



JPB Board of Directors
Meeting of August 5, 2021

Correspondence as of August 5, 2021

Subject

- 1 PCEP Billing
- 2 PMOC Recommendation
- 3 Balfour Beatty CBOSS

From: [Roland Lebrun](#)
To: [Board \(@caltrain.com\)](#)
Cc: [SFCTA Board Secretary](#); [MTC Info](#); [CHSRA Board](#); [SFCTA CAC](#); [cacsecretary \[@caltrain.com\]](#); [margaret.abe-koga@mountainview.gov](#); [marie.blankley@ci.gilroy.ca.us](#); [magdalena.carrasco@sanjoseca.gov](#); [Chavez, Cindy \[cindy.chavez@bos.sccgov.org\]](#); [rich.constantine@morganhill.ca.gov](#); [Davis, Dev \[dev.davis@sanjoseca.gov\]](#); [Hendricks, Glenn \[HendricksCouncil@sunnyvale.ca.gov\]](#); [Jones, Chappie](#); [otto.lee@bos.sccgov.org](#); [Sam Liccardo](#); [Green, Scott](#); [Council Member Pat Burt](#); [cmontano@ci.milpitas.ca.gov](#); [dpaul@cupertino.org](#); [Peralez, Raul](#); [Rob Rennie](#); [joe.simitian@bos.sccgov.org](#); [lgillmor@santaclaraca.gov](#); [Hope Cahan](#); [jeannie@bruinsfamily.net](#); [Zanardi, Kristine](#)
Subject: PCEP late billing
Date: Wednesday, August 4, 2021 9:48:02 PM
Attachments: [PCEP late-billing HSR Finance and Audit Committee.pdf](#)

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Dear Chair Zmuda,

Kindly be advised that the High Speed Rail authority is reporting late billing for the Electrification Project (Page 28 lines 3-14) and direct staff to address this issue at the next Caltrain Finance Committee meeting.

On a related note, the High Speed Rail Authority have indicated that they have no intention of contributing to PCEP cost overruns and have suggested that Caltrain look at the "*Governor's May revision*" which "*includes some additional funding for transit outside the High-Speed Rail's budget*" (Page 28 lines 20-25 & Page 29 lines 1-11)

I am attaching Pages 28-29 of the Authority's July 15th Finance & Audit committee transcript for your convenience.

Sincerely,

Roland Lebrun

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Caltrain CAC

1 well so the DB related expenditures coming in at about 63
2 million for the month of June. Total CP, including the
3 DB, at about 99 million. And other expenditures outside
4 of the CPs is that difference there of about 77 million.
5 That does include primarily the largest is the Caltrain.
6 And Caltrain, we reimbursed them for their
7 electrification work, but they don't tend to bill us
8 monthly, so that's an area where at the end of the year
9 we do work with them to estimate what they will
10 ultimately bill us for work in the fiscal year. And so
11 we accrued \$40 million from Caltrain in that amount as
12 well as similar process for some of the regional
13 consultants doing the environmental work that don't
14 always bill us monthly. So that -- that other capital
15 category outside the CP work is up primarily here due to
16 year-end matters of June being the last month of the
17 fiscal year. But ultimately, yeah, we expect that the
18 176 million will be billed to us for work in the fiscal
19 year and attributed to June.

20 COMMITTEE MEMBER GHIELMETTI: Brian, on the
21 Caltrain's work, I understand there may be some cost
22 overruns. Who's responsible for the cost overruns on
23 that project?

24 MR. ANNIS: Well, our agreement with them, you
25 know we do have only our current funding commitment to

1 that project, to which is the 600 million of Prop 1A and
2 113 million of Cap and Trade. So in the agreement, you
3 know, we don't have any -- any obligation to fund any
4 higher costs that would fall on the local entities.

5 I will mention that part of the Governor's May
6 revision includes some additional funding for transit
7 outside the High-Speed Rail's budget. And you know that
8 could be a source that Caltrain could apply for to fill
9 any gap they have. But, yeah, we would not anticipate
10 any additional expenditures out of High-Speed Rail
11 funding for any funding gap there.

12 COMMITTEE MEMBER GHIELMETTI: So what you're
13 saying is we're capped?

14 MR. ANNIS: Yes.

15 COMMITTEE MEMBER GHIELMETTI: Thank you.

16 CHAIR RICHARDS: Anything else, Brian?

17 MR. ANNIS: No. Just quickly, at the bottom
18 there, no changes to the ARRA match from May to June to
19 report. And we had filled another -- another eight or so
20 vacant positions through June and so that vacancy rate
21 dropped a bit, but that concludes the report. Thank you.

