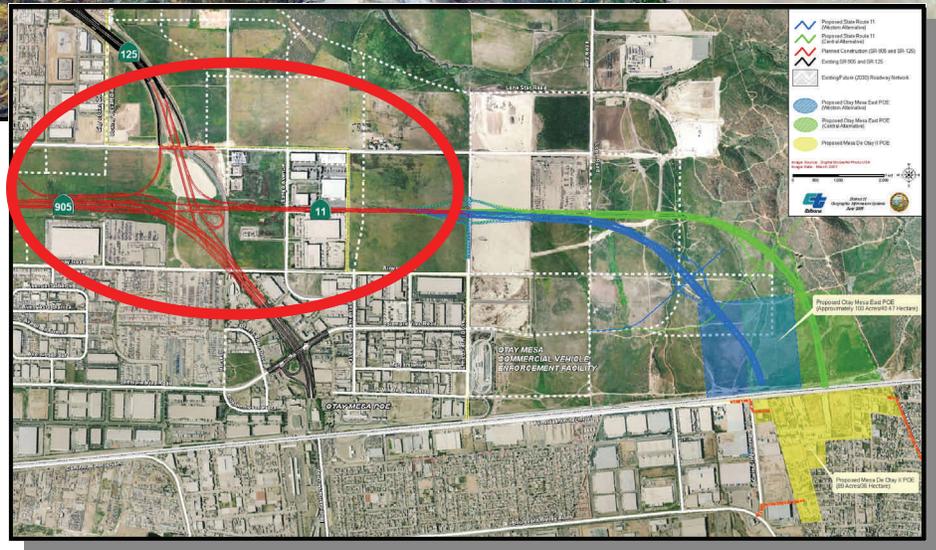


State Route 905/125 Interchange at Otay Mesa Port of Entry



Transportation Border Congestion Relief Program Application
California Department of Transportation
June, 2008



California Department of Transportation Transportation Border Congestion Relief Program (TBCR)

