



PENINSULA CORRIDOR ELECTRIFICATION PROJECT (PCEP)

Q4 Quarterly Update #15
April 1 – June 30, 2018

JPB Board Meeting
August 2, 2018
Agenda Item # 7c



Progression of Design

- Overhead Catenary System (OCS):
 - Continued design for all Segments
 - Continued technical coordination with Union Pacific Railroad for Segment 4 OCS Design Changes
- Signal System:
 - Continued submission and review of 65% signal design for Segments 2 and 4
 - Continued technical coordination with Union Pacific Railroad for systemwide signal system design
 - Continued developing Consistent Warning Time (CWT) Solution Approaches
 - Continued review of Segment 2 and 4 Line of Sight Studies

Progression of Design

- Traction Power System:
 - Completed Traction Power Systemwide Design
 - Continued design of Traction Power Facilities Plans in all Segments
 - Completed design of Traction Power Substation 2 in Segment 4
 - Coordinated design of Traction Power Substation 1, including interface with South San Francisco Station Improvement Project
 - Continued coordination with PG&E on design of interconnection
- Communication System:
 - Continued work on systemwide communication design
- Systems Integration:
 - Continued design of Systems Integration Testing Plan

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

CONSTRUCTION



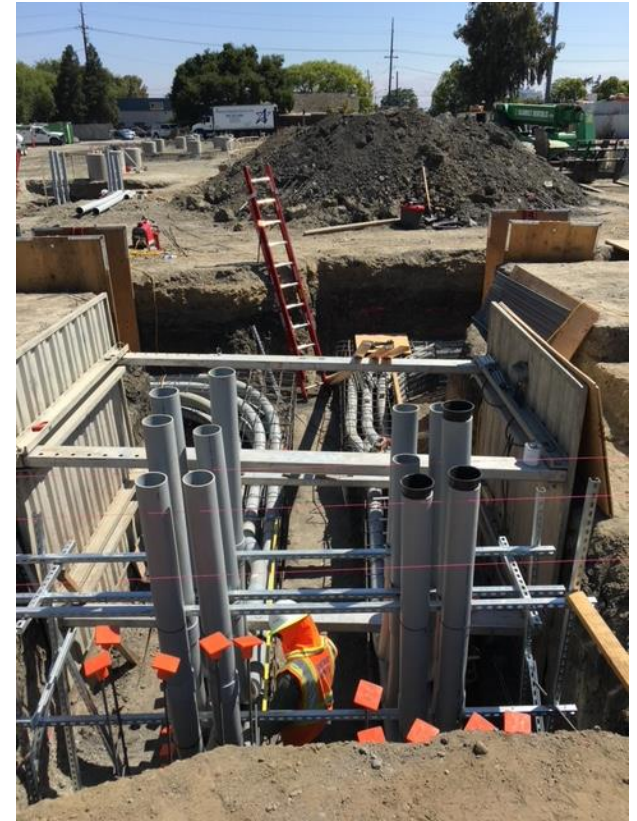
Construction Progress

Segment	Work Area	Foundations		Poles	
		Required ¹	Completed	Required	Completed
2	5	256	172	162	149
	4	366	194	259	0
	3	190	37	147	0
	2	260	0	218	0
	1	206	0	155	0

