


Quarterly Progress Review Meeting No. 23 April 13, 2023

Peninsula Corridor Electrification Project (PCEP)
Peninsula Corridor Joint Powers Board (JPB)/Caltrain
San Mateo, CA

June 5, 2023

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OPs Referenced: #01 Administrative Conditions and Requirements
#25 Recurring Oversight and Related Reports

PMOC Firm:  **Kal Krishnan Consulting Services, Inc. (KKCS)**
800 South Figueroa Street, Suite 1210
Los Angeles, CA 90017

PMOC Lead: Michael Eidlin
Length of Time Firm Assigned to Project: 7 Years, 9 Months
Length of Time Person Assigned to Project: 7 Years, 9 Months

1 EXECUTIVE SUMMARY

1.1 Introduction

This report summarizes Quarterly Progress Review Meeting (QPRM) No. 23 between the Federal Transit Administration (FTA); the FTA's Project Management Oversight Contractor (PMOC), Kal Krishnan Consulting Services, Inc. (KKCS); and the Peninsula Corridor Joint Powers Board (JPB)/Caltrain. JPB/Caltrain is the Project Sponsor for the Peninsula Corridor Electrification Project (PCEP).

The meeting was held at the JPB's headquarters in San Carlos, California on April 13, 2023. The meeting also used Microsoft Teams video collaboration software to communicate via the Internet and a call-in number was also provided. The meeting was shortened slightly to allow additional time for follow-on work session to discuss the next steps related to the JPB's Recovery Plan. The work session was attended by the FTA, the PMOC, and JPB/PCEP leadership.

1.2 Project Description

The Peninsula Corridor Electrification Project (PCEP) is a Core Capacity Improvement Project (CC) located on the peninsula between San Francisco and San Jose, California.

The PCEP consists of the electrification of 51 miles of Caltrain's double-tracked commuter rail line between the 4th and King Station in San Francisco and the Tamien Station in San Jose, and the purchase of 96 Electric Multiple Unit (EMU) vehicles that will be configured as sixteen (16) six-car trainsets. These EMUs will replace approximately 75 percent of Caltrain's current average weekday diesel powered service. The initial EMU order was supplemented in December 2018 when the JPB exercised an option to purchase an additional 37 EMUs; the resulting fleet will consist of nineteen (19) seven-car trainsets; the additional EMUs are not funded through the JPB's Core Capacity grant. The project also includes modifications to the wayside signal system and grade crossing warning systems to accommodate the new electrified rail system, and the installation of Supervisory Control and Data Acquisition (SCADA) equipment to monitor and control the electrification equipment. The infrastructure scope also includes modification by "notching" of four (4) existing rail tunnels to accommodate the expanded clearance envelope of the electrified vehicles. Caltrain's Central Equipment Maintenance and Operation Facility (CEMOF) will also be modified to service the electrified vehicles.

The PCEP is part of a larger JPB initiative known as the Caltrain Modernization Program (CalMod). The CalMod program has separately installed a Positive Train Control (PTC) system, which is an advanced signal system that includes federally mandated safety improvements. The JPB is in the extended Revenue Service Demonstration phase of the PTC project and is interoperable with all tenant railroads. The Federal Railroad Administration (FRA) approved the JPB's Positive Train Control Safety Plan (PTCSP) on December 17, 2020.

1.3 Project Status

The PCEP has a Full Funding Grant Agreement (FFGA) under the FTA's Capital Investment Grant (CIG) program for Core Capacity Improvement Projects; the project is in construction and has entered the testing and commissioning phase.

The FFGA for the PCEP was executed on May 23, 2017. The JPB issued a full notice to proceed (NTP) to the EMU supplier on June 1, 2017, and to the Electrification design-build contractor on June 19, 2017.

The PMOC, at the FTA's request, conducted a virtual Risk Refresh workshop consisting of four (4) half-day sessions that were held on December 8, 10, 15, and 17, 2020. The FTA, based on the results of the December 2020 Risk Refresh effort, designated the PCEP an "At-Risk" project in a letter dated June 30, 2021. The FTA took this action because the PCEP has experienced significant cost overruns and schedule delays. The FTA, following its designation of the PCEP as an at-risk project, requested that the JPB submit a Project Recovery Plan by October 8, 2021.

The JPB, in response to the FTA's at-risk designation, made significant changes to the PCEP management team in early September 2021. The JPB retained Pranaya Shrestha as the new Chief Officer (CO) to lead the PCEP team. The JPB, and the PCEP's new team, took immediate actions to respond to the underlying issues and put the project on a path toward recovery. The JPB requested that the due date for the Recovery Plan be extended to allow the new management team to complete a comprehensive assessment of the PCEP. The FTA agreed to defer the submittal of the plan until Mr. Shrestha and his team could complete additional risk and budget reviews. The JPB has submitted two drafts of its Recovery and Remediation Plan for the PMOC's review and submitted its Recovery Plan to the FTA on April 1, 2022. The FTA and the PMOC reviewed the April 1, 2022, Plan and provided comments to the JPB on May 25, 2022. The JPB submitted its Recovery Plan to the FTA on September 30, 2022. *The PMOC completed its review of the Recovery Plan and submitted its report and recommendations to the FTA on February 10, 2023. The FTA asked the PMOC to provide its report and recommendations to the JPB for comments, and the JPB provided its comments to the FTA and PMOC on April 7, 2023. The FTA and the PMOC met to discuss the JPB's comments, and the FTA subsequently requested a work session with the JPB/PCEP's leadership; that work session occurred following the conclusion of the QPRM.*

The PCEP's TPSS 2 in San Jose was energized on August 27, 2022. *BBII began energized testing on TPSS -2 and was unable to successfully complete its short-circuit test in November 2022. An investigation was conducted, and the identified problems were addressed. BBII's short-circuit re-test in February 2023 again failed, leading the JPB to halt further testing until the root cause of the failures was identified and remedied. That root cause has been identified and BBII believes it has addressed the issues and is now targeting another short-circuit re-test for the weekend of May 20-21, 2023. Conduct of the re-test is contingent upon the satisfactory completion of all required prerequisites. The JPB now expects Segment 4 to be energized for the burn-in of the EMUs in June 2023.*

The JPB has received a total of four (4) EMU trainsets from Stadler US, Inc. *The vehicles have completed static testing at the CEMOF and are awaiting power from the OCS to begin dynamic testing; power is expected to be available for testing on June 5, 2023. Further vehicle deliveries are being postponed until fall 2023 to allow testing of the initial four (4) trainsets to be completed. There is currently a lack of available storage capacity at the JPB.*

1.4 Project Cost and Funding

The JPB received a grant for \$647 million in Section 5309 Core Capacity funding from the FTA. The balance of the project is being financed by a combination of regional, state, and local funds plus additional FTA funding under the Section 5307 Urbanized Area Formula

program. The estimated capital cost of the PCEP in the FFGA is \$1,930,670,934 in the year of expenditure (YOE).

The PCEP’s new leadership focused on resolving the dispute with BBII, as noted above, and “scrubbing” the project budget; these activities were conducted concurrently. Based on the global settlement with BBII and its own scrubbing of the project budget and schedule, the PCEP team produced a re-baselined budget of \$2.44 billion for the PCEP. The re-baselined budget, excluding pre-Project Development expenditures, is \$2.39 billion in comparison to the FFGA budget of \$1.930.7 billion.

The JPB approved the \$2.44 billion budget on December 6, 2021; the budget was accompanied by a tentative funding strategy to support the additional \$462.4 million required by the JPB’s Recovery Plan. The final component of funding for the plan was confirmed on January 31, 2023, when the State of California awarded \$367 million in funding from its Transit and Intercity Rail Capital Program (TIRCP). The final funding sources are shown in the following table.

TYPE	SOURCE	AMOUNT
Federal	ARPA Supplemental CIG	\$52.4 million
Federal	Supplemental FFGA CIG	\$33 million
Federal	FTA Community Project	\$10 million
State	California TIRCP	\$367 million
TOTAL		\$462.4 million

1.5 Project Schedule

The JPB had a very aggressive schedule for completing the PCEP. During the Project Development (PD) Phase, the JPB solicited and received proposals for a Design-Build (D-B) contract for the electrification system and for the supply of its EMU rail vehicles. The JPB executed a design-build (D-B) contract for the electrification work with Balfour-Beatty Infrastructure, Inc. (BBII) on August 15, 2016. The JPB executed a contract for the EMU vehicles with Stadler US on August 15, 2016. The JPB issued Limited Notices to Proceed (LNTPs) for both the Electrification and EMU contracts on September 6, 2016. The LNTPs were extended from March 1, 2017, to June 30, 2017, when the award of the FFGA was delayed. A full NTP was issued to the EMU supplier on June 1, 2017, and to the Electrification design-build contractor on June 19, 2017. The JPB issued a full Notice to Proceed (NTP) on its Tunnel Modifications contract on October 6, 2018. The tunnel contractor completed most of the work during a series of weekend outages in 2019 and completed the installation of the overhead contact system (OCS) hardware in March 2020. The tunnel contractor has completed unpowered testing of the OCS system. The Electrification contractor will complete the final powered testing after the OCS system is energized. The JPB issued a full NTP to the CEMOF modifications contractor on September 16, 2019. Construction work at the CEMOF was delayed by various factors but was completed on July 13, 2022; the project is now in close-out.

