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COMMISSION

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Memorandum

TO: Select Committee on Transit Sustainability

DATE: April 11, 2012

FR: Deputy Executive Director, Policy

W.I. 1517

RE: Transit Performance Initiative (TPI) Program – Major Bus and Light Rail Corridors

The region's urban trunk network of major transit lines carries over half of the total ridership in the region and the network corresponds with areas where the region is forecasting significant growth. This network includes both bus and light rail operations on heavily traveled, congested urban corridors. Despite relatively slow operating speeds these routes nonetheless generate significant ridership. The TPI program is a pilot program to fund low-cost capital improvements that improve operations and customer experience in this network. The improvements being sought are those that can be implemented quickly, as they build on existing transit agency efforts to identify ways to improve service productivity.

As part of the OneBayArea Grant program, staff has proposed an initial commitment of \$30 million to fund service improvements on major bus and light rail corridors. On January 25, this committee authorized the release of a call for projects focusing the initial \$30 million on the largest bus and light rail systems with high ridership urban trunk routes: AC Transit, SFMTA, SamTrans, and VTA. Staff recommends funding five projects submitted in this initial round. If successful in demonstrating achievement of operational and ridership goals, similar investments would be recommended in the future.

Project Selection Process

MTC issued a call for projects in February and received five applications from three agencies with a total request of approximately \$34 million (summarized below). SamTrans is currently completing a Comprehensive Operational Analysis and indicated that they intend to submit projects for consideration in a future funding round.

MTC staff convened an evaluation team consisting of staff from MTC, the Livermore Amador Valley Transit Authority, and Transportation Management and Design, Inc. Submissions were evaluated based on project readiness and project management capacity with priority given to projects that could be implemented within 12-24 months of grant award and that had evidence of engineering and operational support from local jurisdictions. Additionally, cost-effectiveness and performance indicators like travel time savings and operating cost savings were considered with priority given to corridors with more frequent service.

Staff recommends funding elements of all five corridor projects for a total of \$27.7 million as shown in Table 1. A local funding match of 11.5% is required. The recommended grant awards fund project elements that improve speed, reduce travel times, enhance customer experience, and

can be implemented quickly consistent with the program objectives. Together, these projects are estimated to save over \$4 million in annual operating costs and reduce travel time by 5-25% for the approximately 200,000 daily riders on these routes. Fact sheets for the recommended corridors are attached.

Table 1

Agency	Project	Total Cost	TPI request	Staff Recommendation
AC Transit	Line 51 Corridor Speed Protection and Restoration Project	\$13,315,624	\$10,515,624	\$10,515,624
SFMTA	Mission Mobility Maximization Project	\$13,210,000	\$11,694,813	\$7,016,395
	N-Judah Mobility Maximization Project	\$10,360,000	\$9,171,708	\$3,750,574
	Bus Stop Consolidation and Roadway Modifications (subject to environmental)			\$4,133,031
VTA	Light Rail Transit Signal Priority Improvements	\$1,792,813	\$1,587,177	\$1,587,176
	Stevens Creek – Limited 323 Transit Signal Priority Project	\$805,250	\$712,888	\$712,888
Total		\$39,483,687	\$33,682,210	\$27,715,688
Reserve for future TPI Round				\$2,284,312

For the AC Transit project and two VTA projects, staff recommends funding the entire TPI request. For the two SFMTA projects, staff recommends funding ready-to-go project elements that produce travel time savings including transit signal priority and dedicated lane treatments. Staff recognizes that both the Mission and N-Judah corridors are two of the highest ridership corridors in the region and both have potential for significant travel time improvements. However, project elements such as bus stop consolidation and roadway modifications that would produce significant travel time savings are not proposed within the timeframe of this funding round due to the environmental review schedule. Staff recommends programming \$4.1 million for additional Transit Effectiveness Project (TEP) improvements, currently under environmental review, and conditioning the release of these funds on companion bus and/or light rail stop consolidation implementation, consistent with the TEP. The immediate TPI grant, when combined with the TEP stop consolidation and engineering changes are estimated to result in travel time savings of approximately 20% in both corridors.

We recommend reserving roughly \$2.3 million for a funding round in summer 2013. Potential programming options for the reserve include a SamTrans project resulting from their Comprehensive Operational Analysis, additional projects or project elements from AC Transit, SFMTA and VTA, or seed funding for a future round with expanded eligibility. Staff would return in summer 2013 to provide an update on SFMTA's progress in meeting conditions and to request consideration of a new funding round.

