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-	by: <u>Linda Wong</u> by: Linda Wong	Date	July 22, 2	016

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AMENDED IN BOARD 08/02/2016

RESOLUTION NO.

FILE NO. 160796

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[Seven-Party Supplement to the 2012 Memorandum of Understanding - Peninsula Corridor Electrification Project]

Resolution approving the Seven-Party Supplement to 2012 Memorandum of Understanding, regarding Financial Commitments to Address the Funding Gap for the Peninsula Corridor Electrification Project.

WHEREAS, On January 15, 2013, the Mayor, on behalf of the City and County of San Francisco (the City), approved execution, with conditions, of a Memorandum of Understanding (the "MOU") with the California High-Speed Rail Authority (CHSRA), the Metropolitan Transportation Commission (MTC), the Peninsula Corridor Joint Powers Board (PCJPB), the San Francisco County Transportation Authority (SFCTA), and four other local and regional entities to establish a funding framework for a High-Speed Rail Early Investment Strategy for a blended system in the Peninsula Corridor; and

WHEREAS, The Early Investment Strategy, also known as the Early Investment Program, consists of three components: the Communications Based Overlay Signal System (also known as Positive Train Control), the electrification of the Caltrain line between San Jose and San Francisco, and the purchase of electric multiple unit vehicles to operate on the electrified railroad (PCEP) (collectively, "the Projects"); and

WHEREAS, The program will modernize the corridor, reduce train-related emissions by up to 97 percent, provide faster and increased service to more stations, and prepare the Caltrain system for shared use with high-speed rail; and

WHEREAS, On January 8, 2015, the PCJPB Board of Directors adopted Resolution No. 2015-03, certifying the PCEP Final Environmental Impact Report (PCEP FEIR) for the Peninsula Corridor Electrification Project in conformance with CEQA law and Guidelines; and

Supervisor Cohen
BOARD OF SUPERVISORS

WHEREAS, On January 8, 2015, the PCJPB Board of Directors, as part of Resolution No. 2015-04 approving the PCEP, approved and adopted CEQA Findings of Fact, including a Statement of Overriding Considerations and a Mitigation Monitoring and Reporting Plan (MMRP); and

WHEREAS, Under Resolution No. 7-16, adopted on January 26, 2016, the Board of Supervisors approved an Agreement with the PCJPB regarding administration of up to \$39,000,000 of capital funding for the Projects (a copy of the agreement is in Board of Supervisors File No. 151148); and

WHEREAS, Also under Resolution No. 7-16, The Board of Supervisors, representing the City as a responsible agency under CEQA, reviewed and considered the PCEP FEIR and record as a whole, and found that the PCEP FEIR is adequate for the actions taken under the Resolution, incorporated the CEQA findings contained in JPB Resolution No. 2015-04, including the Statement of Overriding Considerations and MMRP, including the commitment to participate with the PCJPB to implement Mitigation Measure TRA-3b (surface pedestrian facility improvements to address the PCEP's additional pedestrian movements at and immediately adjacent to the San Francisco 4th and King Station, with implementation costs shared on a fair-share basis as determined mutually by the JPB and the City), and agreed to Mitigation Measure TRA-3b; and

WHEREAS, At the time the MOU was executed, the total cost for the Early Investment Program was \$1,456,000,000 with a proposed \$60,000,000 local contribution from each of the three PCJPB member counties (San Francisco, San Mateo and Santa Clara); and

WHEREAS, The SFCTA has committed funds to cover \$20,860,000 of San Francisco's proposed original \$60,000,000 contribution (mostly from Prop K sales tax, with \$4,000,000 in Regional Improvement Program funds), with the City's Prop A General Obligation bond (2014) covering the rest; and

Supervisor Cohen
BOARD OF SUPERVISORS

WHEREAS, The initial PCEP budget was subsequently updated by Caltrain staff to reflect a cost estimate study conducted in 2014, add contingency, and account for received bids, resulting in a new total Early Investment Program projected cost of \$2,210,000,000 an increase of \$755,000,000; and

WHEREAS, The MOU identified \$125,000,000 in Federal Transit Administration (FTA) transit formula funds, which are now needed by the PCJPB to advance critical state-of-good-repair improvements necessary to maintain existing Caltrain operations; the PCJPB has requested removal of these funds from the Early Investment Strategy, which creates a \$125,000,000 funding gap: and

WHEREAS, The parties have negotiated a Seven-Party Supplement to the MOU (Agreement), a copy of which is in Board of Supervisors File No. 160796, under which most of the PCEP cost increase and funding gap is proposed to be covered by an FTA Core Capacity grant (\$647,000,000) and State Cap and Trade Program funds (including some from CHSRA's share), with MTC and PCJPB members also making increased contributions; and

WHEREAS, This Agreement would commit the three PCJPB members to a total local contribution of \$80,000,000 each for the Early Investment Program for the Peninsula Corridor, a \$20,000,000 increase to the amount proposed in the MOU; and

WHEREAS, Under this Agreement, the \$20,000,000 increase would be covered by the City and/or the SFCTA; and

WHEREAS, There is \$3,900,000 remaining in the Electrification line item in the SFCTA Prop K Strategic Plan that has been included in the proposed FY2016-2017 capital budget, which was approved at the June 28, 2016, SFCTA Board meeting; and

WHEREAS, The City and the SFCTA are jointly seeking to identify the remaining \$16,100,000 which could include General Fund revenues associated with a proposed 2016.

charter amendment establishing, among other things, a transportation set-aside or a transportation sales tax measure; and

WHEREAS, At its June 28, 2016, meeting, the SFCTA reviewed the subject request and unanimously approved authorization for the Executive Director to execute, with conditions, this Agreement; now, therefore, be it

RESOLVED, That the Board of Supervisors incorporates the CEQA findings and determinations it made under Resolution No. 7-16 for the purposes of this action; and further finds that since the PCEP FEIR was certified, there have been no substantial project changes and no substantial changes in project circumstances that would require major revisions to the FEIR due to the involvement of new significant environmental effects or an increase in the severity of previously identified significant impacts, and there is no new information of substantial importance that would change the conclusions set forth in the FEIR; and, be it

FURTHER RESOLVED, That the Board of Supervisors approves the Seven-Party Supplement to the 2012 Memorandum of Understanding, including the City's Special Conditions attached as Exhibit C.

Supervisor Cohen
BOARD OF SUPERVISORS

Item 5	Department:
File 16-0796	Mayor's Office

EXECUTIVE SUMMARY

Legislative Objectives

• The proposed resolution would authorize a Seven-Party Supplement to the 2013 MOU between the Joint Powers Board (which consists of the City and County of San Francisco, the San Mateo County Transit District, and the Santa Clara Valley Transportation Authority), the San Mateo County Transportation Authority, the Santa Clara Valley Transportation Authority, the San Francisco County Transportation Authority, the Metropolitan Transportation Commission, the City and County of San Francisco, and the California High-Speed Rail Authority to increase the total contribution of the seven parties by \$210,400,000 for the Peninsula Corridor transit system, consisting of Caltrain and future high speed rail. The City would need to increase its contribution by \$20,000,000 from \$60,000,000 to \$80,000,000 to fund the Early Investment Strategy.

Key Points

- In 1988, the City, the San Mateo County Transit District, and the Santa Clara Valley Transportation Authority entered into a Joint Powers Agreement creating the Joint Powers Board to operate Caltrain and conduct planning studies related to Peninsula commute service. The members of the Joint Powers Board agreed to share the costs of capital projects that are not covered by outside sources.
- The Early Investment Strategy consists of two projects: the Communications-Based Overlay Signal System (CBOSS), and the Peninsula Corridor Electrification Project (PCEP).
- Based on the revised 2016 cost projections, the total estimated costs for the Early Investment Strategy increased by \$755 million from \$1.456 billion estimated in 2008 to \$2.21 billion, due to PCEP project cost increases.
- The total CBOSS budget of \$231 million has been fully expended. Parson Transportation Group, the CBOSS project contractor, anticipates that the CBOSS project will be delayed and incur additional project costs.

Fiscal Impact

• Of the total \$20,000,000 in new funding requested from the City, \$3,900,000 comes from the San Francisco Transportation Authority's Proposition K Strategic Plan. The City has not yet identified funding sources for \$16,100,000 of the total contribution of \$20,000,000.

Recommendation

 Approval of the proposed resolution is a policy matter for the Board of Supervisors because the funding source for \$16,100,000 of the City's total contribution of \$20,000,000 has not yet been identified.

MANDATE STATEMENT

City Charter Section 9.118(b) states that any contract entered into by a department, board or commission that (1) has a term of more than ten years, (2) requires expenditures of \$10 million or more, or (3) requires a modification of more than \$500,000 is subject to Board of Supervisors approval.

BACKGROUND

Peninsula Corridor Joint Powers Board

In 1988, the City and County of San Francisco, the San Mateo County Transit District, and the Santa Clara Valley Transportation Authority entered into a Joint Powers Agreement creating the Peninsula Corridor Joint Powers Board (Joint Powers Board) to operate Caltrain and conduct planning studies related to Peninsula commute service. Through this agreement, the members of the Joint Powers Board have agreed to share the costs of capital projects that are not covered by outside sources.

Early Investment Strategy

In 2013, the City entered into a conditional nine-party Memorandum of Understanding (MOU) with the Joint Powers Board, the California High-Speed Rail Authority, the Metropolitan Transportation Commission, the San Francisco County Transportation Authority, and four other local and regional entities to establish a funding framework for an Early Investment Strategy for the Peninsula Corridor transit system, consisting of Caltrain and future high speed rail.¹

The Early Investment Strategy for the future California statewide high-speed rail system consists of two projects including:

- (1) the Communications-Based Overlay Signal System (CBOSS), also referred to as positive train control project, and
- (2) the Peninsula Corridor Electrification Project (PCEP).

CBOSS tracks train locations and prevents unsafe train movements through the use of equipment on-board moving trains. CBOSS began in February 2012 and is anticipated to be completed in November 2016.

PCEP electrifies the Caltrain Corridor from San Francisco's 4th and King Streets Caltrain Station to approximately the Tamien Caltrain Station in San Jose, and replaces diesel-hauled trains with electric multiple unit trains, thereby placing one additional Caltrain train into service in each direction during peak hours (6 total additional trains). PCEP environmental clearance was completed in January 2015 and the first electric trains are expected to be completed and in service in December 2020. The rollout of the remaining 75 percent of the trains will be completed in 2021.

¹ The four other local and regional entities include the San Mateo County Transportation Authority, the Santa Clara Valley Transportation Authority, the City of San Jose, and Transbay Joint Powers Authority.

Increases in the Estimated Cost of the Early Investment Strategy

The Early Investment Strategy was initially estimated to cost \$1.456 billion based on 2008 cost projections completed by Caltrain staff. The estimated costs of PCEP were \$1.225 billion and the estimated costs of CBOSS were \$231 million. The nine parties of the 2013 MOU agreed to share the costs for these projects.

Increase in Estimated Electrification Project Costs

Caltrain staff updated PCEP cost estimates in 2014 to account for inflation and new industry information and analysis. Based on the 2014 cost projections, the revised total estimated costs for the Early Investment Strategy increased from \$1.456 billion to \$1.762 billion. The estimated costs of PCEP increased from \$1.225 billion to \$1.531 billion. The estimated costs of CBOSS were unchanged at \$231 million.

In 2016, Caltrain staff updated the cost estimates for PCEP once again to include contingency funds and to account for the project prices included in the bids submitted. Based on the revised 2016 cost projections, the total estimated costs for the Early Investment Strategy increased from \$1.762 billion to \$2.21 billion. The estimated costs of PCEP increased from \$1.531 billion to \$1.979 billion. The estimated costs of CBOSS were unchanged at \$231 million.

The 2016 cost estimate of \$1.979 billion for PCEP is an increase of \$755 million or 38.1 percent compared to the original 2008 cost estimate for PCEP of \$1.225 billion.

The City and County of San Francisco's Share of Cost

The three members of the Joint Powers Board, including the City and County of San Francisco, the San Mateo County Transit District, and the Santa Clara Valley Transportation Authority, are required to each contribute \$60,000,000 to the costs of CBOSS and PCEP. Of the City's \$60,000,000 cost share:

- \$39,000,000 comes from Proposition A Transportation and Road Improvement General Obligation Bond funds, previously approved by the San Francisco voters in November 2014, of which \$7,760,000 was appropriated by the Board of Supervisors in May 2015 (File 15-0459); and \$31,240,000 has not yet been appropriated; and
- \$21,000,000 was previously authorized by the San Francisco County Transportation Authority.²

The Board of Supervisors approved an agreement between the San Francisco Municipal Transportation Agency (SFMTA) and the Joint Powers Board in January 2016 in which the SFMTA acts as a fiscal agent and disburses up to \$39,000,000 to the Joint Powers Board as costs are incurred for CBOSS and PCEP (File 15-1148). The initial disbursement was \$7,760,000 in previously appropriated Proposition A bonds.

² The additional \$21,000,000 from SFCTA was authorized through SFCTA resolutions 15-28, 14-29, 13-17 and 07-52,

³ The agreement terminates on December 31, 2020 but may be extended until three and a half years after the sale of the last issuance of a Transportation and Road Improvement General Obligation Bond, if that date is later than December 31, 2020.

Both CBOSS and PCEP are included in San Francisco's 10-Year Capital Plan. The City has no obligation to make funding allocations under the agreement between the SFMTA and the Joint Powers Board should the City fail to appropriate funds for CBOSS or PCEP. ⁴

Re-allocation of Early Investment Strategy Funds to Caltrain Operations

The 2013 MOU identified \$125 million in Federal Transit Administration (FTA) funds that could be allocated to the Early Investment Strategy. However, the Joint Powers Board has determined that \$125 million in FTA funds are now needed make state-of-good repair improvements to existing Caltrain rail systems. The Joint Powers Board has requested the removal of these funds from the Early Investment Strategy, which creates a \$125 million funding gap.

DETAILS OF PROPOSED LEGISLATION

The proposed resolution would authorize a Seven-Party Supplement to the 2013 MOU between the (1) Joint Powers Board (which consists of the City and County of San Francisco, the San Mateo County Transit District, and the Santa Clara Valley Transportation Authority), (2) the San Mateo County Transportation Authority, (3) the Santa Clara Valley Transportation Authority, (4) the San Francisco County Transportation Authority, (5) the Metropolitan Transportation Commission, (6) the City and County of San Francisco, and (7) the California High-Speed Rail Authority to increase the total contribution of the seven parties by \$210,400,000.⁵

The proposed Seven-Party Supplement to the 2013 MOU would commit each of the three members of the Joint Powers Board to increase their contribution by \$20,000,000, from \$60,000,000 to \$80,000,000. Therefore, the City would need to increase its contribution to the Early Investment Strategy by \$20,000,000 for the Peninsula Corridor transit system, consisting of Caltrain and future high speed rail. Each Joint Powers Board member's contribution of the additional \$20,000,000 is contingent on the commitment of \$20,000,000 from each of the other two Joint Powers Board members, with the exact manner and timing of the contributions to be decided by the Joint Powers Board.

