Short Range Transit Plan: FY2015-2024

October 1, 2015

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Titles reflect pre-fall 2015 organizational structure

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Caltrain Short Range Transit Plan - Fiscal Years 2015 to 2024

Draft Plan Submitted to the Metropolitan Transportation Commission August 2015.
Final Plan adopted by the Peninsula Corridor Joint Powers Board and submitted to the Metropolitan Transportation Commission in October 2015.

Federal transportation statutes require that the Metropolitan Transportation Commission (MTC), in partnership with state and with local agencies, develop and periodically update a longrange Regional Transportation Plan (RTP), and a Transportation Improvement Program (TIP) which implements the RTP by programming federal funds to transportation projects contained in the RTP. In order to effectively execute these planning and programming responsibilities, MTC, in cooperation with Region IX of the Federal Transit Administration (FTA), requires each transit operator in its region which receives federal funding through the TIP (federal grantees within the MTC region) to prepare, adopt, and submit to MTC a Short Range Transit Plan (SRTP).

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Executive Summary

The following document is a full update of the Caltrain 10-Year Short Range Transit Plan (SRTP) produced by the Peninsula Corridor Joint Powers Board (JPB), the entity that oversees Caltrain commuter rail service. The plan follows a set of guidelines prescribed by the Metropolitan Transportation Commission (MTC). Per MTC's requirements, SRTPs have typically been produced as either "full" or "mini" SRTPs. Both the "mini" and "full" plans provide the JPB's operating and capital investment plan across a 10-year horizon. The "full" plan is more extensive in that it also provides an overview of the transit system, goals and performance measures, information on service and system evaluation and other ancillary items. This document is a "full" SRTP.

The following introduction provides a summary of the SRTP, discussing Caltrain's major programs and challenges and highlighting the 10-year operating and capital investment plan. It is important to note that this plan is the first SRTP that MTC has required Caltrain to produce since 2009. The programs and plans described in this document have evolved substantially since the previous "mini" SRTP produced by Caltrain in 2009.

Policy Context

This SRTP has been produced following an update to the Caltrain Strategic Plan (adopted by the JPB Board in October 2014). The Strategic Plan is a comprehensive, high level document that articulates a vision for Caltrain and elaborates policy around key service and investment decisions in the fiscal year 2015-2024 timeframe. The capital and operating plans included in the SRTP reflect and enact the policy framework established in the Strategic Plan.

Caltrain Modernization

Both the SRTP and the Caltrain Strategic Plan are structured around the Caltrain Modernization Program. Collectively, the Caltrain Modernization Program (CalMod) encompasses both the delivery of a $1.7 billion package of infrastructure projects to the Caltrain system by 2020 (fiscal year 2021) as well as ongoing planning for longer range improvements focused on expanding system capacity and preparing for the shared use of the Peninsula Corridor by both Caltrain and High Speed Rail Service in a "Blended System." The CalMod program and the blended system are codified and funded through a 9-party Memorandum of Understanding that was signed by the JPB, the California High Speed Rail Authority, MTC and other regional entities in 2012.

This project is also included in the MTC Regional Transit Expansion Program (Resolution 3434) that was adopted in 2001 and amended in 2008.

By 2020, the Caltrain Modernization Program will electrify and upgrade the performance, operating efficiency, capacity, safety and reliability of Caltrain's commuter rail service through the delivery of several key projects that form the "Early Investment Program" for the Caltrain / High Speed Rail blended system. These projects include the electrification of the existing Caltrain corridor between San Francisco and San Jose; the installation of a Communications Based Overlay Signal System Positive Train Control (CBOSS PTC), which is an advanced signal system that includes federally-mandated safety improvements; and the replacement of a majority of Caltrain's diesel trains with high-performance electric trains called Electric Multiple Units (EMUs).

Together, the delivery of CBOSS PTC by 2015 and the Peninsula Corridor Electrification Project by 2020 constitute an "early investment" in the future shared operation of Caltrain and High Speed Rail on the corridor as a blended system. Prior to high speed rail's anticipated arrival, additional system upgrades including high-speed rail stations and the rail extension from the Caltrain 4th and King station to the new Transbay Transit Center in downtown San Francisco must also be planned, funded and constructed. The blended system may also include passing tracks that allow high-speed rail trains to bypass the Caltrain trains; grade crossing upgrades, including potential grade separations; a storage and maintenance facility and other system upgrades. Caltrain's own capital improvement program also contemplates a second "phase" of improvements to the Caltrain system including the full conversion of Caltrain's fleet to EMUs, the extension of trains from 6 to 8 cars, and modification of station platforms to accommodate longer trains and support level boarding. Over the next ten years, Caltrain will work with the California High Speed Rail Authority and local and regional partners to plan for the blended system as well as its own ongoing improvement and expansion.

Operational Challenges

Today, Caltrain operates a total of 92 diesel locomotive-hauled trains per day on the weekdays between San Francisco and San Jose with limited service further south to Gilroy. Over the 10-year timeframe addressed in the SRTP, Caltrain will expand its service to 114 trains per weekday day using a mixed fleet of diesel locomotive-hauled rolling stock and new EMU trains. This shift poses both a tremendous opportunity and challenge that underlies the agency's operational planning across the coming 10 years.

Caltrain has experienced rapid ridership growth and many of its peak-hour trains currently operate near, at or above their seated capacity. Meeting

growing customer demand while maintaining a high standard of safe, reliable and comfortable service is the preeminent operational challenge faced by the agency over the horizon of the SRTP. It is anticipated that this challenge will be especially acute during the primary electrification construction period (2016-2020) when Caltrain will need to maintain reliable revenue service in the midst of a corridor-wide construction project. Caltrain will also need to ensure its operational integrity by evolving its organization to operate and maintain an expanded, electrified system.

Operating Plan and Budget

The 10-year Operating Plan indicates that Caltrain expects to operate a 92-train weekday schedule with its current service pattern through FY2021 with only minor schedule modifications. In FY2021, following the implementation of the Peninsula Corridor Electrification Project, Caltrain will significantly modify its weekday service, adding 22 additional trains per day and increasing frequencies during the commute periods and the midday hours.

The 10-year Financial Plan shows a deficit in FY2017 through FY2024, with operating and maintenance costs exceeding revenues from fares, partner contributions, and other sources. This occurs because Caltrain does not have a dedicated source of funding and has an on-going structural deficit in its operating budget. Caltrain is currently developing strategies to balance the annual budget through FY2024 and will comprehensively evaluate a variety of factors that influence the system's operating deficit including: fare policy and pass programs; incremental impacts of added service on operating revenues and costs; potential for securing dedicated operating funds through a three-county ballot measure; and cost containment strategies.

Capital Improvement Plan

Caltrain's 10-Year CIP is a $3 billion program focused on maintaining the JPB's assets in a state-of-good repair, enhancing the reliability of the system, and delivering electrified service from San Francisco to San Jose by 2020. The CIP also reflects Caltrain's ongoing planning for the next generation of system improvements that are needed in the FY2015-2024 timeframe to expand system capacity and continue preparations for the Caltrain / HSR blended system.

Revenue sources included in the CIP reflect Caltrain's reasonable expectation of funding levels. Caltrain will, however, continue to work with its funding partners to solidify the Caltrain 10-year CIP funding plan and identify additional funding to implement the CIP in total. Among other options, Caltrain will explore both traditional (e.g. grants) and innovative funding strategies including the possiblity of new public and private partnerships.


Caltrain

1 Overview of Transit System

1.1 Brief History

Railroad service along the San Francisco Peninsula has a long history and has existed, in some form, since 1863. The railroad line, one of the oldest in California, was first proposed in 1851 to connect the booming trade center of San Francisco and the first state capitol of California, San Jose.

Ground for the railroad was not broken until May 186 when construction of the line began at San Francisquito Creek, on the Santa Clara-San Mateo county line. By October 1863, regular service began between San Francisco and Mayfield (now the California Avenue station in Palo Alto). The construction of the line to San Jose was completed in January 1864, and two trains began operating daily between San Francisco and San Jose.

Prior to Caltrain's current ownership, passenger rail ridership on the Peninsula was at its peak in the mid-1940s, when more than 9.54 million patrons rode the train annually. However, as the cost of operating the Peninsula commuter rail service increased and the number of riders began to decline, the former Southern Pacific Railroad (SP) began to phase out its less patronized trains and, by the mid-1970s sought to discontinue passenger rail service. After extended negotiations, SP, the California Department of Transportation (Caltrans), and the three counties through which the Peninsula Commute Service operated (San Francisco, San Mateo, and Santa Clara counties) reached an agreement to preserve passenger rail service on the Peninsula. Beginning in 1980, Caltrans Rail Management and Rail Operation branches administered a purchase-of-service agreement with Southern Pacific

Caltrain Inaugural Train, 1980.

under which SP operated the service, but state and local government agencies subsidized and administered it. Besides contract administration, Caltrans' responsibilities included planning, marketing, customer service, engineering and design, fare and schedule setting, and performance monitoring. The commuter service was renamed Caltrain.

In 1987, representatives of the City and County of San Francisco, the San Mateo County Transit District ("District") and the Santa Clara County Transit District (SCCTD), now the Santa Clara Valley Transportation Authority (VTA), began the effort to create the Peninsula Corridor Joint Powers Board (JPB) to transfer administrative responsibility for Caltrain from the state to the local level. In July 1991, a Joint Powers Agreement, signed by the three parties, stipulated the JPB membership and powers, specified financial commitments for each member agency, delegated the San Mateo County Transit District as the managing agency, and detailed other administrative procedures.

The JPB purchased the 51.4-mile Caltrain right of way from Southern Pacific in December 1991 for a cost of $212 million. In July 1992, San Mateo County Transit District personnel assumed the management and administration of the JPB, and the JPB assumed ownership of Caltrain, contracting with Amtrak as its operator. In 1992, the commute service from Gilroy began. In the 22 years that the JPB has owned Caltrain, ridership has increased nearly 150%.

In 2002, Caltrain weekend service was suspended for two years to allow for construction of the CTX project. With new rolling stock and upgraded infrastructure, the Baby Bullet express service was initiated in June 2004 through support of MTC with the project's inclusion in the Regional Transit Enhancement Program (Resolution 3434). Following the start of express service, ridership immediately began to increase. However, within a year Caltrain was facing financial difficulties and decided to overhaul the entire schedule and offer more express service in order to attract additional riders, particularly those making longer trips. The re-invention of Caltrain occurred in August 2005 with a decrease of local trains in the peak and a doubling of express service to 22 Baby Bullet trains a day. Since that point, Caltrain has experienced a sustained ridership increase and now realizes an average weekday ridership of over 60,000.

The Caltrain system's evolution continues today as the corridor modernizes and prepares for future blended operations with high speed rail. In 2009, following voter approval of $9 billion to plan and construct the state's high-speed rail system, the Caltrain and the California High Speed Rail Authority began working in partnership

to advance specific improvements and identify design alternatives supporting both high speed rail and modernized Caltrain service. Since that time, plans for high speed rail service on the Peninsula Corridor have evolved to reflect the concept of a "blended system" where Caltrain and high speed rail trains primarily share Caltrain's existing tracks on a system that remains substantially within the existing Caltrain corridor. In 2012, the Metropolitan Transportation Commission, the California High Speed Rail Authority, Caltrain and six other San Francisco Bay Area funding partners established an agreement to support the blended system and to move forward with an early investment in the Caltrain Modernization Program. It is this early investment program that provides the funding for Caltrain's efforts to deliver modernized, electrified Caltrain service by 2020.

1.2 Governance

The JPB is a joint powers authority created by agreement pursuant to Government Code Sections 6500 et seq. The three member agencies of this joint powers authority are the City and County of San Francisco, the San Mateo County Transit District ("District") and the Santa Clara Valley Transportation Authority.

BOARD OF DIRECTORS

The Peninsula Corridor Joint Powers Board includes representatives from San Francisco, San Mateo, and Santa Clara counties. The JPB consists of nine members, three from each county.

The San Francisco representatives include an appointee from the Mayor's office, an appointee from the San Francisco County Board of Supervisors, and an appointee from the San Francisco Municipal Transportation Agency. The three San Mateo County representatives are all members of the San Mateo County Transit District's Board of Directors, but three different appointing authorities designate a representative from the Transit District's Board, as follows: The Transit District Board; the San Mateo County Board of Supervisors; and the Cities Selection Committee of the Council of Mayors of San Mateo County. The Santa Clara County representatives include a member of the VTA Board of Directors appointed by the Board representing the City of San Jose or the County of Santa Clara; a member of the VTA Board of Directors appointed by that Board representing the County of Santa Clara or a city in Santa Clara County other than the City of San Jose; and the County's representative to the MTC, or if this person declines to serve, then the MTC appointee of the Cities Selection Committee, or if this

person declines to serve, then a member of the VTA Board of Directors, as appointed by that Board.

JPB Directors do not have any terms as prescribed by the JPB; they serve at the discretion of their appointing authority. The current members of the JPB board include:

- Jose Cisneros, appointed by the Mayor of San Francisco
- Malia Cohen, appointed by the San Francisco County Board of Supervisors
- Jeff Gee, appointed by Cities Selection Committee
- Rose Guilbault, appointed by the San Mateo County Transit District
- Ash Kalra, appointed by VTA
- Tom Nolan, appointed by the Municipal Transportation Agency
- Adrienne Tissier, (Chair), appointed by the San Mateo County Board of Supervisors
- Perry Woodward, (Vice Chair), appointed by VTA
- Ken Yeager, appointed by VTA

ADVISORY COMMITTEES

There are three standing advisory committees that offer the JPB and Caltrain management input on a regular basis. These are as follows:

- The **Citizens Advisory Committee** (CAC) is composed of nine volunteer members who serve in an advisory capacity to the tri-county policy board, provide input on the needs of current and potential rail customers, and review and comment on staff proposals and actions as requested by the board.
- The **Bicycle Advisory Committee** (BAC) is a partnership composed of nine volunteer members and Caltrain staff. There are three representatives from each of the three counties served by Caltrain: San Francisco, San Mateo and Santa Clara. One member from each county is a public agency staff member responsible for bike planning and/or policy development, one is a member of a bicycle advocacy organization, and one is a Caltrain bike passenger from the general public. The BAC serves as the primary venue for the interests and perspectives of bicyclists to be integrated into the Caltrain planning processes. This group advises staff, bringing new ideas for discussion and helping Caltrain guide its future investments.
- The **Central Equipment Maintenance and Operations Facility Monitoring Committee** is an advisory committee established by the San Jose City Council in cooperation with Caltrain. The primary responsibility of the committee members is to provide ongoing communication with the community regarding the operation of the maintenance facility.

1.3 The Organization

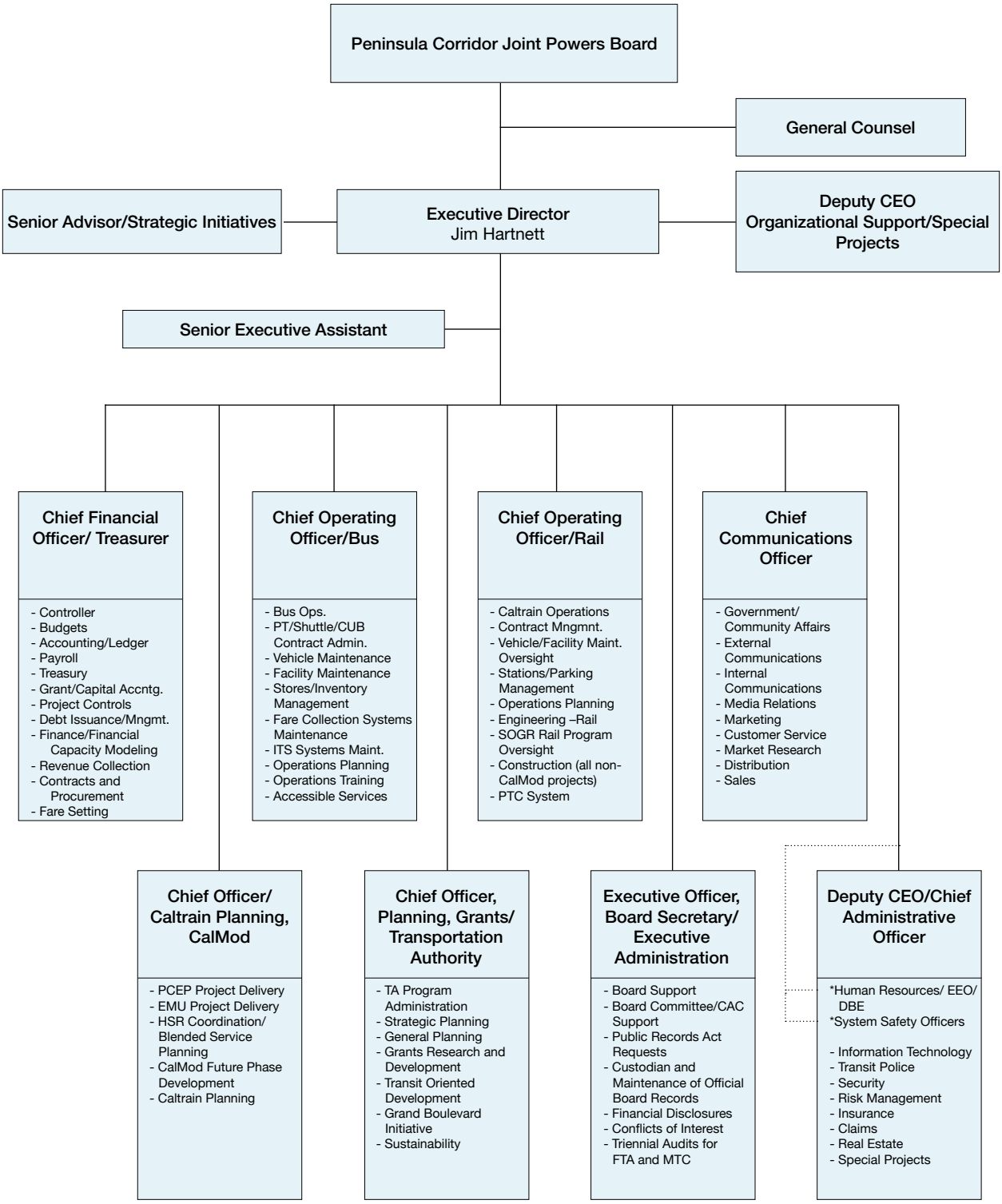
The joint powers agreement creating the Joint Powers Board (JPB) designates the Samtrans District as the Managing Agency of the JPB. The JPB has no direct employees. Instead, employees of the Managing Agency (Samtrans District) serve as staff to the JPB. Under this contractual arrangement, the CEO/GM of the District serves the JPB as its Executive Director. The Executive Director is supported by Chief Officers who oversee individual departments within the agency. See Figure 1.1.

STAFFING

SamTrans District staff provides administrative management for the Caltrain system, with district departments providing staff support in engineering, finance, capital project development, project monitoring, planning, marketing, customer service, public and media relations, fare and schedule setting, performance monitoring, personnel recruitment, budget and grant administration, and public outreach.

The Rail Transportation Department is responsible for the day-to-day operation of Caltrain and

Figure 1.1: Joint Powers Board Organization Chart



Revised organizational structure as of fall 2015

Asterisk (*) denotes direct access to the CEO

provides direct oversight of the contract operator, Transit America Services Inc (TASI). TASI began Caltrain operations on May 26, 2012. The base portion of the contract expires on June 30, 2017, with 5 one-year options thereafter. TASI employees include both union and non-union staff. 11 labor unions represent workers associated with maintenance and operations of the rail service.

Although 11 labor unions represent workers associated with maintenance and operations of the rail service, these unions hold agreements with TASI, Caltrain's contractor. The JPB does not hold direct labor agreements with any railroad workers. In July of 2015, however, the JPB executed a project labor agreement (PLA) specifically for the Peninsula Corridor Electrification Project. The PLA was reached with the Building Trades Councils of the city and county of San Francisco, San Mateo County, and Santa Clara/ San Benito counties to govern the building and construction work to be performed under the design build contract for the PCEP. The Board also adopted a Memorandum of Understanding with the International Brotherhood of Electrical Workers (IBEW) Union, Local 1245, to govern the overhead electrification systems work to be performed under the design-build contract for the PCEP. The agreement expires upon the JPB's filing of a Notice of Completion for the PCEP.

1.4 Description of Services and Service Area

RAIL SERVICE

Caltrain provides inter- and intra-county commuter rail service along the San Francisco Peninsula Corridor, including San Francisco, San Mateo, and Santa Clara counties. The JPB operates Caltrain 365 days a year with reduced schedules on major U.S. holidays. The current weekday Caltrain operating schedule is comprised of a mix of 92 express (Baby Bullet), limited, and local trains. Scheduled headways, or the time between arrivals of vehicles moving in the same direction at a station, vary by time of day, station, and service type. Overall, service is most frequent during the peak commute periods and is provided every hour in both directions during midday periods. Weekday Northbound service begins at 4:30 AM and ends at 12:01 AM. Weekday Southbound service begins at 4:55 AM and ends at 1:32 AM. Caltrain operates 36 trains on Saturday and 32 on Sunday, with service primarily composed of hourly local trains supplemented by two Baby Bullet trains in each direction per day. Saturday Northbound service begins at 7:00 AM and ends at 12:06 AM, while Southbound service begins at 8:15 AM and ends at 1:37 AM. Sunday's service span is more constrained, with Northbound service beginning at 8:00AM and ending at 10:36 PM and Southbound service running from 8:15 AM to 10:51 AM.

Caltrain serves 32 stations along the 77.2-mile route between San Francisco and Gilroy, as illustrated in the system map presented in Figure 1.2. On weekdays and weekends, the majority of trains operate between San Francisco and San Jose. On weekdays, three trains per weekday start in Gilroy during the morning commute period, and three terminate in Gilroy during the evening commute period. On weekends, trains operate exclusively between San Jose and San Francisco.

Twenty-three stations are served full-time. Weekend-only service is provided to Broadway and Atherton stations while the College Park station is served by only four trains each weekday. The five stations on the Gilroy extension in southern Santa Clara County are served by six weekday trains per weekday during peak hours only. A shuttle bus connects the Tamien station to the San Jose station on weekends. Stanford Stadium station is served approximately eight days per year when the Stanford football team plays home games.

Caltrain currently operates three variants of commuter rail service:

- **Express service** (Baby Bullet service) provides a 60-minute trip between San Francisco and San Jose, with stops at six to eight stations, including terminal stations. Caltrain operates 22 Baby Bullet trains on weekdays (11 per direction) and 4 on weekend days (2 per direction).

- **Limited service** includes trains operating a skip-stop or limited local service, stopping at approximately half of the stations between San Francisco and San Jose. Some limited trains operate in an iterative skip stop pattern while others provide local service within a geographic segment of the corridor while operating as express trains in other areas. Run times for limited service are longer than that of Baby Bullets trains, averaging roughly 70 to 80 minutes. Caltrain operates a total of 42 limited service trains on weekdays and none on weekends.

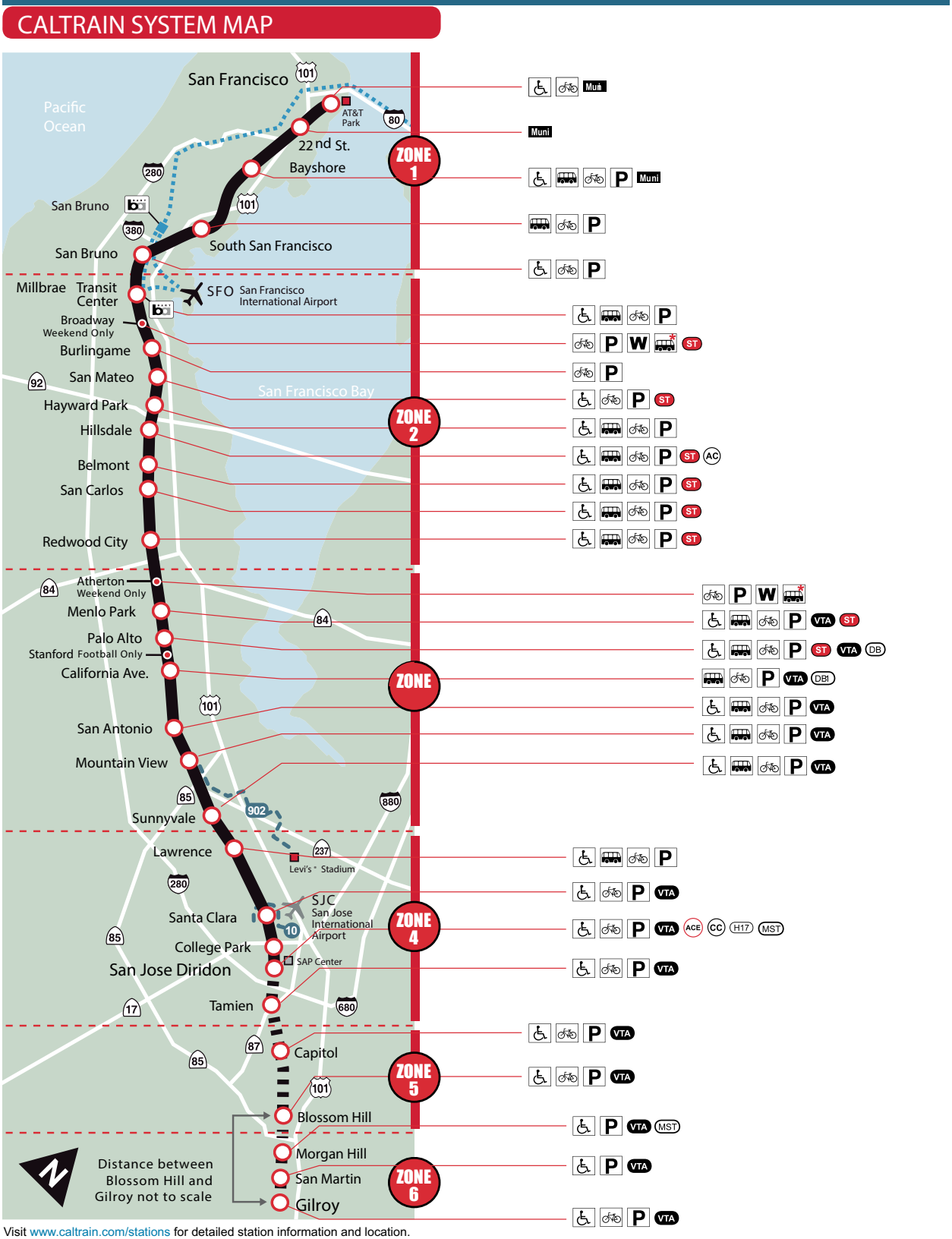
- **Local service** trains stop at all stations and operate outside the weekday peak period only. Travel times for local trains between San Francisco and San Jose are approximately 90 minutes. Caltrain operates 28 local trains per weekday.

