

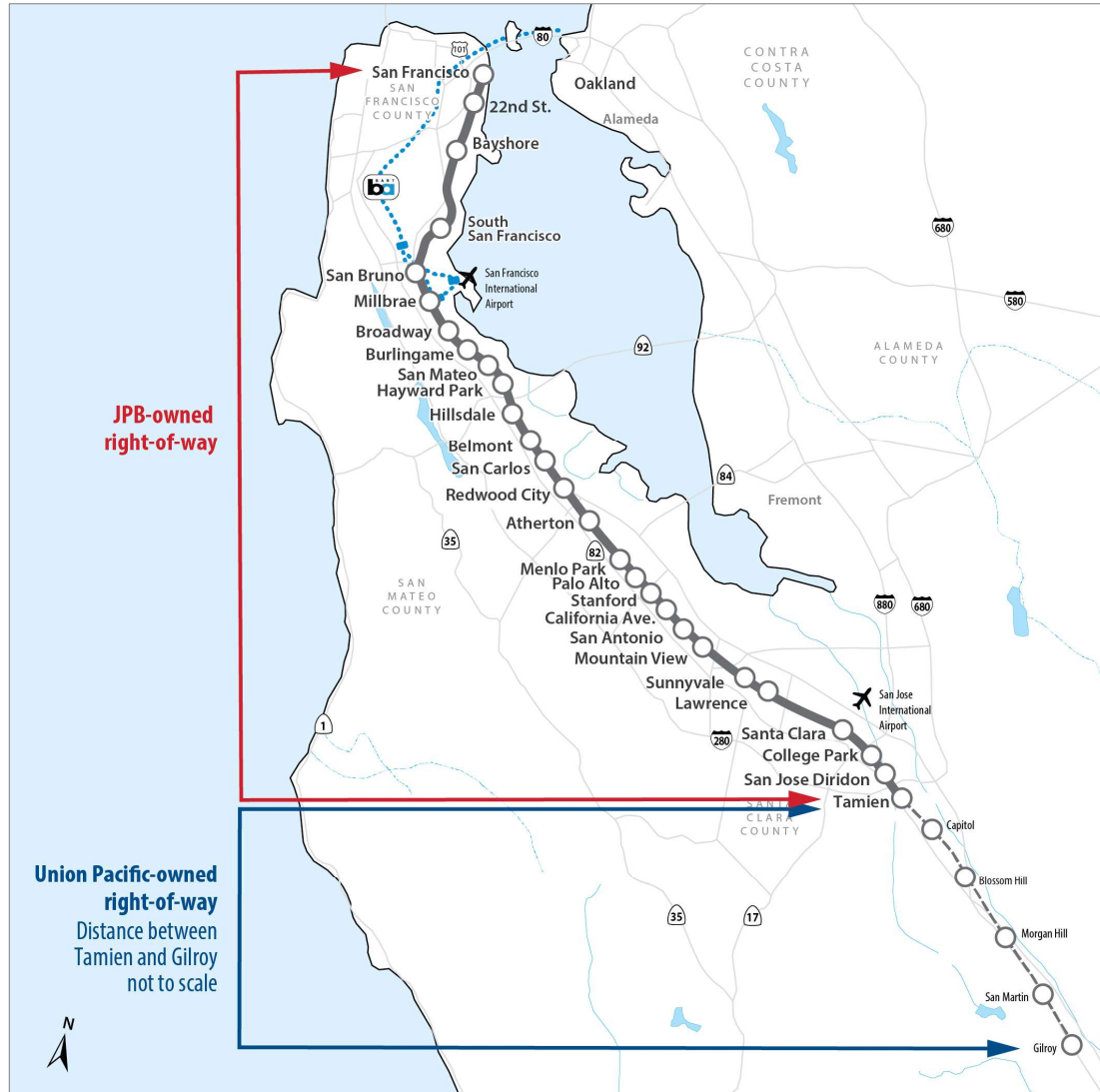
CALTRAIN ELECTRIFICATION UPDATE

Palo Alto Community Meeting
January 28, 2020

AGENDA

- Caltrain System Overview
- Project Overview
- Palo Alto Construction Activities
- Questions