Funding Partners Oversight Protocol

As a precondition to the Seven-Party Supplement to the 2013 MOU, the parties have agreed on a Funding Partners Oversight Protocol for Caltrain's CalMod Program, under which the funding partners will be able to closely monitor the Early Investment Strategy projects, have access to

⁴ The City and County of San Francisco's obligations to the agreement automatically terminates without expense of any kind to the City, if at the end of any fiscal year the funds are not appropriated for the succeeding fiscal year. In the event of default by the Joint Powers Board, the City may withhold any portion of Bond funds not yet disbursed, and may also demand immediate return of any previously disbursed Bond funds that have been claimed or expended by the Joint Powers Board in breach of the agreement.

According to Caltrain representatives, the following five parties to the Seven-Party Supplement to the 2013 MOU have voted to approve the Seven-Party Supplement: (1) Joint Powers Board, (2) the San Mateo County Transportation Authority, (3) the Santa Clara Valley Transportation Authority, (4) the San Francisco County Transportation Authority, and (5) the Metropolitan Transportation Commission. The California High-Speed Rail Authority is scheduled to vote on the Seven-Party Supplement to the 2013 MOU at their August 9, 2016 meeting.

all project information, and participate in the decision-making process, especially when related to changes in scope, schedule, or cost.

FISCAL IMPACT

The revised total estimated cost for the Early Investment Strategy projects for the Peninsula Corridor transit system, consisting of Caltrain and future high speed rail, is now \$2.21 billion, of which \$1.979 billion is for Peninsula Corridor Electrification Project (PCEP) and \$231 million is for Communication-Based Overlay Signal System (CBOSS). Table 1 below shows the proposed project budgets for the PCEP and CBOSS projects.

Table 1. Proposed CBOSS and PCEP Project Budgets

Project Costs	Original MOU Funding Strategy	Proposed Changes in Seven-Party Supplemental MOU	Revised Total Project Costs
Peninsula Corridor Electrification Project (PCEP)	\$1,225,000,000	\$755,000,000	\$1,980,000,000
Communication-Based Overlay Signal System (CBOSS)	\$231,000,000	. 0	\$231,000,000
Total	\$1,456,000,000	\$755,000,000	\$2,211,000,000

Source: Seven-Party Supplement to 2013 MOU, Exhibit B.

CBOSS and PCEP Actual Expenditures

The total CBOSS budget is \$231,000,000, which has been fully expended. Parson Transportation Group, the CBOSS project contractor, anticipates that the CBOSS project may extend beyond the anticipated completion date of November 2016 and will incur additional project costs. Caltrain staff is currently in negotiations with Parson Transportation Group to ensure that the MOU funding partners will not be liable for any new costs due to CBOSS project delays. In response to requests from funding partners, Caltrain convened an American Public Transportation Association (APTA) Peer Review Panel to evaluate the CBOSS project scope, schedule, budget, and management, according to Ms. Gillian Gillet, Mayor's Director of Transportation Policy. The panel's report is not yet published.

The total PCEP budget is \$1.98 billion, of which \$76,765,678 has been expended.

Total funding for the Early Investment Strategy projects is shown in Table 2 below.

Table 2. Proposed Changes to Funding Sources for Early Investment Strategy Projects

Funding Source	Original MOU Funding Strategy ⁶	Proposed Changes in Seven-Party Supplemental MOU	Revised Costs & Funding Sources
Local Funds	多地名阿勒德雷德	的影響的影響的影響。	的特殊等的自由的原则
Joint Powers Board Member Contributions ^a	\$180,000,000	\$60,000,000	\$240,000,000
Joint Powers Board Local Contributions	11,000,000	9,000,000	20,000,000
Caltrain	4,000,000	O	4,000,000
Subtotal Local	\$195,000,000	\$69,000,000	\$264,000,000
State Funds	岩域等與過程機能		生活的特別的問題的經歷
Proposition 1A Connectivity	\$106,000,000	\$0	\$106,000,000
Proposition 1A HSRA	600,000,000	0	600,000,000
California High-Speed Rail Authority Cap & Trade/Other	. 0	113,000,000	113,000,000
Cap & Trade Transit and Inter City Rail Program	. 0	20,000,000	20,000,000
Proposition 1B Caltrain	24,000,000	0	24,000,000
Subtotal State	\$730,000,000	\$133,000,000	\$863,000,000
Federal Funds			
Federal Railroad Administration	\$17,000,000	· \$0	\$17,000,000
Federal Highway Administration Prior/Current Obligations	45,800,000	. 0	45,800,000
Federal Transit Administration Future Obligations ^b	440,000,000	(125,000,000)	315,000,000
Federal Transit Administration Core Capacity	0	647,000,000	647,000,000
Subtotal Federal	\$502,800,000	\$522,000,000	· \$1,024,800,000
Regional Funds	學和於和學的經濟學	建 加州企业发生的企业设置	相当的特殊。
Metropolitan Transportation	11,000,000	28,400,000	39,400,000
Commission Bridge Tolls			
Bay Area Air Quality and	20,000,000	•	20,000,000
Management District			
Subtotal Regional	\$31,000,000	\$28,400,000	\$59,400,000
Grand Total	\$1,458,800,000	\$752,400,000	\$2,211,200,000

Source: Seven-Party Supplement to 2013 MOU, Exhibit B.

Table 3 below summarizes the total funding sources of \$80 million for the City's share of costs for the Early Investment Strategy Projects.

^a \$240,000,000 in contributions from Joint Power Board members consists of \$80,000,000 from each of the three Joint Power Board members. The City's \$80,000,000 contribution includes \$60,000,000 previously authorized by the Board of Supervisors and \$20,000,000 that is the subject of the proposed resolution.

^b\$125,000,000 in FTA funds are re-allocated to current Caltrain state-of-good repair projects.

 $^{^{6}}$ Original MOU funding of \$1,458,800,000 was \$2.8 million more than the original MOU budget of \$1,456,000,000.

Table 3. Funding Sources for City's Revised Share of Costs

Funding Source	Amount
Previously Authorized Contribution (Elle 15-1148).	
Proposition A Transportation and Road Improvement General Obligation Bond funds	\$39,000,000
San Francisco County Transportation Authority	21,000,000
Subtotal	\$60,000,000
New Contribution (File 16-0796)	
San Francisco Transportation Authority Proposition K Strategic Plan	\$3,900,000
To be determined	16,100,000
Subtotal	\$20,000,000
Total	\$80,000,000

Source: Caltrain staff

The City has not yet identified funding sources for \$16,100,000 of the new contribution of \$20,000,000. The City's obligations to the Seven-Party Supplement to the 2013 MOU will terminate without penalty, liability, or expense of any kind to the City at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year.

The Budget and Legislative Analyst considers approval of the proposed resolution to be a policy matter for the Board of Supervisors because the funding source for \$16,100,000 of the total new contribution of \$20,000,000 has not yet been identified.

RECOMMENDATION

Approval of the proposed resolution is a policy matter for the Board of Supervisors because the funding source for \$16,100,000 of the City's total new contribution of \$20,000,000 has not yet been identified.

RESOLUTION NO. 2015 - 03

BOARD OF DIRECTORS, PENINSULA CORRIDOR JOINT POWERS BOARD STATE OF CALIFORNIA

CERTIFYING THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE PENINSULA CORRIDOR ELECTRIFICATION PROJECT

WHEREAS, in 2009, the Peninsula Corridor Joint Powers Board (JPB) completed a Final Environmental Assessment/Environmental Impact Report (EA/EIR) for the Peninsula Corridor Electrification Project (Project); and

WHEREAS, based upon that document, the Federal Transit Administration issued a Finding of No Significant Impact (FONSI), which completed the federal environmental review for the Project in accordance with the National Environmental Policy Act (NEPA); and

WHEREAS, the JPB deferred finalizing the 2009 EA/EIR under the California Environmental Quality Act (CEQA), in part due to concerns regarding the proper consideration of the impacts of the California High Speed Rail Project, which had proposed to construct high speed rail facilities on the JPB's right of way; and

WHEREAS, the JPB has since entered into an agreement with the California High Speed Rail Authority (Authority), dated May 1, 2013, which clarifies the roles of the JPB as the lead agency for the Project, with the Authority continuing to serve as the lead agency for the statewide high speed rail project; and

WHEREAS, the JPB has prepared, in conformance with CEQA, a new Environmental Impact Report (EIR) for the Project; and

WHEREAS, the Project analyzed in the EIR consists of converting Caltrain from diesel-hauled to electrically-powered trains for service between the 4th and King Street

Station in San Francisco and the Tamien Station in San Jose, with the future impacts of the Authority's project being treated as cumulative impacts; and

WHEREAS, a Notice of Preparation for the Peninsula Corridor Electrification
Project EIR was issued on January 31, 2013; and

WHEREAS, the Draft EIR was released on February 28, 2104 for a 60-day public review and comment period; and

WHEREAS, the JPB received comments from interested individuals, organizations and agencies on the Draft EIR, both in writing and at four duly-noticed public meetings; and

WHEREAS, responses to comments on the Draft EIR, as well as the revised EIR were prepared and released to the public on December 4, 2014 and minor errata to the EIR were prepared prior to January 8, 2014; and

WHEREAS, the Draft EIR, as revised, together with the responses to comments, and the errata, constitute the Final EIR on the Project; and

WHEREAS, the JPB has reviewed and considered the Final EIR for the Project and desires to certify the FEIR for the Project in conformance with CEQA law and Guidelines; and

WHEREAS, the JPB is a federally regulated rail carrier, subject to the jurisdiction of the Surface Transportation Board (STB) of the U.S. Department of Transportation; and

WHERAS, the STB's jurisdiction derives from the provisions of the Interstate

Commerce Commission Termination Act of 1995 (ICCTA). Under Section 10501 (b) of
that Act, the STB's jurisdiction is exclusive for all transportation by rail carriers, including
the facilities and structures that are an integral part of that transportation. Section

10501 (b) also expressly states that "the remedies provided under this part with respect

to regulation of rail transportation are exclusive and preempt the remedies provided under Federal and State law." The scope of that preemption as relates to CEQA and passenger rail projects in California is currently under court review. The JPB makes this certification without waiving the JPB's rights regarding the application of the ICCTA, including the defense that ICCTA and the STB's jurisdiction preempt CEQA's application to the Project and the JPB's decision(s) regarding it.

NOW THEREFORE BE IT RESOLVED, that the Board of Directors of the Peninsula Corridor Joint Powers Board hereby certifies the Final Environmental Impact Report for the Peninsula Corridor Electrification Project (hereinafter "Project") based upon the following findings:

- To the extent it is applicable to the Project, the Peninsula Corridor Joint Powers Board has complied with the requirements of the California Environmental Quality Act (Cal. Pub. Res. Code Sections 21000 et seq., hereinafter "CEQA") and the State CEQA Guidelines (Cal. Admin. Code Title 14, Sections 15000 et. seq., (hereinafter "CEQA Guidelines").
- 2. Four duly-noticed public meetings were held on said Draft EIR in March and April, 2014, at which time opportunity for public comment was given, and public comment was received on the DEIR. The period for acceptance of written comments ended on April 29, 2014.
- 3. The JPB prepared responses to comments on environmental issues received at the public meetings and in writing during the 60-day public review period for the DEIR, prepared revisions to the text of the DEIR in response to comments received or based on additional information, and corrected errors in the DEIR. This material was presented in a Final EIR document, published on December 4, 2014, which was distributed to the Board and to all parties who commented on the DEIR, and was made available to others upon request at the JPB's offices. Minor errata to the EIR were prepared prior to January 8, 2014 and were also reviewed by the JPB.
- 4. The Final Environmental Impact Report, has been prepared by the JPB, as the lead agency, and consists of the DEIR, any comments received during the review process, any additional information that became available, and the responses to comments, all as required by law.

- 5. Project environmental files have been made available for review by the Board and the public. These files are available for public review at the Caltrain Headquarters in San Carlos, at 1250 San Carlos Avenue, and are part of the record before the Board.
- 6. At its meeting of January 8, 2015, the Board has reviewed and considered the Final EIR and hereby finds that the contents of said report and the procedures through which the Final EIR was prepared, publicized and reviewed are consistent with the provisions of CEQA and the CEQA Guidelines.
- 7. The Board has reviewed and considered the contents of the FEIR and hereby does find that the Final EIR reflects the independent judgment and analysis of the Peninsula Corridor Joint Powers Board, is adequate, accurate and objective, and that the Final EIR documents contain no significant new information to the DEIR that would require recirculation under CEQA Guideline Section 15088.5, and hereby does certify the completion of said Final Environmental Impact Report in compliance with CEQA and the CEQA Guidelines.
- 8. By this certification action, the Board does not waive the JPB's rights to the application of the ICCTA and does not waive any available defenses associated with the ICCTA and STB's jurisdiction, as discussed above.

Regularly passed and adopted this 8th day of January, 2015 by the following

vote:

AYES:

CISNEROS, GEE, GUILBAULT, NOLAN

WOODWARD, YEAGER, TISSIER

NOES:

NONE

ABSENT:

COHEN, KALRA

Chair, Peninsula Corridor Joint Powers Board

JPB Secretary

RESOLUTION NO. 2015 - 04

BOARD OF DIRECTORS, PENINSULA CORRIDOR JOINT POWERS BOARD STATE OF CALIFORNIA

ADOPTING CEQA FINDINGS OF FACT, STATEMENT OF OVERRIDING CONSIDERATIONS AND MITIGATION MONITORING AND REPORTING PLAN AND APPROVAL OF THE PENINSULA CORRIDOR ELECTRIFICATION PROJECT

WHEREAS, pursuant to Resolution No. 2015-03, the Peninsula Corridor Joint Powers Board (JPB) has certified, in conformance with the California Environmental Quality Act (CEQA), the Final Environmental Impact Report (FEIR) for the Peninsula Corridor Electrification Project (Project) and hereby incorporates by reference the defined terms and statements contained in that Resolution.

NOW THEREFORE BE IT RESOLVED, that the Board of Directors of the Peninsula Corridor Joint Powers Board hereby takes the following actions:

- 1. The JPB Board has reviewed and considered the information contained in the FEIR and in the CEQA Findings of Fact attached hereto as Exhibit "A" and supporting documentation. The JPB determines that the CEQA Findings of Fact document identifies the significant environmental impacts and mitigation measures associated with the Project. The JPB further finds that the CEQA Findings of Fact have been completed in compliance with CEQA and the State CEQA Guidelines. The JPB hereby approves and adopts the CEQA Findings of Fact attached hereto as Exhibit "A."
- 2. The JPB hereby finds that the Statement of Overriding Considerations was completed in accordance with Public Resources Code section 21081 and State CEQA Guidelines Section 15093, subdivision (a), which state that CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. The Statement of Overriding Considerations is included in the Findings of Fact attached hereto as Exhibit "A" and sets forth significant environmental effects that are found to be unavoidable but are acceptable due to the overriding considerations and benefits expected to result from implementing the Project. The JPB hereby approves and adopts the Statement of Overriding Considerations included in the Findings of Fact attached hereto as Exhibit "A."

