



BOARD OF DIRECTORS 2019

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AGENDA

PENINSULA CORRIDOR JOINT POWERS BOARD

Bacciocco Auditorium, 2nd Floor
1250 San Carlos Avenue, San Carlos CA 94070

August 1, 2019 – Thursday

9:00 am

1. Call to Order / Pledge of Allegiance
2. Roll Call
3. Public Hearing for Proposed Codified Tariff Changes
 - a. Open Public Hearing
 - b. Present Staff Report
 - c. Hear Public Comment
 - d. Close Public Hearing
 - e. Board Discussion

4. Public Comment For Items Not on the Agenda

Comments by each individual speaker shall be limited to two (2) minutes. Items raised that require a response will be deferred for staff reply.

5. Consent Calendar

Members of the Board may request that an item under the Consent Calendar be considered separately

- | | |
|--|---------------|
| a. Approve Meeting Minutes of July 11, 2019 | MOTION |
| b. Receive Key Caltrain Performance Statistics for June 2019 | INFORMATIONAL |
| c. Approval of Legislative Proposals and Receive State and Federal Legislative Update | MOTION |
| d. Authorize Award of Contract to Team One Repair, Inc. to Provide Repair Services for MEI/Sodeco (BNA57P) Bill Note Acceptors | RESOLUTION |
| e. Award of Contract to TranSystems Corporation to Provide On-Call Design Review Services | RESOLUTION |

Note: All items appearing on the agenda are subject to action by the Board. Staff recommendations are subject to change by the Board.

Peninsula Corridor Joint Powers Board
August 1, 2019 Agenda

- f. Introduction of Amendment to Rules of Procedure to Change Regular Meeting Time to 9:00 a.m. MOTION
- 6. Report of the Chair
- 7. Report of the Citizens Advisory Committee
- 8. Report of the Executive Director
 - a. Peninsula Corridor Electrification Project Monthly Report for June 2019 INFORMATIONAL
 - b. Monthly Report on Positive Train Control System INFORMATIONAL
- 9. Caltrain Business Plan Update INFORMATIONAL
 - a. Caltrain Business Plan – Presentation on Draft Recommended Long Range Service Vision
 - b. Caltrain Business Plan – Presentation on Draft Organizational Assessment
- 10. Correspondence
- 11. Board Member Requests
- 12. Date/Time of Next Regular Meeting: Thursday, September 5, 2019 at 9:00 a.m. San Mateo County Transit District Administrative Building, 2nd Floor, 1250 San Carlos Avenue, San Carlos, CA 94070
- 13. Adjourn

INFORMATION FOR THE PUBLIC

All items appearing on the agenda are subject to action by the Board. Staff recommendations are subject to change by the Board.

If you have questions on the agenda, please contact the JPB Secretary at 650.508.6242. Agendas are available on the Caltrain website at www.caltrain.com. Communications to the Board of Directors can be e-mailed to board@caltrain.com.

Location, Date and Time of Regular Meetings

Regular meetings are held at the San Mateo County Transit District Administrative Building located at 1250 San Carlos Avenue, San Carlos, one block west of the San Carlos Caltrain Station on El Camino Real, accessible by SamTrans bus Routes ECR, FLX, 260, 295 and 398. Additional transit information can be obtained by calling 1.800.660.4287 or 511.

The JPB meets regularly on the first Thursday of the month at 10 a.m. The JPB Citizens Advisory Committee meets regularly on the third Wednesday of the month at 5:40 p.m. at the same location. Date, time and place may change as necessary.

Public Comment

If you wish to address the Board, please fill out a speaker's card located on the agenda table and hand it to the JPB Secretary. If you have anything that you wish distributed to the Board and included for the official record, please hand it to the JPB Secretary, who will distribute the information to the Board members and staff.

Members of the public may address the Board on non-agendized items under the Public Comment item on the agenda. Public testimony by each individual speaker shall be limited to two minutes and items raised that require a response will be deferred for staff reply.

Accessibility for Individuals with Disabilities

Upon request, the JPB will provide for written agenda materials in appropriate alternative formats, or disability-related modification or accommodation, including auxiliary aids or services, to enable individuals with disabilities to participate in public meetings. Please send a written request, including your name, mailing address, phone number and brief description of the requested materials and a preferred alternative format or auxiliary aid or service at least two days before the meeting. Requests should be mailed to the JPB Secretary at Peninsula Corridor Joint Powers Board, 1250 San Carlos Avenue, San Carlos, CA 94070-1306; or emailed to board@caltrain.com; or by phone at 650.508.6242, or TDD 650.508.6448.

