



Caltrain Modernization Program

Winter 2015

What is CalMod?

Modernizing the Caltrain Corridor

The Caltrain Modernization (CalMod) Program will electrify and upgrade the performance, operating efficiency, capacity, safety and reliability of Caltrain's commuter rail service.

CalMod includes the electrification of the existing Caltrain corridor between San Francisco and San Jose; the installation of a Communications Based Overlay Signal System Positive Train Control (CBOSS PTC), an advanced signal system that includes federally mandated safety improvements; and the replacement of Caltrain's diesel trains with high-performance electric trains called Electric Multiple Units.

Simply stated, for Peninsula commuters Caltrain will be modernized to provide more service to more riders, reduce air pollution by 97%, increase operating performance and reliability, and take more cars off the region's congested roads.

The \$1.8 billion program is funded through a nine-party agreement that leverages local, regional and federal funding to match \$705 million in voter-approved high-speed rail bond revenues. For more information about the CalMod Program, please check out the video below.



CalMod - Electrification and the Future of
Caltrain

What's happening now?

In September 2013, Caltrain began installation work, between San Jose and San Francisco, on an advanced signal system that will equip the corridor with federally-mandated safety technology and will increase system capacity to help accommodate future ridership demand. The advanced signal system (also called Communications Based Overlay Signal System Positive Train Control) will monitor and, if necessary, control train movement in the event of human error. This will increase safety by:

- Eliminating the risk of train-to-train collisions.
- Reducing risk of potential derailments by enforcing speed limits.
- Providing additional safety for railroad workers on the tracks.
- Improving grade crossing performance to reduce gate downtime and improve local traffic circulation.



Since that time, the field team has completed 100 percent of the installation of the fiber optic backbone along the Caltrain right-of-way between San Jose and Redwood City. Installation activities, along the right-of-way, have continued north while progress is made on installing the on-board equipment. When the Project is complete, there will be seamless Advanced Signal System communications between the signals, trains, dispatchers and other components of railroad operations.

For more information about the Project and upcoming construction activities, visit the website [here](#).

CBOSS PTC Project Hotline: (650) 508-6499

CBOSS PTC Project Email: caltrainptc@samtrans.com

Major Milestones Completed on Electrification Project

Environmental Process Complete

In January, the Caltrain Board adopted and certified the Peninsula Corridor Electrification Project (PCEP) Final Environmental Impact Report (FEIR), which defined the benefits and impacts of the project.

The PCEP calls for the installation of poles to support overhead wires that will power a new fleet of high-performance electric trains called EMUs that will run between San Francisco and San Jose. By 2040, an electrified Caltrain system will reduce Caltrain emissions by up to 97 percent, more than double current weekday ridership with increased service and the downtown San Francisco extension and take more than 600,000 daily vehicle miles off the region's roadways.

The increased ridership and improved performance from electrification are critical for Caltrain to sustain its services, to meet future demand and restore and improve service at current stations.

The project has significant local and regional environmental benefits but would also have certain localized environmental impacts. Caltrain worked closely with local jurisdictions to address their concerns and throughout the environmental process used community feedback to help shape a project that offers benefits for the entire region. Caltrain's collaborative efforts prompted responses from several cities:

"We appreciate this important outreach and [Caltrain's] efforts to craft a collaborative solution to Menlo Park's concerns regarding the FEIR for the Peninsula Corridor Electrification Project. Your prompt response is a further indication of the efforts Caltrain is making to address our concerns while undertaking the electrification project," said Menlo Park City Manager Alex McIntyre in a letter.

A letter from Palo Alto City Manager James Keene reads, "Thank you once again for your continued work on this project and your willingness to work on alternatives that both the City of Palo Alto and Caltrain feel are acceptable."

Unfortunately, not everyone was satisfied with environmental process and a joint lawsuit has been filed by the Town of Atherton, Transportation Solutions Defense and Education Funds, and Community Coalition of High Speed Rail. A copy of Caltrain's letter to Atherton is available if requested.

While the legal process is underway, Caltrain will continue to move forward with the project in order to meet the scheduled project completion date of winter 2020.

Electric Cars Update

Increasing seat capacity ranked as the top priority for the 4,196 Caltrain customers who participated in an online poll aimed at gathering feedback for design specifications of the rail agency's new electric train cars.

Last year, Caltrain posted an online survey, asking passengers to weigh in on how they'd like the new cars to be configured, with an emphasis on issues like seating, bike capacity and bathrooms.

When asked to rank the most important aspect of their current riding experiences on a scale of 1 - 5, the passengers rated seating availability as their top priority, giving it a cumulative score of 4.5, Standing room came in next at 3.26, and bike storage followed at 3.11. Bathroom usage was fourth, at 2.18, and luggage storage scored a 1.95 from customers.

Fifty six percent of the respondents said that increasing seat capacity was very important, the highest total tallied. Thirty eight percent of the respondents said that increasing onboard bike capacity was very important, 22 percent said that increasing bike storage at stations was very important, and 21 percent said increasing standing capacity was very important.

The online survey was available in English, Spanish, Vietnamese, and Chinese. Outreach efforts to encourage survey participation were made through: in-person tabling at the top ridership stations, onboard pamphlets, VMS messages at stations, social media, news release, e-newsletter, email distribution, website page, and dissemination by various partner agencies, cities, and community based organizations to their membership. Meetings on the topic were also held with elected officials, advisory and advocacy groups.

A power point presentation of the survey results can be found [here](#). The full survey report is available [here](#).

Because the online survey was voluntary-referred to as an opt-in poll-the results of the study cannot be measured for margins of error and therefore are not statistically valid. This data does provide some important feedback as Caltrain staff begins the vehicle procurement process. Additional public discussion regarding the electric vehicle purchase will take place to aid in the development of the Request for Proposals for the acquisition of the rail cars, an action that will come to the Caltrain board of directors later in summer 2015.

CalMod Project Hotline: (650) 508-6499 Electric Vehicle Project Email: caltrainemu@caltrain.com

Electrification Design Build RFP Out

The Electrification Design Build Request for Proposals (RFP) was issued on Feb. 27 following the January certification of the PCEP Final Environmental Impact Report. The RFP requires that the project be designed to include alternative pole configurations, such as a center-pole design, to significantly reduce the impact on trees.

During the environmental review period, Caltrain applied these alternative designs to five test cases. In one such case, the number of trees required for removal was reduced from 50 to 14 using the alternative design. The design alternative will be used unless physical conditions,

existing utilities or other extenuating circumstances require a different approach.

Once bids are received an extensive review process will then take place with the award of the contract scheduled for fall 2015.

In May 2014, as required by law, a Request for Qualifications was issued to solicit firms interested in the contract. Seven teams responded and six firms were determined to be qualified to perform the work. The six firms are: Shimmick/Alstom, a Joint Venture (JV); Caltrain Modernization Partners (JV) (Elecnor/Cobra); Balfour Beatty; Mass Electric/Siemens (JV); Skanska-Comstock-Aldridge (JV); Peninsula Electrification Partners (JV) (PTF, Isolux-Corsan). The six pre-qualified firms will have an opportunity to propose on the PCEP project. Those proposals will be evaluated on a Best Value basis, which is a combination of technical and cost factors.