- 3. Pursuant to Public Resources Code section 21081.6, and State CEQA Guidelines Section 15091, subdivision (d), the JPB hereby adopts the Mitigation Monitoring and Reporting Program attached hereto as Exhibit "B," which ensures that required mitigation is implemented for the Project.
- 4. Based on and in consideration of all of the foregoing, the JPB hereby approves the Project as described in more detail in the FEIR (incorporated herein), along with the project design features which have been incorporated into the project and the mitigation measures described in the Findings of Fact attached hereto as Exhibit A and reflected in the Mitigation Monitoring and Reporting Program (MMRP) attached hereto as Exhibit B, and which MMRP shall be a condition of the approved project.
- 5. By making the findings and taking the actions in this resolution, the Board does not waive its rights regarding application of the Interstate Commerce Commission Termination Act of 1995 (ICCTA) (for the reasons explained in Resolution No. 2015-3), including the defense that ICCTA and the Surface Transportation Board's jurisdiction preempt CEQA's application to the Project. Regardless of potential jurisdictional preemption of CEQA's application to the Project, the mitigation measures included in the MMRP shall be a condition of the approved project.
- 6. The Board hereby directs staff to file a CEQA Notice of Determination with the State Clearinghouse and appropriate County Clerks and to take any other necessary steps to obtain all additional permits, approvals and rights that would allow construction and operation of the Project.

Regularly passed and adopted this 8th day of January, 2015 by the following

vote:

AYES:

CISNEROS, GEE, GUILBAULT, NOLAN

WOODWARD, YEAGER, TISSIER

NOES:

NONE

ABSENT:

COHEN, KALRA

Chair Peninsula Corridor Joint Powers Board

JPB Secretary

MEMORANDUM OF UNDERSTANDING (MOU)

HIGH SPEED RAIL EARLY INVESTMENT STRATEGY FOR A BLENDED SYSTEM IN THE SAN FRANCISCO TO SAN JOSE SEGMENT KNOWN AS THE PENINSULA CORRIDOR OF THE STATEWIDE HIGH-SPEED RAIL SYSTEM

BY AND AMOUNG THE FOLLOWING PARTIES (PARTIES)

CALIFORNIA HIGH SPEED RAIL AUTHORITY (AUTHORITY)
METROPOLITAN TRANSPORTATION COMMISSION (MTC)
PENINSULA CORRIDOR JOINT POWERS BOARD (JPB)
SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY (SFCTA)
SAN MATEO COUNTY TRANSPORTATION AUTHORITY (SMCTA)
SANTA CLARA VALLEY TRANSPORTATION AUTHORITY (VTA)
CITY OF SAN JOSE
CITY AND COUNTY OF SAN FRANCISCO
TRANSBAY JOINT POWERS AUTHORITY (TJPA)

Recitals

Whereas, the California High-Speed Rail AUTHORITY (AUTHORITY) is responsible for planning, building and maintaining an 800-mile statewide high-speed rail system and improved mobility through the development of safe, clean, reliable rail technology; and

Whereas, the AUTHORITY, in partnership with the Federal Railroad Administration is advancing a California High-Speed Train (HST) network that links the major metropolitan areas of the State of California utilizing corridors into and through Southern, Central and Northern California; and

Whereas, the AUTHORITY has responsibility for planning, construction and operation of high-speed passenger train service in California and is exclusively charged with accepting grants, fees and allocations from the state, from political subdivisions of the state and from the federal government, foreign governments, and private sources; and

Whereas, the AUTHORITY's 2012 Business Plan proposes to incrementally develop the HST system utilizing a blended system approach that will coordinate the development and operations of HST with existing passenger rail systems that improves, enhances and expands the integration of high-speed and regional/local passenger rail systems; and

Whereas, this blended approach requires a series of incremental investments in the Peninsula corridor to prepare for integrated service and operations and the AUTHORITY recognizes the need for a collaborative effort with regional and local agencies to identify early investment projects along existing rail corridors that improves service, improves safety and efficiency, and creates linkages between HST and local passenger rail service; and

Whereas, a blended system will remain substantially within the existing Caltrain right-of-way and will accommodate future high-speed rail and modernized Caltrain service along the Peninsula corridor by primarily utilizing the existing track configuration on the Peninsula; and

Whereas, this MOU is specific to project investments that upgrade existing rail service and prepare for a future high-speed train project that is limited to infrastructure necessary to support a blended system, which will primarily be a two-track system shared by both Caltrain and high-speed rail and will be designed to continue to support existing passenger and freight rail tenants; and

Whereas, local transportation improvement projects are required to be included in a Regional Transportation Plan (Plan), and the Metropolitan Transportation Commission, working closely with local agencies is charged with developing the Plan every four years to provide guidance for transportation investments within the Bay Area and with development of regional transportation strategies to address the needs of the San Francisco Bay Area; and

Whereas, on December 19, 2001, MTC adopted the Regional Transit Expansion Program of Projects (Resolution 3434) which includes the Transbay Transit Center Phase 2 Downtown Extension and Caltrain Electrification projects as regional priorities for transit expansion; and

Whereas, the Sustainable Communities and Climate Protection Act of 2008 (SB 375, Steinberg, Statutes of 2008) requires the Plan to include a Sustainable Communities Strategy (SCS), showing evidence of integrated planning, goals that establish and strengthen the crucial linkages between the economy, land use development and the regional transportation system to improve access to jobs, education, healthcare, and other amenities in ways that improve the overall quality of life in the Bay Area and the blended system on the Peninsula corridor in the California High-Speed Rail program are consistent with achieving SB 375 goals to reduce greenhouse gas emissions; and

•nereas, all Parties are involved in the planning, funding, construction and/or operation of heavy and light rail insit, buses, and/or commuter train services in the Peninsula corridor and are considering intermodal service integration, including linkages to the proposed HST service; and

Whereas, it is the intent and purpose of this MOU to strengthen the working relationship between the PARTIES to facilitate the development and implementation of passenger rail improvements that will improve local passenger rail service and operations while preparing designated HST corridors for eventual HST operation to achieve region wide systems integration of rail service in Northern California; and

Whereas, local transportation improvement projects are required to be environmentally evaluated according to CEQA and NEPA regulations and where necessary, existing environmental approval covering incremental improvements to the Peninsula corridor will be updated to reflect evolving local and regional conditions and concerns; and

Whereas, incremental improvements and the blended system project will be planned, designed and constructed in a way that supports local land use and Transit Oriented Development policies along the Peninsula corridor; and

Now, THEREFORE, it is mutually understood and agreed to by the PARTIES as follows:

To jointly support and pursue the implementation of a statewide high speed rail system that utilizes a blended system and operational model on the Peninsula corridor and that has its northern terminus at the Transbay Transit Center in San Francisco as specified in law, and it's southern limit at Mile Post 51.4 at the Tamien Station in San Jose. The ided system will support and benefit operation of both Caltrain and future high speed train service.

jointly recognize a defined set of Inter-related Program of Projects that are consistent with the AUTHORITY's phased implementation plan, are consistent with a blended system operation of the corridor and achieve objectives that include but are not limited to system capacity and connectivity for Caltrain, HST and freight, public safety, operational efficiency, effectiveness and connectivity.

To generally describe, identify and work to fully fund an Inter-related Program of Projects known as the Corridor Electrification Infrastructure Project, Advanced Signal System (also known as Positive Train Control), the Downtown Extension to the Transbay Transit Center, which is the Proposition 1A designated northern terminus of high-speed rail, new high-speed stations at San Jose Diridon Station and a Millbrae BART/Caltrain Station with a connection to San Francisco International Airport, and a Core Capacity project of needed upgrades to stations, tunnels, bridges, potential passing tracks and other track modifications and rail crossing improvements including improvements and selected grade separations required to accommodate the mixed traffic capacity requirements of high-speed rail service and commuter services.

To recognize that of the set of Inter-related Program of Projects, the most substantial and tangible early-investment benefits will be realized when two essential projects are identified for an Initial Investment Strategy to secure, at the earliest possible date, the benefits of the blended system for the traveling public and an Initial Investment Strategy is needed to provide the groundwork upon which future construction can more readily progress.

To recognize that the two Inter-related projects for Initial Investment Strategy are the Corridor Electrification Infrastructure Project that includes the needed rolling stock to operate revenue service; and the Advanced Signal tem project and to adopt as part of this MOU, the funding plans needed to move as expeditiously as possible vard construction of these two essential projects.

To work toward the implementation of the Initial Investment Strategy to the maximum extent feasible and that the PARTIES shall endeavor to incorporate the Electrification Infrastructure and Advanced Signal System projects into their respective plans and that the AUTHORITY shall reflect this MOU in its Business Plan by December 31, 2012.

That the aforementioned projects will need to be environmentally analyzed and cleared according to CEQA and NEPA guidelines as appropriate, including updating and recirculation of the Caltrain Electrification EA/FEIR completed in 2009.

That the AUTHORITY will endeavor in good faith to secure approval and release of \$600 million of Proposition 1A funds and \$106 million of Proposition 1A "connectivity" funds consistent with the funding plans contained in this MOU as required to complete at the earliest possible date, the Corridor Electrification Infrastructure and Advanced Signal System projects.

That the AUTHORITY will endeavor in good faith to secure approval of Proposition 1A "connectivity" funds for Bay Area project sponsors consistent with and in accordance with the schedule and project expenditure plan approved and as amended by the California Transportation Commission.

That the AUTHORITY will work with funding partners to assist in seeking and releasing the funds necessary to implement the Electrification Infrastructure Project and Advanced Signal System project. Local agencies may provide local funds, real property, or in-kind resources as matching funds where matching funds are required to qualify for grant funds. PARTIES agree to work together to identify the appropriate amounts and types of local resources that may be used to support the completion of the Electrification Infrastructure Project and the Advanced Signal System Project.

That the AUTHORITY and appropriate PARTIES will coordinate to obtain funding using a mutually agreed-upon strategy. In the event that funding for the program is constrained by statute, rescission of existing law, change in funding requirements or eligibility, reduction in funding level or availability, the AUTHORITY and the PARTIES shall takes steps notify each other as needed in a timely manner.

FUNDING PLAN

Program Costs and Proposed Funding for

Peninsula Corridor Projects: Electrification and Advance Signal System

Program Costs (in \$ millions, year of expenditure)	
Advance Signal System / Positive Train Control (PTC)	\$231
Electrification and Electric Multiple Units (EMUs)	\$1,225
Total	\$1,456

Program Funding (in \$ millions)		
Source	Amount	
JPB Contributions	· \$180	
JPB Local - Currently Available	\$11	
Caltrain PTC	\$4	
Subtotal Local	\$195	
Prop 1A Connectivity	\$106	
Prop 1A High Speed Rail Authority	\$600	
Prop 1B Caltrain	\$24	
Subtotal State	\$730	
Federal RR Admin. for PTC	\$17	
Federal Transit Admin prior/current obligations	\$43	
Federal Transit Admin future obligations	\$440	
Subtotal Federal	. \$500	
MTC Bridge Tolls	\$11	
BAAQMD Carl Moyer	\$20	
Subtotal Regional	\$31	
Total	\$1,456	

Funding Plan Notes:

Caltrain Joint Powers Board (JPB) Local Contribution is \$60 million from San Mateo sales tax, \$60 million from VTA sales tax, and \$60 million from San Francisco (\$23 million from sales tax, \$37 million from Regional Transportation Improvement Program (RTIP)/local/other). Each agency's contribution, including Proposition 1A Connectivity funds as outlined in Note 2, is contingent upon the \$60 million each from the other two JPB partners.

Prop 1A Connectivity is \$42 million from Caltrain, \$26 million from VTA, and \$38 million from BART (2nd priority for BART after receipt of \$150 million for railcars).

 Prop 1B Caltrain is \$20 million Public Transportation Modernization, Improvement, and Service Enhancement Account (PTMISEA), \$4 million State-Local Partnership Program (SLPP).

FTA Prior/Current Obligations is \$16 million for electrification in prior years, \$27 million for EMUs in FY12.

5. FTA Future Obligations is \$315 million for electric multiple units (EMUs), \$125 million from fixed guideway caps. Funds will be programmed in accordance with MTC Transit Capital Priorities process between approximately FY2012-2013 and FY2022-2023.

6. Bridge Tolls is from Regional Measure 1 (RM1) West Bay Rail Reserve.

7. Bay Area Air Quality Management District (BAAQMD) funds to be confirmed.

8. Assumes that all local sources, Prop 1B PTMISEA, all federal sources, and bridge tolls can be used as match to Prop 1A funds, totaling \$726 million in matching funds for \$706 million in Prop 1A funds.

9. Other potential future funding sources could be substituted if secured, including federal Transportation Investment Generating Economic Recovery (TIGER) funds (such as current Caltrain application for \$44 million), State Interregional Transportation Improvement Program (ITIP) funds, and private financing.

IN WITNESS WHEREOF, this MOU has been executed by the PARTIES hereto as of the day and year indicated next to each signature, with the final signature date constituting the effective date.

