

Preliminary Transportation Management Plan (TMP) Constructing State Route 11 from State Route 905 to the Otay Mesa East Port Of Entry

Caltrans

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Constructing State Route 11 From State Route 905 to the Otay Mesa East Port Of Entry

This Transportation Management Plan has been prepared under the direction of the following engineers. The registered Civil Engineer attests to the technical information contained therein and has judged the qualifications of any technical specialists providing engineering data upon which recommendations, conclusions, and decisions are based.

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Table of Contents

Executive Summary	1
Project Description.....	3
Existing Facilities.....	8
State Route 905	8
State Route 125.....	8
Proposed Traffic Management Plan.....	9
Project Goals and Objectives of the TMP.....	9
TMP Elements: An Overview	9
1) Public Awareness Campaign (PAC).....	10
2) Motorist Information Strategies.....	11
3) Incident Management	12
4) Construction Strategies.....	13
5) Contingency Plans	15
6) Alternate Route Strategies	16
TMP Coordination and Review	16
Appendices	
Appendix A	
Appendix B	
Appendix C	

Executive Summary

The Transportation Management Plan (TMP) is designed to minimize motorist delays when implementing projects on the State freeways and highways system. This should be accomplished without compromising public or worker safety, or the quality of the work being performed.

This Preliminary TMP addresses a proposal for construction of State Route 11 (SR-11) and the Otay Mesa East Port of Entry (OME POE). State Route 11 is planned as a four-lane highway connecting the State Route 905(SR-905)/SR-11 freeway-to-freeway interchange to the proposed OME POE at the international border with Mexico.

At the northwestern end of SR-11, two connector roadways to SR-905 are proposed. The first connector begins at westbound SR-11, crosses over the SR-125 and westbound SR-905 off-ramp to La Media, and merges onto SR-905. The second connector begins as the eastbound SR-905 off-ramp, crosses over SR-905 and the SR-905 westbound off-ramp to La Media Road, and transitions onto eastbound SR-11.

At the southeastern end of SR-11, two connector roadways to the OME POE are proposed. The first connector begins as eastbound SR-11, splits into two separate roadways (commercial and passenger), passes under the proposed extension of Siempre Viva Road, and terminates at the OME POE. The second connector begins as two separate northbound roadways (commercial and passenger) that originate from the OME POE, cross under the proposed extension of Siempre Viva Road, and merge together to create SR-11.

SR-11 will intersect four existing local roadways. Three alternatives have been proposed on how SR-11 will affect Sanyo Avenue, Enrico Fermi Drive, Alta Road, and the proposed extension of Siempre Viva Road. The fourth alternative is a 'no build' scenario and is not considered within this TMP report.

The first alternative, the Two Interchange alternative, will have two interchanges and two grade-separated crossings as follows:

- Sanyo Avenue will be a grade-separated crossing, traversing under the Project.
- Enrico Fermi Drive will be a local street interchange.
- Alta Road will be a grade-separated crossing, traversing over the Project.
- Siempre Viva Road will be a local street interchange.

The second alternative, the One Interchange alternative, will have one interchange and three grade-separated crossings as follows:

- Sanyo Avenue will be a grade-separated crossing, traversing under the Project.
- Enrico Fermi Drive will be grade-separated crossing, traversing over the Project.
- Alta Road will be a local street interchange.
- Siempre Viva Road will be a grade-separated crossing, traversing over the Project.

The third alternative, the No Interchange alternative, will have no interchanges and four grade-separated crossings as follows:

- Sanyo Avenue will be a grade-separated crossing, traversing under the Project.
- Enrico Fermi Drive will be a grade-separated crossing, traversing over the Project.
- Alta Road will be a grade-separated crossing, traversing over the Project.
- Siempre Viva Road will be a grade-separated crossing, traversing over the Project.

The TMP elements recommended in this report are:

- Public Information
- Motorist Information Strategies
- Incident Management
- Construction Strategies
- Contingency Plans
- Alternate Route Strategies

The intent of the TMP is to implement these elements to effectively achieve the following goals and objectives:

- Reduce traffic delay or time spent in the queue to less than 15 minutes above normal recurring traffic delay.
- Maintain traffic flow throughout the corridor and the surrounding areas.
- Provide a safe environment for the work force and motoring public.

The total cost to implement the TMP elements and to achieve the goals and objectives is estimated to be **\$171,000**.

Project Description

The State Route 11 (SR-11) and Otay Mesa East Port of Entry Project (Project) consists of a proposed four-lane highway connecting the SR-905/SR-11 freeway-to-freeway interchange (Interchange) to a proposed Otay Mesa East Port of Entry (OME POE) at the international border with Mexico. The proposed POE will service passenger and commercial vehicle traffic into and out of the United States. At the time of this report, SR-905 is currently under construction and assumed to be completed and fully functional before the Project begins construction. Plans to construct SR-125 to the Interchange are not progressing to date, and it is assumed that construction will resume after the Project is completed.

At the northwestern end of the Project, two connector roadways to SR-905 are proposed. The first connector begins from westbound SR-11 and terminates approximately 500 feet west of the Interchange where it merges onto SR-905 going in a westerly direction. This connector is anticipated to cross over the westbound SR-905 off-ramp to La Media before merging onto SR-905. The westbound SR-905 off-ramp to La Media, which is not part of the Project, originates from westbound SR-905 and is anticipated to extend approximately 4000 feet while running parallel with SR-905 before terminating at the intersection with La Media Road.

The second connector to SR-905 begins at the SR-905 eastbound off-ramp to SR-11, located immediately west of the Interchange, and transitions to SR-11 while traversing through the Interchange. This connector is anticipated to cross over SR-905 and the SR-905 westbound off-ramp to La Media Road before transitioning onto eastbound SR-11.

At the southeastern end of the Project, two connecting roadways to the OME POE are proposed. The first connector begins from eastbound SR-11 and terminates at the OME POE. Eastbound SR-11 will split between commercial traffic and passenger traffic on separate roadways before passing under the proposed extension of Siempre Viva Road and terminating at the OME POE. The proposed intersection at the proposed extension of Siempre Viva Road is located immediately northwest of the OME POE.

