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AGENDA

PENINSULA CORRIDOR JOINT POWERS BOARD Technology, Operations, Planning, and Safety (TOPS) Committee Meeting

September 25, 2024, 1:30 pm

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

and

San Bruno City Hall
Conference Room 138, 570 Linden Ave
San Bruno, CA 94066

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=OUE3b0ZiY3ZoYzRCN280UG5Gb9WZz09> 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 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.

September 25, 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. Meetings Minutes for August 28, 2024 Motion
5. Receive Update on Caltrain's Draft 10-Year Capital Improvement Plan Informational
6. Receive Fiscal Year 2024 Annual Ridership Report Informational
7. Receive Update on Pass Forward Program Informational
8. Committee Member Requests
9. Date/Time of Next Regular TOPS Committee Meeting: Wednesday, October 30 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.
10. 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) 551-6108. Agendas are available on the Caltrain website at <https://www.caltrain.com>. Communications to the Board of Directors can be e-mailed to 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 Finance Committee: Two Mondays before the Board Meeting, 2:30 pm; 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 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; 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
DRAFT Minutes of August 28, 2024**

Members Present: Pat Burt, Rico E. Medina (Chair)
Members Absent: Shamann Walton
Staff Present: R. Barnard, M. Bouchard, J. Harrison, L. Lumina-Hsu, D. Pape, G. Rogers, B. Tietjen, M. Tseng

1. Call to Order/Pledge of Allegiance

Chair Medina called the meeting to order at 1:30 pm and led the Pledge of Allegiance.

2. Roll Call

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

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

4. Meeting Minutes of July 24, 2024

Motion/Second: Medina/Burt

Ayes: Burt, Medina

Absent: Walton

5. Adopt Updated Caltrain Station Access Policy

Hannah Greenberg, Planning Analyst II, provided the presentation that included the following:

- Updates to the policy including purpose statement, definition of “access,” intended users of the policy, draft goals and objectives, and access hierarchy
- Access hierarchy provides an aspirational framework to guide station area planning and financial decisions
- Implementation plan timeline of short-term, long-term, and ongoing tasks with implementation activities beginning in Fall 2024

The Committee members had a robust discussion and staff provided further clarification in response to the Committee comments and questions, which included the following:

- The role of Caltrain, cities, and partners in implementing the station access policy, and partnering with other jurisdictions to improve Caltrain stations
- Consideration of users and how users get to and through the station, to loading platforms, and clarification of those elements that are internal controls and those elements that Caltrain will work with partners to address

- Framing of policy to the partners of how improved access is important, emphasize value to cities, reduce traffic and parking demands, and address environmental and climate goals
- Partner with local bus and transit agencies for schedule integration with new electrified service

Motion/Second: Medina/Burt

Ayes: Burt, Medina

Absent: Walton

6. Authorize Increase in Contract Change Order Authority for Mini-high Platform Project*

Robert Barnard, Chief of Rail Design and Construction, provided the presentation that included the following:

- Project funding has a mix of local and federal money, approximately \$4.2 million
- Request change order authority for unforeseen conflicts with existing facilities, complex access, accelerated construction and other changes that had required modification to plan work

The Committee members had a robust discussion and staff provided further clarification in response to the Committee comments and questions, which included the following:

- Mini-high platform level boarding and estimation of schedule efficiencies, mini-high platform location from train, and standardization at all stations
- Santa Clara County Measure B funds not needed to complete project

Motion/Second: Burt/Medina

Ayes: Burt, Medina

Absent: Walton

Public comment

Adrian Brandt commented on the mini-high platforms, level boarding, and runtime benefits.

Aleta Dupree spoke in support of full train length level boarding and ADA bathrooms in various cars.

7. Capital Projects Quarterly Status Report – 4th Quarter Fiscal Year 2024

Robert Barnard, Chief of Rail Design and Construction, provided the presentation that included the following:

- Grade separation projects, grade crossing improvements, and mini-high platforms
- Construction project milestones
- Four projects moved from construction to close out
- 27 projects in design, 7 projects in planning phase, and 3 projects deferred due to insufficient funding
- Challenges included staffing and the need to meet project demands while continuing to meet project schedules

The Committee members had a robust discussion and staff provided further clarification in response to the Committee comments and questions, which included the following:

- Quiet zones and benefits/trade-offs, wayside horns and heat map of intensity of noise
- Cost escalation of grade separation projects and review of intrusion detection technology, quad gates, and safety measures to compliment grade separations

Public comment

Aleta Dupree commented on ticket vending machines and Clipper, and spoke in support of grade separations for safety benefit.

Adrian Brandt commented on the Atherton project, quiet zone, and horn-free train passage.

8. Receive Update on Rail Activation Management Program

Graham Rogers, Project Manager for Rail Operations and Maintenance, and Brent Tietjen, External Affairs Manager, provided the presentation that included the following:

- Currently in soft launch with full launch in September 2024
- Trainset delivery are on schedule for beginning of September
- Soft launch observations and feedback from crew and customers include adjustments to digital displays, display racks, and communication outlets are below seats
- All electric schedule and corridor-wide celebrations for the weekend of September 21st –22nd include celebration events in Palo Alto and San Mateo, and free rides
- New service schedule released August 26. Ongoing public outreach safety campaign
- Received final Federal Transportation Association (FTA) Readiness for Service Support supporting Caltrain readiness for entering into revenue service
- Predictive Arrival Departure System (PADS) software update to reflect new electric train numbering

The Committee members had a robust discussion and staff provided further clarification in response to the Committee comments and questions, which included the following:

- Free rides during opening weekend
- Rail activation, station access, and corridor-wide station activation program
- Public Wi-Fi at stations and seamless transition from station to train

Public comment

Aleta Dupree commented on crew professionalism and commitment to safety first during emergency stops.

Adrian Brandt commented Citizen Advisory Committee feedback on outlet location, emergency braking, flat spots, and restrooms.

9. Committee Member Requests - There were none.

10. Date/Time of Next Regular TOPS Committee Meeting: Wednesday, September 25, 2024 at 1:30 pm.

11. Adjourn - The meeting adjourned at 2:35 pm.

**Peninsula Corridor Joint Powers Board
Staff Report**

To: JPB Technology, Operations, Planning and Safety Committee
Through: Michelle Bouchard, Executive Director
From: Dahlia Chazan, Chief, Caltrain Planning
Subject: **Receive Update on Caltrain’s Draft 10-Year Capital Improvement Plan (CIP)**

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

Purpose and Recommended Action

This item is for information only and does not require action by the Board of Directors (“Board”) of the Peninsula Corridor Joint Power Board (“JPB”).

The presentation will describe the intent of the CIP and introduce the components of the 10-Year CIP Document.

Staff will come back in November for the adoption of the CIP by the Board and to request delegation of limited authority to the Executive Director or designee to make regular updates to the portfolio of capital projects and programs (Appendix A and B).

Discussion

Background – In May 2024, Staff provided an update on Caltrain’s 10-Year Capital Improvement Plan (“CIP”) Development Project, the progress made in the development of the Caltrain’s portfolio of capital projects and programs and introduced the foundations of the DRAFT Prioritization Framework (the decision support tool developed alongside the CIP). Since then, the team has made significant progress in the development of the 10-Year CIP itself and is presented for information.

Intent of the CIP – Caltrain’s CIP provides an aspirational roadmap of capital projects and programs to help achieve its mission, realize its vision, and reinforce its core values.

The CIP includes the following key features:

- Streamlines processes, such as the capital budget and provides essential information for pursuit of grant funding: the CIP provides an inclusive repository of all Caltrain’s capital needs and the basis of the capital budget. It helps identify preliminary information regarding each project. This enables the agency to develop a grant strategy for its capital program.
- Provides tools to identify, evaluate, and advance capital projects that yield the most benefits for Caltrain: the CIP includes a prioritization tool that help align capital projects with the agencies mission and values.

- Communicates Caltrain's capital needs and priorities to its funding partners: The Caltrain CIP is a collaboratively developed document that serves as a reference for member agencies and local communities. It offers a transparent overview of upcoming projects and programs, highlighting Caltrain's priority initiatives.
- Helps Caltrain plan ahead for capital project delivery: By understanding the pipeline of capital projects, the agency is able to staff its teams to respond to the needs in coming years.

Engagement – As one of the main audiences for the CIP, Caltrain's member agencies reviewed the document before its public release. The transportation authorities offered valuable feedback on the information they wished to see included and how it should be presented. Additionally, they participated in a series of workshops to help define what constitutes a systemwide project for future funding. Their insights have been incorporated into the CIP.

The CIP will also serve as a key foundation for our ongoing discussions with member agencies regarding funding allocation and a renewed capital budget process. To facilitate this, staff are currently planning additional workshops with the member agencies to evaluate the eligibility of Caltrain's priority projects for funding. The outcomes of these workshops will be incorporated into the constrained version of the CIP, the 4-Year Rolling Program, which will identify the projects Caltrain has the capacity to deliver. This process will also ultimately feed in the two-year capital budget.

The Portfolio of Capital Projects and Programs – Over the past year, staff from all departments at Caltrain have been working together to document the railroad's capital needs and contributed their expertise to assess and evaluate these projects.

This collaborative effort led to the creation of the portfolio of capital projects and programs, listed in the tables in *Appendix A* of the CIP and described in greater detail in *Appendix B*. It includes more than 140 capital projects and programs that Caltrain expects to undertake over the next ten years. Those projects are organized in seven Strategic Initiatives, each serving a specific purpose and telling the story of what Caltrain intends to accomplish. Those initiatives were presented at the TOPS Committee of May 2024.

Among the 140 projects, more than 110 capital projects and programs are initiated and sponsored by Caltrain and divided into five Strategic Initiatives:

- Mandate, Compliance and Emergency Projects: Projects that Caltrain must carry out due to regulatory requirements or state and federal laws, which are typically time sensitive.
- Provide a Safe and Secure Railroad: Safety is Caltrain's core value. This program of projects enables a safe and secure operating environment for all: the communities, our passengers, and our employees.
- Maintain Core Services: This initiative includes capital projects and programs critical to providing core service levels. This encompasses the ongoing state of good repair programs that allow Caltrain to proactively prevent asset failures, capital projects to replace outdated or obsolete assets, and crucial planning functions.

- Enhance Service and Customer Experience: These projects involve acquiring new assets or upgrading existing ones. They enhance system performance, improve customer experience, and enable operational improvements that offer greater flexibility.
- Deliver on the Long-Range Service Vision: The Caltrain Business Plan identifies these essential projects for implementing the Board- Adopted Moderate Growth Service Vision of eight trains per hour per direction in the peak period.

Caltrain is also committed to advancing local and regional projects by collaborating with local communities and supporting regional efforts, as outlined in two additional Strategic Initiatives that comprise the remaining 30 projects:

- Partner with Local Communities: This initiative includes projects developed in partnership with local jurisdictions, such as the grade separation projects.
- Contribute to the Region's Economic Vitality: Projects and programs of regional significance developed through a multi-agency's partnership are included in this initiative.

The funding needed to deliver the program varies over time and among the Strategic Initiatives. The 10-Year CIP is not financially constrained. New funding strategies and sources will need to be identified to support the recurring SOGR needs and to advance enhancement and expansion projects identified in the 10-Year CIP.

The Prioritization Tool – The CIP introduces a new methodology for evaluating, scoring, and ranking Caltrain-owned capital projects and programs against its mission statement, using four pillars: Safety, Reliability, Accessibility, and Sustainability.

The tool scores capital projects and programs on the magnitude of the benefit they provide for each pillar. The prioritization tool reflects the agency's priorities of today:

- Safety as one of Caltrain's core values is given the highest weight.
- Reliability, which focuses on maintaining SOGR and improving service reliability, is given the second highest weight since it is essential to a world-class passenger travel experience and to regain ridership.
- Following the electrification and related service disruptions throughout the past years, the Inclusive Passenger Experience is essential to attract new and keep existing riders.
- To address the operating deficit, the financial sustainability of capital projects, which refers to operations and maintenance (O&M) costs and potential revenue generation, is given the highest weight within the Sustainability pillar.

Projects included in the *Partner with Local Communities* and *Contribute to the Region's Economic Vitality* are not evaluated and prioritized along with Caltrain-owned and led projects and programs. Still, the latter are prioritized in the Rolling Program to determine Caltrain's involvement and resource allocation over the next four years. Prioritization of these projects considers the project's development stage and its impact on Caltrain's main line and operations. *Mandate, Compliance, and Emergency Projects* are evaluated depending on the timing of their implementation.

The Portfolio of Capital Projects and Programs (Appendix A) is organized by priorities within each strategic initiative showing projects ranking higher first. *Appendix B* of the CIP provides information regarding the benefits of each project related to the four pillars.

CIP Integration - Staff work internally to integrate with existing and new processes to ensure the CIP is a living tool and stays relevant for the agency. This includes on-boarding new projects, updating existing projects and collecting additional information to improve future iteration of the CIP.

Next Steps – Staff are presenting to the Local Policy Makers Group (LPMG) in October. As this is an informational item, staff will come back next month for the adoption of the CIP and delegation of authority to regularly update the appendices. Once adopted, the CIP will be used to develop a strategic funding plan. The strategic funding plan will provide the framework for long-term funding strategy discussions with Caltrain’s funding partners. As Caltrain policies are updated and developed they will be reflected in the CIP, including the Access Policy, Adopted Service Vision, and Transit-Oriented Development Policy.

In parallel, staff are actively working on the development of the 4-Year Rolling Program and to prepare for engagement with the member agencies regarding funding allocation. The Rolling-Program outlines the projects that Caltrain has the capacity to deliver and is developed alongside a renewed Capital Budget Process. Staff plan to bring an informational item on the 4-Year Rolling Program in early 2025.

Budget Impact

The development of the CIP does not have a direct impact on the budget. The 10-Year CIP provides a roadmap for capital investment and an evaluation tool for the agency to invest its resource in projects that yield the most benefits to the agency.

Prepared By: Lyne-Marie Bouvet Principal Planner, Capital 650-508-6446
Improvement Plan



10-Year Capital Improvement Plan

FY2026 - FY2035



FINAL DRAFT - September 13, 2024

DRAFT

Letter from the Executive Director

I'm thrilled about Caltrain at this historic moment. We recently completed our \$2 billion Peninsula Corridor Electrification Project (PCEP), and now our customers are traveling on the nation's newest electrified corridor. We will also be the nation's first railroad to offer service using Battery Electric Multiple Units (BEMUs). Transit Agencies across the country are looking at Caltrain as we transform our region's transportation system- making it more sustainable and equitable. We're transforming our region's transportation system, and we're making it more sustainable and equitable.



As we move forward with so much new infrastructure, we need stable and transparent plans and sound business processes to support them. The Capital Investment Plan (CIP) is a critical tool to guide our path forward and memorialize how we deliver projects to meet Caltrain's core values and goals, including safety and customer experience. This CIP helps us prioritize and communicate our capital needs, which allows us to continue to improve our service, expand our reach, and make Caltrain the best transportation option for everyone in our region.

The CIP introduces Strategic Initiatives that help balance our needs to continually improve safety and security, address ongoing state of good repair projects, maintain core service, enhance customer experience, and set the stage for delivering our Long-Range Service Vision with the need to continue advancing our local jurisdiction partner projects, grade separation projects, and projects with regional significance.

Thank you to everyone who made this happen. The CIP development was absolutely an agency-wide effort. We couldn't have gotten here without the dedication, experience, and expertise of everyone at Caltrain to develop and document the portfolio of projects and consider how we prioritize our long-term capital investments. Our member agency Transportation Authorities (TAs) from San Francisco, San Mateo, and Santa Clara Counties were also integral to finalizing the CIP and ensuring it is a functional tool that supports their continued contributions to the Caltrain Capital Budget. Thank you to the dedicated CIP Team who led us through this process and diligently ensured everyone had the opportunity to shape Caltrain's first 10-Year CIP.

Let's remember these three themes... We're at a historic moment of transformation, this CIP is the result of an agency-wide and TA collaborative effort, and we're all eager for this CIP to guide our future. Now that we have implemented our 10-year CIP, let's keep the momentum going and deliver projects that make Caltrain a world-class travel experience.

Michelle Bouchard, Executive Director

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Acknowledgments

Caltrain is grateful to all who dedicated their time and effort to the development of its first formal CIP. From Caltrain's project managers, subject matter experts, and Executive Leadership team, to its three member agencies, the development of the CIP was an agency-wide effort that will provide a roadmap for Caltrain's future investments.

Peninsula Corridor Joint Powers Board (2023-2024)

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Monique Zmuda
Shamann Walton

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Rico E. Medina
Ray Mueller
Jeff Gee (former chair)

Representing Santa Clara Valley County

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John Hogan, Chief Operating Officer

Li Zhang, Chief of Commercial and Business Development

Michael Meader, Chief of Safety and Security

Sam Sargent, Director of Strategy and Policy

Robert Barnard, Chief of Design and Construction

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Ladi Millard-Olmeda, Larry Dewitt, Lisa Cobb, Lisa Peabody, Lori Low, Mark Clendennen, Melissa Jones, Melissa Reggiardo, Mike Rabinowitz, Mike Boomsma, Nadine Fogarty, Navdeep Dhaliwal, Priyanka Jandial, Robert Casumbal, Robert Cheung, Robert Tam, Scot Sidler, Sherry Bullock, Stephen Chao, Troy Alvarez, Whitney DiGiantommaso

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Supporting Firms

Steve Hoskins, CPCS
Tom Hill, CPCS

Juan Felipe Torres, ARUP

Additionally, Caltrain wants to share its gratitude to Anthony Simmons and Sebastian Petty who supported the initial scoping of the CIP effort.



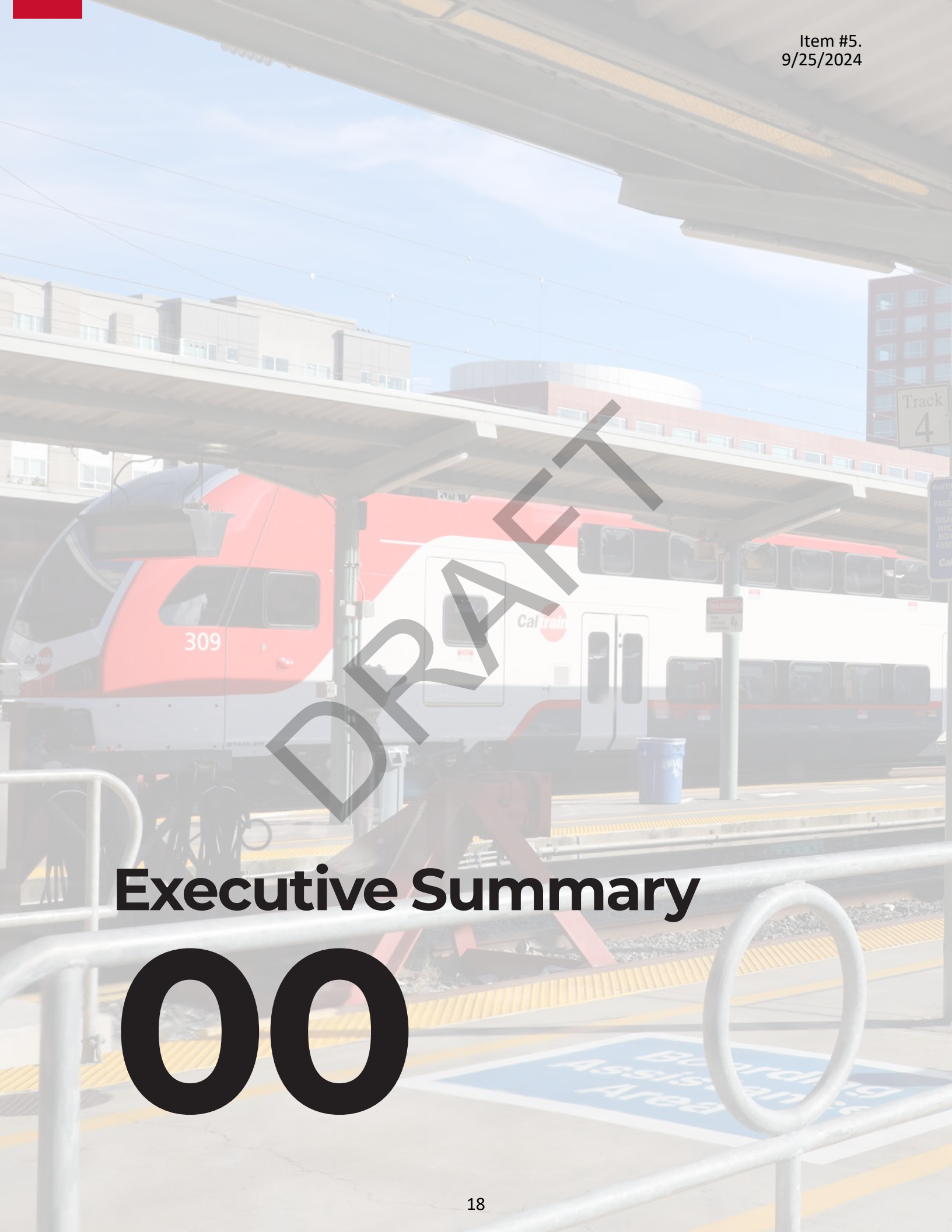
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 - Deliver the Long-Range Service Vision
 - Mandate, Compliance, and Emergency Projects
 - Partner with Local Communities
 - Contribute to the Region's Economic Vitality

APPENDICES

- A Caltrain 10-Year CIP Portfolio of Capital Projects and Programs
- B Descriptions and Benefits for Caltrain 10-Year CIP Portfolio of Capital Projects and Programs
- C Definitions, Abbreviations, and Acronyms



Executive Summary

00

Caltrain 10-Year Capital Improvement Plan

FY2026 - FY2035

Caltrain's first Capital Improvement Plan (CIP) provides an aspirational investment strategy to help achieve its mission, realize its vision, and reinforce its core values. With over 160 years of history, Caltrain, owned and operated by the Peninsula Corridor Joint Powers Board (JPB), remains focused on progress and innovation to meet the region's evolving travel needs while upholding safety and service standards.

The CIP's planning horizon extends from fiscal year (FY) 2026 to FY2035, offering a forward-looking perspective on capital investments to strive for financial stability, operational efficiency, transparency, and accountability. The CIP also offers a tool for the agency to manage its growth and build capacity at all levels. As a living document, the CIP will evolve alongside the agency's changing priorities and the direction of our Board, driving continued success in capital investment management.

Refer to Appendix A and Appendix B for the full 10-Year CIP Portfolio of Capital Projects and Programs.

The CIP also includes the Rolling Program, which examines the first four years of the 10-year time horizon and provides the agency with a financially constrained lookahead.

The Rolling Program is a separate document that readers can find on the Caltrain [website](#).

Mission

Caltrain is a customer-focused rail system offering safe, reliable, accessible, and sustainable transportation service that enhances the quality of life for all.

Vision

To be a vital link in the statewide rail network by improving connectivity to other transit systems, contributing to the region's economic vitality, and partnering with local communities to ensure that diverse constituencies receive a world-class travel experience.

Core Values



SAFETY



EXCELLENCE



RESILIENCE



INTEGRITY



EQUITY AND
INCLUSION



SUSTAINABILITY

Laying Out Caltrain's 10-Year Capital Needs

Caltrain is committed to providing a safe and reliable railroad service for its passengers and adjacent communities and a safe, equitable, and inclusive work environment for its employees.

The early identification of capital projects and programs is the first critical step to plan and allocate resources (staff and funding) to meet that goal. As part of the CIP, Caltrain has developed the [CIP portfolio of capital needs](#). It includes over 140 capital projects and programs separated into seven Strategic Initiatives that tells the story of what Caltrain intends to accomplish in the next 10 years.

Over 110 capital projects and programs are Caltrain-initiated and sponsored efforts, divided into five Strategic Initiatives:

- **Provide a Safe and Secure Railroad:** Safety is Caltrain’s core value. This category of projects enables a safe and secure operating environment for all: communities, passengers, and employees.
- **Maintain Core Services:** This Initiative includes capital projects and programs critical to providing core service levels. This encompasses on-going state of good repair (SOGR) programs that allow Caltrain to proactively prevent asset failures, capital projects to replace outdated or obsolete assets, and crucial planning functions.
- **Enhance Service and Customer Experience:** These capital projects and programs procure new assets or upgrade existing assets. They increase the system’s performance, improve customer experience, and enable operational improvements.
- **Deliver the Long-Range Service Vision:** The Caltrain Business Plan identifies these projects as essential for implementing the Board-Adopted Moderate Growth Service Vision of eight trains per hour per direction in the peak period.
- **Mandate, Compliance, and Emergency Projects:** The agency must invest in and implement capital projects per mandates by regulatory agencies or state and/or federal law. Implementation of these projects is typically time-sensitive.

The Long-Range Service Vision is the north star for growing the railroad and becoming a world-class travel experience.

Caltrain is also dedicated to supporting local and regional projects along its corridor, as reflected in two additional Strategic Initiatives:

- **Partner with Local Communities:** This Initiative reflects capital projects developed in partnership with local jurisdictions, including all grade separation projects.

- **Contribute to the Region’s Economic Vitality:** This Initiative includes projects of regional significance, developed in partnership with other agencies.

Additionally, the CIP Portfolio categories capital projects and programs into Discrete Projects and Recurring Programs.

- **Discrete Projects** have a beginning, an end, and an estimated cost to deliver. Discrete projects also include individual studies, assessments, and plan development efforts.
- **Recurring Programs** represent the railroad’s ongoing business and are imperative to fund annually. The majority of these programs are for the maintenance of the railroad, but these programs also include planning activities.

Caltrain’s Capital Projects and Programs

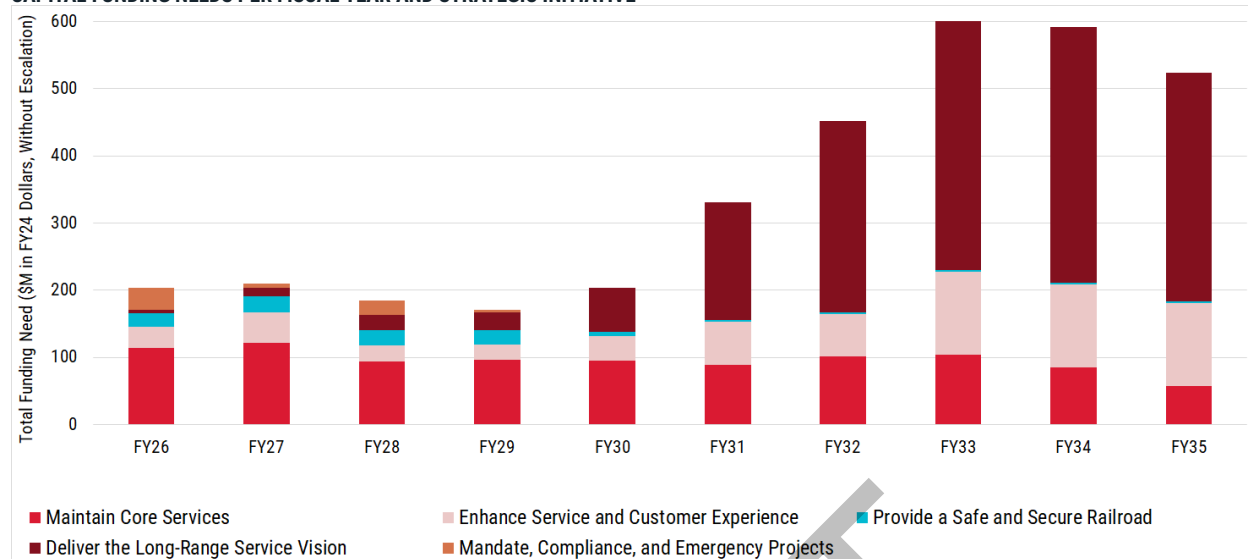
The 10-Year CIP is not financially constrained. Caltrain will need to identify new capital funding strategies and sources to support the recurring SOGR program and to advance enhancement and expansion projects identified in the 10-Year CIP. The funding needs to deliver these projects and programs vary over time and among the Strategic Initiatives.

10-YEAR FUNDING NEEDS PER CALTRAIN-INITIATED AND SPONSORED STRATEGIC INITIATIVE (FY2026-FY2035)

Strategic Initiative	Total Funding Needs (\$M)*
Provide a Safe and Secure Railroad	110
Maintain Core Services	960
Enhance Service and Customer Experience	660
Deliver the Long-Range Service Vision	1,700
Mandate, Compliance, and Emergency Projects	70
Total	3,500

* Totals are shown in FY2024 dollars without escalation

CAPITAL FUNDING NEEDS PER FISCAL YEAR AND STRATEGIC INITIATIVE



Provide a Safe and Secure Railroad

The greatest funding needs to Provide a Safe and Secure Railroad are in the first five years of the 10-year outlook with many investments needed to reduce trespasser intrusion into the active railroad right-of-way and risks to Caltrain’s critical assets.

The Systemwide Closed-Circuit Television (CCTV) System - Replacement and Expansion will replace the old, obsolete CCTV system and integrate the soon-to-be-released FRA compliance requirement. Cameras will be installed at critical grade crossings, stations, and facilities to improve passenger and community safety and security. CCTV also enables Caltrain to always have “eyes” on the railroad and respond to incidents more efficiently, reducing service disruptions’ duration. Caltrain is also advancing a pilot program to test intrusion detection at grade crossings. If the pilot is successful, Caltrain will develop a systemwide program as part of the Safety and Security Strategic Plan.

Mandate, Compliance, and Emergency Projects

Mandate, Compliance, and Emergency Projects currently consist of three projects to be closed out by FY2029. The regulatory environment is constantly changing, and Caltrain cannot plan for unknown

emergency projects, so projects under this Strategic Initiative will continually be monitored and updated.

Maintain Core Services

Funding needs to Maintain Core Services are relatively stable across fiscal years due to the recurring SOGR programs. The funding needs decrease slightly in FY2035 when significant bridges and structures capital projects, including the San Francisquito Creek Bridge Replacement, must be delivered. Built in 1902, the San Francisquito Creek Bridge is one of the oldest assets along the Caltrain corridor and has reached the end of its useful life. Additionally, the bridge location has been experiencing severe storms and high creek flows, eroding the soil on the northern creek bank that supports the bridge. The bridge is a vital link to maintain the continuity of Caltrain’s service and safety of the passengers and employees.

This Strategic Initiative also includes projects to upgrade critical systems: the Fiber Optic System, the Rail Operations Control System (ROCS), the Predictive Arrival and Departure System (PADS), and the Positive Train Control (PTC) System – a train safety system. A major overhaul of the systems will ensure Caltrain stays up to date on technology and can scale future service expansion. Implementation will significantly improve Caltrain’s reliability and customer experience.

Enhance Service and the Customer Experience

The funding needs for projects that Enhance Service and the Customer Experience increase with the procurement of additional trainsets to provide increased and zero-emission service to Gilroy. Procurement is currently planned to start in FY2030. Another major projects in this Initiative is the Level Boarding Program.

Caltrain will pilot a BEMU train to operate between San José and Gilroy where the corridor is not yet electrified. The demonstration of the BEMU will be the first time this technology is in operation on a regional rail train in the United States. If the pilot is successful and additional BEMUs can be acquired, Caltrain will run a fully electric fleet.

Deliver the Long-Range Service Vision

The CIP portfolio of projects also includes transformative investments that will allow for increased train service in the corridor. The Strategic Initiative to Deliver the Long-Range Service Vision includes projects that will enable the Board-Adopted Moderate Growth Service Vision of eight trains per hour, at peak period. The funding needs for the capital projects in this Strategic Initiative begin to increase in FY2030 with initiation of the electric fleet procurement and when major projects enter their construction phase: the Central Equipment Maintenance and Operations Facility (CEMOF) Yard

Capacity Enhancement and the New Signal and Train Control System.

The CEMOF Yard Capacity Enhancement expands the facility to meet the new fleet storage and maintenance needs. The new signaling system and positive train control upgrades will support reduced headways and speed increases along the corridor. The total funding needs does not include the full cost of projects as most of the projects will be completed after 2035.

Partner with Local Communities

Caltrain acknowledges that grade separation projects are costly, complex, and challenging and that local communities desire grade separated crossings due to their safety and transportation benefits for local communities.

Typically, the city/local jurisdiction initiates a grade crossings closure or modification. As the project sponsor, the city is responsible for preparing and executing a funding plan for the project's design and construction.

Contribute to the Region's Economic Vitality

Caltrain is involved in many projects that have regional significance. Depending on the project, its phase, and whether it impacts Caltrain's right-of-way and operations, Caltrain's role in these projects varies but remains essential.



Developing a Decision-Support Tool for the Agency

As stewards of public funds and in a period of scarce resources, Caltrain must ensure appropriate resource allocation by identifying, evaluating, and advancing capital projects that yield the most benefits for its service. In addition to providing the agency with an aspirational roadmap of capital investments, the CIP evaluates capital projects and programs according to a **Prioritization Framework**.

The Prioritization Framework is a tool for weighing Caltrain-initiated and sponsored capital projects and programs against agency values and goals and defining how these help Caltrain achieve its mission statement through four pillars:

1. Safety
2. Reliability
3. Accessibility
4. Sustainability

The results of this evaluation process inform the ranking displayed in the Caltrain 10-Year CIP Portfolio of Capital Projects and Programs (Appendix A).

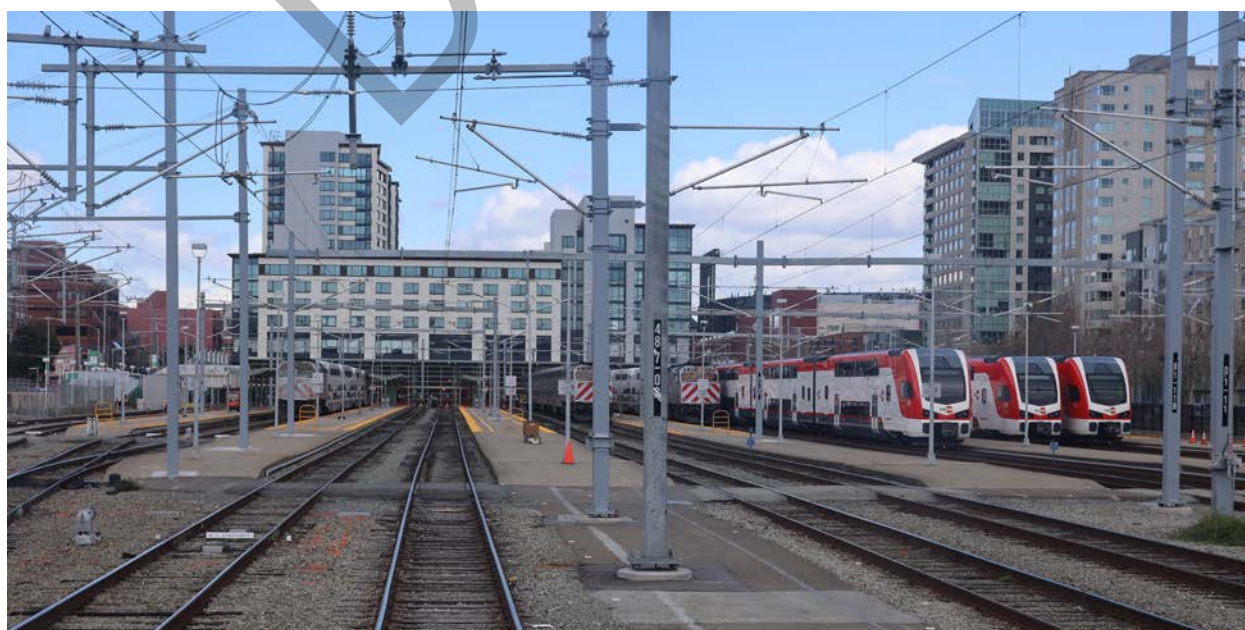
The Framework helps Caltrain's Board and leadership to:

- Evaluate trade-offs between capital projects competing for the agency's resources
- Support informed decisions on which capital project to advance
- Communicate Caltrain's priorities to partners

The ranking of the list of projects then provides input for a constraining process that considers Caltrain's near-term capacity to deliver capital investments, which is detailed in the **Rolling Program**.

To see details and descriptions for every capital project and program that supports and advances the CIP Strategic Initiatives, refer to:

- **Appendix A – Caltrain 10-Year CIP Portfolio of Capital Projects and Programs**
- **Appendix B – Descriptions and Benefits for Caltrain 10-Year CIP Portfolio of Capital Projects and Programs**
- **Appendix C – List of Definitions, Abbreviations, and Acronyms in this document**



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Introduction

01

Introduction

Caltrain's first CIP is an aspirational roadmap that guides capital investments for the next decade. This plan encompasses a portfolio of capital projects and programs, adhering to Caltrain's mission, vision, and core values. It is designed to facilitate decision-making during financial constraints and ridership uncertainties. The CIP identifies and prioritizes capital projects and programs like SOGR, operational improvements, and regional endeavors. As the mission and vision of Caltrain evolve, so will the CIP. The CIP will be updated regularly in parallel with the agency's biennial capital budget cycle.

About Caltrain

2024 marks the 160th Anniversary of rail service between San Francisco and San José, the oldest continually run railroad west of the Mississippi. The system known today as Caltrain began in 1992 when the JPB took over the operation of the train, which now offers service to Gilroy.



The Caltrain service is evolving due to shifts in demographics, employment, climate goals, and the needs of residents and visitors in the Bay Area. Caltrain now operates electrified service on the San Francisco to San José main line with state-of-the-art electric-powered trainsets.

To meet its riders' changing needs, Caltrain is also shifting from a typical commuter-style railroad that provides peak period service to a more frequent all-day regional rail service that better aligns with various work shifts and travel needs.

As an agency, the mission, vision, and core values guide Caltrain:

Mission: Caltrain is a customer-focused rail system offering safe, reliable, accessible, and sustainable transportation service that enhances the quality of life for all.

Vision: To be a vital link in the statewide rail network by improving connectivity to other transit systems, contributing to the region's economic vitality, and partnering with local communities to ensure that diverse constituencies receive a world-class travel experience.

Core Values:



Caltrain Governance

The JPB, which owns and operates Caltrain, consists of representatives from:

1. City and County of San Francisco
2. San Mateo County
3. Santa Clara Valley Transportation Authority (VTA)

In 2022, the JPB was authorized to designate an independent, permanent Caltrain Executive Director and dedicated Caltrain staff responsible for safety, design and construction, planning, and railroad operations oversight, among other functions. The San Mateo County Transit District (SMCTA) continues to serve as Caltrain's managing agency, providing shared services, such as contracts and procurement, accounting, treasury, and marketing and communications.

Funding Caltrain

In 2020, San Francisco, San Mateo, and Santa Clara County voters approved **Measure RR**, a one-eighth of a percentage sales tax for 30 years dedicated to Caltrain. It marked the first time that Caltrain has a dedicated funding source to support operation and capital.

Additionally, Caltrain receives various funding sources to deliver its capital projects and programs. Each funding source has its own sets of policies, eligibility requirements, and governing bodies. They can be categorized as follows:

- Member agencies' capital contributions: through local tax measures, each member agency provides funding for capital projects. The contributions vary each year.
- Regional Measure 3: funding for Bay Area highway and transit improvements through an increase in tolls on the region's seven state-owned toll bridges.
- Formula funding from state and federal sources: formula funding sources come primarily from cap-and-trade, sales, and gas taxes.
- Competitive funding from state and federal sources: competitive grants cover various capital projects; eligibility criteria vary.

The Caltrain Corridor

The Caltrain corridor runs 77.2 miles. Caltrain owns 52 miles from the northern end terminal in San Francisco to control point (CP) Lick, south of Tamien Station in San José. Union Pacific Railroad (UPRR) owns the remaining 25.2 miles south of CP Lick until Gilroy, wherein Caltrain operates with a shared use agreement.