Availability of Public Records

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

**PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT**

TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: Derek Hansel
Chief Financial Officer

Michelle Bouchard
Chief Operating Officer, Rail

SUBJECT: **PUBLIC HEARING FOR PROPOSED CODIFIED TARIFF CHANGES**

ACTION

On May 2, 2019 the Board of Directors (Board) called a public hearing to be held August 1, 2019 for the consideration of changes to the Caltrain Codified Tariff. The initial Call for Public Hearing was amended at the Board's June 6, 2019 meeting, to include consideration of additional changes to the Codified Tariff. Following feedback from the public and the Board, staff will make a recommendation for the Board's consideration at its September 5, 2019 meeting.

SIGNIFICANCE

The public hearing will allow the Board to receive input on proposed fare changes.

The Peninsula Corridor Joint Powers Board (JPB) approved the Fiscal Year (FY) 2020 Operating and Capital Budgets on June 6, 2019. The Operating Budget totals \$155.7 million, and included a deficit of \$1.1 million, to be funded from the JPB's Revenue Stabilization Fund. Additionally, the Board has received information from staff about expected budgetary challenges for Fiscal Years 2021 and 2022, which include anticipated increases in baseline expenditures, costs anticipated with operation and maintenance of Positive Train Control, constraints on operating budget funding provided by the JPB's member agencies (particularly in light of significant recent increases in such funding), and the continued lack of a dedicated source of revenue. Absent any changes, the agency would be required to draw down a significant portion of its limited reserves in order to balance the budget.

The JPB's revenues are derived primarily from fares and funding from the three member agencies: the Santa Clara Valley Transportation Authority (VTA), the San Mateo County Transit District (SamTrans), and the City and County of San Francisco. Fares and parking fees are projected to cover about 72 percent of the FY2020 operating budget. Fare revenue has increased as Caltrain ridership has grown; in the past two years, member funding of operations increased by \$5.0 million (24%) in FY 2019, and \$4.5 million (18%) in FY 2020.

The JPB has had a recent practice of raising Caltrain fares every other year, alternating between increasing the base fare and the zone fare, and Board-approved planning documents anticipate continued fare increases on this schedule. The last system-wide fare increase was adopted in August 2017, with a package of changes to the zone fare, the price of monthly passes (which was done in two steps), and the price of the Go Pass (which was also done in two steps). Additionally, daily and monthly parking fees were increased, and the discounted 8-ride ticket was eliminated.

Subsequent to the adoption of the fare increases, the JPB completed its Comprehensive Fare Study in 2018, and the Board adopted a Fare Policy to guide future decision-making regarding fares at its December 2018 meeting. The proposed changes to the Codified Tariff, shown below, are consistent with the goals in the Caltrain Fare Policy, which is included as Attachment A to this staff report.

Proposals to be considered in the public hearing include:

- Go Pass – An increase in the price of the Go Pass by up to 20%, effective January 1, 2020, from a current price of \$285 to a maximum price of \$342, raising the minimum cost to employers from \$23,940 to a new minimum of \$28,728. Additional increases in the price of the Go Pass of 5% on each of January 1, 2022 and January 1, 2024.
- Clipper Discount – Removal of the Clipper discount of \$0.55 per one-way fare and \$0.15 per Eligible Discount one-way fare, effective January 1, 2020, or alternatively reduction of the Clipper discount to \$0.25 per one-way fare (with no change in the discount for Eligible Discount one-way fare), effective January 1, 2020.
- Periodic Fare Increases – Adoption of a program of scheduled increases to the full price one-way base fare and zone charge (with corresponding increases to related products), on the following schedule:
 - Base Fare increase of \$0.50, effective July 1, 2020
 - Zone Charge increase of \$0.25, effective July 1, 2022
 - Base Fare increase of \$0.50, effective July 1, 2024
- Participation in MTC's Regional Means-Based Fare Pilot Program – this will provide eligible participants with a 20% discount off of single-ride adult Clipper Card fares on Caltrain for the duration of the Pilot Program (an update on the status of the MTC program is included as Attachment B to this report).
- Removal of charter train, parking, and bicycle locker charges from the Codified Tariff. These fees will be placed in a separate document, and any changes to the fees or the rules will be brought to the Board in a later process.

