



Caltrain Modernization Program Peninsula Corridor Electrification Project (PCEP)



4th Quarter FY 2016 Progress Report

April 1, 2016 to June 30, 2016

Peninsula Corridor Electrification Project
4th Quarter FY 2016 Progress Report

Funding Partners



FTA Core Capacity
FTA Section 5307/5337 (Environmental /
Pre Development only)
FTA Section 5307/5337 (EMU only)



Prop 1B (Public Transportation
Modernization & Improvement Account)
Caltrain Low Carbon Transit Operations
Cap and Trade



Prop 1A
High Speed Rail Cap and Trade



Carl Moyer Fund



RM2
RM1
Bridge Tolls



SFCTA



San Mateo (SMCTA) Contribution
SMCTA Measure A



VTA Measure A
Santa Clara (VTA) Contribution



San Francisco Contribution

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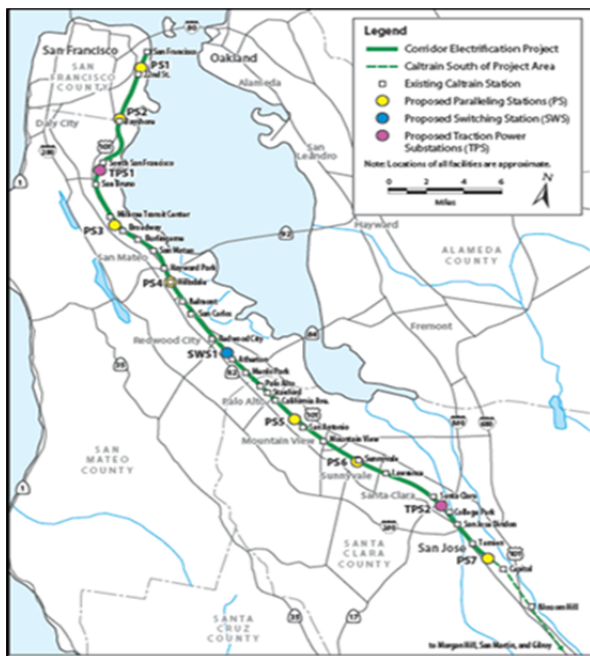
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1.0 PREFACE

Over the last decade, Caltrain has experienced a substantial increase in ridership and anticipates further increases in ridership demand as the San Francisco Bay Area's population grows. The Caltrain Modernization (CalMod) Program, scheduled to be implemented by 2020, will electrify and upgrade the performance, operating efficiency, capacity, safety, and reliability of Caltrain's commuter rail service.

The Peninsula Corridor Electrification Project (PCEP) is a key component of the CalMod Program and consists of converting Caltrain from diesel-hauled to Electric Multiple Unit (EMU) trains for service between San Francisco Station (at the intersection of Fourth and King Streets in San Francisco) and Tamien Station in San Jose. The project will entail the installation of new electrical infrastructure and the purchase of electrified vehicles. Caltrain will continue Gilroy service and support existing tenants.

An electrified Caltrain will better address Peninsula commuters' vision of an environmentally friendly, fast, reliable service. Electrification will modernize Caltrain and make it possible to increase service while offering several advantages in comparison with existing diesel power use, including:



Improved Train Performance, Increased Ridership Capacity and Increased Service: Electrified trains can accelerate and decelerate more quickly than diesel-powered trains, allowing Caltrain to run more efficiently. In addition, because of their performance advantages, electrified trains will enable more frequent and/or faster train service to more riders.

Increased Revenue and Reduced Fuel Cost: An electrified Caltrain will increase ridership and fare revenues while decreasing fuel costs.

Reduced Engine Noise Emanating from Trains: Noise from electrified train engines is measurably less than noise from diesel train engines. Train horns will continue to be required at grade crossings, adhering to current safety regulations.

Improved Regional Air Quality and Reduced Greenhouse Gas Emissions: Electrified trains will produce substantially less corridor air pollution compared with diesel trains, even when the indirect emissions from electrical power generation are included. Increased ridership will reduce automobile usage, resulting in additional air quality benefits. In addition, the reduction of greenhouse gas emissions is not only good for our regional air quality, but will also help meet the State's emission reduction goals.

An electrified Caltrain system would set the stage for an enhanced, modern commuter rail service and for future blended California High-Speed Rail (CHSR) service. While this project will not include or study all infrastructure necessary to implement high-speed rail service on the corridor (such as CHSR maintenance facilities, station improvements, or passing tracks), the electrical infrastructure (such as overhead wire systems) will be compatible with later blended service.

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2.0 EXECUTIVE SUMMARY

During the fourth quarter of fiscal year 2016, the PCEP team continued to progress the project. As planned in the procurement process for the Electrification contract, an apparent best value proposer was selected and negotiations were initiated in April. The project team worked extensively to negotiate technical and commercial sections with the apparent best value proposer. The negotiations were successfully completed at the end of June. Staff will recommend that the Peninsula Corridor Joint Powers Board (JPB) award the Electrification contract to Balfour Beatty Infrastructure, Inc. at the JPB Board meeting on July 7, 2016.

The procurement process also continued for the Electric Multiple Units (EMU) manufacturer. Staff began negotiations in late-April with Stadler US, Inc. Negotiation discussions focused on technical exceptions and contractual / legal exceptions. The project team issued a letter to Stadler on May 20, 2016 to request a proposal in response to negotiations. Stadler submitted a revised proposal on June 17, 2016 after which negotiations were successfully completed. Staff will recommend that the JPB award the EMU Vehicle contract to Stadler US, Inc. at the JPB Board meeting on July 7, 2016.

The Tunnel Modification project completed the preliminary design phase and will enter into final design in Fiscal Year 2017.