	Lett Morales	9/18/2012 Date
	Jeff Morales, Chief Executive Officer	Date
	California High Speed Rail Authority	
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		9/18 /2012 Date
	Steve Heminger, Executive Director	Date
	Metropolitan Transportation Commission	
•	My Scanlor Michael J. Scanlon, Executive Director	9/21/2012 Date
	Michael J. Scanlon, Executive Director	Date
	Peninsula Corridor Joint Powers Board and	
	San Mateo County Transportation Authority	·
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		10/15/12
	Jose Litis Moscovich, Executive Director	Date
	San Francisco County Transportation Authority	
	m. 1 1 1 1	7 7
:	Michael J. Sura	11/24/12 Date
	Michael Burns, General Manager	Date
	Santa Clara Valley Transportation Authority	
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•	Theren	12/12/12 Date
	Debra Figone, City Manager	Date
	City of San Jose	
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	- MANALAGE	1115/13
	Edwin M. Lee, Mayor	Date
	City and County of San Francisco	
		165/13
	Maria Ayerdi-Kaplan, Executive Director	Date
	Transbay Joint Powers Authority	White and states

Attachment 1

SEVEN-PARTY SUPPLEMENT TO 2012 MEMORANDUM OF UNDERSTANDING (MOU)

FINANCIAL COMMITMENTS TO ADDRESS FUNDING GAP FOR THE PENINSULA CORRIDOR ELECTRIFICATION PROJECT

BY AND AMONG THE FOLLOWING PARTIES (PARTIES)

SAN MATEO COUNTY TRANSPORTATION AUTHORITY (SMCTA)
SANTA CLARA VALLEY TRANSPORTATION AUTHORITY (VTA)
CITY AND COUNTY OF SAN FRANCISCO (CCSF)
SAN FRANCISCO COUNTY TRANSPORTATION AUTHORITY (SFCTA)
METROPOLITAN TRANSPORTATION COMMISSION (MTC)
PENINSULA CORRIDOR JOINT POWERS BOARD (PCJPB)
CALIFORNIA HIGH SPEED RAIL AUTHORITY (CHSRA)

RECITALS

WHEREAS, during the spring of 2012, the California High Speed Rail Authority (CHSRA) and the Peninsula Corridor Joint Powers Board (PCJPB), together with the Metropolitan Transportation Commission (MTC), the San Francisco County Transportation Authority (SFCTA), the Santa Clara Valley Transportation Authority (VTA), the City of San Jose, the City and County of San Francisco (CCSF), the San Mateo County Transportation Authority (SMCTA), and the Transbay Joint Powers Authority entered into a Memorandum of Understanding that adopted an early investment strategy pertaining to the Blended System in the San Francisco to San Jose Segment of the Peninsula Rail Corridor (the "2012 Nine-Party MOU"), a copy of which is attached hereto as Exhibit A and incorporated herein by this reference; and

WHEREAS, the 2012 Nine-Party MOU identifies two principal inter-related projects as essential to the early investment strategy: (1) the Peninsula Corridor Electrification Project, including associated rolling stock acquisition (the PCEP), and (2) construction of an advanced signal system, commonly known as the PCIPB's "CBOSS" project, which will incorporate federally mandated Positive Train Control (collectively, the "Early Investment Projects"); and

WHEREAS, the Parties to the 2012 Nine-Party MOU agreed to work together to identify the appropriate amounts and types of local resources that may be used to support the completion of the Early Investment Projects and to coordinate efforts to obtain funding using a mutually agreed-upon strategy, and in the event that funding for the program is constrained by statute, rescission of existing law, change in funding requirements or eligibility, reduction in funding level or availability, the Parties agreed to take steps to notify each other as needed in a timely manner; and

WHEREAS, \$125 million in FTA funds identified in the 2012 Early Investment Strategy funding plan included in the 2012 Nine-Party MOU is needed by the PCJPB to advance critical state of good repair improvements necessary to maintain existing Caltrain operations, and the PCJPB has requested to remove these funds from the early investment funding strategy, which would create a \$125 million funding gap; and

WHEREAS, a note to the 2012 early investment strategy funding plan included in the 2012 Nine-Party MOU indicated that other potential future funding sources could be substituted if secured; and

WHEREAS, the PCJPB conducted a cost estimate study for the PCEP in 2014 to update the 2008 cost estimate on which the 2012 Nine-Party MOU funding strategy for the PCEP was based, and the PCJPB has since included additional program contingency to the PCEP, such that the total anticipated budget for the PCEP is up to \$1.980 billion, which includes costs covering the contracts, program management, and contingency costs; and

WHEREAS, the Parties to this Seven-Party Supplement (Supplement) have met and discussed with all parties to the 2012 Nine-Party MOU additional funding needed for the PCEP to support contract award and have agreed to the funding commitments specified herein;

NOW, THEREFORE, it is mutually understood and agreed to by the PARTIES as follows:

1. To fully fund the PCEP, the parties to this Supplement commit to make the funding available to support the PCEP as set forth below. This funding is in addition to funding commitments

previously made by these parties in the 2012 Nine-Party MOU.

- a. The SMCTA will contribute an additional \$20 million;
- b. The VTA will contribute an additional \$20 million;
- c. The SFCTA and/or the CCSF will contribute an additional \$20 million;

(For SMCTA, VTA, and SFCTA and/or CCSF, each agency's contribution is contingent on the commitment of \$20 million each from the other two PCJPB partners, with the exact manner and timing of the contributions to be worked out with the PCJPB. The commitment of CCSF is subject to the Special Provisions in Exhibit C, attached to and incorporated in this MOU. These Special Provisions only apply to the funds to be provided by CCSF, and not any other parties to this Supplement.)

- d. The MTC will program \$28.4 million from Regional Measures 1 and 2;
- e. The PCJPB will contribute \$9 million from funding provided by formula to Caltrain through the State of California's Low Carbon Transit Operations Program; and
- f. The CHSRA will contribute an additional \$113 million.
- 2. The Parties to this Supplement also support the PCJPB's efforts to obtain \$647 million from FTA's Core Capacity Grant Program for the PCBP as a regional priority. The \$647 million would help provide funding needed for the PCBP, as well as funding to support a larger contingency set-aside for the PCBP program.
- 3. The Parties to this Supplement understand PCJPB has requested \$225 million from the California State Transportation Agency's Transit & Intercity Rail Capital Program (Cap & Trade TIRCP) to support the PCEP, as contemplated in the 2012 Nine-Party MOU. These funds will be prioritized for PCEP and will be used to backfill any shortfall in requested FTA Core Capacity funds. If available, funding not needed for PCEP will be used to replace the remaining Caltrain diesel vehicles with Electric Multiple Units (EMUs). The exact remaining number of vehicles to be replaced will be contingent on the final Cap & Trade TIRCP grant award.
- 4. The Parties to this Supplement also agree that, with the additional funding sources, \$125 million in FTA funds identified in the 2012 Early Investment Strategy funding plan will no longer be needed for the PCEP, and will instead be programmed by the MTC to the PCJPB to advance critical Caltrain state of good repair improvements through MTC's established regional Transit Capital Priorities process.
- 5. The total anticipated amount of funding to be secured for the PCEP will be \$1.980 billion, which includes the funding sources outlined above in paragraphs 1, 2, and 3, along with the original funding sources in the 2012 Nine-Party MOU except the \$125 million noted in paragraph 4 above. The revised funding plan for the PCEP reflecting the changes described herein is attached as Exhibit B.
- 6. The parties to this supplement agree to continue, through regular meetings, to provide opportunity for all nine parties to the 2012 Nine-Party MOU to discuss, review, and/or comment on relevant project matters and collectively provide advisory oversight to help advance the PCEP.

- 7. If overall program costs reflect a financial commitment that is below the funding plan of \$1.980 billion, funding commitments from the parties to this Supplement will be reduced proportionally according to their respective additional shares as stated in this Supplement.
- 8. In the event overall program costs reflect a financial commitment that is above the funding plan of \$1.980 billion, or if the FTA Core Capacity funds are awarded at less than \$647 million, the parties to this Supplement will discuss with all parties to the 2012 Nine-Party MOU how to secure additional funding beyond what is presently identified, and/or discuss project scope adjustments to match to funding availability.
- 9. The parties to the 2012 Nine-Party MOU will also discuss and agree in writing on program oversight roles for the funding partners prior to the award of the PCEP contracts.

IN WITNESS WHEREOF, this MOU has been executed by the PARTIES hereto as of the day and year indicated next to each signature, with the final signature date constituting the effective date.

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Jim Hartnett, Executive Director	Date
Peninsula Corridor Joint Powers Board and	معا بن جاب حسائد
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San Mateo County Transportation Authority	
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Nuria Fernandez, General Manager/CEO	D-1-
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Santa Clara Valley Transportation Authority	
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Edwin M. Lee, Mayor	Date
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Clerk of the Board	
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Tilly Chang, Executive Director	Date
San Francisco County Transportation Authority	
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Steve Heminger, Executive Director	Date .
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Jeff Morales, Chief Executive Officer	Date
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California High Speed Rail Authority	1
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APPROVED AS TO FORM BY:

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Attorney for Peninsula Corridor Joint Powers Board and	Date
San Mateo County Transportation Authority	•
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Attorney for Santa Clara Valley Transportation Authority	Date
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Dennis J. Herrera, City Attorney	
Ву:	
Robin M. Reitzes, Deputy City Attorney	Date
Attorney for City and County of San Francisco	
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Attorney for San Francisco County Transportation Authority	Date
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Attorney for Metropolitan Transportation Commission	Date
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Attorney for California High Speed Rail Authority	Date
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EXHIBIT B FUNDING PLAN FOR PENINSULA CORRIDOR ELECTRIFICATION AND ADVANCED SIGNAL SYSTEM PROJECTS (\$ millions)

				·	
·	9-Party	Changes	Revised		
	MOU	in the 7-Party	Costs &		
	Funding	Supplemental	Funding		
	Strategy	MOU	Sources	CBOSS	PCEP
Projected Costs			•		
PCEP	1,225.0	755.0	1,980.0	- 1	1,980.0
CBOSS	231.0		231.0	231.0	
Total	1,456.0	755.0	2,211.0	231.0	1,980.0
Funding Sources					
JPB Member Contributions	180.0	60.0	240.0	47.0	193.0
JPB Local	11.0	9.0	20.0	11.0	9.0
Caltrain PTC ·	4.0		4.0	4.0	
Subtotal Local	195.0	69.0	264.0	62.0	202.0
					
Prop 1A Connectivity	106.0		106.0	106.0	
Prop 1A HSRA	600.0		600.0		600.0
CHSRA Cap & Trade/Other		113.0	113.0		113.0
Cap & Trade TIRCP 1		20.0	20.0		20,0
Prop 1B Caltrain	24.0		24.0	16.0	8.0
Subtotal State	730.0	133.0	863.0	122.0	741.0
FRA	17.0		17.0	17.0	
FTA/FHWA Prior/Current Obligations ²	45.8		45.8	29.8	16.0
FTA Future Obligations	440.0	(125.0)	315.0		315.0
FTA Core Capacity ³	-	647.0	647.0	_	647.0
Subtotal Federal	502.8	522.0	1,024.8	46.8	978,0
MTC Bridge Tolls	11.0	28.4	39.4		39,4
BAAQMD Carl Moyer	20.0)	20.0		20.0
Subtotal Regional	31.0	28.4	59.4		59.4
Total	1,458.8	752.4	2,211.2	230.8	1,980.4

Notes

- 1. The parties to the Seven-Party Supplement to 2012 Memorandum of Understanding recognize that the JPB has requested State Cap & Trade TIRCP funds to help fund the PCEP. Of the \$225m requested, \$20m is identified to help close the funding gap in the \$1.98 billion project cost estimate for PCEP.
- 2. The \$2.8m represents a FHWA grant (Railwy/Hwy Hazard Elimination) for the CBOSS project that was secured after the 2012 MOU execution. This amount is not included in the 7-party MOU since the funding is for the CBOSS project.
- 3. \$647 million in FTA Core Capacity funds would help close the funding gap for PCEP, as well as providing funding to support a larger contingency set-aside for PCEP.

EXHIBIT C

Special Provisions for the City and County of San Francisco

(References to "City" in Paragraphs 1 and 2 refer to the City and County of San Francisco)

1. Certification of Funds; Budget and Fiscal Provisions; Termination in the Event of Non-Appropriation. This Agreement is subject to the budget and fiscal provisions of the City's Charter. Charges will accrue only after prior written authorization certified by the Controller, and the amount of City's obligation hereunder shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization. This Agreement will terminate without penalty, liability or expense of any kind to City at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year. If funds are appropriated for a portion of the fiscal year, this Agreement will terminate, without penalty, liability or expense of any kind at the end of the term for which funds are appropriated. City has no obligation to make appropriations for this Agreement in lieu of appropriations for new or other agreements. City budget decisions are subject to the discretion of the Mayor and the Board of Supervisors. Contractor's assumption of risk of possible non-appropriation is part of the consideration for this Agreement.

THIS SECTION CONTROLS AGAINST ANY AND ALL OTHER PROVISIONS OF THIS AGREEMENT.

- 2. Guaranteed Maximum Costs. The City's obligation hereunder shall not at any time exceed the amount certified by the Controller for the purpose and period stated in such certification. Except as may be provided by laws governing emergency procedures, officers and employees of the City are not authorized to request, and the City is not required to reimburse the Contractor for, Commodities or Services beyond the agreed upon contract scope unless the changed scope is authorized by amendment and approved as required by law. Officers and employees of the City are not authorized to offer or promise, nor is the City required to honor, any offered or promised additional funding in excess of the maximum amount of funding for which the contract is certified without certification of the additional amount by the Controller. The Controller is not authorized to make payments on any contract for which funds have not been certified as available in the budget or by supplemental appropriation.
- 3. Sunshine Ordinance. In accordance with San Francisco Administrative Code §67.24(e), contracts, contractors' bids, responses to solicitations and all other records of communications between City and persons or firms seeking contracts, shall be open to inspection immediately after a contract has been awarded. Nothing in this provision requires the disclosure of a private person or organization's net worth or other proprietary financial data submitted for qualification for a contract or other benefit until and unless that person or organization is awarded the contract or benefit. Information provided which is covered by this paragraph will be made available to the public upon request.

Attachment 2

FUNDING PARTNERS OVERSIGHT PROTOCOL FOR CALTRAIN'S CAL MOD PROGRAM (Electrification, Vehicles, CBOSS)

- The Caltrain Project Management staff (CPMT) will have an open door policy with the Funding Partners' oversight representatives (Partners), who will have access to project Section Managers and available information. The Funding Partners and their oversight representatives understand that some information will be confidential and commit to honor that confidentiality by not sharing or divulging any information so defined.
- 2. The Partners will attend all progress meetings with the CPMT, to stay abreast of all project activities and when warranted, may also attend, as observers, partnering sessions and progress meetings with the contractor. The CPMT will provide a list of current and anticipated regularly scheduled meetings, and the Partners and CPMT will jointly determine the meetings that would be most useful.
- Subject to FTA concurrence, the Partners will also attend meetings with the FTA and its PMO.
 It will be the responsibility of the Partners to secure FTA's agreement to such participation.
 The CPMT will make the first approach to the FTA.
- 4. The CPMT will make available to the Partners all project deliverables, reports, plans, procedures, and progress and cost reports for review and comment, which will be performed within the stipulated review period. Should the Partners not provide comments by the due date, the CPMT may assume that they are not forthcoming.
- 5. The Partners will review progress and cost reports and provide comments.
- 6. The Partners will participate in consultant selection panels and proposal/bid reviews.
- 7. The Partners will monitor quality through regular discussions with the Quality Assurance Manager.
- 8. The Partners will be members of the Risk Management team and participate in all Risk Management meetings and receive copies of the original risk register, its monthly updates, and reports.
- 9. The CPMT will institute a Configuration Management Board (CMB), with one representative each from San Francisco, CHSRA, and VTA as voting members, to review all proposed changes, regardless of whether they are owner, designer, or contractor originated, to determine merit, agree on quantum, and ultimately authorize all changes for the project. The Partners agree that their representative to the CMB will have the appropriate technical and Project Management background. No member of the CMB will have Veto power.
- 10. The Partners will provide support to the CPMT on funding and financing issues.
- 11. The Partners will review and approve project invoices submitted to their respective Agencies and assure that they are processed on a timely manner.
- . 12. The Partners will assist the CPMT with development of grant amendments and funding requests which are submitted to their respective Agencies for approval.