Caltrain serves 31 stations. Caltrain owns most of the stations between San Francisco and Tamien, but also shares some assets with other owners. For example:

- Prologis owns the San Francisco 4th and King Station and adjacent railyard, and Caltrain has a perpetual operating right to the property.
- VTA owns the stations south of the Diridon-San José Station.
- Other passenger and freight rail services have agreements with Caltrain to use its tracks. This is particularly relevant at Diridon-San José Station where Amtrak Capitol Corridor and Altamont Corridor Express (ACE) have platforms.

Caltrain is responsible for approximately \$6.6 billion worth of assets to operate its system and deliver passenger rail service, as shown in the following diagram.

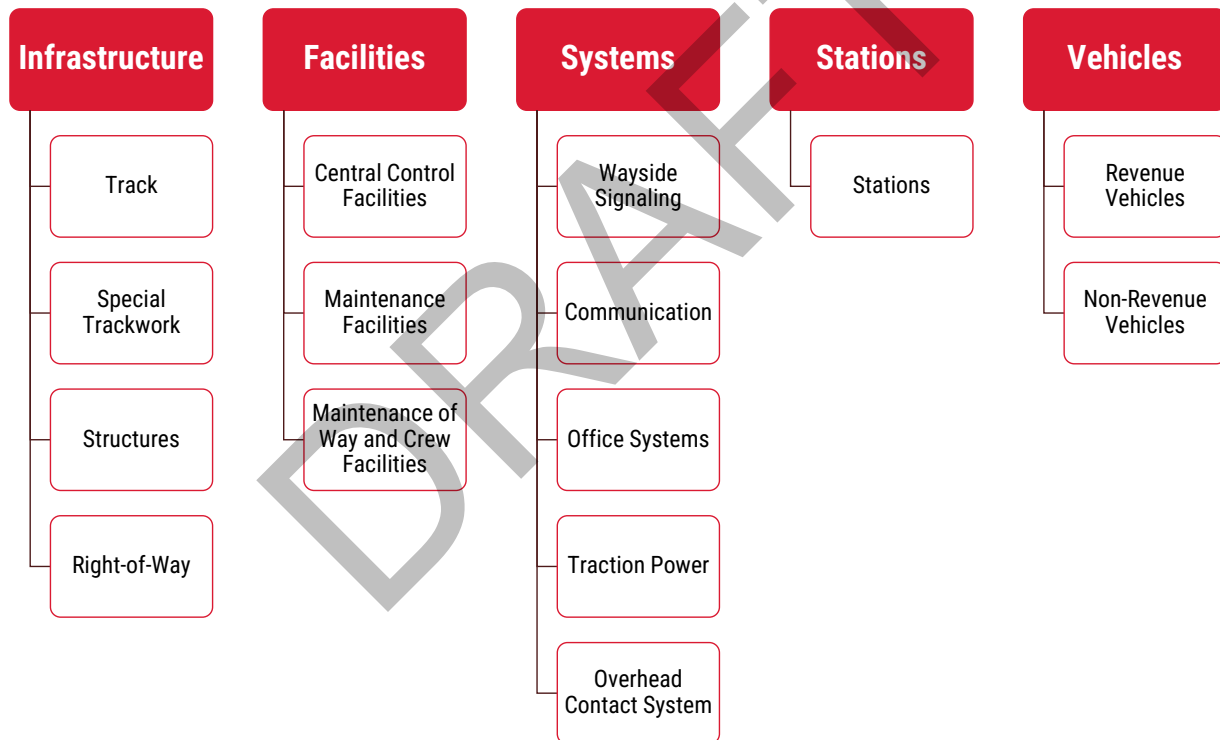


OVERVIEW OF CALTRAIN CORRIDOR



Images Created by CCS Team <https://www.caltrain.com/projects/ccs>

CALTRAIN FEDERAL TRANSIT ADMINISTRATION (FTA) ASSET CATEGORIES AND ASSET CLASSES



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Caltrain's First 10-Year CIP

02

Caltrain's First 10-Year CIP

This first CIP illustrates how Caltrain intends to invest its agency resources and funding in a portfolio of capital projects and programs over the next 10 years. It aligns with the agency's mission, values, and Board-adopted commitments, such as the Long-Range Service Vision.

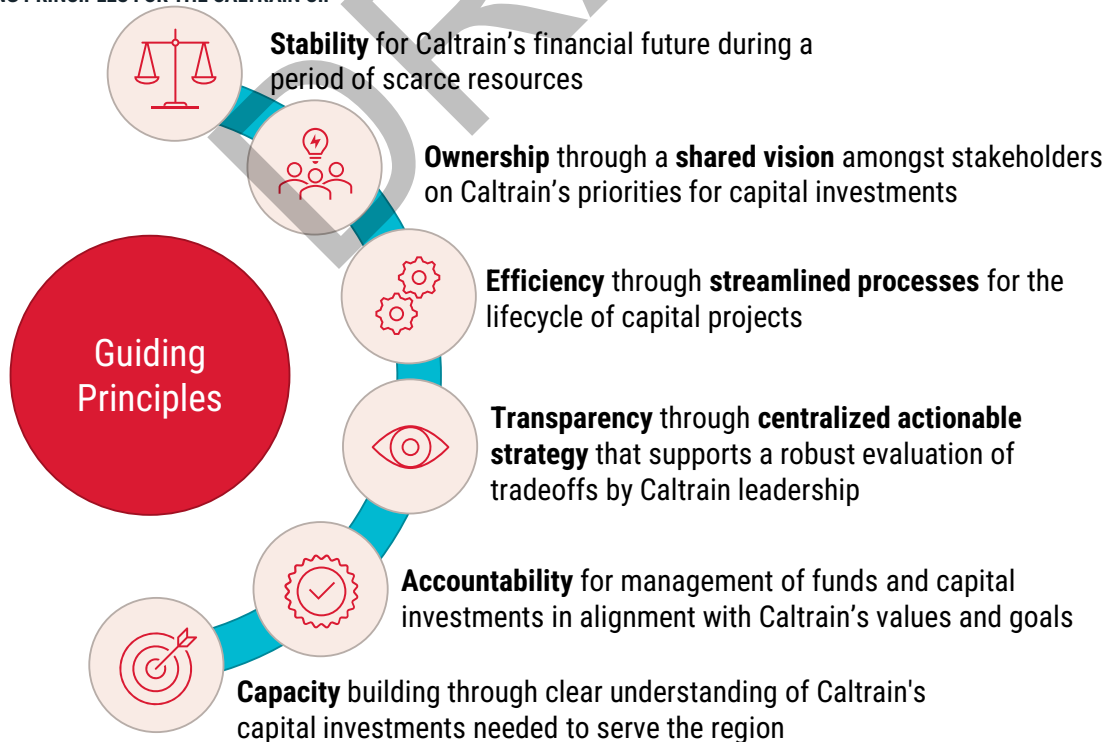
The CIP provides effective decision-making and prioritization tools in a period of financial constraint and uncertain ridership growth. It addresses the need to balance the completion of Caltrain's capital projects and programs, such as SOGR and operational improvements/enhancements work, with local jurisdictions' projects and megaprojects of regional and statewide significance. It has been developed following the guiding principle presented below.

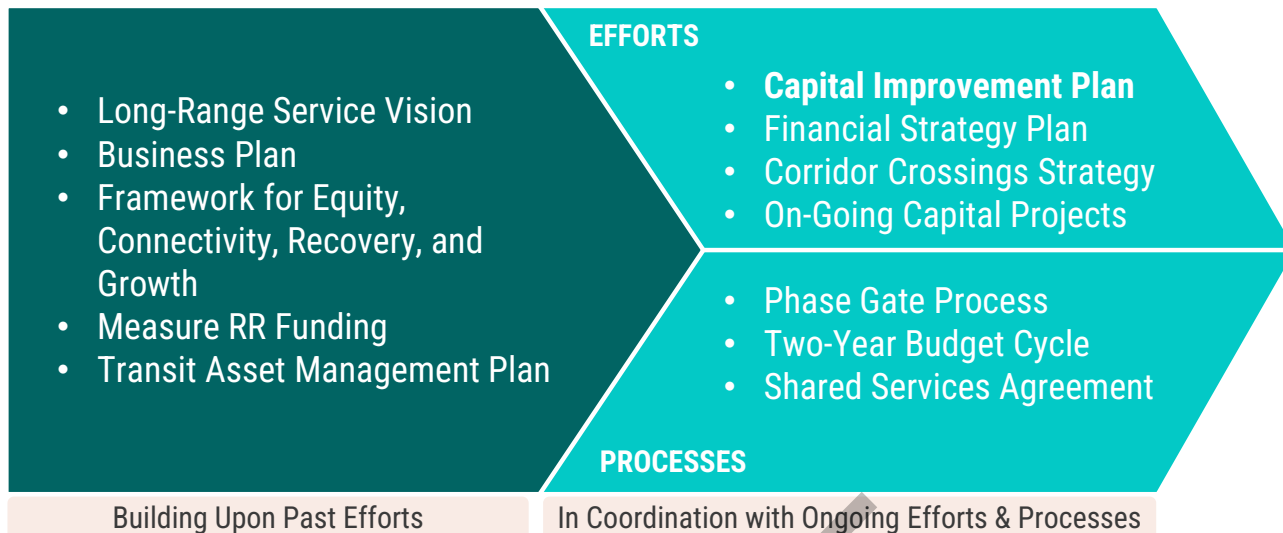
Guiding Documents that Support the CIP

Caltrain developed the CIP alongside significant undertakings such as the Caltrain Financial Strategy and the Corridor Crossings Strategy.

The development of the CIP is particularly timely as the agency implements new and revised processes for capital investments and delivery. These include the enhanced Phase Gate Process, restructured in 2021, which supports the Caltrain Management Committee that ensures capital projects and programs proceed in alignment with Caltrain's business objectives and meet performance criteria. Capital projects tracked through the Management Committee process are reported in the Caltrain Quarterly Status Reports, published quarterly on the agency's [website](#).

GUIDING PRINCIPLES FOR THE CALTRAIN CIP





The primary planning document directing Caltrain’s evolution is the Caltrain **Business Plan**, which details Caltrain’s Board-Adopted Long-Range Service Vision to grow Caltrain into a world-class regional railway and provide a vital link in a growing regional and megaregional rail network. The Board-Adopted Long-Range Service Vision is a critical policy action that sets a specific goal for the railroad to work toward and helps focus its resources on critical planning, organizational, and implementation work.

The Business Plan called for Caltrain to study and develop a corridor-wide approach to planning and delivering grade crossing projects. Grade crossing projects require Caltrain involvement throughout all delivery phases and compete for limited staff and funding resources. Launched in 2022, the **Corridor Crossings Strategy** will enable streamlined and reliable project delivery, develop a corridor-wide approach to grade separation projects, and strengthen Caltrain’s relationships with local partners.

Complementing the Business Plan, Caltrain developed and adopted the **Framework for Equity, Connectivity, Recovery, and Growth** during the COVID-19 pandemic. The framework guides Caltrain to advance policies and actions that advance equity and incrementally implements the Board-Adopted Long-Range Service Vision.

The **Transit Oriented Development (TOD) Policy** seeks to promote sustainable transportation, create value to reinvest in the railroad, offer equitable access, and establish station areas as complete communities.

In parallel with the development of this CIP, Caltrain has updated its 2010 **Comprehensive Access Program Policy Statement** to support decision-making on access-related projects, align the Policy with other Caltrain policies and current initiatives, and incorporate the latest industry best practices in station access improvements. Caltrain adopted the Updated Caltrain Station Access Policy in September 2024.

The **Rail Corridor Use Policy (RCUP)** guides decision-making for capital projects regarding the compatibility of proposed non-railroad uses with the railroad’s current and future needs. Caltrain expects to update the RCUP in the next two years.

Alongside ambitions to grow the service, Caltrain must maintain its existing assets to ensure safe and reliable daily operations. The **Transit Asset Management (TAM) Plan** promotes a culture of managing existing assets and keeping them in a SOGR to ensure that the agency continues providing safe, reliable, high-quality passenger rail service.

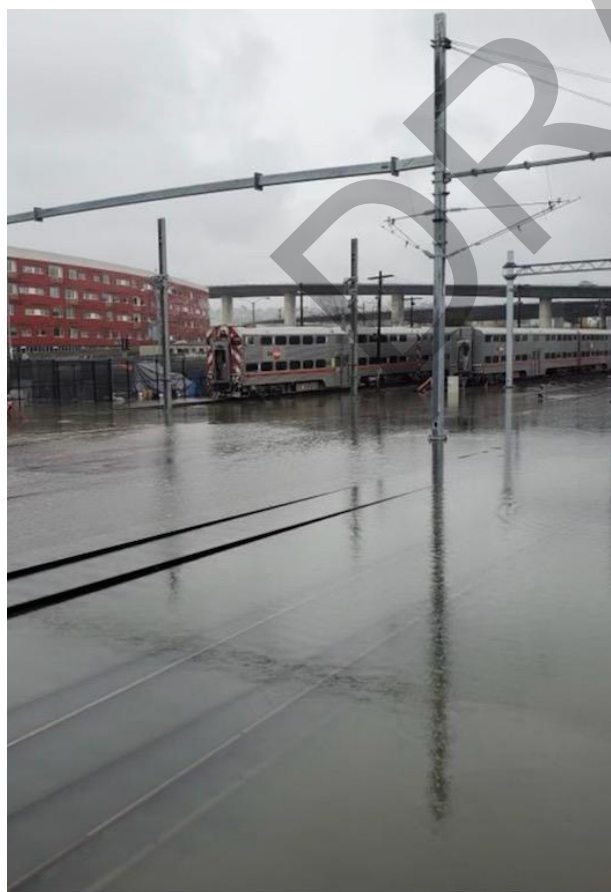
The Caltrain **System Safety Program Plan’s (SSPP)** overall goal is to achieve the highest practicable

level of safety for all Caltrain passengers, employees, contractors, and the public. The SSPP coordinates with the TAM Plan in maintaining assets in SOGR to identify, eliminate, minimize, and control hazards and their risks by setting processes and procedures.

Caltrain is leading multiple parallel efforts addressing sustainability:

- It is reporting on its greenhouse gas (GHG) emissions and energy consumption through its **Sustainability Report**, updated regularly.
- It is currently defining its vision for sustainability and climate resilience in its **Strategic Sustainability Plan** process, anticipated in 2025.
- Caltrain is also evaluating the vulnerability of its assets to climate changes.

Results of those efforts will be including in an update to the CIP through new capital projects and updates to the sustainability criteria in the prioritization framework.



Developing a Decision-Support Tool for the Agency

As stewards of public funds and in a period of scarce resources, Caltrain must ensure appropriate resource allocation by identifying, evaluating, and selecting the capital projects that yield the most benefits to Caltrain. The Prioritization Framework is the tool that allows for a robust evaluation of tradeoffs.

The ranking of the projects and programs then provides input for a constraining process that considers Caltrain's near-term resources' capacity to deliver projects and programs, including projects initiated by local jurisdictions and regional agencies.

The Prioritization Framework tool will evolve in parallel to future agency values and goals.

Prioritization reflects how the capital projects and programs in the 10-Year CIP align with Caltrain's values and goals.

Constraints refine the prioritized capital projects and programs in the 10-Year CIP to what Caltrain can deliver over the next four years.

Ranking Projects Using the Prioritization Framework

The Prioritization Framework align the CIP Portfolio of capital projects and programs with agency values and goals. Caltrain-initiated and sponsored capital projects and programs are evaluated based on the **Caltrain mission statement**, using four pillars: **Safety, Reliability, Accessibility, and Sustainability**.

Each of these pillars includes evaluation criteria to measure the benefits that a project or program will provide.

Only projects and programs within the following Strategic Initiatives were evaluated through the tool:

- *Provide a Safe and Secure Railroad*
- *Maintain Core Services*
- *Enhance Service and Customer Experience*
- *Deliver the Long-Range Service Vision*

Projects included in the *Partner with Local Communities* and *Contribute to the Region's Economic Vitality* are not evaluated for how they align with Caltrain's values and goals since local jurisdictions or regional agencies initiate them and the projects serve a local or regional purpose and need. *Mandate, Compliance, and Emergency Projects* are evaluated depending on the timing of their implementation.

The tool scores capital projects and programs on the magnitude (Significant, Moderate, Minimal, or Not Applicable) of the benefit they provide for each criterion.

- **Safety** is given the highest weight, since "safety first and always" is a Caltrain core value.
- **Reliability**, which focuses on maintaining SOGR and improving service reliability, is given the second highest weight, since it is essential to a world-class passenger travel experience and to regain ridership.

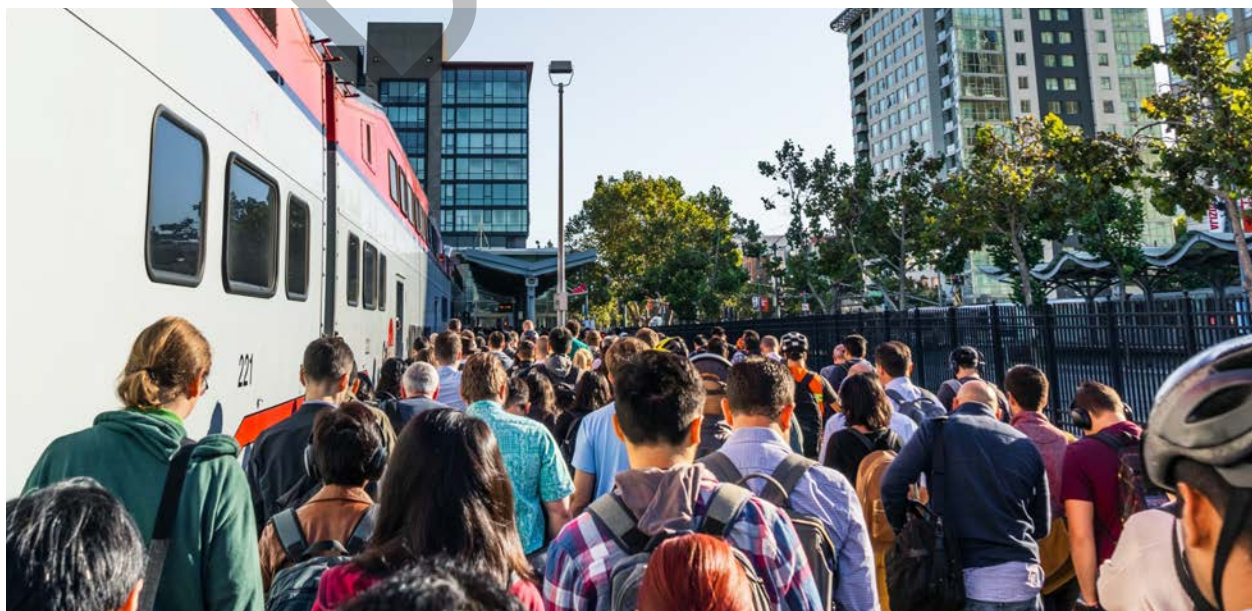
- **Accessibility** and **Sustainability** are given equal weight.

- » Following the electrification and related service disruptions throughout the past years, the Inclusive Passenger Experience is essential to attract new and keep existing riders and, therefore, weighted accordingly within the Accessibility pillar.
- » To address the operating deficit, the financial sustainability of capital projects and programs, which refers to operations and maintenance (O&M) costs and potential revenue generation, is given the highest weight within the Sustainability pillar.

The highest scores rank first.

Having one cumulative score for each project and program in the CIP provides flexibility. Projects and programs can be ranked altogether or within each Strategic Initiative.

Appendix A provides the prioritization ranking of discrete projects and recurring programs within their Strategic Initiative.



PRIORITIZATION FRAMEWORK - EVALUATION CRITERIA

<p>SAFETY Improves safety for all and mitigates risks to a safe operating environment.</p>	<p>RELIABILITY Improves system performance.</p>
<p>Passenger and Community Safety and Security Improving passenger and community safety and security while accessing, using, or interfacing with Caltrain service and facilities.</p> <p>Employee Safety and Security Providing Caltrain employees and all other railroad workers a safe and secure environment.</p> <p>Systemwide Safety and Security Improving an asset to lower its risk hazard probability rating that, if not addressed, will affect other parts of the system or put other assets at risk.</p>	<p>Asset Reliability Improving the useful life of an asset to avoid disruptions and financial losses.</p> <p>Asset Monitoring Improving ongoing asset monitoring to maintain assets in a state of good repair.</p> <p>Service Performance Delivering projects and programs that improve Caltrain’s service performance.</p>
<p>ACCESSIBILITY Improves equitable access and overall passenger experience.</p>	<p>SUSTAINABILITY Improves the longevity and durability of infrastructure, finances, and the natural environment.</p>
<p>System Access Improving access to and from the railroad system, per Caltrain’s Access Policy.</p> <p>Inclusive Passenger Experience Improving equity and the passenger experience for all, including underserved rider populations.</p>	<p>Climate Resiliency Improving or adapting assets’ resiliency to climate change, severe weather, and/or natural disasters.</p> <p>Environmental Stewardship Sustaining the natural environment by either providing a benefit to or reducing or eliminating environmental impacts to the natural environment.</p> <p>Financial Sustainability Contributing the Caltrain’s financial stability.</p>

10-Year Capital Needs

Capital projects and programs vary in funding needs, ownership of the right-of-way, and sponsorship. All require Caltrain staff involvement to varying degrees. Early identification of capital projects and programs is critical to planning and allocating resources (staff and funding) accordingly.

Defining Capital Projects and Programs

The portfolio organizes over 140 capital projects and programs into seven Strategic Initiatives, further defined in the following chapters.

1. Provide a Safe and Secure Railroad
2. Maintain Core Services
3. Enhance Service and Customer Experience
4. Deliver the Long-Range Service Vision
5. Mandate, Compliance, and Emergency Projects
6. Partner with Local Communities
7. Contribute to the Region's Economic Vitality

Projects and Programs with Systemwide Benefits

During the Spring and Summer of 2024, Caltrain met with their member agency TAs to define capital projects and programs that provide **systemwide benefits**.

A systemwide capital project is defined as a project critical to deliver Caltrain's main line service or that provides benefits to all customers, regardless of the project's location. Projects that qualify as "systemwide" include:

Category 1:

State of Good Repair (SOGR) projects that replace or rehabilitate an asset at the end of its useful life, have low redundancy, or have reached technical obsolescence, and that are critical to running or maintaining Caltrain passenger service safely. If that asset fails, it impacts Caltrain's ability to operate its main line service.

Category 2:

Recurring capital programs that enable Caltrain to take proactive measures to run its passenger

service safely and avoid asset failures that would disrupt Caltrain's service.

Category 3:

Recurring planning programs that enable Caltrain to deliver its service and develop the roadmap of capital investments.

Category 4:

Capital projects or programs that have been identified in a planning study that covers the entire main line corridor and that provide benefits to Caltrain's main line Service in terms of:

- Safety and security
- Reliability
- Customer experience
- Performance

Category 5:

Projects that are mandates required by a regional, state, or federal regulatory agencies.

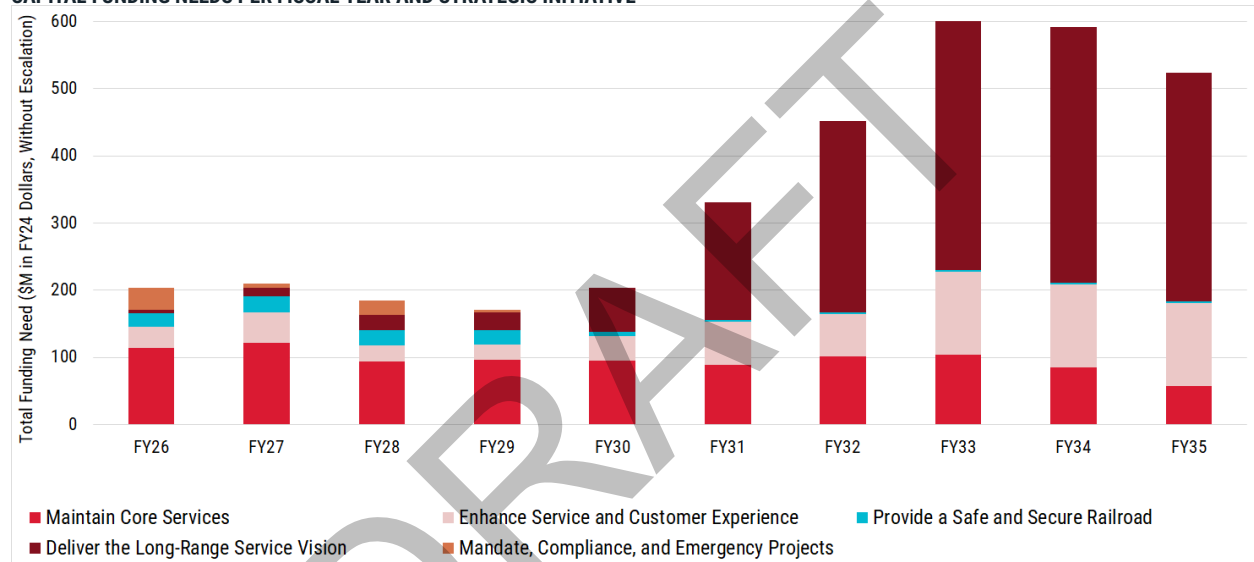
FY2026 - FY2035 Funding Needs

The 10-Year CIP is not financially constrained. Caltrain will need to identify new capital funding strategies and sources to support the recurring SOGR program and to advance enhancement and expansion projects identified in the 10-Year CIP. The funding needs to deliver these projects and programs vary over time and among the Strategic Initiatives for Caltrain-initiated and sponsored capital projects and programs.

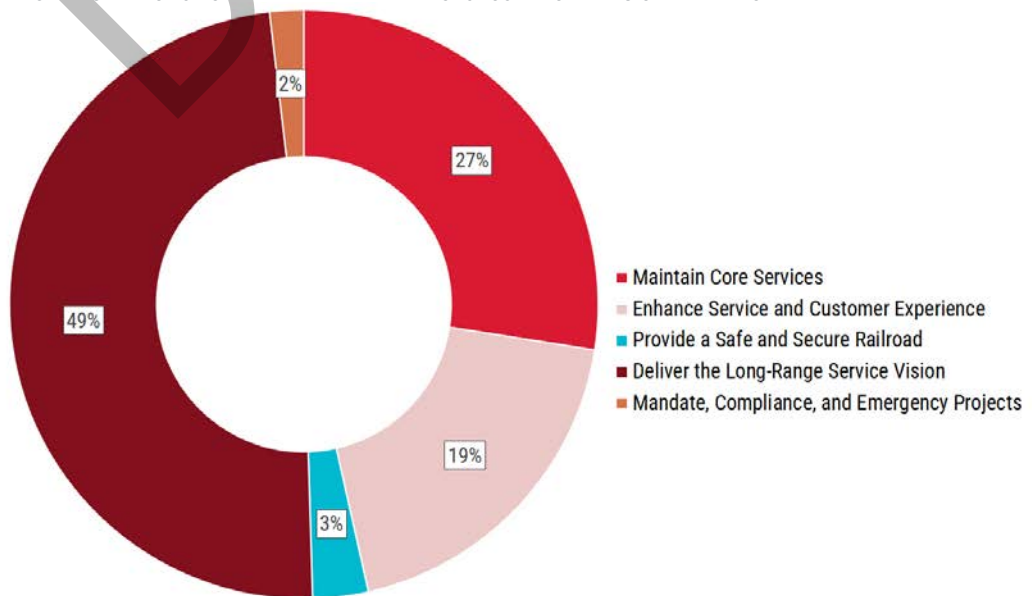
10-YEAR FUNDING NEEDS PER CALTRAIN-INITIATED AND SPONSORED STRATEGIC INITIATIVE (FY2026-FY2035)

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Total	3,500

CAPITAL FUNDING NEEDS PER FISCAL YEAR AND STRATEGIC INITIATIVE



DISTRIBUTION OF CAPITAL FUNDING NEEDS FOR CALTRAIN-INITIATED AND SPONSORED STRATEGIC INITIATIVES



* Totals are shown in FY2024 dollars without escalation

Integration of the CIP with Existing and Future Processes

The CIP is an aspirational investment strategy that helps Caltrain achieve its mission, realize its vision, and reinforce its core values. The 10-year lookahead enables Caltrain to advance critical projects, seek funding for Caltrain's most vital projects and programs, sequence its capital needs, and bundle project construction, as appropriate.

The 4-Year Rolling Program of the CIP will constrain the projects and programs to what Caltrain has the capacity to deliver over the first 4-year period of the 10-year time frame. The constraining process is part of the Prioritization Framework and considers

project readiness, financial conditions, staff resources, and priority ranking.

Each component of the CIP are living tools to ensure they evolve and grow with the agency and the region's needs. Caltrain will regularly update the CIP with its biennial budget cycles.

The development of the 10-Year CIP was the first step in identifying the need to rethink processes that enhance Caltrain's ability to plan, evaluate, prioritize, and report on its capital improvement program. Caltrain will continue to improve processes that:

- Add new projects and programs to the CIP
- Collect data that supports the prioritization process in future iterations of the CIP
- Report on active capital projects and programs



To see details and descriptions for every capital project and program that supports and advances the CIP Strategic Initiatives, refer to:

- **Appendix A – Caltrain 10-Year CIP Portfolio of Capital Projects and Programs**
- **Appendix B – Descriptions and Benefits for Caltrain 10-Year CIP Portfolio of Capital Projects and Programs**
- **Appendix C – List of Definitions, Abbreviations, and Acronyms in this document**

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Strategic Initiatives of the FY2026-FY2035 CIP

03

Provide a Safe and Secure Railroad

Safety first and always is Caltrain's core value and creates the baseline of a strong safety culture. With the launch of the electrified service, Caltrain must remain focused on safety and is acutely aware of the challenges involved in implementing projects on and operating and maintaining an active electrified rail corridor.

In the past few years, Caltrain has taken several proactive steps to reinforce a safety culture within every aspect of its agency. These steps include implementing enhanced roadway worker protection processes, creating several layers of redundancy in clearing track and time, and creating the first dedicated Caltrain Chief Safety Officer empowered to implement new safety procedures.

Caltrain reflects its dedication to safety in this Strategic Initiative to **Provide a Safe and Secure Railroad** for all: passengers, adjacent communities, and employees.

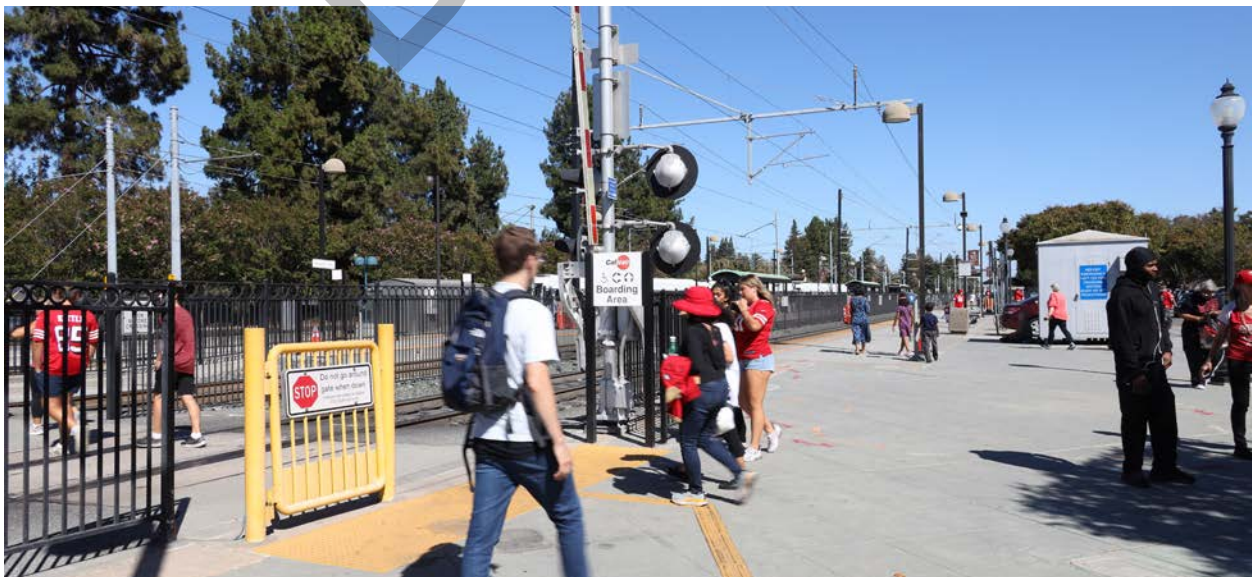
This Strategic Initiative includes 10 discrete projects and three recurring programs. These interconnected projects and programs address critical locations

with the highest safety and security concerns along the corridor, including at-grade crossings and stations. These locations present risks associated with vehicle track incursions and trespasser intrusion that could result in derailment, injury, or death. The completion of the electrification of the corridor has brought additional assets and introduced new risk factors. Implementing capital projects in this Strategic Initiative will also ensure that Caltrain secures and monitors the latest electrification-related assets, such as the Electric Multiple Unit (EMU) trainsets, to reduce crimes to Caltrain's property.

10-Year CIP Funding Need for this Strategic Initiative

Discrete Projects: \$60M

Recurring Programs: \$50M



Project Spotlights

Program of Interconnected Safety and Security Projects:

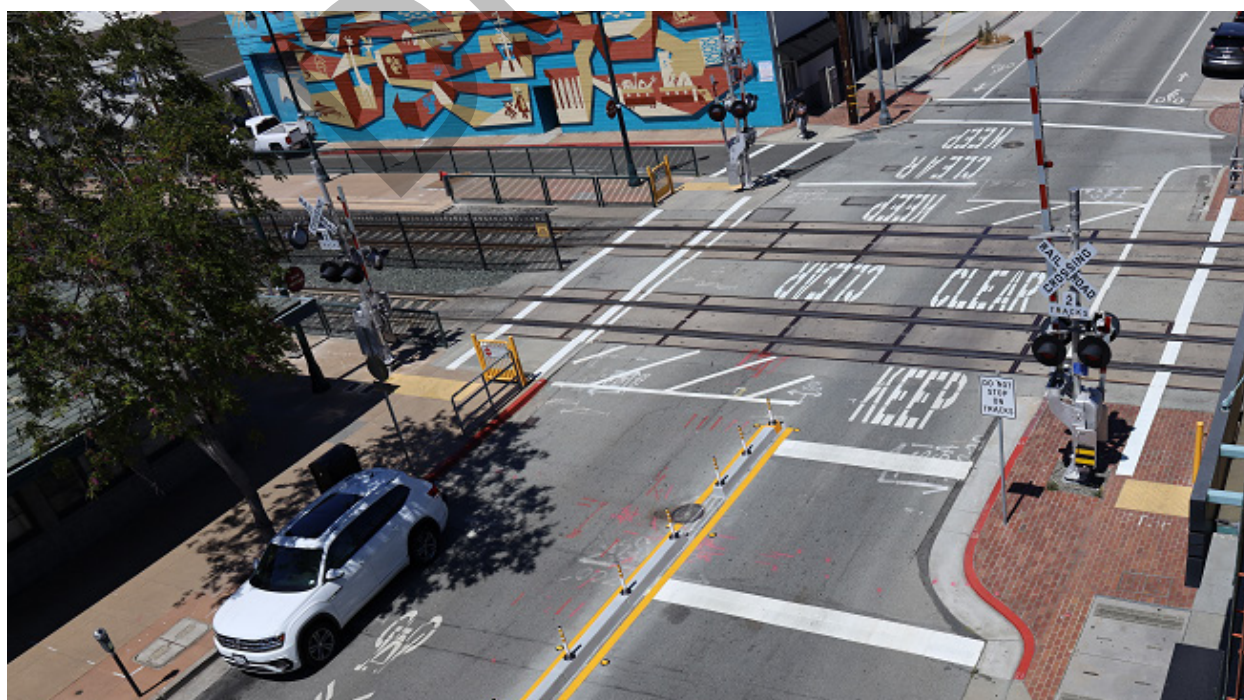
Several capital projects and programs illustrate how Caltrain intends to reduce hazards and risks of vehicle track incursions and trespasser intrusion.

For several years, Caltrain has been implementing a **Right-of-Way Fencing Program** to limit intrusion along the right-of-way. Caltrain also continues to improve at-grade crossings through its **Grade Crossing Improvement Programs**. A new program will identify crossings to be prioritized and improved through an *updated Grade Crossing Risk Analysis* process, performed every three to four years.

The **Safety and Security Strategic Plan** aims to identify high-risk safety and security items and develop strategies to mitigate them. Pilot projects inform the Strategic Plan, which also identifies several capital projects, such as right-of-way improvements, signage, lighting, fencing, and technology provisions to provide a safe and secure railroad for all.

The **Systemwide CCTV System - Replacement and Expansion Program** will replace the old, obsolete CCTV system and integrate the soon-to-be-released FRA compliance requirement. Cameras will be installed at critical locations, such as grade crossings, stations, and facilities, to proactively address any safety and security issues that may arise.

The **Intrusion Detection Pilot Program** will plan, procure, and install hardware along the right-of-way at critical locations, such as grade crossings, tunnels, and other high-risk right-of-way locations, to detect trespasser activities and enable quick and efficient response. If the pilot is deemed successful, the Safety and security Strategic Plan will do a systemwide review of additional locations where Caltrain can apply the intrusion detection technology.



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Maintain Core Services

With the completion of the corridor electrification and more than 160 years of railway history, Caltrain has a unique blend of new and old capital assets to maintain. The **Maintain Core Services** Strategic Initiative focuses on meeting the life-cycle investment needs of the critical assets to keep baseline service running reliably and minimize service disruptions.

The 2022 TAM Plan outlines the agency's TAM approach and states that:

Caltrain is committed to sustainably maintaining its assets in a State of Good Repair to deliver a safe and reliable passenger rail service. This commitment will be ensured through financial stewardship and resource allocation, promoting a culture that supports asset management across the agency, and focusing on high-quality information to provide the foundation for a risk-based approach to decision-making.

Caltrain is responsible for approximately \$6.6 billion of assets. Caltrain previously had insufficient funding to address its SOGR needs, resulting in a backlog. A large part of this backlog includes old, inherited infrastructure. Several bridges and civil structures nearing or beyond their useful life need replacement, which requires significant investments. Additionally, many system assets have reached technology obsolescence and need an upgrade.

Finally, brand-new Traction Electrification System (TES) assets introduced as part of the corridor electrification must be maintained, requiring ongoing annual funding.

Ongoing maintenance programs paired with the delivery of discrete renewal projects must receive ongoing and dedicated funding to ensure repair are done on a timely basis.

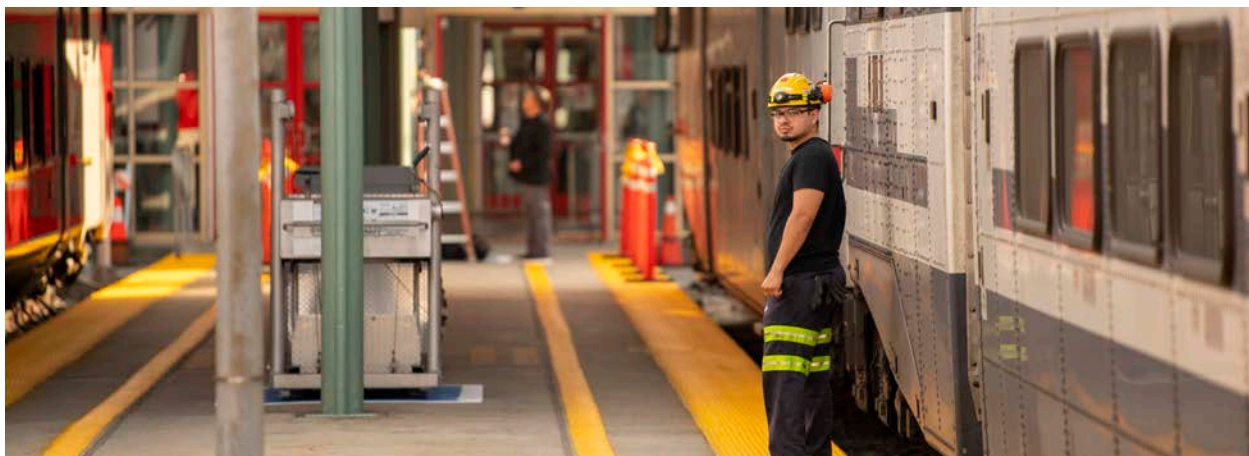
This Strategic Initiative includes 33 discrete projects and 22 recurring programs critical to ensuring Caltrain maintains the ability to provide safe and reliable service, including:

- Recurring programs to maintain assets in good condition to deliver safe and reliable service.
- Discrete projects to replace assets at the end of their useful life or that have reached technical obsolescence.
- Key planning functions and initiatives.

