

Caltrain Electrification Project Update

Peninsula Corridor Joint Powers Board
March 29, 2023
Agenda Item #10



Project Highlights

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- Schedule: No change to revenue service date - fall 2024
- Budget: No change to project budget - \$2.44B
 - \$1.2M draw from \$50M Shared Risk Pool in February 2023
 - No draw from \$40M Project Contingency in February 2023
- Construction
 - Five weekend shutdowns complete
 - Executive Caltrain and BBI workshop
 - Resourced plan to complete OCS and Traction Power work within provided weekends
 - Assessing March weather related damages (May detailed board report)
- Electric Trains
 - Next two trainset expected Fall 2023

Safety and Security

Time Period	Reportable Injury Rate
January 1 to February 28, 2023	0.00
Since Project Start (2017)	1.85

Note: National Average Reportable Injury Rate is 2.50.

- No reportable personal injuries for February 2023
- Project Safety Awareness trainings ongoing for Local Fire and Police Departments
- Completed 25kV training for all TASI and tenant railroad staff
- Development of emergency responder safety presentation for local first responders

Project Contingency and Shared Risk Pool

Item	Amount	Executed in February 2023	Executed To Date	Amount Remaining
BBII Shared Risk Pool	\$50.00M	\$1.21M	\$4.65M	\$45.35M
Project Contingency	\$40.00M	\$0.00M	\$3.52M	\$36.48M
Total	\$90.00M	\$1.21M	\$8.17M	\$81.83M

Top Risks

- Low Contractor Productivity on Overhead Contact System Installation
- Traction Power Short Circuit Testing
- Contractor Quality Assurance

Construction

March Overview

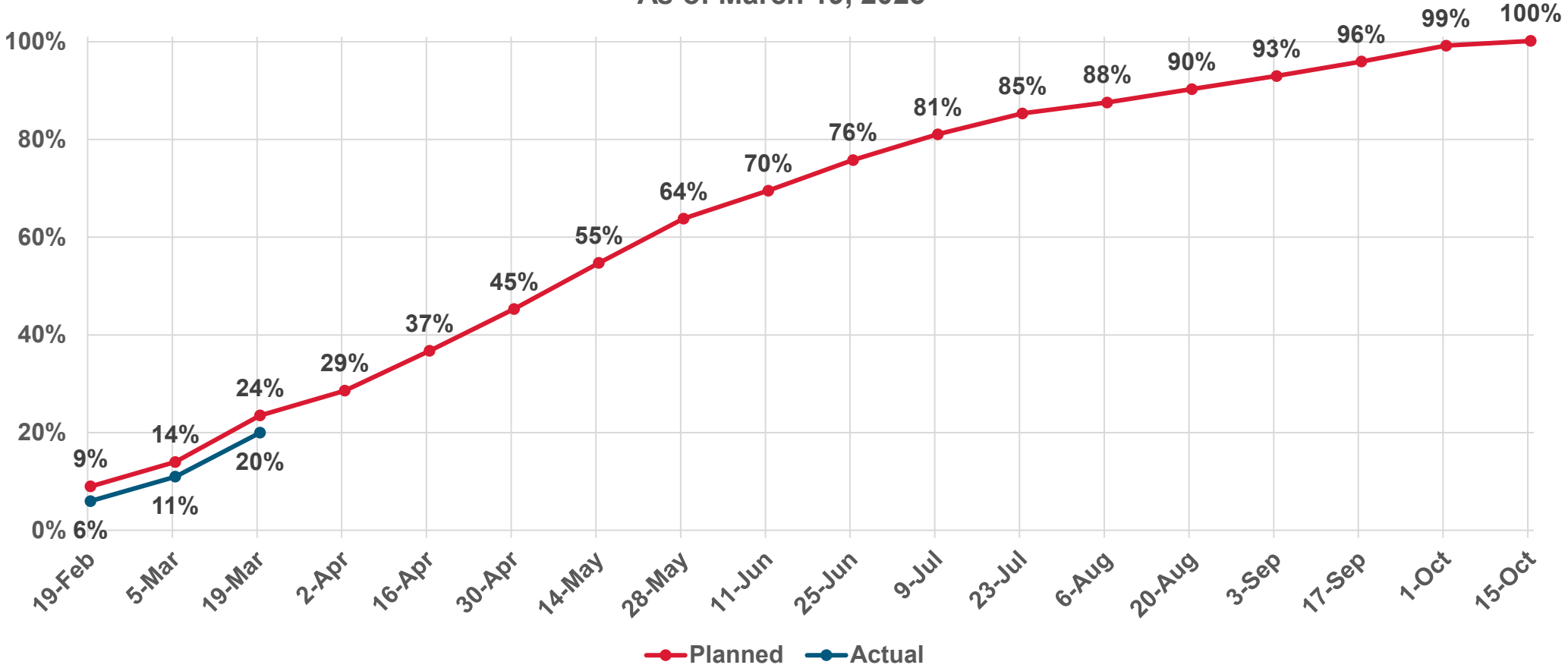
- Balfour Beatty Organization Changes
 - New project director, traction power, material, and document control leads in place
 - Additional resources and changes identified
- Document Control
 - Document control audit and recommendations completed
 - Improved version control
 - Enhanced document control procedures and tools in place

