



BOARD OF DIRECTORS 2024

DEVORA "DEV" DAVIS, CHAIR  
STEVE HEMINGER, VICE CHAIR  
PAT BURT  
CINDY CHAVEZ  
JEFF GEE  
RICO E. MEDINA  
RAY MUELLER  
SHAMANN WALTON  
MONIQUE ZMUDA

MICHELLE BOUCHARD  
EXECUTIVE DIRECTOR

# AGENDA

## PENINSULA CORRIDOR JOINT POWERS BOARD

### Technology, Operations, Planning, and Safety (TOPS) Committee Meeting

February 28, 2024, 1:30 pm

Bacciocco Auditorium, 2nd Floor  
1250 San Carlos Ave., San Carlos, CA

Committee Members: Rico E. Medina (Chair), Pat Burt, Shamann Walton

Members of the public may participate remotely via Zoom at <https://us06web.zoom.us/j/81186731470?pwd=OUE3b0ZiY3ZoYzRCN280UG5Gbi9WZz09> or by entering Webinar ID: **811 8673 1470**, Passcode: **274739**, in the Zoom app for audio/visual capability or by calling 1-669-219-2599 (enter webinar ID and press # when prompted for participant ID) for audio only. The video live stream will be available after the meeting at <https://www.caltrain.com/video-board-directors>.

Members of the public also may participate in person at: San Mateo County Transit District, Bacciocco Auditorium - Second Floor, 1250 San Carlos Ave., San Carlos, CA, or any other noticed location.

Public Comments: Public comments may be submitted to [publiccomment@caltrain.com](mailto:publiccomment@caltrain.com) prior to the meeting's call to order so that they can be sent to the Board as soon as possible, while those received during or after an agenda item is heard will be included into the Board's weekly correspondence and posted online at: <https://www.caltrain.com/about-caltrain/meetings>.

Verbal public comments will also be accepted during the meeting in person and through Zoom\* or the teleconference number listed above. Public comments on individual agenda items are limited to one per person PER AGENDA ITEM. Participants using Zoom over the Internet should use the Raise Hand feature to request to speak. For participants calling in, dial \*67 if you do not want your telephone number to appear on the live broadcast. Callers may dial \*9 to use the Raise Hand feature for public comment. Each commenter will be recognized to speak, and callers should dial \*6 to unmute themselves when recognized to speak.

Each public comment is limited to two minutes. The Board Chair has the discretion to manage the Public Comment process in a manner that achieves the purpose of public communication and assures the orderly conduct of the meeting.

**February 28, 2024 - Wednesday**

**1:30 pm**

*All items to which [Government Code section 84308](#) applies have been marked with an asterisk*

*A double asterisk indicates that one or more Directors of the JPB serve on the governing board of a public agency with which the JPB proposes to contract. Under Government code section 1091(a)(9), this relationship is considered to be a noninterest but it must be disclosed.*

1. Call to Order / Pledge of Allegiance
2. Roll Call
3. Public Comment on Items Not on the Agenda  
Comments by each individual speaker shall be limited to two (2) minutes. Items raised that require a response will be deferred for staff to reply.
4. Meeting Minutes of January 24, 2024 Motion
5. Authorize Executive Director to Amend Contract with Turbo Data Systems, Inc. for Fare Evasion Citation Processing Services and Mobile Fare Enforcement Devices to Increase by \$500,100 to \$1,096,500\* Motion
6. Award of Contract for Construction Manager General Contractor Services for the Broadway Grade Separation Project\* Motion
7. Receive Fiscal Year 2024 Quarter 2 Capital Program Quarterly Report Informational
8. Receive Update on Rail Activation Management Program Informational
9. Receive 2023 Caltrain Sustainability Report Informational
10. Committee Member Requests
11. Date/Time of Next Regular TOPS Committee Meeting: Wednesday, March 27, 2024 at 1:30 pm.  
The meeting will be accessible via Zoom and in person at the San Mateo County Transit District, Bacciocco Auditorium, 2nd Floor, 1250 San Carlos Avenue, San Carlos, CA 94070.
12. Adjourn

### **Information for the Public**

All items appearing on the agenda are subject to action by the Board. Staff recommendations are subject to change by the Board. If you have questions on the agenda, please contact the JPB Secretary at 650.508.6242. Agendas are available on the Caltrain website at [www.caltrain.com](http://www.caltrain.com). Communications to the Board of Directors can be e-mailed to [board@caltrain.com](mailto:board@caltrain.com). *Free translation is available; Para traducción llama al 1.800.660.4287; 如需翻译 请电1.800.660.4287*

### **Date and Time of Board and Committee Meetings**

JPB Board: First Thursday of the month, 9:00 am; JPB Technology, Operations, Planning, and Safety (TOPS) Committee: Two Wednesdays before the Board meeting, 1:30pm. The date, time, and location of meetings may be changed as necessary. Meeting schedules for the Board and committees are available on the website.

### **Location of Meeting**

Members of the Public may attend this meeting in person or remotely via Zoom. \*Should Zoom not be operational, please check online at <https://www.caltrain.com/about-caltrain/meetings> for any updates or further instruction.

### **Public Comment\***

Members of the public are encouraged to participate remotely or in person. Public comments may be submitted by comment card in person and given to the JPB Secretary. Prior to the meeting's call to order, public comment may be sent to [publiccomment@caltrain.com](mailto:publiccomment@caltrain.com) so that they can be sent to the Board as soon as possible, while those received during or after an agenda item is heard will be included into the Board's weekly correspondence and posted online at: <https://www.caltrain.com/about-caltrain/meetings> .

Oral public comments will also be accepted during the meeting in person or through Zoom or the teleconference number listed above. Public comments on individual agenda items are limited to one per person PER AGENDA ITEM. Each commenter will be automatically notified when they are unmuted to speak for two minutes or less. The Board Chair shall have the discretion to manage the Public Comment process in a manner that achieves the purpose of public communication and assures the orderly conduct of the meeting.

### **Accessible Public Meetings/Translation**

Upon request, the JPB will provide written agenda materials in appropriate alternative formats, or disability-related modification or accommodation, including auxiliary aids or services, to enable individuals with disabilities to participate in and provide comments at/related to public meetings. Please submit a request, including your name, phone number and/or email address, and a description of the modification, accommodation, auxiliary aid, service or alternative format requested at least 72 hours in advance of the meeting or hearing. Please direct requests for disability-related modification and/or interpreter services to the Title VI Administrator at San Mateo County Transit District, 1250 San Carlos Avenue, San Carlos, CA 94070-1306; or email [titlevi@samtrans.com](mailto:titlevi@samtrans.com); or request by phone at 650-622-7864 or TTY 650-508-6448.

### **Availability of Public Records**

All public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that is distributed to a majority of the legislative body, will be available for public inspection at 1250 San Carlos Avenue, San Carlos, CA 94070-1306, at the same time that the public records are distributed or made available to the legislative body.