10-Year CIP Funding Need for this Strategic Initiative

Discrete Projects: \$470M

Recurring Programs: \$490M



Project Spotlights

San Francisquito Creek Bridge Replacement:

The San Francisquito Creek Bridge is one of the oldest assets along the Caltrain corridor and carries two mainline tracks and is beyond its useful life. Additionally, the bridge location has been experiencing severe storms and high creek flows that have eroded the soil on the northern creek bank that supports the bridge, which Caltrain is addressing through the **Creek Bank Stabilization** project.

The **permanent replacement project** is designed to maintain safe rail operations over the bridge, protect the creek itself, and reinforce the creek's bank.

Additionally, to monitor potential cracks and damages of the structure, Caltrain will procure and install an **Acoustic Monitoring System** to ensure timely action.



Program of Interconnected System Technology Projects:

The CIP includes a program of projects to modernize Caltrain's systems due for a technology refresh. Caltrain will phase this program to improve the resiliency and scalability of its systems. Three critical projects address the backbone of the systems:

- The **Fiber Optic Permanent Repair**. Fiber optic is the backbone of all critical operational train control systems and broadband communication infrastructure. The fiber optic infrastructure connects the dispatch centers, central office, and cloud services for system redundancy, resiliency, cybersecurity, and disaster recovery in major outages or cyber-attacks. The fiber optic system has deteriorated and sustained

damage, and needs to be permanently repaired as soon as possible.

- The **Network Architecture Redesign**. Caltrain could concurrently deliver the Network Architecture Redesign project to address network design limitations. This project seeks to evaluate and improve the network design by introducing redundant communication pathways to reduce the impact of single-point failures that result in train delays and catastrophic downtimes.
- The **PTC Back Office System (BOS) - Technology Refresh and Replacement**. PTC is the FRA-mandated train control safety system that controls train movement in the event of human error. The PTC BOS - Technology Refresh and Replacement project will procure a new PTC BOS that is modern, supported, and meets evolving industry standards.

Control Centers Power Resiliency and Enhancement:

The Control Centers Power Resiliency and Enhancement project represents the initial phase of a larger effort to overhaul and modernize Caltrain's train control data center infrastructure necessary to deliver revenue service. The uninterruptible power supply (UPS) at the San José Control Center (SJCC) is beyond its useful life, undersized, and has failed multiple times. This project will then evaluate the existing system and provide recommendations for infrastructure and system enhancements at the train control data centers.

SOGR Programs:

Numerous recurring SOGR programs maintain safe, reliable, and high-quality service and enable future service increases and operational enhancements possible. They cover the maintenance of critical assets including vehicles, stations and facilities, bridges and civil structures, right-of-way, tracks, and systems.

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Enhance Service and Customer Experience

The November 2023 Ridership Recovery Survey found that Caltrain remains a favorable travel option but explored key barriers to ridership recovery. Key findings showed that barriers to mode shift to transit are largely convenience-related and include concerns relating to trip time, service frequency, and proximity to stations. The **Enhance Service and Customer Experience** Strategic Initiative includes capital projects and programs to improve the system to attract new customers while enhancing the travel experiences of existing riders.

This Initiative builds upon the work done as part of the Caltrain's corridor [electrification](#) project. Electrified service provides riders with faster transit times, more frequent service, including during weekends, and increased amenities like on-board Wi-Fi and electrical outlets at every seat. Projects and programs that **Enhance Service and Customer Experience** typically include procuring new assets

or upgrading existing assets that aim to increase the system's performance and provide customer-focused improvements. These improvements include projects and programs that address customer experience (signage and wayfinding, station access, and accessibility improvement), operational improvements (software upgrades), community benefits, and sustainability and resiliency adaptations.

This Strategic Initiative includes 30 discrete capital projects and five recurring programs.

10-Year CIP Funding Need for this Strategic Initiative

Discrete Projects: \$640M

Recurring Programs: \$20M



Project Spotlights

Predictive Arrival/Departure System Modernization:

The **Predictive Arrival/Departure System (PADS)** is a critical system that receives input on the location of a train, makes train arrival time predictions, and provides output to the passenger messaging systems at stations (such as the Visual Message System (VMS)) and to external data feeds such as Caltrain.com and MTC511. The existing PADS was deployed in 2014 and has reached the end of its useful life. The PADS modernization will provide significant benefits to the riders by:

- Improving the train arrival prediction performance and accuracy.
- Improving resilience to operational needs and communication to passengers, such as single-tracking, reverse running, and unscheduled rerouting or track changes into terminal stations.
- Updating interfaces to passenger messaging systems.
- Enabling a modernized digital audio system.
- Providing real-time train data for passengers, namely General Transit Feed Specification (GTFS).

Digital Customer Displays (Multi-Level Stations):

Messaging systems also need to be refreshed and expanded. The CIP includes a project to install digital customer displays with text-to-speech capabilities at station entrance areas. The Customer Experience Task Force identified this solution to address the inconvenience that riders experience at multi-level stations where they need to walk up or down the stairs, or long distances to be able to see and hear the VMS/Public Address (PA) announcements about various alerts.

Stations and Trains Accessibility:

As a legacy system, Caltrain does not currently provide level boarding access to its passenger

cars. As Caltrain modernizes the system, it commits to ensure safe and accessible boarding for people of all abilities. Currently, boarding for people with disabilities is achieved through wayside lifts, conductor-operated lifts, and mini-high platforms. Caltrain will install **mini-high platforms** at all stations to support EMU service and to improve accessibility to the passenger car as an intermediate step to **universal level boarding**. Additionally, Caltrain is supporting the City and County of San Francisco in delivering the **22nd Street Station Americans with Disabilities Act (ADA) improvements** that will install ramps and other improvements to ensure the station is accessible to all.

Universal Level Boarding brings significant safety and accessibility benefits to all passengers. Additionally, it allows for faster boarding and alighting to support enhanced service levels and schedule reliability, reducing train dwell times at stations. But implementing level boarding is a complex, expensive, and long-term program. Caltrain recently developed a roadmap of cost-effective improvements the agency can undertake with platform raising.



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THE FUTURE
IS COMING!



Caltrain
CHANGE IS
WORTH IT

Deliver the Long-Range Service Vision

The Deliver the Long-Range Service Vision

Strategic Initiative includes the program of capital projects that must be advanced over the next 10 years to implement the Board-Adopted Long-Range Service Vision for Caltrain service.

The Service Vision development process identified multiple rail service growth scenarios for Caltrain over the long term, which the agency evaluated based on benefits, costs, and impacts. The JPB adopted the Moderate Growth Service Vision of eight trains per hour per direction at peak periods and directed the agency to continue planning for a higher growth scenario.

Caltrain's Board-Adopted Long-Range Service Vision directs the railroad to plan for substantially expanded rail service that will address the local and regional mobility needs of the corridor while supporting local economic development activities by being mindful of the completion of key regional and state partner projects. These projects are identified as part of the *Partner with Local Communities and Contribute to the Region's Economic Vitality* Strategic Initiatives.

Caltrain's electrification lays the foundation for implementing the vision by enabling a more frequent, fast and reliable service. It also allows for future blended service with California High-Speed Rail (HSR) wherein Caltrain and HSR will share tracks within the existing corridor. This Strategic Initiative focuses on six discrete projects that Caltrain can initiate over the next 10 years to advance the Board-Adopted Long-Range Service Vision. Improving Caltrain service requires investment across multiple areas.

1. 4-Track Station and Grade Separation at Redwood City Station
2. New Signal and Train Control System
3. Systemwide Electric Fleet Expansion

4. Platform Lengthening Needs Assessment
5. CEMOF Yard Capacity Enhancement
6. Train Control Crossover Signaling in the Diridon-San José Station Area

Implementing the highly complex, expansion projects needed for the Board-Adopted Long-Range Service Vision requires strategic planning. The update to the Business Plan will refine the capital approach periodically to ensure the program continues to reflect Caltrain's needs.

10-Year CIP Funding Need for this Strategic Initiative

Discrete Projects: \$1,700M

Recurring Programs: N/A



Project Spotlights



4-Track Station and Grade Separations at Redwood City Station:

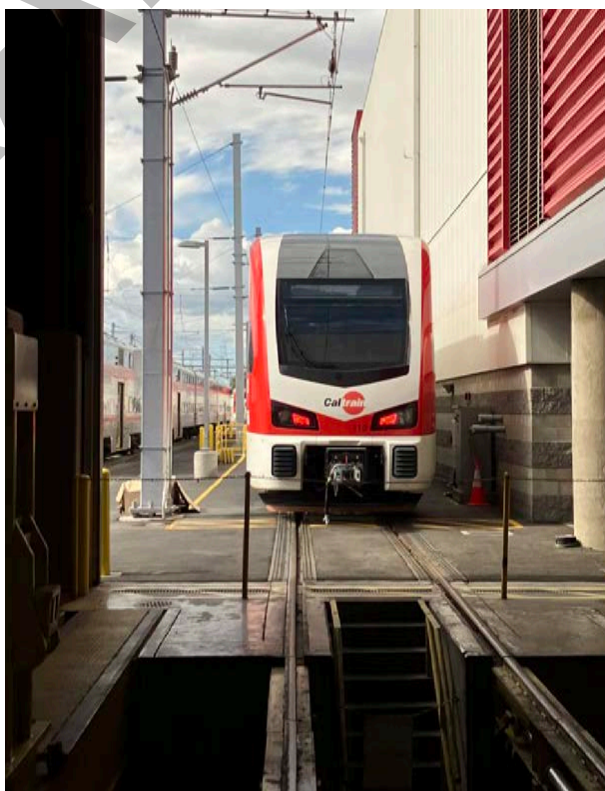
Caltrain and the City of Redwood City are studying and planning for a relocated and elevated four-track transfer station and passing tracks in the downtown area, which also includes six grade separations in Redwood City: Whipple Avenue, Brewster Avenue, Broadway, Maple, Main, and Chestnut. The four-track station project is critical to advancing the Adopted Long-Range Service Vision that will allow transfers between Express and Local Trains. In 2022, Caltrain and the City completed the selection of the locally preferred alternative and the next step is to secure funding for preliminary engineering and environmental clearance.

New Signal and Train Control System:

More frequent and faster service requires systems that allow trains to safely and seamlessly operate closer together by improving the precision of train location and stop detection. Implementing the Program of Interconnected System Technology Projects and the new PADS lays the foundation for a modernized signaling and train control system. New signal and train control systems will provide significant safety and reliability benefits and will allow shorter headways and higher operating speed.

CEMOF Yard Capacity Enhancement:

CEMOF accommodates inspections, maintenance, repairs, train washing, and storage and is the “nerve center” of Caltrain. This project will optimize CEMOF to accommodate the storage and maintenance of a more extensive electrified fleet needed for the Board-Adopted Moderate Growth Service Vision.



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Mandate, Compliance, and Emergency Projects

The **Mandate, Compliance, and Emergency Projects** Strategic Initiative includes must-do projects that Caltrain is required to implement by regulatory agencies or under state and federal law. It also includes projects that require immediate advancement and implementation due to an emergency. Projects that address mandates or compliance requirements are usually time-bound.

The regulatory environment is constantly changing, and Caltrain cannot plan for unknown emergency projects, so projects within this Strategic Initiative will be continually monitored and updated.

Many SOGR programs include mandate and compliance elements but are not included in this Strategic Initiative. The nature of the SOGR needs and their intent to maintain reliable and safe operations is ongoing.

This Strategic Initiative includes three discrete projects.

10-Year CIP Funding Need for this Strategic Initiative

Discrete Projects: \$70M

Recurring Programs: N/A

Non-Revenue Vehicle Fleet Electrification:

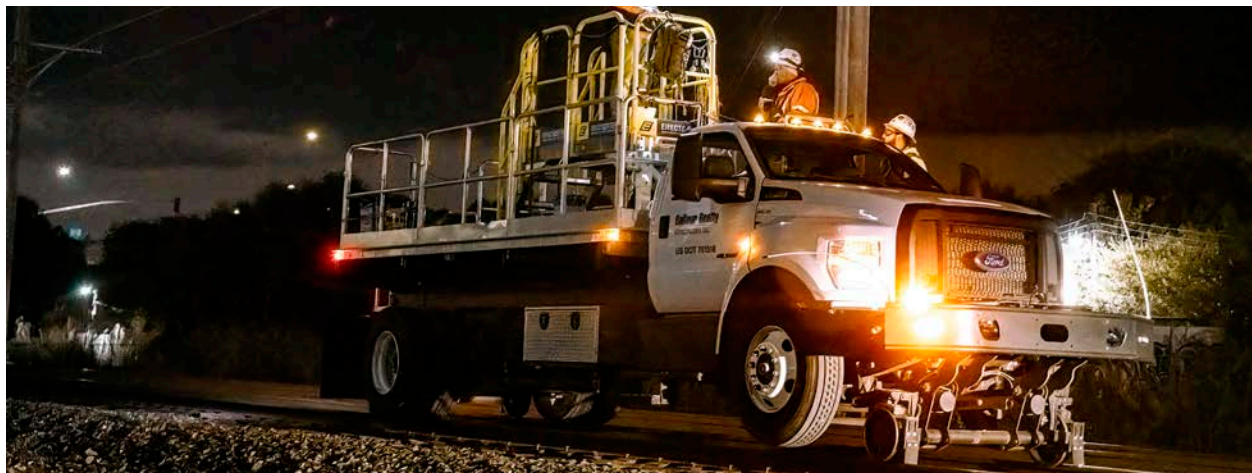
Per the Advanced Clean Fleets Regulation, state and local governments require that 50% of current vehicle purchases are zero-emission followed by 100% of vehicle purchases by 2027. This program will assess the needs, plan for, and implement the appropriate infrastructure to charge the non-revenue vehicles at the various Caltrain facilities.

Electric Fleet for Service to Gilroy (Pilot Project):

This project will test a hybridized EMU capable of off-wire operation to run electrified service to Gilroy. It will include procuring one BEMU train to test the vehicle before purchasing additional trainsets. This project will enable the replacement of the remaining diesel fleet, which is approaching the end of its useful life and will eventually be banned by the California Air Resources Board (CARB).

MS4 Trash Management:

This project will design and implement a full trash capture system required to maintain the Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) permit.



Balfour Beatty Night Wire Work



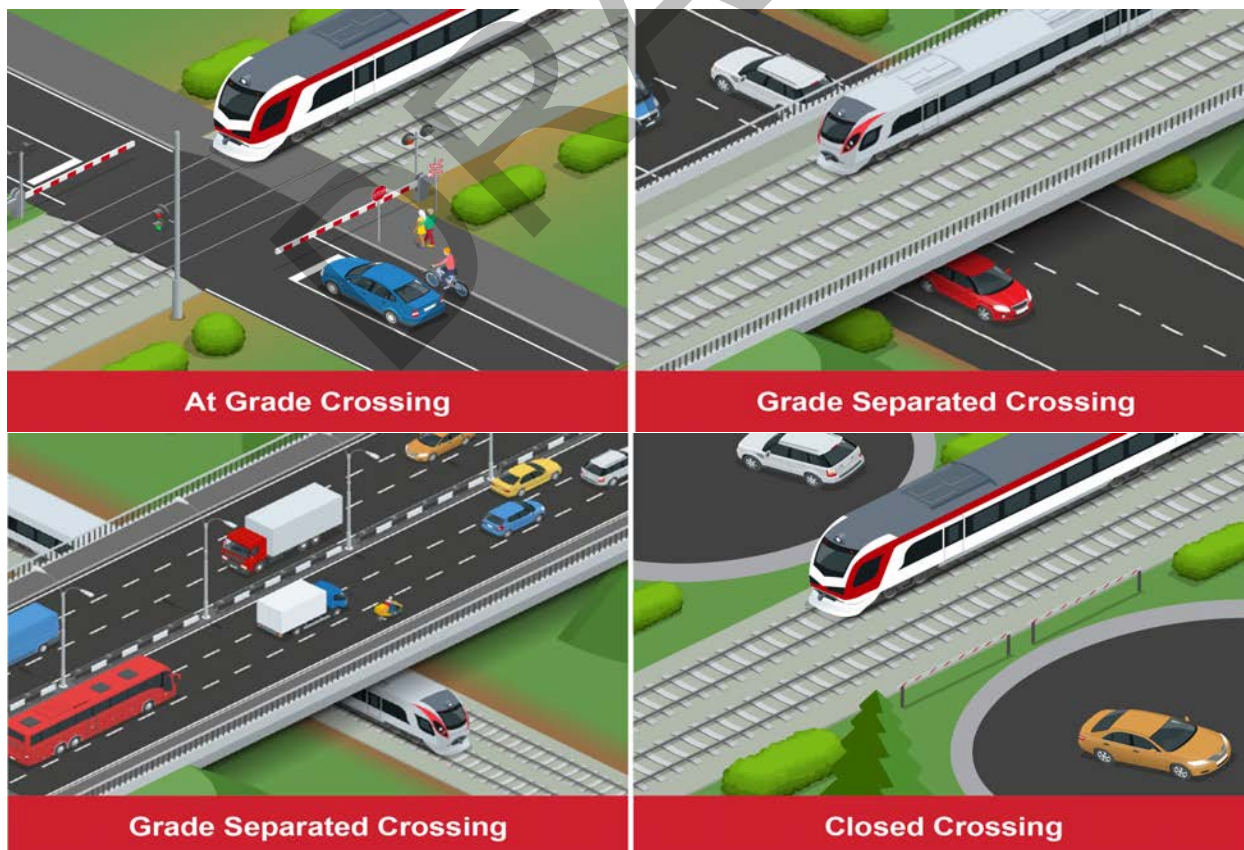
Partner with Local Communities

Caltrain is committed to be a community partner and to prioritize the health, safety, and quality of life of the communities members along the Caltrain corridor. The **Partner with Local Communities Strategic Initiative** includes all grade separation projects, the locally-sponsored grade crossing improvement projects, and two additional capital projects sponsored by local jurisdictions- the Bayview Caltrain Station Location Study and Implementation and the San Mateo Parking Track Replacement (Part of 25th Avenue Grade Separation).

As Caltrain and other operators plan to increase rail services, Caltrain understands that a coordinated approach to grade separations or closures is needed

to unlock regional mobility and safety benefits. The Corridor Crossing Strategy aims to enhance the current process by developing a corridor-wide strategy to deliver grade crossing projects. Local jurisdictions sponsor grade separation projects, which are typically initiated on a project-by-project basis and funded mainly as first-come, first-served. Caltrain transitions to the lead implementing agency role for grade separation projects after the local jurisdiction selects the locally preferred alternative.

Caltrain's resource allocation for grade separation projects over the next four years is defined in the Rolling Program and is part of a coordinated approach with the Corridor Crossing Strategy.



Images Created by Corridor Crossing Strategy Team. <https://www.caltrain.com/projects/ccs>

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Contribute to the Region's Economic Vitality

Caltrain, along with other passenger rail services, is a critical component of the San Francisco Bay Area transportation network, supporting regional mobility.

Caltrain and its partner agencies collaborate to expand the regional network by implementing transformative capital projects. Depending on the project, its phase, and whether it impacts Caltrain's right-of-way and operations, Caltrain's role in these projects varies but remains essential; therefore, the **Contribute to the Region's Economic Vitality** Strategic Initiative includes these projects.

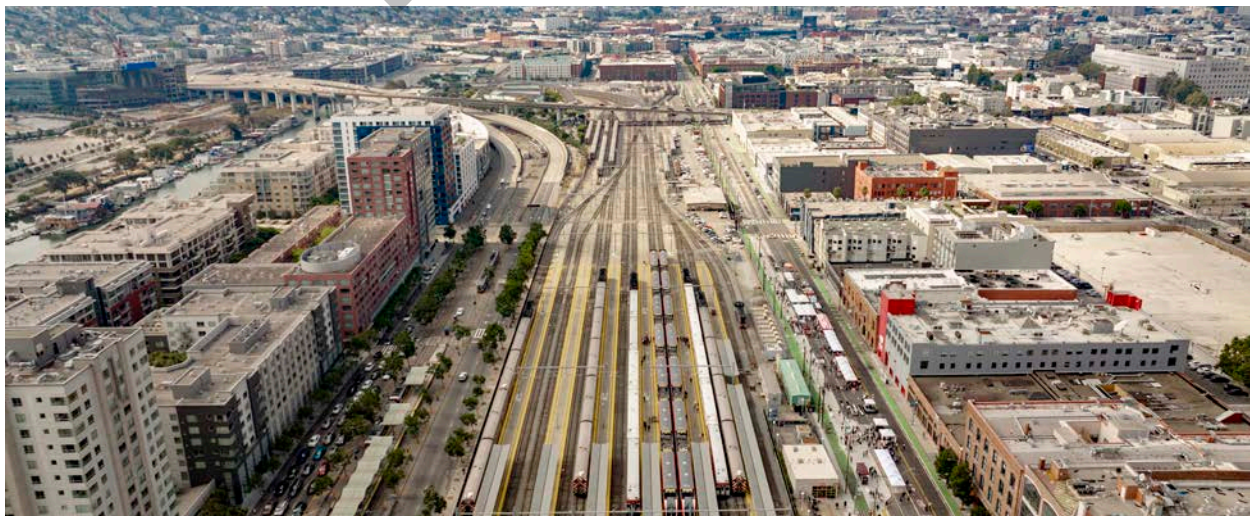
These projects are not evaluated and prioritized with Caltrain-initiated and sponsored projects and programs. Still, they are prioritized in the Rolling Program to determine Caltrain's involvement and resource allocation over the next four years. Prioritization of these projects considers the project's development stage and its impact on Caltrain's main line and operations.

By 2035, the Bay Area transportation network will see numerous projects advance through stages of development.

The Portal (also known as the Downtown Rail Extension or DTX project) will move Caltrain from its current northern terminal at 4th and King Streets to a new terminal at the Salesforce Transit Center in Downtown San Francisco. The Portal project is also planned to be compatible with HSR and the potential future rail expansion across the Bay as part of the Link 21 Program.

The **San Francisco Railyards Redevelopment** will include a new rail station, housing, offices, and public spaces. The redevelopment will accommodate increased Caltrain service and future HSR operations, generate additional ridership, and support connections to the Portal, San Francisco Municipal Transportation Authority (SFMTA) Central Subway, and other SFMTA transit lines.

Diridon-San José Station is a historic station and poised to become one of the busiest intermodal stations in North America with the planned addition of the VTA-led Bay Area Rapid Transit (BART) to Silicon Valley Phase 2 connecting to the East Bay, HSR service, improved intercity passenger rail to the San Joaquin Valley (ACE) and Sacramento



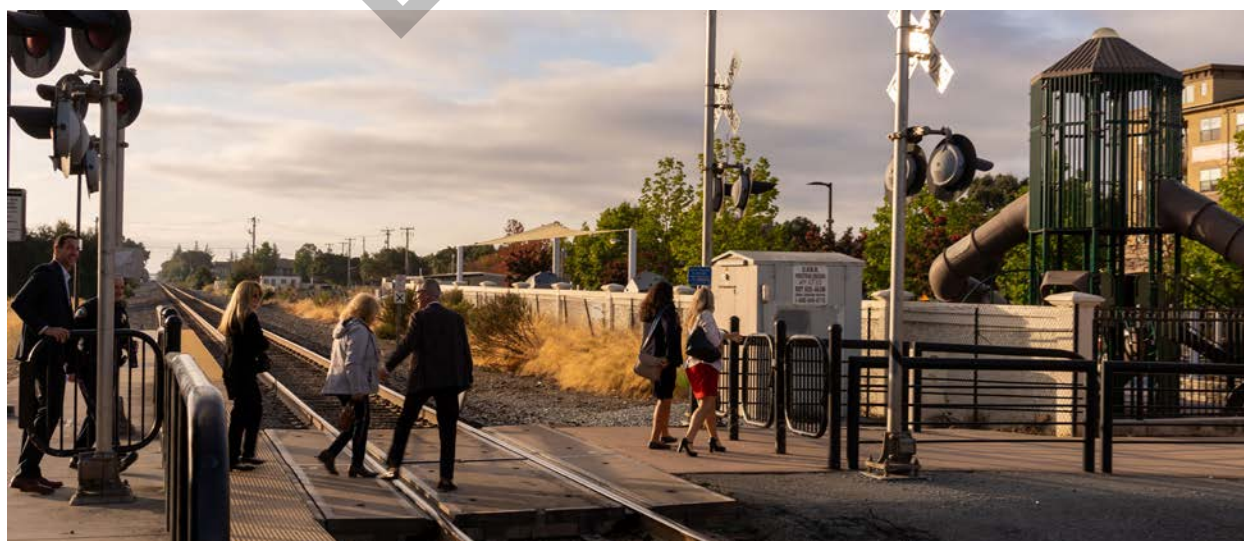
(Amtrak Capitol Corridor), and the San José Airport Connector Project. To best accommodate such planned activity and future capacity needs, the leading agencies will reconfigure the Diridon-San José Station to efficiently connect all transit services and the surrounding urban environment.

California HSR will continue to advance toward blended service throughout the Caltrain corridor. HSR will share Caltrain's tracks with stops in San Francisco, Millbrae, San José, and Gilroy. The San Francisco to San José Project Section includes improving the Caltrain corridor to allow for increased train speeds. The San José to Merced Project Section provides for the electrification of the UPRR corridor between San José and Gilroy, allowing

for the extension of Caltrain electrified service throughout the entire Caltrain corridor.

Gilroy Station becomes the gateway to the Monterey Region with the **Monterey County Caltrain Extension** project to Salinas and to the San Joaquin Valley through the implementation of HSR service. The Monterey County Extension project includes station and track improvements at the Gilroy Station.

In parallel, other efforts will continue to be in motion, and Caltrain should continue to collaborate on projects such as the **Dumbarton Corridor**, led by SamTrans, and provides a new transit connection between the Caltrain Redwood City Station to the BART Union City Station in the East Bay.



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**Caltrain 10-Year CIP
Portfolio of Capital Projects
and Programs**

A

Appendix A

The CIP Portfolio of Capital Projects and Programs provides funding partners, staff, and the Board with the roadmap of Caltrain's investments in capital projects over the next 10 years. The Portfolio identified more than 140 projects and programs with scope, estimated cost, and tentative schedule.

Organization

Appendix A is a quick reference list of the 10-Year CIP Portfolio of Capital Projects and Programs. The list is grouped by Strategic Initiative and divided into rete Projects and Recurring Programs.

The list includes the prioritization ranking of capital projects and programs within their Strategic Initiative and grouping of Discrete Projects and Recurring Programs. A ranking of 1 represents the highest score using the Prioritization Framework tool. Projects and Programs with the same score will have the same ranking on the list. The order presented for the Strategic Initiatives does not indicate a priority of one over another.

Projects included in the *Partner with Local Communities and Contribute to the Region's Economic Vitality* are organized by county and anticipated completion date. These projects are not evaluated and prioritized with Caltrain-initiated and sponsored projects and programs. They are prioritized in the Rolling Program to determine Caltrain's involvement and resource allocation over the next four years. Prioritization of these projects considers the project's development stage and its impact on Caltrain's main line and operations.

Projects Included in the List

This list primarily includes unfunded and partially funded projects, and select projects that are fully funded and close to completion. Projects that are fully funded and will be completed after December 31, 2024 are included in the list.

The cost estimate and the timeline of the projects and programs in the list represent FY2024 dollars and assumptions. The cost estimates do not include escalation. Caltrain's [website](#) has more information for ongoing projects and programs tracked in the Caltrain Quarterly Status Reports.

About Grade Crossing Projects

Grade crossing projects include *grade crossing improvement* projects and programs, wherein the crossings remain at grade, and *grade separation* projects, wherein a structure is designed and built to separate the vehicle and/or pedestrian and bicycle roadway from the railroad tracks.

The list includes all ongoing and planned grade crossing projects and programs initiated and sponsored by either the local jurisdiction or Caltrain, such as:

- Grade crossing improvement projects to address risks and hazards of at-grade crossings.
- Grade separation projects to improve safety and reliability by vertically separating the tracks and roadway.
- The Corridor Crossing Strategy Program to identify a corridor-wide strategy to deliver grade separation projects.
- Capital Planning to support the initiation/entry of ongoing grade crossing projects.

Costs for Externally Funded Projects

The list includes externally-sponsored projects in the Strategic Initiatives *Partner with Local Communities* and *Contribute to the Region's Economic Vitality*. These projects require Caltrain's staff capacity at various levels. The approximate timeline and cost of external projects help Caltrain plan for its resources. Note that the timeline for each externally-sponsored project is for information only.

- If Caltrain is not the lead implementing agency, the cost estimate reflects the amount of funding expected to hit Caltrain's capital budget over the next 10 years based on the funding agreements between Caltrain and the project partners.
- If Caltrain is or will become the lead implementing agency, the cost estimate reflects the full cost of the project using Caltrain's estimating and contingency methodology. The total project cost might differ from other external sources.

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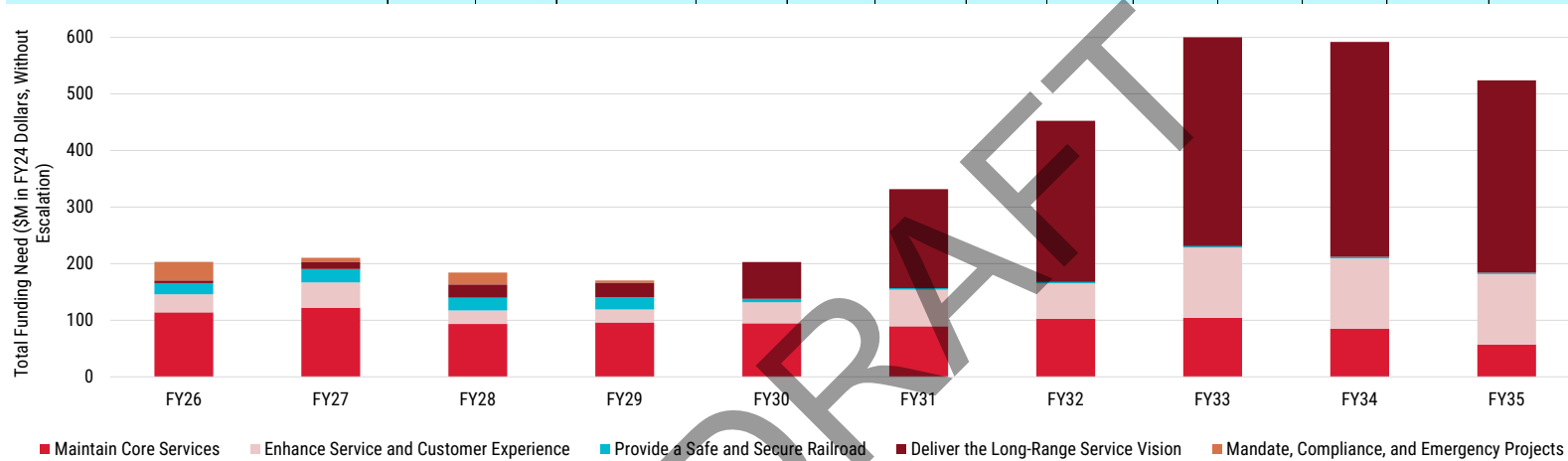
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Summary

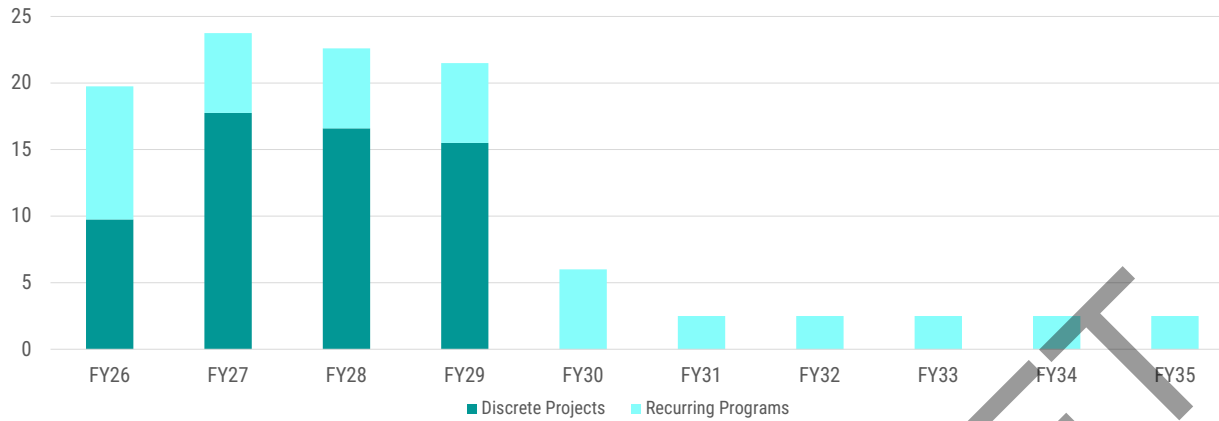
Funding Needs per FY

Strategic Initiative	Funding Needs (\$M)												10-Year CIP Total	Total Cost
	FY25 & Prior	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36 & Beyond		
Provide a Safe and Secure Railroad	16	20	24	23	22	6	3	3	3	3	3		106	122
Maintain Core Services	104	114	122	93	96	95	89	102	104	85	57		959	1,062
Enhance Service and Customer Experience	64	32	45	24	23	37	65	63	124	124	124	455	661	1,180
Deliver the Long-Range Service Vision	2	5	13	23	26	65	175	285	380	380	340	1,138	1,692	2,832
Mandate, Compliance, and Emergency Projects	22	33	7	21	4								65	87
Total	207	203	210	184	170	203	332	453	611	592	524	1,593	3,483	5,283



Provide a Safe and Secure Railroad

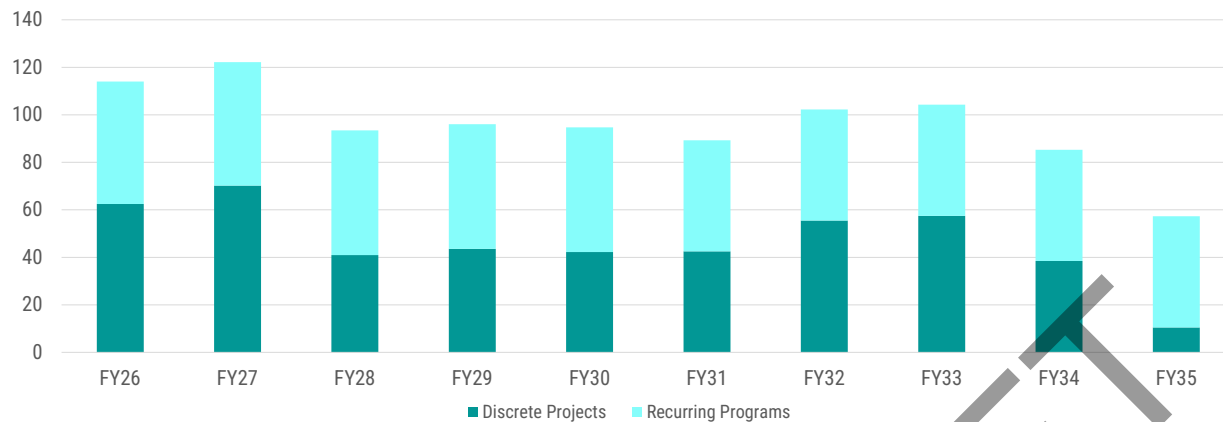
Funding Needs per FY



Ranking	Project Name	Initiation Date	Close-Out Date	County Location	Funding Needs (\$k)													10-Year CIP Total	Total Cost EAC
					FY25 & Prior	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36 & Beyond			
Discrete Projects																			
1	Systemwide CCTV System - Replacement and Expansion	Completed	FY29	Corridor-wide	2,000	5,500	7,500	9,000	9,000								31,000	33,000	
2	San Mateo Grade Crossing Improvements	Completed	FY25	San Mateo	5,472												-	5,472	
3	Churchill Avenue Grade Crossing Improvements	Completed	FY25	Santa Clara	2,520												-	2,520	
4	Intrusion Detection Program	Completed	FY27	Corridor-wide	1,670	1,750	1,750										3,500	5,170	
5	Security Assessment and Improvement at Critical Locations	Completed	FY25	Corridor-wide	1,000												-	1,000	
6	Safety and Security Strategic Plan	FY25	FY26	Corridor-wide	500	500											500	1,000	
7	Main Street Grade Crossing Improvements	FY25	FY28	San Mateo	500	1,000	1,000	1,000									3,000	3,500	
8	Grade Crossing Improvements (Various Locations)	Completed	FY26	Corridor-wide	1,540												-	1,540	
9	Charleston Road Grade Crossing Improvements	Completed	FY28	Santa Clara	750	1,000	1,000	100									2,100	2,850	
10	Roadway Worker Protection (RWP) Safety Program Technology Upgrade	FY27	FY29	Corridor-wide			6,500	6,500	6,500								19,500	19,500	
Subtotal (Discrete Projects)					15,952	9,750	17,750	16,600	15,500								59,600	75,552	
Recurring Programs																			
1	Right-of-Way Fencing	N/A	N/A	Corridor-wide		2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000		20,000		
2	Corridor Crossing Strategy - Programmatic Delivery	FY26	FY30	Corridor-wide		7,000	3,500	3,500	3,500	3,500							21,000		
3	Grade Crossing Improvements Program	N/A	N/A	Corridor-wide		1,000	500	500	500	500	500	500	500	500	500		5,500		
Subtotal (Recurring Programs)					-	10,000	6,000	6,000	6,000	6,000	2,500	2,500	2,500	2,500	2,500	-	46,500	46,500	
Total (Discrete Projects + Recurring Programs)					15,952.00	19,750	23,750	22,600	21,500	6,000	2,500	2,500	2,500	2,500	2,500	-	106,100	122,052	