CALTRAIN SYSTEM



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

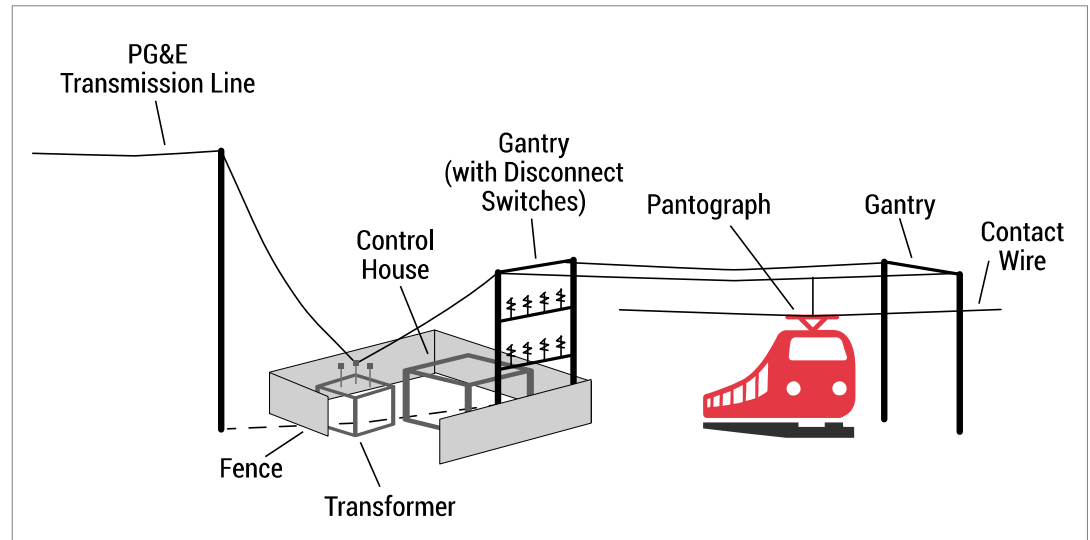
PROJECT DESCRIPTION

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

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

PROJECT BENEFITS



Improved Train Performance, Increased Service and Greater Capacity



Improved Regional Air Quality and Reduced Greenhouse Gas Emissions