The second connector begins at the OME POE as two separate roadways and terminates as the northbound commercial and northbound passenger roadways merge to create SR-11. The northbound commercial roadway begins at the planned Commercial Vehicle Enforcement Facility (CVEF) located adjacent to the north side of the OME POE. The passenger roadway begins at the northwest side of the OME POE and ascends to cross over both the southbound and northbound commercial roadways at grade with the Siempre Viva Road overcrossing. It then descends, looping 270 degrees to merge with the northbound commercial roadway. As both the commercial and passenger roadways merge, they cross under Siempre Viva Road, beginning westbound SR-11.

As the Project traverses from the Interchange to the OME POE, SR-11 will intersect local roadways. This portion of the Project has defined four alternatives, of which three have implications to the TMP. The fourth alternative is a 'no build' scenario and is not considered within this TMP report. Four roadways will be intersected by the Project: Sanyo Avenue, Enrico Fermi Drive, Alta Road, and the proposed extension of Siempre Viva Road.

The first alternative, the Two Interchange alternative, will have two interchanges and two grade-separated crossings as follows:

- Sanyo Avenue will be a grade-separated crossing, traversing under the Project.

- Enrico Fermi Drive will be a local street interchange.
- Alta Road will be a grade-separated crossing, traversing over the Project.
- Siempre Viva Road will be a local street interchange.

The second alternative, the One Interchange alternative, will have one interchange and three grade-separated crossings as follows:

- Sanyo Avenue will be a grade-separated crossing, traversing under the Project.
- Enrico Fermi Drive will be grade-separated crossing, traversing over the Project.
- Alta Road will be a local street interchange.
- Siempre Viva Road will be a grade-separated crossing, traversing over the Project.

The third alternative, the No Interchange alternative, will have no interchanges and four grade-separated crossings as follows:

- Sanyo Avenue will be a grade-separated crossing, traversing under the Project.
- Enrico Fermi Drive will be a grade-separated crossing, traversing over the Project.
- Alta Road will be a grade-separated crossing, traversing over the Project.
- Siempre Viva Road will be a grade-separated crossing, traversing over the Project.

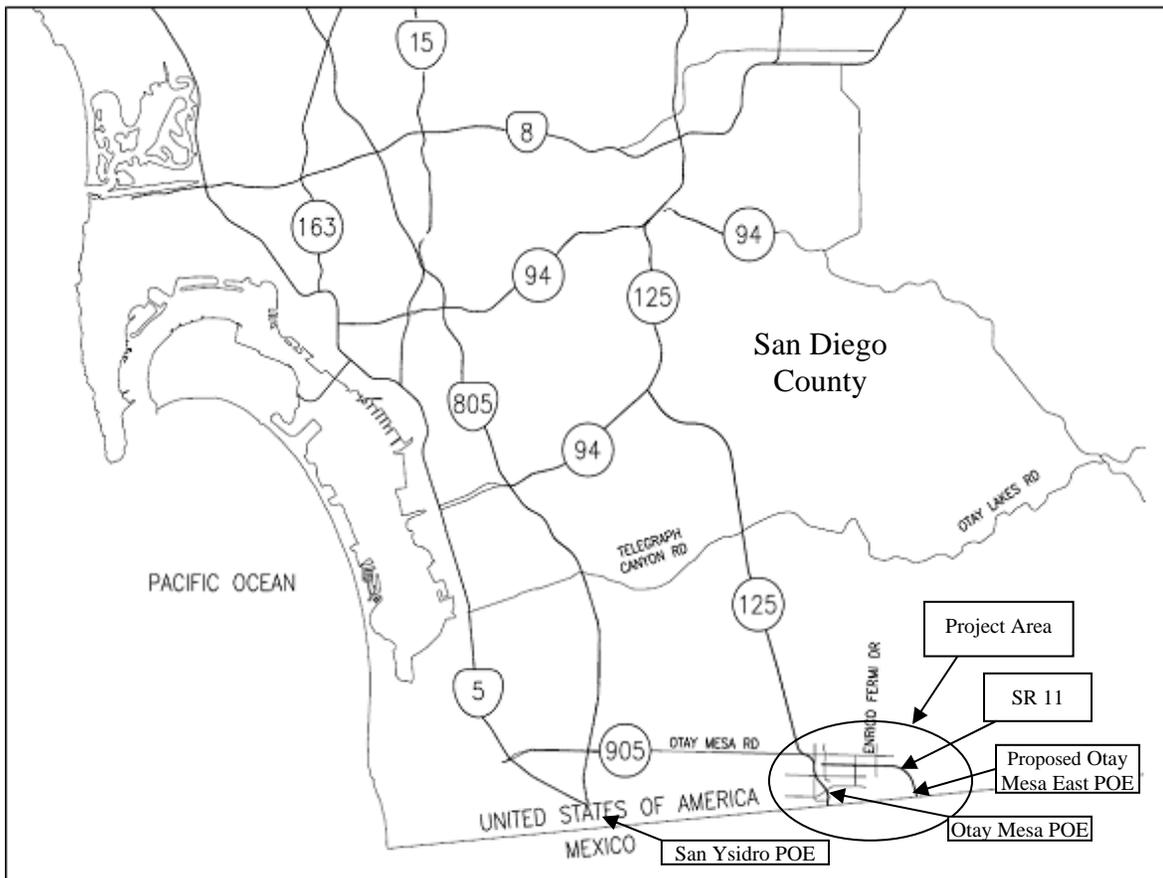
The Project will impact a business area immediately east of Sanyo Avenue as SR-11 passes between two existing businesses along an entire developed block. Retaining walls are proposed to lessen the impacts of the Project within this area from the wide grading limits required. Additionally, it is assumed that the various utility and drainage structures that will need to be relocated and reconstructed will occur within the Project's assumed two-year construction timeframe. See Figure 3 at the end of this section for a map of the freeway-to-freeway interchange map.

