



CALTRAIN ELECTRIFICATION UPDATE

Caltrain CAC
August 18, 2021



PROJECT INFO

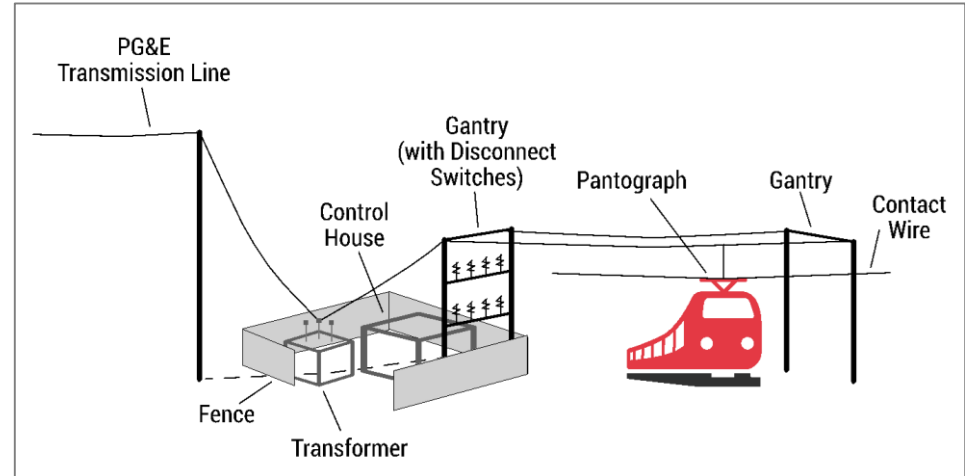


Project Area



- 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



**Improved Train
Performance,
Increased Service
and Greater Capacity**



**Improved Regional
Air Quality and
Reduced Greenhouse
Gas Emissions**



**Positive Economic
Benefits for the
Region**

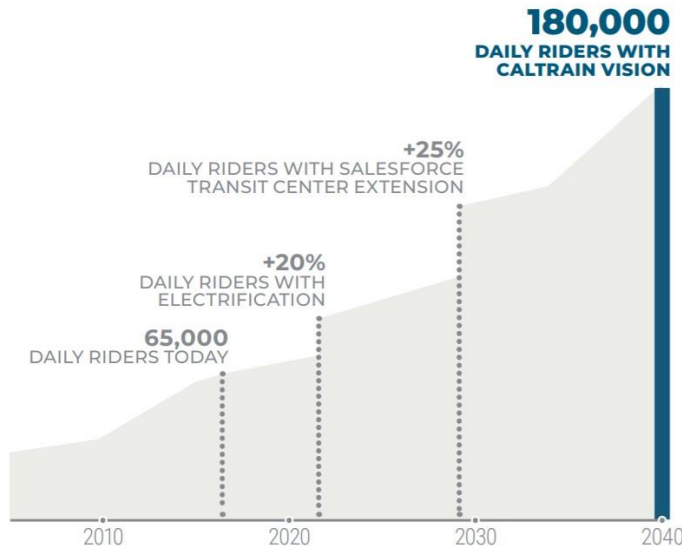


**Reduced Engine
Noise Emanating
from Trains**

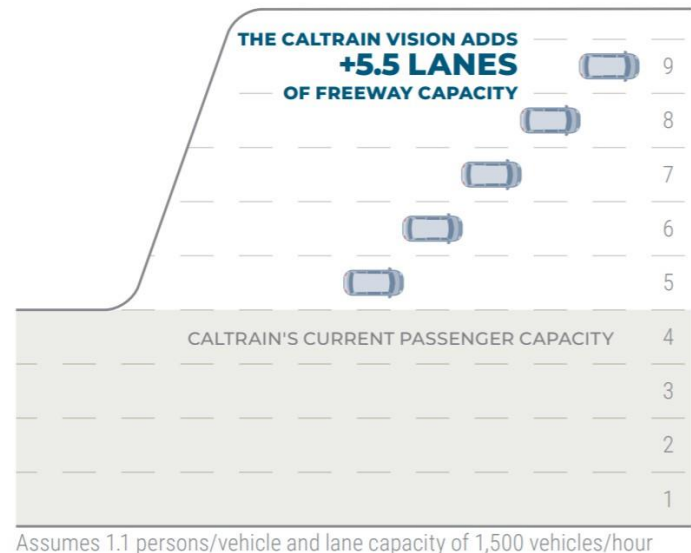
- Electrification sets the foundation for the future growth of the system
- Caltrain Service Vision Adopted in 2019, meets the projection regional growth in jobs and housing in the Bay Area
- Projects a tripling of ridership, increased peak and off-peak service, carrying the equivalent of 5.5 lanes of highway traffic of US 101