March Overview, continued

- Overhead Contact System Installation
 - Improved production for March, but still behind plan
 - Better material and equipment management
- Traction Power Substation
 - Third party audits ongoing
 - Comprehensive plan for remaining work
 - Prior to short circuit test a load test will be performed
 - Short circuit test rescheduled for May

Overhead Contact System Production

Planned vs Actual (Cumulative Percentage)
As of March 19, 2023



- Based on remaining quantities as of February 6, 2023
- Testing by Balfour Beatty continues October through December 2023



Overhead Contact System Production

February 6 – March 19, 2023

Activity	Remaining to Completion as of February 6	Installed 2/6-2/19	Installed 2/20-3/5	Installed 3/5-3/19	Remaining to Completion as of March 19
Poles	69	9	3	21	36
Beams	91	4	3	14	70
Cantilevers & Drop Tubes	946	90	92	54	701
Feeder & Static Wire Assemblies	1,184	182	115	107	780
Messenger Wire (linear feet)	264,945	15,364	36,074	17,656	195,851
Contact Wire (linear feet)	276,800	14,105	9,673	7,962	245,060
Feeder Wire (linear feet)	105,406	-	1,009	6,023	98,374
Static Wire (linear feet)	103,348	-	-	1,674	101,674
Regulation	3,053	104	63	82	2,804

Service Changes and Customer Experience

February to July 2023 – Weekend Shutdowns

Area (Phase)	Work Activity	Weekends	Number of Weekends
San Francisco to Millbrae (Phase 1)	OCS Construction	February 11-12 February 25-26 March 4-5 March 11-12	4
Millbrae to Hillsdale (Phase 2)	OCS Construction	March 25-26 April 1-2	2
Belmont to Menlo Park (Phase 3)	OCS Construction	April 8-9 April 15-16	2
Menlo Park to Santa Clara (Phase 4)	Signal Installation OCS Testing System Integration Testing	April 22-23 April 29-30 May 5-6 May 13-14	4

- Temporary weekday service changes April 17-28 for signal installation and testing
- 2 contingency weekends in June and July
- August to December up to 16 weekends

Phase 2 – Millbrae to Hillsdale

March 25-26 & April 1-2

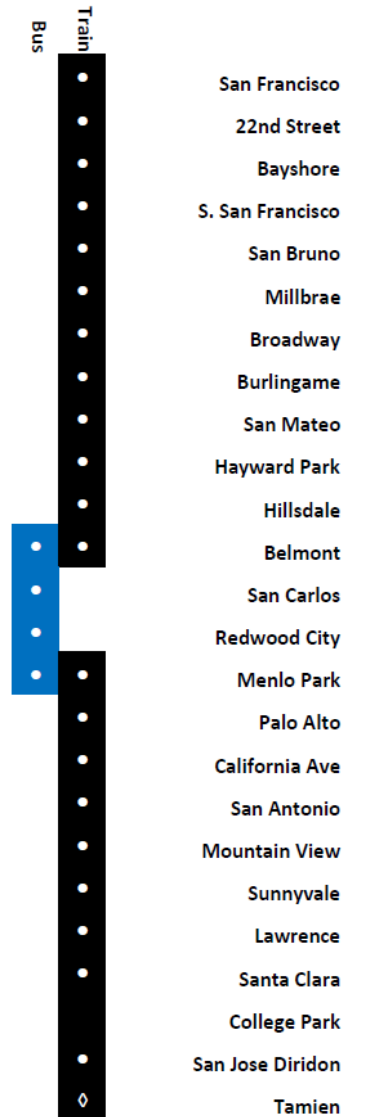
- No weekend train service between Millbrae and Hillsdale stations
- Weekend lifeline bus bridge provided
 - Overall people capacity limited, customers should use bike parking or bike share
 - ADA accessible vehicle provided for each connecting train during service
- Service ends early on weekends