Temporary closures of SR-905, Enrico Fermi Drive and Alta Road will be required to construct SR-11. Therefore, temporary detours will be necessary to provide access to both sides of these local roadways. Sanyo Avenue will serve as the main detour when Enrico Fermi Drive and Alta Road are closed. During construction of the Project, falsework will be constructed over Sanyo Avenue, thereby closing the Sanyo Avenue detour for approximately four nights. During this intermittent closure of Sanyo Avenue, the detour will be redirected along Airway Road, La Media Road, and Otay Mesa Road. It is assumed that the Sanyo Avenue detour will exist throughout the Project's two-year construction time frame.

Falsework will also be constructed for the eastbound and westbound SR-11 connectors to SR-905, and will require two temporary detours. First, when the westbound SR-11 connector to SR-905 is constructed, the SR-905 off-ramp to La Media Road will need to be closed for approximately four nights to construct and remove falsework. When this closure occurs, the detour route will be along Siempre Viva Road for access to La Media Road.

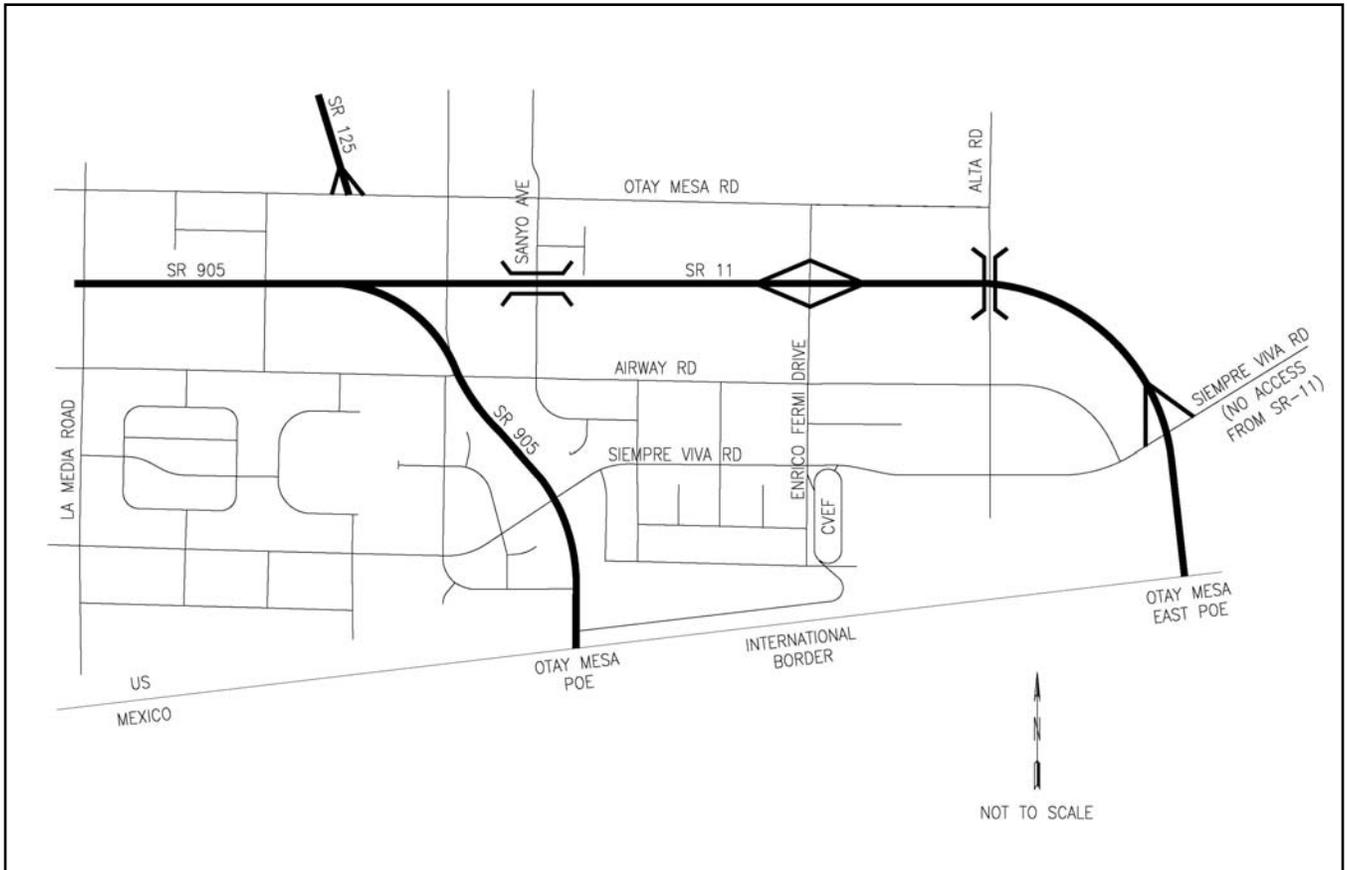
Second, when the eastbound SR-11 connector to SR-905 is constructed, both SR-905 and the SR-905 off-ramp to La Media Road will need to be closed for approximately four nights to construct and remove falsework for the connector. When this closure occurs, there will be two separate detour routes for eastbound and westbound SR-905. The westbound SR-905 detour will be along Siempre Viva Road and La Media Road where there is an SR-905 interchange. The eastbound SR-905 detour will begin at the SR-905/La Media Road interchange and will continue along La Media Road and Siempre Viva Road.

The Project is in the Project Approval and Environmental Document (PA&ED) phase. A Tier II EIR/EIS is under development. The Project is scheduled to break ground for construction beginning in 2013, and opening day is planned for 2015. A Location Map, Vicinity Map, and a Freeway-To-Freeway Interchange Map are located in Figures 1, 2, and 3, respectively, on the following pages.