The global settlement between the JPB and BBII established a new Final Completion Date (FCD) for the Electrification contract of July 31, 2024, and a new Overall Substantial Completion Date of April 30, 2024. The settlement, as noted above, includes incentives for early completion of cutovers, early substantial completion, early Final Completion, and early achievement of Revenue Service prior to the Final Completion Date. BBII prepared and

submitted a re-baselined schedule as part of the global settlement negotiation process, and the JPB has reviewed and accepted that schedule. The details of BBII's re-baselined schedule have been incorporated into the JPB's Master Project Schedule. The JPB's has proposed a December 31, 2024, Required Completion Date (RCD) in its Recovery Plan.

Completion of the signal system, which for a long time was the critical path to contract completion, now appears to be moving ahead smoothly. The next major cutover, scheduled for April 17 through May 2, 2023, will be Segment 3, Phases 1, 2, and 3 in the communities of Palo Alto, Mountain View, and Sunnyvale. This is the last of the cutovers in Segment 3. The two (2) remaining cutovers are in Segment 1; Phase 1 is scheduled for completion in June/July 2023 and Phase 2, the 4th and King Station and yard, is scheduled for completion in August 2023. Note there is a \$2 million incentive for completing all cutovers on or before September 30, 2023.

The project's critical path continues to run through the completion of the OCS and integrated testing of the overall system. *The JPB and BBII, its Electrification contractor, have recently agreed on a path to the completion of the Electrification contract. The objective is to achieve substantial completion of the contract before the end of 2023. The JPB has initiated a series of thirty-one geographically targeted weekend rail service shutdowns, supported by bus bridges, to provide BBII's crews with unrestricted access to designated areas of the rail corridor. BBII's productivity during the first few weekends was less than expected, however, productivity during the most recent shutdowns has improved. BBII recently completed a re-forecast schedule with a January 1, 2023, data date which will be used by both BBII and the JPB to measure progress and productivity going forward. This reforecast schedule, recently updated through March 2023, is being used by the JPB to produce its Integrated Master Schedule (IMS).*

Assembly of the EMU trainsets continues to be affected by supply chain impacts. Four (4) trainsets are on-site and awaiting an energized OCS system to complete powered testing and acceptance. Stadler is holding further deliveries until sufficient storage is available at JPB.

Stadler's delivery schedule still shows delivery of the 14th trainset (TS-14) in March 2024. Fourteen (14) trainsets are required to satisfy the Core Capacity requirements of the FFGA. The commencement of the Electrified Revenue Service is dependent on the completion of the Electrification contract elements and the availability of permanent power from the Pacific Gas and Electric Company (PG&E) to complete testing and initiate full operations with the EMU fleet. The JPB is continuing to discuss how it will initiate electrified revenue service, i.e., incrementally or after the EMU fleet is sufficient to support regular service.

1.6 Significant Unresolved Issues

- Timely completion of the overhead contact system remains the critical path to the completion of the project. BBII's productivity has been less than required, despite added resources, and the project schedule is showing small continuing loss of float. *The JPB and BBII are implementing the plan to completion described above; the first weekend shutdown occurred on February 11 and 12, 2023.*
- BBII is conducting a series of tests in Segment 4 following the energization of TPSS-2. The Sectionalization tests were successfully conducted in October 2022; however, the follow-on short-circuit test was unsuccessful. *The JPB has requested that BBII audit its TPS installation, and that is continuing. A subsequent short-circuit re-test conducted in*

February 2023 was also unsuccessful and the JPB directed BBII to halt further testing until the root cause of the failure was determined. BBII and its team concluded that the root cause was due to crews using different versions of the installation drawings, and associated document control problems. Remediation of the causal issues is underway and BBII is now targeting a short-circuit re-test on May 20 and 21, 2023. The re-test will be preceded by a load bank test, which will place a load on the substation, without using an EMU. Both the JPB and BBII view the successful completion of the next short-circuit re-test as critical.

1.7 PMOC Observations

- The coordination between the various technical teams appears to be going well, the meetings are short and well run and usually quickly documented.
- The message to the FTA and the PMOC for at least the last two months has been we are too busy to meet with you. The PMOC regularly monitors some of the standing meetings, and that is very helpful. However, the PMOC needs more time with the various discipline leads to explore issues in-depth, and that is inappropriate in a standing meeting with many participants.
- It is difficult to accurately gauge progress because of the delayed delivery of BBII's monthly schedule updates, and the resulting impact on the PCEP Integrated Project Schedule. Monthly schedule review meetings have been canceled more than once. These meetings should go forward using the PCEP's own schedules if current BBII schedules are unavailable.
- BBII's productivity during the weekend outages has been less effective than expected. This has led to more high-level JPB-BBII meetings to work out the issues. The outcome of these meetings is unclear.
- It seems that some members of the team think they can already see the finish line and is rushing to get there. This is not the time to lose focus and take short cuts. This topic was the subject of the safety moment at yesterday's Rail Activation meeting.
- PCEP has brought in subject matter experts for SIT, Rail Activation, Safety and Security Certification, and Operation Support. This has been very beneficial to the project. However, the PCEP executive level management is overloaded with day-to-day and long range planning efforts to complete the project. The PMOC strongly recommends that the Executive Director meet with the PCEP executive team and help them redistribute some of their workloads so they can focus on issues that the ED considers critical to successful project delivery. An outcome could be adding support staff to the PCEP executive team, enhancements in project documentation, and redistribution of some of the workload. The retention of institutional knowledge is particularly important on large complex projects such as PCEP. Currently the PCEP executive staff, as consultants, will leave the job once the project is completed. Redistribution of some of the current work to permanent staff will allow Caltrain to retain this vital institutional knowledge.

1.8 Action Items

No new Action Items were identified during QPRM No. 23. Action Item 13.02 has been updated to reflect the new path forward and will remain open until completed. The current list of Action Items is attached as Appendix D.

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1 Welcome, Introductions and Introductory Comments – Michelle Bouchard

Michelle Bouchard asked Jim Brown of the PCEP Safety team to provide a safety moment. Mr. Brown said that this is safe driving month and distracted driving should be avoided, pull over to take a call or send a text.

1.1 FTA – Ray Tellis

Ray Tellis welcomed everyone to the meeting. He said that he had met earlier with Ms. Bouchard to discuss the Programmatic Agreement and the meeting was very effective. There will be a work session following the meeting to discuss oversight and the Recovery Plan.

- PCEP is grandfathered from the requirements of the Buy America Build America Act except for any new contracts.
- Janice Abaray has left FTA and will be joining FRA. Mr. Tellis thanked her for all her work and dedication.
- Mr. Tellis introduced Catherine Luu, who will be taking over responsibility for the PCEP project. Ms. Luu is very experienced and capable.
- The light at the end of the tunnel is becoming visible.
- Mr. Tellis thanked the representatives from the Federal Railroad Administration (FRA), the California Public Utilities Commission (CPUC), and all of Caltrain's funding partners for their oversight and participation.
- FTA will hold the JPB responsible for complying with its Recovery Plan. Mr. Tellis said he is pleased that funding for the Plan is in place.
- The JPB has asked for a ridership waiver request; that will be discussed later.
- Mr. Tellis invited Michelle Bouchard to make any opening remarks.

1.2 Caltrain – Michelle Bouchard

Ms. Bouchard welcomed Catherine Luu to the project. She said that she wished Janice Abaray was attending the meeting; their relationship goes back to the start of the Positive Train Control (PTC) program. Ms. Bouchard described Caltrain's commitment to safety.

- The agency is moving into a new environment with electrification.
- Mike Meader is the new Director of Safety. He is focused on Caltrain's safety culture. This will apply to the entire organization, as "one" organization.
- Caltrain's Executive team recently spent 20 hours in a room, discussing important topics.
 - Post-pandemic, ridership is about 25-30% of pre-pandemic levels.
 - Pre-pandemic, the farebox provided 75% of the required revenue.
 - There was a financial workshop held two weeks ago. The attendees discussed the "fiscal cliff," which is a regional issue.
 - Ms. Bouchard thanked the FTA for the additional \$43 million in funding; this postpones the fiscal cliff by two (2) years.

Ms. Bouchard concluded her remarks and returned the meeting to Mr. Tellis. Mr. Tellis asked Pranaya Shrestha to begin the formal presentations. Mr. Shrestha began with an overview of the PCEP.

2 PCEP Program Update – Pranaya Shrestha

- Funding is in place and now the focus shifts to delivering the project.
- The project can be divided into three (3) phases.
- Phase 1 was the project prior to the Global Settlement.
- Phase 2 followed the Global Settlement; BBII started with a clean sheet of paper and a re-baselined schedule.