22 CHAIR RICHARDS: Thank you, Brian.

23 Any questions for Brian?

24 All right, seeing none, Brian, thank you for
25 the report. And, as usual, great job. Thank you.

From: Roland Lebrun
To: Board (@caltrain.com)
Cc: MTC Info; Baltao, Elaine [board.secretary@vta.org]; SFCTA CAC; cacsecretary [@caltrain.com]; SFCTA Board Secretary
Subject: Item 3.a Systemic abuse of Government Code Section 54956.9(d)(4)
Date: Wednesday, August 4, 2021 11:37:08 PM
Attachments: PMOC recommendation for experienced construction attorney.pdf

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Dear Caltrain Board,

Further to PMOC Recommendation No. 6 - "*The PMOC has previously recommended that the JPB **obtain a second opinion from a well-qualified construction attorney with substantial experience in defending complex contractor claims, particularly those related to schedule delays.***"

<https://www.caltrain.com/Assets/Caltrain+Modernization+Program/Documents/PMOC+Reports/December+2020+-+FTA+Risk+Refresh+Report.pdf> (page 14 attached for your convenience), there is no sign of any "*well-qualified construction attorney with substantial experience in defending complex contractor claims, particularly those related to schedule delays*" and it is therefore unclear why the Board continues to ignore Vice-chair Heminger's recommendation to "*refer an item to one of the appropriate committees that can deal with it in public*" (full transcript below) and waste time "*dealing with these capital projects either in closed session, or in so-called ad hoc committees, neither of which meetings are public*".

FTA Led Risk Refresh Report - caltrain.com

Doc. No.: TO 69319520F300099.PCEP.CLIN2002.01 - 021 FTA Led Risk Refresh Report Peninsula Corridor Electrification Project (PCEP) San Francisco to San Jose, CA

www.caltrain.com

July 1st Caltrain Board meeting transcript:

12:43:53 Does anyone have questions or comments, Director Heminger.

12:43:58 Thank you Madam Chair.

12:44:01 You know I'm willing to support the staff recommendation here reluctantly I must say, but **I also want to try to draw a broader lesson from this project, which I believe has doubled in costs since the original budget.**

12:44:17 From the electrification program, which is we disclosed, a month or so ago, is looking at a significant schedule delay and cost overrun anyone observing our closed session agenda today would see that we're still dealing with the aftermath of the positive

12:44:38 train control program, even though it's been in operation for some time now.

12:44:44 And I know that Michelle is aware of these issues but I think it's worth stating out loud that I think **we've got a pattern here, a systemic problem of delivering large capital projects.**

12:44:58 We are not alone in the United States or the world in public agencies wrestling with these issues.

12:45:05 But I think we have to move ourselves toward the forefront of trying to identify some solutions.

12:45:12 I'm certainly glad that Rob is here and can bring his experience to bear.

12:45:17 But I think **one of our challenges, frankly, as a board has been that too often, we are dealing with these capital projects either in closed session, or in so-called ad hoc committees, neither of which meetings are public.**

12:45:35 And I think that does some damage to our reputation and to our ability to be transparent to our constituents.

12:45:46 So, **I would like to request madam chair that you refer an item to one of the appropriate committees that can deal with it in public.** I sort of the lessons we have learned the challenges that we faced with the, with the capital projects that are either

12:46:05 finished are underway. And what potential solutions

12:46:09 we can fashion to reform our project delivery system, and that includes **involving the public eye and our stakeholders in a much more effective way than just hearing from us when we've got a problem and need more money.**

12:46:28 So I make that request to you and hope that we could get that work started in the foreseeable future.

12:46:37 Certainly, and what's up committee I was what Michelle and I had in mind so we will do that at The Next Web committee meeting.

12:46:48 Thank you.

Your prompt attention to this systemic lack of governance is appreciated.

Sincerely,

Roland Lebrun

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VTA PAC
VTA CAC

interconnection agreement is currently on-hold due to a disagreement between the JPB, PG&E, and Silicon Valley Power over a largely complete Single-Phase Study which looks at the impacts of the PCEP load on the local electric grid.

- The original budget for Electrification related work included scope for a Supervisory Control and Data Acquisition (SCADA) system. However, the SCADA scope was not included in the Electrification contract and a separate contract was awarded on a sole-source basis after the start of the project. *This work is underway and mostly complete.*
- The Electrification contract included an Option for construction of an Overhead Contact System within the four (4) existing tunnels. The JPB was unsuccessful in negotiating an acceptable Change Order with the Electrification contractor, and the work had to be added to the tunnel notching contract via modification. *This work is complete except for final integrated testing.*
- The PCEP did not assign responsibility for integration of the electrification, signals, SCADA, and EMU vehicles contracts and the JPB's PTC system to a single individual, consultant, or contractor, which leaves responsibility for this vital function resting with the JPB. Currently a single individual is leading this effort on a part-time basis along with other responsibilities.

