

DEPARTMENT OF TRANSPORTATION**DISTRICT 7**

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July 18, 2008

John Barna
Executive Director
California Transportation Commission
1120 N Street
Room 2221 (MS-52)
Sacramento, CA 95814

Caltrans District 7 Letter of Support of the Los Angeles County Metropolitan Transportation Authority Los Angeles Region Fast Lanes Project AB 1467 Application

Dear Mr. Barna:

The California Department of Transportation, District 7 (Department), is pleased to support the Los Angeles County Metropolitan Transportation Authority's (METRO) Assembly Bill 1467 application to the California Transportation Commission (CTC) for the Los Angeles Region Fast Lanes Project.

This application, developed in cooperation with the Department, requests the determination of eligibility, pursuant to the CTC's AB 1467 guidelines, to implement a High Occupancy Toll (HOT) project, heretofore referred to as Fast Lanes, in Los Angeles County and to forward that request to the state legislature for the enactment of statutory authority.

Caltrans District 7 has prepared a draft Project Study Report for this project, which is included in Appendix G of the METRO application. This draft Project Study Report (PSR) recommends that the Los Angeles Region Fast Lanes Project be programmed and proceed to the Project Approval and Environmental Document phase.

The Department has analyzed the Los Angeles Region Fast Lanes Project and has summarized the issues below:

Project Eligibility

The Department has determined that the Los Angeles Region Fast Lanes Project is consistent with the established standards, requirements, and limitations that apply to those facilities in Sections 149, 149.1, 149.3, 149.4, 149.5, 149.6 and 149.7 of the Streets and Highways Code. Examples of that compatibility include:

- The Los Angeles Region's High Occupancy Vehicle (HOV) Lanes were built by the Department pursuant to Section 149. METRO will operate a congestion pricing program on the four corridors.
- METRO and the Department will develop a concept of operations for the project.

- The Fast Lanes are planned to operate at a minimum of 45 miles per hour which corresponds to Level of Service (LOS) C.
- Operational parameters (i.e., operating hours, who will be charged, etc) of the proposed project will be determined at a later date through additional technical analysis.
- METRO will execute a Letter of Understanding with the Department that will identify their respective roles and obligations in connection with the development, implementation, operation and maintenance of the proposed project.
- METRO and the California Highway Patrol (CHP) will execute a Letter of Understanding that will identify their respective roles and obligations in connection with the development and implementation of the enforcement characteristics and delivery of law enforcement services for the proposed project.
- Toll revenues will be available to METRO for expenses related to the operation (including collection and enforcement), maintenance, and administration of the congestion pricing program. Reimbursement for related planning and administrative costs for the operation of the congestion pricing project/program will not exceed three (3) percent of the revenues, without prior METRO Board approval. A Toll Advisory Committee will be formed and will have representatives from METRO and the Department.
- Remaining toll revenues will be re-invested within the corridor for transportation improvements, such as, but not limited to, transit, rail and vanpool operations/ support, 511 and for other eligible operating and capital projects pursuant to an expenditure plan adopted by the METRO Board.

Cooperation and Consistency with State Highway System Requirements

The Department also has determined the project to be consistent with State Highway System requirements. METRO, in partnership with the Department, will conduct a system evaluation of this project to track its implementation, procurement processes, institutional issues and system performance and determine the success/lessons learned of the project.

As District 7 Director, I attended the METRO Board meetings noted below and am an ex-officio member of the METRO board.

The METRO Board of Directors has acted to support innovative congestion-reduction initiatives. In June 2007, the METRO Board of Directors approved a motion to develop a system-wide congestion pricing operating plan for implementing congestion pricing in Los Angeles County by the Year 2010. In September 2007, the METRO Board approved the formation of an Ad-Hoc Congestion Pricing Committee, which is comprised of members from the METRO Board of Directors and the District Director of Caltrans- District 7, to provide policy guidance and recommendations to the METRO Board of Directors for implementing congestion pricing in Los Angeles County.