Positive Economic Benefits for the Region

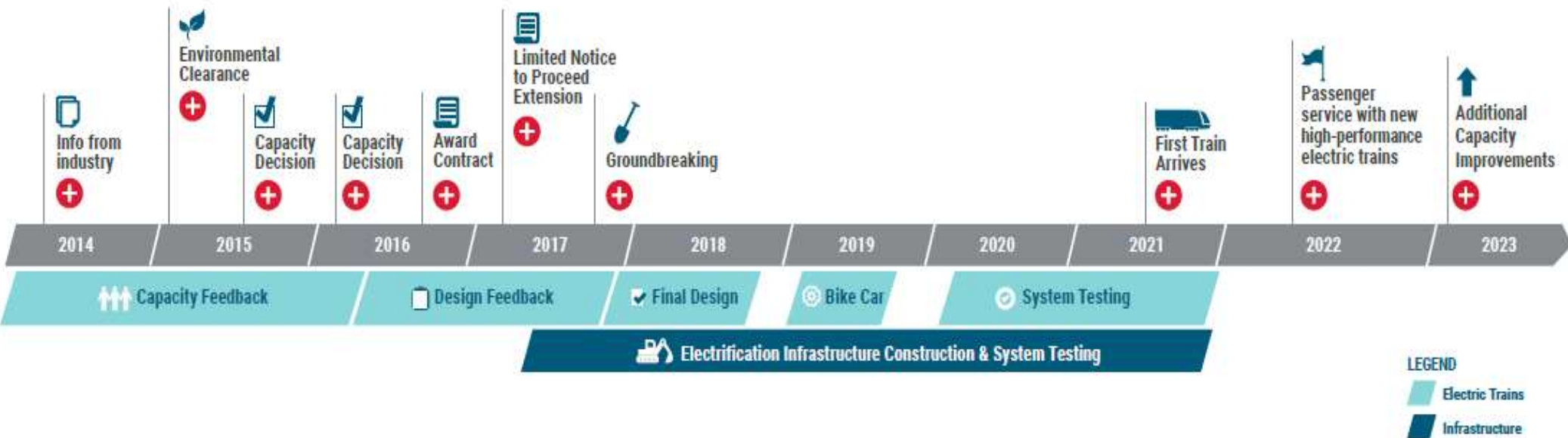


Reduced Engine Noise Emanating from Trains



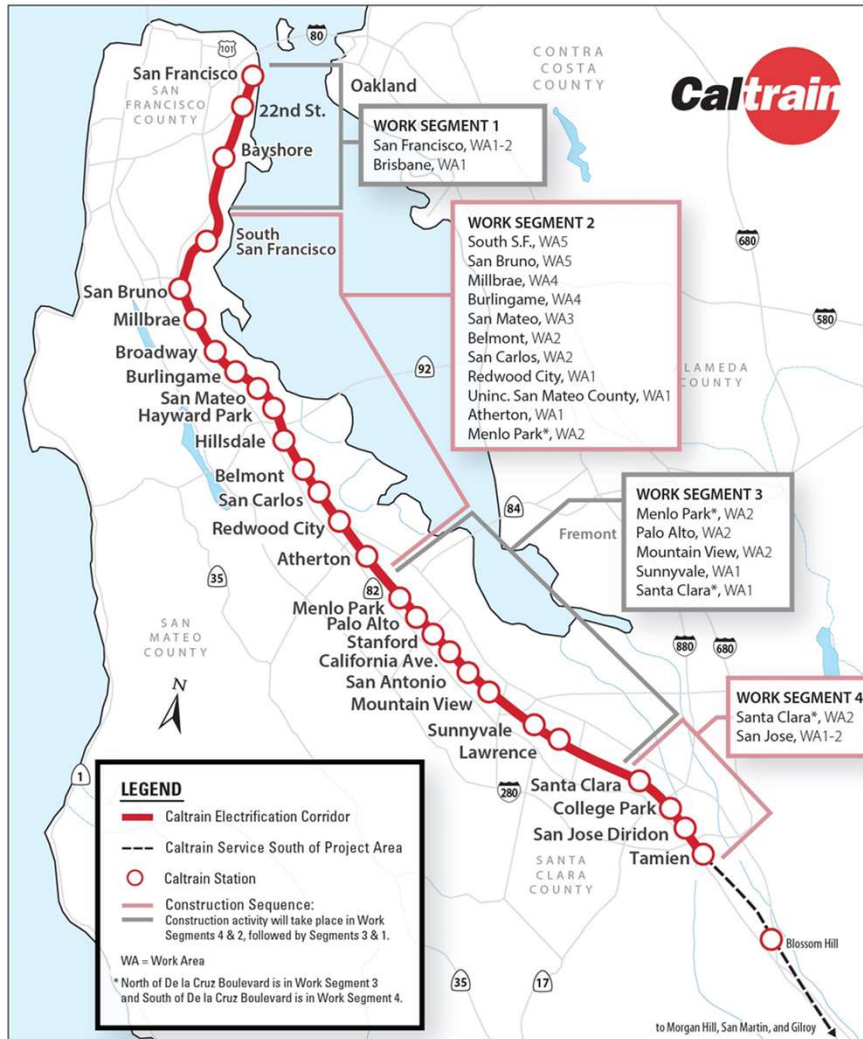
Increased Revenue and Reduced Fuel Cost

SCHEDULE

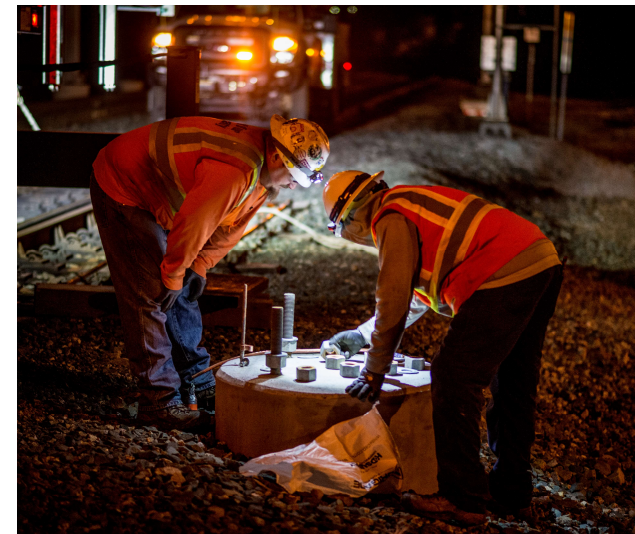


* Note: Schedule subject to change

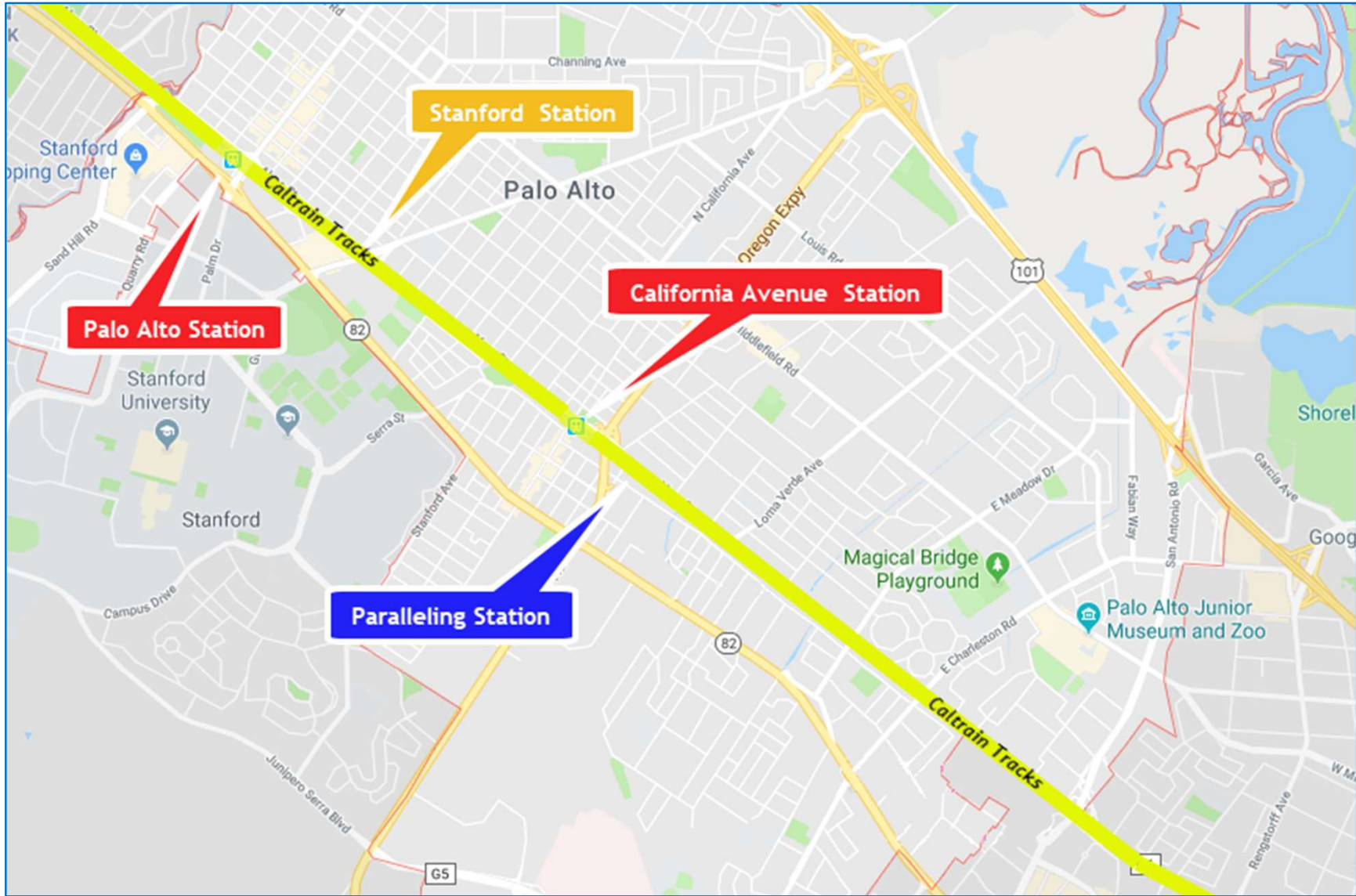
CONSTRUCTION PHASING



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



PALO ALTO