3.2 PMOC Assessment of Project Delivery

The PCEP is using a combination of delivery methods. The Electrification work is being delivered using a design-build contract. The tunnel notching contract was competitively bid as was the CEMOF Modifications contract. The EMU procurement was a competitive two-step procurement. The tunnel contract is complete except for final integrated testing. The CEMOF modification contract is expected to be substantially complete in March 2021. The delivery of the first EMU trainset to the JPB is scheduled for July 2021. Substantial completion of the Electrification contract is currently projected for July 14, 2023. The PMOC's opinion is that the delivery plan for the PCEP was thoughtfully conceived and reasonable given the scope of the project.

One consequence of the delayed completion of the electrified railroad is the change in testing and acceptance of the EMU trainsets. Performance testing and acceptance of the first trainset was to be conducted on the JPB's system. Because the JPB's railroad is not currently electrified, and TS 1 is ready for dynamic testing, the JPB and Stadler arranged for dynamic testing to be conducted at the Association of American Railroads' (AAR) Transportation Technology Center, Inc. (TTCI) in Pueblo, Colorado. TS 1 is now being reassembled at the TTCI prior to starting the testing process. TS 1, as well as all subsequent trainsets, will be accepted after being delivered to the JPB's tracks and completing all contractual requirements.

- **PMOC Recommendation No. 4** – The PMOC recommends that the PCEP complete full integration of the Rail Activation and Testing and Commissioning schedules with the Master Project Schedule for more effective project management.
- **PMOC Recommendation No. 5** – The PMOC recommends that the JPB consider strategies for placing EMUs safely in service prior to the completion of all required signal modifications if that work continues to be delayed.
- **PMOC Recommendation No. 6** - The PMOC has previously recommended that the JPB obtain a second opinion from a well-qualified construction attorney with substantial experience in defending complex contractor claims, particularly those related to schedule delays. The second opinion should address the JPB's proposed approach to resolving the complex issues currently subject to the technically facilitated mediation process between the JPB and BBII.

From: [Roland Lebrun](#)
To: [Board \(@caltrain.com\)](#)
Cc: [cacsecretary \(@caltrain.com\)](#)
Subject: Item 3.a Incorrect assertions by Balfour Beatty
Date: Thursday, August 5, 2021 3:32:54 AM
Attachments: [PMOC Assessment of change in project scope.pdf](#)
[17-CIV-00786 PTG vs JPB.pdf](#)

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Dear Caltrain Board,

The purpose of this email is to substantiate and elaborate on the comment I made during the 7/28 WPLP meeting that Balfour Beatty's assertion that Constant Warning Time (CWT) functionality was included in the CBOSS specification is incorrect.

Background:

- The December 2020 FTA risk refresh <https://www.caltrain.com/Assets/Caltrain+Modernization+Program/Documents/PMOC+Reports/December+2020+-+FTA+Risk+Refresh+Report.pdf> (page 13 attached for your convenience) identifies the following change in PCEP scope:

*"The JPB was in the process of installing a Communication Based Overlay Signal System (CBOSS) Positive Train Control (PTC) system to meet federal requirements prior to the award of the FFGA. The JPB subsequently cancelled the CBOSS contract, and re-procured a PTC system from WABTEC, known as the Interoperable-Electronic Train Management System (I-ETMS). The I-ETMS uses a different control methodology than the CBOSS, which was specified as an existing condition in the Electrification contract. This change led to a dispute between the JPB and its Electrification contractor, Balfour-Beatty Infrastructure Inc. (BBII) and its signal subcontractors. **The JPB's originally specified CBOSS was an element in providing the federally required grade crossing warning time.**"*

- The Parsons Transportation Group (PTG) lawsuit (SMCSC Case 17-CIV-0086) tells a different story (PP 298-299 attached for your convenience):

*"Throughout the alignment are a total of forty five (45) highway grade crossings and eighteen (18) pedestrian crossings, mostly located at stations. All crossings use track-circuit based grade crossing prediction (GCP) devices to initiate the operation of gates and flashing light signals. **The GCP devices are not compatible with electrification and are to be replaced later as part of the electrification project. The System shall include an interface and provide new functions that control actuation of the grade crossing warning system with a constant advance warning time and minimum gate down time and to retain the conventional means of train approach detection as a fallback when System controls are unavailable.**"*

Conclusion:

Balfour Beatty's assertion that "CBOSS was an element in providing the federally required grade crossing warning time" is incorrect because:

1. It incorrectly assumes that every non-Caltrain (UPRR, HSR, ACE, Amtrak and Capitol Corridor) trains would have been CBOSS equipped.
2. **Conventional grade crossing activation was always required as a backup in case of a CBOSS communication failure.**

Recommendation:

De-scope signaling from the electrification contract and let Balfour Beatty focus on delivering the electrification on time and on budget.