- BBII was not making its OCS production targets.
- BBII brought in additional resources, but still could not make the necessary production.
- A new approach was developed consisting of 31 targeted weekend rail service shutdowns.
- BBII developed a re-forecast schedule with all delays mitigated as of December 31, 2022.
- There have been no claims up to this time.
- Caltrain was not obligated to shut down rail service to help BBII; who bears the cost of the shutdown is under discussion.
 - BBII has been notified that it is expected to bear the JPB's delay costs.
 - BBII was told to stop further testing after the second failed short-circuit test and conduct a failure analysis.
 - BBII's analysis showed a lack of document control and version control. Stacy Cocke has taken responsibility for following up on the solution.
- BBII has a complete plan and has brought in a new Project Manager and Superintendent.
- PCEP now has three (3) traction power engineers, one was formerly with Amtrak.
- JPB is working on its relationship with BBII, it is not perfect.
- BBII was still not making production. This issue was escalated to BBII worldwide.
 - BBII has brought eighteen (18) high-level personnel to the project.
 - Ms. Bouchard and Mr. Shrestha met with BBII's CEO and the President of US Infrastructure.
 - Issues discussed included materials management, sequencing, and adequate resources.
 - BBII's wire train has had a high failure rate. This is being taken out of the production equation. If the wire train can be used, it adds 30% to production.
- BBII has exceeded its production targets in the last three (3) weeks; however, a substantial increase in production is still required.
- Mr. Shrestha said that he and his BBII counterpart meet for breakfast every Friday.
- Mr. Shrestha said he has asked if BBII is just setting the JPB up for another claim. BBII has verbally responded "no."
 - The number of changes has been reduced significantly.
 - There is now a single re-forecast schedule.
 - The PCEP team is being given very detailed three-week look-ahead schedules; these are being used to verify production.
 - Improvements to BBII's Procore document control system is a "work in progress."
 - BBII has brought in an independent testing laboratory to verify required tests.
 - ARUP is checking the TPS design.
 - The head of the BBII-owned Traction Power Group (TPG) is also reviewing the TPS.
- Regarding Claim prevention and claim mitigation, Mr. Shrestha said that at a high level, the Issue Resolution Log (IRL) has been very effective.
 - BBII has fourteen (14) days to formally file a Notice of Claim; none have been filed.
 - Mr. Shrestha said he has written several letters to BBII but does not want to start a letter writing campaign.
 - The first letter was after the first failed short-circuit test.
 - A more recent letter reminded BBII of its responsibility for JPB's costs.
- Mr. Shrestha said he is in the tunnel but does not yet see the light.
- PG&E has an important role in the project. Stacy Cocke has been very helpful in improving the working relationship with PG&E.
 - A four (4) month notice period is required before TPSS1 can be energized.

Mr. Shrestha concluded by thanking everyone for their recommendations, even though the parties may have different approaches to dealing with the issues. He also said that working with the funding partners has been a good experience.

Mr. Tellis thanked Mr. Shrestha for a favorable account. The PMOC's observations will address some of the topics later in the meeting.

3 **Safety**- Jim Brown

- The year started well with no recordable injuries in January and February.
- There was one (1) recordable incident in March 2023.
- There were eleven (11) recordable incidents in 2022, but BBII's Recordable Incident Rate for inception to date remains below the industry average.
- There have been three (3) serious storms on January 5, January 10, and March 4, 2023. The storms brought lots of impacts, but fortunately no injuries.
- Stacy Cocke is leading the development of a tree mitigation plan for the agency.
- Replacements for the storm damaged equipment are on order and scheduled for July 2023 delivery.

Mr. Tellis asked about the impact on the supply chain. Mr. Shrestha said that the lead times are stretching out. Ms. Bouchard said that it is a corridor-wide issue but has been most noticeable in Burlingame.

Mr. Tellis asked about the inventory of poles. Mr. Shrestha said there is currently a shortage of real estate on which to store spares.

- Training of personnel in OCS awareness has been done and new personnel are being trained as they come on board.
- The JPB's Safety Task Force continues to meet following the March 10, 2022 incident to address Roadway Worker Protection (RWP).
 - Shunting is being performed and a new system of dispatcher checks and balances will be implemented in June 2023.
- The safety task force formed after the March 10, 2022 incident continues to meet weekly and monthly.
- First responder training has been completed in Segment 4; over 150 personnel have been trained to date.
- Training of Segment 3 first responders is next, to be followed by San Mateo County and San Francisco.
- The voice-over presentation on OCS Awareness is being updated.
- BBII is putting together a document package for Safety and Security Certification.
- After the short-circuit test is complete, a Temporary Use Permit (TUP) will be issued for the Santa Clara Drill Track (SCDT) where initial electrification of the EMU will take place. After that has occurred, the process will move to the remainder of Segment 4.
 - Testing of the CEMOF will be done separately.
- BBII will issue a Certificate of Operational Conformance (COC) when all testing is complete in Segment 4, and in each remaining segment until final end-to-end testing is completed.

- The final cutovers in Segment 3, Phases 1, 2, and 3, will be completed from April 17 through May 1, 2023.

4 **Agency Trends** – Ted Burgwyn

- Caltrain has generally been running 104 trains per day.
- February through May 2023 partial weekend shutdowns for OCS construction are underway.
 - Phase 1 is complete.
 - Phase 2 has one more weekend.
 - Six weekends remain in Phases 3 and 4.
 - Additional closures will occur between June and September 2023.
- Ridership is trending up.

5 **Legal Issues** – Michelle Bouchard

Ms. Bouchard said there are no lawsuits.

6 **Organization** – Michelle Bouchard, Pranaya Shrestha

- Mr. Shrestha said that the organization is now fully staffed, and the focus is on retaining the current staff through the end of the project.
- Brent Tietjen is a great addition to the Caltrain organization.
- Ms. Bouchard said they are now in the first two-year budget cycle, and more positions are needed.
 - One challenge is the high cost of living in the area, another is the need for specialized talent.
 - The “great resignation” is also a problem.

7 **Key Project Issues** – Pranaya Shrestha

- Mr. Shrestha said that they have a plan for the Recovery Plan.

Ray Tellis said that staffing and management capacity is very important.

8 **Environmental Mitigation Status** – Stacy Cocke

- The JPB has a clear understanding of what is needed to satisfy the State Historic Preservation Officer (SHPO) with respect to the new Programmatic Agreement (PA); a new memo will be ready either tomorrow or next Monday (April 17, 2023).

Ray Tellis said that he fully supports the work that Ms. Cocke is doing, including the PA.

9 **FRA/CPUC Update** – Stacy Cocke

- Work continues on the General Order (GO-88B) permits for the CPUC. They are being done one jurisdiction at a time.
- A lesson learned on the GO-88Bs is to “start early.”

The PMOC asked about the current status of the Union Pacific Railroad’s (UPRR’s) Reed Street crossing. Ms. Cocke said that UPRR will move the predictor into the JPB’s signal house. PCEP will write-up the procedure and send it to the UPRR this week. The administrative process should be complete by the first week in May. The objective is to complete the work prior to the short-circuit test.

10 **Third-party Agreement Update** – Lin Guan

- The counties are asking for maintenance agreements.

- There is one outstanding agreement with the City and County of San Francisco (CCSF).
- There is one remaining Comcast line relocation; the line will be removed next week.
- PG&E has agreed to de-energize its lines in specific locations to support BBII's remaining OCS construction work.

The PMOC asked about progress on the CalTrans bridge barrier permits. Sherry Bullock said that there is a meeting underway at the present time on that issue.

11 **Real Estate** – Brian Fitzpatrick

- The status of the Brisbane properties remains unchanged. Mr. Fitzpatrick said he is not concerned because there is an agreement on price.
- There have been a few new parcels identified, mostly for Electrical Safety Zones. Eight (8) new parcels have been acquired to date, and there is still a possibility that more will be needed.

Ray Tellis asked about the FTA's concurrence on acquisitions. Mr. Fitzpatrick said they have gotten concurrence in the past, and they have appraisals and review appraisals completed. Mr. Tellis warned not to let the appraisals get stale.

12 **Construction** – Andy Mutz, Stacy Cocke

- BBII is now producing a weekly quantity tracker for all OCS activities that is distributed to all parties. An example is shown below.

Commodity	Segment 1-4			Segment 4			Segment 3			Segment 2			Segment 1		
	Completed	Left to Go	%	Completed	Left to Go	%	Completed	Left to Go	%	Completed	Left to Go	%	Completed	Left to Go	%
Messenger Wire	585,397	185,780	75.91%	92,199	2,571	97.29%	214,450	0	100.00%	178,572	139,842	56.08%	100,176	43,368	69.79%
Contact Wire	578,428	205,872	73.8%	105,321	2,571	97.6%	214,450	0	100.0%	178,572	139,842	56.1%	80,085	63,459	55.8%
Feeder Wire	408,429	97,929	80.7%	57,846	2,186	96.4%	162,486	0	100.0%	143,253	84,457	62.9%	44,845	11,286	79.9%
Static Wire	536,782	67,970	88.8%	114,660	1,982	98.3%	161,788	0	100.0%	169,965	50,031	77.3%	90,369	15,957	85.0%
Poles	2,442	30	98.8%	388	0	100.0%	749	0	100.0%	864	28	96.9%	441	2	99.5%
Beams (long-reach, portal & truss beams)	989	59	94.4%	182	0	100.0%	207	0	100.0%	447	56	88.9%	153	3	98.1%
Cantilevers (including drop tubes)	5,881	678	89.7%	1,034	0	100.0%	1,469	0	100.0%	2,177	610	78.1%	1,201	68	94.6%
Feeder & Static Assemblies	7,507	587	92.7%	998	0	100.0%	2,185	0	100.0%	3,368	448	88.3%	956	139	87.3%
Regulation	2,084	2,628	44.2%	470	0	100.0%	1,201	0	100.0%	395	1,592	19.9%	18	1,036	1.7%
			82.1%			98.8%			100.0%			69.4%			74.6%
High Pot	40	87	31.5%	40	0	100.0%	0	15	0.0%	0	36	0.0%	0	36	0.0%
Loop Test	54	106	33.8%	40	0	100.0%	14	26	35.0%	0	50	0.0%	0	30	0.0%
Panning	98	156	38.6%	43	0	100.0%	55	0	100.0%	0	93	0.0%	0	63	0.0%
			34.6%			100.0%			45.0%			0.0%			0.0%
			71.14%			99.11%			87.31%			53.36%			57.41%

The PMOC asked to be added to the distribution of the document. The PMOC also suggested adding a trend log to the bottom of the table so that progress is readily apparent.