The Central Equipment and Maintenance Operations Facility (CEMOF) modifications design effort is on hold at this time. The preliminary design effort has proceeded to a stage where detailed information from the EMU manufacturer is required to finalize the design. It is anticipated that the modification design efforts will resume in August.

The PCEP team is in the process of evaluating the Master Program Schedule (MPS) in conjunction with responses to the Electrification and EMU RFPs. The team anticipates issuing a revised baseline schedule in the next quarter.

The PCEP team meets monthly with members of the Peninsula Corridor Working Group (PCWG), which is comprised of staff from the agencies that signed the 2012 9-Party Funding MOU. In April members of the PCWG agreed to the 7-Party Regional Funding Supplement. Between May and June the JPB, San Mateo County Transportation Authority (SMCTA), Santa Clara Valley Transportation Authority (VTA), Metropolitan Transportation Commission (MTC) and the San Francisco County Transportation Authority (SFCTA) voted unanimously to approve the 7-Party Regional Funding Supplement. The San Francisco Board of Supervisors and California High-Speed Rail Authority (CHSRA) are expected to vote on the 7-Party Regional Funding Supplement in July and August.

In addition the team continues to work towards receipt of a Core Capacity Grant from the Federal Transit Administration (FTA). The team has had positive interactions with the FTA and meets with the FTA's appointed Project Management Oversight Contractor (PMOC) on a monthly basis. The team continues to work with the funding partners to secure commitments to fund the entire program.

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Board Actions

There were no PCEP Board items in April.

On May 5, 2016 the JPB Board received the 6th Quarterly Update on the PCEP. The quarterly update highlights PCEP activities on the major contracts, funding updates, and key policy issues regarding the new electric trains.

Also at the May meeting the JPB Board approved two items related to the PCEP:

- Adopted an agreement that invests an additional \$211 million in the Caltrain Modernization Program. The 7-Party Regional Funding Supplement to the 2012 9-Party MOU increases funding commitments from Caltrain's state and local partners, including an additional \$113 million commitment from the (CHSRA).
- Adopted granting the Executive Director authority to execute a Comprehensive Agreement with the California Department of Transportation (Caltrans) for the PCEP. The Comprehensive Agreement memorializes the parties' consultation and cooperation, designates their respective rights and obligations, and ensures cooperation between the JPB and Caltrans in connection with the design and construction of the PCEP.

A copy of the May board packet can be found here:

http://www.caltrain.com/Assets/_Agendas+and+Minutes/JPB/Board+of+Directors/Agendas/2016/2016-05-05+JPB+BOD+Agenda+Packet.pdf

At the June 2, 2016 meeting, the JPB Board authorized finalization of contract negotiations for the procurement of EMUs with one restroom for each bi-level trainset. A copy of the June board packet can be found here:

http://www.caltrain.com/Assets/_Agendas+and+Minutes/JPB/Board+of+Directors/Agendas/2016/2016-06-02+JPB+BOD+Agenda+Packet.pdf

3.0 ELECTRIFICATION

The PCEP team continued to work through the procurement steps as a result of the February 2016 responses to the BAFO Electrification RFP. Staff began negotiations with the shortlisted best value proposer in April 2016. The team worked extensively to negotiate technical and commercial sections with the apparent best value proposer. Staff successfully completed negotiations at the end of June. The team issued a staff report and resolution to recommend award of the Electrification contract to Balfour Beatty Infrastructure, Inc. at the July 2016 Board meeting. After the award of the contract a Limited Notice to Proceed (LNTP) is anticipated to be issued to the contractor. The LNTP will allow the contractor to begin design as well as limited procurement of long lead material. Construction effort is not included within the scope of the LNTP.

A Master Agreement was signed and executed with Pacific Gas & Electric (PG&E) in April 2016 for continued coordination and support for the implementation of electrification. The PCEP team continues coordination with PG&E on a Power Quality study to finalize scope and necessary infrastructure to support Caltrain loads required for electrification. PG&E facilities studies are scheduled to be completed by July 2016 and design of necessary infrastructures will continue through the remainder of 2016.

The PCEP team continued to provide technical support for ongoing coordination efforts with third party jurisdictions such as California Public Utility Commission (CPUC) as well as the local cities and counties.

Tunnel Modification

Tunnel modifications will be required on the four tunnels located in San Francisco. This effort is required to accommodate the required clearance for the overhead catenary system (OCS) to support electrification of the corridor. Work was completed on the preliminary design for the Tunnel Modification including 65% design plans and specification, construction schedule, construction cost estimate and overall constructability of the project. Comments for preliminary cost estimate and construction schedules were reviewed by staff and will be incorporated in the next technical deliverables. The PCEP team will start final design for the Tunnel Modifications in July 2016 with a target completion of the end of 2016.

Central Equipment Maintenance and Operations Facility Modifications for EMUs

The CEMOF Modifications project is will provide safe work areas for performing maintenance on the new EMUs. The schematic design for CEMOF modifications is complete. Preliminary design efforts remain on hold until the Stadler vehicle design is available. Selection of a car body is necessary to complete design of maintenance platforms.

4.0 ELECTRIC MULTIPLE UNITS

Negotiations began with Stadler in San Mateo the week of May 2 – 6, 2016. Discussions focused on technical exceptions, contractual and legal exceptions. The PCEP team issued a letter to Stadler on May 20, 2016 to request a proposal in response to negotiations. Stadler submitted a revised proposal on June 17, 2016 after which negotiations were successfully completed in late June. The team issued a staff report and resolution to recommend award of the EMU contract to Stadler US, Inc. in July 2016. Discussion regarding issuance of a Limited Notice to Proceed (LNTP) is underway. Should it be decided to issue a Not to Exceed (NTE) LNTP, it will allow Stadler to prepare and submit milestone deliverables and additionally begin their design efforts sooner rather than waiting for a Full NTP.