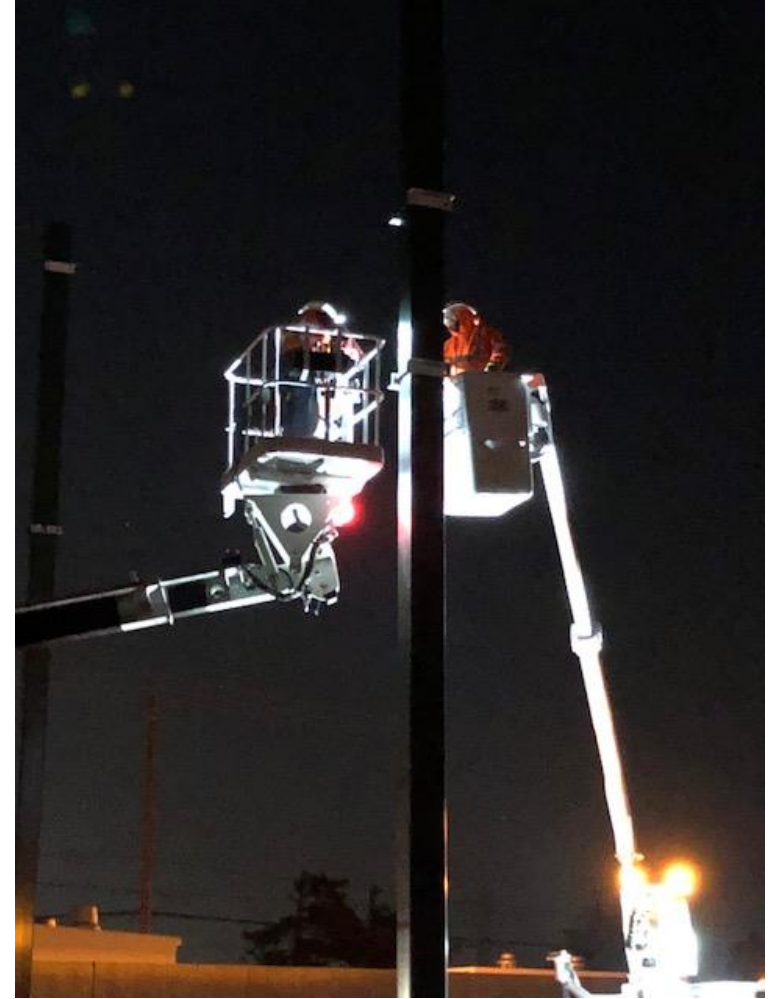
Note:

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

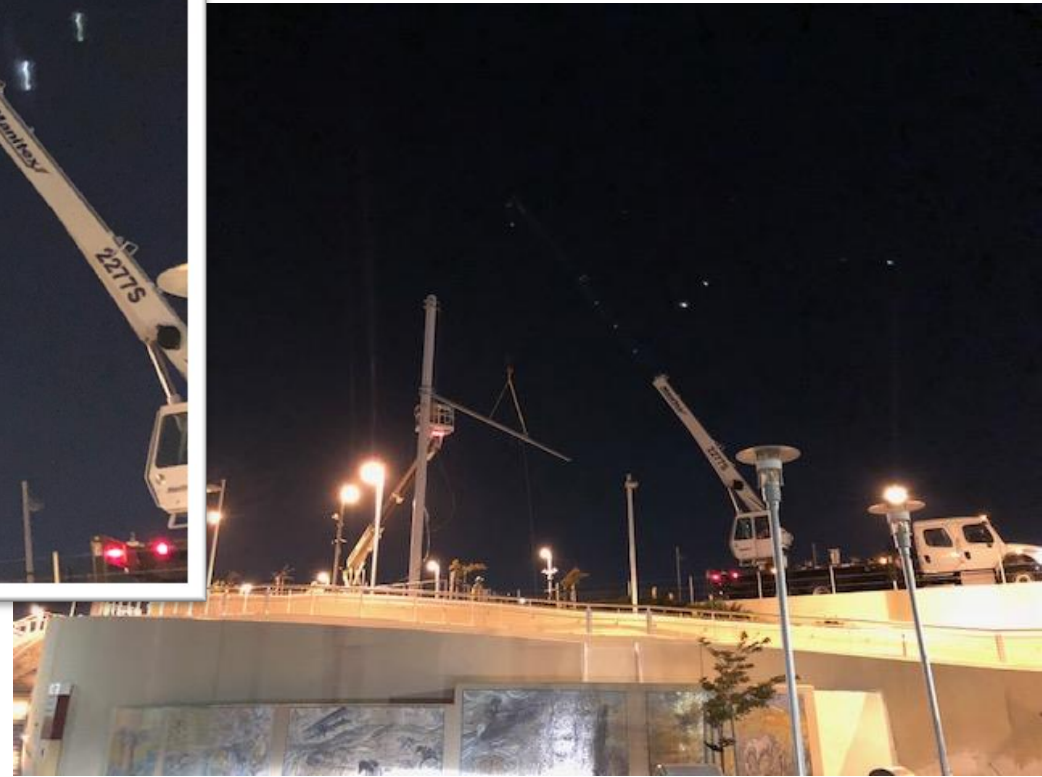
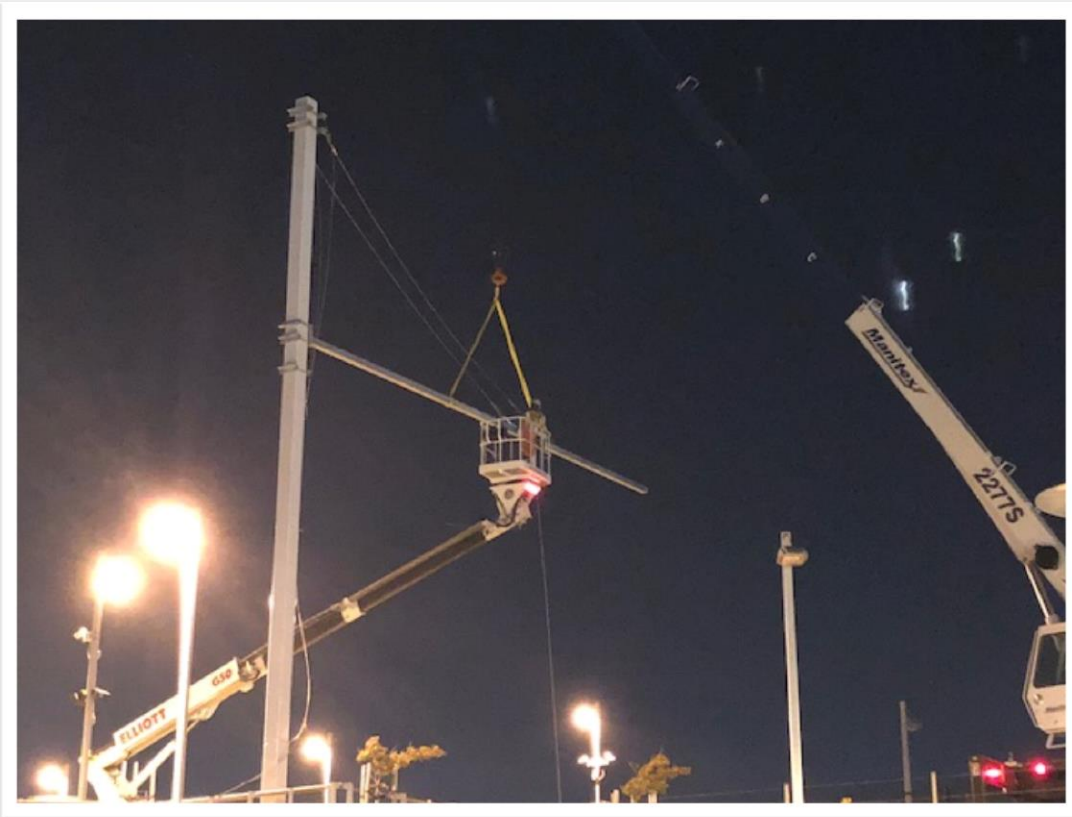
TPS-2 Site Work / Civil Work



Bracket Setting



Cantilever Installation



Dangle Drill for Long Reach Foundations



Other Electrification Contracts

- **Supervisory Control and Data Acquisition (SCADA)**
 - Preliminary Design Review completed
 - Final Design Reviews underway
- **Centralized Equipment Maintenance and Operations Facility (CEMOF)**
 - Design Complete
 - IFB release: July 26, 2018
 - Pre-Bid: August 8, 2018
 - Bids Due: September 17, 2018
 - NTP: November 1, 2018

Tunnel Modifications

- Completed successful negotiations with the single bidder for the Tunnel Modifications Contract, Proven Management, Inc. (PMI) which resulted in a decrease in the total bid price from \$41,837,777 to \$38,477,777.
- Work in the tunnels will be performed during weekend outages between Bayshore Station and 4th and King Station, from October 2018 to March 2019.
- PMI is scheduled to start preliminary work in the tunnels during non-revenue service periods in the weekends in September.