Given Caltrain's blend of services, the individual level of train service experienced by particular stations along the route is variable, especially during weekday peak periods. During the AM and PM peak periods, all stations receiving express service are served by at least one bullet train per an hour with headways ranging between 15 to 30 minutes. Some higher frequency "bullet stations," and terminals including San Francisco, Palo Alto, and San Jose Diridon, are served by at least two bullet trains per hour. "Non-bullet" stations are served by Limited and Local trains at headways ranging between 30 minutes to 60 minutes during peak periods. During off-peak periods (early morning, midday, and after 7:00 PM), headways at all stations are generally about 60 minutes.

Caltrain provides supplemental service to large special events in the form of extra trains. Extra trains are provided for Independence Day, New Year's Eve, and the Bay to Breakers race. Selected regular weekend local trains make stops at the Stanford station before and after Stanford home football games. Extra trains also are provided for certain events at the stadium near the San Francisco Caltrain Station based on demand. The majority of this extra service is to Giants home baseball games. Before Giants home games on weekdays, one extra scheduled train is provided outside of peak hours with additional extra trains provided as needed. After Giants games, Caltrain typically provides two extra trainswith additional extra trains provided as needed. Service to special events and Giants games is periodically adjusted to meet passenger demand and operational conditions.

Over the course of the year, approximately 500 special trains are operated in addition to the more than 26,000 regularly scheduled trains. In 2014 Caltrain began providing extra service in and out of the Mountain View Caltrain Station before and after major events at Levi's Stadium in Santa Clara. Events being held in 2015 at the San Jose Earthquakes stadium in Santa Clara will be monitored with possible additional service added depending on the demand.

Figure 1.2: Caltrain System Map



Visit www.caltrain.com/stations for detailed station information and location.

Table 1.1: Caltrain Shuttle 10-Year Service Plan

FISCAL YEAR	NUMBER OF ROUTES/ VEHICLES	ANNUAL RIDERSHIP	AVERAGE WEEKDAY RIDERSHIP	TOTAL OPERATING COST
2011	32/35	1,472,355	5,630	$2,883,594
2012	32/42	1,874,085	7,167	$2,969,715
2013	28/30	884,698	3,383	$3,141,384
2014	31/30	930,000	3,556	$3,219,919
2015	30/29	818,100	3,128	$3,165,527
2016	28/28	816,181	3,121	$3,063,937
2017	28/28	824,343	3,152	$3,140,535
2018	28/28	832,586	3,184	$3,219,049
2019	28/28	840,912	3,216	$3,299,525
2020	28/28	849,321	3,248	$3,382,013
2021	28/28	857,814	3,280	$3,466,563
2022	28/28	866,393	3,313	$3,553,227
2023	28/28	875,057	3,346	$3,642,058
2024	28/28	883,807	3,380	$3,733,109

CALTRAIN SHUTTLE SERVICES

Shuttles are an important element of the Caltrain transit network as they provide the “last mile” connection between Caltrain stations and major activity centers. Shuttles connecting to Caltrain include a broad range of transportation services that are both publically and privately provided by transit agencies, community organizations, employers, and academic and cultural organizations.

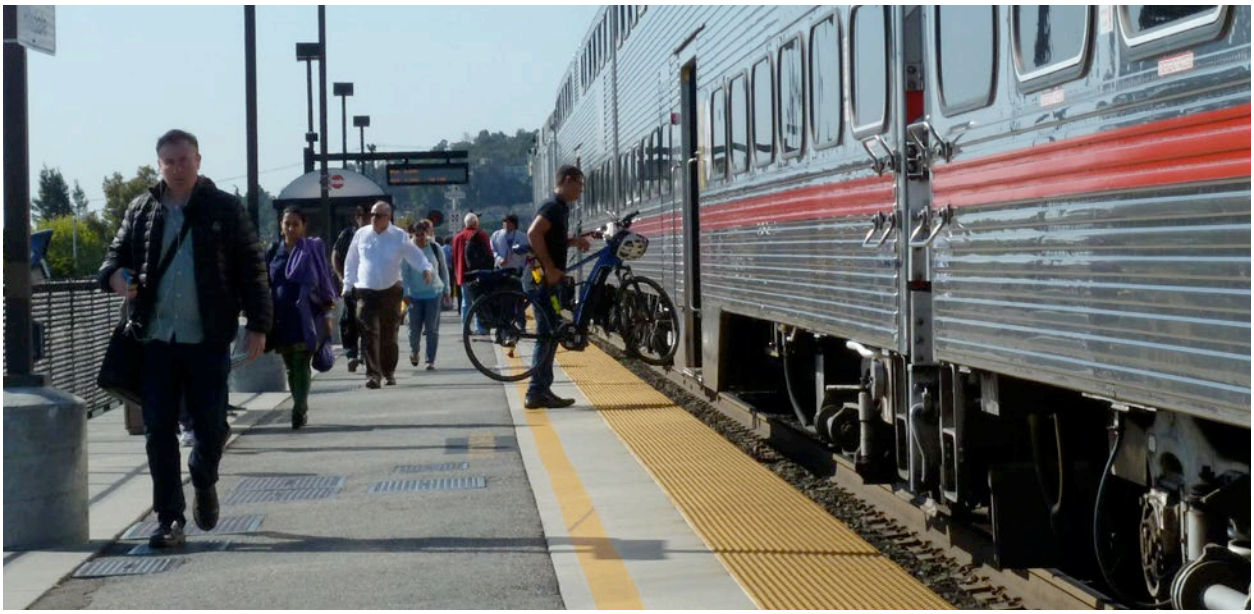
Shuttle vehicles range from mini-vans to full-sized motor coaches. Most public shuttles operate fixed routes between Caltrain stations and employment sites. Some shuttles charge a nominal fare of under $5.00; others are free.

Caltrain sponsors and is directly involved in the administration of 30 shuttles serving 18 of its stations. The operations of Caltrain sponsored shuttles are funded though several sources. Typically, a sponsor, such as a major company, underwrites at least 25% of the cost of the service, with the Bay Area Air Quality Management District (BAAQMD) providing year-to-year discretionary fund financing of 25 to 40 and Caltrain subsidizing the balance of costs.

Caltrain shuttles are generally scheduled to meet particular trains and carry employees directly to nearby office or industrial employment centers. Shuttle service is adjusted periodically to account for changes in demand, job location, and train service patterns. Vehicles are replaced by the shuttle operator and are not part of the Caltrain vehicle replacement program.

Caltrain-sponsored shuttles carried an average of 3,556 riders per weekday in FY2014. Caltrain shuttle ridership on most routes has grown rapidly over the last several years. The large drop in ridership shown between FY2012 and 2013 reflects the removal of several popular routes from “Caltrain Sponsorship” and associated reporting requirements.

Caltrain-sponsored shuttle operations are largely constrained by grant funding availability and the 10-Year Shuttle Service Plan in Table 1.1 shown does not assume any increases in number of routes or vehicles. Instead, the number of Caltrain-Sponsored shuttle routes is slated to decrease in FY2015 and again in 2016 as specific shuttle routes are cancelled or are moved to contracts outside of Caltrain’s administration and sponsorship.



Following these anticipated changes in FY2015 and FY2016, shuttle ridership is anticipated to grow steadily through to FY2024. It is assumed that any issues with shuttle capacity will be addressed by operating routes with larger vehicles. This SRTP assumes that private sponsorship and BAAQMD funds will continue to be available at a rate comparable to today. If these funding sources decline Caltrain will need to seek alternative funding or reduce shuttle service.

OTHER SHUTTLE SERVICES

Recently, there has been substantial growth of shuttle operations in the San Francisco Bay Area, especially private employer-provided regional shuttles that offer direct service to employment sites either from residential neighborhood stops, or from major transit hubs, including Caltrain stations. Major employers offering such services include a number of technology industry companies based throughout the San Francisco Bay Area.

BICYCLES

Caltrain has a progressive bicycle access policy, providing more onboard bicycle storage capacity than any other commuter railroad in North America. Caltrain's "Bikes on Board" program began in 1992 and its scope and popularity have increased steadily since that time. In 2011, Caltrain trains were modified to be equipped with two bicycles cars, increasing overall bicycle carrying capacity by 30%. Each Caltrain train can now accommodate between 48 and 80 bicycles at a time depending on equipment type. In the future, Caltrain will add a third bike car to all of its Bombardier-manufactured train sets, increasing their capacity from 48 to 72 bikes. Caltrain does not charge fees to bring bicycles on-board. Average daily bicycle boardings have increased rapidly and in 2014, a total of 5,874 bicycles boarded daily (an increase of nearly 20% compared to the previous year). The popularity of Caltrain's Bikes on Board program creates capacity challenges when all the available slots on a bike car are filled and new cyclists are unable to board. When trains reach capacity, riders with bikes are asked by conductors to wait for the next train.

Cyclists who ride Caltrain can also choose to store their bicycles at Caltrain stations rather than bring them on board. Caltrain and its local jurisdiction partners provide a variety of racks, lockers and shared access bicycle parking facilities at various stations, the majority of which are owned and administered directly by Caltrain.. At some stations, however, facilities may be owned and operated by a local jurisdiction or other transit property. The two Caltrain stations without any dedicated bicycle parking are College

Park and San Martin. The San Francisco Attended Bike Parking Facility and the Palo Alto Bikestation are examples of large, shared-use secure bike parking facilities. Individual keyed and assigned bike lockers are managed by Caltrain and are available at many stations for a fee of $33 for six-month reservations, plus a nominal key deposit charge.

DEMAND-RESPONSIVE SERVICE

Caltrain does not provide any demand-response services and paratransit service is not a direct responsibility of the agency. Paratransit services in the Caltrain service area are provided by the local transit agencies in each county — SFMTA, SamTrans and VTA. The services for each county are as follows:

- San Francisco County: The San Francisco Municipal Railway (SFMTA) contracts with a paratransit broker to manage their paratransit service. The paratransit broker contracts with van and taxi companies to provide transportation.

- San Mateo County: SamTrans contracts with Redi-Wheels to provide paratransit service to Americans with Disabilities Act (ADA) eligible patrons in San Mateo County. The service is provided 365 days per year along the Caltrain service corridor.

- Santa Clara County: VTA provides paratransit service under contract with Outreach, a private, non-profit paratransit broker. Service is provided in most of the urban areas in Santa Clara County and is operated seven days per week.

Further details regarding the paratransit services provided by these agencies can be found in their respective short range transit plans.

CONNECTING SERVICES

Caltrain has direct rail connections with each of the major transit operators along its route, including the San Francisco Municipal Railway (Muni), San Francisco Bay Area Rapid Transit (BART), Santa Clara Valley Transportation Authority (VTA), Altamont Corridor Express (ACE), and Amtrak's Capitol Corridor and Coast Starlight. Caltrain connects with the Muni N-Judah and T-Third light rail lines at the San Francisco terminal at Fourth and King. Both lines operate on the surface along the Embarcadero, then travel under Market Street in the upper level of the Muni/BART subway, providing connections to the remaining Muni light rail lines as well as to the BART system. The N-Judah continues into San Francisco's western neighborhoods, while the T-Third serves the east and southeast waterfront of San Francisco.

Caltrain connects directly with BART's Millbrae station. This connection provides service to the San Francisco International Airport as well as to other locations throughout the BART system. Caltrain connects directly to the VTA light rail system at three locations: Mountain View station (Mountain View-Winchester line), the San Jose Diridon station (Mountain View-Winchester line) and Tamien station (Alum Rock-Santa Teresa line). Caltrain also connects with regional and interstate rail systems. ACE provides peak-hour commuter rail service from San Joaquin and Alameda counties to employment centers in the Santa Clara Valley. Connections to Caltrain can be made at the Santa Clara and San Jose Diridon stations. Amtrak's Capitol Corridor service connects with Caltrain at the San Jose Diridon station. The Capitol Corridor provides intercity rail service between San Jose, Oakland, Sacramento and Auburn. Amtrak's long distance Coast Starlight train (Los Angeles – Seattle) also stops at the Diridon station.

In addition to these rail connections, Caltrain connects with local bus service provided by Muni, SamTrans, VTA, AC Transit, San Benito County Express, Monterey Salinas Transit and Dumbarton Express (a consortium of AC Transit, BART, SamTrans, Union City Transit and VTA). Primary connecting stations include:

- San Francisco: A number of MUNI bus routes connect to the 4th and King, 22nd Street, and Bayshore Caltrain Stations. An Amtrak Thruway connecting bus service also serves the 4th and King Caltrain Station.

- Hillsdale, Belmont, San Carlos, Redwood City, Menlo Park, Palo Alto, Mountain View, Sunnyvale, Santa Clara and Gilroy: Each has five or more connecting bus transit lines.

- San Jose Diridon: Five VTA bus lines, a light rail stop and free DASH shuttle, plus Monterey Salinas Transit to Monterey, Highway 17 Express bus service to Santa Cruz and Amtrak Thruway bus service to Santa Barbara. Private operators MegaBus, Bolt Bus and Greyhound also serve the San Jose Diridon station.

1.5 Fare Structure

Similar to many other commuter rail systems around the nation, the Caltrain fare structure is distance-based. There is a base fare (currently $2.75 for adults using Clipper or $3.25 for those paying cash at a ticket vending machine) and a fee (currently $2.00 for adults) for each additional zone traveled. Figure 1.3 shows Caltrain's six-zone fare structure, in which trips of greater distances have higher fares. The last Caltrain fare increase took effect in July of 2014, when various adjustments to Caltrain's pass programs were made and 25 cents was added to the base fare for paper-media tickets (clipper-based fares remained the same). It was the eighth time Caltrain adjusted its fares since 2005.

Caltrain operates a barrier-free proof-of-payment (POP) fare system, whereby riders must board trains with a valid fare and show proof of their ticket when requested to do so during random spot checks onboard the trains. Passengers have two options for purchasing tickets:

- Paper tickets for day-of-travel can be purchased at ticket vending machines (TVM) located at stations and on platforms, and include one-way tickets and day passes.

- The Clipper card, a regional reloadable fare payment card, can be used to pay for day of travel with e-cash (cash value pre-loaded onto the card) or can store multi-ride and monthly tickets. Clipper cards are also accepted on other Bay Area transit systems.

Caltrain offers one-way tickets, day passes, 8-ride tickets, monthly passes, zone upgrade tickets, and the Go Pass. Monthly passes and 8-ride tickets, however, are only available on Clipper. Rates for seniors, persons with disabilities, Medicare cardholders and youth are 50% of the standard rate for all ticket types except the Go Pass.

The Go Pass is an annual pass sticker purchased by employers for all full time employees at a work location. Participants pay an annual fee for every eligible user regardless of whether an individual employee chooses to take advantage of the Go Pass benefit. The total cost of participating in the Go Pass program is the greater of $180 per eligible employee/resident or $15,120 per year. In 2014, 71 businesses participated in the Go Pass program.

INTER-OPERATOR FARE STRUCTURES AND AGREEMENTS

The concept behind Caltrain's inter-operator fare structures and agreements is to encourage ridership and transit connectivity through discounted fares for trips requiring transfers between operators or modes. The arrangements are as follows:

- The Santa Clara Valley Transportation Authority allows customers presenting a two-zone or greater Caltrain Monthly Pass to receive a local fare credit on its bus and light rail services.

- SamTrans allows customers presenting a two-zone or greater Caltrain Monthly Pass to receive a local fare credit on its fixed-route buses.

- The Dumbarton Express allows customers presenting a two-zone or greater Caltrain Monthly Pass to receive a transfer credit of a local fare on its buses if boarding within 2 hours of first tagging on Caltrain.

Customers who load a Caltrain Monthly Pass on their Clipper card also can purchase a special discounted - $5 off - Muni pass that allows Caltrain passholders unlimited rides on Muni vehicles, except cable cars and special routes. This special pass is not valid on BART,

Figure 1.3: Caltrain Fare Structure Effective August 1, 2014

ZONE	STATIONS	TRAVEL WITHIN ANY	TICKET	FARE VIA CLIPPER® CARD	FARE VIA TICKET MACHINE EFFECTIVE 10/5/14
1	San Francisco 22nd Street Bayshore So. San Francisco San Bruno	**One Zone**	Full Fare:		
			One-way	$2.75	$3.25
			Day Pass	---	$6.50
			8-ride	$20.25	---
			Monthly Pass	$73.00	---
			Eligible Discount:		
			One-way	$1.25	$1.50
			Day Pass	---	$3.25
			8-ride	$10.00	---
			Monthly Pass	$36.50	---
2	Millbrae Broadway Burlingame San Mateo Hayward Park Hillsdale Belmont San Carlos Redwood City	**Two Zones**	Full Fare:		
			One-way	$4.75	$5.25
			Day Pass	---	$10.50
			8-ride	$35.25	---
			Monthly Pass	$126.00	---
			Eligible Discount:		
			One-way	$2.25	$2.50
			Day Pass	---	$5.25
			8-ride	$17.50	---
			Monthly Pass	$63.00	---
3	Atherton Menlo Park Palo Alto Stanford California Ave San Antonio Mountain View Sunnyvale	**Three Zones**	Full Fare:		
			One-way	$6.75	$7.25
			Day Pass	---	$14.50
			8-ride	$50.00	---
			Monthly Pass	$179.00	---
			Eligible Discount:		
			One-way	$3.25	$3.50
			Day Pass	---	$14.50
			8-ride	$25.00	---
			Monthly Pass	$89.50	---
4	Lawerence Santa Clara College Park San Jose Diridon Tamie	**Four Zones**	Full Fare:		
			One-way	$8.75	$9.25
			Day Pass	---	$18.50
			8-ride	$64.75	---
			Monthly Pass	$232.00	---
			Eligible Discount:		
			One-way	$4.25	$4.50
			Day Pass	---	$9.25
			8-ride	$25.00	---
			Monthly Pass	$89.50	---
5	Capitol Blossom Hill	**Five Zones**	Full Fare:		
			One-way	$10.75	$11.25
			Day Pass	---	$22.50
			8-ride	$79.50	---
			Monthly Pass	$285.00	---
			Eligible Discount:		
			One-way	$5.25	$5.50
			Day Pass	---	$11.25
			8-ride	$39.75	---
			Monthly Pass	$142.50	---
6	Morgan Hill San Martin Gilroy	**Six Zones**	Full Fare:		
			One-way	$12.75	$13.25
			Day Pass	---	$26.50
			8-ride	$94.25	---
			Monthly Pass	$338.00	---
			Eligible Discount:		
			One-way	$6.25	$6.50
			Day Pass	---	$13.25
			8-ride	$47.00	---
			Monthly Pass	$169.00	---

Zone upgrade Adult $2.00; Eligible Discount $1.00 (available only at TVM)

Table 1.2: Caltrain Fleet Inventory

SERIES	QUANTITY	NUMBER OF SEATS	YEAR OF MANUFACTURE	MAKE	RETIRE DATE
Locamotives					
F40 PH-2	5	na	1985	GM - EMD	2015
F40PH-2-CAT	15	na	1985-1987	GM - EMD	2015-2017
F40 PH-2C	3	na	1998	Boise Locomotive	2028
MP36PH-3C	6	na	2003	Motive Power	2033
Passenger Cars					
Gallery Trailer	26	142	1985-1987	Nippon Sharyo	2015-2017
Gallery Trailer	16	148	1985-1987	Nippon Sharyo	2015-2017
Gallery Trailer	14	120	1999-2000	Nippon Sharyo	2030
Gallery Cab (Bike)	10	108	1985-1987	Nippon Sharyo	2015-2017
Gallery Cab (Bike)	6	78	1999-2000	Nippon Sharyo	2030
Gallery Cab (Bike)	21	97	1985	Nippon Sharyo	2015
Bi-Level Trailer*	16	149	1997	Bombardier	2027
Bi-Level Trailer	9	144	2002	Bombardier	2032
Bi-level Trailer (Bike)	2	114	2002	Bombardier	2032
Bi-level Trailer (Bike)	5	114	2001-2002	Bombardier	2031-2032
Bi-level Trailer (Bike)	2	114	2008	Bombardier	2038
Bi-level Trailer (Bike)	1	127	2002	Bombardier	2032
Bi-Level Trailer	6	140	2008	Bombardier	2038

*Trailers recently acquired from Metrolink with refurbishment ongoing.

1.6 Revenue Fleet

The current Caltrain revenue fleet includes 29 diesel locomotives. At any given time, 20 of these are in active service, 1 is slated for maintenance, 2 are Protect locomotives and 6 are held as spares. Caltrain's fleet also includes 133 passenger cars that are, or will be, in service over the coming year.

Cars and locomotives operate in a bi-directional "push-pull" mode. Northbound trains are pushed by the locomotive in the rear and controlled from the "cab" passenger car at the front. Southbound trains are pulled by and controlled from the locomotive at the front. Within the passenger car fleet, there are two sub-fleets, bi-level Gallery cars and the newer design, low-floor Bombardier-made cars that were acquired for the initial startup of Baby Bullet express service. Most Baby Bullet trains operate with Bombardiers. In order to make vehicle and crew turns, Bombardier cars are used for many non-Baby Bullet trains. A summary of the revenue fleet is presented in Table 1.2. A detailed inventory of the revenue fleet is presented in Appendix A.

Twenty-six Caltrain stations are fully ADA accessible and all train sets accommodate at least two wheelchairs at a time. Caltrain's Gallery train sets have onboard wheelchair lifts and each Gallery consist has at least one wheelchair accessible car that can accommodate three wheelchairs. Caltrain's Bombardier train sets have up to five wheelchair accessible cars and use the accessible ramp ("Mini-highs") or a mobile platform wheelchair lift. Accessible stations also have a hand powered, mobile wheelchair lift that provides back-up to onboard train powered lifts. Mini-high platforms have been installed at stations to facilitate boarding and alighting for disabled patrons on and off of Bombardier train consists.

The hand powered, mobile wheelchair lifts provide access to Bombardier consists at stations not equipped with mini-high platforms.

1.7 Work Locomotives and Non Revenue Rolling Stock

Caltrain's fleet of non-revenue work locomotives consists of two EMD MP15DC Locomotives built in 1974. The Caltrain non-revenue rolling stock is located in several different areas along the Caltrain right of way. Generally, cars are in serviceable condition but are necessarily free of defects. Caltrain's fleet of non-revenue rolling stock includes the following:

- 16 – Flat Cars
- 3 – Side Dump Cars
- 21 – Ballast Hoppers
- 1 – Gondola
- 2 – Cabooses
- 1 – Track Geometry Car

1.8 Description of Existing Faclilities

ADMINISTRATIVE

Almost all District staff supporting the JPB perform executive, human resources, information technology, safety, security, customer service, marketing, public information, communications, contract, procurement, pass sales, real estate, finance, engineering, project planning, and operations planning activities for the JPB and do so from the administrative headquarters (Central Office) of the San Mateo County Transit District located in San Carlos. This office building, constructed in 1979, is owned by the District and houses approximately 670 full-time and part-time employees, some of whom are dedicated to Caltrain only.

Several District employees perform part of their work for Caltrain from District bus storage and maintenance bases. There are four District employees based at the Centralized Equipment, Maintenance and Operations Facility (CEMOF) in San Jose.

MAINTENANCE AND FUELING

Maintenance and inspection of the current fleet is done at the Centralized Equipment Maintenance Facility (CEMOF), located at the site of an old rail yard at Lenzen Avenue in San Jose. CEMOF began operations in 2007. Most maintenance is performed by contractor (Transit Service America Inc) employees. Daily inspections are also performed at the North Terminal (the railyard at the Caltrain 4th & King Station in San Francisco) and at the Gilroy station. Overnight storage is available at North Terminal, CEMOF, Diridon, Tamien, and Gilroy.

CEMOF occupies a 20-acre site and includes a three-story maintenance shop, Central Control Facility, train washer, storage tracks, inspection pits and fuel storage. The maintenance shop has a wheel-turning machine, drop table and overhead crane. The train washer water is treated and recycled. Two 800-foot long service and inspection pits allow daily inspection and routine service of trains. Approximately 150 maintenance and operation contract employees (Transit ServiceAmerica Inc) are based at the facility. With interior modifications, CEMOF will be able to accommodate the future electrified Caltrain fleet.

VEHICLE STORAGE

The majority of vehicles are stored at the multi-track San Francisco north terminus platforms at 4th and King, and in the yard and platforms at the CEMOF. Three train sets (consists) are stored overnight and on weekends at a small yard at the Gilroy station. In addition, one or two trains are sometimes staged at the San Jose Diridon station. Based on Caltrain's experience and analysis, the overnight storage capacity provided is adequate for the current and future fleet, anticipated within the horizon of this SRTP.

STATION FACILITIES

Caltrain has 32 stations. Most stations and station buildings are owned by Caltrain. Two exceptions are the Millbrae Intermodal Station (which is owned by BART) and the Palo Alto station (which is owned by Stanford University). Caltrain manages and collects fees at parking facilities owned by Caltrain. Caltrain-provided parking is available at all stations except San Francisco, 22nd Street, and stations south of the Tamien Station.