Introduction Form

By a Member of the Board of Supervisors or the Mayor

	Time stamp
I hereby submit the following item for introduction (select only one):	of meeting date
1. For reference to Committee. (An Ordinance, Resolution, Motion, or Charter Amend	lment)
☐ 2. Request for next printed agenda Without Reference to Committee.	
☐ 3. Request for hearing on a subject matter at Committee.	
4. Request for letter beginning "Supervisor	inquires"
5. City Attorney request.	
6. Call File No. from Committee.	
7. Budget Analyst request (attach written motion).	·
8. Substitute Legislation File No.	
9. Reactivate File No.	
10. Question(s) submitted for Mayoral Appearance before the BOS on	
Please check the appropriate boxes. The proposed legislation should be forwarded to the foll Small Business Commission	mmission · ssion
ponsor(s):	<u>-</u> <u>-</u>
Cohen	
Subject:	
The text is listed below or attached:	
Seven party supplement MOU regarding financial commitment to Peninsula corridor electrific	ation project.
	/
Signature of Sponsoring Supervisor:	2 hun
For Clerk's Use Only:	



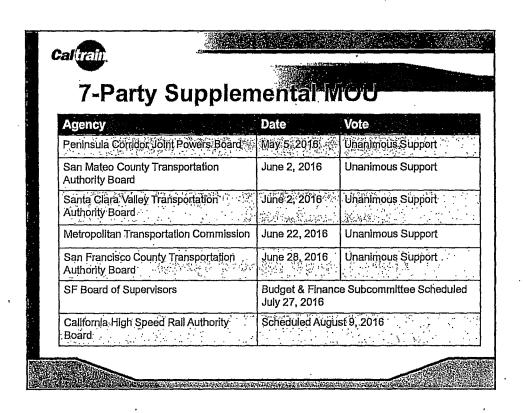
Next Phase of Modernization

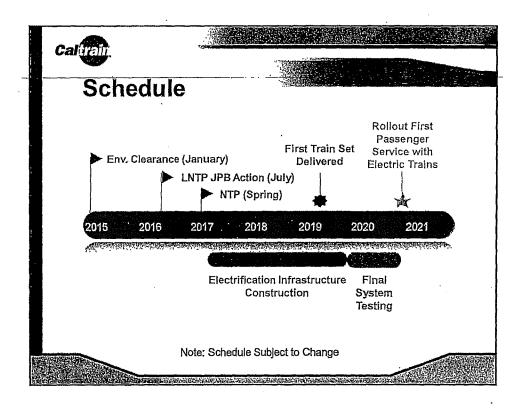
- · Service to Downtown San Francisco
- Improved Caltrain Service
 - Complete electric train conversion SJ to SF
 - Longer electric trains
 - Level Boarding
- HSR / Caltrain Blended Service
 - HSR stations
 - Infrastructure upgrades

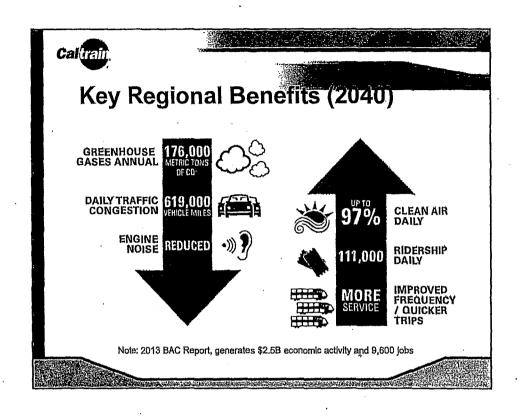


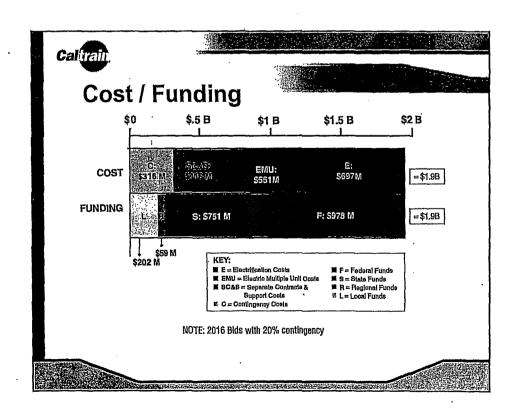
Questions

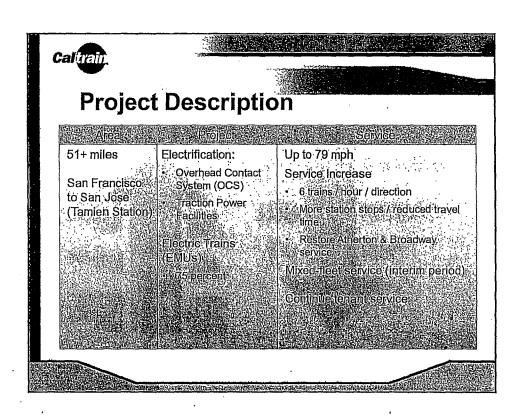
More information / leave comments: website: www.caltrain.com/calmod email: calmod@caltrain.com phone: 650.508.6499

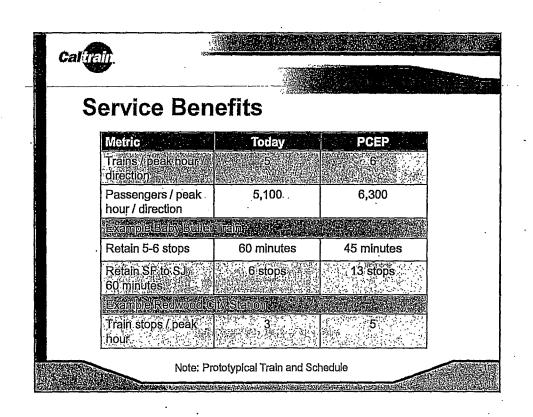


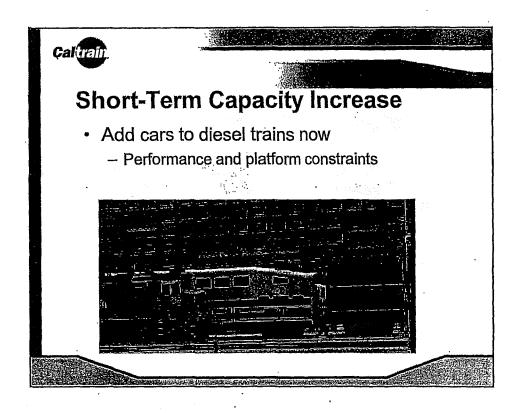


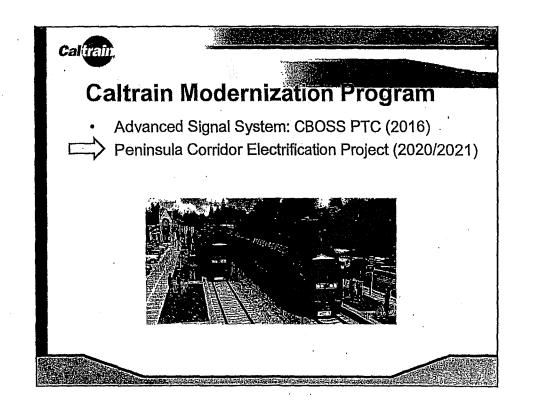


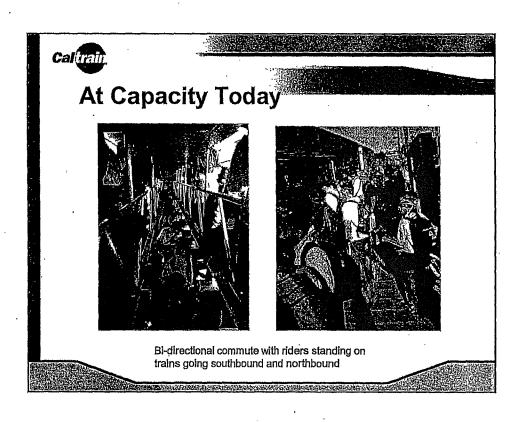


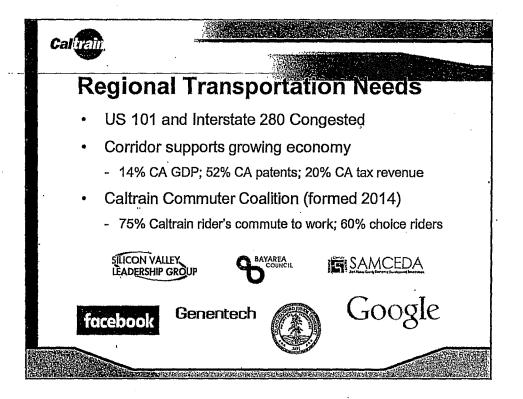


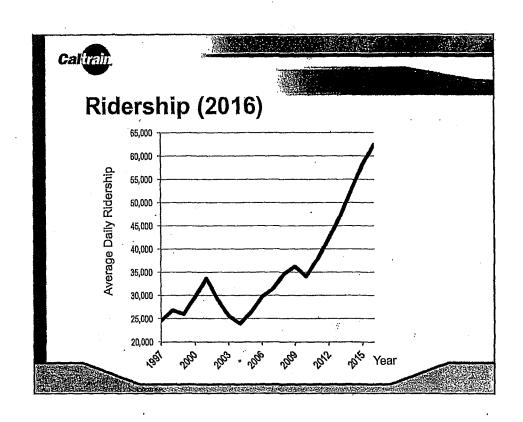


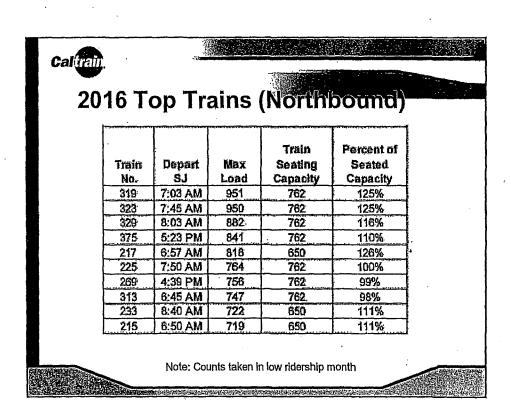




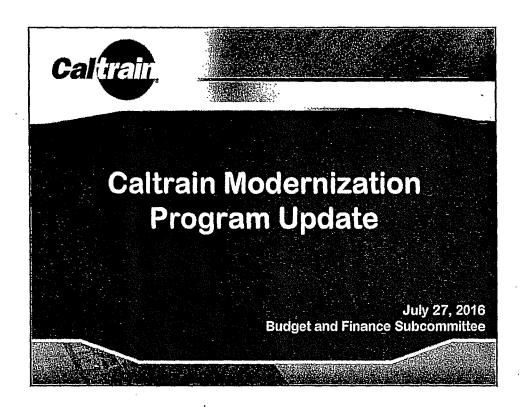


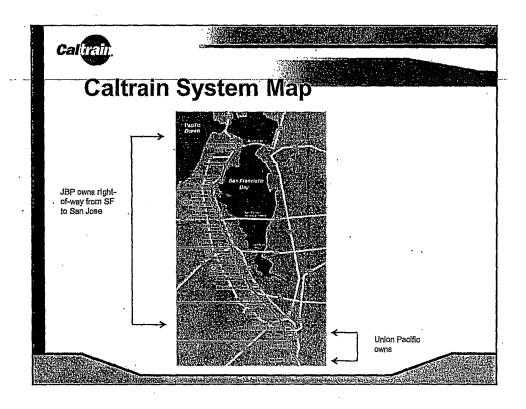






F.le # 1607 6 Received in Committee 7/27/14 for.





Wong, Linda (BOS)

rom:

Board of Supervisors, (BOS)

√ent:

Tuesday, July 26, 2016 9:43 AM

To:

Wong, Linda (BOS)

Subject:

File 160796 FW: Bay Area Council letter regarding November transportation measure

Attachments:

PCEP MOU SF BOS letter.pdf

From: Michael Cunningham [mailto:mcunningham@bayareacouncil.org]

Sent: Tuesday, July 26, 2016 8:55 AM

To: Avalos, John (BOS) <john.avalos@sfgov.org>; Breed, London (BOS) <london.breed@sfgov.org>; Campos, David (BOS)

<david.campos@sfgov.org>; Cohen, Malia (BOS) <malia.cohen@sfgov.org>; Farrell, Mark (BOS)

<mark.farrell@sfgov.org>; Kim, Jane (BOS) <jane.kim@sfgov.org>; Mar, Eric (BOS) <eric.mar@sfgov.org>; Peskin, Aaron (BOS) <aaron.peskin@sfgov.org>; Tang, Katy (BOS) <katy.tang@sfgov.org>; Wiener, Scott <scott.wiener@sfgov.org>;

Yee, Norman (BOS) <norman.yee@sfgov.org>; Board of Supervisors, (BOS) <box does not not supervisors (BOS)

Supervisors (B

Cc: Emily Loper <eloper@bayareacouncil.org>

Subject: Bay Area Council letter regarding November transportation measure

Please see the attached letter from the Bay Area Council regarding the Budget and Finance Sub-Committee action on the Seven-Party Supplement to the 2012 MOU for the Peninsula Corridor Electrification Project.

Regards,

Michael Cunningham | Senior V ... President, Public Policy YAREA COUNCIL

3 Sacramento Street, 10th Floor | San Francisco, CA 94111

15-946-8706 | mcunningham@l . /areacouncil.org | www.bayareacouncil.org



July 25, 2016

Budget and Finance Sub-Committee Chairman Mark Farrell and Members San Francisco Board of Supervisors One Dr. Carlton B. Goodlett Place San Francisco, CA 94102

RE: Seven-Party Supplement to the 2012 MOU - Peninsula Corridor Electrification Project

Dear Chairman Farrell and Supervisors:

On behalf of the Bay Area Council, I am writing to express our appreciation for your continued efforts to advance the Peninsula Corridor Electrification Project (PCEP). We are looking forward to the finalization of funding agreements and the award of contracts that will allow the project to proceed.

Today, Caltrain is struggling to accommodate unprecedented regional growth, with six consecutive years of record-setting ridership. As Highway 101 and Interstate 280 have become increasingly congested, workers have turned to Caltrain as a preferred commute option between San Francisco and Silicon Valley. As a result, peak hour service is well over 100 percent capacity with ridership on some trains exceeding 125 percent of available seats.

This corridor is arguably the most economically productive area in the State. The communities and businesses served by the 51-mile railroad are responsible for 14 percent of California's economic output, 20 percent of state income tax revenue, and are the birthplace of over half of California patents. However, the region cannot continue to thrive without equipping the 150-year-old rail corridor with a modernized transit system capable of accommodating current and future ridership demand.