**Peninsula Corridor Joint Powers Board  
Technology, Operations, Planning, and Safety (TOPS) Committee  
1250 San Carlos Avenue, San Carlos, CA 94070**

**Minutes of January 24, 2024**

**Members Present:** Pat Burt (arrived at 1:32 pm), Shamann Walton, Rico E. Medina (Chair)

**Staff Present:** M. Bouchard, M. Clendennen, J. Harrison, T. Huckaby,  
M. Meader, L. Peabody, G. Rogers, N. Steward-Crooks, M. Tseng

**1. Call to Order/Pledge of Allegiance**

Chair Medina called the meeting to order at 1:31 pm and led the Pledge of Allegiance.

**2. Roll Call**

Deputy District Secretary Margaret Tseng called the roll and confirmed a Board quorum was present.

**3. Public Comment on Items not on the Agenda - There were none.**

**4. Meeting Minutes of December 20, 2023**

Motion/Second: Medina/Walton  
Ayes: Burt, Walton, Medina  
Noes: None

**5. Receive Update on Customer Experience and Retention Strategy**

Taylor Huckaby, Deputy Chief of Communications and Lisa Peabody, Director of Customer Experience provided the presentation which included the following:

- Customers central to business decisions and strategy
- Customer Satisfaction Survey indicated customer desire for system navigation ease, real-time information, and more options at stations
- Customer Communications Task Force created as part of customer communication plan
- Station beautification in the Spring: graffiti removal, cleanliness, sign improvements, and repair
- Contracted with Simplified Transit for real-time data feed
- Pilot multi-level digital displays at San Carlos station, launched Discord social media, and Metropolitan Transportation Commission (MTC) regional wayfinding improvements
- Pilot Customer Relationship Management (CRM) tool help through multiple tools; live digital passenger information during second half of 2024
- Caltrainstore.com soft launch; in discussion with vendors

The Board Members had a discussion and staff provided further clarification in response to the Board Members comments and questions regarding the following:

- Hybrid work impact on commuters. Population and job growth projections not aligned with the State; emphasis on the necessity of capacity due to population growth
- Recognized importance of the City Partnership Toolkit for driving ridership
- Involvement and collaboration with Transportation Management Associations (TMAs)
- Need collaboration with other transit systems and identify and involve the right stakeholders

#### **Public Comment**

Adrian Brandt commented on the use of live maps on the Caltrain homepage and opined station bathrooms should always be open.

Adina Levin, Friends of Caltrain and Seamless Bay Area, inquired about real-time information being inclusive; commented on the importance of making the first and last miles in connections and a moderation policy for Discord social media platform use.

Mr. Huckaby confirmed that real-time information was multi-modal through third party apps and Discord took more than a year to launch due to getting the moderation correct.

#### **6. Receive Update on Caltrain Safety Performance**

Michael Meader, Chief Safety Officer, provided the presentation which included the following:

- Safety first and always as core value; emphasis on implementing daily safety practices
- Constant effort to gather more granular data for both lagging and leading indicators
- Introduction of safety moments in all meetings and briefings. New safety champions to reinforce the safety message
- New safety concern reporting tool for internal use and anonymous or named reporting allowed through mobile phones
- Increased employee injuries/incidences in December; no reportable accidents in 2023
- Identified problematic grade crossings impacting vehicle track incursions. Initiatives for grade crossing enhancements include pavement markings, solar lane markers, delineators, improved signage, and lighting
- Partnership with transit police, suicide awareness groups, and outreach to global positioning systems (GPS) app companies. Majority of transit police calls were from San Mateo County; calls mainly related to trespassing and medical/welfare concerns

The Board Members had a discussion and staff provided further clarification in response to the Board Members comments and questions regarding the following:

- Provide title to comprehensive corridor-wide safety and security plan
- Defining vehicle incursions and determining causes relative to time of day, effectiveness of vehicle incursion measures at priority crossings, feasibility and potential exploration of gates at crossings as a pilot project

- Regulatory discussion on barriers close to the tracks under certain requirements, status of the LIDAR Pilot Project, and surveying the impact of fatalities on the workforce, riders on the train, and the broader rider base

Public comment

Adrian Brandt favored the use of standard railroad crossing gates wired to operate in reverse.

Chair Medina inquired whether Broadway station had reflectors. Mr. Meader clarified the Churchill Avenue railroad crossing has reflectors.

**7. Receive Update on Rail Activation Management Program**

Graham Rogers, Project Manager, introduced Mark Clendennen, Director of Rail Activation and Transitioning, and provided the presentation which included the following:

- Eight months until revenue service with activities intensifying in April; schedule presented with milestones leading to September
- Introduced the Rail Activation Management (RAM) Scorecard with five focus areas
- Fundamental criteria for launching electric train service; two items currently marked as "Go," expecting more to transition closer to September
- Camera towers installed at key locations, CCTV (closed circuit television) assessment, delivery of additional train sets, and storage lease secured. Initial onboard audio and visual announcements successfully tested on emus (electric multiple units)
- Disposition of surplus equipment and solicitation for interested buyers in the near future

**8. Committee Member Requests**

There were none.

**9. Date/Time of Next Regular TOPS Committee Meeting:** Wednesday, February 28, 2024 at 1:30 pm.

**10. Adjourn** – The meeting adjourned at 2:44 pm.

**Peninsula Corridor Joint Powers Board  
Staff Report**

To: Technology, Operations, Planning and Safety Committee  
Through: Michelle Bouchard, Executive Director  
From: John Hogan, Chief Operations Officer  
Subject: **Authorize Amendment to the Contract with Turbo Data Systems, Inc. for Fare Evasion Citation Processing Services and Mobile Fare Enforcement Devices to Increase by \$500,100 to \$1,096,500**

Finance Committee  
Recommendation

Technology, Operations, Planning,  
and Safety Committee  
Recommendation

Advocacy and Major Projects  
Committee Recommendation

**Purpose and Recommended Action**

Staff recommends that the Board of Directors (Board) of the Peninsula Corridor Joint Powers Board (JPB);

1. Approve an amendment to the contract with Turbo Data Systems, INC (TDS) for fare evasion citation processing services to increase the amount by \$500,100, from \$596,400 to a new not-to-exceed amount of \$1,096,500 for the remaining term of the contract ending May 2028.
2. Authorize the Executive Director, or designee, to execute a contract amendment in a form approved by the Legal Counsel.

**Discussion**

Caltrain passengers do not pass through barriers or gates, which would require evidence of fare payment and fare validation, prior to boarding. The absence of a mechanism to check fares before passengers board led the JPB to institute a proof-of-payment (POP) fare enforcement system requiring patrons to carry a valid form of fare media to prove that they have paid their proper fares for each trip. State law permits the JPB to impose administrative penalties for fare evasion in addition to pursuing criminal penalties. The JPB found that enforcing POP violations exclusively through the superior courts creates challenges for the JPB and patrons that could be diminished by an administrative citation process for first and second time offenses, with both administrative and criminal citations being issued only to adult patrons. As a result, on January 1, 2018, the Board of Directors (Board) of the JPB adopted Ordinance No. 2 to establish administrative penalties, fees, and hearing procedures for passengers riding Caltrain without proper fares and proof of payment (Ordinance).

