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CALTRAIN ELECTRIFICATION UPDATE

San Jose Community Meeting
July 15, 2019

Caltrain

1

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AGENDA

- Caltrain System Overview
- Project Overview
- San Jose Construction Activities
- Questions

2

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2

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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

3

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3

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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

4


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4

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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


5

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5

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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

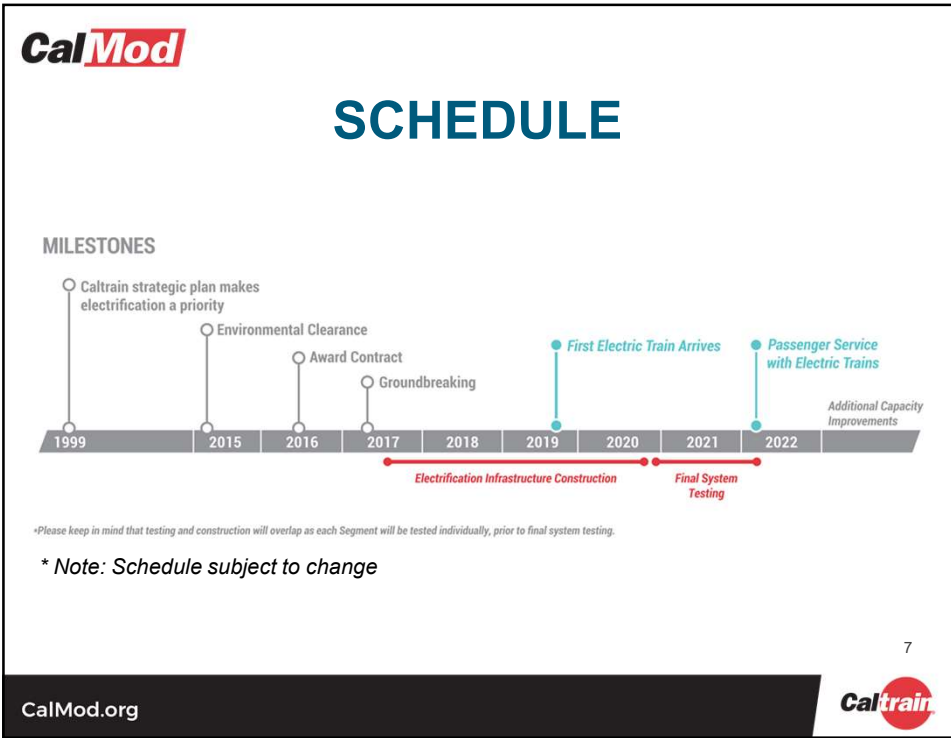


Increased Revenue and Reduced Fuel Cost

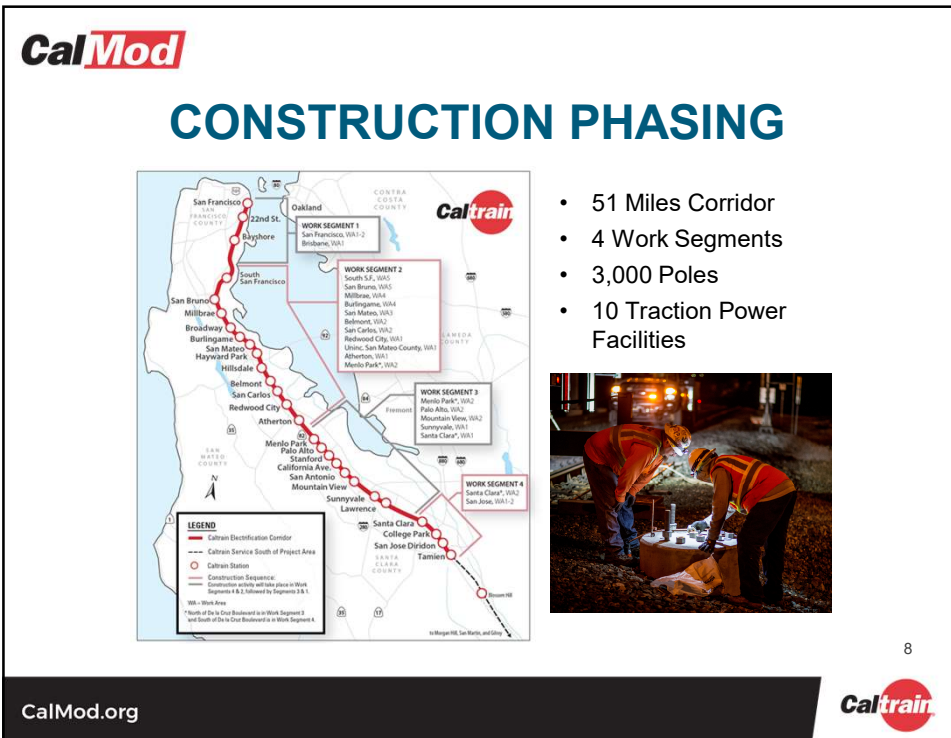
6

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6



7



8

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9

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9

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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 Traction Power Substation Construction Paralleling Station Construction
Future Work	<ul style="list-style-type: none"> Signal House Construction Pole Installation Wire Installation CEMOF Facilities Modifications

10

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10


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FUTURE CONSTRUCTION

San Jose

Date	Work Activity	Expected Duration*
In Progress	Potholing	2-3 months
In Progress	Foundation Construction	4-5 months
Fall 2019	Pole/Wire Installation	3-4 months
In Progress	Traction Power Substation Construction	2-3 month
In Progress	Paralleling Station Construction	3-4 months
Spring 2019	CEMOF Facility Modifications	6-9 months
July 2019	Signal House Construction	1-2 months

11

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11

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FOUNDATION CONSTRUCTION

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

12

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12

