



Memorandum

Date: March 24, 2015

To: Transportation Authority Board: Commissioners Wiener (Chair), Cohen (Vice Chair), Avalos, Breed, Campos, Christensen, Farrell, Kim, Mar, Tang and Yee

From: Lee Saage – Deputy Director for Capital Projects *LS*

Through: Tilly Chang – Executive Director *TC*

Subject: March 2015 Quarterly Progress Report for Van Ness Avenue Bus Rapid Transit Project

Summary

Van Ness Avenue Bus Rapid Transit Project comprises a package of transit improvements along a 2-mile corridor of Van Ness Avenue between Mission and Lombard Streets, including dedicated bus lanes, consolidated transit stops, and pedestrian safety enhancements. The Transportation Authority completed environmental review for the project in December 2013, and at that time transferred project lead to the San Francisco Municipal Transportation Agency (SFMTA).

SFMTA completed preliminary engineering in June 2014 with approval of its Conceptual Engineering Report (CER). The core Van Ness Avenue BRT project is being developed in conjunction with several related, separately-funded projects for design, management, and eventual construction as a unified Van Ness Corridor Transit Improvements Project. Cost of the core BRT project is now estimated at \$162 million and a total of \$250 million for the unified Transit Improvements Project. SFMTA began final design in May 2014 and expects to conclude in June 2015. SFMTA is implementing the CER recommendation to use the Construction Manager-General Contractor (CMGC) project delivery method as opposed to traditional design-bid-build, and is currently evaluating the proposals it received in late March.

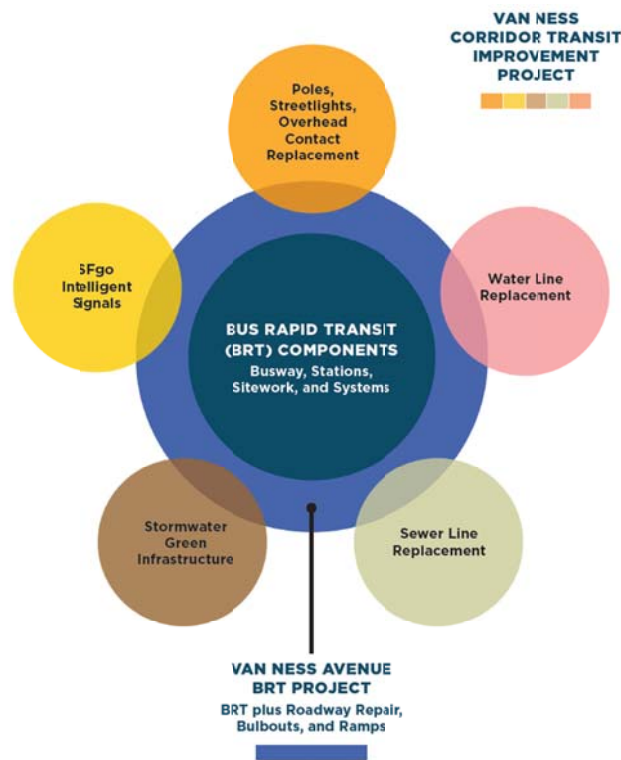
In November 2014, the SFMTA Board legislated the traffic, transit, and parking changes necessary for the project. SFMTA also reached the milestone of 65% level of design and conducted a workshop to update its risk management plan. The largest risk seen during the design process is achieving platform architectural design approval from both the San Francisco Arts Commission Civic Design Review Committee (SFAC) and Caltrans. Updates to the cost estimate, schedule, and project management plan are underway. Under current assumptions, construction would begin in late 2015 and revenue service would begin in 2018.

BACKGROUND

Van Ness Avenue Bus Rapid Transit (BRT) Project comprises a package of transit improvements along a two-mile corridor of Van Ness Avenue between Mission and Lombard Streets. Key features include: dedicated bus lanes, low-floor all-door boarding, consolidated transit stops, high quality stations, transit signal priority, elimination of most left turn opportunities for mixed traffic, and pedestrian safety enhancements. Van Ness Avenue BRT is a signature project in the Prop K Expenditure Plan, a regional priority through the Metropolitan Transportation Commission's Resolution 3434, and a Federal Transit Administration (FTA) Small Starts program project. The project is a partnership between the Transportation Authority, which led the environmental review, and the San Francisco Municipal Transportation Agency (SFMTA), which is leading the preliminary and detailed design phases and will be responsible for construction and operation of the facilities. SFMTA's preliminary engineering team includes internal SFMTA engineers with design support from the Department of Public Works (SFPDW), Public Utilities Commission (SFPUC), and Planning Department. SFMTA is also using its on-call consultant HNTB for some specialized tasks.