On June 1, 2018, the JPB entered into a sole source contract with TDS to provide fare evasion citation processing services and mobile fare enforcement devices for a two-year period or until total compensation reached \$150,000, whichever came first. At the time of contract award, TDS was the only third-party vendor permitted to process electronic traffic and administrative

violations in Santa Clara, San Mateo, and San Francisco Superior County Courts, with the necessary infrastructure to properly process these violations per the California Public Utilities Code. TDS provides citation processing and payment collection services by mail, telephone and online; distributes all levels of citation reminder notices and collection notices, and administers administrative adjudication services and advanced collection efforts in accordance with the Ordinance. In addition, TDS provides 20 leased handheld mobile ticket writers; associated software, maintenance and support services; and data reporting.

This is a revenue-generating contract. Since the inception of the program through September 2023, TDS has collected more than \$1.4 million in revenue from nearly 17,000 citations issued while receiving approximately \$600,000 in payments for the services provided during this same time period. The excess revenue funds Caltrain's operating cost.

On September 5, 2019, the Board approved an amendment to the contract to continue supporting the administrative citation adjudication process with TDS by increasing the contract capacity by \$446,400 from \$150,000 to \$596,400, extending the contract for 8 years through May 31, 2028, and adding five additional ticket writers, for a total of 25. The contract amendment included \$435,600 to cover fixed costs (lease of equipment and minimum fees), which is 73% of the total contract capacity, and \$148,800 to cover variable costs (programming, equipment replacement, citation processing services, collection services, bank management services, postal services), which is 27% of the total contract capacity for the 10-year contract.

As of September 30, 2023, Caltrain had expended \$588,742. This amount represents the monthly fixed costs incurred so far of \$279,487.50, 47% of the total contract capacity, and the variable costs incurred of \$309,254, 52% of the total contract capacity.

Staff has exercised a portion of the contingency fund, \$35,000, in order to allow TDS to continue to provide the services until the Board approves the amendment of the contract. As part of this request, staff plan to lease an additional four ticket writers to support fare enforcement, including through a new conductor rover team fare inspection program.

### **About Fare Enforcement**

Conductors are authorized to perform fare enforcement and write fare evasion administrative citations. They receive a six-hour training in how to visually validate paper and mobile tickets, utilize Clipper electronic inspection devices, de-escalate potential confrontation with customers and write the citations using the TDS ticket writers. Upon completion of the training and passing a test, the employee is issued an official badge as an appointed public officer authorized to perform fare enforcement. Fare enforcement procedures are also covered during the annual customer service training.

Each crew carries a Clipper fare inspection device and a TDS ticket writer during the fare enforcement procedures at the start of the run and onboard the trains. At terminal stations, the crew inspects fares as the riders go through the doors, while boarding or onboard the train before leaving the terminal station. During onboard inspections, the crew walk through the train car announcing the fare inspection procedure and verify riders' proof-of-payment. If a rider does not have a valid fare, they are asked to provide an identification for the issuance of the citation. In the event that a rider does not provide an identification, they are asked to



deboard. Currently, the 25 ticket writers are assigned to a crew and provide coverage to 104 weekday trains and 32 weekend trains.

Caltrain is working with TASI to improve and provide consistent fare enforcement across the Caltrain service by reviewing and revising the fare enforcement policy, utilizing extra board conductors to support fare enforcement onboard the trains during peak hours and for special events, providing additional training, implementing a revenue protection and service measurement program, developing a strict accountability process, and engaging TASI employees and their union representatives to discuss the upcoming changes.

**Budget Impact**

Primary funding to support the contract will be from revenues collected through fare evasion citations. In the event revenues are insufficient to support monthly fixed and variable expenses, operating funds will need to be used.

Prepared By: Christiane Kwok                      Manager, Rail Operations                      650-508-7926

**Resolution No. 2024-**

**Board of Directors, Peninsula Corridor Joint Powers Board  
State of California**

\* \* \*

**Authorize Amendment to the Contract with Turbo Data Systems, Inc. for Fare Evasion Citation Processing Services and Mobile Fare Enforcement Devices to Increase by \$500,100 to \$1,096,500**

**Whereas**, on January 1, 2018, the Board of Directors (Board) of the Peninsula Corridor Joint Powers Board (JPB) adopted Ordinance No. 2 to establish administrative penalties, fees, and hearing procedures for passengers riding Caltrain without proper fares and proof of payment (Ordinance); and

**Whereas**, in order to implement the Ordinance, on June 1, 2018, the JPB entered into a sole source contract with TDS to provide fare evasion citation processing services and mobile fare enforcement devices for a two-year period or until total compensation reached \$150,000, whichever came first (Contract); and

**Whereas**, on September 5, 2019, the Board approved an amendment to the contract to extend the term by eight years and increase the not-to-exceed contract amount by \$446,400 to \$596,400, with costs to be based on fixed fees for fare evasion citation processing services and lease of mobile fare enforcement devices; and

**Whereas**, staff recommends that the Board approve an amendment to the contract with TDS for fare evasion citation processing services to increase the contract capacity by \$500,100, from \$596,400 to a new, not-to-exceed amount of \$1,096,500 for the remaining term of the contract.

**Now, Therefore, Be It Resolved** that the Board of Directors of the Peninsula Corridor Joint Powers Board hereby authorizes the Executive Director, or designee, to amend the fare evasion processing contract between the JPB and Turbo Data Systems Inc. to increase the total not-to-exceed contract amount by \$500,100, from \$596,400 to a new, not-to-exceed amount of \$1,096,500.

Regularly passed and adopted this 7<sup>th</sup> day of March, 2024 by the following vote:

Ayes:

Noes:

Absent:

---

Chair, Peninsula Corridor Joint Powers Board

Attest:

---

JPB Secretary

**Peninsula Corridor Joint Powers Board  
Staff Report**

To: Technology, Operations, Planning, and Safety Committee  
Through: Michelle Bouchard, Executive Director  
From: Kate Jordan Steiner, Chief Financial Officer  
Subject: **Award of Contract for Construction Manager General Contractor Services for the Broadway Grade Separation Project**

Finance Committee Recommendation       Technology, Operations, Planning, and Safety Committee Recommendation       Advocacy and Major Projects Committee Recommendation

**Purpose and Recommended Action**

The Broadway Grade Separation Project (Project) will improve safety at the Broadway at-grade crossing in Burlingame by replacing it with a grade-separated crossing. This at-grade crossing is currently ranked first on the California Public Utilities Commission’s Grade Separation Priority List for grade separation in the State. The Peninsula Corridor Joint Powers Board (JPB) requires a qualified firm to provide Construction Manager General Contractor (CMGC) Pre-Construction Services (Services) for the final design.

