 12898 requires that extensive outreach efforts be made to the affected community, to educate the community regarding the Preferred Alternative and its potential impacts, and receive public input into the development of the Preferred Alternative.

Accordingly, a public scoping meeting was advertised and held on July 23, 2003, as described in Chapter 4.0, Comments and Coordination, of this Draft EIS. Additional community outreach efforts associated with the Project have included frequent meetings of the Community Representative Committee (several times per year since 2005), as well as participation in community meetings and workshops.

The Project has been redesigned in response to public input, addressing many of the concerns expressed in comments on the NOI, during the scoping meeting, and in subsequent meetings. Other concerns are addressed in this Draft EIS. Because the Project has been developed in compliance with EO 12898, no adverse environmental justice impacts are anticipated.

Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative, and would be expected to subject the minority and low-income population of the SYCP Area to the same impacts as those listed above, as well as additional impacts related to pedestrian mobility, pedestrian safety, and access to transit facilities (as described in Section 3.2.1). Because the Project has been developed in compliance with EO 12898, however, no adverse environmental justice impacts would be anticipated.

No Build Alternative

Under the No Build Alternative, the Project would not be constructed. Operations would continue at the existing San Ysidro LPOE, without the benefit of expansion and renovation. There would be continued and increasing impacts to the surrounding communities (on both sides of the border) due to bottlenecked traffic, queues, and long wait times, and resultant higher emissions. Anticipated economic benefits to the SYCP Area population, in the form of employment opportunities, increased property values and resultant SYRP tax revenues, and improved pedestrian access for cross-border visitors attracted to San Ysidro's retail establishments, also would not be realized. These effects would constitute a disproportionate impact on minority and low-income populations in the SYCP Area.

In addition, the No Build Alternative would fail to improve the safety of the San Ysidro LPOE for vehicles and pedestrians crossing the border, and for employees at the LPOE. This also would represent an adverse environmental justice impact.

Environmental Health Risks and Safety Risks to Children

Preferred Alternative

As noted above in the discussion of the affected environment, the closest school and residential areas to the Project are located at a distance of approximately 0.5 mile. This is considered too far away for there to be substantial environmental health and safety risks to children from localized construction impacts. Furthermore, the San Ysidro LPOE would be fenced and under heavy security due to its Homeland Security mission, so that the likelihood of children entering the LPOE and encountering safety risks is low. Overall, conditions related to children's health would be likely to improve with implementation of the Preferred Alternative, since increased air quality emissions associated with greater congestion and reduced speeds on I-5 and I-805 near the border is expected to be offset by reduced air pollution emissions associated with vehicles idling in long LPOE queues. No adverse impacts related to environmental health and safety risks to children are anticipated.

Pedestrian Crossing Alternative

Because the Pedestrian Crossing Alternative would occur within the same Project Study Area as the Preferred Alternative, would be similarly fenced and under heavy security, and would also be expected to reduce air pollution emissions associated with vehicle idling at the border, no adverse impacts related to environmental health and safety risks to children would be anticipated.

No Build Alternative

Under the No Build Alternative, no construction would occur at the Project site. Air pollution emissions associated with vehicles idling in long LPOE queues would be expected to worsen without expansion and renovation of the existing LPOE, so health risks to children in the vicinity would be expected to increase, which could represent an adverse impact.

Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

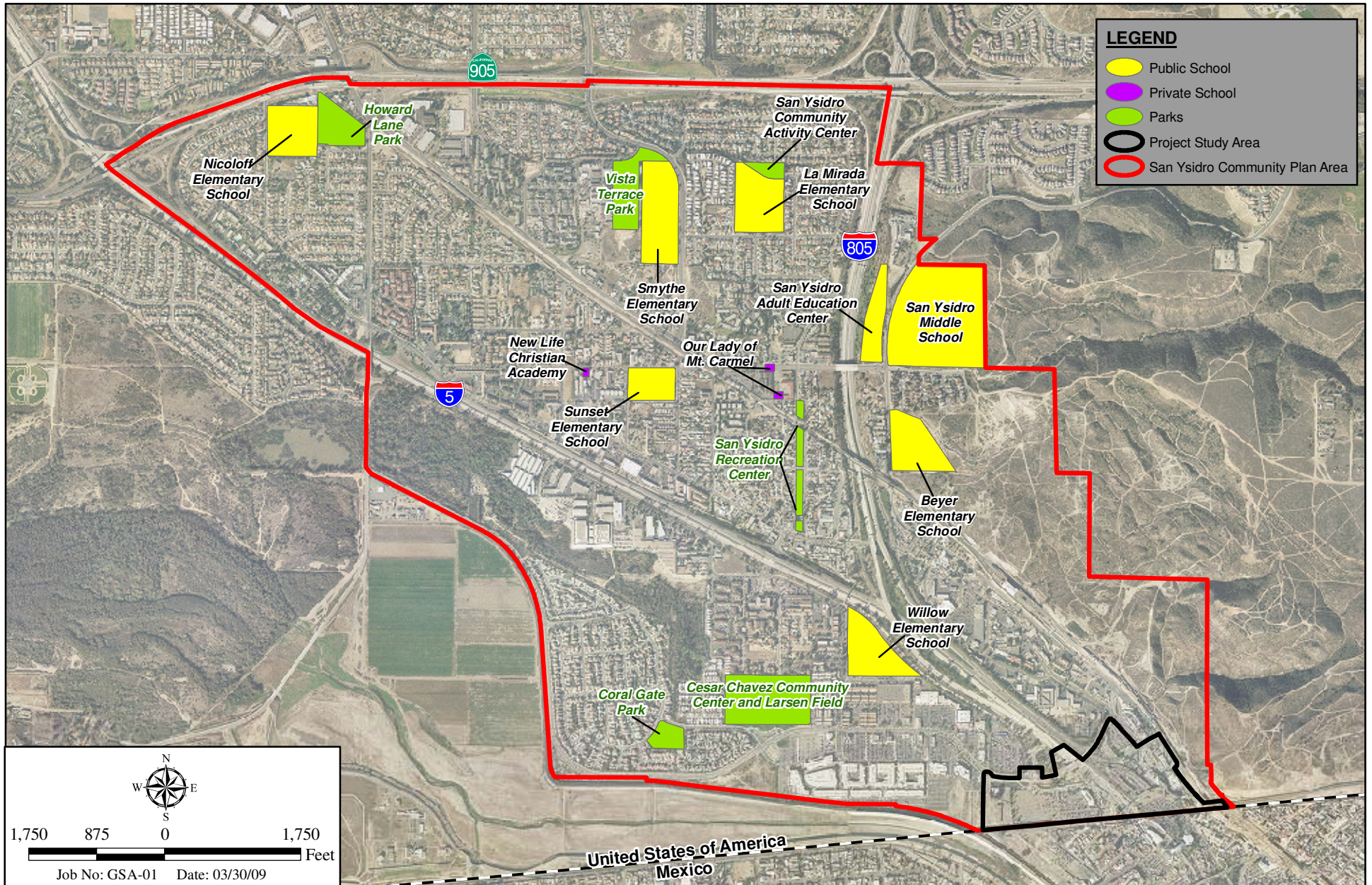
Because no adverse impacts related to environmental justice or environmental health and safety risks to children would result from implementation of the Preferred Alternative, no avoidance, minimization, or mitigation measures are required.

Pedestrian Crossing Alternative

As in the case of the Preferred Alternative, no adverse impacts related to environmental justice or environmental health and safety risks to children would result from implementation of the Pedestrian Crossing Alternative, so no avoidance, minimization, or mitigation measures are required.

No Build Alternative

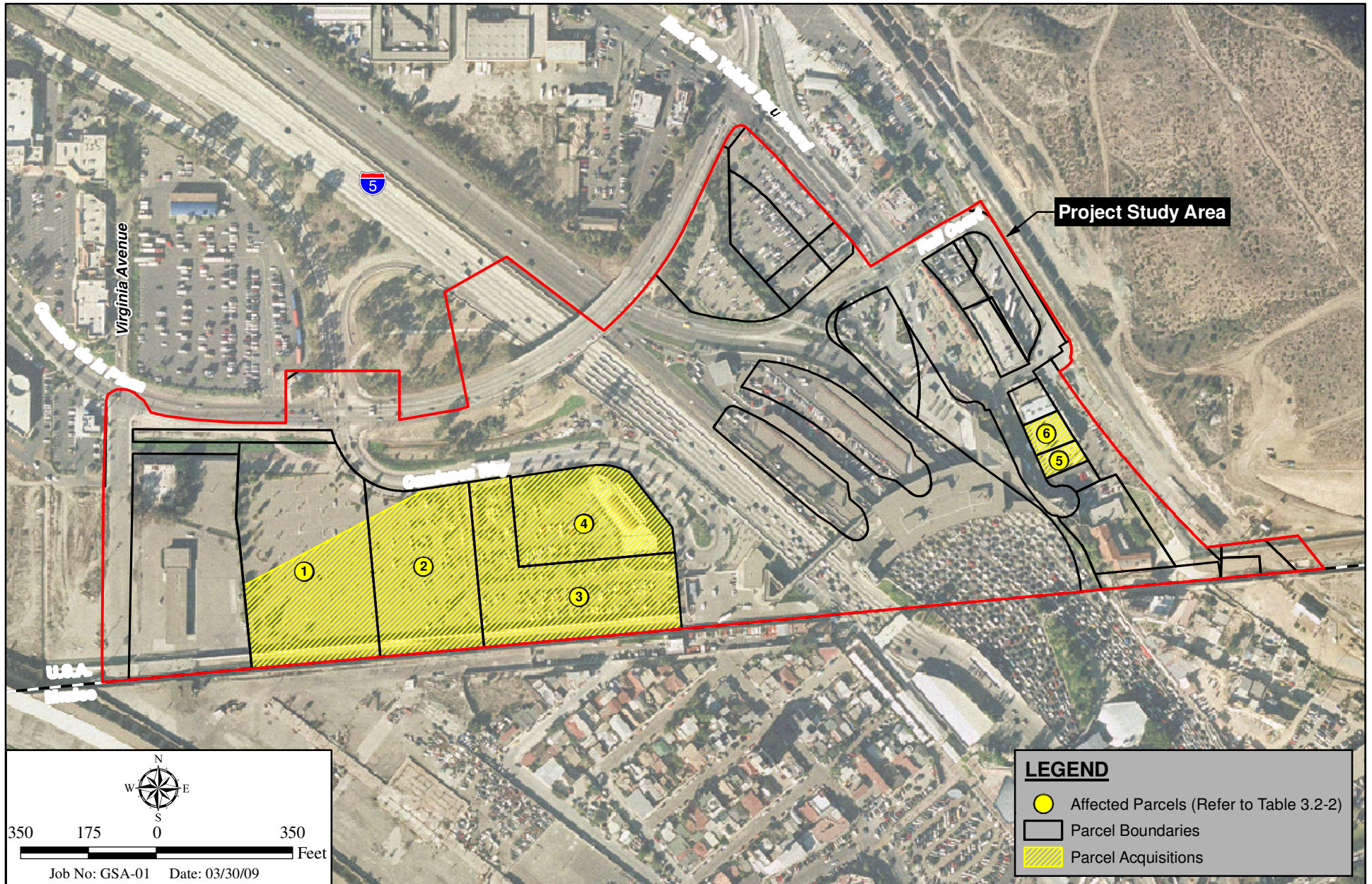
Adverse impacts related to environmental justice and environmental health and safety risks to children would be expected to result from the No Build Alternative. Nevertheless, because no construction would occur, no avoidance, minimization, or mitigation measures are required.



Schools and Parks in the SYCP Area

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.2-1



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Acquisition of Privately-Owned Parcels

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.2-2

3.3 UTILITIES/EMERGENCY SERVICES/LIFE SAFETY

3.3.1 Affected Environment

Utilities

Numerous existing utility facilities are located in the Project Study Area, primarily within local roadways and the existing LPOE. Mapped utilities are identified below.

Water and Sewer

Existing water and sewer lines extend underground into the LPOE from Camino de la Plaza, Camiones Way, and East San Ysidro Boulevard, providing water and sewer service to the LPOE.

Natural Gas

Existing underground natural gas lines extend from East San Ysidro Boulevard into the LPOE. Additional natural gas lines are located within segments of Camino de la Plaza and Virginia Avenue at the eastern edge of the Project Study Area.

Storm Drains

Existing storm drains are located throughout the LPOE and connect to two open drainage channels within the Project Study Area. An earthen channel is located between Camino de la Plaza and Camiones Way, and a concrete-lined channel runs parallel to the north side of the border, west of I-5. These drainage channels convey flows off site to the west.

Electrical/Communications

Electrical/communications lines are located within Camino de la Plaza, Camiones Way, East San Ysidro Boulevard, and Virginia Avenue. Several underground lines extend from these locations to serve the LPOE.

Emergency Services/Life Safety

Police Protection Services

The Southern Division of the City of San Diego Police Department provides police protection services in the neighborhoods of Border, Egger Highlands, Nestor, Ocean Crest, Otay Mesa, Otay Mesa West, Palm City, and San Ysidro, serving a population of 92,168 people spread over a 31.3-square-mile area. The Southern Division station is located at 1120 27th Street, approximately 4.5 miles (driving distance) northwest of the Project Study Area. In addition, the Border Storefront Station is located at 663 East San Ysidro Boulevard, approximately 0.4 miles (driving distance) north of the Project Study Area.

The California Highway Patrol (CHP) is responsible for the administration and enforcement of the laws, and the investigation of traffic accidents on all toll highways, state highways, and interstate freeways in California. Law enforcement activities on I-5 and I-805 are provided by the CHP.

The DHS works to anticipate, preempt, detect, and deter threats to the homeland and to safeguard U.S. citizens and their freedoms, critical infrastructure, property, and the economy of the nation from acts of terrorism, natural disasters, and other emergencies. The USBP along with other divisions and departments were merged into a new agency called the CBP, which is one of the DHS's largest and most complex components, with a priority mission of keeping terrorists and their weapons out of the U.S. It also has a responsibility for securing and facilitating trade and travel while enforcing hundreds of U.S. regulations, including immigration and drug laws. The DHS, through its member agencies CBP, USBP, and the Federal Protective Service (FPS), provides law enforcement and security services at the San Ysidro LPOE.

Fire Protection and Emergency Medical Services

The City of San Diego Fire-Rescue Department provides fire and paramedic services to the Project Study Area. Station 29 is the closest fire station to the LPOE within the San Ysidro. Station 29 is located at 198 West San Ysidro Boulevard, approximately 1.2 miles (driving distance) northwest of the LPOE. This station is equipped with an engine, truck, utility vehicle, brush vehicle, and medic vehicle.

3.3.2 Environmental Consequences

Preferred Alternative

Utilities

As of the time of this Draft EIS, the precise location of proposed utilities has not been finalized; however, several options have been identified. All proposed utilities that would cross under I-5 or the proposed southbound roadway would be encased in steel pipe.

Because the Preferred Alternative would expand the LPOE, increases in demand for water, wastewater, solid waste, and electric services would be expected. The Preferred Alternative, however, proposes to achieve Leadership in Energy and Environmental Design (LEED) certification, which aims to reduce the use of such utilities. Therefore, the Preferred Alternative is anticipated to minimize its impacts upon water, wastewater, solid waste, and electric services, and may actually reduce the usage of such services.

As discussed in Subchapter 3.7, Hydrology and Floodplain, the International Boundary and Water Commission (IBWC) mandates that new development in border regions does not increase, concentrate, or relocate overland drainage flows into either country. Implementation of the Preferred Alternative (as currently designed) would result in a slight increase of impervious surface area, with a corresponding increase in post-development runoff volumes and velocities (AECOM 2008a). Because the Preferred Alternative will ultimately be designed to meet applicable LEED requirements, however, post-development flows would be reduced through the use of one or more retention/infiltration basins. Additionally, the Preferred Alternative would include constructing a number of new storm drain facilities and upgrading existing structures, such that post-construction flows would be accommodated within the on-site storm drain system. Implementation of the Preferred Alternative, therefore, would not result in adverse impacts related to storm drain capacity.

Temporary construction-related impacts to utilities would potentially occur during construction of the Preferred Alternative. Adverse impacts would be avoided by consultation with responsible

utility providers to protect systems in place or arrange for the temporary or permanent relocation of existing utility lines.

Emergency Services/Life Safety

During construction of the Preferred Alternative, temporary detours within the LPOE may be required, resulting in some diversion of through traffic. Emergency access to, and within, the San Ysidro LPOE would be maintained throughout the construction period. Identification and provision for emergency access routes during Project construction would be addressed through implementation of a TMP.

DHS would continue to provide law enforcement and security services at the San Ysidro LPOE during and following construction of the Preferred Alternative. Additionally, the Preferred Alternative would be designed in compliance with the requirements of applicable fire protection codes.

The Preferred Alternative would improve safety of the San Ysidro LPOE for vehicles and pedestrians crossing the border, and for employees at the LPOE. As stated in Section 1.2.2, Need for the Project (in Chapter 1.0 of this Draft EIS), buildings within the northbound inspection facility are several decades old and cannot effectively support DHS facilitation and enforcement operations. The existing physical layout of the LPOE creates public and employee safety concerns. The overcrossing is located directly above the primary inspection area, creating a potential risk in the event of a criminal incident within the inspection area below. The overcrossing also serves as the pedestrian route from East San Ysidro Boulevard into Mexico. No inspection of the southbound pedestrian traffic occurs on this overcrossing, creating similar potential safety and security issues in the event of criminal incidents. In addition, the LPOE Administration Building is not sufficiently remote from the inspection area.

The Preferred Alternative would resolve these emergency/life safety concerns through the proposed modernization and facility upgrades. Protective design features would be incorporated into the proposed LPOE facilities to provide enhanced safety. These features would address anti-ram resistance, progressive structural collapse, and ballistics and forced entry resistance, and are detailed in Section 3.3.3.

In summary, emergency services would not be compromised during construction and operation of the LPOE, and the safety of people utilizing and employed at the San Ysidro LPOE would be improved through implementation of applicable design measures identified in Section 3.3.3.

Pedestrian Crossing Alternative

As described in Chapter 2.0, the Pedestrian Crossing Alternative would occur within the same Project Study Area as the Preferred Alternative, but would entail a different cross-border pedestrian circulation scheme. Like the Preferred Alternative, this alternative would seek to achieve LEED certification, which would be anticipated to minimize its impacts on water, wastewater, solid waste, electric services, and post-development drainage flows. Temporary construction-related impacts to utilities and emergency access similar to those identified for the Preferred Alternative would also be anticipated, and would be addressed through consultation with responsible utility providers and implementation of a TMP, as described above.

Like the Preferred Alternative, the Pedestrian Crossing Alternative would resolve existing emergency/life safety concerns within the LPOE as described above, through proposed

modernization features and facility upgrades, including the same protective design features to enhance public and employee safety. However, because the east-west pedestrian bridge to be constructed over I-5 and the LPOE would land on the north side of the East San Ysidro Boulevard/I-5 freeway ramp intersection under this alternative (instead of at the San Ysidro Intermodal Transportation Center as described for the Preferred Alternative), the Pedestrian Crossing Alternative would subject pedestrians traveling through this intersection to increased life safety concerns. Pedestrian movement at the East San Ysidro Boulevard/I-5 freeway ramp intersection was evaluated in a mobility study prepared for the Project (*San Ysidro Land Port of Entry Expansion Mobility Study*, April 2009). Under existing conditions, this intersection operates at a dangerous level for pedestrians during the morning and evening peak periods due to congestion and interactions with vehicles. This intersection carries large volumes of pedestrians crossing East San Ysidro Boulevard, and vehicles accessing the freeway. Vehicles traveling through the intersection compete with pedestrian movement across the roadway, creating potential conflicts and life safety issues. The configuration of the east-west pedestrian bridge under the Pedestrian Crossing Alternative would not resolve this problem, but rather would contribute additional pedestrian traffic to this intersection, increasing pedestrian risks and resulting in an adverse life safety impact.

No Build Alternative

Under the No Build Alternative, no construction would occur, and therefore, no impacts to emergency services would occur. Although existing life safety deficiencies at the LPOE would not be corrected, no life safety impacts would result from the No Build Alternative because no construction would occur.

3.3.3 Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

Utilities

Implementation of the following avoidance and minimization measure would avoid or reduce utility impacts of the Preferred Alternative:

- The construction contractor should coordinate with responsible utility providers to protect systems in place or arrange for the temporary or permanent relocation of existing utility lines.

Emergency Services

Implementation of the following avoidance and minimization measures would avoid or reduce impacts related to emergency services during construction of the Preferred Alternative:

- A TMP should be implemented to provide for emergency access on roadways that would be temporarily affected during the construction period.
- The construction contractor should contact local emergency service providers prior to the start of construction to ensure construction activities would not impede provision of emergency services within the Project area during the construction period.

Life Safety

The Preferred Alternative would incorporate the following protective design measures to ensure the safety of people at the San Ysidro LPOE:

- Bollards and barriers should be used to protect structural elements from vehicle damage. Anti-ram barriers must be provided wherever moving vehicles approach booths or buildings.
- Exterior walls and interior walls in high-risk areas, such as lobbies and public screening spaces, should be reinforced with cast-in-place or precast reinforced concrete.
- Exterior windows and interior windows between high-risk areas and occupied space should be thermally tempered or laminated glass.
- Bullet resistant glazing should be provided on windows that face inspection areas, on-coming traffic, or the border.
- Building perimeters and doors between inspection areas should be designed to resist forced entry.
- Utilities critical to LPOE operations should be located within the Central Plant building, which would be structurally reinforced.
- Where utilities are located within occupied buildings they should be separated from inspection and public lobby areas by at least 25 feet or by reinforced walls and floors.
- Air intakes should be secured.
- Mechanical equipment should not be placed at grade and directly adjacent to vehicle movement pathways.
- Utilities and feeders should not be located adjacent to vehicle pathways, or on the Mexican side of the primary inspection lanes.

Pedestrian Crossing Alternative

Implementation of the avoidance and minimization measures described above for the Preferred Alternative would avoid or reduce utilities, emergency services, and life safety impacts of the Pedestrian Crossing Alternative. The exception would be the adverse life safety impact identified for pedestrians at the East San Ysidro Boulevard/I-5 freeway northbound ramp intersection. This impact could be avoided through redesign of the proposed east-west pedestrian bridge to land at the San Ysidro Intermodal Transportation Center on the south side of the intersection, as described under the Preferred Alternative.

No Build Alternative

No impacts to utilities, emergency services, or life safety would occur under the No Build Alternative; therefore no avoidance, minimization, or mitigation measures are required.

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3.4 TRAFFIC AND TRANSPORTATION/PEDESTRIAN AND BICYCLE FACILITIES

3.4.1 Regulatory Setting

The Architectural Barriers Act (ABA) was enacted in 1968 and applies to all federal government buildings. The ABA requires that facilities designed, built, altered, or leased with certain federal funds be accessible to the public. GSA has enacted policies for the implementation of the ABA, including a requirement to design and build federal facilities in compliance with the Uniform Federal Accessibility Standards (UFAS). Compliance with these accessibility standards reinforces GSA's commitment to build facilities that provide equal access for all persons.

3.4.2 Affected Environment

The analysis and findings presented in this subchapter are based on a traffic report prepared for the Project (*San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009) that analyzed traffic conditions on local roadways, freeways, and intersections in the Project area under existing and future conditions. A mobility study was also prepared for the Project (*San Ysidro Land Port of Entry Border Station Expansion Mobility Study*, April 2009) that evaluated Project effects on transit, pedestrians, and bicycle mobility.

Traffic Study Area

The traffic study area for the Project includes roadway segments, freeway segments, and intersections that are likely to be affected by the Project. The study area, shown in Figure 3.4-1, includes the following 11 roadway segments, eight freeway segments, and nine intersections:

Roadway Segments

- East Beyer Boulevard, north of East San Ysidro Boulevard
- Camino de la Plaza, from Virginia Avenue to the I-5 southbound ramps
- Camino de la Plaza, from the I-5 southbound ramps to East San Ysidro Boulevard
- Camiones Way, south of Camino de la Plaza
- East San Ysidro Boulevard, from Olive Drive to the I-805 southbound ramps
- East San Ysidro Boulevard, from the I-805 southbound ramps to the I-805 northbound ramps
- East San Ysidro Boulevard, from the I-805 northbound ramps to Border Village Road (north)
- East San Ysidro Boulevard, from Border Village Road (south) to Camino de la Plaza
- Via de San Ysidro, from East San Ysidro Boulevard to the I-5 northbound ramps
- Via de San Ysidro, from the I-5 northbound ramps to I-5 the southbound off-ramp
- Via de San Ysidro, from the I-5 southbound off-ramp to Calle Primera

Freeway Segments

- I-5, from Dairy Mart Road to Via de San Ysidro (northbound and southbound)
- I-5, from Via de San Ysidro to the I-805 interchange (northbound and southbound)
- I-5, from the I-805 interchange to East San Ysidro Boulevard (northbound)
- I-5, from the I-805 interchange to the Camino de la Plaza on-ramp (southbound)
- I-5, from East San Ysidro Boulevard to the international border (northbound)
- I-5, from Camino de la Plaza on-ramp to the international border (southbound)
- I-805, from the SR-905 interchange to East San Ysidro Boulevard (northbound and southbound)
- I-805, from East San Ysidro Boulevard to the I-5 interchange (northbound and southbound)

Intersections

- Via de San Ysidro/Calle Primera
- Via de San Ysidro/I-5 southbound off-ramp
- Via de San Ysidro/I-5 northbound ramps
- East San Ysidro Boulevard/I-805 southbound ramps
- East San Ysidro Boulevard/I-805 northbound ramps
- East San Ysidro Boulevard/East Beyer Boulevard
- East San Ysidro Boulevard/I-5 northbound ramps
- Camino de la Plaza/I-5 southbound ramps
- Camino de la Plaza/Virginia Avenue

Roadway Network

Existing roadways and freeways analyzed in the traffic study area for the Project are briefly described below.

Interstate 5

I-5 is a north-south interstate highway on the west coast of the U.S. that extends approximately 1,400 miles from the San Ysidro LPOE at the U.S. – Mexico border, through San Diego and continues north through California to the U.S. – Canada border. In the SYCP Area, I-5 contains eight lanes. The I-5 interchanges that provide access to the SYCP Area include Dairy Mart Road, Via de San Ysidro (excluding a southbound on-ramp), Camino de la Plaza (southbound only), and East San Ysidro Boulevard (northbound only).

Interstate 805

I-805 runs north-south and connects with I-5 approximately one mile north of the San Ysidro LPOE, and extends approximately 30 miles north to rejoin I-5 in northern San Diego. In the SYCP Area, I-805 contains eight lanes. The I-805 interchanges that provide access to the SYCP Area include East San Ysidro Boulevard and Camino de la Plaza (southbound only).

Camino de la Plaza

Camino de la Plaza extends east-west from East Beyer Boulevard, crosses over I-5, and then turns northwestward to Dairy Mart Road. Camino de la Plaza is currently constructed as a four-lane collector road, which is consistent with its classification designated in the SYCP. The east-west segment is lined with commercial uses, most notably the Plaza de Las Americas shopping center. West of the shopping center, the roadway fronts a single family residential neighborhood, the Tijuana River, and agricultural fields. Sidewalks occur on portions of both sides of the roadway. On-street parking is permitted on the northern side of the roadway, between the block just west of Willow Road and Virginia Avenue. Parking for taxis and jitneys is permitted along the south side of the Camino de la Plaza overcrossing. A Class II bicycle lane (i.e., striped and stenciled lane for one-way bicycle travel on the roadway) occurs on both sides of the street between Dairy Mart Road and the block just west of Willow Road, and on the south side between the block just west of Willow Road and Camiones Way.

East San Ysidro Boulevard

East San Ysidro Boulevard generally runs parallel to the north side of I-5 between the San Ysidro Intermodal Transportation Center and Via de San Ysidro. It is constructed as a four-lane major street between Via de San Ysidro and Camino de la Plaza. The SYCP classifies the segment between Olive Drive and Border Village Road (north) as a four-lane major street, and a five-lane collector between Border Village Road (south) and Camino de la Plaza. East San Ysidro Boulevard provides access to the San Ysidro Transportation Center and is lined with commercial and retail development. Time-restricted parking is permitted generally between its northern and southern intersections with Border Village Road. Sidewalks occur on both sides of the roadway. The posted speed limit is 25 miles per hour (mph).

East Beyer Boulevard

East Beyer Boulevard extends north-south from Beyer Boulevard, and then curves southeastward and generally parallels East San Ysidro Boulevard until it intersects with East San Ysidro Boulevard. It is constructed as a two-lane collector, which is consistent with its designated classification in the SYCP. The roadway is lined with commercial and industrial uses, the trolley and railroad corridors to the east, an elementary school, and some residences. On-street parking and sidewalks are provided on portions along both sides of the roadway. Bike lanes occur along both sides in the southern extent of the roadway.

Via de San Ysidro

Via de San Ysidro extends generally north-south from East San Ysidro Boulevard, under the I-5, and terminates as a dead-end street just south of Calle Primera. Between East San Ysidro Boulevard and the I-5 northbound ramps, as well as between the I-5 southbound ramps and Calle Primera, the road is classified in the SYCP as a four-lane collector. Between the I-5 northbound and southbound ramps, the road is classified as a four-lane major road. Sidewalks occur on both sides of the road along the segment north of the I-5 northbound ramps and the segment south of Calle Primera. No bikeways are provided, and on-street parking is limited to the segment south of Calle Primera. The posted speed limit is 25 mph.

Camiones Way

Camiones Way extends southeastward from Camino de la Plaza and terminates as a loop road. It is constructed and classified as a two-lane collector street. Camiones Way is utilized by buses, taxis, and jitneys. On-street parking is not permitted. The posted speed limit is 25 mph.

Methodologies and Thresholds

Level of service (LOS) is a professional industry standard by which the operating conditions of a given roadway segment are measured. LOS is defined on a scale of A to F, where LOS A represents the best operating conditions, and LOS F represents the worst operating conditions. LOS A facilities are characterized as having free-flowing traffic conditions with no restrictions on maneuvering and little or no delays. LOS F facilities are characterized as having highly unstable, congested conditions with long delays. Delays are measured in seconds and determine the LOS at intersections.

The volume-to-capacity ratio (V/C) is another important parameter that determines LOS for roadway and freeway segments. V/C is a measure of traffic demand on a roadway segment (expressed as volume) compared to its traffic-carrying capacity.

In general, LOS D or better is considered acceptable for roadway, freeway, and intersection operations. The San Diego Traffic Engineers' Council and Institute of Transportation Engineers (SANTEC/ITE) *Guidelines for Traffic Impact Studies [TIS] in the San Diego Region* further define regional standards for traffic conditions in the San Diego area. These widely accepted industry standards are based on acceptable increases in the V/C for roadways and freeways, and delays for intersections. Generally unacceptable traffic increases occur to roadways and freeways when the LOS is degraded to E or F and the V/C increases by 0.02 or greater. Unacceptable increases occur to intersections when the LOS degrades to E or F and the delay increases by two or more seconds.

Existing Conditions of Roadway Segments

Table 3.4-1 shows the existing average daily traffic (ADT) for roadway segments within the traffic study area. Under existing conditions, the following roadway segments operate at LOS E or F:

- Camiones Way, south of Camino de la Plaza (LOS F)
- East San Ysidro Boulevard, between the I-805 northbound ramps and Border Village Road (LOS E)
- Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps (LOS F)

Table 3.4-1 EXISTING ROADWAY SEGMENT CONDITIONS				
Roadway Segment	Lanes/Classification	ADT	V/C	LOS
East Beyer Boulevard				
North of East San Ysidro Boulevard	2/Collector	2,734	0.342	B
Camino de la Plaza				
Virginia Avenue to I-5 SB ramps	3/Major Arterial	17,205	0.765	D
I-5 SB ramps to East San Ysidro Boulevard	3/Major Arterial	17,300	0.433	B
Camiones Way				
South of Camino de la Plaza	2/Collector	11,599	1.450	F
East San Ysidro Boulevard				
Olive Drive to I-805 SB ramps	4/Major Arterial	22,399	0.560	C
I-805 SB ramps to I-805 NB ramps	4/Major Arterial	21,770	0.544	C
I-805 NB ramps to Border Village Road	4/Collector	28,394	0.946	E
Border Village Road to Camino de la Plaza	5/Major Arterial	13,947	0.372	A
Via de San Ysidro				
East San Ysidro Boulevard to I-5 NB ramps	4/Collector	18,556	1.237	F
I-5 NB ramps to I-5 SB off-ramp	3/Major Arterial	18,809	0.627	C
I-5 SB off-ramp to Calle Primera	4/Collector	21,990	0.733	D

NB = northbound; SB = southbound

Source: *San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009.

Existing Conditions of Freeway Segments

Existing conditions for freeway segments within the traffic study area are summarized in Table 3.4-2. As seen in the table, all analyzed freeway segments currently operate at LOS B or better.

Table 3.4-2 EXISTING FREEWAY CONDITIONS							
Segment	Lanes	AM Peak			PM Peak		
		Peak Volume	V/C	LOS	Peak Volume	V/C	LOS
<i>Northbound</i>							
I-5, from Dairy Mart Road to Via de San Ysidro	4	2,400	0.261	A	1,374	0.149	A
I-5, from I-805 interchange to Via de San Ysidro	4	2,055	0.223	A	808	0.088	A
I-5, from I-805 interchange to East San Ysidro Boulevard	4	4,334	0.471	B	3,350	0.364	A
I-5, from East San Ysidro Boulevard to the international border	4	4,270	0.464	B	2,235	0.243	A
I-805, from SR-905 interchange to East San Ysidro Boulevard	4	1,890	0.205	A	2,914	0.317	A
I-805, from East San Ysidro Boulevard to I-5 interchange	2	1,689	0.367	A	2,392	0.520	B
<i>Southbound</i>							
I-5, from Dairy Mart Road to Via de San Ysidro	4	761	0.083	A	2,717	0.295	A
I-5, from I-805 interchange to Via de San Ysidro	4	432	0.047	A	2,313	0.251	A
I-5, from I-805 interchange to Camino de la Plaza off-ramp	4	318	0.035	A	2,252	0.245	A
I-5, from Camino de la Plaza on-ramp to the international border	6	1,736	0.126	A	4,576	0.332	A
I-805, from SR-905 interchange to East San Ysidro Boulevard	4	2,472	0.269	A	3,039	0.330	A
I-805, from East San Ysidro Boulevard to I-5 interchange	3	1,961	0.284	A	2,655	0.385	A

Source: San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study, April 2009.

Existing Conditions of Intersections

Delays at intersections are measured in seconds and determine the LOS for that intersection. Table 3.4-3 provides the LOS definitions for intersections.

Table 3.4-3 INTERSECTION LOS DEFINITIONS			
LOS	Signalized	Unsignalized	Traffic Description
	Delay (sec)	Delay (sec)	
A	<10	<11	Operations with very low delay. Progression is extremely favorable, and most vehicles do not stop at all. Short cycle lengths may also contribute to low delay
B	10 – 20	11 – 15	Operations with generally good progression and/or short cycle lengths
C	21 – 35	16 – 25	Operations with higher delays, which may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	36 – 55	26 – 35	Operations with high delay, resulting from some combination of unfavorable progression, long cycle lengths, or high volumes. The influence of congestion becomes more noticeable, and individual cycle failures are noticeable.
E	56 – 80	36 – 50	Individual cycle failures are frequent occurrences.
F	>80	>50	Operations with excessively high delay. This condition often occurs when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay.

Source: San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study, April 2009.

Table 3.4-4 shows the existing conditions for intersections within the traffic study area. As seen in the table, all intersections in the traffic study area operate at LOS D or better, except for the intersection of Via de San Ysidro/I-5 northbound ramps, which operates at LOS E during the PM peak period.

Table 3.4-4 EXISTING INTERSECTION CONDITIONS					
Number¹	Intersection	AM Peak		PM Peak	
		Delay (sec)	LOS	Delay (sec)	LOS
1	Via de San Ysidro/Calle Primera	26.5	C	46.2	D
2	Via de San Ysidro/I-5 SB off-ramp	23.0	C	26.6	C
3	Via de San Ysidro/I-5 NB ramps ²	14.9	B	35.5	E
4	East San Ysidro Boulevard/I-805 SB ramps	20.6	C	25.5	C
5	East San Ysidro Boulevard/I-805 NB ramps	22.5	C	21.8	C
6	East San Ysidro Boulevard/East Beyer Boulevard	16.4	B	8.4	A
7	East San Ysidro Boulevard/I-5 NB ramps	21.3	C	19.5	B
8	Camino de la Plaza/I-5 SB ramps	23.6	C	30.2	C
9	Camino de la Plaza/Virginia Avenue ²	11.7	B	23.6	C

¹ Number corresponds to intersection location in Figure 3.4-1.

² Unsignalized intersection.

NB = northbound; SB = southbound

Source: San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study, April 2009.

Existing Queuing and Wait Times at the San Ysidro LPOE

Northbound traffic currently experiences maximum wait times of three hours several times during the day at the San Ysidro LPOE. This results in long queues of vehicles waiting to cross the border.

Although only occasional inspections are performed on southbound traffic into Mexico, a speed reduction at the entry to Mexico causes some congestion. The maximum wait time at the southbound crossing is approximately 30 minutes several times during the day.

Pedestrian and Bicycle Facilities

Pedestrian facilities in the Project vicinity primarily consist of sidewalks along local roadways. The pedestrian bridge at the existing LPOE provides pedestrian access over I-5 and between the east and west sides of the San Ysidro community. In addition, a staircase on the Camino de la Plaza overcrossing provides pedestrian access from Camino de la Plaza to a sidewalk along Camiones Way that connects to Friendship Plaza and the southbound pedestrian entry into Mexico.

Bicycle facilities within the Project vicinity include Class II bike lanes (i.e., striped and stenciled lane for one-way bicycle travel on the roadway), bicycle racks, and a bicycle parking lot. A bike lane occurs on the south side of Camino de la Plaza, between the block just west of Willow Road and Camiones Way. At Willow Road, the bike lane continues along both sides of Camino de la Plaza to Dairy Mart Road. Another bike lane occurs along portions of East Beyer Boulevard to the northeast. Additional bike lanes are located in the northern part of the SYCP Area, approximately one to two miles away; these include Class II bikeways on sections of Otay Mesa Road, Smythe Avenue, and Dairy Mart Road. A 12-foot-wide, shared-use bike path extends northwestward from Camiones Way, under the Camino de la Plaza overcrossing, and connects to the street system near the Camino de la Plaza/I-5 southbound on-ramp intersection. Bicycle racks are provided near the path's connection with Camiones Way. Additionally, a bicycle parking lot is located at the northwest corner of the East San Ysidro Boulevard/I-5 northbound on-ramp intersection that accommodates 300 bicycles.

Transit Facilities

Transit service and facilities are provided in the Project vicinity. The San Ysidro Intermodal Transportation Center, located on the east side of I-5 at the southern end of East San Ysidro Boulevard, supports light rail (trolley blue line) and local, intercity, and regional bus services. Additionally, Metropolitan Transit System (MTS) bus routes 929 and 932 use the San Ysidro Intermodal Transportation Center and an existing drop-off area at the Camiones Way cul-de-sac.

In addition to public transit, private transit operators, including taxis, jitneys (e.g., vans or shuttle buses), and long-haul buses, operate in the immediate area and utilize these transit facilities. Taxi service is provided to northbound travelers, with boarding areas at the San Ysidro Intermodal Transportation Center (three stalls) and along the south side of the Camino de la Plaza overcrossing. Taxis also utilize the Camiones Way cul-de-sac as a drop-off point for southbound travelers. Jitney services are frequently used by northbound patrons to access nearby shopping centers. Jitney vehicles have designated areas for pick up at the San Ysidro Intermodal Transportation Center (two shared stalls) and at Camiones Way, and queue along the east side of East San Ysidro Boulevard, north of Camino de la Plaza. Long-haul bus operations consist of private bus services that pick up and drop off travelers from outside the

region. Several ticket counters, passenger loading, unloading, and staging areas are located in the Project vicinity, primarily along Rail Court.

Parking

Public parking is provided in the Project vicinity along select portions of local roadways. While there is limited on-street parking in the immediate vicinity of the San Ysidro LPOE, there are several pay parking lots surrounding the LPOE that are available for public use. Refer to Figure 3.1-2 for the locations of these parking lots.

3.4.3 Environmental Consequences

The transportation network was analyzed under near-term (2014) and horizon year (2030) conditions with and without the Project based on traffic models provided by SANDAG. The near-term (2014) represents traffic conditions for opening day of the Project (completion of Phase 3), and horizon year denotes future buildout traffic conditions.

Preferred Alternative

Near-term Conditions

Under near-term (2014) conditions, no changes to the existing circulation network were assumed, with the exception of Camiones Way. The Preferred Alternative would remove Camiones Way to accommodate the proposed LPOE improvements.

Roadway Segments

Table 3.4-5 shows the analyzed roadway segments under near-term conditions without (No Build Alternative) and with the Preferred Alternative. Figure 3.4-2 shows the near-term ADT with the Preferred Alternative for each analyzed roadway segment.

Table 3.4-5 NEAR-TERM (2014) ROADWAY SEGMENT CONDITIONS							
Roadway Segment	No Build Alternative			Preferred Alternative			Δ V/C
	ADT	V/C	LOS	ADT	V/C	LOS	
East Beyer Boulevard							
North of East San Ysidro Boulevard	3,300	0.413	B	3,479	0.435	B	0.022
Camino de la Plaza							
Virginia Avenue to I-5 SB ramps	20,650	0.918	E	24,267	1.079	F	0.161
I-5 SB ramps to East San Ysidro Boulevard	20,825	0.521	B	21,381	0.535	C	0.014
East San Ysidro Boulevard							
Olive Drive to I-805 SB ramps	29,500	0.738	C	29,927	0.748	C	0.011
I-805 SB ramps to I-805 NB ramps	27,250	0.681	C	27,609	0.690	C	0.009
I-805 NB ramps to Border Village Road	34,375	1.146	F	34,929	1.164	F	0.018
Border Village Road to Camino de la Plaza	16,925	0.451	C	17,479	0.466	C	0.015

Table 3.4-5 (cont.) NEAR-TERM (2014) ROADWAY SEGMENT CONDITIONS							
Roadway Segment	No Build Alternative			Preferred Alternative			Δ V/C
	ADT	V/C	LOS	ADT	V/C	LOS	
Via de San Ysidro							
East San Ysidro Boulevard to I-5 NB ramps	23,775	1.585	F	23,955	1.597	F	0.012
I-5 NB Ramps to I-5 SB off-ramp	22,600	0.753	D	22,600	0.753	D	0
I-5 SB off-ramp to Calle Primera	25,525	0.851	E	25,525	0.851	E	0

NB = northbound; SB = southbound; Δ = change/difference

Shaded results denote adverse traffic impacts.

Source: *San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009.

As shown in Table 3.4-5, the following roadway segments would operate at LOS E or F under near-term conditions without the Project:

- Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps
- East San Ysidro Boulevard, between the I-805 northbound ramps and Border Village Road
- Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps
- Via de San Ysidro, between the I-5 southbound ramps and Calle Primera

With the Preferred Alternative, all of these roadway segments would continue to operate at LOS E or F. Traffic volumes on the segment of East San Ysidro Boulevard, between I-805 northbound ramps and Border Village Road, would increase with the Preferred Alternative, but only marginally by 554 daily trips. Similarly, the Preferred Alternative would not considerably increase daily traffic volumes on the segment of Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps, as the increase would only be approximately 180 trips. Implementation of the Preferred Alternative would not increase traffic volumes on the segment of Via de San Ysidro, between the I-5 southbound ramps and Calle Primera. Accordingly, the Preferred Alternative would not result in adverse traffic impacts to these study area roadway segments under near-term conditions.

Traffic volumes on the segment of Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps would increase with the Preferred Alternative, causing the LOS to degrade from E to F. The higher volumes and reduction in LOS would result in an adverse traffic impact to this roadway segment.

Freeway Segments

As shown in Table 3.4-6, all analyzed freeway segments would operate at LOS B or better without the Project under near-term conditions. With the Preferred Alternative, no freeway segments would degrade to LOS E or F. Therefore, no adverse traffic impacts to study area freeway segments would result following implementation of the Preferred Alternative.

Table 3.4-6 NEAR-TERM (2014) FREEWAY CONDITIONS							
Segment	No Build Alternative			Preferred Alternative			Δ V/C
	Peak Volume	V/C	LOS	Peak Volume	V/C	LOS	
AM Peak Period							
<i>Northbound</i>							
I-5, from Dairy Mart Road to Via de San Ysidro	2,580	0.280	A	3,311	0.360	A	0.079
I-5, from I-805 interchange to Via de San Ysidro	2,244	0.244	A	2,998	0.326	A	0.082
I-5, from I-805 interchange to East San Ysidro Boulevard	5,091	0.553	B	7,306	0.794	C	0.241
I-5, from East San Ysidro Boulevard to the international border	4,924	0.535	B	7,189	0.781	C	0.246
I-805, from SR-905 interchange to East San Ysidro Boulevard	2,361	0.257	A	3,798	0.413	A	0.156
I-805, from East San Ysidro Boulevard to I-5 interchange	2,131	0.463	B	3,594	0.781	C	0.318
<i>Southbound</i>							
I-5, from Dairy Mart Road to Via de San Ysidro	839	0.091	A	1,008	0.110	A	0.018
I-5, from I-805 interchange to Via de San Ysidro	487	0.053	A	656	0.071	A	0.018
I-5, from I-805 interchange to Camino de la Plaza off-ramp	362	0.039	A	1,053	0.114	A	0.075
I-5, from Camino de la Plaza on-ramp to the international border	2,018	0.146	A	2,779	0.201	A	0.055
I-805, from SR-905 interchange to East San Ysidro Boulevard	2,584	0.281	A	3,067	0.333	A	0.053
I-805, from East San Ysidro Boulevard to I-5 interchange	2,083	0.302	A	2,605	0.378	A	0.076
PM Peak Period							
<i>Northbound</i>							
I-5, from Dairy Mart Road to Via de San Ysidro	1,462	0.159	A	2,058	0.224	A	0.065
I-5, from I-805 interchange to Via de San Ysidro	889	0.097	A	1,503	0.163	A	0.067
I-5, from I-805 interchange to East San Ysidro Boulevard	3,621	0.394	A	5,427	0.590	B	0.196
I-5, from East San Ysidro Boulevard to the international border	2,543	0.276	A	4,391	0.477	B	0.201
I-805, from SR-905 interchange to East San Ysidro Boulevard	3,155	0.343	A	4,327	0.470	B	0.127
I-805, from East San Ysidro Boulevard to I-5 interchange	2,554	0.555	B	3,748	0.815	D	0.260
<i>Southbound</i>							
I-5, from Dairy Mart Road to Via de San Ysidro	2,864	0.311	A	3,276	0.356	A	0.045
I-5, from I-805 interchange to Via de San Ysidro	2,507	0.272	A	2,918	0.317	A	0.045
I-5, from I-805 interchange to Camino de la Plaza off-ramp	2,393	0.260	A	4,076	0.443	B	0.183
I-5, from Camino de la Plaza on-ramp to the international border	5,171	0.375	A	7,026	0.509	B	0.134
I-805, from SR-905 interchange to East San Ysidro Boulevard	3,634	0.395	A	4,811	0.523	B	0.128
I-805, from East San Ysidro Boulevard to I-5 interchange	3,208	0.465	B	4,482	0.650	C	0.185

Δ = change/difference

Source: San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study, April 2009.

Intersections

Table 3.4-7 shows the anticipated intersection delays and LOS under near-term conditions without and with the Preferred Alternative. Figure 3.4-3 shows the vehicle trips for each analyzed intersection during the AM and PM peak period.

As shown in the table, the intersections of Via de San Ysidro/Calle Primera and Via de San Ysidro/I-5 northbound ramps would operate at LOS E or F under near-term conditions without the Project during the PM peak period.

With the Preferred Alternative, both of these intersections would continue to operate at LOS E and F during the PM peak period. The Preferred Alternative, however, would not increase delays at the Via San Ysidro/Calle Primera intersection, and delays at the Via de San Ysidro/I-5 northbound ramps intersection would decrease with the Preferred Alternative. Consequently, no adverse traffic impacts to these intersections would result from the Preferred Alternative.

Implementation of the Preferred Alternative would cause the intersection of Camino de la Plaza/Virginia Avenue to degrade from LOS D to LOS F during the PM peak period, resulting in an adverse traffic impact. All other study area intersections would operate at LOS D or better with the Preferred Alternative.

Table 3.4-7 NEAR-TERM (2014) INTERSECTION CONDITIONS						
Number¹	Intersection	No Build Alternative		Preferred Alternative		Δ Delay (sec)
		Delay (sec)	LOS	Delay (sec)	LOS	
AM Peak Period						
1	Via de San Ysidro/Calle Primera	32.3	C	32.3	C	0.0
2	Via de San Ysidro/I-5 SB off-ramp	24.1	C	24.1	C	0.0
3	Via de San Ysidro/I-5 NB ramps ²	17.3	C	17.8	C	0.5
4	East San Ysidro Blvd/I-805 SB ramps	20.7	C	20.7	C	0.0
5	East San Ysidro Blvd/I-805 NB ramps	23.9	C	24.8	C	0.9
6	East San Ysidro Blvd/East Beyer Blvd	17.6	B	19.0	B	1.4
7	East San Ysidro Blvd/I-5 NB ramps	22.9	C	24.8	C	1.9
8	Camino de la Plaza/I-5 SB ramps	24.8	C	23.1	C	-1.7
9	Camino de la Plaza/Virginia Ave ²	12.9	B	16.3	C	3.4
PM Peak Period						
1	Via de San Ysidro/Calle Primera	69.5	E	69.5	E	0.0
2	Via de San Ysidro/I-5 SB off-ramp	29.0	C	29.0	C	0.0
3	Via de San Ysidro/I-5 NB ramps ²	64.1	F	63.7	F	-0.4
4	West San Ysidro Blvd/I-805 SB ramps	36.5	D	39.1	D	2.6
5	East San Ysidro Blvd/I-805 NB ramps	27.7	C	29.2	C	1.5
6	East San Ysidro Blvd/East Beyer Blvd	9.1	A	10.4	B	1.3
7	East San Ysidro Blvd/I-5 NB ramps	23.4	C	24.3	C	0.9
8	Camino de la Plaza/I-5 SB ramps	36.3	D	51.7	D	15.4
9	Camino de la Plaza/Virginia Ave ²	33.1	D	89.4	F	56.3

¹ Number corresponds to intersection location in Figure 3.4-1.

² Unsignalized intersection.

NB = northbound; SB = southbound; Δ = change/difference

Shaded results denote adverse traffic impacts.

Source: San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study, April 2009.

Queuing and Wait Times

Under near-term conditions, wait times for northbound traffic without the Project are forecast to reach three to four hours several times during the day, which would result in long queues of vehicles waiting to cross the border. With the Preferred Alternative, northbound wait times would be reduced to approximately one hour throughout the day. Wait times for southbound traffic would approach one hour several times during the day both without and with the Preferred Alternative. No reduction in southbound wait times would occur with the Preferred Alternative because currently, only periodic inspections occur for southbound vehicles. Upon implementation of the Preferred Alternative, however, southbound vehicular inspections would occur regularly as part of the enhanced security operations at the LPOE.

Horizon Year Conditions

Under horizon year (2030) conditions, assumed changes to the circulation network include the removal of Camiones Way (as described above under the near-term analysis), as well as the extension of Siempre Viva Road from its current terminus in Otay Mesa to connect with East Beyer Boulevard.

Roadway Segments

Table 3.4-8 shows the roadway segments under horizon year conditions without and with the Preferred Alternative. Figure 3.4-4 shows the horizon year ADT with the Preferred Alternative for each analyzed roadway segment.

Table 3.4-8 HORIZON YEAR (2030) ROADWAY SEGMENT CONDITIONS							
Roadway Segment	No Build Alternative			Preferred Alternative			Δ V/C
	ADT	V/C	LOS	ADT	V/C	LOS	
East Beyer Boulevard							
North of East San Ysidro Boulevard	4,450	0.556	C	4,664	0.585	C	0.027
Camino de la Plaza							
Virginia Avenue to I-5 SB ramps	24,950	1.109	F	28,638	1.273	F	0.164
I-5 SB ramps to East San Ysidro Boulevard	26,600	0.665	C	27,248	0.681	C	0.016
East San Ysidro Boulevard							
Olive Drive to I-805 SB ramps	25,500	0.638	C	26,000	0.650	C	0.013
I-805 SB ramps to I-805 NB ramps	30,075	0.752	D	30,498	0.762	D	0.011
I-805 NB ramps to Border Village Road	46,100	1.537	F	46,663	1.555	F	0.019
Border Village Road to Camino de la Plaza	22,650	0.604	D	23,310	0.622	D	0.018
Via de San Ysidro							
East San Ysidro Boulevard to I-5 NB ramps	21,125	1.408	F	21,353	1.424	F	0.015
I-5 NB Ramps to I-5 SB off-ramp	24,350	0.812	D	24,350	0.812	D	0.000
I-5 SB off-ramp to Calle Primera	31,875	1.063	F	31,875	1.063	F	0.000

NB = northbound; SB = southbound; Δ = change/difference

Shaded results denote adverse traffic impacts.

Source: *San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009.

As shown in the table, the following roadway segments would operate at LOS F under horizon year conditions without the Project:

- Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps
- East San Ysidro Boulevard, between the I-805 northbound ramps and Border Village Road
- Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps
- Via de San Ysidro, between the I-5 southbound off-ramp and Calle Primera

With the Preferred Alternative, these same roadway segments would continue to operate at LOS F. Implementation of the Preferred Alternative would not increase traffic volumes on the segment of Via de San Ysidro, between the I-5 southbound off-ramp and Calle Primera.

The Preferred Alternative would increase volumes on the other segment of Via de San Ysidro (between East San Ysidro Boulevard and the I-5 northbound ramps), as well as the segment of East San Ysidro Boulevard (between the I-805 northbound ramps and Border Village Road). However, assuming these roadways would be improved to their ultimate recommended street classifications (as identified in the SYCP) by the horizon year (which is by definition, buildout of the Project area, including roadways), the additional volumes resulting from the Preferred Alternative would not further degrade traffic conditions on these roadways. Specifically, the segment of East San Ysidro Boulevard would continue to operate at LOS F, but the V/C ratio (i.e., volume compared to the roadway's traffic-carrying capacity) would not increase, and the segment of Via de San Ysidro would operate at LOS C.

The segment of Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps, would continue to operate at LOS F, but with much higher volumes. Impacts to this roadway segment resulting from the Preferred Alternative would be adverse.

Freeway Segments

As shown in Table 3.4-9, all analyzed freeway segments would operate at LOS C or better without the Project under horizon year conditions. With the Preferred Alternative, northbound I-5, between the international border and the I-805 interchange would degrade from LOS C to E and F during the AM peak period, and northbound I-805, between the I-5 interchange and East San Ysidro Boulevard would degrade from LOS C to F during the AM peak period. Volumes along this stretch of northbound I-5 and northbound I-805 would increase due to the proposed LPOE improvements, which would increase the processing capacity of northbound traffic crossing the border and merging onto northbound I-5 and I-805. While the Preferred Alternative would result in adverse traffic impacts to these freeway segments under horizon year conditions, the benefits of greatly reducing congestion (wait times and vehicle queues) for northbound vehicles crossing the border would offset these impacts.