FOUNDATION INSTALLATION



13

POLE INFORMATION

- 3,000 Installed throughout Corridor
 - Approx. 460 poles in San Jose
- Pole Height: 30-50'
- Pole Spacing: ~180' apart

14



POLE TYPES SAN JOSE



Single Track Cantilever



Two Track Cantilever



Center

15

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Example of Poles Planned for Use in San Jose



15



POLE TYPES SAN JOSE



Portal



Headspan

16

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Example of Poles Planned for Use in San Jose



16



POLE INSTALLATION



17

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Current Pole Installation



17



STRINGING WIRE



18

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On-track Equipment



18



TRACTION POWER FACILITIES

- 10 Traction Power Facilities Installed throughout Corridor
 - 1 Traction Power Substation Installed in San Jose
 - 1 Paralleling Station in San Jose
 - 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

19

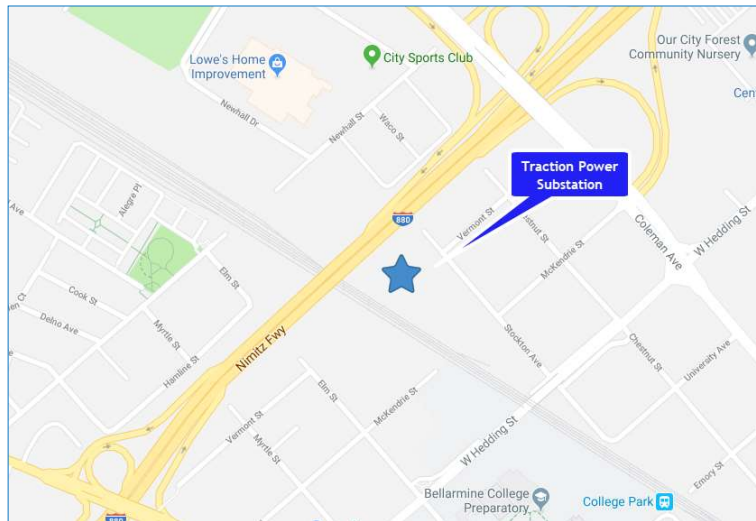
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19



TRACTION POWER SUBSTATION LOCATION



20

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20



TRACTION POWER SUBSTATION



21

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Example Traction Power Substation



21



TRACTION POWER SUBSTATION



22

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22

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PARALLELING STATION LOCATION

TAM IEN

ALMA NEIGHBORHOOD ASSOCIATION

Tamien Caltrain

Tamien Station

ALMA ALMADEN

Paralleling Station

NORTHERN CROSS

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EXAMPLE PARALLELING STATIONS

24

CalMod.org Examples from Amtrak Northeast Corridor

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24

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TEST TRACK LOCATION

25

CalMod.org *Currently existing maintenance track (no new track)* Caltrain

25

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TEST TRACK INFORMATION

- Approximately 1.5 miles of existing maintenance track (no new track)
- Located between Santa Clara Station and Caltrain CEMOF facility
- Foundations, poles and wires to be installed prior to electric train testing
- New Electric trains will be tested on track
- Testing to occur between late 2019 to Spring 2022
- Testing anticipated to be during daytime