Staff recommends that the Board of Directors (Board) of the JPB:

1. Award a contract to Flatiron-Herzog Joint Venture, a Joint Venture of Concord, California (FHJV), to provide Services for the Project for an amount of \$2,500,000.
2. Authorize the Executive Director or designee to execute a contract with FHJV in full conformity with the terms and conditions set forth in the solicitation documents and negotiated agreement, and in a form approved by legal counsel.

**Discussion**

The CMGC will work closely with JPB staff and consultants to perform pre-construction services to assist in the development of the final design and prepare for the construction work. These efforts will include working with the final designer, Mark Thomas and Company, Inc. (Designer), in reviewing the design and construction documents to promote constructability and efficiency, and participating in design decisions by providing expertise, estimates, plans, and recommendations regarding construction materials, means and methods, systems, phasing, and costs within the budget and schedule for the Project.

More specifically, during the Pre-Construction Services Phase, the CMGC will work closely with the JPB and Designer to:

- Provide input on long-lead material procurement times, pricing, procurement strategies and alternatives for materials and equipment;
- Identify the recommended division of construction work into bid packages and order of bidding, and develop a detailed preliminary construction schedule;

- Perform periodic reviews of evolving designs, and make suggestions with regard to means and methods of construction; provide constructability recommendations and guidance, and assist the JPB with schedule and cost control;
- Identify phased construction opportunities and constraints;
- Employ detailed constructability reviews and workshops including trade sequencing optimization, identification of early work packages and long lead items, and recognition of and development of prefabrication/pre-assembly economies;
- Monitor market conditions for the Project with subcontractors and material suppliers to assess workloads, bonding capacity availability, and labor availability, and develop interest in the Project and in bidding on the work; and
- Identify areas of space for storage, parking, and temporary facilities throughout construction phasing to maximize efficiency and minimize impacts to the traveling public.

On March 2, 2023, pursuant to Resolution 2023-16, the JPB adopted CMGC Findings and authorized the use of CMGC project delivery method pursuant to Public Utilities Code Section 103395 for the Broadway Grade Separation Project.

On August 16, 2023, the JPB issued Request for Proposals (RFP) No. 23-J-C-040 for the Services, which was advertised on the JPB's procurement website. Staff held a pre-proposal video conference and nine potential Proposers attended.

The JPB received three proposals as follows:

1. Clark / Shimmick Joint Venture, San Francisco, CA
2. Flatiron-Herzog Joint Venture (FHJV), Concord, CA
3. Kiewit Infrastructure West Co., Fairfield, CA

A Selection Committee composed of qualified staff from the JPB's Capital Program Delivery and Engineering Departments, the San Mateo County Transportation Authority (TA), and the City of Burlingame, reviewed and scored the Proposals in accordance with the following weighted criteria:

<b>Evaluation Criteria</b>	<b>Max Points</b>
Team Organization and Management Plan	5 Points
Company Qualifications, Experience, and References	20 Points
Qualifications and Experience of Key Personnel	20 Points
Understanding the Required Scope of Services	30 Points
Plans	10 Points
Cost Proposal and/or Labor Rates	15 Points
<b>Total</b>	<b>100 Points</b>

After the initial scoring of the proposals, the Committee determined FHJV to be the highest-ranked firm with the most qualified proposal and approach for the Services. FHJV possesses the requisite experience and qualifications as defined in the RFP. FHJV and its key subcontractors

have experience with the CMGC delivery process and have worked on similar projects, including: 1) I-5 North Coast Corridor CMGC, San Diego, CA; 2) Mid-Coast Transit Corridor CMGC Project, San Diego, CA; and 3) Brightline Phase 2 Expansion - Zone 4, Orlando, FL.

Staff successfully negotiated the Pre-Construction Phase prices with FHJV, conducted a price analysis for the base contract and optional services, and determined the prices to be fair, reasonable, and consistent with those paid by other public agencies in the Bay Area for similar services. Staff will provide Project updates to the Board at future meetings and will seek Board approval for the award of the Construction Phase.

**Budget Impact**

The Broadway Burlingame Grade Separation Project was originally approved by the Board in Fiscal Year 2018. Amendments since then increased the Project’s budget to \$27,913,000, funded by the TA for \$23,413,000 and the City of Burlingame for \$2,000,000. The proposed contract can be funded within the approved Project budget.

Prepared By:	Ehab Azab	Procurement Administrator III	650.508.7732
	Mike Boomsma	Project Manager	808.208.2355

**Resolution No. 2024 –**

**Board of Directors, Peninsula Corridor Joint Powers Board  
State of California**

\* \* \*

**Award of Contract for Construction Manager General Contractor Services for the  
Broadway Grade Separation Project**

**Whereas**, on March 2, 2023, pursuant to Resolution No. 2023-16, the Board of Directors (Board) of the Peninsula Corridor Joint Powers Board (JPB) authorized the use of the Construction Manager General Contractor (CMGC) project delivery method for the Broadway Grade Separation Project (Project); and

**Whereas**, on August 16, 2023, the JPB issued Request for Proposals (RFP) No. 23-J-C-040, for CMGC Pre-Construction Services for the Project, held a pre-submittal conference, and nine potential Proposers attended; and

**Whereas**, in response to the RFP, the JPB received three proposals; and

**Whereas**, a Selection Committee (Committee), composed of qualified staff from the JPB's Capital Program Delivery and Engineering Departments, the San Mateo County Transportation Authority, and the City of Burlingame, scored and ranked the proposals in accordance with the weighted evaluation criteria set forth in the RFP; and

**Whereas**, the Committee completed its evaluation process, and determined that Flatiron-Herzog Joint Venture (FHJV), a joint venture of Concord, California, is the highest-ranked proposer and possesses the necessary qualifications and requisite experience to successfully perform the scope of services defined in the RFP; and

**Whereas**, staff completed negotiations with FHJV, conducted a price analysis for the base contract and optional services, and determined that FHJV has agreed to perform the specified services at fair and reasonable prices; and

**Whereas**, staff and legal counsel have reviewed FHJV's proposal and have determined that it complies with the requirements of the RFP; and

**Whereas**, staff recommends that the Board award a contract to FHJV for CMGC pre-construction services for the Project, at a total amount of \$2,500,000.

**Now, Therefore, Be It Resolved** that the Board of Directors of the Peninsula Corridor Joint Powers Board hereby awards a contract to Flatiron-Herzog Joint Venture, a Joint Venture of Concord, California for Construction Manager General Contractor Pre-Construction Services for the Broadway Grade Separation Project for a total amount of \$2,500,000; and

**Be It Further Resolved** that the Board authorizes the Executive Director or designee to execute a contract with FHJV in full conformity with the terms and conditions set forth in the solicitation documents and negotiated agreement, and in a form approved by legal counsel; and

**Be It Further Resolved** that the Board authorizes the Executive Director or designee to file any other required documentation and to take any other actions necessary to give effect to this Resolution.