Table 3.4-9 HORIZON YEAR (2030) FREEWAY CONDITIONS							
Segment	No Build Alternative			Preferred Alternative			Δ V/C
	Peak Volume	V/C	LOS	Peak Volume	V/C	LOS	
AM Peak Period							
<i>Northbound</i>							
I-5, from Dairy Mart Road to Via de San Ysidro	2,963	0.322	A	3,782	0.411	A	0.089
I-5, from I-805 interchange to Via de San Ysidro	2,616	0.284	A	3,460	0.376	A	0.092
I-5, from I-805 interchange to East San Ysidro Boulevard	6,817	0.741	C	9,296	1.010	F	0.269
I-5, from East San Ysidro Boulevard to the international border	6,552	0.712	C	9,088	0.988	E	0.276
I-805, from SR-905 interchange to East San Ysidro Boulevard	3,424	0.372	A	5,033	0.547	B	0.175
I-805, from East San Ysidro Boulevard to I-5 interchange	3,144	0.684	C	4,782	1.040	F	0.356
<i>Southbound</i>							
I-5, from Dairy Mart Road to Via de San Ysidro	1,135	0.123	A	1,326	0.144	A	0.021
I-5, from I-805 interchange to Via de San Ysidro	652	0.071	A	843	0.092	A	0.021
I-5, from I-805 interchange to Camino de la Plaza off-ramp	496	0.054	A	1,275	0.139	A	0.085
I-5, from Camino de la Plaza on-ramp to the international border	2,781	0.202	A	3,640	0.264	A	0.062
I-805, from SR-905 interchange to East San Ysidro Boulevard	2,872	0.312	A	3,416	0.371	A	0.059
I-805, from East San Ysidro Boulevard to I-5 interchange	2,386	0.346	A	2,386	0.431	B	0.085
PM Peak Period							
<i>Northbound</i>							
I-5, from Dairy Mart Road to Via de San Ysidro	1,826	0.198	A	2,422	0.263	A	0.065
I-5, from I-805 interchange to Via de San Ysidro	1,172	0.127	A	1,786	0.194	A	0.067
I-5, from I-805 interchange to East San Ysidro Boulevard	4,314	0.469	B	6,121	0.665	C	0.196
I-5, from East San Ysidro Boulevard to the international border	3,379	0.367	A	5,227	0.568	B	0.201
I-805, from SR-905 interchange to East San Ysidro Boulevard	3,604	0.392	A	4,776	0.519	B	0.127
I-805, from East San Ysidro Boulevard to I-5 interchange	2,893	0.629	B	4,087	0.889	D	0.260
<i>Southbound</i>							
I-5, from Dairy Mart Road to Via de San Ysidro	3,256	0.354	A	3,719	0.404	A	0.050
I-5, from I-805 interchange to Via de San Ysidro	2,841	0.309	A	3,305	0.359	A	0.050
I-5, from I-805 interchange to Camino de la Plaza off-ramp	2,667	0.290	A	4,563	0.496	B	0.206
I-5, from Camino de la Plaza on-ramp to the international border	6,650	0.482	B	8,741	0.633	C	0.152
I-805, from SR-905 interchange to East San Ysidro Boulevard	5,001	0.544	B	6,327	0.688	C	0.144
I-805, from East San Ysidro Boulevard to I-5 interchange	4,542	0.658	C	5,977	0.866	D	0.208

Δ = change/difference

Shaded results denote adverse traffic impacts.

Source: San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study, April 2009.

Intersections

Table 3.4-10 shows the intersections under horizon year conditions without and with the Preferred Alternative. Figure 3.4-5 shows the vehicle trips for each analyzed intersection during AM and PM peak periods.

Table 3.4-10 HORIZON YEAR (2030) INTERSECTION CONDITIONS						
Number¹	Intersection	No Build Alternative		Preferred Alternative		Δ Delay (sec)
		Delay (sec)	LOS	Delay (sec)	LOS	
AM Peak Period						
1	Via de San Ysidro/Calle Primera	48.7	D	48.7	D	0.0
2	Via de San Ysidro/I-5 SB off-ramp	24.1	C	24.1	C	0
3	Via de San Ysidro/I-5 NB ramps ²	17.1	C	17.5	C	0.4
4	East San Ysidro Blvd/I-805 SB ramps	20.8	C	30.9	C	10.1
5	East San Ysidro Blvd/I-805 NB ramps	24.2	C	25.3	C	1.1
6	East San Ysidro Blvd/East Beyer Blvd	22.1	C	24.6	C	2.5
7	East San Ysidro Blvd/I-5 NB ramps	32.9	C	38.6	D	5.7
8	Camino de la Plaza/I-5 SB ramps	26.1	C	22.9	C	-3.2
9	Camino de la Plaza/Virginia Ave ²	13.9	B	19.0	C	5.1
PM Peak Period						
1	Via de San Ysidro/Calle Primera	133.6	F	133.6	F	0
2	Via de San Ysidro/I-5 SB off-ramp	31.0	C	31.0	C	0
3	Via de San Ysidro/I-5 NB ramps ²	67.4	F	61.9	F	-5.5
4	West San Ysidro Blvd/I-805 SB ramps	28.7	C	29.8	C	1.1
5	East San Ysidro Blvd/I-805 NB ramps	43.9	D	49.2	D	5.3
6	East San Ysidro Blvd/East Beyer Blvd	12.7	B	15.0	B	2.3
7	East San Ysidro Blvd/I-5 NB ramps	44.9	D	47.2	D	2.3
8	Camino de la Plaza/I-5 SB ramps	60.2	E	87.0	F	26.8
9	Camino de la Plaza/Virginia Ave ²	51.8	F	319.5	F	267.7

¹ Number corresponds to intersection location in Figure 3.4-1.

² Unsignalized intersection.

NB = northbound; SB = southbound; Δ = change/difference

Shaded results denote adverse traffic impacts.

Source: *San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009.

As shown in the table, the following intersections would operate at LOS E or F under horizon year conditions without the Project:

- Via de San Ysidro/Calle Primera (LOS F during PM peak period)
- Via de San Ysidro/I-5 northbound ramps (LOS F during PM peak period)
- Camino de la Plaza/I-5 southbound ramps (LOS E during PM peak period)
- Camino de la Plaza/Virginia Avenue (LOS F during PM peak period)

With the Preferred Alternative, these intersections would continue to operate at LOS E or F. Although the Via de San Ysidro/Calle Primera intersection would operate at LOS F during the

PM peak period, implementation of the Preferred Alternative would not increase delays at this intersection. Delays at the intersection of Via de San Ysidro/I-5 northbound ramps would decrease with the Preferred Alternative. Accordingly, the Preferred Alternative would not result in adverse traffic impacts to these intersections under horizon year conditions.

Delays at Camino de la Plaza's intersections with the I-5 southbound ramps and Virginia Avenue, however, would increase considerably, resulting in adverse traffic impacts.

Queuing and Waiting Times

Under horizon year conditions, wait times for northbound traffic without the Project are forecast to exceed 10 hours several times during the day, which would result in extremely long queues of vehicles waiting to cross the border, or vehicles abandoning their trips. With the Preferred Alternative, northbound wait times would be reduced to a maximum of 1.5 hours throughout the day. Wait times for southbound traffic would approach one hour several times during the day both without and with the Preferred Alternative. As stated earlier, no reduction in southbound wait times would occur with the Preferred Alternative because currently, only periodic inspections occur for southbound vehicles. Upon implementation of the Preferred Alternative, however, southbound vehicular inspections would occur regularly as part of the enhanced security operations at the LPOE.

Construction Impacts

While the Preferred Alternative would generally result in beneficial impacts to traffic and transportation, temporary impacts would result during Project construction. Throughout Project construction, northbound and southbound vehicular and pedestrian access through the LPOE would be maintained and no road closures are anticipated. Temporary detours within the LPOE may be required, resulting in some diversion of through traffic. Any associated impacts would be minimized through implementation of a TMP, which would provide additional measures to reduce construction related traffic impacts. Given the temporary nature of the detours and diversions, and the implementation of a TMP, traffic impacts during Project construction would not be adverse.

Pedestrian and Bicycle Facilities

The Preferred Alternative would remove existing pedestrian and bicycle facilities within the Project Study Area, including:

- The elevated LPOE Administration Building and pedestrian overcrossing that spans the I-5;
- The staff bridge that spans the East San Ysidro Boulevard freeway ramps and connects an employee parking lot with a walkway to the existing Pedestrian Inspection Building;
- The existing southbound pedestrian plaza and crossing;
- Sidewalks along Camiones Way;
- A portion of the shared-use bike path extending northward from Camiones Way;
- Existing bicycle racks at the shared-use bike path's connection with Camiones Way.

Loss of these facilities, however, would not adversely affect pedestrian and bicycle circulation in the Project Study Area because the Preferred Alternative would provide additional pedestrian and bicycle facilities that would improve mobility within the Project Study Area. Proposed pedestrian and bicycle facilities include:

- Two new southbound pedestrian crossings: one in the eastern portion of the LPOE near the Old Customs House, and one at Virginia Avenue;
- Expanded northbound crossing in the eastern portion of the LPOE;
- An east – west pedestrian bridge over the I-5 and LPOE, between the San Ysidro Intermodal Transportation Center and Virginia Avenue;
- A bridge landing that would connect Camino de la Plaza to the new east-west pedestrian bridge, and also would include a pedestrian ramp to the reconfigured Camiones Way turn-around (during Phases 1 and 2);
- A staff pedestrian bridge between the employee parking structure and the operations center;

The Preferred Alternative would not affect other existing bike lanes, sidewalks, or bicycle facilities within the Project vicinity. Pedestrian and bicycle access into Mexico would be provided at the two new southbound pedestrian crossings, and northbound access into the U.S. would be provided at the expanded pedestrian processing facility. No associated adverse pedestrian/bicycle circulation impacts resulting from the Preferred Alternative would occur.

Transit Facilities

Implementation of the Preferred Alternative would remove Camiones Way, which includes a turn-around at its terminus and loading areas for buses, taxis, and jitneys. During Phase 3 of the Preferred Alternative, a new turn-around facility would be constructed in the western portion of the LPOE along Virginia Avenue to accommodate buses, taxis, jitneys, and privately owned vehicles. This location would be convenient for transit users, as it would provide a link to the proposed new southbound pedestrian crossing at Virginia Avenue. No associated adverse impacts to transit operations resulting from the Preferred Alternative would occur.

The Preferred Alternative also would remove an existing privately owned and operated long-haul bus depot in the eastern portion of the Project Study Area. This facility contains ticket counters and accommodates staging, loading, and unloading operations for three private long-haul bus operators, including Greyhound, Crucero, and Americanos. Approximately ten other private transit operators are located in the vicinity that provide ticketing, staging, loading, and unloading operations. It is anticipated that the affected long-haul bus operations would be accommodated at the other facilities in the vicinity. Several of these facilities have additional capacity and could handle some or all of the long-haul bus operations currently at the depot proposed to be removed.

The Preferred Alternative would not affect other existing transit facilities within the Project vicinity. Bus access into Mexico would occur via a dedicated bus-inspection lane and the new southbound roadway. Northbound bus access into the U.S. would be provided at a dedicated bus-inspection lane. No associated adverse transit impacts resulting from the Preferred Alternative would occur.

Parking

Implementation of the Preferred Alternative would remove a portion of the existing surface parking lots between Virginia Avenue and I-5. The parking lot fronting the east side of Virginia Avenue is currently used exclusively for LPOE employees. Loss of this employee parking would be offset by the construction of a new parking structure and surface parking on the west side of southbound I-5 during Phases 1 and 3, respectively, of the Preferred Alternative. The Preferred Alternative also would remove a surface parking lot off Camiones Way, between the Virginia Avenue LPOE employee lot and a commercial retail building (UETA Duty Free Shop). This lot currently provides 1,178 parking spaces and is available for public parking at a fee. The Preferred Alternative would displace this lot during Phase 3. However, there are several other fee-based parking lots in the vicinity of the LPOE that are also available for public use. Loss of this parking would be accommodated at these other parking facilities. Additionally, the Preferred Alternative would not preclude private commercial enterprises from taking advantage of the economic opportunity that the LPOE represents, including provision of additional fee-based parking lots, if the demand for such facilities arises. Those wishing to park their cars and cross the border on foot may also park in more distant public lots, including designated park and ride lots and utilize transit or taxi service to reach the border.

Pedestrian Crossing Alternative

Near-term and Horizon Year Conditions

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative, and would be expected to result in the same vehicle traffic volumes, peak hour flows, and distribution. Therefore, traffic impacts resulting from the Pedestrian Crossing Alternative to roadway segments, freeway segments, and intersections under near-term (2014) and horizon year (2030) conditions would be the same as those identified for the Preferred Alternative. Adverse impacts resulting from the Pedestrian Crossing Alternative would include the following:

Roadway Segments

- Camino de la Plaza, between Virginia Avenue and I-5 southbound ramps (near-term and horizon year)

Freeway Segments

- Northbound I-5, between the I-805 interchange and East San Ysidro Boulevard (horizon year)
- Northbound I-5, between East San Ysidro Boulevard and the international border (horizon year)

While the Pedestrian Crossing Alternative would result in adverse traffic impacts to these freeway segments under horizon year conditions, the benefits of greatly reducing congestion (wait times and vehicle queues) for northbound vehicles crossing the border would offset these impacts.

Intersections

- Camino de la Plaza/Virginia Avenue (PM peak; near-term and horizon year)
- Camino de la Plaza/I-5 southbound ramps (PM peak; horizon year)

Queuing and Wait Times

Like the Preferred Alternative, the Pedestrian Crossing Alternative would be expected to reduce northbound border queues and wait times significantly under both the near-term (2014) and horizon-year (2030) scenarios analyzed in the Project traffic study. As with the Preferred Alternative, northbound wait times under this alternative would be reduced to approximately one hour in the near-term, and 1.5 hours in the horizon year. No adverse impacts would occur.

Construction Impacts

Construction impacts would be the same as identified above for the Preferred Alternative. No adverse impacts would occur with implementation of a TMP.

Pedestrian and Bicycle Facilities

Because the east-west pedestrian bridge to be constructed over I-5 and the LPOE would land on the north side of the East San Ysidro Boulevard/I-5 freeway ramp intersection under this alternative (instead of at the San Ysidro Intermodal Transportation Center as described for the Preferred Alternative), the Pedestrian Crossing Alternative would result in increased congestion and more pedestrian/vehicle conflicts at this intersection. Pedestrian movement at the East San Ysidro Boulevard/I-5 freeway northbound ramp intersection was evaluated in the Project mobility study. Under existing conditions, this intersection operates at a dangerous level for pedestrians during the morning and evening peak periods due to congestion and interactions with vehicles. This intersection carries large volumes of pedestrians crossing East San Ysidro Boulevard, and vehicles accessing the freeway. Vehicles traveling through the intersection compete with pedestrian movement across the roadway, creating potential conflicts between pedestrians and vehicles. The configuration of the east-west pedestrian bridge under the Pedestrian Crossing Alternative would not resolve this problem, but rather would contribute additional pedestrian traffic to this intersection, increasing congestion and pedestrian/vehicle conflicts, and resulting in a potentially adverse impact.

Under the Pedestrian Crossing Alternative, a single southbound pedestrian crossing would be provided at its existing location. The two new southbound pedestrian crossings proposed under the Preferred Alternative would not be constructed, which would result in a less desirable pedestrian circulation pattern. Provision of only one southbound pedestrian crossing would result in greater walking distances to the southbound border crossing, which would not provide the improved mobility for pedestrians that the Preferred Alternative would create.

Transit Facilities

Like the Preferred Alternative, the Pedestrian Crossing Alternative would remove Camiones Way, which contains a bus turn-around at its cul-de-sac and loading areas for buses, taxis, jitneys, and privately owned vehicles. During Phase 1, Camiones Way would be reconfigured to accommodate the new LPOE facilities, but would include a similar turn-around and loading area. In Phase 3, however, Camiones Way would be removed as a result of the new

southbound roadway. A small turn-around would be constructed at the south leg of the Camino de la Plaza/I-5 off-ramp intersection, where Camiones Way currently extends from Camino de la Plaza. The new turn-around would function as a transit and privately owned vehicle drop-off area; however, it would be a smaller facility than the proposed facility along Virginia Avenue under the Preferred Alternative and would not include any loading areas.

The Pedestrian Crossing Alternative would not provide direct connections between transit and pedestrian facilities. The east-west pedestrian bridge within the LPOE would land on the north side of the East San Ysidro Boulevard/I-5 freeway ramp intersection (instead of at the San Ysidro Intermodal Transportation Center as described for the Preferred Alternative), requiring pedestrians to cross the busy intersection to and from the San Ysidro Intermodal Transportation Center located across the street. Furthermore, those utilizing transit at the shortened Camiones Way turn-around would have longer walking distances to and from the border crossing compared to the Preferred Alternative. Southbound travelers dropped off at this turn-around would be required to walk along the east-west pedestrian bridge, and then connect to the north-south pedestrian bridge before crossing the border. Northbound travelers to be picked up at the Camiones Way turn-around would have to cross the East San Ysidro Boulevard/I-5 freeway ramp intersection and walk the full length of the east-west pedestrian bridge to the turn-around. As a result, the Pedestrian Crossing Alternative would not provide the improved mobility for pedestrians that the Preferred Alternative would create.

Parking

As with the Preferred Alternative, The Pedestrian Crossing Alternative would remove the surface parking lots between Virginia Avenue and I-5, resulting in the loss of 1,178 parking spaces in a fee-based lot. Several other fee-based parking lots are located in the vicinity of the LPOE that are available for public use. The loss of parking under this alternative would be accommodated via the combination of existing parking facilities, new fee-based parking facilities implemented by private commercial enterprises in response to any additional emerging demand for parking, and increased use of alternative modes of transportation such as transit.

No Build Alternative

Near-term Conditions

Under near-term (2014) conditions, the No Build Alternative assumes no roadway improvements would occur with regard to the Project (i.e., the LPOE would not be improved). Traffic volumes, however, would continue to increase on roadways and freeways. Tables 3.4-5 through 3.4-7 show projected impacts for the No Build Alternative under near-term conditions.

Roadway Segments

Table 3.4-5 presents the roadway segments under the No Build Alternative. As shown in the table, the following segments would operate at LOS E or F under the No Build Alternative:

- Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps
- East San Ysidro Boulevard, between the I-805 southbound ramps and Border Village Road
- Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps
- Via de San Ysidro, between the I-5 southbound ramps and Calle Primera

The No Build Alternative would result in adverse traffic impacts to these traffic study area roadway segments.

Freeway Segments

As shown in Table 3.4-6, all analyzed freeway segments would operate at LOS A or B in the near-term under the No Build Alternative. No adverse traffic impacts to study area freeway segments would result from the No Build Alternative.

Intersections

Table 3.4-7 presents the analyzed intersections under the No Build Alternative. As shown in the table, the intersection of Via de San Ysidro/Calle Primera would operate at LOS E during the PM peak period, and Via de San Ysidro/I-5 northbound ramps would operate at LOS F during the PM peak period. Adverse traffic impacts to these study area intersection would result from the No Build Alternative.

Horizon Year Conditions

Under horizon year (2030) conditions, the No Build Alternative assumes no Project improvements would occur. It is assumed that the planned extension of Siempre Viva Road from its current terminus in Otay Mesa to connect with East Beyer Boulevard would be completed by 2030. Traffic volumes would continue to increase on roadways and freeways in the Project area. Tables 3.4-8 through 3.4-10 show projected impacts for the No Build Alternative under horizon year conditions, with impacts summarized below.

Roadway Segments

As shown in Table 3.4-8, the following roadway segments would operate at LOS F under the No Build Alternative:

- Camino de la Plaza, between Virginia Avenue to the I-5 southbound ramps
- East San Ysidro Boulevard, between the I-805 northbound ramps and Border Village Road
- Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps
- Via de San Ysidro, between the I-5 southbound off-ramp and Calle Primera

The No Build Alternative would result in adverse traffic impacts to these study area roadway segments.

Freeway Segments

As shown in Table 3.4-9, all analyzed freeway segments would operate at LOS C or better under the No Build Alternative. No adverse traffic impacts to study area freeway segments would result from the No Build Alternative.

Intersections

As shown in Table 3.4-10, the following intersections would operate at LOS E or F under the No Build Alternative, resulting in adverse traffic impacts:

- Via de San Ysidro/Calle Primera (LOS F during PM peak period)
- Via de San Ysidro/I-5 northbound ramps (LOS F during PM peak period)
- Camino de la Plaza/I-5 southbound ramps (LOS E during PM peak period)
- Camino de la Plaza/Virginia Avenue (LOS F during PM peak period)

3.4.4 Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

As described in Chapter 1.0, a primary Project goal in support of the Project purpose is to increase the processing capacity and efficiency of the LPOE in response to the need that is created by the current and projected demand for vehicles and persons to cross the border. Thus, the Preferred Alternative does not directly generate a substantial volume of traffic, but would accommodate existing and projected border crossing demand. It would also modify the patterns of traffic flow in the Project area. The purpose and need for the Project does not include local roadway improvements; however, feasible improvements have been identified that may be implemented by others to achieve acceptable LOS, based on commonly accepted local roadway segment and intersection standards. These potential improvements to be implemented by others are described below.

Near-term Conditions

Implementation of the following avoidance, minimization, and mitigation measures would avoid or reduce traffic impacts to roadway segments and intersections resulting from the Preferred Alternative for near-term (2014) conditions:

- Widening the segment of Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps, to four-lane major standards.
- Installation of a traffic signal at the Camino de la Plaza/Virginia Avenue intersection.

Widening this roadway segment of Camino de la Plaza would increase the roadway capacity and improve the LOS to D in near-term conditions. Installation of a traffic signal at the Camino de la Plaza/Virginia Avenue intersection would improve the LOS to B in near-term conditions.

Horizon Year Conditions

In addition to the measures listed above under near-term conditions, implementation of the following avoidance, minimization, and mitigation measures would avoid or reduce traffic impacts to roadway segments and intersections resulting from the Preferred Alternative for horizon year (2030) conditions:

- Re-striping of the I-5 southbound ramps at Camino de la Plaza to one southbound left-turn lane, one southbound right-turn lane, one southbound shared through/right-turn lane, and one westbound through lane.

Widening the roadway segment of Camino de la Plaza would increase the roadway capacity and improve the LOS to C in horizon year conditions. Installation of the traffic signal at the Camino de la Plaza/Virginia Avenue intersection would improve the LOS to C in horizon year

conditions. Re-striping the I-5 southbound ramps at Camino de la Plaza would improve the LOS to D in horizon year conditions.

As discussed above in Section 3.4.3, the Preferred Alternative would result in adverse traffic impacts to three freeway segments under horizon year conditions. No avoidance, minimization, or mitigation measures are identified to lessen these impacts; however, the benefits of greatly reducing congestion (wait times and vehicle queues) for northbound vehicles crossing the border would offset these impacts.

Pedestrian Crossing Alternative

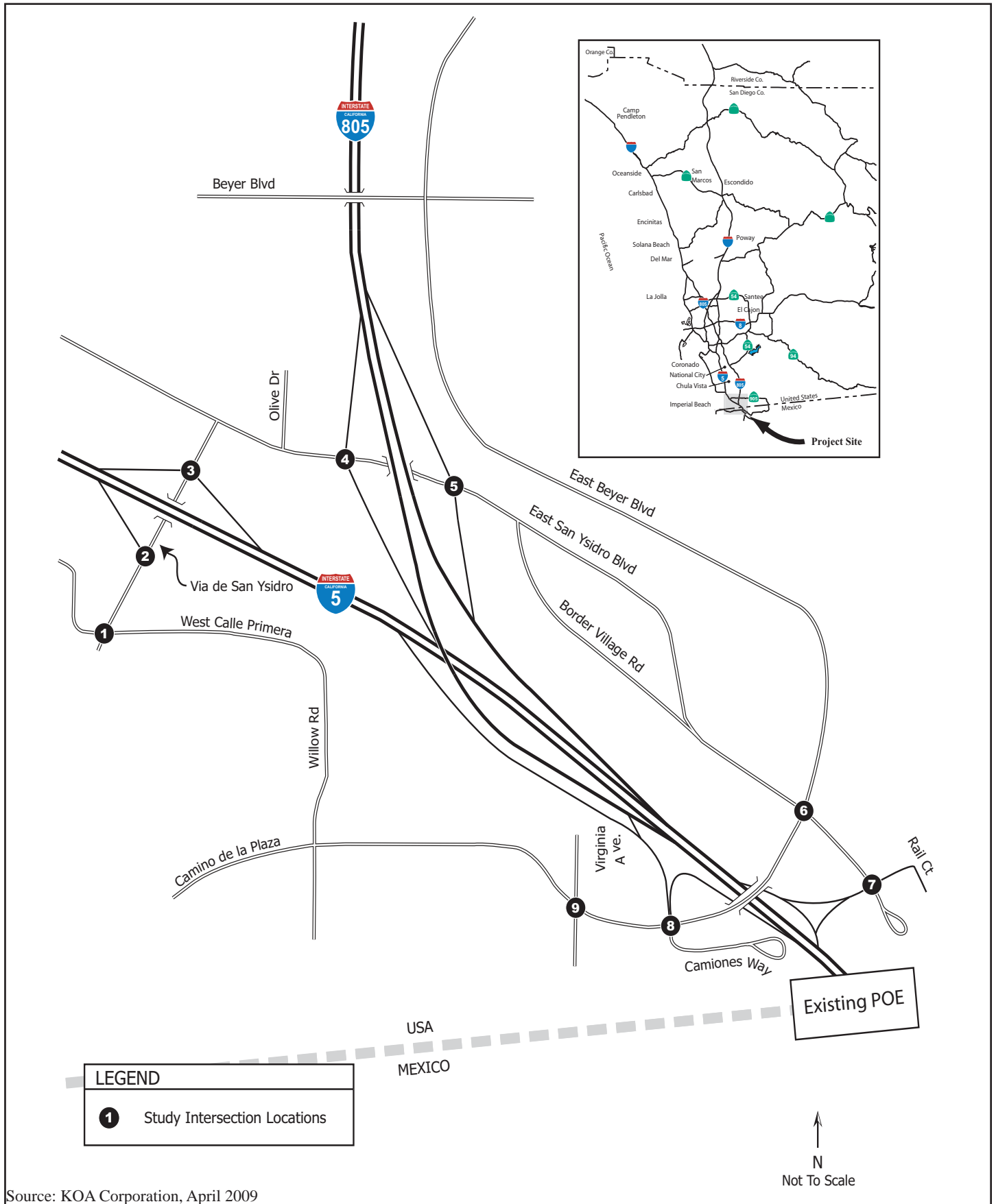
Implementation (by others) of the avoidance, minimization, and mitigation measures identified above for the Preferred Alternative would avoid or reduce traffic impacts to roadway segments and intersections resulting from the Pedestrian Crossing Alternative. As with the Preferred Alternative, no avoidance, minimization, or mitigation measures are identified to lessen impacts to freeway segments, but the large reduction in congestion for northbound traffic crossing through the LPOE would offset these freeway impacts.

Impacts related to pedestrian circulation and transit connectivity (i.e., mobility) could only be avoided through Project redesign. Specifically, the proposed east-west pedestrian bridge could be redesigned to land at the San Ysidro Intermodal Transportation Center on the south side of the intersection, as described under the Preferred Alternative. In addition, a redesigned larger transit turn-around and drop-off/loading facility could be provided on the west side of the LPOE along Virginia Avenue to accommodate anticipated transit operations. Finally, provision of two southbound pedestrian crossings: one on the west side and one on the east side of the LPOE could be constructed to provide improved mobility.

No Build Alternative

Traffic impacts would occur under the No Build Alternative, as discussed above. However, because no construction would occur, no avoidance, minimization, or mitigation measures are required.

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Traffic Study Area

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

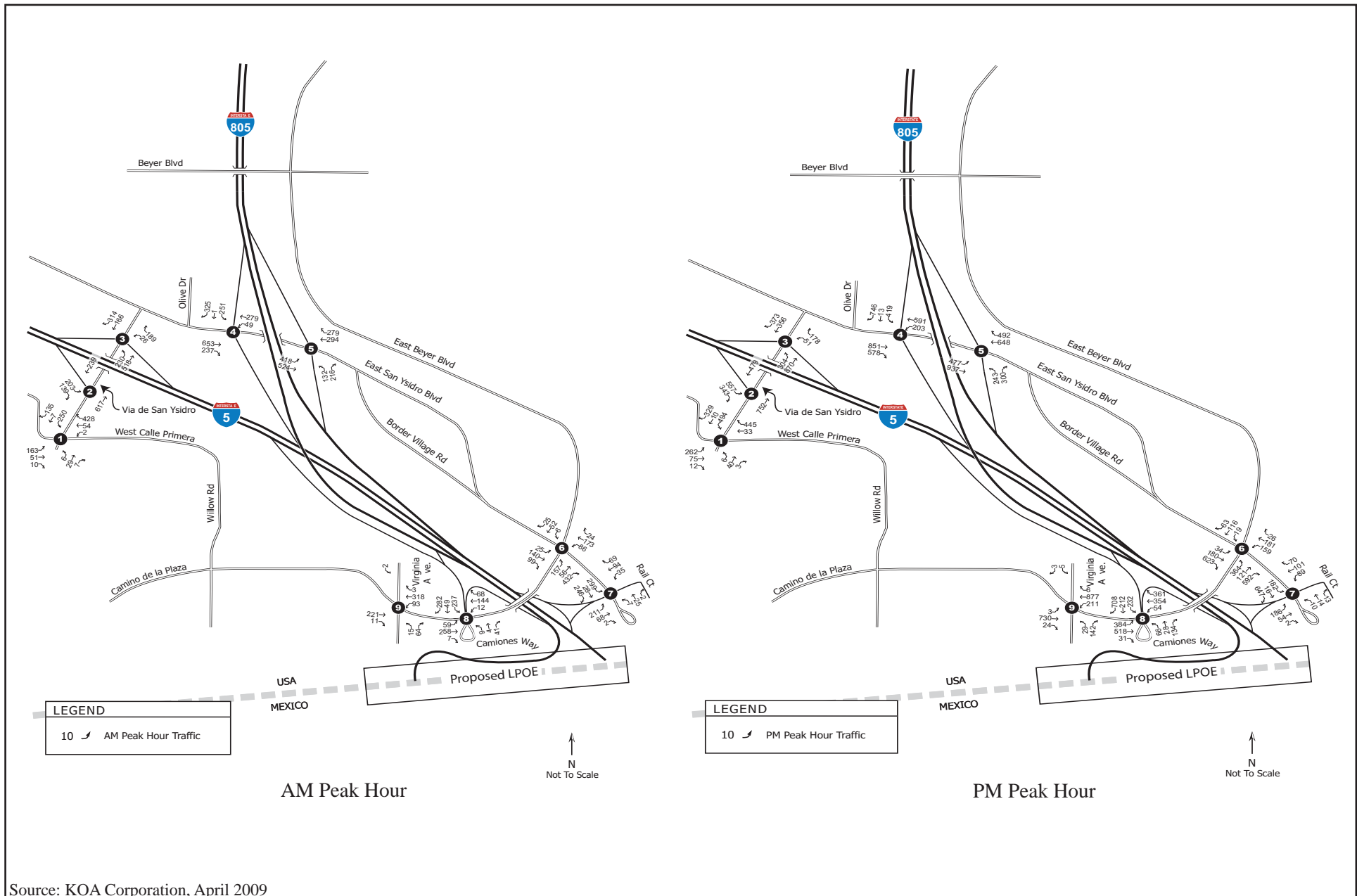
Figure 3.4-1



Near-term Roadway Segment Conditions - Preferred Alternative

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.4-2



Source: KOA Corporation, April 2009
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Near-term Peak Hour Intersection Conditions - Preferred Alternative

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.4-3



Horizon Year Roadway Segment Conditions - Preferred Alternative

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.4-4

3.5 VISUAL/AESTHETICS

3.5.1 Regulatory Setting

NEPA requires that the U.S. Government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 U.S.C. 4331(b)(2)).

3.5.2 Affected Environment

Visual Environment

The Project is located at the southern terminus/beginning of I-5 at the U.S.-Mexico border in the San Ysidro community of San Diego. The LPOE is bordered on the west and north by commercial development, and on the east by an undeveloped hillside. Some residential neighborhoods also are located within 0.5 mile of the Project, mainly north and west of the LPOE. The Project Study Area's southern edge abuts the international border.

The developed areas in the vicinity generally are aligned along the I-5 and I-805 corridors, and are confined between the hillside to the east, the international border to the south, and the Tijuana River channel in the southwest. Agricultural land is located approximately one mile west of the Project Study Area. The agricultural areas and the undeveloped Tijuana River estuary extend westward toward the Pacific Ocean, approximately five miles west of the Project Study Area.

Landscape Unit

A landscape unit is a portion of the regional landscape and can be thought of as an outdoor room that exhibits a distinct visual character. The Project lies within one landscape unit, comprised of the communities in southern San Diego. The landscape unit is bounded on the south by the international border, which is defined in this area by tall, linear fences and physical barriers, as well as the hillsides of Tijuana, Mexico.

The mesas and hillsides east of the Project Study Area and I-805 define the eastern edge of the landscape unit, and the Pacific Ocean, approximately five miles to the west, defines the western edge. The landscape unit extends to the north, encompassing the developed, urban communities between San Ysidro and downtown San Diego. The topography between these two geographic features generally is flat, with some hills and canyons extending northward from Mexico across the border into the river estuary area.

Most viewers experience the landscape unit from within the developed areas, spread across much of the topographically flatter areas. The hills provide a visual edge to the unit, particularly in the vicinity of the Project Study Area.

Project Viewshed

A viewshed is a subset of a landscape unit and is comprised of all the surface areas visible from an observer's viewpoint. The limits of a viewshed are defined as the visual limits of the views from the Project Study Area. A viewshed also includes the locations of viewers likely to be affected by visual changes brought about by project features. The Project viewshed is illustrated on Figure 3.5-1. This computer-generated viewshed (created based on topographic

data) encompasses a large portion of the developed areas north and west of the Project Study Area, as well as the west-facing hillsides to the east. Although the viewshed extends beyond the indicated one-mile radius, in reality, the Project elements would not be highly visible beyond the areas immediately bordering the Project Study Area, mainly due to intervening structures and landscape elements. The I-5 and I-805 corridors and multiple local roadways also are encompassed by the viewshed. The extent of views toward the Project Study Area from these roadways is, in reality, limited by intervening structures and landscape elements in most areas. General views from these roadways are discussed below; views of the Project from the portions of these roadways nearest to the Project Study Area are discussed in more detail under Existing Visual Resources.

Interstate 5 and Interstate 805

An extensive portion of I-805 and some parts of I-5 are highlighted on the viewshed map as within the Project viewshed, indicating the Project Study Area potentially is visible from those areas. Vegetation bordering the freeways, structures in nearby developed areas, and overcrossing structures, however, are much more readily visible from these freeways, and often block longer views, essentially screening features of the Project Study Area from view for motorists on these freeways. Additionally, northbound motorists on these freeways are traveling away from the Project Study Area, and their views, therefore, are not directed at the Project Study Area. The Project Study Area and the existing LPOE are increasingly visible as southbound motorists approach the border area. Individual structures and visual features of the facilities within the Project Study Area become identifiable south of the I-805 overcrossing and interchange where the I-5 and I-805 merge. From this point on the freeway, signs, barricades between lanes, and roadway striping warn motorists that they are approaching the border and the existing LPOE facilities within the Project Study Area become more prominent.

Northbound motorists view the Project Study Area and existing LPOE facilities immediately upon entering the U.S. Once through the LPOE facilities, the Project Study Area is visible in the rear-view as motorists proceed northward.

A motorist's view from I-5 includes mostly the immediate border crossing facilities, road overcrossings and highway signs and fixtures, some trees and landscaping along the sides of the roadway that become sparser further to the south, and in the background some tall buildings in Mexico, as well as the undeveloped hillside immediately east of the Project Study Area. Some of the developed areas beyond the roadway corridor are visible in the background as well, but these are not visually prominent, as tall chain link fences tend to screen peripheral views.

Surface streets

Although multiple local roadways are identified on the viewshed map as potentially having views of the Project Study Area, few of the publicly accessible streets in the immediate area are aligned directly perpendicular to the Project Study Area; direct views down local streets, therefore, generally are not available. Some peripheral views may be available, although these are often screened by fences and other elements that limit direct views of the Project Study Area. Pedestrians on local surface streets in the area have more opportunity to view the Project Study Area while navigating the sidewalks and pedestrian bridges in the area.

The local streets with the broadest views of the Project Study Area are all located within the immediate Project vicinity; some border the Project Study Area or extend into it. The local

roadways with the most available views of the Project Study Area (which would, therefore be affected by the Project) include Camino de la Plaza, East San Ysidro Boulevard, Camiones Way, and Virginia Avenue. The visual environment of these roadways and the extent of views from them to the Project Study Area are discussed in more detail in below.

Existing Visual Resources

This section discusses the visual character and quality of the Project Study Area and roadways within the viewshed that would be affected by the Project. Visual character is descriptive and non-evaluative, which means it is based on visual attributes, including pattern elements (i.e., form, line, color, texture) and pattern character (i.e., dominance, scale, diversity, continuity). Visual quality is evaluated by identifying the vividness, intactness and unity present in the viewshed. These terms are defined below:

- Vividness is the visual power or memorability of landscape components, as they combine in distinctive visual patterns.
- Intactness is the visual integrity of the natural and constructed landscape and its freedom from encroaching elements. It can be present in well-kept urban and rural landscapes, as well as natural settings.
- Unity is the visual coherence and compositional harmony of the landscape considered as a whole.

Project Study Area

Visual Character of Project Study Area

The entire 50-acre Project Study Area encompasses the existing San Ysidro LPOE and a high diversity of activities and visual elements. Within the Project Study Area are one- and two-story structures; pedestrian bridges; a freeway with six southbound lanes and 24 northbound lanes and vehicle inspection booths; roadway directional barriers, signage, and signals; several smaller roadways; a large number of vehicles; lights and other utility fixtures; fences; a trolley station; a bus-loading station; multiple parking lots of various sizes; sparse landscaping that includes canopy trees, palm trees, vines, and groundcovers; and a drainage area supporting low-growing species. The dominant visual pattern elements are developed, monochromatic, rigid, and mostly geometric structures and roadway elements. Figure 3.5-2 is a photograph of a portion of the existing LPOE.

The overall Project Study Area is large and monumental, but generally is viewed through a series of smaller-scale experiences that vary depending on the viewer's mode of transportation through the site. For example, motorists approaching the Project Study Area from the south pass through congested traffic lanes, approach inspection booths underneath a building that spans the width of the northbound lanes, and then navigate around or between several other buildings and parking lots to approach and merge with the northbound freeway lanes. Southbound motorists, though navigating fewer obstructions, are slowed while approaching the Project Study Area by barriers between lanes, signage, and striping that direct motorists to approach the Mexican border facilities cautiously. Within the Project Study Area, southbound freeway lanes pass under the Camino de la Plaza roadway overcrossing and one pedestrian walkway. Pedestrians approaching the Project Study Area arrive on public transit or park in one of the multiple parking lots in the area, and use the local roadways to approach the border crossing facilities. They pass through the border in a carefully directed sequence of smaller

spaces, directed by fences, gates, and interior hallways that constrict views to the immediate facility, walkway, or street.

The resulting experiences leave viewers with the impression of a visual environment composed of diverse elements that generally are geometric, rectilinear and rigid, gray or neutral toned (with few naturally-colored accents), and have smooth or manufactured surfaces (as opposed to softened with natural materials or plants). The combination of these elements creates a complex, often dissonant visual environment with few dominant features.

Visual Quality of Project Study Area

The visual quality of the Project Study Area is low; the varying elements are not, as a whole, harmonious or coherent, beyond the structured experiential sequences of passing southbound or northbound through the Project Study Area and across the border. The diverse elements have moderately low intactness and visual integrity due to the low unity and coherence. The vividness of the Project Study Area can vary depending on a viewer's experience, although the visual elements of the site do create distinct visual patterns and are not highly memorable beyond the overall "chaotic nature," enhanced by the street vendors and commercial carts in Mexico, often experienced in close sequence with the border crossing within the Project Study Area.

Interstate 5 and Interstate 805

Visual Character of Interstate 5 and Interstate 805

Interstate 805 merges with I-5 just north of the Project Study Area. The visual character of the freeways in the vicinity of the Project Study Area is comprised of large expanses of gray-toned concrete pavement, concrete barriers, and closely woven chain link fencing that encloses the freeway(s) on both sides and in the median.

For southbound motorists and for northbound motorists north of the LPOE facilities, the fencing creates a high horizon line that restricts peripheral views. Taller background elements such as the hill east of the Project Study Area, roadway and pedestrian overcrossings, the LPOE buildings, and some taller buildings located south of the border are visible above and through the fencing, but are not dominant due to the screening and the foreground elements that command more attention. Figure 3.5-3 illustrates a photograph of typical views from southbound I-5.

As southbound drivers and passengers approach the Project Study Area, their attention is focused on navigating the border crossing, and the foreground elements that direct the crossing experience are geometric and symmetrical. There are no plants in the median and little vegetation on the shoulders to soften the rigid lines and smooth textures, or to provide green or earth-toned visual relief to the grays and monotonous. The freeway is large in scale, although the scale varies as the viewer approaches and passes through the Project Study Area. Although the foreground elements that direct the viewers attention are visually diverse and complex, the visual character of the freeways is dominated visually by the expanse of concrete roadway.

The visual environment of the northbound interstate at the border (within the Project Study Area) also is composed of a vast expanse of concrete, where 24 lanes of traffic pass through inspection points. The LPOE structures also dominate the view for motorists; on structure

vaults over the inspection booths. Once through the inspection points, motorists are directed through a visually diverse area by the use of roadway barriers between lanes. Some trees and a small grassy area border the parking lots and buildings around which the motorists are directed. This area is characterized by these diverse elements, which combine to create a generally large, complex, and dissonant visual environment. Figure 3.5-3 illustrates a typical view from northbound I-5.

Visual Quality of Interstate 5 and Interstate 805

The overall quality of the visual environment of I-5 in the vicinity of the Project Study Area is moderately low.

The diverse elements encompassed by views of and from the freeways, though visually coherent enough to direct traffic through the border crossing facilities, are not noticeably harmoniously designed. The visual unity of the area, therefore, is moderately low.

There are few visual elements that encroach upon the visual environment of the freeways; however, the visual integrity of the diverse elements as a whole is not readily detectable. The visual intactness of the area, therefore, is moderate.

The visual environment of the freeways additionally provides little memorability. Some buildings, trees, and the undeveloped hillside east of the Project Study Area are visible beyond the enclosing fences on each side of the freeway; these elements, particularly the hillside, provide some vividness; however, they remain in the middle and background; foreground elements that direct motorists' attention are more visually dominant. The background elements, therefore, contribute little to the patterns that characterize the visual environment experienced by motorists on I-5 and I-805 near the Project Study Area. The vividness of the area, therefore, is moderately low.

Local Roadways in and near the Project Study Area

Visual Character of Local Roadways

The visual character of the roadways near the Project Study Area is composed of a variety of elements, including pavement and sidewalks, cars, buildings, parking lots, fences, and vegetation. The man-made features generally are geometric, and the sparse vegetation in the area is not consistently present to soften the dominant pattern elements with any irregular textures or earth-tone colors.

Camino de la Plaza is one of the main roadways near the Project Study Area; it trends generally east-west along the northern edge of the Project Study Area. West of I-5, Camino de la Plaza is bordered by parking lots and commercial areas. The road spans the freeway via an overcrossing structure, and terminates at East San Ysidro Boulevard, east of I-5. The overcrossing provides long-reaching views of the existing LPOE and the surrounding area, including buildings within Mexico and the undeveloped hillside to the east. Figure 3.5-4 shows a photograph of the Camino de la Plaza overcrossing.

East San Ysidro Boulevard is a north-south roadway located east of I-5, bordering the northeastern edge of the Project Study Area. East San Ysidro Boulevard terminates in a bus turn-around area within the San Ysidro Intermodal Transportation Center. The bus turn-around cul-de-sac is not open to general public automobile traffic; motorists are redirected either west

to the freeway ramps or east to commercial areas. Parking lots and commercial buildings border this roadway, including two lots within the Project Study Area: a lot south of Camino de la Plaza and a lot south of the freeway ramps, and west of the cul-de-sac. An existing LPOE building housing (among other functions) the northbound pedestrian processing facilities is located adjacent to the southern end of the cul-de-sac. Figure 3.5-4 shows a photograph of East San Ysidro Boulevard at its intersection with I-5 ramps, just north of the San Ysidro Intermodal Transportation Center.

Camiones Way, located west of I-5, extends southward from freeway off-ramps, south from Camino de la Plaza, and curves eastward. It terminates as a cul-de-sac next to the southbound freeway lanes. This publicly accessible roadway provides access to several parking lots and a commercial building that houses a duty-free shop. Figure 3.5-5 shows a photograph of Camiones Way.

Virginia Avenue extends southward from Camino de la Plaza on the western edge of the Project Study Area and terminates at the border fence, a tall, linear barrier that blocks views of anything on the other side. It is bordered on the east by a parking lot and on the west by an undeveloped area. The parking lot is surrounded by high chain link fences topped with barbed wire. Figure 3.5-5 shows a photograph of Virginia Avenue.

These roadways are smaller in scale than the freeway, but conduct high numbers of vehicles, and are therefore very busy (except for Virginia Avenue, which is used primarily by USBP employees accessing the fence area). The diverse fences, vehicles, traffic signals, and other visual elements that compose the visual environment of these roadways generally are geometric, rectilinear, gray and neutral-toned, and have smooth, manufactured surfaces. The visual environment of the roadways is visually complex, and the elements generally are not harmoniously combined; none is more dominant than another. Background features such as the undeveloped hill to the east and more distant hills and buildings in Mexico are visible from these roadways; the hill is a dominant feature in the environment of East San Ysidro Boulevard, and from the eastern terminus of Camino de la Plaza. The general visual character of the local roadways is developed, complex, and dissonant.

Visual Quality of Local Roadways

The variety of elements that make up the visual environment of the area surrounding the roadways generally are not visually coherent, and therefore have low unity. The diversity of elements also contributes to the low visual integrity and intactness of the area.

The more open views and background elements visible from the Camino de la Plaza overcrossing and the undeveloped hill visible to the east from East San Ysidro Boulevard and Camino de la Plaza contribute to a higher level of vividness from this roadway than others in the area. Generally, however, the elements comprising the visual environment of these roadways are not highly unique or memorable. Overall the combination of the visual components does not create distinct visual patterns along local roadways; therefore the vividness also is low.

Viewer Response

Viewer response is composed of two elements: viewer exposure and viewer sensitivity. These elements combine to form a method of predicting how the public might react to visual changes brought about by a highway project. Viewer exposure is typically assessed by measuring the number of viewers exposed to the resource change, type of viewer activity, duration of their

view, speed at which the viewer moves, and position of the viewer. High viewer exposure heightens the importance of early consideration of design, art and architecture and their roles in managing the visual resource effects of a project. Viewer sensitivity is defined both as the viewers' concern for scenic quality and the viewers' response to change in the visual resources that make up the view.

Existing viewers in the Project area can be categorized into one or more of the following viewer groups: (1) motorists on I-5 and I-805 (southbound and northbound), (2) motorists on local streets, (3) bicyclists and pedestrians, and (4) employees of the LPOE facilities. The exposure and sensitivity of each of these viewer groups are briefly described below.

Motorists on Interstate 5

Viewer Exposure

Motorists on I-5 and I-805 constitute the largest viewer group in the Project area. Motorists include a variety of viewers, such as tourists, residents of San Diego or Tijuana, daily or regular commuters who live in one country and work in the other, employees of the LPOE facilities or local businesses, and patrons of local businesses.

Southbound traffic volumes on I-5 currently are in excess of 51,000 ADT across six lanes. Traffic volumes are projected to be greater than 76,000 ADT in 2014 and more than 96,000 ADT in 2030 (*San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009).

Approaching the Project Study Area, southbound traffic travels at or around the posted speed of 65 mph, but slows to 25 mph or less at the northern edge of the Project Study Area, where lane barriers and other traffic controls slow down cars approaching the border; this lengthens their view duration. Although the extensive fencing and traffic control devices focus drivers' and passengers' attention on the roadway, the high number of vehicles and the slow speeds at which they pass through the project site indicate that southbound motorists' exposure is high.

Northbound traffic volumes on I-5 currently exceed 50,000 ADT through 24 inspection lanes, which narrow to four northbound regular freeway lanes near the north edge of the Project Study Area. Northbound traffic volumes are projected to be greater than 84,000 ADT in 2014 and more than 100,000 in 2030 (*San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009). Motorists approaching the Project Study Area from the south are entering the U.S. from Mexico; once they cross over the border they are within the LPOE. Motorists pass through the southern portion of the LPOE (the vehicle inspection area) very slowly, and sometimes are stopped for long periods of time. Once past the inspection area, traffic is still confined to slow speeds through most of the Project Study Area, and does not reach typical freeway speeds until the near northern edge of the Project Study Area. They therefore have longer view durations. The traffic control facilities and the large volume of cars tend to confine motorists' and passengers' attention to the immediate area and inspection facilities; however, the high number of vehicles and the long period of time they are within the Project Study Area indicate that northbound motorists' exposure also is high.

Viewer Sensitivity

At freeway speeds, a motorist's attention is focused forward on more distant views rather than on peripheral or middle-ground views; when slowing for or stopped at the LPOE facilities,

motorists would have more opportunity to view the surrounding visual environment. A driver's concentration is required to navigate traffic, while passengers have a greater awareness of a wider variety of views. Generally, motorists' attention to views and their awareness would be moderate. Freeway travelers include a wide variety of viewers, and their knowledge of the area would be mixed as well, although their expectations regarding the visual environment likely relate to cross-border travel, with an expectation of a welcoming visual environment. As such, they would have mixed or moderate expectations for local values and goals. Overall, the sensitivity of motorists on I-5 to changes in the visual environment of the Project Study Area and surrounding area is anticipated to be moderate.

Motorists on Local Streets

Viewer Exposure

Current traffic volumes on Camino de la Plaza exceed 17,000 ADT, and are projected to exceed 24,000 ADT in 2014, and more than 28,000 in 2030 (*San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009). Speed limits are not posted, but traffic generally travels around 35 mph and slower in the vicinity of the Project Study Area. Their relatively slow speed of travel provides them with a long duration of time to view the surrounding area, although the numerous intersections generally focus motorists' attention to the roadway. Motorists traveling on Camino de la Plaza eastbound from the commercial areas west of the Project Study Area have direct views of the western portion of the Project Study Area. Between Virginia Avenue and East San Ysidro Boulevard, motorists in both directions on Camino de la Plaza are traveling along the northern edge of the Project Study Area, and through some intersections that would be affected by the Project as well. In these areas, motorists generally have peripheral views of the Project Study Area. Camino de la Plaza crosses over I-5, providing elevated views southward toward the Project Study Area; a motorists' view from the overcrossing is screened by barriers and chain link fences, however. East of I-5, the roadway curves slightly northward, and borders the northeastern corner of the Project Study Area. Eastbound motorists' views generally are directed away from the bulk of the Project Study Area; westbound motorists have peripheral views of the Project Study Area. The Motorists on Camino de la Plaza, therefore, would have moderately high exposure to changes in the visual environment due to the high volume (although not as numerous as motorists on the freeway) and slow speed of travel.

Motorists on East San Ysidro Boulevard currently number approximately 14,000 to more than 22,000. Traffic volumes for this roadway are projected to be approximately 17,000 to 30,000 in 2014, and approximately 23,000 to 47,000 in 2030 (*San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009). North of Camino de la Plaza, the Project Study Area is screened by trees and structures bordering East San Ysidro Boulevard, and is not visually distinct. The Project Study Area is visible peripherally from East San Ysidro Boulevard south of Camino de la Plaza, where it borders the northeastern portion of the Project Study Area. The San Ysidro Intermodal Transportation Center at the southern end of this roadway is not open to private automobile traffic. Motorists stopped at the light would have extended views of the cul-de-sac and the LPOE abutting the transportation center. Those turning westward onto the freeway ramps pass under a pedestrian walkway and other LPOE facilities as they approach the freeway lanes. Traffic speeds on East San Ysidro Boulevard are posted at 25 mph, although with traffic lights and the frequent presence of multiple pedestrians, motorists' speeds often are less, or they are stopped; their view duration therefore is high, although their attention generally is focused on navigating traffic. Due to their slow travel speeds and high volume (although not as numerous as motorists on the freeway), motorists on the portion of

East San Ysidro Boulevard, between Camino de la Plaza and the freeway entrance ramps, would have moderately high exposure to changes in the visual environment, as would those entering the freeway from East San Ysidro Boulevard.

Camiones Way has current traffic volumes of approximately 11,600 ADT (*San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009). The off-ramps from I-5 and I-805 align with the intersection Camiones Way and Camino de la Plaza. Motorists at this intersection and traveling south on Camiones Way have direct views of the Project Study Area. The posted speed on this roadway is 25 mph. Their slow speed of travel allows for a long view duration, and although the current ADT is lower than other roadways in the area, motorists' exposure along this roadway also is moderately high.

No traffic data are available for Virginia Avenue, which extends southward from Camino de la Plaza to the border fence along the western edge of the Project Study Area. This roadway does not provide entrance to parking lots on its eastern side, and therefore is not often used by the general public. It does provide access to the border fence enforcement areas, however, and is used by USBP agents. Due to the low number of motorist on this roadway, viewer exposure from Virginia Avenue is low.

Viewer Sensitivity

Motorists on local streets are likely to be a mix of local business patrons, employees of businesses and the border facilities in the area, and cross-border travelers. Their knowledge of the area would be mixed, although their expectations regarding the visual environment likely relate to cross-border travel, with an expectation of a welcoming visual environment. Additionally, motorists on local streets generally travel at slower speeds than on the freeway, and while they are navigating through traffic to local businesses or parking areas, their attention is focused on the surrounding area and their awareness of the configuration of these streets is relatively high. Overall, therefore, motorists on local streets would have moderately high sensitivity.

Bicyclists and Pedestrians

Viewer Exposure

While an official count of pedestrians on local roadways is not available, an estimated 26,000 northbound pedestrians are processed daily at the LPOE (SANDAG 2007). It is likely that a similar number of pedestrians travel southbound each day, and more are present on local streets, particularly near the commercial areas in the vicinity of the Project Study Area. Bicyclists also are present in the area in high numbers. These viewers travel along local streets, pass through mass transit areas (trolley and bus stops) and the Project Study Area, and at slower speeds of travel than in an automobile, and thus have a longer view duration than motorists. They also utilize the pedestrian bridges over the freeway and parking lots. Although chain link fences are common along the roadways and border each pedestrian bridge, bicyclists and pedestrians have a larger viewing circumference and longer view durations than motorists, enabling them to view distant visual elements through the fences more readily than can motorists. Bicyclist and pedestrian view exposure, therefore, also is moderately high.

Viewer Sensitivity

Bicyclists and pedestrians on local streets would be highly attentive to the visual environment of the area. Their focus would be on their destination, which is likely to be nearby. The scale of the streets and pedestrian areas is relatively small (as compared to the freeway, for example) and traffic volumes, though high, do not distract their attention away from the visual elements that make up the visual environment surrounding the Project Study Area. Bicyclists and pedestrians would have a high awareness of these elements and any potential changes to the visual environment. Similar to motorists, their expectations regarding the visual environment of the area would relate to the cross-border experience, either regarding a welcoming environment or simply a clearly navigable environment. Overall, bicyclists and pedestrians on local streets would have high sensitivity.

Employees

Viewer Exposure

Approximately 750 employees work at the existing LPOE. This number would increase to over 900 employees upon implementation of the Project. This number is small, in comparison to the number of motorists and pedestrians who would view the Project. The duration of their views to facilities within the LPOE, however, is long and relatively stationary during their working shifts. The potential for foreground views combined with the relatively low number of viewers and the potentially high duration of views suggests that employee viewer exposure is moderate.

Viewer Sensitivity

Employees' awareness generally would be high, as they would be familiar with available views and aware of any changes to them. Their expectations would be high as well, due to their knowledge of the Project area. In general, however, employees' activities and attention are not focused on the visual elements within Project Study Area, as they generally are focused more on their jobs. Those views available to them would not invite high contemplation, as they likely are composed of streets and parking lots. Overall, employees, therefore, would have moderate sensitivity.