In November 2007, the METRO Board of Directors approved the submittal of the Los Angeles Region Congestion-Reduction Demonstration Initiative proposal to the United States Department of Transportation (USDOT).

In partnership with its state and local transportation partners, METRO submitted the Los Angeles Region Congestion-Reduction Demonstration Initiative proposal to USDOT in December 2007. The key element of the proposal focuses on the conversion of existing HOV lanes to HOT lanes.

In March 2008, METRO submitted to the CTC its application for its Congestion Pricing Demonstration Program for consideration, pursuant to AB 1467 program criteria.

In April, METRO and its partners learned that Los Angeles had been awarded a \$213.6 million grant from the USDOT for its Congestion-Reduction Demonstration Initiative proposal. METRO has since been informed by USDOT that the amount of the award has been reduced to \$210.6 million. Subsequently, METRO and the Department executed the Memorandum of Understanding with USDOT on April 25, 2008. The MOU establishes certain conditions that must be met before USDOT will disburse the funding made available by the grant. One of these conditions is that METRO and the Department be granted the legislative authority to toll, prior to October 15, 2008.

Subsequent to the execution of the MOU, and based on additional analysis of the proposed corridors comprising the program, it was proposed to designate the I-110 Transitway as a higher priority implementation corridor for HOT lane conversion over the I-210 corridor. The METRO Board will consider a change in the near-term focus from I-210 to I-110 at their July 24, 2008 meeting.

Contingent upon Metro Board approval, the parties would execute an amended MOU following the July CTC meeting, which would reflect the following proposed changes:

- The conversion of the I-110 Transitway will be implemented prior to the I-210 Corridor.
- The enactment of legal authority for the conversion of HOV lanes to HOT lanes, as a condition of funding, will be required for the I-10 and I-110 only, instead of all three corridors
- The requirement that HOV2 (carpools with two occupants) will not be charged a fee less than SOVs to access the HOT lanes will not apply to the I-110 corridor.

Once the Los Angeles Region Fast Lanes Project is approved by the California Transportation Commission (CTC) through its determination of eligibility per the adopted AB 1467 guidelines; a request will be submitted to the state legislature to enact legislative authority granting tolling authority to Los Angeles.

METRO, in cooperation with Caltrans District 7, plans to initiate the Fast Lanes Project environmental phase as early as July 2008.

State Highway System Compatibility and HOT Lane Viability

Los Angeles County currently has 485 lane-miles of operational HOV facilities, or 36% of the total 1320 HOV lane miles in the State of California. There are currently 29 lane- miles under construction and 210 lanes miles in design/planning. On average, each HOV facility in Los Angeles County carries 1350 vehicles per hour or 3200 people per hour, during peak hours. These volumes well exceed the minimum expected volume of 800 vehicles per hour or 1800 people per hour, as specified in the Department's *HOV Guidelines for Planning, Design, and*

Operations. On average, the person-trip volume of an HOV lane is two (2) times greater than that of a mixed-flow lane during peak hours.

Perhaps the most serious challenge Los Angeles County HOV lanes face is that they are now so successful that they are experiencing congestion on many segments. At this time, several HOV lanes in Los Angeles County have exceeded or are close to reaching a maximum desirable operating capacity, including the I-10 and I-210 corridors. To ensure these lanes continue to be effective, the region must find ways to better manage traffic flow. One of the options is to implement demonstrated travel demand management concepts such as congestion pricing.

As technical studies have proceeded, the I-110 corridor has emerged as an important congestion pricing demonstration opportunity. The HOV lanes have capacity of up to 1800 vehicles per hour; however, this capacity is only approached at the peak of the morning rush. Pricing of the HOV lanes, coupled with transit enhancements and other complementary improvements, will help to spread out peak traffic, maintaining improved operating conditions and reliability.