Regularly passed and adopted this 7<sup>th</sup> day of March, 2024 by the following vote:

Ayes:

Noes:

Absent:



---

Chair, Peninsula Corridor Joint Powers Board

Attest:

---

JPB Secretary

**Peninsula Corridor Joint Powers Board  
Staff Report**

To: Technology, Operations, Planning, and Safety Committee  
Through: Michelle Bouchard, Executive Director  
From: Robert Barnard, Chief, Rail Design and Construction  
Subject: **Receive Fiscal Year 2024 Quarter 2 Capital Program Quarterly Report**

Finance Committee  
Recommendation

Technology, Operations, Planning,  
and Safety Committee  
Recommendation

Advocacy and Major Projects  
Committee Recommendation

**Purpose and Recommended Action**

Staff recommends the Board receives the Capital Projects Quarterly Status Report. It is being presented to the Board for informational purposes and is intended to better inform the Board of the capital program status. The full report and a summarized version are in the following link: <https://www.caltrain.com/about-caltrain/statistics-reports/quarterly-capital-program-status-report>.

**Discussion**

Staff prepares the Capital Projects Quarterly Status Report for the Board on a quarterly basis. The report is submitted to keep the Board advised as to the scope, budget, and progress of current ongoing capital projects.

**Budget Impact**

There is no impact on the budget.

Prepared By: Robert Cheung Deputy Director, Project Controls (650) 730-0296



# Capital Program

## Quarterly Status Report and DBE Status Report



### 2nd Quarter Fiscal Year 2024 (October to December 2023)

Prepared for the March 07, 2024 Caltrain Board Meeting

## Summary

Capital Program Management, Project Controls

## Projects in Focus

**Concerning** (projects with red status lights)

### 1. 002088 - 25th Avenue Grade Separation

- **Schedule:** Project Closeout has been extended due to the impact of unanticipated environmental monitoring program and ROW survey. Project Manager to seek schedule re-baseline once the ROW survey scope is accurately defined.

### 2. 002146 - South San Francisco Station Improvement Project

- **Schedule:** UPRR track lost due to construction: Project is still addressing an obligation to Union Pacific Railroad (UPRR) to fund rebuilding of 4,200' of yard track that UPRR lost, due to construction of this project. As an alternative, UPRR will consider a monetary settlement with Caltrain to close out the obligation.

### 3. 100233 - MP-36 Locomotive Mid-Life Overhaul

- **Schedule:** The schedule has been delayed due to part availability. Alstom is working with multiple vendors to procure the parts needed.

### 4. 100240 - Ticket Vending Machines (TVM) Rehab

- **Schedule:** Phase 5 completion date has been extended due to contemplating a change order to reduce the number of TVMs to be upgraded in order to replace the chips in the TVMs that were upgraded in Phase 2 & 3. Project Manager to seek approval for Gate 6 & 7 at the January 2024 Management Committee meeting.

### 5. 100244 - Broadway Burlingame Grade Separation

- **Schedule:** Delay due to right-of-way acquisitions and utility relocations. Right-of-way acquisitions and utility relocations are currently forecasted to delay construction relative to the prior baseline schedule. JPB staff is assessing options to mitigate this delay and will provide updates in future months.

### 6. 100430 - CCF BCCF Virtualization

- **Schedule:** Project Schedule extended as the current fiber strike situation severely postponed the implementation schedule. Project will go to the Management Committee for approval of Gate 6 and to request schedule re-baseline in May 2024.

### 7. 100439 - Bayshore Station Overpass Pedestrian Bridge Rehab

- **Schedule:** The project was delayed due to obtaining approval to close the East and West Towers for the Contractor to conduct painting operations through continuous days. The project obtained Board approval on May 4, 2023 for passenger shuttle services to complete the East and West Towers. Opening of the station held on Monday, August 7, 2023. Project Manager to seek approval for Gate 6 & 7 at the February 2024 Management Committee meeting.

### 8. 100667 - Bernardo Avenue Undercrossing

- **Schedule:** The schedule has been delayed due to a delay in the handoff of the project from Sunnyvale to Caltrain. Caltrain to coordinate with the City of Sunnyvale once 35% design and environmental clearance are completed by the City.

- **Budget:** The EAC is higher than the initial estimate. The City of Sunnyvale and VTA are working together to identify additional funds to complete the construction.

### 9. 100668 - Mary Ave Grade Separation

- **Schedule:** The alternatives analysis and community outreach has taken longer than originally expected. The City will hand over the project to Caltrain once the conceptual (15% plans) study is complete and a new service agreement is in place. Caltrain will explore potential options to accelerate the project including alternative delivery methods.

### 10. 100686 - Middle Avenue Undercrossing

- **Schedule/Budget:** Redesign delayed project schedule: Caltrain worked with Menlo Park staff to redesign the locally preferred alternative to relocate the undercrossing ramps outside the operating railroad right of way. Menlo Park City Council approved the revised design at its July 11, 2023 meeting and the City has provided Caltrain with an updated cost estimate. Project is transitioning to Caltrain to advance into final design. Additional alternatives analysis and price escalation are factors contributing to higher costs. Project will re-baseline schedule and budget during final design.

**11.100617 - Mountain View Transit Center Grade Separation & Access Project**

- **Schedule:** Delay due to need for analyzing Value Engineering options: 65%-95% design is on hold at this time, as the project is conducting "Value Engineering (VE)" to make the project more affordable. Work on revised costs and schedules incorporating potential Value Engineering solutions. City of Mountain View to present feasible options to its City Council Members for further directions. March/April 24 time frame is when the project will go back to Management Committee to proceed from 65% to 95% design along with, scope, budget, and schedule changes.

**12. 100762 - San Francisquito Creek North Bank Restoration**

- **Schedule:** Timing of a Section 404 permit from the U.S. Army Corps of Engineers (USACE) did not enable construction during the 2023 dry season. Construction of permanent bank stabilization has been postponed until the 2024 dry season. An updated project schedule and budget will be considered by the Management Committee in early 2024, prior to the implementation of the permanent stabilization project.

**Watching** (projects with yellow status lights)

**1. 002113 - Guadalupe River Bridges Replacement and Extension**

**Funding** - The approved funding plan for the project relies on multiple sources including State of Good Repair (SOG) Federal grants. The projected timing for receipt and activation of funds from each source is anticipated to support the ongoing progress and timely completion of the project. The "Funding" status light will remain yellow until FY25 funding appropriated by the Board in May 2024 is activated.

**Safety:** On 10/26/23, a 40-foot tree fell across the tracks during a tree felling operation due to inadequate controls. There were no injuries or impacts to operations. However, handrails on both sides of the Guadalupe River Bridge were damaged. Investigation, reporting, and lessons learned are in progress.

**2. 100233 - MP-36 Locomotive Mid-Life Overhaul**

-**Budget/Funding:** A potential budget shortfall has been identified. Team is actively tracking this item and will seek supplemental funding as part of the FY25 budget amendment if needed.

