



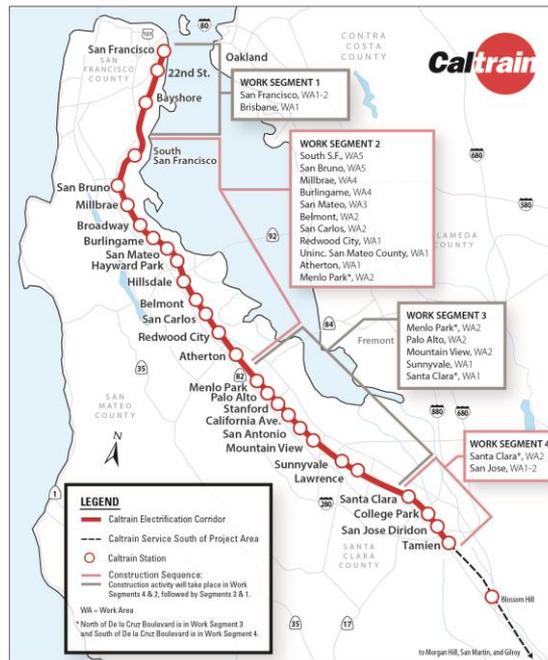
PENINSULA CORRIDOR ELECTRIFICATION PROJECT (PCEP)

Q1 Quarterly Update #16 Rev1
July 1 – September 30, 2018

JPB Board Meeting
November 1, 2018
Agenda Item # 7(a)



PCEP Work Segment Map



CalMod ELECTRIFICATION

Progression of Design

- Overhead Catenary System (OCS):
 - Continued final design and Design Change Notices (DCNs) for all segments
 - Continued technical coordination with Union Pacific Railroad (UPRR) for Segment 4 OCS design changes
- Signal System:
 - Continued technical coordination with UPRR for systemwide signal system design
 - Continued developing Consistent Warning Time (CWT) solution, including an updated design approach and typical designs for 3 locations
 - Continued review of Line of Sight studies



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CalMod ELECTRIFICATION

Progression of Design

- Traction Power System:
 - Continued design of Traction Power Facilities plans in all segments
 - Completed design of Traction Power Substation (TPS) 1 and Paralleling Station (PS) 4 in Segment 2
 - Issued change for location of PS-3 based on coordination with the City of Burlingame
 - Continued coordination with PG&E on design of interconnection and VTA on design of TPS-2 interconnection
- Communication System:
 - Continued work on systemwide communication design
- Systems Integration:
 - Continued design of Systems Integration Testing Plan



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CalMod **ELECTRIFICATION**

Issued for Construction Designs Completed

Design Discipline	OCS		Signal		Traction Power	
	Required	Completed	Required	Completed	Required	Completed
Segment 1	6	1	3	0	3	0
Segment 2	11	9	66	0	3	2
Segment 3	4	1	10	0	2	0
Segment 4	9	5	24	0	4	3
Systemwide	9	7	14	0	7	5
Total	39	23	117	0	19	10

Note: Data as of September 30, 2018



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CalMod **ELECTRIFICATION**

Construction Progress

Segment	Work Area	Foundations		Poles	
		Required ¹	Completed	Required	Completed
2	5	256	173	162	150
	4	320	230	259	1
	3	190	43	147	0
	2	260	0	218	0
	1	206	0	155	0
Total		1,232	446	941	151

Note:

¹ Foundations Required do not match Poles Required as guy foundations are needed in some locations for extra support.