FIELD WORK PROGRESSION

Work Completed	<ul style="list-style-type: none">• Utility Survey• Geotechnical Investigations• Disposal of Soil from Geotechnical Investigations• Soil Resistivity Testing• Site Surveys• Signal Cable Inspections
Work In Progress	<ul style="list-style-type: none">• Tree Pruning/Removal• Potholing• Foundation Installation
Future Work	<ul style="list-style-type: none">• Pole Installation• Wire Installation• Paralleling Station Construction

FUTURE CONSTRUCTION

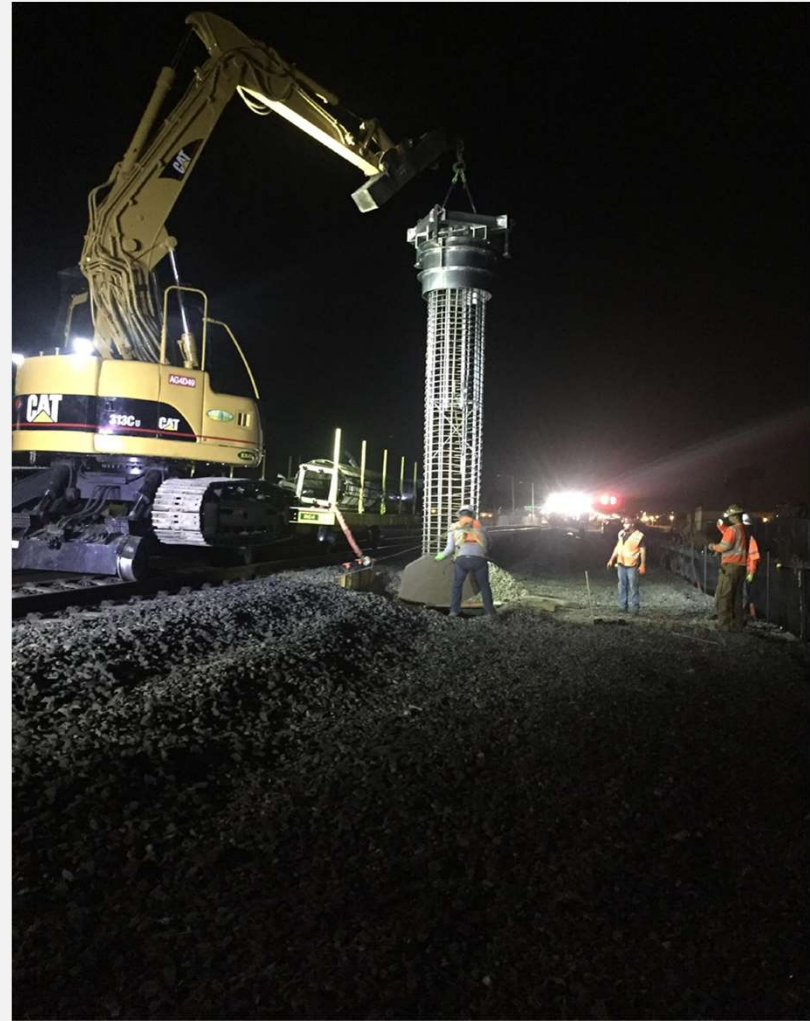
Palo Alto

Date	Work Activity	Expected Completion*
In Progress	Tree Pruning/Removal	Spring 2020
In Progress	Potholing	Spring 2020
In Progress	Foundation Installation	Spring 2020
February 2020	Pole Installation	Fall 2020
Spring 2020	Wire Installation	Fall 2020
Summer 2020	Paralleling Station Construction	Spring 2021