The Buy America Pre-Award Audit and Certification was conducted on May 25 – 27, 2016 at Stadler's Manufacturing and Assembly Facility in Salt Lake City, UT. A report was issued on June 24, 2016. Based on the data reviewed during the audit, the Audit Team is satisfied that the rail vehicles to be purchased meet the requirements of Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, and as required under the Terms and Conditions of the proposed contract between Stadler and Caltrain.

The JPB reviewed the Maintenance Services Agreement approach in which Stadler would provide the maintenance work for the existing Caltrain diesel fleet in addition to the new EMUs under their named subcontractor. A method will need to be determined with Rail Operations and Maintenance staff to compare the Stadler proposal to the current contract and make sure the decision to exercise the option is made on an equal footing basis.

EMU and overall systems integration efforts continued. The predominant method of controlling the interfaces will be to create an interface control document (ICD) to define the interfaces and allow the parties to agree to the specific details as they evolve. A System Interface Matrix is reviewed at regularly scheduled meetings and updated as items are closed or added. Correspondence will be exchanged to advance the level of detail in each ICD. System integration efforts involve coordinating the following disciplines (as well as others not mentioned here): EMU with wayside, electrification, CEMOF, testing/commissioning site, CBOSS PTC, CHSRA, EMU Testing/Commissioning Site and Track time availability, T/C site access, and schedule coordination with OCS project. A list of EMU tests that can be performed on the Santa Clara Drill Track as well as those that will need to be performed on the Main Line is being finalized.

5.0 SAFETY

The PCEP Safety team continues to develop and update the safety and security management processes as committed to within the scope of the project Safety and Security Management Plan (SSMP). The following highlights several areas of focus of the Safety team during the last quarter:

- The project Hazard Management Plan was finalized and approved by the JPB Safety and Security Director. The project team continues to work with the IndustrySafe Hazard Log application that will be utilized throughout the project life cycle as a tool to support the project hazard management program.
- As a means of continuous improvement, an internal audit of the SSMP was performed resulting in several suggestions that were incorporated within the document. In addition the PMOC also provided comments on the content of the SSMP following its detailed review of the document. These comments are in the process of being addressed within the next revision of the document.
- The project safety team is working closely with the JPB Safety and Security Office, Rail Operations, and Engineering and Construction to review and update the Caltrain Roadway Worker Protection (RWP) program as a means to ensure the ongoing priority to consistently support the highest level of on-track safety standards continues to be achieved.
- PCEP Safety staff continues to work closely with the JPB Safety and Security, Rail Operations, and Engineering and Construction in coordinating project requirements.

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6.0 QUALITY

Quality Management continues to coordinate with the PCEP team via training, audits and technical support.

Activity This Quarter

- Continued to provide on-going quality-related assistance to the PCEP team
- Performed an audit of LTK (Systems Integration) on April 27, 2016. The audit resulted in no findings.
- Cost Estimating NCR 004 was closed on April 28, 2016. Corrective actions are in place.
- Investigating / lining up Independent Labs for Quality Assurance (QA) Oversight (Electrification / EMU)
- Reviewed the following Quality Control (QC) documents
 - PCEP Cost Estimate Rev 4
 - RFP ICE to Baseline – Rev 2 Report
 - DRAFT Schedule Basis for C14.02 Baseline Schedule
 - PHA / TVA comment incorporation & revision
- Performed an audit of GF Tunnel Design on May 4, 2016. The audit resulted in no findings.
- Developed and implemented a Quality Manager Transition Plan due to the resignation of the PCEP Quality Manager
- Performed an audit of B&G Transportation on June 7, 2016. The audit resulted in no findings.
- Performed an audit of LR Transit on June 8, 2016. The audit resulted in no findings.

The Table below provides details on the status of audits performed through the reporting period.

Table 6-1 Quality Assurance Audit Summary

| Quality Assurance Activity | This Reporting Period | Total to Date |
|-----------------------------------|------------------------------|----------------------|
| Internal Audits Conducted | 4 | 14 |
| Non-Conformances Open | 2 | 2 |
| Non-Conformances Issued | 0 | 4 |
| Non-Conformances Closed | 1 | 2 |

Activity Next Quarter

- Contribute to the preparation of the final submittal of FTA documents.
- Conduct visit to project office to coordinate and meet with Director of Program Management.
- No audits will be conducted in July. The AECOM Management audit scheduled for August may be pushed to September to allow for the replacement Quality Manager (QM) to participate, depending on the QM's start date. In September an audit of Scheduling will be conducted. A compliance audit of AECOM Document Control is anticipated 60 - 90 days following implementation of the Document Control System on the Aconex platform.
- Continue implementation of Quality Manager Transition Plan until such time as replacement Quality Manager joins the project.

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7.0 SCHEDULE

The Master Program Schedule (MPS) was updated in April 2016 to incorporate schedules prepared by the apparent best value Electrification proposer and selected EMU proposer. This update formed the basis of a revised baseline schedule.

The new schedule baseline contains two Revenue Service Dates (RSD). The first RSD represents a “soft opening” with six EMU trainsets providing revenue operations. This date is forecasted as December 2020. The second RSD represents “full service” with all 16 EMU trainsets providing revenue operations. This date without contingency is forecast as July 2021. With the addition of six months of contingency to account for potential risk to the project the Full Service RSD is anticipated as December 2021.

A summary of the overall schedule status for the PCEP is provided in Table 7-1.