Bus	Train
	• San Francisco
	• 22nd Street
	• Bayshore
	• S. San Francisco
	• San Bruno
	• Millbrae
•	• Broadway
•	• Burlingame
•	• San Mateo
•	• Hayward Park
•	• Hillsdale
	• Belmont
	• San Carlos
	• Redwood City
	• Menlo Park
	• Palo Alto
	• California Ave
	• San Antonio
	• Mountain View
	• Sunnyvale
	• Lawrence
	• Santa Clara
	• San Jose Diridon
	• Tamien

Phase 3 – Belmont to Menlo Park

April 8-9 & April 15-16

- No weekend train service between Belmont and Menlo Park stations
- Weekend lifeline bus bridge provided
 - Overall people capacity limited, customers should use bike parking or bike share
 - ADA accessible vehicle provided for each connecting train during service
- Service ends early on weekends



Phase 4 – Menlo Park to Santa Clara

Weekends: April 22-23, April 29-30, May 6-7, May 13-14

- No weekend train service between Menlo Park and Santa Clara stations
- Weekend lifeline bus bridge
 - Overall people capacity limited, customers should use bike parking or bike share
 - ADA accessible vehicle provided for each connecting train during service
- Service ends early on weekends

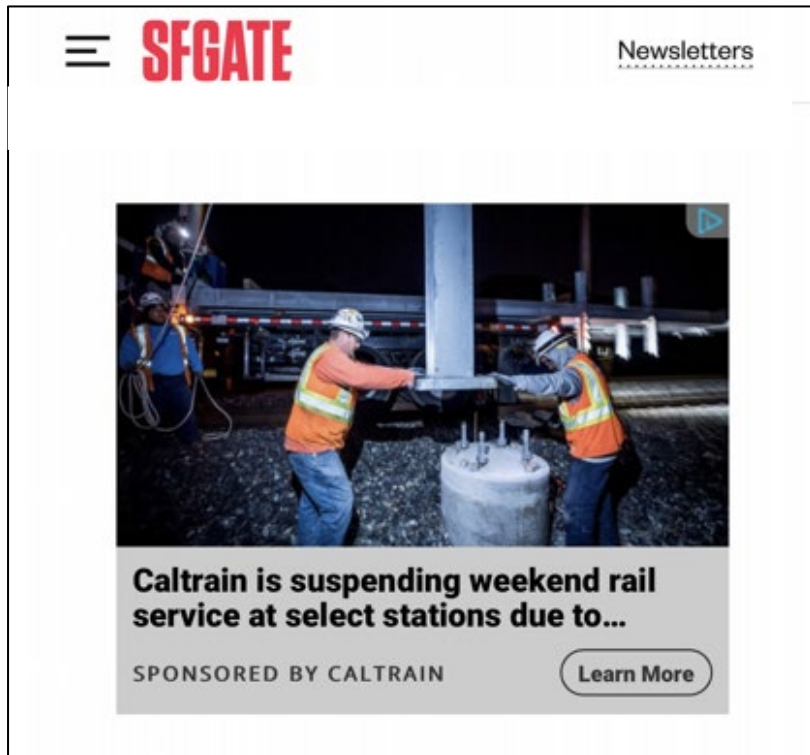
April Weekday Service Changes

April 17-21 & April 24-28


- Weekday service changes
 - Baby Bullet service suspended
 - Peak service reduced to 3 trains per hour per direction (down from 4)
 - Single tracking at Mountain View, San Antonio, Palo Alto, California Avenue stations
- Service ends early on weeknights (Monday-Thursday)
 - Last northbound train leaves Tamien at 10:26p
 - Last southbound train leaves San Francisco at 10:47p
- Service ends earlier on Friday, April 21 and Friday, April 28
 - Last northbound train leaves Tamien at 9:26p
 - Last southbound train leaves San Francisco at 9:17p