Fortunately, the strong leadership from local, regional, state and federal partners has advanced the transformational Peninsula Corridor Electrification Project. The Project will replace the current diesel operations with a system that features high-performance electric trains capable of delivering cleaner, faster, more frequent service to San Francisco residents and employers.

The PCEP cannot come soon enough and we encourage you to support the Seven Party Supplemental Memorandum of Understanding.

Regards,

Michael Cunningham

Senior Vice President, Public Policy

cc: Board President Breed and Supervisors

July 5, 2016

Parties to the 2012 Nine-Party MOU agreed on an early investment strategy pertaining to the Blended System in the San Francisco to San Jose Segment of the Peninsula Rail Corridor. And since that time, in 2016, seven of the original nine parties agreed to enter into a Seven Party Supplement to the 2012 MOU to provide additional funding for the Peninsula Corridor Electrification Program (PCEP). The 2012 Nine-Party MOU and the 2016 Seven-Party MOU Supplement are included here as attachments A and B.

As part of the Seven Party MOU Supplement, these seven funding partners agreed to discuss and put in writing a protocol for program oversight roles for the funding partners prior to the award of the PCEP contracts.

Since early 2016, the parties led by San Francisco County Transportation Authority and Caltrain have been discussing these program oversight protocol, and have settled on the exact program oversight roles and protocol. These protocols are now attached to this letter as Exhibit A. Each funding partner may participate as much or as little in program oversight consistent with the attached protocols as their agencies wish. The key staff who will participate in the program oversight will acknowledge these agreed upon oversight roles and protocols by their signatures below. Funding partners should notify PCJPB in writing when there are changes to the key staff who will participate in program oversight.

Ben Tripousis California High Speed Rail Authority	Edward D. Reiskin City and County of San Francisco
Anne Richman	Liria Larano
Metropolitan Transportation Commission	Peninsula Corridor Joint Powers Board
Maria Lombardo	April Chan
San Francisco County Transportation Authority	San Mateo County Transportation Authority
Jim Lawson	
Valley Transportation Authority	

Exhibit A

FUNDING PARTNERS OVERSIGHT PROTOCOL FOR CALTRAIN'S CAL MOD PROGRAM (Electrification, Vehicles, CBOSS "Project")

- 1. The Caltrain Project Management staff (CPMT) will have an open door policy with the Funding Partners' oversight representatives (Partners), who will have access to project Section Managers and available information. The Partners understand that some information will be confidential and commit to honor that confidentiality by not sharing or divulging any information so defined by CPMT in writing
- 2. Any of the Partners may attend any and all progress meetings with the CPMT, to stay abreast of all project activities and when warranted, may also attend, as observers, partnering sessions and progress meetings with the contractor. The CPMT will provide a list of current and anticipated regularly scheduled meetings.
- 3. The Partners may also attend meetings with the FTA and its PMO. The CPMT will provide a list of current and anticipated regularly scheduled meetings. It will be the responsibility of the Partners to secure FTA's agreement to such participation. The CPMT will make the first approach to the FTA.
- 4. The CPMT will make available to the Partners all project deliverables, reports, plans, procedures, and progress and cost reports for review and comment, which will be performed within a stipulated review period to be agreed upon with the Partners. Should the Partners not provide comments by the due date, the CPMT may assume that they are not forthcoming.
- 5. The Partners may review progress and cost reports and provide comments. CPMT will ensure that Partners have adequate time to review and comment.
- 6. CPMT shall provide to the partners a quarterly progress report on each defined project in a format to be agreed among the Partners and CPMT. At a minimum, the report will document the progress to date against the baseline and forecast outcomes for all major project components, and shall clearly identify any significant deviations in scope, schedule and budget that the CPMT can identify. Where the deviations are significant, CPMT shall provide a plan for resolving the deviation. The report shall also define all significant risks known to successful completion of the project and measures being taken to minimize those risks. CPMT and the Partners will also develop an agreed set of "dashboard" indicators based on the above report for use in informing senior management and policymakers of project status.
- 7. The Partners may participate in consultant selection panels and proposal/bid reviews. CPMT will advise the Partners of upcoming panels so the Partners have adequate time to determine whether they will participate.
- 8. The Partners may monitor quality through regular discussions with the Quality Assurance Manager.
- 9. The Partners will be members of the Risk Management team, and participate in all Risk Management meetings, and receive copies of the original risk register, its monthly updates, and reports. CPMT will notify the Partners within 10 business days of any issues that arise that result in additional costs exceeding \$250,000 with any aspect of the Project that creates additional risk.
- 10. The CPMT will institute a Configuration Management Board (CMB), with one representative each from San Francisco, the California High Speed Rail Authority, and the Valley Transportation Authority as voting members, to review all proposed changes, regardless of whether they are originated by the owner, designer, or contractor, to determine merit, agree on quantum, and ultimately authorize all changes for the project. The Partners agree that their representative to the CMB will have the appropriate technical and Project Management background. No member of the CMB will have veto power.
- 11. The Partners will provide support to the CPMT on funding and financing issues, subject to each respective governing board's authority to appropriate funding.

- 12. CPMT will ensure appropriate and required documentation is provided to the Partners so that the Partners can review and approve project invoices submitted to their respective agencies and assure that they are processed on a timely manner.
- 13. The Partners will assist CPMT with development of grant amendments and funding requests that are submitted to their respective agencies for approval.
- 14. The Partners can request a meeting with CPMT at any time in addition to the meetings above to receive additional information related to any aspect of the Project.
- 15. The CPMT agrees that one or more of the Partners can request an audit and/or review of any of the Project information at any time. CPMT agrees to comply with supporting information to comply with all request within 30 days.

JACKIE SPEIER 14th DISTRICT, CALIFORNIA

2465 RAYBURN HOUSE OFFICE BUILDING WASHINGTON, DC 20515-0514 (202) 225-3531 FAX: (202) 226-4183

155 Bovet Road, Suite 780 San Mateo, CA 94402 (650) 342-0300 Fax: (650) 375-8270

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Congress of the United States House of Representatives Washington, DC 20515-0514

COMMITTEE ON ARMED SERVICES

SUBCOMMITTEES:
RANKING MEMBER, OVERSIGHT AND
INVESTIGATION

MILITARY PERSONNEL

PERMANENT SELECT COMMITTEE
ON INTELLIGENCE

SUBCOMMITTEES:
EMERGING THREATS

NSA AND CYBERSECURITY

Senior Whip

August 1, 2016

Board President London Breed and Members of the Board of Supervisors City Hall, Room 244 1 Dr. Carlton Goodlett Place San Francisco, CA 94102

Dear Board President Breed and Members:

I respectfully request your support for the MOU before you today regarding Caltrain electrification. The project involves over \$1 billion of federal funding. If the MOU is not approved today, and based upon the board's calendar, federal funding is at risk. San Francisco could lose the benefits of the historic investment in the city's future development, including making the Transbay Terminal a world-class destination for the blended system of Caltrain and high speed rail.

The 2008 estimate for electrification has been further developed and the costs of the project have changed. Under President Obama's leadership, and in great measure due to then-Speaker Pelosi's advocacy for stimulus funding, our economy recovered. However, construction costs have increased now that the economy is back to full employment. This demonstrates why delays in public works projects are costly. Second, the original estimate has been expanded upon to include additional engineering work, including a better understanding of the costs of running the railroad and doing construction at the same time. To ensure that the project is well managed, there is an oversight protocol that the funding partners have agreed to and there is a federal analogue once the project qualifies for additional federal funding.

Electrification is essential to getting the blended system to the Transbay Terminal. President Obama is fully dedicated to the project and his dedication is manifested in this funding. If he leaves office, it is unknown what commitment a new administration may have. It is important to note that of the increased costs since 2008, it is my understanding that San Francisco is being asked to assume \$20 million (3%) while the federal government is expected to cover an additional \$522 million or 69%. Combined, the multiple federal and state programs represent a commitment to San Francisco that is transformative in its implications and available at this moment in our nation's history. Waiting would be highly problematic.

I urge the San Francisco Board of Supervisors to join the President, Congress, California's voters, and the other parties to this agreement to ratify the MOU needed to create this historic project. San Francisco, a city that I proudly represent along with Leader Pelosi, will be the beneficiary of our collective leadership for decades to come.

All the best,

Jackie Speier

KJS/bp

AMERICAN PUBLIC TRANSPORTATION ASSOCIATION .

PEER REVIEW

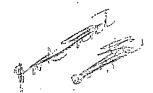
FOR

Caltrain

San Carlos, California

JULY 4, 2016





A Service of the American Public Transportation Association performed by the North American Transit Services Association a wholly owned subsidiary of APTA

FINAL REPORT

OF THE

NORTH AMERICAN TRANSIT SERVICES ASSOCIATION

PEER REVIEW PANEL

ON THE

COMMUNICATIONS BASED OVERLAY SIGNAL SYSTEM (CBOSS) POSITIVE TRAIN CONTROL (PTC) PROJECT

PROVIDED AT

CALTRAIN

PANEL MEMBERS:
Jack Collins
Keith Holt
Michael Hursh
Kay Neuenhofen
Tim Shirk
Greg Hull

Published by the
North American Transit Services Association
1300 I Street, NW, 12th Floor South
Washington, DC 20005

Richard White, Interim President and CEO

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INTRODUCTION

In April 2016, James Hartnett, Executive Director, Caltrain, contacted the American Public Transportation Association (APTA) to request a peer review of the agency's Communications Based Overlay Signal System (CBOSS) Positive Train Control (PTC) Project. APTA, through its wholly owned subsidiary the North American Transit Services Association (NATSA) and through discussions between NATSA and Caltrain staff, determined the review would be conducted May 31 – June 3, 2016. This final report was completed July 4, 2016.

A panel of industry and related industry peers was assembled and was comprised of individuals with experience in the implementation of PTC system technology and other complex signal system train control projects as well as experience in large technology and software-based projects. The onsite peer review panel consisted of the following individuals and the organizations from which they were selected:

MR. MICHAEL HURSH

General Manager AC Transit Oakland, CA

MR. KEITH HOLT

Deputy Chief Engineer, Communications & Signals AMTRAK
Philadelphia, PA

MR. TIMOTHY SHIRK

Director of Communications and Signal Engineering SEPTA
Philadelphia, PA

MR. JACK COLLINS

Chief Capital Officer (retired) Metrolinx/GO Transit Toronto, Canada

MR. KAY NEUENHOFEN

Software Engineer Davis, California

MR. GREG HULL

Peer Review Facilitator APTA, Washington, DC

The panel convened in San Carlos on Tuesday, May 31st. Panel coordination and logistical support was provided by NATSA Peer Review Facilitator, Greg Hull. Mr. Hull also coordinated panel member input in the drafting of this peer review report.

BACKGROUND

The Communication Based Overlay Signal System (CBOSS) Positive Train Control (PTC) solution is an overlay component to the existing fixed wayside signal system and integrated into the existing CTC mainline tracks. The purpose of the system is to prevent train to train collisions, enforce civil speed, prevent intrusion into work zones, prevent train movement over misaligned switches, reduce gate down time, enforce adherence to the schedule and to accommodate capacity for future high speed rail. This state of the art system will improve safety for passengers, workers, the general public and highway traffic crossing the tracks.

METHODOLOGY

The APTA Peer Review process is well established as a valuable resource to the public transit industry. Highly experienced and respected professionals voluntarily provide their time and support to address the review scope identified to assist the transit system and in turn assist the transit industry as a whole.

The panel conducted this peer review through documentation review, field observations, briefings, as well as listening sessions and interviews with Caltrain staff and contracted support.

SCOPE OF THE REPORT

The purpose of the review was to have the panel assist Caltrain in reviewing the progress of the project and project team organization. The review focused on two particular areas:

Programmatic:

- Performance of contractor relative to contract
- Engagement and oversight of contractor
- Engagement of Joint Powers Board (JPB) executive oversight and issue escalation/ process for decision making

Technological:

- Interoperability design viability
- Effectiveness of design
- Technical team resources

OBSERVATIONS AND RECOMMENDATIONS

OPENING COMMENTS

The peer review panel found Caltrain's community outreach efforts on the project to be extensive and commendable. The PTC design is robust and appears to meet industry standards.

However, in the view of the panel, the probability of meeting the October implementation schedule is doubtful. A definition of "interoperability" and how to test "interoperability" needs to be agreed upon by the parties. However, at this juncture, activation of PTC on Caltrain property should not be delayed and should be regarded as a priority.

Caltrain oversight and TASI engagement needs to be strengthened, and operational training needs to be expedited. Additionally, a long term operations and maintenance strategy need to be determined. In the view of the panel in order to effectively address these operations and maintenance issues the decision to re-bid or extend the TASI contract needs to be addressed as soon as possible.

1. PROGRAMMATIC: CONTRACTOR PERFORMANCE RELATIVE TO CONTRACT

In the view of the panel, friction between the owners' project team and PTG has impacted responsiveness and transparency by PTG in PTG communicating cost and schedule progress. PTG also regards the scope of the project to have changed due to changes by Class 1 railroads which then impacts the interoperability of CBOSS. Additionally, both the owner and contracted parties do not appear to be working on a commonly approved schedule, so it is unlikely that the PTG Revenue Service Demonstration (RSD) date of October 2016 will be achieved. The panel also believes that project performance has also been impacted, in part, by the lack of TASI engagement, which results in harm to the project.

RECOMMENDATIONS

- Establish weekly stakeholder meetings to include Caltrain, the Program Manager, PTG and TASI
- Caltrain needs to come to terms (negotiate) with PTG to agree upon a realistic schedule for the implementation of PTC. The current moving schedule target must stop.
- Identify what specifics and to what degree PTC-related changes brought about by Class 1 railroads have impacted the scope of this project
- Caltrain needs to direct PTG to commence information/knowledge transfer with TASI

2. PROGRAMMATIC: ENGAGEMENT AND OVERSIGHT OF THE CONTRACTOR

The oversight of PTG has included Caltrain and its program management consultants. In the view of the panel, in the absence of a strong technical team within Caltrain, Caltrain management has delegated decision making on the PTG contract to its program management consultant. PTG does not regard the program management consultant as the owner and this has consequently led to unresolved technical and contractual issues. Despite the recent partnering session, there continues to be a lack of commitment to resolving contractual issues such as scheduling and cost. The question remains as to where the cure or resolution presently stands.

RECOMMENDATIONS

- Caltrain needs to directly hire a project manager with requisite technical experience and provide that person with the authority to manage the interests of Caltrain
- Immediately engage TASI for revenue startup and handover with a focus on training and knowledge transfer
- Take action now to place CBOSS equipped Caltrain trains on Caltrain track into revenue service as soon as possible
- Engage with PTG to establish a clear and real plan for implementation of PTC interoperability (ability to synchronize safe train movement with all relevant parties)
- Determine common ground for resolving current outstanding contractual issues

3. PROGRAMMATIC: ENGAGEMENT JPB EXECUTIVE OVERSIGHT AND ISSUE/ESCALATION DECISION MAKING PROCESS

Notwithstanding Caltrain's role on behalf of JPB, it is not clear to the panel whether JPB itself has played a role in the day to day project oversight. The initial partnering session established an issue escalation process, however, this process appears to have broken down. As previously noted, despite the recent partnering session, there continues to be a lack of commitment to resolving contractual issues such as scheduling and cost.