If METRO, in partnership with the Department, does not implement the HOT lanes, then the HOV lanes in these corridors, which are operating at or beyond their practical capacity during the peak hours, would no longer provide the travel time advantage needed to encourage greater system productivity, higher order of HOV formation, or mode shift to bus and/or rail transit.

The implementation of this project will require minimal physical alteration to the roadway, and will not require the widening of the freeway(s). Toll collection equipment, enforcement equipment, communication systems, signing and striping will be added to the existing HOV lanes in those corridors. It is planned that a Negative Declaration/Finding of No Significant Impact (FONSI) environmental document will be prepared for each separate corridor.

Project Proposal

The Project proposes the conversion of existing High Occupancy Vehicle (HOV) lanes to High Occupancy Toll (HOT) lanes along Interstate 10 (El Monte Busway), Interstate 110 (Harbor Freeway Transitway), and Interstate 210 (from Interstate 605 to Interstate 710) as part of a first phase. A second phase would include the conversion of HOV lanes to HOT lanes on three major freeway corridors east of Interstate 605 to the San Bernardino County line. These corridors are State Route 60 (under construction), Interstate 10 (in design), and Interstate 210 (existing). The Fast Lanes Project is to be implemented in two operating segments. The City of Los Angeles downtown Los Angeles Intelligent Parking Management Program is the linkage amongst the four corridors.

Network of Toll Facilities

The proposal is based on a system approach to the implementation of HOT lanes, currently focused on major east-west or north-south high demand corridors. The system of HOT lanes will leverage against existing or proposed transit and rail systems/services; and vanpool programs within those corridors. The Los Angeles Region Fast Lanes Project proposal has been developed to be compatible with and provide connectivity to existing and proposed toll

facilities and technology in Southern California such as the I-15 managed lanes in San Diego, SR-91 Express Lanes in Orange County and the Orange County Toll Roads (SR-73/133/241/261). Note: Riverside and San Bernardino Counties are investigating toll options as well.

The design of the electronic toll collection system will be compatible with the other systems deployed in California utilizing FastTrak transponder technology.

Roles and Responsibilities

The environmental phase will be led by the Department and will include all work related with the implementation and operation of the Fast Lanes. Work will include, but not be limited to, road work, signing, striping, toll equipment design and installation, operational characteristics, toll systems, communications, etc.

The design and construction phase is currently contemplated to be procured through a contract with a tolling specialist contractor. Said contract may also include toll collection and operational responsibilities as well. Discussions are ongoing with METRO to have METRO procure this contract with the Department providing technical oversight.

The operations and maintenance phases of the tolling equipment will be led by METRO, which includes the procurement of a system operator.

The Department and METRO will develop an agreement that will detail their respective roles and responsibilities for the project. Both agencies have executed several similar agreements in the past for other highway and transit projects. It is planned to use a similar model to undertake the Fast Lanes Project.

Early in the planning and implementation process, METRO, in partnership with the Department, will establish an organization and management plan. This plan will evolve and will be updated periodically as the project moves toward implementation. Reference is made to the draft organization chart in Appendix C of the application which outlines METRO and Department planned roles and responsibilities.

Use of Toll Revenue

METRO plans to use regional, state and federal funds for the capital costs of the project. Toll revenues will be used first for expenses related to the operation (including collection and enforcement), maintenance, and administration of the congestion pricing program.

Net toll proceeds will be used for a variety of complementary transit/rail/vanpool services and the adaptation of new transportation technologies would be deployed to optimize the operational performance of the overall transportation system. These may include expanding Bus Rapid Transit (BRT) and express bus services in these corridors, implementing an intelligent parking management system in the downtown of the City of Los Angeles, and expanding and promoting vanpools and transit by providing incentives.

Maintenance and Operation Agreements

The Department will continue to be the owner/operator of the roadway facility; METRO will assume the toll operation responsibility for the toll facility. It is anticipated that the operation of the toll facility will be contracted out by METRO to a qualified system contractor/operator.

