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CALTRAIN ELECTRIFICATION UPDATE

San Francisco Community Meeting
May 1, 2019

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AGENDA

- Caltrain System Overview
- Project Overview
- Electric Train Design
- San Francisco Construction Activities
- Questions

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CALTRAIN SYSTEM

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

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RIDERSHIP

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AT CAPACITY TODAY

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

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AGING FLEET

Locomotives

■ Locomotives Past Retirement Date 2015-2017 (20 of 29)

■ Locomotives Within Retirement Date (9 of 29)

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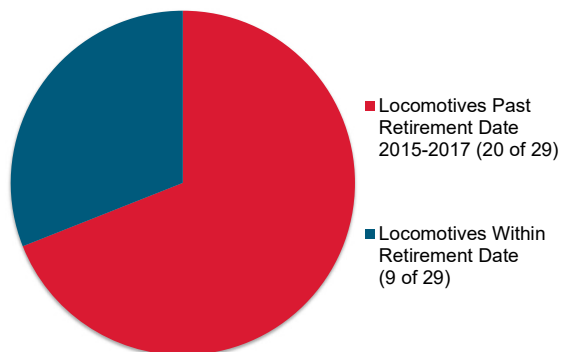
CORRIDOR SUPPORTS GROWING ECONOMY

- The corridor is the #3 most congested area in the U.S.
- US 101 and Interstate 280 congested
- 75% Caltrain riders commute to work
- 60% are choice riders
- Organizations shown represent Caltrain Commuter Coalition (P3)
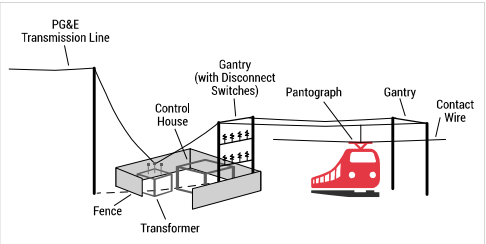
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PROJECT DESCRIPTION

Project Area

- 51 miles
- San Francisco to San Jose (Tamien Station)

Project Elements

Electrification
- Overhead Contact System (OCS)
- Traction Power Facilities

Electric Trains*
- 19 7-car train sets
- 133 electric cars

*Includes 2018 State TIRCP Funding

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PROJECT DESCRIPTION

Service Elements

Speed
- 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, Capitol Corridor, Amtrak, Freight

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SERVICE BENEFITS

Metric	Today	PCEP	Benefit
EXAMPLE: BABY BULLET TRAIN			
Retain 5-6 stops	60 minutes	45 minutes	*15 minute savings*
Retain SF to SJ 60 minutes	6 stops	13 stops	*7 more stops*
EXAMPLE: REDWOOD CITY STATION			
Train stops / peak hour	3	5	*2 more stops*

Note: Prototypical Train and Schedule

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SAN FRANCISCO

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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
Work In Progress	• Tree Pruning/Removal • Potholing • Tunnel Work
Future Work	• Foundation Installation • Pole Installation • Wire Installation • Paralleling Station • Bridge Barrier Installation

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FUTURE CONSTRUCTION

San Francisco

Date	Work Activity	Expected Duration*
In Progress	Tree Pruning/Removal	2-3 months
In Progress	Potholing	2-3 months
In Progress	Tunnel Work	7-8 months
Summer 2019	Paralleling Station 1 Construction	4-6 months
Late 2019	Foundation Installation	2-3 months
Late 2019	Pole/Wire Installation	4-5 months
Fall 2019	Paralleling Station 2 Construction	4-6 months
Fall 2019	Bridge Barrier Installation	2-3 months

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

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POTHOLING

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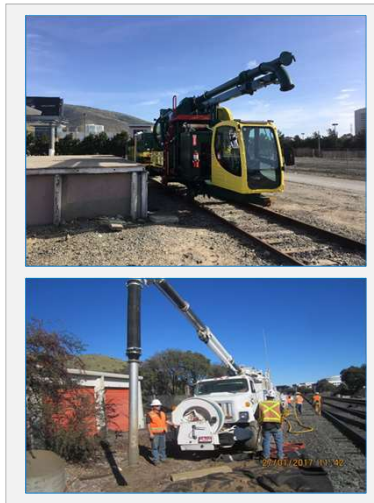
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SAN FRANCISCO TUNNEL WORK

- Work on the four San Francisco Tunnels:
  - Overhead Contact System Installation
  - Grouting and Notching
  - Drainage and Track Work
- 24 hour weekend work

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FOUNDATION INSTALLATION

- Excavation

- Rebar and Anchor Installation

- Electrical Grounding

- Concrete Fill

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Single Track Cantilever   Two Track Cantilever   Center

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Portal   Headspan

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POLE INSTALLATION

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CalMod.org — *Current Pole Installation* — Caltrain

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STRINGING WIRE

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CalMod.org — *On-track Equipment* — Caltrain

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TRACTION POWER FACILITIES
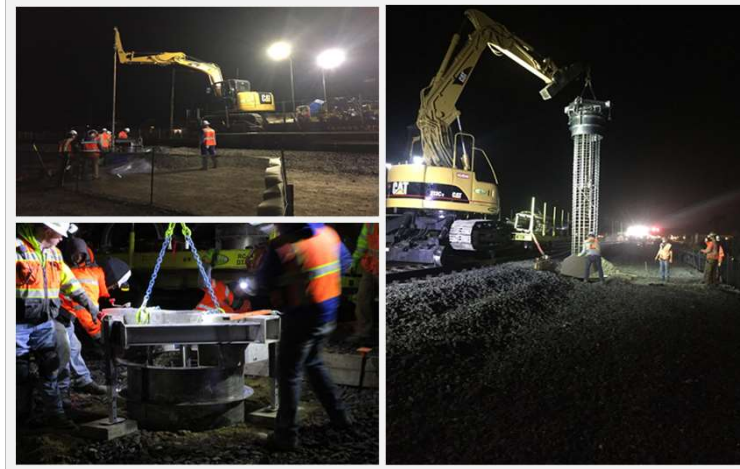
- 10 Traction Power Facilities Installed throughout Corridor
  - 2 Paralleling Stations installed in San Francisco
  - Gantry structures up to 50'
- Provides electrical power to trains through the Overhead Contact System
- Unmanned station
- Day and weekend construction work
- Limited night work during construction