FOUNDATION CONSTRUCTION

- Excavation
- Rebar and Anchor Installation
- Electrical Grounding
- Concrete Fill

FOUNDATION INSTALLATION



POLE INFORMATION

- 3,000 Installed throughout Corridor
 - Approx. 196 poles in Palo Alto
- Pole Height: 30-50'
- Pole Spacing: ~180' apart

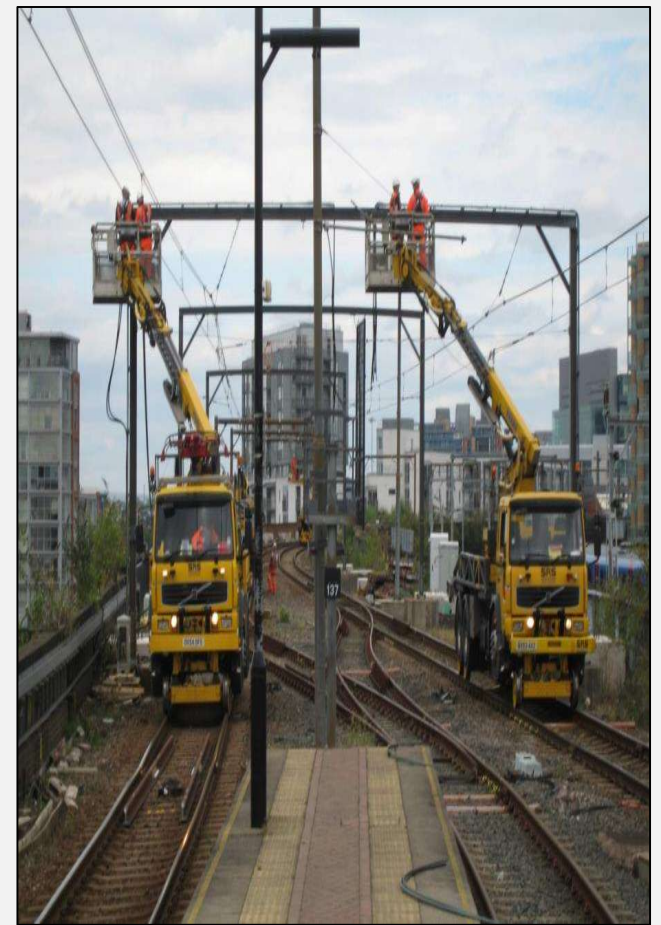
POLE TYPES PALO ALTO



Single Track Cantilever