A Comprehensive Approach to Transportation Border Congestion Relief

Project Title: State Route 905/125 Interchange at Otay Mesa Port of Entry

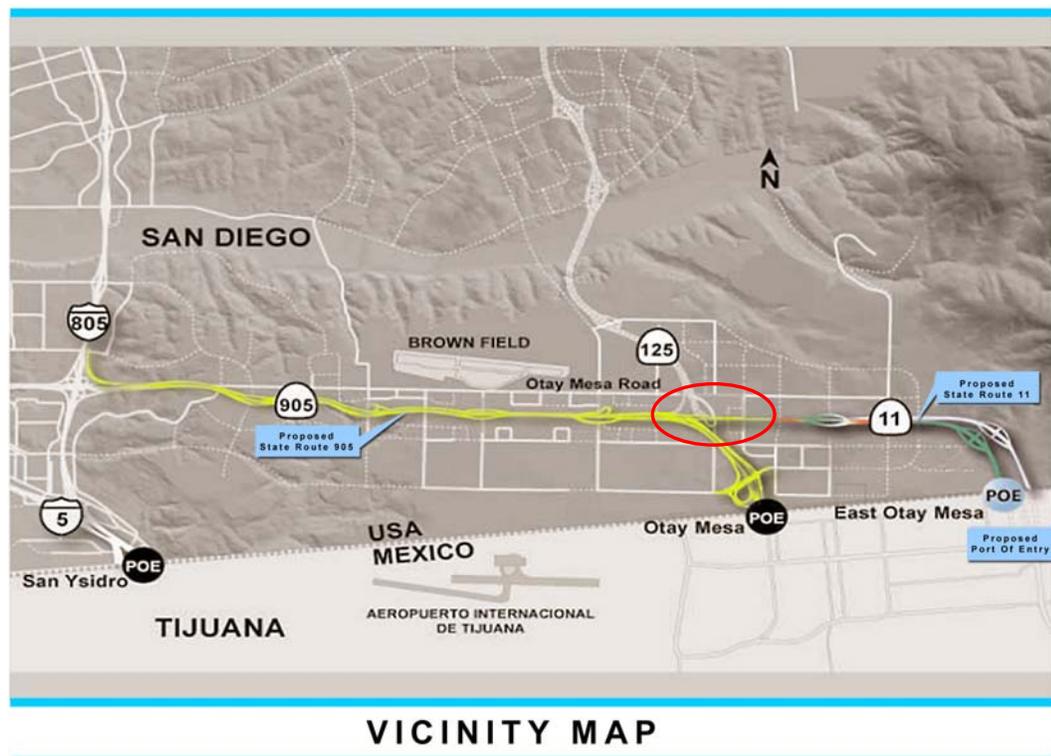
Lead Agency: CALTRANS, District 11

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1) Project Description

State Route 905 (SR-905) will provide the essential connection between the Otay Mesa Port of Entry (POE) with Mexico and the regional freeway system in California. This project will construct a six-lane freeway from Interstate 805 (I-805) to the busiest commercial border crossing on the California-Mexico border. This project, along with the future Otay Mesa East port of entry and State Route 11, will provide for efficient transportation of goods and services in Otay Mesa border region. The first half of the six-lane freeway began construction in April 2008 and the remaining half will begin by June 2009.

The SR-905/125 Interchange project is the subject of this TBCR application. It is also a part of the SR-905 project and is the portion that will connect the Otay Mesa Port of Entry (POE) international border crossing with a major north-south corridor, the new State Route 125 (SR-125) toll road. The interchange will include both north and south bound direct connectors between these two routes. In addition, a four-lane local access ramp to Enrico Fermi Drive will facilitate commercial vehicle traffic entering the freeway system from the Otay Mesa Commercial Vehicle Enforcement Facility.



The overall SR-905 project purpose is to improve traffic flows, particularly for trucks moving goods between the Otay Mesa POE and California, other destinations in the U.S., and Mexico. Of the trucks that cross the border at Otay Mesa into the U.S., 84% have destinations outside San Diego County and 25% travel to other states. Also, 76% of the exports transported through the Otay Mesa POE are from outside San Diego County. The existing level of service for the majority of Interim SR-905 (Otay Mesa Road) is F between the POE and I-805. Construction of SR-905 will alleviate existing Otay Mesa Road (OMR) traffic congestion and provide for effective transportation within the Otay Mesa region, a major gateway for trucks carrying NAFTA cargo to/from maquiladora operations.



Trucks Waiting on SR 905

The entire SR-905 project is being constructed in phases, due to construction schedule, physical layout of the project, public transportation needs, funding, and other considerations. The proposed Project (SR-905/125 Interchange or Phase 3) is needed to facilitate the freeway-to-freeway connection at SR-125. This interchange is vital for improving travel times to and from the existing Otay Mesa POE and the proposed Otay Mesa East POE, increasing efficiency in the movement of goods, people and services. Phase 3 meets the criteria of the TBCR Program by reducing border travel time delays.

The four-lane local access ramp to Enrico Fermi Drive constructed under Phase 3 will eventually become part of the proposed SR-11 highway leading to the future Otay Mesa East POE. Since the passage of the North American Free Trade Agreement (NAFTA), this rapidly growing trade region has been in need of congestion relief. The proposed SR-11 and new POE will help reduce traffic at the San Ysidro and Otay Mesa POE's. The capacities of the these two existing U.S. and Mexico POE's are currently being exceeded at certain times of the day and year causing excessive border wait times for commercial and personal vehicle trips.

The estimated cost for the entire proposed SR-905 Project is approximately \$619 million (with escalation, right of way and engineering costs). The table that follows reflects the cost and planned delivery schedule for the Phase 3 project.

Route 905/125 Interchange (Phase 3)

Construction Phase	905/125 Interchange Delivery Schedule				
	Escalated Cost (M)	Environmental Clearance	Design Complete	Begin Const.	End Const
3	\$76.7	7/30/04	11/09	7/10	7/12

2) Congestion Reduction and Reduction in Land Border Travel Times

The North American Free Trade Agreement (NAFTA) took effect in January 1994. NAFTA lifted tariffs on the majority of goods produced by the United States, Canada, and Mexico. It also calls for

the gradual elimination, over 15 years, of most remaining barriers to cross-border investment and to the movement of goods and services among the three countries. Also in 1994, the federal government closed the San Ysidro POE to commercial vehicles, which were rerouted to the Otay Mesa POE located approximately six miles to the east.

Between 1994 and 2006, commercial vehicle traffic crossing from Mexico at the Otay Mesa POE increased significantly from 428,000 trucks to nearly 746,000 trucks, a 74 percent growth over 12 years. Northbound passenger vehicle crossings also grew considerably from 3.8 million vehicles to more than 6 million vehicles over the same period.