Millbrae, Burlingame, San Carlos, Menlo Park, Palo Alto, Santa Clara and San Jose Diridon are stations listed on the National Register of Historic Places. Caltrain does not maintain any park-and-ride service aside from its on-site station parking.

TRACK AND RIGHTS OF WAY

Caltrain operates on a total of 77.2 miles of track from San Francisco to Gilroy. Caltrain owns 51.7 miles of this track, from the San Francisco station (milepost 0.2) to Control Point Lick (milepost 52.0), south of the Tamien station.

The JPB has the perpetual right of access to and from and use of the Gilroy Joint Facilities. The agreement between Union Pacific, which owns track from Tamien to Gilroy, and the JPB presently allows Caltrain to run not more than a total of ten scheduled commuter trains between San Jose and Gilroy (five in each direction per day). Caltrain commuter trains are given priority and dispatched by UP on a mutually agreed to upon schedule.

The railroad crosses 43 roads at-grade between San Francisco and the San Jose Diridon station. There are 28 at-grade road crossings between the San Jose Diridon station and Gilroy station.

Within the Caltrain right-of-way, there are approximately 108 track miles of rail used in revenue service, 93.5 miles of which are main track 1 (northbound) and main track 2 (southbound). About 98% of all rail is continuously welded. Almost 89% is Rail Weight 136 RE and more than 65% has been laid since 1991.

Table 1.3: Overview of the Amenities for each Station Location

STATION	ADDRESS	PARKING	BIKE RACK SPACES	BIKE LOCKER SPACES	OTHER BIKE PARKING AMENITIES	TICKET/CLIPPER VENDING MACHINES
San Francisco	700 4th St., San Francisco	-	22	180	Free Attended Bike Parking Facility, Bike sharing available	8 ticket machines; 2 Clipper add-value machines
22nd Street	1149 22nd St., San Francisco	Street parking only	27	N/A		2 ticket machines
Bayshore	400 Tunnel Ave., San Francisco	38 spaces	18	8		3 ticket machines
South San Francisco	590 Dubuque Ave., South San Francisco	81 spaces	18	20		2 ticket machines
San Bruno	833 San Mateo Ave., San Bruno	201 spaces	7	40		4 ticket machines
Millbrae Transit Center	100 California Drive, Millbrae	175 spaces	28	28	also available: 16 BART-run on-demand electric lockers	6 ticket machines
Broadway	1190 California Drive, Burlingame	119 spaces	18	12		2 ticket machines
Burlingame	290 California Drive, Burlingame	68 spaces; city pay parking	13	18		3 ticket machines
San Mateo	385 First Ave., San Mateo	42 spaces	11	12		4 ticket machines
Hayward Park	401 Concar Drive, San Mateo	213 spaces	18	4		4 ticket machines
Hillsdale	3333 El Camino Real, San Mateo	518 spaces	18	12		4 ticket machines
Belmont	995 El Camino Real, Belmont	375 spaces	18	24		2 ticket machines
San Carlos	599 El Camino Real, San Carlos	212 spaces	36	48		4 ticket machines
Redwood City	1 James Ave., Redwood City	557 spaces among 3 lots	18	50	Bike sharing available	4 ticket machines
Atherton	1 Dinkelspiel Station Lane, Atherton	96 spaces	-	26	Bombardier	2 ticket machines
Menlo Park	1120 Merrill St., Menlo Park	155 spaces	8	50 in bike storage shed		4 ticket machines
Palo Alto	95 University Ave., Palo Alto	389 spaces	178	94	Shared access bike storage shed; Bike sharing available	8 ticket machines
California Ave	101 California Ave., Palo Alto	185 spaces	33	42		3 ticket machines

Table 1.3 (continued): Overview of the Amenities for each Station Location

STATION	ADDRESS	PARKING	BIKE RACK SPACES	BIKE LOCKER SPACES	OTHER BIKE PARKING AMENITIES	TICKET/CLIPPER VENDING MACHINES
San Antonio	190 Showers Drive, Mountain View	199 spaces, shared with housing development across the street	18	180	Bike sharing available	4 ticket machines
Mountain View	600 W. Evelyn Ave., Mountain View	340 spaces	23	N/A	City provided shared access bike storage shed, Bike sharing available	4 ticket machines
Sunnyvale	121 W. Evelyn Ave., Sunnyvale	439 spaces	18	8	On-demand electronic lockers also available	4 ticket machines
Lawrence	137 San Zeno Way, Sunnyvale	122 spaces	18	20		4 ticket machines
Santa Clara	1001 Railroad Ave., Santa Clara	289 spaces	18	40	Additional bike lockers across the street at VTA Transit Center	2 ticket machines
College Park	780 Stockton Ave., San Jose	No parking available	No bicycle parking or storage facilities			1 ticket machine
San Jose Diridon	65 Cahill St., San Jose	581 spaces; neighboring arena and businesses also make parking available to Caltrain customers.	16	48	Bike sharing available	5 ticket machines; 1 Clipper add-value machine; Clipper cards also can be loaded using a VTA ticket machine.
Tamien	1355 Lick Ave., San Jose	275 spaces	18	18	10 On-demand electronic lockers available at VTA Transit Center	2 ticket machines
Capitol	3400 Monterey Hwy., San Jose	379 spaces	12	24		1 ticket machine
Blossom Hill	5560 Monterey Hwy., San Jose	425 spaces	10	10		1 ticket machine
Morgan Hill	17300 Depot St., Morgan Hill	486 spaces	12	30		1 ticket machine
San Martin	13400 Monterey Hwy., San Martin	167 spaces	No bicycle parking or storage facilities			1 ticket machine
Gilroy	7150 Monterey St., Gilroys	471 spaces	13	30		2 ticket machines

BICYCLE FACILITIES

Bicycle racks and lockers are available at all Caltrain stations, except College Park and San Martin. Availability at individual stations is shown on the Station Facility Table 1.3. Most lockers are owned and operated by Caltrain and operate mechanically (using individually assigned keys). Newer, electronic lockers are available to Caltrain patrons at a minority stations.

In addition to racks and lockers, shared bicycle parking facilities are provided by the San Francisco Bike Parking Facility, the Palo Alto Bikestation, and the City of Mountain View. The San Francisco facility is operated under contract by Alameda Bikes and opened in June 2007. The facility was constructed using a combination of federal, state, and local funds and is owned by Caltrain. It provides free attended bike parking for up to 130 bikes, relieving overcrowding of bikes onboard trains and a full service retail bike shop. The Palo Alto facility provides unattended, secure shared parking and is operated by the Bikestation not-for-profit network. Located in the old baggage room within the station, Bikestation provides 24-hour secure indoor bike parking for 96 bikes. It requires membership for access. The Mountain View shared bike parking facility provides unattended secure space for 52 bikes and is operated and administered by the City of Mountain View using a key-code system.

The JPB has participated in the Bay Area Regional bike-sharing program as both a funding partner and as a bike-station host at various locations throughout the Caltrain system. Bay Area Bike Share is a self-service system that provides members with easy access to a network of bicycles. Facilities currently include 700 bicycles at 70 kiosk stations along the Peninsula corridor. The majority of bicycles are located in San Francisco, with smaller numbers in Redwood City, Palo Alto, Mountain View, and San Jose. Bay Area Bike Share stations are located at or in immediate proximity to the following Caltrain stations:

- San Francisco (4th & King)
- Redwood City
- Palo Alto
- California Ave
- San Antonio
- Mountain View
- San Jose (Diridon)

2 Goals, Objectives and Standards

2.1 Description and Process

Caltrain's vision and guiding principles are articulated within the 2014 Caltrain Strategic Plan. Caltrain's strategic planning effort spanned a yearlong period from 2013 to 2014 and included extensive public outreach through dedicated public meetings along the corridor as well as repeated presentations to advisory and governing bodies which include the JPB, the Caltrain Citizen's Advisory Committee, Caltrain's Bicycle Advisory Committee and local policy makers and interest groups. Caltrain also received and responded to numerous written comments during the development of the plan. The plan was adopted by the JPB in September of 2014 and supersedes Caltrain's previous, 2004 Strategic Plan.

2.2 The Caltrain Vision and Focus Areas

The 2004 Caltrain Strategic Plan identified five focus areas for Caltrain: service, infrastructure, regional connectivity, partnerships with stakeholders, and financial sustainability. The 2014 Caltrain Strategic Plan identifies two additional focus areas for Caltrain: safety and social responsibility. Safety is Caltrain's top priority and financial sustainability has been identified as a higher priority.

VISION

Provide a safe, reliable, sustainable modern rail system that meets the growing mobility needs of the San Francisco Bay Area region.

FOCUS AREAS

The Caltrain Strategic Plan identifies seven focus areas where Caltrain will make critical policy and business choices over the coming decade. Caltrain's overarching vision is supported by focus areas, goals and objectives with each level

of policy providing a greater degree of specificity and intent.

Focus Area 1: Safety

Ensure the safety and security of customers, employees and the public

Ensuring the safety of every person who uses or interacts with the Caltrain system is the agency's top priority. To fulfill this focus area, Caltrain must pursue a coordinated set of safety practices and improvements which include coordinating with regulatory bodies, promoting a safety culture inside and outside of the organization, and making targeted investments to improve the safety of Caltrain's physical systems. The safety of the Caltrain system also includes guaranteeing the personal security of Caltrain's customers and employees through the deployment of security personnel and the design of facilities. Planning for and implementing a safe system is especially critical as Caltrain embarks on major changes to its infrastructure that include the installation of a new train control and signal system and system electrification by 2019.

Goals & Objectives

A. Comply with safety and security regulations and best practices.

   1. Update and implement Caltrain's Safety and Security Program Plans.

   2. Coordinate safety through a consolidated cross-departmental group responsible for implementation of and compliance with safety initiatives.

   3. Maintain effective relations and interface with safety and security regulatory agencies (FRA, FTA, CPUC, NTSB, TSA and Department of Homeland Security).

   4. Support regulatory safety requirements of the new advanced signal system and electrified system.

   5. Maintain close collaboration with local emergency response and law enforcement agencies and ensure continuity of rail safety training and emergency preparedness.

B. Promote a safety culture and awareness within and beyond the organization.

   1. Create an agency vision for safety, promote it through the Board and integrate it throughout the organization.

   2. Ensure personal commitments to safety from Board members, employees to contractors.

   3. Partner with local jurisdictions to protect the integrity of Caltrain's safety program.

   4. Continue and expand public safety outreach and raise awareness of safety considerations.

   5. Foster public awareness of safety issues / regulations related to an electrified system.

C. Invest in and maintain a safe system.

Integrate safety assessment and certification into capital project planning and design.

   1. Implement Positive Train Control (PTC) as mandated by the FRA.

   2. Make targeted infrastructure investments and conduct routine preventative maintenance to improve public safety.

   3. Actively partner with communities to plan and advance grade separations.

D. Safeguard the security of Caltrain customers, employees, and the public.

   1. Expand security on trains, stations, and facilities.

   2. Integrate crime prevention through environmental design principles into system design.

Focus Area 2: Service

Grow and manage customer demand with expanded and enhanced service.

Caltrain attracts and retains customers by delivering a consistently high standard of service.

In the near-term, Caltrain must address peak-hour crowding, operate a punctual and reliable service, and maintain a comfortable and clean environment on its trains. Looking forward, the electrification of the system and procurement of new vehicles for service beginning in 2019 will provide a tremendous opportunity for Caltrain to update its services. Key challenges will include balancing rapidly growing ridership with customer desires for expanded onboard amenities and new service patterns — all while ensuring a reliable and convenient travel experience. Finally, Caltrain must look beyond electrification and begin planning for customer needs and service improvements that will come in the next decade.

Goals & Objectives

A. Meet current and future customer mobility needs.

    1. Design service to maximize passenger throughput.

    2. Develop short-term strategies to increase peak-hour capacity.

    3. Manage peak-hour demand and utilize off-peak capacity.

    4. Provide expanded and modernized electrified service.

B. Be competitive with auto travel and support different travel markets.

    1. Maximize train capacity while addressing on-board accommodation of bicycles, luggage and passenger facilities.

    2. Link service levels to ridership, intermodal connections and land use.

    3. Balance demand for increased stops with overall end-to-end trip times.

    4. Seek opportunities to increase demand/ expand services during off-peak times and at low ridership stations.

C. Operate a dependable and punctual service.

    1. Meet Caltrain's on-time performance standard.

    2. Strive for user-friendly / intuitive schedules.

    3. Provide real-time and user-friendly system information.

    4. Respond to service delays with prompt communications and contingency operations.

D. Provide a comfortable and convenient travel experience.

    1. Maintain Caltrain's cleanliness and comfort.

    2. Explore technological amenities (i.e. Wi-Fi, enhanced information, payment systems, open source data application).

E. Invest in staff dedicated to public service.

    1. Attract and retain quality staff.

    2. Provide resources and tools to encourage excellence and innovation.

    3. Invest in professional development.

Focus Area 3: Infrastructure and Rolling Stock

Maximize utilization of system infrastructure and rolling stock.

In order to deliver the services its customers need, Caltrain must plan for, build and maintain a complex system of rolling stock, equipment, structures and facilities. Maintaining all of these assets in a state of good repair is one of the agency's foremost responsibilities and is fundamental to Caltrain's ongoing success. The Agency must invest its resources to protect and expand the capacity and reliability of the system while continuing to deliver capital upgrades. In addition to its own projects, Caltrain must also support the region and local communities as it works with the California High Speed Rail Authority to plan for a Caltrain / High Speed Rail blended system.

Goals and Objectives

A. Maintain a state of good repair.

   1. Adhere to industry and government guidelines for state of good repair and asset management.

   2. Develop and implement a life-cycle based preventative maintenance strategy.

   3. Ensure timely implementation of the state of good repair program with sufficient funding and resources.

   4. Evolve organizational resources to maintain Caltrain's future electrified system infrastructure.

B. Invest in system reliability.

   1. Incorporate flexibility and reliability into the design of capital investments and fleet management.

   2. Make targeted investments to safeguard reliability during construction.

   3. Develop transitional and long-term strategies to reduce station dwell time and achieve level boarding.

C. Expand capacity through timely investments.

   1. Make short-term investments in rolling stock to address peak hour congestion.

   2. Implement the advanced signal system (CBOSS PTC) and peninsula corridor electrification project.

   3. Implement capital projects while maintaining revenue service.

   4. Define post-electrification core system capacity improvements.

   5. Preserve the corridor for current and future rail uses.

D. Support a blended Caltrain/High Speed Rail system in the Peninsula Corridor.

   1. Ensure Peninsula corridor improvements accommodate High Speed Rail's use of the corridor.

   2. Support CHSRA and the region in defining and implementing the blended system.

   3. Address local community interests and concerns in the design and construction of the blended system.

Focus Area 4: Finance

Establish financial stability, minimize operating subsidy and fund system improvements.

To consistently deliver excellent services and projects, Caltrain needs financial stability. To achieve this, Caltrain strives to control its own costs and operate as efficiently as possible. The agency can also bolster its finances by maximizing the revenues it generates through operations and by exploring new sources of income. Ultimately, however, Caltrain is the only transit system in the Bay Area without a permanent, dedicated source of funding. To achieve financial stability for both its operating and capital needs, Caltrain must develop new, reliable sources of external funding.

Goals and Objectives

A. Efficiently deliver services and projects.

   1. Monitor and meet MTC's Transit Sustainability Program cost efficiency targets.

   2. Monitor and set Caltrain performance targets to drive increased efficiencies and guide investment decisions.

   3. Continue annual cost containment strategies.

B. Maximize revenues.

   1. Develop strategies to increase returns from existing revenue streams (e.g. fares, parking, concessions, advertising and leases).

2. Generate revenue through transit-oriented development.

3. Explore new revenue streams.

C. Stabilize and expand external funding sources.

1. Obtain dedicated funding source for operations and maintenance.

2. Maintain current funding streams while seeking new sources.

3. Stabilize partnership contributions.

4. Support 3rd party funding strategies that align with Caltrain goals.

5. Develop funding strategy for long-term system improvements.

Focus Area 5: Transportation and Land Use

Serve as a critical element of the region's transportation and land use system.

Caltrain is a key link within a local, regional and statewide network of transportation systems. As part of this network, the agency must work with other transit operators and the region to ensure that is customers can transfer easily between different systems. Similarly, Caltrain can enhance the experience of its customers and the performance of its system by ensuring that riders have a wide variety of options to access its stations. Caltrain can also add value to its corridor by helping local jurisdictions plan for land uses that both support their community vision and contribute to ridership. Finally, Caltrain must plan for and support the Peninsula Corridor's role as part of a larger rail network, its ongoing accommodation of freight, Amtrak, Capitol Corridor, and the Altamont Commuter Express and its future use by high speed rail.

Goals and Objectives

A. Improve connectivity to local and regional transportation systems.

1. Explore mutually beneficial ways to plan and coordinate services with local transit providers.

2. Prioritize partnerships and efforts related to key intermodal stations including the Transbay Transit Center, Millbrae and San Jose Diridon.

3. Improve physical, electronic and web-based intermodal wayfinding and transfer information.

4. Participate in and influence regional initiatives related to the integration of fares and payment, information systems and marketing.

B. Improve multimodal station access.

1. Develop a station access plan based on the Caltrain Access Policy Statement.

2. Complement the Bikes on Board program by implementing the Caltrain Bicycle Access and Parking Plan.

3. Pursue strategies that enhance first- and last-mile connections to stations.

C. Encourage transit supportive development at and around stations.

1. Adopt a transit-oriented development policy.

2. Participate in and influence local station area planning efforts along the corridor.

3. Develop JPB real estate assets in a way that supports the system financially and operationally with local land use goals.

D. Integrate with California's statewide rail network.

1. Support implementation of the Caltrain/HSR blended system in the Peninsula corridor with consideration of local community interests and concerns.

2. Continue to accommodate freight and passenger tenants whose operations are compatible with Caltrain and blended system service.

3. Partner with CHSRA, TJPA and the region, define roles and responsibilities, and implement the blended system.

Focus Area 6: Partners and Stakeholders

Build partnerships with government agencies, stakeholders, and the public.

Caltrain operates in three counties and 19 cities, serving a diverse population of customers and engaging with many different stakeholder groups. As Caltrain conducts its business it must always treat its stakeholders and partners consistently and fairly, ensuring open communication and providing venues for interaction and input. Encouraging participation from its partners, stakeholders and the public help Caltrain deliver better projects and services and ensure the integrity of its process. Whether partnering with cities to enhance stations or working with local employers to improve services, strengthening partnerships can help Caltrain and the region achieve new goals.

Goals and Objectives

A. Build relationships with openness and fairness.

1. Clearly and consistently articulate JPB goals and seek opportunities to pursue mutually beneficial initiatives.

2. Seek and provide venues to facilitate discussions with government agencies, external groups and the community.

3. Apply a consistent approach in time and resource management to support multiple stakeholder initiatives.

B. Cultivate effective external participation.

1. Ensure timely public and external involvement through well-defined planning processes.

2. Explore and utilize non-traditional venues to maximize public participation.

3. Improve public access to agency data to encourage participation and inform stakeholder dialogue.

C. Strengthen partnerships by pursuing common goals.

1. Partner with cities to ensure that Caltrain stations are safe, clean, functional and active community spaces.

2. Increase Board participation to explore new areas of common interest to build and strengthen partnerships with employers, developers, grass roots and community groups.

3. Successfully implement joint projects through a clear understanding of roles and responsibilities.

Focus Area 7: Social Responsibility

Conduct business in a socially responsible way.

Whether building a new facility, procuring energy for its trains or planning its services, Caltrain must hold itself to a high standard of social responsibility. This means fulfilling all civil rights obligations and ensuring that services are provided without regard for race, color or national origin and that the system is equally accessible to persons of all abilities. More broadly, Caltrain must ensure that it serves a market that is socially and economically representative of all the Peninsula Corridor's communities and that the benefits and impacts of its projects and services are distributed equitably. Social responsibility also means minimizing Caltrain's environmental footprint by implementing sustainable business practices and planning for a system that has a positive environmental impact on the environment.

Goals and Objectives

A. Fulfill civil rights regulations.

1. Comply with federal Americans with Disabilities Act requirements and Title VI (Civil Rights) requirements.

2. Work with FTA to facilitate the timely review and enactment of regulations.

B. Minimize Caltrain's environmental footprint.

1. Implement and expand environmentally sustainable business practices (i.e. sustainable

procurement, construction policies, and facility and transportation operations).

2. Promote environmental stewardship through the development of Caltrain policies.

3. Improve regional air quality and reduce greenhouse gas emissions by electrifying and modernizing the railroad.

C. Provide an inclusive and equitable system.

1. Pursue markets that are socially, geographically and economically representative of all Peninsula corridor communities.

2. Strive for an equitable distribution of system benefits and project impacts throughout the corridor.

3. Evaluate geographic, social and economic equity in service planning and policy decisions (i.e. fare structure).

Performance Standards

Table 2.1 shows Caltrain performance standards and goals for on-time performance, customer satisfaction and farebox recovery. Caltrain's Strategic Plan identifies the development and monitoring of additional performance measurements as a priority mechanism for implementing the Strategic Plan's policies.

Table 2.1: Performance Standards and Goals

PERFORMANCE INDICATOR	TARGET
On-time Performance	95%
Overall Customer Satisfaction	4.0 on a scale of 5.0
Farebox Recovery Goal Range	45% – 65%

2.4 Transit Sustainability Project

Caltrain also monitors and reports on its performance as part of MTC's Transit Sustainability Project (TSP). MTC initiated the TSP in January 2010 to address operating and capital shortfalls experienced by transit operators in the nine-county San Francisco Bay Area. The purpose of the TSP is to help improve transit performance and to attract more customers to the transit systems. To achieve this, MTC adopted the TSP final recommendations in 2012 as MTC Resolution 4060, establishing performance requirements for the seven largest transit operators in the region, including Caltrain. Under the terms of the TSP, each operator must achieve a 5% reduction in at least one of the following performance measures by 2017:

- Cost per revenue hour
- Cost per passenger
- Cost per passenger-mile

The 5% real reduction is measured against the highest reported costs between FY2008 and FY2011 for one of the three performance measures listed above. These reductions must be maintained, thereafter limiting any further growth to the Consumer Price Index. Caltrain adopted TSP targets in 2013 and reports annually to the JPB and MTC on performance measure progress. Starting in FY2019, MTC will link the operating and capital funds it administers to the achievement of TSP targets. Table 2.2 shows target percentage reduction is for each measure compared to the baseline and highlights performance for FY2012, FY2013 and FY2014. Note that all cost metrics are shown in 2011 dollars.

These metrics show that Caltrain is on track to fulfill its TSP obligations with strong ridership growth contributing to substantial reductions in cost per passenger and cost per passenger mile. Caltrain will continue to work to control costs and improve efficiency to achieve further reductions in all three of its TSP metrics.

Table 2.2: Caltrain Fleet Inventory

METRIC	BASELINE	5% REDUCTION TARGET	2012 PERFORMANCE	2013 PERFORMANCE	2014 PERFORMANCE
Cost/Service Hour	$496.40	$471.58	$516.75	$515.69	$525.81
Cost/Passenger	$8.18	$7.77	$7.31	$5.90	$5.70
Cost/Passenger Mile	$0.32	$0.30	$0.34	$0.27	$0.26

STRATEGY

In addition to setting baseline targets, Caltrain adopted and submitted a TSP Strategic Plan in March 2013 that described how the targets would be achieved. Caltrain has implemented several strategies in the past to improve financial performance which include the following:

– Operating Costs

- Fuel Hedging program
- Administrative cost control measures
- Staffed ticket office closures

– Service Modifications

- Introduction of Baby Bullet in 2004
- Reinvention of service in 2005
- Weekend Baby Bullet service
- Reduced service in the off-peak
- Addition of peak-hour service in response to ridership growth

As part of the TSP Strategic Plan, Caltrain will implement the following strategies to meet the TSP reduction targets:

– Implement state of good repair and reliability projects

- Support transit-oriented development
- Station access planning and implementation
- Continue fuel hedging program
- Provide real-time information for customers
- Electrify Caltrain and improve service
- Explore increasing off-peak ridership

Caltrain updates its TSP strategic plan and reports on progress to the JPB and MTC on an annual basis.

3 Service and System Evaluation

3.1 Performance Evaluation and Retrospective

Table 3.1 shows six years of system performance data from FY2009 through FY2014. Metrics shown include data reported by Caltrain to NTD as well as key indicators tracked internally by the agency. Figures on the subsequent page highlight trends within specific metrics for further discussion.

During the years shown, Caltrain service levels fluctuated with service reductions in FY2010 and FY2011 as prompted by the Great Recession and Caltrain's associated financial crisis. Since 2011, service has been gradually restored as demand has grown and Caltrain's finances have stabilized. As of FY2013, Caltrain operated a total of 92 weekday trains. In FY2011, Caltrain also began to operate a weekend Baby Bullet service with a total of 4 trains per weekend day (2 per direction). Changes to revenue miles and revenue hours shown in Table 3-1 reflect this reduction and subsequent restoration of service over the 2010 to 2013 period.

Caltrain's performance over the past five years has been overwhelmingly shaped by the system's dramatic ridership increase. Since 2009, Caltrain has experienced a 58% increase in average weekday ridership and a 56% increase in annual ridership. This increase has occurred without any major, net service changes on Caltrain's part and has instead been driven by changing demographics and economic conditions in the agency's service area as well as the continued popularity of Caltrain's core commuter service. Increasing ridership has led to increased revenues and improved Caltrain performance across a range of financial and service metrics including reduced costs per passenger and passenger mile as well as increases in the number of passengers carried per unit of service.