CARRYING MORE PEOPLE



TRAINS VS LANES



PROJECT UPDATE



Foundation Locations	Number of Foundations Required	Number of Foundations Remaining	Installation Percent Complete	Anticipated Completion Date
Segment 1	535	375	30%	11/30/2021
Segment 2	1,179	40	97%	08/14/2021
Segment 3	901	Complete	100%	Complete
Segment 4	370	Complete	100%	Complete
CEMOF	85	Complete	100%	Complete

Data as of July 25, 2021

CalMod OCS POLES AND WIRE

OCS Poles

OCS Pole Locations	Number of OCS Poles Required	Number of OCS Poles Remaining	Installation Percent Complete	Anticipated Completion Date
Segment 1	442	442	0%	12/15/2021
Segment 2	971	485	50%	09/14/2021
Segment 3	755	Complete	100%	Complete
Segment 4	304	15	95%	08/01/2021
CEMOF	83	4	95%	08/01/2021

OCS Wire

OCS Wire Locations	Installation Percent Complete	Anticipated Installation Completion	Testing Percent Complete	Anticipated Testing Completion
Segment 1	0 %	01/15/2022	0 %	01/31/2022
Segment 2	20 %	09/25/2021	8 %	10/10/2021
Segment 3	100 %	05/03/2021	47 %	05/15/2021
Segment 4	29 %	06/30/2021	0.0 %	07/15/2021

Data as of July 18, 2021

Signal Locations	95% Design Percent Complete	Anticipated Design Completion of 95% per JPB Requested Schedule*	Installation Percent Complete	Anticipated Installation Complete per JPB Requested Schedule*	Testing Percent Complete	Anticipated Testing Completion per JPB Requested Schedule
Segment 1	64%	11/02/2022	21%	04/01/2023	0%	04/30/2023**
Segment 2	94%	04/01/2022	23%	08/01/2022	0%	12/31/2022**
Segment 3	26%	10/01/2022	21%	04/30/2023	0%	09/30/2023**
Segment 4	100%	Complete	92%	05/31/2021	76%	08/15/2021

Notes:

* JPB requested schedule includes installation after 95% design

**JPB projected dates for completion of signal/communication cutover based on Contractor signal/communication cutover planning schedule

See Appendix Item 2 for detailed cutover signal locations and dates

CalMod TRACTION POWER FACILITIES PROGRESS

Facility	Sitework	Substation Building	Low / High Voltage Equipment	Transformer	Gantry	Total Completion	Completion Date
TPS-1	95%	89%	97%	100%	97%	96%	1/3/2022
TPS-2	93%	98%	96%	100%	98%	97%	8/4/2021
SWS-1	93%	89%	88%	100%	89%	92%	11/1/2021
PS-1	51%	70%	53%	100%	91%	73%	1/19/2022
PS-2	66%	76%	80%	100%	77%	80%	12/22/2021
PS-3	16%	9%	0%	0%	15%	8%	4/18/2022
PS-4	82%	81%	90%	100%	82%	87%	12/21/2021
PS-5	63%	82%	65%	100%	94%	81%	1/7/2022
PS-6	90%	83%	91%	100%	92%	91%	9/1/2021
PS-7	96%	89%	95%	100%	97%	95%	9/3/2021

Scope of Work

Sitework: Mobilize, Clear and grub, Lighting/Equip CIDH Foundations, Duct Bank, Drainage, Subgrade, Fence/CMU, Finished Grade

Substation Building: Earthwork (Excavation/Bedding), Foundation (form, rebar, pour), Set House, Pull Wire

Low/High Voltage Equipment: Yard Equipment, ATS& AUX, Power Drop

Transformer: Earthwork (Excavation/Bedding), Foundation (form, rebar, pour), Set Transformer, ABB Fit Up

Gantry: Foundations (pothole, drill, pour), Set Gantry, Cables/Pipes/Wires, Gantry Equipment

Wayside Power Cubicles	Required	Installed
	27	20

Data as of July 5, 2021







Caltrain **CalMod**

COST & SCHEDULE



Description	Original	DRAFT FTA Risk Refresh
Revenue Service	Quarter 3 2022	Quarter 3 2024
Cost	\$1.98B*	\$2.313B*

* Adjusted to match Caltrain accounting. Includes \$50M pre-FFGA spending and \$9M financing costs.