Projections for northbound truck/commercial vehicle crossings at the existing Otay Mesa POE are estimated to reach 899,000 annually in 2030. A new POE has been proposed, east of the existing Otay Mesa POE where an additional 598,000 trucks are projected to cross in 2030.

The San Diego Association of Governments (SANDAG) regional growth forecast projects the population of Otay Mesa to increase significantly, from 1,740 residents in 2000 to more than 43,000 in 2030. This rapid growth in population and economic activity in the City of Tijuana contributes to increasing cross border travel at the Otay Mesa POE.

Currently, Otay Mesa Road, the interim SR-905, provides the only means for vehicles to travel east-west between I-5 and I-805 and the Otay Mesa POE. Otay Mesa Road is plagued by grades as steep as 5.7 percent, 11 traffic signals, and narrow shoulders (8 feet or less). A range of 45,000 to 55,000 vehicles use the road each day with trucks accounting for 16 percent of those vehicles.

Existing Congestion on SR 905

SR-905 is needed to improve traffic capacity by completing a major east-west goods movement corridor to serve the Otay Mesa POE as well as existing and planned developments in the Otay Mesa area. It will connect the international border crossing with I-5, I-805, and SR-125, the major north-south corridors. The project will improve capacity by: adding lanes with uninterrupted flow to I-805; reducing the maximum grades from 5.7% to 4.0%; eliminating the need to travel through signalized intersections; and providing standard lane and shoulder widths.



3) Use of Intelligent Transportation Systems

Implementation of intelligent transport systems (ITS) will assist in creating a more reliable corridor. This includes 511 travel information system, fiber optic communication traffic monitor systems, ramp meter systems, signals with video detection, closed circuit TV (CCTV) systems, and changeable message systems all connecting to a base communication hub.

A corridor management plan for the proposed SR-905 project is intended to provide a unified, multimodal system management concept for managing and preserving freight mobility in the corridor. When fully implemented, SR-905 will incorporate the ITS technologies to help manage demand and efficiency of the corridor. ITS improvements will provide a safer and more reliable route, helping to minimize accidents that can cause non-recurrent congestion and delays.

Caltrans and SANDAG have also implemented the Freeway Performance Monitoring System (PEMS) in the San Diego region. PEMS provides a robust source of data that enables monitoring of the performance of individual transportation corridors as well as the overall system. Emphasis is placed on assessing and identifying portions of the corridor/system that are not performing optimally. With the inclusion of SR-905 data in PEMS, ongoing operations of the corridor can be monitored so that problems can be addressed early on in order to preserve long-term corridor mobility.

4) Economic Benefits and Support of Commerce

Current congestion and delays at the Otay Mesa POE and Otay Mesa Road disrupt the supply chain and impact operations both for finished good imports and exports as well as for manufacturing/production timelines. Transportation delays result in higher logistic costs, as companies must add buffers to their production cycles, and also leads to lost economic opportunities. Investment potential in the San Diego-Baja California region already has been curbed due to current transportation conditions.

SR-905, along with the proposed Otay Mesa East POE/SR 11 project, will lead to opportunities for increased throughput and cross border trade. Improvements in velocity and reliability coupled with congestion relief are anticipated to result in increased cross border economic opportunities, including growth in output and jobs.

The project will stimulate economic activity and preserve/create jobs by facilitating commercial development. This project is within a major Foreign Trade Zone that allows American businesses to reduce, defer or eliminate payment of U.S. Customs duties. SR-905 will maximize the use of this land as a Foreign Trade Zone by providing high throughput infrastructure connecting the region to Mexico and the interstate system. The project also provides a reliable transportation artery serving the Maquiladora manufacturing assembly industry just across the border.

The effects of using the new facility were obtained from the SANDAG/Caltrans study, *Economic Impacts of Wait Times at the San Diego-Baja California Border*, January 2006. The study made clear the effects of long waits at the international border and the need for additional infrastructure to reduce wait times. The study analyzes the impacts of both personal trips and freight movements, and gives an estimate of the direct impacts of the new facility of 24,555 full-time equivalent jobs that receive \$712 million in labor income (goods movement accounts for more than 7 percent of the impacts in the San Diego region). These annual direct impacts, in turn, create the indirect and induced effects, which are summarized in the table below. In total, the annual use of the improved facilities would support 33,915 full time equivalent jobs that receive \$1.1 billion in labor income. Overall use of the new facilities would raise the San Diego Region’s GMP by \$2.8 billion.