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. Erected steel and received major material
 - Continued Material procurement for Permanent Power

FMC Substation -
San Jose



New 115kV Breaker on Pad



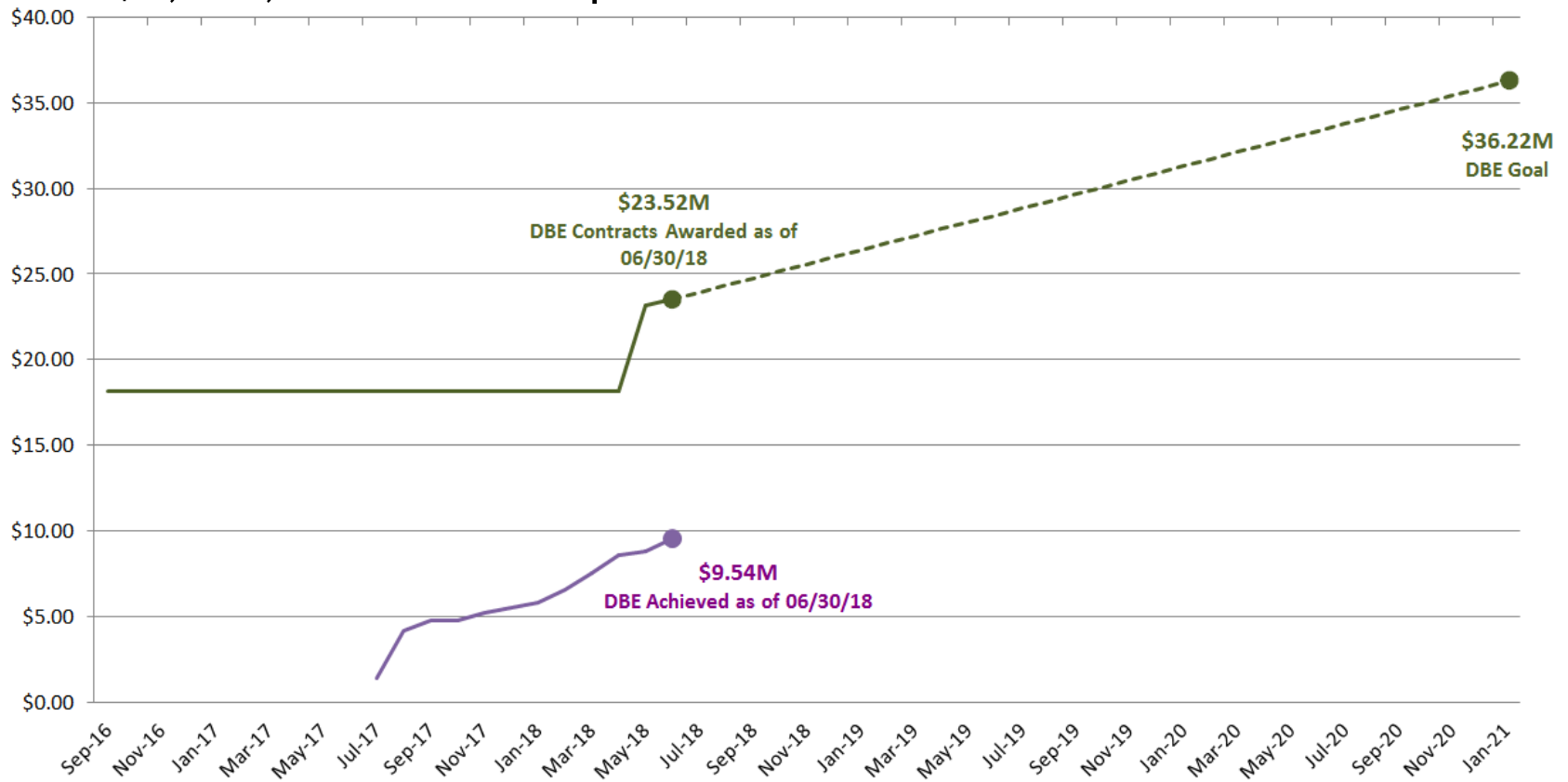
Cable Pulling

DISADVANTAGED BUSINESS ENTERPRISES (DBE)



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

- As of June 30, 2018
 - \$9,543,158 has been paid to DBE subcontractors



ELECTRIC MULTIPLE UNITS (EMU)

Stadler

- Most Final Design Reviews for major systems conducted and being finalized for Caltrain approval
- Carshell Construction and Painting First Article Inspections completed successfully
- 3rd Cab Car Shell shipped to independent test facility in Germany for 10 weeks of structural test setup, measurements, and load testing
- 2 Cab Car Shells shipped from Altenrhein to Salt Lake City June 5th to begin scheduled 8-week journey
- Manufacturing and Final Assembly Facility construction continues on schedule in Salt Lake City. 'Displacement Hall' is to be available for first car shell delivery in August 2018