The PMOC asked about the schedule slippage that occurred in Milestone 1. Sherry Bullock replied that it is a result of the short-circuit test failure and completion of TPSS-2.

- The focus is finishing TPSS-2.
- PG&E has committed to energizing TPSS-1 in August 2023; then testing of Segments 1 and 2 will be possible.
- There have been three (3) audits on the TPS; and a Task Force is meeting weekly.
- Pranaya Shrestha commented that there are less than one hundred open punch list items in Segment 3.
- Modern Railway Signals (MRS), the signal installer, will proceed to finish the remaining signals work, and any remaining punch list work.
- Disadvantage Business Enterprise (DBE) participation exceeds the contract goal of 5.2%.

- BBII reports that it has paid DBEs a total of \$62,516,555 compared to a \$57,051,794 goal based on the current contract value of \$1,097,149,880.
 - 26 DBE firms have been identified as of March 10, 2023.

13 **Vehicle Update** – Greg Cameron

- There will be no more EMU deliveries until fall 2023.
- The 14th trainset is still scheduled to be delivered by April 2024. *PMOC note: Revenue operation with fourteen (14) seven (7) car trainsets would satisfy the capacity requirements of the FTA's Core Capacity FFGA.*

14 **Schedule** – Jeff Werner

- The team is tracking BBII's schedule updates as they come in.
- BBII's December 2022 IMS Re-forecast Schedule was completed on March 6, 2023.
- A lot of internal work is occurring between the PCEP and BBII schedule teams.
- BBII submitted its March 2023 update (April 1 data date) today, April 13, 2023.
- The scheduling team is keeping close track of schedule submittals, scrutinizing documentation to identify potential claims, and reviewing Inspector's Daily Reports (IDRs).

15 **Budget and Cost** – Ira Ray

- The contingency balance is \$81.83 million.
- The State of California's Transit and Intercity Rail Capital Program (TIRCP) funding should arrive in May and August 2023.
- Cash flow is good through mid-2024; the timing of the PG&E re-payment is still uncertain.

The PMOC asked for an update on the status of the JPB's drawdown of federal funds. Mr. Ray said he will provide one.

16 **Risk Update** – Alan Brick-Turin

A risk update was not presented because of the shortness of remaining time. Everyone agreed that the risks had already been well discussed.

17 **Quality** – Stephen Chao, Brandon Roby

- The number of audits and surveillances has been increased.
- BBII is correcting its problems as they appear.
- The JPB is expecting BBII to provide an indented bill of materials tomorrow, April 14, 2023. This will allow an accurate assessment of BBII's Buy America Compliance, which has not been possible without this document.

The PMOC asked Mr. Shrestha if Denver's Regional Transit District (RTD) had any problems with Buy America compliance on their projects. Mr. Shrestha said he did not recall any.

- The JPB has identified a lesson learned related to the pricing of early delivery of required documentation.

18 **Readiness for Electrified Operations** – Russ Larson, Mark Clendennen

- Recent accomplishments include:
 - OCS Safety Awareness Training and training on Electrical Operating Instructions has been completed.

- Updated Timetable, Operating Rules, and System Special Instructions are ready for distribution.
- Operational SOP's have been completed and signed by both JPB and TASI.
- CEMOF Isolation and Scissor Lift Operation SOPs are pending signatures and are ready for CEMOF energization.
- High Voltage Warning Signage required for the Right of Way and Stations Segment 4 is complete and installation for Segment 3 is in progress.
- EMU Train Crew refresher will be performed when the SCDT is powered on.
- The FRA required Passenger Train Emergency Preparedness Plan (PTEPP) / (EPREP) has been submitted to the FRA and is pending the conditional approval letter. A subsequent site visit / audit must occur within 180 days as a requirement for full approval.

19 Public Outreach – Brent Tietjen

- Public tours of the EMUs are being planned for summer 2023.

20 Current/Future Projects – Rob Barnard

- A Notice to Proceed (NTP) has been given to the contractor for the Broadband Wireless Communications Project.
- Rehabilitation of the Bayshore station (Segment 1) is wrapping up; there is some potential for interference as a result of the contractor's scaffolding.
- Work on the Guadalupe River Bridge replacement (Segment 4) is underway. OCS wires were removed in advance of construction.
- Work is on schedule to permit the re-installation of the OCS by September 2023.
- Seven (7) new members have been added to the Capital Projects team; two (2) are assigned to the Downtown Rail Extension (DTX).
- Five (5) projects have been identified totaling \$1 billion.

21 PMOC Observations

- The coordination between the various technical teams appears to be going well, the meetings are short and well run and usually quickly documented.
- The message to the FTA and the PMOC, for at least the last two months, has been we are too busy to meet with you. The PMOC regularly monitors some of the standing meetings, and that is very helpful. However, the PMOC needs more time with the various discipline leads to explore issues in-depth, and that is inappropriate in a standing meeting with many participants.
- It is difficult to accurately gauge progress because of the delayed delivery of BBII's monthly schedule updates, and the resulting impact on the PCEP Integrated Project Schedule. Monthly schedule review meetings have been canceled more than once. These meetings should go forward using the PCEP's own schedules if current BBII schedules are unavailable.
- BBII's productivity during the weekend outages has been less than expected. This has led to more high-level JPB-BBII meetings to work out the issues. The outcome of these meetings is unclear.

- It seems that some members of the team think they can already see the finish line and are rushing to get there. This is not the time to lose focus and take short cuts. This topic was the subject of the safety moment at yesterday's Rail Activation meeting.
- PCEP has brought in subject matter experts for SIT, Rail Activation, Safety and Security Certification, and Operation Support. This has been very beneficial to the project. However, the PCEP executive level management is overloaded with day to day and long range planning efforts to complete the project. The PMOC strongly recommends that the Executive Director (ED) meet with the PCEP executive team and help them redistribute some of their workloads so they can focus on issues that the ED considers critical to successful project delivery. An outcome could be adding support staff to the PCEP executive team, enhancements in project documentation, and redistribution of some of the workload. The retention of institutional knowledge is particularly important on large complex projects such as PCEP. Currently the PCEP executive staff, as consultants, will leave the job once the project is completed. Redistribution of some of the current work to permanent staff will allow Caltrain to retain this vital institutional knowledge.

22 Action Items – PMOC

- No Action Items were added to the list; a slight change was made to the status of Action Item 13.02.

23 Wrap-up – The meeting adjourned at 3:50 p.m.

The QPRM was followed, after a short break, by a working session to discuss the JPB's Recovery Plan. The meeting was comprised of representatives of the FTA, the PMOC, and the leadership of the JPB and PCEP.

Appendix A: List of Acronyms

AAR	Association of American Railroads
ADA	Americans with Disabilities Act
AIM	Accelerating Innovative Mobility
APTA	American Public Transportation Association
APC	Automated Passenger Counter
ARINC	Aeronautical Radio, Incorporated
ARPA	American Rescue Plan Act of 2021
ASME	American Society of Mechanical Engineers
AVT	Alternative Vehicle Technology
BA	Buy America
BAAH	breaker- and-a-half
BAFO	Best and Final Offer
BART	Bay Area Rapid Transit District
BBII	Balfour-Beatty Infrastructure, Inc.
BIL	Bipartisan Infrastructure Law
BUILD	Better Utilizing Investments to Leverage Development
CalMod	Caltrain Modernization Program
CAR	Corrective Action Request
CARB	California Air Resources Board
CARES	Coronavirus Aid, Relief, and Economic Security Act
CBOSS	Communications Based Overlay Signal System
CC	FTA's Core Capacity Improvement Program
CCIP	Contractor Controlled Insurance Program
CCSF	City and County of San Francisco
CDFW	California Department of Fish and Wildlife
CDRL	Contract Document Requirement List
CEMOF	Central Equipment Operations and Maintenance Facility
CEO	Chief Executive Officer
CEQA	California Environmental Quality Act
CFO	Chief Financial Officer
CGA	Construction Grant Agreement
CHSRA	California High Speed Rail Authority
CIG	Capital Investment Grant
CMB	Change Management Board
CNPA	Concurrent Non-Project Activity
CO	Change Order
COP	<i>Certificate of Operational Conformance</i>
CP	Control Point
CPM	Critical Path Method
CPUC	California Public Utilities Commission
CRISI	Consolidated Rail Infrastructure and Safety Improvements
CRRSAA	Coronavirus Response and Relief Supplemental Appropriations Act of 2021
CSCG	City/County Staff Coordinating Group

