



Date: May 8, 2007  
 Committee Meeting Date: May 17, 2007  
 Board Meeting Date: June 7, 2007  
 ACTION  DISCUSSION  INFO

**BOARD MEMORANDUM**

**TO:** Administration and Finance Committee  
 Santa Clara Valley Transportation Authority  
 Board of Directors

**THROUGH:** Michael T. Burns *Michael T. Burns*  
 General Manager

**FROM:** Carolyn M. Gonor *Carolyn M. Gonor*  
 Chief Development Officer

**SUBJECT:** Three Grant Applications for Funding the Silicon Valley  
 Comprehensive Mobility Initiative

**RECOMMENDATION:**

**Policy-Related Action: No**                      **Government Code Section 84308 Applies: No**

Authorize staff to submit applications to the “Intelligent Transportation Systems Operational Testing to Mitigate Congestion” (ITS-OTMC), “Value Pricing Pilot (VPPP) Program” and the “Discretionary Bus and Bus Facilities Program” grant programs for the Silicon Valley Comprehensive Mobility Initiative. Authorize the General Manager to enter into all necessary agreements with the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), Caltrans and MTC to accept and use these grants.

**BACKGROUND:**

U.S. Department of Transportation (USDOT) has requested proposals from metropolitan areas around the nation that agree to implement a comprehensive policy response to urban congestion. This comprehensive response to urban congestion is to include the following (a) a congestion pricing demonstration, (b) elements aimed at enhancing transit services, (c) an increased use of telecommuting and flex scheduling, and (d) use of advanced technologies to accomplish the mobility enhancements. USDOT plans to select “urban partners” to implement the above strategies for addressing traffic congestion, and support these partners with available financial resources, regulatory flexibility, and USDOT expertise.

Working with the Metropolitan Transportation Commission (MTC) and Caltrans, VTA’s is one of four major funding requests prepared under the urban partnership umbrella.

MTC was responsible for submitting the Urban Partnership agreement proposal on behalf of the Bay Area funding requestors to USDDOT. Each requestor was then responsible for submitting the individual funding requests to FHWA and FTA.

VTA teamed with Caltrain, San Mateo County Transportation Authority (SMCTA), San Mateo County Transit District (SamTrans), Caltrans, and the University of California at Berkeley's Partners for Advanced Transit and Highways (PATH) Program, to prepare the Silicon Valley Comprehensive Mobility Initiative proposal as described in the remainder of this memorandum. The Silicon Valley funding proposal is seeking funds from Federal Highway Administration's Value Pricing Pilot Program (VPPP) and Intelligent Transportation Systems – Operational Testing to Mitigate Congestion (ITS-OTMC) Program and from Federal Transit Administration's 5309 Bus and Bus Facilities Program.

### **DISCUSSION:**

The Silicon Valley proposal developed in response to USDOT's call for partnership is called the Silicon Valley Comprehensive Mobility Initiative (Silicon Valley CMI). The intent of this proposal is to implement transportation system enhancements to lay the groundwork for ensuring congestion relief for the Silicon Valley area. The proposal includes elements intended to provide immediate congestion relief to certain areas of Silicon Valley's daily commute as well as demonstrations of systems to encourage commuters to switch to travel modes such as transit that could result in sustained congestion relief for the region.

The Silicon Valley CMI has the following elements:

**Silicon Valley Managed Lanes** – VTA's feasibility study of roadway pricing for Santa Clara County completed in 2005 outlined the feasibility of allowing commuters to pay to use available capacity in area carpool lanes. VTA's feasibility study identified that these priced lanes, commonly referred to as high occupancy toll (HOT) lanes, and could lead to a future network of interconnected HOT lanes to become a valuable tool for managing flow on area freeways. Such a system would allow freeways to accommodate more commuters without widening of the freeway. Carpoolers and transit would continue to travel without paying in the HOT lanes. The SVCMI proposal includes implementing such strategies along a SR 237/I-880 corridor and also along a SR 85/US 101 corridor into the Silicon Valley "Golden Triangle" area.

One implementation would target a bottleneck that occurs each morning at the SR 237/I-880 interchange for commuters headed from southbound I-880 to west on SR 237 to job centers in north San Jose to Mountain View and beyond. The proposed project would allow commuters to use available capacity in the existing carpool lane-to-carpool lane connector ramp between the two freeways for a dynamically priced fee. The system would include providing information to motorists on transit options such as light rail and bus to travel to job destinations in the City of Mountain View or areas along the SR 237 corridor.