Note: Data as of October 18, 2018



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CalMod **ELECTRIFICATION**

TPS-2 Transformer Installation



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CalMod **ELECTRIFICATION**

Construction Photos: Runs of Static Wire in S2WA5



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CalMod ELECTRIFICATION

Construction Photos: Runs of Static Wire in S2WA5



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CalMod ELECTRIFICATION

Other Electrification Contracts

- Supervisory Control and Data Acquisition (SCADA)
 - Performed power, heating, ventilation and air conditioning site review and developed a sufficiency study
 - Received equipment and established lab
 - Continued to implement features such as clearance and remote power terminal
- Centralized Equipment Maintenance and Operations Facility (CEMOF)
 - Design complete
 - IFB Release: July 26, 2018
 - Pre-Bid: August 8, 2018
 - Bids Due: November 9, 2018
 - NTP: March 1, 2019



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CalMod ELECTRIFICATION

Other Electrification Contracts (continued)

- Pacific Gas and Electric (PG&E)
 - Continued design of Permanent Power at FMC and East Grand
 - Continued construction for FMC Temp Power–Cutover for Temp Power scheduled for November
 - Continued Material procurement for Permanent Power



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CalMod ELECTRIFICATION

Tunnel Modifications

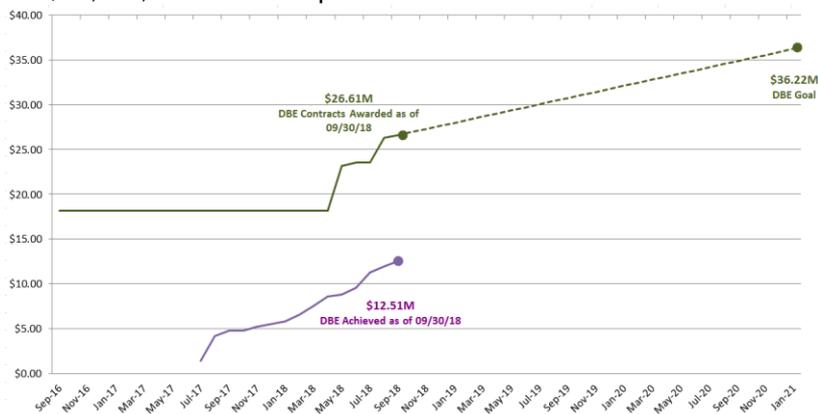
- Tunnel Modifications Contract awarded to Proven Management (PMI)
 - Limited Notice to Proceed issued August 1
 - Notice to Proceed issued October 6
- Work in tunnels to be performed during weekend shutdowns between Bayshore Station and 4th and King Station from October 6, 2018 to late spring 2019
- Two consecutive weekend shutdowns have occurred as of 10/19/18
- Work performed to date includes:
 - Grouting work began (Tunnel 1 completed 10/14/18)
 - Hand notching began in Tunnel 2
 - Tunnel and OCS location survey
 - OCS Termination structure foundation potholing
- No impacts to service on Monday mornings

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CalMod DISADVANTAGED BUSINESS ENTERPRISE (DBE)

Goal of 5.2% (\$36,223,749) of the DB contract

- As of September 30, 2018
 - \$12,511,296 has been paid to DBE subcontractors



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CalMod ELECTRIC MULTIPLE UNITS (EMU)

Stadler

- System, Car and Trainset level designs continue to be finalized
- System level design conformance testing commenced
- First 2 carshells have arrived in Stadler's new Salt Lake City facility
- Shells undergoing preparation for interior assembly
- Remaining cars for Trainset 1 in transit to Salt Lake City
- Stadler new Salt Lake City facility construction on schedule and progressively completed to support car assembly advancement
- Carshells for Trainsets 2 and 3 in various stages of fabrication in Altenrhein
- Bogie (truck frame) fabrication underway in Winterthur
- Onboard Positive Train Control equipment supplier substitution advances with no known car delivery delays or additional cost



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Car Progressive Assembly Area
(under construction)