As part of preliminary engineering, the core Van Ness Avenue BRT project was combined with several parallel projects for design, management, and eventual construction. These projects overlap the geography and will result in lower overall cost and construction duration when combined, compared to if they were built separately, but may increase the construction duration when added to the core Van Ness Avenue BRT project. The projects include Overhead Contact System, Streetlights, and Poles replacement; SFgo traffic signal replacement; sewer line replacement; water line replacement; and stormwater “green infrastructure” installation. Meanwhile, pavement resurfacing, curb ramp upgrades, and sidewalk bulb outs have always been considered part of the core BRT project. The parallel projects have largely independent funding, but many scope items will be cost-shared with the BRT project. The design plans and specifications include all these projects as part of a single Van Ness Corridor Transit Improvements Project.

Figure 1: Relationship of Van Ness BRT and Van Ness Corridor Transit Improvement Project



STATUS AND KEY ACTIVITIES

SFMTA completed preliminary engineering in June 2014 with approval of its Conceptual Engineering Report (CER). After extensive review and after conducting a number of cost workshops, the design team has prepared a new cost estimate as part of the CER. Cost of the core BRT project is now estimated at \$162 million and a total of \$250 million for the unified Transit Improvements Project. Cost of the core BRT project has increased approximately \$36 million, or 28%, as compared to the cost estimate prepared as part of the environmental document, although the BRT facility components (not including mixed flow lane resurfacing and related curb-work), remain in the \$125 million cost range. Cost increases are associated with changes in design standards, electrical and communications components, construction duration and continued uncertainty about platform architecture and other features requiring conservative assumptions (see Current Issues and Risks section of this memo). The

final CER included an updated cost and funding plan that identifies specific sources to cover the increase.

SFMTA began final design in May 2014 and expects to conclude in June 2015. On Tuesday November 18th, the SFMTA Board unanimously approved legislation needed for Van Ness BRT. The legislation dedicates the bus-only lanes, consolidates the bus stops, adds the left turn restrictions, and reconfigures parking where necessary. The wide support for the project was evident in both public testimony and the Board members' comments. In early December, SFMTA reached the milestone of 65% level of design where scope is typically settled and fully-defined. In April 2015, SFMTA will reach 95% level of design, where design plans and specifications are complete drafts.

SFMTA is implementing the CER recommendation to use the Construction Manager-General Contractor (CMGC) project delivery method as opposed to traditional design-bid-build. This method allows SFMTA to advertise and award a contract before the completion of final design, with a potential of gaining valuable input from the contractor on design details and construction sequencing. However, this alternative delivery method may take longer to procure and may produce fewer bids due to its relative novelty. CMGC also does not lock in a total contract price until after design is complete. If the price cannot be agreed upon, the work would be re-bid as a traditional contract. SFMTA has secured a city ordinance authorizing use of the procurement method, and released a Request for Proposals (RFP) for the CMGC contract in February, with proposals due March 19th. SFMTA is reviewing the proposals on a best value basis in lieu of a lowest cost basis.

CURRENT ISSUES AND RISKS

SFMTA has been engaged in a risk assessment process to update its risk management plan and determine appropriate contingencies for cost and schedule to accommodate the risks.

Civic Design Review of Platform Features: One risk seen during the design process is achieving platform architectural design approval from both the San Francisco Arts Commission Civic Design Review Committee (SFAC) and Caltrans. As discussed in previous Board Updates, SFAC has jurisdiction over the project architectural and landscape features, with three phases of approval. SFMTA has determined that it has statutory authority to proceed with using its red "seismic wave" shelters on the platforms without SFAC approval, and SFAC has indicated they would not challenge that determination. SFMTA's 95% design accordingly includes shelter configurations with the roofs, seats, and passenger information.

Additional features including railings, lighting, and branding flags will continue to be developed in cooperation with the Committee. A remaining challenge to finalizing a railing design is a comment from Caltrans indicating concerns that the railing must be transparent enough such that vehicles are visible to each other and transit users in the vicinity of each intersection. SFMTA continues to work with Public Works Architects to develop a railing design that is acceptable to all parties and can be maintained at reasonable cost.