Caltrain's operating costs have increased since 2009. Increasing costs are driven by a number of factors including the increased demands of a higher ridership more intensively used system and the restoration of services cut in 2010 and 2011. Costs have also increased over the 2009-2014 period as the multi-year transition costs of moving Caltrain's operating contract from Amtrak to Transit Services of America Inc (TASI) have been fully realized.

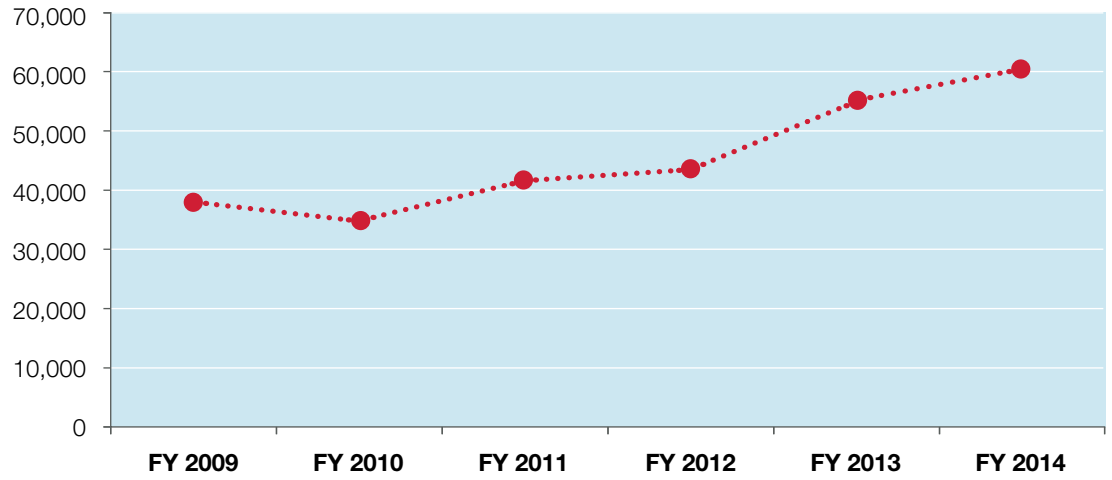
Table 3.1: Five-Year Caltrain Performance Trends (FY2009 to FY2014)

	TARGET OR GOAL	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	5 YEAR CHANGE (FY09–FY14)	2 YEAR CHANGE (FY12–FY14)
Operating Costs and Fare Revenue (1,000s)									
Total Operating Cost ($)		87,036	85,346	92,227	97,555	101,992	109,320	26%	12%
Fare Revenue		41,264	40,115	45,677	55,079	62,355	67,566	64%	23%
System Usage									
Total Operating Cost		37,989	35,061	41,448	43,430	54,934	59,916	58%	38%
Fare Revenue		11,359,225	10,611,734	12,574,233	12,999,293	16,384,630	17,759,504	56%	37%
Fare Revenue		292,646,966	295,357,284	289,067,501	280,076,437	357,919,061	389,288,711	33%	39%
On-Time Performance									
On-time Performance - end-to-end	95%	95.0%	940%	92.8%	92.9%	91.3%	92.4%	-3%	-1%
Customer Satisfaction									
Overall Customer Satisfaction (out of 5)	4%	4	4.03	3.99	4.01	4.04	4.05	1%	1%
Fare Revenue		25.3	24.5	16.9	10.2	13.6	10.5	-58%	3%
Service Provision									
Revenue Miles (passenger car)		6,895,746	6,657,845	6,484,270	6,418,662	6,590,727	6,695,023	-3%	4%
Revenue Hours (passenger car)		198,204	190,693	185,792	183,876	187,557	192,572	-3%	5%
Cost Effectiveness									
Farebox Recovery Ratio	45 – 65%	47%	47%	50%	56%	61%	62%	32%	10%
Operating Cost per Revenue Hour (year of expenditure dollars)		439.12	447.56	496.40	530.55	543.79	567.68	29%	7%
Operating Cost per Revenue Hour (constant 2011 dollars)	$471.58	451.81	455.02	496.40	516.75	515.69	525.81	16%	2%
Operating Cost per Passenger (year of expenditure dollars)		7.66	8.04	7.33	7.50	6.22	6.16	-20%	-18%
Operating Cost per Passenger (constant 2011 dollars)	$7.77	7.88	8.18	7.33	7.31	5.90	5.70	-28%	-22%
Operating Cost per Passenger Mile (year of expenditure dollars)		0.30	0.29	0.32	0.35	0.28	0.28	-6%	-19%
Operating Cost per Passenger Mile (constant 2011 dollars)	$.30	0.31	0.29	0.32	0.35	0.27	0.26	-15%	-23%
Operating Subsidy per Passenger		4.03	4.26	3.70	3.27	2.42	2.35	-42%	-28%
Operating Subsidy per Passenger Mile		0.16	0.15	0.16	0.15	0.11	0.11	-31%	-29%

AVERAGE WEEKDAY RIDERSHIP

Caltrain's average weekday ridership has increased enormously since 2009 and the railroad now carries nearly 60% more passengers on a typical weekday than it did five years ago. Increases in ridership are the combined result of economic growth and demographic changes in the Caltrain service area as well as the continued success of Caltrain's core commuter rail service and ongoing marketing efforts to expand the railroad's customer base.

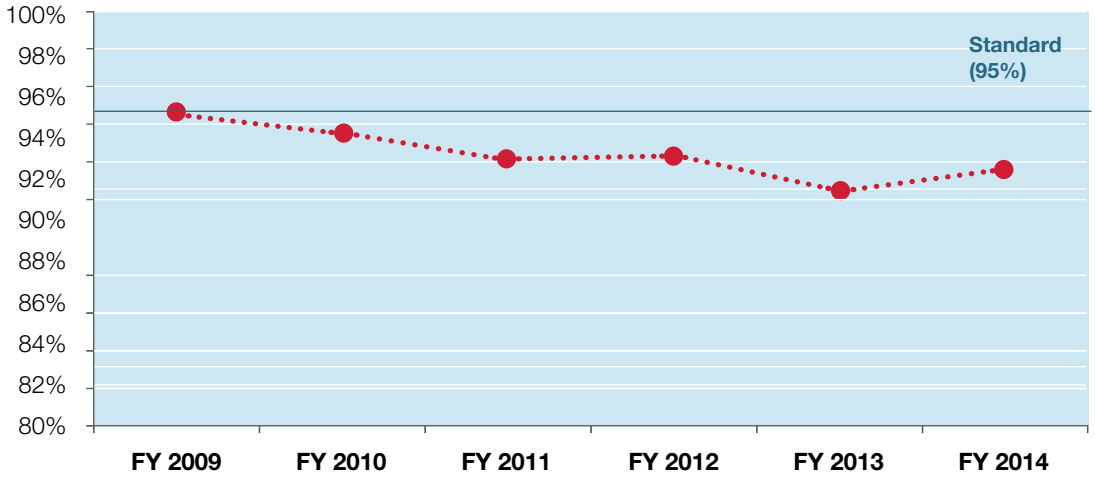
Figure 3.1: Average Weekday Ridership, FY2009-FY2014



ON-TIME PERFORMANCE

Caltrain's on-time performance has declined slightly over the period between FY2009 and FY2014. Causes for the decline include increasing rates of mechanical failure associated with ageing diesel rolling stock as well as peak-period increases in dwell times at stations associated with rapidly increasing patronage. Caltrain monitors on-time performance closely and will periodically consider minor schedule adjustments to improve performance.

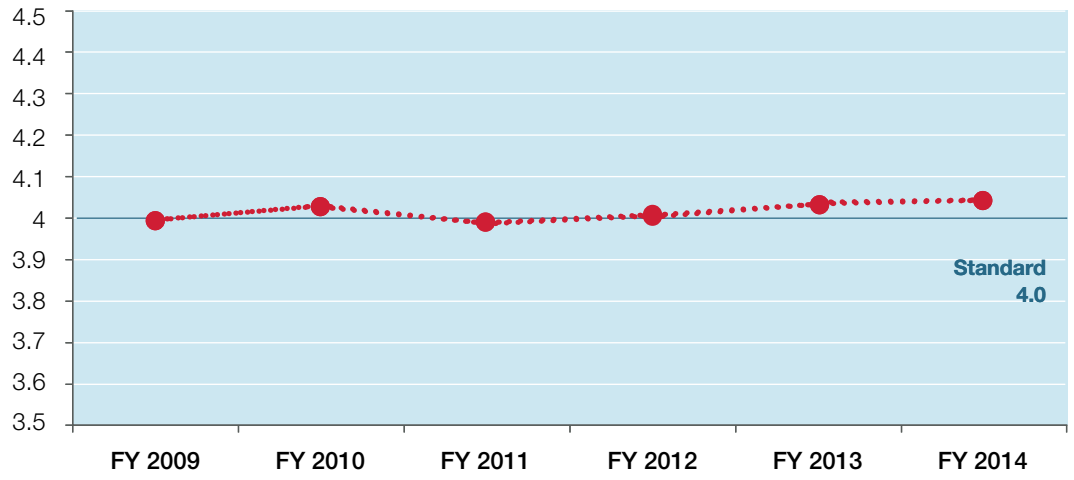
Figure 3.2: End-to-End On-time Performance, FY2009-FY2014



CUSTOMER SATISFACTION

Caltrain conducts an annual customer satisfaction survey to assess how well the service and its contract operator are meeting customer needs. Since 2009, overall customer satisfaction with the Caltrain system has remained consistently high, scoring at or above an average of "4" on a 1 to 5 scale.

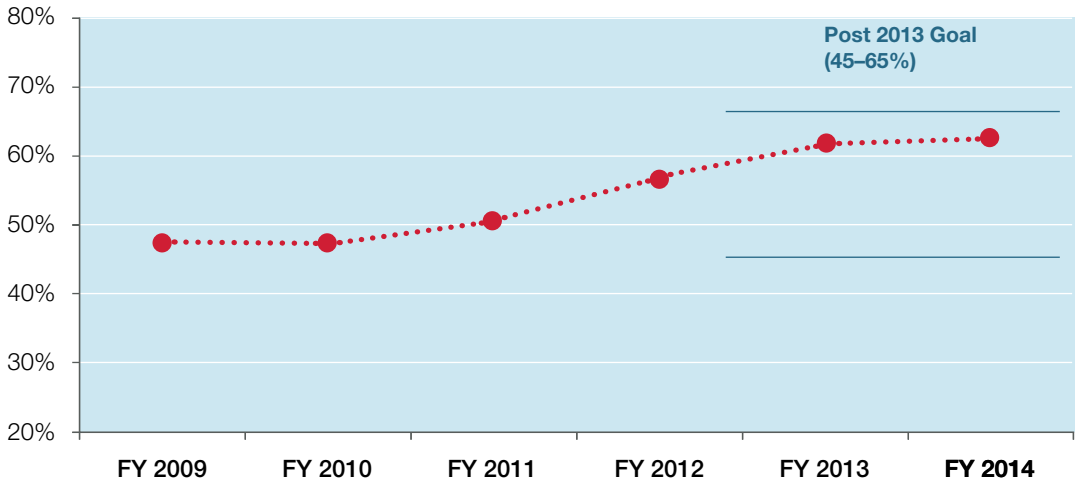
Figure 3.3: Surveyed Overall Customer Satisfaction, FY2009-FY2014



FAREBOX RECOVERY RATIO

Shaped by fare changes and increasing ridership, Caltrain's farebox recovery ratio has increased substantially since 2009. In January of 2013, the JPB adopted a farebox recovery rate goal of 45% to 65% (an increase from the previous 38% - 50% goal).

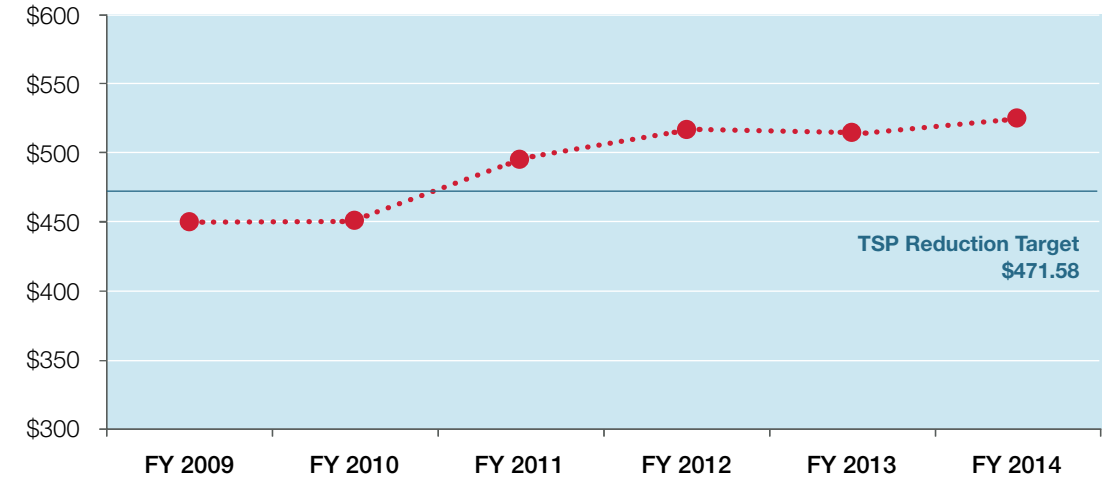
Figure 3.4: Farebox Recovery Ratio, FY2009-FY2014



OPERATING COST PER REVENUE HOUR

Caltrain's operating cost per revenue hour has increased steadily since 2009. Cost increases have resulted from the transition in Caltrain's operator contract as well as increasing costs as ridership grows and system utilization intensifies. Figure 3.5 shows operating cost per revenue hour in constant, 2011 dollars so as to align with the target reduction goal established by Caltrain in the Transit Sustainability Program. Caltrain seeks to control and reduce operating costs using the strategies discussed in section 2.4.

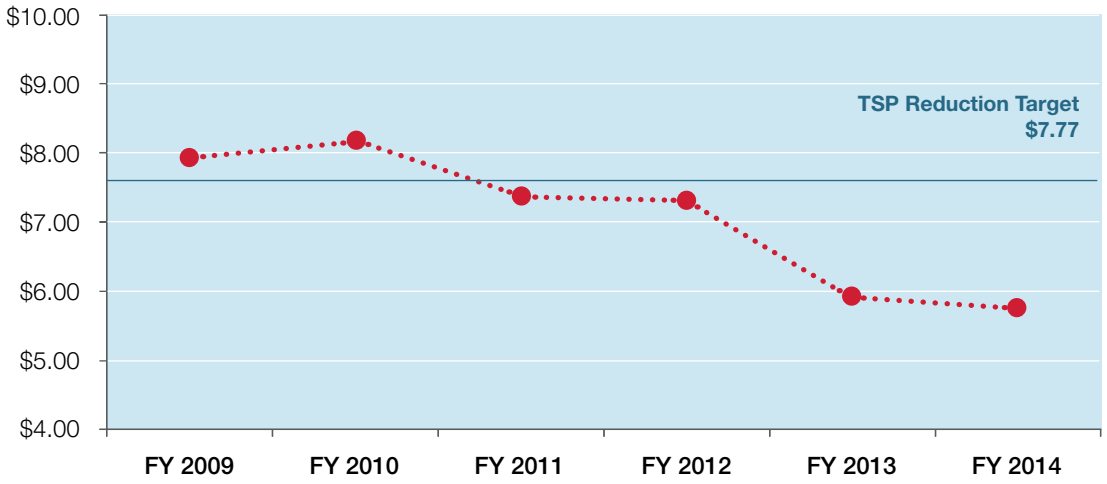
Figure 3.5: Operating Cost Per Revenue Hour FY2009-FY2014 (in 2011dollars)



OPERATING COST PER PASSENGER

While operating costs per revenue hour have increased, Caltrain's operating cost per passenger has declined dramatically; a function of service levels remaining constant while ridership has increased. Figure 3.6 shows operating cost per passenger in 2011 dollars and shows that Caltrain is on track to fulfill its TSP reduction target in this category.

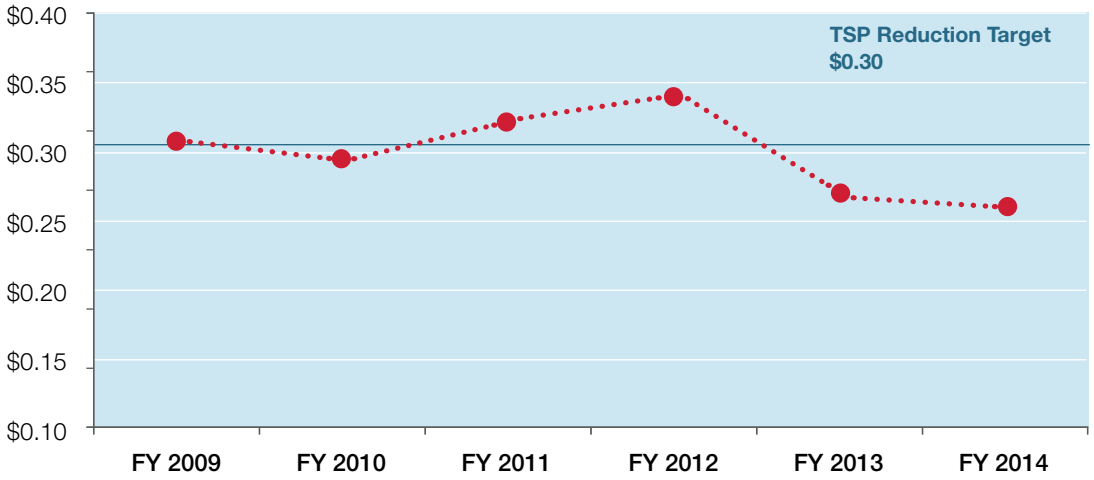
Figure 3.6: Operating Cost Per Passenger FY2009-FY2014 (in 2011 dollars)



OPERATING COST PER PASSENGER MILE

Like operating cost per passenger, Caltrain's operating cost per passenger mile has also decreased in real dollars. Since 2009, passenger miles have not increased as rapidly as overall ridership therefore, the reduction in operating cost per passenger mile is not as dramatic as the reduction in operating cost per passenger.

Figure 3.7: Operating Cost Per Passenger Mile FY2009-FY2014 (in 2011 dollars)



3.2 Equipment and Facility Deficiencies

There are no equipment or facility deficiencies at this time. However, several new equipment and facility projects are planned for the upgrade to an electrified system.

3.3 Community-based Transportation Plans

Caltrain participates in the CBTP process as requested by cities and congestion management agencies within the Caltrain service area. While several cities along the Caltrain corridor have recently developed CBTPs, no Caltrain projects were included in the plans. CBTPS along the Caltrain corridor include:

– San Francisco

– Bayview Hunters Point

– San Mateo

– Bayshore

– East Palo Alto

– North Central San Mateo

– San Bruno/South San Francisco

– Santa Clara

– Gilroy

3.4 Paratransit Services

Paratransit services in the Caltrain service area are provided through the local transit agencies in each county including SFMTA, SamTrans and VTA. Paratransit service is not a direct responsibility of Caltrain. For more information, see the Paratransit section of this report in Chapter 1.

3.5 Title VI Report Summary

In 2012, the Federal Transit Administration updated its Title VI civil rights guidance for recipients, requiring Caltrain to complete a number of new elements (C4702.1B). The Caltrain/JPB Title VI Program was adopted by the Board on November 7, 2013. The Title VI Program included a Language Assistance Plan (LAP) for Limited English Proficient (LEP) populations, a Public Participation Plan aimed at engaging minority and low-income riders, a Major Service Change Policy, and the Service Standards and Policies. The program also included two Equity Analyses conducted on fare changes performed in 2012 and 2013. The Title VI program also includes the public engagement efforts on the Title VI elements that were undertaken prior to the program adoptions.

During the 2013 Triennial Review of PCJPB, a deficiency was found with USDOT requirements for Title VI. At the time of this review, PCJPB was in the process of revising its Title VI Program. A review of PCJPB's public notice found that the notice did not contain all of the required information. The public notice was to include: A statement that the agency operates programs without regard to race, color, or national origin. A description of the procedures that members of the public should follow in order to request additional information on the recipient's Title VI obligations.

A description of the procedures that members of the public shall follow in order to file a Title VI discrimination complaint against the recipient. The corrective action was to revise and submit a Title VI public notice that addressed the requirements of the federal circular C4702.1B by December 31, 2013. Caltrain has satisfied this requirement and is in compliance with Title VI requirements.

The next Title VI Program update will be submitted to FTA by November 1, 2016.

3.6 FTA Triennial Review Summary

The Federal Transit Administration (FTA) Triennial Review site visit was conducted on November 12-13, 2013 with the final report issued on December 13, 2013. The review concentrated primarily on procedures and practices employed by Caltrain during the three years prior to the review. Based on the review, Caltrain was found to be deficient in 5 of the 18 Triennial Review areas, specifically: Legal, Technical, Satisfactory Continuing Control, Title VI, and Drug Free Workplace/Drug and Alcohol Program. These deficiencies have been addressed to the satisfaction of the FTA as documented in their closeout letter to the JPB dated October 17, 2014.

The deficiencies and responses and/or proposed corrective actions by Caltrain are shown below.

Table 3.2: Overview of the Amenities for each Station Location

TRIENNIAL REVIEW AREA	DEFICIENCY	CORRECTIVE ACTION	RESPONSE DATE	TICKET/CLIPPER VENDING MACHINES
Legal	Pending Litigation notice deficiencies			
Technical	"Reclass" of grant funds	PCJPB is to develop and submit to FTA Region IX the process it will use to ensure expenditures are drawn down against the older grants first	Prior to next Echo drawdown or 12/31/13	
Satisfactory Continuing Control	Violation of incidental use requirements	PCJPB is to submit formal requests to the FTA Region IX Office regarding approval for the incidental use of the Hillsdale Caltrain Station.	12/31/13	12/4/13
	Inadequate inventory process	PCJPB is submit to the FTA Region IX Office a description of the process and department responsible for ensuring compliance with the requirements associated with incidental use.	1/31/14	
		PCJPB is to develop and submit to FTA its procedures on how it will ensure compliance with the bi-annual asset inventory as required per FTA Circular 5010.1D. Said procedures are to identfiy the source document used (e.g. master asset list), how the inventory will be conducted, results of inventory documented, and evidence that inventory results are reconciled to the master asset list.	1/31/14	
		PCJPB is provide the regional office with a master listing of FTA-funded assets that are subject to being inventoried per C 5010.1D, and a reconciliation of when each asset was last inventoried.	3/31/14	
Title VI	Title VI public notice deficiencies	PCJPB is to revise and submit to the FTA Region IX Civil Rights Officer a revised Title VI public notice that addresses the requirements of C 4702.IB	12/31/13	
Drug free Workplace/Drug and Alcohol Program	Nonresponsive from Previous Triennial Review	JPB is to immediately notify FTA Region IX office how it intends to address the 2010 Triennial Review regarding drug and alcohol testing requirements for armed security personnel	11/20/13	11/20/13

4 Operations Plan and Budget

4.1 Caltrain Operating Plan

Caltrain expects to operate a 92-train weekday schedule with its current service pattern through FY2021 with only minor schedule modifications. In FY2021, following the implementation of the Peninsula Corridor Electrification Project, Caltrain will significantly modify its weekday service. The discussion below and Table 4.1 on the following page describe how Caltrain's service will change over the coming 10-years.

The following operations plan and budget assumes implementation of the Peninsula Corridor Electrification Project (PCEP) and the start of mixed diesel and electric operations in FY2021 ("mixed-fleet service"). Service assumptions for FY2021-FY2024 were developed based on the project description and analysis included in the PCEP Environmental Impact Review (adopted January 2015). The PCEP EIR included a "prototypical" schedule for mixed-fleet service that was developed for the purposes of environmental analysis. This same prototypical schedule underlies the operating plan described in this document. The final schedule for mixed-fleet service has not yet been determined. Over the next several years, Caltrain will engage in a robust public planning process to develop a final, detailed schedule and service plan for the mixed-fleet service the agency will begin operating in FY2021. This service planning exercise will also provide a venue to evaluate available operations funding and consider potential midday and weekend service increases The results of this work will be reflected in future SRTPs.

WEEKDAY SERVICE

Caltrain currently operates a weekday peak period maximum of five trains per hour per direction.

Table 4.1: Caltrain 10-Year Service Plan

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021*	FY 2022	FY 2023	FY 2024
Total Trains per Weekday	92	92	92	92	92	92	114	114	114	114
Diesel Trains per Day	92	92	92	92	92	92	24	24	24	24
5-car diesel trains	92	36	36	36	36	36	0	0	0	0
6-car diesel trains	0	56	56	56	56	56	24	24	24	24
Electric Multiple Unit (EMU) Trains per Day	0	0	0	0	0	0	90	90	90	90
Trains per Weekday Peak Hour Direction (PHD)	5	5	5	5	5	5	6	6	6	6
Diesel Trains per PHD	5	5	5	5	5	5	2	2	2	2
EMU Trains per PHD	0	0	0	0	0	0	4	4	4	4
Locomotives (Diesel Fleet)	29	29	29	29	29	29	9	9	9	9
Cab Cars (Diesel Fleet)	36	36	36	36	36	36	15	15	15	15
Coaches (Diesel Fleet)	82	98	98	98	98	98	46	46	46	46
Electric Multiple Unit Vehicles	0	0	0	0	18	90	96	96	96	96
Total Revenue Service Hours (by train)	38,600	38,600	38,600	38,600	38,600	38,600	41,800	41,800	41,800	41,800
Total Revenue Service Hours (by car)	193,000	220,000	220,000	220,000	220,000	220,000	251,000	251,000	251,000	251,000
Total Revenue Service Miles (by train)	1,357,000	1,357,000	1,357,000	1,357,000	1,357,000	1,357,000	1,707,000	1,707,000	1,707,000	1,707,000
Total Revenue Service Miles (by passenger car)	7,332,000	8,058,000	8,058,000	8,058,000	8,058,000	8,058,000	10,602,000	10,602,000	10,602,000	10,602,000
Annual Passengers	19,169,000	20,540,000	20,804,000	21,123,000	21,466,000	21,879,000	24,472,000	26,084,000	26,084,000	27,729,000
Weekday Passengers	61,200	65,400	67,400	69,400	71,500	73,700	82,800	87,800	90,400	93,100
Fare Increase (%)	N/A	N/A	7.5%	0.0%	7.5%	0.0%	7.5%	0.0%	7.5%	0.0%

*Implementation of Peninsula Corridor Electrification Project (PCEP) and start of mixed electric and diesel fleet revenue service

This pattern typically includes a mix of two Baby Bullet trains, a pair of local/express trains and one limited-stop train per peak hour. During the mid-day, Caltrain operates one all-stop local train per hour per direction. Weekday evening service after 7:00pm is also provided on headways of one train per hour with all-stop local service. Although Caltrain is not planning modify its weekday service levels prior to FY2021, the agency is extending many of its 5-car train consists. During FY2015, Caltrain acquired 16 used Bombardier coach cars from Metrolink. Caltrain is refurbishing these cars in FY2015 and FY2016 and will use them to add a 6th car to relieve crowding on some trains.