Recommendation

Staff recommends the Committee refer the five projects shown in Table 1 to the Commission for approval as part of the Transit Sustainability Project final recommendations on April 25th and for final programming as part of the OneBayArea grant program in May 2012.

Ann Flemer

Attachments: Individual Project Fact Sheets

TPI Major Corridors

VTA Light Rail Transit Signal Priority Improvements

Recommended TPI Funding: \$1.6 M

Estimated Total Project Cost: \$1.8 M

Lead Implementing Agency/ Sponsor: VTA

Project Location: Santa Clara County's Light Rail Transit (LRT) system

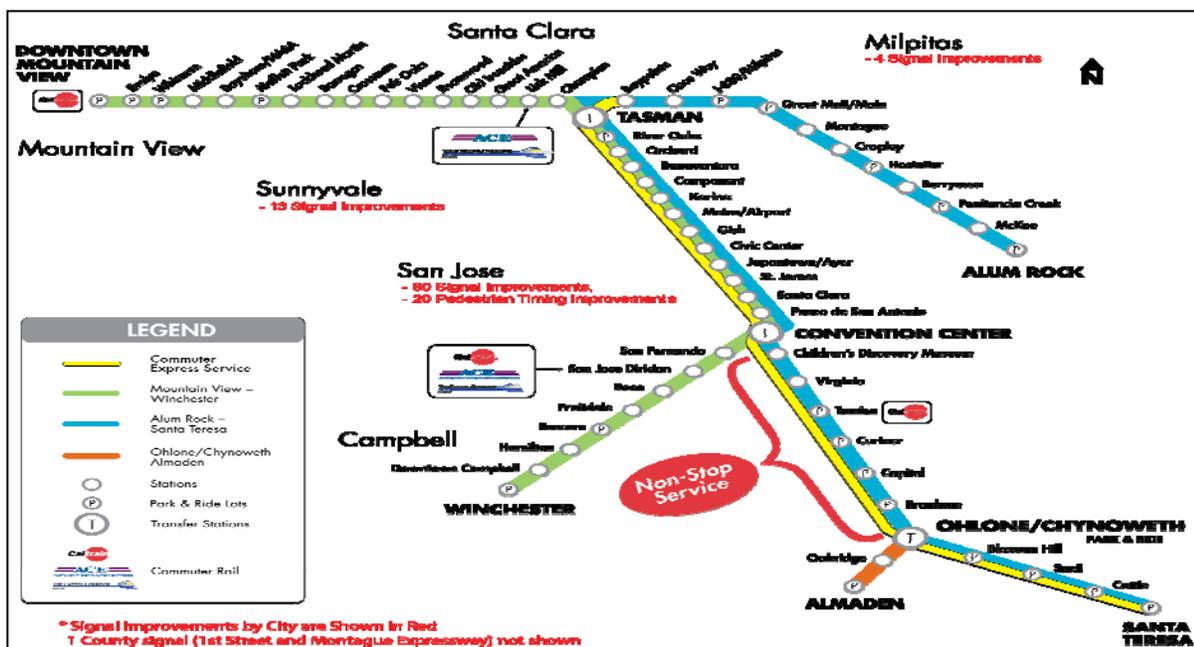
Project Description: Transit Signal Priority (TSP) for VTA's Light Rail System is currently limited by an inadequate detection system as it uses historical travel times and dwell times to schedule transit signal priority. This project will implement a real-time, reliable transit signal prioritization and light rail vehicle detection system that enables multiple city and county stakeholders to cooperate in providing live real-time train arrival management and prioritization.

Project Benefits: The new TSP system will result in:

- Estimated travel time savings - 5%
- Estimated reduction in annual revenue hours - 5%
- Estimated increase in ridership - 2.5%
- Estimated cost savings - \$1.6 - \$3.1 M annually
- Cascading benefits that improve speed, reduce auto trips and have positive air quality benefits.

Project Schedule: Environmental Clearance: August 2012
Project Completion: June 2013

Project Map:



TPI Major Corridors

Line 51 Corridor Speed Protection and Restoration Project

Recommended TPI Funding: \$10.5 M

Estimated Total Project Cost: \$13.3 M

Lead Implementing Agency/Sponsor: AC Transit

Project Location: Along AC Transit lines 51A and 51B that operate along the Santa Clara, Broadway, College and University Corridors.

Project Description: The 51 Lines stretch from East Oakland/East Alameda to the 4th Street District in Berkeley's west side, serving some of the highest population densities, and employment centers in the east bay. The Line 51 has been plagued by low speeds and reliability challenges for many years. This project would provide key capital investments that represent a major investment in capital infrastructure needed to provide travel time relief. These investments include:

- Conduit and Hardware for Signal Interconnectivity,
- Signal Retiming,
- Signal Cabinet Upgrades to facilitate modernization,
- Signal Modifications,
- Queue Jump Lanes,
- Bus Bulbs,
- Stop Relocations.