Maintain Core Services

Funding Needs per FY



Maintain Core Services

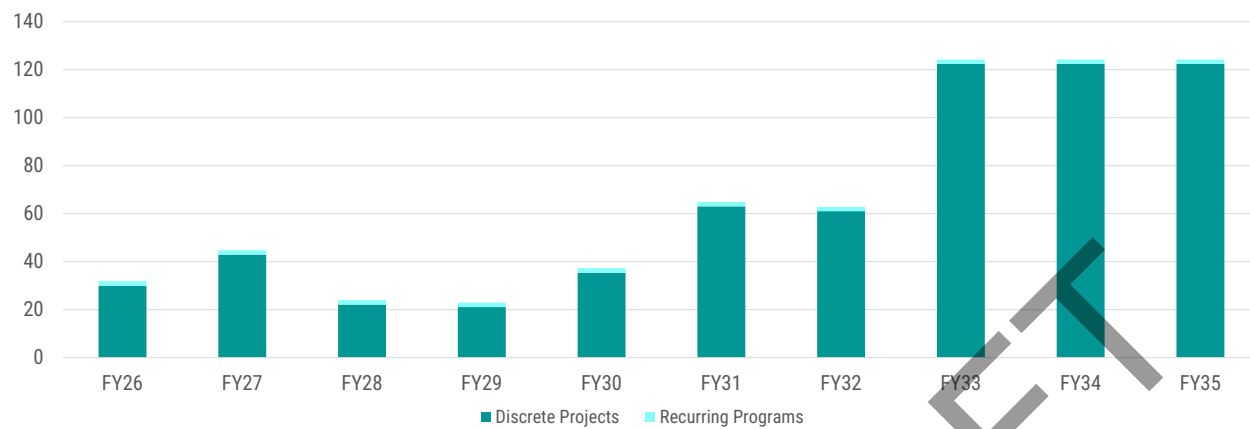
Ranking	Project Name	Initiation Date	Close-Out Date	County Location	Funding Needs (\$k)													10-Year CIP Total	Total Cost EAC
					FY25 & Prior	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36 & Beyond			
Discrete Projects																			
1	Network Architecture Redesign	FY26	FY28	Corridor-wide		1,000	1,500	1,500									4,000	4,000	
2	Fiber Optic Permanent Repair	FY25	FY26	Corridor-wide	4,000	4,000											4,000	8,000	
3	PTC BOS - Technology Refresh and Replacement	FY27	FY28	Corridor-wide			1,000	1,000									2,000	2,000	
4	Guadalupe Bridges Replacement	Completed	FY26	Santa Clara	54,751	22,500											22,500	77,251	
5	San Francisquito Creek Bank Stabilization	Completed	FY26	Santa Clara	3,670	5,460											5,460	9,130	
5	San Francisquito Creek Bridge Replacement	Completed	FY34	Santa Clara	9,060	542	5,000	10,000	10,000	11,000	13,000	26,000	35,000	26,000			136,542	145,602	
6	PADS Phase 1: Gap Coverage and Enabling Work	Completed	FY26	Corridor-wide	1,620	480											480	2,100	
7	Control Centers Power Resiliency and Enhancement	FY26	FY29	Corridor-wide		500	500	2,000	2,000								5,000	5,000	
8	Concrete Tie Program	Completed	FY27	Corridor-wide	3,000	3,000	3,000										6,000	9,000	
9	Tunnel 1, 2, 3 and 4 Weep Hole Rehabilitation and Drainage Improvements	FY26	FY27	San Francisco		500	3,000										3,500	3,500	
10	Computer Aided Dispatch System Replacement	FY28	FY29	Corridor-wide				2,000	2,000								4,000	4,000	
11	4th and King Station Building Corrosion Repair	FY26	FY31	San Francisco		1,000	3,000	4,000	4,000	4,000	4,000						20,000	20,000	
12	MP-36 Locomotive Mid-Life Overhaul	Completed	FY25	Corridor-wide	14,509												-	14,509	
13	Enterprise Geographic Information Systems (GIS) Software Implementation	Completed	FY26	Corridor-wide	3,500	1,000											1,000	4,500	
14	South San Francisco (SSF) Yard Drainage Improvements	FY26	FY30	San Mateo		500	500	1,000	1,500	1,500							5,000	5,000	
15	CEMOF Modifications to Accommodate EMUs	Completed	FY30	Santa Clara	4,500	15,500	15,500	6,000	6,000	6,000							49,000	53,500	
16	Stevens Creek Bridge Rehabilitation/Replacement and Channel Stabilization	FY29	FY34	Santa Clara					250	750	1,000	1,000	1,000	1,000			5,000	5,000	
17	Backup Control Center Datacenter Migration to Cloud Environment	FY26	FY28	Corridor-wide		2,000	2,000	2,000									6,000	6,000	
17	Broadband System Mid-Life Technology Refresh	FY31	FY31	Corridor-wide							1,500						1,500	1,500	
18	Waterway Timber Planking and Box Culverts Replacement	FY26	FY31	San Mateo		250	750	1,000	1,000	1,000	1,000						5,000	5,000	
18	San Francisco Public Utilities Commission (SFPUC) Water Main - 2 Bridge Rehabilitation/Replacement	FY27	FY32	San Mateo			250	750	1,000	1,000	1,000	1,000					5,000	5,000	
19	San Francisquito Bridge Acoustic Monitoring System	Completed	FY26	Santa Clara	1,067	1,014											1,014	2,081	
20	Enterprise Asset Management (EAM) Software System	Completed	FY29	Corridor-wide	3,500	1,500	1,200	1,200	600								4,500	8,000	
21	San Antonio Station Pedestrian Underpass Rehabilitation	FY29	FY34	Santa Clara					200	500	1,000	1,000	1,000	1,000			4,700	4,700	
22	Onboard and MOW Crew Radios Digitization	FY28	FY29	Corridor-wide				1,500	1,500								3,000	3,000	
23	Climate Risk and Vulnerability Study	Completed	FY26	Corridor-wide	321	214											214	535	
24	EMU 8-Year Overhaul	FY32	FY35	Corridor-wide							6,000	6,000	6,000	6,000			24,000	24,000	
25	Cesar Chavez Street Bridge Rehabilitation/ Replacement	FY27	FY32	San Francisco			1,000	3,500	4,500	4,500	4,500	4,500					22,500	22,500	
26	Storm Drain Bridge Rehabilitation/Replacement	FY27	FY32	San Mateo			500	1,000	1,500	1,500	1,500	1,500					7,500	7,500	
26	Almaden Road Bridge Rehabilitation/Replacement	FY30	FY35	Santa Clara						500	2,000	2,500	2,500	2,500	2,500		12,500	12,500	
27	New Maintenance of Way (MOW) Facility Acquisition	Completed	FY27	Corridor-wide	250	1,500	31,500										33,000	33,250	
28	Airport Boulevard Bridge Rehabilitation/Replacement	FY28	FY33	San Mateo				2,500	7,500	10,000	10,000	10,000	10,000				50,000	50,000	
29	Ticket Vending Machine (TVM) Replacement or Rehabilitation	FY31	FY35	Corridor-wide							2,000	2,000	2,000	2,000	2,000		10,000	10,000	
Subtotal (Discrete Projects)					103,748	62,460	70,200	40,950	43,550	42,250	42,500	55,500	57,500	38,500	10,500	-	463,910	567,658	

Maintain Core Services

Ranking	Project Name	Initiation Date	Close-Out Date	County Location	Funding Needs (\$k)													10-Year CIP Total	Total Cost EAC
					FY25 & Prior	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36 & Beyond			
Recurring Programs																			
1	SOGR Program - EMU Stadler Car	FY25	N/A	Corridor-wide		4,500	4,500	4,500	4,500	4,500	5,000	5,000	5,000	5,000	5,000		47,500		
1	SOGR Program - Bombardier Car Rail Vehicles and Truck	N/A	FY30	Corridor-wide		5,700	5,700	5,700	5,700	5,700							28,500		
2	SOGR Program - Right-of-Way	N/A	N/A	Corridor-wide		2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800		28,000		
3	SOGR Program - Stations North of CP Lick	N/A	N/A	Corridor-wide		3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500		35,000		
4	SOGR Program - Systems Technology	N/A	N/A	Corridor-wide		1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		10,000		
5	SOGR Program - MOW Tracks	N/A	N/A	Corridor-wide		15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000		150,000		
6	SOGR Program - Communication	N/A	N/A	Corridor-wide		1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300		13,000		
7	SOGR Program - Track Equipment	N/A	N/A	Corridor-wide		3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500		35,000		
8	SOGR Program - Overhead Contact System (OCS)	FY26	N/A	Corridor-wide		1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500		15,000		
9	SOGR Program - Stations South of CP Lick	N/A	N/A	Corridor-wide				500	500	500	500	500	500	500	500		4,000		
10	SOGR Program - Traction Power Substations (TPS)	FY26	N/A	Corridor-wide		500	500	500	500	500	500	500	500	500	500		5,000		
11	SOGR Program - Bridges and Civil Structures	N/A	N/A	Corridor-wide		1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600		16,000		
12	SOGR Program - Signals	N/A	N/A	Corridor-wide		500	500	500	500	500	500	500	500	500	500		5,000		
12	SOGR Program - F40 Locomotives	N/A	FY30	Corridor-wide		200	200	200	200	200							1,000		
12	SOGR Program - MP-36 Locomotives	N/A	FY30	Corridor-wide		300	300	300	300	300							1,500		
13	Sustainability and Resiliency Program Support	FY26	N/A	Corridor-wide		125	125	125	125	125	125	125	125	125	125		1,250		
14	Rail Network and Operations Planning Support	N/A	N/A	Corridor-wide		1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500		15,000		
15	SOGR Program - Non-Revenue Vehicles	N/A	N/A	Corridor-wide		1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700		17,000		
16	SOGR Program - CEMOF and Other Facilities	N/A	N/A	Corridor-wide		3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000		30,000		
17	SOGR Program - Historical Stations	N/A	N/A	Corridor-wide		2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500		25,000		
18	CIP Update and Maintain	FY26	N/A	Corridor-wide		250	250	250	250	250	250	250	250	250	250		2,500		
18	Property Mapping Support	FY25	N/A	Corridor-wide		550	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000		9,550		
Subtotal (Recurring Programs)					-	51,525	51,975	52,475	52,475	52,475	46,775	46,775	46,775	46,775	46,775	-	494,800	494,800	
Total (Discrete Projects + Recurring Programs)					103,748	113,985	122,175	93,425	96,025	94,725	89,275	102,275	104,275	85,275	57,275	-	958,710	1,062,458	

Enhance Service and Customer Experience

Funding Needs per FY



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Enhance Service and Customer Experience

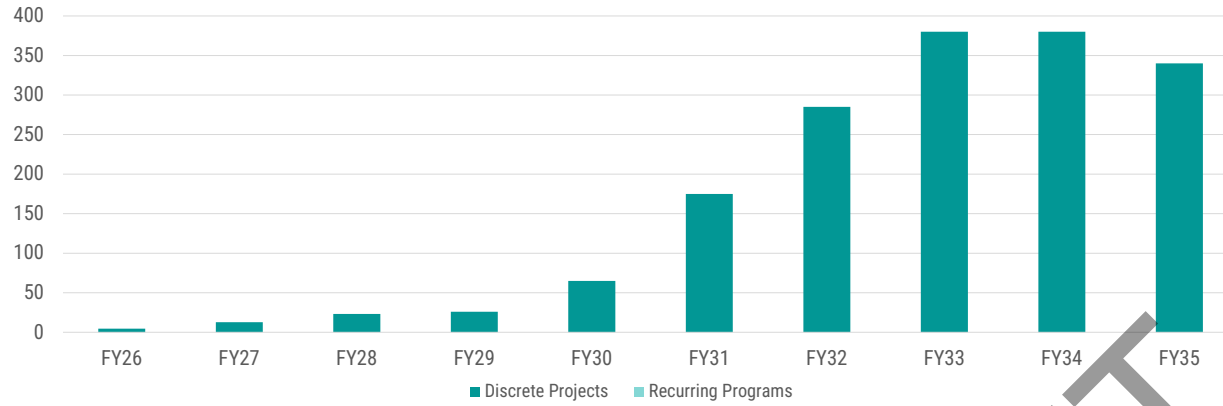
Ranking	Project Name	Initiation Date	Close-Out Date	County Location	Funding Needs (\$k)													10-Year CIP Total	Total Cost EAC
					FY25 & Prior	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36 & Beyond			
Discrete Projects																			
1	VMS Replacement	Completed	FY26	Corridor-wide	6,760	40											40	6,800	
1	PADS Phase 2: Modernization	FY26	FY29	Corridor-wide		500	500	3,000	3,000									7,000	7,000
2	Level Boarding Program	Completed	FY35	Corridor-wide	3,000	3,000	4,000	5,000	5,000	20,000	40,000	40,000	40,000	40,000	40,000	380,000	237,000	620,000	
3	Crossover Trackwork in the Diridon-San José Station Area	FY26	FY31	Santa Clara		250	500	500	1,000	2,000	2,000						6,250	6,250	
4	Bike Parking Improvement Program	Completed	FY26	Corridor-wide	5,000	300											300	5,300	
5	Very High Frequency (VHF) Voice Radio Modernization and Optimization - Tunnels Coverage and New Emergency Services Capability	FY27	FY28	Corridor-wide			1,500	1,500									3,000	3,000	
6	Digital Customer Displays (Multi-Level Stations)	Completed	FY26	Corridor-wide	30	400											400	430	
7	Universal Crossover Trackwork at Strategic Locations	FY26	FY35	Corridor-wide		1,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000		46,000	46,000	
8	Stations Connections to Fiber Optic	FY28	FY29	Corridor-wide				2,000	2,000								4,000	4,000	
9	MPPC Facilities Modernization	FY25	FY27	San Mateo	2,124	1,276											1,276	3,400	
10	Platform Improvements for Bike Loading and Passengers Needing Assistance (All Stations)	Completed	FY27	Corridor-wide	20	20	40										60	80	
11	Rail Operations Real-time Database/Data Warehouse	FY30	FY30	Corridor-wide						300							300	300	
12	PA Overhaul and Digitization at Stations	FY26	FY27	Corridor-wide		1,500	1,500										3,000	3,000	
13	Electric Fleet for Service to Gilroy (Expansion)	FY30	FY36	Corridor-wide						5,000	10,000	10,000	70,000	70,000	70,000	65,000	235,000	300,000	
14	Mini-High Platforms - Stations North of CP Lick	Completed	FY25	Corridor-wide	4,261												-	4,261	
14	Mini-High Platforms - Stations South of CP Lick	Completed	FY26	Santa Clara	2,432												-	2,432	
14	Station Amenities Improvement Program	FY26	FY36	Corridor-wide		500	500	500	1,000	2,000	5,000	5,000	7,500	7,500	7,500	10,000	37,000	47,000	
15	Digital Customer Displays (South Santa Clara Stations)	FY25	FY26	Santa Clara		200											200	200	
16	Station Placemaking Pilot Project	FY25	FY32	Corridor-wide	30	60	70	70	70	70	70	70					480	510	
17	Broadband Wireless Communications System	Completed	FY25	Corridor-wide	30,441												-	30,441	
18	Migration to Digital Voice Radio System	Completed	FY25	Corridor-wide	2,034												-	2,034	
19	Broadband Wireless Communications System Enhancements	FY26	FY28	Corridor-wide		500	2,500										3,000	3,000	
20	22nd Street ADA Access Improvements	Completed	FY28	San Francisco	691	2,000	7,500	1,000									10,500	11,191	
21	San José Backup Central Control and Crew Facilities Assessment and Replacement	FY27	FY32	Corridor-wide			200	500	1,000	1,000	1,000	1,000					4,700	4,700	
22	OCS Improvements	Completed	FY27	Corridor-wide	800	1,000	1,000										2,000	2,800	
23	Stations Digital Displays for Messaging and Advertising Planning Study	FY26	FY27	Corridor-wide		100	300										400	400	
24	New Private Wireless Network As Fiber Backup	FY28	FY29	Corridor-wide				3,000	3,000								6,000	6,000	
26	New Operation and Maintenance (O&M) Training Center	FY25	FY27	Santa Clara or San Mateo	5,000	12,500	12,500										25,000	30,000	
27	San Mateo Parking Track Electrification and Signaling	FY25	FY27	San Mateo	1,014	4,500	200										4,700	5,714	
28	Broadband Wireless Communications System for Diesel Trains	FY26	FY27	Corridor-wide		250	5,100										5,350	5,350	
Subtotal (Discrete Projects)					63,637	29,896	42,910	22,070	21,070	35,370	63,070	61,070	122,500	122,500	122,500	455,000	642,956	1,161,593	

Enhance Service and Customer Experience

Ranking	Project Name	Initiation Date	Close-Out Date	County Location	Funding Needs (\$k)													10-Year CIP Total	Total Cost EAC
					FY25 & Prior	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36 & Beyond			
Recurring Programs																			
1	Real Estate and TOD Support	N/A	N/A	Corridor-wide		650	550	550	550	550	550	550	550	550	550		5,600		
2	First/Last Mile Wayfinding Program (All Stations)	Completed	FY32	Corridor-wide		100	100	100	100	100	100						600		
3	Planning Policy Development Support	N/A	N/A	Corridor-wide		500	500	500	500	500	500	500	500	500	500		5,000		
4	Systemwide Planning Support	N/A	N/A	Corridor-wide		500	500	500	500	500	500	500	500	500	500		5,000		
5	Capital Planning Technical Support	N/A	N/A	Corridor-wide		200	200	200	200	200	200	200	200	200	200		2,000		
Subtotal (Recurring Programs)					-	1,950	1,850	1,850	1,850	1,850	1,850	1,750	1,750	1,750	1,750	-	18,200	18,200	
Total (Discrete Projects + Recurring Programs)					63,657	29,916	42,950	22,070	21,070	35,370	63,070	61,070	122,500	122,500	122,500	455,000	643,016	1,179,793	

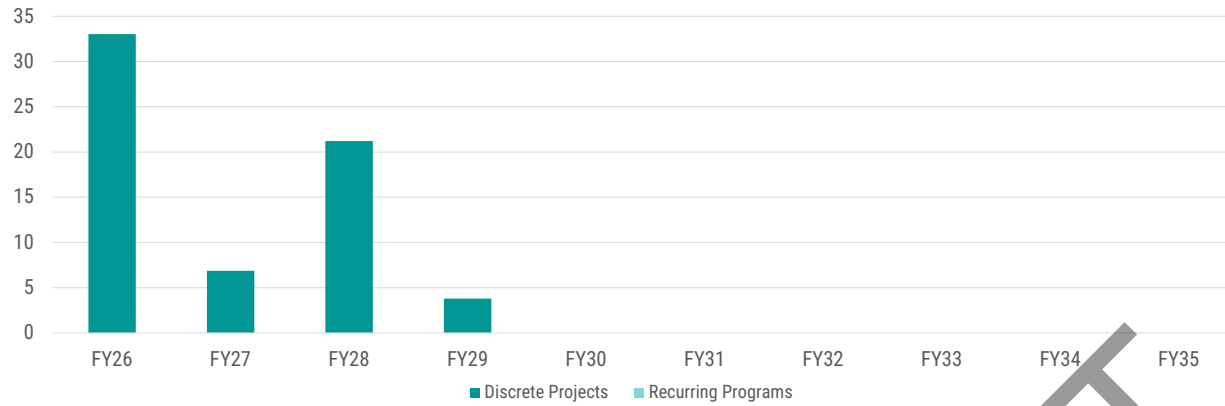
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Deliver the Long-Range Service Vision



Ranking	Project Name	Initiation Date	Close-Out Date	County Location	Funding Needs (\$k)														10-Year CIP Total	Total Cost EAC
					FY25 & Prior	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36 & Beyond				
Discrete Projects																				
1	4-Track Station and Grade Separation at Redwood City Station	Completed	FY40	San Mateo	2,200	2,000	1,250	250	1,000	5,000	5,000	5,000	5,000	5,000	15,000	913,300	44,500	960,000		
2	New Signal and Train Control System	FY26	FY36	Corridor-wide		1,000	5,000	9,000	10,000	25,000	75,000	75,000	75,000	75,000	100,000	50,000	450,000	500,000		
3	Systemwide Electric Fleet Expansion	FY30	FY36	Corridor-wide						5,000	15,000	30,000	125,000	125,000	125,000	125,000	425,000	550,000		
4	Platform Lengthening Needs Assessment	FY25	FY26	Corridor-wide	125	125											125	250		
5	CEMOF Yard Capacity Enhancement	FY26	FY36	Santa Clara		1,000	5,000	9,000	10,000	25,000	75,000	175,000	175,000	175,000	100,000	50,000	750,000	800,000		
6	Train Control Crossover Signaling in the Diridon-San José Station Area	FY26	FY31	Santa Clara		500	1,500	5,000	5,000	5,000	5,000						22,000	22,000		
Total					2,325	4,625	12,750	23,250	26,000	65,000	175,000	285,000	380,000	380,000	340,000	1,138,300	1,197,125	1,372,250		

Mandate, Compliance, and Emergency Projects



Project Name	Initiation Date	Close-Out Date	County Location	Funding Needs (\$k)														
				FY25 & Prior	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36 & Beyond	10-Year CIP Total	Total Cost EAC	
Discrete Projects																		
Electric Fleet for Service to Gilroy (Pilot Project)	Completed	FY29	Corridor-wide	20,933	30,660	3,397	21,209	3,801									59,067	80,000
Non-Revenue Vehicle Fleet Electrification	FY26	FY27	Corridor-wide		2,000	3,000											5,000	5,000
MS4 Trash Management	Completed	FY27	Corridor-wide	894	363	481											844	1,739
Total				21,827	33,023	6,878	21,209	3,801									64,911	86,739

Partner with Local Communities

Project Name	County Location	Local Jurisdiction Lead(s)	Anticipated Completion Date	Total Identified Costs (\$k)*
Bayview Caltrain Station Location Study and Implementation	San Francisco	SFCTA	**	**
Pennsylvania Avenue Extension (PAX)	San Francisco	City and County of San Francisco	**	**
San Mateo Parking Track Replacement (Part of 25th Avenue Grade Separation)	San Mateo	City of San Mateo	FY26	10,000
Middle Avenue Bicycle and Pedestrian Undercrossing	San Mateo	City of Menlo Park	FY29	74,000
Broadway Burlingame Grade Separation	San Mateo	City of Burlingame	FY30	342,000
South Linden Avenue and Scott Street Grade Separation	San Mateo	Cities of South San Francisco and San Bruno	FY32	306,000
Menlo Park Grade Separation	San Mateo	City of Menlo Park	FY34	820,000
North Fair Oaks Bicycle and Pedestrian Railroad Crossing	San Mateo	County of San Mateo	FY35	67,000
Ravenswood Avenue and Oak Grove Avenue Grade Crossing Improvements	San Mateo	City of Menlo Park	**	4,200
Encinal Avenue Grade Crossing Improvements	San Mateo	City of Menlo Park	**	**
Glenwood Avenue Grade Crossing Improvements	San Mateo	City of Menlo Park	**	**
San Mateo Grade Separation Project	San Mateo	City of San Mateo	**	**
Mountain View Transit Center Grade Separation	Santa Clara	City of Mountain View	FY27	132,000
Rengstorff Avenue Grade Separation	Santa Clara	City of Mountain View	FY28	325,000
Bernardo Avenue Bicycle and Pedestrian Undercrossing	Santa Clara	Cities of Sunnyvale and Mountain View	FY30	66,000
Connecting Palo Alto	Santa Clara	City of Palo Alto	FY33	786,000
Mary Avenue Grade Separation	Santa Clara	City of Sunnyvale	FY34	320,000
Sunnyvale Avenue Bicycle and Pedestrian Undercrossing	Santa Clara	City of Sunnyvale	FY35	120,000
Palo Alto Avenue Grade Crossing Improvements	Santa Clara	City of Palo Alto	**	**
Southern San José Grade Separation	Santa Clara	City of San José	**	**
Total				3,372,200

Notes:
 * Cost estimates reflect the amount of funding expected to hit (a) Caltrain's capital budget over the next ten years and (b) inclusive of costs identified for FY25 and prior and FY36 and beyond, based on the funding agreements known or expected to be executed between Caltrain and the project partners.
 ** Refer to the local jurisdiction for timing and funding.

Contribute to the Region's Economic Vitality

Project Name	County Location	Leading Agency	Anticipated Completion Date	Total Identified Costs (\$k)*
HSR Blended Service	Corridor-wide	HSR	**	**
DTX/The Portal - Caltrain Service Extension to Salesforce Transit Center ¹	San Francisco	Transbay Joint Powers Authority (TJPA)	FY32	110,000
San Francisco Railyards Redevelopment ²	San Francisco	Prologis and City of San Francisco	FY32	6,000
Link 21 Program	San Francisco	BART and Capital Corridor	**	**
Dumbarton Rail Corridor Coordination	San Mateo	SamTrans	**	**
Diridon-San José Station - Project Implementation ³	Santa Clara	Caltrain, MTC, VTA, HSR, and City of San José	FY40	40,000
BART to Silicon Valley Phase 2	Santa Clara	BART and VTA	**	**
San José Airport Connector	Santa Clara	City of San José	**	**
Monterey County Extension	Monterey	Transportation Agency for Monterey County (TAMC), City of Gilroy, and VTA	**	**

Notes:

* Cost estimates reflect the amount of funding expected to hit (a) Caltrain's capital budget over the next ten years and (b) inclusive of costs identified for FY25 and prior and FY36 and beyond, based on the funding agreements known or expected to be executed between Caltrain and the project partners.

** Refer to the lead agency for timing and funding.

¹ Costs includes the 4th and King Yard Preparation and Caltrain staff support as defined through the Service Agreement with TJPA.

² Costs represent the next phase of the project as of May 2024.

³ Costs represent Preliminary Engineering and Environmental Clearance through FY2028 only.

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Descriptions and Benefits for Caltrain 10-Year CIP Portfolio of Capital Projects and Programs

B

Appendix B provides descriptions of all projects and programs included in the CIP.

Projects and programs are listed in the same order as shown in Appendix A, grouped by Strategic Initiative and separated between Discrete Projects and Recurring Programs. Simplified financial information and timeframe data is also reflected in Appendix B, matching the data included in Appendix A:

- Total Capital Cost Estimate at Completion (EAC) and Total CIP 10-Year Funding Needs
 - » Costs are in FY2024 dollars
 - » Figures are rounded to the nearest million (M) or thousand (k), to one decimal place
 - » Recurring Programs will show an average amount per FY, where applicable
- Assumed FY start dates and ends dates
 - » Projects and programs that have been initiated are shown as “Ongoing” for the start date
 - » Recurring Programs that occur annually are shown as “Ongoing”
 - » Unknown dates are represented as To Be Determined (TBD)

The location of the project is identified, whether it is in a single county or corridor-wide.

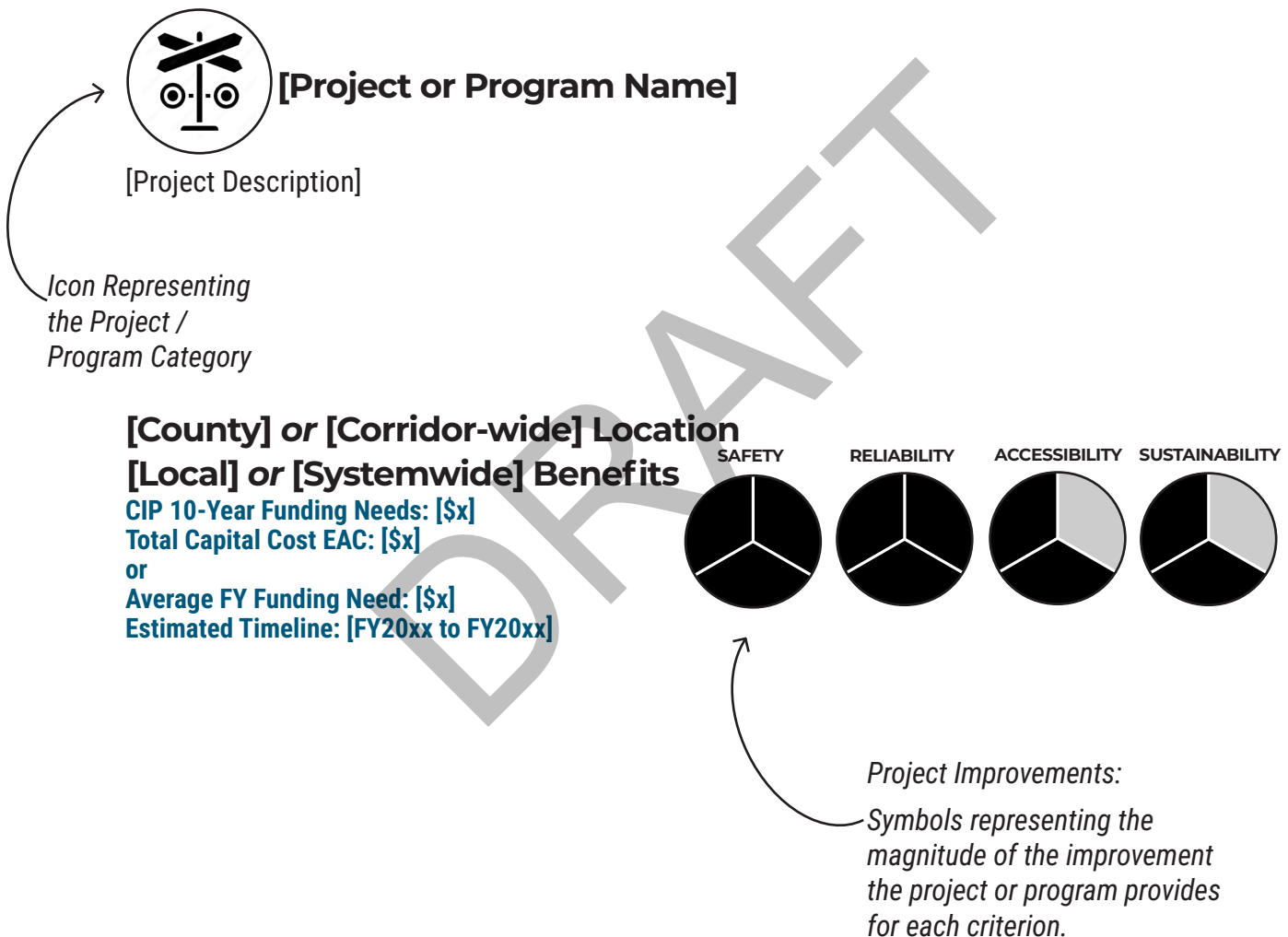
Project/Program categories represent the primary item being improved by the project or program and are identified with icons (**refer to legend on following pages**).

Appendix B also highlights the benefits that each capital project and program provide:

- The overall project benefit is either reflected as “Local” or “Systemwide” (**refer to page 02-6 of the CIP for a full definition of “Systemwide”**)
- The magnitude of the improvement the project or program provides within the four pillars – *Safety; Reliability; Accessibility; and Sustainability* – is presented as “Significant,” “Moderate,” “Minimal,” or “Not Applicable” based on the total score within each pillar (**refer to legend on following pages**)

Key to elements included to describe each capital project and program...

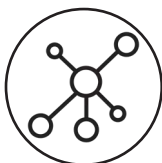
[Strategic Initiative] [Discrete Projects] or [Recurring Programs]



Project/Program Category



Bridges and Civil Structures



Connecting Service



Facilities



Grade Crossing



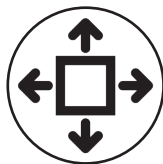
Non-Revenue Vehicles



*Planning Support/
Study*



Rolling Stock



Service Expansion



Stations



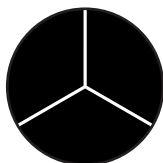
Systems



*Tracks, Yard, and
Right-of-Way*

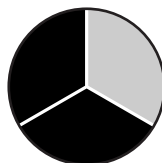
Project Improvements

Significant



*Project or Program scored in the **top third (67% and above)** as providing a benefit to the criterion.*

Moderate



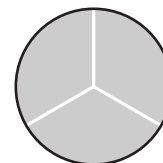
*Project or Program scored in the **middle third (34% to 66%)** as providing a benefit to the criterion.*

Minimal



*Project or Program scored in the **bottom third (33% and below)** as providing a benefit to the criterion.*

None



*Project or Program scored as **Not Applicable** to providing a benefit to the criterion.*

Provide a Safe and Secure Railroad *Discrete Projects*



Systemwide CCTV System - Replacement and Expansion

As part of the holistic measures to improve safety and security at grade crossings and throughout the Caltrain system, additional measures allow monitoring to assist in deploying assistance, as needed. The Systemwide CCTV System - Replacement and Expansion program will replace the old, obsolete CCTV system and integrate the soon-to-be-released FRA compliance requirement for CCTV. Cameras will be installed at critical locations, such as grade crossings, stations, and facilities, to proactively address any safety and security issues that may arise.

Corridor-wide

Systemwide Benefits

CIP 10-Year Funding Needs: \$31M

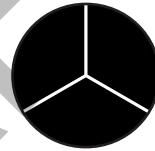
Total Capital Cost EAC: \$33M

Estimated Timeline: Ongoing to FY2029

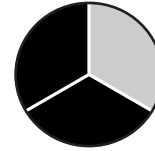
SAFETY



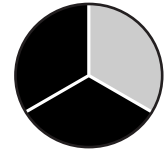
RELIABILITY



ACCESSIBILITY



SUSTAINABILITY



San Mateo Grade Crossing Improvements

This project will design and implement safety improvements at 4th and 5th Avenues in Downtown San Mateo including four-quadrant gates, which will improve safety and visibility for motorists, pedestrians, and trains while reducing the likelihood of collisions at the crossing.

San Mateo County

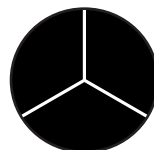
Local Benefits

CIP 10-Year Funding Needs: \$0

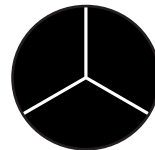
Total Capital Cost EAC: \$5.5M

Estimated Timeline: Ongoing to FY2025

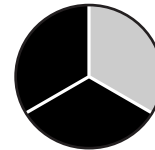
SAFETY



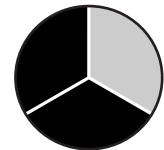
RELIABILITY



ACCESSIBILITY



SUSTAINABILITY



Provide a Safe and Secure Railroad *Discrete Projects*



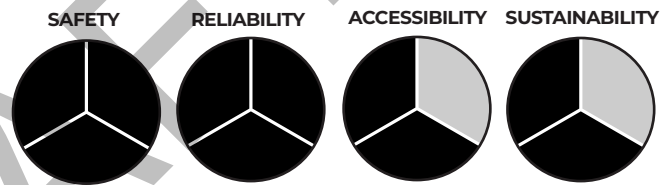
Churchill Avenue Grade Crossing Improvements

This project will implement safety improvements at one at grade crossing located on Churchill Avenue in Palo Alto. Improvements will include widening the northern pedestrian crosswalk and holding area, adding new 10-foot concrete track panels on the north end, modifying the existing pedestrian gates, installing pavement markers and markings to clearly identify the railroad tracks, and adding advanced signal preemption. This crossing improvement is also part of the Intrusion Detection Pilot Program.

Santa Clara County

Local Benefits

CIP 10-Year Funding Needs: \$0
Total Capital Cost EAC: \$2.5M
Estimated Timeline: Ongoing to FY2025



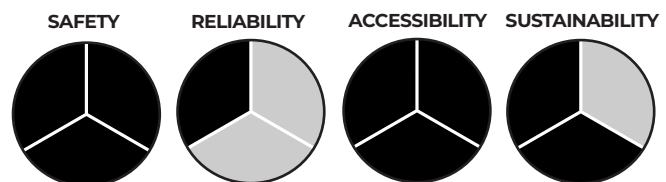
Intrusion Detection Program

The Intrusion Detection Program Pilot Program will plan, procure, and install hardware along the right-of-way at critical locations, such as grade crossings, tunnels, and other high-risk right-of-way locations, to detect trespasser activities and enable quick and efficient response. Upon successfully completing the pilot program, the *Safety and Security Strategic Plan* findings will inform other locations where Caltrain can apply the intrusion detection technology. CCTV cameras will fill the gaps where Caltrain does not install intrusion detection technology.

Corridor-wide

Systemwide Benefits

CIP 10-Year Funding Needs: \$3.5M
Total Capital Cost EAC: \$5.2M
Estimated Timeline: Ongoing to FY2027



Provide a Safe and Secure Railroad *Discrete Projects*

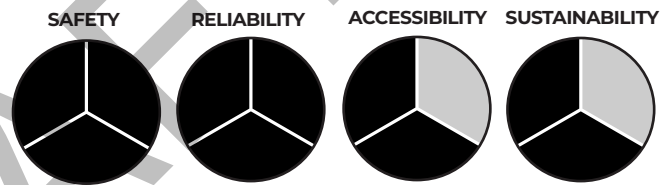


Security Assessment and Improvement at Critical Locations

This program will assess the improvements needed to secure critical areas of the Caltrain system, which includes the San Francisco 4th and King Yard, CEMOF, Diridon-San José Station, and Millbrae Station. Improvements will include strategically placed camera and server replacements and additional safety measures, such as new fencing to ensure the new trains are fully secured.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$0
Total Capital Cost EAC: \$1M
Estimated Timeline: Ongoing to FY2025



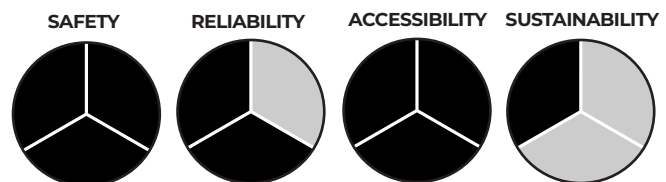
Safety and Security Strategic Plan

The Safety and Security Strategic Plan aims to identify high-risk safety and security items and develop strategies to mitigate them. Pilot projects inform the Strategic Plan, which also identifies several capital projects, such as right-of-way improvements, signage, lighting, fencing, and technology provisions to provide a safe and secure railroad for all.

Corridor-wide

Systemwide Benefits

CIP 10-Year Funding Needs: \$500k
Total Capital Cost EAC: \$1M
Estimated Timeline: FY2025 to FY2026



Provide a Safe and Secure Railroad *Discrete Projects*



Main Street Grade Crossing Improvements

This project will implement safety improvements at one at grade crossing located on Main Street in Redwood City, which was identified in the 2021 *Caltrain Grade Crossing Hazard Analysis Report*. Improvements to the crossing may include pavement markers and marking, signage, channelization, and signaling.

San Mateo County

Local Benefits

CIP 10-Year Funding Needs: \$3M

Total Capital Cost EAC: \$3.5M

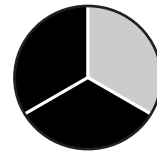
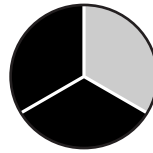
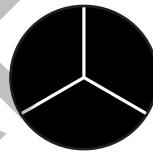
Estimated Timeline: FY2025 to FY2028

SAFETY

RELIABILITY

ACCESSIBILITY

SUSTAINABILITY



Grade Crossing Improvements (Various Locations)

This legacy project implements safety improvements at five different at grade crossings, based on findings from the 2021 *Caltrain Grade Crossing Hazard Analysis Report*:

1. 16th Street, San Francisco
2. Mission Bay, San Francisco
3. East Meadow, Palo Alto
4. Whipple Avenue, Redwood City
5. Ravenswood Avenue, Menlo Park

Safety improvements for each at grade crossing location include pavement markers and marking, signage, channelization, and signaling.

Corridor-wide

Local Benefits

CIP 10-Year Funding Needs: \$0

Total Capital Cost EAC: \$1.54

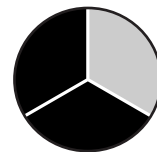
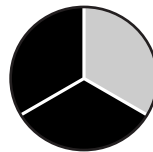
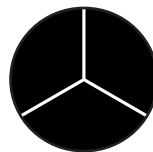
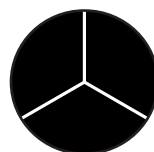
Estimated Timeline: Ongoing to FY2026

SAFETY

RELIABILITY

ACCESSIBILITY

SUSTAINABILITY



Provide a Safe and Secure Railroad *Discrete Projects*



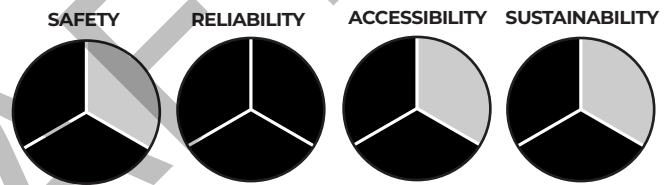
Charleston Road Grade Crossing Improvements

This project will implement safety improvements at one at grade crossing located on Charleston Road in Palo Alto, which was identified in the *2021 Caltrain Grade Crossing Hazard Analysis Report*. Improvements for this intersection include advanced signal preemption, replacement of grade crossing warning devices, and installation of new pedestrian gates with flashers.

Santa Clara County

Local Benefits

CIP 10-Year Funding Needs: \$2.1M
Total Capital Cost EAC: \$2.9M
Estimated Timeline: Ongoing to FY2028



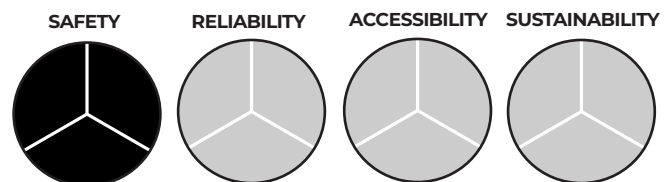
RWP Safety Program Technology Upgrade

This program includes the design, implementation, and testing of a RWP Safety System to protect workers in the Caltrain right-of-way. The system will provide continuous communication between the workers and the Central Control Center and will be integrated with the Caltrain PTC system. This project will be an enhancement of the system currently in place.