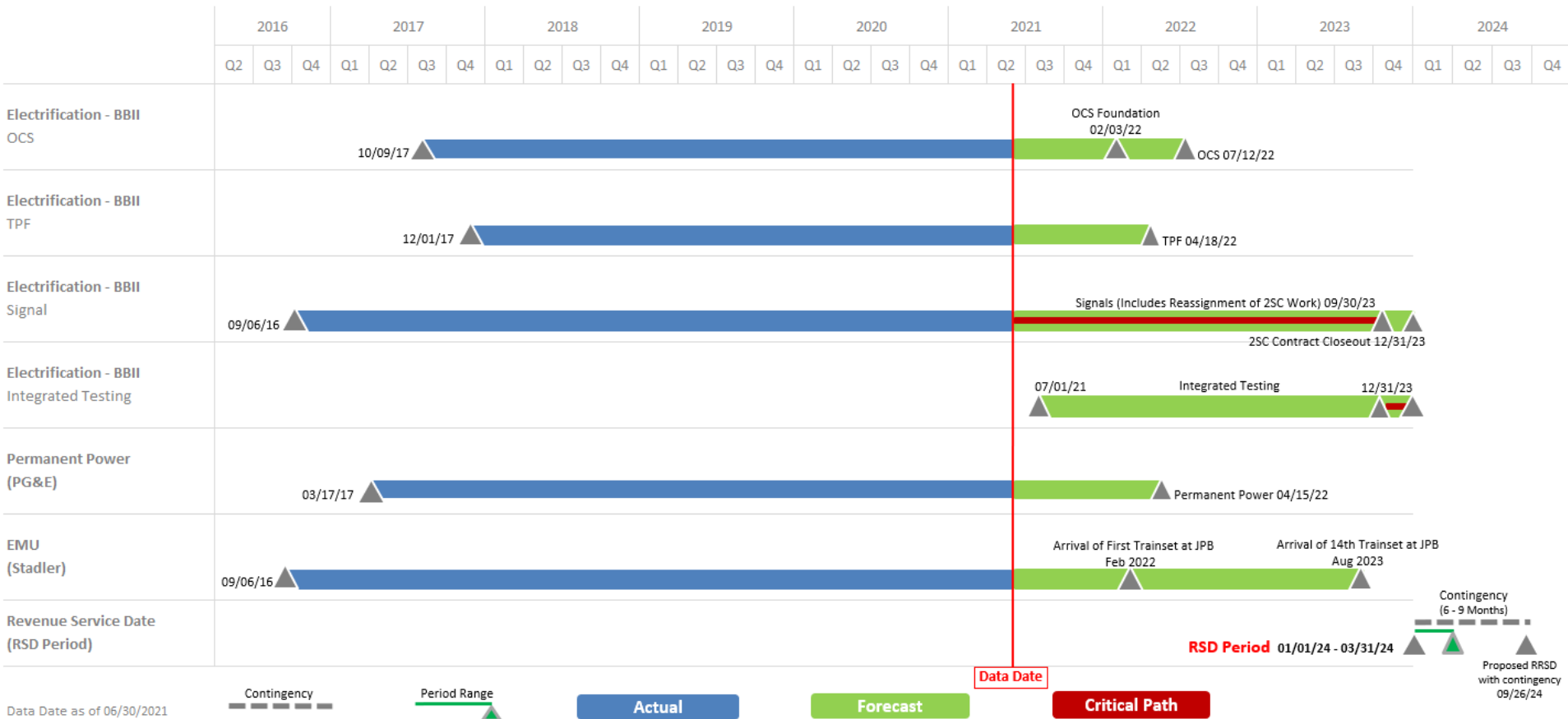
- Project cost has increased and schedule extended
- FTA estimate additional cost to complete: \$333M
- FTA estimate schedule extension: Q3 2024 (CY)
 - Includes 6 month contingency

Additional Cost	Amount
Known and Allocated Costs	\$161.0M
Reserve	\$172.0M
Total	\$333.0M

- \$161M known costs
- \$172M reserve to address unknown risks
- Construction Management Efforts

- Direct Costs
 - Signal System/Communications
 - Unknown Underground Site Conditions
 - PG&E
- Indirect Costs
 - Construction Support
- COVID Related Delays

CalMod PROJECT SCHEDULE



Data Date as of 06/30/2021

QUESTIONS

