

RADIO SYSTEM REPLACEMENT PROJECT

**Presentation to The SFMTA Board of Directors
April 17, 2012**

Project Background:

- Current system is 30 years old, no longer supported by the manufacturer
- Not meeting FCC Narrowbanding
- Conventional analog radio system
- No Intelligent Transportation Systems (ITS) features
- Only one conversation per channel at a time

Project Scope: Executive Summary

- Modernize the SFMTA radio system
- Meet FCC narrowbanding requirements
- Project elements:
 - Installation of a new radio communications system (i.e. digital voice and data communications)
 - Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) and integrated incident management/reporting
 - ADA compliant traveler information (i.e. DVAS) on LRVs
- Meets federal interoperability standards (e.g. P25)

Project Scope: Summary

- 95 percent geographic coverage in the City for over 1400 SFMTA vehicles
- New radio communications in the Muni Metro subway
- New Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) System, featuring:
 - A new Transit Management Center (TMC) at 1455 Market w/ 13 total Dispatch Consoles
 - Modern capability to assist SFMTA meet its on-time performance goals
- P25 communications interoperability
- Geographic Hot Standby systems providing backup capability in the event of a primary site failure
- **“Trunking” capability, which enhances voice and data** communication capability and ability for formulating multiple talk groups
- Messaging capability via new vehicle data terminals
- Digital Visual and Audio System expansion on SFMTA Light Rail Vehicles at surface stops
- Data and reporting to assist with on-time performance analysis and vehicle incident management

Capital Program Interdependencies

- New Transit Management Center (TMC)
- Central Subway Program
- Traffic Signal Priority (TSP)
- Enhance train routing information processing with ATCS

Options Summary

- Expansion of the Public Works Emergency Response System (PERS)
- Traffic Signal Priority Pilot Option
- Vendor Extended Warranty, Support, and System Security Options
- Fleet Management Enhancement Options
- Radio coverage in surface tunnels

Schedule

- May 2012 – Notice to Proceed to Contractor
- 2nd Quarter 2013 – Design Completed
- 2nd/3rd Quarter 2014 – Testing Completed
- 2nd Quarter 2015 – Substantial Completion
- 3rd Quarter 2015 – Final Completion
- Liquidated Damages to reach substantial completion \$35,000/day

Project Budget

Category	Budget
Conceptual Engineering	\$4,375,827
Detail Design	\$6,787,498
Construction	\$103,792,423
Total	\$114,955,748

Financial Plan

Project Funding Source	Amount
Federal:	
Section 5307	\$14,147,126
Other Federal	\$3,237,251
State: Prop 1B – CTSGP	\$26,000,268
Local Grants:	
Prop K	\$61,867,491
SFMTA Revenue Bond 2012	\$4,000,000
Operating Funds	\$4,997,668
Other	\$151,066
AB664 Bridge Toll	\$554,878
Total	\$114,955,748