The panel notes that the PTC CBOSS project is just one of several complex infrastructure projects that will require Caltrain to take a serious look at in-house technical management resources.

RECOMMENDATION

 Caltrain and PTG CEO's should continue their weekly phone call to discuss project status and issues

4. TECHNOLOGICAL: INTEROPERABILITY DESIGN VIABILITY

It appears that the current status of software does not support interoperability with tenant and host railroads and that configuration management of the versions of system software control is lacking. It does not appear that interoperability will be included with the October 2016 revenue service demonstration.

RECOMMENDATIONS

- A priority needs to be given to implement PTC operation on Caltrain property
- There needs to be agreement on a clear definition of interoperability as it pertains to tenant and host railroads along with a test plan and schedule
- Establish configuration management of system software version controls

5. TECHNOLOGICAL: EFFECTIVENESS OF DESIGN

The logic for the fiber optics design and distribution was well planned and can be leveraged for future revenue. The control center design incorporates state of the art technology, and is well laid out and labeled. The On Board Computer (OBC) has approximately 10,000 lines of code which is considered a small system that promotes maintainability and robustness. However, in reviewing the open software defects list, it appears that at least one of the defects is said to crash the OBC. As noted by the current defect list, there are multiple communication network issues that remain to be resolved.

The panel notes that the security layer of the software is an older application that is vulnerable to cryptographic intrusion.

RECOMMENDATIONS

- The panel encourages that the back-up Central Control facility PTC network be physically isolated from external open networks (physically disconnect VPN connections)
- Review current security layers of the software and research whether security can be hardened
 without incurring unintended consequences. Continue efforts to deploy planned key
 exchange server.
- Review the vehicle equipment installations and systems design. Include TASI in this review.
- Consider the establishment of a configuration management function within Caltrain to ensure that modifications to PTC systems are controlled

6. TECHNOLOGICAL: EFFECTIVENESS OF DESIGN

In the view of the panel, animosities between the prime contractor and project management oversight present an impediment to resolving outstanding technical issues. PTG appears to have appropriate technical resources to complete CBOSS requirements for Caltrain running on Caltrain tracks. It is apparent that TASI resources have not been fully engaged during the course of the project.,

RECOMMENDATIONS

- The panel encourages Caltrain to bring PTG and the project management team together to resolve interface issues in order to be more effective in resolving outstanding technical issues
- TASI can provide additional resources to strengthen current implementation and future maintenance of the system

OTHER OBSERVATIONS AND RECOMMENDATIONS

The panel encourages that technical and commercial issues be separated and allow technical issue resolution to drive the schedule. It does not appear that training has progressed to the degree needed to meet the October deadline. It also needs to be realized that seasonal events will limit the availability of operations personnel for training. If not currently developed, establish a master test plan that is coherent, regularly updated, and is communicated to all relevant parties. Also ensure that on-going responsibilities for the rules, rulebook and bulletins are clarified and understood by all relevant parties.

CONCLUDING REMARKS

The findings and recommendations of this review are intended to assist Caltrain in implementing strategies that will assist the organization and its partners to successfully implement the CBOSS PTC project.

The panel sincerely appreciates the support and assistance extended throughout the entire peer review process by all Caltrain personnel as well as their contracted support. The panel stands available to assist with any clarification or subsequent support that may be needed.

Appendix

APPENDIX A



April 5, 2016

BOARD OF DIRECTORS 2016

PERRY WOODWARD, CHAIR JOSÉ CISNEROS, VICE CHAIR MALIA COHEN JEFF GUE ROSE GUILBAULT RAUL PERALEZ JOÉL RAMOS ADRIENNE TISSIER KEN YEAGER

JIM HARTNETT EXECUTIVE DIRECTOR

Mr. Richard White American Public Transportation Association 1300 I Street, NW, Suite 1200 East Washington, DC 20005

RE: REQUEST FOR APTA PEER REVIEW - CBOSS PTC PROJECT

Dear Mr. White:

This letter will serve as our formal request for APTA to assist Caltrain with a Peer Review of our CBOSS PTC.

Attached is a briefing document that includes background on the agency, the CBOSS PTC project purpose and goals, problem statement, and requested APTA Peer Review team scope of work. This document also includes the Caltrain point of contact for coordination of the Peer Review Process and the requested schedule for Peer Review activities to begin. Also enclosed is the required executed indemnification form.

The agency is processing the APTA \$9,000.00 fee and will mail this check under separate cover to your attention. This letter will also confirm our commitment to reimburse appropriate Peer Review expenses including coach class air travel, and hotel and meal expenses. Caltrain typically reimburses meal expenses on a per diem rate under the GSA schedule for the San Francisco region. Prior to booking hotels for the Peer Review Team we would ask that these reservations be coordinated with our staff.

Please do not hesitate to contact me at 650 508-6221 if you have any questions or concerns with our request. We appreciate APTA's assistance with this important agency initiative.

Sincerely,

Jim Harthett

Executive Director

Attachment

PENINSULA CORRIDOR JOINT POWERS BOARD 1250 San Carlos Ave. – P.O. Box 3006 San Carlos, CA 94070-1306 650.508.6269

APPENDIX B

Agenda for CBOSS PTC APTA Peer Review May 31 - June 3, 2016 Meetings Held in 4th Floor Dining Room 1250 San Carlos Ave, San Carlos CA

May 31 st :	
6:00 pm	Dinner at Positano - 617 Laurel Street, San Carlos -
June 1 st :	APTA Team, Jim Hartnett, Michelle Bouchard & Gigi Harrington
8:15 am	Kick off Confirm Objectives/Outcomes APTA team, Jim Hartnett, Michelle Bouchard, Gigi Harrington & Sal Gilardi
9:00am-10 am	Caltrain funding, governance and service overview-present and future (PCEP) Michelle Bouchard, Gigi Harrington, Danielle Stewart, Seamus Murphy
10:00am - 12:00pm	History of the Program – Karen Antion, Dave Elliot, Michelle Bouchard & Sal Gilardi – including Luis Zurinaga (SFCTA) and Jim Lawson (VTA)
12:00pm - 1:00pm	Working Lunch with PTG Team. What is working and what is not?
1:15pm - 2:30pm	CBOSS technology overview Karen Antion, Dave Elliot, Michelle Bouchard & Sal Gilardi including Luis Zurinaga (SFCTA) and Jim Lawson (VTA)
2:45PM - 3:45pm	Integration and Interoperability – Karen Antion, Dave Elliot, Michelle Bouchard & Sal Gilardi including Luis Zurinaga (SFCTA) and Jim Lawson (VTA)
4:00pm – 5:00pm	Stakeholder Viewpoints – Seamus Murphy, Casey Fromson, Michelle Bouchard & Sal Gilardi
June 2 nd :	
8:15am - 9:30am	Follow-up from previous day, missing pieces — Gigi Harrington, Michelle Bouchard, Karen Antion, Dave Elliot & Sal Gilardi
9:30am - 11:30am	Tour BCCF and Hi-Rail and discussion of Safety Certification and Safety for the Project
12:00pm - 1:30pm	Contractor Management Gigi Harrington & Michelle Bouchard
2:00pm - 5:00pm ·	Peer Review Working Meeting
June 3 rd :	·
8:15am - 10:30am	Project Closeout Jim Hartnett, Michelle Bouchard, Gigi Harrington, Sal Gilardi, Karen Antion & Dave Elliot

APPENDIX C

DOCUMENT LIST

- Caltrain Positive Train Control Project- APTA Peer Review (general summary of milestones and related networks)
- "What Is Working and What Is Not" (summary produced by Parsons Transportation Group)
- 3. JPB CBOSS Project Organization Structure (6/1/16)
- 4. Interoperability Coordination Efforts (timeline)
- 5. Caltrain PTC Project Training Schedule (updated May 2, 2016)
- 6. Table 2-1 Hazard Log Status Levels/ Table 2-4 Hazard Risk Index
- 7. CBOSS PTC Integration and Interoperability (presentation: June 1, 2016)
- 8. Advanced Signal System (CBOSS PTC) System Overview (presentation: June 1, 2016)
- 9. Caltrain Overview- APTA Peer Review of CBOSS PTC (presentation: May, 2016)
- 10. Caltrain PTC Implementation Plan (PTCIP) (September 24, 2014)
- 11. JPB Board Presentations (2011-2016)
- 12. CBOSS Weekly Executive Dashboards (2016)
- 13. Caltrain Monthly CBOSS PTC Progress Reports (2015-2016)
- 14. CBOSS PTC Project Plan to Completion Partnering Session (Rev Approach, 11-4-15)
- 15. Caltrain CBOSS PTC Project Partnering Session (April 29, 2015)
- 16. JPB/ PTG/ GE Partnering Meeting (August 31, 2015)
- 17. Breach of Contract/ Demand to Cure Correspondence: JPB to PTG/ PTG to JPB (2016)
- 18. U.S. Government Accountability Office Report: Positive Train Control / GAO-15-739 (September, 2015)

BOS-11, CPUSES, BOF F.le No. 160796

m:

Board of Supervisors, (BOS)

ro:

BOS-Supervisors

Subject:

FW: Caltrain Modernization Program Information, File No. 160796

Attachments:

Memo From Michael Burns_Caltrain.pdf

From: Fromson, Casey [mailto:Fromsonc@samtrans.com]

Sent: Wednesday, August 03, 2016 3:30 PM

To: Board of Supervisors, (BOS) <box/>board.of.supervisors@sfgov.org>; Lee, Mayor (MYR) <mayoredwinlee@sfgov.org>

Cc: Murphy, Seamus <murphys@samtrans.com> **Subject:** Caltrain Modernization Program Information

Dear San Francisco Supervisors and Mayor Lee,

On behalf of Michael Burns, the Caltrain Modernization Program Chief Officer, I'm attached the attached memo about the Peninsula Corridor Electrification Project Oversight program and history for your information.

Please don't hesitate to email or call, if you have any questions. Caltrain staff is available to meet with you to discuss any of these issues in more detail at your convenience before this items is considered during your meeting on August 8, 2016.

ank you,

Casey

Casey Fromson, External Affairs
CalMod Program Office
2121 S. El Camino Real, Suite 300
San Mateo, CA 94403
Direct: 650.508.6493
Cell: 650.288.7625
www.caltrain.com/calmod



PERRY WOODWARD CHAIR JOSÉ CISNEROS, VICE CHAIR MALIA COHEN JEFF GEE ROSE GUILBAULT RAUL PERALEZ JOÉL RAMOS ADRIENNE TISSIER KEN YEAGER

JIM HARTNETT **EXECUTIVE DIRECTOR**

MEMORANDUM

To:

. The Honorable Ed Lee, Mayor, City of San Francisco

The Honorable London Breed, President, San Francisco Board of Supervisors

Members, San Francisco Board of Supervisors

From: Michael Burns, Chief Officer, Caltrain Modernization

Subject: Peninsula Corridor Electrification Project (PCEP) Oversight Program/History

Honorable Mayor and Supervisors:

My name is Michael Burns, I served as General Manager of the San Francisco Metropolitan Transportation Agency (SFMTA) and subsequently General Manager of the Santa Clara Valley Transportation Authority (VTA). During my time at SFMTA, I also represented the City and County of San Francisco on the Peninsula Corridor Joint Powers Board of Directors (JPB), including a term as Chair. I retired from VTA in 2014 and began assisting Caltrain with several projects in 2015. In April, I was asked by Caltrain Executive Director Jim Hartnett to serve as Chief Officer of the Caltrain Modernization Program following the departure of the previous Chief Officer.

San Francisco's adoption of the 7-party supplemental funding agreement is urgently needed in order for the Peninsula Corridor Electrification Project (PCEP) implementation to proceed on time and on budget. The purpose of this memorandum is to clarify the work to date on the establishment of a Program Oversight protocol for the PCEP following the discussion about these issues at your August 2 board meeting.

The JPB strongly agrees that the oversight protocol negotiated among the funding partners, and put into place to ensure efficient and responsible delivery of this project, should be included in the 7-party supplemental funding agreement that will be considered by the Board of Supervisors on August 8. In October 2015, the JPB, at the request of the San Francisco County Transportation Authority (SFCTA), began good faith discussions to establish an oversight protocol. The template used was based on the very successful program utilized to provide oversight of the SFMTA Central Subway Project. This protocol was presented for review and comment in February to all of the Caltrain Modernization funding partners including the Metropolitan Transportation Commission (MTC), VTA, the San Francisco Mayor's Office, the Transbay Terminal Joint Powers Authority, the California High-Speed Rail Authority (CHSRA), the San Francisco County Transportation Authority and the San Mateo County Transportation Authority. No comments were received and to date, five of the seven funding partners have adopted the supplemental funding agreement with reference to the agreed upon oversight

protocol included. The CHSRA Board of Directors is scheduled to approve the agreement during their August 9 meeting.

It is unfortunate that the American Public Transportation Association's (APTA) Peer Review of the Caltrain Communications Based Overlay Signal System Positive Train Control project (CBOSS PTC) was distributed to the Board on August 2 without any discussion or context. The same oversight protocol that has been agreed to for PCEP has also been applied to the CBOSS PTC project. Representatives from SFCTA have been participating in joint project oversight, and the APTA Peer Review report is an outcome of the protocol and evidence that it is working.

The entire industry is struggling to implement PTC, but is committed and required by law to do so. Last year, Congress extended the deadline for implementation of PTC to 2018. Although the JPB is ahead of other railroads across the country with the implementation of this new technology, the JPB acknowledges that CBOSS PTC has presented some challenges. With collaboration from the funding partners, the agency is implementing the recommendations of the APTA Peer Review Committee to help address these challenges, including the replacement of the Program Director.

More information about the CBOSS PTC project is attached to this memo along with a copy of the oversight protocol that has been applied to CBOSS and PCEP and a summary of the steps the agency is taking in response to the APTA Peer Review findings.

I urge you to move forward with the adoption of the 7-party agreement with the agreed upon oversight provisions added back in. San Francisco Caltrain ridership continues to grow rapidly as the system becomes the preferred commute option for workers travelling to Silicon Valley jobs. Completing the project is critical to the expansion of capacity for these riders, the delivery of high-speed rail service to San Francisco and the extension of commuter and high-speed rail service to the Transbay Transit Center under construction now. Any delay in the approval of funding needed to move forward will have immediate negative impacts on the project schedule, budget and potentially the commitment of existing funds.

JPB staff is available to meet with you to discuss any of these issues in more detail at your convenience before this item is considered during your meeting on August 8.