**3. 100403 - Broadband Wireless Communications System**

- **Funding:** The current activated funds are insufficient to cover the entire construction phase. The "Funding" status light will remain yellow until the remaining funds are activated.

**4. 100410 - Whipple Avenue Grade Separation Study**

- **Schedule:** The project is temporarily paused as Caltrain and City Staff discuss next steps. The scope of work for the next phase of the project is to be determined but will likely include additional planning work.

**5. 100449 - Next Generation Visual Messaging Sign (VMS)**

- **Funding:** Insufficient activated Funds to cover the entire construction phase. Activate the FY24 and FY25 approved budget.

**6. 100522 - Watkins Ave Grade Crossing Safety Improvements**

- **Schedule:** Additional time is needed by the contractor to finish the project because of the delay in receiving the light poles and to complete the punchlist. Project Manager to seek approval for Gate 6 & 7 at the January 2024 Management Committee meeting.

**7. 100676 - San Mateo Replacement Parking Track**

- **Funding:** Additional funding is required to be activated to cover construction phase of the project. The project went to the Management Committee in November 2023 to request transfer of \$1.5M from 25th Ave project to this project. Worked with SMCTA to request amendment to the grant term for the funds. Transfer of the funds is underway by Budgets.

**8. 100684 - Mini-High Platforms**




- **Schedule:** The remaining un-activated funds for the project relies on FY25 approved budget. Await for the funds to be activated in July 2024.

**9. 100785 - 4th & King Yard Preparation (4KY)**

- **Schedule:** The separation of the project into two packages caused the delay. The separation allows Package B to go through procurement of a CM/GC contract while Package A will continue with design for a DBB contract. We are working with TIPA to develop an agreed upon, joint project schedule. We can look into rebaselining the schedule when it is complete.

## Performance Summary

**Table S1. Projects in each status light by performance category**

Status Light	Safety	Schedule	Budget	Funding
 Green	97.2%	58.3%	91.7%	83.3%
 Yellow	2.8%	8.3%	2.8%	16.7%
 Red	0.0%	33.3%	5.6%	0.0%

(Percentage of projects in each status light by performance category)

**Table S2. Summary of project changes from previous quarter**

Status Changes	Projects	Pct. Projects
All green	16	44.4%
Improved	1	2.8%
Got worse	9	25.0%
Stayed the same (except all green)	10	27.8%
<b>Total Projects</b>	<b>36</b>	

**Note:** Table S1 and S2 do not include projects with deferred funding.

**Table S3. Individual Projects**

Project Number	Title	Safety		Schedule		Budget		Funding		Page
		Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	
<b>CONSTRUCTION/IMPLEMENTATION</b>										
<b>ROW Bridges</b>										
002113	Guadalupe River Bridges Replacement and Extension	●	●	●	●	●	●	●	●	7
100439	Bayshore Station Overpass Pedestrian Bridge Rehab	●	●	●	●	●	●	●	●	14
100762	San Francisquito Creek North Bank Restoration	●	●	●	●	●	●	●	●	19
<b>Stations</b>										
100761	Level Boarding Roadmap (Study)	●	●	●	●	●	●	●	●	25
<b>ROW Grade Crossings</b>										
100426	Churchill Avenue Grade Crossing	●	●	●	●	●	●	●	●	29
100522	Watkins Ave Grade Crossing Safety Improvements	●	●	●	●	●	●	●	●	32
100566	San Mateo Grade Crossing Improvements	●	●	●	●	●	●	●	●	35
<b>ROW Communications &amp; Signals</b>										
100403	Broadband Wireless Communications System	●	●	●	●	●	●	●	●	40
100432	Migration to Digital Voice Radio System	●	●	●	●	●	●	●	●	44
100449	Next Generation Visual Messaging Sign (VMS)	●	●	●	●	●	●	●	●	47
100572	Communication System SOGR	●	●	●	●	●	●	●	●	50
<b>Fare Collection</b>										
100240	Ticket Vending Machines (TVM) Rehab	●	●	●	●	●	●	●	●	54
<b>Miscellaneous</b>										
100233	MP-36 Locomotive Mid-Life Overhaul Project	●	●	●	●	●	●	●	●	60
100430	CCF BCCF Virtualization	●	●	●	●	●	●	●	●	64
100445	Automatic Passenger Counters at San Francisco 4th & King Station	●	●	●	●	●	●	●	●	68
100676	San Mateo Replacement Parking Track	●	●	●	●	●	●	●	●	72
100684	Mini-High Platforms	●	●	●	●	●	●	●	●	75
<b>DESIGN (includes Preliminary and Final Design, and Procurement)</b>										
<b>Grade Separations</b>										
002152	South Linden & Scott Grade Separation	●	●	●	●	●	●	●	●	79
100244	Broadway Burlingame Grade Separation	●	●	●	●	●	●	●	●	82
100482	Rengstorff Grade Separation	●	●	●	●	●	●	●	●	86
100617	Mountain View Transit Center Grade Separation & Access Project	●	●	●	●	●	●	●	●	90
<b>Stations</b>										
100459	22nd Street ADA Improvement	●	●	●	●	●	●	●	●	95
<b>ROW Bridges</b>										
100759	San Francisquito Creek Bridge Acoustic Monitoring System	●	●	●	●	●	●	●	●	99
<b>ROW Communications &amp; Signals</b>										
100614	Predictive Arrival/Departure System (PADS) Replacement	●	●	●	●	●	●	●	●	103
<b>Miscellaneous</b>										
100780	MS4 Trash Management	●	●	●	●	●	●	●	●	107
100785	4th & King Yard Preparation (4KY)	●	●	●	●	●	●	●	●	110

**Table S3. Individual Projects (Continued)**

Project Number	Title	Safety		Schedule		Budget		Funding		Page
		Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	
<b>PLANNING (includes Initiation and Design to 15%)</b>										
<b>Grade Separations</b>										
100410	Whipple Avenue Grade Separation Study	●	●	●	●	●	●	●	●	115
100667	Bernardo Avenue Undercrossing	●	●	●	●	●	●	●	●	117
100668	Mary Ave Grade Separation	●	●	●	●	●	●	●	●	119
100686	Middle Avenue Undercrossing	●	●	●	●	●	●	●	●	122
100687	Downtown Rail Extension (DTX)	●	●	●	●	●	●	●	●	125
100733	North Fair Oaks Bike and Pedestrian Crossing	●	●	●	●	●	●	●	●	128
100776	Connecting Palo Alto		●		●		●		●	132
<b>ROW Bridges</b>										
100427	San Francisquito Creek Bridge Conceptual Design & Community Engagement	●	●	●	●	●	●	●	●	136
<b>CLOSEOUT (includes Start-up/Turnover and Closeout)</b>										
<b>Grade Separations</b>										
002088	25th Avenue Grade Separation	●	●	●	●	●	●	●	●	141
<b>Stations</b>										
002146	South San Francisco Station Improvement	●	●	●	●	●	●	●	●	147
<b>Projects with Deferred Funding</b>										
<b>ROW Grade Crossings</b>										
100563	FY21-22 Grade Crossing Improvements									153
<b>Miscellaneous</b>										
100564	Enterprise Asset Management (EAM) Software System									157
100565	Update and Upgrade GIS System									160