Customer Communication

- Caltrain.com/status

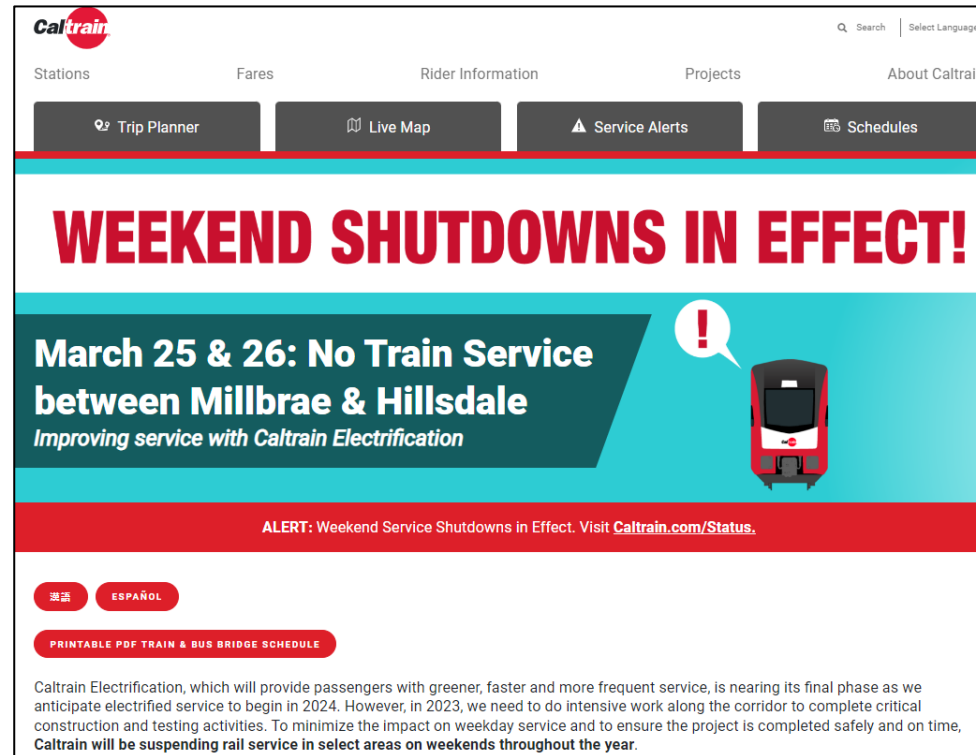


SFGATE Newsletters



Caltrain is suspending weekend rail service at select stations due to...

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WEEKEND SHUTDOWNS IN EFFECT!

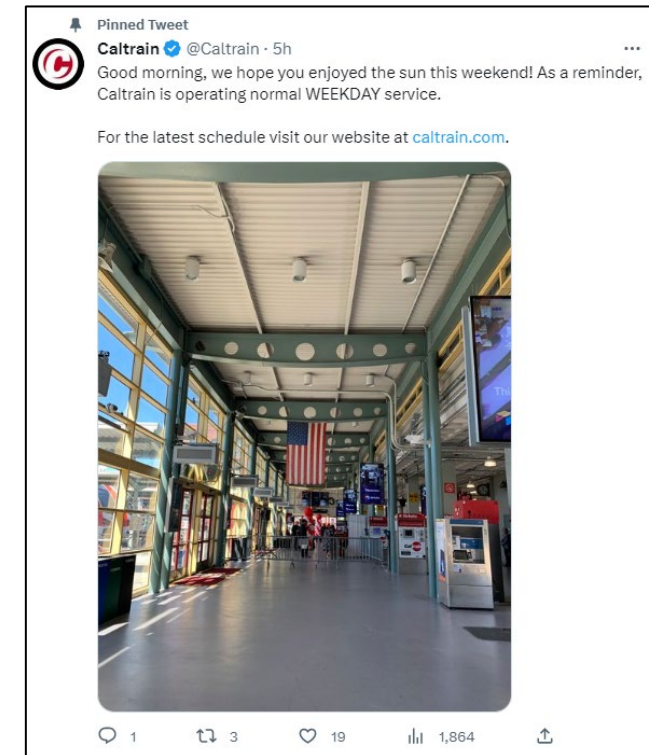
March 25 & 26: No Train Service between Millbrae & Hillsdale
Improving service with Caltrain Electrification

ALERT: Weekend Service Shutdowns in Effect. Visit [Caltrain.com/Status](https://caltrain.com/status).