CWT	Constant Warning Time
DART	Days Away, Restricted or Transferred
D-B	Design-Build
DBE	Disadvantaged Business Enterprise
DCN	Design Change Notice
DEIR	Draft Environmental Impact Report
DMU	Diesel Multiple Units
DOT	Department of Transportation
DRB	Dispute Resolution Board
DSC	Differing Site Conditions
EA	Environmental Assessment
EAC	Estimate at Completion
ECHO	Electronic Clearing House Operation
<i>ED</i>	<i>Executive Director</i>
EE	Entry into Engineering
EEO	Equal Employment Opportunity
EIC	Employee in Charge
EIR	Environmental Impact Report
EMI	Electromagnetic Interference
EMU	Electric Multiple Unit Rail Vehicle
<i>EPREP</i>	<i>Emergency Preparedness Plan</i>
EOI	Electrical Operating Instruction
ESA	Environmental Site Assessment
ESZ	Electrical Safety Zone
FAI	First Article Inspection
FAQ	Frequently Asked Questions
FAST	Fixing America's Surface Transportation Act
FASTER	Faster Bay Area Initiative
FAT	First Article Test
FCA	Financial Capacity Assessment
FCD	Final Completion Date
FEIR	Final Environmental Impact Report
FERC	Federal Energy Regulatory Commission
FFGA	Full Funding Grant Agreement
FHWA	Federal Highway Administration
FLSC	Fire Life Safety Committee
FMOC	Financial Management Oversight Consultant
FMP	Fleet Management Plan
FONSI	Finding of No Significant Impact
FQT	Field Qualification Test
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FTE	Full-time Equivalent
FY	Fiscal Year
GO	California Public Utilities Commission General Order

HART	Honolulu Authority for Rapid Transportation
HEALS	Health, Economic Assistance, Liability Protection and Schools Act
HEROES	Health and Economic Recovery Omnibus Emergency Solutions Act
HISEP	High-Intensity Strategic Enforcement Program
H.R.2	116th Congress (2019-2020)
HSR	High Speed Rail
HVAC	Heating, Ventilation, and Air Conditioning
IBEW	International Brotherhood of Electrical Workers
ICAP	Internal Cost Allocation Plan
ICO	Interim Chief Officer
IDR	<i>Inspector Daily Report</i>
IFB	Invitation for Bids
I-ETMS	Wabtec's Interoperable - Electronic Train Management System
IFC	Issue for Construction
IMS	Integrated Master Schedule
INVEST	Investing in a New Vision for Environment and Surface Transportation in America Act
IRR	Incident Rate Ratio (Safety)
JPB	Peninsula Corridor Joint Powers Board
KKCS	Kal Krishnan Consulting Services, Inc.
LNTP	Limited Notice to Proceed
LPMG	Local Policy Makers Group
MCC	Management Capacity and Capability
MCP	Major Capital Project
MCS	Modern Communication Systems
MMRP	Mitigation Monitoring and Reporting Program (Environmental)
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MPS	Master Project Schedule
MRR	Material Receiving Report
MRS	Modern Railway Systems
MTC	Metropolitan Transportation Commission
NCR	Non-Conformance Report
NCTD	North County Transit District
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOFO	Notice of Funding Opportunity
NPRM	Notice of Proposed Rulemaking
NTI	National Transit Institute
NTP	Notice to Proceed
NTSB	National Transportation Safety Board
NYCTA	New York City Transit Authority
OCS	Overhead Contact System
OHA	Operational Hazard Analysis
O&M	Operations and Maintenance

OSHA	Occupational Safety and Health Administration
P3	Public-Private Partnership
<i>PA</i>	<i>Programmatic Agreement</i>
PCEP	Peninsula Corridor Electrification Program
PCWG	Peninsula Corridor Working Group
PD	Project Development Phase
PEPRA	California Public Employees' Pension Reform Act
PG&E	Pacific Gas and Electric
PHA	Preliminary Hazard Analysis
PMOC	Project Management Oversight Contractor
PMP	Project Management Plan
PRO	Pre-Revenue Operation
PRS	Phased Revenue Service
PS	Paralleling Station
PSP	Product Safety Plan (FRA)
PTASP	Public Transportation Agency Safety Plan
PTC	Positive Train Control
PTCSP	Positive Train Control Safety Plan
<i>PTEPP</i>	<i>Passenger Train Emergency Preparedness Plan</i>
PTG	Parsons Transportation Group
QA	Quality Assurance
QC	Quality Control
QMP	Quality Management Plan
RAB	Rail Alignment and Benefits Study
RAC	Rail Activation Committee
RAMP	Real Estate Acquisition Management Plan
RAP	Rail Activation Plan
RCD	Required Completion Date (FFGA)
RFA	Request for Amendment (FRA)
RFMP	Rail Fleet Management Plan
RFP	Request for Proposal
RIMP	Risk Identification and Management Plan
RIR	Recordable Incident Rate
ROW	Right of Way
RSD	Revenue Service Demonstration (FRA)
RTD	Regional Transportation District
RWIC	Roadway Worker in Charge
RWP	Roadway Worker Protection
SamTrans	San Mateo County Transit District
S&P	Standard & Poor's
SCADA	Supervisory Control and Data Acquisition
SCC	Standard Cost Category
SCVTA/VTA	Santa Clara Valley Transportation Authority
SCVWD	Santa Clara Valley Water District
SEPTA	Southeastern Pennsylvania Transportation Authority

SF	City of San Francisco
SFCTA	San Francisco County Transportation Authority
SHPO	State Historic Preservation Office
SIT	System Integration Testing
SITP	System Integration and Testing Plan
SJ	City of San Jose
SMART	Sonoma Marin Area Rail Transit
SMCTA	San Mateo County Transportation Authority
SMCTD	San Mateo County Transportation District
SME	Subject Matter Expert
SMS	Safety Management System
SOGR	State of Good Repair
<i>SOP</i>	<i>Standard Operating Procedure</i>
SPUR	San Francisco Planning and Urban Research
SSCC	Safety and Security Certification Committee
SSCP	System Safety Certification Plan
SSDCC	Safety and Security Design Certification Committee
SSF	South San Francisco
SSMP	Safety and Security Management Plan
SSOA	State Safety Oversight Agency
SSF	South San Francisco
SSPP	System Safety Program Plan
SSWP	Site Specific Work Plans
SVP	Silicon Valley Power
SWS	Switching Station
TAD	Track Access Delay
TAM	Transit Asset Management
TASI	Transit America Services, Inc.
TES	Traction Electrification System
TIA	Time Impact Analysis
TIGER	Transportation Investment Generating Economic Recovery
TIP	Transportation Improvement Program
TIRCP	Transit and Intercity Rail Capital Program
TJPA	Transbay Joint Powers Authority
TLOA	Transmission Load Operating Agreement
TOD	Transit Oriented Development
TPD	Trains per Day
<i>TPG</i>	<i>Traction Power Group</i>
TPS	Traction Power System
TPSS	Traction Power Substation
TrAMS	Transportation Award Management System
TSA	Transportation Security Administration
TSO	Transit Safety Office
TTCI	Transportation Technology Center, Inc.
TriMet	Tri-County Metropolitan Transportation District of Oregon

<i>TUP</i>	<i>Temporary Use Permit</i>
TVA	Threat and Vulnerability Analysis
2SC	Two Speed Check
UPRR	Union Pacific Railroad
USDOE	United States Department of Energy
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
VE	Value Engineering
VTa	Santa Clara Valley Transportation Authority
WA	Work Area
WPC	Wayside Power Cubicle
YOE	Year of Expenditure

Appendix B: QPRM No. 23 Meeting Agenda

AGENDA

FTA QUARTERLY PROGRESS REVIEW MEETING NO. 23

Grantee/Project Sponsor: Peninsula Corridor Joint Powers Board (Caltrain)

Project: Peninsula Corridor Electrification Project (PCEP)

Location: 1250 San Carlos Ave., San Carlos, CA 94070

Date: Thursday, April 13, 2023

Time: 1:30 PM to 3:00 PM (PDT)

Microsoft Teams meeting Link

Join on your computer, mobile app or room device

[Click here to join the meeting](#)

Meeting ID: 261 701 250 456

Passcode: jwjS3U

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[+1 323-618-1873,480791526#](#) United States, Los Angeles

Phone Conference ID: 480 791 526#

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Participants: Federal Transit Administration (FTA)
Caltrain
Federal Railroad Administration
California Public Utilities Commission (CPUC)
Project Management Oversight Contractor (PMOC)

1. Opening Remarks

- FTA
 - General Updates
- Caltrain
- FRA
- CPUC

Ray Tellis

Michelle Bouchard

2. Participants Introduction

All

3. Executive Summary

Pranaya Shrestha

4. Safety

Jim Brown

- System-wide Trends/Update
- Incidents/Training/Safety Task Force
- Emergency Preparedness
- Project Safety and Security