With the start of mixed-fleet revenue service in FY2021, Caltrain's weekday service will change in a number of ways. Overall, weekday service will increase from 92 trains to 114 trains per day. During the weekday peak period, Caltrain will operate 6 trains per peak hour per direction. The prototypical schedule included in the PCEP EIR anticipates that two of these six trains will continue to operate as Baby Bullet express trains while the remaining 4 will provide limited-stop service. During the mid-day period, the prototypical schedule anticipates that Caltrain will continue to operate all-stop local trains at an increased frequency of every 30 minutes. Evening service is contemplated to remain as hourly, local all-stop service.

During the 10 year timeframe of this SRTP, Caltrain will continue to operate Gilroy service much as it does today. With the start of mixed-

Table 4.2: Caltrain Shuttle 10-Year Service Plan

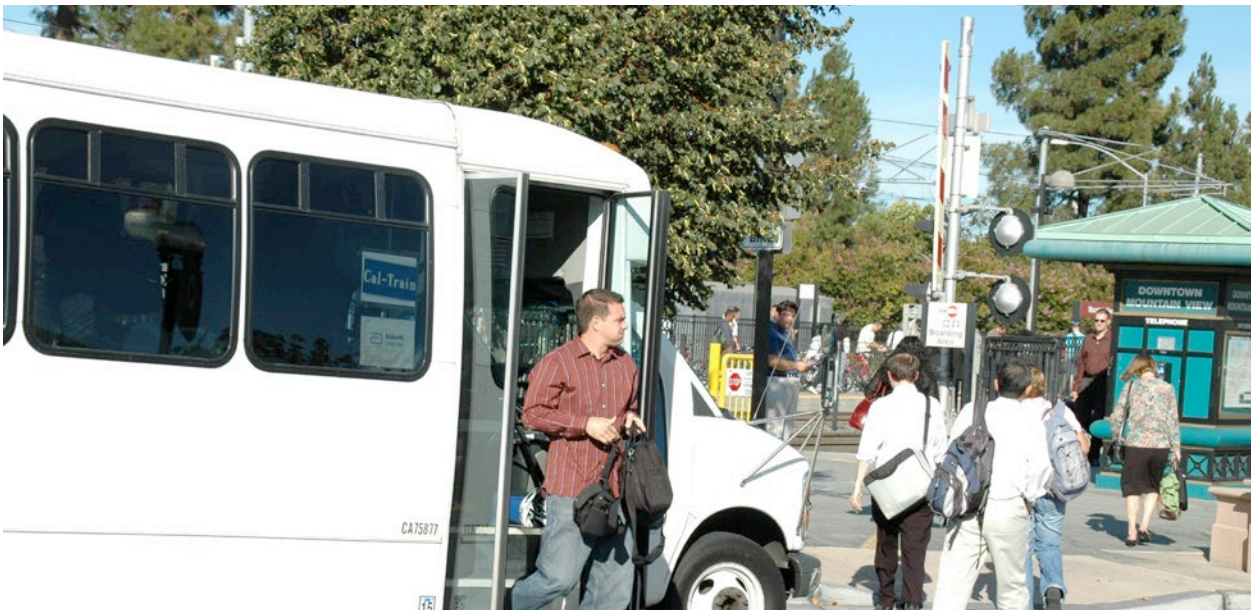
FISCAL YEAR	NUMBER OF ROUTES/ VEHICLES	ANNUAL RIDERSHIP	AVERAGE WEEKDAY RIDERSHIP	TOTAL OPERATING COST (IN FY2015 DOLLARS)
2011	32/35	1,472,355	5630	$2,883,594
2012	32/42	1,874,085	7167	$2,969,715
2013	28/30	884,698	3383	$3,141,384
2014	31/30	930,000	3556	$3,219,919
2015	30/29	818,100	3128	$3,165,527
2016	28/28	816,181	3121	$3,063,937
2017	28/28	824,343	3152	$3,140,535
2018	28/28	832,586	3184	$3,219,049
2019	28/28	840,912	3216	$3,299,525
2020	28/28	849,321	3248	$3,382,013
2021	28/28	857,814	3280	$3,466,563
2022	28/28	866,393	3313	$3,553,227
2023	28/28	875,057	3346	$3,642,058
2024	28/28	883,807	3380	$3,733,109

fleet revenue service in FY2021, Caltrain will also continue to operate 6 daily diesel trains serving the Gilroy Extension (3 northbound trains during the A.M. peak and three southbound trains during the P.M. peak). While a final service plan for mixed-fleet operations will be developed over the coming years, the prototypical schedule assumes that diesel trains serving Gilroy will be operated as through-trains north of San Jose.

Weekday ridership is anticipated to grow throughout the 10-year period analyzed in the SRTP. In FY2016, a ridership growth rate of 7% is projected based on past trends and the addition of new capacity on peak-hour trains provided by the addition of the 6th car on crowded trains. In FY2017-FY2020, no service changes are planned and a more conservative growth rate of 3% is assumed. In FY2021 and FY2022, high weekday ridership growth rates of 12.4% and 6% are anticipated as the introduction of increased service and added train stops induces new ridership. This anticipated rate of ridership growth is based on ridership projections developed for the PCEP EIR. Following this growth in ridership, a return to 3% average growth is projected for FY2023 and FY2024.

WEEKEND SERVICE & SPECIAL EVENT SERVICE

Caltrain's weekend service includes 36 Saturday trains and 32 Sunday trains. Most of these trains provide local, all-stop service every 60 minutes. Caltrain also operates four Baby Bullet express trains per direction on both Saturday and Sunday. Between FY2017 and FY2021, Caltrain may reduce the frequency of some local weekend trains from hourly to every 90 minutes to facilitate the construction of the Peninsula Corridor Electrification Project. Any final determination regarding possible weekend schedule changes or reductions will be made when a contract is awarded to a design builder in late calendar year 2015. The operations plan and budget included in this document assume the continuation of hourly weekend service through FY2021. Following the implementation of the PCEP in FY2021, the prototypical schedule assumes that Caltrain will continue to provide the same weekend service levels that it does today.



From FY2015-FY2024, Caltrain anticipates that it will continue its practice of providing regular special event service for baseball games at the Giant's ballpark at China Basin as well as service to the Mountain View Station to support select events at Levi's Stadium in Santa Clara. Additionally Caltrain will provide special service to select events that generate sufficient ridership. Like weekday ridership, weekend and holiday ridership is also anticipated to grow by 7% in FY2016. In FY2017-FY2020, however, weekend ridership is expected to decline by 5% per year in response to potential service disruptions as construction of the PCEP occurs. With the start of electrified service in FY2021, weekend ridership is expected to recover with two years of 10% growth. Finally, in FY2023-FY2024, weekend ridership is projected to stabilize at a 3% annual growth rate.

CALTRAIN-SPONSORED SHUTTLE SERVICE

Caltrain-sponsored shuttle service is not anticipated to change substantially during the 10 years examined in the SRTP. Caltrain sponsors and is directly involved in the administration of 30 shuttles serving 18 of its stations. Caltrain-sponsored shuttles are funded by a sponsor, such as a major company, underwriting at least 25 percent of the cost of the service, with the Bay Area Air Quality Management District (BAAQMD) providing year-to-year discretionary fund financing of 25% to 40%. The balance is subsidized by Caltrain. All Caltrain-sponsored shuttle routes are operated privately or on a contract basis and all shuttle vehicles are provided by the operating entity. Replacement or changes to shuttle vehicles are the responsibility of contractors and are not reflected in Caltrain's capital plan.

Currently, Caltrain-sponsored shuttles carried an average of 3,556 riders per weekday in FY 2014. Caltrain shuttle ridership on most routes has grown rapidly over the last several years. The large drop in ridership shown between FY2012 and 2013 reflects the removal of several popular routes from "Caltrain Sponsorship" and associated reporting requirements.

Caltrain-sponsored shuttle operations are largely constrained by grant funding availability and the 10-Year Shuttle Service Plan shown does not assume any increases in number of routes or vehicles operating. Instead, the number of Caltrain-sponsored shuttle routes is slated to decrease in FY2015 and again in 2016 as specific shuttle routes are cancelled or are moved to contracts outside of Caltrain's administration and sponsorship. Shuttle ridership is anticipated to fall in FY2015 and FY2016 based on administrative changes that will remove certain routes from Caltrain sponsorship. Shuttle ridership is subsequently anticipated to grow steadily through to FY2024 based on historical trends. It is

assumed that any issues with shuttle capacity will be addressed by operating routes with larger vehicles.

4.2 Caltrain Operating Budget

The 10-year Financial Plan shows a deficit in FY2017 through FY2024 as the result of operating and maintenance costs exceeding revenues from fares, partner contributions, and other sources. Deficits are projected even as future farebox recovery is anticipated to increase while operating costs per vehicle service hour and operating costs per passenger are projected to fall over the 10-year timeframe examined. This occurs because Caltrain, unlike many other transit systems, does not have access to a dedicated source of funding to pay for the portion of its operating costs not covered by fare revenue. Over the course of the 10-year financial plan the absolute annual amount of this funding gap is projected to increase along with the overall scope and size of the Caltrain system. Proportionally, however, the size of Caltrain's anticipated funding gap is projected to diminish.

Caltrain is currently developing strategies to balance the annual budget through FY2024. Over the next several years, Caltrain will comprehensively evaluate a variety of factors that influence the system's operating deficit including:

– Fare policy and pass programs

– The incremental impacts of added service on operating revenues and costs

– The potential for securing dedicated operating funds through a three-county ballot measure

– Cost containment strategies

Should Caltrain be unable to secure or identify additional funding sources for operating and maintenance of the system, or develop a long-term strategy to address funding deficits, service level commitments may need to be revisited along with more aggressive cost containment strategies. This eventuality is reflected through the "Revenue Enhancement / Cost Containment" line shown in Table 4-3. Although Caltrain views service reductions as a last resort, the agency must deliver a balanced budget every year and cannot spend money it does not have. Should the agency fail to realize new revenues or contain costs to the point where service reductions become necessary, Caltrain will focus on eliminating trains and modifying station stops in a way that streamlines its services and maintains as much utility to its customers as possible. Less productive service during midday, evenings and off-peak hours may be significantly reduced or eliminated to conserve costs. Similarly, factors such as station ridership, intermodal connectivity, station-adjacency and social and geographic equity will be used to reduce or eliminate individual station stops and enhance the productivity of the remaining service. Any service reductions will be rigorously vetted through a public process. Caltrain believes that maintaining service levels is essential to its customers and the communities it serves and is continuing to work very aggressively with local, regional, state and federal partners to find near-term and long-term solutions to its operating deficit.

In addition to general trends, Table 4.3 shows a distinct year to year variation in the size of Caltrain's future anticipated operating deficit. While the many inputs underlying the financial plan are discussed below, this specific variation from year to year is driven by two key factors that influence Caltrain's annual operating budget.

First, the planned schedule of fare changes used in these projections assumes that fare increases are implemented every other year (meaning that fare revenue growth has a pronounced "step" pattern). Second, the Caltrain member agency contributions from San Francisco, SamTrans, and VTA shown in the "JPB Member Agency Contributions" line also vary sharply based on past and future agreements regarding member agency payments. In 2011 and 2012, SamTrans reduced its contribution and triggered an overall reduction in member agency payments. In 2013, however, SamTrans was able to increase its payments by leveraging a variety of one-time sources. In 2014, all member agencies returned to a lower, formula-based payment rate which will be held through FY2016. In 2017, 2018 and 2019, SamTrans plans to increase its contribution by $4 million per year with the assumption that other partner agencies will match the increase.

Following 2019, member agency contributions are expected to return to the lower, formula-based rate used today. While these assumptions have been used to develop the Caltrain financial plan, they remain subject to negotiation and change. Similarly, Caltrain is continuing its own efforts to secure a dedicated source of funding to comprehensively address its operational needs.

It is important to note that key inputs to Caltrain's 10-year financial projections, including projected ridership and future maintenance costs for new equipment and systems, will also be updated over the coming years. Specifically, it is anticipated that the next full SRTP required by MTC in June 2016 will provide a better understanding of capital and operating needs associated with the PCEP since key contracts will have been awarded by that time. These updates will change the 10-year operating budget and will be reflected in future SRTPs and may impact the current deficits being projected.

Table 4.3 on the following pages provides an actual, adopted and projected operating budget for the years FY2012 – FY2024.

The 10-year budget plan shown for FY2015 – FY2024 is based on the following major assumptions:

Service Levels

FY2016:

An increase in train length from 5-car to 6-car consists on select trains.

– No increases in service hours.

– FY2021:

Implementation of the PCEP and conversion of 90 out of 114 trains to EMU service.

– An increase in overall service levels from 92 weekday trains to 114 weekday trains.

– An increase in service hours from 38,600 (FY 15 to FY 20) to 41,800 (in FY 21-24).

Between FY2020 and FY2021, the PCEP will begin revenue service and Caltrain will increase the level of service it provides. In FY2021, Caltrain will add 22 additional trains per day and increase train hours by 3,200 per year. Caltrain's operating budget will increase by $15 million (or approximately 9%) between FY2020 and FY2021. This increase includes the costs of providing additional service as well as the costs and savings associated with converting from diesel operations to mixed-fleet service.

Contracted Operating Expenses

– Underlying contractor operating costs are expected to increase 4% per year based on the terms of Caltrain's existing contract with Transit Service America Incorporated (TASI).

– Significant anticipated additions and reductions to operating costs include:

– Added costs related to maintenance of the Communications Based Overlay Signal. System (CBOSS) and Positive Train Control (PTC) system starting in FY2016.

– Added costs related to the maintenance of PCEP infrastructure including the wayside traction power facilities and overhead catenary system starting in FY2021.

– Added costs related to the maintenance of 96 EMU vehicles beginning in FY2021.

– Added costs related to additional crews required to provide increased service level in FY2021.

– Reduced maintenance costs realized through the retirement of a portion of the diesel fleet in FY2021.

Other Operating Expenses

– Underlying fuel prices are anticipated to increase an average of 3% per gallon per year.

– Underlying electricity prices are anticipated to increase an average of 3% per kilowatt hour per year.

– All other operating expenses are anticipated to increase between 1 – 2 % per year.

– Significant anticipated additions and reductions to other operating expenses include:
– Added electricity costs related to an 81 million kwh increase in consumption in FY2021 to provide power for EMU vehicles.

– Reduced diesel fuel costs related to a 3.6 million gallon reduction in diesel fuel consumption in FY2021 when electrified service begins.

Other Use of Funds

– Caltrain administrative staffing levels and overhead costs are not anticipated to materially increase over the next ten years. Items listed as other use of funds include administrative expenses for Caltrain and are expected to increase between 2 – 3.5% per year.

Long Term Debt Expenses

– The 10-year operating budget includes existing debt service costs.

Fare Revenue

– Fare revenue grows annually as a function of increasing overall ridership as discussed in section 4.1

– In addition to ridership based revenue growth, significant fare increases are planned for the 10-year timeframe contemplated in the SRTP.

– For the purposes of this financial forecasting exercise, these fare increases have been programmed as biennial, 7.5% increases in overall fare revenue occurring in 2017, 2019, 2021 and 2023.

– This equates to a 2.66% annual increase in the average passenger fare between FY2015 and FY2024.

– Fare elasticity is assumed to be 0 (no observable reaction) based on Caltrain experience with fare increases over the last 10 years.

Other Operating Revenues

– Parking revenues are anticipated to increase in conjunction with ridership as discussed in section 4.1.
– Parking fees are also slated to increase 3% every other year in coordination with fares.

– Other revenues including shuttles, rental income and others are anticipated to increase at 2% per year.

Contributions

– Investment interest is expected to increase at 1.5% per year.

– AB3434 and TA Shuttle funding is expected to increase at 2.5% per year.

– Operating grants primarily include State Transit Assistance Funds as shown. These are held constant in future years and are not expected to increase.

– JPB Member Agency Contributions increase at an underlying rate of 3% per year. SamTrans is assumed to increase its contribution by $4 million in FY2017 through FY2019. Partner agencies are assumed to match the increase proportionally based on the mutually agreed upon Boarding Formula. Operating budget contributions are negotiated by the JPB partners on an annual basis. Any shortfalls in partner contributions will result in an increase in Caltrain's operating deficit that will need to be addressed through increased revenues, cost containment or service cuts as previously described.

Table 4.3: Caltrain 10-Year Operations Financial Plan with Past Actuals (YOE$)

YEAR ENDING 30 JUNE (YOE $)	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 REVISED	FY2016 ADOPTED
Source of Funds					
Farebox Revenues					
Subtotal - Farebox Revenue	**59,891,343**	**68,767,170**	**74,846,066**	**80,043,692**	**83,737,500**
Other Operating Revenues					
Parking Revenue	3,261,932	3,301,724	4,156,577	4,051,240	4,436,600
Shuttles	1,148,957	1,972,626	1,702,070	2,001,840	2,548,700
Rental Income	1,759,216	1,783,323	1,728,248	1,737,720	1,781,595
Other Income	2,780,807	2,932,340	4,625,745	1,502,954	462,420
Subtotal - Other Operating Revenues	**8,950,912**	**9,990,013**	**12,212,640**	**9,293,754**	**9,229,315**
Contributions					
Investment Interest	165,171	-	-	176,666	179,316
AB434 & TA Shuttle Funding	989,533	1,922,649	2,025,645	1,981,540	1,903,930
State Transit Assistance	4,222,450	5,075,017	6,287,914	6,653,422	5,591,617
Other Grant Sources	5,040,535	-	5,005,799	-	44,265
JPB Member Agency Contributions					
SFMTA	4,510,684	5,800,000	4,500,881	5,179,323	5,233,692
SamTrans	10,620,000	14,000,000	5,440,000	6,260,000	6,080,000
VTA	10,206,572	13,700,000	7,290,668	8,389,629	8,413,757
Other Sources	-	-	-	12,758,000	18,742,673
Subtotal - Contributions	**35,754,945**	**40,497,666**	**30,550,917**	**41,398,580**	**46,189,251**
Total - SOURCES OF FUNDS	**104,597,200**	**119,254,849**	**117,609,623**	**130,736,026**	**139,156,066**
Uses of Funds					
Contracted Operating Expenses					
Base Contract Operating and Maintenance					
Rail Operator Service	55,114,883	59,246,556	68,280,415	69,440,426	75,245,335
Security Services	4,198,912	4,217,676	4,266,665	4,989,510	5,208,717
Rail Operator Extra Work	4,345,905	(102,587)	(249,931)	155,500	125,000
New Infrastructure Maintenance	-	-	-	-	1,500,000
Subtotal - Contracted Op. Expenses	**63,659,700**	**63,361,645**	**72,297,149**	**74,585,436**	**82,079,052**
Other Expenses					
Shuttles (includes Peninsula Pass)	3,044,524	4,634,500	4,408,831	4,833,310	5,468,000
Diesel Fuel	15,281,681	15,344,013	14,781,706	17,702,600	18,541,863
Electricity	-	-	-	-	-
Timetables and Tickets	155,936	127,295	39,621	148,000	212,700
Insurance	4,783,055	5,186,334	3,873,986	5,713,750	5,713,750
Facilities and Equipment Maintenance	1,828,325	1,690,067	1,671,987	1,975,415	1,852,069
Utilities	1,438,295	1,684,661	1,415,833	2,120,185	2,275,905
Maint. & Services - Bldg. & Other	1,238,207	1,283,283	1,201,978	1,397,218	1,426,783
Subtotal - Other Operating Expenses	**27,770,023**	**29,950,153**	**27,393,942**	**33,890,478**	**35,491,070**
Other Uses of Funds					
Wages and Benefits	4,810,240	5,389,848	6,165,558	6,768,729	7,598,675
Managing Agency Admin OH Cost (AIA)	910,064	3,931,897	4,501,893	5,486,432	5,760,754
Board of Directors	10,020	12,127	11,867	11,700	13,800
Professional Services	2,498,188	2,680,039	3,754,688	3,533,792	4,563,609
Communications and Marketing	57,755	122,446	(1,071)	119,300	139,800
Office Expense and Other	1,407,082	1,607,726	1,640,052	2,027,284	2,227,131
Subtotal - Other Uses of Funds	**9,693,349**	**13,744,082**	**16,072,987**	**17,947,237**	**20,303,769**
Total - USES OF FUNDS	**101,123,072**	**107,055,880**	**115,764,078**	**126,423,151**	**137,873,890**
Net Surplus (DEFICIT) from Op. w/o LTD	**3,474,128**	**12,198,969**	**1,845,545**	**4,312,875**	**1,282,175**
Long-term Debt Expense	1,102,874	1,102,875	1,102,875	1,141,225	1,282,175
Net Surplus (DEFICIT) from Op. Activities	**2,371,254**	**11,096,094**	**742,670**	**3,171,650**	**0**
Revenue Enhancement / Cost Containment	-	-	-	-	-
REVISED NET SURPLUS (DEFICIT)	**2,371,254**	**11,096,094**	**742,670**	**3,171,650**	**0**

Table 4.3 (Continued): Caltrain 10-Year Operations Financial Plan with Past Actuals (YOE$)

YEAR ENDING 30 JUNE (YOE $)	FY2017 PROJECTED	FY2018 PROJECTED	FY2019 PROJECTED	FY2020 PROJECTED
Source of Funds				
Farebox Revenues				
Subtotal - Farebox Revenue	**91,079,814**	**92,453,607**	**100,866,790**	**102,770,462**
Other Operating Revenues				
Parking Revenue	4,605,504	4,639,012	4,812,687	4,849,278
Shuttles	2,599,674	2,651,667	2,704,701	2,758,795
Rental Income	1,817,227	1,853,571	1,890,643	1,928,456
Other Income	471,669	481,102	490,724	500,538
Subtotal - Other Operating Revenues	**9,494,074**	**9,625,352**	**9,898,755**	**10,037,067**
Contributions				
Investment Interest	182,006	184,736	187,507	190,319
AB434 & TA Shuttle Funding	1,970,379	2,039,147	2,110,315	2,183,968
State Transit Assistance	5,591,617	5,591,617	5,591,617	5,591,617
Other Grant Sources	44,265	44,265	44,265	44,265
JPB Member Agency Contributions				
SFMTA	8,847,765	9,113,198	9,386,594	5,831,608
SamTrans	10,382,400	10,693,872	11,014,688	6,843,094
VTA	14,331,889	14,761,845	15,204,701	9,446,222
Other Sources	-	-	-	-
Subtotal - Contributions	**41,350,320**	**42,428,680**	**43,539,687**	**30,131,092**
Total - SOURCES OF FUNDS	**141,924,207**	**144,507,639**	**154,305,232**	**142,938,620**
Uses of Funds				
Contracted Operating Expenses				
Base Contract Operating and Maintenance				
Rail Operator Service	80,583,798	83,807,149	87,159,435	90,645,813
Security Services	5,417,066	5,633,748	5,859,098	6,093,462
Rail Operator Extra Work	130,000	135,200	140,608	146,232
New Infrastructure Maintenance	3,333,200	4,331,808	4,505,080	4,685,284
Subtotal - Contracted Operating Expenses	**89,464,063**	**93,907,906**	**97,664,222**	**101,570,791**
Other Expenses				
Shuttles (includes Peninsula Pass)	5,658,839	5,856,338	6,060,730	6,272,255
Diesel Fuel	19,258,425	19,836,178	20,431,264	21,044,202
Electricity	-	-	-	-
Timetables and Tickets	214,827	216,975	219,145	221,336
Insurance	5,770,888	5,828,596	5,886,882	5,945,751
Facilities and Equipment Maintenance	1,870,590	1,889,296	1,908,189	1,927,270
Utilities	2,321,423	2,367,852	2,415,209	2,463,513
Maint. & Services - Bldg. & Other	1,441,051	1,455,461	1,470,016	1,484,716
Subtotal - Other Operating Expenses	**36,536,042**	**$37,450,696**	**38,391,434**	**39,359,044**
Other Uses of Funds				
Wages and Benefits	7,864,629	8,139,891	8,424,787	8,719,654
Managing Agency Admin OH Cost (AIA)	5,962,380	6,171,063	6,387,050	6,610,597
Board of Directors	14,076	14,358	14,645	14,938
Professional Services	4,654,881	4,747,979	4,842,938	4,939,797
Communications and Marketing	142,596	145,448	148,357	151,324
Office Expense and Other	2,271,674	2,317,107	2,363,449	2,410,718
Subtotal - Other Uses of Funds	**20,910,235**	**21,535,845**	**22,181,226**	**22,847,029**
Total - USES OF FUNDS	**146,910,341**	**152,894,447**	**158,236,882**	**163,776,863**
NET SURPLUS (DEFICIT) FROM OPERATING w/o LTD	**(4,986,133)**	**(8,386,808)**	**(3,931,650)**	**(20,838,243)**
Long-term Debt Expense	1,282,175	1,282,175	1,526,335	2,897,474
NET SURPLUS (DEFICIT) FROM OPERATING ACTIVITIES	**(6,268,308)**	**(9,668,982)**	**(5,457,985)**	**(23,735,716)**
Revenue Enhancement / Cost Containment	6,268,308	9,668,982	5,457,985	23,735,716
REVISED NET SURPLUS (DEFICIT)	**0**	**0**	**0**	**0**