Table 7-1 Schedule Status

| MILESTONES | PROGRAM PLAN | LAST QUARTER* | THIS QUARTER |
|---|---------------------|----------------------|---------------------|
| Electrification Contract NTP | 08/01/2016 | N/A | 08/01/2016 |
| EMU Contract NTP | 08/01/2016 | N/A | 08/01/2016 |
| Start of Electrification Construction | 03/20/2017 | N/A | 03/20/2017 |
| Start Pre-Revenue Operations | 09/08/2020 | N/A | 09/08/2020 |
| RSD Soft Opening (w/ Risk Contingency) | 12/31/2020 | N/A | 12/31/2020 |
| RSD Full Service (w/o Risk Contingency) | 07/12/2021 | N/A | 07/12/2021 |
| RSD Full Service (w/ Risk Contingency) | 12/30/2021 | N/A | 12/30/2021 |

*The MPS was under reevaluation last quarter, thus the post contract award schedule was still in development.

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8.0 BUDGET AND EXPENDITURES

The below stated budget and expenditures status of the PCEP reflects the revised BAFO budget numbers. The revised budget numbers were developed based on the final negotiations with Electrification Design Build team and the EMU manufacturer. The final numbers result in a reduction in the electrification contract by \$7.4 M and reductions in EMU contract by \$67 M. Management made the decision to reallocate the savings from the EMU manufacturer to Private Utilities. The line item of private utilities include costs for PG&E infrastructure costs as well as other private utility relocation costs. Other minor changes included reallocation of costs to owner's representative contracts. The overall cost of the program remains unchanged.

A summary of the overall budget and expenditure status for the PCEP is summarized in the following tables. Table 8-1 reflects the Electrification budget, Table 8-2 reflects the EMU budget, and Table 8-3 reflects the overall project budget.

Table 8-1 Electrification Budget & Expenditure Status

| Description of Work | Budget (A) | Actual This Quarter (B) | Accrued To Date (C) | Estimate To Complete (D) | Estimate At Completion (E) = (C) + (D) |
|--|-------------------------|-------------------------------|---------------------------|--------------------------------|--|
| Electrification | \$ 696,610,558 | \$ - | \$ - | \$ 696,610,558 | \$ 696,610,558 |
| Tunnel Notching | \$ 11,029,649 | \$ - | \$ - | \$ 11,029,649 | \$ 11,029,649 |
| Real Estate | \$ 28,385,456 | \$ 674,185 | \$ 4,319,739 | \$ 24,065,717 | \$ 28,385,456 |
| Private Utilities | \$ 66,526,406 | \$ 66,300 | \$ 1,714,683 | \$ 64,811,723 | \$ 66,526,406 |
| Management Oversight | \$ 142,814,987 | \$ 3,027,504 | \$ 57,264,144 | \$ 85,550,843 | \$ 142,814,987 |
| Executive Management | \$ 7,494,952 | \$ 167,506 | \$ 2,031,842 | \$ 5,463,110 | \$ 7,494,952 |
| Planning | \$ 7,235,808 | \$ 47,286 | \$ 3,960,334 | \$ 3,275,474 | \$ 7,235,808 |
| Community Relations | \$ 2,826,960 | \$ 27,660 | \$ 754,901 | \$ 2,072,059 | \$ 2,826,960 |
| Safety & Security | \$ 2,350,737 | \$ 38,714 | \$ 441,523 | \$ 1,909,214 | \$ 2,350,737 |
| Project Management Services | \$ 20,905,616 | \$ 929,874 | \$ 5,732,467 | \$ 15,173,149 | \$ 20,905,616 |
| Engineering & Construction | \$ 11,934,024 | \$ 51,097 | \$ 1,705,799 | \$ 10,228,225 | \$ 11,934,024 |
| Electrification Engineering & Management | \$ 49,093,647 | \$ 1,064,515 | \$ 13,300,202 | \$ 35,793,445 | \$ 49,093,647 |
| IT Support | \$ 818,790 | \$ 43,362 | \$ 297,719 | \$ 521,071 | \$ 818,790 |
| Operations Support | \$ 1,423,335 | \$ 4,550 | \$ 296,964 | \$ 1,126,371 | \$ 1,423,335 |
| General Support | \$ 3,859,806 | \$ 48,356 | \$ 1,000,107 | \$ 2,859,699 | \$ 3,859,806 |
| Budget / Grants / Finance | \$ 1,268,408 | \$ 1,715 | \$ 80,663 | \$ 1,187,745 | \$ 1,268,408 |
| Legal | \$ 2,480,274 | \$ 379,636 | \$ 1,404,869 | \$ 1,075,405 | \$ 2,480,274 |
| Other Direct Costs | \$ 5,583,917 | \$ 221,878 | \$ 1,134,750 | \$ 4,449,167 | \$ 5,583,917 |
| Prior Costs 2002 - 2013 | \$ 25,538,712 | \$ 1,355 | \$ 25,122,004 | \$ 416,708 | \$ 25,538,712 |
| TASI Support | \$ 53,063,531 | \$ 124,767 | \$ 254,845 | \$ 52,808,686 | \$ 53,063,531 |
| RRP Insurance | \$ 3,500,000 | \$ - | \$ - | \$ 3,500,000 | \$ 3,500,000 |
| Environmental Mitigations | \$ 17,685,498 | \$ - | \$ - | \$ 17,685,498 | \$ 17,685,498 |
| Required Projects | \$ 17,337,378 | \$ - | \$ 497,318 | \$ 16,840,060 | \$ 17,337,378 |
| Maintenance Training | \$ 1,021,808 | \$ - | \$ - | \$ 1,021,808 | \$ 1,021,808 |
| Finance Charges | \$ 3,168,200 | \$ - | \$ - | \$ 3,168,200 | \$ 3,168,200 |
| Contingency | \$ 276,970,649 | \$ - | \$ - | \$ 276,970,649 | \$ 276,970,649 |
| Owner's Reserve | \$ - | \$ - | \$ - | \$ - | \$ - |
| ELECTRIFICATION SUBTOTAL | \$ 1,318,114,119 | \$ 3,892,756 | \$ 64,050,729 | \$ 1,254,063,390 | \$ 1,318,114,119 |