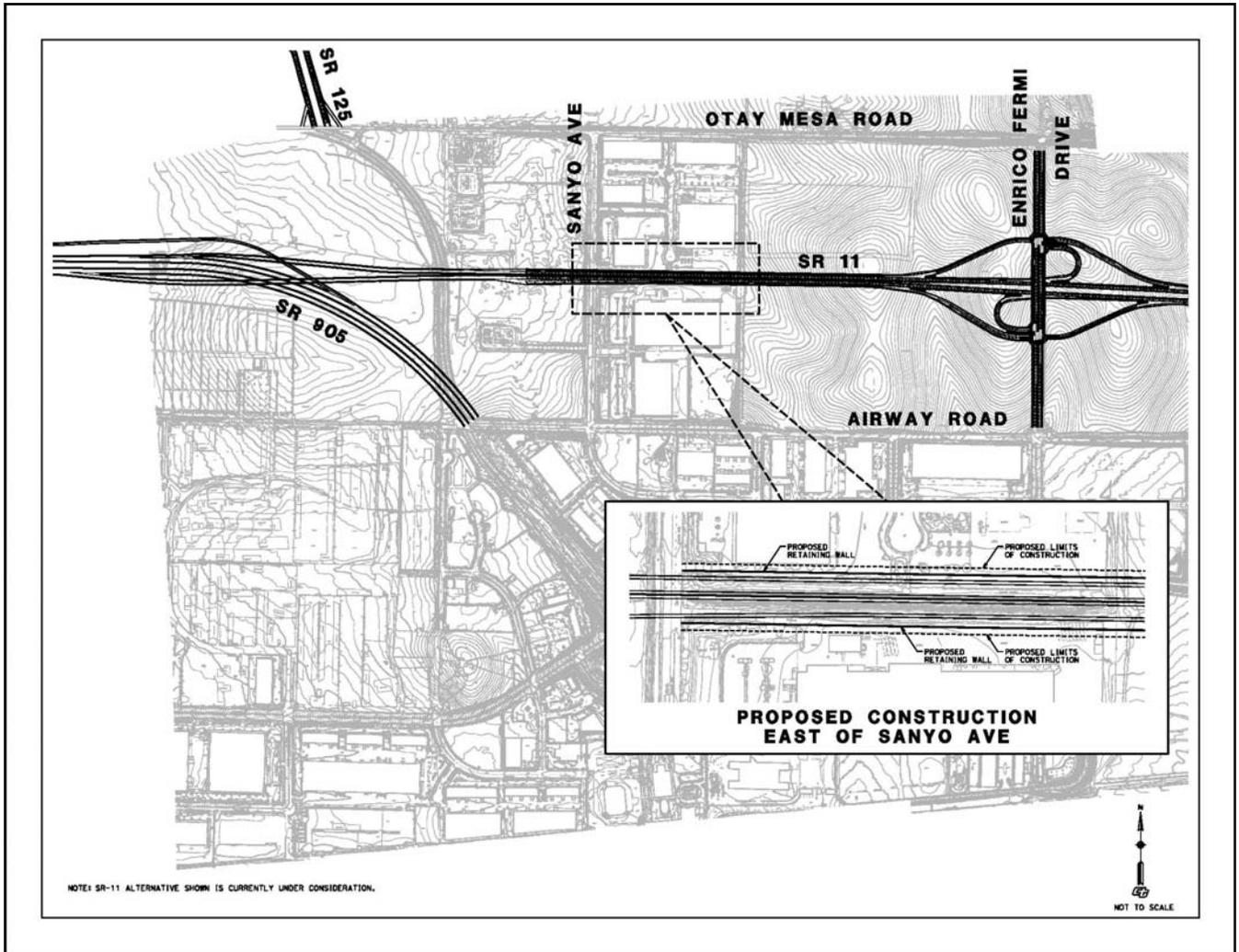
Location Map

Figure 1



Vicinity Map
Two Interchange alternative

Figure 2



Freeway-To-Freeway Interchange Map
 Western portion of the Project

Figure 3

Existing Facilities

There are several significant facilities adjacent to the Project. The existing San Diego/Tijuana metropolitan border transportation infrastructure consists of two existing POEs: one in San Ysidro and one in Otay Mesa (See Figures 1, 2, and 3 preceding this section). The San Ysidro POE is served by two freeways, Interstate 5 (I-5) and Interstate 805 (I-805), which merge together into six lanes in each direction before crossing the border. The Otay Mesa POE is served by SR-905 and SR-125. Cross-border commercial traffic is restricted to the Otay Mesa POE. The nearest alternate commercial cross border corridor is located in Tecate, which is approximately 18 miles to the east geographically, and 43 miles by road, the majority of which is a two-lane highway through mountainous terrain.

State Route 905

Presently under construction, SR-905 will be a six-lane conventional highway, upon completion, connecting the Otay Mesa POE to both I-5 and I-805. In the project area, SR-905 will be heavily utilized by trucks and cars crossing the International Border both into and out of Mexico. The area immediately surrounding SR-905 at the Otay Mesa POE is an active business area with many warehouses and industrial facilities. A large percentage of the daily traffic is comprised of trucks, including those with destinations well beyond the State and those which operate entirely within the roadway network surrounding the border crossing. Presently, SR-905 uses a four-lane conventional road just north of Airway Road to connect to Otay Mesa Road and SR-125. It is assumed that SR-905 will be complete before construction of SR-11 begins.

State Route 125

The SR-125 highway is a two-stage project that consists of the construction of approximately 12.5 miles of new highway from SR-54 near the Sweetwater Reservoir to SR-905 in Otay Mesa near the international border. The project is divided into three segments. The first two segments (Stage One) of the project are the Connector (a 3.2-mile publicly funded section from SR-54 to San Miguel Road in Bonita) and the Gap (a freeway-to-freeway interchange involving the reconstruction and expansion of an existing section of SR-54 where it intersects with the new route of SR-125). The remaining 9.3 miles of the project (Stage Two) connecting to SR-905 near the Otay Mesa border crossing is a state-of-the-art toll road. SR-125 opened initially as a four-lane highway with interchanges at SR-54, future Mount Miguel Road, East H Street, Otay Lakes/Telegraph Canyon Road, Olympic Parkway, future Birch Parkway and Otay Mesa Road/SR-905. SR-125 is designed so that it may be expanded with additional interchanges, carpool lanes and/or transit facilities constructed as future regional growth and transportation needs dictate. The following freeway-to-freeway connector ramps are assumed to be existing at the time of construction: southbound SR-125 to westbound SR-905, eastbound SR-905 to northbound SR-125, and westbound SR-11 to northbound SR-125.