SR-905: Summary of Economic Impacts, (Thousands of \$2006)

		Employment	Labor Income	Output	Taxes
Construction	Direct	778	\$50,328	\$104,700	
	Indirect	171	\$9,233	\$23,584	
	Induced	352	\$14,434	\$43,861	
	TOTAL	1,301	\$73,985	\$172,145	\$25,753
Operations	Direct	24,555	\$712,760	\$1,597,530	
	Indirect	3,807	\$204,970	\$531,480	
	Induced	5,553	\$239,990	\$667,440	
	TOTAL	33,915	\$1,157,720	\$2,796,450	

5) Value to the Users of the Project

The SR-905/125 Interchange will provide a link to the interstate freeway system to serve statewide and national trade corridors by connecting to SR-905's east-west route and to the new SR-125 toll facility. Benefits will include faster and more convenient access to terminals for commercial vehicles, reduced border travel times, and increased safety.

The proposed SR-905 is projected to operate at an acceptable level of service through 2025. The level of service for the proposed SR-905 and Otay Mesa Road is shown in the table below. Standard shoulders, increased sight distance, reduced grades all will contribute to a safer roadway with fewer accidents and decreased non-recurrent congestion. These characteristics plus limited access with an acceptable level of service will result in a dependable means of transporting goods. By constructing the new SR-905 project, both SR-905 and Otay Mesa Road will have a combined throughput of 151,700 ADT at an average LOS D versus the no-build alternative that will serve an ADT of 71,200 at LOS F.

SR-905 and Otay Mesa Road Average Daily Traffic (ADT) and Level of Service (LOS)

Segment	2025 Build Alternative				2025 No-Build	
	SR-905		Otay Mesa Road		Otay Mesa Road	
	ADT	LOS	ADT	LOS	ADT	LOS
I-805 to Caliente Blvd	151,200	D	1,900	A	81,700	F
Caliente Blvd to Heritage Rd	153,500	E	18,500	A	71,600	F
Heritage Rd to Britannia Blvd	140,200	D	14,300	A	66,100	F
Britannia Blvd to La Media Rd	129,400	D	15,100	A	65,700	F
La Media Rd to Route 125	96,600	C	38,000	C	70,700	F
Average ADT/LOS	134,200	D	17,500	B	71,200	F
Average Combined ADT/LOS	151,700		D		71,200	F

This project will also dramatically increase speeds. Without construction of the new SR-905, significant congestion will cause speeds on Otay Mesa Road (Interim SR-905) to drop into the single digits by year 2025. With construction of this project, speeds on SR-905 will be 4-6 times higher cutting travel times for freight movements and commuter traffic. Otay Mesa Road will operate efficiently as a local arterial once the freeway is constructed. Higher speeds mean shorter travel times, lower emissions per truck per trip, and increased opportunities for growth in international trade. The following table highlights the operating speeds for SR-905 and for Otay Mesa Road.

Otay Mesa Road Operating Speeds (mph)

SR-905 Alternatives	SR-905		Otay Mesa Road	
	Opening Year	Year 2025	Opening Year	Year 2025
Six Lane Freeway	55 mph	51 mph	19 mph	15 mph
No Project	-	-	14 mph	8 mph

Although overall accident rates for the existing SR-905 were low as compared to similar facilities, the rate of fatal accidents was 2.2 times higher than the average rate for similar state highways. The higher-than-average rate of fatal accidents is expected to decrease due to the design features of SR-905 and the added capacity the freeway will provide. The SR-905 project will construct a freeway with standard shoulder and lane widths that the existing route lacks. Also, the existing route has

grades as steep as 5.7 percent and 11 signalized traffic intersections; this project reduces steep grades and eliminates at-grade intersections, enabling trucks to maintain higher speeds with the flow of traffic. More uniform flow of traffic historically has been shown to be safer.

Caltrans Global Gateways Development Program (GGDP) identified the California/Mexico border region as a major international trade region and the Otay Mesa POE as one of the key border crossings. Nearly 60 percent of the trucks that cross the border from Mexico have destinations beyond San Diego County. Delays at any point in the supply chain, which includes seaports, highways, railways and land POEs, significantly impact manufacturing timelines. The link to I-5, I-805, and SR-125, will facilitate freight movements between the international border and the Port of San Diego as well as major seaports and rail yards in Southern California. Hence, construction of this project will provide more convenient access to terminals for commercial vehicles.