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Table 8-2 EMU Budget & Expenditure Status

| Description of Work | Budget (A) | Actual This Quarter (B) | Accrued To Date (C) | Estimate To Complete (D) | Estimate At Completion (E) = (C) + (D) |
|------------------------------|-----------------------|-------------------------------|---------------------------|--------------------------------|--|
| EMU | \$ 550,899,459 | \$ - | \$ - | \$ 550,899,459 | \$ 550,899,459 |
| CEMOF Modifications | \$ 1,344,000 | \$ - | \$ - | \$ 1,344,000 | \$ 1,344,000 |
| Management Oversight | \$ 62,150,192 | \$ 1,527,460 | \$ 12,791,844 | \$ 49,358,348 | \$ 62,150,192 |
| Executive Management | \$ 4,715,388 | \$ 102,786 | \$ 1,278,990 | \$ 3,436,398 | \$ 4,715,388 |
| Community Relations | \$ 1,631,907 | \$ 12,479 | \$ 184,358 | \$ 1,447,549 | \$ 1,631,907 |
| Safety & Security | \$ 570,000 | \$ 23,728 | \$ 109,268 | \$ 460,732 | \$ 570,000 |
| Project Management Services | \$ 11,713,423 | \$ 766,609 | \$ 3,763,096 | \$ 7,950,327 | \$ 11,713,423 |
| Engineering & Construction | \$ 89,113 | \$ - | \$ - | \$ 89,113 | \$ 89,113 |
| EMU Engineering & Management | \$ 33,083,374 | \$ 406,849 | \$ 5,686,034 | \$ 27,397,340 | \$ 33,083,374 |
| IT Support | \$ 501,839 | \$ 27,290 | \$ 173,034 | \$ 328,805 | \$ 501,839 |
| Operations Support | \$ 1,879,350 | \$ 9,857 | \$ 235,998 | \$ 1,643,352 | \$ 1,879,350 |
| General Support | \$ 2,373,849 | \$ 27,385 | \$ 213,512 | \$ 2,160,337 | \$ 2,373,849 |
| Budget / Grants / Finance | \$ 603,101 | \$ 1,524 | \$ 167,208 | \$ 435,893 | \$ 603,101 |
| Legal | \$ 1,258,753 | \$ 80,854 | \$ 331,690 | \$ 927,063 | \$ 1,258,753 |
| Other Direct Costs | \$ 3,730,096 | \$ 68,099 | \$ 648,656 | \$ 3,081,440 | \$ 3,730,096 |
| TASI Support | \$ 2,740,000 | \$ - | \$ - | \$ 2,740,000 | \$ 2,740,000 |
| Required Projects | \$ 4,500,000 | \$ - | \$ - | \$ 4,500,000 | \$ 4,500,000 |
| Finance Charges | \$ 1,941,800 | \$ - | \$ - | \$ 1,941,800 | \$ 1,941,800 |
| Contingency | \$ 38,562,962 | \$ - | \$ - | \$ 38,562,962 | \$ 38,562,962 |
| Owner's Reserve | \$ - | \$ - | \$ - | \$ - | \$ - |
| EMU SUBTOTAL | \$ 662,138,414 | \$ 1,527,460 | \$ 12,791,844 | \$ 649,346,570 | \$ 662,138,414 |

Table 8-3 PCEP Budget & Expenditure Status

| Description of Work | Budget (A) | Actual This Quarter (B) | Accrued To Date (C) | Estimate To Complete (D) | Estimate At Completion (E) = (C) + (D) |
|---------------------------------|-------------------------|-------------------------------|---------------------------|--------------------------------|--|
| ELECTRIFICATION SUBTOTAL | \$ 1,318,114,119 | \$ 3,892,756 | \$ 64,050,729 | \$ 1,254,063,390 | \$ 1,318,114,119 |
| EMU SUBTOTAL | \$ 662,138,414 | \$ 1,527,460 | \$ 12,791,844 | \$ 649,346,570 | \$ 662,138,414 |
| PCEP TOTAL | \$ 1,980,252,533 | \$ 5,420,216 | \$ 76,842,573 | \$ 1,903,409,960 | \$ 1,980,252,533 |

Notes regarding tables above:

1. A revised baseline budget was established on April 14, 2015 at the time of the Core Capacity Grant, Entry into Engineering application.
2. Based on the status of the PeopleSoft 9.1 data available, the above table is an estimate of the incurred costs and Estimate to Complete.
3. During the Entry into Engineering estimate update costs and budget were reassigned under different headers to better align with the Scope of Services.
4. Accrued To Date is the combination of invoices received and accrued costs.