BUDGET IMPACT

There is no budget impact associated with holding the public hearing. Fare increases, if approved, will increase fare revenues which will reduce or eliminate currently anticipated future budget deficits.

BACKGROUND

Caltrain currently does not have a dedicated source of funding to support operating, maintenance and capital costs. With constraints on member agency contributions, Caltrain has become increasingly dependent on fare revenue, which has accounted for as much as 70 percent of total revenue in recent years. Operations and maintenance costs have also grown and are expected to grow even more in the next two years due to scheduled increases in contract operating costs, implementation of Positive Train Control, staffing requirements associated with transition to electrified operations and other factors.

Without a dedicated source of funding, and with constraints on member agency contributions expected to continue through FY2022, additional financial resources will be needed to sustain Caltrain operations.

Caltrain's Board-adopted Fare Policy, included as Attachment A to this staff report, has guided the development of the scenarios that staff has developed, and the scenarios are consistent with its goals. Staff have evaluated two scenarios of integrated fare increases for their impact on revenue over the current and next two fiscal years. The first scenario includes the increases to the base fare and zone charge, incremental increases to the Go Pass, and participation in MTC's Regional Means-Based Fare Pilot Program, along with a 20% increase in the Go Pass, effective January 1, 2020, and a reduction in the Clipper one-way fare discount from \$0.55 to \$0.25. The second scenario is the same as the first, except that the January 1, 2020 increase in the Go Pass price would be 15%, and the Clipper discount would be eliminated completely. Financial results are comparable, as shown below:

FARE INCREASE REVENUE SCENARIOS

SCENARIO		FY 2020	FY 2021	FY 2022
1: GO PASS +20%, CLIPPER DISCOUNT \$0.25	PROJECTED OPERATING DEFICITS	(\$1.1)	(\$8.3)	(\$14.7)
	FARE REVENUE INCREASE	\$3.5	\$10.6	\$11.2
	*ADJUSTED OPERATING DEFICITS	\$2.5	\$2.3	(\$3.5)
	*FAREBOX RECOVERY	70%	72%	70%
2: GO PASS +15%, CLIPPER DISCOUNT \$0	PROJECTED OPERATING DEFICITS	(\$1.1)	(\$8.3)	(\$14.7)
	FARE REVENUE INCREASE	\$3.6	\$10.6	\$11.2
	*ADJUSTED OPERATING DEFICITS	\$2.5	\$2.3	(\$3.5)
	*FAREBOX RECOVERY	70%	72%	70%

*Adjusted operating deficits and farebox recovery are shown with the increase fare revenue from the proposed fare changes. Farebox recovery does not include debt expense used to purchase capital assets.

Staff have also looked at the impacts of the most recent and considered fare changes on the revenue/passenger mile associated with Caltrain’s various fare products:

COST PER PASSENGER MILE

Fare	FY17 October	Current	Clipper Discount \$0	Clipper Discount \$0.25
ONE-WAY TICKET	\$0.26	\$0.27	\$0.32	\$0.32
DAY PASS	\$0.21	\$0.22	\$0.26	\$0.26
GO PASS	\$0.13	\$0.20	\$0.25	\$0.26
CLIPPER CASH VALUE	\$0.18	\$0.19	\$0.25	\$0.24
MONTHLY PASS	\$0.19	\$0.23	\$0.29	\$0.28
TOTAL	\$0.19	\$0.22	\$0.28	\$0.27

Notes: FY17 October uses October 2016 Triennial Survey for average trip distance and revenue and ridership from October 2016. All other scenarios use FY17 October revenue per passenger and assume revenue increases based on fare increase percentages.

Public Outreach and Feedback

The process for considering changes to the Caltrain Codified Tariff included public meetings and outreach plan that provided multiple opportunities for riders and the general public to submit feedback. The plan included three community meetings, a virtual town hall, Caltrain Advisory Committee, and Caltrain Accessibility Advisory Committee meetings between July 17, 2019 and July 30, 2019. Caltrain staff provided information about the proposed fare changes and invited the public to share feedback through a number of available channels. Comments were also accepted via an online comment form, mail, a dedicated e-mail address, and by telephone. Information about the proposed changes and how to provide feedback was published in newspaper notices, a news release, onboard flyers, visual messages at stations, notification to community-based organizations, social media and on a dedicated page on the Caltrain website.