AGENDA

FTA QUARTERLY PROGRESS REVIEW MEETING NO. 23

- | | |
|--|------------------------------------|
| 5. Financial Trends | Ted Burgwyn |
| • Agency Trends – Service/Ridership | |
| 6. Legal Issues | Michelle Bouchard/Pranaya Shrestha |
| • Lawsuits, Civil Rights | |
| 7. Organization | Michelle Bouchard/Pranaya Shrestha |
| • Caltrain Organization | |
| • PCEP Organization | |
| 8. Key Project Issues | Pranaya Shrestha |
| • Schedule Recovery | |
| • Path to Completion | |
| 9. Environmental Mitigation Status | Stacy Cocke |
| 10. FRA/CPUC Update | Stacy Cocke |
| 11. Third-party Update/PG&E | Lin Guan |
| 12. Real Estate Update | Brian Fitzpatrick |
| 13. Construction Update | |
| • OCS | Andy Mutz / Stacy Cocke |
| • TPS | |
| • Signals | |
| • Communications/SCADA | |
| • DBE Update | Jeff Werner |
| 14. Vehicle Update | Greg Cameron |
| 15. Project Controls | Jeff Werner |
| • Project Schedule | |
| ○ Status of Schedule Integration | |
| ○ BBII Schedule Status | |
| ○ Schedule Recordkeeping | |
| • Project Budget and Cash Flow | Ira Ray |
| 16. Risk Update | Alan Brick-Turin |
| • Top Risks and Mitigations | |
| • Schedule Risk Assessment Status | |
| 17. Quality Assurance/Quality Control/Buy America | Brandon Roby / Greg Cameron |
| 18. Readiness for Electrified Operation | |

AGENDA

FTA QUARTERLY PROGRESS REVIEW MEETING NO. 23

- Systems Integration Testing
- Testing and Commissioning
- Rail Activation
- Training Status

Russ Larson

Mark Clendennen

19. Public Outreach

Brent Tietjen

20. Current/Future Projects

Rob Barnard

- Concurrent Non-Project Activities
 - Broadband Wireless Communications System
 - Bayshore Station Overpass Pedestrian Bridge Rehab
 - Guadalupe River Bridge Replacement

21. PMOC Observations

PMOC

22. Action Items

PMOC

23. Wrap Up Discussions

All

24. Next Meeting

FTA

Follow-up afternoon Working Session with JPB/PCEP Leadership and FTA and PMOC to discuss the JPB's Recovery Plan

Appendix C: Attendees

PENINSULA JOINT POWERS BOARD (JPB)/CALTRAIN PENINSULA CORRIDOR ELECTRIFICATION PROJECT (PCEP) QUARTERLY PROGRESS REVIEW MEETING NO. 23

Meeting Date/Time: Thursday, April 13, 2023, 1:30 P.M. – 3:00 P.M. PDT

Meeting Location: 1250 San Carlos Ave., San Carlos, CA 94070

Peninsula Joint Powers Board/Caltrain (JPB)		
Michelle Bouchard	bouchardm@samtrans.com	650-508-6420
Pranaya Shrestha	shresthap@samtrans.com	720-757-9191
Andy Robbins		
April Chan	ehana@samtrans.com	650-508-6228
Jeff Werner	wernerj@samtrans.com	650-632-6871
Sal Gilardi	gilardis@samtrans.com	650-722-2898
Jim Brown	brownja@samtrans.com	508-725-4900
Stacy Cocke	cocker@samtrans.com	650-508-6207
Brian Fitzpatrick	fitzpatrickb@samtrans.com	650-508-7781
Casey Fromson	fromsone@samtrans.com	650-508-6493
Jadie Wasileo	wasileo@samtrans.com	
Peter Skinner	skinnerp@samtrans.com	650-622-7818
Lin Guan	guanz@samtrans.com	650-508-8976
Alan Brick Turin	brick_turina@samtrans.com	786-417-9405
Greg Cameron (remote)	gcameron@ltk.com	503-298-0877
Brent Tietjen	tietjenb@samtrans.com	
Derek Hensel	henseld@samtrans.com	
Andrew Mutz (remote)	mutza@caltrain.com	
Caroline Smith	SmithCa@samtrans.com	650-632-6841
Dapri Hong	hongd@samtrans.com	
Ira Ray (remote)	rayi@samtrans.com	
Sherry Bullock	bullocks@samtrans.com	510-301-8954
Jane Huang (remote)	Jane.huang@jacobs.com	
Robert Barnard	barnardr@samtrans.com	
Stephen Chao	chaos@samtrans.com	650-508-6301
Russ Larson	larsonr@samtrans.com	714-567-2400
David Santoro	santorod@samtrans.com	
Brandon Roby	RobyB@samtrans.com	559-441-3751
Mark Clendennen	Clendennenm@caltrain.com	
Catherine David	davidca@caltrain.com	
Ryan Hinchman (remote)	hinchmanr@samtrans.com	
Ted Burgwyn	BurgwynT@caltrain.com	
Noel MacFarlane (remote)	macfarlanen@caltrain.com	
Moises Ramos (remote)	Ramosm@samtrans.com	
Cecelia Zamora (remote)	zamorac@caltrain.com	

Federal Transit Administration (FTA) Region IX		
Ray Tellis	ray.tellis@dot.gov	415-734-9490
Nicole Baker	nicole.baker@dot.gov	
Amy Changehien	Amy.changehien@dot.gov	415-734-9454
Catherine Luu	catherine.luu@dot.gov	415-734-9467
Ted Matley	ted.matley@dot.gov	415-744-9468
Dominique Kraft	dominique.kraft@dot.gov	415-734-9469
Lisa Gavin	lisa.gavin@dot.gov	202-366-9291
Martia Fox	martia.fox@dot.gov	415-734-9490
Tahir Khattak	m.khattak@dot.gov	202-366-6161
Federal Railroad Administration (FRA) Region 7		
Kevin Fitzgerald	kevin.fitzgerald@dot.gov	916-414-2323
Mark Adamezak	mark.adamezak@dot.gov	
Chad Tisdale	chad.tisdale@dot.gov	916-947-8991
Mark Gallegos	mark.gallegos@dot.gov	
Michael Lange	Michael.lange@dot.gov	909-224-7726
California Public Utilities Commission (CPUC)		
Stephen Artus	stephen.artus@cpuc.ca.gov	
Steven Espinal	steven.espinal@cpuc.ca.gov	
KKCS PMOC Team		
Mike Eidlin	mike.eidlin@kkcsworld.com	503-679-0602
Brett Rekola	brett.rekola@kkcsworld.com	774-312-3834
Kevin Byers (remote)	Kevin.byers@kkcsworld.com	808-855-5972
Derec Persaud (remote)	derec.persaud@kkcsworld.com	917-588-4107
San Mateo County Transportation Authority		
Suha Rabah	suhar@samtrans.com	
City and County of San Francisco, San Francisco County Transportation Authority		
Luis Zurinaga	luis@sfcta.org	415-716-6956
Gillian Gillett	gillian.gillett@sfgov.org	415-554-4192
Metropolitan Transportation Commission (MTC)		
Trish Stoops	tstoops@bayareametro.gov	
Craig Bosman	ebosman@bayareametro.gov	
Kenneth Folan	kfolan@bayareametro.gov	415-778-6722
Glen Tepke	gtepke@mtc.ca.gov	415-778-6781
California High Speed Rail Authority (CHSRA)		
Ian Ferrier		916-869-2461
Boris Lipkin	boris.lipkin@hsr.ca.gov	916-669-6629
Russel Fong	russel.fong@hsr.ca.gov	

Simon Whitehorn	Simon.whitehorn@hsr.ca.gov	916-297-0900
Michael Hsiao	Michael.hsiao@wsp.com	
Bruce Armistead	bruce.armistead@hsr.ca.gov	916-634-3170
Santa Clara Valley Transportation Authority (VTA)		
James Costantini;	James.Constantini@vta.org	408-321-5661
Franklin Wong	Franklin.Wong@VTA.org	