First Painted Shell – A-Cab Car



First two Car Shells Loaded in Basel for Trip to Salt Lake City



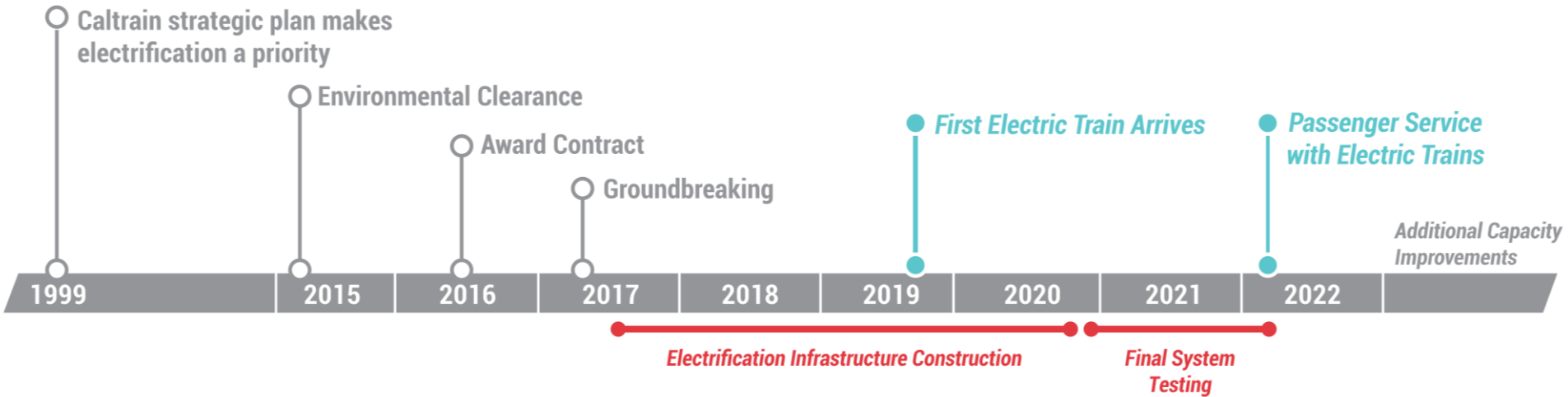
Stadler New Rail Car Manufacturing Facility in Salt Lake City