This project will also have environmental benefits. The Air Quality Study (Geier & Geier Associates, June 1999) was prepared to support the approved EIS/EIR for this project and the following pollutants were analyzed: CO, ROG, NO_x, PM₁₀, and PM_{2.5}. The report found that the build alternative for this project will result in a net reduction in future emissions over the no build alternative. According to the San Diego County Air Pollution Control District, this project would facilitate transborder goods movement while reducing congestion and idling of diesel trucks in the San Diego border region, reducing the public's exposure to toxic diesel exhaust emissions.

6) Innovations in Project Delivery and Finance

This project is part of a pilot program for "Design Sequencing" to evaluate design sequencing as a tool for acceleration of project completion. Design Sequencing is defined as a method of contracting that enables each Construction phase to commence when design for that phase is complete, instead of requiring design for the entire project to be completed before beginning construction. Design Sequencing aims to accelerate project delivery by allowing the Department to award a project to a contractor based on plans that are at least 30 percent complete. This enables the project segment to meet the public need earlier than the traditional Design-Bid-Build process.

Phase 1A and 1B have followed the Design Sequencing process. Phase 3 may also follow this method of contract preparation.

Although explored in 2006 to finance Phase 1, the SR-905 is not using the Transportation Infrastructure Finance and Innovation Act (TIFIA) financing. At that time, dedicated non-federal revenue was unavailable to repay the loan. However, indirectly the SR-905/SR-125 interchange may benefit from TIFIA financing. (See section 8 below.) Also, the SR-905 project does not have private activity bonds (PAB) as a financing mechanism.

7) Exceptional Environmental Stewardship

The Final Environmental Impact Statement/Report (FEIS/FEIR) dated July 23, 2004, defines the environmental impacts and required mitigation for the SR-905 Project.

To ensure compliance with permitting agencies, the project special provisions cover the conditions of the permits and the Department monitors the contract work through the Mitigation Monitoring and Report Record (MMRR). The MMRR is a living document. The MMRR will be used as a tool for record keeping, reporting procedures, and noncompliance and violation procedures. If SR-905 has actions that are in noncompliance and/or violation, the appropriate staff will work in proactive

coordination with the resource agencies during the Construction phases, to ensure early and constant communication of issues and requirements.

The Department has used innovative approaches to mitigate for environmental impacts. Advance acquisition of parcels necessary to mitigate have been successful. As part of the mitigation for impacts from another project in the district, the Department was able to acquire the Bonita Meadows parcel, approximately 200 acres. This allowed banking of the unused area for use in other projects. SR-905 impacts to riparian habitat were mitigated by constructing off-site wetland creation and restoration at the Bonita Meadows site. In addition, the Dennerly Canyon parcel was acquired early to mitigate for vernal pool impacts.

8) Finance Plan and Potential Private Sector Participation

The Department has developed a comprehensive Financial Plan for the SR-905 Project in accordance with the requirements of Section 106, Title 23 of the Surface Transportation Act, the “Safe, Accountable, Flexible, Efficient Transportation Equality Act: A Legacy for Users” (SAFETEA-LU) and the Financial Plan Guidance issued by the Federal Highway Administration. The plan provides detailed cost estimates to complete the project and the estimates of financial resources to be utilized to fully finance the project. A copy of the approved financial plan is available upon request.

Of the funds currently allocated, approximately 36% (\$162.8 million) are federal funds, TEA 21, SAFETEA-LU and Border Infrastructure Program (BIP) funds. The State is providing 61% (\$276.1 million) through the State Transportation Improvement Program (STIP), Transportation Congestion Relief Program (TCRP) and Trade Corridor Improvement Fund (TCIF). Local contribution for this project is approximately three percent (\$11.5 million) at this time.

Private sector participation will likely include local developer fees for Phase 2 as well as revenues from cost sharing agreements with the privately operated toll road facility, SR-125, for Phase 3.