3.5.3 Environmental Consequences

The evaluation of potential visual impacts resulting from the Project is based on the principles in the most widely used and accepted visual resource assessment methodologies, including the DOT, *FHWA Visual Impact Assessment for Highway Projects*; the USDA Forest Service Visual Management System; and the U.S. Department of Interior Bureau of Land Management (BLM) modified Visual Management System. The concepts contained in these assessment approaches are accepted practices for evaluating visual resources both objectively (visual character) and subjectively (visual quality). This is accomplished by comparing the existing visual environment to the construction and post-construction visual environment, and subsequently determining whether the Project would result in physical changes that are deemed to be incompatible with visual character or degrade visual quality.

Key Views

Because it is not feasible to analyze all the views from which the Project would be seen, it is necessary to select a few key viewpoints that illustrate typical views of the Project and

surrounding area from locations accessible to the public. These views also represent the views available to the primary viewer groups that would potentially be affected by the Project. Typically, views of the Project would be publically available from the freeway and local streets discussed above, and from existing and proposed pedestrian walkways in and around the Project Study Area. Key views evaluated in the following section include those from I-5, Camino de la Plaza, East San Ysidro Boulevard, and Virginia Avenue. Views from I-805 are not analyzed because Project features would be less visible from I-805 than I-5 due to its distance from the Project Study Area. Although views from the I-805 would be somewhat comparable to those from I-5, they would be from a greater distance, making changes less noticeable. Camiones Way also is not analyzed because this roadway would be removed upon implementation of the Project, and therefore views of the Project would not be available from this existing roadway.

Preferred Alternative

Analysis of Key Views

Southbound Interstate 5

Project Features Visible from Southbound I-5. A new pedestrian overcrossing structure and southbound roadway would be the most visible elements of the Preferred Alternative from southbound I-5. The pedestrian overcrossing structure would cross the new southbound roadway just south of the Camino de la Plaza overcrossing, but would be narrower than the road overcrossing. It would be located just north of the point where the roadway would curve westward. A north-west spur of the pedestrian bridge would be visible over the westerly portion of the new roadway, and a new parking structure and a communications tower would be visible to the south of the new roadway curve.

The roadway's direction would shift motorists' background views toward the west, bringing into the field of vision different buildings in Mexico and some distant hillsides southwest of the Project Study Area. Peripherally, the views from the southbound roadway after Project construction would be similar to peripheral views available currently; fences and barriers would continue to screen views to the east and west. Parking lots would be visible beyond those fences.

Change to Visual Character/Quality. The Preferred Alternative would cause a low level of change to the existing visual character and quality of southbound I-5.

The existing visual character of the southbound freeway would not be changed substantially by construction of the Preferred Alternative. The large expanse of gray-toned concrete pavement would continue to dominate views toward and from the freeway. Although the new roadway would direct traffic through two curves, the overall visual character of the freeway would remain linear, geometric, and symmetric. Smaller, diverse elements such as concrete barriers, closely woven chain link fencing on both sides, and freeway fixtures such as lights, signals, striping, etc. would contribute diversity and complexity within the Project Study Area; however, they would not visually reduce the visual large scale of the freeway and connecting southbound roadway, which would be six to seven lanes. The smaller-scale elements and fixtures also would not change the overall dominance of the rigid lines and smooth textures that comprise the majority of the southbound I-5's overall visual environment.

A new parking structure, new pedestrian bridges, and a communications tower would be visible above the perimeter fences for a brief period of time for southbound motorists. Similar to the existing buildings visible from the freeway, the new parking structure, as well as the communications tower would not be a dominant element, particularly as the border crossing and the need to navigate traffic and the new southbound roadway would focus drivers' and passengers' attention on the roadway itself. There would be little or no new vegetation in the median or on the shoulders to soften the rigid lines and smooth textures, or to provide green or earth-toned visual relief to the grays and monotonous.

The newly visible background elements, such as the distant hillsides, would be new vivid elements in southbound freeway views towards the Project Study Area. Overall, however, the visual environment of the freeway would continue to have moderate visual quality, and the new Project features would not create unique visual patterns or substantially change the visual environment experienced by motorists on southbound I-5 near the LPOE.

Viewer Response. Motorists who would view the Preferred Alternative's elements from southbound I-5 have a high exposure to changes in the visual environment due to the high volume of traffic and the relatively slow speeds of travel while approaching the LPOE. Motorists on I-5 also have a moderate sensitivity to changes in the visual environment due to their focus on navigating traffic and their moderate expectations regarding the visual environment. Overall, motorists on southbound I-5 have a moderately high visual response to changes in the visual environment.

Change to Visual Environment. Although the Preferred Alternative would cause a change to the direction of the southbound travel (due to the new southbound roadway) and the elements visible in the background from this roadway, the visual environment surrounding the new southbound roadway would be very similar the existing visual environment. The change caused by the Preferred Alternative, therefore, would be low.

Resulting Visual Impact. Based on the anticipated moderately high viewer response combined with the low level of change to the visual environment caused by the Preferred Alternative, no adverse visual impacts to the visual environment of southbound I-5 would occur.

Northbound Interstate 5

Project Features Visible from Northbound I-5. The removal of the current structure that spans the inspection lanes would be the most visible change caused by the Preferred Alternative for northbound motorists approaching the Project Study Area (i.e. entering the U.S.). The existing buildings that currently serve the LPOE would be replaced by new buildings that would be aligned parallel to the traffic lanes; the new buildings would not span the width of the freeway, although a pedestrian bridge over the lanes would connect the buildings. These, and an additional longer pedestrian walkway that would span the northern portion of the LPOE, would be less prominent in appearance than the existing "floating" facility, and therefore would be much less visually dominant. The removal of the floating building would create a more open visual environment than currently exists. A new communications tower also would be visible, as it would extend above the employee parking structure to the east.

The addition of new traffic/vehicle inspection lanes would expand the scale of the LPOE at the southern edge; however, the new lanes and wider expanse would not be a visually dominant feature, since the addition of six lanes to an already 24-lane-wide area would not be highly noticeable to motorists within the northbound primary inspection area.

Once through the primary inspection lanes, the buildings and facilities visible to northbound motorists would be aligned parallel to the lanes, as are many of the existing buildings. The architectural façades may be different than the existing buildings, and some portions of the buildings would be three stories rather than two. The visual scale as seen from the traffic lanes and the orientation of the buildings would not be considerably different from the existing buildings. North of the buildings, the visual environment of the northbound freeway would be remain mostly unchanged, although some green lawn areas would be removed and replaced by parking lots at the northern end of the LPOE, and a pedestrian bridge would span this area. Views of the hillside visible to the east and the Camino de la Plaza overcrossing that marks the northern edge of the Project Study Area would remain unchanged.

Change to Visual Character/Quality. The removal of the building that currently spans the northbound primary inspection lanes would create a more open visual environment, and potentially would allow for more views of the undeveloped hillside to the east, slightly changing the visual character of the area and exposing a different vivid element. The large expanses of concrete punctuated by multiple diverse visual elements that comprise the visual character of the area would continue to dominate the visual environment of northbound I-5 at the LPOE. The other new buildings would be oriented similarly to the existing buildings, and the addition of one story would not be highly noticeable. The new pedestrian walkway overcrossings would be smaller in scale and less visually dominant than the existing structure that crosses over the northbound facilities. The new communications tower, although a taller structure, would not be at a bulk or scale to create a new dominant visual feature. Other such towers are located in the Project vicinity, including within the existing LPOE.

Viewer Response. Viewers on northbound I-5 mainly would be motorists, although the employees of the LPOE also would view the changes to the northbound inspection area. Motorists would have moderately high response to changes in the visual environment due to their high exposure and moderate sensitivity. Employees would have a moderately high response to changes in the visual environment, as their exposure is moderate and their sensitivity is moderately high.

Change to Visual Environment. Overall the new Project features would create a low level of change to the visual character of the area, and would cause a moderately low change to the visual quality of the area, mostly due to the removal of the “floating” building.

Resulting Visual Impact. Based on the combination of moderate viewer response and the low and moderately low levels of change, no adverse visual impacts to the visual environment of northbound I-5 within and near the LPOE would occur.

Camino de la Plaza

Project Features Visible from Camino de la Plaza. Project features that would be visible from Camino de la Plaza from points west of the Project Study Area would be the new southbound roadway, the pedestrian overcrossing, and the upper portion of the telecommunications tower.

Additional Project elements would be visible from the Camino de la Plaza overcrossing at I-5; the proposed pedestrian walkway/bridge would be a new foreground element in southbound views from this overcrossing. The proposed buildings would be slightly taller than the existing building visible in the middle-ground of southbound views from this bridge. Additionally, some small landscaped areas just south of the overcrossing would be replaced with parking lots.

From each of these points, views of the undeveloped hill east of the Project Study Area would remain undisturbed. Views of buildings in Mexico and other background elements also would not be affected by the Preferred Alternative.

Change to Visual Character/Quality. Views from eastbound Camino de la Plaza, west of the Project Study Area, would not change considerably. The elevated pedestrian walkway would be the most visible element of the Project, but it would not be a dominant element due to the scale of the paved areas and the presence of the other visually diverse elements, such as fences and light poles that would screen direct views of the walkway for viewers on Camino de la Plaza, west of I-5.

The pedestrian walkway would be in the foreground and would be a new visually dominant feature in southward views from the Camino de la Plaza overcrossing. It would be geometric and have a strong, horizontal line. While it may be a new slightly more vivid element in southward views from Camino de la Plaza, it would not cause a large change to the visual quality of the area, as it would be visually consistent with the existing visual elements due to its gray-concrete color and chain-link fencing. Additionally, the new buildings that would replace the existing buildings would be visually similar to existing buildings in views from this point. The new southbound roadway would provide more curvilinear lines within the view, but also would be visually consistent with the existing visual environment due to their materials, colors, and accompanying fixtures.

It should be noted that the new pedestrian bridge would provide new viewing points for pedestrians and bicyclists in the Project Study Area. More pedestrians may access this bridge than may use the sidewalks on Camino de la Plaza when the Preferred Alternative is constructed. Views from this bridge would be similar to views available from Camino de la Plaza, although southward views would not include a foreground overcrossing structure; the new buildings would be visible in the middle ground. The undeveloped hillside to the east and buildings and developed hillsides in Mexico to the south would be visible in the background; lesser-developed hillsides to the southwest also would be visible in the background. The southbound roadway would curve westward immediately south of the bridge. The northbound lanes would merge to the north, near the Camino de la Plaza overcrossing; to the south the northbound lanes would extend between the buildings and parking lots.

Pedestrians and bicyclists would have more extensive views of the Project Study Area and surrounding area from the new bridge. The background elements and expansive view would provide more vividness than is available from other pedestrian areas currently.

Viewer Response. The motorists on Camino de la Plaza have moderately high sensitivity and exposure to changes in the visual environment, and would have a moderately high response to changes in the visual environment. Bicyclists and pedestrians on this road also would have moderately high sensitivity, and high exposure, and also would have a moderately high response to changes in the visual environment.

Change to Visual Environment. The Preferred Alternative would cause a low level of change in the visual environment of Camino de la Plaza, west of the Project Study Area. From the Camino de la Plaza overcrossing, the Preferred Alternative would create a moderately low level of change to the visual environment; the new pedestrian bridge would be a new vivid element visible from this point, but would not affect the unity and intactness of the area, or change the visual character.

Resulting Visual Impact. Based on the low and moderately low levels of change to the visual environment of Camino de la Plaza combined with the high and moderately high viewer response, no adverse visual impacts to the visual environment of Camino de la Plaza would occur.

East San Ysidro Boulevard

Project Features Visible from East San Ysidro Boulevard. The Preferred Alternative would not affect the visual environment of East San Ysidro Boulevard, north of Camino de la Plaza. Most changes that would be visible from East San Ysidro Boulevard would be near the bus turn-around area at the San Ysidro Intermodal Transportation Center. Project elements that would be visible in this area would be the eastern end of the new pedestrian bridge, a new building that would replace the existing building at the south end of the transportation center, and the upper portion of a new communications tower.

The new pedestrian bridge would be accessed via ramps and a landing area that would replace the existing parking lot west of the turn-around area. An existing pedestrian bridge west of the bus turn-around area and that spans the freeway entrance ramps would be removed. The new ramp would extend westward over the main freeway lanes.

A new building would extend south from the pedestrian ramp landing area next to bus turn-around. The building would have an eastward-extending wing at the location of the existing building adjacent to the southern end of the bus turn-around. The northern extension of the building would be three stories tall. The northbound lanes would be located on the west side of the building, and would not be visible from the bus turn-around area.

The upper portion of the proposed communications tower, to be constructed on the west side of the employee parking structure, would be visible from East San Ysidro Boulevard. Foreground and middle ground elements would obstruct most of the tower, but the upper extent would be visible in background views.

Change to Visual Character/Quality. The Preferred Alternative would replace existing visual elements with similar features. The existing pedestrian bridge is a visually dominant element, and would be replaced with a similar, though longer, bridge, with similar fencing and linear, concrete elements. The short end of the existing building aligns with the end of the bus turn-around area and extends southward; most of the building is not visible from the road, and is not visually dominant. The new building would introduce a new, taller structure that would be closer to the road and therefore more visual; the portion that would be located west of the road would be three-stories tall, taller than the existing two-story building. The building would be a new dominant element west of the bus turn-around area, and would change the visual environment to include more vertical elements where currently pavement is a dominant feature. The communications tower would not be a visually dominant feature given the distance from this viewpoint and presence of competing visual elements in foreground and middle ground views.

Views of the undeveloped hill to the east would remain undisturbed, and none of the new elements would block views toward the hill from this street.

Viewer Response. Because the bus turn-around south of Camino de la Plaza is not a street accessible to automobiles driven by the general public, the main viewers in this area are pedestrians and bicyclists, many of whom use public transit such as the buses or the trolley at the adjacent San Ysidro Intermodal Transportation Center. Pedestrians in this area have

moderately high exposure and high sensitivity to changes in the visual environment of the Project Study Area.

Change to Visual Environment. The new building and pedestrian bridge would introduce new dominant elements into the visual environment of East San Ysidro Boulevard. These elements would be geometric, rectilinear elements that would not highly contrast with the existing visual environment. The new building would be taller and closer to viewers, but would not reduce the unity or intactness of the area, which currently are low. The Preferred Alternative, therefore, would cause a moderately low change to the visual environment of East San Ysidro Boulevard.

Resulting Visual Impact. The moderately low change in combination with the moderately high anticipated viewer response would not result in adverse visual impacts to the visual environment of East San Ysidro Boulevard.

Virginia Avenue

Project Features Visible from Virginia Avenue. The Preferred Alternative would remove the existing parking lot east of Virginia Avenue and south of Camiones Way. The new southbound roadway would turn to meet the borderline east of Virginia Avenue;. A new sidewalk extending from the east-west pedestrian bridge would connect to Virginia Avenue. Additional visible Project features would include a new transit turn-around and loading facility, a new southbound pedestrian building, a new southbound pedestrian crossing at Virginia Avenue, and an employee surface parking lot.

Change to Visual Character/Quality. Project elements that would be visible from this roadway would change the character of the existing visual environment. The new surface parking lot would have a similar horizontal expanse of pavement, and be surrounded by fences, as is the existing lot. The walkway would meet the existing grade of the roadway at its eastern end at Virginia Avenue. The transit turn-around and loading facility would be constructed along the existing roadway. The southbound pedestrian building would be constructed fronting the east side of Virginia Avenue, and would constitute a new visual element. The bulk and scale of this building, however, would not create a dominant visual element and would partially obstruct views of other new elements within this portion of the improved LPOE from Virginia Avenue. None of the other new elements would be visually dominant or highly vivid. The existing undeveloped hills visible in the background to the east, the border fence to the south, and the undeveloped lot to the west would remain visible and would not be changed by the Preferred Alternative.

Viewer Response. There are few viewers accessing this roadway currently; the few motorists and pedestrians using this roadway likely are USBP employees. Pedestrians would be the major viewer group in the area after the Preferred Alternative is constructed, because of the new southbound pedestrian crossing and the walkway that would extend to the southern end of Virginia Avenue. Pedestrians would have moderately high exposure and high sensitivity to changes in the visual environment.

Change to Visual Environment. The visual elements that the Preferred Alternative would introduce into the area would be visually similar to the existing visual environment and would cause a low level or change to the visual environment of Virginia Avenue.

Resulting Visual Impact. Based on the low level of change combined with the moderately high viewer response caused by the Preferred Alternative, no adverse visual impacts to the visual environment of Virginia Avenue would occur.

Construction-related Impacts

The Preferred Alternative would result in temporary visual impacts during the construction period. The Project would be built in three phases over a period of approximately four years, with some overlap of phases occurring. Visible indications of construction on the roadways would contrast with existing conditions, and may include exposed soil; stockpiled dirt, rocks, and debris from demolished structures; signs; construction fencing; partially constructed structures; scaffolding and concrete molds; and truck and equipment. Other visual disruptions may include detours and road closures, with signs, equipment, and similar visual indicators. Additional erosion control and storm water management practices also may introduce visual elements, such as gravel bags and fiber rolls, and silt fences. The required equipment staging areas also may be visible. The construction staging for the Preferred Alternative would occur on site.

The visual construction elements and staging area would contrast with the existing visual environment surrounding the Project Study Area, which would introduce complex forms, geometric lines, monotonous colors, and a variety of textures. The elements would be large in scale and high in diversity, but not continuous or harmonious. They also would reduce the visual quality of the area, creating low vividness, intactness, and unity. While they would result in changes to visual environment, the visual impacts caused by Project construction would be temporary in nature (up to four years). Visual disruptions would be removed upon completion of the construction period. No associate adverse visual impacts would occur during construction of the Preferred Alternative.

Pedestrian Crossing Alternative

Most of the structures proposed under the Pedestrian Crossing Alternative would be similar to the Preferred Alternative, and would have similar visibility from the roadways and walkways in the surrounding area. As in the case of the Preferred Alternative, the new east-west pedestrian overcrossing structure would be one of the dominant visual elements of the Pedestrian Crossing Alternative. In addition, a new north-south pedestrian bridge would be built over the proposed southbound roadway where it extends eastward. This new pedestrian bridge would connect the proposed elevated east-west pedestrian bridge to the pedestrian walkway at the existing southbound pedestrian crossing facility. This would create a new element in the visual landscape visible from the new southbound freeway lanes. These features, while visible from the freeway, would not create unique visual patterns or substantially change the visual environment experienced by viewers.

Under the Pedestrian Crossing Alternative, some elements included in the Preferred Alternative would not be constructed, namely the proposed bus turn-around at Virginia Avenue, and the proposed southbound pedestrian crossings east of I-5 and at Virginia Avenue. A smaller turn-around at the south leg of the Camino de la Plaza/I-5 southbound ramps intersection, and the existing southbound pedestrian crossing would be provided instead. Under the Preferred Alternative, the bus turn-around and pedestrian crossing would constitute new visible Project features; the use of the existing facilities under the Pedestrian Crossing Alternative would not cause any additional visual change.

Overall, the difference in configuration between the two alternatives is minor from the perspective of visual impacts. As with the Preferred Alternative, the Pedestrian Crossing Alternative would result in some differences in visual conditions; these differences would be similar to those created by the Preferred Alternative and therefore, the analysis provided above for the Preferred Alternative would apply equally to the Pedestrian Crossing Alternative. As with the Preferred Alternative, no adverse visual impacts would be anticipated under the Pedestrian Crossing Alternative.

No Build Alternative

Under the No Build Alternative, the proposed LPOE improvements would not be constructed in the Project Study Area. As a result, no change from existing visual conditions would occur under this alternative, and the viewers would continue to view the highly diverse, developed urban visual environment of roadway and buildings, interspersed with minimal landscaping.

3.6.4 Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

Although no adverse visual impacts would result from the Preferred Alternative, implementation of the following minimization measures would provide increased visual quality within the Project Study Area:

- A comprehensive landscape concept plan should be developed and implemented, including landscape features such as:
 - Drought tolerant and sustainable plant palettes.
 - Vine planting at fences and walls to reduce the visual scale and to act as a graffiti deterrent.
- Street trees and landscaping should be retained to the highest extent possible during Project construction.
- Architectural treatments should be consistent throughout the proposed LPOE buildings.
- Metal fencing and safety railing should be consistent throughout the proposed pedestrian walkways.
- Where possible, integrate new public art consistent with the international border setting.

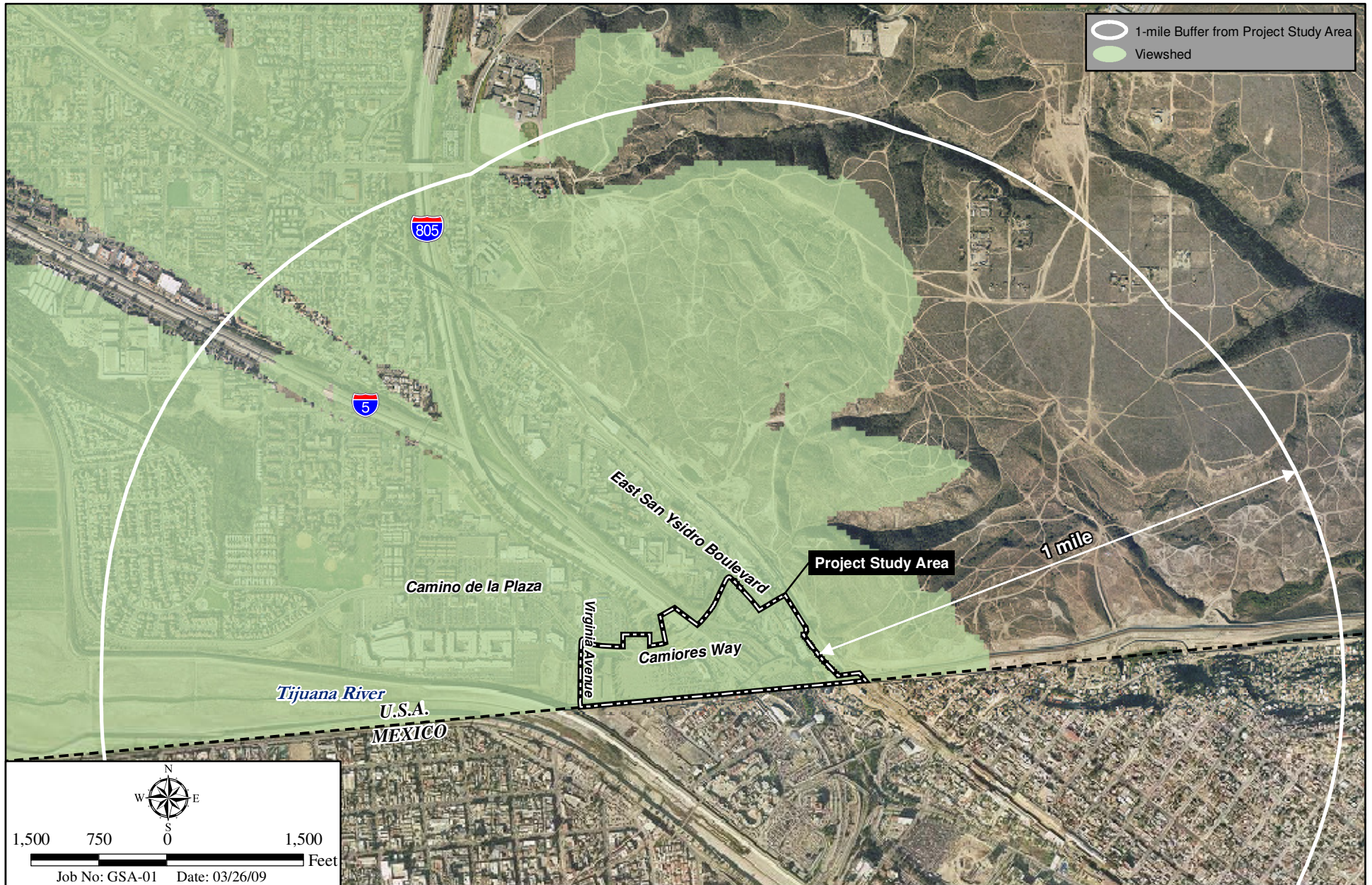
These measures would help integrate the Project features and to create more visual unity and intactness within the Project Study Area.

Pedestrian Crossing Alternative

As in the case of the Preferred Alternative, no adverse visual impacts would result from the Pedestrian Crossing Alternative, but implementation of the minimization measures identified above would provide increased visual quality within the Project Study Area.

No Build Alternative

Because no impacts were identified for the No Build Alternative, no avoidance, minimization, or mitigation measures are required.



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Project Viewshed Map

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.5-1



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Existing San Ysidro LPOE
SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.5-2



Southbound I-5



Northbound I-5

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Typical Views from I-5

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.5-3



Camino de la Plaza



East San Ysidro Boulevard

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Typical Views from Local Roadways

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.5-4



Camiones Way



Virginia Avenue

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Typical Views from Local Roadways

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.5-5

3.6 CULTURAL RESOURCES

3.6.1 Regulatory Setting

National Historic Preservation Act of 1966

The NHPA of 1966, as amended, sets forth policies and procedures regarding historic properties, which are defined as districts, sites, buildings, structures, and objects included in or eligible for the NRHP. Section 106 of NHPA requires federal agencies to take into account the effects of their undertakings on such properties and to consult with the SHPO and possibly the Advisory Council on Historic Preservation to determine if they are eligible for the NRHP.

California Register of Historical Resources

Historical resources are also considered under the California Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources (CRHR). The CRHR includes resources listed in, or formally determined eligible for listing in, the NRHP, as well as some California State Landmarks and Points of Historical Interest.

City of San Diego Historical Resources Register

Because the Project is located within the City, historical resources were evaluated for eligibility for the City of San Diego Historical Resources Register (City Register). Any improvement, building, sign, interior element and fixture, feature, site, place, district, area, or object may be designated as historic by the City of San Diego Historical Resources Board (HRB) if it meets eligibility criteria.

3.6.2 Affected Environment

A cultural resources report (*San Ysidro Land Port of Entry Cultural and Historical Resource Inventory and Evaluation Report*, April 2009) was prepared for the Project to evaluate cultural and historical resources and potential impacts to such resources within the Project Study Area. The report included a records search and literature review, archival research, a field survey, and documentation and evaluation of historical resources, the results of which are summarized in this subchapter.

Area of Potential Effect

The Area of Potential Effect (APE) established for the Project encompasses the anticipated maximum extent of proposed disturbance, including roadway improvements, staging areas, and temporary impacts resulting from Project construction. The 50-acre APE coincides with the Project Study Area boundary identified in Figure 1-2 of this Draft EIS, and is largely developed, consisting of I-5, roadways, the existing LPOE, parking lots, and commercial buildings.

Cultural Background

Prehistory

The San Diego region's prehistory generally can be divided into three periods: Paleo-Indian, Archaic, and Late Prehistoric, which are briefly described below.

Paleo-Indian Period

The earliest recognized period of southern California prehistory is termed Paleo-Indian, which is considered to date from 10,000 Before Present¹ (B.P.) until 7,200 B.P., and is represented by the San Dieguito complex. San Dieguito artifact assemblages are composed mostly of flaked stone tools, including scrapers, choppers, and large projectile points. The San Dieguito complex is thought to have lived within a generalized hunter-gatherer society with band-level organization.

Archaic Period

The Archaic period extends back at least 7,200 years, possibly as early as 9,000 B.P. Archaic subsistence is generally considered to have differed from Paleo-Indian subsistence in two major ways: (1) gathering activities were emphasized over hunting, with shellfish and seed collecting of particular importance; and (2) milling technology, frequently employing portable ground stone slabs, was developed. In San Diego County, Archaic Period inhabitants are represented by the La Jolla complex. Early Archaic occupations in San Diego County are most apparent along the coast and major drainage systems that extend inland from the coastal plains. Archaic sites are characterized by cobble tools, basin metates, manos, disk-shaped grinding stones, dart points, and flexed burials.

Late Prehistoric Period

Around 2,000 B.P., Yuman-speaking people from the Colorado River region began migrating into southern California, although some evidence exists that the movement may have been northward from Baja California. Assemblages derived from the Late Prehistoric sites in San Diego County differ in many ways from those in the Archaic tradition, including (1) the occurrence of small, pressure-flaked projectile points; (2) the replacement of flexed inhumations with cremations; (3) the introduction of ceramics; and (4) an emphasis on inland plant food collection, processing, and storage (especially acorns). The centralized and seasonally permanent residential patterns that had begun to emerge during the Archaic period became well established in most areas. This period is represented in the northern part of the county by the San Luis Rey complex and in the south by the Cuyamaca complex. The San Luis Rey complex is the archaeological manifestation of the Shoshonean predecessors of the Luiseño. The Cuyamaca complex reflects the material culture of the Yuman ancestors of the Kumeyaay (also known as the Diegueño).

Ethnohistory

Two main cultural groups occupied coastal San Diego County, including the Luiseño and Kumeyaay. The Luiseño occupied the northern portion of the county, with their territory

¹ Before Present years is a time scale used in archaeology and other disciplines to specify when events in the past occurred, with the year 1950 as the arbitrary origin of the age scale.

encompassing the area from roughly Agua Hedionda Lagoon on the south, Lake Henshaw on the east, Riverside County to the north, and the Pacific Ocean to the west. Kumeyaay territory was much larger and extended generally from Agua Hedionda Lagoon eastward into the Imperial Valley and southward into Baja California.

Historical Background

Since the Treaty of Guadalupe-Hidalgo in 1848, an international border has existed between the U.S. and Mexico at present-day San Ysidro. Santiago Argüello’s Rancho Tia Juana land grant (1829) spanned Alta and Baja California, but after 1848 small settlements named Tia Juana (in the U.S.) and Tijuana (in Mexico) existed on either side of the border. An experimental agrarian community began in 1909 north of the border and Tia Juana that first known as the Little Landers colony, and subsequently San Ysidro. Over time, the close economic ties between San Ysidro and Tijuana facilitated the development of the community into a town that eventually reached the border.

Agriculture and mining in the greater Tijuana area increased border crossings, prompting the appointment of border officers in 1871. Early San Ysidro residents continued to freely cross the border to Tijuana until 1917 when the border was closed to protect Americans from vices (e.g., gambling, bullfighting, and boxing) and as a precaution during World War I. The 1920s marked a shift in San Ysidro from an agrarian community to one that was increasingly tied to the tourism economy of Tijuana after the reopening of the border in 1920. The existing LPOE was completed in 1973, and by 1988, San Ysidro had become the busiest LPOE in North America, providing a port of entry and a temporary place of residence for Mexican immigrants.

Cultural Resources

A records search was obtained from the South Coastal Information Center at San Diego State University to identify previously recorded sites within and adjacent to the APE. The records search identified two prehistoric archaeological sites and five historic resources within a 0.5-mile radius of the APE. Of these, only the U.S. Customs House (Old Customs House) is located within the APE. These resources are summarized in Table 3-6.1.

Resource Number	Resource Description	Determination of Eligibility to NRHP/CRHR
SDI-5555	Prehistoric lithic quarry	Not determined
SDI-10806	Prehistoric lithic scatter	Not eligible
P-37-025680	San Diego and Arizona Railway	Not eligible
631 San Ysidro Blvd.	El Toreador Motel	Eligible to CRHR
751-755 San Ysidro Blvd	International Building	Eligible to CRHR
U.S. Customs House	1932 U.S. Customs House	Eligible to NRHP and subsequently listed on NRHP

Source: *San Ysidro Land Port of Entry Cultural and Historical Resource Inventory and Evaluation Report*, April 2009.

The Native American Heritage Commission (NAHC) was contacted for a records search of their sacred lands files to determine if any traditional cultural properties are located within or adjacent to the APE. The results of the search indicated that no sacred lands are recorded in the Project area. Consultation with local Native American tribes was recommended, and a list of Native American contacts was provided. Letters describing the Project and a map of the study area were mailed to local Native American representatives in January and March 2009. No responses have been received to date.

A field survey of the undeveloped portions of the APE was conducted on February 3, 2009. This survey focused on the undeveloped areas within the APE. No cultural resources were identified during the field survey.

Historical Resources

A field survey of buildings within and adjacent to the APE was conducted, followed by archival research to identify potential historic resources. A total of 14 buildings and structures were identified within or immediately adjacent to the APE during the field survey. As shown in Figure 3.6-1, 13 are located within the APE, and one is located adjacent to the APE. Archival research was conducted to identify construction dates of the buildings. These buildings were then evaluated for eligibility to the NRHP, CRHR, and City Register. Table 3.6-2 summarizes the results of the building survey and archival research, as well as the previous and current recommendations of eligibility to the NRHP, CRHP, and City Register.

Table 3.6-2 EVALUATED BUILDINGS AND STRUCTURES WITHIN OR ADJACENT TO THE APE				
No.¹	Name	Date of Construction	Previous Determination of Eligibility	Recommendation of Eligibility
1	Old Customs House	1932	NRHP listed	NRHP listed/CRHR/ City Register
2	San Ysidro LPOE Main Building	1973	Undetermined	Not eligible
3	Greyhound Bus Station	1950	Undetermined	Not eligible
4	Payless Shoe Source	1955	Undetermined	Not eligible
5	Duty Free America	1999	Undetermined	Not eligible
6	Former Border Patrol Building	1973-74	Undetermined	Not eligible
7	SD&AE Railway Tracks and Depot ²	1911	Not Eligible to NRHP	City Register
8	International Building	Late 1920s	Recommended Eligible to CRHR	NRHP/CRHR/City Register
9	Mercado Internacional 88	1961-63	Undetermined	Not eligible
10	San Diego Trolley Station and McDonald's Restaurant	1972/1983	Undetermined	Not eligible
11	San Diego Trolley Tracks	1980	Undetermined	Not eligible
12	Baja Duty Free	1966	Undetermined	Not eligible
13	Commercial Building	1974	Undetermined	Not eligible
14	Check Cashing Booth	Early 1980s	Undetermined	Not eligible

¹ Number corresponds to location identified on Figure 3.6-1.

² Located adjacent to the Project APE.

Source: *San Ysidro Land Port of Entry Cultural and Historical Resource Inventory and Evaluation Report*, April 2009.

As shown in Table 3.6-2, the Old Customs House is listed on the NRHP; the San Diego and Arizona Eastern (SD&AE) Railway Tracks and Depot is recommended eligible for the City Register; and the International Building is recommended eligible for the NRHP, CRHP, and City Register. These resources are briefly described below. The remaining buildings are recommended not eligible for the NRHP, CRHP, or City Register because they do not meet the applicable eligibility criteria.

Old Customs House Building

The Old Customs House has been listed on the NRHP since 1982. It was determined eligible for its symbolic role in international relations between the U.S. and Mexico and for its architecture which exemplifies the eclectic Spanish Colonial Revival style that distinguished many public buildings designed in the 1920s and 1930s by the Supervising Architect's Office of the Treasury Department. The boundaries of the historic property include only the building itself with no surrounding land. Since the building is listed on the NRHP, it is automatically eligible for listing in the CRHR and the City Register.

San Diego and Arizona Eastern Railway Tracks and Depot

The SD&AE Railway Depot was constructed in 1911 and consists of a metal corrugated warehouse that served as the San Ysidro Station for the Tijuana to Tecate railroad line. Both the building and the adjoining railroad tracks maintain good integrity. This railroad line was one of the last major railroads constructed in the U.S and did not make a significant contribution to the national history of railroad development. The SD&AE railroad tracks and depot are therefore, recommended not eligible to the NRHP and CRHP. However, they are recommended eligible to the City Register because they exemplify an important aspect of San Ysidro's economic development as the border station regulating traffic of goods and people between San Diego and Mexico. The depot embodies distinctive characteristics of a style, type, period, and method of construction, and the tracks are associated with people who have made a significant contribution to the history of San Diego (i.e., John D. Spreckles and Adolph B. Spreckles).

International Building

The International Building is a two-story Art Deco commercial building that was constructed in the late 1920s. It was previously identified as the sole surviving Art Deco building in San Ysidro and one of the few remaining examples in the City. The International Building is the oldest standing building on East San Ysidro Boulevard and functioned as a general merchandise store. It is recommended eligible to the NRHP, CRHP, and City Register because it is an excellent example of the Art Deco style and its role in the history of international trade and tourism in San Ysidro since the late 1920s.

3.6.3 Environmental Consequences

Preferred Alternative

Archaeological Resources

No prehistoric cultural resources were identified within the APE during the records search and field survey. Additionally, the Preferred Alternative would not impact recorded archaeological sites in the vicinity. Therefore, impacts to archaeological resources are not expected to occur as a result of the Preferred Alternative. Measures (described below in Section 3.6.4), however,

would be implemented during construction to ensure impacts to unknown subsurface resources would be avoided.

Historical Resources

The Preferred Alternative would remove six existing buildings within the APE, including: (1) the San Ysidro LPOE Main buildings; (2) the Greyhound Bus Station; (3) the Payless Shoe Source building; (4) the Duty Free America building; (5) the Former Border Patrol building; and (6) check cashing booth. All six of these buildings are recommended not eligible to the NRHP, CRHR, or City Register and therefore, are not considered historical resources. Removal of these buildings would not result in adverse impacts to historical resources.

The Preferred Alternative also would impact the Old Customs House, which is listed on the NRHP. During Phase 1 of the Preferred Alternative, a new southbound pedestrian crossing would be provided in the eastern portion of the LPOE near the Old Customs House. It is possible that this new pedestrian crossing could require modifications to the Old Customs House. Additionally, during construction of the Administration and Pedestrian Building, in Phase 2 of the Preferred Alternative, pedestrian processing operations would temporarily be transferred to the Old Customs House. The interior of the Old Customs House would be renovated to accommodate these interim uses. Pursuant to Section 106 of the NHPA, GSA is currently in consultation with the SHPO, Advisory Council on Historic Preservation, and other parties regarding the potential future use of the Old Customs House. The interim renovation and ultimate future use of the Old Customs House would result in an adverse direct impact to this NRHP-listed historical property.

Although proposed canopies covering the northbound primary vehicle inspection area and a proposed pedestrian ramp to the Pedestrian Building would be constructed in close proximity to the Old Customs House, these new facilities would not result in adverse indirect impacts to the Old Customs House during Phase 2. As discussed earlier, the boundaries of the historic property include only the building itself and no surrounding land. Because these facilities (i.e., canopies and pedestrian ramp) would not physically impact the historical setting of the Old Customs House, no indirect impacts would occur.

The Preferred Alternative, however, would indirectly impact the International Building, which is recommended eligible to the NRHP, CRHP, and City Register. Indirect impacts would occur to this building as a result of the construction of the Central Plant building abutting up against it. Construction of a large, modern building used for industrial purposes in close proximity to the International Building would compromise its integrity of location, setting, feeling, and association, resulting in an adverse impact. The Preferred Alternative would not directly or indirectly impact the other evaluated buildings and structures, as identified in Figure 3.6-1 and Table 3.6-2.

Pedestrian Crossing Alternative

Archaeological Resources

The Pedestrian Crossing Alternative would occur within the same APE as the Preferred Alternative. Like the Preferred Alternative, this alternative would not impact recorded archaeological sites in the vicinity. Impacts to archaeological resources are not expected to occur, but measures would be implemented (as identified in Section 3.6.4) during construction to ensure impacts to unknown subsurface resources would be avoided if encountered during construction.

Historical Resources

The Pedestrian Crossing Alternative would remove the same six buildings within the APE as the Preferred Alternative, including: (1) the San Ysidro LPOE Main buildings; (2) the Greyhound Bus Station; (3) the Payless Shoe Source building; (4) the Duty Free America building; (5) the Former Border Patrol building; and (6) check cashing booth. As discussed above, none of these buildings are recommended eligible to the NRHP, CRHR, or City Register and therefore, are not considered historical resources. Removal of these buildings would not result in adverse impacts to historical resources.

Because the Pedestrian Crossing Alternative would maintain the existing southbound pedestrian crossing at its current location and would not construct a new southbound pedestrian crossing in the eastern portion of the LPOE, the Old Customs House would be retained. However, the Pedestrian Crossing Alternative would still require the interior renovation of the Old Customs House to accommodate the temporary use of this building for pedestrian processing operations during construction of the new Administration and Pedestrian Building in Phase 2. As a result, the interim renovation of the Old Customs House would result in an adverse impact to this NRHP-listed historical property under the Pedestrian Crossing Alternative. No indirect impacts to the Old Customs House would occur for the same reasons as discussed above under the Preferred Alternative.

As with the Preferred Alternative, the Pedestrian Crossing Alternative would result in an adverse indirect impact to the International Building due to the construction of the abutting Central Plant. No other direct or indirect impacts to buildings or structures would occur.

No Build Alternative

The No Build Alternative would not involve any construction or ground disturbing activities of any kind; therefore, no impacts to cultural resources would occur.

3.6.4 Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

Archaeological Resources

Implementation of the following avoidance, minimization, and mitigation measure would avoid impacts to unknown subsurface archaeological resources:

- If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area should be avoided until a qualified archaeologist can assess the nature and significance of the find.

Historical Resources

The following measures would avoid, minimize, or mitigate direct impacts to historical resources during renovation of the Old Customs House:

- All renovation of the Old Customs House for interim pedestrian processing operations and any future use should conform to *The Secretary of the Interior's Standards for the Treatment of Historic Properties*.
- Prior to alteration or removal of building features, detailed documentation of the Old Customs House should be completed as agreed to in the Section 106 consultation process.

If all adverse effects cannot be avoided, then other mitigation measures will be determined through Section 106 consultation.

The following measure would avoid, minimize, or mitigate indirect impacts to historical resources, including the International Building:

- Measures consistent with *The Secretary of the Interior's Standards for the Treatment of Historic Properties* would be implemented as agreed to in the Section 106 consultation process.

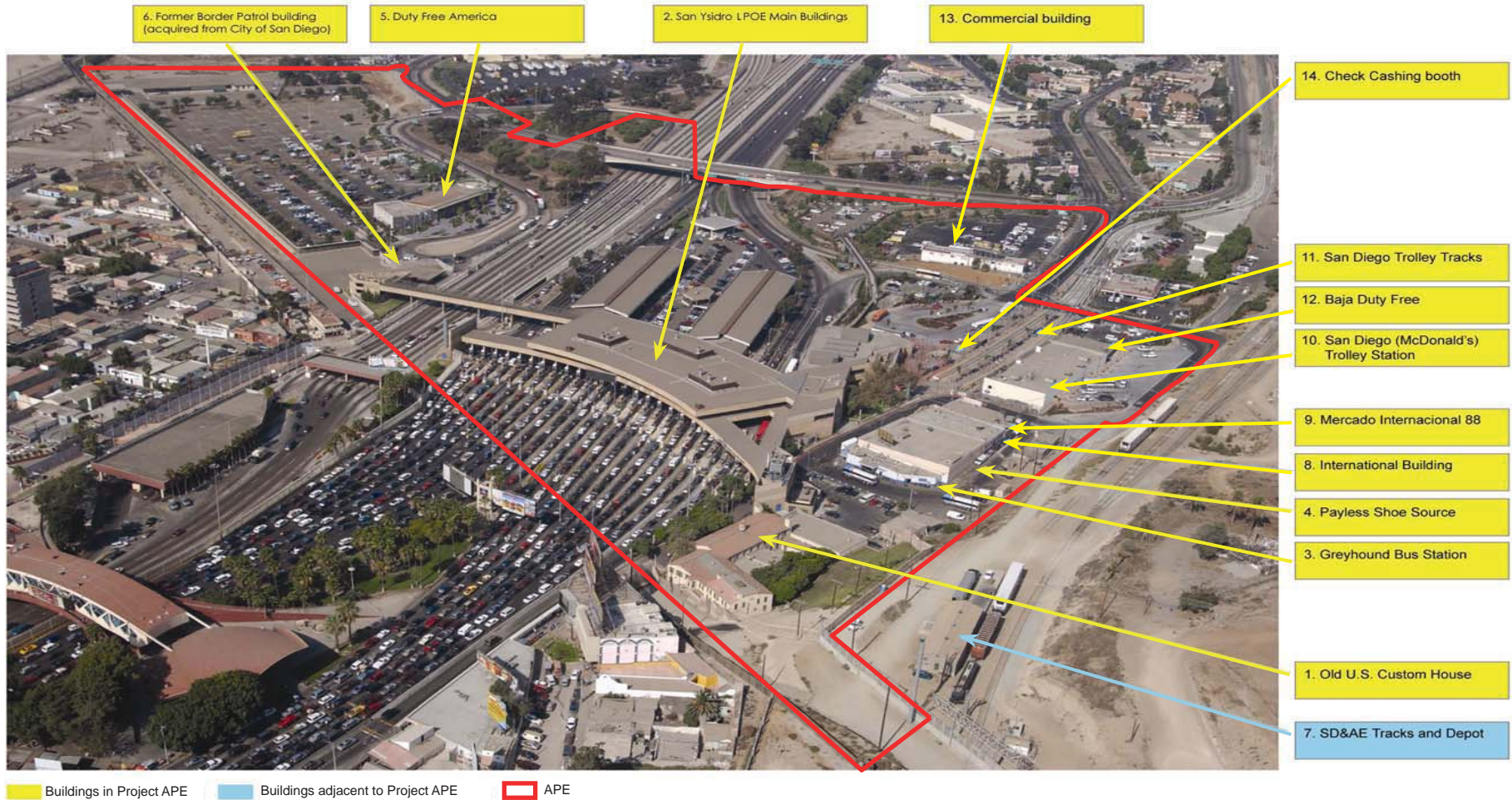
If all adverse effects cannot be avoided, then other mitigation measures will be determined through Section 106 consultation.

Pedestrian Crossing Alternative

Implementation of the avoidance, minimization, and mitigation measures identified above for the Preferred Alternative would avoid, minimize, or mitigate impacts to archaeological and historical resources resulting from the Pedestrian Crossing Alternative.

No Build Alternative

No avoidance, minimization, or mitigation measures would be required, as no impacts would occur under the No Build Alternative.



Source: ASM Affiliates Inc., April 2009
 I:\ArcGIS\G\GSA-01 San Ysidro Land POE\Map\ENV\EIS\Fig3-6-1_Buildings_SYLPOE.imdd -NM

Evaluated Buildings and Structures Within or Adjacent to the APE

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.6-1

PHYSICAL ENVIRONMENT

3.7 HYDROLOGY AND FLOODPLAIN

3.7.1 Regulatory Setting

The Project is subject to a number of regulatory requirements related to hydrology and floodplain issues as outlined below. These requirements are intended to avoid or reduce adverse effects related to hydrology and flood hazards through efforts such as maintaining pre-development drainage conditions to the maximum extent feasible, and avoiding or minimizing development in mapped floodplains. Specifically, the following regulatory requirements include applicable federal guidelines related to the international border with Mexico, floodplain management, and the federal Clean Water Act (CWA). Pursuant to GSA guidelines, implementation of CWA requirements will also reflect the associated standards of the local permitting agency, the City. The Public Buildings Amendments of 1988 (40 U.S.C. 3312) requires GSA to comply with, to the extent feasible, national building codes, consider local zoning laws, and consult with State and local government. This law does not subject the U.S. Government to local requirements; rather, it mandates consultation and informed decision making.

International Boundary and Water Commission

The IBWC is a bi-national organization that oversees projects along the U.S.-Mexico Border with the potential to generate impacts involving political, economic, environmental, or infrastructure issues. For hydrologic concerns, the IBWC mandates that new development in applicable border regions (including the Project Study Area) does not increase, concentrate, or relocate overland drainage flows into either country.

Executive Order 11988 (Floodplain Management)

EO 11988 directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. Specific directives identified in EO 11988 to achieve this goal include evaluation of the following considerations:

- The practicability of alternatives to any longitudinal encroachments
- Risks of the action
- Impacts on natural and beneficial floodplain values
- Support of incompatible floodplain development
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values impacted by the project
- Provision of opportunities for early and adequate public review of proposed floodplain encroachments

The “base floodplain” is defined as the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year (i.e., a “100-year” event), while “encroachment” is defined as an action within the limits of the base floodplain.

Federal Clean Water Act/National Pollutant Discharge Elimination System

The Project is subject to applicable elements of the CWA, including the NPDES. Specific NPDES requirements include conformance with pertinent hydrology and drainage criteria in the NPDES Municipal Storm Water Permit (Municipal Permit) and related City standards. The current Municipal Permit (NPDES No. CAS0108758, RWQCB Order No. R9-2007-0001) identifies waste discharge requirements for urban runoff related to applicable new development, redevelopment, and existing development sites under the jurisdiction of co-permittees (e.g., the City). The intent of these requirements is to protect environmentally sensitive areas and provide conformance with pertinent hydrology and water quality standards. With respect to hydrologic considerations, the principal requirement of the Municipal Permit and related standards involve efforts to maintain predevelopment runoff volume and velocity levels to the maximum extent practicable (MEP), and avoid/address potential hydromodification¹ impacts. The Municipal Permit and related City Municipal Code Land Development Manual-Storm Water Standards (Storm Water Standards, City of San Diego 2008) also include extensive requirements related to water quality, as described in Subchapter 3.8, Water Quality and Storm Water Runoff, of this Draft EIS.

Pursuant to the above described Municipal Permit, the City has adopted a number of related requirements to address hydrology and water quality issues (including the referenced Storm Water Standards). As noted above for the Municipal Permit, hydrologic criteria associated with these requirements are focused primarily on avoiding or minimizing changes to predevelopment runoff volume and velocity levels.

3.7.2 Affected Environment

A Drainage Study and a Water Quality Technical Report (WQTR) have been prepared for the Project (AECOM 2008a and 2008b), with these studies summarized below as appropriate along with other pertinent information. The study area used for the hydrology and floodplain analysis includes the Project Study Area and a number of associated off-site watershed areas, as identified in the referenced Drainage Study (Figure 3.7-1).

Watershed and Drainage Characteristics

The hydrology and floodplain study area (as described above) is within the Tijuana Hydrologic Unit (HU), 1 of 11 such drainage areas designated in the 1994 (as amended) San Diego RWQCB Basin Plan. The Tijuana HU is divided into a number of hydrologic areas and subareas based on local drainage characteristics, with the study area encompassing portions of the San Ysidro and Water Tanks Hydrologic Subareas (HSAs) of the Tijuana Valley Hydrologic Area (HA, Figure 3.7-2). Drainage in the Tijuana HU is through the Tijuana River and associated tributaries, with flows moving primarily west to the Tijuana River Estuary and Pacific Ocean approximately 5.1 miles to the west. The Tijuana River extends through the San Ysidro HSA, with drainage in this area provided directly through the river as well as associated minor tributaries. The Water Tanks HSA is drained primarily by a number of small canyons flowing west and/or south to the Tijuana River, including Moody and Spring canyons to the east of the hydrology and floodplain study area. Average annual precipitation in the Project vicinity (i.e., San Ysidro) is approximately 10 inches per year, with January (1.99 inches), February (1.99

¹ Hydromodification is defined in the Municipal Permit as the change in natural watershed hydrologic processes and runoff characteristics (infiltration and overland flow) caused by urbanization or other land use changes that result in increased stream flows, sediment transport, and morphological changes in the channels receiving the runoff.

inches) and March (2.07 inches) comprising the wettest months, and June (0.08 inches), July (0.03 inches) and August (0.08 inches) typically the driest months (weather.com 2009).

Surface drainage within the hydrology and floodplain study area occurs as point (confined) flow in existing storm drains and several small drainage courses, and as non-point runoff (sheet flow) on slopes and in areas such as streets, parking lots and landscaping. As shown on Figure 3.7-1, the hydrology and floodplain study area includes the LPOE site and several upstream watershed areas to the east and north, with a total combined area of approximately 282.4 acres. Surface drainage in the off-site watershed areas to the east occurs as point and non-point flows within several small canyons and on a number of adjacent slopes. Drainage within the off-site watershed areas to the north includes point flows contained within storm drain facilities, as well as non-point runoff associated with the existing freeway and adjacent areas. Flows within all of the noted off-site watershed areas eventually drain into and through the LPOE site. Surface drainage within the LPOE site moves generally to the west and south, and eventually enters two large drainage channels which discharge from the northern and southern ends of the western site boundary. The northern drainage channel is unlined, and includes areas of native (albeit disturbed) wetland vegetation and previously disturbed and/or graded areas. This "natural" channel extends for a total linear distance of approximately 1,100 feet, including approximately 600 and 500 feet on the eastern and western sides of Camiones Way, respectively (refer to Subchapter 3.14, Biological Resources). The southern drainage channel consists of a concrete-lined trapezoidal channel extending parallel to the international border. Existing 100-year peak storm flows from the LPOE site total approximately 191.8 cubic feet per second (cfs), including 139.8 and 52.0 cfs from the described northern and southern drainage channels, respectively (with these totals including flows from the LPOE site and the noted off-site watershed areas). The total tributary areas for the northern and southern drainage channels (including the LPOE site and off-site areas) are approximately 231.6 and 50.8 acres, respectively (AECOM 2008a). After leaving the LPOE site, the described hydrology and floodplain study area flows continue west-southwest for approximately 500 to 1,000 feet and enter the Tijuana River.

Much of the LPOE site encompasses existing development, including the southern terminus of the I-5 freeway and related border crossing facilities such as structures, paved parking areas and minor landscaping (with approximately 91 percent of the LPOE site currently comprised of impervious surfaces such as pavement and structures). Existing drainage facilities within the LPOE site include numerous underground storm drain systems related to existing development (e.g., pipelines, culverts, and related inlet/outlet structures), as well as the previously described northern and southern drainage channels. The off-site watershed areas to the east are largely undeveloped, with existing drainage facilities likely limited to minor crossing structures along unpaved roads (e.g., culverts), except for the area where runoff runs west along the border. There are several desilting basins along this flow path. The northern off-site watershed areas encompass freeway, roadway, and related development, including paved and landscaped surfaces. Existing drainage facilities in these areas include storm drains and crossing structures similar to those described for the LPOE site.

Floodplain

The hydrology and floodplain study area and vicinity have been mapped for flood hazards by the Federal Emergency Management Agency (FEMA 1997a and 1997b). The entire hydrology and floodplain study area is mapped as Zone X, or areas determined to be outside of mapped 500- and 100-year floodplains (FEMA 1997a and 1997b). The closest mapped 100-year

floodplain is associated with the Tijuana River, and is located approximately 500 feet southwest of the LPOE site at its closest point.

Groundwater

The western portion of the hydrology and floodplain study area (including much of the LPOE site) is within the mapped areal extent of the Lower Tijuana River Groundwater Basin, which includes an area of approximately 5.6 square miles. The Lower Tijuana River Basin encompasses an estimated storage capacity of approximately 80,000 acre-feet², with maximum and average depths to groundwater of 80 and 60 feet, respectively (San Diego County Water Authority [SDCWA] 1997). Shallow groundwater was encountered at depths of approximately 16 and 19 feet in the western and southern portions of the LPOE site during previous geotechnical investigation (Ninyo & Moore 2008, 2005). In addition, shallow perched groundwater could potentially occur on-site, with perched groundwater generally consisting of one or more unconfined aquifers supported by impermeable or semi-permeable strata. Such aquifers are typically limited in volume and extent, but can vary with conditions including withdrawals and/or seasonal precipitation.

3.7.3 Environmental Consequences

Preferred Alternative

Watershed and Drainage

Implementation of the Preferred Alternative (as currently designed) would result in a slight increase of impervious surface area, with a corresponding increase in post-development runoff volumes and velocities (AECOM 2008a). Because the Project will ultimately be designed to meet applicable LEED requirements³, however, post-development flows will be reduced through the use of one or more infiltration basins. While specific design has not been completed, it is currently anticipated that the basins would be located beneath proposed parking lots in the southwestern portion of the LPOE site, and would retain approximately 25 percent of the calculated flow from a 2-year, 24-hour storm event (approximately 12,500 cubic feet (cf), per associated LEED requirements). Based on these assumptions, the current 100-year peak discharge from the LPOE site of 191.8 cfs would be reduced by approximately 10 percent under the Preferred Alternative (AECOM 2009), with resulting post-development 100-year peak flows of approximately 171.7 cfs. The Project design under the Preferred Alternative would also include constructing a number of new storm drain facilities and upgrading existing structures, such that Project-related storm flows would be accommodated within the on-site storm drain system and associated drainage patterns would not change. The proposed storm drain facilities would also be designed to be compatible with existing on- and off-site facilities, and would accommodate anticipated peak flows associated with a 100-year storm event (pursuant to applicable City requirements). Based on the described design elements, implementation of the Preferred Alternative would effectively avoid or address potential impacts related to drainage alteration, increased runoff volumes/velocities, storm drain capacity, and related hazards such as hydromodification and flooding.