Table 4.3 (Continued): Caltrain 10-Year Operations Financial Plan with Past Actuals (YOE$)

YEAR ENDING 30 JUNE (YOE $)	FY2021 PROJECTED	FY2022 PROJECTED	FY2023 PROJECTED	FY2024 PROJECTED
Source of Funds				
Farebox Revenues				
Subtotal - Farebox Revenue	**121,367,317**	**128,869,562**	**142,288,262**	**146,711,257**
Other Operating Revenues				
Parking Revenue	5,398,604	5,556,866	5,808,589	5,898,703
Shuttles	2,813,971	2,870,250	2,927,655	2,986,208
Rental Income	1,967,025	2,006,365	2,046,493	2,087,422
Other Income	708,528	722,699	737,153	751,896
Subtotal - Other Operating Revenues	**10,888,128**	**11,156,180**	**11,519,889**	**11,724,229**
Contributions				
Investment Interest	193,174	196,072	199,013	201,998
AB434 & TA Shuttle Funding	2,260,190	2,339,073	2,420,709	2,505,194
State Transit Assistance				
Other Grant Sources				
JPB Member Agency Contributions				
SFMTA	6,006,556	6,186,753	6,372,355	6,563,526
SamTrans	7,048,386	7,259,838	7,477,633	7,701,962
VTA	9,729,609	10,021,497	10,322,142	10,631,806
Other Sources	-	-	-	-
Subtotal - Contributions	**30,873,797**	**31,639,114**	**32,427,734**	**33,240,368**
Total - SOURCES OF FUNDS	**163,129,242**	**171,664,856**	**186,235,885**	**191,675,854**
Uses of Funds				
Contracted Operating Expenses				
Base Contract Operating and Maintenance				
Rail Operator Service	86,852,721	90,326,830	93,939,903	97,697,499
Security Services	6,337,201	7,549,535	7,851,516	8,165,577
Rail Operator Extra Work	152,082	158,165	164,491	171,071
New Infrastructure Maintenance	28,359,786	32,681,010	34,127,213	35,636,822
Subtotal - Contracted Operating Expenses	**121,701,790**	**130,715,540**	**136,083,124**	**141,670,970**
Other Expenses				
Shuttles (includes Peninsula Pass)	6,491,163	6,717,711	6,952,166	7,194,803
Diesel Fuel	5,750,206	5,922,712	6,100,393	6,283,405
Electricity	9,172,074	9,447,237	9,730,654	10,022,573
Timetables and Tickets	223,550	225,785	228,043	230,324
Insurance	6,005,209	6,065,261	6,125,913	6,187,173
Facilities and Equipment Maintenance	1,946,543	1,966,009	1,985,669	2,005,525
Utilities	2,512,783	2,563,039	2,614,299	2,666,585
Maint. & Services - Bldg. & Other	1,499,563	1,514,559	1,529,704	1,545,002
Subtotal - Other Operating Expenses	**33,601,091**	**34,422,312**	**35,266,842**	**36,135,390**
Other Uses of Funds				
Wages and Benefits	9,024,842	9,340,712	9,667,637	10,006,004
Managing Agency Admin OH Cost (AIA)	6,841,968	7,081,437	7,329,287	7,585,812
Board of Directors	15,236	15,541	15,852	16,169
Professional Services	5,038,593	5,139,365	5,242,152	5,346,995
Communications and Marketing	154,350	157,438	160,586	163,798
Office Expense and Other	2,458,933	2,508,111	2,558,273	2,609,439
Subtotal - Other Uses of Funds	**23,533,923**	**24,242,603**	**24,973,788**	**25,728,217**
Total - USES OF FUNDS	**178,836,804**	**189,380,455**	**196,323,754**	**203,534,577**
NET SURPLUS (DEFICIT) FROM OPERATING w/o LTD	**(15,707,562)**	**(17,715,599)**	**(10,087,869)**	**(11,858,723)**
Long-term Debt Expense Long-term Debt Expense	2,878,340	2,862,688	2,854,649	2,849,082
NET SURPLUS (DEFICIT) FROM OPERATING ACTIVITIES	**(18,585,901)**	**(20,578,287)**	**(12,942,518)**	**(14,707,805)**
Revenue Enhancement / Cost Containment	18,585,901	20,578,287	12,942,518	14,707,805
REVISED NET SURPLUS (DEFICIT)	**0**	**0**	**0**	**0**

5 Capital Improvement Program

Caltrain's Capital Improvement Program (CIP) includes individual capital projects and the capitalized maintenance of existing assets (tracks and related infrastructures, systems, facilities and equipment). The CIP supports the operations and services set forth in the operating plan and budget described in Chapter 4 and provides the basis for requests for federal, state and regional funding for capital replacement, rehabilitation and expansion projects.

5.1 Capital Projects

The Caltrain 10-year CIP presented in this SRTP is a $3 billion program that is focused on maintaining a state of good repair, implementing operational enhancements, and modernizing the Caltrain system. Projects within the Caltrain 10-year CIP are grouped into four key program areas:

– Capital Contingency & Support: This program area includes costs associated with planning, programming and development activities related to capital projects as well as an annual set-aside for unforeseen and emergency capital expenditures.

– State of Good Repair: This capital program includes the set of ongoing and specific rehabilitation and capitalized maintenance activities required to maintain Caltrain's existing and planned structures, facilities and rolling stock.

Table 5.1: Caltrain 10-Year Capital Improvement Program Summary (FY2015-FY2024)

ALL NUMBERS IN FY2015 $ AND IN THOUSAND $

	10 Year Total
Support & Contingency	
Support & Contingency Subtotal	23,900
State of Good Repair	
System Infrastructure	214,230
Specific Rehabilitation Programs	168,174
State of Good Repair Subtotal	**382,404**
Caltrain Modernization Program	
Early Investment Program	1,599,298
Phase Two	430,000
Caltrain Modernization Program Subtotal	**2,029,298**
Reliability & Enhancement Program	
Projects with Funding Identified	226,672
Projects with Funding To Be Identified	421,370
Reliability & Enhancement Program Subtotal	**648,042**
CAPITAL IMPROVEMENT GRAND TOTAL	**3,083,644**

– Caltrain Modernization: The Caltrain Modernization program includes the introduction of a new train control and signal system, the electrification of the corridor from San Francisco to San Jose, and the procurement of new, electric-powered rolling stock. The program also encompasses a second phase of planned improvements including rolling stock expansion and platform lengthening. In future years (beyond 2024) this program will also include the implementation of level boarding at stations throughout the Caltrain system.

– Reliability & Enhancements — Caltrain's program of reliability improvements and system enhancements includes specific capital projects that improve the system's performance beyond simply maintaining a state of good repair.

Both the "Reliability & Enhancements" and "Caltrain Modernization" program categories include some projects where full or partial funding has not yet been identified. These projects are not directly required to support the operating plan and budget described in Chapter 4 however Caltrain has elected to include them in the overall CIP because they are crucial to the ongoing improvement of the railroad and support the system's overarching goals. Caltrain will continue to seek funding for these projects over the coming 10 years.

Table 5.1 provides an overall summary of Caltrain's 10-year CIP by program category. The following pages provide additional detail on specific projects and programs encompassed within the CIP's larger program areas. Table 5.2 is a detailed, 10-year CIP showing individual projects and programs with anticipated expenditures by year.

SUPPORT & CONTINGENCY PROGRAM

Caltrain's support and contingency program includes capital program development and management costs associated with planning, programming and development activities. These are needed to ensure development of accurate project scopes, cost estimates and implementation schedules as well as the management of capital budget and programming

processes, grant development, project and program controls, and capital program management systems. The contingency program includes annual set-aside for unforeseen and emergency capital expenditures.

STATE OF GOOD REPAIR PROGRAM

One of the primary goals of the CIP is to keep the railroad in a constant state of good repair. As structures, facilities and vehicles progress through and exceed their useful lives they require rehabilitation and replacement. Caltrain's 10-year State of Good Repair Program supports the safety, reliability and performance of the system by ensuring that the railroad's assets function as intended and realize their full value. The State of Good Repair Program is subdivided into the below categories and projects that address the rehabilitation and replacement of specific systems.

SYSTEMWIDE INFRASTRUCTURE REHABILITATION

– Bridge Replacement: The JPB's bridge replacement program identifies those bridges or other major structures that have reached the end of their useful life or do not meet current seismic standards. Projects are identified through the JPB's annual bridge inspection program. The CIP includes funding for the rehabilitation and replacement of a number of structures over the coming 10 years.

– Track Rehabilitation: The scope of this ongoing annual project includes replacement of rails and points on an as-needed basis rail joint replacements; replacement of ties; placement of new ballast; minor repairs to structures; geometry inspections; weed abatement; and graffiti removal.

– Station Rehabilitation: The systemwide station rehabilitation program is an annual project that rehabilitates various elements of passenger stations along the Caltrain right of way. Activity typically include: replacing passenger shelters; installing information display cases; replacing center track fence; repainting station amenities and pavement markings; installing new signage; and minor station building maintenance.

– Signals & Communications: The Signals and Communication State of Good Repair category includes the servicing and maintenance of the existing signal system as well as the future capital rehabilitation of Caltrain's public address system and Communications Based Overlay Signal System Positive Train Control System (CBOSS-PTC).

– Diesel Rolling Stock Rehabilitation: Caltrain's diesel fleet is approaching the end of its useful life and rolling stock rehabilitation is a major component of Caltrain's State of Good Repair Program. The Rolling Stock SOGR program includes the mid-life overhauls and major capital maintenance required to keep Caltrain's full diesel fleet running through electrification and to keep a portion of the diesel fleet operating past 2020 alongside the system's new, electric multiple unit trains.

SPECIFIC REHABILITATION AND IMPROVEMENT PROGRAMS

– Safety, Security and Fencing Improvements: The Safety, Security and Fencing Improvement program includes the addition of closed circuit television cameras and other safety and security enhancing features to Caltrain's stations. This category also includes Caltrain's fencing program, which increases the security of the right of way by strategically adding fencing and limiting track access through a program of incremental improvements

– Ticket Vending Machine Replacement: Ticket vending machines (TVMs) throughout the system will be replaced as the existing equipment reaches the end of its useful life. Next generation TVMs will be procured and installed in coordination with planned changes to the Clipper regional fare system.

CALTRAIN MODERNIZATION PROGRAM

The Caltrain Modernization Program includes a series of major capital investments in the Caltrain corridor that will electrify and upgrade the

performance, operating efficiency, capacity, safety and reliability of Caltrain's commuter rail service. The Modernization program also includes ongoing planning and development of longer range improvements focused on expanding system capacity. While the modernization program is being planned to accommodate the shared use of the Peninsula Corridor by both Caltrain and High Speed Rail Service in a "Blended System" it is important to note that Caltrain's capital program only includes Caltrain projects with independent utility for Caltrain service. The capital program does not include any capital projects that specifically support the Caltrain / HSR blended service.

Within Caltrain's Capital Improvement Plan, the Modernization program is divided into two phases. The first phase includes the "Early Investment Program" projects that are in construction or have funding plans in place and are moving actively towards implementation. These include the ongoing installation of a Communications Based Overlay Signal System Positive Train Control (CBOSS PTC), the electrification of the existing Caltrain corridor between San Francisco and San Jose and the partial replacement of Caltrain's diesel trains with high-performance Electric Multiple Units (EMUS). It is important to note that the project cost shown for the PCEP in the CIP (Electrification and EMU procurement) totals to $1.531 billion. This represents the full project cost with no value engineering assumed. A value-engineered option has been identified at a lower estimated total cost of $1.474 billion and is also being considered. Caltrain's next SRTP will capture updated PCEP costs as Caltrain finalizes project funding and awards contracts over the coming year.

The second phase of the Caltrain modernization program has not been funded and is still in the planning phase. It includes the conversion of the remaining diesel fleet to EMUs, the purchase of additional vehicles to expand all EMU consists to 8-cars, the lengthening of platforms to accommodate 8-car trains, and the eventual reconfiguration of station platforms to achieve level boarding. While the 10-year operating plan in Chapter 4 does not rely on this second phase of improvements, the 10-year CIP shows a portion of their anticipated timing and cost with initial investments and implementation work occurring in FY2019-FY2024. The 10-year CIP specifically does not include costs or timing associated with the implementation of level boarding. Discussions and planning for level boarding are still ongoing between Caltrain and other corridor stakeholders and at this time implementation of any level-boarding improvement project is assumed to occur after FY2024.

RELIABILITY AND ENHANCEMENT PROGRAM

Caltrain's reliability and enhancement program includes both system wide and location-specific capital projects that improve the Caltrain system's performance and reliability beyond a state of good repair. These projects also fall outside the set of improvements included in the Caltrain Modernization Program. The reliability and Enhancement Program has been divided into two broad categories to distinguish between those projects where funding sources have been identified and others where funding plans have yet to be developed.

Enhancement Projects and Programs with full Funding Identified

The following enhancement projects have full funding plans in place or have known sources of funding available to support their completion.

– 6-Car Train platform Modifications: Includes the lengthening of select platforms to accommodate service by longer, 6-car diesel trains.

– Control Point Brittan: This new, mid-line control point will provide operational flexibility and support incident recovery and ongoing construction activities along the railroad.

– Grade Crossing Hazard Mitigation Project: This project upgrades safety measures for at-grade crossings along the Caltrain line. JPB staff works with California Public Utilities Commission (PUC) staff and local jurisdictions

to determine potential improvements to increase bicycle, pedestrian and vehicular safety.

– San Mateo County Grade Separation Program: The grade separation program includes the planning, design and construction of grade separations in San Mateo County using the funds specifically set aside for grade separation in San Mateo County's Sales Tax Measure.

– San Mateo County Access and Station Enhancements: The access and station enhancements program includes improvements to San Mateo County stations supported through funds set aside for Caltrain in the county's Sales Tax Measure.

– Removal of Holdout Rule – South San Francisco Station: This project includes platform enhancements that will allow for the removal of the operational rule known as the "holdout rule" at the South San Francisco Station and will also enhance station access and connectivity to surrounding uses.

Projects and Programs with Full Funding to be Identified

The following enhancement projects have only partial funding plans in place or do not currently have known sources of funding available to support their completion. Caltrain will work to develop funding plans for these programs and projects.

– North Terminal Improvements: The North Terminal Improvements project is intended to improve the functioning of Caltrain's terminal at 4th & King, improving the efficiency of rail operations and addressing increased passenger flows. The North terminal project is currently at the conceptual planning phase; cost included in the CIP represents only a rough-order-of magnitude estimate.

– South Terminal Phase II and III: The South Terminal Project will improve operational flexibility and throughput in the "South Terminal" area of the railroad. Phase II includes the construction of a tail track between Diridon Station and Caltrain central maintenance facility (CEMOF). Phase III includes the construction of a tail track from Diridon Station to just north of Interstate 280.

– Three Additional Control Points: Adding new control points to the railroad will enhance the system's ability to recover from delays and will help support the efficient delivery of ongoing and planned construction projects.

– Mini-High Adjustments: As Caltrain modifies platforms to accommodate longer trains the

All Numbers in FY2015 $ and in Thousand $

Table 5.2: Caltrain 10-Year Capital Improvement Program (FY2015-FY2024)

	EST. TOTAL PROJECT COST	FY2014 AND PRIOR	FY2015	FY2016
Support & Contingency				
Support	14,000	-	1,400	1,400
Capital Contingency	9,900	-	990	990
Support & Contingency Subtotal	**23,900**	**-**	**2,390**	**333,333**
State of Good Repair				
System Infrastructure Rehabilitation				
Bridge Replacement	146,200	12,970	24,000	54,560
Track Rehabilitation	63,000	-	7,500	7,500
Station Rehabilitation	5,000	-	500	500
Signals & Communications	11,595	-	1,000	1,500
Diesel Rolling Stock Rehabilitation	125,379	-	3,900	35,795
System Infrastructure Subtotal	**351,174**	**12,970**	**36,900**	**99,855**
Specific Rehabilitation and Improvement Programs				
Safety, Security & Fencing Improvements	13,000	-	1,300	1,300
Ticket Vending Machine Replacement	32,450	1,250	-	-
Specific Rehabilitation Programs Subtotal	45,450	1,250	1,300	1,300
State of Good Repair Subtotal	**396,624**	**14,220**	**38,200**	**101,155**
Caltrain Modernization Program				
Early Investment Program				
CBOSS	231,000	133,021	73,429	15,972
Electrification	957,620	28,500	14,578	128,189
EMU Procurement	572,520	320	7,480	115,000
Early Investment Program Subtotal	1,761,139	161,841	95,487	259,161
Phase Two Improvements				
EMU increase to all 6-car trains	210,000	-	-	-
EMU increase to all 8-car trains	230,000	-	-	-
8-Car EMU Platform Lengthening	34,000	-	-	-
Level Boarding	Cost to be determined*	-		
Phase Two Subtotal	474,000	-	-	-
Caltrain Modernization Program Subtotal	**2,235,139***	**161,841**	**95,487**	**259,161**
Reliability & Enhancement Program				
Projects and Programs with Funding Identified				
Control Point Brittan	5,000	-	2,700	2,300
Grade Crossing Hazard Mitigation Project	2,700	-	-	300
Grade Separation Program - San Mateo	117,972	-	1,200	2,500
6-Car Train Platform Modifications	1,000	-	400	600
San Mateo County Access and Station Enhancements	45,000	-	2,483	2,483
Removal of Hold-out Rule - South San Francisco	59,000	4,000	-	38,000
with Funding Subtotal	230,672	4,000	6,783	46,183
Projects and Programs with Funding to be Identified				
North Terminal	200,000	-	-	-
South Terminal Phase II	50,000	-	800	1,200
South Terminal Phase III	28,000	-	500	1,500
Three Additional Control Points	15,000	-	-	-
22nd Street Station Access Improvement Project	30,000	-	-	-
Mini-High Adjustments	700	-	-	700
Hold-out Rule Removal				
Broadway	20,000	-	-	-
Atherton	24,000	-	-	-
College Park	15,000	-	-	-
Access and Station Enhancements				
City & County of San Francisco	8,932	-	893	893
Santa Clara	30,240	-	3,024	3,024
Technology Enhancements	25,000	-	2,500	2,500
Seeking Funding Subtotal	446,872	-	7,717	9,817
Reliability & Enhancement Program	**677,544**	**4,000**	**14,500**	**56,000**
CAPITAL IMPROVEMENT GRAND TOTAL	**3,333,207**	**180,061**	**150,577**	**418,706**

	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY15 – FY24 TOTAL	ADDTIONAL FUTURE COST
	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	14,000	ongoing
	990	990	990	990	990	990	990	990	9,900	ongoing
	2,390	**2,390**	**2,390**	**2,390**	**2,390**	**2,390**	**2,390**	**2,390**	**23,900**	
	23,770	15,900	15,000	-	-	-	-	-	133,230	-
	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	63,000	ongoing
	500	500	500	500	500	500	500	500	5,000	ongoing
	1,000	1,000	1,293	1,130	1,000	1,379	1,293	1,000	11,595	ongoing
	33,438	18,646	5,600	5,600	5,600	5,600	5,600	5,600	125,379	ongoing
	64,708	42,046	28,393	13,230	13,100	13,479	13,393	13,100	338,204	-
	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	13,000	ongoing
	1,200	15,000	15,000	-	-	-	-	-	31,200	-
	2,500	16,300	16,300	1,300	1,300	1,300	1,300	1,300	44,200	-
	67,208	**58,346**	**44,693**	**14,530**	**14,400**	**14,779**	**14,693**	**14,400**	**382,404**	
	8,578	-	-	-	-	-	-	-	97,979	-
	218,061	325,578	179,095	51,619	12,000	-	-	-	929,120	-
	111,910	43,150	121,073	84,128	24,366	41,590	8,393	15,110	572,200	-
	338,549	368,728	300,168	135,747	36,366	41,590	8,393	15,110	1,599,298	
	-	-	-	-	21,000	63,000	63,000	42,000	189,000	21,000
	-	-	-	-	23,000	69,000	69,000	46,000	207,000	23,000
	-	-	1,500	2,000	6,100	12,200	9,150	3,050	34,000	-
										Cost to be determined
	-	-	1,500	2,000	50,100	144,200	141,150	91,050	430,000	44,000
	338,549	**368,728**	**301,668**	**137,747**	**86,466**	**185,790**	**149,543**	**106,160**	**2,029,298**	**44,000**
	-	-	-	-	-	-	-	-	5,000	-
	300	300	300	300	300	300	300	300	2,700	-
	1,000	30,000	50,000	33,272	-	-	-	-	117,972	-
	-	-	-	-	-	-	-	-	1,000	-
	2,483	2,483	4,483	7,483	8,655	9,483	2,483	2,483	45,000	-
	17,000	-	-	-	-	-	-	-	55,000	-
	20,783	32,783	54,783	41,055	8,955	9,783	2,783	2,783	226,672	-
	-	-	1,000	6,000	43,000	50,000	50,000	50,000	200,000	-
	3,000	5,000	15,000	15,000	10,000	-	-	-	50,000	-
	1,000	15,000	10,000	-	-	-	-	-	28,000	-
	-	-	-	-	3,000	4,000	4,000	4,000	15,000	-
	-	-	-	-	500	1,000	1,500	1,500	4,500	25,500
	-	-	-	-	-	-	-	-	700	-
	-	-	-	-	1,500	2,000	6,500	10,000	20,000	-
	-	-	2,000	5,000	10,000	7,000	-	-	24,000	-
	-	-	-	-	1,000	1,500	5,000	7,500	15,000	-
	893	893	893	893	893	893	893	893	8,930	-
	3,024	3,024	3,024	3,024	3,024	3,024	3,024	3,024	30,240	-
	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	25,000	-
	10,417	26,417	34,417	32,417	75,417	71,917	73,417	79,417	421,370	25,500
	31,200	**59,200**	**89,200**	**73,472**	**84,372**	**81,700**	**76,200**	**82,200**	**648,042**	**25,500**
	439,347	**488,664**	**437,951**	**228,139**	**187,628**	**284,659**	**242,826**	**205,150**	**3,083,644**	**69,500**

agency will evaluate the positioning of Mini-High ramps and make adjustments as necessary.

– Holdout Rule Removal at Broadway, Atherton and College Park Stations: Redesigning these three stations to improve platforms and remove the operational rule referred to as the "holdout rule" will enhance safety and improve the efficiency of system operations.

– Access and Station Enhancements (City and County of San Francisco and Santa Clara Counties): Access and station enhancements support ridership growth and improve the experience of Caltrain customers at the station.

– Systemwide Technology Enhancements: Technology improvements enhance the experience of Caltrain's customers by providing new conveniences like Wi-Fi, improving wayfinding and information, and enhancing data collection and information gathering.

5.2 Funding Assumptions

The Capital Improvement Program is assumed to be funded using sources expected to be available and/or committed over the 10-year period. These include federal, state and local funding that are reasonably expected to be programmed based on existing fund programming policies. In general, these funds are available to support rehabilitation and replacement projects to maintain the railroad in a state of good repair and avoid a system of deferred maintenance. Local sales tax and other earmarked funding are also available to finance capacity expansion and other related improvements to the Caltrain system, as well as local access improvements. Some additional sources of funds are assumed to fund the Caltrain Modernization program and are discussed further below.

Federal, state, and local match funds for capital improvements are assumed to remain at historical levels. It is assumed, per the Joint Powers Agreement, that the three member agencies share equal thirds of local capital matching funds for system-wide improvement projects. Funds from San Mateo, Santa Clara, and San Francisco County sales tax measures are available to fund system-wide and county-specific projects included in each county's sales tax expenditure plans.

The following section provides detailed information about the financial assumptions used within the capital planning financial analysis. Changes in the financial assumptions, particularly regarding revenue growth and eligible uses of funds, may change the findings of the capital program's financial analysis. The revenues identified in the capital program are subject to member agency allocations and agreements, and regional and state programming policies.

FUNDING SHORTFALL

Caltrain's CIP includes a funding shortfall in certain categories. In general, Caltrain will, continue to work with its funding partners to solidify the Caltrain 10-year CIP funding plan and identify additional funding to implement the CIP. Among other options, Caltrain will continue to explore both traditional (e.g. grants) and innovative funding strategies. Funding for some programs contained in this plan has not yet been committed by the funding partners and depends on certain funding assumptions being realized.

Support, Contingency and State of Good Repair

The Capital Improvement Program shows an $80 million funding gap in in the combined Support, Contingency and State of Good Repair Categories over the 10-year life of the SRTP. This funding gap is largely driven by the anticipated costs of performing mid-life overhauls on portions of Caltrain's diesel locomotives that will be retained in service past FY2021 and the start of electrification.

Although the SRTP CIP shows a funding shortfall in this area, Caltrain believes the funding gap can be filled. All three of the JPB's member counties are currently discussing possible transportation funding ballot measures that would go to the voters in the next several years. These funding measures would provide funding for various Caltrain needs including SOGR maintenance. In addition to potential ballot measures, Caltrain is also looking at supplemental strategies to eliminate or reduce this SOGR funding gap

including prioritizing rolling stock overhaul work to spread project expenses over multiple fiscal years; value engineering to reduce project costs; and additional discretionary grant opportunities such as California's Cap and Trade program or MTC's regional RM3 toll revenue.