METRO will be responsible for the operations and maintenance of the tolling equipment, which includes the procurement services of a toll system operator.

The Department will be responsible for the maintenance of the roadway facility as defined in the future maintenance agreement between the parties.

Metro, through its system operator, will be responsible for the operations of the toll facilities and the collection and enforcement of the toll revenues, maintenance of the tolling infrastructure/features, customer service and account management, and related duties.

An operating plan will be further developed during the design phase of this project.

Cost/Benefit Analysis

It is expected that the Fast Lanes Project, which includes transit/rail/vanpool related services and other travel demand strategies along the proposed corridors will result in improved operational performance, mainly due to driver behavioral shifts, without negatively impacting the general purpose lanes. These shifts would need to result in a combined net benefit for highway and transit users for the priced managed lanes to be deemed worthwhile by the public and result in growing acceptance.

Caltrans has performed a preliminary analysis based on its Cal B/C model and has determined that the Fast Lanes Project's benefit/cost (B/C) ratio is 7.7 and the rate of return is approximately 50 percent. This analysis is summarized in Table 5 and detailed by corridor in Appendix F of the METRO application.

Caltrans PSR

The Department has prepared a draft Project Study Report for this project, which is included in Appendix G of the METRO application. It is recommended that this project be programmed, and proceed to the Project Approval and Environmental Document (PA/ED) phase. A project report will serve as approval of the "selected" alternative.

This is a HB5 Program project and has been assigned the Project Development Category 4A.

HOT Lanes

The goal of the High Occupancy Toll (HOT) Lanes is better utilization of a freeway's capacity and a reduction of delays related to congestion. HOT Lanes achieve this through its demand management attributes by encouraging modal shift, movement into higher orders of carpools or vanpools, or shifting travel to another time. HOT Lanes achieve congestion reduction by

permitting a controlled or managed number of additional vehicles on the freeway to use the HOV lane, to the point that capacity is available and overall performance of the lane is not substantially affected. The adjustable toll rates in the HOT Lanes provide the mechanism to manage the overall number of cars that can use the lane while still maintaining an acceptable Level of Service (LOS).

The existing HOV lane on the proposed project for all four routes for both operating segments would be converted to a HOT Lane facility. A combination of electronic toll collection and enhanced highway patrol enforcement will assure an acceptable level of compliance by HOT Lane users. The HOT Lanes system components could be adjusted as changes in traffic and economic conditions warrant. The recommended separation between the HOT Lane and the adjacent mixed-flow lanes is a buffer zone delineated by solid striping. Ingress and egress to the Fast Lanes will not be continuous and limited to those specific points which will be determined by detailed operational analysis. No additional widening of the freeway traveled lanes is required to accommodate the addition of the Fast Lanes. Enhancements of transit/rail and vanpool services are complimentary strategies that are critical to the success of the project.

The roadway construction components of the Fast Lanes Project include striping, signing and installation of the Electronic Toll Collection System (ETCS).

Ingress and egress to the Fast Lanes will not be continuous and limited to those specific points of access which will be determined by detailed operational analysis. No additional widening of the freeway traveled lanes is required to accommodate the addition of the Fast Lanes.

It is anticipated that there will be additional non-standard design features associated with the implementation of the ETCS and physical HOT lanes. The Department will coordinate with the Federal Highway Administration to address any non-standard design features through existing approval procedures.

Tolling Facilities

The Los Angeles Region Fast Lanes Project will use a similar technology as used by the 91 Express Lanes and toll roads in Orange County; and San Diego Association of Governments (SANDAG) on its Interstate 15 Managed Lanes corridor. METRO anticipates using dedicated short range communications (DSRC) equipment, including the Title 21 FasTrak transponders and readers that are standard by law in California, to collect tolls electronically on the Fast Lanes Project.