**Note:** The Total EAC (Estimated at Completion) for the projects shown above is \$2,957,500,383.

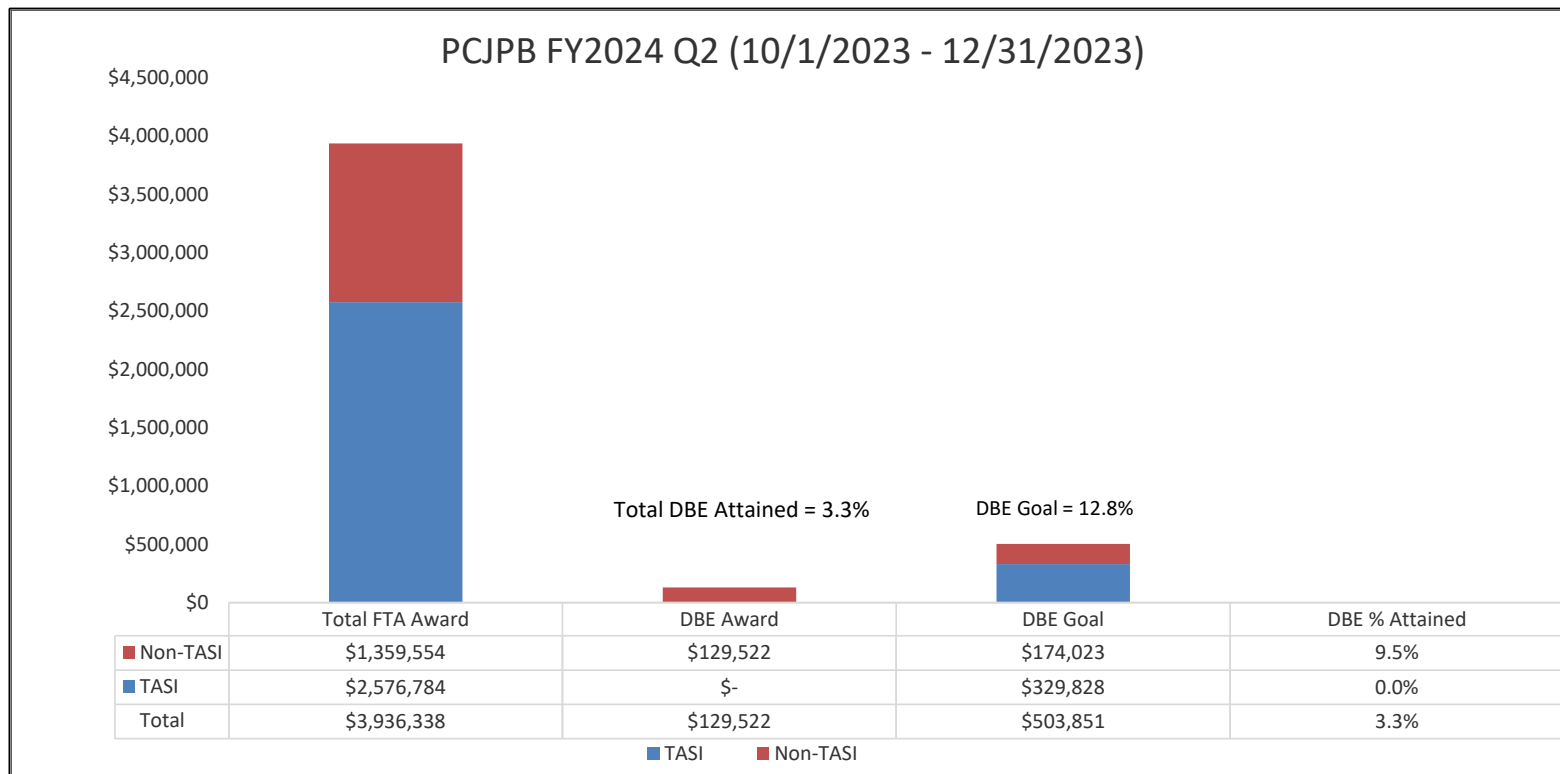


---

**Appendix A - Disadvantaged Business Enterprise (DBE)**

Disadvantaged Business Enterprise (DBE)

# PCJPB Award



Note: The overall triennial DBE goal for Federal Fiscal Year 2023-25 is 12.8%. The quarterly DBE attainment was 3.3% for both TASI and Non-TASI combined.

**Peninsula Corridor Joint Powers Board  
Staff Report**

To: Technology, Operations, Planning, and Safety Committee  
Through: Michelle Bouchard, Executive Director  
From: John Hogan, Chief Operating Officer  
Subject: **Receive Update on Rail Activation Management Program**

Finance Committee Recommendation       Technology, Operations, Planning, and Safety Committee Recommendation       Advocacy and Major Projects Committee Recommendation

**Purpose and Recommended Action**

This report is an informational item that provides an update on Caltrain’s **Rail Activation Management Program (RAMP)**, which is an ongoing effort to manage all revenue start-up activities for the transition from electrification construction to operations. It requires no action by the Board of Directors. The purpose of this month’s report is to review the updated RAMP scorecard, which tracks progress of critical activities essential for start of electric train service in Fall 2024, and to provide an overview of top risks as well as the Pre-Revenue Operations plan.

**Discussion**

*1. Rail Activation Background and Scope:*

The Peninsula Corridor Electrification Project (PCEP) will upgrade 51 miles of diesel service to electrified service from San Francisco to San Jose (Tamien Station). The PCEP scope of work includes design and construction of an overhead contact system, traction power facilities, modification of the existing signaling and grade crossing protection system to make it compatible with the electrified railroad, improvements at Pacific Gas and Electric (PG&E) substations, and modifications at existing tunnels and Caltrain’s maintenance facility. It also includes the design, manufacturing, assembly, testing, and delivery of the Electric Multiple Units (EMUs).

A **Rail Activation Committee (RAC)** has been established to manage the successful launch of electrified revenue service following PCEP substantial completion by developing a guiding program for commissioning, systems integration, safety certification, testing, training, and overall resource planning. The RAC meets on a weekly basis, and its purpose is to:

- establish clear goals, roles and responsibilities to ensure readiness for electrified passenger service;
- develop a comprehensive understanding of all necessary start-up activities for revenue service; and
- ensure buy-in from full organization for the transition from construction to operations and maintenance.

The weekly RAC meetings also include a 2 to 4 week lookahead of upcoming activities to ensure items remain on track and deadlines do not slip.