² One acre-foot equals approximately 326,000 gallons, and is roughly equivalent to the amount of water used for domestic purposes by two southern California families of four in one year.

³ LEED Sustainable Sites Credit 6.1; Storm Water Design and Quantity Control.

Floodplain

No impacts related to floodplains or associated hazards would result from implementation of the Preferred Alternative. This conclusion is based on the fact that Project development would be located outside of the mapped 500- and 100-year floodplains, as described above under Affected Environment.

Groundwater

Based on the available information described above, shallow groundwater would likely be encountered during implementation of the Preferred Alternative, potentially including shallow permanent and/or perched groundwater aquifers. The presence of shallow groundwater in Project development areas may necessitate extraction and disposal (dewatering) operations to facilitate proposed excavation and grading. Potential impacts to local groundwater resources (e.g., through drawdown) from the described dewatering operations would be minor, due to their small-scale extent and short-term nature. Construction dewatering, if required, would also be subject to applicable NPDES requirements related to water quality concerns, as described in Subchapter 3.8, Water Quality and Storm Water Runoff of this Draft EIS.

An additional potential issue related to groundwater involves the proposed use of on-site retention/infiltration basins as described above. Specifically, infiltration of retained storm flows would provide an additional source of recharge for local groundwater aquifers. While this would not represent an adverse impact to groundwater per se, the introduction of additional shallow groundwater could potentially increase surficial saturation levels, with a related increase in potential effects such as liquefaction, soil expansion, and damage to building foundations and pavement. As described in Subchapter 3.9 (Geology/Soils/Seismicity/Topography) of this Draft EIS, the Project design will incorporate the results of detailed geotechnical investigations to be conducted for the Preferred Alternative, including the use of subdrains (or other measures) in appropriate areas to avoid saturation of surficial deposits. The inclusion of such measures, coupled with consideration of the location and extent of proposed retention/infiltration basins, would effectively avoid or address associated potential impacts related to saturation of surficial deposits.

Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative. Therefore, the hydrology and floodplain study area for the Pedestrian Crossing Alternative would be the same as the Preferred Alternative, and the location and sizing of infiltration basins and storm drains would be similar. The potential need for dewatering and/or subdrains and other measures would also be similar. The analysis presented above for the Preferred Alternative would apply equally to the Pedestrian Crossing Alternative, and potential impacts with respect to hydrology and floodplains would be the same.

No Build Alternative

Under the No Build Alternative, the described development actions for the Preferred Alternative would not occur, and no impacts related to hydrology and floodplains would occur.

3.7.4 Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

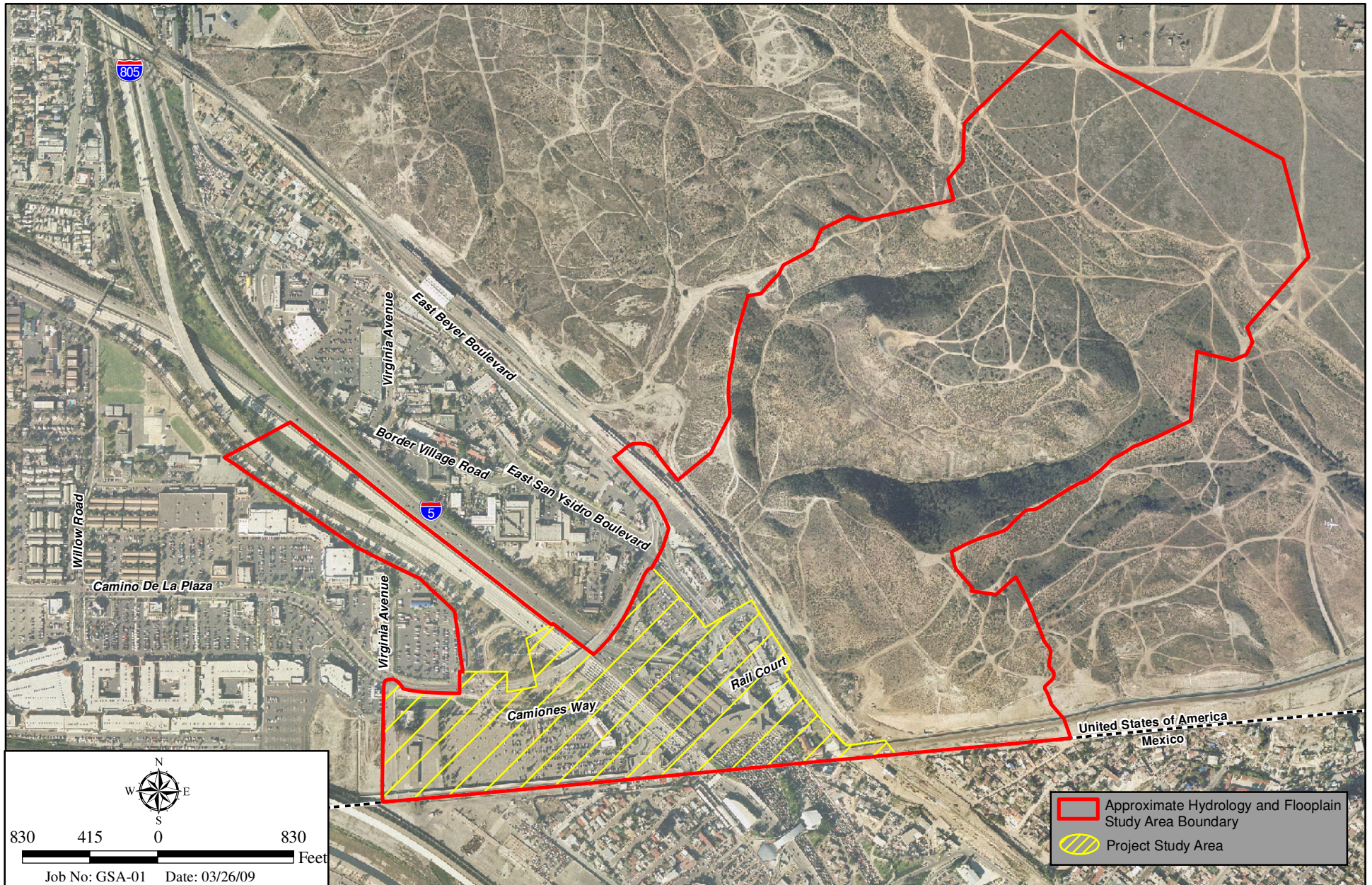
Avoidance, minimization, and mitigation recommendations related to hydrology and floodplain issues for the Preferred Alternative include appropriate design, sizing, and location of proposed storm drain facilities, incorporation of applicable recommendations from detailed geotechnical investigations, and consideration of the location and extent of proposed retention/infiltration basins with respect to potential surficial saturation issues. The use of such measures and considerations would avoid or effectively address all potential impacts related to hydrology and floodplain.

Pedestrian Crossing Alternative

Avoidance, minimization, and mitigation recommendations related to hydrology and floodplain issues for the Pedestrian Crossing Alternative would be the same as those described above for the Preferred Alternative. The use of such measures and considerations would avoid or effectively address all potential impacts related to hydrology and floodplains.

No Build Alternative

Because no impacts were identified for the No Build Alternative, no associated avoidance, minimization, or mitigation measures are proposed.

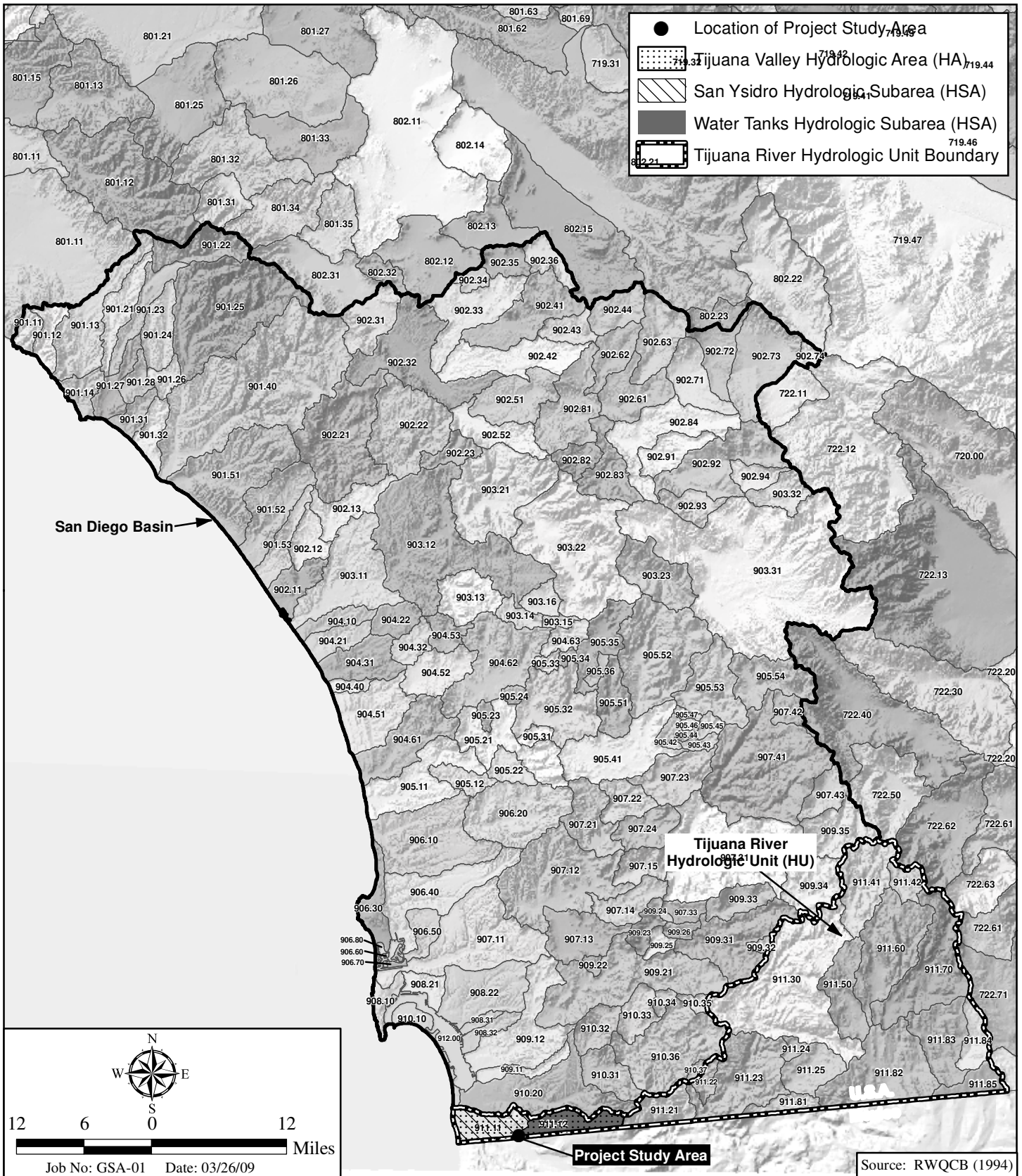


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Hydrology and Floodplain Study Area

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.7-1



Local Hydrologic Designations

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.7-2

3.8 WATER QUALITY AND STORM WATER RUNOFF

3.8.1 Regulatory Setting

The Project is subject to a number of regulatory requirements related to water quality and storm water, as outlined below. These guidelines are intended to prevent or reduce associated adverse effects through efforts such as preventing or minimizing the generation of runoff, sediment, and other contaminants, as well as treating runoff to remove sediment and other contaminants prior to off-site discharge.

International Boundary and Water Commission

The IBWC (as described in Subchapter 3.7, Hydrology and Floodplain) requires that new development in applicable border regions (including the Project Study Area) conform with pertinent elements of the federal CWA, with those requirements summarized below.

Clean Water Act Section 401/402 and NPDES Requirements

Section 401 of the CWA mandates that a water quality certification be obtained from the State Water Resources Control Board (SWRCB) or the appropriate RWQCB when a project requires a CWA Section 404 permit from the Corps (refer to Subchapter 3.14, Biological Resources, for additional discussion of the 404 permitting process). In addition, CWA Section 402 establishes the NPDES for regulating the discharge of pollutants into waters of the U.S. The U.S. Environmental Protection Agency (USEPA) has delegated administration of the NPDES program in California to the SWRCB and RWQCBs, with additional discussion of related NPDES regulations provided below.

Specific NPDES requirements applicable to the Project include the following: (1) the General Construction Activity Storm Water Permit (Construction Permit, NPDES No. CAS000002); (2) the General Groundwater Extraction Waste Discharge Permit For Discharge To Surface Waters in the San Diego Region Except For San Diego Bay (Groundwater Permit, NPDES No. CAG919002); and (3) the NPDES Municipal Permit (NPDES No. CAS0108758) and related City standards.

General Construction Activity Permit

Conformance with the Construction Permit is required prior to project development for applicable sites exceeding one acre, with this permit issued by the SWRCB pursuant to Order No. 99-08-DWQ. Specific conformance requirements include implementing a Storm Water Pollution Prevention Plan (SWPPP) and monitoring program, as well as a Storm Water Sampling and Analysis Strategy (SWSAS) for applicable projects (i.e., those discharging directly into impaired waters or involving non-visible contaminants that may exceed water quality objectives). These plans identify detailed measures to prevent and control the off-site discharge of contaminants in storm water runoff, and are specifically intended to protect receiving waters (including impaired waters), maintain beneficial uses, and provide conformance with applicable water quality objectives (as outlined below under Basin Plan Requirements). Specific pollution control measures typically involve the use of best available technology (BAT) and/or best conventional pollutant control technology (BCT), with these requirements implemented through best management practices (BMPs). While site-specific measures vary somewhat with conditions such as proposed grading/construction parameters, slope, and soil characteristics,

detailed guidance for construction-related BMPs is provided in the permit text and the City Storm Water Standards (City of San Diego 2008). Additional sources for general construction related BMPs that may be applicable to the Project include the Storm Water Best Management Practices Handbooks (California Stormwater Quality Association 2003), EPA Nationwide Menu of Best Management Practices for Storm Water Phase II (USEPA 2009), and Caltrans Storm Water Quality Handbooks (Caltrans 2007, 2003).

General Groundwater Extraction Waste Discharge Permit

Conformance with the noted Groundwater Permit is required by the RWQCB prior to disposal of extracted groundwater (pursuant to Order No. R9-2008-0002 for the Project Study Area). This requirement is generally applicable to all groundwater discharge regardless of volume, with certain exceptions as noted in the permit text. Specific requirements for permit conformance include: (1) submitting a Notice of Intent to the RWQCB; (2) implementing an appropriate sampling and analysis/monitoring program; (3) providing at least 30 days notification to the appropriate local agency prior to discharging to a municipal separate storm sewer system (MS4); (4) conforming with applicable water quality standards (e.g., through appropriate treatment BMPs), including, but not limited to, the Basin Plan, CWA, State Antidegradation and Implementation policies, Porter-Cologne Water Quality Control Act, and Ocean Plan; and (5) submittal of applicable monitoring reports.

Municipal Storm Water Permit

The Municipal Permit (RWQCB Order No. R9-2007-0001) is intended to protect environmentally sensitive areas and provide conformance with pertinent hydrology and water quality standards (with additional discussion of hydrologic requirements provided in Subchapter 3.7, Hydrology and Floodplain). Identified water quality requirements involve using several planning, design, operation, treatment, and enforcement measures to reduce pollutant discharges from individual projects (and the municipal storm drain system as a whole) to the MEP. Specifically, these measures include: (1) using jurisdictional planning efforts (such as discretionary approvals) to provide water quality protection; (2) requiring coordination between individual jurisdictions to provide watershed-based water quality protection; (3) implementing applicable site design/low impact development (LID), source control, priority project, and/or treatment control BMPs to avoid, reduce, and/or mitigate effects including increased erosion and sedimentation, hydromodification, and the discharge of contaminants in urban runoff; and (4) using appropriate monitoring, reporting, and enforcement efforts to ensure proper implementation, documentation, and (as appropriate) modification of permit requirements.

Pursuant to the described NPDES Municipal Permit requirements, the City has adopted a number of related water quality guidelines, including the City Storm Water Management and Discharge Control Ordinance (San Diego Municipal Code §43.03 et seq.) and related Storm Water Standards (City of San Diego 2008). These guidelines provide (among other things) direction for project applicants to: (1) determine if and how they are subject to Municipal Permit (and related) standards; and (2) identify measures to comply with these regulatory requirements through (for example) appropriate project design efforts and the use of BMPs.

State Porter-Cologne Water Quality Control Act/RWQCB Basin Plan Requirements

In addition to the NPDES standards described above, the SWRCB and RWQCB also regulate waste discharge under authority of the state Porter-Cologne Water Quality Control Act

(Porter-Cologne Act; California Water Code, Division 7). The Porter-Cologne Act is the primary water quality control law for the State of California, and establishes a regulatory program to protect water quality and beneficial uses for state waters. The SWRCB and RWQCBs were also established under the Porter-Cologne Act as the principle state agencies responsible for water quality control. The primary vehicle for implementing such control is the adoption of Water Quality Control Plans (commonly referred to as basin plans) to designate beneficial uses and associated water quality objectives. Applicable elements of these requirements for the Project include the San Diego Basin Plan (Basin Plan) standards, which establish beneficial uses and water quality objectives for surface and groundwater resources (RWQCB 1994). Beneficial uses are defined in the Basin Plan as “the uses of water necessary for the survival or well being of man, plus plants and wildlife.” As described in Subchapter 3.7 (Hydrology and Floodplain), the Project study area is located within portions of the San Ysidro and Water Tanks HSAs, both of which are subdivisions of the Tijuana Valley HA. Identified existing and potential beneficial uses for applicable surface waters (including coastal waters) within and downstream of the Tijuana Valley HA include industrial service supply; contact and non-contact water recreation; warm freshwater habitat; wildlife habitat; commercial and sport fishing; biological habitats of special significance; estuarine habitat; rare, threatened, or endangered species; marine habitat; migration of aquatic organisms; spawning, reproduction, and/or early development; and shellfish harvesting. Identified existing and potential beneficial uses for groundwater include municipal and domestic supply, agricultural supply, and industrial service supply.

Water quality objectives identified in the Basin Plan are defined as “the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses.” Water quality objectives include both narrative requirements (which can encompass qualitative and quantitative standards) and specific numeric objectives for identified constituents, with objectives for the Tijuana Valley HA summarized in Table 3.8-1.

Table 3.8-1 SURFACE AND GROUNDWATER QUALITY OBJECTIVES FOR THE TIJUANA VALLEY HYDROLOGIC AREA ¹												
SURFACE WATER (San Ysidro HSA Only)												
Constituent (mg/l or as noted)												
TDS	Cl	SO ₄	% Na	N&P	Fe	Mn	MBAS	B	Odor	Turb NTU	Color Units	F
2,100	-	-	-	- ²	-	-	-	-	None	20	20	-
GROUNDWATER												
Constituent (mg/l or as noted)												
TDS	Cl	SO ₄	% Na	NO ₃	Fe	Mn	MBAS	B	Odor	Turb NTU	Color Units	F
2,500 ³	550 ³	900 ³	70	-	-	-	-	2.0 ³	None	-	-	-

¹ Concentrations not to be exceeded more than 10 percent of the time during any one-year period; refer to Figure 3.7-2 for local hydrologic designation locations.

² Shall be maintained at levels below those that stimulate algae and emergent plant growth.

³ Detailed salt balance studies recommended to determine appropriate discharge limits.

Abbreviation Key: mg/l = milligrams per liter; TDS = total dissolved solids; Cl = Chlorides; SO₄ = Sulfate; Na = Sodium; N&P = Nitrogen and Phosphorus; NO₃ = Nitrate; Fe = Iron; Mn = Manganese; MBAS = Methylene Blue Activated Substances (e.g., commercial detergent); B = Boron; Turb = Turbidity (measured in Nephelometric Turbidity Units [NTU]); F = Fluoride.

Source: RWQCB (1994).

3.8.2 Affected Environment

A Drainage Study and a WQTR have been prepared for the Project (AECOM 2008a and 2008b), with these studies summarized below as appropriate along with other pertinent information. The study area used for the following water quality and storm water runoff analysis is the same as that identified for hydrology and floodplain in Subchapter 3.7, Hydrology and Floodplain. As described in Subchapter 3.7, Hydrology and Floodplain, drainage in the San Ysidro and Water Tanks HSAs is ultimately through the Tijuana River. Local portions of the San Ysidro HSA drain to the river either directly or through associated minor tributaries, while drainage in the Water Tanks HSA occurs primarily through a number of small local canyon drainages (refer to Figures 3.7-1 and 3.7-2).

Surface flows within the LPOE site and adjacent watershed areas to the north consist predominantly of intermittent flows from storm events and landscape irrigation, while flows in the upstream areas to the east are associated predominantly with storm events (refer to Subchapter 3.7, Hydrology and Floodplain, for additional description of local drainage characteristics). No known local water quality data are available within the study area, with storm flows subject to variations in water quality due to local conditions such as runoff volume/velocity and land use. Based on the largely urban nature and relatively high density of existing development within the LPOE site and adjacent watershed areas to the north, associated surface water quality is expected to be generally moderate to poor. The portions of the study area located further east are mostly undeveloped, and would be expected to exhibit correspondingly better water quality. Current water quality information available for up- and downstream portions of the Tijuana River watershed include quantitative data from: (1) the Tijuana River mass loading station (MLS); (2) dry weather monitoring at various locations; (3) ambient bay and lagoon monitoring/testing at the Tijuana River Estuary; and (4) bioassessment studies along the Tijuana River. In addition, statewide qualitative analyses to identify CWA Section 303(d) impaired waters and total maximum daily load (TMDL) requirements are conducted bi-annually by the SWRCB and RWQCB. All of the noted monitoring efforts and databases are associated with requirements under regulatory standards including the CWA, NPDES, and RWQCB Basin Plan, with summary descriptions provided below.

Surface Water Quality

Wet and Dry Season Monitoring

Monitoring at the Tijuana River MLS (approximately 2.7 miles west of the LPOE site) covered three storm events each for the 2001/2002 through 2006/2007 storm seasons (18 total events, with no monitoring conducted at the Tijuana River MLS for the 2007/2008 season). These monitoring events involved numerous physical, chemical, and bacterial constituents of concern (COCs), with monitoring results summarized below¹.

- Water quality standards were regularly exceeded (15 or more out of 18 events) for COCs including total and fecal coliform, enterococci, total suspended solids, turbidity, diazinon (a pesticide), and toxicity to select aquatic organisms.

¹ Associated monitoring data are reported in final annual urban runoff monitoring reports prepared by MEC Analytical Systems, Inc. (MEC) 2003, 2004 and 2005; and Weston Solutions (Weston) 2005, 2007, 2008 and 2009 (refer to Chapter 7.0, References).

- Water quality standards were frequently exceeded (9 to 14 out of 18 events) for COCs including ammonia; biochemical oxygen demand; chemical oxygen demand; and total phosphorus, copper and lead.
- Water quality standards were occasionally exceeded (1 to 8 out of 18 events) for COCs including pH; oil and grease; dissolved phosphorus; nitrate; surfactants (MBAS, refer to Table 3.8-1); chlorpyrifos and malathion (pesticides); total antimony, arsenic, nickel and zinc; dissolved copper; and toxicity to select aquatic organisms.

Dry weather sampling was also conducted in 2003 through 2007 at several sites located up- and downstream of the study area. This program was focused on collecting dry season samples from storm drain facilities to identify urban pollutants and sources. Data from the described dry weather sampling documented that water quality objectives were most commonly exceeded for turbidity, bacteria, and nutrients (refer to the previously cited MEC and Weston monitoring reports).

Ambient Bay and Lagoon Monitoring

Ambient bay and lagoon monitoring was conducted between 2003 and 2005 for a number of coastal waters including the Tijuana River Estuary. According to the previously referenced monitoring reports, samples from the Tijuana River Estuary exhibited generally high individual and overall (i.e., relative to other sampled embayments) quality rankings for sediment chemistry and toxicity, and intermediate rankings for benthic community structure. These rankings contrast with the generally poor water quality observed during the described wet weather sampling at the Tijuana River MLS, and indicate that heavy COC loadings documented during storm events do not necessarily lead to persistent accumulation of those COCs downstream in the Tijuana River Estuary.

Bioassessment Monitoring

Bioassessment testing involves evaluation of (among other criteria) the taxonomic richness (i.e., number of taxonomic groups) and diversity (i.e., species diversity within taxonomic groups) of benthic macroinvertebrate (BMI) communities. Bioassessment monitoring has been conducted at two downstream sites along the Tijuana River, including: (1) the border fence (approximately 400 feet west of the LPOE site) tested in May 2007; and (2) Dairy Mart Road (approximately 1.6 miles west of the LPOE) tested in May of 2003, 2005, and 2006. According to the previously referenced annual monitoring reports, test results for the noted sites indicate generally poor or very poor rankings relative to other tested locations, with these results attributable (at least in part) to poor water quality in surrounding urban areas.

Bi-annual Clean Water Act Assessments

The SWRCB and RWQCB produce bi-annual qualitative assessments of statewide and regional water quality conditions. These assessments are focused on CWA Section 303(d) impaired water listings and scheduling for assignment of TMDL requirements. The most current (2006) approved assessment identifies the following impaired waters within applicable portions of the Tijuana River watershed: (1) six miles of the Tijuana River listed for eutrophic conditions, indicator bacteria, low dissolved oxygen, pesticides, solids, synthetic organics, trace elements, and trash; (2) 1,319 acres in the Tijuana River Estuary listed for eutrophic conditions, indicator bacteria, lead, low dissolved oxygen, nickel, pesticides, thallium, trash, and turbidity; and (3)

three miles of the Pacific Ocean shoreline extending north from the international border listed for indicator bacteria. Proposed TMDL completion dates include 2010 for indicator bacteria in all three listed waters, and 2019 for all other noted contaminants (SWRCB 2007).

Groundwater Quality

No known groundwater quality data are available for the study area or immediate vicinity. Regional data include reported TDS levels of between 500 and 3,000 milligrams per liter (mg/l), and 380 to 3,620 mg/l in the Lower Tijuana River Basin (SDCWA 1997 and California Department of Water Resources [DWR] 2003, respectively).

Water Quality Summary

Existing surface and groundwater quality within developed portions of the study area and vicinity (including the LPOE site) is assumed to be generally moderate to poor, based on monitoring data, existing levels of urban development, and impaired water designations. Existing water quality in the eastern portion of the study area is anticipated to be generally moderate, due to the primarily undeveloped nature of associated watersheds.

3.8.3 Environmental Consequences

Preferred Alternative

Potential water quality impacts from the Preferred Alternative are associated with both short-term construction and long-term site operation and maintenance. Anticipated pollutants from these activities identified in the Project WQTR include sediment, nutrients, heavy metals, organic compounds, trash and debris, oxygen-demanding substances, oil and grease, bacteria and viruses, and pesticides (AECOM 2008b).

Implementation of the Preferred Alternative would not result in any direct effects to groundwater quality through activities such as underground storage of hazardous materials. Accordingly, potential impacts to groundwater quality would be limited to the percolation of surface runoff and associated contaminants generated within the study area (including such effects from the proposed infiltration basins described in Subchapter 3.7, Hydrology and Floodplain). The following assessment of potential water quality impacts is therefore applicable to both surface and groundwater resources.

Potential short- and long-term water quality concerns related to implementation of the Preferred Alternative are provided below, with associated avoidance, minimization, and mitigation measures described in Section 3.8.4.

Short-term Construction Impacts

Potential water quality impacts related to Project construction include erosion/sedimentation, the on-site use and storage of construction-related hazardous materials (e.g., fuels, etc.), generation of debris from demolition activities, and the disposal of extracted groundwater (if required).

Erosion and Sedimentation

Project excavation, grading and construction activities could potentially result in erosion and off-site sediment transport (i.e., sedimentation). These potential effects are related to efforts such as the removal of existing surface stabilizing features (e.g., pavement and vegetation), excavation of existing compacted materials, redeposition of excavated (and/or imported) material as fill in proposed development sites, potential sediment generation from demolition and paving activities, and potential erosion from disposal of extracted groundwater (i.e., if discharged onto graded or destabilized areas). Project-related erosion could result in the influx of sediment into downstream receiving waters (including waters tributary to the 303[d] listed Tijuana River and Estuary, as previously described), with associated water quality effects such as turbidity and the transport of other contaminants that tend to adhere to sediment particles. Short-term erosion and sedimentation impacts would be addressed through conformance with the NPDES Construction Permit and associated City Storm Water Standards outlined above under Regulatory Framework.

Construction-related Hazardous Materials

Project construction would involve the on-site use and storage of hazardous materials such as fuels, lubricants, solvents, concrete, paint, and portable septic system wastes. The accidental discharge of these types of pollutants could potentially result in water quality impacts if they reach downstream receiving waters, particularly materials such as petroleum compounds that are potentially toxic to aquatic species in low concentrations. Potential water quality impacts from construction-related hazardous materials would be addressed through conformance with the NPDES Construction Permit and associated City Storm Water Standards outlined above under Regulatory Framework.

Demolition-related Debris Generation

The Preferred Alternative would involve the demolition of existing facilities, including structures and pavement. These activities would generate variable amounts of construction debris, potentially including concrete, asphalt, glass, metal, drywall, paint, insulation, fabric, wood, and other materials. Proposed demolition activities could also potentially generate particulates (e.g., dust from structure razing or pavement demolition), as well as contaminants related to hazardous materials including lead-based paint and asbestos insulation. The introduction of demolition-related particulates or hazardous material contaminants into the local storm drain system could potentially result in downstream water quality impacts. Potential water quality impacts related to demolition activities would be addressed through conformance with the NPDES Construction Permit and associated City Storm Water Standards outlined above under Regulatory Framework.

Disposal of Extracted Groundwater

Disposal of groundwater extracted during Project construction activities into local drainages and/or storm drain facilities (if required) could potentially generate water quality impacts through erosion/sedimentation (as described above), or the possible occurrence of contaminants in local groundwater aquifers. These potential impacts would be addressed through conformance with the NPDES Groundwater Permit as outlined above under Regulatory Framework.

Long-term Operation and Maintenance Impacts

Potential long-term water quality impacts are associated with the generation of urban contaminants from sources including vehicular operations (e.g. metals, oil and grease, and particulates), trash collection/disposal (e.g., trash and debris, and particulates), and landscape maintenance (e.g., sediment and organic materials). These potential impacts would be addressed through conformance with the NPDES Municipal Permit and associated City Storm Water Standards, as outlined above under Regulatory Framework and evaluated in the Project WQTR.

Potential long-term erosion and sedimentation impacts from the Preferred Alternative are considered minor, based on the fact that developed areas would be stabilized through the installation of buildings, hardscape, and landscaping. The Project would also incorporate long-term water quality controls pursuant to NPDES and related City guidelines, including measures that would avoid or reduce off-site sediment transport (e.g., the use of storm water filters, street sweeping, and drainage facility maintenance, as outlined below).

Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative. Therefore, the water quality and storm water runoff study area for the Pedestrian Crossing Alternative would be the same as the Preferred Alternative, and construction, operation, and maintenance activities would be similar. The analysis presented above for the Preferred Alternative would apply equally to the Pedestrian Crossing Alternative, and potential impacts with respect to water quality and storm water runoff would be the same.

No Build Alternative

Under the No Build Alternative, the described development actions for the Preferred Alternative would not occur, and no impacts related to water quality and storm water runoff would occur.

3.8.4 Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

As previously described, implementation of the Preferred Alternative would conform with applicable regulatory requirements, including the NPDES General Construction, Groundwater and Municipal Permits, as well as associated City Storm Water Standards. Preliminary measures to provide such regulatory conformance are identified in the Project WQTR, the regulatory permits themselves, and the additional regulatory/industry sources referenced above in Section 3.8.1. These measures are outlined below for potential short- and long-term water quality impacts, with all identified water quality BMPs subject to modification based on updated Project design and engineering information. Implementation of the following (or other appropriate) measures, in conformance with applicable regulatory requirements, would avoid, minimize or mitigate any potential impacts related to water quality and storm water runoff from implementation of the Preferred Alternative.

Short-Term Construction

Erosion and Sedimentation

Construction-related erosion and sedimentation impacts would be addressed through conformance with the applicable NPDES Construction Permit and related City standards, as previously described. This would include implementing an authorized SWPPP to address (among other issues) erosion and sedimentation concerns. While specific erosion and sediment control measures would be determined as part of the Project design and SWPPP process, standard BMPs from sources such as the Project WQTR, the NPDES permit text/City standards, and additional regulatory/industry sources that would likely be applicable to the Preferred Alternative include the following:

- Use a phased construction schedule to limit the extent of grading at any given time to the smallest feasible area.
- Preserve existing vegetation wherever feasible.
- Restrict construction during the rainy season (October 1 to May 1) when feasible, install erosion control BMPs prior to the rainy season, and implement a “weather triggered” (i.e., 40 percent or greater chance of rain) action plan to inspect, repair, and/or upgrade BMPs as necessary during periods of inclement weather.
- Avoid or minimize work and associated construction-related impacts in live streams and environmentally sensitive areas.
- Implement and store erosion and sediment controls on-site that are adequate to provide complete erosion and sedimentation protection (including “standby” capacity) for exposed portions of the site not actively worked for seven or more consecutive calendar days. Specifically, such controls may include fiber rolls, gravel bags/hay bales (e.g., at storm drain inlets), silt fence, mats or mulching, temporary sediment basins, soil binders (e.g., bonded fiber matrix), hydroseeding, street sweeping/vacuuming, energy dissipators, stabilized construction access points/sediment stockpiles, vehicle wash sumps, sediment transport vehicle covers, and concrete washouts.
- Implement sampling/analysis, monitoring/reporting and post-construction management/maintenance programs, as applicable, per NPDES/City requirements.
- Provide appropriate training for personnel responsible for BMP installation and maintenance.
- Comply with local dust control requirements.
- Implement appropriate water conservation practices (e.g., repairing leaks and avoiding or minimizing washing of construction-related vehicles and areas).
- Install permanent landscaping, with emphasis on native and/or drought-tolerant varieties, as soon as feasible during or after construction.

- Implement additional BMPs as necessary to ensure adequate erosion and sediment control.

Construction-related Hazardous Materials

Implementation of a SWPPP would be required under applicable guidelines as previously described, and would include measures to avoid or mitigate potential impacts related to the use and potential discharge of construction-related hazardous materials. Specific BMPs associated with construction-related hazardous materials would be determined as part of the Project design and SWPPP process, as noted above for erosion/sedimentation. A number of standard measures from sources such as the Project WQTR, the NPDES permit text/City standards, and additional regulatory/industry sources that would likely be applicable to the Preferred Alternative include the following:

- Restrict paving operations during wet weather and use sediment control devices downstream of paving activities.
- Contain and properly disposal of paving and construction wastes or slurry (e.g., from saw cutting; concrete curing/finishing; or washouts for concrete, stucco, paint, caulking, sealants, or drywall plaster), through measures such as use of portable (and impermeable) sumps, vacuuming, chemical application controls, and off-site waste disposal in an approved location.
- Minimize the amount of hazardous materials stored onsite, and restrict storage/use locations to areas at least 50 feet from storm drains and surface waters.
- Properly maintain all construction equipment and vehicles.
- Use covered and/or enclosed storage facilities for hazardous materials, and maintain accurate and up-to-date written material inventories.
- Store hazardous materials off the ground surface (e.g., on pallets) and in their original containers, with the legibility of labels protected (or replaced if labels are damaged).
- Use berms, ditches, and/or impervious liners (or other applicable methods) in material storage and vehicle/equipment maintenance and fueling areas, to provide a containment volume of 1.5 times the volume of stored/used materials and prevent discharge in the event of a spill.
- Place warning/information signs in hazardous material use/storage areas to identify the types of materials present, applicable use restrictions, and containment/clean-up procedures.
- Mark storm drains (and other appropriate locations) to discourage inappropriate hazardous material disposal.
- Provide training for applicable employees in the proper use, handling and disposal of hazardous materials, as well as appropriate action to take in the event of a spill.

- Implement solid waste management efforts, such as proper containment and disposal of construction debris (e.g., use of watertight dumpsters and daily trash collection/removal) and street sweeping.
- Store absorbent and clean-up materials in appropriate on-site locations where they are readily accessible.
- Properly locate and maintain portable wastewater facilities.
- Use recycled or less hazardous materials wherever feasible.
- Post regulatory agency telephone numbers and a summary guide of clean-up procedures in a conspicuous location at or near the job site trailer.
- Monitor and maintain hazardous material use/storage facilities and operations regularly (at least weekly) to ensure proper working order.
- Implement a Storm SWSAS program pursuant to regulatory guidelines.

Demolition-related Debris Generation

The Preferred Alternative would be subject to a number of regulatory controls related to demolition, including the previously described NPDES and City standards. The Project SWPPP would include measures to address potential water quality effects associated with contaminant generation from demolition activities, with detailed requirements to be determined as part of the SWPPP process. Preliminary demolition-related BMPs from the previously noted sources that are likely applicable to the Preferred Alternative include the following:

- Recycle appropriate (i.e., non-hazardous) construction debris for on- or off-site use whenever feasible.
- Use dust-control measures such as watering to reduce particulate generation for pertinent locations/activities (e.g., concrete removal).
- Use appropriate erosion prevention and sediment control measures downstream of all demolition activities.
- Conform with applicable requirements related to the removal, handling, transport, and disposal of hazardous materials generated during demolition, including efforts such as implementing appropriate sampling and monitoring procedures; proper containment of contaminated materials during construction; providing protective gear for workers handling contaminated materials; ensuring acceptable exposure levels; and ensuring safe and appropriate handling, transport, and disposal of hazardous materials.

Disposal of Extracted Groundwater

Project construction would require conformance with applicable NPDES Groundwater Permit criteria as outlined under Regulatory Framework, if applicable. While individual BMPs to address potential water quality concerns from disposal of extracted groundwater would be determined based on site-specific parameters, they may include the following types of standard

measures derived from the NPDES Permit text and the previously referenced regulatory/industry sources:

- Use erosion prevention and sediment catchment devices (similar to those described above for erosion and sedimentation).
- Test extracted groundwater for appropriate contaminants prior to discharge.
- Treat extracted groundwater prior to discharge if required to provide conformance with applicable discharge criteria (e.g., through methods such as filtration, aeration, adsorption, disinfection, and/or conveyance to a municipal wastewater treatment plant).
- Remove contaminated groundwater for off-site treatment and disposal by a licensed operator in conformance with applicable legal requirements.

Long-term Operation and Maintenance

Potential long-term water quality impacts from the Preferred Alternative are associated with the generation and off-site discharge of urban contaminants, as previously described. The Project WQTR (AECOM 2008b) identifies anticipated pollutants and recommends a number of BMP options for proposed development, based on procedures/requirements identified in the NPDES Municipal Permit and City Storm Water Standards (City of San Diego 2008). These measures are summarized below along with other potentially applicable BMPs from the noted regulatory/industry sources, followed by a discussion of associated BMP monitoring and maintenance requirements. Identified long-term water quality BMPs are considered preliminary in nature, and may be modified and/or replaced with more appropriate measures as part of the ongoing Project design and regulatory conformance process.

Site Design/Low Impact Development BMPs

The use of site design/LID measures is intended to mimic predevelopment hydrologic conditions by effectively capturing, filtering, storing, evaporating, detaining, and/or infiltrating runoff close to its source. Potential site design/LID BMPs identified in the Project WQTR and/or the noted regulatory/industry sources that may be applicable to the Preferred Alternative include the following:

- Implement runoff control through the use of on-site infiltration basins designed to accommodate a 2-year, 24-hour storm event (refer to Subchapter 3.7, Hydrology and Floodplain, for additional discussion of proposed infiltration basins).
- Minimize impervious areas through efforts such as: (1) using an underground parking structure to reduce surface parking requirements; (2) constructing streets, sidewalks, and parking lot aisles to the minimum widths necessary to meet design and safety standards; (3) incorporating additional landscaping where feasible; (4) restricting the use of impervious surfaces within landscaped areas; and (5) using pervious paving materials in applicable locations wherever feasible (e.g., pedestrian walkways and low-vehicle traffic areas).
- Preserve existing landscaped areas and direct runoff from impervious areas into landscaping wherever feasible; and incorporate appropriate vegetation varieties into

landscape designs to maximize the potential to receive, infiltrate, and/or treat runoff from impervious areas (e.g., use of applicable tree species to increase rainfall interception and evapotranspiration).

- Minimize soil compaction in landscaped areas by techniques such as scarification, and incorporate appropriate amendments to improve soil quality/water holding capacity and foster healthy vegetation.
- Use “green” (vegetated) rooftops for applicable structures to reduce runoff volumes (e.g., through capture and evapotranspiration of storm flows), sediment loads, and temperatures (refer to the discussion of Treatment Control BMPs below for additional description of green rooftops).

Source Control BMPs

Source control BMPs are intended to avoid or minimize the introduction of contaminants into storm drains and natural drainages by reducing onsite contaminant generation and off-site contaminant transport to the MEP. Specific source control BMPs identified in the Project WQTR and/or the noted regulatory/industry sources that may be applicable to the Preferred Alternative include the following:

- Install “no dumping” stencils, tiles, and/or signs (per current City standards) at all proposed onsite storm drain inlets and other applicable locations (e.g., drainages and building entrances) to discourage illegal contaminant disposal.
- Provide paved, enclosed, and covered areas for trash storage, with regular maintenance (e.g., cleaning up spills) and weekly trash pick-up by a licensed waste management company.
- Conduct weekly mechanical sweeping of applicable onsite streets and parking areas to remove accumulated particulates and associated contaminants before they are picked up by site runoff.
- Use integrated pest management (IPM) weed/pest control measures wherever feasible, including efforts such as: (1) removing weeds by hand and avoiding the use of chemical pesticides, herbicides, and fertilizers in landscaped areas; (2) using pest-resistant or well-adapted native plant varieties; and (3) providing informational materials to site maintenance personnel and occupants to increase awareness and implementation of IPM measures.
- Manage irrigation to minimize runoff through measures such as the use of automated and tailored watering schedules (i.e., to avoid over-watering), and installing moisture/pressure sensors to shut off irrigation under appropriate conditions (e.g., during/after precipitation events or in the event of broken pipes or sprinkler heads).
- Provide an underground parking structure to reduce the exposure of onsite parking areas to run-on, direct precipitation contact, and associated pollutant transport.
- Direct flows from fire sprinkler system use, maintenance, and/or testing into the sanitary sewer system.

Treatment Control BMPs

Treatment control BMPs are designed to remove pollutants from urban runoff for a design storm event to the MEP through means such as filtering, treatment, or infiltration. The use of identified site design/LID and source control BMPs is intended to reduce treatment requirements by preventing pollutants from entering storm water runoff, and reducing runoff volumes and velocities. Treatment control BMPs would still be required for the Preferred Alternative, however, and would incorporate either volume- or flow-based treatment control design standards (per City and NPDES standards). Potential treatment control options identified in the Project WQTR include the use of proprietary inlet/outlet and rooftop-downspout filters, vegetated swales, or green rooftops (as described above under Site Design/LID BMPs). Specific proprietary filters identified in the Project WQTR include FloGard® LoPro™ Series Filters, which typically encompass a modular filter designed to remove particulates, debris, metals, and petroleum hydrocarbons. Vegetated swales typically consist of shallow, trapezoidal or parabolic channels lined with appropriate vegetation types (e.g., turf) that provide filtration and (to a lesser extent) infiltration as storm flows move slowly along the channel length. Green rooftops typically consist of a thin layer of living vegetation on flat or sloped rooftops that help to reduce runoff (through capture and evapotranspiration) and provide some water quality treatment through removal of contaminants (e.g., sediment) and reduction of water temperatures. One or more of the described treatment control BMP options (or potentially other measures if deemed appropriate during the ongoing Project design process) would be implemented as part of the Preferred Alternative to ensure Project conformance with all applicable regulatory requirements related to long-term water quality.

Post-construction BMP Monitoring/Maintenance Schedules and Responsibilities

Identified long-term BMPs include physical facilities such as “no dumping” stencils/tiles and signs, control features for drainage (e.g., infiltration basins) and trash (e.g., enclosures), and proprietary filters; as well as programs/activities including street sweeping, landscape/irrigation management, and IPM. All Project-related BMP facilities would be located on site, with associated monitoring and maintenance efforts (including funding) to be the responsibility of the property owner. A Storm Water Management and Discharge Control Maintenance Agreement would be prepared by the Project applicant and submitted to the City for all pertinent BMP facilities and programs. Specifically, this agreement would: (1) identify responsible parties for BMP funding and monitoring/maintenance efforts; and (2) describe all associated training programs, operating schedules, maintenance duties and frequencies, and other pertinent information. Typical monitoring and maintenance efforts associated with proposed BMP facilities and programs are summarized in Table 3.8-2, with additional information provided in the Project WQTR (AECOM 2008b).

Pedestrian Crossing Alternative

Avoidance, minimization, and mitigation recommendations related to water quality and storm water runoff issues for the Pedestrian Crossing Alternative would be the same as those described above for the Preferred Alternative. The use of such measures and considerations would avoid, minimize or mitigate all potential impacts related to water quality and storm water runoff.

No Build Alternative

Because no impacts were identified for the No Build Alternative, no associated avoidance, minimization or mitigation measures are proposed.

Table 3.8-2
SUMMARY OF TYPICAL/PROPOSED POST-CONSTRUCTION BMP
MONITORING AND MAINTENANCE EFFORTS

- Inlet Stencils/Tiles and Signs: Monitoring for informational storm drain inlet stencils/tiles and signs typically includes annual inspections prior to the rainy season, with associated maintenance efforts involving clearing inlets of all trash and debris during each inspection, and replacing/repairing stencils, tiles, and signs as necessary to maintain legibility.
- Drainage Facilities: Monitoring for drainage facilities typically includes conducting inspections prior to the rainy season and after larger storm events. Specific maintenance efforts generally involve clearing all trash and debris during each inspection, and replacing/repairing facilities as necessary to ensure proper function.
- Trash Enclosures: Monitoring for trash enclosures generally includes regular (e.g., monthly) inspections, with associated maintenance consisting of documenting the condition of enclosures during each inspection, immediate spill clean-up, and replacing/repairing facilities as necessary to maintain proper function.
- Landscaping and Related Irrigation Systems: Monitoring and maintenance efforts for Project landscaping would include: (1) regular inspections (e.g., weekly during wet weather, and after every storm event with more than 0.5 inch of precipitation); (2) trimming/pruning and weeding around fences and at drainage inlet/outlet structures; (3) removing debris; (4) collecting and properly disposing of (or recycling) landscaping wastes (e.g., trimmings/cuttings and excess soil amendments) to avoid the discharge of organic materials into the storm drain system; and (5) eliminating areas of ponded water to control vector breeding habitat. Irrigation systems would be regularly (e.g., monthly) inspected, with adjustment/repair activities conducted as needed.
- Proprietary Filters: Specific monitoring and maintenance efforts associated with proprietary filters typically include: (1) conducting regular inspections per manufacturer's recommendations (e.g., prior to and after the rainy season, and after larger storm events); (2) removing accumulated trash and debris during each inspection (or more often if appropriate); (3) cleaning out accumulated sediment at appropriate intervals or conditions (per manufacturer's recommendations); and (4) implementing maintenance and/or replacement efforts for all mechanical, electrical, filtration, or other applicable components on an as-needed basis.
- Vegetated Swales: Typical monitoring and maintenance efforts associate with vegetated swales include: (1) regular inspections (e.g., weekly during wet weather, and after every storm event with more than 0.5 inch of precipitation) to ensure proper function and conduct scheduled maintenance; (2) removal of trash and debris during each inspection; (3) removal of excess sediment during each inspection; (4) removal of standing water; (5) vegetation management (e.g., mowing, trimming fertilizing, irrigating and/or reseeding); (6) elimination of mosquito breeding habitats and control of other animal/vector issues (e.g., animal burrows); and (7) conducting repairs or other maintenance as required.
- Green Rooftops: Typical monitoring and maintenance requirements for green rooftops include semi-annual inspections and weeding efforts, and conducting repairs or other maintenance as required.

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3.9 GEOLOGY/SOILS/SEISMICITY/TOPOGRAPHY

3.9.1 Regulatory Setting

Federal Historic Sites Act

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.”

International Building Code and Greenbook Standards

The International Building Code (IBC, which encompasses the former Uniform Building Code [UBC]) is produced by the International Code Council (ICC) to provide standard specifications for engineering and construction activities, including measures to address geologic and soil concerns (ICC 2009). Specifically, these measures encompass issues such as seismic loading (e.g., classifying seismic zones and faults), ground motion, and engineered fill specifications (e.g., compaction and moisture content). The referenced guidelines, while not comprising formal regulatory requirements per se, are widely accepted by regulatory authorities and are routinely included in related standards such as grading codes. The IBC guidelines are regularly updated to reflect current industry standards and practices, including criteria from sources such as the American Society of Civil Engineers (ASCE) and ASTM International (ASTM, formerly known as the American Society for Testing and Materials).

The Greenbook Standard Specifications for Public Works Construction (Greenbook) is produced by a joint committee of the Southern California Chapter of the American Public Works Association and the Southern California Districts of the Associated General Contractors of California. Formal adoption of the Greenbook is through the Greenbook Committee of Public Works Standards, Inc. (Greenbook Committee). The Greenbook is focused on public works projects and includes (among other criteria) geologic and soil standards related to construction materials/methods (e.g., grading and fill/base material placement), utilities, landscaping/irrigation facilities, pipelines, aggregate, and concrete/asphalt pavement (Greenbook Committee 2009).

The principal considerations of this subchapter involve geologic, soil, seismic and topographic concerns as they relate to public safety and the structural integrity of the proposed facilities. These concerns are evaluated in the following analysis within the context of existing geologic/soil and topographic conditions, proposed facility design, and the above noted regulatory considerations.

3.9.2 Affected Environment

The study area for geologic issues coincides with the Project Study Area as shown on Figure 1-2. The following analysis incorporates pertinent information from a geotechnical evaluation conducted for a previous development proposal at the San Ysidro LPOE, which encompasses approximately 90 percent of the current Project Study Area (Ninyo & Moore 2005), as well as other applicable sources.

Geologic/Topographic Setting

The study area is within the coastal portion of the Peninsular Ranges Geomorphic Province (Province), a region characterized by northwest-trending structural blocks and intervening fault zones. The Province extends approximately 920 miles from the Los Angeles Basin to the southern tip of Baja California, and varies in width from approximately 30 to 100 miles. Bedrock units in the Peninsular Ranges Province include Jurassic (approximately 144 million to 206 million years old) metavolcanic and metasedimentary rocks, and Cretaceous (approximately 65 to 144 million years old) igneous rocks of the Southern California Batholith (a large igneous intrusive body). The coastal portion of the Province in San Diego County typically includes a sequence of upper Cretaceous, Tertiary (approximately 2 to 65 million years old), and Quaternary (less than approximately two million years old) marine and non-marine sedimentary strata forming a dissected coastal plain.

Topographically, the Province is composed of generally parallel ranges of steep-sloping hills and mountains separated by alluvial valleys. More recent uplift and erosion has produced the characteristic canyon and mesa topography present today in western San Diego County, as well as the deposition of surficial materials including Quaternary alluvium, colluvium, and topsoil. Topography within the study area is characterized by generally level terrain, with elevations ranging from approximately 60 feet above mean sea level (MSL) near Virginia Avenue at the western study area boundary, to 120 feet above MSL in the eastern portion of the study area. Topography to the west of the study area is characterized by similar, generally level, terrain that slopes gently to the west, while nearby areas to the east encompass relatively steep grades and elevations exceeding 400 feet.

Stratigraphy

Geologic units mapped and/or encountered within and adjacent to the study area include the Tertiary-age Otay Formation, and Quaternary-age Old Paralic¹ Deposits, Young Alluvial Floodplain Deposits, and Landslide Deposits, Undivided (Figure 3.9-1). The Otay Formation is not mapped on-site, but was encountered at a depth of approximately 15 feet in the eastern portion of the study area during subsurface explorations (borings) conducted as part of the previous geotechnical investigation (Ninyo & Moore 2005, refer to Boring No. B-2 on Figure 3.9-1). This unit consists generally of silty fine-grained sandstone, and coarse-grained sand and gravel deposits with some cobbles in a siltstone matrix. The Old Paralic Deposits were previously mapped locally as the Bay Point Formation, and consist mainly of poorly sorted and moderately permeable beach, estuarine and colluvial deposits comprised of interfingering siltstone, sandstone and conglomerate. This unit is mapped in much of the LPOE site, and was encountered at depths of between approximately 5 and 21.5 feet in the eastern portion of the study area during previous geotechnical investigation (Boring Nos. B-1 and B-2 on Figure 3.9-1). The Young Alluvial Floodplain Deposits consist primarily of permeable, poorly consolidated and poorly sorted alluvial materials derived mainly from fluvial sources (e.g., the Tijuana River). Alluvial deposits are mapped in the southwestern corner of the study area, and were encountered in the southern and western portions of the LPOE site at depths of between approximately 4.5 and 44.5 feet during previous geotechnical investigation (Boring Nos. B-4 and B-5 on Figure 3.9-1). The landslide deposits are mapped in the easternmost portion of the study area, as well as adjacent areas to the north and east. These deposits are characterized

¹ Paralic deposits are generally defined to include interfingering marine and non-marine deposits laid down on the landward side of a coast, or in shallow water subject to marine invasions.

by highly fragmented to largely coherent landslide deposits composed of unconsolidated to moderately well consolidated materials with scarp areas and slide deposits (California Geological Survey [CGS], formerly the California Division of Mines and Geology [CDMG], 2008; Ninyo & Moore 2008).

Because virtually the entire study area has been previously developed, on-site surficial materials are limited predominantly to recent fill deposits. Minor remnants of shallow alluvial materials and/or topsoils may also potentially occur within the study area, either underlying or in association with fill materials (i.e., local deposits that may have been incorporated into engineered fill during development). If present, local topsoils would consist of excessively drained sandy deposits derived from granitic alluvium and associated with the Tujunga Soil Series (U.S. Soil Conservation Service 1973).

Structure and Seismicity

The study area, like most of southern California, is located within a seismically active region that encompasses several major active faults². No known active faults or State of California Alquist-Priolo Earthquake Fault Zones are located within or adjacent to the Project study area (Ninyo & Moore 2005, CGS 2007). The closest active fault structures and related Earthquake Fault Zone designations to the study area are associated with onshore segments of the Rose Canyon Fault Zone located approximately 12.4 miles to the north-northwest. Additional active faults in the study area region include the Coronado Bank Fault Zone, approximately 15.5 miles to the west, the San Diego Trough Fault Zone approximately 25 miles to the west, and the Elsinore Fault Zone, approximately 50 miles to the northeast (Figure 3.9-2). The potentially active La Nacion Fault Zone is located approximately 1,000 feet east of the study area at its closest point, while several short (up to approximately one miles in length) and presumably inactive fault segments are mapped approximately 1 to 3 miles to the northwest (CDMG 1994).

Estimated horizontal peak ground acceleration values with a 10, 5 and 2 percent chance of being exceeded in the study area during a 50-year period are 0.23g, 0.3g and 0.42g, respectively, where “g” equals the acceleration due to gravity (Ninyo & Moore 2005). These ground acceleration values are based on “firm rock” sites, and may increase or decrease depending on site-specific geologic conditions.