Traffic Management Plan

Project Goals and Objectives of the TMP

The policy for creating the TMP, according to Deputy Directive-60 (DD-60), is to minimize motorist delays when implementing projects or performing other activities on the State highway and freeway systems. This is accomplished without compromising public or worker safety, or the quality of the work being performed.

The TMP will address closures and other requirements to complete the project in a cost effective and timely manner with minimal interference with the traveling public.

The goals and objectives of this TMP are to:

- Reduce traffic delay or time spent in the queue to less than 15 minutes above normal recurring traffic delay.
- Maintain traffic flow throughout the corridor and the surrounding areas.
- Provide a safe environment for the work force and motoring public.

As a living document, the TMP remains active throughout the highway project. Evaluation of the success of TMP elements during the project is critical. Every effort should be made in advance to create a plan that will work effectively to minimize traffic delays. The TMP must be updated when material change to the project scope occurs affecting the function or adequacy of the TMP, or if TMP elements need to be adjusted to adequately address congestion at the project site.

TMP Elements: An Overview

The following TMP elements are considered the most important with respect to reducing traveler delay and enhancing traveler safety:

- 1) Public Awareness Campaign (PAC)
- 2) Motorist Information Strategies
 - a. Portable Changeable Message Signs (PCMS)
 - b. Ground Mounted Signs
 - c. Caltrans Highway Information Network (CHIN)
- 3) Incident Management
 - a. Construction Zone Enhanced Enforcement Program (COZEEP)
 - b. Towing Availability

- c. Traffic Management Team (TMT)
- 4) Construction Strategies
 - a. Main Lane, Ramp, and Connector Closures
 - b. Total Facility Closure
 - c. Conflicts with Other Projects and Special Events
 - d. A+B Bidding
- 5) Contingency Plans
 - a. Traffic Contingency Plan
 - b. Contractor Contingency Plan
- 6) Alternate Route Strategies
 - a. Detour

The cost estimates for the above TMP elements are listed in the Transportation Management Plan Data Sheet (Appendix A). These TMP elements are discussed in the following sections.

1) Public Awareness Campaign (PAC)

The primary goal of a PAC is to educate motorists, merchants, residents, elected officials and governmental agencies about potential construction plans and schedule. The PAC is an important tool for reaching target audiences with important construction project information.

An effective PAC will enhance public acceptance, tolerance and cooperation. In addition, public awareness is expected to reduce the traffic demand in the construction zone by encouraging motorists to take alternate routes or to travel outside of closure hours.

In general, the PAC is designed to meet the following objectives:

- Identify target audiences that will be impacted by construction activities.
- Serve as the focal point for project-related questions regarding construction activities, road closures, noise, and dust.
- Inform the public about the construction project and how it could affect their travel through the SR-11 project area.
- Promote alternate routes and modes of transportation.

Specific elements that may be used to inform motorists about construction activities include hand delivered brochures, press releases as needed, paid advertising, public meeting/speakers bureau, and construction bulletins.

District 11 has an existing website where project information is posted. This website (www.dot.ca.gov/dist11) should be included in the PAC to inform motorists about construction activities.

The Project is located immediately north and east of the busy area of the Otay Mesa Port of Entry. Several branches of law enforcement operate in the vicinity and their operations may be affected by the work being done. The San Diego Police Department, San Diego County Sheriffs Department, United States Customs and Border Protection (CBP), California Highway Patrol (CHP), and the United States Border Patrol should be notified of construction activities well in advance of its beginning. The Otay Mesa Chamber of Commerce and the California Trucking Association should also be kept informed of construction activities and available detours. Additionally, construction bulletin brochures should be sent to all employers in the project area that have staff working nights. These notices should also be sent to all prisons in the area. Newspaper advertisements may be needed, but radio advertisements can be substituted for newspaper advertisements.

2) Motorist Information Strategies

The effective implementation of this element is crucial in order to divert the desired volume of traffic away from the construction site. It also enables motorists to make informed decisions about their own travel plans and options with information that is as close as possible to being real-time. Consideration has been given to portable changeable message signs, ground mounted signs, and the Caltrans Highway Information Network (CHIN).

a. Portable Changeable Message Signs (PCMS's)

PCMS's are considered one of the most effective methods to alert motorists of construction activities prior to reaching the work zone, thereby encouraging them to take an alternate route.

- The project estimate calls for a total of six PCMS's. These should be visible to motorists on westbound and eastbound SR-905 to inform them of approaching construction activities.
- During construction, all PCMS's should be checked daily, and fixed or replaced as needed to ensure that they are in proper working condition and that their visibility is not compromised.
- Suitable locations and messages for the PCMS's will be developed jointly by the District Traffic Manager (DTM) Branch and Construction.

b. Ground Mounted Signs

Ground mounted signs are another effective method of getting information about construction and detours to motorists.

- Ground mounted signs should be placed at visible locations in the streets around the main detour along Sanyo Avenue. These should be placed at decision-making points on routes approaching the detour to inform motorists about the options that exist for avoiding construction areas and for other alternate routes that may allow them to avoid the detour as well.
- A ground mounted sign should be used at the existing CVEF to help inform trucks leaving the CVEF of a detour to the north side of the Project along Sanyo Avenue.
- Signs should be in English and Spanish.
- Ground mounted signs should be maintained and updated to keep information current and accurate.

c. Caltrans Highway Information Network (CHIN)

Caltrans maintains a 24-hour information hotline (1-800-427-ROAD) as well as website (<http://www.dot.ca.gov/cgi-bin/roads.cgi>) with the latest information regarding the conditions of the California State Highway System. The hotline is available for free from any touchtone phone, cellular phone or pay phone. The information provided covers incidents that cause significant delays to the normal flow of traffic including, but not limited to, full closures, one-way traffic controls, lane closures, construction, maintenance projects, and emergencies.