Title VI Equity Analysis

A Title VI Equity Analysis for the Caltrain FY2018 Fare Proposals is being conducted. The Title VI Report will be finalized and included in the recommendation for the September Board meeting. This analysis is consistent with policies adopted by the Board to comply with Title VI of the Civil Rights Act of 1964.

The Title VI Equity Analysis:

- Analyzes the fare proposal on a system-wide level to determine whether the impacts would result in disparate treatment among protected classes;
- Uses Caltrain Title VI Policies and analysis thresholds that were adopted in 2013
- Is based on 2016 Caltrain Triennial Survey, 2019 Caltrain Ridership Statistics, and Caltrain Customer Service data;
- Disaggregates data by fare type, zone, income and ethnicity to create a Fare Equity Matrix to meet the requirements of federal Title VI guidance; and
- Identifies Fare Proposal Purpose and Fare Proposal Adverse Effects, Summarizes Public Engagement, and Determines Mitigation Measure.

Prepared By: Derek Hansel, Chief Financial Officer

650.508.6466



Attachment A: Caltrain Fare Policy

The Caltrain Fare Policy (Fare Policy) is a framework of high-level goals that underlie and guide fare-related decisions for the Caltrain system. Caltrain's Codified Tariff is a separate legal document that should align with and implement the Fare Policy by setting the fare strategy (zone- vs. distance-based fares), products, and pricing. When making fare-related decisions, all of the goals in this Fare Policy should be considered as a whole. This Fare Policy may be reviewed and updated as needed, including for alignment with the implementation of the Caltrain Business Plan or the start of electrified train service.

Financial Sustainability

- Ensure the agency's ongoing financial health, including the need for a balanced Operating Budget and support for State of Good Repair and capital programs.
- Achieve a farebox recovery ratio for the Operating Budget of at least 65 percent. This minimum farebox recovery ratio may be reassessed at such time as there is an independent, stable source of funding to cover a significant portion of the agency's operating costs.
- Support achievement of other financial policy goals of the agency, such as the Caltrain Reserve Policy.
- Maintain fare products and collection methods that are cost-effective and easy for the agency to administer.

Equity

- Advocate for and participate in State and regional programs that make it more affordable for low-income customers to use transit.
- Strive for consistency across fare products in the revenue generated per passenger and per passenger mile.
- Comply, at a minimum, with federal requirements for providing fare discounts, and for minimizing disparate impacts on minority riders and disproportionate burdens on low-income riders.

Customer Experience

- Strive for a fare system, including strategy, products, and pricing, that is easy for customers to understand and use.
- Provide predictable and incremental fare changes.
- Encourage intermodal connections and consistency with the agency's Comprehensive Access Policy.
- Seek integration with and participate in State and regional fare programs.

Ridership

- Support achievement of the agency's goals on ridership.
- Maximize the use of the agency's infrastructure assets.
- Consider structuring fares to incentivize rider behavior in support of the agency's policy goals.

ATTACHMENT B – UPDATE ON REGIONAL MEANS-BASED FARE PILOT PROGRAM

SIGNIFICANCE

In February 2019, the JPB adopted a resolution of support for Caltrain's continued participation in the regional means-based fare pilot program (Pilot Program). The resolution of support also indicated that the JPB intends to formally approve Caltrain's participation in the Pilot Program in the months to come. An effort led by staff from the Metropolitan Transportation Commission (MTC) and regional transit operators, the Pilot Program will provide a discount for low income transit riders and is anticipated to commence in early 2020.

At its August 2019 meeting, the JPB will hold a public hearing on potential changes to Caltrain's Codified Tariff, which will be considered for adoption by the JPB in September 2019. One of the potential fare changes under consideration is the addition of the discount for eligible participants in the regional means-based fare pilot program. This report provides an information update on this pilot program and its development.

BUDGET IMPACT

As reported previously, Caltrain staff and MTC estimate that there would be a *gross* revenue loss associated with the fare discounts if Caltrain participates in the Pilot Program. However, *net* revenue loss would depend on the balance of (a) the lower fares generated by current passengers' existing trips, (b) offsetting regional program subsidies provided to the JPB to replace lost fares, and (c) new fares generated by increased trips of existing passengers and by trips of new passengers incentivized to ride by the Pilot Program.