Respectfully presented for your consideration.

Roland Lebrun

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3 PROJECT SCOPE AND PROJECT DELIVERY REVIEW

3.1 PMOC Assessment of Project Scope

The scope of the PCEP has remained relatively unchanged from the time of FFGA execution. The most prominent exceptions are as follows:

- The full Notice to Proceed for both the design-build electrification contract and the EMU vehicle contract was delayed by a later than anticipated award of the FFGA. This delay resulted in the early issuance of Change Orders to both contracts.
- The JPB was in the process of installing a Communication Based Overlay Signal System (CBOSS) Positive Train Control (PTC) system to meet federal requirements prior to the award of the FFGA. The JPB subsequently cancelled the CBOSS contract, and re-procured a PTC system from WABTEC, known as the Interoperable-Electronic Train Management System (I-ETMS). The I-ETMS uses a different control methodology than the CBOSS, which was specified as an existing condition in the Electrification contract. This change led to a dispute between the JPB and its Electrification contractor, Balfour-Beatty Infrastructure Inc. (BBII) and its signal subcontractors. The JPB's originally specified CBOSS was an element in providing the federally required grade crossing warning time. Design and construction of the signals work was delayed for many months as a satisfactory technical solution which met federal, state and Union Pacific Railroad (UPRR) requirements was identified. The agreed upon solution is known as Two Speed Check (2SC). The completion of design and installation of the 2SC solution is now the critical path for substantial completion of the Electrification contract and the operation of the EMUs on an electrified Caltrain system. The dispute over the commercial implications of implementing 2SC has been the subject of a technically facilitated mediation between the JPB and BBII since October 2019, and currently also involves BBII's two signals subcontractors. *Design and installation of 2SC is underway; however, the design progress is slower than expected and only three (3) of twenty (20) planned signal cutovers have been completed to date. Electrified trains cannot run in revenue service without a signal system that has been properly modified for the electrified environment.* The JPB reports that it is meeting frequently with the mediator and its contractors in an effort to reach an acceptable settlement. ***The PMOC is unable to assess the potential cost and schedule implications of the settlement negotiations between the JPB, BBII and its subcontractors, and therefore, did not consider them in its risk refresh. The PMOC did, however, consider the implications of the underlying dispute and the documentation related to BBII's Change Order Cost Proposal and the associated Time Impact Analysis (TIA) 2.***
- The original budget for the PCEP included costs for private utility relocations and 115 kV interconnections to the local electrical grid. The estimate did not contemplate the cost of modifications to the two existing PG&E substations that will supply power to the PCEP's TPSS #1 and #2, and significantly underestimated the cost of the design and construction of the interconnections as well as other PG&E costs. *Modifications to PG&E's existing FMC (originally known as Food Machinery Corporation) and East Grand substations are underway. Construction of the interconnect between FMC and TPSS #2 is complete but not tested or energized. The interconnect between East Grand and TPSS #1 is being redesigned as a mostly underground feed which will result in a substantial Change Order. Temporary power to allow initial testing of the EMUs and the OCS and TPS is in place at the FMC substation, however, PG&E will not energize the temporary power (or permanent power when it becomes available) until an interconnection agreement is signed by the JPB. The*

transition to an EMU fleet when the existing rolling stock reaches the end of its useful life. The transition will be gradual allowing Caltrain to utilize its diesel fleet that remains serviceable. These vehicles will be utilized mainly for express services. The EMU trainset will enable significant operational benefits to be realized due to the EMU's higher acceleration and braking capabilities.