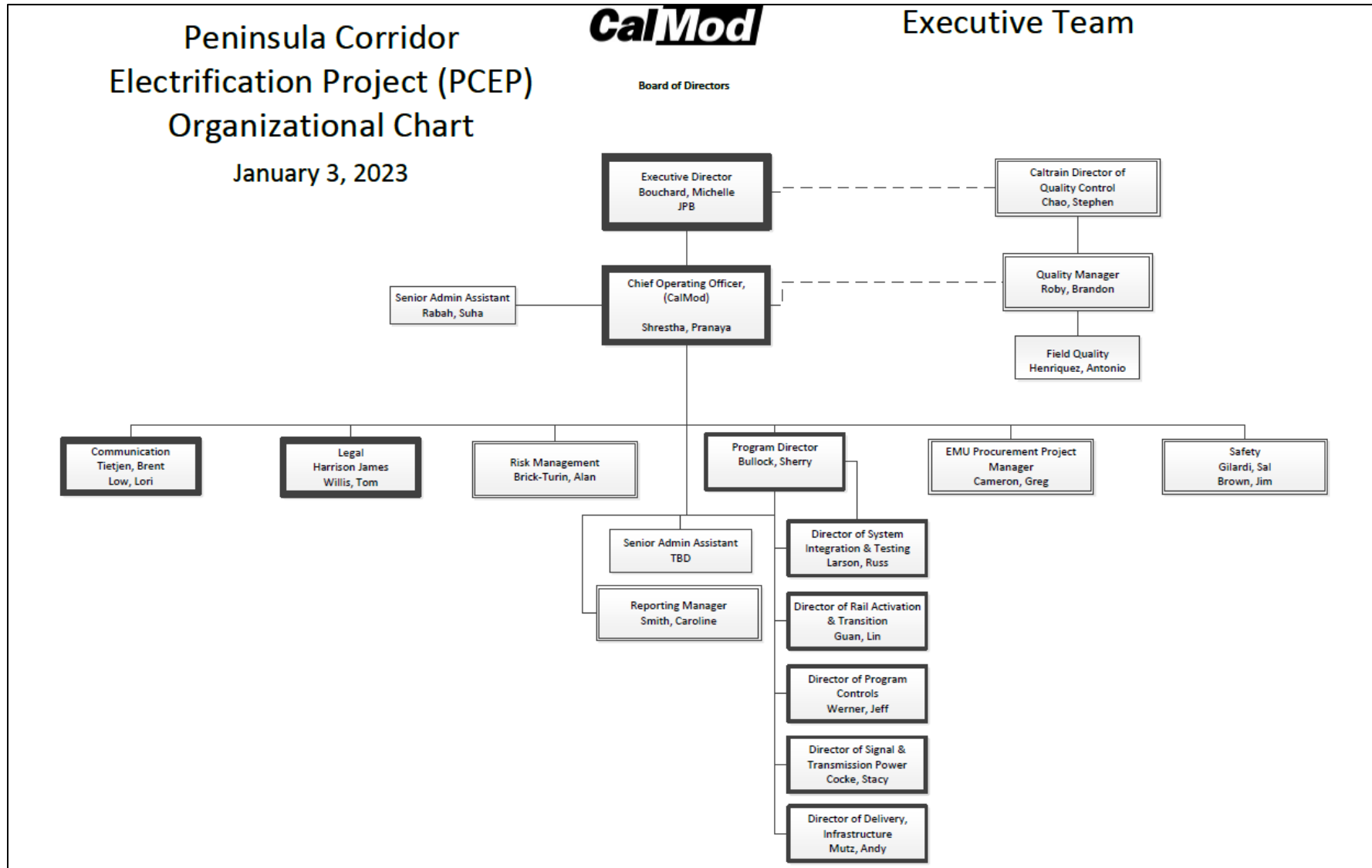
Appendix D: Action Items

The following action items were identified during the meeting; the list also includes the status of unresolved or recently resolved Action Items from past Quarterly Progress Review Meetings and from the PMOC's monitoring activities. New items are indicated by the colored text, items whose status has changed from the prior listing are italicized and completed items have been shaded.

No.	Action Item	Discussion	Agreed Due Date	Responsibility Agency/Name	Status
13.02	JPB to submit a Request for Amendment (RFA) to Caltrain's Positive Train Control Safety Plan (PTCSP) under 49 CFR Sec. 236, Subpart I; the RFA will document the design and performance of its 2SC grade crossing warning system.	FRA is considering a combined RFA for both the 2SC solution and the Crossing Optimization Process. Because both 2SC and Crossing Optimization Projects have FRA-approved Test Plans, completion of the RFA(s) is not and will not impact work for either project.	TBD. Awaiting direction from FRA.	Cocke	A draft of the 2SC RFA has been submitted to FRA. <i>The FRA has determined that a single RFA should be submitted following the completion of the PCEP 2SC work and the JPB's wireless crossing activation project.</i>

Legend: Colored italics indicate a new entry from the previous version. Shaded cells indicate a completed item.