9.0 FUNDING

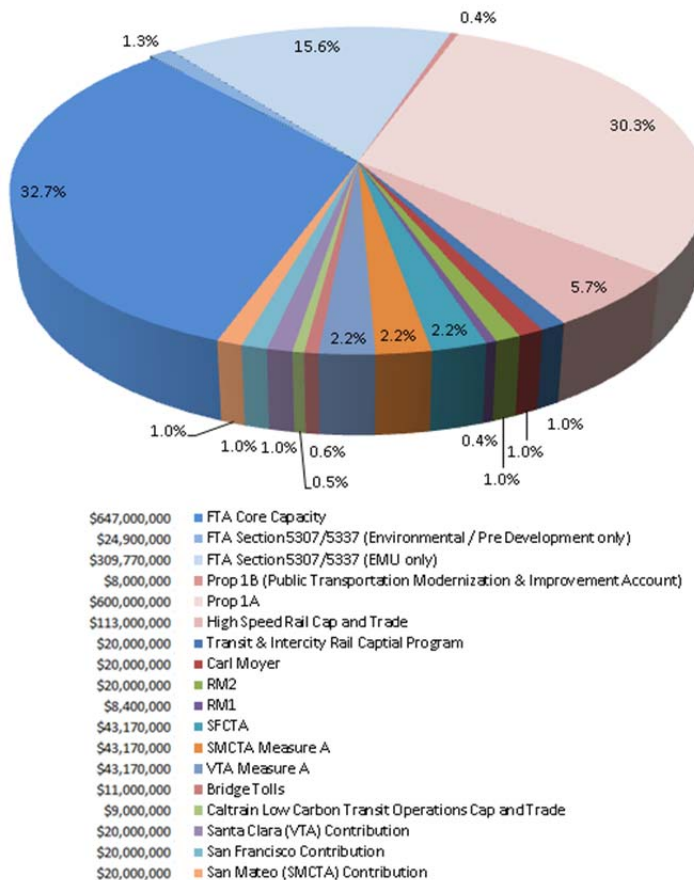
The PCEP has been working with FTA staff as well as the FTA's appointed Project Management Oversight Contractor (PMOC) to provide needed documentation required to achieve the Entry into Engineering milestone for the \$647M Core Capacity grant. This includes an update to the 20-Year Financial plan reflecting changes in the project cost estimate and project funding.

Negotiations continue with California High-Speed Rail Authority (CHSRA) regarding oversight and technical issues. These negotiations are in support of finalizing the CHSRA's \$600M grant which is included in the 9-Party Funding Memorandum of Understanding (MOU) as well as the additional \$113M included in the 7-Party Regional Funding Supplement.

The JPB is also in the process of working with the funding partners to execute the 7-Party Regional Funding Supplement to provide the additional project funding. The JPB Board approved the funding supplement at the May 2016 Board meeting.

Figure 8-1 shows the percentage of contributions from the various sources that comprise the total \$1.980B funding plan.

Figure 9-1 Funding Plan



10.0 RISK MANAGEMENT

Risk Management continues to actively monitor the Risk Register originally produced in 2014. This active monitoring consists of updating risk descriptions, effects, and mitigations based upon weekly input from risk owners and through a monthly cycle of risk updating per the process established in the Risk Identification and Mitigation Plan. An updated Risk Register is based on decisions made at Risk Assessment Committee meetings. Selected risks are forwarded to risk owners for grading and planning of mitigation measures.

The following are the top risks at the end of the quarter:

- If overhead utilities are not relocated on time the Electrification contractor may incur delays
- Upgrades to the electrical service needed for the electrification project is dependent upon final agreement with PG&E for which technical and contractual issues must first be resolved.
- Modifications to proposed catenary pole locations may need to be revised to avoid sight distance problems.
- TASI may not be able to deliver sufficient staff resources to support the construction and testing of the electrification system.
- Existing Caltrain processes for reviewing and approving site specific work plans (SSWP) are not sufficiently flexible to allow the design-build contractor to maximize efficiencies in the construction of the electrification system.
- JPB's current system integration and configuration program will require additional staff expertise and systems improvements to accommodate proposed electrification improvements.
- Proposing to run new duct bank from Caltrain ROW to proposed Traction Power Substation (TPS) 1 site which runs under UPRR rails. Requires coordination with UPRR.
- The final configuration of the electrification system requires the installation of a duct bank under UPRR tracks requiring coordination with UPRR the negotiation of a broad range of issues that may not be completed in a timely manner.
- All funding for the electrification program is not in place and will require agreements with all parties to the 9-Party MOU and FTA and may be affected by legal challenges associated with the CHSRA project.
- Delays in locating and relocating underground utilities may result in delays to the installation of the electrification system.

Table 10-1 provides insight into the number of risks in each classification and the changes for the previous quarter.

Table 10-1 Summary of Risks

| Risk Classification | Original (August 2014) | Last Quarter (ending 3/31/16) | This Quarter (ending 6/30/16) |
|----------------------------|-----------------------------------|--|--|
| Significant Risks | 5 | 2 | 3 |
| High Risks | 79 | 59 | 57 |
| Low Risks | 80 | 68 | 66 |
| Subtotal | 164 | 129 | 126 |
| Retired Risks | 35* | 92 | 97 |
| Total Risks | 199 | 221 | 223 |

** After initial identification 35 risks were deemed to be a duplication of other existing risks and were either retired or combined to add additional context.*

11.0 ENVIRONMENTAL CLEARANCE

The National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) environmental clearance for the PCEP scope to date has been completed.

Permit Activity:

- Section 106 National Historic Preservation Act (NHPA) process has concluded.
- Section 7 of the Endangered Species Act (ESA) process has concluded.
- The target completion date for completing the United States Army Corps of Engineers (USACE), San Francisco Regional Water Quality Control Board (SFRWQCB), California Department of Fish and Wildlife (CDFW) and the San Francisco Bay Conservation Development Commission (SF BCDC) is 2016.

PCEP Mitigation Program: The JPB has prepared a Mitigation Monitoring and Reporting Program (MMRP) to ensure that mitigation measures identified in the PCEP EIR are fully implemented during project implementation. The JPB will implement the mitigation measures through its own actions, those of the Electrification contractor and actions taken in cooperation with other agencies and entities.

