

CalMod



Caltrain Electrification Update

Bike Advisory Committee
August 24, 2017

CalMod



Construction Update

Peninsula Corridor Electrification Project



Field Work Status

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



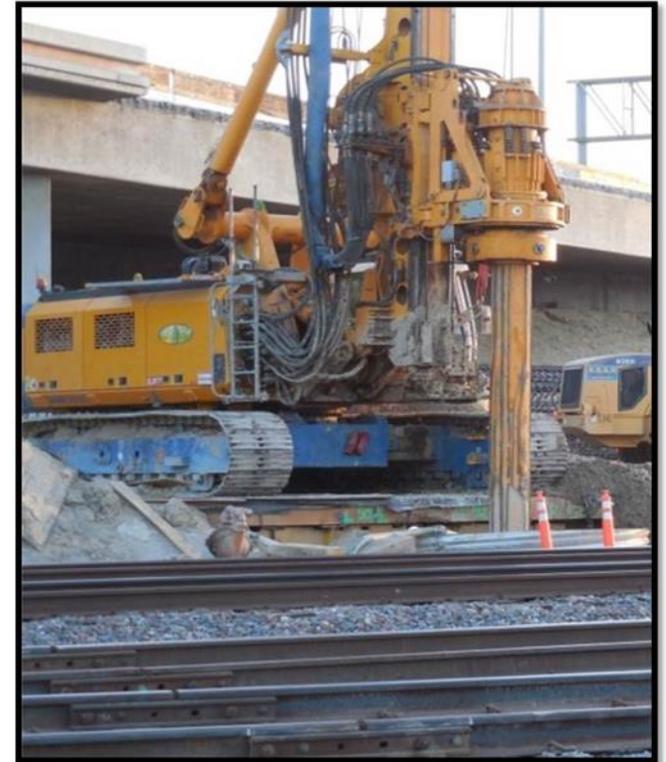
Pole Foundation Work

Will take place on and off track



Above: DrillTech on track foundation train

Right: Drilltech off-track OCS Drill Rig



OCS Wire Installation

Will take place on-track



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

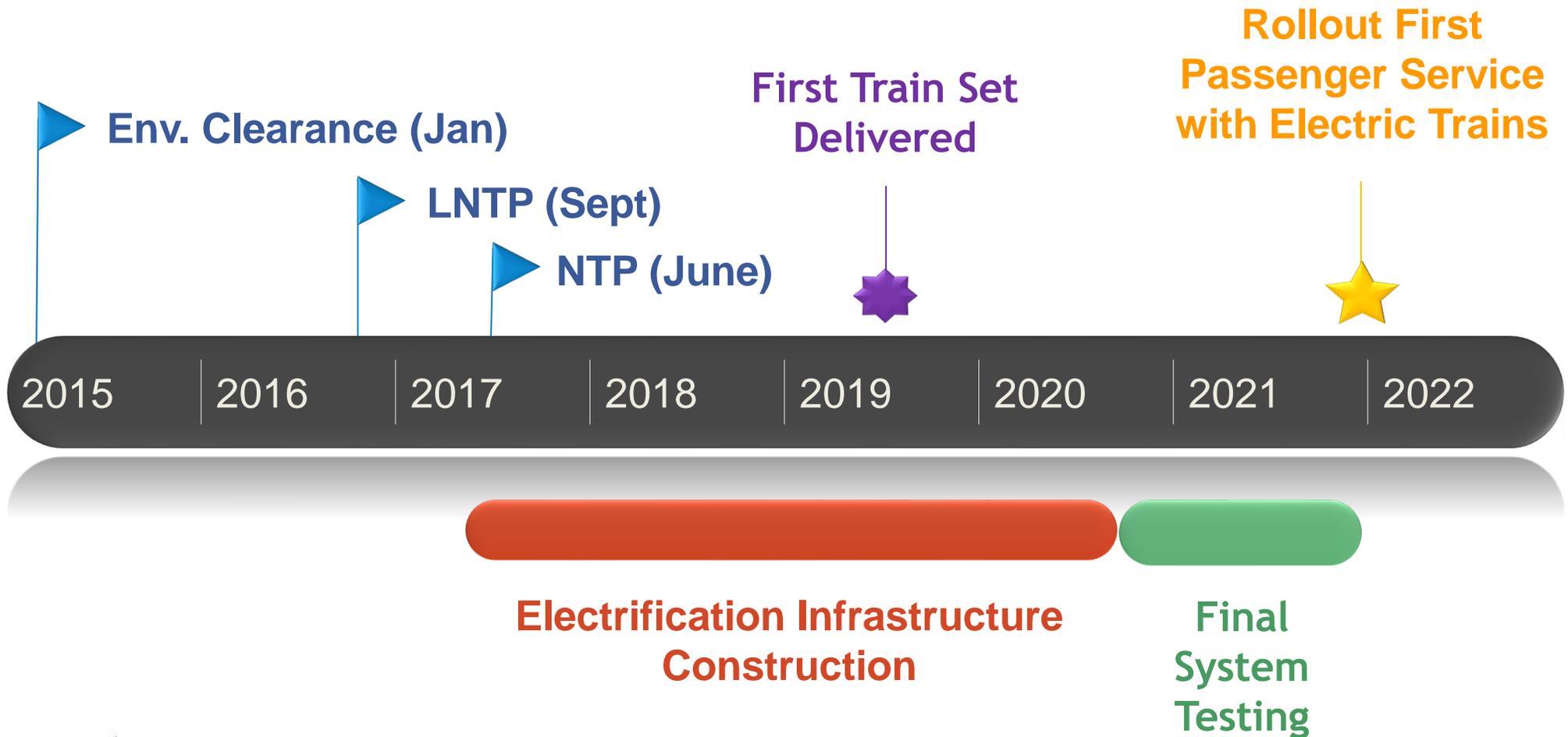


Ongoing Public Outreach

- Weekly Updates
 - Visit caltrain.com/pcepconstruction
- Pre-Construction Community Meetings
 - July 13: San Bruno and South San Francisco area
 - August 23: Millbrae and Burlingame area
- Hotline: 650-399-9659
- Construction Outreach Office, M-F, 9:00 am to 6:00 pm



Schedule



Note: **Schedule Subject to Change**



CalMod



Electric Train Design Seats

Peninsula Corridor Electrification Project



EMU Seat Outreach

- Public Poll from July 20 to July 28
- Over 2,500 votes
- Station Outreach with Seat Samples

DATE	STATION	CITY
July 24	4 th & King	San Francisco
July 25	San Mateo	San Mateo
July 28	Diridon	San Jose