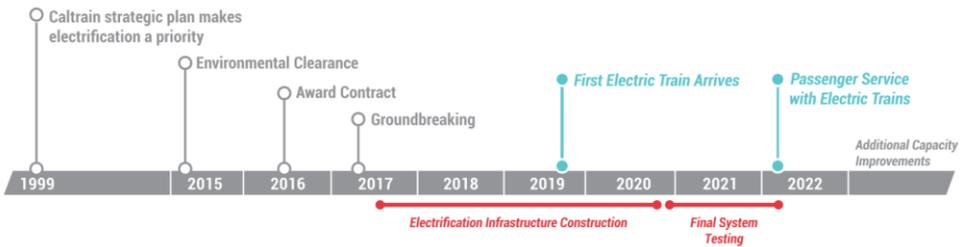


First 2 Carshells Arriving at Stadler
SLC Facility

First Cab Carshell Offloaded
at SLC 'Displacement Hall'



MILESTONES



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

Note: **Schedule Subject to Change**



CalMod RISK MANAGEMENT

- Review Cost and Schedule Impacts of Risk Register
- 286 risks; 93 active; 193 retired
- Top Risk: BBII may be unable to develop grade crossing modifications that meet regulatory requirements prior to scheduled testing and commissioning of the consistent warning system
- Mitigation:
 - Develop solution per contract terms and budget
 - Advance speed check solution
 - Coordinate solution with Operations
 - Meet with FRA, CPUC and UPRR
 - Revise budget to achieve desired solution



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BUDGET & EXPENDITURES



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CalMod BUDGET & EXPENDITURES (in millions)

	Budget	Current Budget	FY19 Q1 Costs	Costs to Date	Estimate at Completion
Electrification	\$696.61	\$711.99	\$26.72	\$251.31	\$711.99
SCADA	\$0.00	\$3.45	\$0.52	\$1.90	\$3.45
EMU	\$550.90	\$550.56	\$4.23	\$92.40	\$550.56
PG&E	\$57.22	\$88.49	\$2.22	\$24.55	\$88.49
Tunnel Notching	\$11.03	\$25.82	\$2.90	\$2.90	\$25.82
Separate Contract & Support Costs	\$348.96	\$346.45	\$15.30	\$168.28	\$346.45
Contingency ¹	\$315.53	\$253.49	\$0.00	\$0.00	\$236.89
Anticipated Changes	\$0.00	\$0.00	\$0.00	\$0.00	\$16.60
PCEP Total	\$1,980.25	\$1,980.25	\$51.89	\$541.34	\$1,980.25

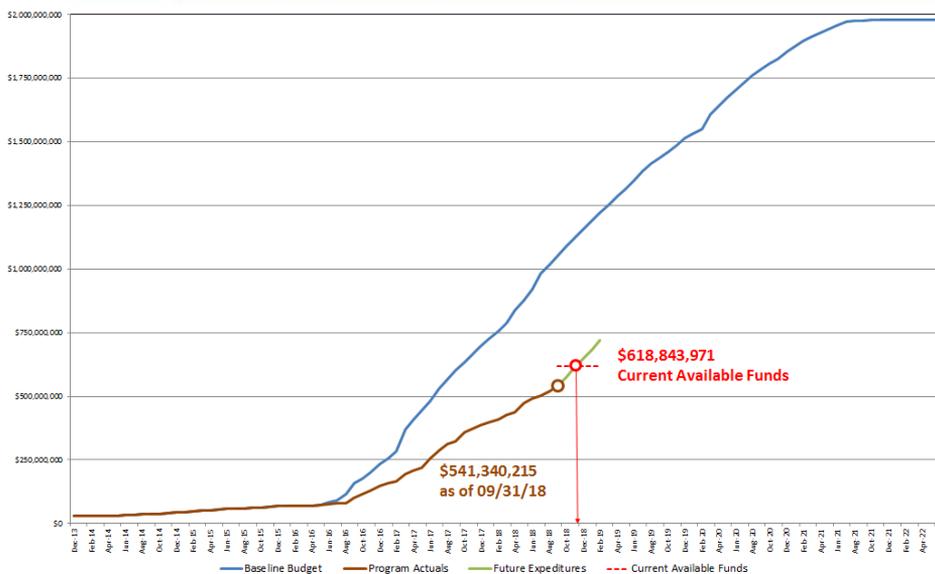
Note 1: Contingency is not for out of scope changes.