Groundwater

The western portion of the study area (including much of the LPOE site) is within the mapped areal extent of the Lower Tijuana River Groundwater Basin, which includes an area of approximately 5.6 square miles (refer to Subchapter 3.8, Hydrology and Floodplain, for additional groundwater data). Shallow groundwater was encountered at depths of approximately 16 and 19 feet in the western and southern portions of the LPOE site during previous geotechnical investigation (Ninyo & Moore 2008 and 2005, refer to Boring Nos. B-4 and B-5 on Figure 3.9-1). In addition, shallow perched groundwater could potentially occur on-site, with perched groundwater generally consisting of one or more unconfined aquifers supported by impermeable or semi-permeable strata. Such aquifers are typically limited in volume and extent, but can vary with conditions such as withdrawals or seasonal precipitation.

² Active faults are defined as structures that exhibit historic seismicity or displacement of Holocene (less than approximately 11,000 years old) deposits, while potentially active faults have no historic seismicity and displace Pleistocene (approximately 11,000 to 2 million years old) but not Holocene strata.

National Natural Landmark Status

Based on the noted geologic and topographic information, the study area is not anticipated to contain any rare, high quality, or scientifically significant geologic or topographic resources, and does not encompass any areas designated as National Natural Landmarks (U.S. National Park Service 2009).

3.9.3 Environmental Consequences

Preferred Alternative

Pursuant to the above description of geologic, soil, seismic, and topographic conditions within the study area, no conditions were identified that would be expected to preclude the proposed development, and construction of the Preferred Alternative is considered feasible from a geotechnical perspective. A number of potential geologic issues may be applicable, however, and associated recommendations are provided to address these concerns. Specifically, these recommendations involve conducting a comprehensive geotechnical evaluation of the Project Study Area and Preferred Alternative, including subsurface exploration, laboratory testing, and field inspection/verification by the Project geotechnical engineer prior to final Project design and during construction. These investigations would be intended to further evaluate surface and subsurface geotechnical conditions and provide detailed information regarding the engineering characteristics of earth materials present within the study area. From these data, a detailed geotechnical report would be prepared to provide specific geotechnical recommendations for design and construction of the Preferred Alternative. Based on available information, anticipated potential geotechnical concerns related to implementation of the Preferred Alternative are provided below, with associated avoidance, minimization, and mitigation measures described in Section 3.9.4 (and identified concerns/measures to be updated as appropriate during the described detailed geotechnical investigation).

Seismic Hazards

Ground Rupture

Based on the fact that no known active faults are located within or adjacent to the study area, the potential for seismic-related ground rupture hazards on site is generally considered low. The potential for ground rupture and related effects such as ground lurching within the study area cannot be totally discounted, however, as such effects could possibly occur as a result of seismic activity along currently unknown and/or off-site faults. Ground lurching, generally defined as the horizontal displacement of surficial materials from the rolling motion of passing seismic waves, primarily affects facilities such as pavement and utilities, with heavier structures such as buildings typically not adversely impacted. The Preferred Alternative would incorporate appropriate design and construction measures to accommodate ground rupture and related hazards, if applicable, pursuant to associated industry/regulatory standards (e.g., the IBC) and subsequent detailed geotechnical analysis.

Ground Acceleration

As previously noted, estimated horizontal peak ground acceleration values with a 10, 5, and 2 percent chance of being exceeded in the study area during a 50-year period are 0.23g, 0.3g, and 0.42g, respectively. These ground acceleration values are representative of similar areas

in southern California, and could potentially result in seismic ground acceleration impacts to proposed facilities, such as structures, foundations, and/or utilities. The Preferred Alternative would incorporate appropriate design and construction measures to accommodate projected seismic loading, pursuant to applicable industry/regulatory standards (e.g., the IBC) and subsequent detailed geotechnical analysis.

Liquefaction and Seismically-induced Settlement

Liquefaction is the phenomenon whereby soils lose shear strength and exhibit fluid-like flow behavior. Loose, granular soils with relative densities of less than approximately 70 percent are most susceptible to these effects, with liquefaction potential greatest in saturated soils at relatively shallow depths. Liquefaction is most typically associated with seismic ground acceleration, with the resulting loss of support and/or related effects, such as seismically-induced settlement, potentially resulting in impacts to surface and subsurface facilities including pavement, foundations, and underground utilities. The majority of the study area is underlain by alluvial and/or fill soils, with relatively shallow groundwater present locally. Based on these conditions, the potential for seismically-induced liquefaction and settlement within the study area is generally considered high (Ninyo & Moore 2005). The Preferred Alternative would incorporate appropriate design and construction measures to address liquefaction effects, pursuant to applicable industry/regulatory standards (e.g., the IBC) and subsequent detailed geotechnical analysis.

Tsunamis and Seiches

Tsunamis (commonly referred to as tidal waves) consist of a series of ocean waves produced by events such as submarine earthquakes or volcanic eruptions that rapidly displace large volumes of water. Such events can generate impacts in coastal areas related to inundation and surges of debris-filled water. Seiches are defined as wave-like oscillatory movements in enclosed or semi-enclosed bodies of water such as lakes or reservoirs. Potential effects from seiches include flooding damage and related hazards (e.g., erosion) in surrounding areas from spilling or sloshing water, as well as increased pressure on containment structures. Because the study area is located approximately 5.1 miles inland, exhibits elevations of between approximately 60 and 120 feet above MSL, and is not adjacent to or in close proximity to any large upstream water bodies, no impacts related to tsunami or seiche hazards are anticipated from implementation of the Preferred Alternative.

Non-seismic Hazards

Landslides

The occurrence of landslides and other types of slope failures (e.g., rock falls) is influenced by a number of factors, including slope grade, geologic and soil characteristics, moisture levels, and vegetation cover. Landsliding can be triggered by a variety of potentially destabilizing conditions or events, such as gravity, fires, precipitation, grading and seismic activity. Based on the generally level nature of the study area, no impacts related to landslide hazards originating on site would be associated with the Preferred Alternative.

As previously described, landslide deposits are mapped within and adjacent to the eastern portion of the study area, with these deposits assumed to be associated with previous landslide events originating along the steeper slopes to the east. While the presence of previous

landslide deposits and steeper topography within the study area and/or vicinity result in some inherent potential for on-site landslide hazards from off-site slope failures, the potential for such effects is considered generally low due to the intervening distances involved (i.e., approximately 700 to 1,000 feet between proposed development and nearby slopes to the east). Despite this conclusion, the Preferred Alternative would incorporate appropriate design and construction measures to address landslide hazards, if applicable, pursuant to associated industry/regulatory standards (e.g., the IBC) and subsequent detailed geotechnical analysis.

Additional potential concerns related to the stability of surficial deposits include construction-related erosion and sedimentation. These potential issues are discussed in Subchapter 3.8, Water Quality and Storm Water Runoff, and would be addressed through the implementation of appropriate construction BMPs in conformance with applicable regulatory standards.

Expansive or Compressible Soils

Expansive (or shrink-swell) behavior is attributable to the water-holding capacity of certain clay minerals, and can affect the integrity of facilities such as pavement, foundations or utilities. Compressible soils are typically associated with loose and unconsolidated deposits including alluvium and native topsoils. While surficial or shallow alluvial and topsoil deposits are generally not anticipated to occur on-site due to the predominantly developed nature of the study area, they could potentially be present as previously described. Such materials could be subject to expansive behavior or settlement under load, with associated impacts to proposed facilities, such as pavement, structures and utilities. The Preferred Alternative would incorporate appropriate design and construction measures to address potential effects related to expansive or compressible soils, pursuant to applicable industry/regulatory standards (e.g., the IBC) and subsequent detailed geotechnical analysis.

Excavation/Generation of Oversize Materials

While it is anticipated that most or all surficial and geologic materials expected to be encountered during implementation of the Preferred Alternative would be subject to excavation and ripping with standard construction methods and equipment, such activities could potentially generate oversize materials. The generation of such oversize rock fragments (i.e., greater than approximately 8 in) could pose potential development hazards if improperly handled or placed. Specifically, the presence of oversize materials in engineered fills can result in effects such as differential settlement (i.e., varying degrees of settlement over short distances), with associated impacts to overlying structures or pavement. The Preferred Alternative would incorporate appropriate measures to address potential effects related to the generation of oversize materials, pursuant to applicable industry/regulatory standards (e.g., the IBC) and subsequent detailed geotechnical analysis.

National Natural Landmarks

As previously noted, the study area does not encompass any rare, high quality, or scientifically significant geologic or topographic resources, and is not within any areas designated as National Natural Landmarks. Accordingly, no associated impacts would occur from implementation of the Preferred Alternative.

Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative. Therefore, the study area for geologic issues under the Pedestrian Crossing Alternative would be the same as the Preferred Alternative, and construction, operation, and maintenance activities would be similar. The analysis presented above for the Preferred Alternative would apply equally to the Pedestrian Crossing Alternative, and potential impacts with respect to geology, soils, seismicity, and topography would be the same.

No Build Alternative

Under the No Build Alternative, the development actions described for the Preferred Alternative at the San Ysidro LPOE would not occur, and no impacts related to geologic, soil, seismic, or topographic conditions would result.

3.9.4 Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

As previously described, a comprehensive geotechnical evaluation would be conducted prior to final design and during construction of the Preferred Alternative. This evaluation would include subsurface exploration, laboratory testing, and field inspection/verification by the Project geotechnical engineer, and would be intended to further evaluate surface and subsurface geotechnical conditions and provide detailed information regarding the engineering characteristics of earth materials present within the study area. From these data, specific recommendations would be generated for applicable geotechnical issues to ensure conformance with associated regulatory and design requirements. The following types of standard design and construction measures may be considered in the noted geotechnical evaluation, along with additional or revised recommendations identified during detailed investigations. Implementation of these or other appropriate measures, in conformance with applicable regulatory requirements, would avoid, minimize or mitigate any potential impacts related to geologic, soil, seismic, or topographic conditions.

- Potential impacts related to seismically-induced ground rupture or related effects (if applicable) may be addressed through measures such as: (1) conformance with applicable seismic design criteria from sources including the IBC; (2) implementation of design efforts for ground rupture hazards (e.g., inclusion of buffer zones or set-backs from on-site faults) if determined appropriate during detailed geotechnical investigation; and (3) use of properly engineered fill and reinforced concrete and masonry.
- Potential impacts related to seismic ground acceleration may be addressed through measures such as the use of: (1) applicable seismic design criteria from sources including the IBC; (2) proper fill composition, moisture content, placement, and compaction parameters; (3) appropriate foundation and pavement design; (4) reinforced concrete and masonry; and (5) appropriate structure and utility design.
- Potential liquefaction and seismically-induced settlement effects may be addressed through efforts such as: (1) conformance with applicable seismic design criteria from sources including the IBC; (2) removal and recompaction or replacement of materials susceptible to liquefaction and/or seismic settlement with properly engineered fill; (3)

in-place soil and/or structural modifications such as compaction grouting, soil mixing, dynamic compaction, or driving piles below liquefiable layers; and (4) use of positive surface drainage and/or subdrains in appropriate areas to avoid saturation of surficial deposits.

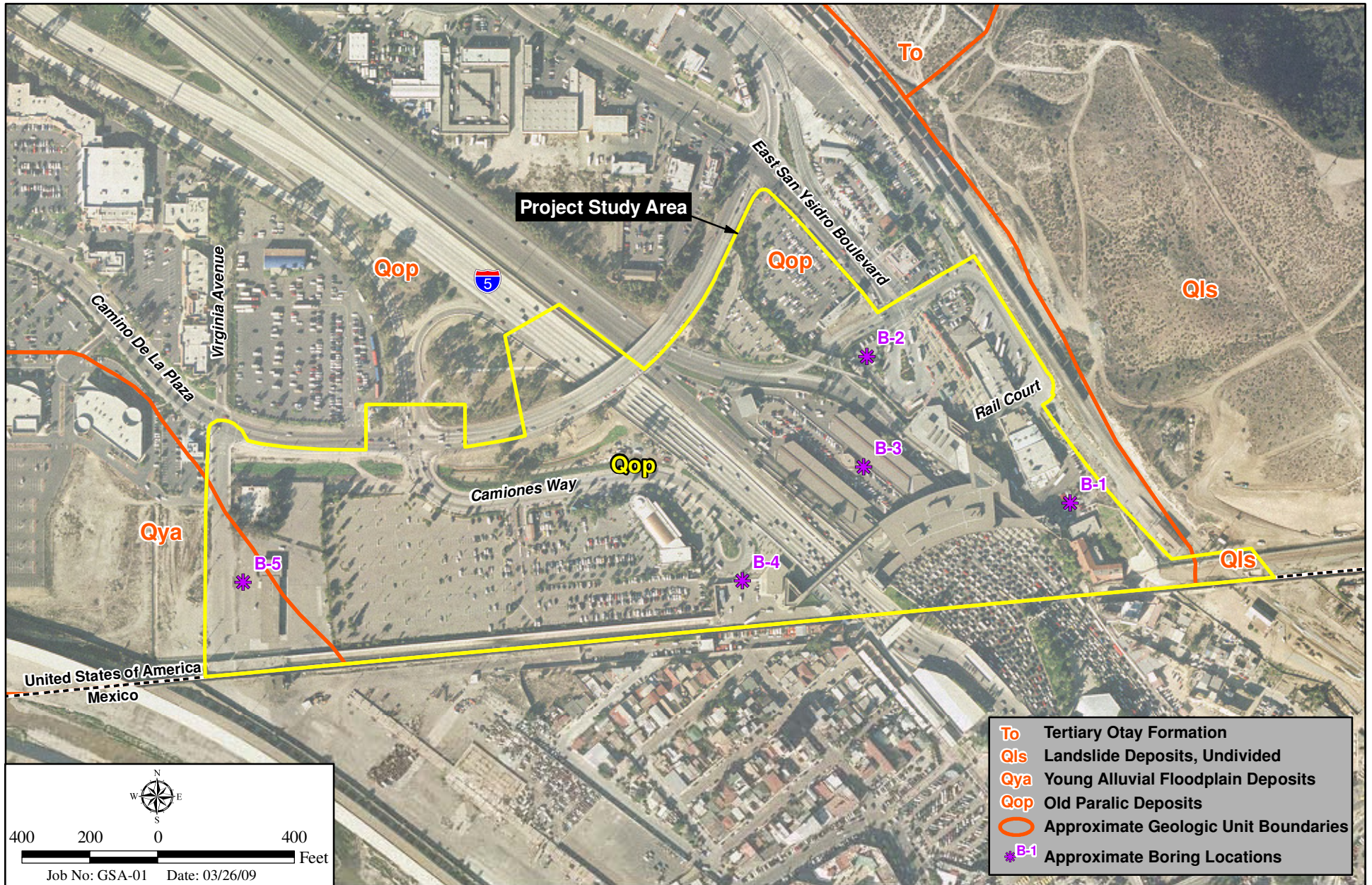
- Potential impacts related to landslide/slope stability hazards originating in off-site areas (if applicable) may be addressed through efforts such as selective facility locations (i.e., to avoid hazard-prone areas), and/or the use of protective barriers (e.g., perimeter walls or fences).
- Expansive or compressive characteristics in surficial materials (if present) may be addressed through efforts such as: (1) removal and recompaction or replacement of unsuitable soils with properly engineered fill; (2) selective placement and/or capping of expansive soils; (3) use of subdrains and moisture conditioning in areas of expansive soils; (4) soil mixing and use of specially designed foundations or slabs in areas of expansive deposits; (5) use of in-place soil modifications in areas of compressible soils (as described above for liquefaction/seismic settlement); (6) surcharging of compressible materials left in place to accelerate consolidation rates; and (7) settlement monitoring in areas of compressible soils.
- Potential impacts related to oversize materials may be addressed through efforts such as off-site removal/disposal, selective burial in deeper fills, or crushing.

Pedestrian Crossing Alternative

Avoidance, minimization, and mitigation recommendations related to geology, soils, seismicity, and topography issues for the Pedestrian Crossing Alternative would be the same as those described above for the Preferred Alternative. The use of such measures and considerations would avoid or effectively address all potential impacts related to geology, soils, seismicity and topography.

No Build Alternative

Because no impacts were identified for the No Build Alternative, no associated avoidance, minimization, or mitigation measures are required.

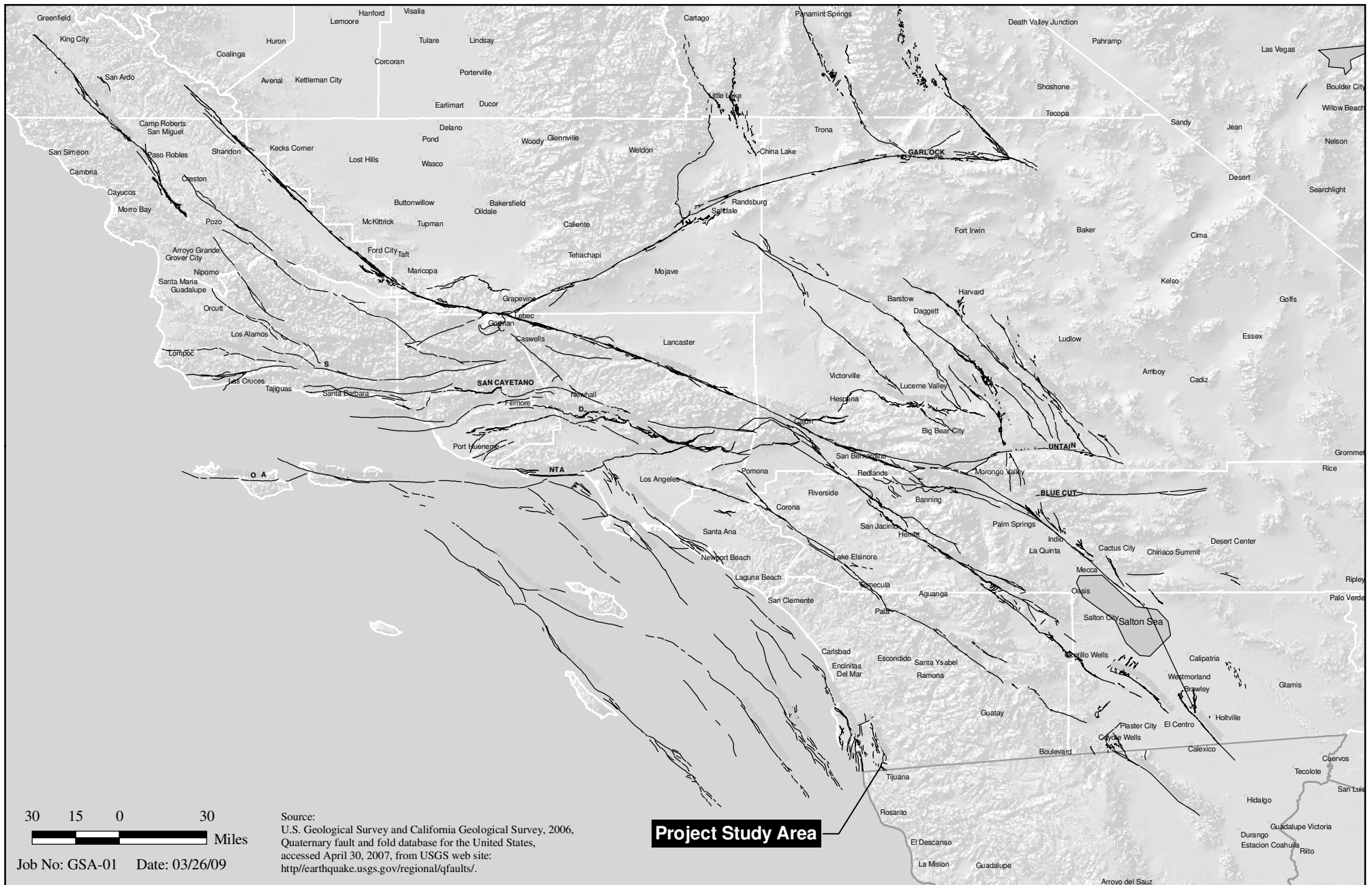


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Generalized Geologic Map

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.9-1



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Regional Fault Map

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.9-2

3.10 PALEONTOLOGY

3.10.1 Regulatory Setting

Paleontology is the study of life in past geologic time based on fossil plants and animals. The principal federal statute that addresses paleontological resources, their treatment, and funding for mitigation as a part of federally authorized or funded projects, is the Federal Antiquities Act of 1906 (16 USC 431-433). The Antiquities Act provides general protection for historic and prehistoric cultural and natural resources (collectively referred to as objects of antiquity), and specifically precludes unauthorized appropriation, excavation, injury, or destruction of such resources on lands owned or controlled by the U.S. Government.

3.10.2 Affected Environment

The study area for paleontological issues includes the Project Study Area as shown on Figure 1-2. As described in Chapter 3.9 of this EIS (Geology/Soils/Seismic/Topography), geologic formations underlying the Project Study Area include the Tertiary-age Otay Formation, Quaternary-age Old Paralic Deposits (Bay Point Formation), Young Alluvial Floodplain Deposits, and Landslide Deposits. Based on information provided in local assessments of paleontological resource potential, the Otay Formation and Old Paralic Deposits are assigned a high potential sensitivity rating for paleontological resources, while the Young Alluvial Floodplain and Landslide Deposits are both assigned a low sensitivity rating (City of San Diego 2007, Demere and Walsh 1993). A high sensitivity rating is generally defined to include geologic formations known to contain paleontological resources with rare, well-preserved, critical fossil materials for stratigraphic or paleoenvironmental interpretation; or fossils providing important information about the paleoclimatic, paleobiological, and/or evolutionary history of animal or plant groups. A low sensitivity rating is assigned to geologic formations that, based on their relatively young age and/or high-energy depositional history, are judged unlikely to produce scientifically significant or unique fossil remains (County of San Diego 2007). The high sensitivity ratings for the Otay Formation and Old Paralic Deposits (Bay Point Formation) are based on the previous recovery of important fossil resources from these units, including terrestrial vertebrates from the Otay Formation (e.g., various mammals, reptiles and birds), and marine vertebrate (sharks rays and bony fishes) and invertebrate (mollusks) fossils from the Old Paralic Deposits (Demere and Walsh 1993).

Surficial materials that occur (or potentially occur) within the Project Study Area include fill deposits, topsoils and alluvium. Paleontological resource potential and sensitivity for alluvium is considered low as noted above, while artificial fill and topsoil deposits exhibit zero potential for the occurrence of sensitive paleontological resources due to their recent age and destructive mode of formation and deposition relative to paleontological resources.

3.10.3 Environmental Consequences

Preferred Alternative

Grading and excavation activities associated with the Preferred Alternative could potentially affect previously undisturbed portions of the high sensitivity Otay Formation and Old Paralic Deposits. Such activities could result in the destruction of unique or significant paleontological resources due to the described sensitivity level of the associated geologic units. No impacts would be associated with potential disturbance of fill, topsoils, or alluvial deposits due to their described low level (or lack) of paleontological resource potential.

Pedestrian Crossing Alternative

As described in Chapter 2.0, the Pedestrian Crossing Alternative would occur within the same Project Study Area as the Preferred Alternative, but would entail a different cross-border pedestrian circulation scheme. Therefore, the study area for paleontological issues under the Pedestrian Crossing Alternative would be the same as the Preferred Alternative. Like the Preferred Alternative, this alternative could potentially affect previously undisturbed portions of the high sensitivity Otay Formation and Old Paralic Deposits, potentially resulting in the destruction of unique or significant paleontological resources. No impacts would be associated with potential disturbance of fill, topsoils, or alluvial deposits due to their described low level (or lack) of paleontological resource potential.

No Build Alternative

Under the No Build Alternative, the development activities described for the Preferred Alternative would not occur, and no impacts related to paleontological resources would result.

3.10.4 Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

Avoidance, minimization, and mitigation recommendations related to paleontology for the Preferred Alternative would involve preparing and implementing a Paleontological Monitoring Plan to be approved by the Project applicant. The Paleontological Monitoring Plan would likely include the following types of measures in accordance with standard construction practices in southern California, with detailed requirements to be determined during the plan preparation and approval process:

- A Qualified Paleontologist should be present at pre-grading meetings to consult with grading/excavation contractors regarding the potential location and nature of paleontological resources and associated monitoring/recovery operations. A Qualified Paleontologist is defined as an individual with an M.S. or Ph.D. in paleontology or a related field, and who has knowledge of local paleontological resources and documented experience in field identification and collection of fossil materials.
- A Qualified Paleontologist or Paleontological Monitor (working under the direction of the Qualified Paleontologist), should be on site to monitor for paleontological resources during all original grading/excavation activities involving previously undisturbed areas of the Otay Formation and/or Old Paralic Deposits. A Paleontological Monitor is defined as an individual with at least one year of experience in field identification and collection of fossil materials.
- If paleontological resources are discovered, the Qualified Paleontologist (or Paleontological Monitor) should implement appropriate salvage operations, potentially including simple excavation, plaster-jacketing of large and/or fragile specimens, or quarry excavations for richly fossiliferous deposits. The Qualified Paleontologist and Paleontological Resources Monitor should be authorized to halt or divert construction work in salvage areas to allow for the timely recovery of fossil remains.
- Paleontological resources collected during the monitoring and salvage portion of the mitigation program should be cleaned, repaired, sorted, and cataloged pursuant to accepted industry methods.

- Prepared fossils, along with copies of all pertinent field notes, photos and maps, should be deposited in an approved scientific institution with paleontological collections.
- A final report should be prepared by the Qualified Paleontologist to describe the results of the mitigation program, including field and laboratory methods, stratigraphic units encountered, and the nature and significance of recovered paleontological resources.

Pedestrian Crossing Alternative

As in the case of the Preferred Alternative, avoidance, minimization, and mitigation recommendations related to paleontology for the Pedestrian Crossing Alternative would involve preparing and implementing a Paleontological Monitoring Plan, as described above.

No Build Alternative

Because no impacts were identified for the No Build Alternative, no associated avoidance, minimization, or mitigation measures are required.

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3.11 HAZARDOUS WASTE/MATERIALS

3.11.1 Regulatory Setting

The primary federal laws regulating hazardous waste/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous waste. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, EO 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous materials is vital if such materials are encountered during project construction.

3.11.2 Affected Environment

The *Initial Site Assessment [ISA] – San Ysidro Border Station Expansion/Reconfiguration – San Diego, California* (September 11, 2008) evaluated potential hazardous waste/materials concerns within the Project vicinity. The ISA was prepared in accordance with the Caltrans ISA Guidance Document, the USEPA’s Standards and Practice for All Appropriate Inquiries (40 CFR, Part 312), and the ASTM Standard Practice for Environmental Site Assessments (Designation E1527-05) and consists of the following:

- Review of topographic and geologic maps and environmental reports
- Review of historical photographs, maps, plans, and directories
- Site reconnaissance
- Review of regulatory agency databases/files

The results of the ISA are summarized in this subchapter.

Study Area History

Historic land uses within the vicinity of the Project Study Area were identified through review of available historical aerial photographs on file with the County of San Diego Department of Public Works, GSA historical blueprints, and City of San Diego directories. The earliest available map dated back to 1928 and showed commercial development along a north-south trending road in the vicinity of what is presently I-5. The existing railroad corridor to the east was also present at that time. The Old Customs House was constructed between 1928 and 1949. By 1966, a border crossing with multiple lanes of traffic was developed, and the commercial buildings on the west side of the road were replaced with parking lots. By 1973, the crossing had developed generally into its current configuration, along with I-5, Camiones Way, and Camino de la Plaza.

Retail and commercial buildings, a former taxi maintenance facility that has since been removed (Red Cab Company facility), and the Greyhound building on the eastern portion of the Project Study Area were constructed between 1953 and 1966. Between 1928 and 1973, the western portion of the Project Study Area was used for agriculture and livestock before parking lots and the former commercial cargo vehicle inspection station were constructed. A gas station was located in the northeastern portion of the Project Study Area between 1962 and 1972, but has since been redeveloped with a commercial retail building (occupied by McDonalds and other retail stores) adjacent to the San Ysidro Intermodal Transportation Center.

Site Reconnaissance

Several site visits were conducted between April and June 2008 to access and observe portions of the Project Study Area that were considered likely to contain potential environmental concerns. Pertinent site observations summarized from the Project ISA are presented below in Table 3.11-1.

Location	Observations
East Mechanical Room (east side) on eastern portion of LPOE	5,000-gallon above ground storage tank (AST). No evidence of releases or staining was observed.
East Mechanical Room (roof) on eastern portion of LPOE	75 gallons of cooling tower chemicals (e.g., bleach, bromide solution). No staining was observed.
Old Customs House (paint storage room)	5-gallon containers of gasoline and diesel fuel. No evidence of releases was observed.
Old Customs House (northwest side)	Biohazardous waste storage in a portable shed and an incinerator. No evidence of releases was observed.
Location of former Red Cab facility	Staining was observed on asphalt and concrete pavement.
Vehicle Breakdown Area at LPOE	Storage of petroleum products (e.g., gasoline, diesel); hydraulic lift with above ground reservoir. No significant staining observed on concrete.
Duty-Free Shopping Plaza (south side of ancillary buildings)	Emergency generator with approximately 100 gallons of diesel fuel. No evidence of releases was observed.
Near former CBP Building on western portion of LPOE	Propane AST. Not considered a potential environmental concern.
Parking Lot on eastern portion of LPOE	Propane AST. Not considered a potential environmental concern.

Source: ISA, September 2008.

In addition to these facilities, several transformers and utility vaults are located within the Project Study Area. Some of these transformers may contain polychlorinated biphenyls (PCBs) in dielectric fluids, which constitutes a hazardous material. Three existing elevators at the LPOE (one in the Old Customs House, one in the Pedestrian Building, and one in the East Head House) also may contain PCBs in hydraulic fluids.

Surficial staining typical of leaking vehicle undercarriages was observed on asphalt and concrete pavement in areas throughout the Project Study Area. Additionally, retail quantities of paints and/or cleaning or maintenance products and scattered debris were observed in several locations within the Project Study Area.

Regulatory Agency File Review

Regulatory agency databases were reviewed to identify facilities of potential environmental concern located on or in the vicinity of the Project Study Area. Listed facilities are summarized below and their locations relative to the Project Study Area are illustrated in Figure 3.11-1.

San Ysidro LPOE

According to the County of San Diego Department of Environmental Health (DEH) records, a 10,000-gallon, single-walled diesel underground storage tank (UST) near the East Mechanical Room was removed in May 1996. The DEH UST closure report indicates that tank closure was complete and no further action was required. The UST was replaced with a 1,500-gallon AST containing amber fuel. The LPOE is currently permitted for disposal of universal waste and storage/use of diesel and paint. No violations related to unauthorized releases of hazardous materials or waste have been recorded.

Former Red Cab Facility

The site of the former Red Cab facility is located in the eastern portion of the Project Study Area, north of the Old Customs House. According to DEH files, the Red Cab Taxi Company leased this property from the Metropolitan Transit District as a maintenance and filling station from 1940 until 1994. It previously contained a single-story building, a 6,000-gallon gasoline UST with dispenser, and a waste oil storage area. An unauthorized release case is currently open in association with potential soil and groundwater contamination from the former UST and waste oil storage.

San Diego Police Southern Facility

This listed facility is located approximately 0.11 mile northwest of the Project Study Area at 663 East San Ysidro Boulevard. Records indicated that two unauthorized release cases were associated with this facility due to failed UST integrity tests. Two USTs were removed from this facility in November 1993. Soil samples collected from the tank excavation did not contain detectable concentrations of total petroleum hydrocarbons (TPH). In December 1993, the DEH indicated that no further action was required with respect to the tank closure. According to the 2008 DEH site assessment and mitigation (SAM) Case Listing, the two unauthorized release cases associated with failed tank integrity tests have been closed.

Goodwill Industries

This listed facility is located approximately 0.2 mile north of the Project Study Area at 626-630 Front Street. According to records (leaking underground storage tank (LUST) database and DEH SAM Case Listing), this facility has had one reported case due to potential soil contamination; however, the case is closed.

Las Americas Development

The Las Americas development is located approximately 0.15 mile northwest of the Project Study Area at 4211 Camino de la Plaza, and currently consists of the regional outlet shopping center. According to the 2008 DEH SAM Case Listing, this facility has one open case associated with a former waste oil UST.

San Diego and Imperial Valley Railroad

The San Diego and Imperial Valley (SDIV) Railroad facility is located approximately 0.42 mile northwest of the Project Study Area along the railroad corridor. A UST was removed from this facility in 1998, and soil samples indicated an unauthorized release of petroleum compounds. According to the case closure summary, less than 50 cubic yards of petroleum-impacted soil remains at this property, and no evidence of impacted groundwater was noted.

Coral Gates and Soil Disposal

This listed facility is located approximately 0.5 mile northwest of the Project Study Area near Camino de la Plaza and Sipes Lane. This facility has had one unauthorized release LUST case, which resulted in the presence of pesticides in soil and volatile organic compounds (VOCs) in groundwater. The case regarding impacts to groundwater from VOCs is considered to be closed.

Nelson and Sloan/Cays

This facility consists of an approximately 58-acre site west of the Project Study Area at the current location of the Las Americas shopping center. Based on the site's listing in the California Integrated Waste Management Board (CIWMB) Solid Waste Landfill-Related Sites database, this property was previously utilized as a solid waste disposal site. Solid waste issues associated with this facility included a sand borrow pit that was backfilled with undocumented fill material, burn ash from another location that was stockpiled in berms, and sandblast material that was placed on the ground. Soil samples collected from the burn ash berms indicated low levels of metals, but below regulatory thresholds. In 2001, the CIWMB issued a letter that the property had been clean-closed¹ and is not considered a solid waste disposal site.

According to the DEH LUST case closure summary, soil and groundwater sampling indicated low levels of VOCs (chlorinated solvents) in groundwater and no VOCs in soil vapor samples. The DEH issued closure in June 2001 prior to the site being developed with the Las Americas shopping center.

¹ Clean closure of a solid waste disposal site refers to the complete removal of all waste and waste residuals, including contaminated soils.

Aerially-Deposited Lead

Due to the Project location's proximity to the I-5 and I-805 freeways, soil within the Project Study Area may contain aerially-deposited lead (ADL) as a result of emissions from vehicular exhaust prior to the elimination of lead from fuels in the mid-1980s.

Hazardous Building Materials

Based on the construction dates of existing facilities and infrastructure, there is potential that asbestos-containing materials (ACMs) may be present in building materials in the Project Study Area. Lead-containing surfaces (LCSs) also may be present on building material surfaces of structures, and on other surfaces within the Project Study Area, such as roadway striping, metal guard rails, and piping.

3.11.3 Environmental Consequences

Preferred Alternative

Listed Facilities of Potential Environmental Concern

The regulatory agency reports were reviewed to evaluate whether the listed properties posed a potential environmental concern to the Project Study Area, based on their distance from the Project Study Area, the assumed direction of groundwater flow, the type of database on which they are listed, the nature of facility or waste generated, and/or their case status. Locations of the listed facilities are shown in Figure 3.11-1.

San Ysidro LPOE

While LPOE operations involve routine use, storage, and disposal of permitted hazardous substances (i.e., diesel, paint, and universal waste), no violations related to unauthorized releases of hazardous materials or waste have occurred. Therefore, no associated hazardous waste/materials impacts would occur.

Former Red Cab Facility

The former Red Cab facility is associated with an open unauthorized release case with DEH. Contaminated soil and/or groundwater potentially could be encountered during excavation activities associated with the Preferred Alternative.

San Diego Police Southern Facility

Given the distance of this facility from the Project Study Area (approximately 0.11 mile) and the closed status of the LUST cases, no hazardous waste/materials impacts would occur.

Goodwill Industries

Based on the distance of this listed facility from the Project Study Area (approximately 0.2 mile) and the closed case status, no hazardous waste/materials impacts would occur.

Las Americas Development

As discussed above, this facility has an open case associated with a former waste oil UST. A corrective action plan that was prepared in January 2008 indicates that the direction of groundwater flow is northwesterly, which is away from the Project Study Area. Based on the direction of groundwater flow and distance from the Project Study Area (approximately 0.15 mile), no hazardous waste/materials impacts would occur.

San Diego and Imperial Valley Railroad

Based on the distance of this listed facility from the Project Study Area (approximately 0.42 mile) and the closed case status, no hazardous waste/materials impacts would occur.

Coral Gates and Soil Disposal

Given the distance of this facility from the Project Study Area (approximately 0.5 mile) and the closed case status, no hazardous waste/materials impacts would occur.

Nelson and Sloan/Cays

No hazardous waste/materials impacts would occur upon implementation of the Preferred Alternative because the listed Nelson and Sloan/Cays facility has a closed case status, and was clean-closed as a solid waste disposal site prior to its redevelopment with the Las Americas shopping center.

Former Land Uses

Former land uses and facilities within the Project Study Area include boilers, fuel storage areas, a gas station, and agricultural uses. Potential environmental concerns associated with these former uses are briefly described below.

Historical blueprint records indicate a boiler room and “fuel room” were previously located within the Old Customs House, and a gas station was previously located in the northeastern portion of the Project Study Area, in the approximate location of the retail plaza at the San Ysidro Intermodal Transportation Center. Storage and use of fuels at these locations within the Project Study Area creates a potential environmental concern associated with unauthorized releases of fuels.

The western portion of the Project Study Area (at the location of the surface parking lots east of Virginia Avenue) was previously used for agricultural purposes, consisting of dry farming and livestock/equestrian operations. Given these prior agricultural uses, it is possible that pesticides, herbicides, and/or fertilizers were applied to soils and/or stored in this area. Storage and application of such substances causes a potential environmental concern associated with on-site soils.

Current Land Uses

Operations at the San Ysidro LPOE involve processing high volumes of vehicles, which generate urban contaminants, including fuels, oils, metals, grease, and other fluids. Specifically, the LPOE processes approximately 50,000 northbound vehicles per day (SANDAG

2007). Given the large number of vehicles traveling through, or parked at, the LPOE, there is the potential that contaminants from vehicular sources have leached into underlying soils. As a result, contaminated soils could be encountered during excavation activities associated with the Preferred Alternative.

Aerially-Deposited Lead

As discussed above, exposed soil within the Project Study Area has the potential to contain ADL. Consequently, excavation activities during construction of the Preferred Alternative could encounter ADL.

Hazardous Building Materials

Records reviewed indicate that asbestos is present in the Old Customs House, and ACMs, LCS, and other hazardous building materials at the former commercial cargo inspection facility in the western portion of the Project Study Area. ACMs also may be present in existing bridge joints and piping material. In addition, LCSs may be present on surfaces of existing facilities within the Project Study Area, such as roadway striping, metal guard rails, piping, and bridge components. Implementation of the Preferred Alternative would remove some of these facilities, which could release associated hazardous materials.

Polychlorinated biphenyls

Pad-mounted and pole-mounted transformers and utility vaults are located in various areas in the Project Study Area. Some of these transformers may contain PCB dielectric fluids. Additionally, existing elevators at the LPOE may contain PCB hydraulic fluids. Implementation of the Preferred Alternative would demolish the elevators in the Pedestrian Building, East Head House, and ultimately the Old Customs House, and some existing transformers may be removed or relocated. Therefore, there is potential to encounter PCBs during construction of the Preferred Alternative.

Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative. Therefore, the study area for hazardous waste/materials under the Pedestrian Crossing Alternative would be the same as the Preferred Alternative, and construction, operation, and maintenance activities would be similar. The analysis presented above for the Preferred Alternative would apply equally to the Pedestrian Crossing Alternative, and potential impacts with respect to hazardous waste/materials would be the same. Specifically, the Pedestrian Crossing Alternative would result in potential adverse impacts due to possible soil and/or groundwater contamination at listed facilities of potential environmental concern, and former and current uses within the Project Study Area and LPOE. Additionally, potential adverse impacts could occur associated with ADL, hazardous building materials, and PCBs.

No Build Alternative

The No Build Alternative would not result in grading or excavation of soils or the removal of buildings within the Project Study Area, thus there would be no potential to encounter hazardous materials.

3.11.4 Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

The following avoidance, minimization, and mitigation measures would effectively avoid or address potential impacts related to hazardous waste/materials from the Preferred Alternative:

- Soil sampling should be conducted in areas within the Project Study Area proposed to be disturbed and/or excavated prior to soil export, reuse, or disposal to characterize the soil for the presence of hazardous materials (e.g., metals, petroleum hydrocarbons, VOCs, pesticides, etc.). If contaminated soil is present, appropriate abatement actions should be implemented in accordance with applicable regulatory requirements.
- Health risk assessments should be conducted for facilities within the LPOE in which contamination has been documented (e.g., former Red Cab facility) to evaluate whether the levels of contaminants would pose a risk to human health.
- Prior to commencement of excavation activities, a Site and Community Health and Safety Plan should be prepared to manage potential health and safety hazards to workers and the public.
- Prior to commencement of excavation activities, a Soil Management Plan should be prepared to address the notification, monitoring, sampling, testing, handling, storage, and disposal of contaminated media or substances that may be encountered during construction activities.
- Prior to commencement of excavation activities, a Groundwater Management Plan should be prepared to address the notification, monitoring, sampling, testing, handling, storage, and disposal of potentially contaminated groundwater.
- Existing transformers and elevator equipment within the Project Study Area should be sampled for PCB content if proposed to be disturbed and/or moved during construction activities. If PCBs are present, appropriate abatement actions for their disposal should be implemented in accordance with regulatory requirements, and soil beneath transformers and/or elevators should be evaluated for evidence of releases. If present in underlying soils, appropriate abatement actions for removal and disposal should be implemented in accordance with applicable regulatory requirements.
- Wastes and potentially hazardous waste on the Project site, including trash, debris piles, and equipment should be removed and disposed of off site in accordance with applicable regulatory requirements.
- Prior to renovation or demolition of existing structures, surveys should be conducted to evaluate the presence, locations, and quantities of hazardous building materials (ACMs and LCSs). Suspect materials should be sampled and analyzed, and if present, appropriate abatement actions should be implemented in accordance with applicable regulatory requirements.
- Contract specifications should include references to the potential to encounter contaminated soil, groundwater, or other regulated wastes during construction activities.

Pedestrian Crossing Alternative

Avoidance, minimization, and mitigation recommendations related to hazardous waste/materials issues for the Pedestrian Crossing Alternative would be the same as those described above for the Preferred Alternative. The use of such measures and considerations would avoid or effectively address all potential impacts related to hazardous waste/materials.

No Build Alternative

Because the No Build Alternative would not result in impacts, no avoidance, minimization, or mitigation measures would be required.

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Listed Facilities of Potential Environmental Concern

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.11-1

3.12 AIR QUALITY

3.12.1 Regulatory Setting

The Clean Air Act (CAA) as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS); at the state level, they are called California Ambient Air Quality Standards (CAAQS). Standards have been established for six criteria pollutants that have been linked to potential health concerns; the criteria pollutants are: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM), lead (Pb), and sulfur dioxide (SO₂).

Under the 1990 CAA Amendments, federal actions must be found to conform to the State Implementation Plan (SIP) for achieving the goals of the CAA requirements. Conformity with the CAA takes place on two levels—first, at the regional level and second, at the project level. A project must conform at both levels to be approved.

Regional level conformity in California is concerned with how well the region is meeting the standards set for CO, NO₂, O₃, and PM. California is in attainment for the other criteria pollutants. At the regional level, RTPs are developed that include all of the transportation projects planned for a region over a period of years (usually at least 20 years). Based on the projects included in the RTP, an air quality model is run to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the CAA are met. If the conformity analysis is successful, the regional planning organization, such as SANDAG for San Diego County, and the appropriate federal agencies make the determination that the RTP is in conformity with the SIP for achieving the goals of the CAA. Otherwise, the projects in the RTP must be modified until conformity is attained. If the design and scope of a proposed project are the same as described in the RTP, then it is deemed to meet regional conformity requirements for purposes of project-level analysis.

Conformity at the project-level also requires “hot spot” analysis if an area is “nonattainment” or “maintenance” for CO and/or particulate matter. A region is a “nonattainment” area if one or more monitoring stations in the region fail to attain the relevant standard. Areas that were previously designated as nonattainment areas but have recently met the standard are called “maintenance” areas. “Hot spot” analysis is essentially the same, for technical purposes, as CO or particulate matter analysis performed for NEPA purposes. Conformity does include some specific standards for projects that require a hot spot analysis. In general, projects must not cause the CO standard to be violated, and in “nonattainment” areas a project must not cause any increase in the number and severity of violations. If a known CO or particulate matter violation is located in the project vicinity, the project must include measures to reduce or eliminate the existing violation(s) as well.

The CAAQS and NAAQS for each of the regulated pollutants are shown below in Table 3.12-1.

Table 3.12-1 AMBIENT AIR QUALITY STANDARDS						
Pollutant	Average Time	California Standards		National Standards		
		Concentration	Measurement Method	Primary	Secondary	Measurement Method
Ozone (O ₃)	1 hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	--	--	Ultraviolet Photometry
	8 hour	0.070 ppm (137 µg/m ³)		0.075 ppm (147 µg/m ³)	0.075 ppm (147 µg/m ³)	
Carbon Monoxide (CO)	8 hours	9.0 ppm (10 mg/m ³)	Non-Dispersive Infrared Spectroscopy (NDIR)	9 ppm (10 mg/m ³)	None	Non-Dispersive Infrared Spectroscopy (NDIR)
	1 hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)		
Nitrogen Dioxide (NO ₂)	Annual Average	0.030 ppm (56 µg/m ³)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m ³)	0.053 ppm (100 µg/m ³)	Gas Phase Chemiluminescence
	1 hour	0.18 ppm (338 µg/m ³)		--	--	
Sulfur Dioxide (SO ₂)	Annual Average	--	Ultraviolet Fluorescence	0.030 ppm (80 µg/m ³)	--	Pararosaniline
	24 hours	0.04 ppm (105 µg/m ³)		0.14 ppm (365 µg/m ³)	--	
	3 hours	--		--	0.5 ppm (1300 µg/m ³)	
	1 hour	0.25 ppm (655 µg/m ³)		--	--	
Respirable Particulate Matter (PM ₁₀)	24 hours	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	150 µg/m ³	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		--	--	
Fine Particulate Matter (PM _{2.5})	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	15 µg/m ³	15 µg/m ³	Inertial Separation and Gravimetric Analysis
	24 hours	--		35 µg/m ³	35 µg/m ³	
Sulfates	24 hours	25 µg/m ³	Ion Chromatography	--	--	--
Lead (Pb)	30-day Average	1.5 µg/m ³	Atomic Absorption	--	--	Atomic Absorption
	Calendar Quarter	--		1.5 µg/m ³	1.5 µg/m ³	
Hydrogen Sulfide (H ₂ S)	1 hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence	--	--	--
Vinyl Chloride	24 hours	0.010 ppm (26 µg/m ³)	Gas Chromatography	--	--	--

ppm= parts per million

µg/m³ = micrograms per cubic meter

mg/m³ = milligrams per cubic meter

Source: Air Quality Impact Assessment for the San Ysidro Land Port of Entry Improvements Project, April 2009.

3.12.2 Affected Environment

An air quality analysis was prepared for the Project (*Air Quality Impact Assessment for the San Ysidro Land Port of Entry Improvements Project*, April 2009) to evaluate the potential for air emissions associated with construction and long-term operation of the Project. The air quality report is summarized in this subchapter.

Climate and Meteorology

The climate of the Project Study Area, and all of San Diego, is dominated by a semi-permanent high pressure cell over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The high pressure cell also creates two types of temperature inversions that may act to degrade local air quality: subsidence and radiation inversions.

Subsidence inversions occur during the warmer months as descending air associated with the Pacific high-pressure cell comes into contact with cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses can also trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce ozone, commonly known as smog.

Background Air Quality

The San Diego APCD operates a network of ambient air monitoring stations throughout San Diego County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the NAAQS and the CAAQS. The nearest ambient monitoring station to the Project is the Chula Vista station, which is located approximately seven miles north of the Project Study Area. Table 3.12-2 provides a summary of the attainment status for each criteria pollutant within the San Diego Air Basin (SDAB) and the number of air quality violations at the monitoring stations nearest to the Project site for the period from 2005 through 2007. As shown in the table, the SDAB is a nonattainment area for O₃ and a maintenance area for CO under the NAAQS. Ambient concentrations of pollutants from the Chula Vista station within the same time period (2005 to 2007) are presented in Table 3.12-3.

Sensitive Receptors

Sensitive receptors are typically defined as schools (Preschool-12th Grade), hospitals, resident care facilities, or day-care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. The following sensitive receptors are located within one mile of the Project Study Area:

- San Ysidro Head Start, 249 Willow Road
- Willow Elementary School, 226 Willow Road
- Beyer Elementary School, 2312 East Beyer Boulevard
- Our Lady of Mt. Carmel School, 4141 Beyer Boulevard
- Sunset Elementary School, 3825 Sunset Lane
- La Mirada Elementary School, 222 Avenida de la Madrid
- Smythe Avenue Elementary School, 1880 Smythe Avenue

**Table 3.12-2
ATTAINMENT CLASSIFICATION AND NUMBER OF AIR QUALITY VIOLATIONS AT THE
NEAREST MONITORING STATION**

Pollutant	Averaging Time	Attainment Status		Number of Air Quality Violations		
		Federal	State	2005	2006	2007
O ₃	8 hour	Nonattainment	Nonattainment	1 (N) 3 (C)	0 (N) 0 (C)	1 (N) 3 (C)
	1 hour	N/A	Nonattainment	0 (C)	0 (C)	2 (C)
PM ₁₀	Annual Arithmetic Mean	Attainment	Nonattainment	(C)	(C)	(C)
	24 hour	Attainment	Nonattainment	0 (N) 2 (C)	0 (N) 2 (C)	0 (N) 2 (C)
PM _{2.5}	Annual Arithmetic Mean	Attainment	Nonattainment	(C)	(C)	(C)
	24 hour	Attainment	Nonattainment	0 (N)	0 (N)	3 (N)
NO ₂	Annual	Attainment	Attainment	0	0	0
	1 hour	Attainment	Attainment	0	0	0
CO	8 hour	Maintenance	Attainment	0	0	0
	1 hour	Maintenance	Attainment	0	0	0
SO ₂	Annual	Attainment	Attainment	0	0	0
	24 hour	Attainment	Attainment	0	0	0
	3 hour	Attainment	Attainment	0	0	0
	1 hour	Attainment	Attainment	0	0	0

(N) = NAAQS; (C) = CAAQS

Source: Air Quality Impact Assessment for the San Ysidro Land Port of Entry Improvements Project, April 2009.

**Table 3.12-3
AMBIENT BACKGROUND CONCENTRATIONS
ppm (unless otherwise indicated)**

Pollutant	Averaging Time	2005	2006	2007	Most Stringent Ambient Air Quality Standard	Monitoring Station
O ₃	8 hour	0.081	0.069	0.087	0.070	Chula Vista
	1 hour	0.093	0.084	0.105	0.09	Chula Vista
PM ₁₀	Annual	27.0	26.3	26.2	20 µg/m ³	Chula Vista
	24 hour	53	51	58	50 µg/m ³	Chula Vista
PM _{2.5}	Annual	11.8	11.2	12.6	12 µg/m ³	Chula Vista
	24 hour	34.3	30.2	77.8	35 µg/m ³	Chula Vista
NO ₂	Annual	0.016	0.017	0.015	0.030	Chula Vista
	1 hour	0.071	0.074	0.082	0.18	Chula Vista
CO	8 hour	2.13	2.20	2.24	9.0	Chula Vista
	1 hour	2.8	2.7	3.1	20	Chula Vista
SO ₂	Annual	0.003	0.003	0.003	80	Chula Vista
	24 hour	0.005	0.006	0.004	105	Chula Vista
	3 hour	0.009	0.013	0.007	1300	Chula Vista
	1 hour	0.016	0.017	0.012	655	Chula Vista

Source: Air Quality Impact Assessment for the San Ysidro Land Port of Entry Improvements Project, April 2009.

3.12.3 Environmental Consequences

This section presents the results of an assessment of potential air quality impacts associated with the Project alternatives. The evaluation is based on analysis and calculations in the referenced air quality report and addresses the potential for emissions associated with the short-term construction and long-term operation of the Project.

Preferred Alternative

Construction Impacts

The Preferred Alternative would be constructed in three phases over a period of approximately four years, with some overlap of phases occurring. Refer to Chapter 2.0 of this Draft EIS for details on proposed improvements during each phase. Phase 1 is estimated to begin in winter 2009/2010 with 18 to 24-month duration. Phase 2 is estimated to begin in 2011 and take 24 to 30 months. Phase 3 is estimated to begin as early as 2011, or as late as 2013, depending on the schedule provided by Mexico for their construction of the El Chaparral facility, and would last approximately 20 to 24 months. Emissions from the three construction phases would overlap as their construction phases overlap.

During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and various other activities. Emissions from construction equipment also are anticipated and would include CO, nitrogen oxides (NO_x), VOCs, directly-emitted particulate matter (PM₁₀ and PM_{2.5}), and toxic air contaminants such as diesel exhaust particulate matter. O₃ is a pollutant that is derived from NO_x and VOCs in the presence of sunlight and heat.

Construction-related effects on air quality would be greatest during site preparation because most engine emissions are associated with the excavation, handling, and transport of soils to and from the construction site(s). If not properly controlled, these activities would temporarily generate PM₁₀, PM_{2.5}, and small amounts of CO, SO₂, NO_x, and VOCs. Sources of fugitive dust would include disturbed soils at the construction site(s) and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM₁₀ emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM₁₀ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

In addition to dust-related PM₁₀ emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO₂, NO_x, VOCs, and some soot particulate (PM₁₀ and PM_{2.5}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site(s).

The air quality analysis (*Air Quality Impact Assessment for the San Ysidro Land Port of Entry Improvements Project*, April 2009) evaluated construction emissions by comparing projected annual construction emissions of the Preferred Alternative with *de minimis* thresholds established under 40 CFR Part 93, the General Conformity Rule, which applies to federal

projects in nonattainment areas. As stated earlier, the SDAB is currently considered a nonattainment area for O₃ and a maintenance area for CO. The *de minimus* thresholds for O₃ precursors (NO_x and VOCs) and CO are 100 tons per year.

Annual emissions for each individual phase would be below the *de minimis* thresholds for all pollutants (i.e., 100 tons per year) during construction of the Preferred Alternative, as shown in Table 3.12-4. All three construction phases would overlap; however, demolition and use of heavy construction equipment during Phase 1 would be completed by the time Phase 3 would start. When Phase 3 construction starts, Phase 1 would consist of interior finish construction, involving small hand tools that would not generate substantial emissions. For this reason, annual emissions of all pollutants would be less than the *de minimis* threshold throughout the duration of construction. No associated adverse impacts would occur during construction of the Preferred Alternative.

Table 3.12-4 ANNUAL CONSTRUCTION EMISSIONS (ppm)						
Source	CO	VOCs	NO_x	SO_x	PM₁₀	PM_{2.5}
Phase 1						
Fugitive Dust – Demolition	--	--	--	--	0.11	0.02
Heavy Construction Equipment	24.55	7.13	46.17	0.05	3.09	2.75
Construction Worker Travel	4.86	0.23	0.45	0.01	0.06	0.03
Heavy Duty Trucks	8.39	1.72	23.40	0.03	1.03	0.90
Fugitive Dust – Grading	--	--	--	--	4.88	1.02
Fugitive Dust – Vehicles	--	--	--	--	7.41	0.90
Total Annual Emissions	37.80	9.08	70.02	0.09	16.55	5.62
Phase 2						
Fugitive Dust – Demolition	--	--	--	--	0.11	0.02
Heavy Construction Equipment	9.20	2.31	16.53	0.02	0.90	0.81
Construction Worker Travel	3.33	0.16	0.30	0.01	0.04	0.02
Heavy Duty Trucks	1.42	0.30	4.05	0.01	0.18	0.15
Fugitive Dust – Grading	--	--	--	--	4.88	1.02
Fugitive Dust – Vehicles	--	--	--	--	1.42	0.17
Total Annual Emissions	13.95	2.77	20.88	0.04	7.53	2.19
Phase 3						
Fugitive Dust – Demolition	--	--	--	--	0.11	0.02
Heavy Construction Equipment	13.11	2.82	22.91	0.03	1.20	1.07
Construction Worker Travel	3.43	0.17	0.30	0.01	0.05	0.03
Heavy Duty Trucks	5.85	1.27	17.02	0.02	0.72	0.62
Fugitive Dust – Grading	--	--	--	--	4.88	1.02
Fugitive Dust – Vehicles	--	--	--	--	6.41	0.78
Total Annual Emissions	22.39	4.26	40.23	0.06	13.37	3.54

Source: Air Quality Impact Assessment for the San Ysidro Land Port of Entry Improvements Project, April 2009.