EMU Seat Public Poll Winning Design



Option A: 60.3%

Option B: 39.7%



www.CalModTrains.com



CalMod

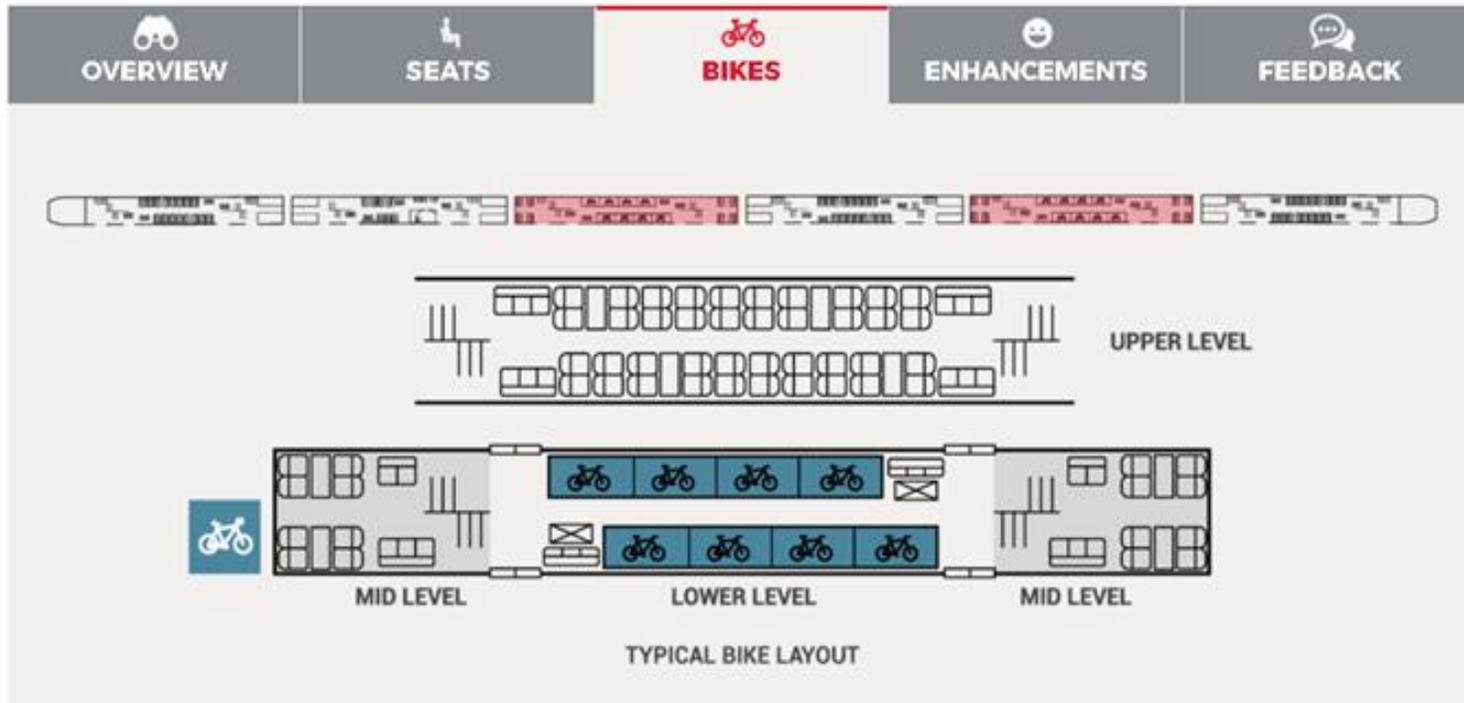


Electric Train Design Bike Car Configuration

Peninsula Corridor Electrification Project



Bike Car Configuration



Why Two Bike Cars v. Three Trainset Parameters

- 2 bike cars: 5' longer on lower level
- 2 cab cars: Smaller interior lower level seating area
- 1 passenger-only car: shorter than bike cars
 - not equal exchange of bike racks and seats (not seat neutral)



Why Two Bike Cars v. Three Trainset Parameters - Load

- Length of train/cars/configuration dependent on number of factors, including load
- 2 bike cars can be longer because no electrical equipment on either side of car
- 1 passenger car has denser weight with electrical equipment on both sides of car

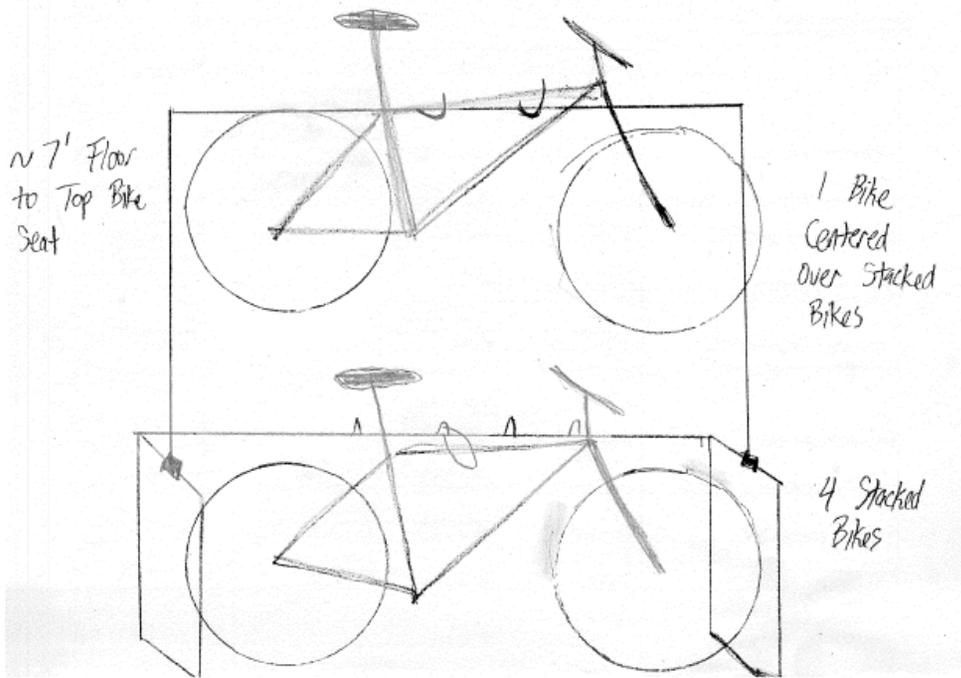


Why Two Bike Cars v. Three Seat Loss

- Current trains at or above capacity at peak hour
- Federal funding dependent on 10% capacity increase
- 3 bike cars = loss of 10 seats per trainset
> not meet requirement for funding



Exploration of Other Designs



Security

Reported Bike Thefts: 2016

- 110 total bike theft cases reported.
- 31% of occurred at the Palo Alto Caltrain Station
- Only 1 occurred onboard a train
- Does not include unreported thefts.



Information furnished by
Sheriff's Office, Transit Police Bureau

Bike Car Security

- 10 security cameras in lower and mid level of each car
- Staff exploring monitor capabilities: Fall
- Mock-up of closed loop possibility: Fall
- Locking bike
 - To train: No
 - To itself: will explore



CalMod



Electric Train Design Onboard Bike Storage

Peninsula Corridor Electrification Project



Comparison Table for Poll

Option	Capacity	Benefits	Constraints
Option 1 - Stacking	72 bikes/train set 12.5% increase from today (per peak hour, per direction)	<ul style="list-style-type: none"> • More capacity • Accommodates greater variety of bike types • Similar to current system 	<ul style="list-style-type: none"> • Unless top bike, may need to move / shuffle others to access
Option 2 - Hybrid	68 bikes/train set 8.3% increase from today (per peak hour, per direction)	<ul style="list-style-type: none"> • Provides option that avoids stacking / shuffling of bikes 	<ul style="list-style-type: none"> • Less capacity • New concept not currently in use • May limit types of bikes accommodated