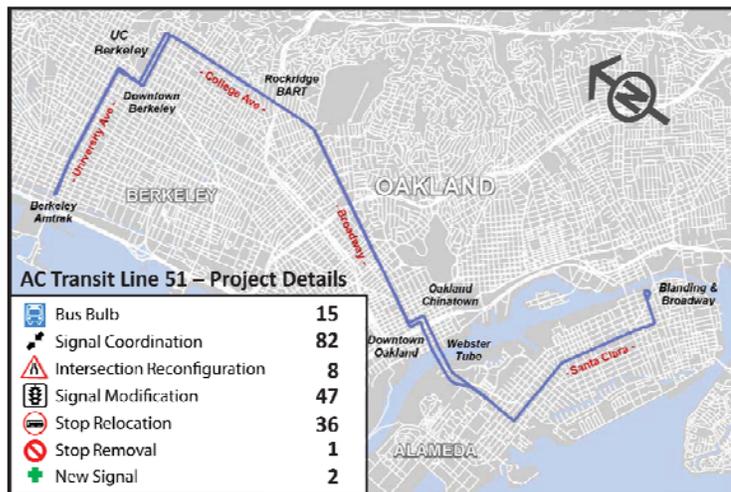
Note: Costs for individual project elements in the original AC Transit application were refined based on the evaluation committee comments/questions and follow-up clarifications from AC Transit staff.

Project Benefits: The placement of this infrastructure will result in:

- Travel time savings – 17-19%
- Cost savings - \$1M annually (if hours are eliminated)
- Speed improvements to AC Transit's 2nd busiest corridor in the East Bay
- Additional/ancillary benefits that increase ridership, reduce auto trips and have positive air quality benefits.

Project Schedule: Environmental Clearance: October 2012
Project Completion: July 2014

Project Map:



TPI Major Corridors

N-Judah Mobility Maximization Project

Recommended Early Delivery TPI Funding: \$3.8 M

(\$4.1 million for post-environmental elements for Mission and N-Judah Corridors)

Estimated Total Project Cost: \$10.3M

Lead Implementing Agency/ Sponsor: SFMTA

Project Location: Along SFMTA's N-Judah Light Rail Line

Project Description: Program of enhancements to existing transit service along the heavily travelled N-Judah Light Rail line (>4000 daily passengers per route mile) which will provide immediate speed and travel time benefits. These enhancements include the following:

- Colorizing existing dedicated transit lanes
- Transit Signal Priority
- Vehicle Branding
- Enhanced stop identification

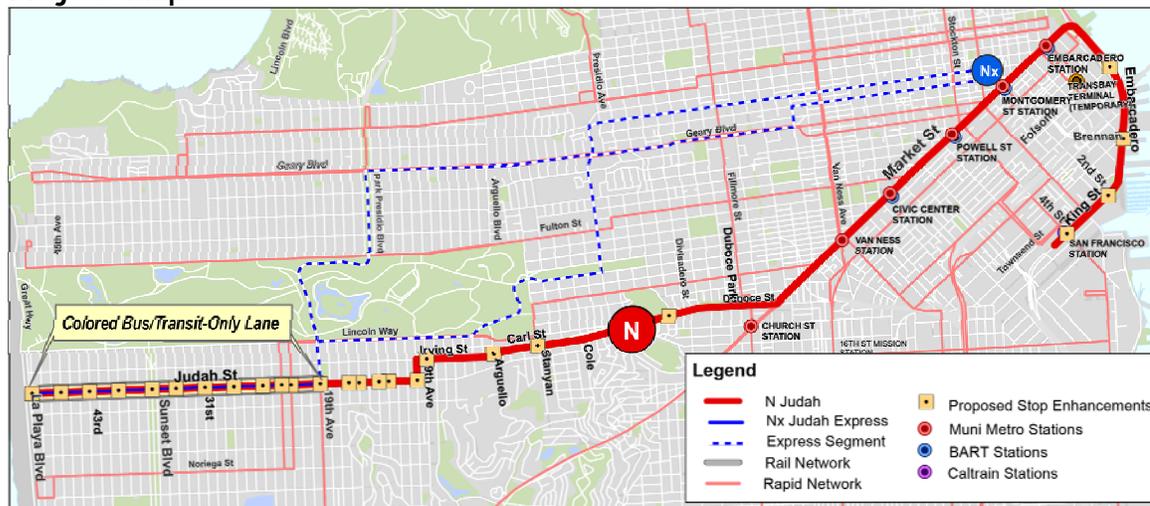
Note: Individual elements included in the SFMTA application such as pre-payment fare collection, transit information signs, are not being recommended for funding as they are less targeted at the TPI objectives. MTC will work with SFMTA to explore funding opportunities related to transit arrival prediction equipment.