3) Incident Management

a. Construction Zone Enhanced Enforcement Program (COZEEP)

COZEEP refers to the planned presence of CHP Officers stationed at a construction area. Their presence during active lane closures will decrease the response time of incident management and will also help reduce speeds in the work zone, thereby creating a safer environment by reducing the risk of accidents. Fifty nights of COZEEP are estimated to be utilized during placement and removal of K-rail along the SR-905/SR-11 interchange, restriping of the lanes, and falsework construction over SR-905 and the SR-905 off-ramp to La Media Road.

b. Towing Availability

Availability of towing services, especially for large trucks, is critical to the smooth and continuous operation of the freeway system. The San Diego Association of Government's (SANDAG) freeway service patrol should be made available to serve the Otay Mesa area. Their contact information should be made available to CHP and San Diego Police working in the area. This service should be called at the earliest opportunity, as the response time may vary.

c. Traffic Management Team (TMT)

The TMT should be scheduled whenever construction activities are expected to cause a traffic queue on the freeway. The TMT units are to be requested by the Resident Engineer whenever a major lane closure or full freeway closure is planned. The TMT helps to prevent accidents (queue protection) by providing advanced warning to the motorists of abnormal downstream traffic congestion on the freeway. It can also help evaluate signs for detours out in the field and provide advance warning to the motorists in case of an accident or non-recurring congestion. Additionally, the TMT will direct traffic to alternate routes as traffic conditions dictate. The TMT and TMP staff will communicate on-site traffic conditions to the Transportation Management Center (TMC) in District 11 and help develop effective messages for portable and fixed CMS's. The TMT will also work closely with the TMP Coordinator with regards to recommending changes in TMP elements that will be used to manage traffic.

The TMP manager and DTM will be responsible for overseeing the traffic management operation in this corridor. The TMT will work closely with the TMP Coordinator to assist with the monitoring of traffic conditions (i.e. traffic delays which approach the District's 15-minute delay threshold). Therefore, it is recommended that the TMT monitor planned lane closures for any delays that go beyond the 15-minute threshold and inform the Caltrans Construction Resident Engineer/Inspector.

TMT and TMP coordinators will also assess potential problem areas and assist in implementing solutions. Due to the fact that the TMT are equipped with truck-mounted changeable message signs, the TMT can deploy units very quickly to provide end-of-queue signing to prevent accidents from occurring when nonrecurring congestion develops.

In order to provide these services, the TMP and TMT may need to be resourced for their efforts from this project EA. These services should only be used for mainline closures of construction operations which can be quickly and efficiently removed from the roadway without risking the safety of either workers or the traveling public.

The TMC in District 11 will be responsible for facilitating communication between construction personnel, the TMT, CHP personnel, freeway service patrol and the TMP Coordinator. By acting as the primary communications center, TMC will help expedite the correction of minor and major incidents, help make decisions concerning the closing and opening of on-ramps, manage traffic using the PCMS's and fixed changeable message signs, and provide traffic information to the media.

4) Construction Strategies

a. Main Lane, Ramp, and Connector Closures

Closure requirements will be provided in Appendix B. These charts delineate the hours when lanes, ramps, and connectors may be closed and when full freeway closures may take place without creating substantial delays to motorists in the project area. The District Traffic Manager will create these charts during the Plans, Specifications, and Estimates (PS&E) phase of the Project.

In order to connect SR-11 and SR-905, two freeway-to-freeway connectors are proposed: eastbound and westbound. Both connectors will impact existing traffic as each connector is constructed connecting to SR-905. To allow placement of removable barriers (K-rail), a temporary lane shift is proposed for both directions of SR-905. Lane closures are anticipated during placement of K-rail and restriping operations. A temporary lane shift reduces existing lane widths by one foot so removable barriers can be placed to protect workers that are constructing the eastbound and westbound connectors. A temporary lane shift will reduce the existing three lanes on SR-905 from 12 feet wide to 11 feet wide, which will allow for a three-foot offset from the outer lane. K-rail, which has a width of two feet, will be placed on the three-foot offset. The remaining one foot of space from the outer edge of the outer lane will allow for a workable area to construct the freeway-to-freeway connectors. The reduced and restriped lane widths are expected to operate at design capacity and speed, and may be in place during the expected two-year duration of construction.

b. Total Facility Closure

In general, the Otay Mesa POE is closed each night between ten p.m. and six a.m. This will facilitate construction at the Interchange when full freeway closure is needed. Full closure of SR-905 and the SR-905 off-ramp is anticipated to last for four nights due to falsework construction for the eastbound and westbound SR-11 connectors. The closure requirements will be provided in Appendix B during the PS&E phase of the Project. The DTM and TMP Coordinator should be notified as far in advance of the needed closures as possible. Reasonable access to the border crossing facility should be provided to law enforcement as required.

c. Conflicts with Other Projects and Special Events

Concurrent construction with overlapping project limits should be anticipated in advance and may require a review of TMP elements during construction to avoid unanticipated impacts to traffic flow. A joint effort between the District Traffic Manager/TMP Manager and Construction must be made to check whether there will be any projects scheduled concurrently with the Project. To date, no major projects appear to be in a material or direct conflict. It is assumed that SR-905 will be completed before the Project begins construction. Also, it is assumed that SR-125 will not have any construction activity during construction of the Project.

d. A+B Bidding

A+B Bidding, also referred to as cost-plus-time bidding, is a method of determining the lowest responsible bidder for projects by requiring contractors to competitively bid the construction cost and number of working days to complete all work. The “Total Basis for Comparison of Bids” is the sum of A and B, where B is the product of the specified Cost per Day and the number of working days bid by the contractor. Cost per Day is the sum of standard liquidated damages (LD’s) and additional liquidated damages. Standard LD’s is the daily amount for the State’s estimated field engineering and facility cost for construction contract administration. Additional LD’s is the daily amount for additional estimated costs to the State and/or public, such as road user costs (RUC).

RUC is defined as the estimated daily cost to the traveling public resulting from the construction work being performed. RUC primarily refers to lost time caused by any number of conditions including:

- Reduced roadway capacity that slows travel speed and increases travel time
- Delay in the opening of a new or improved facility that prevents users from gaining travel
- Detours and rerouting that add to travel time

Per District 11 TMP Management Plan Guidelines (February 1, 2006), A+B Bidding will be used for the projects that have an estimated cost greater than \$5 million or that have a daily RUC greater than \$5,000. Additionally, the RUC will not exceed 0.1% of the total Engineers Estimate for the Project. The Lane Closure Chart Coordinator will complete the calculation of the RUC.

5) Contingency Plans

a. Traffic Contingency Plan

The DTM Branch shall be available on an as-needed basis to aid in providing assistance if redirecting traffic volumes is required. Such efforts may require additional cooperation on the part of Caltrans Public Affairs, CHP COZEEP units, TMP coordinator, TMC personnel, TMT units, and/or maintenance personnel.

This plan is to be activated whenever the contractor's contingency plan is anticipated to fail and opening of lanes on time is deemed unachievable by Resident Engineer/field inspectors.

Early notification to the following is recommended:

- TMC personnel
- Public Information Officer
- District Traffic Manager Branch
- CHP
- TMT
- Maintenance
- Freeway Service Patrol

TMC personnel have access to contact numbers of all branches listed above and can assist in communications if required by field personnel.

It is highly recommended that both a Contractor Contingency Plan and a Caltrans Contingency Plan be reviewed prior to any lane closure activity.

b. Contractor Contingency Plan

Contract special provisions typically require the contractor to provide a Contingency Plan to the Resident Engineer. When developed for the Project, this plan should be submitted by the contractor and reviewed by the engineer. Back-up equipment and material should be on site for any item of work in which a failure may cause a late pick up of a lane closure.

6) Alternate Route Strategies

a. Detour

Several detours were previously described in the Project Description section. The main detour throughout the Project's two-year construction duration will utilize Sanyo Avenue. Several minor detours will exist for several nights as falsework is constructed above Sanyo Avenue, SR-905, and the SR-905 off-ramp to La Media Road.

Reasonable access to businesses along the main and minor detours should be maintained throughout the duration of the Project's construction. The Project expects the main detour to be operational throughout the duration of construction and assumes no modifications are necessary to any streets.

TMP Coordination and Review

During the course of construction, TMP staff will observe traffic conditions and make recommendations to the Resident Engineer concerning any changes that need to be made with respect to Traffic Management. The TMP Coordinator will work closely with the Construction Office in order to develop timely recommendations regarding closing or opening on-ramps, changing messages on the PCMS's, and the signing along detour/alternate routes. The collection of relevant traffic data, such as the amount of traffic flowing past the work area and the traffic delay during construction, should be collected and given to the TMP Coordinator.

After the Project is completed, a follow-up report will be prepared by the TMP Coordinator to discuss the effectiveness of the TMP elements used and to provide "lessons learned" from this project. Estimates will be given concerning how much traffic was diverted away from the construction area, the volume of traffic that was able to flow past the work area, queue lengths, and traffic delays that were caused by the construction. This information would be valuable during the preparation of future TMP's for similar projects.

APPENDICES

Appendix (A) – TMP Data Sheet

TRANSPORTATION MANAGEMENT PLAN DATA SHEET (Preliminary TMP Elements and Costs)

Co/Rte/MP SD/11/ 0.0 to 2.7 EA 056310 Alternative No. ----

Project Limit SR-125/SR-905 to the OME POE

Project Description Construction of the SR-11

Expected Construction Schedule 2013-2015

1) Public Information

<input checked="" type="checkbox"/> a. Brochures and Mailers	\$5,000
<input checked="" type="checkbox"/> b. Press Release	As needed
<input checked="" type="checkbox"/> c. Paid Advertising	\$10,000
<input type="checkbox"/> d. Public Information Center/Kiosk	\$ 0
<input checked="" type="checkbox"/> e. Public Meeting/Speakers Bureau	\$5,000
<input type="checkbox"/> f. Telephone Hotline	\$ 0
<input type="checkbox"/> g. Internet	\$ 0
<input checked="" type="checkbox"/> h. Others <u>Construction bulletins, Support costs</u>	\$4,000

2) Motorists Information Strategies

<input type="checkbox"/> a. Changeable Message Signs (Fixed)	\$
<input checked="" type="checkbox"/> b. Changeable Message Signs (Portable)	\$30,000
<input checked="" type="checkbox"/> c. Ground Mounted Signs	\$17,000
<input checked="" type="checkbox"/> d. Highway Advisory Radio	\$ 0
<input checked="" type="checkbox"/> e. Caltrans Highway Information Network (CHIN)	\$ 0
<input type="checkbox"/> f. Others _____	\$

3) Incident Management

<input checked="" type="checkbox"/> a. Construction Zone Enhanced Enforcement Program (COZEEP)	\$50,000
<input checked="" type="checkbox"/> b. Freeway Service Patrol	\$50,000
<input type="checkbox"/> c. Traffic Management Team	\$
<input type="checkbox"/> d. Helicopter Surveillance	\$
<input type="checkbox"/> e. Traffic Surveillance Stations (Loop Detector and CCTV)	\$
<input checked="" type="checkbox"/> f. Others <u>Local Towing Services</u>	\$ 0

4) Construction Strategies		
<input checked="" type="checkbox"/>	a. Lane Closure Chart	\$ 0
<input type="checkbox"/>	b. Reversible Lanes	\$
<input type="checkbox"/>	c. Total Facility Closure	\$
<input type="checkbox"/>	d. Contra Flow	\$
<input type="checkbox"/>	e. Truck Traffic Restrictions	\$
<input type="checkbox"/>	f. Reduced Speed Zone	\$
<input type="checkbox"/>	g. Connector and Ramp Closure	\$
<input type="checkbox"/>	h. Incentive and Disincentive Clause	\$
<input type="checkbox"/>	i. Moveable Barrier	\$
<input type="checkbox"/>	j. Others _____	\$
5) Demand Management		
<input type="checkbox"/>	a. HOV Lanes/Ramps (New or Convert)	\$
<input type="checkbox"/>	b. Park and Ride Lots	\$
<input type="checkbox"/>	c. Rideshare Incentives	\$
<input type="checkbox"/>	d. Variable Work Hours	\$
<input type="checkbox"/>	e. Telecommute	\$
<input type="checkbox"/>	f. Ramp Metering (Temporary Installation)	\$
<input type="checkbox"/>	g. Ramp Metering (Modify Existing)	\$
<input type="checkbox"/>	h. Others _____	\$
6) Alternative Route Strategies		
<input type="checkbox"/>	a. Add Capacity to Freeway Connector	\$
<input type="checkbox"/>	b. Street Improvement (widening, traffic signal... etc)	\$
<input type="checkbox"/>	c. Traffic Control Officers	\$
<input type="checkbox"/>	d. Parking Restrictions	\$
<input checked="" type="checkbox"/>	e. Others <u>Detour Traffic</u>	\$ 0
7) Other Strategies		
<input type="checkbox"/>	a. Application of New Technology	\$
<input type="checkbox"/>	b. Others _____	\$
TOTAL ESTIMATED COST OF TMP ELEMENTS =		\$171,000

Project Notes:

Assumptions/Comments:

1. Falsework over traffic will exist at SR-905, Sanyo Avenue, and the SR-905 off-ramp to La Media Road during the construction of SR-11.
2. Otay Mesa Road will be used for construction traffic.
3. Construction of the SR-125 connectors to the Interchange will not occur during construction of the Project.
4. All moves necessary for traffic to transition from/to SR-11 and SR-905 will be included within the project.
5. The Project will take 520 working days to build over a 2 year period.
6. COZEEP assumes 50 days and \$1000/night.
7. Current dollar values are used (2009).

PREPARED BY BRAD EHLERS DATE 6/22/09

APPROVED BY _____ DATE _____

Appendix (B) – Lane Closure Requirements

Lane Closure charts are not included in the Preliminary TMP report

Appendix (C) – Deputy Directive 60

DEPUTY DIRECTIVE

Number: DD-60
Refer to
Director's Policy: 03-Safety and Health
05-Multimodal Alternatives
Analysis
08-Freeway System
Management
Effective Date: 6-15- 2000
Supersedes: P&P 89-04

Title: Transportation Management Plans

POLICY

Caltrans minimizes motorist delays when implementing projects or performing other activities on the State highway system. This is accomplished without compromising public or worker safety, or the quality of the work being performed.

Transportation Management Plans (TMPs), including contingency plans, are required for all construction, maintenance, encroachment permit, planned emergency restoration, locally or specially-funded, or other activities on the State highway system. Where several consecutive or linking projects or activities within a region or corridor create a cumulative need for a TMP, Caltrans coordinates individual TMPs or develops a single interregional TMP.

TMPs are considered early, during the project initiation or planning stage.

Major Lane Closures require District Lane Closure Review Committee approval.

DEFINITION/ BACKGROUND

A *TMP*, when implemented, results in minimized project-related traffic delay and accidents by the effective application of traditional traffic mitigation strategies and an innovative combination of public and motorist information, demand management, incident management, system management, alternate route strategies, construction strategies, or other strategies.

Major Lane Closures are those that are expected to result in *significant traffic impacts* despite the implementation of TMPs.

Significant traffic impact is 30 minutes above normal recurring traffic delay on the existing facility or the delay threshold set by the District Traffic Manager, whichever is less.

Contingency Plans address specific actions that will be taken to restore or minimize effects on traffic when congestion or delays exceed original estimates due to unforeseen events such as work-zone accidents, higher than predicted traffic demand, or delayed lane closures.

RESPONSIBILITIES

District Directors:

- Ensure TMPs are considered early for all projects and activities performed on the State highway system.
- Enforce and advocate TMPs and lane closure policies to ensure compliance with established procedures, guidelines, and policies.
- Consider the cumulative impact of multiple projects. Recognize the need for and oversee implementation and coordination of interregional TMPs between corridors, districts, neighboring states, and Mexico.
- Ensure that TMP planning and implementation is coordinated with the California Highway Patrol (CHP).
- Ensure capital outlay support resources for TMP activities are provided in District workplans.

District Traffic Manager:

- Act as the single focal point for all traffic impact decisions resulting from planned activities on the State highway system.

- Determine the need for and extent of a TMP.
- Facilitate review, approval, modification, or disapproval of all TMP measures and planned lane closure requests on the highway system.
- Direct the termination or modification of active planned lane closure operations without compromising the safety of the public or workers, when traffic impact becomes significant.

TMP Manager

- Act as single focal point for development and implementation of TMPs.

District Encroachment Permit, Design, Maintenance, and Project Engineers:

- Ensure TMPs are fully incorporated in the development of project plans, specifications and estimates.

District Project Manager:

- Designate project resources for all TMP measures and activities.
- Inform the DTM of all projects that may require a TMP in any phase of their development and coordinates scheduling of projects to minimize or eliminate conflicting construction activities.
- Recognize and advocate TMP development, implementation and conflict resolution from project initiation through construction.

District Construction Engineers, Resident Engineers, Encroachment Permit Inspectors, Oversight Engineers, and Maintenance Supervisors/Superintendents:

- Work to insure necessary TMP measures are planned for and implemented.
- Work with the District Traffic Manager (DTM) to insure that project activities conform to the TMP, contingency plans are implemented if necessary, and traffic delay is minimized and does not exceed allowable limits.
- Ensure Contractor is prepared to comply with TMPs as related to its performance of work.

- Notify District communication centers or District Transportation Management Center (TMC) of significant traffic impact due to a planned lane closure.
- Coordinate work activities with CHP.

APPLICABILITY

- All Caltrans employees involved in development and implementation of TMPs.

ORIGINAL SIGNED BY:

TONY HARRIS
Chief Deputy Director