EMU Onboard Bike Storage Outreach

- Public Poll from August 8 to September 1
- Station Outreach with Samples



EMU Onboard Bike Storage Outreach Events

Date	Time	Event
August 8	9:00 a.m. - 6:00 p.m.	Silicon Valley Bike Summit Mt. View
August 9 & 10	7:30 a.m. - 7:00 p.m.	4 th & King Station outreach
August 14	4:30 p.m. - 6:30 p.m.	Redwood City Station outreach
August 15	4:30 p.m. - 7:00 p.m.	Palo Alto Station outreach
August 16	5:30 p.m. - 8:00 p.m.	Menlo Park Block Party
August 22 to Sept. 1	9:00 a.m. - 6:00 p.m. Monday through Friday	Project Outreach Office 2121 S. El Camino, San Mateo
August 24	5:45 p.m.	Bicycle Advisory Committee



EMU Onboard Bike Storage Outreach Continued

- Coordination with Bike Coalitions
- Flyer for bike car and events
- Social Media

VOTE NOW!

Caltrain is upgrading its overall bike capacity with the new electric trains. Your input is important to help inform the design of the new bike cars.

OPTIONS	CAPACITY	BENEFITS	CONSTRAINTS
<p style="font-size: x-small; margin: 0;">OPTION 1: Stacking</p>	<ul style="list-style-type: none"> 72 bikes/train set 12.5% increase from *today 	<ul style="list-style-type: none"> More capacity Accommodates greater variety of bike types Similar to current system 	<ul style="list-style-type: none"> May need to move/shuffle other bikes to access your bike
<p style="font-size: x-small; margin: 0;">OPTION 2: Hybrid</p>	<ul style="list-style-type: none"> 68 bikes/train set 8.3% increase from *today 	<ul style="list-style-type: none"> Provides option that avoids stacking/shuffling of bikes 	<ul style="list-style-type: none"> Less capacity New concept not currently in use May limit types of bikes accommodated

*per peak hour, per direction

VOTE ONLINE FOR YOUR PREFERRED ON-BOARD BIKE STORAGE OPTION!

The poll closes at midnight on **September 1**, so be sure to check back afterwards for the results.

CALMODTRAINS.COM

FOR MORE INFORMATION

calmod@caltrain.com

650.399.9659

Project Outreach Office

9:00a.m. to 6:00p.m., M-F
 2121 S. El Camino Real, Bldg A, Ste A-100
 San Mateo, CA 94403

Check out the new bike storage options at these upcoming events:

WHEN	WHERE
AUGUST 9TH 7:30 a.m. to 7:00 p.m.	4th & King Station
AUGUST 10TH 7:30 a.m. to 7:00 p.m.	4th & King Station
AUGUST 14TH 4:30 p.m. to 6:00 p.m.	Redwood City Station
AUGUST 15TH 4:30 p.m. to 7:00 p.m.	Palo Alto Station
AUGUST 18TH 5:30 p.m. to 8:00 p.m.	Menlo Park Block Party, Santa Cruz Avenue

August 21 - September 1: bike storage samples are available at the Project Outreach Office.



EMU Onboard Bike Storage Outreach

Videos of hybrid user experience



View @Caltrain Twitter



EMU Onboard Bike Storage Written Comments

- **Hybrid preference = 24%**
 - Voters who favored the hybrid option mostly preferred it because of easy storage.
 - A few commenters stated they do not like other riders handling their bikes or that their bikes get scratched with the stacking option.
- **Stacked preference = 24%**
 - Some people who chose the stacking option preferred it due to current capacity issues.
 - A few commented that it was easier to store their bikes with the bungees.



EMU Onboard Bike Storage Written Comments cont.

- **Other = 36%**
 - Some commenters inquired about hanging racks and if they will be part of either option.
 - Some people want a combination of both the hybrid and stacking options in different parts of the train.
- **Bike theft = 16%**
 - There is concern over bike theft in general and the effectiveness of cameras to prevent it.
 - A few commenters prefer to have seats in close proximity to bikes for added vigilance



Mid-Poll Update

- Option 1 (Stacking): 31.7%
- Option 2 (Hybrid): 68.3%
- Total voted: 1296

Question: Which onboard bike storage option do you prefer?			
Answer	Votes	Percent	
Option 1 - Stacking	411	31.7 %	
Option 2 - Hybrid	885	68.3 %	



As of August 23, 2017

Timeline Overview

- Samples Arrive: early August 2017
- Public feedback paired with technical analysis: ongoing
- Outreach Events. Poll, Social/Media: August 8 to September 1, 2017
- BAC Special Meeting: August 24, 2017
- Determination: September 2017



Test Samples & Outreach Discussion