Appendix E: PCEP CalMod Chart

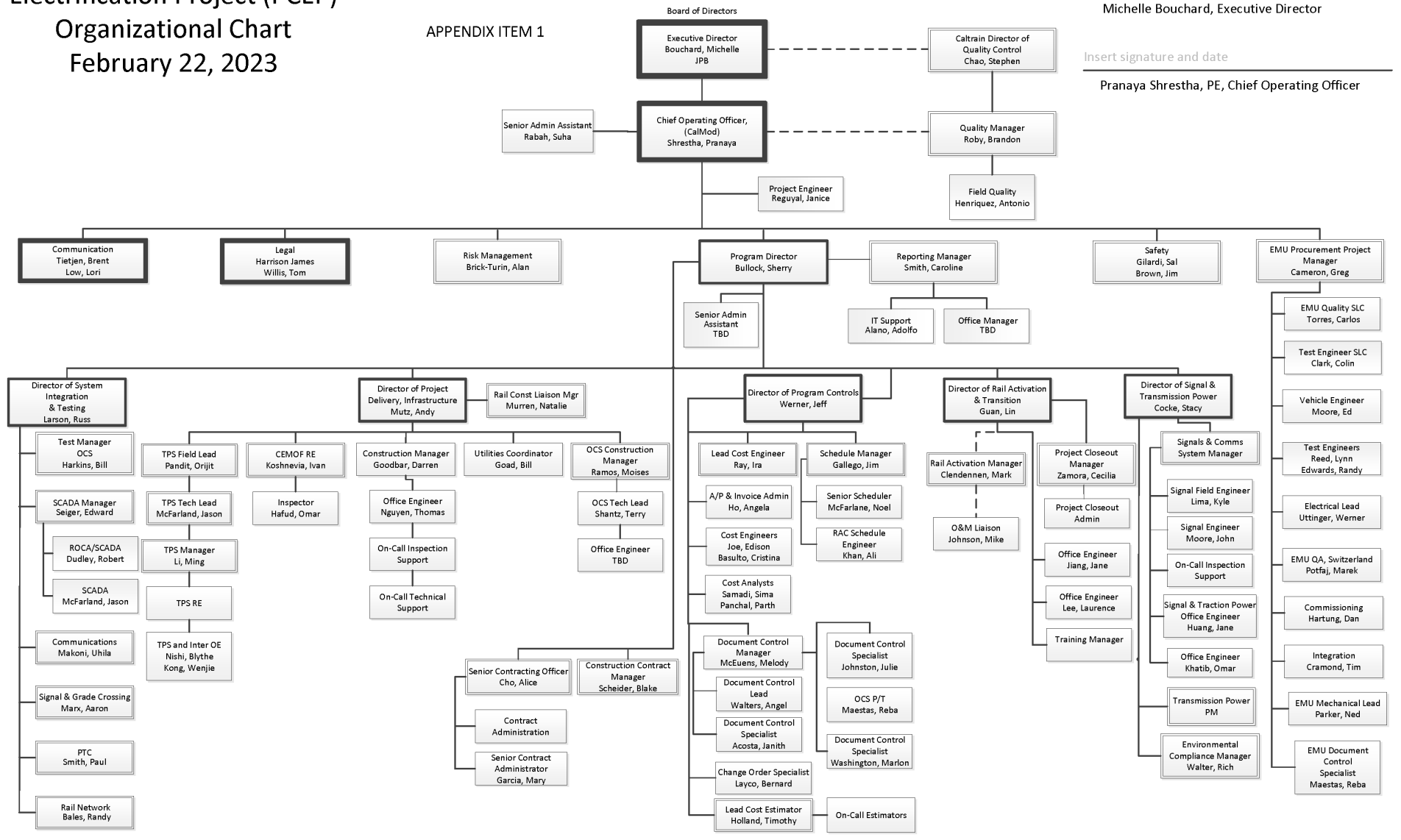


Appendix F: PCEP Organization Chart

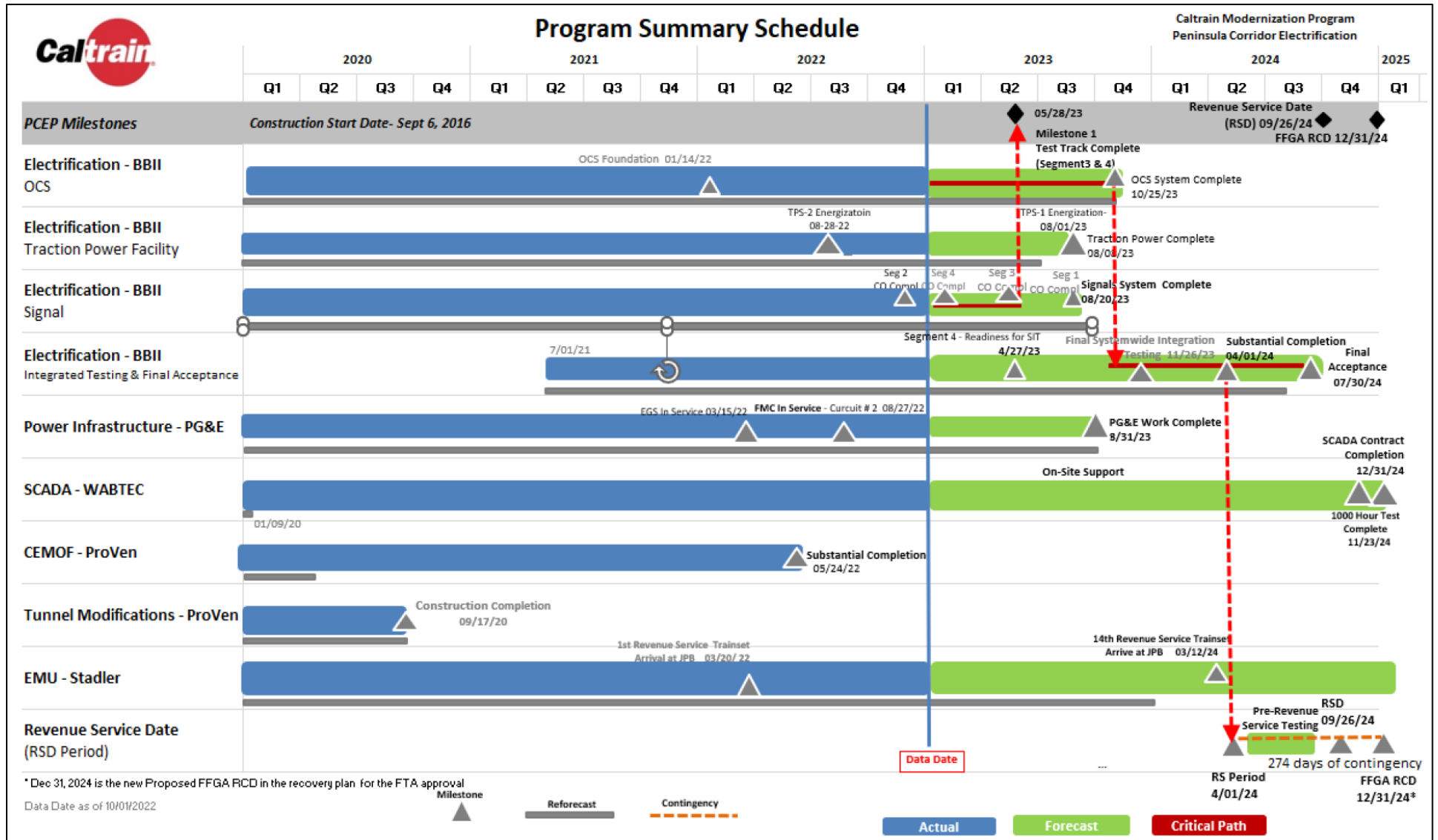
Peninsula Corridor Electrification Project (PCEP) Organizational Chart February 22, 2023



APPENDIX ITEM 1




















Appendix G: Program Schedule



Appendix H: Testing and Commissioning Schedule (April 2023)

Electrification Task	Update Finish (October 2022)	Reforecast Finish (December 2022)	Finish Variance	Explanation
Start Segment 2 Signal Cutover	12/09/2021A	12/09/2021A	0	
Complete Segment 2 Signal Cutover	12/21/2022A	12/19/2022A	2	
Start Integrated Testing - Segment 4	11/24/2022A	10/22/2022A	33	
Complete Ductbanks	11/29/2022A	1/27/2023A	-59	
Complete Integrated Testing - Segment 4	1/4/2023	3/9/2023	-64	Delayed by the failed short circuit testing
Complete OCS Pole Installation	11/10/2022	3/9/2023	-119	BBII had difficulty in obtaining PG&E shutdown or isolation support when installing metal poles around commercial power wires
Complete Traction Power Facilities (Civil Work)	12/8/2022	3/12/2023	-94	Delayed by replacement of the batteries and revisions of the enclosure at TPSS-2 to meet PG&E requirements and the failed short circuit testing
Traction Power Substation #2 Energization	8/28/2022	3/14/2023	-198	Delayed by the failed short circuit testing, polarity and drawing version issues
Start Segment 3 Signal Cutover	12/21/2022	3/19/2023	-88	Delayed by Seg 2 Phase 1 signal cutover installation delays which, in turn, delayed installation of Seg 3 and 1 signal cutovers
Complete Segment 3 Signal Cutover	4/21/2023	5/28/2023	-37	
Complete Segment 4	11/13/2022	4/27/2023	-165	Delayed by the failed short circuit testing which has delayed the EMU live runs within Segment 4.
Start Segment 1 Signal Cutover	4/21/2023	4/30/2023	-9	
Start Integrated Testing - Segment 3	4/26/2023	5/27/2023	-31	The delay in the issuance of the Segment 1 and Segment 3 Bridge Encroachment permits has resulted in the delay in the installation of the Bridge Protective Barriers on Highway 85 which in turn will delay the Segment 3 Integrated Testing
Complete Integrated Testing - Segment 3	5/27/2023	5/28/2023	-1	
Complete Milestone #1 (Segment 3 and 4)	5/27/2023	5/28/2023	-1	
Traction Power Substation #1 Energization	8/1/2023	8/1/2023	0	
Complete Segment 1 Signal Cutover	9/25/2023	8/20/2023	36	
Complete Signal Cutovers	9/25/2023	8/20/2023	36	
Complete OCS Construction	10/20/2023	10/2/2023	18	
Start Integrated Testing - Segment 2	10/25/2023	11/4/2023	-10	
Start Integrated Testing - Segment 1	12/24/2023	11/4/2023	50	
Complete Integrated Testing - Segment 2	12/23/2023	11/19/2023	34	
Complete Integrated Testing - Segment 1	1/22/2024	11/19/2023	64	
Start Final Systemwide Integrated Testing	1/23/2024	11/25/2023	59	
Complete Final Systemwide Integrated Testing	3/2/2024	11/26/2023	97	
BBII Substantial Completion	4/21/2024	4/1/2024	20	
Revenue Service Date (RSD)	9/26/2024	9/26/2024	0	
FFGA Required Completion Date	12/31/2024	12/31/2024	0	

Appendix I: Key Indicators (April 2023)

KEY INDICATORS DASHBOARD (POST-GRANT STATUS)					
Project Sponsor:		Peninsula Corridor Joint Powers Board (JPB)			
Project Name:		Peninsula Corridor Electrification Project (PCEP)			
Date:		March 31, 2023			
Project Detail					
Oversight Frequency:		Monthly			
Element	Status			Prior Status (G/Y/R)	Issue or Concern
					
	G	Y	R		
PMP					The PMP requires updating to address testing and commissioning. An updated PMP has been received and is under review.
MCC					New resources are being deployed but the reconfiguration of the PCEP team is not complete, however, improvements are noted.
Cost					The JPB has received \$410 million in additional funding from state and federal sources. This satisfies the requirements of the revised \$2.44 billion budget.
Schedule					The JPB has implemented a plan proposed by BBII which is intended to reach substantial completion of the contract by the end of the calendar year 2023. <i>This plan is intended to improve OCS productivity; however, results to date have not met expectations and BBII is late in producing the requested re-forecast schedule updates.</i>
Quality					The failure of BBII’s second short-circuit test of the Segment 4 TPS has raised significant concerns. <i>Additional documentation is still required to complete the BBII Buy America review.</i>
Safety					There have been no recordable incidents in 2023. BBII’s Recordable Incident Rate for 2023 is below the national average. The March 10, 2022 incident remains under investigation by the NTSB.
Risk					\$410 million in additional funding for the PCEP has been confirmed.
Key Indicators Legend					
Green	Satisfactory: No Corrective Action necessary.				
Yellow	Caution: Risk/Issues exist. Corrective Action may be necessary.				
Red	Elevated for immediate Corrective Action: Significant risk to the health of the project.				

PMOC Note: Key Indicator Status Change refers to the most recent February 2023 Monitoring Report.

Appendix J: Core Accountability Items through February 28, 2023

Project Status: In Construction		Original (FFGA)	Current Forecast ^[1]	PMOC Assessment of Current Forecast
Cost	Cost Estimate	\$1,930,670,934	\$2,393,109,097	Forecast based on JPB’s approved budget, adjusted to remove pre-PD costs.
Contingency	Allocated Contingency	\$152,913,317	\$56,888,970	Current contingency usage is being tracked closely and has been modest since the global settlement.
	Unallocated Contingency	\$162,620,294	\$22,587,405	
	Total Contingency	\$315,533,611	\$79,476,375	
Schedule	Required Completion Date	August 22, 2022	December 31, 2024	Current forecast is based on the JPB’s Recovery Plan submitted to the FTA on September 30, 2022.
Project Progress			Amount (\$)	Percent of Total
Total Expenditures ^[4]	Actual cost of all eligible expenditures completed to date ^[5]		\$1,966,689,312	82.18%
Planned Value to Date ^[2]	Estimated value of work planned to date ^[3]		\$1,925,397,857	80.46%
Actual Value to Date	Actual value of work completed to date ^[3]		\$1,966,689,312	82.18%
Contracts Status			Amount (\$)	Percent
Total Contracts Awarded	Value of all contracts (design, support, construction, equipment) awarded; % of total value to be awarded ^[6]		\$2,224,013,148	96.13%
Construction Contracts Awarded	Value of construction contracts awarded; % of total construction value to be awarded ^[5]		\$1,844,666,389	99.98%
Physical Construction Completed	Value of physical construction (infrastructure) completed; % of total construction value completed		\$1,427,846,045	77.39%
Rolling Stock Vehicle Status		Date Awarded	No. Ordered	No. Delivered
Electric Multiple Unit (EMU) commuter rail vehicles		08/2016 (A)	133	28
Next Monthly Meeting Date:			May 2023 TBD	
Next Quarterly Review Meeting Date:			April 13, 2023	