Two Track Cantilever

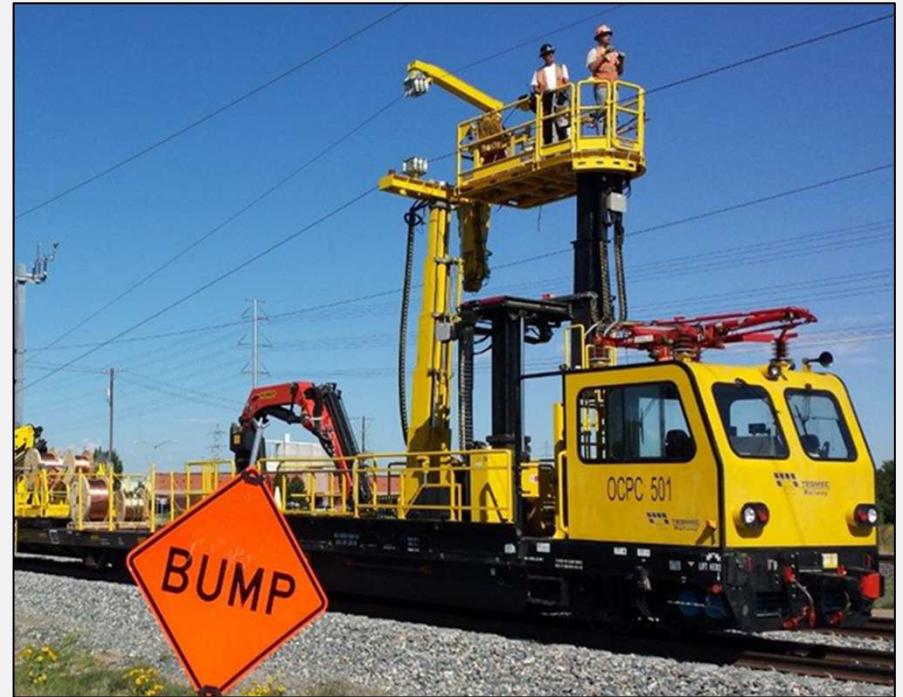


Portal

POLE INSTALLATION



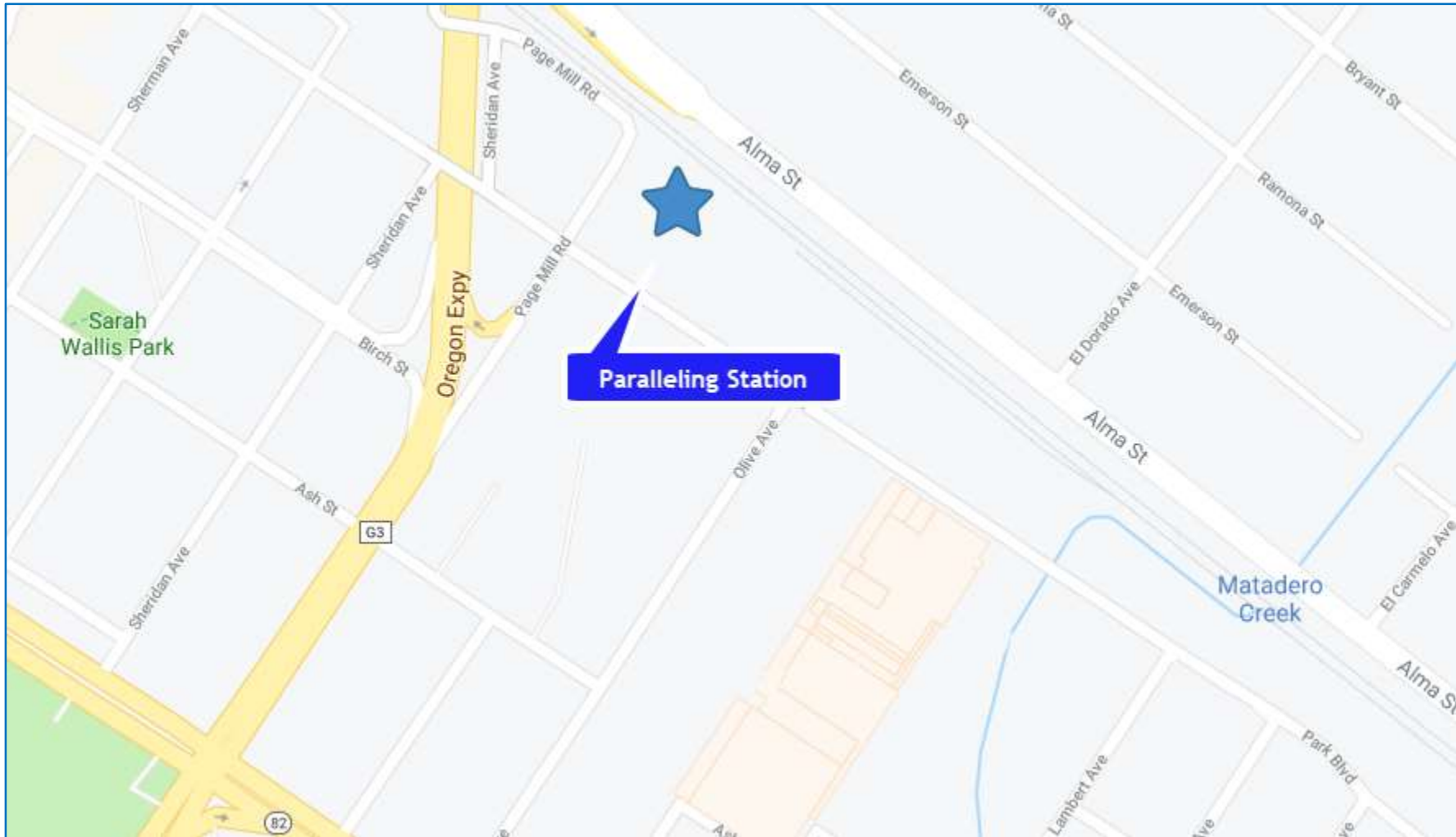
STRINGING WIRE



TRACTION POWER FACILITIES

- 10 Traction Power Facilities Installed throughout Corridor
 - 1 Paralleling Station installed in Palo Alto
 - 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