The SR-125 Tollway was authorized through legislation and TIFIA loans were used to facilitate financing construction of the route. The Department and San Diego Expressway Limited Partnership, through California Transportation Ventures, Inc. (CTV), its general partner, entered into a cost sharing agreement for construction of the SR-905/SR-125 interchange (Phase 3). In general, the agreement is for CTV to pay for certain portions of the interchange. At the time of the May 22, 2003 agreement, CTV agreed to pay for approximately 60 percent (\$27 million) of the estimated cost to construct the interchange (\$47 million). The agreement is in the process of being updated to reflect the cost of the interchange at the time of construction. CTV’s contribution would be approximately \$46 million. The RTP includes the CTV contribution toward the project. In addition, the agreement includes a provision that in the event Caltrans is unable to pay it’s portion of the cost, San Diego Expressway can proceed with construction of the interchange and may record those costs as Toll Road Costs recoverable under the franchise agreement. Although the SR-905 project does not have authority for tolling and is not being financed through TIFIA, our partners for constructing Phase 3 have these finance mechanisms available for funding their portion of the interchange.

9) Planning and Coordination Status

The Metropolitan Planning Organization (MPO) for the San Diego region is the San Diego Association of Governments (SANDAG), which represents 18 cities and county government and serves as the forum for regional decision-making. The 2030 Regional Transportation Plan (RTP) is a

blueprint to address the mobility challenges created by our region's growing population and employment.

This project is included in the 2030 San Diego Regional Transportation Plan: *Pathways for the Future*, adopted in November 2007, as part of the Revenue Constrained financial scenario. A conformity finding on the 2030 RTP was issued by the United States Department of Transportation (DOT) on December 10, 2007. Additionally, this project is included in the 2006 Regional Transportation Improvement Program (RTIP), adopted on August 4, 2006 by SANDAG. The RTIP is a multi-year program of regional transportation improvements for major state highway, and local streets, transit, and non-motorized projects. The 2006 RTIP spans fiscal years 2007-2011. The U.S. DOT issued a conformity finding on October 2, 2006.

The San Diego County Air Pollution Control District (APCD) prepares the San Diego portion of the California State Implementation Plan (SIP), a document required by the federal Clean Air Act (CAA) for states with non-attainment areas. The SIP is submitted to the U.S. Environmental Protection Agency (EPA). Non-attainment areas are regions with levels that exceed the standard for specified pollutants. The National Ambient Air Quality Standards (NAAQS) is an element within the CAA which dictates maximum levels for pollutant in the atmosphere. The San Diego air basin has been designated non-attainment for the federal 8-hour ozone standard and as a federal maintenance area for the Carbon Monoxide (CO) standard. The air basin also has been designated non-attainment for the following state standards: 1-hour ozone, 8-hour ozone, PM₁₀, and PM_{2.5}.

Both the RTP and RTIP demonstrate they meet the region's emissions budgets contained in the SIP.

The Federal Highway Administration approved the Financial Plan required by SAFETEA-LU in January 2008.

This project does not require a Presidential Permit. The SR-905 is supported by the U.S. Customs and Border Protection Agency, the City of San Diego, the Otay Mesa Community Planning Group, and the Otay Mesa Chamber of Commerce.

10) Proposed Project Time-Line

The SR-905 project is included in the 2006 Regional Transportation Improvement Program (RTIP).

The San Diego Association of Governments-Federal Transportation Improvement Program lists the project as Route 905, PPNO 0374K. The project description is: SR-905 new freeway (from I-805 to Otay Mesa Port of Entry- Construct 6-lane freeway, DEMO ID:CA612; HPPNO:2813.

Several of the major development phases for the SR-905 project have been completed. The planning phase or project initialization was completed in October 1991. The Department's planning division generates the initial planning studies to document the problem and determine the proper process to address it. The Project Initialization Document (PID) defined the project scope, provided a capital and support cost estimate and a project workplan. This document provided the information and approval needed for programming the project.

