Peninsula Corridor Electrification Update Meeting
San Bruno Community Meeting
March 21, 2018

Agenda

• Project Overview Recap
• Project Update
  – Progression & Changes
  – Construction Activities
• Electrification Infrastructure
  – San Bruno Activities
• Questions
Caltrain System

- 32 Stations Gilroy to San Francisco
- 92 Weekday Trains
- At-Grade Crossings, viaducts, and bridges
- Intermodal Connections
- Bike Commuters

Ridership

Average Daily Ridership


20,000  25,000  30,000  35,000  40,000  45,000  50,000  55,000  60,000  65,000
At Capacity Today

Bi-directional commute with riders standing on trains going southbound and northbound

Aging Fleet

<table>
<thead>
<tr>
<th>SERIES</th>
<th>QUANTITY</th>
<th>NUMBER OF SEATS</th>
<th>YEAR OF MANUFACTURE</th>
<th>MAKE</th>
<th>RETIRE DATE</th>
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<tbody>
<tr>
<td>Locomotives</td>
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<tr>
<td>F40PH-2</td>
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<tr>
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<td>120</td>
<td>1989-2000</td>
<td>Nippon Sharyo</td>
<td>2030</td>
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<td>78</td>
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<td>Nippon Sharyo</td>
<td>2030</td>
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<td>1995</td>
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<td>18</td>
<td>149</td>
<td>1987</td>
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<td>2032</td>
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<td>114</td>
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<td>2032</td>
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<td>2031-2033</td>
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<td>2036</td>
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<td>140</td>
<td>2008</td>
<td>Bombardier</td>
<td>2036</td>
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</table>

*Trails recently acquired from Metrolink with refurbishment ongoing.
Regional Transportation Needs

- US 101 and Interstate 280 Congested
- Corridor supports growing economy
- 75% Caltrain riders commute to work
- 60% are choice riders

Project Description

**Area** | **Project** | **Service**
--- | --- | ---
51 miles San Francisco to San Jose (Tamien Station) | Electrification: • Overhead Contact System (OCS) • Traction Power Facilities Electric Trains (EMUs) • 75 percent of fleet | Up to 79 mph Service Increase • 6 trains / hour / direction • More station stops / reduced travel time • Restore Atherton & Broadway service Mixed-fleet service (interim period) Continue tenant service • ACE, Capital Corridor, Amtrak, Freight |
Service Benefits

<table>
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<th>Metric</th>
<th>Today</th>
<th>PCEP</th>
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<td>Example Baby Bullet Train</td>
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<td></td>
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<tr>
<td>Retain 5-6 stops</td>
<td>60 minutes</td>
<td>45 minutes</td>
</tr>
<tr>
<td>Retain SF to SJ 60 minutes</td>
<td>6 stops</td>
<td>13 stops</td>
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<tr>
<td>Example Redwood City Station</td>
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<td></td>
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<tr>
<td>Train stops / peak hour</td>
<td>3</td>
<td>5</td>
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Note: Prototypical Train and Schedule

Key Regional Benefits (2040)

- Greenhouse gases annual: 176,000 metric tons of CO₂
- Daily traffic congestion: 619,000 vehicle miles
- Engine noise reduced
- Up to 97% clean air daily
- 111,000 ridership daily
- Improved frequency / quicker trips

Note: 2013 BAC Report, generates $2.5B economic activity and 9,600 jobs
Schedule

MILESTONES

- 1999
- Caltrain strategic plan makes electrification a priority
- Environmental Clearance
- Award Contract
- Groundbreaking
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
- 2021
- 2022
- First Electric Train Arrives
- Passenger Service with Electric Trains
- Additional Capacity Improvements

*Please keep in mind that testing and construction will overlap and each segment will be tested individually, prior to final system testing.

Note: Schedule Subject to Change

Electric Train

- 2016 Capacity Board Decision (bike to seat ratio, onboard bathrooms, upper doors ‘not precluded’)
- 2017 Design Progressing w/ Additional Public Input
  - Completed: Exterior design, Seat colors, Bike Storage, ADA restroom
- 2018 Virtual Reality 360 Tour
**Construction Phasing**

- 51 Miles Corridor
- 4 Work Segments
- 3,000 Poles
- 10 Traction Power Facilities

- Segments 2 & 4 followed by 1 & 3

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**Field Work Progression**

**Work Completed**
- Utility Survey
- Geotechnical Investigations
- Disposal of Soil from Geotechnical Investigations
- Soil Resistivity Testing
- Site Surveys
- Signal Cable Inspections
- Potholing
- Tree pruning/removal

**Ongoing and Upcoming Work**
- Foundation Installation
- Overhead Contact System Pole Installation

**Future Work**
- Overhead Contact System Wire Installation
San Bruno – Work Segment 2

San Bruno Project Area 2.1 miles

Future Construction Activities

San Bruno

<table>
<thead>
<tr>
<th>Date</th>
<th>Work Activity</th>
<th>Expected Duration*</th>
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</thead>
<tbody>
<tr>
<td>Ongoing</td>
<td>Foundation Installation</td>
<td>1-2 months</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>Pole/Wire Installation</td>
<td>3-4 months</td>
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</tbody>
</table>

*Expected duration indicates first and last day of activity. Number of actual work days will be fewer.
Foundation Installation

On and Off Track Equipment

Pole Information

- 3,000 Installed throughout Corridor
  - 100 poles installed in San Bruno
- San Bruno Pole Types*
  - Single-Track Cantilever (30’-35’ height)
  - Two-Track Cantilever (45.5’ height)
- Pole Spacing: ~180’ apart

* Currently 100% Design
Pole Installation San Bruno

Example of Poles Currently Planned for Use in San Bruno

Stringing Wire

On-track Equipment
Construction Impacts

- Daytime work and night work from 8 p.m.- 6 a.m.
- Some 24 hour weekend work
- Crews will utilize acoustical barrier blankets and position lights away from homes
- Dedicated hotline for construction complaints

Public Outreach

- Subscribe to Weekly Updates
  - Visit [www.calmod.org/get-involved](http://www.calmod.org/get-involved)
- Additional Community Meetings
- Social Media
- Construction Outreach Office
Public Outreach

Physical Notices

Construction Contact Information

Email: calmod@caltrain.com
Phone: 650.399.9659
Toll Free: 800.660.4287

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San Mateo, CA 94403
9 a.m. - 5 p.m. Monday - Friday

www.calmod.org