CALTRAIN MODERNIZATION

The CIP also shows the Early Investment Program, including the implementation of CBOSS-PTC and the Peninsula Corridor Electrification Project as being fully funded. In addition to sources of funding already committed, the funding plan for the Early Investment Program assumes significant funding through FTA's Core Capacity Grant Program along with additional Cap & Trade revenues as well as regional and local funds that have not yet been committed. These funding sources are described in more detail on the following pages. As previously referenced, the costs shown for the PCEP in the CIP (including Electrification and EMU procurement) total to $1.531 billion. This represents the full project cost with no value engineering assumed. A value-engineered option has been identified at an estimated total cost of $1.474 billion. Caltrain's next SRTP will capture updated PCEP costs as Caltrain finalizes project funding and awards contracts over the coming year.

The CIP does show a funding gap associated with Phase Two of the Caltrain Modernization Program (including expansion of the EMU fleet and modifications to stations to lengthen platforms and ultimately achieve level boarding). Phase Two of the Caltrain Modernization Program is conceptual in nature. Components of the program have been included in the CIP to demonstrate Caltrain's intention and commitment to funding and delivering them over the coming ten years. Phase Two has been segregated within the CIP (Table 5.2) and the table of funding assumptions (Table 5.3) and its completion is not assumed in the operating plan described in Chapter 4.

RELIABILITY & ENHANCEMENT PROGRAM

The CIP also shows a funding gap tied to a number of Reliability and Enhancement Program projects where funding sources have not yet been identified. Similar to Phase Two of the Caltrain Modernization Program, these unfunded projects have been included in the CIP to demonstrate Caltrain's intention and commitment to funding and delivering them and to including them in the agency's ongoing planning processes. These unfunded projects have been segregated within the CIP (Table 5.2) and the table of funding assumptions (Table 5.3) and their completion is not assumed in the operating plan described in Chapter 4. Caltrain will continue to seek grants and work with partner agencies to identify funding for these important projects.

FUNDING SOURCES

The following sources of funding are assumed as part of Caltrain's Capital Improvement Program and are shown in Table 5.3.

Federal Funding

On July 6, 2012, President Obama signed into law new federal transportation legislation, Moving Ahead for Progress in the 21st Century (MAP-21). MAP-21 reauthorizes surface transportation funding in the United States. The legislation took effect on October 1, 2012.

Various federal revenue sources are available for Caltrain's capital projects. In general, in order to receive federal funding, Caltrain must provide local match. The Federal Transit Administration Sections 5307 and 5337 reimburse up to 80% in federal funding for a project, and the local match requirement is 20%. The amount of federal funding that is included in the financial plan assumes that the three member agencies will be able to provide the local matching funds needed to leverage the federal funding. The availability of the local funds is subject to annual appropriation and approval by the three member agencies.

Federal Transit Administration

The Federal Transit Administration provides transit capital funding to support mass transportation services to the public. The funding that Caltrain receives to finance capital projects includes Section 5307 urbanized area formula funds and Section 5337 state of good repair grants.

MTC establishes the policy for programming Sections 5307 and 5337 funds, which are the two major sources that Caltrain receives for transit capital replacement and rehabilitation projects. Sections 5307 and 5337 funds are allocated by formulas and MTC establishes the criteria to distribute funding in these two programs to eligible transit operators to ensure, first and foremost, that the existing system is replaced, rehabilitated, and maintained in good working order before any capacity expansion projects would be funded.

In accordance with MTC guidelines, rail vehicle replacement projects are subject to a $30 million annual cap, infrastructure projects for rail properties are subject to a $13 million annual cap, and other high priority replacement and rehabilitation project categories are subject to the $7.5 million annual cap. These include signal and communication, and ticket vending equipment projects. With respect to the annual cap for infrastructure projects, Caltrain will work with MTC to advocate for the $13 million cap to ensure all critical rail assets Caltrain manages are maintained in a state of good repair. Finally, the capital financial plan also assumes a $150,000 annual allocation for ADA projects. MTC programming policy provides that, if ADA requirements are met, the $150,000 may be redirected to other non-ADA projects

Federal Highway Administration (FHWA) STP/ CMAQ

The Congestion Mitigation and Air Quality Improvement Program (CMAQ) provides funding for Clean Air Act projects, State Implementation Plan Projects, and other projects that the Department of Transportation and the federal Environmental Protection Agency determine will help attain mandated air quality standards. Demonstration service projects are eligible for this funding source. MTC has used CMAQ funds to fund bus retrofit projects to install clean air emission devices on urban coaches. Funds are apportioned to every state based on the population in “non-attainment” areas, adjusted in line with the severity of the pollution. The Bay Area has been designated as one of these non-attainment areas.

The Surface Transportation Program (STP) provides funding for highways, bridges, transit capital, bicycle and car pool programs, and other multimodal uses. It provides flexible funding that may be used for transit capital projects, and intracity and intercity bus terminals and facilities (MAP-21). This financial plan assumes that MTC will continue the current programming policy for STP and CMAQ funds as it is anticipated the funding needs for transit capital projects will continue to grow, and will likely exceed the growth in funding availability.

Core Capacity

FTA’s Core Capacity Program was created by the current authorizing legislation, MAP-21. Projects eligible for Core Capacity grants must expand capacity by at least 10 percent in existing transit corridors that are already at or above capacity, or are expected to reach that point within five years. The PCEP project qualified for entry into the project development phase of the Core Capacity Program and JPB staff are in the process of seeking a $220 million discretionary grant.

State Funding

Proposition 1A

In 2012, Senate Bill 1029 allocated $600 million in High Speed Passenger Train Bond Program funds (Proposition 1A) to the construction of the PCEP. These funds require a dollar-for-dollar match of other State, local or Federal funding. The JPB will be using these funds for the infrastructure component of the PCEP.

State Transportation Improvement Program

The State Transportation Improvement Program (STIP) is the major program for state transportation dollars. Eligible projects include improvements on state highways, local roads, public transit, pedestrian and bicycle facilities, rail grade separations, transportation system management, transportation demand management, soundwall projects, intermodal facilities, and safety projects. STIP funding cannot be used for transit operations.

Regional Transportation Improvement Program (RTIP)

These are the funds included in the Regional Transportation Improvement Program, and are directly programmed in the Bay Area by MTC on a biennial basis. While the California Transportation Commission allocates funds, decisions on what should be included in the program, and the responsibility for amending, delivering and managing the program, fall to MTC. Seventy-five percent of all state funds available for capital programming flow through this mechanism.

Cap and Trade Program

There are several state programs funded by auction proceeds from the California Air Resources Board's Cap-and-Trade Program that provide direct investments in transit programs that reduce greenhouse gas (GHG) emissions. The SRTP includes formula funding from the Low Carbon Transit Operations Program (LCTOP). This program has a continuous appropriation of 5% each fiscal year. The LCTOP provides capital funding as well as operational assistance for expanded transit service to reduce greenhouse gas emissions and improve mobility. The JPB will also be pursuing appropriate discretionary grant opportunities through the Cap and Trade program to offset funding shortfalls or to support unfunded projects.

Public Utilities Commission Programs

PUC 130 is a funding program administered by the California Public Utilities Commission (CPUC) for at-grade crossing safety improvements while PUC 190 is a funding program for rail grade separation projects. The JPB assumes funding from both of these state programs, based in part on historical grant amounts, and the relative ranking priorities of Caltrain projects established by the CPUC.

Proposition 1B

This plan includes funds from the 2006 Program that provides both formula and competitive grant funds that have been received for several State of Good Repair and enhancement projects. The Prop 1B program provides funding to Caltrain in several categories, including: the Public Transportation Modernization, Improvement and Service Enhancement (PTMISEA); State Local Partnership Program (SLPP); Highway/Rail Crossing Safety Account (HRCSA); and the transit security grant program. The Prop 1B programs sunsets in FY16 and no additional funding is assumed beyond the funds that have already been programmed.

Local Funding Sources

The following sources of local revenues are assumed in the capital program. Most of the local sources have already been earmarked for specific projects in the expenditure plan of the respective county's sales tax measures.

Regional Bridge Tolls

Bridge toll revenues provide funding for transit projects on or near bridge corridors that help to relieve bridge traffic and/or provide alternative public transit services. Types of projects that can receive such funding include bicycle facilities, ferry planning, capital and operations, and rail extensions that serve bridge corridors. Bridge toll revenues, apportioned to transit operators serve as state and local match for Caltrain and other operators to leverage federal capital funds. In general, funding available from this source has not been sufficient to provide the match for all funded capital projects. The first priority for matching funds is given to projects funded under the federal Section 5307and 5337 program.

Local Match to Federal Grants

All Member Agency contributions are assumed using a 1/3 - 1/3 - 1/3 split unless otherwise noted. These contributions do not apply to expansion projects. In addition, based on historical allocations, the financial plan assumes a $0.5 million allocation from MTC AB664 Bridge Toll Program annually, which makes matching funds available for the federal grants.

VTA Funds:

VTA Measure A funds have been earmarked for Electrification, Dumbarton, and Caltrain service upgrades in Santa Clara County. Funding for Caltrain system-wide improvements, as well as local access projects in Santa Clara, will be considered on a project-by-project basis as part of this study effort.

San Mateo Measure A:
The Measure A sales tax, initially approved by County voters in 1988, along with its reauthorization, passed by voters in 2004 to extend the sales tax from 2009 through 2033, provides funding for transportation improvements in San Mateo County.

Local San Francisco Funds, including Proposition K:
San Francisco's local contribution to Caltrain's program will include, but is not fully comprised of, Proposition K funds. Proposition K was approved by the San Francisco voters in 2003, and funds were included in the expenditure plan for Caltrain Electrification. In addition, the Proposition K expenditure plan has also set aside funding for the Caltrain CIP, and other infrastructure, facilities, and rolling stock replacement needs.

Carl Moyer Funding/Bay Area Air Quality Management District
The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) provides grant funding for cleaner-than-required engines and equipment. Grants are administered by local air districts with input from the California Air Resources Board (CARB). A $20 million Carl Moyer grant was approved by the Bay Area Air Quality Management district at their July 2015 board meeting to help fund the PCEP.

5.3 Vehicle Replacement, Rehabilitation & Expansion

Caltrain's fleet will undergo a number of changes over the coming years. In general, Caltrain plans to electrify the corridor and replace a portion of today's diesel locomotive-hauled fleet with Electric Multiple Units (EMUs). A future fleet management plan under development will provide additional details to inform future SRTPs.

In FY2015, Caltrain acquired and is refurbishing 16 Bombardier bi-level vehicles originally owned by Metrolink, which were built in 1997. These cars will be used to run 6-car consists on some trains to expand capacity and alleviate crowding. The operating plan in Chapter 4 assumes that these cars will be fully integrated into the revenue fleet in FY2016. Details of these vehicles are included in Appendix A.

In FY2021, Caltrain will open the electrified system for service, triggering another set of changes to its revenue fleet. Over the coming years, Caltrain will purchase 96 EMUs semi-permanently coupled into 16 six-car trainsets. The specific EMUs that will be acquired for the electrified railroad will be determined over the coming year as the Caltrain Modernization Program advances. Vendor selection associated with the EMU procurement is anticipated in early 2016. The JPB board has been actively engaged discussing issues related to passenger amenities including on-board restrooms and bike storage, and will consider these issues further as the EMU procurement proceeds.

The EMUs that Caltrain acquires will not only expand the overall fleet but will also replace a portion of Caltrain's existing diesel fleet. At this time, Caltrain plans to replace 73 of the older diesel passenger vehicles and 20 diesel locomotives. These 93 total vehicles all date from about 1985: 73 passenger vehicles are all Nippon Sharyo gallery cars and the locomotives are all either F40PH-2 or F40PH-2CAT.

Caltrain will retain 61 passenger vehicles and 9 locomotives through and beyond FY2024. The passenger vehicles are a mix of newer gallery cars (from 1999-2000), Caltrain's current Bombardier bi-level vehicles (from 2002, and 2008), as well as the Bombardier vehicles recently acquired from Metrolink. The diesel locomotives that will remain in service include three newer F40PH-2Cs and six MP36s, which were put into service in 1998 and 2003, respectively. The operating plan and CIP account for the required maintenance needed to keep these vehicles in operation.

The entire existing revenue fleet is further detailed in Appendix A.

Table 5.3: Funding Assumptions for Caltrain 10-Year Capital Improvement Program (FY2015-FY2024)

		CATEGORY / PROJECT TOTAL	FY2014 AND PRIOR	FY2015	FY2016	
Support, Contingency & State of Good Repair Programs						
Federal	FTA Section 5337[1]	168,108	7,360	19,200	41,548	
Federal	FTA Section 5307	1,600	-	160	160	
Fed/State	FHWA (San Francisco Roadway Bridges)	19,600	3,770	3,800	7,800	
Fed/State	FHWA (Proposed HBR funds for Quint)	1,500	-		1,500	
State	Prop 1B Safety Funds (~$900k/yr based on FY08 State Budget)	1,800	-	900	900	
State	Prop 1B (Seismic funds for Quint)	200	-		200	
State	Prop 1 B (Awarded HRCSA funds for San Mateo)	9,000	-	4,500	4,500	
State	PUC 190 Program (San Mateo Bridges)	5,000	-	-	5,000	
State	Low Carbon Transit Operations Cap and Trade[2]	7,000	-	-	-	
Local	Prop K (SF Roadway Bridges)	600	-	200	200	
Local	SMCTA (San Mateo Bridges)	7,900	-	-	2,900	
Loca	IAB 664 Bridge Tolls	2,200	200	200	200	
Local	SF 3	38,770	963	3,400	3,800	
Local	SMCTA Measure A	38,770	963	3,400	3,800	
Local	VTA	38,770	963	3,400	3,800	
	Support, Contingency & State of Good Repair Funding Available	**340,819**	**14,220**	**39,160**	**76,308**	
	Support, Contingency & State of Good Repair Funding Need (See Table 5.2)	420,524	14,220	40,590	103,545	
	Cumulative Balance	**(79,705)**	**(0)**	**(1,430)**	**(28,667)**	
Caltrain Modernization Program						
Early Investment Program - CBOSS PTC						
Federal	*FRA*	17,250	17,250	-	-	
Federal	*FTA*	27,430	27,430	-	-	
Federal	*FHWA*	2,830	2,830	-	-	
State	Prop 1A	105,450	105,450	-	-	
State	*Prop 1B Public Transportation Modernization & Improvement Account)*	16,320	4,220	12,100	-	
State	*Prop 1B (SLPP)*	2,500	2,500	-	-	
Local	*Prop K*	19,737	5,460	5,000	9,277	
Local	*SMCTA Measure A*	19,737	5,460	5,000	9,277	
Local	*VTA Measure A*	19,737	5,460	5,000	9,277	
	CBOSS PTC Project Funding Sub-Total	230,991	176,060	27,100	27,831	
Early Investment Program - Electrification & EMU Procurement (PCEP)						
Committed Funding						
Federal	*FTA Section 5307/5337 7*	329,900	16,000	5,230	21,620	
State	*Prop 1A*	600,000	-	60,630	145,110	
State	*Prop 1B (Public Transportation Modernization & Improvement Account)*	8,000	-	8,000	-	
Regional	*Carl Moyer*	20,000	-	-	4,000	
Local	*Bridge Tolls*	11,000	-	-	11,000	
Local	*JPB Members*	133,000	5,360	18,460	9,720	
Additional Funding						
State	*High Speed Rail Cap and Trade*	113,010	-	-	15,000	
Regional	*RM2*	20,000	-	-	-	
Regional	*RM1*	9,000	-	-	-	
Local	*Caltrain Low Carbon Transit Operations Cap and Trade 2*	9,000	-	-	1,800	
Local	*Santa Clara (VTA) Contribution*	20,000	-	-	3,900	
Local	*San Francisco Contribution*	20,000	-	-	1,460	
Local	*San Mateo (SMCTA) Contribution*	20,000	-	-	20,000	
Federal	*FTA Core Capacity*	220,000	-	-	5,560	
	PCEP Project Funding Sub-Total	1,532,910	21,360	92,320	239,170	
Caltrain Modernization Phase Two						
TBD	Funding Source to be determined	-	-	-	-	
	Total Caltrain Modernization Funding Available	**1,763,901**	**197,420**	**119,420**	**267,001**	
	Caltrain Modernization Need - Early Investment Program Only (See Table 5.2)	1,761,139	161,841	95,487	259,161	
	Cumulative Balance - Early Investment Program Only	**2,762**	**35,579**	**23,933**	**7,840**	
	Total Caltrain Modernization Need - Early Investment Program and Phase Two (See Table 5.2)	2,235,139	161,841	95,487	259,161	
	Cumulative Balance- Early Investment Program and Phase Two	**(471,238)**	**35,579**	**23,933**	**7,840**	

	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY15 – FY24 TOTAL
	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	160,748
	160	160	160	160	160	160	160	160	1,600
	4,230	-	-	-	-	-	-	-	15,830
	-	-	-	-	-	-	-	-	1,500
	-	-	-	-	-	-	-	-	1,800
	-	-	-	-	-	-	-	-	200
	-	-	-	-	-	-	-	-	9,000
	-	-	-	-	-	-	-	-	5,000
	-	-	-	-	1,750	1,750	1,750	1,750	7,000
	200	-	-	-	-	-	-	-	600
	5,000	-	-	-	-	-	-	-	7,900
	200	200	200	200	200	200	200	200	2,000
	3,984	4,102	4,021	3,700	3,700	3,700	3,700	3,700	37,807
	3,984	4,102	4,021	3,700	3,700	3,700	3,700	3,700	37,807
	3,984	4,102	4,021	3,700	3,700	3,700	3,700	3,700	37,807
	34,242	**25,166**	**24,923**	**23,960**	**25,710**	**25,710**	**25,710**	**25,710**	**326,599**
	69,598	60,736	47,083	16,920	16,790	17,169	17,083	16,790	406,304
	(64,023)	**(99,593)**	**(121,753)**	**(114,713)**	**(105,793)**	**(97,252)**	**(88,625)**	**(79,705)**	**(79,705)**
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	
	-		-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	12,100
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	14,277
	-	-	-	-	-	-	-	-	14,277
	-	-	-	-	-	-	-	-	14,277
									54,931
	62,530	29,400	66,050	58,360	37,960	16,380	4,090	12,280	313,900
	200,020	135,030	45,080	14,130	-	-	-	-	600,000
	-	-	-	-	-	-	-	-	8,000
	4,000	4,000	4,000	2,000	2,000				20,000
	-	-	-	-	-				11,000
	23,060	35,570	24,230	11,440	5,160				127,640
	23,820	28,950	26,910	18,330	-	-	-	-	113,010
	20,000	-	-	-	-	-	-	-	20,000
	9,000	-	-	-	-	-	-	-	9,000
	1,800	1,800	1,800	1,800	-	-	-		9,000
	3,900	3,900	3,900	3,900	500	-	-	-	20,000
	6,540	4,000	4,000	4,000	-	-	-	-	20,000
	-	-	-	-	-	-	-	-	20,000
	61,090	40,450	79,570	19,640	9,780	1,960	490	1,460	220,000
	415,760	283,100	255,540	133,600	55,400	18,340	4,580	13,740	1,511,550
	-	-	-	-	-	-	-	-	-
	415,760	**283,100**	**255,540**	**133,600**	**55,400**	**18,340**	**4,580**	**13,740**	**1,566,481**
	338,549	368,728	300,168	135,747	36,366	41,590	8,393	15,110	1,599,298
	77,211	**(85,628)**	**(44,628)**	**(2,147)**	**19,034**	**(23,250)**	**(3,813)**	**(1,370)**	**(32,817)**
	338,549	368,728	301,668	137,747	86,466	185,790	149,543	106,160	2,029,298
	77,211	**(85,628)**	**(46,128)**	**(4,147)**	**(31,066)**	**(167,450)**	**(144,963)**	**(92,420)**	**(462,817)**

Table 5.3: Funding Assumptions for Caltrain 10-Year Capital Improvement Program (FY2015-FY2024) continued

		CATEGORY / PROJECT TOTAL	FY2014 AND PRIOR	FY2015	FY2016	
Reliability & Enhancement Program						
Projects with Funding Identified						
Federal	FTA STP/CMAQ - Transit Performance Incentive4	3,600		1,400	1,100	
State	Prop 1B (Public Transportation Modernization & Improvement Account - South Terminal)	1,200			1,200	
State	PUC 130 Program				300	
Local	South San Francisco (SSF Station)	-			2,000	
Local	ACE (South Terminal)	-	-	-	-	
Local	CCJPA (South Terminal)	1,000	-	1,000	-	
Local	SMCTA (for Caltrain improvements in San Mateo County) 5	104,000	4,000	-	38,000	
Local	SMCTA (Grade Separation Program) 6	118,000	-	1,200	2,500	
	Reliability & Enhancement Program - Projects with Funding Sub-Total	230,500	4,000	3,600	45,100	
Projects with Funding to be Identified						
TBD	Funding Source TBD	-	-	-	-	
	Total Reliability & Enhancement Funding Available	**230,500**	**4,000**	**3,600**	**45,100**	
	Reliability & Enhancement Project Need- Projects with Funding Identified Only (See Table 5.2)	230,672	4,000	6,783	46,183	
	Cumulative Balance - Projects with Funding Identified Only	**(172)**	**-**	**(3,183)**	**(1,083)**	
	Total Reliability & Enhancement Program Funding Need (See Table 5.2)	677,544	4,000	14,500	56,000	
	Cumulative Balance- Early Investment Program and Phase Two	**(447,044)**	**-**	**(10,900)**	**(10,900)**	
	GRAND TOTAL CIP FUNDING AVAILABILITY	**2,335,220**	**215,640**	**162,180**	**388,409**	
	Total Project Needs (excluding unfunded enhancements & CalMod Phase Two)	**2,412,335**	**180,061**	**142,860**	**408,889**	
	TOTAL CUMULATIVE BALANCE (excluding unfunded enhancements & CalMod Phase Two)	**(77,115)**	**35,579**	**19,320**	**(20,480)**	
	Total Project Needs (all projects)	**3,333,207**	**180,061**	**150,577**	**418,706**	
	TOTAL CUMULATIVE BALANCE	**(997,987)**	**35,579**	**11,603**	**(30,297)**	

	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY15 – FY24 TOTAL
	1,100								3,600
									1,200
	300	300	300	300	300	300	300	300	2,700
	2,000	1,000							
	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	1,000
	17,000	5,000	5,000	5,000	9,000	9,000	9,500	2,500	100,000
	1,000	30,000	50,000	33,300	-	-	-	-	118,000
	21,400	36,300	55,300	38,600	9,300	9,300	9,800	2,800	226,500
	-	-	-	-	-	-	-	-	-
	21,400	**36,300**	**55,300**	**38,600**	**9,300**	**9,300**	**9,800**	**2,800**	**226,500**
	20,783	32,783	54,783	41,055	8,955	9,783	2,783	2,783	226,672
	617	**3,517**	**517**	**(2,455)**	**345**	**(483)**	**7,017**	**17**	**(172)**
	31,200	59,200	89,200	73,472	84,372	81,700	76,200	82,200	648,042
	(9,800)	**(22,900)**	**(33,900)**	**(34,872)**	**(75,072)**	**(72,400)**	**(66,400)**	**(79,400)**	**(421,542)**
	471,402	**344,566**	**335,763**	**196,160**	**90,410**	**53,350**	**40,090**	**42,250**	**2,119,580**
	428,930	**462,247**	**402,034**	**193,722**	**62,111**	**68,542**	**28,259**	**34,683**	**2,232,274**
	42,472	**(117,681)**	**(66,271)**	**2,438**	**28,299**	**(15,192)**	**11,831**	**7,567**	**(112,694)**
	439,347	**488,664**	**437,951**	**228,139**	**187,628**	**284,659**	**242,826**	**205,150**	**3,083,644**
	32,055	**(144,098)**	**(102,188)**	**(31,979)**	**(97,218)**	**(231,309)**	**(202,736)**	**(162,900)**	**(964,064)**

6 Other Requirements

6.1 Resolution 3434

There are two active Caltrain expansion projects that were originally included under MTC Resolution No. 3434 in 2001 and have been carried through the Resolution's most recent update in 2008. These include:

- Caltrain Electrification Program
- Caltrain Express Phase II

An additional JPB project, Caltrain Express Phase I (also known as the Caltrain Baby Bullet) was included in the original Resolution 3434 list of projects. This project has since been completed and was put into revenue service in June of 2004.

Since its inclusion in Resolution 3434, the Caltrain Electrification Program has achieved significant milestones and the project's scope, schedule and the funding needs have all undergone redefinition.

The Electrification program now forms the foundation of the broader "Caltrain Modernization Program," a group of projects that will modernize Caltrain's infrastructure and services to address growing mobility needs in the corridor and prepare for a Caltrain / High Speed Rail Blended System.

The first phase of the Caltrain Modernization Program includes the "Early Investment Program."

Artist's Conception

This program includes projects that have funding plans in place and are moving actively towards implementation. The Early Investment Program is defined through a 2012 9-party Memorandum of Understanding that recognizes a specific, inter-related program of projects that support electrification of the Peninsula Corridor and facilitate implementation of California High Speed Rail service. The MOU also provides a framework to assist project partners in seeking funds necessary to implement the electrification project and plan for the Caltrain / High Speed Rail Blended System.

The Early Investment Program specifically includes the installation of a Communications Based Overlay Signal System and Positive Train Control (CBOSS PTC) to address federal mandates associated with the Rail Safety Improvement Act of 2008 and the Peninsula Corridor Electrification Project (PCEP). This includes both the electrification of the existing Caltrain corridor between San Francisco and San Jose, and the partial replacement of Caltrain's diesel trains with high-performance Electric Multiple Units (EMUs).

Beyond the projects defined in the Early Investment Program, the Caltrain Modernization Program also includes a conceptual second phase of projects. These include rolling stock expansion and platform lengthening to follow the Early Investment Program, and in future years (beyond 2024), the implementation of level boarding at stations throughout the Caltrain system.