Corridor-wide

Systemwide Benefits

CIP 10-Year Funding Needs: \$19.5M
Total Capital Cost EAC: \$19.5M
Estimated Timeline: FY2027 to FY2029



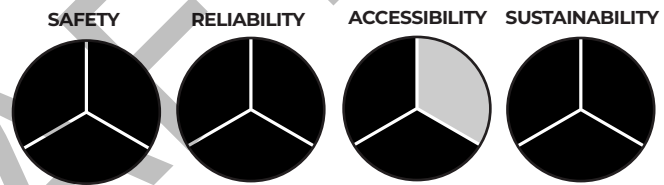
Provide a Safe and Secure Railroad Recurring Programs



Right-of-Way Fencing

This program supports the installation of 9.5-foot-tall, vandal-resistant fencing with barbed wire at the top along the full length of the corridor to provide a barrier to and reduce trespassing along the Caltrain right-of-way. Implementation of this program will fulfill Caltrain’s long-term goal of ensuring continuous fencing on at least one side along the entire corridor to reduce intrusion in the right-of-way.

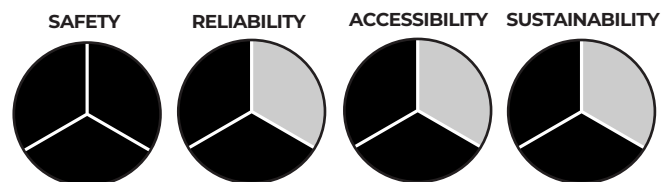
Corridor-wide
Systemwide Benefits
Average FY Funding Need: \$2M
Estimated Timeline: Ongoing



Corridor Crossing Strategy - Programmatic Delivery

The Corridor Crossings Strategy was originally identified as part of the Caltrain Business Plan to enhance the current grade separation process and develop corridor-wide consensus on a strategy to deliver grade separation projects at the regional scale. Currently, projects are implemented on a project-by-project basis, and funding is largely first come, first served. This effort will be a partner-led and directed process. The Crossings Delivery Guide will be developed as a user-friendly, web-based guide to clearly define processes, procedures, roles, and responsibilities of Caltrain and local partners in implementing the grade separation or closure of an existing crossing.

Corridor-wide
Systemwide Benefits
Average FY Funding Need: \$7M FY26;
\$3.5M FY27-FY30
Total Capital Cost EAC: \$21M
Estimated Timeline: FY2026 to FY2030



Provide a Safe and Secure Railroad Recurring Programs



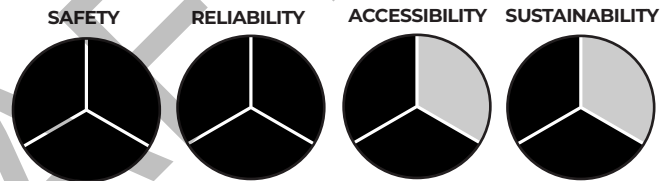
Grade Crossing Improvements Program

The Grade Crossing Improvements Program encapsulates future Grade Crossing Improvement projects that will be sequenced through the next *Grade Crossing Hazard Risk Analysis* processes. Caltrain promotes at grade crossing safety improvements through its Hazard Analysis process, which is performed every three to four years and allows Caltrain to quantify crossing hazards and prioritize mitigation measures to improve crossing safety. Caltrain recognizes that grade crossings require ongoing maintenance and improvements along the entire corridor. This program is part of a holistic approach to maintaining grade crossing safety.

Corridor-wide

Local Benefits

Average FY Funding Need: \$500k
Estimated Timeline: Ongoing



Maintain Core Services

Discrete Projects

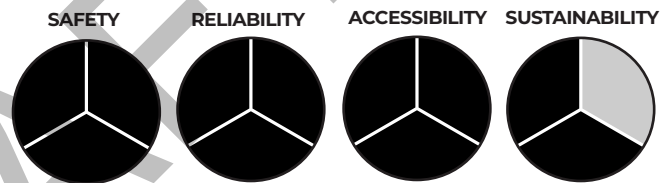


Network Architecture Redesign

The Network Architecture Redesign project will address network design limitations in terms of redundancy, resiliency, and scalability, especially when bringing online new systems such as traction power Supervisory Control And Data Acquisition (SCADA) control systems, CCTV, and connecting the Caltrain stations to the fiber backbone. This projects seeks to evaluate and improve the network design by introducing more nodes and redundant communication pathways to reduce the impact of single-point failures that result in train delays and catastrophic downtimes.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$4M
Total Capital Cost EAC: \$4M
Estimated Timeline: FY2026 to FY2028

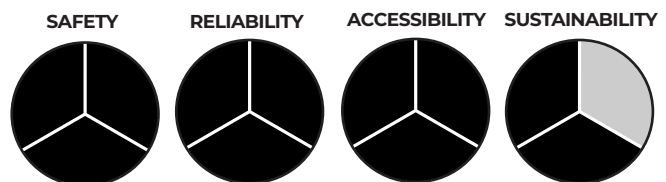


Fiber Optic Permanent Repair

Fiber optic is the backbone of all critical operational train control systems and broadband communication infrastructure for safe train movements. The fiber optic infrastructure connects the dispatch centers, central office, and cloud services for system redundancy, resiliency, cybersecurity, and disaster recovery in major outages or cyber-attacks. The current fiber optic network has deteriorated and sustained damage requiring temporary repairs; therefore, Caltrain must complete the Fiber Optic Permanent Repair as soon as possible.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$4M
Total Capital Cost EAC: \$8M
Estimated Timeline: FY2025 to FY2026



Maintain Core Services

Discrete Projects

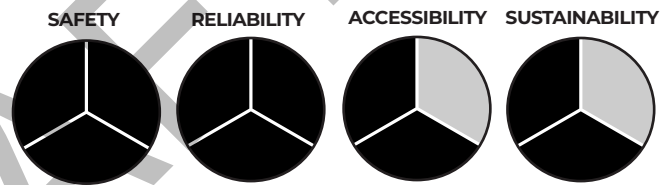


PTC BOS - Technology Refresh and Replacement

PTC is the FRA-mandated train control safety system that controls train movement in the event of human error. The PTC BOS - Technology Refresh and Replacement project will procure a new PTC BOS that is modern, supported, and meets evolving industry standards. Caltrain procured the current PTC system in 2019 and it is nearing technological obsolescence.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$2M
Total Capital Cost EAC: \$2M
Estimated Timeline: FY2027 to FY2028

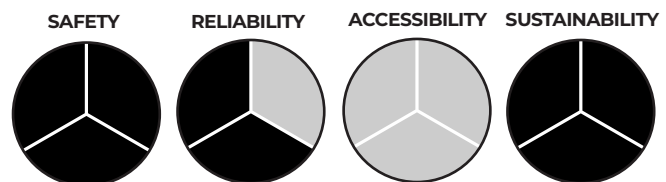


Guadalupe Bridges Replacement

This project will address the structural vulnerability of two existing bridges that accommodate the Caltrain main tracks (MT1 and MT2), spanning the Guadalupe River in San José. The project will upgrade and extend the bridge structures to ensure long-term public safety and service reliability. It will also make environmental improvement to the Guadalupe River by widening and stabilizing the river channel. The MT1 bridge has been structurally damaged by multiple fires and has reached the end of its useful life; it will be fully replaced with a modern 265-foot bridge to meet structural design standards and seismic criteria. The MT2 bridge will be partially replaced and extended to 250 feet to gain resilience against river flow speeds and bank erosion. This project will also relocate communications and fiber optic lines and enable extensive channel grading and stabilization.

Santa Clara County Systemwide Benefits

CIP 10-Year Funding Needs: \$22.5M
Total Capital Cost EAC: \$77.3M
Estimated Timeline: Ongoing to FY2026



Maintain Core Services

Discrete Projects

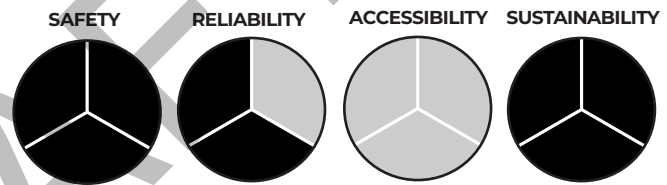


San Francisquito Creek Bank Stabilization

The purpose of this project is to restore and protect the northern bank of the San Francisquito Creek to prevent erosion from undermining an abutment of Caltrain’s Bridge, the City of Palo Alto’s Alma Street Bicycle Bridge, and the City of Menlo Park’s existing drain outfall. Heavy rain events eroded the soil on the creek bank supporting the northern abutment of the bridge. Further investigation showed that additional erosion resulting from future storms could undermine the abutment, bridge, and tracks. An emergency was declared to support immediate action to protect the bridge and other nearby public assets. In November 2023, Caltrain implemented temporary stabilization measures, which protected Caltrain’s rail bridge during the winter while Caltrain pursued the final permit for a permanent stabilization solution.

Santa Clara County Systemwide Benefits

CIP 10-Year Funding Needs: \$5.46M
Total Capital Cost EAC: \$9M
Estimated Timeline: Ongoing to FY2026

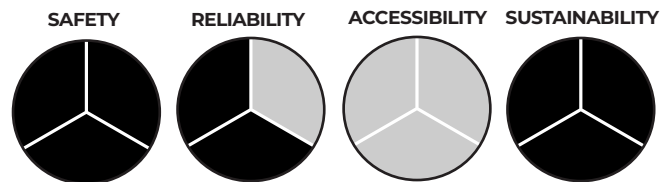


San Francisquito Creek Bridge Replacement

The San Francisquito Creek Bridge carries two mainline tracks across one bridge structure. Built in 1902, the San Francisquito Creek Bridge is one of the oldest assets along the Caltrain corridor and has reached the end of its useful life. Additionally, the bridge location has been experiencing severe storms and high creek flows that have eroded the soil on the northern creek bank that supports the bridge. Caltrain is currently implementing temporary stabilization to the creek bank. The permanent replacement project is designed to maintain safe rail operations over the bridge, as well as protect the creek itself. It will reinforce the creek’s bank that also supports the Alma Street Bicycle Bridge and the Menlo Park drainage outfall. In addition, the project will make aesthetic enhancements.

Santa Clara County Systemwide Benefits

CIP 10-Year Funding Needs: \$136.5M
Total Capital Cost EAC: \$145.6M
Estimated Timeline: Ongoing to FY2034



Maintain Core Services

Discrete Projects



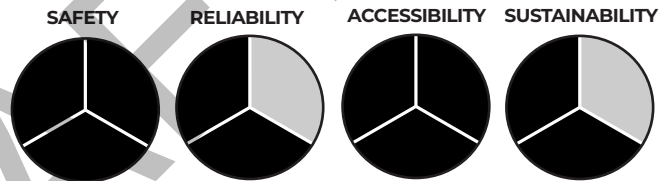
PADS Phase 1: Gap Coverage and Enabling Work

PADS is a back-end system that receives input from the ROCS and provides output to passenger information systems such as the PA, VMS, and LCDs at stations. The existing PADS was designed in 2012 and deployed in 2014. It relies primarily on track circuit occupancy information, and then leverages the Global Positioning System (GPS) data to refine a train's location. Track circuit occupancy information has less accuracy compared with GPS data, so a new modernized system is warranted.

The first phase of the overall PADS is included in the Strategic Initiative to maintain core services, which will create the technical specification for the request for proposal (RFP) package to implement the modernized system as the second phase.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$480k
Total Capital Cost EAC: \$2.1M
Estimated Timeline: Ongoing to FY2026

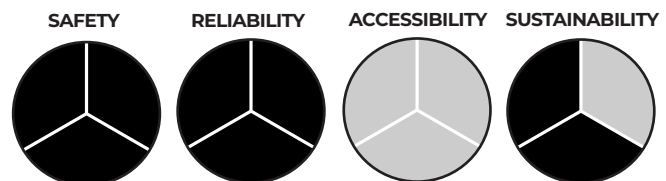


Control Centers Power Resiliency and Enhancement

project represents the initial phase of a larger effort to overhaul and modernize Caltrain's train control data center infrastructure necessary to deliver revenue service. The project focuses first on improving the existing SOGR by procuring a replacement UPS at the SJCC, which is well beyond its useful life, is undersized, and has failed multiple times since 2022. This project will then evaluate the existing system and provide recommendations for infrastructure and system enhancements at both the MPCC and the SJCC.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$5M
Total Capital Cost EAC: \$5M
Estimated Timeline: FY2026 to FY2029



Maintain Core Services

Discrete Projects

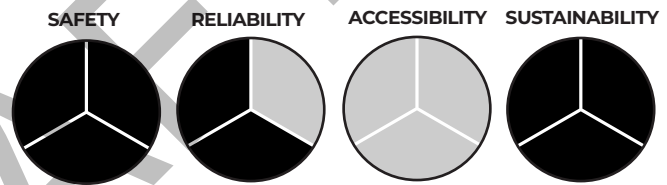


Concrete Tie Program

This three-year program includes the purchase and installation of 6,000 main line concrete crossties a year to replace wood crossties, which benefit Caltrain by being a longer-lasting and more climate-resilient material that would need replacement less often than wood ties. This project is a breakout element from the MOW Tracks SOGR Program.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$6M
Total Capital Cost EAC: \$9M
Estimated Timeline: Ongoing to FY2027

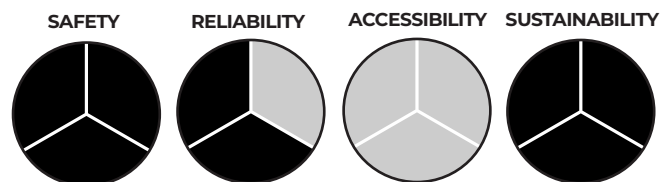


Tunnel 1, 2, 3 and 4 Weep Hole Rehabilitation and Drainage Improvements

This project will rehabilitate the weep holes along Tunnel 1, 2, 3, and 4 and improve the drainage system to maintain the tunnels in a state of good repair. Tunnel rehabilitation is critical in ensuring service throughout Caltrain's corridor.

San Francisco County Systemwide Benefits

CIP 10-Year Funding Needs: \$3.5M
Total Capital Cost EAC: \$3.5M
Estimated Timeline: FY2026 to FY2027



Maintain Core Services

Discrete Projects

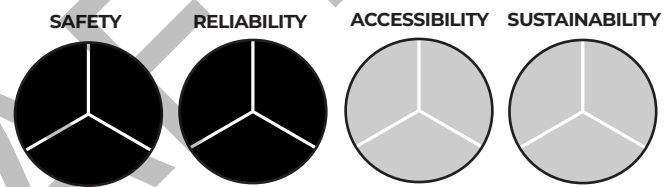


Computer Aided Dispatch System Replacement

This project will procure a new computer-aided dispatch system that will keep system features up to date with more recent technology. The existing dispatch system is a key component of the PTC system but has reached technical obsolescence and it is getting increasingly difficult to add features. Modernized dispatch system will make it easier to increase service in the future.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$4M
Total Capital Cost EAC: \$4M
Estimated Timeline: FY2028 to FY2029

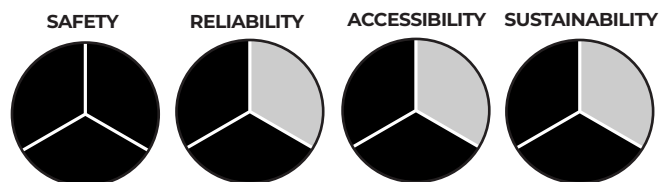


4th and King Station Building Corrosion Repair

This project remediates the corrosion of the building frame at the 4th and King Station to ensure the safety of Caltrain passengers and staff.

San Francisco County Local Benefits

CIP 10-Year Funding Needs: \$20M
Total Capital Cost EAC: \$20M
Estimated Timeline: FY2026 to FY2031



Maintain Core Services

Discrete Projects

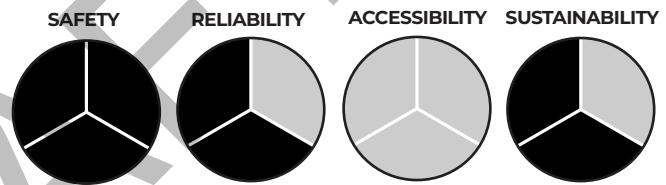


MP-36 Locomotive Mid-Life Overhaul

This project enables the mid-life overhaul of six MP-36 locomotives and occurs off-site at the contractor's facility location. This project requires staggered scheduling of the overhauls to ensure locomotives are available for revenue service while others are being worked on. The MP-36 will continue to be in operation for the service to Gilroy after the start of the electrified service.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$0
Total Capital Cost EAC: \$14.5M
Estimated Timeline: Ongoing to FY2025

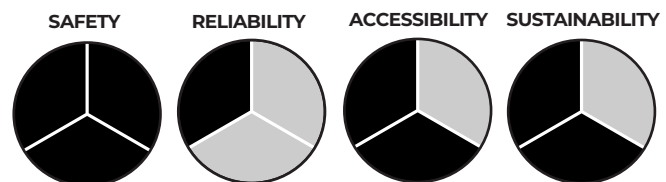


Enterprise GIS Software Implementation

This program will evaluate needs, facilitate procurement, and implement an Enterprise GIS that will centralize, modernize, map, integrate, and augment existing tools and resources to deliver comprehensive, current, and accurate data about Caltrain's assets and right-of-way.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$1M
Total Capital Cost EAC: \$4.5M
Estimated Timeline: Ongoing to FY2026



Maintain Core Services

Discrete Projects

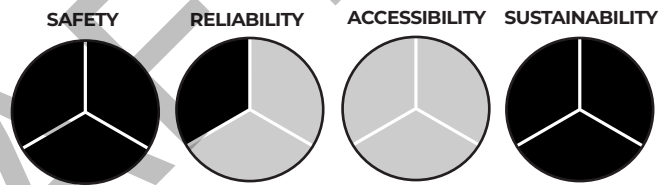


SSF Yard Drainage Improvements

This project will identify recommendations to rehabilitate the drainage throughout the SSF Yard and reconstruct yard tracks, retaining walls, right-of-way fencing, and enable better access throughout the yard for vehicles and personnel. This project will improve the safety of the employees working in the right-of-way as well as Caltrain's tenants.

San Mateo County Systemwide Benefits

CIP 10-Year Funding Needs: \$5M
Total Capital Cost EAC: \$5M
Estimated Timeline: FY2026 to FY2030

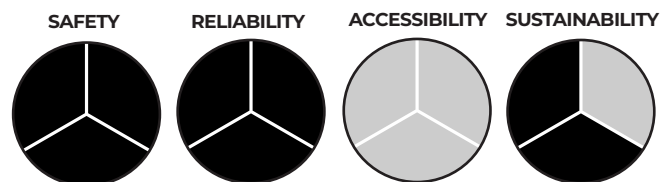


CEMOF Modifications to Accommodate EMUs

This project will develop a feasibility study to optimize the yard to accommodate the new electric fleet and the legacy diesel fleet. The yard is currently close to capacity and is not configured to maintain the electric fleet effectively because it was designed as a diesel train facility. Recommendations from the feasibility study may include potential building expansion, the addition of a mezzanine level to the access top of vehicles, the replacement of equipment at the end of their useful life like the wheel truing machine, drop tables, and the extension of existing maintenance pits.

Santa Clara County Systemwide Benefits

CIP 10-Year Funding Needs: \$49M
Total Capital Cost EAC: \$53.5M
Estimated Timeline: Ongoing to FY2030



Maintain Core Services

Discrete Projects

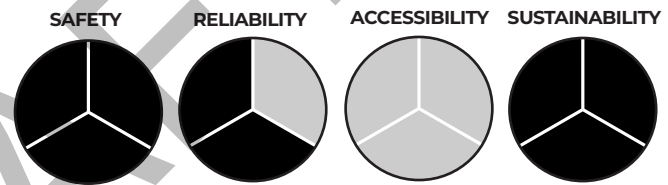


Stevens Creek Bridge Rehabilitation/Replacement and Channel Stabilization

This project will replace or rehabilitate the Stevens Creek Bridge and stabilize the channel beneath it. The bridge was built in 1903 and beyond its useful life of 100 years. The bridge's structural integrity has declined due to previous seismic events. Bridge rehabilitation is critical in ensuring service throughout Caltrain's corridor.

Santa Clara County Systemwide Benefits

CIP 10-Year Funding Needs: \$5M
Total Capital Cost EAC: \$5M
Estimated Timeline: FY2029 to FY2034

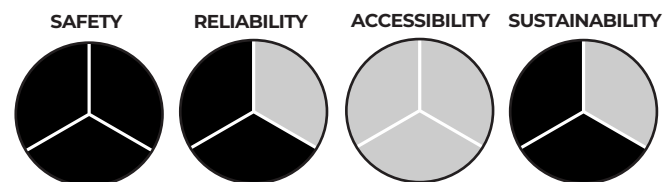


Backup Control Center Datacenter Migration to Cloud Environment

This project will move the datacenter to a Cloud Environment. Migration of server and datacenter to the cloud will reduce physical, electrical and heating, ventilation, and air conditioning needs at existing or future facilities, and provides opportunities for geographic diversity. Thus, it will precede the datacenter and facility power needs and the potential need for a new building. Decentralized backup systems separate from Caltrain property leverage and expand upon scalability, improved cybersecurity, and cyber/disaster recovery. The system is already connected to the Amazon Web Services (AWS) cloud and; therefore, not a significant lift to migrate to this setup.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$6M
Total Capital Cost EAC: \$6M
Estimated Timeline: FY2026 to FY2028



Maintain Core Services

Discrete Projects

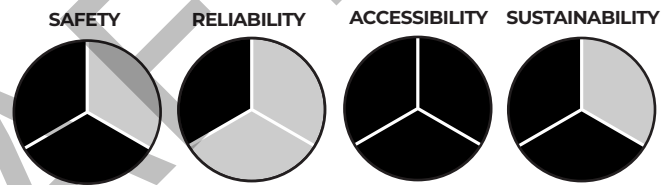


Broadband System Mid-Life Technology Refresh

This project enables a technology refresh at the mid-life point of the Broadband System, including the replacement of antennas at year seven.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$1.5M
Total Capital Cost EAC: \$1.5M
Estimated Timeline: FY2031 to FY2031

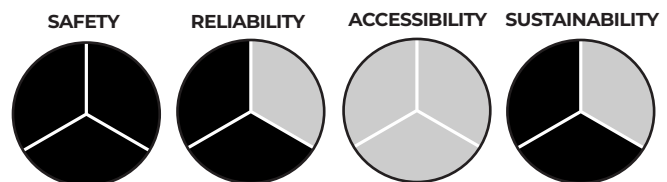


Waterway Timber Planking and Box Culverts Replacement

This project will replace the Waterway timber planking and box culverts, which were built in 1907 and are beyond their useful life of 40 years. There is a creek that goes underneath the main line, which would compromise the trackway if it collapsed. Replacement of these assets would bolster Caltrain's resilience to seismic events and other natural disasters. Bridge rehabilitation is critical in ensuring service throughout Caltrain's corridor.

San Mateo County Systemwide Benefits

CIP 10-Year Funding Needs: \$5M
Total Capital Cost EAC: \$5M
Estimated Timeline: FY2026 to FY2031



Maintain Core Services

Discrete Projects

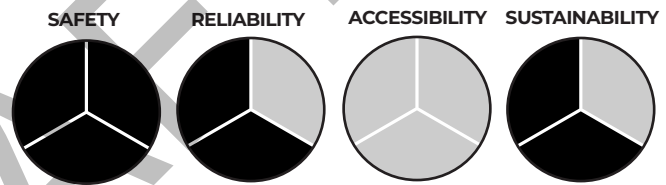


SFPUC Water Main - 2 Bridge Rehabilitation/ Replacement

This project will replace the SFPUC Water Main - 2 bridge, which is a rail-only bridge that goes over the SFPUC easement. The bridge was built in 1924 and has reached the end of its useful life of 100 years. Repairing the structure will ensure that it can carry the expected loading, as the existing structure is deteriorated and requires structural support replacement. Bridge rehabilitation is critical in ensuring service throughout Caltrain's corridor.

San Mateo County Systemwide Benefits

CIP 10-Year Funding Needs: \$5M
Total Capital Cost EAC: \$5M
Estimated Timeline: FY2027 to FY2032

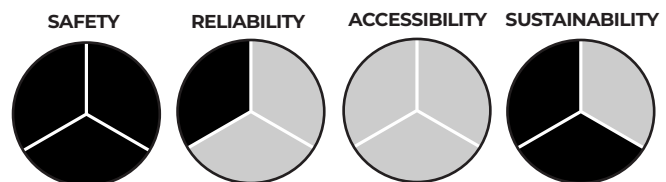


San Francisquito Bridge Acoustic Monitoring System

This project will procure and install an acoustic monitoring system to provide more timely notice of potential cracks or damage to key structural elements that may render the San Francisquito Bridge unsafe until the full replacement is constructed. Caltrain regularly monitors the condition of tracks and structures as part of its ongoing efforts and commitment to ensuring high-quality, safe, dependable, and reliable rail services.

Santa Clara County Systemwide Benefits

CIP 10-Year Funding Needs: \$1M
Total Capital Cost EAC: \$2.1M
Estimated Timeline: Ongoing to FY2026



Maintain Core Services

Discrete Projects

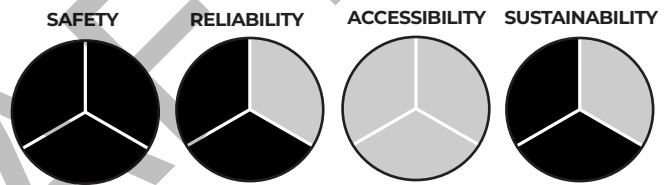


EAM Software System

This project will benefit Caltrain by making asset data more readily available through an EAM Strategic Procurement Plan, EAM Procurement Strategy, and the implementation of an Enterprise EAM Software System. The current strategy anticipates the ability to utilize the Enterprise GIS System to meet desired EAM business needs.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$4.5M
Total Capital Cost EAC: \$8M
Estimated Timeline: Ongoing to FY2029

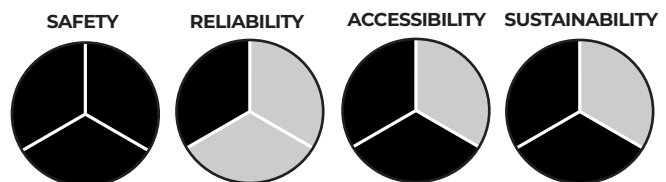


San Antonio Station Pedestrian Underpass Rehabilitation

This project will replace or rehabilitate the Pedestrian Underpass at San Antonio Station. This underpass was built in 1988 and will ensure that Caltrain can continue to meet the multimodal needs of the surrounding community. Bridge rehabilitation is critical in ensuring service throughout Caltrain's corridor.

Santa Clara County Systemwide Benefits

CIP 10-Year Funding Needs: \$4.7M
Total Capital Cost EAC: \$4.7M
Estimated Timeline: FY2029 to FY2034



Maintain Core Services

Discrete Projects

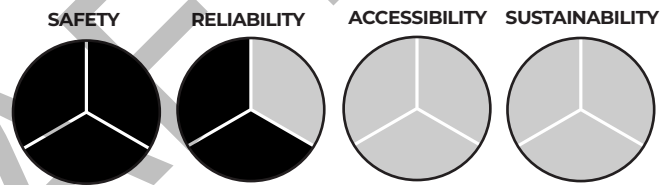


Onboard and MOW Crew Radios Digitization

Current onboard crew radios are incompatible with Caltrain's forthcoming digital radios that match industry standards. Digitizing the MOW radios will eliminate the need for leased mountaintop antenna locations and will provide a modernized system with enhanced monitoring and support capabilities.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$3M
Total Capital Cost EAC: \$3M
Estimated Timeline: FY2028 to FY2029

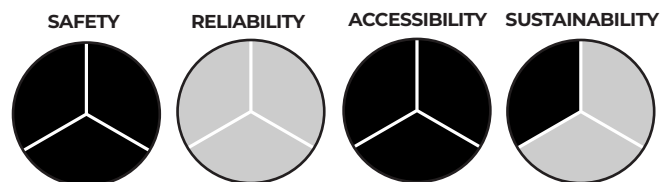


Climate Risk and Vulnerability Study

This study will analyze the vulnerability of Caltrain's service, infrastructure, right-of-way, operations, and passengers to the negative impacts of climate change, including high heat, wildfire and smoke, severe storms, and sea level rise. This analysis will result in recommendations for climate improvements and/or adaptations that could include capital improvements.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$214k
Total Capital Cost EAC: \$535k
Estimated Timeline: Ongoing to FY2026



Maintain Core Services

Discrete Projects

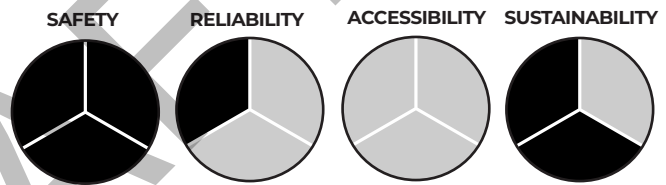


EMU 8-Year Overhaul

The newly introduced EMUs require an eight-year overhaul and a 15-year overhaul to maintain onboard safety. This project cover the eight-year overhaul that will likely be done in-house whereas the 15-year overhaul will be completed by an outside third party. This SOGR project will ensure the safe and reliable continuation of revenue service along the electrified corridor.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$24M
Total Capital Cost EAC: \$24M
Estimated Timeline: FY2032 to FY2035

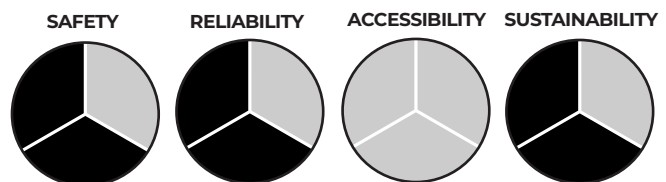


Cesar Chavez Street Bridge Rehabilitation/ Replacement

Constructed in 1907, the Cesar Chavez Street Bridge is a rail-only bridge that goes over the roadway and is beyond its useful life of 100 years. This project will replace the Cesar Chavez Street Bridge to bolster its resilience to seismic events and other natural disasters. Bridge rehabilitation is critical in ensuring service throughout Caltrain's corridor.

San Francisco County Systemwide Benefits

CIP 10-Year Funding Needs: \$22.5M
Total Capital Cost EAC: \$22.5M
Estimated Timeline: FY2027 to FY2032



Maintain Core Services

Discrete Projects

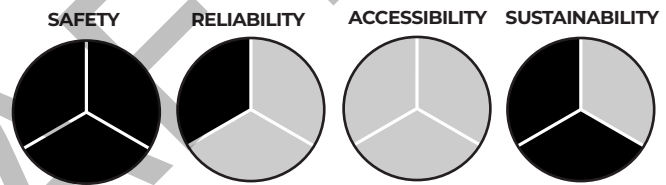


Storm Drain Bridge Rehabilitation/Replacement

This project will replace the Storm Drain Bridge, which was built in 2002. The bridge has been strained by past seismic events, prompting its replacement to gain resilience against other seismic events and natural disasters. Bridge rehabilitation is critical in ensuring service throughout Caltrain's corridor.

San Mateo County Systemwide Benefits

CIP 10-Year Funding Needs: \$7.5M
Total Capital Cost EAC: \$7.5M
Estimated Timeline: FY2027 to FY2032

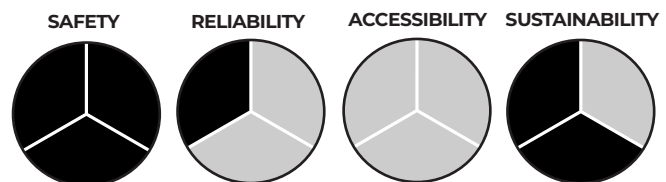


Almaden Road Bridge Rehabilitation/Replacement

This project will replace or rehabilitate the rail bridge at Almaden Road, which has faced structural degradation due to past seismic events. This bridge was built in 1936 and nearing the end of its useful life of 100 years. Bridge rehabilitation is critical in ensuring service throughout Caltrain's corridor.

Santa Clara County Systemwide Benefits

CIP 10-Year Funding Needs: \$12.5M
Total Capital Cost EAC: \$12.5M
Estimated Timeline: FY2030 to FY2035



Maintain Core Services

Discrete Projects

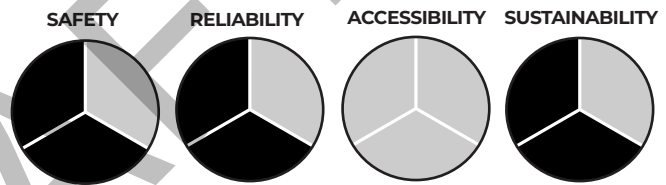


New MOW Facility Acquisition

This project will procure a new MOW facility to meet the needs of Caltrain’s maintenance team, which has grown to accommodate the addition of the Electrification assets. Currently, MOW equipment is stored on the street due to limited indoor space, which puts it at risk of theft or damage. The new facility will be strategically located along the Caltrain corridor to reduce response time and will provide sufficient square footage to secure equipment and provide a comfortable and safe environment for the maintenance crews.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$33M
Total Capital Cost EAC: \$33.25M
Estimated Timeline: Ongoing to FY2027

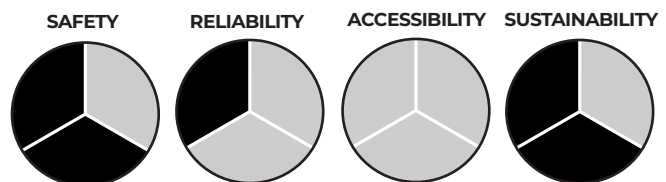


Airport Boulevard Bridge Rehabilitation/ Replacement

This project will replace the Airport Boulevard Bridge, which is a rail-only bridge that was built in 1935 and is reaching the end of its useful life of 100 years. The bridge has been strained by past seismic events, prompting its replacement to gain resilience against other seismic events and natural disasters. Bridge rehabilitation is critical in ensuring service throughout Caltrain’s corridor.

San Mateo County Systemwide Benefits

CIP 10-Year Funding Needs: \$50M
Total Capital Cost EAC: \$50M
Estimated Timeline: FY2028 to FY2033



Maintain Core Services

Discrete Projects

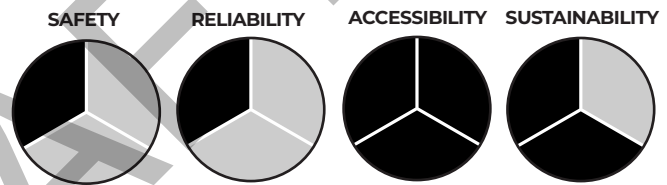


TVM Replacement or Rehabilitation

This program supports the replacement or rehabilitation of the TVMs and Next Generation Clipper Readers for the FY2031-FY2035 period. TVMs have a 12-year useful life and were last upgraded and rehabilitated in 2023.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$10M
Total Capital Cost EAC: \$10M
Estimated Timeline: FY2031 to FY2035



Maintain Core Services

Recurring Programs

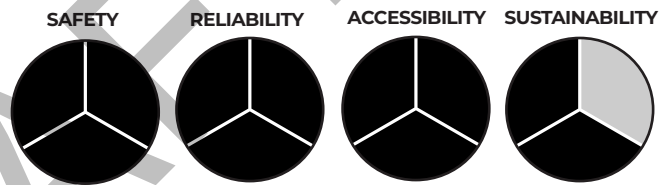


SOGR Program - EMU Stadler Car

This SOGR program provides continuous maintenance of the Stadler Car, including the Clean, Oil, Test, and Stencil inspections (COTS) of the air brakes. COTS is required to be conducted every four years but will be staggered for vehicles to maintain continuous revenue service while some vehicles are out for service.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$4.75M
Estimated Timeline: FY2025 to Ongoing

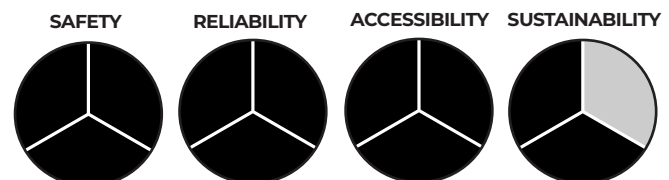


SOGR Program - Bombardier Car Rail Vehicles and Truck

This program provides the maintenance, refurbishment, and replacement of the legacy Bombardier passenger cars and trucks to enable continued along the non-electrified portion of the Caltrain corridor south of San José.

Corridor-wide Local Benefits

Average FY Funding Need: \$5.7M (through FY30)
Estimated Timeline: Ongoing to FY2030



Maintain Core Services

Recurring Programs

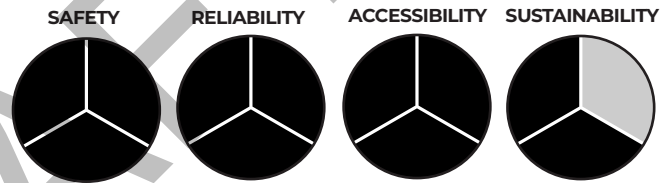


SOGR Program - Right-of-Way

The Right-Of-Way SOGR program enables general maintenance of drainage systems, right-of-way signage, vegetation management, graffiti abatement, soil/concrete waste/garbage dumping and removal, tree pruning and removal, retaining walls repair, and improved access for operations and maintenance. This program enables to protect Caltrain's most valuable asset, its property, and to ensure it is more resilient to the natural environment and safer for the maintenance team.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$2.8M
Estimated Timeline: Ongoing

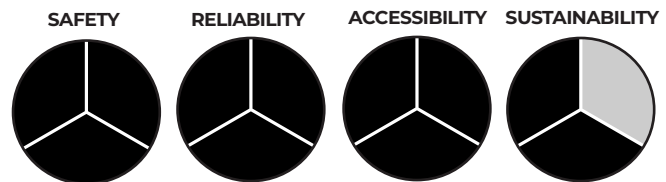


SOGR Program - Stations North of CP Lick

This Station SOGR program recurs support capital maintenance at stations north of CP Lick owned by Caltrain, which improves station safety and security and the customer experience.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$3.5M
Estimated Timeline: Ongoing



Maintain Core Services

Recurring Programs

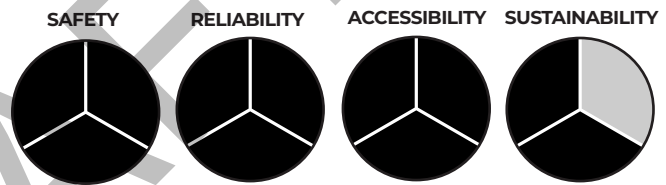


SOGR Program - Systems Technology

This recurring SOGR program provides maintenance and a refresh to the office systems hardware and software updates including Central Train Control, PTC, PADS, CCTV, Fiber Optic, and other safety systems that have reached the end of their useful life.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$1M
Estimated Timeline: Ongoing

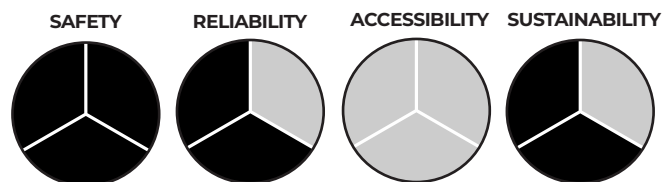


SOGR Program - MOW Tracks

The MOW Tracks SOGR Program includes work activities to keep the tracks maintained and includes elements such as the purchase and installation of new rail and crossties, special track components, thermite welds, and other track materials. Additionally, this program enables maintenance welding and grinding at special track locations, track surfacing throughout the corridor, rail grinding, highway-grade crossing restoration and repair, ballast purchase and placement, etc. to maintain federal safety compliance requirements.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$15M
Estimated Timeline: Ongoing



Maintain Core Services

Recurring Programs

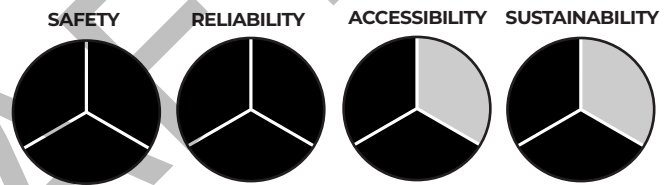


SOGR Program - Communication

This recurring SOGR program for Communication provides maintenance and replacement of Caltrain's Communications to ensure ongoing reliable and safe service.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$1.3M
Estimated Timeline: Ongoing

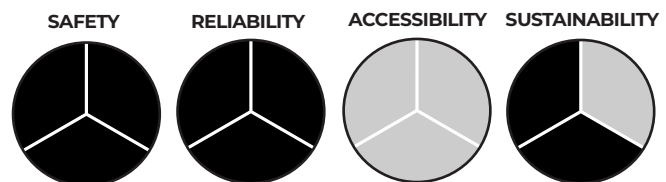


SOGR Program - Track Equipment

This program supports the purchase of track equipment for the various teams at Caltrain (MOW and Maintenance of Equipment) to keep track and the vehicles in a SOGR and directly helps to facilitate the SOGR Program - MOW Tracks. The replacement of some trucks with only electric ones will be required to comply with carbon-neutral operating requirements. This is also the case for the diesel switchers that would be required to move to electric/battery-operated switchers, which are necessary for rescuing trains that encounter a failure on the mainline.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$3.5M
Estimated Timeline: Ongoing



Maintain Core Services

Recurring Programs

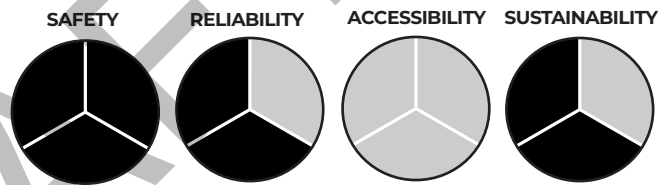


SOGR Program - OCS

This SOGR program provides for the maintenance and rehabilitation of Overhead Catenary System (OCS) components. All OCS assets are brand new, therefore, the scope of the program is in development and will be based on the recommended intervals from item manufacturers and the reception of as-built drawings of the OCS.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$1.5M
Estimated Timeline: FY2026 to Ongoing

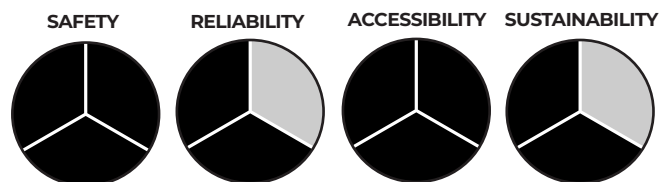


SOGR Program - Stations South of CP Lick

This Station SOGR program support capital maintenance at stations south of CP Lick owned by VTA, which improves station safety and security and the customer experience.