Operational Impacts

Air Quality Conformity

To determine whether the Preferred Alternative is consistent with local air quality plans and programs, an affirmative regional conformity determination must be made to demonstrate that the Preferred Alternative would not cause or contribute to a violation of an ambient air quality standard (Table 3.13-1). The SDAB is currently considered to be a basic nonattainment area for the NAAQS for ozone; therefore the conformity determination addresses regional transportation projects and include the projects in the assessment conducted for the SIP, which includes emissions budgets for the air basin and strategies to attain and maintain the ozone standard.

The Transportation Project-Level Carbon Monoxide Protocol (Protocol) is applicable for the assessment of potential impacts of project alternatives and provides a means of evaluating the Preferred Alternative's conformity with the SIP and potential impacts to the ambient air quality. The Protocol is designed to ensure that projects conform to an approved or promulgated air quality implementation plan and to all applicable federal and state ambient air quality standards.

In addition, all projects except those that are exempt from analysis are subject to a local CO impact review. This involves an evaluation of the potential for CO "hot spots" to result due to traffic congestion. CO "hot spots" are typically evaluated when (1) the LOS of an intersection or roadway decreases to a LOS D or worse; and (2) sensitive receptors such as residences, commercial developments, schools, hospitals, etc. are located in the vicinity of the affected intersection or roadway segment.

Regional Conformity. The Protocol contains a conformity requirement decision flow chart for new projects that is designed to assist in the evaluation of the requirements that apply to the Preferred Alternative. The flow chart contained in the Protocol was followed to determine the level of analysis required for the Preferred Alternative. Based on the evaluation, a further regional analysis or regional conformity determination is not required for the Preferred Alternative.

The Project is included in the 2030 San Diego RTP: Pathways for the Future (Table A.2-Phased Highway Projects – Revenue Constrained Plan, page A-9) approved by SANDAG in 2007. The Project is also included in the SANDAG 2008 RTIP as MPO ID CAL-56, RTP #08-00 (page 36). A conformity determination for both the 2030 RTP and the 2008 RTIP was made by DOT on November 17, 2008. The design concept and scope of the Preferred Alternative is consistent with the project description in the 2030 RTP, the 2008 RTIP, and the assumptions in the SANDAG regional emissions analysis. Therefore, the Preferred Alternative would conform to the SIP and no adverse regional air quality impacts would occur.

Project Level Conformity – Local CO Impacts. The Protocol provides guidance for determining whether a project would have the potential to cause or contribute to a violation of an air quality standard on a localized basis. The Protocol provides for various levels for the local CO analysis to make the determination of the potential for air quality impacts.

As discussed above, all non-exempt projects are subject to a local CO impact review by evaluating the potential for formation of CO "hot spots" due to traffic congestion. The traffic study prepared for the Project (*San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009) evaluated whether or not there would be a decrease in the LOS at the

intersections affected by the Preferred Alternative (refer to Subchapter 3.4, Traffic and Transportation/Pedestrian and Bicycle Facilities). The referenced traffic study evaluated intersection operations for existing, near-term (2014), and horizon year (2030) conditions. The following intersections would operate at LOS E or F in the PM peak period under near-term and horizon year conditions:

- Via de San Ysidro/Calle Primera (near-term and horizon year)
- Via de San Ysidro/I-5 northbound ramps(near-term and horizon year)
- Camino de la Plaza/I-5 southbound ramps (horizon year)
- Camino de la Plaza/Virginia Avenue (near-term and horizon year)

To evaluate the potential for CO “hot spots,” CALINE4 modeling was conducted for the intersections identified above for near-term and horizon year conditions, without (No Build Alternative) and with the Preferred Alternative (Tables 3.12-5 and 3.12-6). Modeling was conducted based on the Protocol to calculate maximum predicted 1-hour CO concentrations. Predicted 1-hour CO concentrations were then scaled to estimate maximum predicted 8-hour CO concentrations, using the recommended scaling factor of 0.7 for urban locations.

Inputs to the CALINE4 model were obtained from the referenced traffic study. As recommended in the Protocol, receptors were located at locations that were approximately 10 feet from the mixing zone (i.e., the region over the traveled roadway), and at a height of six feet. Average approach and departure speeds were assumed to be worst case (i.e., 1 mph), and emission factors for that speed were estimated from the EMFAC2007 emissions model.

In accordance with the Protocol, it is also necessary to estimate future background CO concentrations in the Project vicinity to determine the potential impact plus background, and evaluate the potential for CO “hot spots” due to the Preferred Alternative. As a conservative estimate of background CO concentrations, the existing maximum 1-hour background concentration of CO that was measured at the Chula Vista monitoring station for the period from 2005 – 2007 of 3.1 ppm was used to represent future maximum background 1-hour CO concentrations. This is a conservative assumption, as the monitoring station is located in a congested area downtown. The existing maximum 8-hour background concentration of CO that was measured at the Chula Vista monitoring station during the period from 2005 – 2007 of 2.24 ppm was also used to provide a conservative estimate of the maximum 8-hour background concentrations in the Project vicinity. CO concentrations in the future may be lower as inspection and maintenance programs and more stringent emission controls are placed on vehicles. Figure 3.12-1 depicts the receptor sites used for the CO “hot spot” analysis.

Tables 3.12-5 and 3.12-6 present a summary of the predicted CO concentrations (impact plus background) for the intersections evaluated for the Preferred Alternative and No Build Alternative under near-term (2014) and horizon year conditions (2030), respectively. The 8-hour impacts were calculated by scaling the predicted 1-hour impacts by the scaling factor of 0.7; then maximum background concentrations were added to the predicted CO concentrations associated with traffic generated by the Preferred Alternative.

As shown in Tables 3.12-5 and 3.12-6, the predicted CO concentrations would be substantially below the 1-hour and 8-hour NAAQS and CAAQS for CO shown in Table 3.12-1. Therefore, no exceedances of the CO standard are predicted and thus, the Preferred Alternative would not

cause or contribute to a violation of this air quality standard. No associated adverse air quality impacts would occur.

Table 3.12-5 CO “HOT SPOTS” EVALUATION NEAR-TERM (2014) CONDITIONS		
Intersection	CO Concentration	
	No Build Alternative	Preferred Alternative
Maximum 1-hour Concentration Plus Background, ppm CAAQS = 20 ppm; NAAQS = 35 ppm Background Concentration = 3.1 ppm		
Via de San Ysidro/Calle Primera	3.6	3.6
Via de San Ysidro/I-5 Northbound Ramps	3.5	3.5
Camino de la Plaza/Virginia Avenue	4.0	3.9
Maximum 8-hour Concentration Plus Background, ppm CAAQS = 9.0 ppm; NAAQS = 9 ppm Background Concentration = 2.24 ppm		
Via de San Ysidro/Calle Primera	2.59	2.59
Via de San Ysidro/I-5 Northbound Ramps	2.52	2.52
Camino de la Plaza/Virginia Avenue	2.87	2.80

Source: Air Quality Impact Assessment for the San Ysidro Land Port of Entry Improvements Project, April 2009.

Table 3.12-6 CO “HOT SPOTS” EVALUATION HORIZON YEAR (2030) CONDITIONS		
Intersection	CO Concentration	
	No Build Alternative	Preferred Alternative
Maximum 1-hour Concentration Plus Background, ppm CAAQS = 20 ppm; NAAQS = 35 ppm Background Concentration = 3.1 ppm		
Via de San Ysidro/Calle Primera	3.4	3.4
Via de San Ysidro/I-5 Northbound Ramps	3.3	3.3
Camino de la Plaza/I-5 Southbound Ramps	3.5	3.5
Camino de la Plaza/Virginia Avenue	3.5	3.5
Maximum 8-hour Concentration Plus Background, ppm CAAQS = 9.0 ppm; NAAQS = 9 ppm Background Concentration = 2.24 ppm		
Via de San Ysidro/Calle Primera	2.45	2.45
Via de San Ysidro/I-5 Northbound Ramps	2.38	2.38
Camino de la Plaza/I-5 Southbound Ramps	2.52	2.52
Camino de la Plaza/Virginia Avenue	2.52	2.52

Source: Air Quality Impact Assessment for the San Ysidro Land Port of Entry Improvements Project, April 2009.

Project Level Conformity – Local Particulate Impacts. Emissions of particulate matter (PM_{2.5} and PM₁₀) are attributable to traffic sources. The potential for air quality impacts associated with particulate emissions from traffic generated by the Preferred Alternative was evaluated using USEPA’s *Transportation Conformity Guidance for Qualitative Hot-Spot Analysis in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas*. The USEPA’s Transportation Conformity Rule (40 CFR 93.123(b)(1)) identifies projects for which PM_{2.5} and PM₁₀ would be of concern. Based on the criteria under this rule, the Preferred Alternative would not be a project of air quality concern for PM_{2.5} and PM₁₀ emissions because it would not result in increases in the number of

diesel vehicles utilizing the border crossing. Estimates of the number of diesel vehicles as a percentage of ADT, based on truck percentages from the traffic study (*San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009) indicate that the highest percentage of diesel trucks traveling in the Project vicinity would be as much as 6.9 percent along the freeway segment of I-805, from SR-905 to East San Ysidro Boulevard. This value is lower than the threshold of significance of eight percent established by the USEPA for PM_{2.5} and PM₁₀ impacts. The Preferred Alternative would therefore be in conformance for federal PM₁₀ and PM_{2.5} standards. No associated adverse air quality impacts would occur.

Mobile Source Air Toxics

In addition to the criteria air pollutants for which there are NAAQS, USEPA also regulates air toxics. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes), area sources (e.g., dry cleaners) and stationary sources (e.g., factories or refineries).

Mobile Source Air Toxics (MSATs) are a subset of the 188 air toxics defined by the CAA. The MSATs are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

The USEPA 2001 MSAT Rule identified 21 hazardous air pollutants as MSATs. USEPA decided to focus short-term work on six of the 21 pollutants as the MSATs of greatest concern due to their high relative emissions and toxicity, and because state agencies have indicated that these pollutants are major mobile source pollutants of concern. These six pollutants have become known as the "priority MSATs" and include benzene, acrolein, formaldehyde, 1,3-butadiene, acetaldehyde, and diesel exhaust. The USEPA is in the process of assessing the risks of various kinds of exposures to these pollutants. The USEPA Integrated Risk Information System (IRIS) is a database of human health effects that may result from exposure to various substances found in the environment. The following toxicity information for the six priority MSATs was taken from the IRIS database *Weight of Evidence Characterization* summaries. This information is taken verbatim from USEPA's IRIS database and represents the most current evaluations of the potential hazards and toxicology of these chemicals or mixtures.

- **Benzene** is characterized as a known human carcinogen.
- The potential carcinogenicity of **acrolein** cannot be determined because the existing data are inadequate for an assessment of human carcinogenic potential for either the oral or inhalation route of exposure.
- **Formaldehyde** is a probable human carcinogen, based on limited evidence in humans, and sufficient evidence in animals.
- **1,3-butadiene** is characterized as carcinogenic to humans by inhalation.
- **Acetaldehyde** is a probable human carcinogen based on increased incidence of nasal tumors in male and female rats and laryngeal tumors in male and female hamsters after inhalation exposure.
- **Diesel exhaust** is likely to be carcinogenic to humans by inhalation from environmental exposures. Diesel exhaust as reviewed in this document is the combination of diesel particulate matter and diesel exhaust organic gases. Diesel exhaust also represents chronic respiratory effects, possibly the primary non-cancer hazard from MSATs.

Prolonged exposures may impair pulmonary function and could produce symptoms, such as cough, phlegm, and chronic bronchitis. Exposure relationships have not been developed from these studies.

There have been other studies that address MSAT health impacts in proximity to roadways. The Health Effects Institute, a non-profit organization funded by USEPA, FHWA, and industry, has undertaken a major series of studies to research near-roadway MSAT hot spots, the health implications of the entire mix of mobile source pollutants, and other topics. The final summary of the series is not expected for several years.

Some recent studies have reported that proximity to roadways is related to adverse health outcomes, particularly respiratory problems. Much of this research is not specific to MSATs, instead surveying the full spectrum of both criteria and other pollutants.

Unavailable Information for Project Specific MSAT Impact Analysis

This Draft EIS includes a basic analysis of the likely MSAT emission impacts of the Preferred Alternative. However, available technical tools do not enable the prediction of Project-specific health impacts of the emission changes associated with the alternatives. Due to these limitations, the following discussion is included in accordance with CEQ regulations (40 CFR 1502.22(b)) regarding incomplete or unavailable information.

Evaluating the environmental and health impacts from MSATs on projects that may affect highways (such as the Preferred Alternative) may involve several key elements, including emissions modeling, dispersion modeling to estimate ambient concentrations resulting from the estimated emissions, exposure modeling to estimate human exposure to the estimated concentrations, and then final determination of health impacts based on the estimated exposure. Each of these steps is encumbered by technical shortcomings or uncertain science that prevents a more complete determination of the MSAT health impacts of the Preferred Alternative.

Emissions. USEPA tools to estimate MSAT emissions from motor vehicles are not sensitive to key variables determining emissions of MSATs in the context of highway and highway-related projects. While MOBILE 6.2 is used to predict emissions at a regional level, it has limited applicability at the project level. MOBILE 6.2 is a trip-based model; emission factors are projected based on a typical trip of 7.5 miles, and on average speeds for this typical trip. This means that MOBILE 6.2 does not have the ability to predict emission factors for a specific vehicle operating condition at a specific location at a specific time. Because of this limitation, MOBILE 6.2 can only approximate the operating speeds and levels of congestion likely to be present on the largest-scale projects, and cannot adequately capture emissions effects of smaller projects. For particulate matter, the model results are not sensitive to average trip speed, although the other MSAT emission rates do change with changes in trip speed. Also, the emissions rates used in MOBILE 6.2 for both particulate matter and MSATs are based on a limited number of tests of mostly older-technology vehicles. Lastly, in its discussions of PM under the conformity rule, USEPA has identified problems with MOBILE 6.2 as an obstacle to quantitative analysis.

These deficiencies compromise the capability of MOBILE 6.2 to estimate MSAT emissions. MOBILE 6.2 is an adequate tool for projecting emissions trends and performing relative analyses between alternatives for very large projects, but it is not sensitive enough to capture

the effects of travel changes tied to smaller projects or to predict emissions near specific roadside locations.

Dispersion. The tools to predict how MSATs disperse are also limited. The USEPA's current regulatory models, CALINE3 and CAL3QHC, were developed and validated more than a decade ago for the purpose of predicting episodic concentrations of CO to determine compliance with the NAAQS. The performance of dispersion models is more accurate for predicting maximum concentrations that can occur at some time at some location within a geographic area. This limitation makes it difficult to predict accurate exposure patterns at specific times at specific project locations across an urban area to assess potential health risk. Research is currently being conducted on best practices in applying models and other technical methods in the analysis of MSATs. This work also will focus on identifying appropriate methods of documenting and communicating MSAT impacts in the NEPA process and to the general public. Along with these general limitations of dispersion models, there is also a lack of monitoring data in most areas for use in establishing project-specific MSAT background concentrations.

Exposure Levels and Health Effects. Finally, even if emission levels and concentrations of MSATs could be accurately predicted, shortcomings in current techniques for exposure assessment and risk analysis preclude determining meaningful conclusions about project-specific health impacts. Exposure assessments are difficult because it is difficult to accurately calculate annual concentrations of MSATs near roadways, and to determine the portion of a year that people are actually exposed to those concentrations at a specific location. These difficulties are magnified for 70-year cancer assessments, particularly because unsupported assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over a 70-year period. There are also considerable uncertainties associated with the existing estimates of toxicity of the various MSATs, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population. Because of these shortcomings, any calculated difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with calculating the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against other project impacts that are better suited for quantitative analysis.

Evaluation of MSAT Potential

USEPA currently recommends following the March 2007 report entitled *Analyzing, Documenting, and Communicating the Impacts of Mobile Source Air Toxic Emissions in the NEPA Process*. Suggested procedures have been developed on how to select and apply the best available models and associated techniques for MSAT impact assessment in the NEPA process. The suggested approach uses both policy and technical considerations to determine the need and appropriateness for conducting a MSAT analysis. A set of policy and technical questions have been developed to help determine an appropriate level of analysis under NEPA. Based on the flowchart contained in this approach, a Level 3 Assessment was conducted for the Preferred Alternative, which includes a qualitative assessment of MSAT potential and a quantitative emissions analysis for projects posing MSAT exposure.

As discussed above, technical shortcomings of emissions and dispersion models and uncertain science with respect to health effects prevent meaningful or reliable estimates of MSAT emissions and effects of the Preferred Alternative. However, even though reliable methods do

not exist to accurately estimate the health impacts of MSATs at the Project level, it is possible to qualitatively assess the levels of future MSAT emissions under the Preferred Alternative. Although a qualitative analysis cannot identify and measure health impacts from MSATs, it can give a basis for identifying and comparing the potential differences among MSAT emissions, if any, from the Project alternatives. The qualitative assessment presented below is derived in part from a study conducted by the FHWA entitled *A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives*, found at: www.fhwa.dot.gov/environment/airtoxic/msatcompare/msatemissions.htm

The amount of MSATs emitted would be proportional to the vehicle miles traveled (VMT), assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for the Preferred Alternative is slightly higher than that for the No Build Alternative, because the additional capacity increases the efficiency of the LPOE and adjoining roadways. This increase in VMT would lead to higher MSAT emissions for the Preferred Alternative along the I-5 and I-805 highway corridors due to the increased capacity of the LPOE to handle vehicles crossing the border. This emissions increase is offset, however, by the decrease in idling emissions anticipated by the proposed improvements to the LPOE under the Preferred Alternative.

MSAT Emissions Analysis

To provide a quantitative estimate of the MSAT emissions for the six priority MSATs, data from the traffic study (*San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, February 2009) were used to estimate VMT and idling emissions. Because the EMFAC2007 model addresses emissions for vehicles in California, and specifically in the SDAB, the EMFAC2007 model was used as a basis for emissions estimates, along with California Air Resources Board (ARB) profiles. The EMFAC2007 model coupled with the ARB profiles provide the best estimates of MSAT emissions for vehicles at the San Ysidro LPOE. Freeway segments analyzed in the MSAT analysis include those that would carry 125,000 or more ADT under near-term (2014) or horizon year (2030) conditions with the Preferred Alternative. As shown in Table 3.12-7, MSAT emissions would be slightly higher on freeway segments due to the increase in ADT on those segments that are within the Project Study Area. However, MSAT emissions associated with truck idling would decrease nearly three-fold under the Preferred Alternative, as compared with the No Build Alternative in the near-term, and would decrease nearly five-fold in the horizon year. A comparison of the overall MSAT emissions between the Preferred Alternative and the No Build Alternative indicate that the overall MSAT emissions would decrease under the Preferred Alternative due to the decrease in queue times at the border crossing despite slight increases in MSAT emissions on freeway segments.

In addition, estimated MSAT emissions will likely be lower than present levels as a result of USEPA's national control programs that are projected to reduce MSAT emissions by 57 to 87 percent between 2000 and 2020. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the USEPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the Project Study Area are likely to be lower in the future in nearly all cases. Consequently, no adverse air quality impacts related to MSATs would occur from the Preferred Alternative.

Table 3.12-7 MSAT EMISSIONS (TONS/YEAR)						
Freeway Segment	Priority MSAT Emissions					
	Benzene	Acrolein	Formalde- hyde	1,3- Butadiene	Acetaldehyde	Diesel Exhaust
Near-term – No Build Alternative						
I-5: East San Ysidro Blvd. to International Border	0.033	0.002	0.021	0.007	0.004	0.239
I-805: SR-905 Interchange to East San Ysidro Blvd.	0.114	0.006	0.073	0.025	0.013	0.702
Truck Idling	-	-	-	-	-	3.306
Near-term – Preferred Alternative						
I-5: East San Ysidro Blvd. to International Border	0.042	0.002	0.027	0.009	0.005	0.296
I-805: SR-905 Interchange to East San Ysidro Blvd.	0.134	0.007	0.086	0.030	0.015	0.825
Truck Idling	-	-	-	-	-	1.239
Horizon Year – No Build Alternative						
I-5: East San Ysidro Blvd. to International Border	0.015	0.001	0.009	0.003	0.002	0.149
I-5: I-805 Interchange to East San Ysidro Blvd.	0.039	0.002	0.025	0.009	0.004	0.354
I-805: SR-905 Interchange to East San Ysidro Blvd.	0.067	0.004	0.043	0.015	0.008	0.579
I-805: East San Ysidro Blvd. to I-5 Interchange	0.025	0.001	0.016	0.006	0.003	0.293
Truck Idling	-	-	-	-	-	5.655
Horizon Year – Preferred Alternative						
I-5: East San Ysidro Blvd. to International Border	0.021	0.001	0.014	0.005	0.002	0.192
I-5: I-805 Interchange to East San Ysidro Blvd.	0.053	0.003	0.034	0.011	0.006	0.431
I-805: SR-905 Interchange to East San Ysidro Blvd.	0.082	0.004	0.053	0.018	0.009	0.706
I-805: East San Ysidro Blvd. to I-5 Interchange	0.035	0.002	0.022	0.008	0.004	0.335
Truck Idling	-	-	-	-	-	1.187

Source: Air Quality Impact Assessment for the San Ysidro Land Port of Entry Improvements Project, April 2009.

Naturally-Occurring Asbestos

Exposure and disturbance of rock and soil that contains asbestos can result in the release of fibers to the air and consequent exposure to the public. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (proper rock name serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Sources of asbestos emissions include: unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present. Based on the map of naturally-occurring asbestos locations contained in *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos* (California Department of Conservation 2000), major ultramafic rock formations are not found in San Diego County. Therefore, construction and

grading would not occur in an area with ultramafic rock that could be a source of emissions of naturally-occurring asbestos. No associated impacts resulting from implementation of the Preferred Alternative would occur.

Global Climate Change

On June 1, 2005, Governor Arnold Schwarzenegger signed California Executive Order (CA-EO) S-3-05. The goal of this CA-EO is to reduce California's greenhouse gas (GHG) emissions to: (1) 2000 levels by 2010; (2) 1990 levels by the 2020; and (3) 80% below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that ARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." CA-EO S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team.

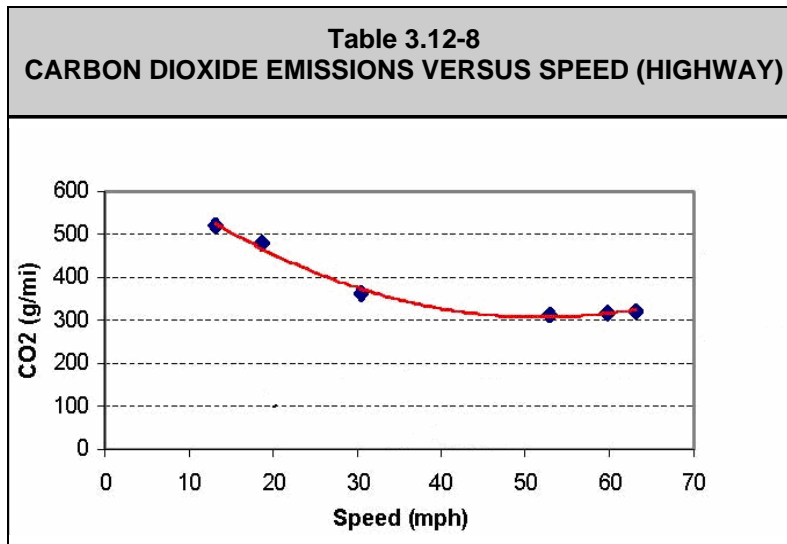
With CA-EO S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard for California. Under this CA-EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.

Climate change and GHG reduction is also a concern at the federal level; at this time, no legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change. However, California, in conjunction with several environmental organizations and several other states, sued to force the USEPA to regulate GHGs as a pollutant under the CAA (*Massachusetts vs. Environmental Protection Agency et al.*, U.S. Supreme Court No. 05-1120. 549 U.S. (Argued November 29, 2006—Decided April 2, 2007). The court ruled that GHGs do fit within the CAA's definition of a pollutant, and that EPA does have the authority to regulate GHGs. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting greenhouse gas emissions.

Climate Change Evaluation

According to a recent white paper by the Association of Environmental Professionals (AEP; 2007), "an individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases."

GHG emissions in California are predominantly generated from the burning of fossil fuels, including (among other sources) from transportation sources. Transportation's contribution to GHG emissions is dependent on three factors: the types of vehicles on the road, the type of fuel the vehicles use, and the time/distance the vehicles travel. At a state level, one of the main strategies to reduce GHG emissions is to make California's transportation system more efficient. The highest levels of carbon dioxide (CO₂) from mobile sources, such as automobiles, occur at stop-and-go speeds (0-25 mph) and speeds over 55 mph; the most severe emissions occur from 0-25 mph, as shown in Table 3.12-8 below). Relieving congestion by enhancing operations and improving travel times in high congestion travel corridors will lead to an overall reduction in GHG emissions.



Source: *Air Quality Impact Assessment for the San Ysidro Land Port of Entry Improvements Project*, April 2009.

The Preferred Alternative is designed to reduce congestion and vehicle time delays by expanding the LPOE at the border. Increases in traffic crossing the border would occur with or without the Preferred Alternative. As the Preferred Alternative is included in the 2030 RTP and 2008 RTIP, it conforms with those plans and is designed to reduce vehicle hours traveled by reducing congestion and queuing times at the LPOE, and will improve overall traffic flow at the border crossing. As discussed in the traffic study (*San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009), wait times at the border are projected to increase to three to four hours in the near-term (2014) and up to 10 hours in the horizon year (2030). Implementation of the Preferred Alternative would reduce projected wait times to a maximum of 1.5 hours throughout the day (*San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009). Due to the reduction in vehicle hours traveled and improved traffic flow, CO₂ emissions at the LPOE are anticipated to be reduced despite increases in traffic.

However, the effect of increasing processing capacity of northbound traffic at the LPOE would result in higher volumes of traffic merging onto northbound I-5 and I-805 during peak periods, especially the AM peak. As a result, northbound I-5, between the international border and the I-805 interchange, and northbound I-805, between the I-5 interchange and East San Ysidro Boulevard would experience greater congestion and reduced speeds with the Preferred Alternative, which could generate additional CO₂ emissions. It is anticipated that these additional emissions may be partially or completely offset by the reduced emissions at the LPOE because congestion and delays on the freeway segments would be less than existing congestion and delays at the San Ysidro LPOE.

Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative, and construction (including phasing), operation, and maintenance activities would be similar. The analysis presented above for the Preferred Alternative would apply equally to the Pedestrian Crossing Alternative, and potential impacts with respect to air quality would be the same.

No Build Alternative

Under the No Build Alternative, the proposed improvements to the San Ysidro LPOE would not be constructed. The Preferred Alternative's contribution to easing future traffic congestion would not occur. Since existing traffic congestion would not be reduced, associated air quality impacts also would not be reduced. Regardless, no impacts are assessed because no construction is proposed.

3.12.4 Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

Construction

Implementation of the following avoidance, minimization, and mitigation measures would reduce air quality impacts resulting from construction activities:

- Water or dust palliative should be applied to exposed soil surfaces at the construction site(s) and equipment as frequently as necessary to control fugitive dust emissions.
- Soil binder should be spread on any unpaved roads used for construction purposes, and all construction parking areas.
- Trucks should be washed off as they leave the construction site(s), as necessary, to control fugitive dust emissions.
- Construction equipment and vehicles should be properly tuned and maintained. Low sulfur fuel should be used in all construction equipment.
- Track-out reduction measures such as gravel pads should be used at access points to minimize dust and mud deposits on roads affected by construction traffic.
- Transported loads of soils and wet materials should be covered prior to transport, or adequate freeboard (space from the top of the material to the top of the truck) should be provided to reduce PM10 and deposition of particulate during transportation.
- Dust and mud that are deposited on paved, public roads due to construction activity and traffic should be removed to decrease particulate matter.
- To the extent feasible, construction traffic should be routed and scheduled to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- Grading and earth moving should be suspended when wind gusts exceed 25 mph unless the soil is wet enough to prevent dust plumes.

Global Climate Change

To the extent that it is applicable or feasible, the following measures can help to reduce GHG emissions and potential climate change impacts resulting from the Preferred Alternative:

- Provide landscaping where possible, which reduces surface warming and decreases CO₂ through photosynthesis

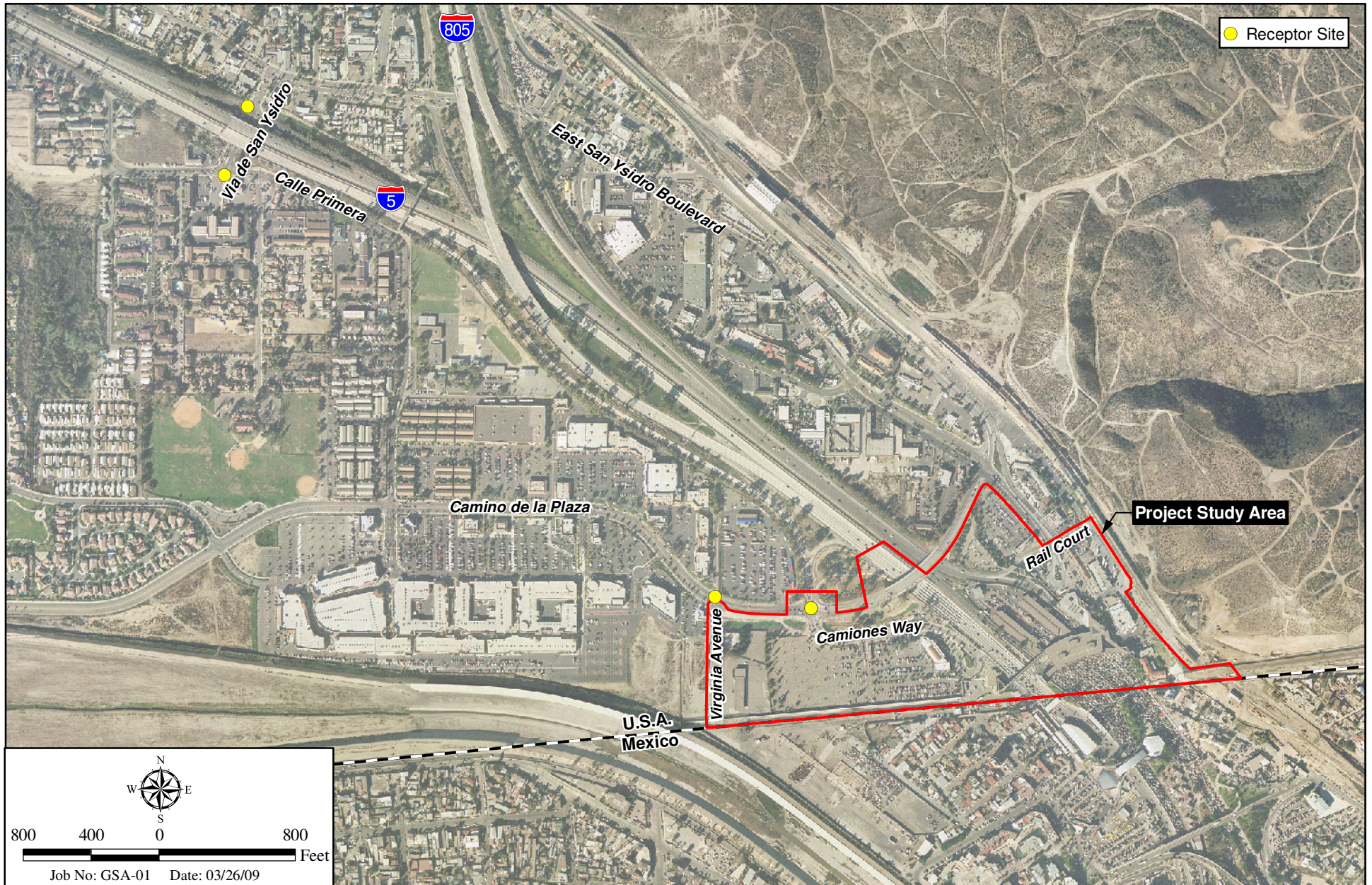
- Use lighter color surfaces, such as Portland cement, which helps to reduce the albedo effect (i.e., surface reflectivity of the sun's radiation) and cool the surface
- Use of energy efficient lighting
- Limit idling times on trucks and equipment used during construction

Pedestrian Crossing Alternative

Avoidance, minimization, and mitigation recommendations related to air quality issues for the Pedestrian Crossing Alternative would be the same as those identified above for the Preferred Alternative. The use of such measures and considerations would reduce all potential impacts related to air quality.

No Build Alternative

The No Build Alternative would not result in air quality impacts; therefore, no avoidance, minimization, or mitigation measures are required.



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Receptor Sites for CO "Hot Spots" Analysis

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.12-1

3.13 ENERGY

3.13.1 Regulatory Setting

NEPA (42 U.S.C. Part 4332) requires the identification of all potentially significant impacts to the environment, including energy impacts.

The Energy Independence and Security Act of 2007 (P.L. 110-140 H.R. 6) is an energy policy law designed to increase energy efficiency and the availability of renewable energy. It requires (among other things) new and renovated federal buildings to reduce fossil fuel use by 55 percent (compared to 2003 levels) by 2010, and 80 percent by 2020. It also requires all lighting in federal buildings to use Energy Star products.

3.13.2 Affected Environment

Gasoline Consumption

In 2006¹, motor gasoline accounted for 53.7 percent of total petroleum uses in California. Transportation uses accounted for 39.7 percent of total energy use in California with residential and commercial uses accounting for 18.4 and 18.8 percent, respectively, and industrial uses accounting for 23.1 percent (U.S. Department of Energy). While federal policies, such as the Federal Energy Policy Act of 1992, are increasing the use of alternative-fuel and low-emission vehicles, the consumption of non-renewable resources, such as fossil fuels, remains high and points to the need to conserve such energy resources.

Electricity

In 2007², California used 18,958 million kilowatt hours (kWh), of which approximately 69.5 percent was generated in state. Natural gas accounted for 45.2 percent of total system power, coal 16.6 percent, nuclear 14.8 percent, renewable sources 11.8 percent, and large hydro 11.7 percent. California's population is projected to exceed 54 million by the year 2040. Increased populations, economic activity, and a trend of higher growth rates in the central portion of the state than in the coastal areas indicates the growing pressure on California's energy system and the increasing importance of energy efficiency (California Energy Commission 2008).

Natural Gas Consumption

In 2006³, approximately 13.5 percent of the natural gas used by California came from in-state production; the remainder was delivered via pipelines from several production areas in the western U.S. and western Canada. Electricity generation uses the greatest share of natural gas (about half of all natural gas in the state). The residential sector uses 22 percent of the natural gas. Since 1970, the number of households in California has almost doubled from 6.5 million to 12.5 million, pushing total residential natural gas consumption from about 5,500 million therms in 1970 to about 6,700 million therms in 2007. However, the average annual gas consumption per household has dropped more than 36 percent, from 845 therms to 538 therms. Commercial uses are utilizing approximately 10 percent of the natural gas consumed by the state. Natural

¹ This is the most recent data available from the U.S. Department of Energy, Energy Information Administration.

² This is the most recent data available from the California Energy Commission.

³ This is the most recent data available from the California Energy Commission.

gas has become an increasingly important source of energy since more of the state's power plants rely on this fuel (California Energy Commission 2008).

3.13.3 Environmental Consequences

Preferred Alternative

The Preferred Alternative would be constructed in three phases as described in Chapter 2.0 of this Draft EIS. During the construction period, energy would be used during manufacturing of materials for the construction of buildings, structures, roads, and other proposed improvements.

Gasoline

Throughout construction, northbound and southbound vehicular and pedestrian access through the LPOE would be maintained; however, temporary detours within the LPOE may be required, resulting in some diversion of through traffic. This may cause some temporary delays and longer wait times for vehicles traveling across the border during the construction period. As a result, idling times could increase for vehicles traveling through the LPOE, which may result in additional gasoline consumption.

Post-construction operational energy uses of the facilities associated with the Preferred Alternative would primarily include the use of gasoline by vehicles. The proposed LPOE improvements would increase the rate of traffic movement across the border and in the vicinity of the LPOE, and therefore would be beneficial to energy consumption, as vehicles would spend less time idling.

When balancing energy used during construction and operation against energy saved by reducing congestion and improving other transportation efficiencies, the Preferred Alternative would not result in adverse energy impacts. While the decreased wait times may provide an incentive for additional trips across the border, it is assumed that the reduction in idling times from a projected maximum of four hours by the year 2014 and 10 hours by the year 2030 to a maximum of 1.5 hours would more than offset the impacts associated with any additional trips.

Electricity and Natural Gas

Operations at the LPOE would consume electricity and natural gas. Energy consumption would not be excessive, however, and would be reduced by the Preferred Alternative achieving a LEED certification for the LPOE, as is currently planned, as well as compliance with the Energy Independence and Security Act. The LEED Green Building Rating System, developed by the U.S. Green Building Council (USGBC), provides a suite of standards for environmentally sustainable construction. Sustainable design concepts that are being explored and considered for incorporation into the Preferred Alternative include (but are not limited to): (1) alternative energy systems and geothermal potential; (2) energy efficient opportunities for the proposed Central Plant; (3) air quality/comfort; (4) renewable energy sources; (5) daylight savings strategies; (6) lighting design controls; (7) green roofs; (8) storm water reuse; and (9) energy efficient water systems. Replacing the existing facilities with those that meet LEED certification standards would reduce the energy required to operate the LPOE compared to conventional construction and design practices, and may potentially reduce overall consumption of electricity and natural gas. In addition, the energy savings requirements of the Energy Independence and Security Act would further result in less consumption of fossil fuels and electricity.

Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative, and construction, operation, and maintenance activities would be similar. The analysis presented above for the Preferred Alternative would apply equally to the Pedestrian Crossing Alternative, and potential impacts with respect to energy would be the same.

No Build Alternative

No construction activities would occur under the No Build Alternative, and therefore traffic delays would not occur during the construction period. As a result, the temporary increase in idling times and associated increased gasoline consumption, described for construction of the Preferred Alternative, would not occur under the No Build Alternative. Over the long-term, however, the No Build Alternative would contribute to continued long delays to cross the border, with associated traffic congestion and inefficient energy use by idling vehicles. These impacts would be expected to increase over time without implementation of the Preferred Alternative.

In addition, if the No Build Alternative is implemented, the existing LPOE facilities would not be replaced with facilities that are designed to be more energy efficient. Overall energy, electricity, and natural gas consumption may be greater under this alternative than the Preferred Alternative.

3.13.4 Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

The following avoidance and minimization measures would be implemented during construction of the Preferred Alternative:

- Construction equipment and vehicles should be properly tuned and maintained.
- Idling times of construction equipment should be minimized, to the extent practical.
- To the extent feasible, construction traffic should be routed and scheduled to reduce congestion and related energy impacts caused by idling vehicles along local roads during peak travel times.

Pedestrian Crossing Alternative

Avoidance, minimization, and mitigation recommendations related to energy issues for the Pedestrian Crossing Alternative would be the same as those described above for the Preferred Alternative. The use of such measures and considerations would avoid or minimize potential impacts related to energy.

No Build Alternative

Because the No Build Alternative would not result in energy impacts, no avoidance, minimization, or mitigation measures would be required.

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BIOLOGICAL ENVIRONMENT

3.14 BIOLOGICAL RESOURCES

3.14.1 Regulatory Setting

Federal Endangered Species Act

The federal ESA and subsequent amendments (16 U.S.C. Section 1531, et seq; also see 50 CFR Part 402) provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of the federal ESA, federal agencies are required to consult with USFWS and the National Oceanic and Atmospheric Administration (NOAA) Fisheries to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 (if required) is a Biological Opinion or an incidental take permit. Section 3 of the federal ESA defines take as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt at such conduct.” Since no sensitive species were identified within the Biological Study Area (BSA), as described below, the federal ESA does not apply to the Project.

Clean Water Act

The CWA (33 U.S.C. 1344) is the primary federal law regulating wetlands and waters. The CWA regulates the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation’s waters would be significantly degraded. The Section 404 permit program is run by the Corps with oversight by the USEPA.

Executive Order 11990

EO 11990 also regulates the activities of federal agencies with regard to wetlands. Essentially, this EO states that a federal agency cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) is a federal statute that prohibits the ability to “pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention... for the protection of migratory birds... or any part, nest, or egg of any such bird.” This statute allows the USFWS to enforce the prohibition of direct “taking” of active nests. Implementation of this law typically includes restrictions on development activities when sensitive nesting birds, including raptors, are present. Since no sensitive nesting birds or raptors were identified within the BSA, as described below, the MBTA does not apply to the Project.

Natural Community Conservation Program

As described in Subchapter 3.1, Land Use, the City adopted its MSCP Subarea Plan in March 1997 to meet the requirements of the NCCP Act of 1991, the federal ESA, and the California ESA. The Subarea Plan regulates effects on natural communities throughout the City and identifies preserve areas within the City as the MHPA. The Project is located within the City's Subarea Plan, but not within the MHPA.

3.14.2 Affected Environment

A Minimal Impacts Natural Environment Study (NES-MI; *San Ysidro Land Port of Entry Improvements Project Natural Environment Study – Minimal Impacts*, April 2009) was prepared for the Project to evaluate the biological resources and potential impacts to such resources within the 52.5-acre BSA that was identified for the Project. The NES-MI addresses the potential for direct impacts (e.g., by grading, construction, and/or staging), as well as indirect impacts (e.g., noise). The results of the NES-MI are summarized in this subchapter.

General biological surveys were conducted within the BSA on November 21, 2008 to identify and record plant and animal species occurring within the BSA. Additionally, the USFWS was contacted to request a species list that identifies federally listed threatened, endangered, or proposed for listing species with the potential to occur within the BSA. The USFWS identified two potential species, including the coastal California gnatcatcher (*Polioptila californica californica*) and burrowing owl (*Athene cunicularia*). A formal jurisdictional delineation was conducted in areas within the BSA that were suspected to be jurisdictional Waters of the U.S. (WUS) on February 18, 2009 and April 6, 2009.

Vegetation Communities

Five vegetation communities/habitats occur within the BSA, including disturbed wetland, non-native grassland, eucalyptus woodland, disturbed habitat, and developed land (Figure 3.14-1). Of these, only disturbed wetland and non-native grassland are considered sensitive vegetation communities. A brief discussion of each vegetation community/habitat follows.

Disturbed Wetland

Disturbed wetland is dominated by exotic wetland species that invade areas that have been previously disturbed or undergone periodic disturbances. These non-natives become established more readily following natural or human-induced habitat disturbance than the native wetland flora. Within the BSA, 0.04 acre of disturbed wetland occurs in a small patch along a defined earthen channel east of Camiones Way (Figure 3.14-1). Dominant species within this disturbed wetland in the BSA include curly dock (*Rumex crispus*) and Bermuda grass (*Cynodon dactylon*) with lesser amounts of castor-bean (*Ricinus communis*). Native wetland species that make up a very small portion of the disturbed wetland include mule fat (*Baccharis salicifolia*) and Goodding's black willow (*Salix gooddingii*).

Non-native Grassland

Non-native grassland areas may have supported native grassland in the past, but have been overrun by exotic, introduced annuals. Given that the BSA has not supported native grassland in the recent past, it is likely that the small patches of non-native grassland within the BSA are a result of seed dispersal, which then takes advantage of water draining off the roadway from rainfall. Plant species within this vegetation community in the BSA include ripgut grass (*Bromus diandrus*), oats (*Avena* sp.), Italian ryegrass (*Lolium multiflorum*), California burclover (*Medicago polymorpha*), cheeseweed (*Malva parviflora*), and occasionally curly dock. The BSA contains 0.7 acre of non-native grassland, located south of Camino de la Plaza in the northwestern portion of the BSA (Figure 3.14-1).

Eucalyptus Woodland

Eucalyptus woodland is dominated by eucalyptus (*Eucalyptus* sp.), an introduced species that has often been planted purposely for wind blocking, ornamental, and hardwood production purposes. Most groves are monotypic with the most common species being either the blue gum (*Eucalyptus gunnii*) or red gum (*E. camaldulensis* ssp. *obtusa*). The understory within well-established groves is usually very sparse due to the closed canopy and allelopathic (toxic; suppresses plant growth) nature of the abundant leaf and bark litter. If sufficient moisture is available, eucalyptus becomes naturalized and is able to reproduce and expand its range. The sparse understory offers only limited wildlife habitat; however, as a wildlife habitat, these woodlands provide excellent nesting sites for a variety of raptors, including red-shouldered hawks (*Buteo lineatus*). During winter migrations, a large variety of warblers may be found feeding on the insects that are attracted to the eucalyptus flowers. Eucalyptus trees with active raptor nests are considered sensitive. A 0.1-acre patch of this eucalyptus woodland occurs within the BSA to the east of Camiones Way (Figure 3.14-1).

Disturbed Habitat

Disturbed habitat includes land cleared of vegetation (e.g., dirt roads), land containing a preponderance of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present animal usage that removes any capability of providing viable habitat. Dominant plant species within this vegetation community in the BSA include garland daisy (*Chrysanthemum coronarium*), filaree (*Erodium* sp.), cheeseweed, and crystalline iceplant (*Mesembryanthemum crystallinum*). Two native species, goldenbush (*Isocoma menziesii*) and telegraph weed (*Heterotheca grandiflora*), also were observed in this vegetation community

within the BSA. The BSA contains 0.9 acre of disturbed habitat, located south of Camino de la Plaza and west of I-5 (Figure 3.14-1).

Developed Land

Developed land is where permanent structures and/or pavement have been placed, which prevents the growth of vegetation, or where landscaping is clearly tended and maintained. Within the BSA, developed land encompasses 50.8 acres and consists of I-5, Camino de la Plaza, Camiones Way, East San Ysidro Boulevard, Rail Court, other roadways, commercial buildings with associated parking, and landscaped areas (Figure 3.14-1).

Jurisdictional Areas

Corps jurisdictional areas within the BSA total 0.39 acre of non-wetland WUS. These areas are comprised of two drainages, which are identified as drainage numbers 1 and 2 in Figure 3.14-1. Drainage number 1 consists of a 0.07-acre earthen channel between Camiones Way and Camino de la Plaza that also extends under the freeway to a culvert, and drainage number 2 consists of a 0.32 acre concrete-lined channel that runs parallel to the north side of the border, west of I-5.

Plants and Animals

A total of 44 plant species and 18 animal species were observed/detected within the BSA during general biological surveys, but no sensitive plant or animal species were observed. Although the USFWS identified the coastal California gnatcatcher and burrowing owl as species with the potential to occur within the BSA, neither sensitive species was observed/detected. The BSA is urbanized and suitable habitat for the coastal California gnatcatcher (Diegan coastal sage scrub) does not occur within the BSA. In addition, the non-native grassland within the BSA is too small of an area to support burrowing owls.

3.14.3 Environmental Consequences

Preferred Alternative

Vegetation Communities

As shown in Table 3.14-1, the Preferred Alternative would impact a total of 0.1 acre of disturbed habitat and 25.7 acres of developed land. Phase 1 of the Preferred Alternative would result in impacts to 0.1 acre of disturbed habitat and 11.3 acres of developed land (Figure 3.14-2); Phase 2 would result in impacts to 2.6 acres of developed land (Figure 3.14-3); and Phase 3 would result in impacts to 0.01 acre of disturbed habitat and 11.8 acres of developed land (Figure 3.14-4). No sensitive vegetation communities would be impacted and therefore, no associated adverse impacts would occur.

Table 3.14-1 PREFERRED ALTERNATIVE IMPACTS TO VEGETATION COMMUNITIES (acre)					
Vegetation Community/Habitat	BSA Total ¹	Impacts – Preferred Alternative			
		Phase 1	Phase 2	Phase 3	TOTAL
Disturbed wetland	0.05	0	0	0	0
Non-native grassland	0.7	0	0	0	0
Eucalyptus woodland	0.1	0	0	0	0
Disturbed habitat	0.9	0.1	0	0.01	0.1
Developed land	50.8	11.3	2.6	11.8	25.7
TOTAL	52.5	11.4	2.6	11.8	25.8

¹ Upland habitats are rounded to the nearest 0.1 acre, while wetland habitats are rounded to the nearest 0.01; thus, totals reflect rounding.
Source: NES-MI, April 2009.

Jurisdictional Areas

The Preferred Alternative would impact a total of 0.07 acre of non-wetland WUS. Approximately 0.07 acre of drainage number 2 would be impacted during Phase 3 by construction of the proposed southbound roadway, new southbound pedestrian crossing, and USBP facility within the LPOE (refer to Figures 3.14-1 and 3.14-4). Impacts to these jurisdictional areas would require compensatory mitigation (as identified below in Section 3.14.4), as well a CWA Section 404 Nationwide Permit from the Corps and a Section 401 Water Quality Certification from the RWQCB.

Although a bridge landing and a portion of the proposed east-west pedestrian bridge would be constructed over drainage number 1 during Phase 1 (refer to Figures 3.14-1 and 3.14-2), these proposed structures would not physically impact the channel.

Plants and Animals

Since no sensitive plant or animal species were observed within the BSA, implementation of the Preferred Alternative would not result in impacts to sensitive species.

Indirect Water Quality Impacts to Biological Resources

Water quality impacts resulting from surface runoff of urban contaminants or sediments potentially could occur during construction or operation of the Preferred Alternative. Decreased water quality could result in adverse indirect impacts to vegetation, aquatic animals, and terrestrial wildlife that depend on these resources. These potential impacts would be addressed through conformance with the NPDES and City guidelines, as well as incorporation of long-term water quality controls, including measures that would avoid or reduce off-site sediment transport (e.g., the use of storm water filters, street sweeping, and drainage facility maintenance), as identified in Subchapter 3.8, Water Quality and Storm Water Runoff. Implementation of the measures identified in Subchapter 3.8, Water Quality and Storm Water Runoff, would also avoid indirect water quality impacts to biological resources.

Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same BSA as the Preferred Alternative, and construction, operation, and maintenance activities would be similar. The analysis presented above for the Preferred Alternative would largely apply to the Pedestrian Crossing Alternative, with minor differences. As presented in Table 3.14-2 below, the Pedestrian Crossing Alternative would impact a total of 0.2 acre of disturbed habitat and 22.1 acres of developed land. Phase 1 of the Pedestrian Crossing Alternative would result in impacts to 0.1 acre of disturbed habitat and 11.9 acres of developed land (Figure 3.14-5); Phase 2 would result in impacts to 2.9 acres of developed land (Figure 3.14-6); and Phase 3 would result in impacts to 0.07 acre of disturbed habitat and 7.3 acres of developed land (Figure 3.14-7). No sensitive vegetation communities would be impacted and therefore, no associated adverse impacts to would occur.

Table 3.14-2 PEDESTRIAN CROSSING ALTERNATIVE IMPACTS TO VEGETATION COMMUNITIES (acre)					
Vegetation Community/Habitat	BSA Total ¹	Impacts – Preferred Alternative			
		Phase 1	Phase 2	Phase 3	TOTAL
Disturbed wetland	0.05	0	0	0	0
Non-native grassland	0.7	0	0	0	0
Eucalyptus woodland	0.1	0	0	0	0
Disturbed habitat	0.9	0.1	0	0.07	0.2
Developed land	50.8	11.9	2.9	7.3	22.1
TOTAL	52.5	12.0	2.9	7.4	22.3

¹ Upland habitats are rounded to the nearest 0.1 acre, while wetland habitats are rounded to the nearest 0.01; thus, totals reflect rounding.
Source: NES-MI, April 2009.

Similarly, implementation of the Pedestrian Crossing Alternative would not result in impacts to sensitive plant or animal species. Potential indirect impacts to biological resources due to decreased water quality would be addressed through the referenced measures identified above for the Preferred Alternative.

The Pedestrian Crossing Alternative would impact a total of 0.05 acre of non-wetland WUS (i.e. impacts to drainage number 2 during Phase 3 by construction of the proposed southbound roadway within the LPOE). Impacts to these jurisdictional areas would require compensatory mitigation, as well a CWA Section 404 Nationwide Permit from the Corps and a Section 401 Water Quality Certification from the RWQCB.

Under the Pedestrian Crossing Alternative, a bridge landing and a portion of the proposed east-west pedestrian bridge would be constructed over drainage number 1 during Phase 1 (refer to Figures 3.14-4). Neither these proposed structures nor the proposed north-south pedestrian bridge would physically impact the channel.

No Build Alternative

Under the No Build Alternative, the described development for the Preferred Alternative would not occur, and there would be no impacts related to biological resources.

3.14.4 Avoidance, Minimization, and/or Mitigation Measures

Preferred Alternative

Implementation of the following avoidance, minimization, and mitigation measure would avoid or reduce impacts to biological resources resulting from the Preferred Alternative:

- During construction of the Preferred Alternative, jurisdictional areas and sensitive vegetation within the BSA should be fenced with orange plastic exclusionary fencing, and no personnel, debris, or equipment would be allowed within the jurisdictional areas.
- Impacts to 0.07 acre of non-wetland WUS should be mitigated at a 1:1 ratio through purchase of mitigation credits equal to 0.07 acre of ephemeral drainage at an approved mitigation bank.

Pedestrian Crossing Alternative

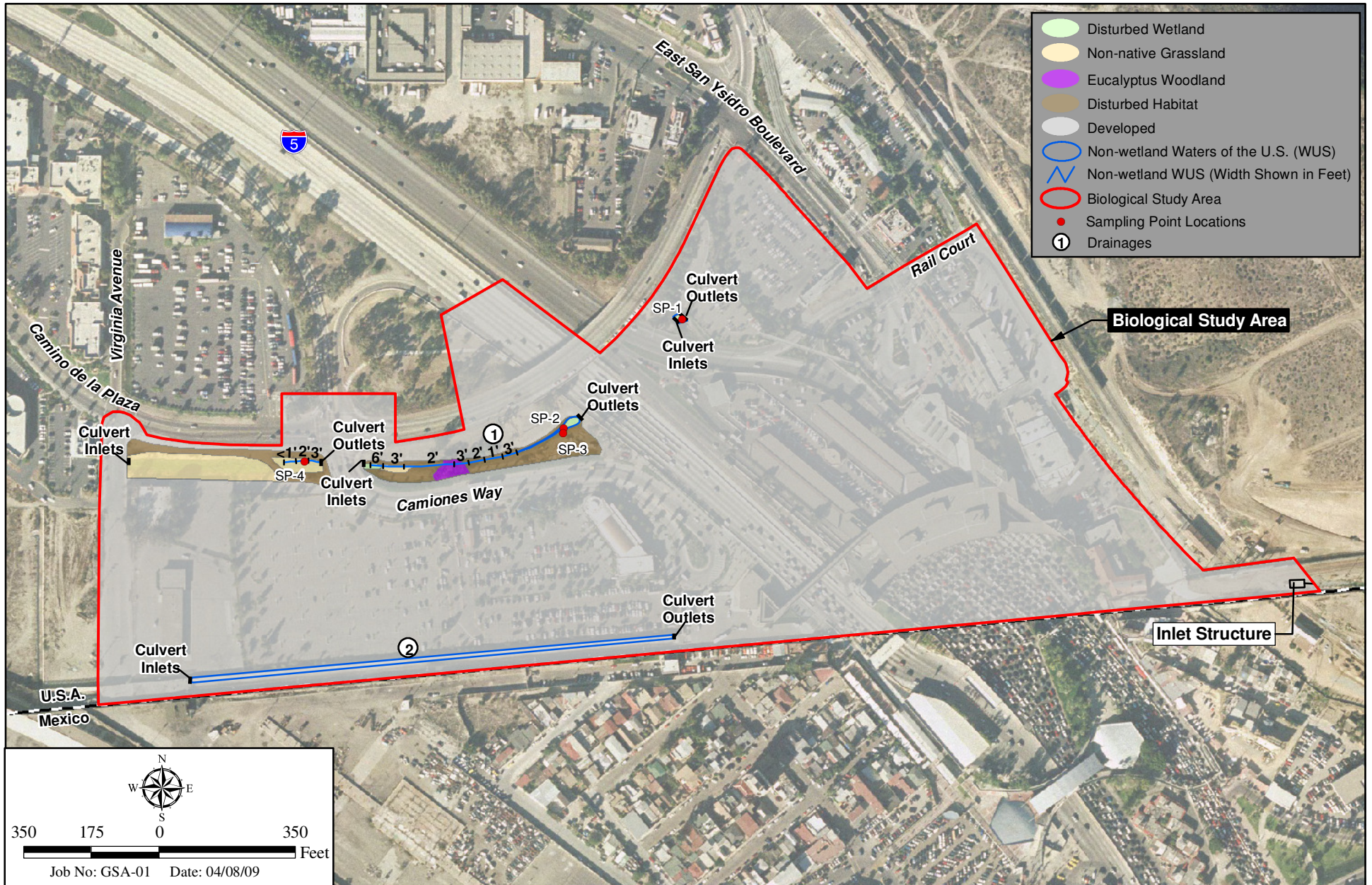
Implementation of the following avoidance, minimization, and mitigation measure would avoid or reduce impacts to biological resources resulting from the Pedestrian Crossing Alternative:

- During construction of the Preferred Alternative, jurisdictional areas and sensitive vegetation within the BSA should be fenced with orange plastic exclusionary fencing, and no personnel, debris, or equipment would be allowed within the jurisdictional areas.
- Impacts to 0.05 acre of non-wetland WUS should be mitigated at a 1:1 ratio through purchase of mitigation credits equal to 0.05 acre of ephemeral drainage at an approved mitigation bank.