As a result of the work over the last several years, the definition of the Resolution 3434 project should be revised to include elements associated with the Peninsula Corridor Electrification Project (PCEP), described below.

PENINSULA CORRIDOR ELECTRIFICATION PROGRAM

Project Purpose

The Peninsula Corridor Electrification Program will improve Caltrain system performance and expand the capacity of the system to provide enhanced service to a growing ridership. The project will also reduce noise and greenhouse gases and improve regional air quality. In addition to allowing for an improved and expanded Caltrain service, the infrastructure constructed through the PCEP will also be compatible with the future use of the Peninsula Corridor by California's High Speed Rail System.

Project Description

The PCEP includes the electrification of a 51-mile stretch of JPB-owned right of way between San Francisco and San Jose. Specifically, the project includes the installation of 130 to 140 single-track miles of overhead contact system (OCS) for the distribution of electrical power to new electric rolling stock. The OCS will be powered from a 25 kilovolt (kV), 60 Hertz (Hz), single-phase, alternating current (AC) traction power system consisting of two traction power substations (TPSs), one switching station and seven paralleling stations.

The PCEP also includes the procurement of up to 96 new Electric Multiple Unit vehicles that will utilize this new infrastructure and replace a portion of Caltrain's aging diesel fleet. By 2020, this will allow for the conversion of approximately 75 percent of the service fleet between San Jose and San Francisco to EMU vehicles, with the remaining 25 percent being diesel-powered. The remaining diesel rolling stock used for San Francisco to San Jose service will be replaced with EMUs after 2020 as diesel vehicles reach the end of their useful life and additional funding is identified. Because the PCEP only involves electrification of the Caltrain right of way from San Francisco to a point approximately 2 miles south of Tamien Station, Caltrain's diesel-powered locomotives will continue to provide service between Gilroy and the San Jose Diridon Station with through service north to San Francisco.

PROJECT OVERVIEW:

Project: Caltrain Electrification Program
Revenue Service Date: 2020
Miles of New/Enhanced Service: 51 miles
Mode: Electric passenger trains
Number of New Stations: none
Number of New Vehicles/Rolling Stock: up to 96 EMUs
System Connectivity: Caltrain will continue to connect with Muni (San Francisco), BART (Millbrae), VTA (Mountain View, San Jose) and ACE and Amtrak (Santa Clara and San Jose Diridon).

PROJECT SCHEDULE

The JPB is pursuing an aggressive schedule to make the PCEP a reality. The schedule below details the work completed to-date as well as upcoming major project milestones, including those associated with funding.

Table 6.1: Peninsula Corridor Electrification Program Schedule

MILESTONE	MILESTONE DESCRIPTION	MILESTONE
1	Federal Environmental Review / 35% Design	Complete—2009
2	9 Party Regional Funding MOU	Complete—2012
3	Board Action Contracting Method(D B for electrification; Best Value for vehicles)	Complete—2013
4	Procurement of Owner's Team	Complete—2014
5	RFQ for Electrification and RFI for Vehicles	Complete—2014
6	State Environmental Review	Complete—Jan. 2015
7	Approval of Entry into Core Capacity Program/Project Development	Complete—April 2015
8	Procure / Select Contractor Teams	Late 2015/Early 2016
9	Design/Manufacture/Build/Test	2016-2020/21
10	Open for Revenue Service	2020/21

The latest cost estimate for the PCEP is $1.474 - $1.531 billion depending on the utilization of various possible value engineering strategies. A cost breakdown of the two project components is provided in Table 6-2. Table 6-3 provides a snapshot of the project estimate to complete from January 2015 to project completion.

Table 6.2: Peninsula Corridor Electrification Program Cost

COMPONENT	SCOPE	CURRENT COST (MILLIONS)
Electrification Infrastructure	Design and construction of the electrified infrastructure including the OCS, substations, switching stations, paralleling stations and management reserve	$950- $958
Purchase of EMU's	Purchase of up to 96 EMU's to replace Caltrain's fleet of aging fleet of rolling stock	$524- $573
	TOTAL	$1,474 – $1,531

Table 6.3: Peninsula Corridor Electrification Program Estimate to Complete	
PROJECT EXPENDITURES AND ESTIMATE TO COMPLETE	AMOUNT (MILLIONS)
Expended plus accrued through December 2014	$44
Expended plus accrued through December 2014	$32
Expended plus accrued through December 2014	$1,398 $1,455
TOTAL	**$1,531**

Project funding is broken down in Table 6-4. This table includes funding committed through the regional 9-party memorandum of understanding with the project partners, and additional funding currently under negotiations with the partners to fully fund the project. Caltrain anticipates that a new, 6-party MOU identifying full funding for the project will be approved by the JPB in the fall of 2015. The funding plan shown identifies funds sufficient to complete the full estimated cost of the project.

Table 6.4: Peninsula Corridor Electrification Program Funding by Source	
FUND SOURCE	AMOUNT (MILLIONS)
FTA 5307 funds	$331
State HSR Prop 1A Bond Funds	$600
State Prop 1B program	$8
Bay Area Air Quality Management District Carl Moyer Program	$20
Regional Bridge Toll Revenue	$11
JPB Member Agencies	$193
FTA Core Capacity	$220
State HSR Cap & Trade	$113
JPB Cap & Trade	$9
MTC RM 1 & RM2	$29
TOTAL	**$1,534**

Caltrain Express Phase II

The Resolution 3434 project list also includes a variety of improvements to the Caltrain system to support service expansion in the corridor. Within resolution 3434, these projects are collectively grouped together under the umbrella label of "Caltrain Express Phase II."

PROJECT PURPOSE

Caltrain Express Phase II is meant to improve system capacity by improving the termini of the railroad, including the San Francisco and the San Jose station approaches and yards. Combined with the already implemented signal improvements included in CBOSS PTC, the Caltrain Express Phase II family of projects will enhance the quality and efficiency of passenger service by improving the safety of the system and enhancing throughput.

PROJECT DESCRIPTION

The Caltrain Express Phase II effort includes the following constituent projects that will improve capacity by maximizing the utility of existing Caltrain facilities and infrastructures:

North Terminal
The North Terminal project includes improvements to the San Francisco 4th and Townsend Caltrain Station. The project includes widening and lengthening the terminal platforms and reconfiguring the track approach at the terminal. Track modifications will support the Downtown San Francisco Extension to the Transbay Terminal. This project maximizes throughput, improves access, adds storage and allows for future expansion.

South Terminal
The South Terminal project includes further improvements to the San Jose Diridon Station and approaches to and from the station to accommodate the rail traffic in the vicinity of this location, including service provided by Caltrain, ACE, Capitol Corridor, Amtrak, California High Speed Rail, as well as Union Pacific. This project will improve operational capacity, reliability and flexibility.

PROJECT OVERVIEW:

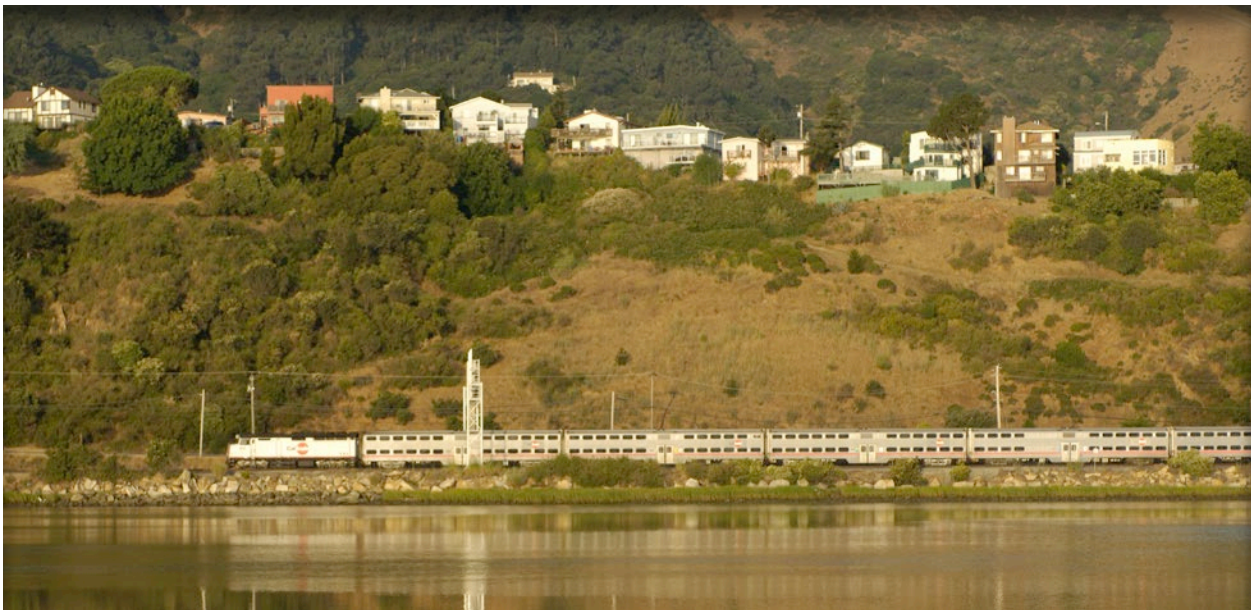
Project: Caltrain Express Phase II
Project Cost Estimate: $278 million
Revenue Service Date: 2025
Miles of New/Enhanced Service: 52 miles
Mode: Mixture of Electric-Powered Trains and Diesel Locomotive Trains
Number of New Stations: none
Number of New Vehicles/Rolling Stock: N/A
System Connectivity: The project will not alter the extent of the current system. Caltrain will continue to connect with Muni (San Francisco), BART (Millbrae), VTA (Mountain View, San Jose), California High Speed Raid (Millbrae, Diridon, SF) and Amtrak (San Jose Diridon).

6.2 Title VI and Environmental Justice

On April 4, 2013, the JPB adopted Resolution 2013-21, which included the Major Service Change Policy, Disparate Impact Policy, Disproportionate Burden Policy, and Caltrain Systemwide Service Standards and Policies. These policies and standards were adopted to ensure that the needs of minority and low-income populations were considered during the evaluation of the system and service changes. Policies were adopted after significant public outreach was undertaken to solicit input from Caltrain riders and constituents. Four outreach meetings were held in communities along the corridor from Gilroy to San Francisco. Additionally, notices were placed at all train stations, on the Caltrain website, on board trains, and in numerous English and Spanish newspapers.

In October 2013, the JPB Board also adopted the Caltrain Title VI Compliance Program that included new and necessary elements in order to comply with federal guidance related to Title VI and Environmental Justice contained in circular 4702.1B. Along with the newly adopted policies, this update included the development of a Limited English Proficiency Language Assistance Plan, a Public Participation Plan aimed at meaningful public involvement for minorities and low-income population, and two Equity Analyses that were conducted on fare changes in 2012 and 2013. The program also included a map-based station analysis of demographic characteristics adjacent to the Caltrain stations that can be used for outreach, community engagement, and station planning. Caltrain's Title VI program is discussed in more detail in section 3.4 of this document.

The next update to the Title VI Program will be submitted by November of 2016.



6.2 TITLE VI AND ENVIRONMENTAL JUSTICE

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The next update to the Title VI Program will be submitted by November of 2016.

A

Appendix A
Caltrain Locomotive & Passenger Car Inventory

Table A.1: Caltrain Fleet Configuration - Locomotives

NO.	UNIT NUMBER	MANUFACTURE	TYPE	YEAR MANUFACTURED	YEAR OVERHAULED	SEPARATE HEP	HORSE POWER	WEIGHT
1	900	General Motors-EMD	F40PH-2-CAT	1985	1999	425 KW CAT	3200	260,000
2	901	General Motors-EMD	F40PH-2-CAT	1985	1999	425 KW CAT	3200	260,000
3	902	General Motors-EMD	F40PH-2	1985	1999	Gear Drive HEP	3200	260,000
4	903	General Motors-EMD	F40PH-2	1985	1999	Gear Drive HEP	3200	260,000
5	904	General Motors-EMD	F40PH-2-CAT	1985	1999	425 KW CAT	3200	260,000
6	905	General Motors-EMD	F40PH-2-CAT	1985	1999	425 KW CAT	3200	260,000
7	906	General Motors-EMD	F40PH-2-CAT	1985	1999	425 KW CAT	3200	260,000
8	907	General Motors-EMD	F40PH-2	1985	1999	Gear Drive HEP	3200	260,000
9	908	General Motors-EMD	F40PH-2-CAT	1985	1999	425 KW CAT	3200	260,000
10	909	General Motors-EMD	F40PH-2-CAT	1985	1999	425 KW CAT	3200	260,000
11	910	General Motors-EMD	F40PH-2	1985	1999	Gear Drive HEP	3200	260,000
12	911	General Motors-EMD	F40PH-2-CAT	1985	1999	425 KW CAT	3200	260,000
13	912	General Motors-EMD	F40PH-2-CAT	1985	1999	425 KW CAT	3200	260,000
14	913	General Motors-EMD	F40PH-2-CAT	1985	1999	425 KW CAT	3200	260,000
15	914	General Motors-EMD	F40PH-2	1985	1999	Gear Drive HEP	3200	260,000
16	915	General Motors-EMD	F40PH-2-CAT	1985	1999	425 KW CAT	3200	260,000
17	916	General Motors-EMD	F40PH-2-CAT	1985	1999	425 KW CAT	3200	260,000
18	917	General Motors-EMD	F40PH-2-CAT	1985	1999	425 KW CAT	3200	260,000
19	918	General Motors-EMD	F40PH-2-CAT	1987	2000	425 KW CAT	3200	260,000
20	919	General Motors-EMD	F40PH-2-CAT	1987	2000	425 KW CAT	3200	260,000
	20	SUBTOTAL						
21	920	Boise Locomotive Inc	F40PH-2C	1998	NA	425 KW CAT	3200	282,000
22	921	Boise Locomotive Inc	F40PH-2C	1998	NA	425 KW CAT	3200	282,000
23	922	Boise Locomotive Inc	F40PH-2C	1998	NA	425 KW CAT	3200	282,000
	3	SUBTOTAL						
24	923	Motive Power, Inc.	MP36PH-3C	2003	NA	600 KW CAT	3600	293,500
25	924	Motive Power, Inc.	MP36PH-3C	2003	NA	600 KW CAT	3600	293,500
26	925	Motive Power, Inc.	MP36PH-3C	2003	NA	600 KW CAT	3600	293,500
27	926	Motive Power, Inc.	MP36PH-3C	2003	NA	600 KW CAT	3600	293,500
28	927	Motive Power, Inc.	MP36PH-3C	2003	NA	600 KW CAT	3600	293,500
29	928	Motive Power, Inc.	MP36PH-3C	2003	NA	600 KW CAT	3600	293,500
	6	SUBTOTAL						
	29	TOTAL						

Table A.2 Caltrain Fleet Configuration – Passenger Cars

NO.	CAR NUMBER	MANUFACTURE	TYPE	YEAR MANUFACTURED	YEAR OVERHAULED	SEATS	LUGGAGE RACK	ADA LIFT	TOILET	BIKES	WEIGHT
1	3800	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
2	3801	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
3	3802	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
4	3803	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
5	3804	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
6	3805	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
7	3806	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
8	3807	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
9	3808	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
10	3809	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
11	3810	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
12	3811	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
13	3812	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
14	3813	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
15	3814	Nippon-Sharryo	Trailer Car	1985	2002	142	Yes	No	No	0	118,000
16	3815	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
17	3816	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
18	3817	Nippon-Sharryo	Trailer Car	1985	2002	142	Yes	No	No	0	118,000
19	3818	Nippon-Sharryo	Trailer Car	1985	2002	142	Yes	No	No	0	118,000
20	3819	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
21	3820	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
22	3821	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
23	3822	Nippon-Sharryo	Trailer Car	1985	2002	142	Yes	No	No	0	118,000
24	3823	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
25	3824	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
26	3825	Nippon-Sharryo	Trailer Car	1985	2001	142	Yes	No	No	0	118,000
27	3826	Nippon-Sharryo	Trailer Car	1985	2002	108	No	No	No	40	118,000
28	3827	Nippon-Sharryo	Trailer Car	1985	2002	108	No	No	No	40	118,000
29	3828	Nippon-Sharryo	Trailer Car	1985	2002	108	No	No	No	40	118,000
30	3829	Nippon-Sharryo	Trailer Car	1985	2002	108	No	No	No	40	118,000
31	3830	Nippon-Sharryo	Trailer Car	1985	2002	108	No	No	No	40	118,000
32	3831	Nippon-Sharryo	Trailer Car	1985	2002	108	No	No	No	40	118,000
33	3832	Nippon-Sharryo	Trailer Car	1985	2001	108	No	No	No	40	118,000
34	3833	Nippon-Sharryo	Trailer Car	1985	2002	108	No	No	No	40	118,000
35	3834	Nippon-Sharryo	Trailer Car	1985	2002	108	No	No	No	40	118,000

Table A.2 Caltrain Fleet Configuration – Passenger Cars

NO.	CAR NUMBER	MANUFACTURE	TYPE	YEAR MANUFACTURED	YEAR OVERHAULED	SEATS	LUGGAGE RACK	ADA LIFT	TOILET	BIKES	WEIGHT
36	3835	Nippon-Sharryo	Trailer Car	1985	2002	108	No	No	No	40	118,000
37	3836	Nippon-Sharryo	Trailer Car	1985	2002	148	No	No	No	0	118,000
38	3837	Nippon-Sharryo	Trailer Car	1985	2002	148	No	No	No	0	118,000
39	3838	Nippon-Sharryo	Trailer Car	1985	2002	148	No	No	No	0	118,000
40	3839	Nippon-Sharryo	Trailer Car	1985	2002	148	No	No	No	0	118,000
41	3840	Nippon-Sharryo	Trailer Car	1985	2002	148	No	No	No	0	118,000
42	3841	Nippon-Sharryo	Trailer Car	1985	2002	148	No	No	No	0	118,000
43	3842	Nippon-Sharryo	Trailer Car	1987	2002	148	No	No	No	0	118,000
44	3843	Nippon-Sharryo	Trailer Car	1986	2001	148	No	No	No	0	118,000
45	3844	Nippon-Sharryo	Trailer Car	1986	2002	148	No	No	No	0	118,000
46	3845	Nippon-Sharryo	Trailer Car	1986	2002	148	No	No	No	0	118,000
47	3846	Nippon-Sharryo	Trailer Car	1986	2002	148	No	No	No	0	118,000
48	3847	Nippon-Sharryo	Trailer Car	1986	2002	148	No	No	No	0	118,000
49	3848	Nippon-Sharryo	Trailer Car	1986	2002	148	No	No	No	0	118,000
50	3849	Nippon-Sharryo	Trailer Car	1986	2002	148	No	No	No	0	118,000
51	3850	Nippon-Sharryo	Trailer Car	1986	2002	148	No	No	No	0	118,000
52	3851	Nippon-Sharryo	Trailer Car	1986	2002	148	No	No	No	0	118,000
53	3852	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
54	3853	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
55	3854	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
56	3855	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
57	3856	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
58	3857	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
59	3858	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
60	3859	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
61	3860	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
62	3861	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
63	3862	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
64	3863	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
65	3864	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
66	3865	Nippon-Sharryo	Trailer Car	2000	NA	122	No	Yes	Yes	40	122,000
	66	SUBTOTAL									
67	4000	Nippon-Sharryo	Cab Car	1985	2001	97	No	Yes	Yes	40	125,000
68	4001	Nippon-Sharryo	Cab Car	1985	2002	97	No	No	Yes	40	125,000
69	4002	Nippon-Sharryo	Cab Car	1985	2000	97	No	No	Yes	40	125,000

Table A.2 Caltrain Fleet Configuration – Passenger Cars

NO.	CAR NUMBER	MANUFACTURE	TYPE	YEAR MANUFACTURED	YEAR OVERHAULED	SEATS	LUGGAGE RACK	ADA LIFT	TOILET	BIKES	WEIGHT
69	4002	Nippon-Sharryo	Cab Car	1985	2000	97	No	No	Yes	40	125,000
70	4003	Nippon-Sharryo	Cab Car	1985	2002	97	No	No	Yes	40	125,000
71	4004	Nippon-Sharryo	Cab Car	1985	2002	97	No	No	Yes	40	125,000
72	4005	Nippon-Sharryo	Cab Car	1985	2002	97	No	No	Yes	40	125,000
73	4006	Nippon-Sharryo	Cab Car	1985	2002	97	No	No	Yes	40	125,000
74	4007	Nippon-Sharryo	Cab Car	1985	2001	97	No	No	Yes	40	125,000
75	4008	Nippon-Sharryo	Cab Car	1985	2001	97	No	No	Yes	40	125,000
76	4009	Nippon-Sharryo	Cab Car	1985	2001	97	No	No	Yes	40	125,000
77	4010	Nippon-Sharryo	Cab Car	1985	2001	97	No	No	Yes	40	125,000
78	4011	Nippon-Sharryo	Cab Car	1985	2001	97	No	No	Yes	40	125,000
79	4012	Nippon-Sharryo	Cab Car	1985	2002	97	No	No	Yes	40	125,000
80	4013	Nippon-Sharryo	Cab Car	1985	2001	97	No	No	Yes	40	125,000
81	4014	Nippon-Sharryo	Cab Car	1985	2002	97	No	No	Yes	40	125,000
82	4015	Nippon-Sharryo	Cab Car	1985	2002	97	No	No	Yes	40	125,000
83	4016	Nippon-Sharryo	Cab Car	1985	2001	97	No	No	Yes	40	125,000
84	4017	Nippon-Sharryo	Cab Car	1985	2001	97	No	No	Yes	40	125,000
85	4018	Nippon-Sharryo	Cab Car	1985	2001	97	No	No	Yes	40	125,000
86	4019	Nippon-Sharryo	Cab Car	1985	2001	97	No	No	Yes	40	125,000
87	4020	Nippon-Sharryo	Cab Car	1985	2002	97	No	No	Yes	40	125,000
88	4021	Nippon-Sharryo	Cab Car	1999	2002	97	No	Yes	Yes	40	127,000
89	4022	Nippon-Sharryo	Cab Car	2000	2002	97	No	Yes	Yes	40	127,000
90	4023	Nippon-Sharryo	Cab Car	2000	2002	97	No	Yes	Yes	40	127,000
91	4024	Nippon-Sharryo	Cab Car	2000	2002	97	No	Yes	Yes	40	127,000
92	4025	Nippon-Sharryo	Cab Car	2000	2002	97	No	Yes	Yes	40	127,000
93	4026	Nippon-Sharryo	Cab Car	2000	2002	97	No	Yes	Yes	40	127,000
	27	SUBTOTAL									
94	164	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	119,000
95	165	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	119,000
96	167	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	19,000
97	169	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	119,000
98	170	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	19,000
99	172	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	119,000
100	173	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	119,000
101	175	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	119,000
102	176	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	119,000

Table A.2 Caltrain Fleet Configuration – Passenger Cars

NO.	CAR NUMBER	MANUFACTURE	TYPE	YEAR MANUFACTURED	YEAR OVERHAULED	SEATS	LUGGAGE RACK	ADA LIFT	TOILET	BIKES	WEIGHT
103	177	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	119,000
104	178	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	119,000
105	179	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	
106	180	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	
108	181	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	122,000
109	182	Bombardier	Trailer Car	1997	NA	149	No	No	Yes	0	122,000
110	219	Bombardier	Trailer Car	2003	NA	127	No	No	Yes	24	122,000
111	220	Bombardier	Trailer Car	2003	NA	144	No	No	Yes	0	122,000
112	221	Bombardier	Trailer Car	2002	NA	144	No	No	Yes	0	122,000
113	222	Bombardier	Trailer Car	2002	NA	144	No	No	Yes	0	122,000
114	223	Bombardier	Trailer Car	2002	NA	144	No	No	Yes	0	122,000
115	224	Bombardier	Trailer Car	2002	NA	144	No	No	Yes	0	122,000
116	225	Bombardier	Trailer Car	2002	NA	144	No	No	Yes	0	122,000
117	226	Bombardier	Trailer Car	2002	NA	144	No	No	Yes	0	119,000
118	229	Bombardier	Trailer Car	2002	NA	144	No	No	Yes	0	119,000
119	230	Bombardier	Trailer Car	2002	NA	144	No	No	Yes	0	119,000
120	232	Bombardier	Trailer Car	2008	NA	140	No	No	Yes	0	119,000
121	233	Bombardier	Trailer Car	2008	NA	140	No	No	Yes	0	119,000
122	234	Bombardier	Trailer Car	2008	NA	140	No	No	Yes	0	119,000
123	235	Bombardier	Trailer Car	2008	NA	1140	No	No	Yes	0	119,000
124	236	Bombardier	Trailer Car	2008	NA	140	No	No	Yes	0	119,000
	31	SUBTOTAL									119,000
											119,000
125	112	Bombardier	Cab Car	2002	NA	114	No	No	Yes	24	119,000
126	113	Bombardier	Cab Car	2002	NA	114	No	No	Yes	24	119,000
127	114	Bombardier	Cab Car	2002	NA	114	No	No	Yes	24	119,000
128	115	Bombardier	Cab Car	2002	NA	114	No	No	Yes	24	119,000
129	116	Bombardier	Cab Car	2002	NA	114	No	No	Yes	24	119,000
130	117	Bombardier	Cab Car	2002	NA	114	No	No	Yes	24	119,000
131	118	Bombardier	Cab Car	2002	NA	114	No	No	Yes	24	119,000
132	119	Bombardier	Cab Car	2008	NA	114	No	No	Yes	24	119,000
133	120	Bombardier	Cab Car	2008	NA	114	No	No	Yes	24	119,000
		SUBTOTAL									
		TOTAL									

1250 San Carlos Ave.
San Carlos, California 94070
www.caltrain.com

Short Range Transit Plan: FY2015-2024

October 2015