VTA is requesting \$2.62 million in funds from the ITS-OTMC program and \$4.87 million in funds from the VPPP Program for this part of the initiative. If successful, VTA will need to provide \$1.87 million in non-Federal matching funds.

The second implementation would be continued development of what could be a system of intersecting HOT lanes already underway for the SR 85/US 101 corridors between the Morgan Hill area to Palo Alto. This two-freeway corridor will provide a unique test bed to investigate pricing strategies for commuter travel times optimization in multiple interconnected corridors.

VTA is seeking \$14 million in funds from the ITS-OTMC program and \$26 million in funds from the VPPP Program for this second implementation. If successful, VTA will need to provide \$10 million in non-Federal matching funds.

**Transit and Alternative Mode Enhancements** – The implementation of managed lanes could cause a shift in travel modes for commuters and also provide additional revenue for transit services operating in these “priced” corridors. In order to further accommodate shifting of commuters to other travel modes, the following transit-related demonstrations are proposed:

VTA Rapid 522 Bus Signal Priority Upgrade: The VTA Rapid 522 line operates between the Palo Alto Transit Center and the Eastridge Mall, traveling along El Camino Real for part of its route. El Camino Real (SR 82) provides access to businesses and universities between the City of Palo Alto and the City of Santa Clara, paralleling US 101 and providing access to the same areas as SR 237 and SR 85. The proposed project would replace the existing loop-based bus signal priority (BSP) system at over at over fifty intersections along El Camino Real between Palo Alto and Halford Ave in Santa Clara and on the nineteen Line 522 buses with a more effective global positioning system (GPS) based BSP system. This upgrade would further reduce travel times for the Rapid 522 service.

VTA is seeking \$1.44 million in grant funding from the §5309 Bus and Bus Facilities Program to replace the current loop detector system with modern GPS-based technology. If successful, VTA will provide \$0.36 million in non-Federal funds as match.

First and Last Mile Innovative Transportation Program: Historically, a major issue with providing transit service to a research and development campus style environment as is common in Silicon Valley is the last mile connection from transit to the work site. This proposed program would allow for the investigation of car sharing, vanpool programs, and complementary solutions to help address this issue.

This program will be focused for areas along the managed lanes corridors, although other areas of the Silicon Valley area will be considered as the opportunity arises. Examples of the types of programs that would be offered include the following: organized employee vanpools between predetermined transit stations and work sites, car sharing programs that

include park-ride-lots at key transit centers, parking management systems for the park-and-ride lots, and real-time transit traveler information systems for the included transit center locations. This proposal would include working with the three commercial car sharing companies in the Bay Area and area business advocacy groups such as the Silicon Valley Leadership Group and Joint Venture: Silicon Valley Network to develop these commute options.

VTA is requesting \$1.2 million in grant funding from the VPPP program for this part of the initiative. If successful, VTA will provide \$0.3 million in non-Federal matching funds.

**US 101 Commuter Travel Time Information System:** The US 101 corridor between San Jose and San Francisco is one of the more congested commuter corridors in the Bay Area. Caltrain runs parallel to US 101 along this corridor and BART currently runs from Millbrae to San Francisco. The combination of these transit services and others provide travel options for commuters along US 101. Surveys of the Millbrae and Redwood City Caltrain/BART parking facilities show that on average about half of the parking spaces are not used.

In partnership between Caltrans and the SMCTA, a commuter travel time information system is proposed for US 101 in San Mateo County to provide real-time parking space availability to commuters on US 101 at the two stations described above. The system incorporates the use of overhead Changeable Message Signs (CMSs) and smaller roadside CMSs to provide this parking availability information. The signs could be used to provide real-time information on how freeway travel times compare to transit travel times for selected locations along US 101 between San Francisco and San Jose. They would also be used to provide incident management information for the corridor.

The San Mateo County Transportation Authority is requesting \$1.5 million in grant funding from the ITS-OTMC program. If successful, San Mateo will match it with \$1.5 million of their non-Federal funds.

**Caltrain Real-Time Passenger Information System:** Continuing with the theme of providing enhancements to further encourage commuter switch from auto travel to transit would be this proposal to further expand Caltrain's ongoing project to provide real-time transit traveler information to four additional Caltrain station areas in San Mateo and Santa Clara counties. These stations are the Lawrence, San Antonio, California Avenue and Hillsdale stations.