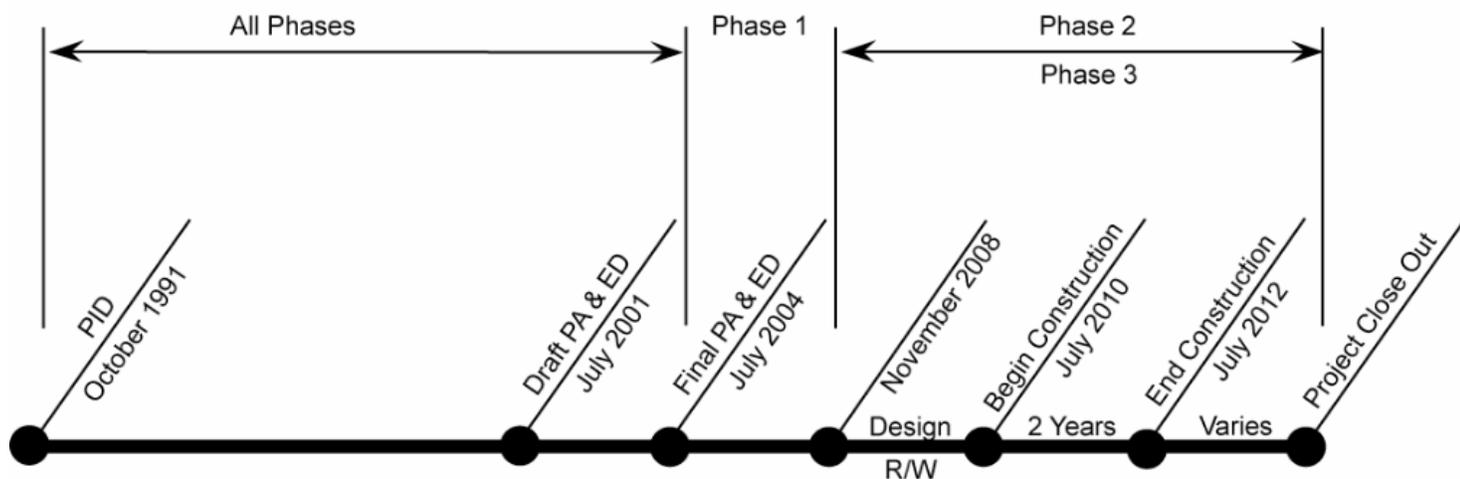
The Project Approval/Environmental Document (PA/ED) has been completed. The Final Environmental Impact Statement/Report (FEIS/R) was approved July 23, 2004 with the Final Project Report signed and approved on July 30, 2004.

The Final Environmental Document provides the summary of all studies undertaken in conformance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), sets forth impacts relative to each alternative, proposes mitigation and abatement for those impacts, and, when approved, sets forth the project mitigation requirements. The Final Project Report further refines the purpose and need, identifies the preferred alternative, describes how that alternative was decided upon, and describes how consensus was reached between the Department and stakeholders. It also includes more detailed engineering designs required to determine environmental impacts for each alternate design studied.

The design plans, specifications, and estimate (PS&E) for Phase 3, is scheduled to be completed by September 2009. The PS&E package is comprised of project design plans, detailed project specifications (includes materials information, permits required, environmental documents, etc.), and a cost estimate (itemization by contract item, quantity, unit cost and total item cost). The cost estimate is the Engineers Estimate for the construction contract costs only. This schedule is contingent upon funding availability.

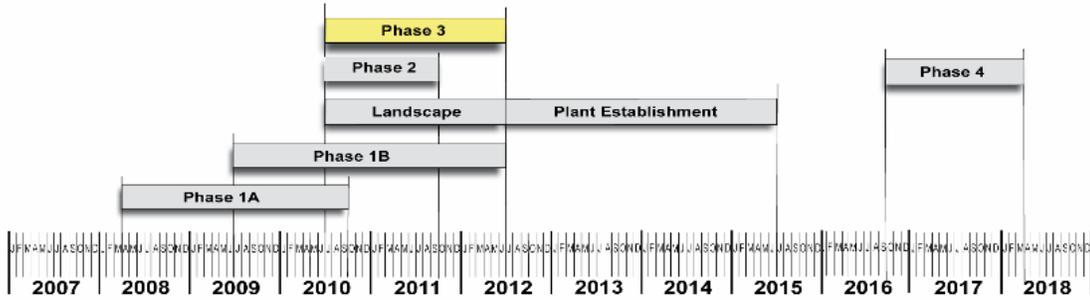
The acquisition of the right of way for Phase 3 will also be completed by September 2009. Approximately half of the necessary right of way has been obtained as part of the right of way for Phase 1. The remaining 10 parcels will be purchased as soon as funding becomes available.

Construction of Phase 3 is expected to be completed within 2 years.



The figure below shows the schedule for the entire SR-905 Project.

State Route 905 Construction Phases



LEGEND

- Phase 1 - Construct 6-Lane Freeway Phase 1A (2 1/2 years), Phase 1B (3 years)
- Phase 2 - Improvements to Interstate 805 and State Route 905 Interchange (1-1/4 years)
- Phase 3 - Construct State Route 125 and State Route 905 Interchange (2 years)
- Landscape (2 years)
- Landscape Plant Establishment (3 years)
- Phase 4 - Construct Heritage Road Interchange (1-1/2 years)