普通话 ESPAÑOL

[PRINTABLE PDF TRAIN & BUS BRIDGE SCHEDULE](#)

Caltrain Electrification, which will provide passengers with greener, faster and more frequent service, is nearing its final phase as we anticipate electrified service to begin in 2024. However, in 2023, we need to do intensive work along the corridor to complete critical construction and testing activities. To minimize the impact on weekday service and to ensure the project is completed safely and on time, **Caltrain will be suspending rail service in select areas on weekends throughout the year.**




Pinned Tweet

Caltrain @Caltrain · 5h

Good morning, we hope you enjoyed the sun this weekend! As a reminder, Caltrain is operating normal WEEKDAY service.

For the latest schedule visit our website at caltrain.com.



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Upcoming Board Items

Upcoming Board Items

- Monthly Updates on Construction Progress and Service Changes
- Maintenance Contract
 - Informational (Spring 2023)
 - Board Action (Summer 2023)
- Railroad Isolation Protection Change Order (May 2023)
- Increase Contract Authority Within Existing Budget for Consultant Services
 - Hatch LTK (October 2023)

Appendix

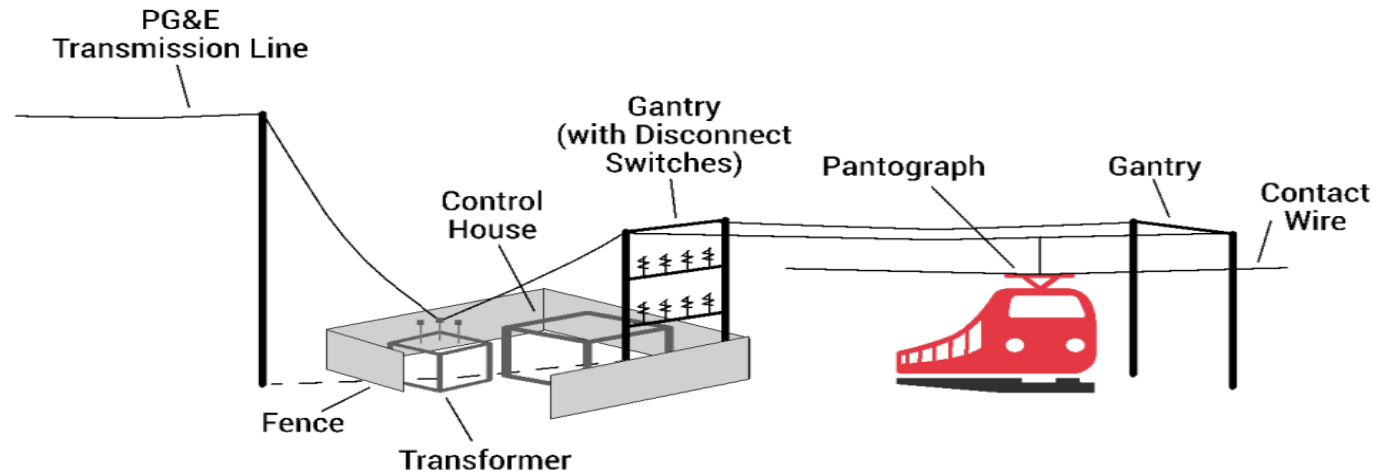
Project Overview

- San Francisco to San Jose (Tamien Station)
- 51 miles
- Project Cost: \$2.44B
- Revenue Service: Fall 2024



Project Elements

- Electrification
 - Overhead Contact System (OCS)
 - Traction Power Facilities
 - Signal System
- Electric Trains
 - 19 7-car train sets (133 cars)
 - 75% replacement diesel fleet



(Note: 96 cars funded by project; 37 cars funded by State TIRCP)

Project Benefits



Improved Train Performance,
Increased Service and Greater Capacity

Improved Regional Air Quality and
Reduced Greenhouse Gas Emissions



Job Creation Locally and
Across the Country



Reduced Engine Noise
Emanating from Trains



FOR MORE INFORMATION

WWW.CALTRAIN.COM