Antennas mounted on overhead gantries along the corridors will read the transponders and send the information to a reader for further transmission via the lane controller to the toll operations administration office. Additional equipment to be installed along the lanes will include automatic vehicle detection (AVD) to identify the presence of a vehicle and violation enforcement system (VES) to take an image of vehicles that are not authorized to travel on the Express Lanes.

Tolls

Tolls would be dynamically priced to maintain a minimum speed of 45 mile per hour, which corresponds to Level of Service (LOS) C in the Fast Lanes.

Further analysis of available technology and enforcement strategies may modify this proposed concept of operations for tolling of Single Occupant Vehicles (SOV) and HOV 2's.

Currently, it is anticipated that HOV3+ vehicles would be exempt from the toll on all corridors. However, further analysis of the traffic demand of each corridor will determine the specific concept of operations as it relates to occupancy tolling.

In accordance with the current agreement with USDOT, HOV2 will not be charged less than SOVs to access the Fast Lanes, except for the I-110, where HOV2s may be allowed access for no fee.

Transit, emergency vehicles and motorcycles would be exempt.

There is a consideration to toll hybrids, however, that will be dependent on any proposed changes in existing state law regarding use of hybrids on HOV lanes.

Signage

Toll gantries and overhead signs are anticipated to be placed in the median barrier or in another location so as not to disrupt traffic flow or rail operations within the median of I-10, SR-60, I-110 and I-210. The existing HOV buffers will also be used for the Fast Lanes. Signs will be placed so that both the general purpose lane driver and the Fast Lanes driver can see them and make a decision to enter or exit the Fast Lane. All sign structures will be installed within the existing freeway facility.

Costs and Revenues

METRO and its consulting engineer have estimated the following costs and revenues:

- Capital Costs are estimated at \$44.3 million for Operating Segment 1 and \$74.8 million for Operating Segment 2, for a total of \$119.1 million, escalated to midyear of construction at 3.0% per year.
- Annual Operations and Maintenance costs are estimated at \$20.5 million in Year 2010 and \$33.2 million in Year 2012.
- With the implementation of Operating Segment 1, the first year (2010) estimated revenues are \$85.8 million. With the implementation of Operating Segment 2, Year 2012 revenues are estimated at \$159.1 million.

Schedule

Operating Segment 1 of the proposed project is anticipated to be ready to advertise for bid in December 2009 with construction estimated to be completed by December 2010. Operating Segment 2 of the proposed project is anticipated to be ready to advertise for bid in December 2011 with construction estimated to be completed by December 2012

Engineering Challenges

Design Features: The project may reduce the existing roadway design features and require non-standard approvals, such as lane widths, horizontal clearance and vertical clearance associated with the implementation of the ETCS. If new non-standard design features need to be included in the project, an exception to mandatory design standards will be requested and the appropriate existing exception process will be followed.

This HOT lane conversion could be potentially considered by FHWA as a significant change to the original HOV lane and all previously-approved exceptions to mandatory design standards will be required to be re-submitted for review and re-approval. Many of the existing HOV lanes have non-standard lane widths, left shoulder widths less than 10 feet, so they do not meet the standards of lane and shoulder widths and horizontal clearance.

The change in use of HOV lanes, such as hours of use, generally does not require Federal approval. However, the authority of SOVs to use the Fast Lanes is considered an operational change and FHWA concurrence will be coordinated through the environmental phase.

Barrier Separation: A barrier-separated facility is highly desired that would separate the Fast Lanes from the adjacent mixed-flow lanes by a physical barrier such as a concrete barrier in the buffer zone. This alternative is more effective to deter lane crossing and toll evasion compared to the alternative that only utilizes solid stripes. However, this alternative was rejected due to the high capital cost to construct the widened freeway that would allow construction of a sufficiently wide buffer zone for the physical barrier and standard shoulders and the lack of flexibility to be able to easily modify the layout of the HOT lanes facility. The feasibility of utilizing pylons in the buffer area will be evaluated during the design phase.