Caltrain JPB is requesting \$0.5 million in grant funding from the ITS-OTMC program and proposes to match it with \$0.13 million in local funds from the Caltrain Capital Budget. VTA, as one of the Caltrain JPB partners could be responsible or providing up to 1/3 of that amount (\$43,333) in non-Federal funds.

**Managed Lanes Ramp Metering Enhancements:** In order to further improve traffic operations along the managed lanes corridors, an implementation of an enhanced ramp

metering system is proposed. The ramp-metering enhancement would convert the local traffic responsive ramp metering to one based on a corridor wide approach that uses real-time data. Existing ramp meters operate locally responding to traffic conditions just upstream of the on-ramp with metering rates selected from a pre-determined table of rates at each ramp metering location. The proposed project would meter on a corridor wide approach, metering to real-time conditions for the whole corridor and in coordination with local street arterials as feasible.

VTA is requesting \$1.20 million in grant funding from the ITS-OTMC program for this purpose. If successful, VTA will provide \$0.30 million in non-Federal matching funds.

Because the ITS-OTMC grant application was due to FHWA by April 30, 2007, it has already been submitted. It is anticipated that selected projects will be announced on or about August 8, 2007.

The following table summarizes the grant applications and match amounts.

Proposal Element	Amount Requested (millions)				Match (millions) [d]	Total (millions) [a] to [d]	Matching Agency
	Total [a] to [c]	VPPP [a]	ITS-OTMC [b]	B&BF [c]			
<b>Congestion Pricing</b>							
SR 237/I-880 Corridor	\$7.49	\$4.87	\$2.62		\$1.87	\$9.36	VTA
SR 85/US 101 Managed Lanes	\$40.00	\$26.00	\$14.00		\$10.00	\$50.00	VTA
<b>Transit Related</b>							
First & Last Mile Program	\$1.20	\$1.20			\$0.30	\$1.50	VTA
VTA Rapid 522 BSP Upgrade	\$1.44			\$1.44	\$0.36	\$1.80	VTA
US 101 Commuter Signs	\$1.50		\$1.50		\$1.5	\$3.00	SMCTA
Caltrain Real-Time System	\$0.50		\$0.50		\$0.13	\$0.63	Caltrain
<b>Ramp Meter Enhancements</b>	\$1.20		\$1.20		\$0.30	\$1.50	VTA
<b>Proposal Totals</b>	\$52.33	\$32.07	\$19.82	\$1.44	\$14.46	\$67.79	
<b>VTA Subtotals</b>	\$50.33	\$32.07	\$17.82	\$1.44	\$12.83	\$64.16	

VPPP: FHWA's Value Pricing Pilot Program

ITS-OTMC: FHWA's Intelligent Transportation Systems - Operational Testing to Mitigate Congestion Program

B&BF: FTA's Bus and Bus Facilities Program

**ALTERNATIVES:**

The Board can elect not to pursue these funding opportunities and utilize other as yet unidentified funds to proceed with the Silicon Valley Comprehensive Mobility Initiative. (If the Board chooses not to pursue FHWA and FTA funding, staff will withdraw the application.) Alternatively, the Board can withhold funding for these activities. Both of these actions will result in delays in implementing the initiative outlined here.

**FISCAL IMPACT:**

As detailed in the chart immediately below, VTA will apply for \$51.33 million in grant funds. If successful, VTA will be responsible for providing up to \$12.83 million in non-Federal matching funds. Of this \$12.83 million, \$12.47 million would need to come from non-transit sources. The remaining \$.36 million could come from transit funds.

These matching funds are not included in the 2008 – 2009 VTA Budget. If successful in obtaining these grants, staff will return to the Board specifically identifying the source and final amount of all matching funds and requesting the appropriate programming actions and budget amendment(s).

<b>VTA</b>				
<b>Amount Requested Plus Match (millions)</b>				
<b>VPPP</b>	<b>ITS-OTMC</b>	<b>B&amp;BF</b>	<b>VTA Match</b>	<b>Grant &amp; Match</b>
\$32.07			\$8.02	\$40.09
	\$17.82		\$4.45	\$22.27
		\$1.44	\$0.36	\$1.8
\$32.07	\$17.82	\$1.44	\$12.83	\$64.16

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