Key RAMP focus areas included, but are not limited to:

- Safety and Security
  - System safety certification
  - Vehicle storage and disposition plans
  - Emergency preparedness
  - First responder training
  - Isolation protection services
- Revenue Service Readiness
  - Training, certification, and hiring
  - Operations & Maintenance plans
  - Legacy fleet retirement
  - Service planning
- Community Outreach
  - Public tours
  - Safety campaigns
  - Marketing
- Financial Plan
  - Start-up costs
  - Energy procurement strategy

## 2. *Rail Activation Roles:*

The RAC is led by a Director of Rail Activation and Transition with dedicated engineering and project management support.

Caltrain's Operations and Maintenance (O&M) department along with the JPB's rail service contractor, TransitAmerica Services, Inc. (TASI), are also heavily involved in the start-up efforts to ensure that the Electrification Program, once in revenue service, meets all Caltrain's benchmarks for safe, reliable, and efficient operations. To that end, Caltrain O&M staff participate in the RAC and work closely with the PCEP project team and contractors on development of the Overhead Contact System (OCS)/Traction Power System (TPS) maintenance program, training, and pre-revenue service planning.

Rail Activation is a collective effort that includes support from nearly every department and shared service function throughout the organization. These include Caltrain Planning, Design and Construction, Safety and Security, Human Resources, Finance, Budgets, Contracts and Procurement, Communications, Government and External Affairs, Information Technology, People and Culture and Real Estate and Grants.

3. *Next Steps:*

Upcoming RAMP activities include:

- Finalizing Pre-Revenue Operations & Maintenance plan and various Standard Operating Procedures.
- Determining detailed scheduled and list of activities for End-to-End testing.
- Finalizing mitigation strategies for potential Rail Activation risks.
- Creating detailed plan for stations enhancement prior to Revenue Service Date.
- Identifying comprehensive list of “start-up” costs needed to procure additional equipment, materials, and facilities as well as implement necessary modifications and mitigations for a successful transition from construction to operation.
- Finalizing fleet disposition plan for surplus equipment to accommodate the arrival of additional electric trainsets.

**Budget Impact**

Funds to support OCS and TPS maintenance and additional personnel hiring are included in JPB’s Fiscal Year 2024 and 2025 adopted operating budgets. However, as with any major construction project that will provide a new form of operating service, there is the potential that unexpected costs will be identified during the commissioning period and transition to operations. The RAC is currently identifying these various start-up cost requirements and associated funding sources for necessary Rail Activation activities that extend beyond the PCEP scope.

Prepared By:	Mark Clendennen	Director, Rail Activation & Transition	650.632.6825
	Graham Rogers	Business Operations Project Manager	650.551.6169

**Peninsula Corridor Joint Powers Board  
Staff Report**

To: Technology, Operations, Planning, and Safety Committee  
Through: Michelle Bouchard, Executive Director  
From: Dahlia Chazan, Chief Caltrain Planning  
Subject: **Receive 2023 Caltrain Sustainability Report**

Finance Committee  
Recommendation

Technology, Operations, Planning,  
and Safety Committee  
Recommendation

Advocacy and Major Projects  
Committee Recommendation

**Purpose and Recommended Action**

This report provides an informational summary of the 2023 Caltrain Sustainability Report that details Caltrain’s sustainability performance for fiscal years 2021 and 2022.

**Discussion**

Sustainability is a driving principle at Caltrain, both as an organization and a transit provider for the counties of San Francisco, San Mateo, Santa Clara, and the wider San Francisco Bay Area. Since the publishing of its first sustainability report in 2017, Caltrain has continued to improve its environmental performance, increasing efficiency in all tracked indicators. And with the imminent debut of electrified service later this year, greenhouse gas (GHG) and criteria air pollution (CAP) emissions will be reduced further than ever before.

Caltrain gauges the success of its sustainability program through the American Public Transportation Association (APTA) Sustainability Commitment Program. This program sets forth minimum thresholds Caltrain must meet to attain its certification level, currently silver. Caltrain tracks its sustainability performance quantitatively year-round and reports it to APTA to maintain its certification. The sustainability program also reports organizational performance (also required by APTA) biennially for public and stakeholder review. Starting in FY2024 Caltrain is launching a Strategic Sustainability Plan to help prioritize Caltrain’s specific sustainability actions going forward. This Plan will facilitate a process establishing organizational sustainability targets and goals in addition to those required by APTA.

This report, the Caltrain 2023 Sustainability Report, will be found at Caltrain’s Sustainability page [<https://www.caltrain.com/about-caltrain/sustainability>] and documents its progress for fiscal years 2021 and 2022. Given the unprecedented disruption created by the COVID-19 pandemic, staff examined Caltrain’s performance through pre- (FY2019) and post-pandemic (FY2022) lenses to extract more informative trends. When compared head-to-head, Caltrain achieved almost across the board reductions in all key performance indicators (KPIs) in the face of a global disruption, as detailed in the table below:

KPI	FY2019	FY2020	FY2021	FY2022	FY19–FY2022 % Change
GHG Emissions (MTCO <sub>2</sub> e-Metric Tons of Carbon Dioxide Equivalent)	43,253	40,411	34,341	43,178	-0.2%
Criteria Air Pollution (tons)	804	755	641	814	1.2%
Facility Energy Use (kBtu)	26,561,511	23,039,505	23,824,798	20,114,212	-24.3%
Water Use (gallons)	14,780,343	14,533,797	17,941,372	14,215,769	-3.8%
Generated Waste (tons)	512	480	442	433	-15.4%

Reviewing generated greenhouse gas (GHG) emissions, Caltrain recorded a 0.2% decrease in FY2022 compared to FY2019. Caltrain produced slightly less emissions while also providing more overall service. Another KPI of interest is criteria air pollutants (CAPs), a byproduct of diesel fuel combustion and harmful to humans in significant concentrations, which increased 1.2% over this span. The organization continues to be efficient in how it powers and heats its facilities, reducing facility energy use by over 24%. Replacing older lightbulbs with more efficient, longer-lasting light emitting diode (LED) models helped reduce electricity usage almost 24% over this period. Conducting regular inspections of the boiler at CEMOF, the largest natural gas user, has improved operations and resulted in a 42% decrease in demand. Finally, Caltrain continues to make progress on reducing its waste footprint, recording a decrease in generated waste of over 15%.

Looking forward, Caltrain’s environmental impacts will be significantly reduced:

- Caltrain’s revenue fleet generates almost 99% of its GHG emissions; the transition to a majority electric multiple-unit (EMU) fleet will eliminate associated exhaust emissions.
- Air pollution will decrease substantially as much of the current diesel locomotive fleet is retired and replaced with EMUs.
- Future sustainability priorities and goals will be established and honed through the Strategic Sustainability Plan.
- Climate change and its effect on the Caltrain corridor (fleet, assets, operations, and customers) will be analyzed to mitigate impacts today and in the future.

**Budget Impact**

This informational item has no impact on the budget.

Prepared By: Bo Baney Principal Environmental Planner (650) 508-7792  
 Amelia Timbers Environmental and Sustainability Planning Manager (650) 508-7713