12.0 UTILITY RELOCATION

Monthly Utility Coordination meetings continued during the quarter with all Telecom and power carriers within the JPB Right of Way (ROW). Discussions have been focused on the utility relocation timeline as it relates to the overall project schedule, responsibilities of relocation, applicable design standards of relocation, and reconciliation of agreements and records.

Final verification requests were submitted to utility companies during the quarter for final concurrence of existing utility conditions and records. Field verifications will be performed during the next quarter prior to the issuance of final relocation notices.

Utility companies began submission of relocation schedules and the PCEP team will continue to work with all utility companies to refine relocation schedules and relocation criteria in the 1st quarter of Fiscal Year 2017.

13.0 REAL ESTATE

Preparation of appraisal maps, plats and legal descriptions have continued for all segments throughout the project corridor. Appraisal packages contain preliminary title reports, plat maps and the proposed acquisition appraisal map. The initial appraisal packages required for appraisal work have been completed for all segments (1 – 4).

Segment 4 (Santa Clara – San Jose) Offer presentation packages have been completed. Offer presentation meetings have begun with property owners on Segment 4 and will continue through the 1st quarter of FY2017.

Segment 2 (South San Francisco – Atherton) Offer presentation packages will be complete in 1st quarter of FY2017. Fee simple purchase acquisitions in Segment 2 offer packages are currently complete and offers will begin in 1st quarter FY2017.

The PCEP team will seek JPB Board approval in July for the acquisition of six fee acquisition parcels in Segment 2 and one parcel in Segment 4 to be used for the construction of Paralleling Station 7 (PS-7).

Table 13-1 provides an overview of property status.

Table 13-1 Overview Real Estate Status

| Segment | Appraisal Packages* | Appraisals Completed | Acquisition Offers | Acquisition Status | | |
|-----------|---------------------|----------------------|--------------------|--------------------|------------------|-------------------|
| | | | | Escrow Closed | Value Litigation | Parcel Possession |
| Segment 4 | 20 | 15 | 2 | 0 | 0 | 0 |
| Segment 2 | 30 | 6 | 0 | 0 | 0 | 0 |
| Segment 1 | 6 | 0 | 0 | 0 | 0 | 0 |
| Segment 3 | 10 | 0 | 0 | 0 | 0 | 0 |
| Total | 66 | 21 | 2 | 0 | 0 | 0 |

**Appraisal Packages include Plat Map, Legal Description and Appraisal Map. Union Pacific Railroad (UPRR) packages include Appraisal Maps only.*

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14.0 THIRD-PARTY AGREEMENTS

Third-party coordination is necessary for work impacting public infrastructure, utilities, ROW acquisitions, and others. The table below outlines the status of necessary agreements for the PCEP.

Table 14-1 Third-Party Agreement Status

| Type | Agreement | Third-Party | Status |
|----------------------------|---|--|-------------------------|
| Governmental Jurisdictions | Construction & Maintenance ¹ | City and County of San Francisco | In Process |
| | | City of Brisbane | In Process ² |
| | | City of South San Francisco | In Process ² |
| | | City of San Bruno | In Process |
| | | City of Millbrae | Executed |
| | | City of Burlingame | In Process ² |
| | | City of San Mateo | Executed |
| | | City of Belmont | In Process ² |
| | | City of San Carlos | Executed |
| | | City of Redwood City | In Process |
| | | City of Atherton | In Process |
| | | County of San Mateo | In Process |
| | | City of Menlo Park | In Process ² |
| | | City of Palo Alto | In Process |
| | | City of Mountain View | In Process ² |
| | | City of Sunnyvale | In Process |
| | | City of Santa Clara | In Process |
| | | County of Santa Clara | In Process ² |
| | City of San Jose | In Process | |
| | Condemnation Authority | San Francisco | In Process |
| San Mateo | | Executed | |
| Santa Clara | | Executed | |
| Utilities | Infrastructure | Pacific Gas & Electric (PG&E) | Executed ³ |
| | Operating Rules | California Public Utilities Commission (CPUC) | In Process |
| Transportation & Railroad | Construction & Maintenance | Bay Area Rapid Transit (BART) | Executed ⁴ |
| | Construction & Maintenance | California Department of Transportation (Caltrans) | In Process |
| | Trackage Rights | Union Pacific Railroad (UPRR) | Executed ⁴ |

Notes regarding table above:

¹ *Agreements memorialize the parties' consultation and cooperation, designate respective rights and obligations and ensure cooperation between the JPB and the cities and counties in connection with the design and construction of the PCEP. A comprehensive agreement is planned for each of the 17 cities and three counties along the Caltrain ROW and within the PCEP limits.*

² *Approved by City Council and awaiting signature for execution.*

³ *Master agreement and two supplemental agreements.*

⁴ *Utilizing existing agreements.*

15.0 COMMUNITY RELATIONS AND OUTREACH

The following PCEP related community meetings and briefings took place in the last quarter:

- Testimony at Senate Transportation and Housing Subcommittee Hearing
- Testimony at Assembly Budget Subcommittee Hearing
- Meeting with Peninsula Corridor Working Group (3)
- Meeting with Diridon Station Working Group
- Presentation at the City / County Staff Coordination Group (3)
- Meeting with Caltrain Commuter Coalition Steering Committee
- Presentation at the Menlo Park Chamber Transportation Committee
- Presentation at Local Policy Maker Group (3)
- Presentation at San Carlos City Council
- Presentation at Belmont City Council
- Presentation at SAMCEDA (2)
- Presentation at South San Francisco City Council
- Presentation at the VTA Citizen Advisory Committee
- Presentation at the VTA Policy Advisory Committee
- Presentation at the Brokers North Tour Group
- Tabled at HSR Open House Meeting in San Jose
- Presentation at the JPB Citizen Advisory Committee
- Quarterly Call with State and Federal Staff
- Presentation at the JPB Bicycle Advisory Committee
- Tabled at HSR Scoping Meeting in San Francisco
- Meeting at Menlo Park City Council (2)
- Tabled HSR Scoping Meeting in Mountain View
- Presentation at the SFCTA Citizen Advisory Committee
- Presentation at the Menlo Park Chamber
- Presentation at the Caltrain Accessibility Advisory Committee
- Presentation at the Local Policy Maker Group (special meeting)
- Presentation at the Caltrain Commuter Coalition
- Presentation at the SMCTA Citizen Advisory Committee
- Unanimous support VTA Board of Directors on the 7-party Regional Funding Supplement
- Tabled HSR Community Meeting in San Jose
- Unanimous support MTC Programming and Allocations Subcommittee on the 7-party Regional Funding Supplement
- Unanimous support Brisbane City Council on the PCEP Agreement
- Presentation at the Diridon Station Joint Policy Advisory Board

- Presentation / Action by the SFCTA Plans and Program Subcommittee
- Unanimous support Mountain View Council on the PCEP Agreement
- Unanimous support MTC Commission on the 7-party Regional Funding Supplement
- Unanimous support from the SFCTA Board on the 7-party Regional Funding Supplement
- Quarterly meeting with Silicon Valley and SF Bicycle Coalitions
- Presentation at the Mineta Transportation Institute

Press Release on 7-Party Regional Funding Supplement:

http://www.caltrain.com/about/MediaRelations/news/Caltrain_s_Board_Approves_Multi-party_Caltrain_Modernization_Funding_Agreement_High_Speed_Rail_Commits_Additional_113_Million.html

The PCEP received the WTS Innovative Transportation Solutions Award. Link to the press release:

http://www.caltrain.com/about/MediaRelations/news/San_Francisco_Women_s_Transportation_Seminar_to_Honor_Transit_District_Employee_Caltrain_Electrification_Project.html

16.0 DBE PARTICIPATION AND LABOR STATISTICS

Disadvantaged Business Enterprise (DBE) and labor statistics will be reported after construction has commenced.

APPENDICIES

Appendix A – Acronyms

Appendix B – Schedule

Appendix A – Acronyms

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| | | | |
|----------|---|--------|---|
| AIM | Advanced Information Management | FEIR | Final Environmental Impact Report |
| ARINC | Aeronautical Radio, Inc. | | |
| BAAQMD | Bay Area Air Quality Management District | FONSI | Finding of No Significant Impact |
| BAFO | Best and Final Offer | FRA | Federal Railway Administration |
| CalMod | Caltrain Modernization Program | FTA | Federal Transit Administration |
| Caltrans | California Department of Transportation | GO-26D | General Order 26D |
| CDFW | California Department of Fish and Wildlife | ICD | Internal Control Document |
| CEMOF | Centralized Equipment Maintenance and Operations Facility | ITS | Intelligent Transportation System |
| CEQA | California Environmental Quality Act (State) | JPB | Peninsula Corridor Joint Powers Board |
| CHSRA | California High-Speed Rail Authority | LNTP | Limited Notice to Proceed |
| CIP | Capital Improvement Plan | MMRP | Mitigation, Monitoring, and Reporting Program |
| CPUC | California Public Utilities Commission | MOU | Memorandum of Understanding |
| D-B | Design-Build | MPS | Master Program Schedule |
| DBE | Disadvantaged Business Enterprise | NCR | Non Conformance Report |
| DEMP | Design, Engineering, and Management Planning | NEPA | National Environmental Policy Act (Federal) |
| EA | Environmental Assessment | NHPA | National Historic Preservation Act |
| EAC | Expenditure at Completion | NMFS | National Marine Fisheries Service |
| EIR | Environmental Impact Report | NTE | Not to Exceed |
| EMU | Electric Multiple Unit | NTP | Notice to Proceed |
| ESA | Endangered Species Act | OCS | Overhead Contact System |
| | | PCEP | Peninsula Corridor Electrification Project |

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| | | | |
|----------|---|---------|--|
| PG&E | Pacific Gas and Electric | SFMTA | San Francisco Municipal Transportation Authority |
| PHA | Preliminary Hazard Analysis | | |
| PMOC | Project Management Oversight Contractor | SFRWQCB | San Francisco Regional Water Quality Control Board |
| QA | Quality Assurance | SOGR | State of Good Repair |
| QC | Quality Control | SSMP | Safety and Security Management Plan |
| QMP | Quality Management Plan | TASI | Transit America Services Inc. |
| QMS | Quality Management System | TBD | To Be Determined |
| RAMP | Real Estate Acquisition Management Plan | UPRR | Union Pacific Railroad |
| RE | Real Estate | USACE | United States Army Corp of Engineers |
| RFP | Request for Proposals | USFWS | U.S. Fish and Wildlife Service |
| RFQ | Request for Qualifications | | |
| ROCS | Rail Operations Center System | VTA | Santa Clara Valley Transportation Authority |
| ROW | Right-of-Way | | |
| RRP | Railroad Protective Liability Insurance | | |
| RSD | Revenue Service Date | | |
| RWP | Roadway Worker Protection | | |
| SamTrans | San Mateo County Transit District | | |
| SCADA | Supervisory Control and Data Acquisition | | |
| SCC | Standard Cost Categories | | |
| SFBCDC | San Francisco Bay Conservation Development Commission | | |
| SFCTA | San Francisco County Transportation Authority | | |

Appendix B – Schedule