Corridor-wide Local Benefits

Average FY Funding Need: \$500k
Estimated Timeline: FY2028 to Ongoing



Maintain Core Services

Recurring Programs

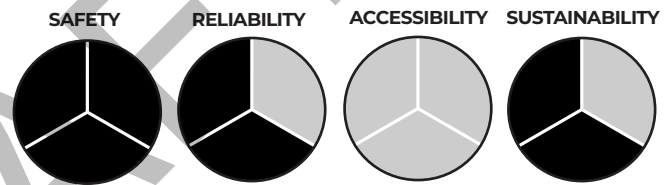


SOGR Program - TPS

This SOGR program provides for the maintenance and rehabilitation of Traction Power Substations (TPS) components for the two substations located in South San Francisco and San José, one switching station located in Redwood City, and seven parallel stations. All TPS assets are brand new, therefore, the scope of this program is in development and will be based on the recommended intervals from item manufacturers and the reception of as-built drawings of the TPS system.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$500k
Estimated Timeline: FY2026 to Ongoing

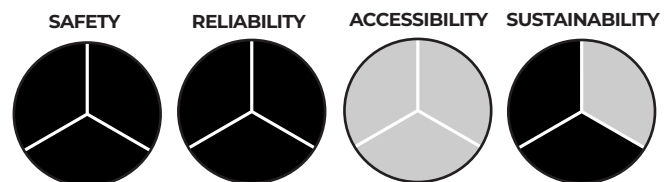


SOGR Program - Bridges and Civil Structures

This SOGR program will enable maintenance repairs to restore the integrity of the bridges and structures to a fair condition while increasing the safety, security, and useful life of the assets, as identified in the Caltrain's Annual Bridge Inspection Program.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$1.6M
Estimated Timeline: Ongoing



Maintain Core Services

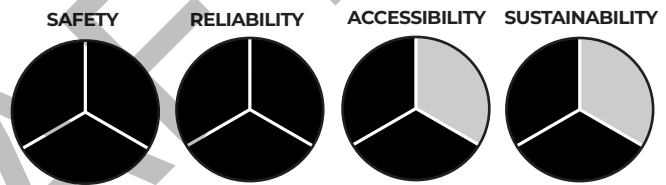
Recurring Programs



SOGR Program - Signals

The Signals SOGR Program provides for the maintenance and replacement of Caltrain's train control signals and grade crossing signals to ensure ongoing reliable and safe service.

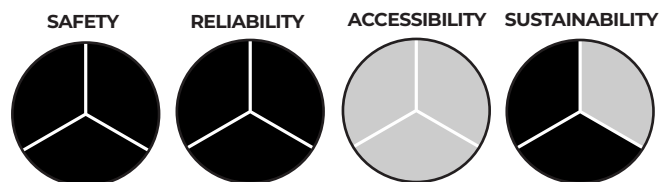
Corridor-wide
Systemwide Benefits
Average FY Funding Need: \$500k
Estimated Timeline: Ongoing



SOGR Program - F40 Locomotives

This SOGR program provides the maintenance of the legacy F-40 locomotives to enable continued service along the non-electrified portion of the Caltrain corridor south of San José.

Corridor-wide
Local Benefits
Average FY Funding Need: \$200k (through FY30)
Estimated Timeline: Ongoing to FY2030



Maintain Core Services

Recurring Programs

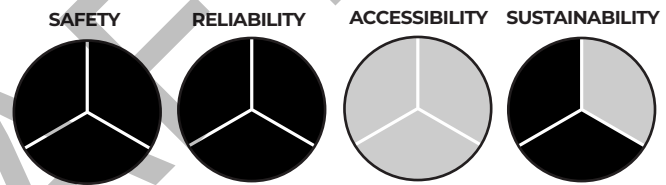


SOGR Program - MP-36 Locomotives

This SOGR program provides the maintenance of the legacy MP-36 locomotives to enable continued service along the non-electrified portion of the Caltrain corridor south of San José.

Corridor-wide Local Benefits

Average FY Funding Need: \$300k (through FY30)
Estimated Timeline: Ongoing to FY2030

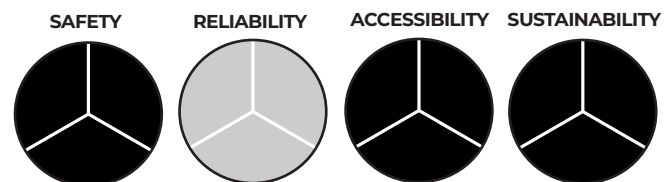


Sustainability and Resiliency Program Support

This recurring program supports the development of policies, programs, and partnerships that help implement Caltrain's *Strategic Sustainability Plan* and *Climate Resiliency and Vulnerability Plan*. It identifies and advances innovative investments and process improvements to reduce waste and energy consumption, improve environmental stewardship, increase Caltrain's resiliency, and contribute to equity and quality of life in the region in the development of capital projects.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$125k
Estimated Timeline: FY2026 to Ongoing



Maintain Core Services

Recurring Programs

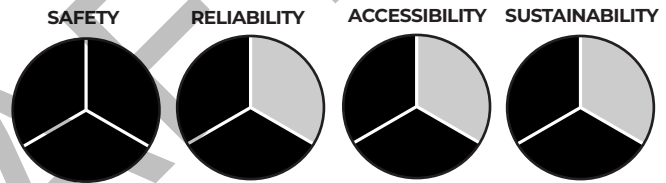


Rail Network and Operations Planning Support

This recurring program supports planning activities that develop solutions to optimize Caltrain's service with performance, ridership, events, and other variables requiring detailed modeling and analysis. This program aims to identify efficiencies in delivering the service to have a positive impact on the operating budget. This program also guarantee Caltrain's ability to coordinate with its local and regional partners on schedules, transit transfer points by supporting the development of schedules and early operational review of capital projects to understand potential impacts/ design solutions related to operations.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$1.5M
Estimated Timeline: Ongoing

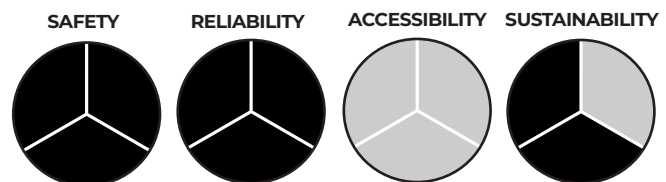


SOGR Program - Non-Revenue Vehicles

The SOGR program for non-revenue vehicles supports the purchase of rubber tire vehicles for the operations and maintenance crews to efficiently maintain the corridor utilities and infrastructure. The replacement of some vehicles by only electric ones will be required to comply with carbon-neutral operating requirements and will require additional charging infrastructures and vehicles.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$1.7M
Estimated Timeline: Ongoing



Maintain Core Services

Recurring Programs

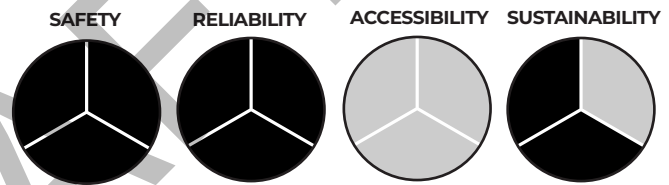


SOGR Program - CEMOF and Other Facilities

The SOGR Program for facilities covers the work required to maintain the reliability and safety of Caltrain's two Central Control Facilities, Train Crew Trailers, and MOW facilities. The type and scope of work scheduled for each fiscal year are based on the condition of the facilities, inspections, and maintenance performed throughout the year.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$3M
Estimated Timeline: Ongoing

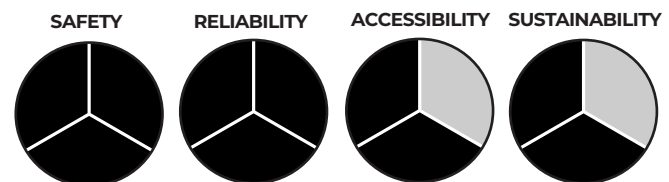


SOGR Program - Historical Stations

The Station SOGR program works toward the preservation of the seven historic station buildings and keeps them in a state of good repair and is coordinated with the South Bay Historical Railroad Society (SBHRS).

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$2.5M
Estimated Timeline: Ongoing



Maintain Core Services

Recurring Programs

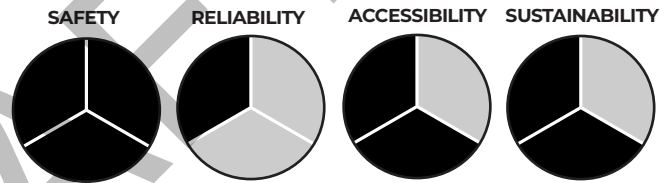


CIP Update and Maintain

This recurring program will support the update to the long-term CIP and Rolling Program, thereby improving Caltrain's ability to plan, evaluate, prioritize, and report on its capital improvement program.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$250k
Estimated Timeline: FY2026 to Ongoing

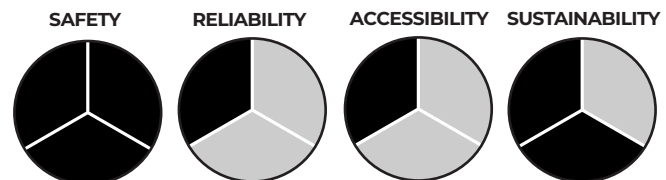


Property Mapping Support

This recurring program supports the yearly procurement of land surveying services necessary to produce and maintain accurate mapping of JPB's properties, specifically identifying what the JPB owns and where the owned parcels are located. Having accurate property mapping will reduce real estate costs during capital project implementation.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$1M
Estimated Timeline: FY2025 to Ongoing



Enhance Service and Customer Experience *Discrete Projects*



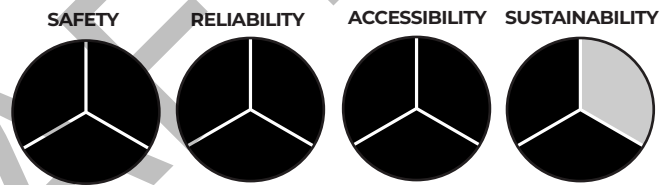
VMS Replacement

This project will determine the new VMS and passenger information system at Caltrain stations. There are currently 122 VMS to be replaced that were installed between 1997 and 2015, all of which are at the end of or beyond their useful life. The current VMS are no longer supported by the manufacturer.

Modern VMS signs carry modern interfaces, color capability, improved resolution, graphics capabilities, which improve the customer experience for all passengers.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$40k
Total Capital Cost EAC: \$6.8M
Estimated Timeline: Ongoing to FY2026

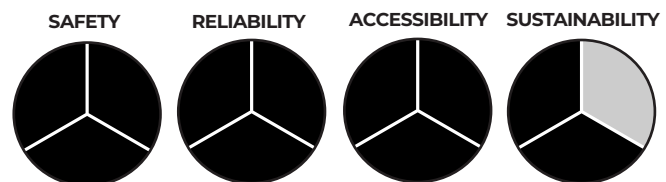


PADS Phase 2: Modernization

The PADS is a critical system that receives input on the location of a train, makes train arrival time predictions, and provides output to the passenger messaging systems including the PA audio system, VMS station digital signs, and LCDs for station messaging, wayfinding, and external data feeds such as Caltrain.com and MTC511. The existing PADS was designed in 2012, deployed in 2014, and has reached the end of its useful life. New systems provide more accurate information that are now the industry standard. The PADS modernization will provide significant benefits to the riders.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$7M
Total Capital Cost EAC: \$7M
Estimated Timeline: FY2026 to FY2029



Enhance Service and Customer Experience *Discrete Projects*

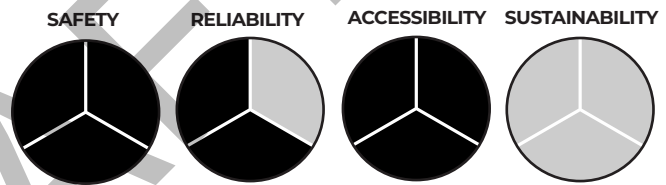


Level Boarding Program

As a legacy system, Caltrain does not currently provide level boarding access to its passenger cars. As Caltrain modernizes the system through significant projects like electrification, Caltrain commits to improving its system to ensure safe and accessible boarding for people of all abilities. Universal Level Boarding brings significant safety and accessibility benefits to all passengers. Additionally, it allows for faster boarding and alighting to support enhanced service levels and schedule reliability, reducing train dwell times at stations. Implementing level boarding is a complex, expensive, and long-term program. Caltrain recently developed a roadmap of cost-effective improvements the agency can undertake with platform raising.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$237M
Total Capital Cost EAC: \$620M
Estimated Timeline: Ongoing to FY2035

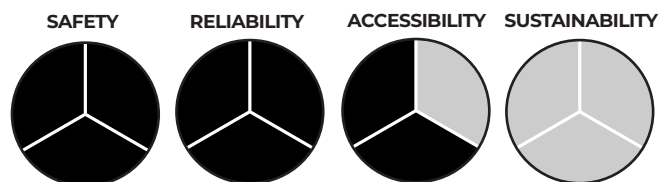


Crossover Trackwork in the Diridon-San José Station Area

This project was identified as part of the minimal investment needed on Caltrain corridor to meet the Board-Adopted Moderate Growth Service Vision without blended services as part of the systemwide effort of the Business Plan Development. There is a need to install an additional crossover track north of the Diridon-San José Station Area to improve operational flexibility and increase capacity at the Diridon-San José Station. This project will allow use of all the tracks at Diridon-San José Station, provide more flexibility for Caltrain's tenants and allow an increase in the capacity.

Santa Clara County Systemwide Benefits

CIP 10-Year Funding Needs: \$6.3M
Total Capital Cost EAC: \$6.3M
Estimated Timeline: FY2026 to FY2031



Enhance Service and Customer Experience *Discrete Projects*

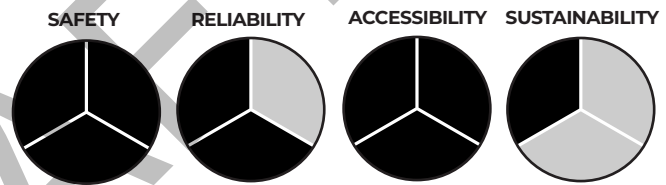


Bike Parking Improvement Program

This program will provide systemwide improvements to bicycle parking and includes bike lockers at 23 stations and bicycle rooms for up to eight stations. The program will help make Caltrain a more attractive option for passengers with bicycles while freeing up physical on-board space. This program will also reduce dwell time at station due to boarding/alighting at the bike car.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$300k
Total Capital Cost EAC: \$5.3M
Estimated Timeline: Ongoing to FY2026

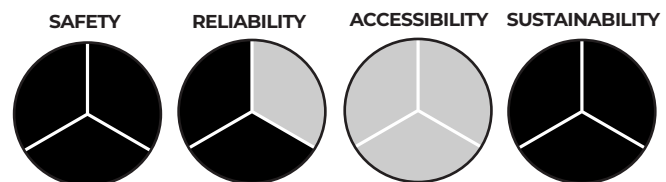


VHF Voice Radio Modernization and Optimization - Tunnels Coverage and New Emergency Services Capability

The current voice and PTC systems utilize a leaky coaxial design to provide radio coverage in Caltrain's tunnels, which has been inadequate for train crews to communicate to dispatch, primarily conductors or other crews not located in the train cab. This project consolidates and modernizes the voice radio system to enable seamless coverage in tunnels and adds Emergency Services (i.e., 911, Police, Fire, etc.) capabilities that do not exist today, which will greatly improve safety and reliability for both passengers and crews.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$3M
Total Capital Cost EAC: \$3M
Estimated Timeline: FY2027 to FY2028



Enhance Service and Customer Experience *Discrete Projects*

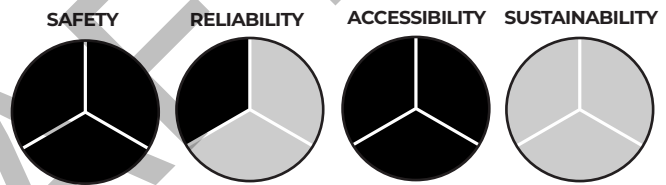


Digital Customer Displays (Multi-Level Stations)

The Digital Customer Displays program will install digital customer displays with text-to-speech capabilities at key entrance areas at stations to provide boarding and other relevant information to the customers. This solution was identified at the Customer Experience Task Force to address multi-level stations where customers need to walk up or down the stairs, or long distances to be able to see and/or hear the VMS/PA announcements about single-tracking at the station. Riders will be able to identify the correct platform at the impacted stations, which will improve customer experience and provide a safer environment by reducing the risks of bad behaviors, such as running on the platform afraid of missing the train, crossing tracks in unauthorized locations, and forgetting to purchase a ticket or tag a Clipper card.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$400k
Total Capital Cost EAC: \$430k
Estimated Timeline: Ongoing to FY2026

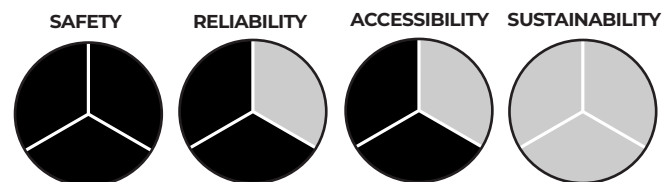


Universal Crossover Trackwork at Strategic Locations

This project will do a systemwide assessment to first identify the strategic location to add new universal crossovers. The assessment will shortlist six locations along Caltrain Corridor. The addition of new crossovers special trackwork will provide more operational flexibility during single tracking, especially during capital project construction (such as grade separation and bridge rehabilitation). The timing of the design and construction of crossovers may depend on regional and local projects.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$46M
Total Capital Cost EAC: \$46M
Estimated Timeline: FY2026 to FY2035



Enhance Service and Customer Experience *Discrete Projects*

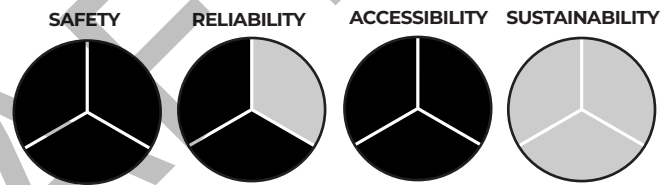


Stations Connections to Fiber Optic

This project will connect the stations to the Caltrain Fiber Optic Backbone once permanently repaired, which is being addressed through a separate project. The current station connection via lease-lines managed by SamTrans IT for systems including CCTV, VMS, PA, and Train Control poses a cybersecurity threat that will be mitigated through the merging with the Caltrain Fiber Optic Backbone. This project should run concurrently with the Network Architecture Redesign project.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$4M
Total Capital Cost EAC: \$4M
Estimated Timeline: FY2028 to FY2029

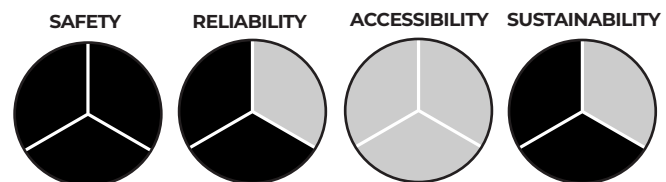


MPCC Facilities Modernization

This project includes the renovation of the two Caltrain-owned buildings in Menlo Park and transformation to a campus-type facility for future occupancy by Caltrain departments (TBD).

San Mateo County Systemwide Benefits

CIP 10-Year Funding Needs: \$1.28M
Total Capital Cost EAC: \$3.4M
Estimated Timeline: FY2025 to FY2027



Enhance Service and Customer Experience *Discrete Projects*

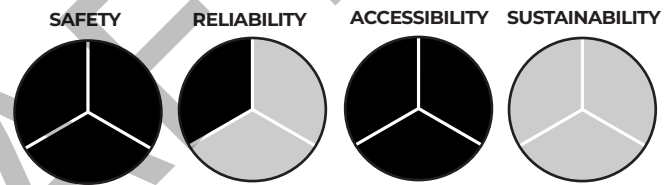


Platform Improvements for Bike Loading and Passengers Needing Assistance (All Stations)

This program will re-stripe platforms at all stations to clearly identify loading zones for people with bicycles with the roll-out of the new EMU trains. EMU trains will always have the same configuration and the clear identification of locations for bicyclists will reduce crowding on the platforms for non-bikers/scooter passengers, improve safety and the customer experience.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$60k
Total Capital Cost EAC: \$80k
Estimated Timeline: Ongoing to FY2027

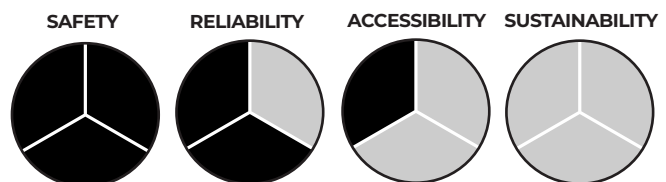


Rail Operations Real-time Database/Data Warehouse

This project will consolidate numerous databases and data streams from various operational systems into a primary database. Currently, numerous independent systems do not share information adequately. This project provides a single repository of real-time operational data, seamless user interaction, and improved cybersecurity by enabling a single interface for new systems to be more easily tapped into. The design will include a new standard of data structure to be followed by all subsequent projects.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$300k
Total Capital Cost EAC: \$300k
Estimated Timeline: FY2030 to FY2030



Enhance Service and Customer Experience *Discrete Projects*

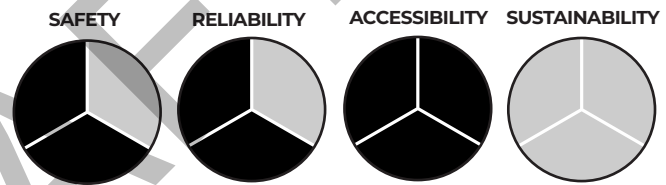


PA Overhaul and Digitization at Stations

This project will analyze the potential to do a full re-design of the Public Address (PA) System at all stations. The audio (speaker, amplifier, zone controller) at stations are obsolete. It includes a review of the location of the speakers on the platforms and modernizes the system by replacing the speakers, amplifier, and zone controllers, and converting to a fully digital network-based solution. This project provides significant benefits to all passengers, especially visually impaired passengers.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$3M
Total Capital Cost EAC: \$3M
Estimated Timeline: FY2026 to FY2027

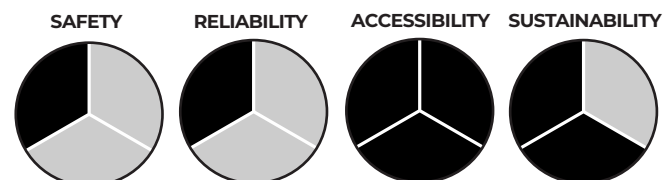


Electric Fleet for Service to Gilroy (Expansion)

This project includes the procurement of six additional BEMU trains to provide additional service to Gilroy before the electrification of this part of the corridor, which is part of the HSR project.

Corridor-wide Local Benefits

CIP 10-Year Funding Needs: \$235M
Total Capital Cost EAC: \$300M
Estimated Timeline: FY2030 to FY2036



Enhance Service and Customer Experience *Discrete Projects*

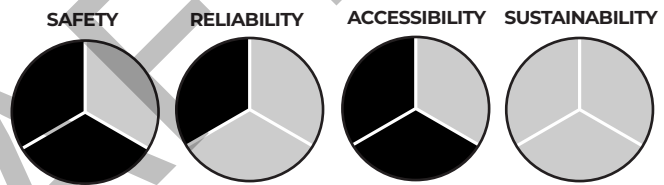


Mini-High Platforms - Stations North of CP Lick

This project will install mini-high platforms at eight remaining stations to support EMU service (Bayshore, Burlingame, Hayward Park, Belmont, California Avenue, San Antonio, Lawrence, Tamien). Mini-high platforms were originally installed at five “Express” train stations in 2003 and installed at five additional stations in 2009. Grounding and bonding will be required at all of the stations within the areas that will be electrified. This project will improve accessibility for passenger of all abilities. It will allow for more efficient ADA access, thus decreasing dwell time, improving service and reducing operating costs.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$0
Total Capital Cost EAC: \$4.26M
Estimated Timeline: Ongoing to FY2025

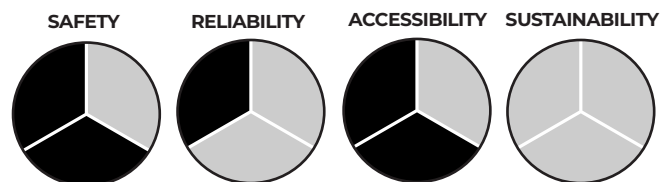


Mini-High Platforms - Stations South of CP Lick

This project follows the first phase to install mini-high platforms at eight remaining stations north of CP Lick and will install mini-high platforms at five stations south of CP Lick (Capitol, Blossom Hill, Morgan Hill, San Martin, Gilroy).

Santa Clara County Local Benefits

CIP 10-Year Funding Needs: \$0
Total Capital Cost EAC: \$2.4M
Estimated Timeline: Ongoing to FY2026



Enhance Service and Customer Experience *Discrete Projects*

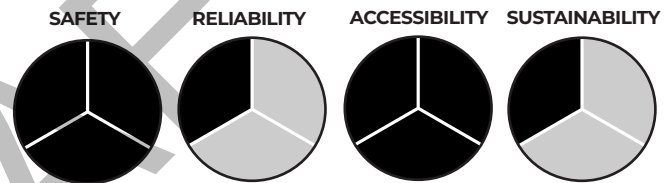


Station Amenities Improvement Program

This program includes a systemwide assessment of improvements at station facilities along the corridor to incorporate Universal Design and Crime Prevention Through Environmental Design (CPTED) principles. These improvements may include passenger shelters, circulation (pick-up and drop-off areas), and landscaping to enhance station areas and support ridership growth. This program is a long-term planning effort to identify strategic improvements for the Board-Adopted Moderate Growth Service Vision. Caltrain will implement these improvements in phases, which will be rooted in the Caltrain Station Access Policy.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$37M
Total Capital Cost EAC: \$47M
Estimated Timeline: FY2026 to FY2036

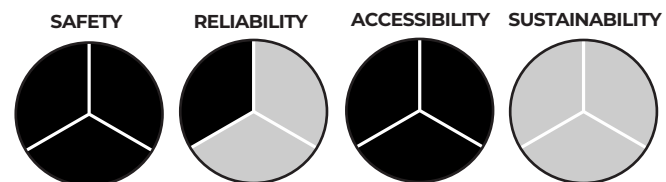


Digital Customer Displays (South Santa Clara County Stations)

This project will install digital customer displays with text-to-speech capabilities in South Santa Clara County stations to provide boarding and other relevant information to customers. This will provide up-to-date train service information to customers using these stations, which currently do not have VMS. This is a significant improvement to the customer experience.

Santa Clara County Local Benefits

CIP 10-Year Funding Needs: \$200k
Total Capital Cost EAC: \$200k
Estimated Timeline: FY2025 to FY2026



Enhance Service and Customer Experience *Discrete Projects*

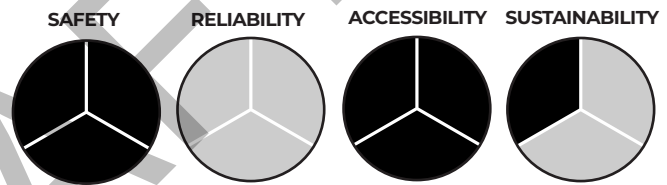


Station Placemaking Pilot Project

This pilot project will analyze the potential to improve landscaping through the implementation of artwork, green walls, etc. at select stations to enhance the customer experience, comfort, and safety.

Corridor-wide Local Benefits

CIP 10-Year Funding Needs: \$480k
Total Capital Cost EAC: \$510k
Estimated Timeline: FY2025 to FY2032

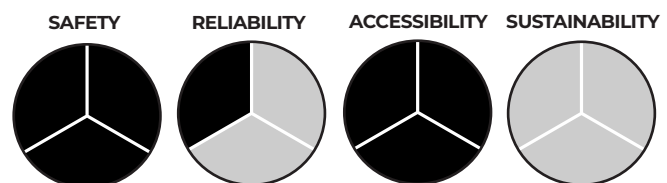


Broadband Wireless Communications System

This program will design a broadband wireless communications system along the Caltrain corridor for the wayside train maintenance diagnostics and passenger Wi-Fi service. The program will investigate leveraging the existing infrastructure such as OCS poles and the JPB fiber network to communicate with passing trains. Wayside antennas may be mounted on the OCS poles at constant intervals to communicate with moving trains that will be equipped with radios and antennas. This project enable future operational improvement and will significantly improve the customer experience.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$0
Total Capital Cost EAC: \$30.4M
Estimated Timeline: Ongoing to FY2025



Enhance Service and Customer Experience *Discrete Projects*

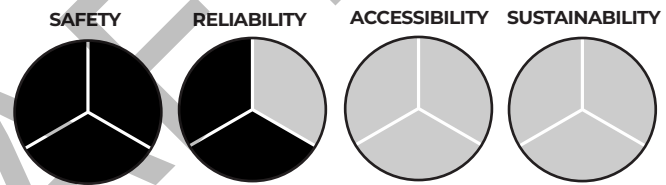


Migration to Digital Voice Radio System

This program is part of the continual effort to migrate toward a digital voice radio system to replace existing obsolete equipment for crews working in the operating right-of-way or onboard trains.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$0
Total Capital Cost EAC: \$2M
Estimated Timeline: Ongoing to FY2025

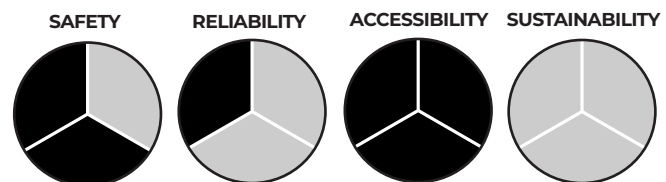


Broadband Wireless Communications System Enhancements

This program expands upon Caltrain's broadband wireless communication system currently under construction to permit the transfer of onboard operational systems data, separate from the public Wi-Fi service. This expansion will be integrated with the EMU train systems to provide real-time information from the train to the control center and allow real-time monitoring of the EMUs, CCTV, and data collection systems such as the passenger counting system. This project significantly improve the service performance.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$3M
Total Capital Cost EAC: \$3M
Estimated Timeline: FY2026 to FY2028



Enhance Service and Customer Experience *Discrete Projects*

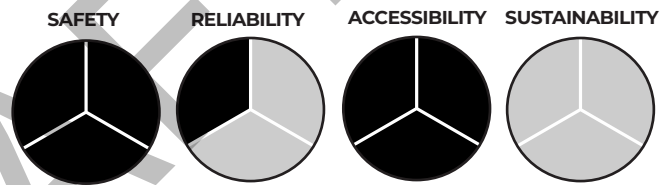


22nd Street ADA Access Improvements

This project will provide ADA access to the 22nd Street Station, which does not have existing ADA accessibility. ADA access improvements will include ramps to the platforms and other necessary ADA-related improvements including tactile surfacing, wayfinding, lighting, disabled parking, and drainage at the toe of the embankment along the edge of the platform.

San Francisco County Local Benefits

CIP 10-Year Funding Needs: \$10.5M
Total Capital Cost EAC: \$11.2M
Estimated Timeline: Ongoing to FY2028

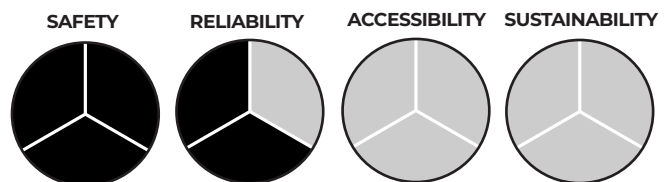


San José Backup Central Control and Crew Facilities Assessment and Replacement

The assessment will evaluate the current condition of the San José Backup Central Control and Crew Facilities, including the dispatch and datacenter structures, both interior and exterior finishes, as well as the electrical and mechanical systems. This will result in the replacement or renovation of the facilities and will align with the requirements outlined in the *Network Architecture Redesign* project to meet the needs of the SJCC.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$4.7M
Total Capital Cost EAC: \$4.7M
Estimated Timeline: FY2027 to FY2032



Enhance Service and Customer Experience *Discrete Projects*

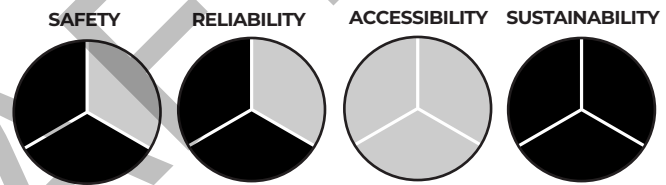


OCS Improvements

The Catenary System is a critical component of the Caltrain electrification system, providing electrical power to trains. This project aims to enhance the OCS reliability, safety, and efficiency to make our electrified system more robust, responsive, and resilient to potential disruptions. This program include a monitoring system for the OCS.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$2M
Total Capital Cost EAC: \$2.8M
Estimated Timeline: Ongoing to FY2027

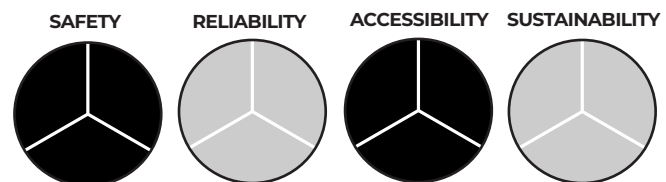


Stations Digital Displays for Messaging and Advertising Planning Study

This project will explore additional strategies to implement advertising opportunities at stations that will result in additional revenue for Caltrain. Currently, Caltrain's advertising capacity is limited to the 4th and King Station. This project will review station amenities and policies and propose station improvements that will enable improved digital customer messaging.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$400k
Total Capital Cost EAC: \$400k
Estimated Timeline: FY2026 to FY2027



Enhance Service and Customer Experience *Discrete Projects*

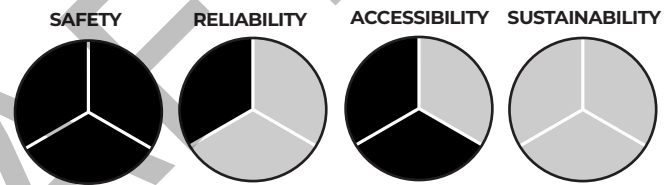


New Private Wireless Network as Fiber Backup

This project creates a private wireless network as the backup to Caltrain’s fiber optic architecture and provides a significant improvement to overall system resiliency and reliability for critical systems. This backup system will reduce or eliminate the need for ongoing leasing costs of a third-party fiber backup and provide more autonomy to Caltrain.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$6M
Total Capital Cost EAC: \$6M
Estimated Timeline: FY2028 to FY2029

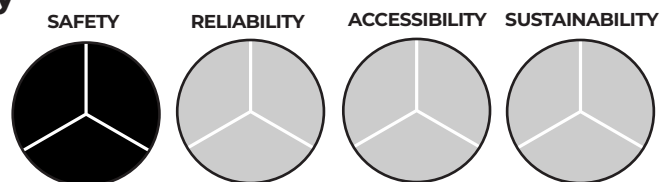


New O&M Training Center

This project will design and construct a state-of-the-art high-voltage OCS training center to be located near one of the TP substations and include designated OCS (foundation, pole, cantilever, wiring) and a mile-long training track for the equipment (train or hi-rail). Caltrain will develop training curriculum for OCS operation and maintenance certifications, and isolations training that could be offered to industry partners and universities. The training center will not only provide ongoing training for Caltrain employees and contractors but will also provide an additional revenue stream for the railroad.

Santa Clara or San Mateo County Systemwide Benefits

CIP 10-Year Funding Needs: \$25M
Total Capital Cost EAC: \$30M
Estimated Timeline: FY2025 to FY2027



Enhance Service and Customer Experience *Discrete Projects*

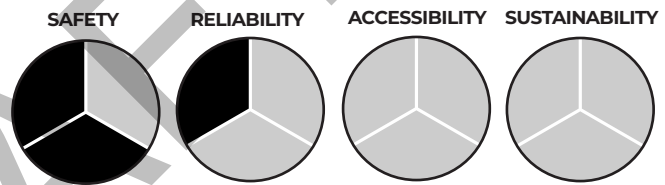


San Mateo Parking Track Electrification and Signaling

This project will enable the design and construction of the OCS and signaling for the San Mateo Parking Track, which is being replaced as part of the 25th Avenue Grade Separation project, and tie into the main OCS.

San Mateo County Systemwide Benefits

CIP 10-Year Funding Needs: \$4.7M
Total Capital Cost EAC: \$5.7M
Estimated Timeline: FY2025 to FY2027

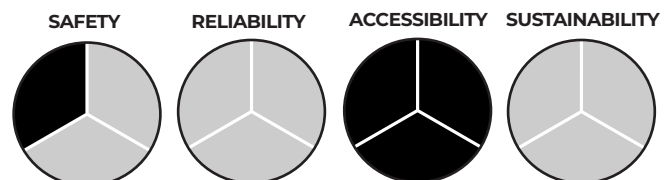


Broadband Wireless Communications System for Diesel Trains

Broadband is only offered on Caltrain Mainline Service between San Francisco and Tamien on board EMUs. This project will implement a cellular-based broadband wireless system on diesel trains, enabling better passenger Wi-Fi services while onboard. Broadband is needed for the diesel trains, as they will continue to operate between San José and Gilroy until they are retired per the State Mandate.