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PARALLELING STATION-1 LOCATION
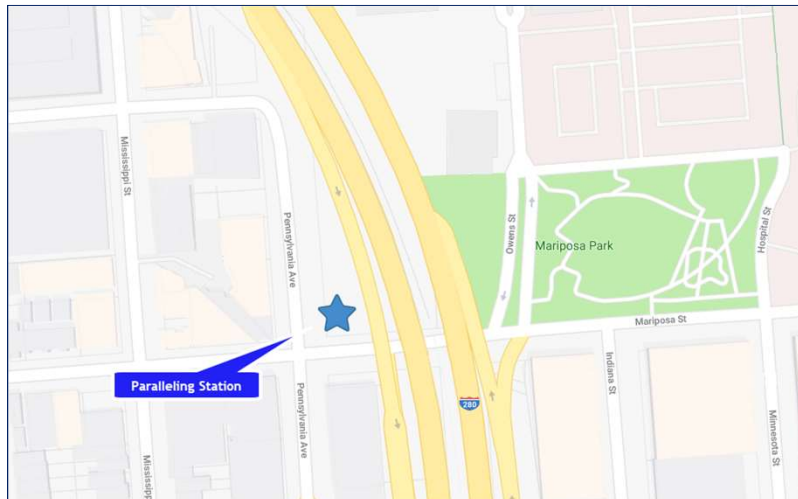
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CalMod.org   *Pennsylvania Avenue & Mariposa Street*

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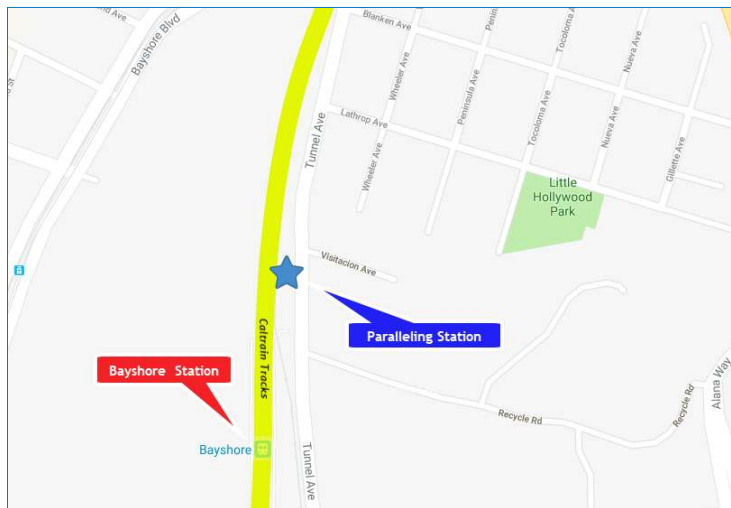
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EXAMPLE PARALLELING STATIONS

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CalMod.org   *Examples from Amtrak Northeast Corridor*   Caltrain

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BRIDGE BARRIERS
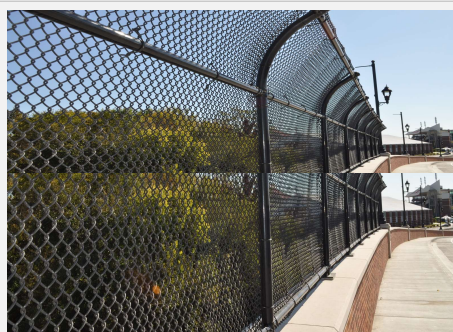
Polycarbonate Panel

Screen Mesh
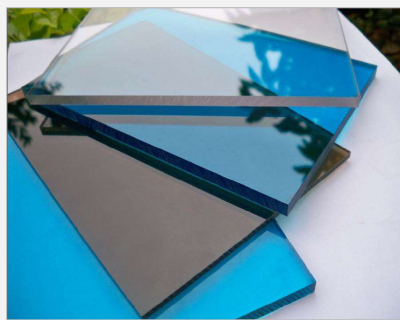
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CalMod.org   *9'6" fence height required for pedestrian bridges*   Caltrain

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BRIDGE BARRIER LOCATIONS

- Mariposa Avenue
- 22nd Street
- 23rd Street
- Paul Avenue
- Oakdale Avenue
- Williams Avenue
- Interstate Overcrossings

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CONSTRUCTION INFORMATION

- Work will occur during day and night
- Some 24 hour weekend work
- Crews will utilize acoustical barrier blankets and position lights away from homes
- Dedicated hotline for construction complaints

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PUBLIC OUTREACH

- Subscribe to Weekly Updates
  - Visit www.calmod.org/get-involved
- Social Media
- Construction Outreach Office
- Additional Community Meetings
  - Pole Installation

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WHAT'S NEXT

- Caltrain Business Plan
  - Caltrain2040.org
- High-Speed Rail Blended System
  - hsr.ca.gov
- Caltrain Downtown Extension
  - sftca.org/transbay-transit-center
- Diridon Concept Plan
  - DiridonSJ.org

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CALMOD CONTACT INFORMATION

WEEKLY UPDATES 🌐 CalMod.org/get-involved

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