No Build Alternative

No avoidance, minimization, or mitigation measures would be required because no impacts to sensitive biological resources would occur under the No Build Alternative.

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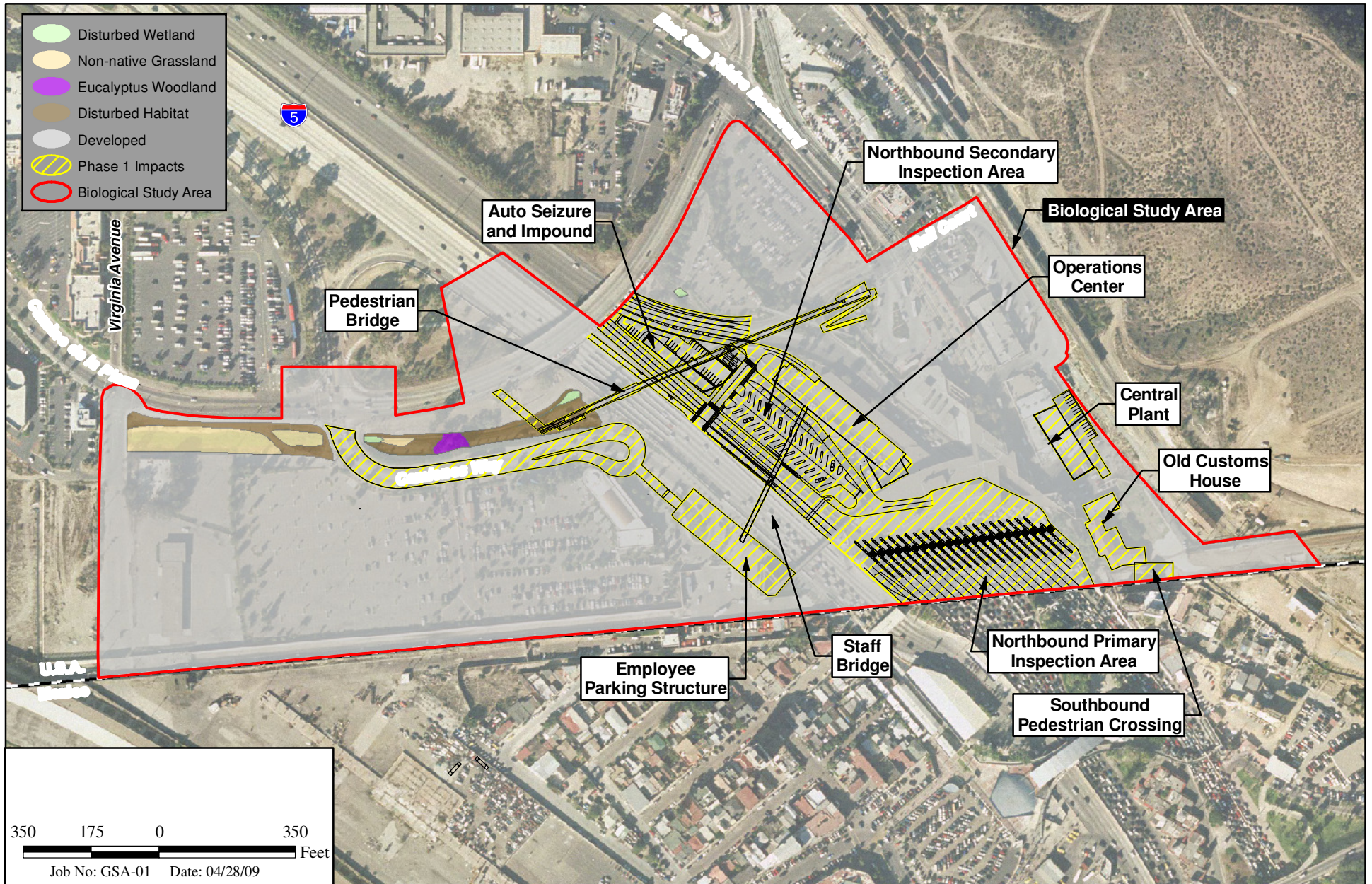


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Vegetation Communities and Corps Jurisdictional Areas

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.14-1

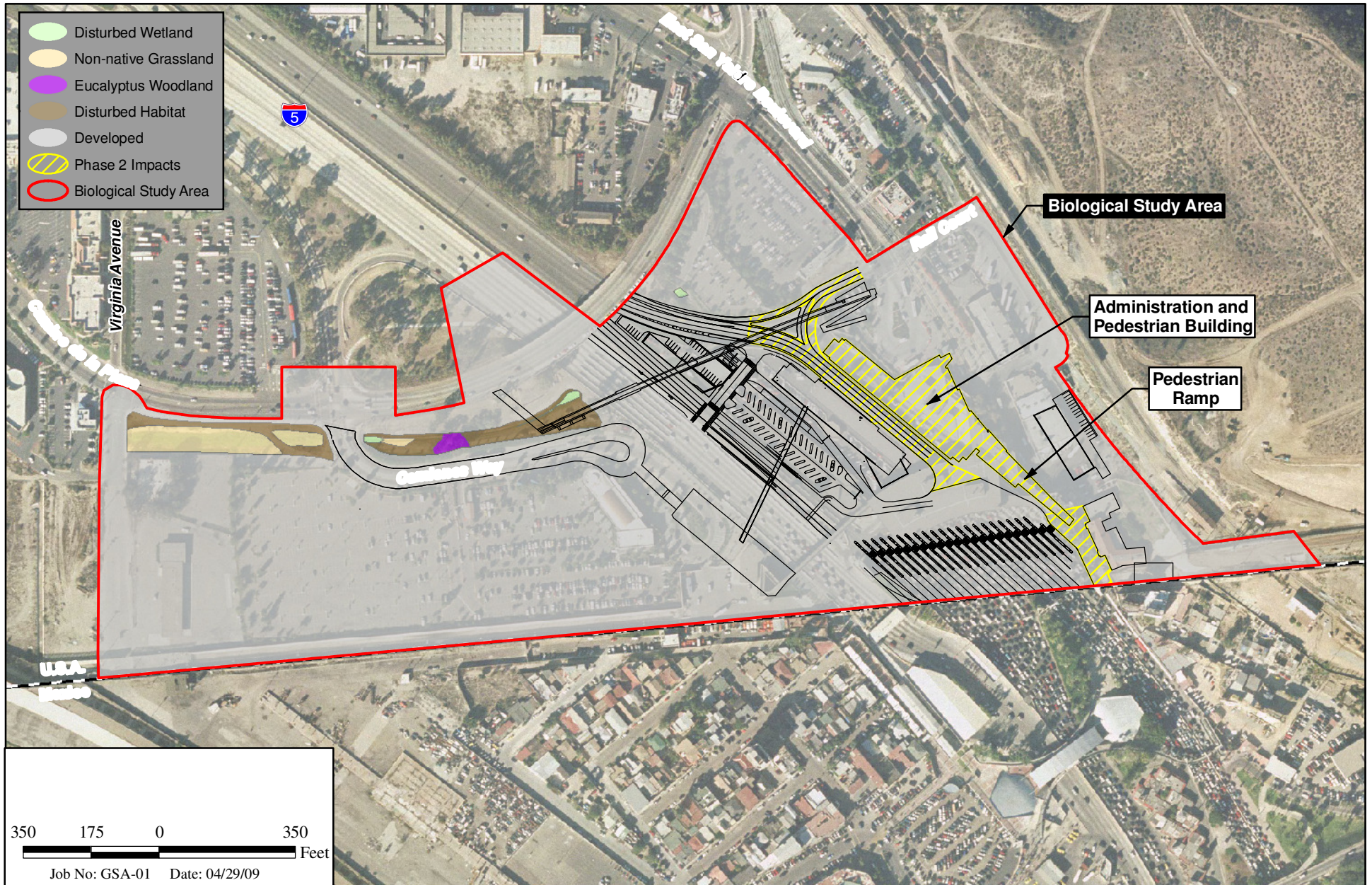


Phase 1 Vegetation Impacts - Preferred Alternative

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.14-2

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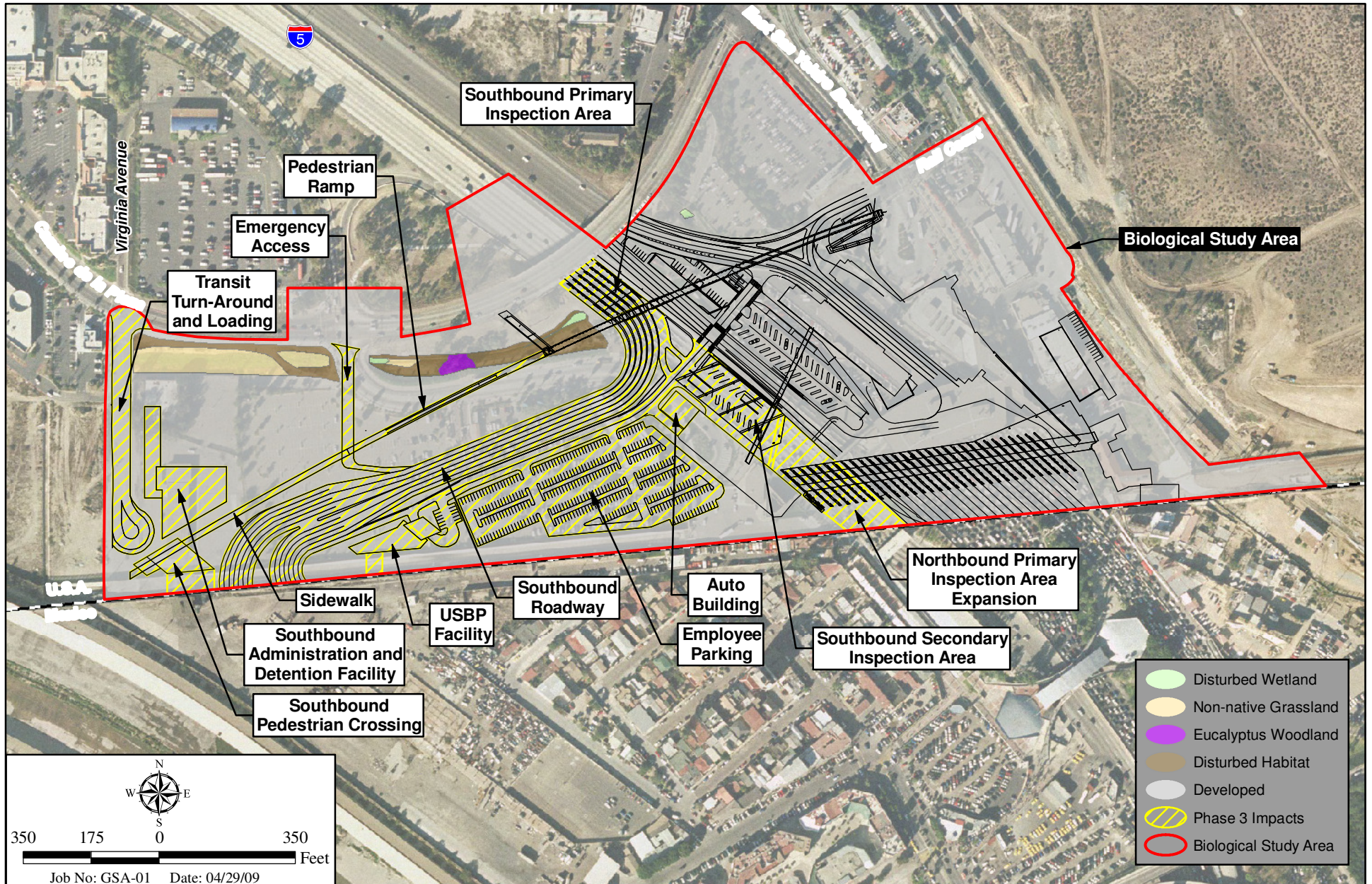


Phase 2 Vegetation Impacts - Preferred Alternative

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.14-3

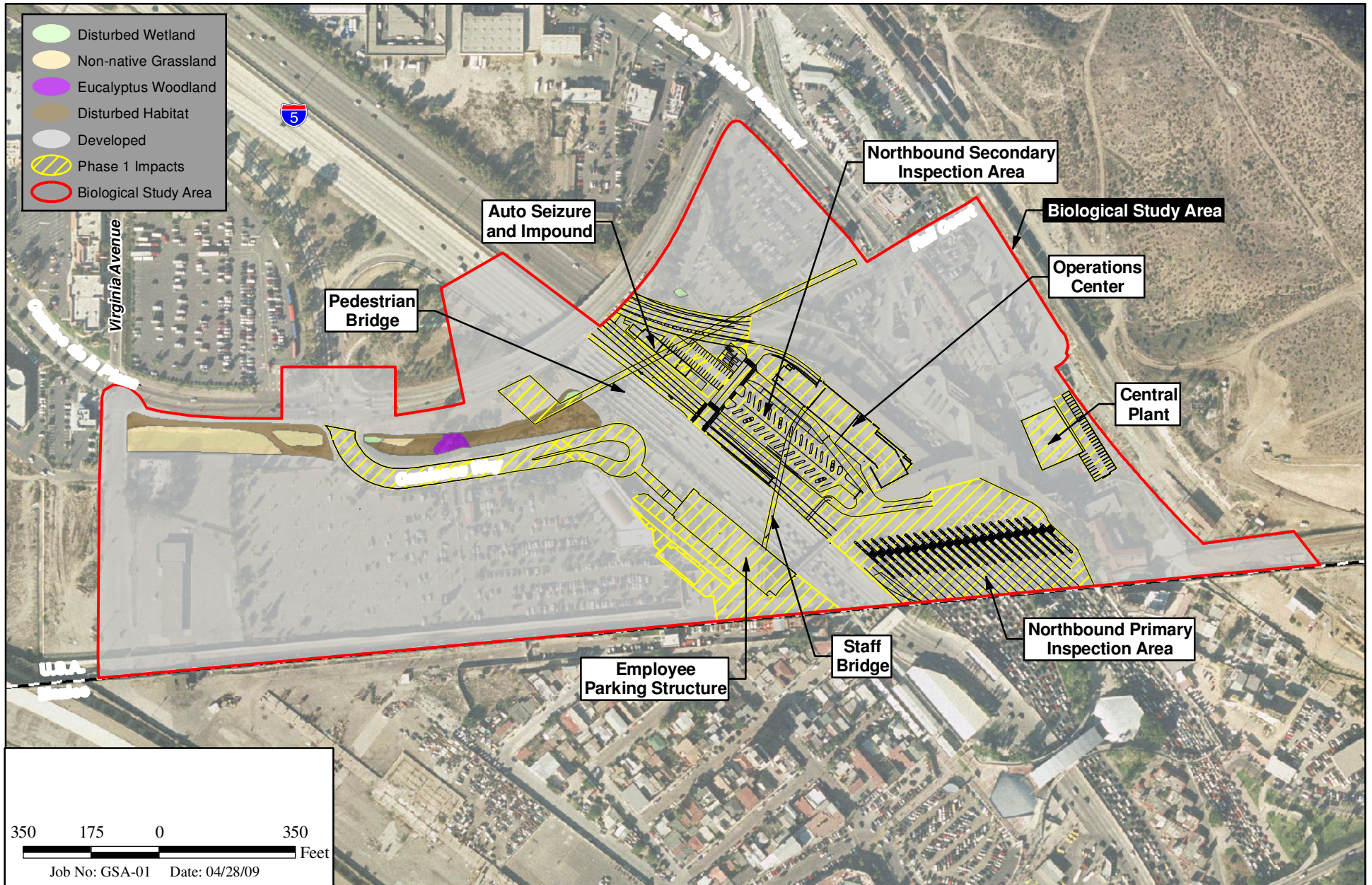
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Phase 3 Vegetation Impacts - Preferred Alternative

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.14-4

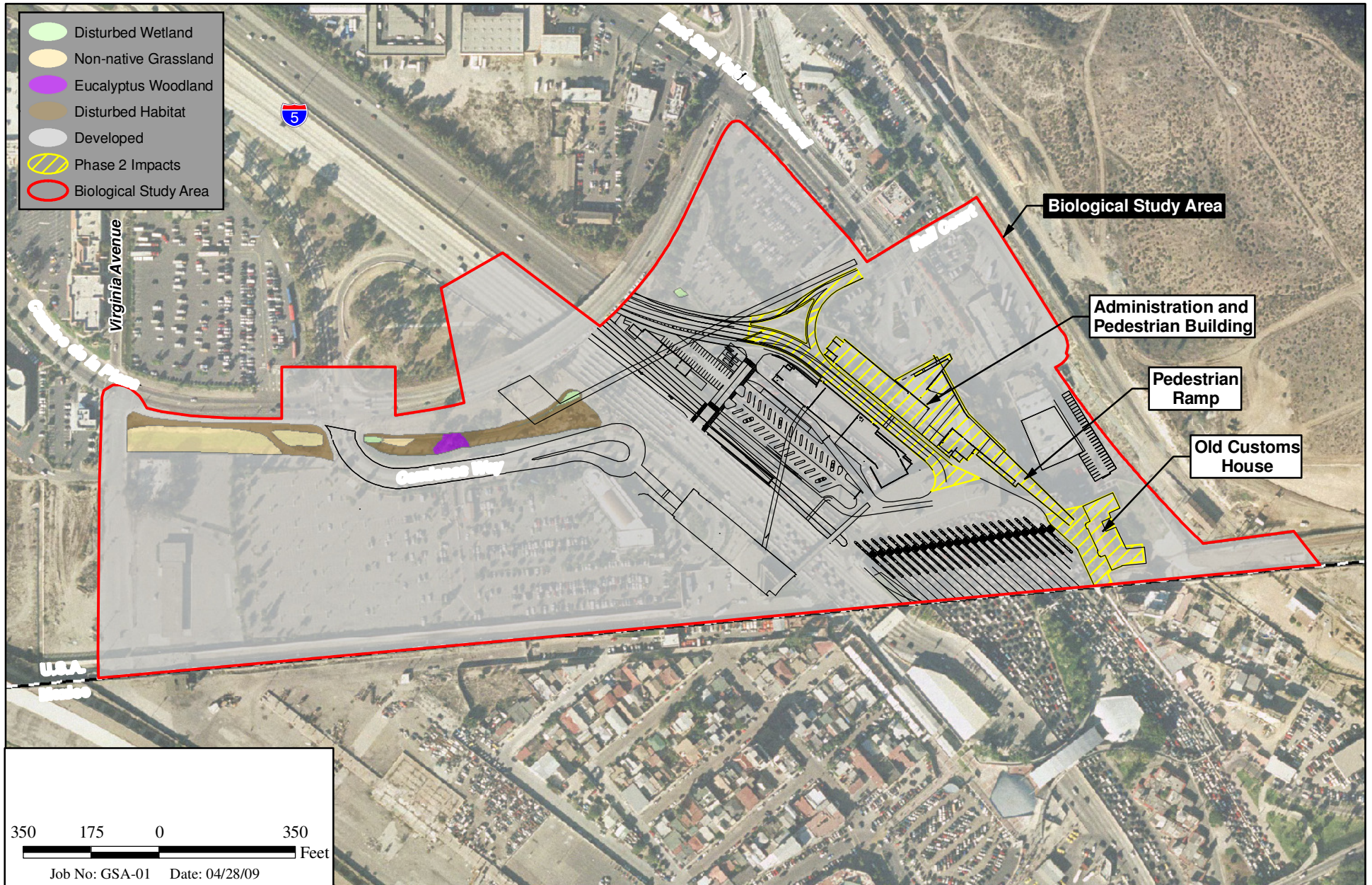


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Phase 1 Vegetation Impacts - Pedestrian Crossing Alternative

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.14-5

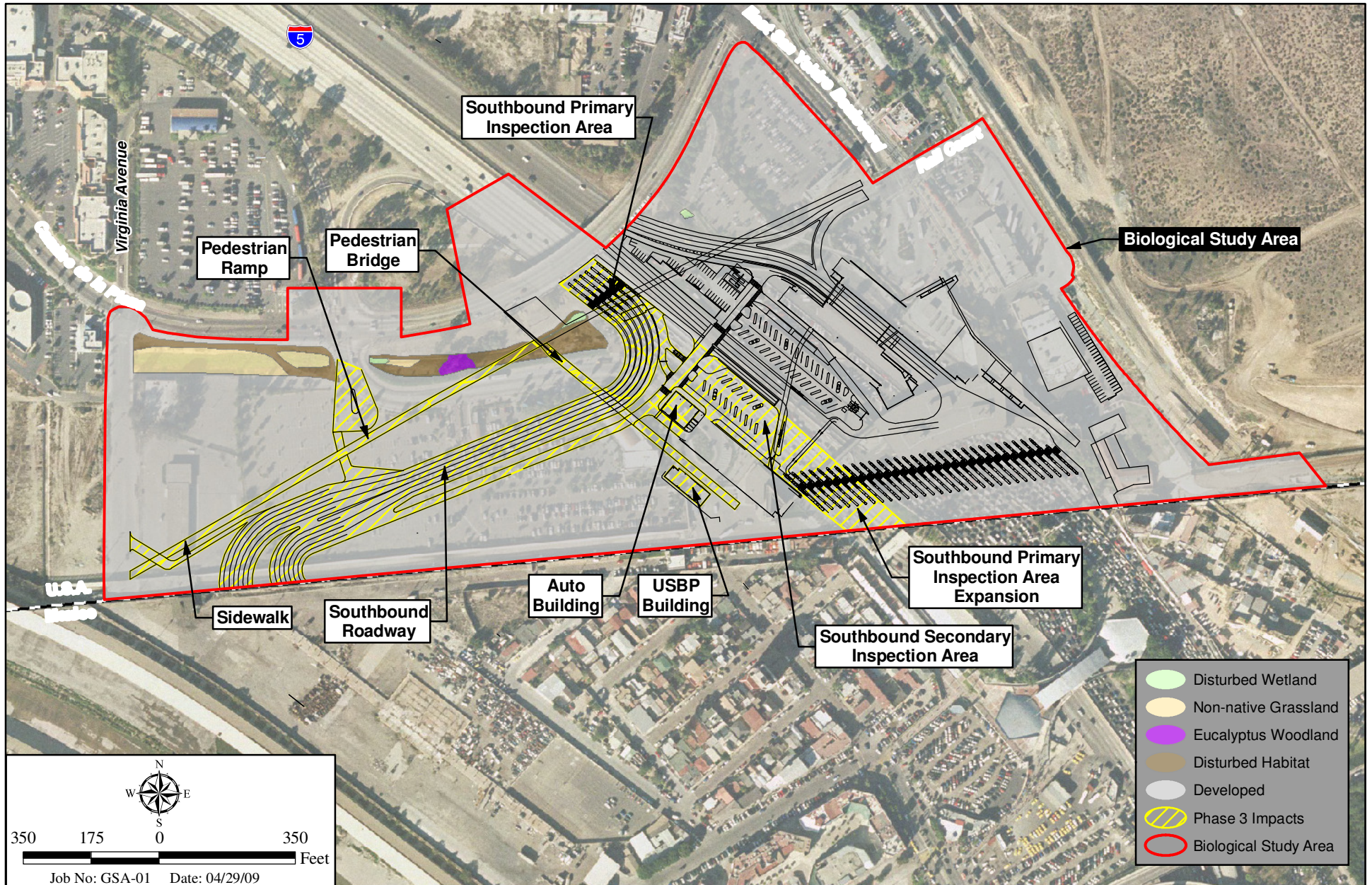


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Phase 2 Vegetation Impacts - Pedestrian Crossing Alternative

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.14-6



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Phase 3 Vegetation Impacts - Pedestrian Crossing Alternative

SAN YSIDRO LAND PORT OF ENTRY IMPROVEMENTS

Figure 3.14-7

ADDITIONAL IMPACTS

3.15 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE HUMAN ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

NEPA requires a discussion of a project's relationship of local short-term impacts and use of resources to the maintenance and enhancement of long-term productivity in 40 CFR Section 1502.16 (Environmental Consequences) of the CEQ Regulations. A discussion of the Project alternatives and the No Build Alternative is provided below.

3.15.1 Preferred Alternative

The Preferred Alternative would involve short-term construction activities that would be necessary for the attainment of short-term and long-term transportation and economic objectives associated with an improved border crossing facility. The local short-term impacts and use of resources by the Preferred Alternative are consistent with the maintenance and enhancement of long-term productivity for the San Diego/Tijuana region and beyond. The following short-term and long-term losses and benefits would occur:

Short-term losses would include:

- Economic losses experienced by businesses affected by relocation and by reduced access and parking during construction;
- Temporary construction impacts such as noise, air quality, motorized and non-motorized traffic delays or detours;
- Brief interruptions in utility service where relocation or connections would be required;
- Interruptions in border crossings where temporary lane obstructions would be required during construction; and
- Visual impacts from construction activities.

Short-term benefits would include:

- Increased jobs and revenue generated during construction.

Long-term losses would include:

- Use of construction materials and energy; and
- Possible loss of the NRHP-listed Old Customs House.

Long-term benefits would include:

- Reduction in wait times at the San Ysidro LPOE and potentially the Otay Mesa LPOE, improving the free movement of passenger vehicles and people;
- Reduced air emissions due to shorter idling times;
- Improved connections for cross-border travelers to existing multi-modal transportation options near the LPOE;

- Improvement in security and the ability to conduct inspections at the San Ysidro LPOE;
- Improved productivity, as people spend less time waiting to cross the border and more time working and other productive pursuits; and
- Reduction in energy consumption due to reduced wait times at the San Ysidro LPOE and use of energy efficient and sustainable design features at the improved LPOE.

3.15.2 Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative, and would be expected to result in similar short- and long-term impacts and benefits. The exceptions would be: (1) the long-term benefit identified above with respect to improved connections for cross-border travelers to existing multi-modal transportation options near the LPOE; and (2) the possible long-term loss of the Old Customs House.

Under the Pedestrian Crossing Alternative, a single southbound pedestrian crossing would be provided at its existing location. The two new southbound pedestrian crossings proposed under the Preferred Alternative would not be constructed, which would result in a less desirable pedestrian circulation pattern. Provision of only one southbound pedestrian crossing would result in greater walking distances to the southbound border crossing.

Like the Preferred Alternative, the Pedestrian Crossing Alternative would remove Camiones Way, and would replace it with a small turn-around at the south leg of the Camino de la Plaza/I-5 off-ramp intersection, where Camiones Way currently extends from Camino de la Plaza. The new turn-around would function as a transit and privately owned vehicle drop-off area; however, it would be a smaller facility than the proposed facility along Virginia Avenue under the Preferred Alternative and would not include any loading areas.

The Pedestrian Crossing Alternative also would not provide direct connections between transit and pedestrian facilities. The east-west pedestrian bridge within the LPOE would land on the north side of the East San Ysidro Boulevard/I-5 freeway ramp intersection (instead of at the San Ysidro Intermodal Transportation Center as described for the Preferred Alternative), requiring pedestrians to cross the busy intersection to and from the San Ysidro Intermodal Transportation Center located across the street. Furthermore, those utilizing transit at the shortened Camiones Way turn-around would have longer walking distances to and from the border crossing compared to the Preferred Alternative. As a result, the Pedestrian Crossing Alternative would not provide the improved mobility for pedestrians that the Preferred Alternative would create. Overall, the identified long-term benefit of the Preferred Alternative would not be realized under the Pedestrian Crossing Alternative.

On the other hand, the Old Customs House would be retained under the Pedestrian Crossing Alternative. Therefore the identified possible long-term loss of the Old Customs House would not occur under the Pedestrian Crossing Alternative.

3.15.3 No Build Alternative

The No Build Alternative would offer none of the benefits nor have any of the losses listed above. It would, however, not resolve worsening congestion at the LPOE.

3.16 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES THAT WOULD BE INVOLVED IN THE PROJECT

3.16.1 Preferred Alternative

Implementation of the Preferred Alternative would involve a commitment of a range of natural, physical, human, and fiscal resources. Proposed activities include the demolition of most of the existing LPOE facility and the construction of new border crossing facilities. Considerable amounts of fossil fuels, labor, and construction materials such as cement, aggregate, and bituminous material would be expended in demolition and construction activities. Additionally, large amounts of labor and natural resources would be used in the making of construction materials. These materials are generally not retrievable. However, they are not in short supply and their use would not have an adverse effect upon continued availability of these resources.

Land used in the construction of the proposed facility is considered an irreversible commitment during the time period that the land is used for a border facility. However, most of the subject land consists of the existing LPOE that is already committed for such uses. Additional land currently used for commercial uses would also be converted to border crossing facilities. These commercial uses would be acquired and/or relocated in accordance with federal regulations. It is anticipated that displaced businesses relocated within the community would generate higher tax revenues due to higher assessed property values at the new locations, which would compensate for any initial loss of tax revenues. In addition, increased economic activity throughout the region as a result of implementation of the Preferred Alternative would be expected to further offset any temporary loss in property tax revenue from the parcel acquisitions. If a greater need arises for use of the land, or if the border facility is no longer needed, the land can be converted to another use. At present, there is no reason to believe such a conversion would ever be necessary or desirable, particularly given the regional importance of the San Ysidro LPOE.

Implementation of the Preferred Alternative potentially could result in the loss of the historic Old Customs House, which is listed on the NRHP. The Preferred Alternative may affect this resource to accommodate a planned southbound pedestrian crossing. Per Section 106 of the NHPA, GSA is currently in consultation with the SHPO, Advisory Council on Historic Preservation, and other parties regarding the potential future use of the Old Customs House.

Construction would also require a substantial one-time expenditure of federal funds, which are not retrievable; this would be partially offset by savings in energy and time. In addition to the costs of construction, there would be costs for maintenance and personnel. The commitment of these resources is based on the concept that residents in the immediate area, region, and state would benefit from the improved quality and efficiency of the San Ysidro LPOE. These benefits would consist of improved accessibility, greater safety, reduced energy use and time savings, which are expected to outweigh the commitment of these resources.

3.16.2 Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative, and would be expected to result in a similar commitment of resources. Implementation of the Pedestrian Crossing Alternative, however, would not result in the loss of the historic, NRHP-listed Old Customs House, because the LPOE's southbound pedestrian crossing would remain at its current location. The Pedestrian Crossing Alternative would still

require the interior renovation of the Old Customs House to accommodate the temporary use of this building for pedestrian processing operations during construction of the new Administration and Pedestrian Building in Phase 2, but the irretrievable loss of this historical resource would not occur.

3.16.3 No Build Alternative

The No Build Alternative would not require irreversible and irretrievable commitments of resources.

3.17 CUMULATIVE IMPACTS

3.17.1 Regulatory Setting

CEQ regulations implementing NEPA require federal agencies to analyze cumulative effects of their actions on the environment. In accordance with 40 CFR, Section 1508.7 of the CEQ Regulations, cumulative impacts are defined as:

The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such other actions.

Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time. Cumulative impacts on resources in the Project area may result from the impacts of the Project together with other past, present, and reasonably foreseeable projects, such as residential, commercial, industrial, and other development. These land use activities may result in cumulative effects on a variety of natural resources, such as species and their habitats, water resources, and air quality. They also can contribute to cumulative impacts on the urban environment, such as changes in community character, traffic patterns, noise, housing availability, and employment.

3.17.2 Affected Environment

The analysis of cumulative impacts follows the process in the CEQ's *Considering Cumulative Impacts under NEPA* (CEQ 1997). The following 11 steps served as guidance for identifying and assessing cumulative impacts:

1. Identify the significant cumulative effects issues associated with the proposed action and define the assessment goals.
2. Identify the geographic boundaries of the analysis.
3. Identify the time frame for the analysis.
4. Identify other actions that have contributed or may contribute to cumulative effects.
5. Characterize the components and status of the environment.
6. Characterize the stresses on the environment.
7. Define a baseline condition for the environment.
8. Identify important cause-and-effect relationships.
9. Determine the magnitude and significance of the cumulative effects.
10. Modify or add alternative actions.
11. Monitor cumulative effects of the selected alternative.

Cumulative Issues

Based on methodologies contained in the CEQ's *Considering Cumulative Impacts under NEPA* (CEQ 1997), the cumulative analysis in this subchapter addresses the issues of traffic and air quality. Project impacts on other issues/resources would not contribute to adverse cumulative

effects. A brief explanation of why the Project would not contribute to cumulative effects of other environmental issues is provided below.

Land Use

No adverse land use impacts would occur with implementation of the Project build alternatives (see Subchapter 3.1, Land Use). Presumably, all cumulative projects in the SYCP Area also would be designed to be consistent with all relevant local, state, and federal plans and policies, or could require plan amendments to avoid or mitigate potential impacts. Overall, no associated adverse cumulative land use impacts would be anticipated.

Community Character

The SYCP Area, inclusive of the Project Study Area, does not experience a high level of community cohesion due to the existing border facilities, functions, and associated activities. The SYCP Area is furthermore divided by transportation corridors that traverse the community, including the I-5, I-805, and trolley line. The Project would be consistent with the existing SYCP, and would not further divide the established community. On the contrary, the Project would construct facilities that could restore some connectivity and mobility between the divided eastern and western sides of the community, specifically a pedestrian bridge that would span the I-5 and LPOE. Furthermore, the Project would replace existing border facilities with new ones. Development of the cumulative projects (as identified below under Cumulative Projects), which primarily consist of mixed-use, residential, commercial retail uses, would generally be compatible within the developed community. Because the Project would not change land uses and facility types, its cumulative effect on community character, together with the identified cumulative projects, would not contribute to associated adverse cumulative impacts.

Visual/Aesthetics

The Project Study Area is located in an area that is largely developed. The development of the Project (either build alternative), in combination with other identified cumulative projects (as identified below under Cumulative Projects) in the Project viewshed (refer to Figure 3.5-1), would cause incrementally more visual change in the viewshed than the Project would alone. A total of 11 cumulative projects are located within the Project viewshed. These include several infill mixed-use, residential, and commercial retail projects, as well as one public roadway project, within the developed portion of the viewshed. The larger mixed-use projects would be the most visible and would result in the highest level of change within the Project viewshed. The smaller infill projects and one roadway project would not be highly noticeable within the existing visual environment. Taken together, the cumulative projects would result in a low to moderate level of change in the viewshed given the existing developed visual environment and the similarity between existing and proposed land uses.

Additionally, the Project would replace existing border facilities with new border facilities. Views and viewer response to the Project would be similar to the existing condition since land uses and facility types would not substantially change. Therefore, the Project's contribution to visual change within the viewshed would not result in adverse cumulative visual effects.

Cultural Resources

As discussed in Subchapter 3.6, Cultural Resources, the Preferred Alternative would impact the Old Customs House, which is listed on the NRHP. Pursuant to Section 106 of the NHPA, GSA

is currently in consultation with the SHPO, Advisory Council on Historic Preservation, and other parties regarding the potential future use of the Old Customs House. The development of the identified cumulative projects (as identified below under Cumulative Projects) would not adversely affect any listed cultural or historical resources. Since no other resources within the SYCP Area would be affected, Project effects on historical resources would not contribute to adverse cumulative cultural resources impacts.

Water Quality/Hydrology/Floodplain

Implementation of the Project would result in the generation of short- and long-term contaminants, and would contribute to cumulative water quality impacts in downstream receiving waters, including the Tijuana River and Estuary. Identified short- and long-term Project-specific water quality impacts would be reduced through conformance with existing regulatory permit requirements (i.e., NPDES Construction Permit and associated City Storm Water Standards) and incorporation of BMPs. Because it would not be possible for these efforts to completely eliminate the generation of contaminants, the Project would incrementally contribute to cumulative water quality impacts. These cumulative impacts are not considered adverse, however, based on the following considerations: (1) all identified Project-level water quality impacts would be avoided or reduced through site-specific Project design features and conformance with existing regulatory requirements; and (2) the Project and identified cumulative projects are subject to the same water quality standards intended to limit urban runoff contaminants, conform with Basin Plan water quality objectives and beneficial uses, and address regional (i.e., cumulative) water quality impacts on a watershed-wide basis, and therefore would be required to implement measures to minimize water quality impacts as well.

The Project would not result in hydrology or flooding impacts related to drainage alteration, increased runoff volumes/velocities, storm drain capacity due to proposed design elements (refer to Subchapter 3.7, Hydrology and Floodplain). Presumably, all cumulative projects in the SYCP Area would be designed to accommodate their runoff volumes and velocities by constructing appropriate facilities such that drainage basins and storm drain systems are not adversely impacted. Therefore, no associated adverse impacts would occur.

Geology and Soils

All potential Project-specific geotechnical impacts would be avoided or reduced through conformance with geotechnical recommendations and established regulatory requirements. Potential geology and soils effects are inherently restricted to the areas proposed for development and would not contribute to cumulative impacts associated with other planned or proposed development.

Paleontology

As described in Subchapter 3.10, Paleontology, all potential Project-specific impacts to paleontological resources would be effectively avoided or addressed through identified mitigation measures. Cumulative projects (as identified below under Cumulative Projects) would be subject to similar analysis and (if applicable) similar mitigation requirements for paleontological resources (pursuant to applicable regulatory guidelines).

The importance of individual paleontological resources is related to the inherent scientific data and associated research value. Information gained from the paleontological monitoring program within the Project Study Area and other locations having paleontological resource impacts would

be presented in reports and filed with appropriate regulatory agencies and scientific institutions with permanent paleontological collections, such as the San Diego Natural History Museum. Any fossils collected during Project grading or grading of cumulative projects also would be curated at such a scientific institution and would be available to other paleontologists for further study. Based on the required compliance of both the Project and applicable cumulative projects with monitoring, collection, and analysis requirements for paleontological resources, the Project would not result in adverse cumulative paleontological resource impacts.

Hazardous Waste/Materials

As described in Subchapter 3.11, Hazardous Waste/Materials, Project-specific impacts to hazardous waste/materials would be reduced through conformance with applicable regulatory requirements and implementation of appropriate mitigation measures. Similar measures would be required of other projects in the vicinity that contain or are adjacent to known hazardous materials sites. As a result, adverse cumulative impacts related to the increased exposure of people to public health and safety risks from hazardous materials would not occur.

Biological Resources

The Project would not impact sensitive biological habitat (refer to Subchapter 3.14, Biological Resources), and therefore, would not cumulatively contribute to the loss of habitat region wide. The Project would impact a small area of non-wetland WUS (0.07 acre under the Preferred Alternative and 0.5 acre under the Pedestrian Crossing Alternative), but implementation of compensatory mitigation would ensure that the Project's contribution would not result in adverse cumulative impacts to biological resources.

Cumulative Study Areas

The area of cumulative effect varies depending on the resource issue analyzed. The cumulative air quality study area for the Project encompasses the SYCP Area (refer to Figure 3.1-1), while the cumulative traffic study area includes roadway segments, freeway segments, and intersections that are likely to be affected by the Project. The traffic study area, shown in Figure 3.4-1, includes 11 roadway segments, eight freeway segments, and nine intersections within an approximately 1.25-mile radius of the San Ysidro LPOE within the U.S. These segments and intersections include:

Roadway Segments

- East Beyer Boulevard, north of East San Ysidro Boulevard
- Camino de la Plaza, from Virginia Avenue to the I-5 southbound ramps
- Camino de la Plaza, from the I-5 southbound ramps to East San Ysidro Boulevard
- Camiones Way, south of Camino de la Plaza
- East San Ysidro Boulevard, from Olive Drive to the I-805 southbound ramps
- East San Ysidro Boulevard, from the I-805 southbound ramps to the I-805 northbound ramps
- East San Ysidro Boulevard, from the I-805 northbound ramps to Border Village Road (north)
- East San Ysidro Boulevard, from Border Village Road (south) to Camino de la Plaza
- Via de San Ysidro, from East San Ysidro Boulevard to the I-5 northbound ramps
- Via de San Ysidro, from the I-5 northbound ramps to I-5 the southbound off-ramp
- Via de San Ysidro, from the I-5 southbound off-ramp to Calle Primera

Freeway Segments

- I-5, from Dairy Mart Road to Via de San Ysidro (northbound and southbound)
- I-5, from Via de San Ysidro to the I-805 interchange (northbound and southbound)
- I-5, from the I-805 interchange to East San Ysidro Boulevard (northbound)
- I-5, from the I-805 interchange to the Camino de la Plaza on-ramp (southbound)
- I-5, from East San Ysidro Boulevard to the international border (northbound)
- I-5, from Camino de la Plaza on-ramp to the international border (southbound)
- I-805, from the SR-905 interchange to East San Ysidro Boulevard (northbound and southbound)
- I-805, from East San Ysidro Boulevard to the I-5 interchange (northbound and southbound)

Intersections

- Via de San Ysidro/Calle Primera
- Via de San Ysidro/I-5 southbound off-ramp
- Via de San Ysidro/I-5 northbound ramps
- East San Ysidro Boulevard/I-805 southbound ramps
- East San Ysidro Boulevard/I-805 northbound ramps
- East San Ysidro Boulevard/East Beyer Boulevard
- East San Ysidro Boulevard/I-5 northbound ramps
- Camino de la Plaza/I-5 southbound ramps
- Camino de la Plaza/Virginia Avenue

Cumulative Projects

Current and reasonably foreseeable projects in the SYCP Area are identified in Table 3.17-1. Information on these projects was obtained through consultation with City planners familiar with past, present, and reasonably foreseeable projects in the area surrounding the Project site, as well as review of available environmental documentation. Table 3.17-1 provides a summary of the public and private development projects within the SYCP Area. Refer to Figure 3.1-3 for the location of these identified cumulative projects.

Specifically, there are 25 projects in the SYCP Area that have been recently constructed, are under construction, are in various stages of processing/review by the applicable lead agency, or are currently planned for development. These cumulative projects largely consist of a mixture of residential, commercial office, retail, and institutional land uses. Cumulative projects also include a medical facility and roadway improvements.

In addition to these projects within the SYCP Area, there is one proposed border project to the east within the community of Otay Mesa, which entails construction of a new four-lane freeway (SR-11), and a new LPOE at east Otay Mesa. A Presidential Permit has been granted following the completion of a Program Environmental Impact Report/Program EIS for this project to select the preferred project location. A Tier II environmental document is currently being prepared to evaluate alternative designs for SR-11 and the new LPOE. This LPOE is planned to serve passenger and commercial vehicles, as well as pedestrians, and may be a toll facility. This new LPOE is expected to help alleviate congestion at the San Ysidro and Otay Mesa LPOEs and has been shown to be needed with or without the Project (GSA 2008). For this reason, this additional project, although located outside of the cumulative study area for traffic and air quality, has been considered in the cumulative analysis.

Similarly, planned improvements at the existing Otay Mesa LPOE are anticipated to nearly double the number of lanes for non-commercial border crossers, as well as significantly increase this LPOE's capacity to process commercial traffic by 2015. As in the case of the new Otay Mesa East LPOE, this project has been considered in the present Project cumulative

analysis because it is expected to help alleviate congestion at the San Ysidro LPOE and has been shown to be needed with or without the Project (GSA 2008).

Table 3.17-1 CUMULATIVE PROJECTS IN THE SYCP AREA				
No.¹	Project Name	Location	Type	Description
1	Las Palmas	122 Alverson Road	Single and Multi-family Residential	Demolish existing structures and construct 17 rental units – 16 multi-family units and one single family residence. Permits were issued.
2	El Pedregal Apartments	104 Averil Road	Multi-family Residential	Site Development Permit for 44 rental apartments and one manager apartment, and a 1,200-square-foot community center on a 2.26-acre site.
3	Verbena Apartments	3774 Beyer Blvd.	Residential	80-unit affordable housing complex.
4	San Ysidro Health Center	4004, 4050 Beyer Blvd.	Medical	25,000 square-foot medical facility. Under construction.
5	Villas Andalucia	4225 Beyer Blvd	Multi-family Residential	24 dwelling units on a 1.47-acre site.
6	Blackshaw Lane Villas	549 Blackshaw Lane	Residential	11-12 condo units on a 0.94-acre site. Requires Community Plan Amendment
7	Vista Lane Villas	3481 Vista Lane	Multi-family Residential	Community Plan amendment, Planned Development Permit, Rezone, and Tentative Map to construct 38 units on a 1.92-acre site.
8	Mission Villas	3515 Vista Lane	Residential	14 condominiums on a 1.92-acre site. Requires Community Plan Amendment.
9	7 th Day Adventist Church	521 Blackshaw Lane	Community	Conditional Use Permit amendment for a 5,943 square-foot addition to existing church on a 1.88-acre site.
10	Camino de la Plaza	Along Camino de la Plaza	Public Improvement	Current street improvements including sidewalks, curbs and gutters, streetlights, and benches.
11	4191 Camino de la Plaza	4191 Camino de la Plaza	Retail	New 1-story storefront and trash enclosure for future restaurant at existing mall
12	815 W. San Ysidro Blvd.	815 W. San Ysidro Blvd.	Multi-family Residential	22 multi-family units.
13	Tuscan Villas	517 W. San Ysidro Blvd.	Multi-family Residential	17 multi-family units.
14	1010 W. San Ysidro Blvd.	1010 W. San Ysidro Blvd.	Single Family Residential	125 single family dwelling units.
15	Pilot Village – Mi Pueblo	W. San Ysidro Blvd., between Cottonwood and I-805	Mixed-use	Mixed-use development on a 14-acre site with approximately 1,000 new housing units and 150,000 square feet of retail/commercial space, parking, park land, and civic space.
16	Pilot Village – Living Rooms at the Border	114 West Hall Ave.	Mixed-use	Mixed-use development and rehabilitation of a historic church into a community facility and higher density affordable rental housing.
17	Pilot Village – Willow Road Mixed Use	120 Willow Road	Mixed-use	Approximately 3,100 square feet of retail/commercial and 36 multi-family residences.
18	1975 1/3 Smythe Ave.	1975 1/3 Smythe Ave	Residential	Planned Development Permit to develop a 4.35-acre parcel into 40 residential condominiums.
19	129 W. San Ysidro Blvd.	129 W. San Ysidro Blvd.	Industrial	Approximately 1,800 square feet of warehouse.
20	151 W. San Ysidro Blvd.	151 W. San Ysidro Blvd.	Commercial	Commercial building on vacant lot.
21	198 W. San Ysidro Blvd.	198 W. San Ysidro Blvd.	Community	One-story firehouse.
22	Ponce de Leon Duplex	344 Sunrise Drive	Residential	Two-story duplex.
23	Las Americas	3905 1/3 Camino de la Plaza	Commercial Retail	67-acre mixed use project.
24	Pilot Village – Las Americas	3905 1/3 Camino de la Plaza	Multi-family	156 residential units at the existing Las Americas center.
25	Willow Elementary School	Willow Road	Institutional	Replacing 80,000 square feet, including 43 classrooms, primarily portable buildings.

¹ Number corresponds to location in Figure 3.1-3.

3.17.3 Environmental Consequences

Traffic and Transportation/Pedestrian and Bicycle Facilities

Preferred Alternative

Cumulative traffic impacts were evaluated in the traffic report prepared for the Project, (*San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009). The cumulative traffic analysis evaluated future traffic conditions in the horizon year (2030), which represents buildout of the San Ysidro community, including the Preferred Alternative and the cumulative projects in Table 3.17-1.

Roadway Segments

The following roadway segments would operate at LOS F under horizon year conditions without the Preferred Alternative:

- Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps
- East San Ysidro Boulevard, between the I-805 northbound ramps and Border Village Road
- Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps
- Via de San Ysidro, between the I-5 southbound off-ramp and Calle Primera

Under the horizon year conditions with the Preferred Alternative, the same roadways would continue to operate at LOS F (refer to Table 3.4-8). Implementation of the Preferred Alternative would not increase traffic volumes on the segment of Via de San Ysidro, between the I-5 southbound off-ramp and Calle Primera.

Traffic volumes on the other segment of Via de San Ysidro (between East San Ysidro Boulevard and the I-5 northbound ramps), as well as the segment of East San Ysidro Boulevard (between the I-805 northbound ramps and Border Village Road) would increase with the Preferred Alternative. However, assuming these roadways would be improved to their ultimate recommended street classifications (as identified in the SYCP) by the horizon year (which is by definition, buildout of the Project area, including roadways), the additional volumes resulting from the Preferred Alternative would not further degrade traffic conditions on these roadways. The segment of East San Ysidro Boulevard would continue to operate at LOS F, but the V/C ratio (i.e., volume compared to the roadway's traffic-carrying capacity) would not increase, and the segment of Via de San Ysidro would operate at LOS C.

The segment of Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps, however, would continue to operate at LOS F, but with much higher volumes. Accordingly, the Preferred Alternative would result in an adverse cumulative traffic impact to this segment of Camino de la Plaza.

Freeway Segments

Analyzed freeway segments would operate at LOS C or better under horizon year conditions without the Preferred Alternative (refer to Table 3.4-9).

With the Preferred Alternative, northbound I-5, between the international border and the I-805 interchange would degrade from LOS C to E and F during the AM peak period, and northbound

I-805, between the I-5 interchange and East San Ysidro Boulevard would degrade from LOS C to F during the AM peak period (refer to Table 3.4-9). Volumes along this stretch of northbound I-5 and northbound I-805 would increase due to the proposed LPOE improvements, which would increase the processing capacity of northbound traffic crossing the border and merging onto northbound I-5 and I-805. While the Preferred Alternative would result in adverse cumulative traffic impacts to these freeway segments, the benefits of greatly reducing congestion (wait times and vehicle queues) for northbound vehicles crossing the border would offset these impacts.

Intersections

The following intersections would operate at LOS E or F under horizon year conditions without the Preferred Alternative:

- Via de San Ysidro/Calle Primera (LOS F during PM peak period)
- Via de San Ysidro/I-5 northbound ramps (LOS F during PM peak period)
- Camino de la Plaza/I-5 southbound ramps (LOS E during PM peak period)
- Camino de la Plaza/Virginia Avenue (LOS F during PM peak period)

These intersections that would continue to operate at LOS E or F with the Preferred Alternative under horizon year conditions (refer to Table 3.4-10). Although the intersections of Via de San Ysidro/Calle Primera and Via de San Ysidro/I-5 northbound ramps would operate at LOS F during the PM peak hour, the Preferred Alternative would not increase in delays at these two intersections. Delays at Camino de la Plaza's intersections with the I-5 southbound ramps and Virginia Avenue, however, would increase considerably, resulting in adverse cumulative traffic impacts.

Queuing and Waiting Times

Under horizon year conditions, wait times for northbound traffic without the Preferred Alternative are forecast to exceed 10 hours several times during the day, which would result in extremely long queues of vehicles waiting to cross the border. With the Preferred Alternative, northbound wait times would be reduced to a maximum of 1.5 hours throughout the day. Wait times for southbound traffic would approach one hour several times during the day both without and with the Preferred Alternative. No reduction in southbound wait times would occur with the Preferred Alternative because currently, only periodic inspections occur for southbound vehicles. Upon implementation of the Preferred Alternative, however, southbound vehicular inspections would occur regularly as part of the enhanced security operations at the LPOE. No associated cumulative traffic impacts would occur.

Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative, and would be expected to result in the same vehicle traffic volumes, peak hour flows, and distribution. Therefore, cumulative traffic impacts resulting from the Pedestrian Crossing Alternative to roadway segments, freeway segments, and intersections would be the same as those identified for the Preferred Alternative. Adverse cumulative traffic impacts resulting from the Pedestrian Crossing Alternative would include the following:

Roadway Segments

- Camino de la Plaza, between Virginia Avenue and I-5 southbound ramps

Freeway Segments

- Northbound I-5, between the I-805 interchange and East San Ysidro Boulevard
- Northbound I-5, between East San Ysidro Boulevard and the international border

While the Pedestrian Crossing Alternative would result in adverse cumulative traffic impacts to these freeway segments, the benefits of greatly reducing congestion (wait times and vehicle queues) for northbound vehicles crossing the border would offset these impacts.

Intersections

- Camino de la Plaza/Virginia Avenue (PM peak)
- Camino de la Plaza/I-5 southbound ramps (PM peak)

Queuing and Waiting Times

Forecasted wait times for northbound traffic without and with the Pedestrian Crossing Alternative would be the same as identified above under the Preferred Alternative because the number of lanes, inspection booths, and processing facilities would be the same under both build alternatives. No associated cumulative traffic impacts would occur.

No Build Alternative

Under the No Build Alternative, the Preferred Alternative would not be constructed. Traffic volumes on traffic study area roadway segments and intersections would increase as the community is built out. Cumulative traffic impacts would occur to the following roadway segments and intersections under the No Build Alternative:

- Camino de la Plaza, between Virginia Avenue to the I-5 southbound ramps (LOS F)
- East San Ysidro Boulevard, between the I-805 northbound ramps and Border Village Road (LOS F)
- Via de San Ysidro, between East San Ysidro Boulevard and the I-5 northbound ramps (LOS F)
- Via de San Ysidro, between the I-5 southbound off-ramp and Calle Primera (LOS F)
- Via de San Ysidro/Calle Primera (LOS F during PM peak period)
- Via de San Ysidro/I-5 northbound ramps (LOS F during PM peak period)
- Camino de la Plaza/I-5 southbound ramps (LOS E during PM peak period)
- Camino de la Plaza/Virginia Avenue (LOS F during PM peak period)

Additionally, as stated earlier, wait times for northbound traffic at the LPOE are forecast to exceed 10 hours if no improvements are made to the existing LPOE. This would result in extremely long queues of vehicles waiting to cross the border.

Air Quality

Preferred Alternative

Construction Impacts

The Preferred Alternative would be constructed in three phases over a period of approximately four years, with some overlap of phases occurring. Phase 1 is anticipated to begin in winter

2009/2010 with a 18 to 24-month duration. Phase 2 is anticipated to begin in 2011 and take 24 to 30 months. Construction of Phase 3 is estimated to begin as early as 2011, or as late as 2013, depending on the schedule provided by Mexico for their construction of the El Chaparral facility, and would last approximately 20 to 24 months. Emissions from the three construction phases would overlap as their construction phases are anticipated to overlap.