Corridor-wide Local Benefits

CIP 10-Year Funding Needs: \$5.35M
Total Capital Cost EAC: \$5.35M
Estimated Timeline: FY2026 to FY2027



Enhance Service and Customer Experience Recurring Programs

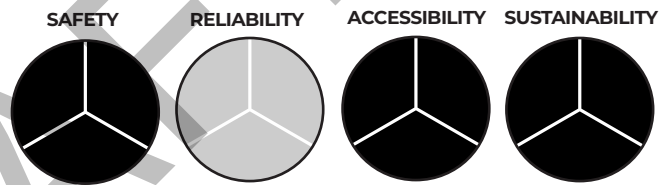


Real Estate and TOD Support

This recurring program supports Caltrain real estate activities including the implementation of Caltrain's TOD Policy and the development and implementation of a TOD and Real Estate Work Plan. The program advances development and public-private partnerships on Caltrain property and supports ongoing collaboration with cities, developers, and property owners to advance Caltrain's real estate and TOD interests. The program also provides real estate support to manage Caltrain's portfolio of properties, provide facilities to meet rail operations and maintenance needs, advance capital projects, and support special projects in conjunction with Commercial and Business Development.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$560k
Estimated Timeline: Ongoing

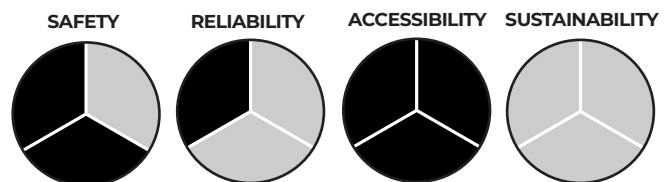


First/Last Mile Wayfinding Program (All Stations)

This recurring program will develop solutions to improve the wayfinding for first- and last-mile access to stations through connecting transit services and bike facilities (e.g., bike valet, bike rooms, and on-demand bike eLockers). This program will be mindful of the current regional effort led by MTC on the *Regional Mapping and Wayfinding Standards*. This program will be implemented in phases focusing first on major transit hubs. This program will provide significant improvement to station access and will enhance the customer experience.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$100k through FY2031
Estimated Timeline: Ongoing to FY2031



Enhance Service and Customer Experience Recurring Programs

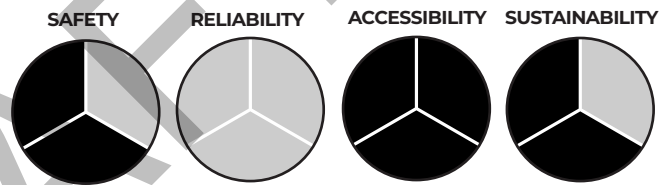


Planning Policy Development Support

This recurring program advances the development of strategic policies and programs and supports planning activities including those related to fare and equity, implementation, and the update of the Rail Corridor Use Policy and required local, regional, state, or federal reporting, and the Business Plan (every five years). Policies and programs are needed to help guide decision-making for Caltrain staff, the Caltrain Board, funding entities including JPB member agencies, and Caltrain's external partners, such as cities and partner transit agencies.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$500k
Estimated Timeline: Ongoing

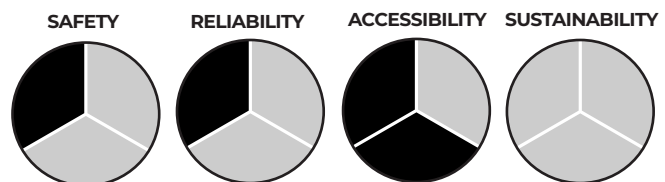


Systemwide Planning Support

This recurring program supports systemwide planning activities required to advance Caltrain investments and participation in multi-agency planning activities related to the development of major rail stations, partnerships with regional rail and transit partners and projects, participation in local jurisdiction projects and plans affecting the railroad, and Caltrain-led station area planning/access efforts.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$500k
Estimated Timeline: Ongoing



Enhance Service and Customer Experience *Recurring Programs*

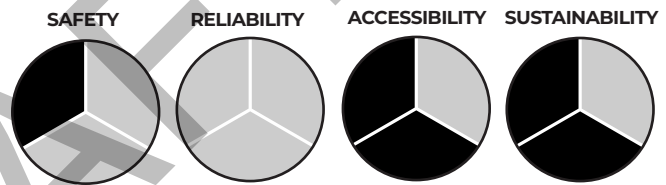


Capital Planning Technical Support

This recurring program supports the technical expertise necessary to advance individual capital projects' planning, development, delivery, and funding efforts in collaboration with partner agencies, local jurisdictions, and internal stakeholders.

Corridor-wide Systemwide Benefits

Average FY Funding Need: \$200k
Estimated Timeline: Ongoing



Deliver the Long-Range Service Vision *Discrete Projects*



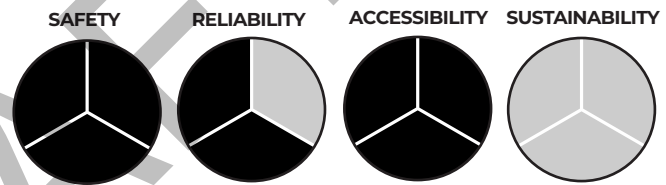
4-Track Station and Grade Separation at Redwood City Station

Caltrain and the City of Redwood City are studying and planning for a relocated and elevated four-track transfer station and passing tracks in the downtown area, which also includes six grade separations in Redwood City: Whipple Avenue, Brewster Avenue, Broadway, Maple, Main, and Chestnut. The four-track station project is critical to advancing the Adopted Long-Range Service Vision that will allow transfers between Express and Local Trains. In 2022, Caltrain and the City completed the selection of the locally preferred alternative and the next step to secure funding for preliminary engineering and environmental clearance.

Concurrently, Caltrain is working closely with the City as it plans for a future Downtown Transit District that will accommodate transit-oriented, mixed-use development.

San Mateo County Systemwide Benefits

CIP 10-Year Funding Needs: \$44.5M
Total Capital Cost EAC: \$960M
Estimated Timeline: Ongoing to FY2040

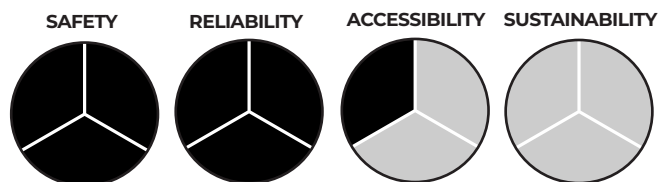


New Signal and Train Control System

Improving Caltrain service requires investment across multiple areas. More frequent and faster service requires systems that allow trains to safely and seamlessly operate closer together by improving the precision of train location and stop detection. The current PTC system would require a significant overhaul to achieve the shorter headways and higher operating speeds needed for the Board-Adopted Moderate Growth Service Vision. Implementing the Program of Interconnected System Technology Projects and the new PADS lays the foundation for a modernized signaling and train control system. New signal and train control systems will provide significant safety and reliability benefits.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$450M
Total Capital Cost EAC: \$500M
Estimated Timeline: FY2026 to FY2036



Deliver the Long-Range Service Vision *Discrete Projects*

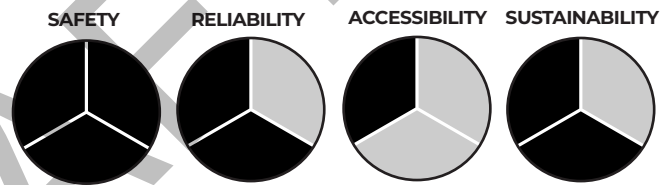


Systemwide Electric Fleet Expansion

This program covers the planning, engineering, and procurement of additional electric trains for fleet expansion to meet the Board-Adopted Moderate Growth Service Vision between San Francisco and San José.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$425M
Total Capital Cost EAC: \$550M
Estimated Timeline: FY2030 to FY2036

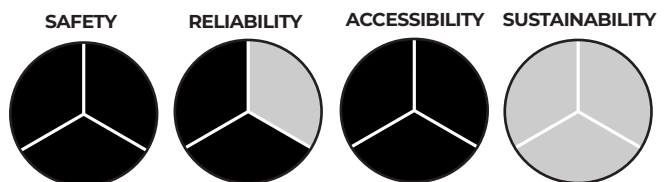


Platform Lengthening Needs Assessment

This project will study the path toward implementing new platforms to accommodate ten-car trains. The Board-Adopted Moderate Growth Service Vision currently calls for longer trainsets, which requires longer platforms at 14 stations: 22nd Street, Millbrae, Burlingame, San Mateo, Hayward Park, Belmont, San Carlos, Redwood City, Menlo Park, California Avenue, San Antonio, Mountain View, Sunnyvale, and College Park.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$125k
Total Capital Cost EAC: \$250k
Estimated Timeline: FY2025 to FY2026



Deliver the Long-Range Service Vision *Discrete Projects*

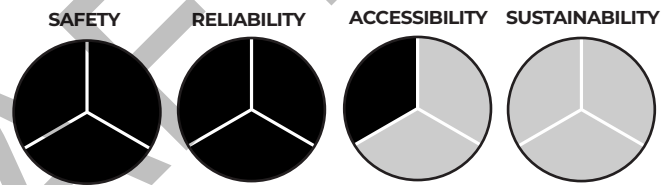


CEMOF Yard Capacity Enhancement

CEMOF accommodates inspections, maintenance, repairs, train washing, and storage and is the “nerve center” of Caltrain. This project will optimize CEMOF to accommodate the storage and maintenance of a more extensive electrified fleet needed for the Board-Adopted Moderate Growth Service Vision. Expanding the yard capacity of CEMOF is a significant improvement to the service performance to enable the operation of additional fleet.

Santa Clara County Systemwide Benefits

CIP 10-Year Funding Needs: \$750M
Total Capital Cost EAC: \$800M
Estimated Timeline: FY2026 to FY2036

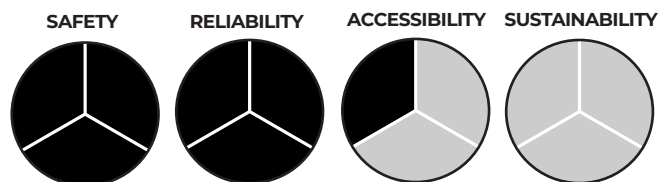


Train Control Crossover Signaling in the Diridon-San José Station Area

This project was identified as part of the minimal investment needed on Caltrain corridor to meet the Moderate Growth Service Level without blended services as part of the systemwide effort of the Business Plan Development. This project aims to redo the entire signal system near the Diridon-San José Station to allow for greater frequency of trains that will serve the station.

Santa Clara County Systemwide Benefits

CIP 10-Year Funding Needs: \$22M
Total Capital Cost EAC: \$22M
Estimated Timeline: FY2026 to FY2031



Mandate, Compliance, and Emergency Projects

Discrete Projects



Electric Fleet for Service to Gilroy (Pilot Project)

This project will develop a hybridized EMUs capable of off-wire operation to be able to run electrified service to Gilroy. It will include the procurement of one BEMU train as a pilot project to test the vehicle prior to purchasing additional trainset. This project will enable the replacement of the remaining diesel fleet, which is approaching end of useful life and will eventually be banned by CARB.

Corridor-wide Local Benefits

CIP 10-Year Funding Needs: \$59M
Total Capital Cost EAC: \$80M
Estimated Timeline: Ongoing to FY2029



Non-Revenue Vehicle Fleet Electrification

Per the Advanced Clean Fleets Regulation, State and local governments require that 50% of current vehicle purchases are zero-emission followed by 100% of vehicle purchases by 2027. This program will assess the needs, plan for, and implement the appropriate infrastructure to charge the non-revenue vehicles at the various Caltrain facilities.

Corridor-wide Systemwide Benefits

CIP 10-Year Funding Needs: \$5M
Total Capital Cost EAC: \$5M
Estimated Timeline: FY2026 to FY2027

Mandate, Compliance, and Emergency Projects

Discrete Projects



MS4 Trash Management

This project will design and implement a full trash capture system required to maintain the MS4 NPDES permit.

Corridor-wide

Systemwide Benefits

CIP 10-Year Funding Needs: \$844k

Total Capital Cost EAC: \$1.7M

Estimated Timeline: Ongoing to FY2027

DRAFT

Partner with Local Communities



Bayview Caltrain Station Location Study and Implementation

This study, led by the San Francisco County Transportation Authority (SFCTA), follows the Southeast Rail Station Study, which explored options for a future Caltrain station in southeastern San Francisco between the existing 4th and King Station and Bayshore Station. The Bayview Caltrain Station Location Study will recommend a single station location to advance towards implementation using focused and prioritized criteria shaped by community input and will lay out a roadmap for final design, environmental clearance, and implementation.

San Francisco County
Local Jurisdiction: SFCTA



Pennsylvania Avenue Extension (PAX)

This project includes grade separation improvements at Mission Bay Drive and 16th Street (at 7th) and could include the reconstruction and relocation of the Caltrain 22nd Street Station and connection to The Portal. The project would place Caltrain underground, thus allowing transit, pedestrian, bicycle, and vehicular traffic to flow uninterrupted and improve safety for all road users.

San Francisco County
Local Jurisdiction: City and County of San Francisco



San Mateo Parking Track Replacement (Part of 25th Avenue Grade Separation)

This project supports the construction of a set-out-track to replace the one that was removed in the Bay Meadows area to facilitate the construction of the 25th Avenue Grade Separation Project. Electrification of this parking track is a Caltrain-led project that is included in the Enhance Service and Customer Experience Strategic Initiative.

San Mateo County
Local Jurisdiction: City of San Mateo

Partner with Local Communities



Middle Avenue Bicycle and Pedestrian Undercrossing

This project will add a new bicycle and pedestrian undercrossing at Middle Avenue in the City of Menlo Park. The undercrossing will improve safety and connectivity in the area around Middle Avenue in Menlo Park and serve the newly completed Stanford development, which is adjacent to Middle Avenue, as well as a middle school in the area.

San Mateo County

Local Jurisdiction: City of Menlo Park



Broadway Burlingame Grade Separation

This project will grade separate the at grade crossing on Broadway Street in the City of Burlingame by elevating the rail over the existing roadway, which will decrease the likelihood of collisions or other delays. The elevated rail alignment will require the reconstruction of the Caltrain Broadway Station and will remove the operational requirement of the hold-out rule.

San Mateo County

Local Jurisdiction: City of Burlingame



South Linden Avenue and Scott Street Grade Separation

This project will grade separate the at grade crossings at South Linden Avenue in South San Francisco and at Scott Street in San Bruno. These separations will reduce anticipated traffic congestion and reduce the need for a train horn. At South Linden Avenue, the railroad will be elevated and the roadway partially depressed. At Scott Street, vehicular access will be closed while a bicycle and pedestrian grade separated crossing will be built.

San Mateo County

Local Jurisdiction: Cities of South San Francisco and San Bruno

Partner with Local Communities



Menlo Park Grade Separation

This project will grade separate three at grade crossings at Ravenswood Avenue, Oak Grove Avenue, and Glenwood Avenue in Menlo Park, increasing service efficiency and safety for Caltrain and the community. The project includes the partial elevation of the rail tracks at these three crossings, wherein vehicular traffic would be partially lowered. Encinal Avenue would remain at grade. The project also includes modifications to the Caltrain Menlo Park Station.

San Mateo County

Local Jurisdiction: City of Menlo Park



North Fair Oaks Bicycle and Pedestrian Railroad Crossing

This project will add a new pedestrian and bicycle crossing in the unincorporated community of North Fair Oaks in San Mateo County, in a MTC equity priority area, improving cross-corridor connectivity and safety for active transportation users.

San Mateo County

Local Jurisdiction: County of San Mateo



Ravenswood Avenue and Oak Grove Avenue Grade Crossing Improvements

This project will implement safety improvements at two at grade crossings located on Ravenswood Avenue and Oak Grove Avenue in Menlo Park, which were identified as specific areas for improvement in the *Menlo Park / Palo Alto Quiet Zone Implementation Study*. Improvements will include the installation of four-quadrant gates at the two crossings, as well as the installation of exit gates, curb and sidewalk adjustments, and the replacement of the existing combined vehicle and pedestrian entrance gates.

San Mateo County

Local Jurisdiction: City of Menlo Park

Partner with Local Communities



Encinal Avenue Grade Crossing Improvements

This project will implement safety improvements at one at grade crossing located on Encinal Avenue in Menlo Park, which was identified as a specific area for improvement in the *Menlo Park / Palo Alto Quiet Zone Implementation Study*. Improvements may include the installation of four-quadrant gates, curb and sidewalk adjustments, and the replacement of the existing combined vehicle and pedestrian entrance gates.

San Mateo County

Local Jurisdiction: City of Menlo Park



Glenwood Avenue Grade Crossing Improvements

This project will implement safety improvements at one at grade crossing located on Glenwood Avenue in Menlo Park, which was identified as a specific area for improvement in the *Menlo Park / Palo Alto Quiet Zone Implementation Study*. Improvements may include the installation of four-quadrant gates, curb and sidewalk adjustments, and the replacement of the existing combined vehicle and pedestrian entrance gates.

San Mateo County

Local Jurisdiction: City of Menlo Park



San Mateo Grade Separation Project

This program consists of six grade separations in downtown San Mateo: 1st, 2nd, E. 3rd, E. 4th, E. 5th, and 9th Avenues. Reducing the number of at grade crossings will enhance the system's ability to execute timely, collision-free service in preparation for Caltrain's Enhanced Service Growth Scenario.

San Mateo County

Local Jurisdiction: City of San Mateo

Partner with Local Communities



Mountain View Transit Center Grade Separation

This project includes two components: (1) the closure of the at grade vehicular crossing at Castro Street and (2) the construction of a pedestrian/bicycle underpass and the redesign of the Mountain View Station Transit Center. The project aims at improving safety for all users, improving overall traffic flow, reducing traffic delays caused by gate down times, and supporting the pedestrianization of downtown Mountain View including the Transit Center and Castro Street, while also improving service efficiency and safety for Caltrain passengers.

Santa Clara County

Local Jurisdiction: City of Mountain View



Rengstorff Avenue Grade Separation

This project will grade separate the at-grade crossing at Rengstorff Avenue in the City of Mountain View to enhance Caltrain's operational safety while improving traffic flow and pedestrian safety. The city selected its locally preferred alternative, which was a Complete Street Concept that includes a Rengstorff Avenue underpass and the construction of a new elevated pedestrian walkway parallel to the Caltrain tracks connecting Crisanto Avenue to the commercial area east of Rengstorff Avenue. The grade separation will require lowering Rengstorff Avenue and connecting roadways, including Central Expressway.

Santa Clara County

Local Jurisdiction: City of Mountain View



Bernardo Avenue Bicycle and Pedestrian Undercrossing

This project will add a new bicycle and pedestrian undercrossing at Bernardo Avenue, on the border of the City of Sunnyvale and the City of Mountain View. The proposed undercrossing will provide key access across/under the railroad as well as Central Expressway.

Santa Clara County

Local Jurisdictions: Cities of Sunnyvale and Mountain View

Partner with Local Communities



Connecting Palo Alto

This project will grade separate three at grade crossings at Churchill Avenue, Meadow Drive, and Charleston Road in Palo Alto. The project is intended to address traffic congestion and remediate any consequences for when Caltrain begins offering electrified trains at greater frequencies.

Santa Clara County

Local Jurisdiction: City of Palo Alto



Mary Avenue Grade Separation

This project will grade separate the at grade crossing at Mary Avenue in Sunnyvale. The city selected the project alternative known as the *Mary Avenue Underpass with Jughandle* option for this grade separation. The road will be lowered to go under the tracks. This option decreases the number of points that bicyclists and pedestrians would need to cross vehicle lanes.

Santa Clara County

Local Jurisdiction: City of Sunnyvale



Sunnyvale Avenue Bicycle and Pedestrian Undercrossing

This project will transform the at grade crossing at Sunnyvale Avenue in Sunnyvale into a bicycle and pedestrian undercrossing to reduce the pedestrian and bicycle collisions with trains. This consists of improvements along Sunnyvale, Evelyn, Hendy Avenues. The segment of Sunnyvale Avenue between Hendy and Evelyn Avenues will be closed to vehicular traffic and converted to a pedestrian and bicycle undercrossing.

Santa Clara County

Local Jurisdiction: City of Sunnyvale

Partner with Local Communities



Palo Alto Avenue Grade Crossing Improvements

This project will implement safety improvements at one at grade crossing located on Palo Alto Avenue (Alma Street) in Palo Alto, which was identified as a specific area for improvement in the *Menlo Park / Palo Alto Quiet Zone Implementation Study*. Improvements may include upgrading and lengthening the medians along Alma Street.

Santa Clara County

Local Jurisdiction: City of Palo Alto



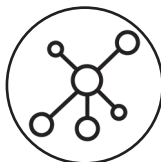
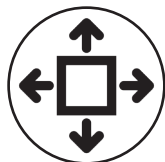
Southern San José Grade Separation

This project will grade separate three at grade crossings at Skyway Drive, Branham Lane, and Chynoweth Avenue in the City of San José. All three crossings, on Union Pacific track, are adjacent to intersections with Monterey Road, a high-fatality corridor, with over 33,000 vehicles daily, and have a recent history of fatality and injury crashes. This project will be built concurrently with the HSR Project through the project area.

Santa Clara County

Local Jurisdiction: City of San José

Contribute to the Region's Economic Vitality

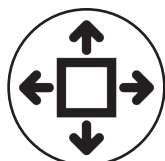


HSR Blended Service

Blended service with HSR throughout much of the Caltrain corridor. HSR will share Caltrain's tracks with stops in San Francisco, Millbrae, San José, and Gilroy. The San Francisco to San José Project Section includes improvement to the Caltrain corridor to allow for increased train speeds. The San José to Merced Project Section includes the electrification of the UP corridor between San José and Gilroy, which will allow for the extension of Caltrain electrified service throughout the entire Caltrain corridor

Corridor-wide

Lead Agency: CAHSR Authority



DTX/The Portal – Caltrain Extension to Downtown Salesforce Transit Center

The Portal (also known as the DTX project) will move Caltrain from its current northern terminal at 4th and King Streets to a new terminal at the Salesforce Transit Center in Downtown San Francisco. The Portal project is also planned to be compatible with HSR and the potential future rail expansion across the Bay as part of the Link 21 Program.

San Francisco County

Lead Agency: TJPA



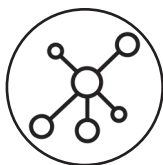
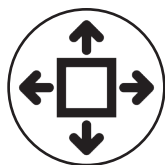
San Francisco Railyards Redevelopment

The redevelopment of the San Francisco Railyards site into a regional transit center will include a new rail station, housing, offices, and public spaces. The redevelopment will accommodate increased Caltrain service, future Caltrain and HSR operations, generate additional ridership, and support connections to HSR, the Portal, SFMTA Central Subway, and other SFMTA transit lines.

San Francisco County

Lead Agencies: Prologis and City of San Francisco

Contribute to the Region's Economic Vitality

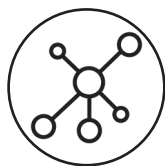


Link 21 Program

Link21 (formerly known as the New Transbay Rail Crossing) is a Northern California Megaregional Program sponsored by BART and the CCJPA to transform the passenger rail network serving the 21-county Northern California Megaregion (Megaregion). Link21 is a program of projects that will build on the existing BART and Regional Rail systems and include a new passenger rail crossing under the Bay between Oakland and San Francisco that will connect to the Salesforce Transit Center. The Crossing Program will increase capacity and bring new passenger rail connections and services to the Megaregion.

San Francisco County

Lead Agencies: BART and Capital Corridor



Dumbarton Rail Corridor Coordination

The Dumbarton Rail Corridor Program would provide a new mass transit system between the San Francisco Peninsula and the East Bay, connecting the Caltrain Redwood City Station to the BART Union City Station. The program would primarily use an existing railroad right-of-way and bridge owned by SamTrans. The alignments under study could support one of several potential electric transit technologies, including commuter rail, light rail, and other mass transit technologies. SamTrans is currently studying early opportunities to activate the corridor with transportation improvements that will serve the community which could include phasing improvements starting with activation of the Peninsula side.

San Mateo County

Lead Agency: SamTrans



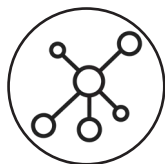
Diridon-San José Station - Project Implementation

The Diridon-San José Station is an historic station and poised to become one of the busiest intermodal stations in North America with the planned addition of BART to Silicon Valley Phase 2 connecting to the East Bay, HSR service, and improved intercity passenger rail to the San Joaquin Valley (ACE) and to Sacramento (Amtrak Capitol Corridor). Additionally, the San José Airport Connector Project will provide a grade separated transit connection from San José Mineta International Airport to Diridon-San José Station. To best accommodate such planned activity and future capacity needs, the Station must be reconfigured to connect all transit services most effectively with each other and with the surrounding urban environment.

Santa Clara County

Lead Agencies: Caltrain, MTC, VTA, HSR, and City of San José

Contribute to the Region's Economic Vitality

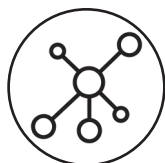


BART to Silicon Valley Phase II

The BART Silicon Valley Phase II Extension Project is a six-mile, four-station extension of BART service from the recently opened Berryessa/North San José Station, built as part of VTA's BART Phase I, through downtown San José to the City of Santa Clara. The Phase II Project will allow connections at Diridon-San José Station and Santa Clara stations between BART and Caltrain.

Santa Clara County

Lead Agencies: BART and VTA

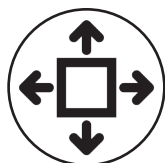


San José Airport Connector

This project develops a grade separated transit connection from San José Mineta International Airport to Diridon-San José Station.

Santa Clara County

Lead Agency: City of San José

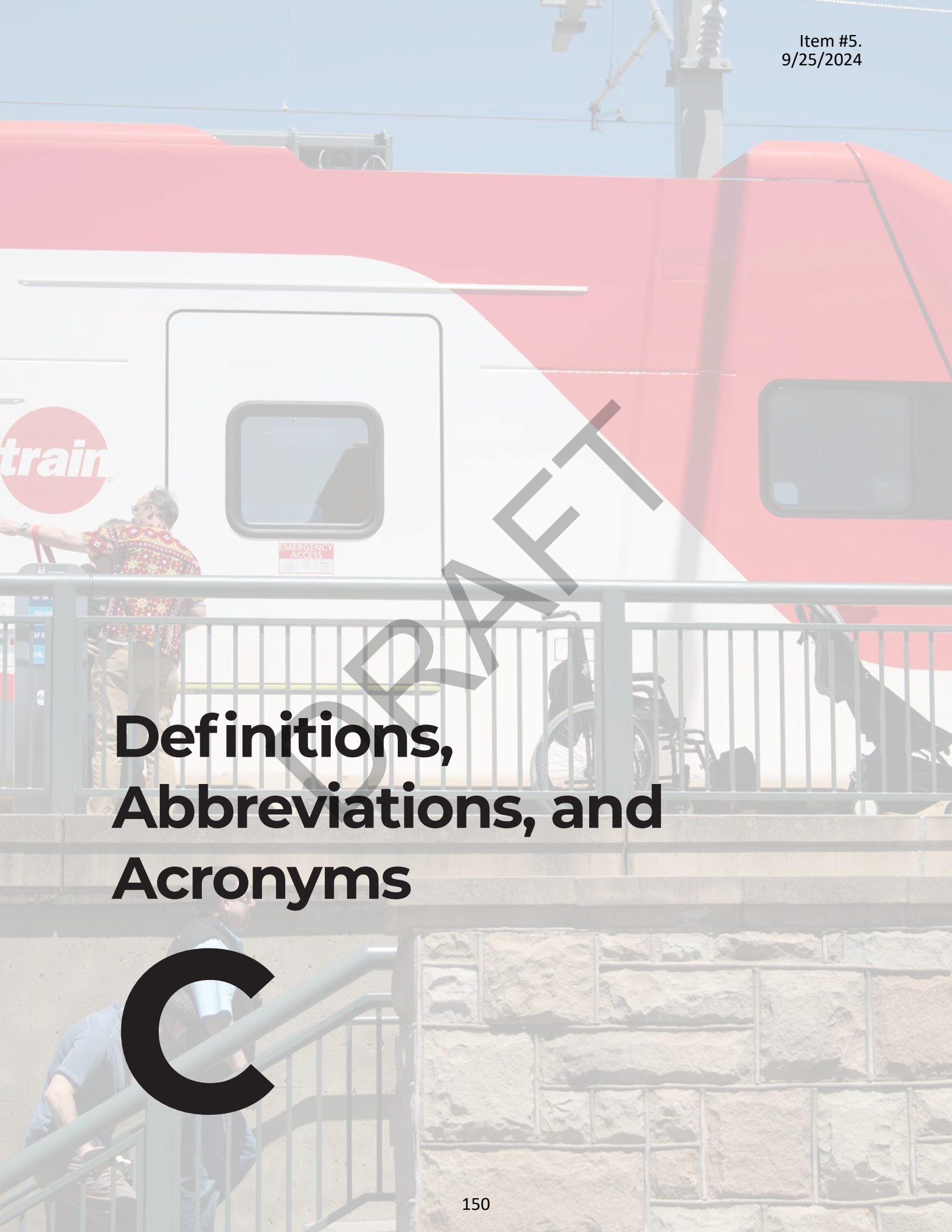


Monterey County Extension

The Monterey County Extension Program extends passenger rail from Gilroy Station to Salinas through a phased implementation. The project include the newly completed Salinas Intermodal Center, and the future Salinas layover facility and track improvement at Gilroy Station.

Corridor-wide

Lead Agencies: TAMC, City of Gilroy, and VTA



EMERGENCY
ACCESS

train

Definitions, Abbreviations, and Acronyms

C

Definitions

Asset	Any equipment, rolling stock, infrastructure, and facility for use in public transportation, owned or leased by Caltrain/the JPB. Caltrain groups assets into five categories: (1) Infrastructure, (2) Facilities, (3) Systems, (4) Stations, (5) Vehicles.
At-Grade Crossing	Intersections where a roadway crosses a railroad on the same level.
Board-Adopted Long-Range Service Vision	Caltrain’s Board-Adopted Moderate Growth Service Vision of eight trains per hour per direction in the peak period.
Capital Program	A projected, multi-year plan and schedule for multiple capital projects.
Capital Project	A long-term, capital-intensive investment to build upon, add to, or improve a capital asset.
Discrete Project	A single project with an identified initiation and completion date; may span over multiple fiscal years.
Grade Separation	A structure that separates vehicle and/or pedestrian and bicycle roadway from the railroad tracks.
Main Line	The corridor of track that is used for through trains and is the principal artery of the system from which branch lines, yards, sidings, and spurs are connected. Per the Joint Powers Agreement, main line service refer to San Francisco 4th and King Station to Tamien Station.
Prioritization Framework	The tool for evaluating and ranking Caltrain’s portfolio of capital projects and programs.
Project/Program Category	Grouping of capital projects and programs that highlight the main purpose of the capital investments: <ul style="list-style-type: none"> • Provide a Safe and Secure Railroad • Maintain Core Services • Enhance Service and Customer Experience • Deliver the Long-Range Service Vision • Mandate, Compliance, and Emergency Projects • Partner with Local Communities • Contribute to the Region’s Economic Vitality
Project/Program Delivery Status	Identifies whether the project or program has been initiated and whether the project or program is a recurring or discrete need.
Project/Program Milestones	Major phases of the project delivery process: Planning/Project Initiation, Design, Construction, and Close-out.
Project/Program Sponsor	The agency that funds and leads the project, which is either Caltrain, an External agency, or Shared by Caltrain and other agencies.

Recurring Program	A program that repeats annually or on a regular basis and requires ongoing funding.
Rolling Program	Caltrain’s constrained portfolio of capital projects and programs for the first four years.
Strategic Initiatives	<p>Grouping of capital projects and programs that highlight the main purpose of the capital investments:</p> <ul style="list-style-type: none"> • Provide a Safe and Secure Railroad • Maintain Core Services • Enhance Service and Customer Experience • Deliver the Long-Range Service Vision • Mandate, Compliance, and Emergency Projects • Partner with Local Communities • Contribute to the Region’s Economic Vitality
Systemwide Benefit	<p>A systemwide capital project is defined as a project critical to deliver Caltrain’s main line service or that provides benefits to all customers, regardless of the project’s location. Projects that qualify as “systemwide” include:</p> <p><u>Category 1:</u> SOGR projects that replace or rehabilitate an asset at the end of its useful life, have low redundancy, or have reached technical obsolescence, and that are critical to running or maintaining Caltrain passenger service safely. If that asset fails, it impacts Caltrain’s ability to operate its main line service.</p> <p><u>Category 2:</u> Recurring capital programs that enable Caltrain to take proactive measures to run its passenger service safely and avoid asset failures that would disrupt Caltrain’s service.</p> <p><u>Category 3:</u> Recurring planning programs that enable Caltrain to deliver its service and develop the roadmap of capital investments.</p> <p><u>Category 4:</u> Capital projects or programs that have been identified in a planning study that covers the entire main line corridor and that provide benefits to Caltrain’s main line Service in terms of:</p> <ul style="list-style-type: none"> • Safety and security • Reliability • Customer experience • Performance <p><u>Category 5:</u> Projects that are mandates required by a regional, state, or federal regulatory agencies.</p>

Abbreviations and Acronyms

ACE	Altamont Corridor Express
ADA	Americans with Disabilities Act
AWS	Amazon Web Services
BART	Bay Area Rapid Transit
BEMU	Battery-equipped Electric Multiple Unit
BOS	Back Office System
CARB	California Air Resources Board
CCTV	Closed-Circuit Television
CEMOF	Central Equipment Maintenance and Operations Facility
CIP	Capital Improvement Plan
COTS	Clean, Oil, Test, and Stencil inspections
CP	Control Point
CPTED	Crime Prevention Through Environmental Design
DTX/The Portal	Downtown Rail Extension
EAC	Estimate at Completion
EAM	Enterprise Asset Management
EMU	Electric Multiple Unit
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FY	Fiscal Year
GHG	Greenhouse gas
GIS	Geographic Information Software
GPS	Global Positioning System
GTFS	General Transit Feed Specification
HSR	California High-Speed Rail
JPB	Peninsula Corridor Joint Powers Board
k	Thousand
LCD	Liquid Crystal Display
M	Million
MOW	Maintenance of Way
MPCC	Menlo Park Control Center
MS4	Municipal Separate Storm Sewer System
MT	Main Track
MTC	Metropolitan Transportation Commission

MTC511	Source for Bay Area traffic, transit, carpool, vanpool and bicycling information.
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
OCS	Overhead Contact System
PA	Public Address
PADS	Predictive Arrival/Departure System
PAX	Pennsylvania Avenue Extension
PCEP	Peninsula Corridor Electrification Project
PTC	Positive Train Control
RCUP	Rail Corridor Use Policy
RFP	Request for Proposal
ROCS	Rail Operations Control System
RWP	Roadway Worker Protection
SBHRS	South Bay Historical Railroad Society
SCADA	Supervisory Control And Data Acquisition
SFCTA	San Francisco County Transportation Authority
SFMTA	San Francisco Municipal Transportation Authority
SFPUC	San Francisco Public Utilities Commission
SF Railyards	San Francisco Railyards
SJCC	San José Control Center
SMCTA	The San Mateo County Transit District
SOGR	State of Good Repair
SSF	South San Francisco
SSPP	System Safety Program Plan
TAs	Transportation Authorities from San Francisco, San Mateo, and Santa Clara Counties
TAM	Transit Asset Management
TBD	To be Determined
TES	Traction Electrification System
TJPA	Transbay Joint Powers Authority
TOD	Transit Oriented Development
TPS	Traction Power Substation
TVM	Ticket Vending Machine
UPRR	Union Pacific Railroad
UPS	Uninterruptible Power Supply
VHF	Very High Frequency
VMS	Visual Message System
VTA	The Santa Clara Valley Transportation Authority

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**Peninsula Corridor Joint Powers Board
Staff Report**

To: JPB Technology, Operations, Planning, and Safety Committee
Through: Michelle Bouchard, Executive Director
From: Dahlia Chazan, Chief, Caltrain Planning
Subject: **Receive Fiscal Year 2024 Annual Ridership Report**

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

Purpose and Recommended Action

Staff recommends the Technology, Operations, Planning, and Safety Committee receive the attached update on the Fiscal Year 2024 Annual Ridership Report.

This item is informational only.

Executive Summary

The Fiscal Year 2024 Annual Ridership Report provides a summary of Caltrain ridership over the past year, including comparisons to prior years. This is the first report published since 2019 due to the discontinuation of the Annual Count during the COVID-19 pandemic. Caltrain staff developed a new methodology to track ridership using a fare media-based ridership estimation model that has allowed for a more detailed analysis of ridership trends, which is the subject of this report.

Compared to FY2023, Caltrain’s total FY2024 ridership was up 20.6%. While it has yet to fully return to pre-pandemic levels, Caltrain’s ridership experienced significant gains over the course of FY2024. In July 2023, ridership was less than 30% of July 2019 ridership. By May 2024, ridership was up to nearly 39% of May 2019 ridership. Ridership was highest on mid-weekdays, with Tuesday, Wednesday, and Thursday making up 57% of total ridership. However, Saturday and Sunday ridership outpaced weekday ridership in terms of their FY2024 pandemic recovery rates, despite the twelve weekends that Caltrain operated partial or full bus bridge service. The other notable finding is that Giants games continued to be a significant driver of Caltrain’s ridership in FY2024, leading to increases of 15% to 46%, depending on the day of the week.

Finally, the new ridership estimation model allows staff to track other important data points, such as station-level ridership and ridership by fare product and fare type, that help make data-driven decisions regarding service planning and fare policy. Caltrain’s ridership reporting methodology will be even further refined once data from the Automated Passenger Counters (APC) on the new EMU fleet are incorporated in the near future.

Background

Prior to the COVID-19 pandemic, Caltrain reported its annual ridership through a physical census of all passengers, known as the Annual Passenger Count. The Annual Passenger Count was paused at the beginning of the pandemic due to the region's shelter-in-place orders and has been discontinued indefinitely due to the nearly \$1M cost of the program.

The Fiscal Year 2024 Annual Ridership Report summarizes important trends in Caltrain's ridership as the region emerges from the COVID-19 pandemic and is Caltrain's first official annual ridership report since the Annual Passenger Count was discontinued. The report is a summary of the monthly ridership estimates that were reported in the Executive Director's Report for the calendar months of July 2023 through June 2024. From July 2023 through October 2023, ridership was estimated using a combination of limited conductor counts and data from the Clipper validators at Caltrain stations. In November 2023, the Caltrain Fare Media Sales-Based Ridership Estimation Model replaced this methodology. The Caltrain Fare Media Sales-Based Ridership Estimation Model uses data-informed assumptions to estimate the number of trips generated by the sale of each ticket and pass in the Caltrain system. Staff presented this model to the TOPS Committee in December 2023. This model provides new ridership estimates which were unavailable under the previous methodology, including origin station, pass type, fare distribution channel, and discount level.

Budget Impact

There are no anticipated budget impacts associated with this update.

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DRAFT Caltrain Ridership
Fiscal Year 2024 Annual Report



Prepared by Caltrain Planning
September 2024

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Glossary of Acronyms

AC Transit	Alameda-Contra Costa Transit District
AMWR	Average Mid-Week Ridership
APC	Automated Passenger Counters
AWR	Average Weekday Ridership
COVID-19	Coronavirus Disease of 2019
EMU	Electric Multiple Unit
FY	Fiscal Year
JPB	Peninsula Corridor Joint Powers Board
Muni	San Francisco Municipal Railway
NTD	National Transit Database
PCEP	Peninsula Corridor Electrification Project
PNA	Passengers needing assistance
SamTrans	San Mateo County Transit District
TVMs	Ticket Vending Machines
VTA	Santa Clara Valley Transportation Authority

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1. Introduction

The following report summarizes Caltrain ridership estimates for Fiscal Year 2024 (FY2024). FY2024 includes the calendar months of July 2023 through June 2024. The ridership estimates in this document have been reported monthly to the Board of Directors (Board) of the Peninsula Corridor Joint Powers Board (JPB) through the Executive Director's Report.