SCHEDULE



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**

RISK MANAGEMENT

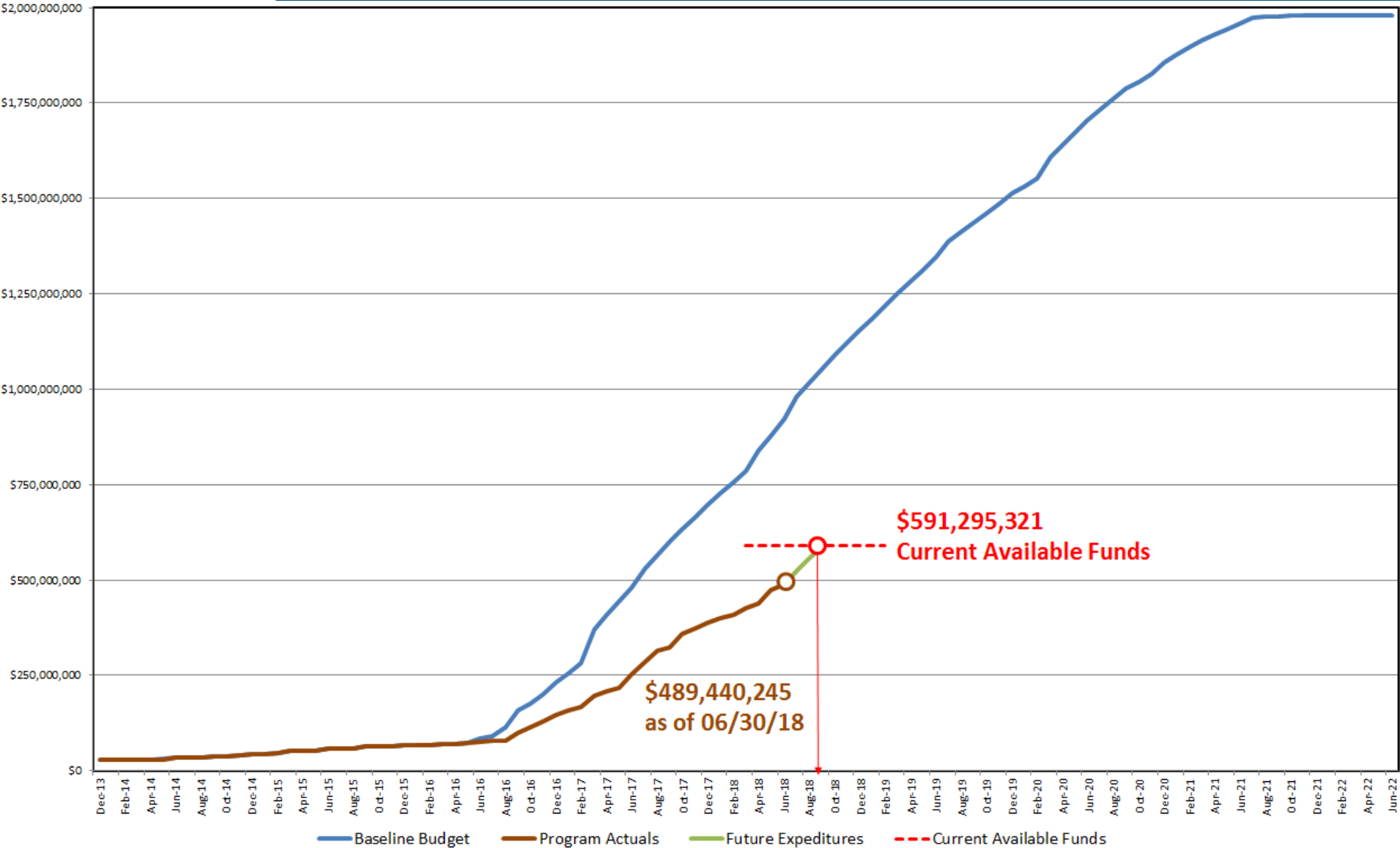
- Review Cost and Schedule Impacts of Risk Register
- 285 risks; 94 active; 191 retired
- Top Risk: BBII may be unable to develop grade crossing modifications that meet regulatory requirements prior to scheduled testing and commissioning of the consistent warning system

BUDGET & EXPENDITURES



	Budget	Current Budget	FY18 Q3 Costs	Costs to Date	Estimate at Completion
Electrification	\$696.61	\$708.60	\$21.18	\$224.59	\$708.60
SCADA	\$0.00	\$3.45	\$0.00	\$1.38	\$3.45
EMU	\$550.90	\$550.56	\$27.03	\$88.17	\$550.56
PG&E	\$57.22	\$88.49	\$4.17	\$22.33	\$88.49
Separate Contract & Support Costs	\$359.99	\$358.21	\$11.62	\$152.97	\$358.21
Contingency	\$315.53	\$270.94	\$0.00	\$0.00	\$253.60
Anticipated Changes	\$0.00	\$0.00	\$0.00	\$0.00	\$17.34
PCEP Total	\$1,980.25	\$1,980.25	\$64.01	\$489.44	\$1,980.25