Budget / Expenditures as of September 31, 2018



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CalMod ACTUAL VS PLANNED



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CalMod CONTINGENCY¹ DRAWDOWN

Contracts	Amount	Contingency
Beginning Contingency		\$315,533,611
Drawdown		
Executed Change Orders	\$12,546,404	
SCADA Contract	\$3,446,917	
PG&E Supplemental #4	\$31,263,082	
Tunnel Modifications	\$14,786,286	
Total	\$62,042,689	
Remaining Contingency		\$253,490,922

Note 1: Contingency is not for out of scope changes.

As of September 31, 2018



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CalMod ANTICIPATED CONTINGENCY¹ DRAWDOWN

Contracts	Amount	Contingency
Remaining Contingency		\$253,490,922
Pending Contingency Drawdown		
Tunnel OCS	\$16,600,000	
Total	\$16,600,000	
Anticipated Remaining Contingency		\$236,890,922

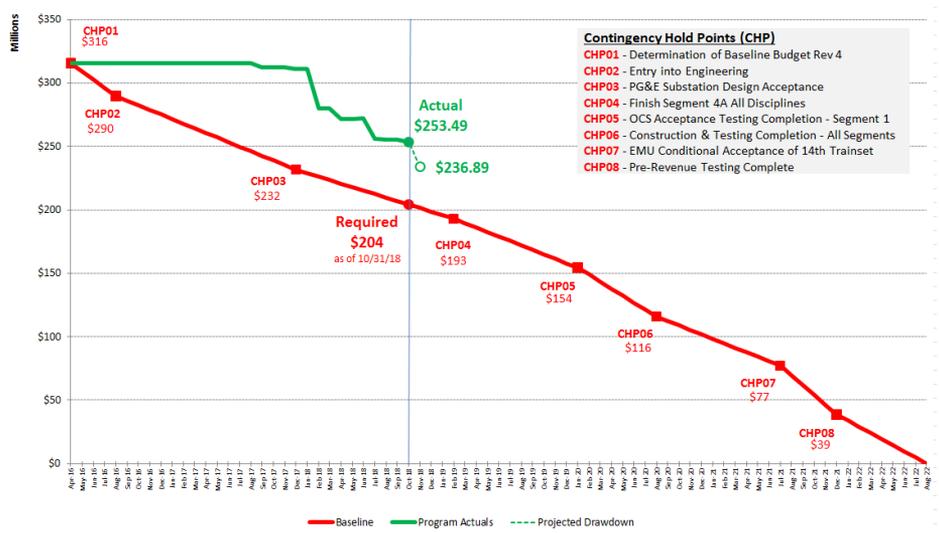
Note 1: Contingency is not for out of scope changes.

As of September 31, 2018



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CalMod CONTINGENCY¹ DRAWDOWN CURVE



Note 1: Contingency is not for out of scope changes.



COMMUNITY OUTREACH



CalMod **OUTREACH**

Meetings, Mailers & Website

MEETINGS

14 PUBLIC MEETINGS

MAILERS

64,913 DIRECT MAILERS

CALMOD.ORG WEBSITE

27.88% USERS (8,480 VS. 6,631)

84.8% NEW VISITORS

15.2% RETURNING VISITORS



CalMod E-Newsletter

JULY

1,341 SUBSCRIBERS

43% OPEN

93 TOTAL UNIQUE CLICKS

AUGUST

1,387 SUBSCRIBERS

45% OPEN

102 TOTAL UNIQUE CLICKS

SEPTEMBER

1,523 SUBSCRIBERS

38% OPEN

86 TOTAL UNIQUE CLICKS



CalMod **CONTACT**

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QUESTIONS