Project Benefits: The placement of this infrastructure will result in:

- Estimated travel time savings of 2-3% (when combined with the Transit Effectiveness Project improvements travel time savings is estimated at 22%)
- Speed improvements to the heavily utilized light rail line
- Enhanced customer experience
- Cascading benefits that increase ridership, reduce auto trips and have positive air quality benefits.

Project Schedule: Environmental Clearance: June 2013
Project Completion: Mar 2015

Project Map:



TPI Major Corridors

Mission Mobility Maximization Project

Recommended Early Delivery TPI Funding: \$7 M

(\$4.1 million for post-environmental elements for Mission and N-Judah Corridors)

Estimated Total Project Cost: \$13.2M

Lead Implementing Agency/ Sponsor: SFMTA

Project Location: Mission Corridor along SFMTA's 14, 14L and 14 X routes

Project Description: Program of enhancements to existing transit service along the heavily travelled Mission Corridor (>4000 daily passengers per route mile) which will provide immediate speed and travel time benefits. These enhancements include the following:

- Colorizing existing dedicated transit lanes
- Transit Signal Priority
- Vehicle Branding
- Enhanced stop identification

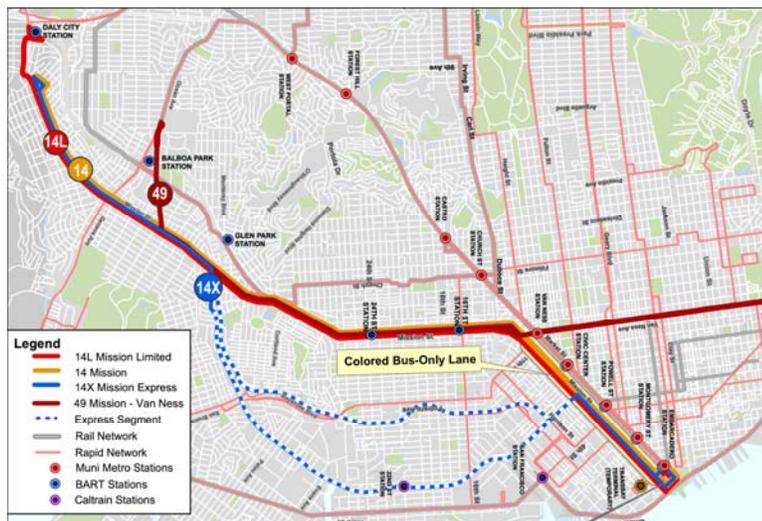
Note: Individual elements included in the SFMTA application such as pre-payment fare collection, transit information signs, are not being recommended for funding as they are less targeted at the TPI objectives. MTC will work with SFMTA to explore funding opportunities related to transit arrival prediction equipment.

Project Benefits: The placement of this infrastructure will result in:

- Estimated travel time savings of 5-7% (when combined with the Transit Effectiveness Project improvements travel time savings is estimated at 20%)
- Cost savings - \$700,000 annually (from elimination of a bus cycle)
- Speed improvements to the heavily utilized mission corridor
- Enhanced overall customer experience
- Cascading benefits that increase ridership, reduce auto trips and have positive air quality benefits.

Project Schedule: Environmental Clearance: June 2013
Project Completion: Mar 2015

Project Map:



TPI Major Corridors

Stevens Creek - Limited 323 Transit Signal Priority Improvements

Recommended TPI Funding: \$0.7 M

Estimated Total Project Cost: \$0.8 M

Lead Implementing Agency/ Sponsor: VTA

Project Location: Stevens Creek Corridor in San Jose

Project Description: The project would implement transit signal priority (TSP) on Stevens Creek/West San Carlos for VTA's proposed Limited 323 service to reduce travel time in VTA's second highest ridership corridor. VTA is planning to begin the Limited 323 service in October 2012 but implementing TSP in the corridor would allow VTA to improve the operating speed.

Project Benefits: The new TSP system will result in:

- Estimated travel time savings – 23%
- Speed improvements and reduction in revenue hours
- Cascading benefits that increase ridership, reduce auto trips and have positive air quality benefits.

Project Schedule: Environmental Clearance: August 2012
Project Completion: Nov 2013

Project Map:

