

Commuter Rail Program

Caltrain Electrification – San Francisco to Tamien

Estimated Cost: \$858.6 million

Estimate Class 4 (see appendix)

Approved Budget: \$0

Year of Completion: 2014

Project Manager: Caltrain – Richard Schmedes
VTA – Kevin Connolly

Designer: Parsons Brinckerhoff

Project Description:

The proposed Caltrain electrification project would convert the entire Caltrain system from the current diesel-electric locomotive power source to fully electric (25kV ac system) rolling stock. This project requires the installation of two power substations and eight auto-transformer stations, with capacity for 172 trains at peak five-minute headways. Work will occur along the length of the rail corridor to string wires for the overhead contact system, which will provide power to trains at up to 90 mph, with the capability to adjust for 125 mph high speed rail.

Electric locomotives or electric multiple unit (EMU) trainsets will be purchased and brought into revenue service, concurrently with this project. Options for the new electric rolling stock include electric locomotives with new or overhauled passenger cars, or electric multiple units.

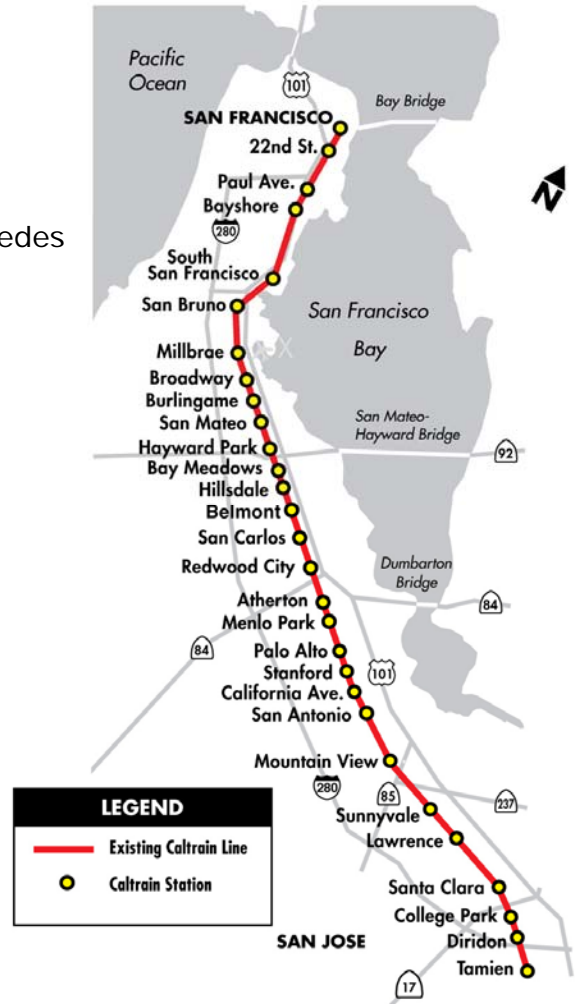
Project Status:

Environmental: After incorporation of responses to public comments, the draft EA/EIR was finalized in February 2005. The Federal Transit Administration (FTA) has stated that there are no technical concerns with the project, however has not issued its approval of the environmental document due to funding concerns. Despite this hurdle, the preliminary engineering, utility coordination and planning for the project continue. Caltrain plans to update the environmental document in the coming months and re-submit it to FTA with a funding plan.

Design: The design work falls into four categories and is proceeding on parallel paths, with 35% design submittals due by February 2008. The four packages are: Overhead Catenary System, Traction Power System, Signal/Grade Crossing Modifications, and Communications.

Project Schedule:

Activity	Start	End	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Environmental	Early 2006	Mid 2008	█										
Design	Early 2006	Mid 2010	█										
Construction	Mid 2010	Mid 2013					█						
Testing & Commissioning	Mid 2013	Late 2014								█			
Revenue Service	Late 2014	N/A										◆	
Closeout	Early 2015	Mid 2015										█	



Approved Budget:

<u>Project Cost Element</u>	<u>Approved Project Budget</u> <i>a</i>	<u>Dec-07 Committed Costs</u> <i>b</i>	<u>Dec-07 Incurred Costs</u> <i>c</i>	<u>Budget Balance</u> <i>d = (a-c)</i>
Construction and Major Procurement	-	-	-	-
Real Estate	-	-	-	-
Labor, Services and Support	-	-	-	-
Contingency	-	-	-	-
Total Approved Budget	-	-	-	-

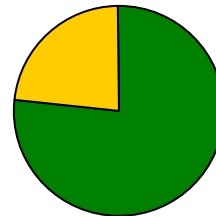
Approved Budget Incurred	X
Approved Budget Committed	X

NOTE: All amounts are Year Of Expenditure dollars in \$1,000's

Anticipated Funding:

<u>Funding Source</u>	<u>Amount</u>
Local (Measure A)	203.6 million
Other (TBD)	\$655.0 million
Total	\$858.6 million

Local
24%



Other
(TBD)
76%



Simulation of an EMU and Substation



Simulation of Mountain View Multi-Modal Station