Note: Budget / Expenditures as of **June 30, 2018**



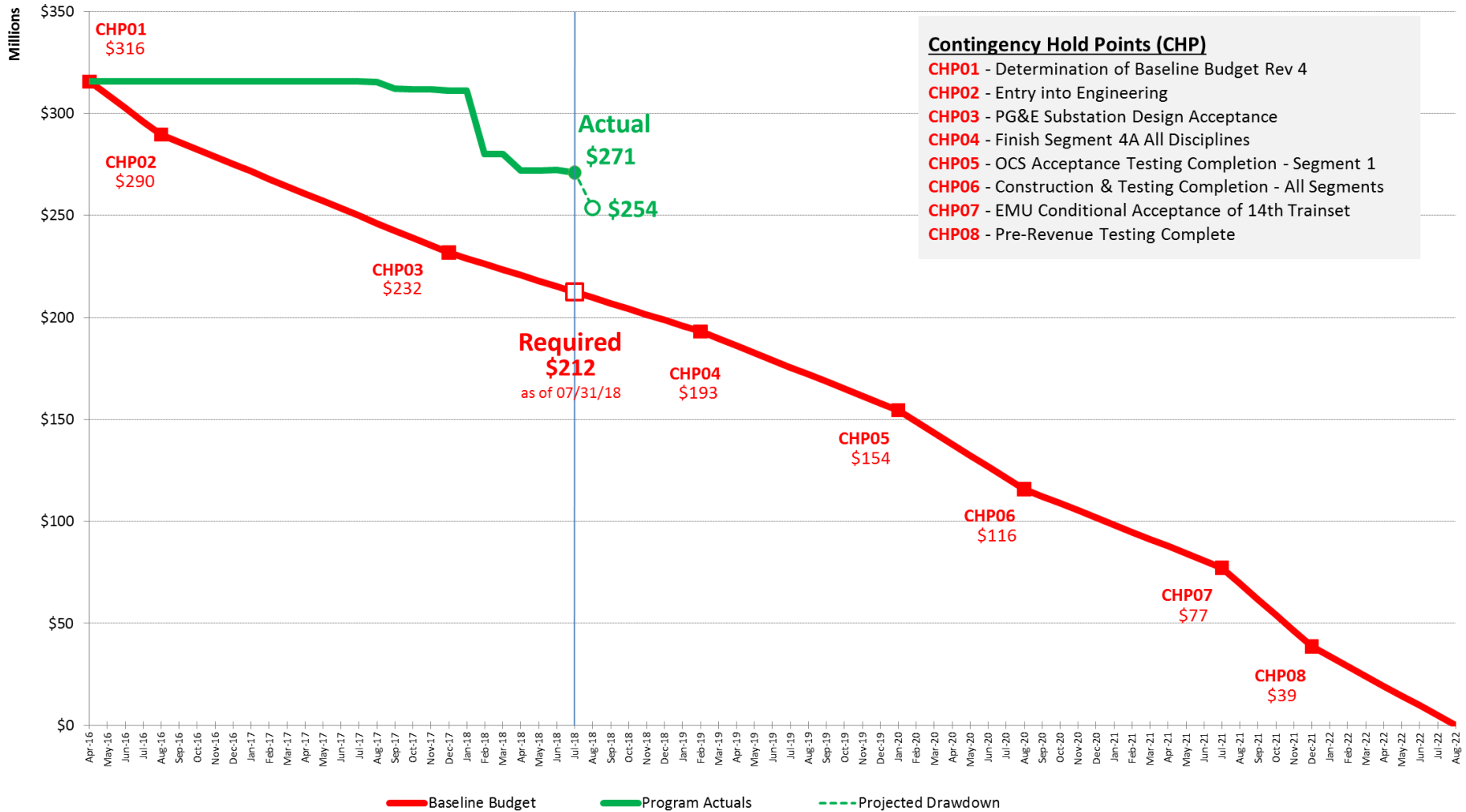
— Baseline Budget — Program Actuals — Future Expenditures - - - Current Available Funds

Contracts	Amount	Contingency
Beginning Contingency		\$315,533,611
Drawdown		
Executed Change Orders	\$9,883,185	
SCADA Contract	\$3,446,917	
PG&E Supplemental #4	\$31,263,082	
Total	\$44,593,184	
Remaining Contingency		\$270,940,427

Note: As of **June 30, 2018**

Contracts	Amount	Contingency
Remaining Contingency		\$270,940,427
Pending Contingency Drawdown		
Change Orders In Process	\$2,556,696	
Tunnel Notching (Awarded in July)	\$14,786,286	
Total	\$17,342,982	
Anticipated Remaining Contingency		\$253,597,445

Note: As of **June 30, 2018**



Change Management Board (CMB) Approved Changes

- Balfour Beatty (BBI) Contract
 - Installation of Insulated Joints and Tie Spacing (April)
 - PG&E Interconnection to TPS#1 and TPS#2 – Design (May)
 - Pole Re-design along UPRR-owned Main Track 1 (Santa Clara to San Jose) (June)
- Other Approvals
 - FFGA delay costs (BBI, Stadler, and Program Oversight Costs (April)
 - Construction Management On-Call Services Contract (April)
 - Tunnel Modifications Contract (May)
 - CEMOF Modifications Contract (June)