The air quality analysis (*Air Quality Impact Assessment for the San Ysidro Land Port of Entry Improvements Project*, April 2009) evaluated construction emissions by comparing projected annual construction emissions of the Preferred Alternative with *de minimus* thresholds established under 40 CFR Part 93, the General Conformity Rule, which applies to federal projects in nonattainment areas. The SDAB is currently considered a nonattainment area for O₃ and a maintenance area for CO. The *de minimus* thresholds for O₃ precursors (NO_x and VOCs) and CO are 100 tons per year. Annual emissions for each individual phase would be below the *de minimis* thresholds for all pollutants (i.e., 100 tons per year) during construction of the Preferred Alternative (refer to Table 3.12-4). Although all three construction phases would overlap, annual emissions of all pollutants would be less than the *de minimis* thresholds throughout the duration of construction.

However, if multiple cumulative projects (listed in Table 3.17-1) are constructed at the same time, the Preferred Alternative's construction emissions, in combination with emissions generated by the other projects under simultaneous construction, potentially may exceed the *de minimus* thresholds. The Preferred Alternative, therefore, could contribute to an adverse cumulative air quality impact during construction.

Operational Impacts

The Project is included in the 2030 San Diego RTP: Pathways for the Future (Table A.2-Phased Highway Projects – Revenue Constrained Plan, page A-9) approved by SANDAG in 2007. The Project is also included in the SANDAG 2008 RTIP as MPO ID CAL-56, RTP #08-00 (page 36). A conformity determination for both the 2030 RTP and the 2008 RTIP was made by DOT on November 17, 2008. The design concept and scope of the Preferred Alternative is consistent with the project description in the 2030 RTP, the 2008 RTIP, and the assumptions in the SANDAG regional emissions analysis. The Preferred Alternative, therefore, would conform to the SIP.

Based on the CO Hot Spots evaluation conducted for the Preferred Alternative, the predicted CO concentrations due to the Preferred Alternative would be substantially below the 1-hour and 8-hour NAAQS and CAAQS for CO (refer to Table 3.12-6). Furthermore, the estimated truck percentage of ADT traveling in the Project vicinity would not exceed eight percent, which is the threshold of significance established by the USEPA for PM_{2.5} and PM₁₀ impacts. Therefore, the Preferred Alternative would be in conformance with applicable CO and particulate matter standards.

Because the Preferred Alternative would conform to the SIP and applicable CO and particulate matter standards, operational emissions of the Preferred Alternative would not contribute to adverse cumulative air quality impacts.

Global Climate Change

As discussed in Subchapter 2.12, Air Quality, individual projects do not generate enough GHG emissions to significantly influence global climate change, but their incremental contribution combined with any increase of all other sources of GHG may result in cumulative impacts.

The Preferred Alternative is designed to reduce congestion and vehicle time delays by expanding the LPOE at the border. Without the Preferred Alternative, wait times at the border are projected to increase up to 10 hours in the horizon year (2030). Implementation of the Preferred Alternative would reduce projected wait times to a maximum of 1.5 hours throughout the day (*San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study*, April 2009). Due to the reduction in vehicle hours traveled and improved traffic flow resulting from the Preferred Alternative, it is anticipated that CO₂ emissions at the LPOE would be reduced.

However, the effect of increasing processing capacity of northbound traffic at the LPOE would result in higher volumes of traffic merging onto northbound I-5 and I-805 during peak periods, especially the AM peak. As a result, northbound I-5, between the international border and the I-805 interchange, and northbound I-805, between the I-5 interchange and East San Ysidro Boulevard would experience greater congestion and reduced speeds with the Preferred Alternative, which could generate additional CO₂ emissions. It is anticipated that these additional emissions may be partially or completely offset by the reduced emissions at the LPOE (as described above) because congestion and delays on the freeway segments would be less than existing congestion and delays at the San Ysidro LPOE.

Pedestrian Crossing Alternative

Although the Pedestrian Crossing Alternative would entail a different cross-border pedestrian circulation scheme, it would occur within the same Project Study Area as the Preferred Alternative, and construction (including phasing), operation, and maintenance activities would be similar. The analysis presented above for the Preferred Alternative would apply equally to the Pedestrian Crossing Alternative, and potential cumulative impacts with respect to air quality would be the same. As with the Preferred Alternative, the Pedestrian Crossing Alternative could contribute to an adverse cumulative air quality impact during construction if multiple cumulative projects are simultaneously under construction. No adverse cumulative air quality impacts related to operational emissions or global climate change would occur.

No Build Alternative

Under the No Build Alternative, the proposed improvements to the San Ysidro LPOE would not be constructed. The Preferred Alternative's contribution to easing future traffic congestion would not occur. Since existing traffic congestion would not be reduced, associated air quality impacts also would not be reduced. Regardless, no cumulative impacts are assessed because no construction is proposed.

3.17.4 Avoidance, Minimization, and/or Mitigation Measures

Traffic and Transportation/Pedestrian and Bicycle Facilities

Preferred Alternative

As described in Chapter 1.0, a primary Project goal in support of the Project purpose is to increase the processing capacity and efficiency of the LPOE in response to the need that is created by the current and projected demand for vehicles and persons to cross the border. Thus, the Preferred Alternative does not directly generate a substantial volume of traffic, but would accommodate existing and projected border crossing demand. It would also modify the patterns of traffic flow in the Project area. The purpose and need for the Project does not include local roadway improvements; however, feasible improvements have been identified that may be implemented by others to achieve acceptable LOS, based on commonly accepted local roadway segment and intersection standards. These potential improvements to be implemented by others are described below.

Implementation of the following avoidance, minimization, and mitigation measures would avoid or reduce cumulative traffic impacts to roadway segments and intersections resulting from the Preferred Alternative:

- Widening of the segment of Camino de la Plaza, between Virginia Avenue and the I-5 southbound ramps to four-lane major standards.
- Installation of a traffic signal at the Camino de la Plaza/Virginia Avenue intersection.
- Re-striping of the I-5 southbound ramps at Camino de la Plaza to one southbound left-turn lane, one southbound right-turn lane, one southbound shared through/right-turn lane, and one westbound through lane.

Widening the roadway segment of Camino de la Plaza would increase the roadway capacity and improve the LOS to C in horizon year conditions. Installation of the traffic signal at the Camino de la Plaza/Virginia Avenue intersection would improve the LOS to C in horizon year conditions. Re-striping the I-5 southbound ramps at Camino de la Plaza would improve the LOS to D in horizon year conditions.

As discussed above in Section 3.17.3, the Preferred Alternative would result in adverse cumulative traffic impacts to three freeway segments. There are no avoidance, minimization, or mitigation measures identified that would lessen these impacts; however, the benefits of greatly reducing congestion (wait times and vehicle queues) for northbound vehicles crossing the border would offset these impacts.

Pedestrian Crossing Alternative

Implementation (by others) of the avoidance, minimization and mitigation measures identified above for the Preferred Alternative would avoid or reduce the cumulative traffic impacts to roadway segments and intersections resulting from the Pedestrian Crossing Alternative. As with the Preferred Alternative, there are no avoidance, minimization, or mitigation measures identified that would lessen cumulative impacts to freeway segments, but the large reduction in congestion for northbound traffic crossing through the LPOE would offset these freeway impacts.

No Build Alternative

Cumulative traffic impacts would occur under the No Build Alternative, as discussed above. However, because no construction would occur, no avoidance, minimization, or mitigation measures are required.

Air Quality

Preferred Alternative

Construction

Implementation of the following avoidance, minimization, and mitigation measures would reduce cumulative air quality impacts of the Preferred Alternative resulting from construction activities:

- Water or dust palliative should be applied to exposed soil surfaces at the construction site(s) and equipment as frequently as necessary to control fugitive dust emissions.
- Soil binder should be spread on any unpaved roads used for construction purposes, and all construction parking areas.
- Trucks should be washed off as they leave the construction site(s), as necessary, to control fugitive dust emissions.
- Construction equipment and vehicles should be properly tuned and maintained. Low sulfur fuel should be used in all construction equipment.
- Track-out reduction measures such as gravel pads should be used at access points to minimize dust and mud deposits on roads affected by construction traffic.
- Transported loads of soils and wet materials should be covered prior to transport, or adequate freeboard (space from the top of the material to the top of the truck) should be provided to reduce PM₁₀ and deposition of particulate during transportation.
- Dust and mud that are deposited on paved, public roads due to construction activity and traffic should be removed to decrease particulate matter.
- To the extent feasible, construction traffic should be routed and scheduled to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- Grading and earth moving should be suspended when wind gusts exceed 25 mph unless the soil is wet enough to prevent dust plumes.

Global Climate Change

To the extent that it is applicable or feasible, the following measures can help to reduce GHG emissions and potential climate change impacts resulting from the Preferred Alternative:

- Provide landscaping where possible, which reduces surface warming and decreases CO₂ through photosynthesis

- Use lighter color surfaces, such as Portland cement, which helps to reduce the albedo effect (i.e., surface reflectivity of the sun's radiation) and cool the surface
- Use of energy efficient lighting
- Limit idling times on trucks and equipment used during construction

Pedestrian Crossing Alternative

Implementation of the avoidance, minimization and mitigation measures identified above for the Preferred Alternative would reduce the cumulative air quality impacts of the Pedestrian Crossing Alternative.

No Build Alternative

The No Build Alternative would not result in air quality impacts; therefore, no avoidance, minimization, or mitigation measures are required.

COMMENTS AND COORDINATION

CHAPTER 4.0 – COMMENTS AND COORDINATION

4.1 INTRODUCTION

Early and continuing coordination with the general public agencies is an essential part of the environmental process to determine the scope of environmental documentation; the level of analysis; potential impacts; avoidance, minimization and mitigation measures; and related environmental requirements. Agency consultation and public participation for the Project have been accomplished through a variety of formal and informal methods, including meetings, interagency coordination, and the public scoping process. This chapter summarizes the results of the GSA's efforts to fully identify, address, and resolve Project-related issues through early and continuing consultation.

4.2 PUBLIC SCOPING PROCESS

4.2.1 Notice of Intent

Pursuant to NEPA, a Notice of Intent (NOI) was prepared for the Project and published in the Federal Register on July 2, 2003. Comments were received from the following public agencies, organizations, and businesses:

- USEPA
- City of San Diego (including the Development Services Department, Planning Department, and Transportation Development Section)
- City of San Diego Redevelopment Agency
- SANDAG
- Metropolitan Development Transit Board
- Casa Familiar
- San Diego Regional Chamber of Commerce
- San Ysidro Chamber of Commerce
- San Ysidro Planning and Development Group
- San Ysidro Business Association
- Law Offices of Robert C. Hawkins
- Barob Group, Ltd.

A summary of the comments and issues raised by each commenter is provided below.

United States Environmental Protection Agency

The USEPA had no formal comments on the NOI, but requested copies of the Draft EIS upon its completion.

City of San Diego Redevelopment Agency

The Redevelopment Agency requested a comprehensive analysis of all Project impacts and mitigation alternatives, with special attention to the planned Las Americas Bridge as it relates to the Project. The Redevelopment Agency also expressed concern for the loss of private lands within the SYRP area, and the corresponding loss of tax revenue for the community. If the loss

of these lands is truly necessary, the Redevelopment Agency suggested as mitigation the development of infrastructure to connect the east and west sides of San Ysidro.

City of San Diego (including Development Services Department, Planning Department, and Transportation Development Section)

City staff expressed support for the statements of the City of San Diego Redevelopment Agency (see above) with respect to the Las Americas Bridge and the loss of developable land as a result of Project implementation. Staff also requested that the Project environmental document address the following:

- Impacts to wetlands and biological resources;
- Impacts to water quality (a water quality technical report is required);
- An air quality “hot spot” analysis;
- Impacts to historical and paleontological resources;
- Impacts related to noise, geology, hazards and hazardous materials, City infrastructure and public services;
- Impacts related to the closure or vacation of any public streets or easements;
- Environmental justice impacts;
- Impacts related to the goals and objectives of the SYCP (which would require a plan amendment);
- Impacts on pay parking lots in the area;
- A possible future pedestrian/bicycle crossing at Virginia Avenue;
- A full and accurate traffic study and traffic control plan, with mitigation for all traffic impacts;
- Adequate accommodation for vehicle drop off of southbound pedestrians; and
- Consideration of walking distances on pedestrian bridges.

San Diego Association of Governments

SANDAG staff requested the following:

- Consideration of impacts to pedestrians, bicyclists, and transit users;
- Analysis of traffic impacts with respect to freeway and arterial access;
- Analysis of impacts to Tijuana traffic circulation and consequent impacts to San Ysidro traffic circulation;
- Demonstration of how the Project would fit with existing and planned transportation infrastructure in Tijuana;
- Analysis of environmental justice impacts;
- Consideration of southbound expansion of the LPOE, not just northbound;
- Accommodating expansion of the SENTRI program for northbound and southbound vehicles and pedestrians;
- Inclusion of northbound and southbound cross-border bus processing facilities.

Metropolitan Development Transit Board

MTDB staff expressed interest in the Project because of its proximity to the San Ysidro Intermodal Transportation Center, and asked that MTDB be kept informed of the Project's progress.

Casa Familiar (3 letters)

Commenters provided information on current vehicle and pedestrian border crossing patterns, and made the following recommendations:

- Evaluate provision of northbound and southbound pedestrian crossings on both the east and west sides of the LPOE to allow access to both sides of San Ysidro and to accommodate the needs of different categories of border crossers (commuters, tourists, etc.);
- Consider pedestrian walking distances;
- Evaluate the likelihood and timing of the Mexican government building the planned border infrastructure on the Mexican side, and the implications for the Project if this does not take place in a timely manner;
- Analyze solutions to mitigate project-related loss of commercial land, and resultant tax sources for the San Diego Redevelopment Agency;
- Design the Project with consideration for impacts to the community and aesthetics;
- The Project must comply with environmental justice requirements;
- Analyze Project traffic impacts locally and on neighboring communities;
- Provide alternatives to the four options defined in the NOI.

San Diego Regional Chamber of Commerce

The San Diego Regional Chamber of Commerce requested that the Project address mandated southbound inspections; expand the LPOE and upgrade it with smart border technology to allow desired crossing times of 15 minutes or less; and address concerns of the San Ysidro community, including land loss, traffic overflow onto local streets, and air quality impacts.

San Ysidro Chamber of Commerce

The San Ysidro Chamber of Commerce expressed appreciation of GSA's presentation at its July 23, 2003 meeting.

San Ysidro Planning and Development Group

The San Ysidro Planning and Development Group has in the past and continues to oppose any LPOE expansion that is not consistent with the SYCP. The San Ysidro Planning and Development Group commented that environmental studies should include the entire SYCP Area, and the community should be considered under environmental justice criteria.

San Ysidro Business Association

The San Ysidro Business Association requested the following:

- Project design to prevent traffic congestion associated with southbound inspection;
- Evaluation of the Mexican government's plan for the El Chaparral facility and its integration with Virginia Avenue;
- Evaluation of the project's impact on the San Ysidro Intermodal Transportation Center;
- Ensuring that the Project will be able to accommodate planned growth with maximum crossing times of 15 minutes;
- Minimization of loss of commercial land;
- Consideration of tunneling options to reduce land loss to a maximum of two to five acres;

- Analysis of impacts to the entire SYCP Area;
- Reimbursement of the San Ysidro community for any loss of tax revenue due to land loss;
- Resolution of Project-related traffic, air quality, and environmental justice problems;
- No user fees for border crossers;
- Full staffing and use of smart border technologies at the renovated LPOE.

Law Offices of Robert C. Hawkins

This law firm, representing a commercial tourist and parking operation, requested clarification of the Project description, including more detail regarding site design, as well as analysis of the following:

- Circulation impacts to local and regional roadways, including construction-related impacts;
- The Project's relationship to other border crossings in the region;
- Socio-economic impacts.

The letter offered specific comments on Options 1 through 4 of the NOI, and requested another scoping meeting, preferably in downtown San Diego to encourage interested parties from other parts of the San Diego region to attend.

Barob Group, Ltd.

This commercial property owner and business owner expressed concerns about the following:

- Potential impacts of Project construction and long-term operation on local businesses, parking lots, border-crossing vehicles and pedestrians, and local traffic flows;
- Potential Project impacts on the San Ysidro Intermodal Transportation Center and Friendship Plaza;
- The need for public restrooms;
- Homeland Security requirements;
- Assurance that border crossers would not be charged tolls or user fees;
- The relationship between the San Ysidro LPOE and the Otay Mesa LPOE, especially with respect to hours of operation.

4.2.2 Public Scoping Meeting

A public scoping meeting was held in the community on July 23, 2003 from 3:00 p.m. to 7:00 p.m. at the San Ysidro Multi-cultural Center, located at 4345 Otay Mesa Road, to give the community an opportunity to review and comment on the Project. The notice for the scoping meeting was published in the Federal Register as part of the NOI. Comments were encouraged and comment cards were made available at the meeting. Attendees were primarily residents and business owners in the area, as well as representatives of the San Ysidro Chamber of Commerce, Casa Familiar (a local community organization), and a Tijuana community organization. Nine attendees provided written comments, seven gave oral testimony, and three submitted letters. The following people submitted comments: Robert C. Hawkins, Esq., Lorne Bloovol, J.D. Mendez, Judy Elliot, Arturo Morales Felix, Emilia Aripez, Gloria Schiff, Michael A. Gill-Branion, Carlos Vasquez, Eugene Mitchell, Casa Familiar, Mr. Adato of the San Ysidro Chamber of Commerce, Mr. Kurrie, Mr. Vizcarro, Consejo Consultivo de Defensa Ciudadana A.C., David Flores, Joseph Garcia, Mr. Marquez, and Sam Marasco of the Las Americas project.

Inputs from the public scoping meeting and responses to the NOI were considered in the subsequent re-design of the Project, and in the CIA prepared for the Project (*Community Impact Analysis for the San Ysidro Land Port of Entry Improvements Project*, April 2009), as well as this Draft EIS. For example, the development footprint of the Project is significantly reduced compared to the original options, to reduce community and economic impacts on the community. Also in response to public input, improved arrangements have been made for pedestrians and for vehicle flow, to avoid or reduce social, economic, and traffic impacts. Considerations of staffing, use of “smart” border technologies, and coordination with the Mexican government have been included in the most recent designs.

4.3 CONSULTATION AND COORDINATION WITH PUBLIC AGENCIES

GSA consulted with USFWS on biological resource issues. USFWS Carlsbad Field Office was contacted in February 2009 via U.S. mail to request USFWS’s assessment for potential presence of federally listed threatened, endangered, or proposed for listing species. A written response has not yet been received; however, USFWS discussed listed threatened, endangered, and proposed for listing species that may occur in the Project vicinity in a telephone conversation between USFWS staff and the environmental contractor on February 3, 2009.

The NAHC was contacted for a records search of their Sacred Lands files in December 2008. The results of the search indicated that no sacred lands are recorded in the Project area. Consultation with local Native American tribes was recommended, and a list of Native American contacts was provided. Letters describing the Project and a map of the study area were mailed to local Native American representatives in January and March 2009.

Per Section 106 of the NHPA, GSA is currently in consultation with the SHPO, Advisory Council on Historic Preservation, and other parties regarding the potential future use of the Old Customs House.

Ongoing coordination between GSA and DHS and CBP has occurred regarding the design of Project. Caltrans, FHWA, SANDAG, and the City have also been consulted in regards to the Project and its interface with transportation and community facilities. Additionally, GSA is coordinating with the U.S. Department of State about obtaining a Presidential Permit.

4.4 PUBLIC PARTICIPATION

In addition to the public scoping process described above in Section 4.2, GSA formed a Community Representative Committee (CRC) in 2004, which is comprised of key community representatives and stakeholders. GSA has regularly been hosting CRC meetings, as needed, in the San Ysidro community to facilitate coordination and maintain an open dialogue between GSA and the community regarding the Project.

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CHAPTER 6.0

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CHAPTER 7.0

REFERENCES

CHAPTER 7.0 – REFERENCES

AECOM

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SUMMARY OF AVOIDANCE, MINIMIZATION, AND
MITIGATION MEASURES

SUMMARY OF AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

Community Impacts

Preferred Alternative and Pedestrian Crossing Alternative

Community Character and Cohesion

The following measure would be implemented to minimize short-term access impacts related to community character and cohesion during construction:

- A TMP would be implemented during Project construction. Specific elements of the TMP could include the use of flaggers and temporary lane realignments to maintain through traffic, concrete barriers, signage to direct traffic movements, and possible reduction of speed limits in construction zones. Access to existing businesses within the Project vicinity would be maintained during construction by creating temporary driveways, and/or providing alternate access points.

Utilities/Emergency Services/Life Safety

Preferred Alternative and Pedestrian Crossing Alternative

Utilities

Implementation of the following measure would avoid or reduce potential impacts related to utilities:

- The construction contractor should coordinate with responsible utility providers to protect systems in place or arrange for the temporary or permanent relocation of existing utility lines.

Emergency Services

Implementation of the following measures would avoid or reduce potential impacts related to emergency services during construction:

- A TMP should be implemented to provide for emergency access on roadways that would be temporarily affected during the construction period.
- The construction contractor should contact local emergency service providers prior to the start of construction to ensure construction activities would not impede provision of emergency services within the Project area during the construction period.

Life Safety

The Project would incorporate the following protective design measures to ensure the safety of people at the San Ysidro LPOE:

- Bollards and barriers should be used to protect structural elements from vehicle damage. Anti-ram barriers must be provided wherever moving vehicles approach booths or buildings.

- Exterior walls and interior walls in high-risk areas, such as lobbies and public screening spaces, should be reinforced with cast-in-place or precast reinforced concrete.
- Exterior windows and interior windows between high-risk areas and occupied space should be thermally tempered or laminated glass.
- Bullet resistant glazing should be provided on windows that face inspection areas, on-coming traffic, or the border.
- Building perimeters and doors between inspection areas should be designed to resist forced entry.
- Utilities critical to LPOE operations should be located within the Central Plant building, which would be structurally reinforced.
- Where utilities are located within occupied buildings they should be separated from inspection and public lobby areas by at least 25 feet or by reinforced walls and floors.
- Air intakes should be secured.
- Mechanical equipment should not be placed at grade and directly adjacent to vehicle movement pathways.
- Utilities and feeders should not be located adjacent to vehicle pathways, or on the Mexican side of the primary inspection lanes.

Traffic and Transportation/Pedestrian and Bicycle Facilities

Preferred Alternative and Pedestrian Crossing Alternative

A primary Project goal in support of the Project purpose is to increase the processing capacity and efficiency of the LPOE in response to the need that is created by the current and projected demand for vehicles and persons to cross the border. Thus, the Preferred Alternative or the Pedestrian Crossing Alternative does not directly generate a substantial volume of traffic, but would accommodate existing and projected border crossing demand. It would also modify the patterns of traffic flow in the Project area. The purpose and need for the Project does not include local roadway improvements; however, feasible improvements have been identified that may be implemented by others to achieve acceptable LOS, based on commonly accepted local roadway segment and intersection standards. These potential improvements to be implemented by others are described below.

Near-term Conditions

Implementation of the following avoidance, minimization and mitigation measures would avoid or reduce traffic impacts for near-term (2014) conditions:

- Widening the segment of Camino de la Plaza between Virginia Avenue and the I-5 southbound ramps to four-lane major standards.
- Installation of a traffic signal at the Camino de la Plaza/Virginia Avenue intersection.

Horizon Year Conditions

In addition to the measures listed above under near-term conditions, implementation of the following avoidance, minimization and mitigation measures would avoid or reduce traffic impacts of the Preferred Alternative for horizon year (2030) conditions:

- Re-striping of the I-5 southbound ramps at Camino de la Plaza to one southbound left-turn lane, one southbound right-turn lane, one southbound shared through/right-turn lane, and one westbound through lane.

Visual/Aesthetics

Preferred Alternative and Pedestrian Crossing Alternative

Implementation of the following measures would provide increased visual quality within the Project Study Area:

- A comprehensive landscape concept plan should be developed and implemented, including landscape features such as:
 - Drought tolerant and sustainable plant palettes.
 - Vine planting at fences and walls to reduce the visual scale and to act as a graffiti deterrent.
 - Street trees and landscaping should be retained to the highest extent possible during Project construction.
 - Architectural treatments should be consistent throughout the proposed LPOE buildings.
 - Metal fencing and safety railing should be consistent throughout the proposed pedestrian walkways.
 - Where possible, integrate new public art consistent with the international border setting.

Cultural Resources

Preferred Alternative and Pedestrian Crossing Alternative

Archaeological Resources

Implementation of the following avoidance, minimization, and mitigation measure would avoid impacts to unknown subsurface archaeological resources:

- If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area should be avoided until a qualified archaeologist can assess the nature and significance of the find.

Historical Resources

The following measures would avoid, minimize, or mitigate impacts to historical resources during renovation of the Old Customs House:

- All renovation of the Old Customs House for interim pedestrian processing operations and any future use should conform to *The Secretary of the Interior's Standards for the Treatment of Historic Properties*.
- Prior to alteration or removal of building features, detailed documentation of the Old Customs House should be completed as agreed to in the Section 106 consultation process.

If all adverse effects cannot be avoided, then other mitigation measures will be determined through Section 106 consultation.

The following measure would avoid, minimize, or mitigate indirect impacts to historical resources, including the International Building:

- Measures consistent with *The Secretary of the Interior's Standards for the Treatment of Historic Properties* would be implemented as agreed to in the Section 106 consultation process.

If all adverse effects cannot be avoided, then other mitigation measures will be determined through Section 106 consultation.

Hydrology and Floodplain

Preferred Alternative and Pedestrian Crossing Alternative

Avoidance, minimization, and mitigation recommendations related to hydrology and floodplain include appropriate design, sizing, and location of proposed storm drain facilities, incorporation of applicable recommendations from detailed geotechnical investigations, and consideration of the location and extent of proposed retention/infiltration basins with respect to potential surficial saturation issues.

Water Quality and Stormwater

Preferred Alternative and Pedestrian Crossing Alternative

Implementation of the following (or other appropriate) measures, in conformance with applicable regulatory requirements, would avoid, minimize or mitigate any potential impacts related to water quality and storm water runoff. These measures for short- and long-term water quality impacts are subject to modification based on updated Project design and engineering information.

Short-Term Construction

Erosion and Sedimentation

- Construction-related erosion and sedimentation impacts would be addressed through conformance with the applicable NPDES Construction Permit and related City standards, as previously described. This would include implementing an authorized SWPPP to address (among other issues) erosion and sedimentation concerns. While specific erosion and sediment control measures would be determined as part of the Project design and SWPPP process, standard BMPs from sources such as the Project WQTR, the NPDES permit text/City standards, and additional regulatory/industry sources that would likely be applicable include the following:
 - Use a phased construction schedule to limit the extent of grading at any given time to the smallest feasible area.
 - Preserve existing vegetation wherever feasible.
 - Restrict construction during the rainy season (October 1 to May 1) when feasible, install erosion control BMPs prior to the rainy season, and implement a “weather triggered” (i.e., 40 percent or greater chance of rain) action plan to inspect, repair, and/or upgrade BMPs as necessary during periods of inclement weather.
 - Avoid or minimize work and associated construction-related impacts in live streams and environmentally sensitive areas.
 - Implement and store erosion and sediment controls on-site that are adequate to provide complete erosion and sedimentation protection (including “standby” capacity) for exposed portions of the site not actively worked for seven or more consecutive calendar days. Specifically, such controls may include fiber rolls, gravel bags/hay bales (e.g., at storm drain inlets), silt fence, mats or mulching, temporary sediment basins, soil binders (e.g., bonded fiber matrix), hydroseeding, street sweeping/vacuuuming, energy dissipators, stabilized construction access points/sediment stockpiles, vehicle wash sumps, sediment transport vehicle covers, and concrete washouts.
 - Implement sampling/analysis, monitoring/reporting and post-construction management/maintenance programs, as applicable, per NPDES/City requirements.
 - Provide appropriate training for personnel responsible for BMP installation and maintenance.
 - Comply with local dust control requirements.
 - Implement appropriate water conservation practices (e.g., repairing leaks and avoiding or minimizing washing of construction-related vehicles and areas).
 - Install permanent landscaping, with emphasis on native and/or drought-tolerant varieties, as soon as feasible during or after construction.
 - Implement additional BMPs as necessary to ensure adequate erosion and sediment control.

Construction-related Hazardous Materials

Implementation of a SWPPP would be required under applicable guidelines as previously described, and would include measures to avoid or mitigate potential impacts related to the use and potential discharge of construction-related hazardous materials. Specific BMPs associated with construction-related hazardous materials would be determined as part of the Project design and SWPPP process, as noted above for erosion/sedimentation. A number of standard measures from sources such as the Project WQTR, the NPDES permit text/City standards, and additional regulatory/industry sources that would likely be applicable include the following:

- Restrict paving operations during wet weather and use sediment control devices downstream of paving activities.
- Contain and properly disposal of paving and construction wastes or slurry (e.g., from saw cutting; concrete curing/finishing; or washouts for concrete, stucco, paint, caulking, sealants, or drywall plaster), through measures such as use of portable (and impermeable) sumps, vacuuming, chemical application controls, and off-site waste disposal in an approved location.
- Minimize the amount of hazardous materials stored onsite, and restrict storage/use locations to areas at least 50 feet from storm drains and surface waters.
- Properly maintain all construction equipment and vehicles.
- Use covered and/or enclosed storage facilities for hazardous materials, and maintain accurate and up-to-date written material inventories.
- Store hazardous materials off the ground surface (e.g., on pallets) and in their original containers, with the legibility of labels protected (or replaced if labels are damaged).
- Use berms, ditches, and/or impervious liners (or other applicable methods) in material storage and vehicle/equipment maintenance and fueling areas, to provide a containment volume of 1.5 times the volume of stored/used materials and prevent discharge in the event of a spill.
- Place warning/information signs in hazardous material use/storage areas to identify the types of materials present, applicable use restrictions, and containment/clean-up procedures.
- Mark storm drains (and other appropriate locations) to discourage inappropriate hazardous material disposal.
- Provide training for applicable employees in the proper use, handling and disposal of hazardous materials, as well as appropriate action to take in the event of a spill.
- Implement solid waste management efforts, such as proper containment and disposal of construction debris (e.g., use of watertight dumpsters and daily trash collection/removal) and street sweeping.
- Store absorbent and clean-up materials in appropriate on-site locations where they are readily accessible.
- Properly locate and maintain portable wastewater facilities.

- Use recycled or less hazardous materials wherever feasible.
- Post regulatory agency telephone numbers and a summary guide of clean-up procedures in a conspicuous location at or near the job site trailer.
- Monitor and maintain hazardous material use/storage facilities and operations regularly (at least weekly) to ensure proper working order.
- Implement a Storm SWSAS program pursuant to regulatory guidelines.

Demolition-related Debris Generation

Preliminary demolition-related BMPs from NPDES and City standards that are likely applicable include the following:

- Recycle appropriate (i.e., non-hazardous) construction debris for on- or off-site use whenever feasible.
- Use dust-control measures such as watering to reduce particulate generation for pertinent locations/activities (e.g., concrete removal).
- Use appropriate erosion prevention and sediment control measures downstream of all demolition activities.
- Conform with applicable requirements related to the removal, handling, transport, and disposal of hazardous materials generated during demolition, including efforts such as implementing appropriate sampling and monitoring procedures; proper containment of contaminated materials during construction; providing protective gear for workers handling contaminated materials; ensuring acceptable exposure levels; and ensuring safe and appropriate handling, transport, and disposal of hazardous materials.

Disposal of Extracted Groundwater

While individual BMPs to address potential water quality concerns from disposal of extracted groundwater would be determined based on site-specific parameters, they may include the following types of standard measures derived from the NPDES Permit text and the previously referenced regulatory/industry sources:

- Use erosion prevention and sediment catchment devices (similar to those described above for erosion and sedimentation).
- Test extracted groundwater for appropriate contaminants prior to discharge.
- Treat extracted groundwater prior to discharge if required to provide conformance with applicable discharge criteria (e.g., through methods such as filtration, aeration, adsorption, disinfection, and/or conveyance to a municipal wastewater treatment plant).
- Remove contaminated groundwater for off-site treatment and disposal by a licensed operator in conformance with applicable legal requirements.

Long-term Operation and Maintenance

Site Design/Low Impact Development BMPs

- The use of site design/LID measures is intended to mimic predevelopment hydrologic conditions by effectively capturing, filtering, storing, evaporating, detaining, and/or infiltrating runoff close to its source. Potential site design/LID BMPs identified in the Project WQTR and/or the noted regulatory/industry sources that may be applicable to the Preferred Alternative include the following:
 - Implement runoff control through the use of on-site infiltration basins designed to accommodate a 2-year, 24-hour storm event (refer to Subchapter 3.7, Hydrology and Floodplain, for additional discussion of proposed infiltration basins).
 - Minimize impervious areas through efforts such as: (1) using an underground parking structure to reduce surface parking requirements; (2) constructing streets, sidewalks, and parking lot aisles to the minimum widths necessary to meet design and safety standards; (3) incorporating additional landscaping where feasible; (4) restricting the use of impervious surfaces within landscaped areas; and (5) using pervious paving materials in applicable locations wherever feasible (e.g., pedestrian walkways and low-vehicle traffic areas).
 - Preserve existing landscaped areas and direct runoff from impervious areas into landscaping wherever feasible; and incorporate appropriate vegetation varieties into landscape designs to maximize the potential to receive, infiltrate, and/or treat runoff from impervious areas (e.g., use of applicable tree species to increase rainfall interception and evapotranspiration).
 - Minimize soil compaction in landscaped areas by techniques such as scarification, and incorporate appropriate amendments to improve soil quality/water holding capacity and foster healthy vegetation.
 - Use “green” (vegetated) rooftops for applicable structures to reduce runoff volumes (e.g., through capture and evapotranspiration of storm flows), sediment loads, and temperatures (refer to the discussion of Treatment Control BMPs below for additional description of green rooftops).

Source Control BMPs

Specific source control BMPs identified in the Project WQTR and/or the noted regulatory/industry sources that may be applicable to the Project include the following:

- Install “no dumping” stencils, tiles, and/or signs (per current City standards) at all proposed onsite storm drain inlets and other applicable locations (e.g., drainages and building entrances) to discourage illegal contaminant disposal.
- Provide paved, enclosed, and covered areas for trash storage, with regular maintenance (e.g., cleaning up spills) and weekly trash pick-up by a licensed waste management company.
- Conduct weekly mechanical sweeping of applicable onsite streets and parking areas to remove accumulated particulates and associated contaminants before they are picked up by site runoff.

- Use integrated pest management (IPM) weed/pest control measures wherever feasible, including efforts such as: (1) removing weeds by hand and avoiding the use of chemical pesticides, herbicides, and fertilizers in landscaped areas; (2) using pest-resistant or well-adapted native plant varieties; and (3) providing informational materials to site maintenance personnel and occupants to increase awareness and implementation of IPM measures.
- Manage irrigation to minimize runoff through measures such as the use of automated and tailored watering schedules (i.e., to avoid over-watering), and installing moisture/pressure sensors to shut off irrigation under appropriate conditions (e.g., during/after precipitation events or in the event of broken pipes or sprinkler heads).
- Provide an underground parking structure to reduce the exposure of onsite parking areas to run-on, direct precipitation contact, and associated pollutant transport.
- Direct flows from fire sprinkler system use, maintenance, and/or testing into the sanitary sewer system.

Treatment Control BMPs

Potential treatment control options identified in the Project WQTR include:

- The use of proprietary inlet/outlet and rooftop-downspout filters. Specific proprietary filters identified in the Project WQTR include FloGard® LoPro™ Series Filters, which typically encompass a modular filter designed to remove particulates, debris, metals, and petroleum hydrocarbons.
- The use of vegetated swales which typically consist of shallow, trapezoidal or parabolic channels lined with appropriate vegetation types (e.g., turf) that provide filtration and (to a lesser extent) infiltration as storm flows move slowly along the channel length.
- The use of green rooftops typically consist of a thin layer of living vegetation on flat or sloped rooftops that help to reduce runoff (through capture and evapotranspiration) and provide some water quality treatment through removal of contaminants (e.g., sediment) and reduction of water temperatures. One or more of the described treatment control BMP options (or potentially other measures if deemed appropriate during the ongoing Project design process) would be implemented as part of the Preferred Alternative to ensure Project conformance with all applicable regulatory requirements related to long-term water quality.

Post-construction BMP Monitoring/Maintenance Schedules and Responsibilities

Identified long-term BMPs include physical facilities such as “no dumping” stencils/tiles and signs, control features for drainage (e.g., infiltration basins) and trash (e.g., enclosures), and proprietary filters; as well as programs/activities including street sweeping, landscape/irrigation management, and IPM. All Project-related BMP facilities would be located on site, with associated monitoring and maintenance efforts (including funding) to be the responsibility of the property owner. A Storm Water Management and Discharge Control Maintenance Agreement would be prepared by the Project applicant and submitted to the City of San Diego for all pertinent BMP facilities and programs. Specifically, this agreement would: (1) identify responsible parties for BMP funding and monitoring/maintenance efforts; and (2) describe all associated training programs, operating schedules, maintenance duties and frequencies, and other pertinent information.

Geology/Soils/Seismicity/Topography

Preferred Alternative and Pedestrian Crossing Alternative

A comprehensive geotechnical evaluation would be conducted prior to final design and during Project construction. This evaluation would include subsurface exploration, laboratory testing, and field inspection/verification by the Project geotechnical engineer, and would be intended to further evaluate surface and subsurface geotechnical conditions and provide detailed information regarding the engineering characteristics of earth materials present within the study area. From these data, specific recommendations would be generated for applicable geotechnical issues to ensure conformance with associated regulatory and design requirements. The following types of standard design and construction measures may be considered in the noted geotechnical evaluation, along with additional or revised recommendations identified during detailed investigations. Implementation of these or other appropriate measures, in conformance with applicable regulatory requirements, would avoid, minimize or mitigate any potential impacts related to geologic, soil, seismic, or topographic conditions.

- Potential impacts related to seismically-induced ground rupture or related effects (if applicable) may be addressed through measures such as:
- Conformance with applicable seismic design criteria from sources including the IBC;
- Implementation of design efforts for ground rupture hazards (e.g., inclusion of buffer zones or set-backs from on-site faults) if determined appropriate during detailed geotechnical investigation; and
- Use of properly engineered fill and reinforced concrete and masonry.

Potential impacts related to seismic ground acceleration may be addressed through measures such as the use of:

- Applicable seismic design criteria from sources including the IBC;
- Proper fill composition, moisture content, placement, and compaction parameters;
- Appropriate foundation and pavement design;
- Reinforced concrete and masonry; and
- Appropriate structure and utility design.

Potential liquefaction and seismically-induced settlement effects may be addressed through efforts such as:

- Conformance with applicable seismic design criteria from sources including the IBC;
- Removal and recompaction or replacement of materials susceptible to liquefaction and/or seismic settlement with properly engineered fill;

- In-place soil and/or structural modifications such as compaction grouting, soil mixing, dynamic compaction, or driving piles below liquefiable layers; and
- Use of positive surface drainage and/or subdrains in appropriate areas to avoid saturation of surficial deposits.

Potential impacts related to landslide/slope stability hazards originating in off-site areas (if applicable) may be addressed through efforts such as selective facility locations (i.e., to avoid hazard-prone areas), and/or the use of protective barriers (e.g., perimeter walls or fences).

Expansive or compressive characteristics in surficial materials (if present) may be addressed through efforts such as:

- Removal and recompaction or replacement of unsuitable soils with properly engineered fill;
- Selective placement and/or capping of expansive soils;
- Use of subdrains and moisture conditioning in areas of expansive soils;
- Soil mixing and use of specially designed foundations or slabs in areas of expansive deposits;
- Use of in-place soil modifications in areas of compressible soils (as described above for liquefaction/seismic settlement);
- Surcharging of compressible materials left in place to accelerate consolidation rates; and
- Settlement monitoring in areas of compressible soils.

Potential impacts related to oversize materials may be addressed through efforts such as off-site removal/disposal, selective burial in deeper fills, or crushing.

Paleontology

Preferred Alternative and Pedestrian Crossing Alternative

Avoidance, minimization, and mitigation recommendations related to paleontology would involve preparing and implementing a Paleontological Monitoring Plan to be approved by the Project applicant. The Paleontological Monitoring Plan would likely include the following types of measures in accordance with standard construction practices in southern California, with detailed requirements to be determined during the plan preparation and approval process:

- A Qualified Paleontologist should be present at pre-grading meetings to consult with grading/excavation contractors regarding the potential location and nature of paleontological resources and associated monitoring/recovery operations. A Qualified Paleontologist is defined as an individual with an M.S. or Ph.D. in paleontology or a related field, and who has knowledge of local paleontological resources and documented experience in field identification and collection of fossil materials.
- A Qualified Paleontologist or Paleontological Monitor (working under the direction of the Qualified Paleontologist), should be on site to monitor for paleontological resources during all

original grading/excavation activities involving previously undisturbed areas of the Otay Formation and/or Old Paralic Deposits. A Paleontological Monitor is defined as an individual with at least one year of experience in field identification and collection of fossil materials.

- If paleontological resources are discovered, the Qualified Paleontologist (or Paleontological Monitor) should implement appropriate salvage operations, potentially including simple excavation, plaster-jacketing of large and/or fragile specimens, or quarry excavations for richly fossiliferous deposits. The Qualified Paleontologist and Paleontological Resources Monitor should be authorized to halt or divert construction work in salvage areas to allow for the timely recovery of fossil remains.
- Paleontological resources collected during the monitoring and salvage portion of the mitigation program should be cleaned, repaired, sorted, and cataloged pursuant to accepted industry methods.
- Prepared fossils, along with copies of all pertinent field notes, photos and maps, should be deposited in an approved scientific institution with paleontological collections.
- A final report should be prepared by the Qualified Paleontologist to describe the results of the mitigation program, including field and laboratory methods, stratigraphic units encountered, and the nature and significance of recovered paleontological resources.

Hazardous Waste/Materials

Preferred Alternative and Pedestrian Crossing Alternative

The following avoidance, minimization, and mitigation measures would effectively avoid or address potential impacts related to hazardous waste/materials:

- Soil sampling should be conducted in areas within the Project Study Area proposed to be disturbed and/or excavated prior to soil export, reuse, or disposal to characterize the soil for the presence of hazardous materials (e.g., metals, petroleum hydrocarbons, volatile organic compounds, pesticides, etc.). If contaminated soil is present, appropriate abatement actions should be implemented in accordance with applicable regulatory requirements.
- Health risk assessments should be conducted for facilities within the LPOE in which contamination has been documented (e.g., former Red Cab facility) to evaluate whether the levels of contaminants would pose a risk to human health.
- Prior to commencement of excavation activities, a Site and Community Health and Safety Plan should be prepared to manage potential health and safety hazards to workers and the public.
- Prior to commencement of excavation activities, a Soil Management Plan should be prepared to address the notification, monitoring, sampling, testing, handling, storage, and disposal of contaminated media or substances that may be encountered during construction activities.
- Prior to commencement of excavation activities, a Groundwater Management Plan should be prepared to address the notification, monitoring, sampling, testing, handling, storage, and disposal of potentially contaminated groundwater.

- Existing transformers and elevator equipment within the Project Study Area should be sampled for PCB content if proposed to be disturbed and/or moved during construction activities. If PCBs are present, appropriate abatement actions for their disposal should be implemented in accordance with regulatory requirements, and soil beneath transformers and/or elevators should be evaluated for evidence of releases. If present in underlying soils, appropriate abatement actions for removal and disposal should be implemented in accordance with applicable regulatory requirements.
- Wastes and potentially hazardous waste on the Project site, including trash, debris piles, and equipment should be removed and disposed of off site in accordance with applicable regulatory requirements.
- Prior to renovation or demolition of existing structures, surveys should be conducted to evaluate the presence, locations, and quantities of hazardous building materials (ACMs and LCSs). Suspect materials should be sampled and analyzed, and if present, appropriate abatement actions should be implemented in accordance with applicable regulatory requirements.
- Contract specifications should include references to the potential to encounter contaminated soil, groundwater, or other regulated wastes during construction activities.

Air Quality

Preferred Alternative and Pedestrian Crossing Alternative

Construction

Implementation of the following avoidance, minimization, and mitigation measures would reduce air quality impacts resulting from construction activities:

- Water or dust palliative should be applied to exposed soil surfaces at the construction site(s) and equipment as frequently as necessary to control fugitive dust emissions.
- Soil binder should be spread on any unpaved roads used for construction purposes, and all construction parking areas.
- Trucks should be washed off as they leave the construction site(s), as necessary, to control fugitive dust emissions.
- Construction equipment and vehicles should be properly tuned and maintained. Low sulfur fuel should be used in all construction equipment.
- Track-out reduction measures such as gravel pads should be used at access points to minimize dust and mud deposits on roads affected by construction traffic.
- Transported loads of soils and wet materials should be covered prior to transport, or adequate freeboard (space from the top of the material to the top of the truck) should be provided to reduce PM10 and deposition of particulate during transportation.

- Dust and mud that are deposited on paved, public roads due to construction activity and traffic should be removed to decrease particulate matter.
- To the extent feasible, construction traffic should be routed and scheduled to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- Grading and earth moving should be suspended when wind gusts exceed 25 mph unless the soil is wet enough to prevent dust plumes.

Global Climate Change

To the extent that it is applicable or feasible, the following measures can help to reduce GHG emissions and potential climate change impacts resulting from the Preferred Alternative:

- Provide landscaping where possible, which reduces surface warming and decreases CO₂ through photosynthesis
- Use lighter color surfaces, such as Portland cement, which helps to reduce the albedo effect (i.e., surface reflectivity of the sun's radiation) and cool the surface
- Use of energy efficient lighting
- Limit idling times on trucks and equipment used during construction

Energy

Preferred Alternative and Pedestrian Crossing Alternative

The following avoidance and minimization measures would be implemented during construction activities:

- Construction equipment and vehicles should be properly tuned and maintained.
- Idling times of construction equipment should be minimized, to the extent practical.
- To the extent feasible, construction traffic should be routed and scheduled to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.

Biological Resources

Preferred Alternative

Implementation of the following avoidance, minimization, and mitigation measure would avoid or reduce impacts to biological resources:

- During construction, jurisdictional areas and sensitive vegetation within the BSA should be fenced with orange plastic exclusionary fencing, and no personnel, debris, or equipment would be allowed within the jurisdictional areas.

- Impacts to 0.07 acre of non-wetland WUS should be mitigated at a 1:1 ratio through purchase of mitigation credits equal to 0.07 acre of ephemeral drainage at an approved mitigation bank.

Pedestrian Crossing Alternative

Implementation of the following avoidance, minimization, and mitigation measure would avoid or reduce impacts to biological resources:

- During construction, jurisdictional areas and sensitive vegetation within the BSA should be fenced with orange plastic exclusionary fencing, and no personnel, debris, or equipment would be allowed within the jurisdictional areas.
- Impacts to 0.05 acre of non-wetland WUS should be mitigated at a 1:1 ratio through purchase of mitigation credits equal to 0.05 acre of ephemeral drainage at an approved mitigation bank.

CUMULATIVE IMPACTS

Traffic and Transportation/Pedestrian and Bicycle Facilities

Preferred Alternative and Pedestrian Crossing Alternative

Implementation (by others) of the avoidance, minimization, and mitigation measures previously identified above for Traffic and Transportation/Pedestrian and Bicycle Facilities would avoid or reduce cumulative traffic impacts to roadway segments and intersections. No avoidance, minimization, or mitigation measures are identified to lessen impacts to freeway segments, but the large reduction in congestion for northbound traffic crossing through the LPOE would offset these freeway impacts.

Air Quality

Preferred Alternative and Pedestrian Crossing Alternative

Implementation of the avoidance, minimization, and mitigation measures identified previously above for Air Quality would avoid or reduce cumulative air quality impacts.

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APPENDIX B

LIST OF ACRONYMS AND ABBREVIATIONS

LIST OF ACRONYMS AND ABBREVIATIONS

AASHTO	American Association of State Highway and Transportation Officials
AB	Assembly Bill
ABA	Architectural Barriers Act
ACMs	asbestos-containing materials
ACSE	American Society of Civil Engineers
ADL	aerially-deposited lead
ADT	average daily traffic
AEP	Association of Environmental Professionals
APCD	Air Pollution Control District
APE	Area of Potential Effect
ARB	Air Resources Board
AST	Aboveground Storage Tank
ASTM	ASTM International (formerly the American Society for Testing and Materials)
B	Boron
Basin Plan	San Diego Basin Plan
BAT	Best Available Technology
BCT	Best Conventional Pollutant Control Technology
BLM	Bureau of Land Management
BMI	Benthic Macroinvertebrate
BMPs	Best Management Practices
B.P.	Before Present
BSA	Biological Study Area
CA-EO	California Executive Order
CAA	Clean Air Act, as amended in 1990
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CBP	Customs and Border Protection
CDFG	California Department of Fish and Game
CDMG	California Division of Mines and Geology
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CERFA	Community Environmental Response Facilitation Act of 1992
cf	cubic feet
cfs	cubic feet per second
CGS	California Geological Survey
CFR	Code of Federal Regulations
CHP	California Highway Patrol
CIA	Community Impact Assessment
City	City of San Diego
City Register	City of San Diego Historical Resources Register
CIWMB	California Integrated Waste Management Board
Cl	Chlorides
CO	Carbon monoxide

CO ₂	Carbon dioxide
COCs	Constituents of Concern
Corps	U.S. Army Corps of Engineers
County	County of San Diego
CRC	Community Representative Committee
CRHR	California Register of Historical Resources
CWA	Clean Water Act
DEH	County of San Diego Department of Environmental Health
DHS	U.S. Department of Homeland Security
DOD	Department of Defense
DOS	Department of State
DOT	U.S. Department of Transportation
DWR	California Department of Water Resources
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
F	Fluoride
Fe	Iron
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
FPS	Federal Protective Service
FY	Fiscal Year
g	Acceleration due to gravity
General Plan	City of San Diego General Plan
GHG	greenhouse gas
GMP	Gross Metropolitan Product
Greenbook	Greenbook Standard Specifications for Public Works Construction
Greenbook Committee	Greenbook Committee of Public Works Standards, Inc.
GRP	Gross Regional Product
GSA	General Services Administration
gsf	gross square feet
H ₂ S	Hydrogen sulfide
HA	Hydrologic Area
HABS	Historic American Buildings Survey
HOV	High occupancy vehicle
HPSR	Historic Properties Survey Report
HRB	Historic Resources Board
HSA	Hydrologic Subarea
HU	Hydrologic Unit
I-	Interstate -
IBC	International Building Code
IBWC	International Boundary and Water Commission
ICC	International Code Council
ICE	Immigration and Customs Enforcement

IPM	Integrated Pest Management
IRIS	Integrated Risk Information System
ISA	Initial Site Assessment
kWh	kilowatt hour
LCS	lead-containing surface
LEED	Leadership in Energy and Environmental Design
LID	Low Impact Development
LOS	Level of Service
LPOE	Land Port of Entry
LUST	Leaking Underground Storage Tank
MBAS	Methylene Blue Activated Substances
MBTA	Migratory Bird Treaty Act
MEP	Maximum Extent Practicable
mg/l	milligrams per liter
mg/m ³	milligrams per cubic meter
MHPA	Multiple Habitat Planning Area
MLS	Mass Loading Station
Mn	Manganese
mph	miles per hour
MSATs	Mobile Source Air Toxics
MSCP	Multiple Species Conservation Plan
MSL	Mean Sea Level
MTDB	Metropolitan Transit Development Board
MTS	Metropolitan Transit System
N&P	Nitrogen and Phosphorous
Na	Sodium
NAAQS	National Ambient Air Quality Standards
NAFTA	North American Free Trade Agreement
NAHC	Native American Heritage Commission
NCCP	Natural Communities Conservation Program
NEPA	National Environmental Policy Act
NES-MI	Minimal Impacts Natural Environment Study
NHPA	National Historic Preservation Act
NO _x	Nitrogen oxides
NO ₂	Nitrogen dioxide
NO ₃	Nitrate
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NTU	Nephelometric Turbidity Units
O ₃	Ozone
OSHA	Occupational Safety and Health Act
Pb	lead
PCB	Polychlorinated biphenyls

PM	particulate matter
PM _{2.5}	fine particulate matter with a diameter of 2.5 microns or less
PM ₁₀	respirable particulate matter with a diameter of 10 microns or less
ppm	parts per million
PRC	California Public Resources Code
Project	San Ysidro Land Port of Entry Improvements Project
Protocol	Project-Level Carbon Monoxide Protocol
Province	Peninsular Ranges Geomorphic Province
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act of 1976
ROD	Record of Decision
ROW	right of way
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	San Diego Regional Water Quality Control Board
SAM	site assessment and mitigation
SANDAG	San Diego Association of Governments
SANTEC/ITE	San Diego Traffic Engineers' Council and Institute of Transportation Engineers
SBI	Secure Border Initiative
SCAQMD	South Coast Air Quality Management District
SD&AE	San Diego and Arizona Eastern
SDAB	San Diego Air Basin
SDCWA	San Diego County Water Authority
SDIV	San Diego and Imperial Valley
SENTRI	Secure Electronic Network for Travelers Rapid Inspection program
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO ₂	Sulfur dioxide
SO ₄	Sulfate
SR-	State Route –
SRA	Subregional Area
Subarea Plan	MSCP Subarea Plan
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
SWSAS	Storm Water Sampling and Analysis Strategy
SYCP	San Ysidro Community Plan
SYIO	San Ysidro Implementing Ordinance
SYRP	San Ysidro Redevelopment Plan
TDS	Total Dissolved Solids
TIS	Traffic Impact Study
TMDL	Total Maximum Daily Load
TMP	Traffic Management Plan
TPH	total petroleum hydrocarbons
TSCA	Toxic Substances Control Act
Turb	Turbidity

UBC	Uniform Building Code
UFAS	Uniform Federal Accessibility Standards
U.S.	United States
USBP	U.S. Border Patrol
U.S.C.	U.S. Code
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGBC	U.S. Green Building Council
UST	Underground Storage Tank
US-VISIT	U.S. Visitor and Immigrant Status Indicator Technology program
V/C	Volume to Capacity
VMT	Vehicle Miles Traveled
VOCs	Volatile Organic Compounds
WHTI	Western Hemisphere Travel Initiative\
WQTR	Water Quality Technical Report
WUS	Waters of the U.S.
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter

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APPENDIX C

LIST OF TECHNICAL STUDIES

List of Technical Studies

The following technical studies were prepared to support this Draft EIS:

Air Quality Impact Assessment for the San Ysidro Land Port of Entry Border Station Expansion. April, 2009 – Scientific Resources Associated.

Initial Site Assessment, San Ysidro Border Station Expansion/Reconfiguration, San Diego, California. September 2008 – Ninyo and Moore.

Preliminary Geotechnical Evaluation. September 2005 – Ninyo and Moore.

Drainage Study for the San Ysidro Land Port of Entry (LPOE) Border Station Expansion, *in* Design Narratives Report. 2008 – AECOM and RossDrullsCusenbery Architecture, Inc.

Storm Water Management Plan for the San Ysidro Land Port of Entry (LPOE) Border Station Expansion, *in* Design Narratives Report. 2008 – AECOM and RossDrullsCusenbery Architecture, Inc.

San Ysidro LPOE Improvements Community Impact Assessment. April 2009 – HELIX Environmental Planning, Inc. and CIC Research, Inc.

San Ysidro Land Port of Entry Improvements Project Natural Environment Study – Minimal Impacts, April 2009 – HELIX Environmental Planning, Inc.

San Ysidro Land Port of Entry Cultural and Historical Resource Inventory and Evaluation Report, April 2009 – ASM Affiliates, Inc.

Historic Properties Survey Report for the San Ysidro Border Station Expansion, San Diego County, California. October 2003 – Mooney and Associates.

Relocation Study, U.S. Customs House. July 2008 – Page and Turnball, Inc.

San Ysidro Land Port of Entry Border Station Expansion Traffic Impact Study, April 2009 – KOA Corporation.

San Ysidro Land Port of Entry Border Station Expansion Mobility Study, April 2009 – KOA Corporation.

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