Sincerely,

Michael Burns Chief Officer of the Caltrain Modernization Program

FUNDING PARTNERS OVERSIGHT PROTOCOL FOR CALTRAIN'S CALMOD PROGRAM (Electrification, Vehicles, CBOSS)

- 1. The Caltrain Project Management staff (CPMT) will have an open door policy with the Funding Partners' oversight representatives (Partners), who will have access to project Section Managers and available information. The Partners understand that some information will be confidential and commit to honor that confidentiality by not sharing or divulging any information so defined.
- 2. The Partners may attend all progress meetings with the CPMT, to stay abreast of all project activities and when warranted, may also attend, as observers, partnering sessions and progress meetings with the contractor. The CPMT will provide a list of current and anticipated regularly scheduled meetings, and the Partners and CPMT will jointly determine the meetings that would be most useful.
- 3. Subject to Federal Transit Administration (FTA) concurrence, the Partners may also attend meetings with the FTA and its PMO. It will be the responsibility of the Partners to secure FTA's agreement to such participation. The CPMT will make the first approach to the FTA.
- 4. The CPMT will make available to the Partners all project deliverables, reports, plans, procedures, and progress and cost reports for review and comment, which will be performed within the stipulated review period. Should the Partners not provide comments by the due date, the CPMT may assume that they are not forthcoming.
- 5. The Partners may review progress and cost reports and provide comments.
- 6. The Partners may participate in consultant selection panels and proposal/bid reviews.
- 7. The Partners may monitor quality through regular discussions with the Quality Assurance Manager.
- 8. The Partners may be members of the Risk Management team and participate in all Risk Management meetings and receive copies of the original risk register, its monthly updates, and reports.
- 9. The CPMT will institute a Configuration Management Board (CMB), with one representative each from San Francisco, the California High Speed Rail Authority, and the Valley Transportation Authority as voting members, to review all proposed changes, regardless of whether they are owner, designer, or contractor originated, to determine merit, agree on quantum, and ultimately authorize all changes for the project. The Partners agree that their representative to the CMB will have the appropriate technical and Project Management background. No member of the CMB will have veto power.
- 10. The Partners will provide support to the CPMT on funding and financing issues.
- 11. The Partners will review and approve project invoices submitted to their respective agencies and assure that they are processed on a timely manner.
- 12. The Partners will assist the CPMT with development of grant amendments and funding requests which are submitted to their respective agencies for approval.

Caltrain CBOSS PTC APTA Peer Review Report Background July 28, 2016

1. WHAT IS CBOSS PTC?

The Communications Based Overlay Signal System (CBOSS) Positive Train Control (PTC) system is an advanced signal system that will monitor and control train movements, providing significant safety improvements, increased reliability and operating performance, and improved capacity and service.

The project also fulfills a federal mandate that requires implementation of a Positive Train Control (PTC) system on all commuter corridors. PTC is intended to prevent train-to-train collisions, over-speed derailments, and movement into established work zones or through a misaligned switch.

2. WHAT IS THE FEDERAL PTC MANDATE?

In response to a fatal train collision in September 2008 on the Metrolink System, Congress passed the Rail Safety Improvement Act (RSIA) of 2008, which updated the Code of Federal Regulations (CFR) to require PTC to be installed along every passenger rail corridor prior to December 31, 2015. In 2015, Congress passed a PTC extension which mandates implementation of PTC by December 2018.

For Caltrain, the core safety enhancements provided by PTC include the prevention of:

- Train-to-train collisions by enforcing movement authority limits;
- Over-speed derailments by enforcing speed limits; and
- Incursions into established work zones by protecting track work zones throughout the corridor.

Caltrain is one of a handful of railroad operators nationwide that has completed installation activities and has commenced testing of the system.

3. WHAT IS AN AMERICAN PUBLIC TRANSPORTATION ASSOCIATION (APTA) PEER REVIEW PANEL AND WHY DID CALTRAIN ASK FOR IT ON THE CBOSS PTC PROJECT?

APTA's Peer Review Program is designed to assist transportation organizations in addressing public transportation-related needs and issues through subject matter experts within the public transportation industry. Through the coordination by APTA and the support of their respective own organizations, the subject matter experts convene at the requesting public transportation organization and conduct an intensive review of the issues to be addressed. Peer Review participation is conducted by mutual consensus and through industry acknowledgement that this service is an extremely valuable resource to strengthening and enhancing public transportation functions and effectiveness.

In April 2016, Caltrain requested the APTA Peer Review to have a third party take a closer look at some of the challenge areas that the CBOSS PTC Project was facing and make recommendations on how to strengthen the project delivery efforts.

In May 2016, the Peer Review team was formed with experts from around the country that are familiar with the PTC federal mandate. In June 2016, the APTA Peer Review team spent several days looking at the project and meeting with key personnel from Caltrain staff, the contractor (PTG) and railroad support staff (TASI). Caltrain received the final report in July 2016.

Caltrain staff have mentioned that the APTA Peer Review was in process at previous Board meetings and there will be an update on the Peer Review Report at the August 7, 2016 Board meeting.

4. HOW IS CALTRAIN IMPLEMENTING RECOMMENDATIONS FROM THE PEER REVIEW REPORT?

Caltrain has already taken several steps to implement many of the recommendations. Key elements for Caltrain include:

- Better integrate the agency, contractor(s) and railroad support staff in efforts to
 prepare the railroad for a final CBOSS PTC product. Close coordination is needed from
 all parties and based on the recommendations in the report, Caltrain has created a "Go
 Live" team that will ensure everyone is working together as the program transitions to
 operations.
- Work through the commercial negotiations with the contractor. Caltrain has requested
 that the contractor establish a viable re-baselined schedule that is appropriate and
 identify areas of commercial disagreement.
- Continue using the CBOSS PTC product and continue Caltrain's community outreach
 efforts. The report found that the CBOSS PTC design was robust and meets industry
 standards. The report also praised Caltrain's extensive and commendable outreach
 efforts on the project.
- Continue regular meetings at the Executive level between Caltrain and the Contractor (PTG) and their subcontractors to ensure appropriate resources and responsiveness to the project. Caltrain has a weekly call between the JPB Executive Director and PTG CEO. The Caltrain Chief of Rail also has a weekly call with the PTG Vice President. Additional monthly meetings are held between Caltrain project management and their counterparts at PTG and their subcontractors.
- Caltrain is working hard to take action now and to place Caltrain CBOSS PTC equipped trains on Caltrain track into revenue service as quickly as possible. This requires working closely with the Federal Railroad Administrator (FRA) and its tenant railroads,

including the UP, to develop a phase in of the CBOSS PTC product through the testing and implementation phases of the project culminating in Revenue Service Demonstration (RSD).

 Caltrain has taken steps to strengthen the project management team, including changing project team members and commencing the search for additional Caltrain staff with the requisite technical experience.

5. WHAT ARE THE ENHANCED OVERSIGHT PROVISIONS THAT ARE IN PLACE FOR THE CBOSS PTC PROJECT?

On a regular basis, Caltrain staff reports to the Peninsula Corridor Joint Powers Board (consisting of representatives from San Francisco, San Mateo and Santa Clara counties) on the status of the CBOSS PTC project. A link to the board website can be viewed here: http://www.caltrain.com/about/bod.html

Caltrain also has a project management oversight committee that consists of members of the Caltrain Executive Team that meets on a monthly basis.

Caltrain has a weekly call between the JPB Executive Director and the PTG CEO. The Caltrain Chief of Rail also has a weekly call with the PTG Vice President. Additional monthly meetings are held between Caltrain project management and their counterparts at PTG and their subcontractors.

For the last three years, CBOSS PTC staff have provided monthly briefings on the CBOSS PTC project to staff from the parties that signed the 9-party MOU for the Early Investment Projects (that includes CBOSS PTC).

Finally, as part of a recent agreement with the 7-parties to the Early Investment Supplemental Funding MOU, there is a Funding Partners Oversight Protocol for the CalMod Program (including CBOSS PTC). The protocol outlines the open door policy with the funding partners and encourages their participation. A copy of the protocol can be found by clicking the link here.

6. HOW IS CALTRAIN'S CBOSS PTC SYSTEM FUNDED?

CBOSS PTC is a key element of the CalMod Program, which includes electrification of the corridor and replacement of the system's diesel trains with high-performance electric trains. Of the overall CalMod Program, the CBOSS PTC project accounts for \$231 million of the total cost.

Local funds: \$ 71 million (San Francisco, San Mateo and Santa Clara counties)

State funds: \$113 million (includes \$106M in High Speed Rail Connectivity funds)

• Federal funds: \$ 47 million

Total Budget: \$231 million

The project is partially funded through the 2012 early investment 9-party MOU. The 2016 7-party Supplemental MOU only funds the Peninsula Corridor Electrification Project.

7. DO WE EXPECT ANY INCREASED COSTS TO THE CBOSS PTC PROJECT?

Yes. The CBOSS PTC Project has taken longer than expected. Caltrain is currently in commercial negotiations with the contractor. Caltrain asked that the contractor to establish a new schedule that reflects the additional time needed by the contractor and take responsibility for the current delays for the project.

The Caltrain Board has approved \$14.3 million in their FY17 budget. However, the exact amount will be determined through the commercial negotiation.

APTA PEER REVIEW OBSERVATIONS AND RECOMMENDATIONS CALTRAIN RESPONSES

1. PROGRAMMATIC: CONTRACTOR PERFORMANCE RELATIVE TO CONTRACT

RECOMMENDATIONS

- Establish weekly stakeholder meetings to include Caltrain, the Program Manager, PTG and TASI. Weekly stakeholder meetings had been occurring however TASI the Caltrain operator was not present. TASI will be incorporated in these meetings commencing August 1. In part TASI was not included as their role in operations and maintenance of the system had not yet been identified.
- Caltrain needs to come to terms (negotiate) with PTG to agree upon a realistic schedule for the implementation of PTC. The current moving schedule target must stop. Staff has been working diligently to get a revised/viable baseline PTG will deliver revised baseline schedule for review week of August 1.
- Identify what specifics and to what degree PTC-related changes brought about by Class 1 railroads have impacted the scope of this project. This is underway and includes discussions with UP, AAR, and other commuter rail properties etc.
- Caltrain needs to direct PTG to commence information/ knowledge transfer with TASI. This direction has already been given. TASI has been supporting the testing but has not been incorporated at all levels of the project team. This will commence the week of August 1 with TASI attending the weekly stakeholder meetings, TASI has also been engaged as part of the Go Live planning effort in order to determine how best to engage frontline staff and TASI management on training, operations and maintenance

2. **PROGRAMMATIC:** ENGAGEMENT AND OVERSIGHT OF THE CONTRACTOR

RECOMMENDATIONS

- Caltrain needs to directly hire a project manager with requisite technical experience and provide that person with the authority to manage the interests of Caltrain. The Position was included in the approved FY2017 budget. The position description is being finalized and recruitment will begin. Employees with these specific skills are relatively hard to find so we anticipate a process to occur over several months. In the interim, Caltrain has secured the services of a highly qualified program director to take over management responsibilities for the program.
- Immediately engage TASI for revenue startup and handover with a focus on training and knowledge transfer. A go live planning effort has commenced that includes TASI and Caltrain.
- · Take action now to place CBOSS equipped Caltrain trains on Caltrain track into revenue

- service as soon as possible. For several weeks JPB, the contractor and FRA have been working to determine how CBOSS can be phased in to enable RSD for Caltrain on Caltrain territory first. A proposed solution has been designed and a white paper was sent to the FRA on August 1 with a request for an in person meeting as soon as possible.
- Engage with PTG to establish a clear and real plan for implementation of PTC interoperability (ability to synchronize safe train movement with all relevant parties). As part of the previous response, a white paper for discussion with FRA was sent to the FRA on August 1 with a request to meet in person.
- Determine common ground for resolving current outstanding contractual issues. JPB has requested from PTG a description of all outstanding commercial issues they believe need to be addressed. This request was received July 27. It is currently being reviewed by the project team to determine what if any items merit discussion with PTG. Discussion of this list and the backup documentation received on August 3 is scheduled for August 5.
- 3. PROGRAMMATIC: ENGAGEMENT JPB EXECUTIVE OVERSIGHT AND ISSUE/ESCALATION DECISION MAKING PROCESS

RECOMMENDATION

• Caltrain and PTG CEO's should continue their weekly phone call to discuss project status and issues. Calls commenced following the Peer Review final presentation after a short hiatus and are ongoing on a weekly basis. Additionally, there are weekly calls between the COO, Rail and her counterpart at PTG. Finally, monthly executive meetings between PTG, JPB and Alstom are continuing. This is in order to enable program oversight and accountability at every level of the JPB and Contractor organization.

4. TECHNOLOGICAL: INTEROPERABILITY DESIGN VIABILITY

RECOMMENDATIONS

- A priority needs to be given to implement PTC operation on Caltrain property As stated above, solution is still being worked through that requires a conversation and documentation to FRA regarding how this would be achieved within the context of still providing the whole CBOSS solution.
- There needs to be agreement on a clear definition of interoperability as it pertains to tenant and host railroads along with a test plan and schedule. A white paper has been drafted and was sent to the FRA on August 1 with a request for a meeting in person to discuss. The revised baseline schedule is due from PTG August 3rd.
- Establish configuration management of system software version controls. This position is included in the approved FY2017 budget. And will begin recruitment within the next month.

5. **TECHNOLOGICAL:** EFFECTIVENESS OF DESIGN

RECOMMENDATIONS

- The panel encourages that the back-up Central Control facility PTC network be physically isolated from external open networks (physically disconnect VPN connections). This technical recommendation will be reviewed by the project team. The VPN connections exist in order to troubleshoot issues remotely. A process will need to be developed in order to ensure security when the need to troubleshoot arises.
- Review current security layers of the software and research whether security can be hardened without incurring unintended consequences. Continue efforts to deploy planned key exchange server. This technical recommendation will be reviewed by the project team.
- Review the vehicle equipment installations and systems design. Include TASI in this review. This effort will be scheduled and TASI will develop a means for properly maintaining the installations.
- Consider the establishment of a configuration management function within Caltrain to ensure that modifications to PTC systems are controlled. *The approved FY2017 budget includes a position for this.*

6. **TECHNOLOGICAL**: EFFECTIVENESS OF DESIGN

RECOMMENDATIONS

- The panel encourages Caltrain to bring PTG and the project management team together to resolve interface issues in order to be more effective in resolving outstanding technical issues. The new JPB program Director began on July 18th and has been working with JPB personnel to establish clear project interfaces.
- TASI can provide additional resources to strengthen current implementation and future maintenance of the system. JPB is assessing TASI's capacity and capability to maintain aspects of the PTC system. This is currently not part of their duties. The Go live planning effort will prioritize as a first order decision the method for operating and maintain the CBOSS system so TASI can become more engaged in the process.