SANTA CLARA
Valley Transportation Authority

Date: August 1, 2005
Committee Meeting Date: August 10, 2005
Board Meeting Date: September 1, 2005

BOARD MEMORANDUM ACTION X DISCUSSION ____ INFO ____

TO: Citizens Advisory Committee
Santa Clara Valley Transportation Authority
Board of Directors

THROUGH: Suzanne B. Gifford
General Manager Pro Tempore

FROM: Carolyn M. Gonot
Chief Development Officer

SUBJECT: Santa Clara County High Occupancy Toll Lane Demonstration Project

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RECOMMENDATION:

Review and recommend that the VTA Board of Directors authorize VTA staff to proceed to the preliminary engineering phase in the development of a demonstration project of a high occupancy toll (HOT) lane based on the findings of the Santa Clara County HOT Lane Feasibility Study.

BACKGROUND:

On September 9, 2004, Governor Arnold Schwarzenegger signed into state law Assembly Bill 2032 (HOT lanes: demonstration projects), an act to add Sections 149.4, 149.5 and 149.6 to the Streets and Highway Code relating to transportation. This legislation allows VTA, one of three agencies in California, to conduct, administer and operate a value pricing program on any two of the transportation corridors included in the carpool lane system in Santa Clara County in coordination with the Metropolitan Transportation Commission (MTC). The bill requires net toll revenue generated after payment of direct expenses to be allocated to the construction of high occupancy vehicle facilities and the improvement of transit services within the HOT lane corridor pursuant to an expenditure plan adopted by the agency.

VTA is to enter into a cooperative agreement with the Bay Area Toll Authority (BATA) to operate and manage the electronic toll collection system. BATA, operated by MTC, is responsible for tolling operations for the six state-owned bridges crossing San Francisco Bay.

The legislation outlines implementation of the program in cooperation with the State Department of Transportation (Caltrans) pursuant to a cooperative agreement that addresses all matters related to design, construction, maintenance and operation of state highway system facilities in connection with the value pricing program. Additionally, agreements between VTA, Caltrans and the California Highway Patrol (CHP) are necessary to identify the respective obligations and liabilities of these entities and assign them responsibilities related to the program.

In the fall of 2003, VTA Board of Directors directed staff to conduct a feasibility study of HOT lane facilities for Santa Clara County. This study commenced in April 2004 with the objectives to evaluate Santa Clara County freeways for potential HOT lane operations, to identify the most promising corridors for HOT lane demonstrations, and to conduct operational analysis of select corridors with HOT lanes operations. The feasibility study is now complete and the study concludes that HOT lane operations on Santa Clara County freeways are financially feasible. The study recommends carrying forward two corridors for possible implementation of a demonstration HOT lane project. The study is included as Attachment A to this memorandum.

DISCUSSION:

The two freeway corridors recommended for continued investigation of a demonstration HOT lane project in Santa Clara County are State Route 85 and U.S. 101. The proposed work would continue the work of the ongoing feasibility study by: (1) continuing to refine the project parameters (e.g., limits of HOT lane operations in the U.S. 101 and SR 85 corridors, locations of ingress/egress points, design of electronic toll collection system, enforcement considerations and lane geometrics) through the preparation of a Caltrans Project Study Report (PSR), (2) obtaining environmental clearance, and (3) advancing preliminary engineering to approximately a 35 percent design level.

The overall goals of the Preliminary Engineering (PE) Phase of the Santa Clara County HOT Lane Demonstration Project include:

- Demonstrate the effectiveness of HOT lanes as a traffic congestion management tool and as a revenue generator to pay for transportation improvements and transit services in the HOT corridor.

- Investigate issues related to implementation of HOT lanes in a more urban environment requiring high incidence of intermediate access points and limited right-of-way conditions that may have relevance in other communities across the country.

- Investigate design features for possible migration from a one-lane facility to a future two-lane facility (in each travel direction) and for transitioning HOT lane operations midway along an existing carpool lane.

- Conduct workshops to foster thoughtful, well-informed community dialogue on equity issues related to the implementation of HOT lanes in Santa Clara County as described in the white

paper titled, "Assessing the Equity Implications of HOT Lanes" that was prepared during the course of the feasibility study.

- Continue evaluation of the potential to expand an initial demonstration HOT lane implementation into a countywide system of connected, managed lanes.

The recent construction to extend the carpool along U.S. 101 southward to north of Cochrane Road in Morgan Hill and the construction of direct carpool lane ramp connectors in two locations (interchanges of U.S. 101 and SR 85 in south San Jose and Mountain View) serve to accommodate the implementation of HOT lane operations in the area. The southern U.S. 101 gateway serves as a key commute corridor linking jobs in the heart of Silicon Valley with housing located in the southern reaches of the County and beyond. The feasibility study findings show a demand of over 7,000 vehicles per hour in the morning commute peak hour along northbound U.S. 101 (on three general purpose lanes and one carpool lane), with this number projected to increase to over 8,500 by 2010.

It is expected that the proposed project design will build upon the work of other HOT lane facilities, such as the I-680 Sunol Grade project in Alameda County and the I-394 project in Minnesota that opened for service in May 2005. It is expected that lessons learned from the development of the I-680 Sunol Grade project and the I-394 project will benefit the Santa Clara County project.

The proposed concept for implementing HOT lanes in Santa Clara County includes conversion of existing carpool lanes for HOT operations. The proposed plan would also provide lane separation through a double-double yellow striping, as proposed for the I-680 Sunol Grade project, and provide multiple ingress and egress points, as utilized in the I-394 project. The Santa Clara County HOT lane facility would allow solo drivers to use the facility for a fee that is charged electronically. A key issue requiring further investigation is how to transition solo drivers out of a carpool lane at the limits of HOT lane operations.

Revenues collected will be reinvested in transportation projects and transit services that provide congestion relief in the corridor as directed by the legislation allowing VTA to implement HOT lane facilities.

The PE Phase work products will include a corridor concept of operations, financial revenue projections and cost estimates for implementation of the HOT Lane Demonstration Project. The PE Phase is estimated to take approximately 18 months to complete. Upon completion of the PE Phase, VTA staff will return to the Board of Directors for further consider and direction whether to pursue final design, construction and operation of the HOT Lane Demonstration Project.

ALTERNATIVES:

The VTA Board may direct staff to discontinue work to develop a demonstration HOT lane project on Santa Clara County freeways.

FISCAL IMPACT:

The continuing work to refine alternatives through the development of a Project Study Report (PSR), preparation of environmental documentation, preliminary engineering analysis and continuation of outreach and education has been estimated at $1.425 million. An application has been submitted to the Federal Highway Administration's 2005 Value Pricing Pilot Program to fund 80 percent of this continuing work. The remaining 20% of the cost to conduct the next phase has been included in the FY 06/07 VTA Congestion Management Program Budget.

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