Risks Related to CMGC Process: As a project delivery method, CMGC is intended to allow early contractor involvement to result in a less ambiguous, more easily constructible, and more cost-effective design. In this project, contractor input into construction sequencing, scheduling, and traffic management is expected to yield benefits to the project. San Francisco Public Works has used the method successfully. However, CMGC has only been used once before on an SFMTA project, and some additional risks are seen due to the novelty of the method. Delays in design to accommodate contractor input are possible, as are delays or ultimate inability to agree on a final contract price. Aggressively seeking to mitigate these risks, SFMTA has already performed research, engaged in staff education, and sought outside expertise when obtaining its authorizing legislation and issuing its RFP. SFMTA additionally intends to avoid these

delays by budgeting and making available design staff, by seeking outside independent cost estimates to supplement its own, and by working with the contractor collaboratively to achieve a successful deal. Lastly, the ongoing risk assessment is evaluating the likelihood and impacts of failures and will recommend appropriate cost and schedule contingencies. The Transportation Authority is supporting SFMTA in these efforts.

ONGOING ACTIVITIES

Agreements and Approvals: In August 2014, the project team obtained approval of the Project Study Report/Project Report (PSR/PR) from Caltrans. The final PSR/PR, including the draft maintenance agreement between Caltrans and the City, allowed the project to proceed into the next phase of the Caltrans process. Caltrans and SFMTA now meet regularly to resolve design issues and plan for construction, including traffic management.

SFMTA has general agreement on scope with the sewer replacement and other parallel projects, including water service replacement, green stormwater infrastructure, overhead contact system and pole replacement, and SFgo signal work. These designs have been included in the plans and specifications and will be reviewed concurrently with the BRT project. The SFMTA and SFPUC have a tentative agreement on cost sharing for sewer replacement work to be coordinated with the Van Ness Avenue BRT Project. The next priority will be to establish cost-sharing agreements with the various partners.

Outreach: The SFMTA convened a new Community Advisory Commission (CAC) for design and construction. The group has met monthly since July 2014. SFMTA has proactively engaged the public on tree species selection (mailings and an open house), utility box placement (postings at proposed locations), and early utility investigation work (mailings and postings). Beginning in late spring, SFMTA will be conducting field visits to survey nearby residents and businesses on their preferences regarding construction timing and duration, in order to have public input into achieving the right balance between workday durations and overall construction duration.

Next Steps/Upcoming Key Milestones: The environmental documentation phase was completed with the publication of the Federal Record of Decision on January 2, 2014. Preliminary Engineering concluded with the approval of the final CER in May 2014. Detailed Design is ongoing and will reach the 95% level of design in April 2015. Budget, funding, and schedule updates based on 95% design will be forthcoming in May 2015.

The next application for Prop K funds will be to match FTA funds for the construction phase. SFMTA expects to apply for the Federal Small Starts Grant Agreement (SSGA) in April 2015 and secure the agreement in mid-2015.

PROJECT SCHEDULE AND BUDGET

Schedule: Figure 2 shows the project schedule. The current phase of work continues to be on schedule, with completion of detailed design anticipated in May 2015. Using the CMGC project delivery method, construction could begin by late 2015. As analyzed in the Construction Sequencing report that is part of the CER, construction is expected to last approximately 2-1/2 years under aggressive but reasonable assumptions. Revenue service is still anticipated to begin in 2018.

Figure 2: Van Ness Avenue BRT Project Schedule

Activities	2013				2014				2015				2016				2017				2018			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1. Conceptual Engineering + Environmental Studies ¹	■	■	■	■																				
2. Preliminary Engineering (CER)					■	■	■	■																
3. Final Design									■	■	■	■												
4. Construction Manager-General Contractor (CMGC) Process									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5. Construction													■	■	■	■	■	■	■	■	■	■	■	■
6. Testing/Startup																								
7. Revenue Operations Begin																								

1. Conceptual Engineering and Environmental Studies began in 2007

Budget: Table 1 shows the budget for the project by phase as well as expenditures to date for the Core BRT project based on the CER. A cost estimate update is in process based on the 95% design documents, and a budget revision is anticipated by May 2015. In this memo, the expected budget revision is shown in the Estimate at Completion column. The total project cost is not expected to change significantly, but completion of the risk assessment could result in a need for additional contingency. See the “Current Issues and Risks” section of this memo for more detail.

Appendix 1 shows the project funding plan. The project will use a mix of Prop K, FTA Small Starts, and other local funds. With approval of the 2014 Prop K 5-Year Prioritization Program update for the Bus Rapid Transit/Transit Preferential Streets/Muni Metro Network Expenditure Plan category, additional Prop K funds have been programmed for the project. SFMTA and SFCTA have agreed to increase the funds from Central Freeway land sales and CPMC development fees into this project, and SFMTA has included the project in its revenue bond program, bringing the project to full funding. Should additional contingency be needed, SFMTA expects to commit additional revenue bond proceeds.