Right-of-Way Issues: The existing HOV lanes on Interstate 210 and Interstate 10 are next to an operational rail facility. Due to this right-of-way constraint, some new sign posts design may require encroachment into the narrow left shoulder instead of engaging in the long process to acquire right-of-way from the railroad companies. If this happens, an exception to mandatory design standards will be requested. Right-of-Way issues are not present on Interstate 110.

Communications System: The discussed alternative has yet to determine the means of communications for the Electronic Toll Collection System. The two scenarios involve either using two T1 telephone lines or using the Department's fiber optic communication system facility for communications. While the T1 alternative appears to be a significantly lower cost alternative, further technical analysis of the two alternatives and the need for communication system redundancy will be conducted in the design phase to determine the most appropriate communication system strategy.

Cost Estimate: The overall cost estimate for the Report differs from METRO's Los Angeles Region Fast Lanes Projects AB 1467 application. The Department referenced the cost estimate from METRO's Application in creating the construction and support cost estimates in the draft PSR. Traffic Control and Toll System costs were adjusted per Caltrans' current costs and practices for communications, electrical, and equipment installations. Toll equipment costs, operating, and program costs were not changed from the application except for overall cost percentages.

Regional Transportation Plan (RTP) Listing

The concept of congestion pricing is supported in the SCAG Draft 2008 Regional Transportation Plan (RTP), recently released METRO Draft 2008 Long Range Transportation Plan (LRTP) and the Department's Traffic Operations Business Plan. The METRO Draft 2008 LRTP includes policies that advocate and support the implementation of incentives and disincentives to encourage alternatives to driving alone, including congestion pricing/toll lanes or other roadway pricing options.

Once the Los Angeles Region Fast Lanes Project has been determined to be eligible under AB1467 and securing state legislative authority for tolling, it will be amended into METRO LRTP, SCAG RTP and Metro/SCAG Regional Transportation Improvement Program (TIP), California Transportation Commission's State TIP and the Federal TIP.

Public Benefits

An extensive public outreach program with stakeholder outreach, a multi-agency taskforce, and public meetings are necessary for the success and acceptance of the Los Angeles Region Fast Lanes Project.

The Fast Lanes Project is implemented as a travel demand strategy to provide congestion relief rather than a revenue generator. The net toll proceeds will be utilized to provide improved and enhanced transit/rail and vanpool services. They will be communicated to the public and implemented as a congestion management tool first and a source of revenue second.

The Fast Lanes project will provide trip reliability and improve travel times through the corridor. This will help to improve air quality in the region.

Described below is METRO'S organizational structure to communicate and help implement the Express Lanes program:

- Ad-Hoc Congestion Pricing Committee
- Transportation Agency Advisory Group
- Community Advisory Groups
- Congestion Pricing Program Manager – Stephanie Wiggins (213) 922-1023.
- A general Metro information phone line (213) 922-4200.
- An e-mail address (congestionreduction@metro.net) for communication purposes.
- A Metro web site on Congestion Reduction Choices (http://www.metro.net/projects_programs/congestion_reduction/congestion_reduction.htm)

Conclusion

METRO's Los Angeles Fast Lanes Project application is consistent with the Department's mission and other regional priorities. METRO has acknowledged the need for additional legislation to implement this project. While the Department staff has identified a number of challenges in developing this project, none of these issues constitutes a fatal flaw.

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Therefore, the Department finds that the Los Angeles Fast Lanes Project application is consistent, in concept, with state highway system requirements, and is in compliance with applicable state and federal laws and regulations except as described in this letter. Also, the Department is committed to working with METRO to ensure that the Los Angeles Fast Lanes Project is technically consistent with state highway system requirements, and will coordinate with METRO to ensure that the Los Angeles Fast Lanes Project is developed, designed, maintained and operated consistent with the requirements set forth in the Streets and Highways Code.

Sincerely,



Douglas R. Failing
District Director
District 7

Cc: Roger Snoble, CEO, METRO