At this time, it is estimated that the *gross* fare revenue loss from existing riders due to Caltrain's participation in the Pilot Program would be in the range of approximately -\$400,000 to -\$1,800,000 annually. MTC estimates that up to 50 percent of fare revenue impacts would be offset by regional program subsidies to Caltrain; thus, the *adjusted program revenue impact* is estimated to be approximately -\$200,000 to -\$900,000 annually for Caltrain. On balance, staff estimates that the program revenue loss related to current system trips will be on the lower end of the estimated range.

The positive financial impact of increased trips and ridership is difficult to estimate; however, on balance, the net revenue impact of participating in the Pilot Program is estimated to range from approximately -\$300,000 to +\$600,000. Staff's current, conservative estimates suggest implementation of the Pilot Program is likely to be revenue-neutral or even net-positive for Caltrain.

1. Pilot Program Elements

Regional Pilot Program Overview

MTC has been leading an effort to create a regional means-based fare pilot program with large transit operators in the region to help address the issue of transportation affordability in the Bay Area. MTC approved a Means-Based Fare Pilot Program Framework (Pilot Program Framework) on May 23, 2018. Under this new Pilot Program,

participating agencies will provide a fare discount for low-income transit riders. Per the approved Pilot Program Framework, the Pilot Program will run for 12 to 18 months and be implemented through a Clipper card discount coupon on the existing Clipper system.

Regional Pilot Program Goals

The following goals have been developed for the Pilot Program:

- Make transit more affordable for the Bay Area's low income residents;
- Move toward a more consistent regional standard for fare discount policies; and,
- Define a transit affordability solution that is financially viable and administratively feasible, and does not adversely affect the transit system's service levels and performance.

Participating Transit Agencies

In addition to Caltrain, the other Pilot Program participants include the Bay Area Rapid Transit District (BART); Golden Gate Bridge, Highway and Transportation District (GGBHTD) for both its bus and ferry services; and San Francisco Municipal Transportation Agency (SFMTA), with program participation subject to approval from each transit operator's governing board.

Pilot Program Discount

The discount amount offered to eligible adults will be a minimum of 20 percent on single-ride adult Clipper card fares. As part of this Pilot Program, Caltrain is intending to offer the minimum discount in order to collect data and make decisions regarding future participation based on the Pilot results. One other participating agency, BART, has chosen to offer the minimum discount as well. Two other participating agencies, SFMTA and GGBHTD, have chosen to participate at a higher level discount level, 50 percent.

Pilot Program Delivery Team and Stakeholders

Staff from MTC are leading efforts to implement the Pilot Program by providing regional coordination and funding, program delivery, and oversight of all components of the Pilot Program.

MTC staff is working in close coordination with staff from transit agencies, social service agencies, and community-based organizations to design, develop, implement, launch, and evaluate the Pilot Program. Transit agency staff are providing support throughout the development and implementation phases of the Pilot Program through a staff working group. Once the Pilot Program launches, the transit agencies will provide transportation services used by the Pilot Program enrollees. Social service agencies will promote the Pilot Program to their clients, some of whom may "pre-qualify" for the Pilot Program due to their enrollment in other programs oriented to under-resourced clients, such as CalFresh and MediCal. Community-based organizations will promote the Pilot Program to their clients and may assist individual applicants with their application.

As the Clipper program contractor, Cubic will provide Clipper card fulfillment and shipping services for the Pilot Program, as well as reporting that is related to use of the Pilot Program's Clipper cards. A third-party eligibility verifier will be retained under

contract to determine eligibility of potential enrollees, provide customer service, and transmit information to Cubic for Clipper card fulfillment and shipping. MTC will also enter into a contract with another third-party entity to complete the formal evaluation of the Pilot Program at its conclusion.

Potential Pilot Program participants are also involved in many aspects of the process, to provide input and consultation on the design, implementation, and reporting of the Pilot Program.

Eligibility for Pilot Program Participation

In order to be eligible to participate in the Pilot Program, an individual must be an adult aged 19 through 64, a current resident in one of the nine Bay Area counties, and have an annual household income level at or below 200 percent of the Federal Poverty Level. Per the Pilot Program Framework, there will not be a limit or “cap” on the number of participants that may participate in the Pilot Program if they meet the eligibility requirements.

Application Process

At this point in time, it is understood that individuals will be able to apply to participate in the Pilot Program using one of two options: 1) completing an online application using a Salesforce Application web-portal, or 2) mailing in a completed paper application.