The ridership figures in this report are derived from methodologies that are distinct from ridership reports submitted to the National Transit Database (visit <https://www.transit.dot.gov/ntd/transit-agency-profiles/peninsula-corridor-joint-powers-board> for more information).

2. Background

Without fare gates or systemwide Automated Passenger Counters (APCs) infrastructure, Caltrain is currently unable to monitor the actual number of passengers the system carries daily.

Prior to the COVID-19 pandemic, Caltrain's annual ridership reports were generated from physical counts conducted over several weeks each January/February, known as the Annual Passenger Count. These counts were a census of all passenger and bicycle boardings and alightings for every train, at every station. The Annual Passenger Count provided a detailed look at ridership by train, time of day, and station.

The Annual Passenger Count was paused at the beginning of the COVID-19 pandemic due to the region's shelter-in-place orders. Since then, Caltrain's ridership has experienced a period of rapid and continuous change. Because the relevance of point-in-time surveys like the Annual Passenger Count is relatively limited during times of transition and growth, the nearly \$1M cost of the program no longer justify its benefits. For this reason, the Annual Passenger Count has been discontinued indefinitely.

In addition to annual ridership reports, Caltrain has long estimated monthly ridership from available fare media sales data. Fare media sales include purchases of any ticket type on any of the available platforms, including Clipper Card, Ticket Vending Machines (TVMs), and Caltrain Mobile. Caltrain also offers companies and schools the ability to purchase unlimited Caltrain rides for their employees and students through the GoPass program. Historically, GoPasses were distributed via physical stickers that riders could show conductors as proof-of-payment. By FY2024, the majority of GoPasses had been transitioned to Clipper. Once the next generation of Clipper Card (Clipper 2.0) is launched, the remaining Sticker GoPasses will be transitioned to Clipper.

Prior to the pandemic, Caltrain staff used a model to estimate monthly ridership that was partially based on data from the Annual Passenger Count. When the Annual Passenger Count was first discontinued, Caltrain staff developed a temporary estimation methodology which combined limited conductor counts with data from Clipper validators at Caltrain stations. In November 2023, Caltrain replaced the temporary estimation methodology with a new fare media sales-based ridership model. More details on the monthly ridership estimation methodologies used during FY2024 can be found in **Section 3.**

Methodology and Limitations.

While not included in this report, Caltrain collects a limited set of data from APCs at San Francisco Station, which count passengers as they enter and exit the doors to the platforms. This data is not

robust enough for official ridership reporting and is only used for internal operational planning purposes.

3. Methodology and Limitations

Two distinct methodologies were used to estimate monthly Caltrain ridership during FY2024.

3.1. July 2023 – October 2023

For the first four months of FY2024, ridership was estimated using a combination of limited physical counts and available Clipper tap data. For a set group of fourteen stations, ridership was manually recorded by conductors. To estimate ridership at the remaining stations, these conductor counts were compared to Clipper tap data from validators at the same fourteen stations. This produced an estimate of the percentage of counted riders who tapped their Clipper cards on a given day. This percentage was then applied to the Clipper tap data at the remaining stations to estimate the ridership that was not counted by conductors.

During this time, ridership estimates were available for specific days, but only at the corridor-wide level. This methodology did not provide station-specific ridership estimates.

3.2. November 2023 – June 2024

Relying on conductor counts provided reasonably accurate data during the pandemic when ridership on each train was extremely low. However, once average daily ridership began to rebound, Caltrain determined that it was too difficult for conductors to complete accurate counts on the more crowded trains. Therefore, in November 2023, Caltrain replaced the temporary conductor count estimation methodology with the new Fare Media Sales-Based Ridership Estimation Model (Fare Media Model). Rather than using physical counts, this model uses sales data of Caltrain’s various ticket/pass products (“fare media”) to estimate ridership. Based on the type of ticket or pass, the model uses data-informed assumptions to estimate the number of trips generated by the sale and assigns those trips to specific days and origin stations (see Table 1, below). The model does not estimate the number of trips that are made without the purchase of valid fare.

Table 1: Fare Media Sales-Based Ridership Estimation Model Key Assumptions

Ticket Type	Key Assumptions
One-Way	One trip per ticket sold
Day Pass	Two trips per ticket sold
Monthly Pass	Average of 26 trips per ticket sold (weighted by day of week)
GoPass	On average, Sticker GoPasses generate the same number of monthly trips as Clipper GoPasses

The Fare Media Model provides ridership estimates by specific day, origin station, fare distribution channel (Clipper, Ticket Vending Machine, Mobile App, and GoPass Sticker), pass type (One-Way, Day Pass, Monthly Pass, GoPass), and discount level (Adult fare, Eligible Discount fare).

Previous ridership reports from the Annual Passenger Count provided data on ridership by train, time of day, direction of travel, and bike boardings. Given the estimation methodologies available to Caltrain at the time, these data points were not available for FY2024.

4. FY2024 Service Changes

In FY2024, Caltrain’s regular service included 104 trains per day on weekdays and 32 trains per day on weekends.

The system underwent one regular weekday service change starting September 25, 2023. The weekday schedule was adjusted to better align Caltrain/BART transfers at Millbrae with BART’s September 11, 2023, schedule change. Additionally, a fourth daily round trip was added to the Southern Santa Clara County service based on feedback received from the South County Survey conducted in June 2023. Train 305 was adjusted to start at Gilroy Station departing at 7:29 a.m. and stop at all stations between Gilroy and San Jose Diridon. Trains 308 and 410 were adjusted to arrive at Gilroy at 5:40 p.m. and 6:17 p.m. respectively and stop at all stations between San Jose Diridon and Gilroy. Train 412 was adjusted to end at San Jose Diridon at 6:27 p.m. Train 310 was adjusted to be the last train of the day serving stops between Capitol and Gilroy. Service to Tamien Station was removed from Trains 107, 108, 112, 113, 116, 117, 120, 121, 125 and 313 to accommodate work on the Guadalupe Bridge Rehabilitation Project. Train 143 was also adjusted to depart San Jose Diridon Station at 10:30 p.m. to improve evening post-event service from the South Bay. Finally, all evening Local trains were adjusted to operate with improved run times.

Caltrain made one other change to its weekday schedule in FY2024, when service was temporarily modified for the weeks of August 7-11, 14-18, & 21-25, 2023 to accommodate testing and construction efforts for the Peninsula Corridor Electrification Project (PCEP). During these weeks, two limited trains and all Baby Bullet trains were suspended. 31 of the remaining 90 trains were adjusted by two to six minutes from their typical schedules.

In addition to the weekday service changes listed above, Caltrain experienced several temporary modifications to its weekend service over the course of FY2024. On twelve different weekends, Caltrain operated “bus bridges”, where train service was removed from a section of the corridor and replaced by substitute bus service. Significant communications campaigns went out ahead of each weekend bus bridge to alert riders of the service impacts and encourage them to seek alternative means of transportation, due to the limited capacity of the bus bridge. During the weekend bus bridges, passengers were not required to purchase tickets for the bus portions of their trips. Therefore, passengers who only travelled within bus bridge sections of the corridor are not reflected in the Caltrain ridership estimates.

The following table summarizes the dates and locations of the FY2024 weekend bus bridges:

Table 2: FY2024 Weekend Bus Bridges

	Date	Bus Bridge Section	Notes
1	7/15/23 - 7/16/23	Palo Alto - Hillsdale	
2	7/22/23 - 7/23/23	Palo Alto - Hillsdale	
3	8/12/23 - 8/13/23	Millbrae - San Francisco	
4	8/19/23 - 8/20/23	Millbrae - San Francisco	
5	8/26/23 - 8/27/23	Millbrae - San Francisco	
6	10/07/23 - 10/08/23	Millbrae - San Francisco	
7	10/14/23 - 10/15/23	Millbrae - San Francisco	
8	10/21/23 - 10/22/23	Menlo Park - Millbrae	
9	3/9/24 - 3/10/24	Mountain View - San Francisco	AM Bus Bridge Only
10	4/13/24 - 4/14/24	Mountain View - San Francisco	AM Bus Bridge Only
11	4/20/24 - 4/21/24	Mountain View - San Francisco	AM Bus Bridge Only
12	6/8/24 - 6/9/24	San Jose - Millbrae	No train service, full corridor shutdown

5. FY2024 Fare Changes

Beginning September 1, 2023, Caltrain launched the following four promotional fare products. All promotional fare products were available for the remainder of the fiscal year.

- **3-Day Pass** – Allowed pass holder to take unlimited trips for three consecutive days from the date the pass is purchased.
- **\$1 Youth Rides** – Fare for one-way rides for all Clipper Youth Card holders was set to \$1.
- **Family Day Pass** - Allowed two adults and up to four youth (18 and under) to ride together for the cost of two adults and one youth.
- **Group Day Pass** – Allowed four riders to purchase day passes for the price of three.

In addition to the above fare products, Caltrain offered 50% off parking from September 2023 through February 2024.

The one-way youth rides promotion resulted in a 43% increase in ridership compared to the prior year. Due to this success, Caltrain expanded this youth program to offer \$1 one-way fares for youth riders through all payment methods, and a new \$2 youth day pass available on ticket vending machines and the Caltrain mobile app beginning in September 2024.

6. Summary of Key Findings

While it has yet to return to pre-pandemic levels, Caltrain’s ridership experienced significant gains over the course of FY2024. At the beginning of the fiscal year, Caltrain’s pandemic ridership recovery rate was less than 30%. By May, the pandemic recovery rate grew to nearly 39%.

Caltrain’s FY2024 ridership was highest on mid-weekdays, with Tuesday, Wednesday, and Thursday making up 57% of total ridership. However, Saturday and Sunday ridership outpaced weekday ridership in terms of pandemic recovery rates, despite the twelve weekends Caltrain operated bus bridge service.

Giants games continued to be a significant driver of Caltrain’s ridership in FY2024.

7. Ridership Summary

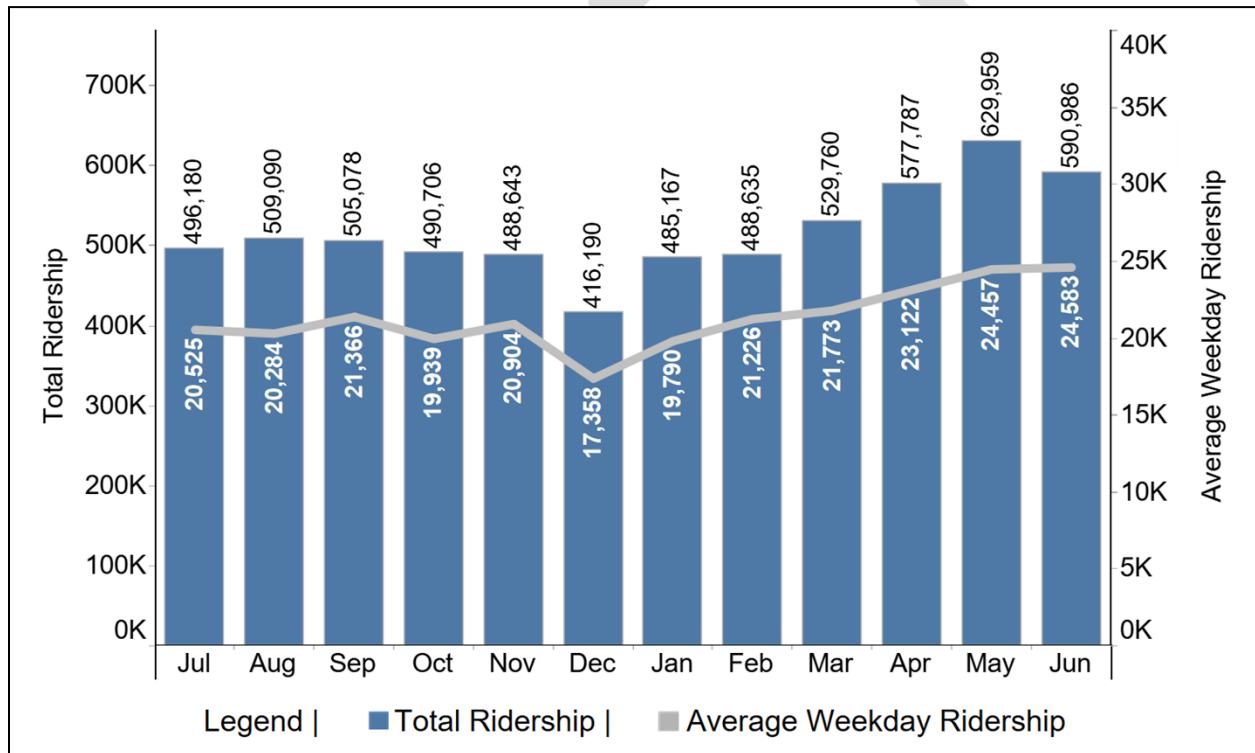
7.1. Total Monthly Ridership and Average Weekday Ridership

Caltrain’s average monthly total ridership in FY2024 was 517,349. The average weekday ridership (AWR) for the whole of FY2024 was 21,784. The month with the highest AWR in FY2024 was June, with 24,583.

During winter months, ridership is historically lower due to factors like holidays and cold and rainy weather. As shown in Figure 1, total monthly ridership in December 2023 was 20% lower than the fiscal year’s annual average. Conversely, ridership tends to peak in the summer, driven in part by popular events like sports games and festivals.

Total monthly ridership was also impacted by the number of weekdays and/or total days in a given month.

Figure 1: Total Monthly Ridership, FY2024



7.2. COVID-19 Pandemic Recovery Trends

In response to growing cases of COVID-19 in the region, a shelter-in-place order was instituted in San Francisco, San Mateo, and Santa Clara counties on March 16, 2020. Due to these lockdowns, Caltrain ridership in April 2020 fell to just 2.4% of what it had been in April 2019.

In the two years following the initial pandemic shutdowns, Caltrain service levels were adjusted to match the changing levels of demand from riders. Weekday service was reduced from 92 trains per day to 42 on March 30, 2020, but then increased to 70 on June 15, 2020. On December 14, 2020, total weekday daily trains dropped slightly to 68, but off-peak service was increased to better fit the needs of

essential workers. Weekday service returned to 70 trains per day on March 22, 2021. Finally, weekday service was increased to 104 trains per day on August 30, 2021.

As shown in Figure 2, Caltrain ridership has grown each year since the start of the COVID-19 pandemic. Between FY2023 and FY2024, total Caltrain ridership increased by 20.6%. However, lasting impacts of the pandemic, like the widespread transition to remote work, continued to affect Caltrain ridership.

Figure 2: Total Monthly Ridership, FY2019-FY2024

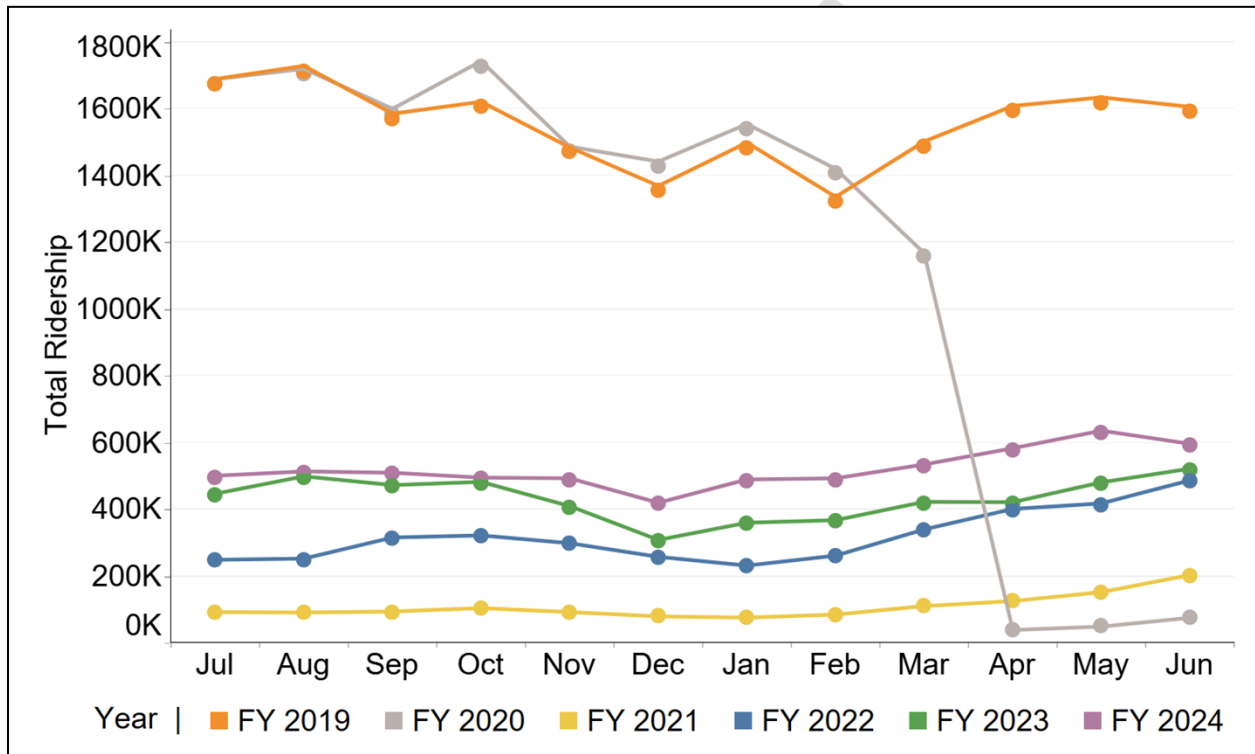


Figure 3: Total Monthly Ridership and Pandemic Recovery Rate, FY2024

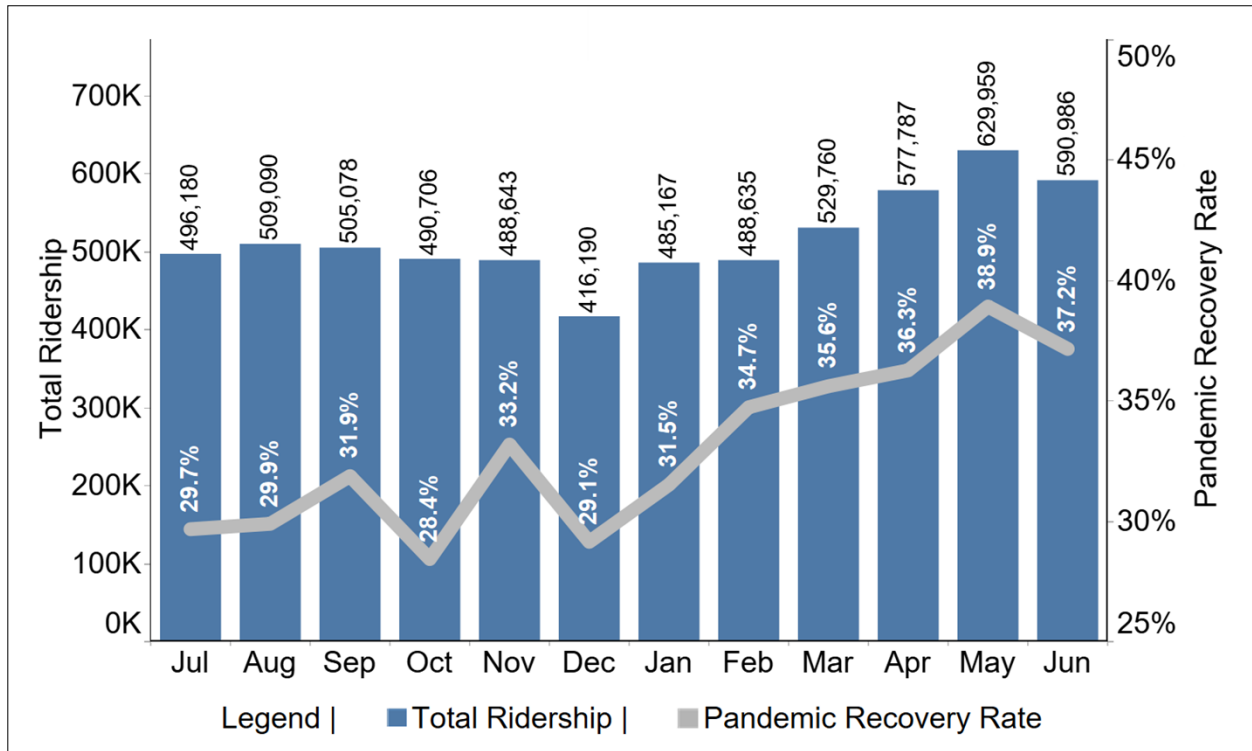
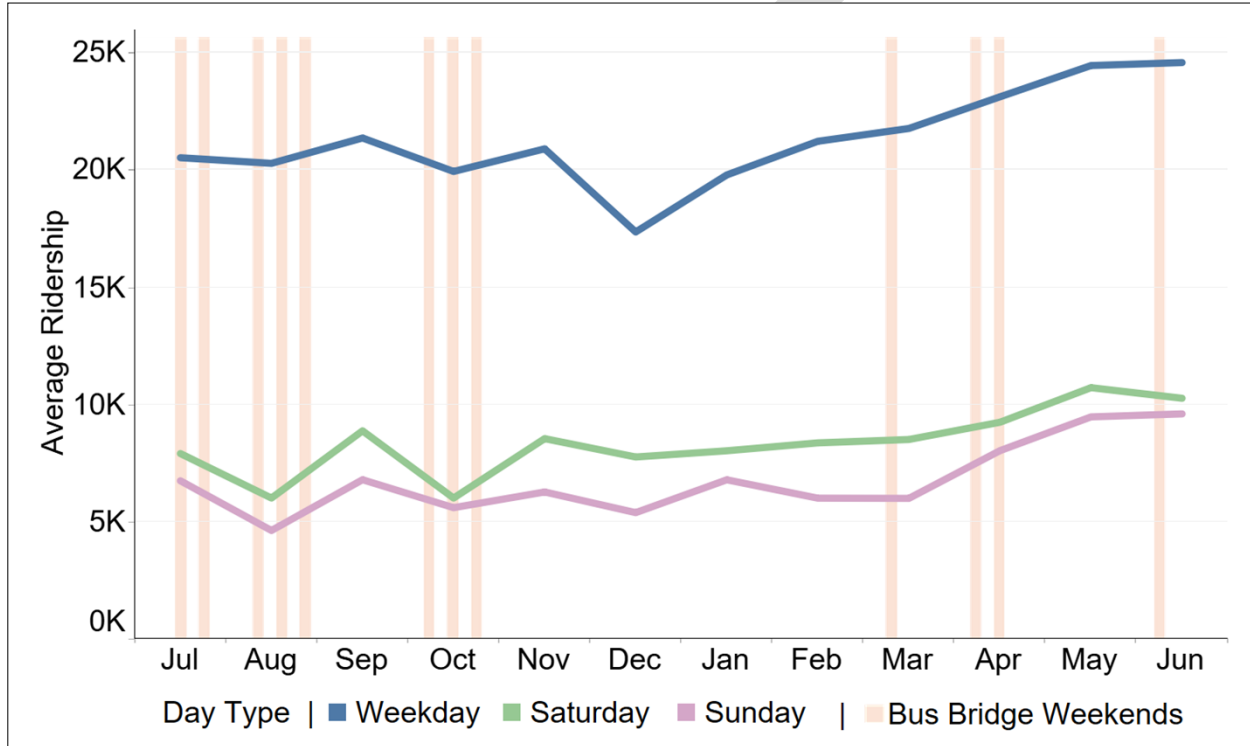


Figure 3 shows Caltrain's pandemic recovery rate for each month of FY2024. The pandemic recovery rate is calculated by comparing the month's total ridership to that of the same pre-pandemic month (March 2019 – February 2020). The pandemic recovery rate increased from less than 30% at the start of FY2024 to a peak of nearly 39% in May 2024.

7.3. Ridership by Day Type

As in previous years, weekday ridership was significantly higher than Saturday and Sunday ridership in FY2024. Figure 4, below, summarizes average ridership by day type for each month in the fiscal year. Bus bridge weekends are highlighted by the orange vertical bands. August and October both had three bus bridge weekends and consequently experienced significant decreases in their average Saturday and Sunday ridership.

Figure 4: Average Weekday, Saturday, and Sunday Ridership, FY2024



Despite the multitude of weekend bus bridges that occurred in FY2024 (see **Section 4. FY2024 Service Changes**), Saturday and Sunday ridership experienced better pandemic recovery rates than weekday ridership.

Table 3: Average Monthly Pandemic Recovery Rate by Day Type, FY2024

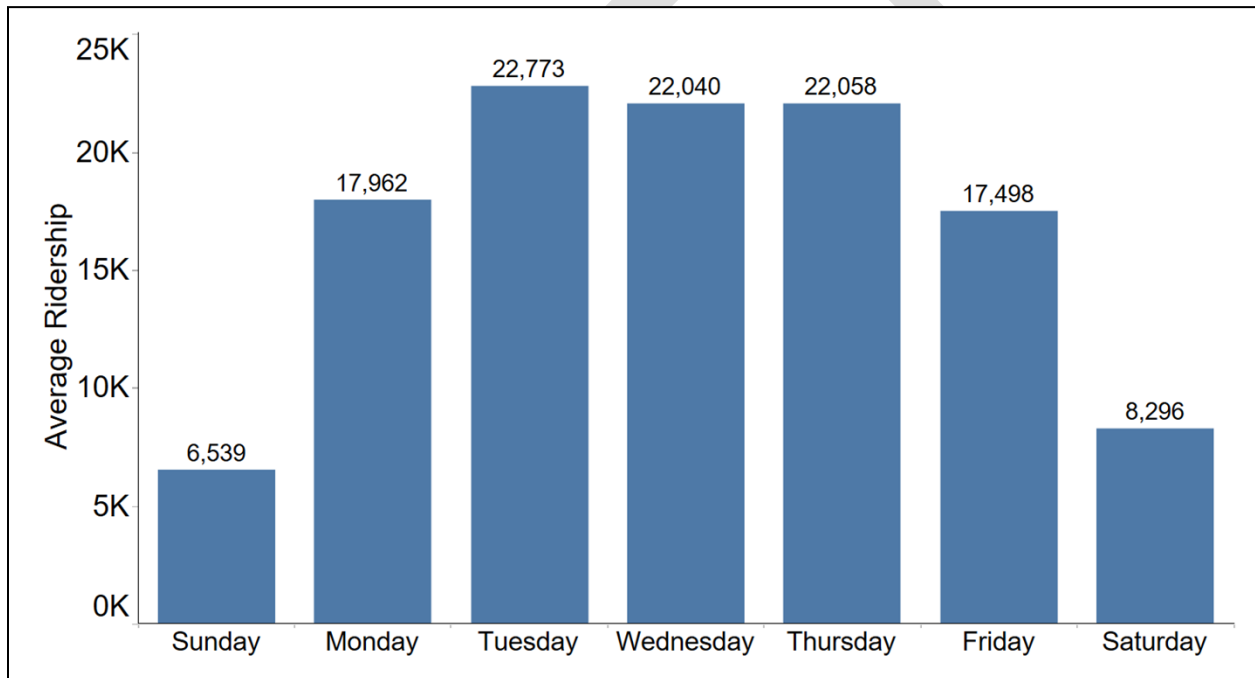
Day Type	Average Monthly Pandemic Recovery Rate
Weekday	31.1%
Saturday	54.1%
Sunday	61.6%

7.4. Ridership by Day of Week

Prior to the pandemic, Caltrain’s ridership was slightly higher on mid-weekdays (Tuesday, Wednesday, and Thursday) than Monday or Friday. Data from the 2013-2017 Annual Passenger Counts found that, on average, Monday and Friday ridership was 1% and 9% lower than mid-week ridership, respectively. The 2018 and 2019 Annual Passenger Counts did not record Monday or Friday ridership.

In FY2024, the discrepancy between mid-weekday ridership and Monday/Friday ridership was much higher than pre-pandemic levels. As seen in Figure 5, average mid-week ridership was 27.4% higher than average ridership on Monday and Friday. This trend is likely a reflection of the growing transition toward hybrid remote work schedules. A survey¹ from November 2023 of individuals living within a few miles of the Caltrain corridor found that over 50% of people report working remotely at least one day a week.

Figure 5: Average Ridership by Day of Week, FY2024



¹ EMC Research, “Caltrain Q4 2023 Ridership Recovery Survey”

7.5. Ridership Impact of Giants Games

Because Oracle Park is located less than a quarter mile from San Francisco Station, Caltrain is a popular option for attendees of San Francisco Giants home games. During the Major League Baseball season (typically April-October), Giants game attendees make up a significant portion of Caltrain’s ridership. While there are no data on exactly which passengers attend events at Oracle Park, Caltrain ridership is significantly higher on days with Giants games. Table 4 compares average ridership for the entire Caltrain system on days during the Giants season when they play at home and average ridership when they play on the road. In FY2024, the most significant impact to ridership occurred on Sundays, with ridership nearly doubling on days when the Giants played home games.

Table 4: Average Ridership by Day Type & Giants Game Location, FY2024

Day Type	Giants Game Location		Difference	
	Away	Home	Absolute	Percent
Weekday	20,546	23,571	+3,025	+14.7%
Saturday	7,666	10,610	+2,944	+38.4%
Sunday	5,960	8,705	+2,745	+46.1%

7.6. Additional Ridership Data from Fare Media Model

This section includes summaries of datapoints that are only available from the Fare Media Model. *Data for FY2024 in this section and tables includes only the months of November 2023 through June 2024.*

7.6.1. Ridership by Origin Station

Prior to the release of the Fare Media Model, the most recent station-specific ridership data Caltrain reported was from the 2019 Annual Passenger Count. Because the 2019 count reported Average Mid-Week Ridership (AMWR), station-specific ridership for FY2024 is also presented as AMWR.

In FY2024, Baby Bullet service stopped at the following stations: San Francisco, 22nd Street, Millbrae, Hillsdale, Redwood City, Palo Alto, Mountain View, and San Jose Diridon. Boardings at these eight stations accounted for 67.8% of overall AMWR in FY2024 (for the months which station-level data was available), down slightly from 70.3% in the 2019 Annual Passenger Count.

Caltrain’s Southern Santa Clara County service includes peak-direction service to Capitol, Blossom Hill, Morgan Hill, San Martin, and Gilroy stations. Total estimated AMWR at these stations was 319 in FY2024, down from 752 in 2019. Note that FY2024’s station level ridership data was collected in the months after the addition of a fourth daily round trip to the Southern Santa Clara County service.

Table 5, below, summarizes AMWR by station from the 2019 Annual Passenger Count and the available months of FY2024.

Table 5: Average Mid-Week Ridership by Station, FY2024 & 2019 Passenger Count

Origin Station	2019 Count Rank	2019 Count AMWR	FY2024 Rank	FY2024 AMWR	Difference in Rank
San Francisco	1	15,027	1	4,803	0
Palo Alto	2	7,384	2	2,889	0
Mountain View	4	4,560	3	1,703	+1
Redwood City	5	4,220	4	1,624	+1
San Jose Diridon	3	4,795	5	1,547	-2
Millbrae	8	3,194	6	1,222	+2
Hillsdale	6	3,217	7	1,212	-1
Sunnyvale	7	3,208	8	1,140	-1
San Mateo	9	2,324	9	914	0
22nd Street	10	1,872	10	854	0
Menlo Park	11	1,639	11	646	0
Santa Clara	16	1,074	12	595	+4
Lawrence	18	1,004	13	513	+5
Burlingame	15	1,131	14	474	+1
San Carlos	14	1,341	15	471	-1
California Ave	12	1,634	16	458	-4
Belmont	20	718	17	454	+3
South San Francisco	22	453	18	418	+4
San Antonio	17	1,017	19	414	-2
San Bruno	19	751	20	233	-1
Hayward Park	21	506	21	225	0
Tamien	13	1,422	22	211	-9
Morgan Hill	24	251	23	100	+1
Gilroy	25	187	24	95	+1
Bayshore	23	260	25	95	-2
Blossom Hill	26	159	26	57	0
College Park	27	103	27	43	0
Capitol	29	71	28	38	+1
San Martin	28	84	29	29	-1

In addition to the stations listed in the above table, Caltrain operated weekend-only service at Broadway station in the city of Burlingame. Broadway averaged 43 boardings per weekend day in FY2024.

Table 6, below, compares Average Mid-Week Ridership by the three counties Caltrain serves, Santa Clara County, San Mateo County, and San Francisco County. Santa Clara County had the highest share of total AMWR in both 2019 and FY2024. San Mateo County's share of total AMWR from 2019 to FY2024

increased from 30.6% to 32.8%, while San Francisco County’s share of total AMWR from 2019 to FY2024 decreased from 27.0% to 24.5%.

Table 6: Average Mid-Week Ridership by County, FY2024 & 2019 Passenger Count

County	2019 Count AMWR	% of Total AMWR	FY2024 AMWR	% of Total AMWR
San Francisco	17,159	27.0%	5,752	24.5%
San Mateo	19,491	30.6%	7,705	32.8%
Santa Clara	26,948	42.4%	10,020	42.7%
TOTAL	63,597	100.0%	23,477	100.0%

7.6.2. Ridership by Fare Product and Fare Type

Fare Type refers to the two classifications of fares available to Caltrain riders: Adult (full price) and Eligible Discount. Eligible Discount tickets are available to seniors, persons with disabilities, youth, and Medicare cardholders, at approximately 50 percent of the full-fare price. In FY2024, an estimated 12% of trips were taken using Eligible Discount Tickets and the remaining 88% of trips were taken using Adult fare tickets.

Fare Distribution Channel refers to the platform that Caltrain fare is purchased and/or stored. As shown in Table 7, the most popular Fare Distribution Channel was the Clipper card, which accounted for an estimated 68.3% of trips in FY24. Compared to paper tickets purchased from Ticket Vending Machines (TVM), Clipper one-way tickets are discounted at 55 cents for Adult fare and 15 cents for Eligible Discount fare. Additionally, Clipper cardholders can get free or discounted rides when transferring from Caltrain to a connecting service with AC Transit’s Route M, Muni, SamTrans and VTA.

Also shown in Table 7, the One-Way pass was the most popular Ticket Type, at 53%. The next most popular pass type is the GoPass, at 20.4%, which is exclusively available through partnerships with companies, schools, and cities for their employees and/or students.

Table 7: Fare Distribution Channel and Ticket Type, FY2024

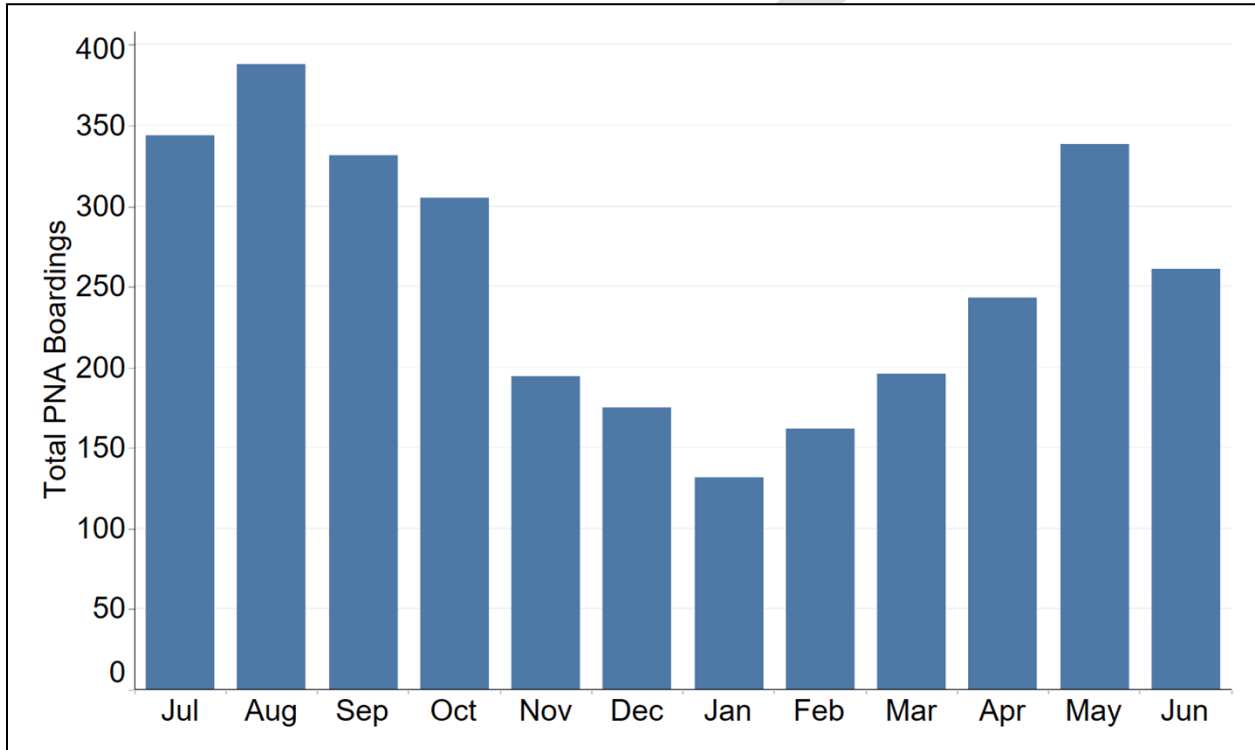
Ticket Type	Fare Distribution Channel				TOTAL*
	Clipper	Mobile App	Sticker	Ticket Vending Machine	
Day Pass	-	3.9%	-	6.1%	10.2%
GoPass	12.8%	-	7.6%	-	20.4%
Monthly Pass	16.4%	-	-	-	16.4%
One-Way	39.0%	5.7%	-	8.2%	53.0%
TOTAL*	68.3%	9.7%	7.6%	14.3%	100.0%

*Percentages may not sum due to rounding.

7.7. Passengers Needing Assistance Ridership

Although the implementation of the Fare Media Model removed the need for on-board conductors to collect counts for system-level ridership estimates, they have continued to collect data on PNA boardings. A PNA boarding is determined by use of the mechanical lift (on Gallery cars), bridge plate in conjunction with the mini-high platform (on Bombardier cars), or manual lift which are stored at the stations. The average total monthly PNA boardings in FY2024 was 256.

Figure 6: Total Monthly PNA Boardings, FY2024



8. Next Steps

Caltrain will continue to use the Fare Media Model for its monthly ridership reporting in FY2025. However, the railroad is scheduled to begin operation of fully electrified service between San Francisco and San Jose in September 2024. Caltrain’s new Electric Multiple Unit (EMU) trains will be equipped with APCs at each door and will provide the agency with detailed station-specific ridership counts. Once the EMU APC system has been thoroughly validated, it will take the place of the Fare Media Model for reporting purposes. The model may still be maintained for internal planning purposes, as it provides valuable ridership estimates by fare distribution channel, fare type, and ticket type.

**Peninsula Corridor Joint Powers Board
Staff Report**

To: JPB Technology, Operations, Planning, and Safety Committee
Through: Michelle Bouchard, Executive Director
From: Navdeep Dhaliwal, Government and Community Affairs Officer
Bella Conferti, Government and Community Affairs Specialist
Liliam Perez, Government and Community Affairs Specialist
Subject: **Receive Update on Pass Forward Program**

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

Purpose and Recommended Action

The purpose of this report is to provide an update on the accomplishments of the Pass Forward Program in Fiscal Year (FY) 2023 and a preview of the program strategy for FY24. This report is for informational purposes only. It requires no action.

Discussion

Staff will provide a summary of the accomplishments and developments of the Pass Forward Program for Fiscal Years 2023-2024. The report will highlight FY24 enrollment statistics, the program's marketing rebrand, and continued growth strategies planned for FY25.

The Pass Forward Program is a key Caltrain initiative designed to enhance diversity and expand ridership across the system.

Budget Impact

The Pass Forward Program operates with an annual budget of \$60,000, which is currently sufficient. Staff is not seeking Board approval for any additional costs.

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