Table 1: Van Ness Avenue Bus Rapid Transit Budget and Expenditures to Date

Project Name(in \$ millions)	Budget (\$ millions)	Estimate at Completion (\$ millions)	Expended to Date (\$ millions) ¹	% Complete
Conceptual Engineering + Environmental Studies	\$ 7.4	\$ 7.31	\$ 7.31	100%
Preliminary Engineering (CER)	\$ 6.8	\$ 6.8	\$ 3.24	48%
Final Design (PS+E)	\$ 7.1	\$ 7.1	\$0	0%
Construction (Including Testing/Startup)	\$ 136.7	\$ 136.7	\$0	0%
Procurement	\$ 4.0	\$ 4.0	\$0	0%
Total	\$ 162.0	\$ 162.0	\$ 10.55	8.4%

¹As of February 28, 2015.

Attachment:

1. Funding Plan

cc: E. Reiskin, T. Papandreou, V. Harris, J. Haley, P. Gabancho, D. Auyoung, R. Boomer – SFMTA
G. Gillett – CCSF
M. McDole – LS Gallegos
TC, MEL, CF, AL, JC, STR, MS, RAM – File: Van Ness BRT

Attachment 1: Van Ness Bus Rapid Transit Funding Plan
Updated: December 2014

Source	Type	Status	Project Phases ¹			Total by Status	TOTAL
			ENV, CER/PE	PS&E	CON		
5309 Small Starts ²	Federal	Allocated	\$7,031,202	\$6,371,063	\$1,597,734	\$14,999,999	\$74,999,999
		Programmed			\$30,000,000	\$30,000,000	
		Planned			\$30,000,000	\$30,000,000	
SHOPP ³	State	Allocated				\$0	\$7,304,868
		Programmed			\$7,304,868	\$7,304,868	
		Planned				\$0	
PPM Funds ⁴	Local	Allocated	\$197,907			\$197,907	\$197,907
		Programmed				\$0	
		Planned				\$0	
Prop K ⁵	Local	Allocated	\$6,977,180	\$1,594,280		\$8,571,460	\$36,302,444
		Programmed			\$27,730,984	\$27,730,984	
		Planned				\$0	
SFMTA Revenue Bonds	Local	Allocated				\$0	\$25,611,124
		Programmed				\$0	
		Planned			\$25,611,124	\$25,611,124	
California Pacific Medical Center Contribution ⁶	Local	Allocated				\$0	\$5,000,000
		Programmed		\$2,100,000	\$2,900,000	\$5,000,000	
		Planned				\$0	
Central Freeway Parcel Revenues ⁷	Local	Allocated				\$0	\$12,654,135
		Programmed			\$12,654,135	\$12,654,135	
		Planned				\$0	
SFMTA Operating Funds	Local	Allocated	\$1,823			\$1,823	\$1,823
		Programmed				\$0	
		Planned				\$0	
Totals		Allocated	\$14,208,112	\$7,965,343	\$1,597,734	\$23,771,189	\$162,072,300
		Programmed	\$0	\$2,100,000	\$80,589,987	\$82,689,987	
		Planned	\$0	\$0	\$55,611,124	\$55,611,124	
			\$14,208,112	\$10,065,343	\$137,798,845	\$162,072,300	

¹ Acronyms used for project phases include: ENV - Environmental Documentation, CER/PE - Conceptual Engineering Report/Preliminary Engineering (30% Design), PS&E - Plans, Specifications & Estimates or Final Design, CON - Construction. The construction phase includes the incremental cost for procuring new BRT vehicles for the project.

² \$15 million appropriated in the FY 2010/11 federal budget and \$30 million appropriated in FY 2011/12 federal budget.

³ State Highway Operation and Protection Program (SHOPP) funding amount programmed in the 2014 SHOPP, adopted by the California Transportation Commission.

⁴ PPM: Planning, Programming and Monitoring funds

⁵ Prop K amount includes \$420,900 in Authority operating funds in Fiscal Years 2009/10 and 2010/11.

⁶ The development agreement with the California Pacific Medical Center was approved by the San Francisco Board of Supervisors through Ordinance 138-13 on July 11, 2013.

⁷ \$12.7 million in Central Freeway Parcel Revenues is dedicated for Van Ness Avenue State of Good Repair improvements.