26

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26



RAILROAD SIGNAL HOUSE

- Regulates signaling power to the new electrical trains
- Replaces existing signal house at Fuller Avenue and Delmas Avenue located next to Fuller Park
- Existing fence to be relocated
- Daytime weekday and limited Saturday construction
 - 7 a.m. to 6 p.m.
- 1-2 month construction duration
- Equipment staging property owned by Caltrain and leased to the City of San Jose
- No impact to landscape or trees at Fuller Park

27

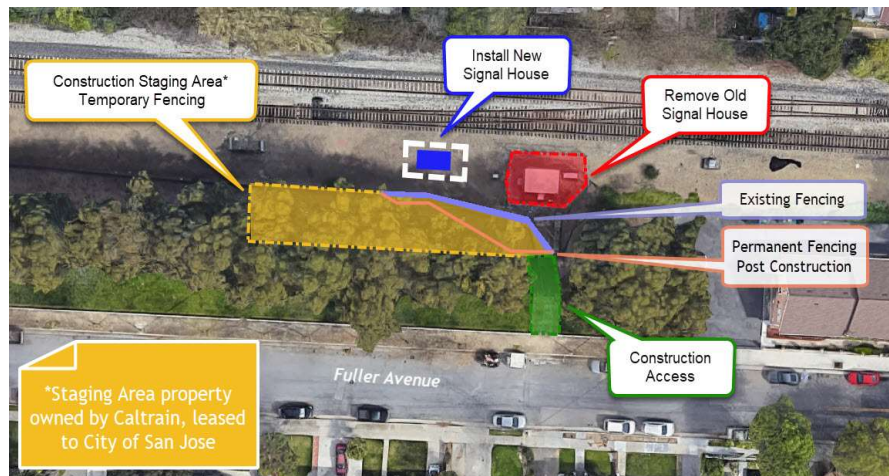
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27



RAILROAD SIGNAL HOUSE LOCATION




28

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Fuller Avenue/Delmas Avenue




28




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

29

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PUBLIC OUTREACH



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CALTRAIN MODERNIZATION PROGRAM
Next Phase Construction Activities

DAY TIME WORK
08/28/17 - 09/11/17

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 electricification crews will be working in your area to install and test piles. 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 install at a later date to test the integrity of the installed piles.

Other construction activities include:

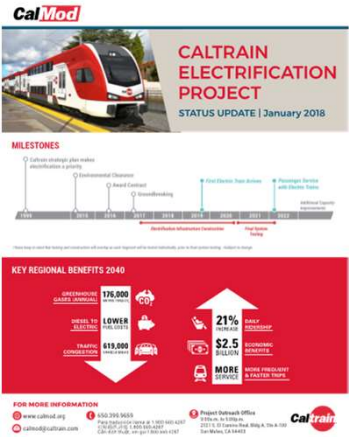
- Surveys and layout of proposed job site location
- Excavation and equipment working over Caltrain right-of-way
- Drill holes for placement of test piles
- Test concrete and install other
- Install tracks to cover work areas

We apologize for any inconvenience this may cause. The field team will work as quickly as possible. Thank you for your patience and understanding as we address these critical needs to our customers.

Please visit our website at www.caltrain.com/CM2017 to sign-up for weekly construction updates.

We appreciate your patience during construction.

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CALTRAIN ELECTRIFICATION PROJECT

STATUS UPDATE | January 2018

MILESTONES

- Caltrain strategy plan under implementation in progress
- Environmental Clearance
- Award Contract
- Groundbreaking
- Final Electric Run Dates
- Shimmed Service with Electric Train
- Initial Service Implementation


KEY REGIONAL BENEFITS 2040

CREATING 176,000 SALES ANNUALLY	SAVING 176,000 TONS OF CO ₂ ANNUALLY	SAVING 176,000 TONS OF CO ₂ ANNUALLY	SAVING 176,000 TONS OF CO ₂ ANNUALLY
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FOUR-MODE INFORMATION

- www.calmod.org
- 1-800-396-3668
- calmod@caltrain.com
- 1-800-396-3668
- 1-800-396-3668

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CALTRAIN MODERNIZATION

IMPROVING CONVENIENCE
An electric train means the train can run frequently and more efficiently.

INCREASING CAPACITY
Caltrain operates per its own schedule, increasing capacity by over 20%.


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

ADVANCING SUSTAINABILITY
Replacing old diesel trains with new electric ones will reduce CO₂ and improve air quality.

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


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Postcard



Public Meeting

30

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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

31

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31



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

32

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32



CALMOD CONTACT INFORMATION

WEEKLY UPDATES 🌐 CalMod.org/get-involved

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33

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