COMMUNITY OUTREACH



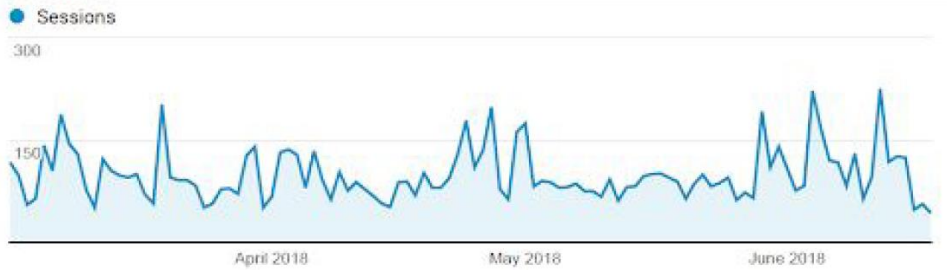
Meetings, Mailers & Website

- 5 Public Meetings
- 17,186 Direct Mailers
- CalMod.org Website
 - +78.95% users (7,396 vs. 4,133)
 - +92.51% sessions (10,894 vs. 5,659)
 - +85,33% page views (27,991 vs. 15,103)
 - 84.2% new visitors this quarter, 15.8% returning visitors

POLE INSTALLATION: TIME-LAPSE VIDEO

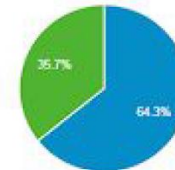


Sessions



Sessions by User Type

■ New Visitor ■ Returning Visitor



CalMod E-Newsletter

APRIL

44.3% OPEN

197 TOTAL CLICK THROUGHS

MAY

46.6% OPEN

135 TOTAL CLICK THROUGHS

JUNE

37.9% OPEN

90 TOTAL CLICK THROUGHS


June 2018

CALMOD E-NEWS

In this issue: Did you look for your favorite exterior train design? See the winning exterior design applied to the first train car! New Traction Power Substation in San Jose underway, construction updates.

CONSTRUCTION UPDATE



Construction to make Caltrain a modern, electric commuter rail system continues! In June, crews began pouring utility ties in San Francisco and Brisbane while continuing foundation for the station in South San Francisco, San Bruno, Millbrae, Burlingame, and San Mateo. Crews have also started construction of the Traction Power Substation in San Jose which will provide power to the overall system once electrified.

To sign up for weekly construction updates or for more construction information, visit CalMod.org/construction.

ELECTRIC TRAINS UPDATE



Electric train manufacturing continued in June, with the first cab donning the Caltrain exterior design (inspired by Caltrain riders and the community). Fabrication of the bathroom and bike car underbodies for the first train is commencing, and carshell #1 includes being in underway on a car car designated for the second trainset. The vehicles continue to take shape as carbody subassemblies and the welding of car shell #1 includes continues.

View more pictures at CalMod.org/gallery.

UPCOMING EVENTS

Local Policy Makers Group (LPMG)
 June 28, 2018 at 6:30 p.m.
 San Jose Administ Office
 1250 J. Borello Mall Forum
 1250 San Carlos Ave., San Carlos

For more details and a full list of upcoming meetings please visit CalMod.org/events.


May 2018

CALMOD E-NEWS: MAY 2018

WHAT IS CALMOD?
 The Caltrain Modernization Program (CALMOD) includes electrification and other projects that will improve the performance, efficiency, capacity, safety and reliability of Caltrain service. The current electrification project will electricify the corridor from San Francisco to San Jose and replace 75 percent of Caltrain's fleet with high-performance electric trains, reducing air pollution and providing better service to more riders.

CalMod.org

CONSTRUCTION UPDATE



Construction to make Caltrain a modern, electric commuter rail system continues! In May, crews continued foundation for the station in South San Francisco, San Bruno, Millbrae, Burlingame, and San Mateo and laid the station work in South San Francisco, San Bruno and Millbrae. In June, crews will begin the construction of the San Jose Traction Power facility which will bring power to the system.

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ELECTRIC TRAINS UPDATE



The month of May marked an exciting time for electric train manufacturing! The first cab car shell underwent its initial inspection and is now being painted with the exterior design. The Caltrain community helped select the second cab car shell is being transported to a laboratory to undergo structural verification testing. The vehicles continue to take shape as carbody subassemblies and the welding of car shell #1 includes continues.

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Sign up at www.CalMod.org/get-involved

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QUESTIONS