PARALLELING STATION LOCATION



EXAMPLE PARALLELING STATIONS



Vegetation Screening Will Be Provided

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

PUBLIC OUTREACH

CALTRAIN MODERNIZATION PROGRAM
Test Pile Construction Activities

DAY TIME WORK
08/28/17 - 09/1/17

ANTICIPATED WORK HOURS
7:00 a.m. - 5:00 p.m.

CREWS CONDUCTING WORK IN YOUR AREA TO INSTALL AND TEST FOUNDATION PILES

During the week of August 28, Caltrain electrification crews will be working in your area to construct one test pile foundation for integrity testing. The piles will be installed within the Caltrain right-of-way.

Crews will be conducting the work over a two day period between Monday, August 28 and Friday, September 1, between the hours of 7 a.m. and 5 p.m. Crews will return at a later date to test the integrity of the installed piles.

Main construction activities include:

- Survey and layout of proposed pile test location
- Trucks and equipment working near Caltrain right of way
- Drill holes for placement of test piles
- Pour concrete and install rebar
- Backfill holes to cover work areas

We apologize for any inconvenience this may cause. The field team will work as quietly as possible. Thank you for your patience and understanding as we deliver these critical benefits to our communities.

Please visit our website at www.caltrain.com/PCEPconstruction to sign-up for weekly construction updates.

We appreciate your patience during construction.



Doorhanger

CALTRAIN ELECTRIFICATION PROJECT

STATUS UPDATE | January 2018

MILESTONES



Please keep in mind that testing and construction will overlap as each Segment will be tested individually, prior to final system testing. -Subject to change.

KEY REGIONAL BENEFITS 2040

GREENHOUSE GASES (ANNUAL)	176,000 METRIC TONS CO ₂	CO ₂
DIESEL TO ELECTRIC FUEL COSTS	LOWER	
TRAFFIC CONGESTION	619,000 VEHICLE MILES	
	21% INCREASE	DAILY RIDERSHIP
	\$2.5 BILLION	ECONOMIC BENEFITS
	MORE SERVICE	MORE FREQUENT & FASTER TRIPS

FOR MORE INFORMATION

www.calmod.org

650.399.9659

Para traducción llámame al 1.800.660.4287
 如需翻译, 请打: 1.800.660.4287
 Cần dịch thuật, xin gọi 1.800.660.4287

Project Outreach Office
 9:00 a.m. to 5:00 p.m.
 2121 S. El Camino Real, Bldg A, Ste A-100
 San Mateo, CA 94403



Factsheet

CALTRAIN MODERNIZATION

IMPROVING CONVENIENCE
 An electrified system means the trains can run more frequently and more efficiently.



BOOSTING ECONOMIES
 CalMod will also provide economic benefits, including creating nearly 10,000 jobs across the country.



INCREASING CAPACITY
 CalMod upgrades give us room to grow, initially increasing capacity by over 30%.



ADVANCING SUSTAINABILITY
 Replacing old diesel trains with new electric trains will reduce GHG and improve air quality.

These are just a few examples of how Caltrain and the CalMod program are innovating to better serve the Bay Area. Learn more at CalMod.org and stay in touch with us on social media!



Postcard



Public Meeting

PUBLIC OUTREACH

- Subscribe to Weekly Updates
 - Visit www.calmod.org/get-involved
- Social Media
- Construction Outreach Office


WHAT'S NEXT


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

CALMOD CONTACT INFORMATION

WEEKLY UPDATES  CalMod.org/get-involved

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FACEBOOK  www.facebook.com/caltrain

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