- D. The JPB right-of-way is a key link in the California High-Speed Rail (HSR) network forming the link enabling access to San Francisco. Accordingly, the System will be required to be interoperable with the train control system selected for HSR operation throughout the California High Speed network. Similarly, the other passenger train operators and the UPRR will be required to incorporate PTC systems that are interoperable within the JPB corridor. The trackage rights agreement with the UPRR allows freight operations to be restricted when this is necessary for passenger operations and plans are being made to limit freight operations to late night/early morning separated from passenger operations as the FRA has indicated that is a precondition to Caltrain's use of off-the-shelf EMUs. With the mandate for PTC fitment and interoperability, the FRA has advised that the PTC system can be used to help control commingling and allows this function to be achieved by requiring additional keystrokes by the Dispatcher for freight trains to be routed on Caltrain mainline tracks. The need for the Caltrain PTC system originated with the FRA's mandate relating to mixed traffic involving compliant passenger rolling stock and future EMUs. However, the System needs analysis led to the identification of significant additional requirements that are made practicable by the introduction of PTC technology. These requirements include an increase in capacity as the system eases the constraints of the existing wayside block signal system.
- E. Between San Francisco and San Jose, Caltrain employs a wayside signaling system with Control Points (CPs) spaced an average of two miles apart. Intermediate wayside signals between CPs are located with an average of one mile or less separation. The entire line is signaled for movement in both directions on all mainline tracks. The line includes two (2), three (3) and four (4) track sections. All mainline signal aspects are controlled through the rails using electronic coded track circuits (GE Electrocode) and DC track circuits over switches. The railroad operates under the General Code of Operating Rules (GCOR) with speed signaling north of CP Coast (MP44.1) and route signaling south of this milepost and over the line south of CP Lick which is owned and dispatched by the UPRR in accordance with a trackage rights agreement that permits Caltrain to operate morning and evening services of up to six (6) trains per day. South of CP Lick, where only diesel hauled passenger services can operate, Caltrain's PTC equipped trains must be interoperable with the UPRR PTC system. Plans are to develop the System so that it provides interoperable operating capability allowing Caltrain vehicles to avoid dual fitment and to provide uniform human interface characteristics, operating rules and training.
- F. Caltrain utilizes a computer based centralized traffic control dispatch system located at the CCF which communicates with the CPs through a mix of radio ATCS links and leased lines.
- G. Throughout the alignment are a total of forty five (45) highway grade crossings and eighteen (18) pedestrian crossings, mostly located at stations. All crossings use track-circuit based grade crossing prediction (GCP) devices to initiate the operation of gates and flashing light signals. The GCP devices are not compatible with electrification and are to be replaced later as part of the electrification

project. The System shall include an interface and provide new functions that control actuation of the grade crossing warning system with a constant advance warning time and minimum gate down time and to retain the conventional means of train approach detection as a fallback when System controls are unavailable

1.04 SYSTEM REQUIREMENTS

- A. Caltrain is implementing its Positive Train Control system as an overlay on the existing signal system to provide improved safety and operational performance. Freight trains, Amtrak, Capitol Corridor and ACE Train will be equipped with PTC system(s) and the Caltrain PTC system will be developed and implemented to provide interoperability with those systems. UPRR (and the other Class 1 railroads in the United States) are working to develop a set of standards for their version of PTC known as Interoperable Train Control (ITC). Plans are that these standards will be published by the AAR. Joint efforts by Caltrain and the UPRR to develop and agree on interoperability requirements are in process; however, this need not necessarily require the Caltrain PTC system and ITC to share a common PTC product platform.
- B. The System operational concept is that all operating trains are provided with equipment that will continuously supervise the speed of the train and automatically intervene with a brake application whenever train speed exceeds the "intervention" speed. This speed shall be based on the train's movement authority taking into account the particular type of train's performance characteristics and conditions conveyed to the System by the existing wayside signal system and by the dispatch system for temporary speed and roadway worker related movement restrictions.
- C. The Railway safety Improvement Act of 2008 mandates four (4) key requirements for the PTC system to be implemented:
 - 1. Prevent train to train collisions;
 - 2. Prevent overspeed derailments;
 - 3. Prevent incursions into roadway work zones;
 - 4. Prevent movement of a train through a switch left in the wrong position.
- D. The System shall provide continuous overspeed and stop signal enforcement and enforcement of temporary speed restrictions and segments of track requiring roadway worker protection. Caltrain's existing signal system provides protection for hand throw switches on mainline tracks causing the preceding signal to display a STOP or STOP & PROCEED signal indication when the switch is not locked in the correct position. The System meets all four (4) key requirements of the Act.
- E. The System is a computer and communications based overlay that together with the existing wayside signal system meets the requirements of mandated Positive Train Control (PTC) in that it enforces restricting and stop signal aspects and speed restrictions throughout the Caltrain mainline territory. In addition, the System provides functionality to enforce scheduled station stops, enable near side station stops with grade crossing gates down time minimized, and enforce Form B and other Mandatory Directives. The System also provides other