MTC will contract with a third-party eligibility verifier that will determine the eligibility of potential enrollees using a process based on proof of income and proof of identity. Eligibility will be determined based on required documentation that provides proof of income, or verification from an authorized non-profit or government agency accompanied with the Pilot Program application. Proof of income includes an Electronic Benefits Transfer (EBT) or MediCal insurance card issued by the State of California, or federal income tax information from the prior year.

The third-party eligibility verifier will also provide customer service for applicants and enrollees, social service agencies, and community-based organizations, by phone and email (no in-person services will be available). Program materials, including the application and website, will be available in English, Spanish, Mandarin, and Tagalog.

Once an applicant’s eligibility for the Pilot Program has been verified, the third-party eligibility verifier will approve transmission of the enrollees’ information to Cubic for Clipper card fulfillment and shipping. Enrollees will receive a registered Clipper card associated with the Pilot Program (called the Clipper START card) that will have their name printed on it. Enrollees will have access to their account information via the online application web-portal.

Pilot Program Funding

MTC is setting aside about \$11 million in funding each year for the program. MTC’s funding sources for this Pilot Program include a combination of the State Transit Assistance (STA) funds through SB-1, the Road Repair and Accountability Act of 2017, and funds from the Low Carbon Transit Operators Program (LCTOP).

Per the Pilot Program Framework, these funds will first cover the Pilot Program's annual operating and administrative costs (which are currently unknown but estimated to be approximately \$3 million), including costs for the activities described above, while the remaining funds will be available to defray operators' gross fare revenue impacts from the Pilot Program.

Reimbursements will be applicable to operators' gross fare revenues impact at the minimum Pilot Program discount level of 20 percent, even if an agency opts to offer a higher discount. It is important to note that per the Pilot Program Framework, MTC will subsidize at most 50 percent of each agency's gross revenue impact at the 20 percent discount level, no matter the level of Pilot Program participation and total revenue impact for each agency. In summer 2019, through the staff working group, a mathematical formula will be established to calculate the share of the total revenue reimbursement funds that will be available to each agency; this will then serve as the maximum amount of funding that could be available to each agency to offset up to half of their revenue impacts from the Pilot Program. These details will be specified in each participating agency's program agreement with MTC.

At this time, MTC is setting aside \$3 million for initial start-up and operations costs for the Pilot Program implementation, leaving about \$8 million available to defray operators' revenue impacts in the first year (or more, if implementation and administrative costs total less than \$3 million initially). The precise portion of the estimated \$8 million that could be available for revenue impact reimbursement for each transit operator will be determined in summer 2019. The program is focused on keeping on-going operations costs to a minimum and maximizing the amount of Pilot Program funding that could be available for revenue loss reimbursement for transit operators.

At the end of the Pilot Program, it will be formally evaluated by a third-party entity, and pending the results of that evaluation, it may be determined to extend or make permanent the Pilot Program. If the program does continue after the initial pilot phase, MTC would continue to set aside approximately \$11 million per year (subject to fluctuations in State funding) to fund ongoing operations and to offset a portion of the revenue loss for participating transit agencies. If the funding needs grow beyond the MTC-committed funding (approximately \$11 million), transit operators would need to explore additional funding sources to further sustain the regional means-based fare program.

2. Pilot Program Implementation Status

As discussed above, staff from MTC is leading efforts to implement the Pilot Program, in partnership with staff from transit agencies, social service agencies, and community-based organizations. This significant effort involves a number of start-up tasks to get the program launched, as well as establishing on-going operations tasks to administer the program.

The following tasks are underway to create and implement the means-based fare program on the existing Clipper system:

- a. Salesforce Application Web-Portal:
Contractors have been selected for this work and are currently developing the web-portal and database system that will be used to accept, track, and verify applications on a Salesforce platform.
- b. Third-Party Eligibility Verifier:
The RFP to solicit bids for a contractor to serve as the third-party eligibility verifier for the Pilot Program will be released in July. The contractor that is selected from the RFP process will be responsible for using the Salesforce Application web-portal to process applications, verify identity and income, and transfer enrollees' information to Cubic for Clipper card fulfillment and shipping. They will also provide customer service for applicants, enrollees, and all the agencies involved in the effort.
- c. New Clipper Discount Coupon and Clipper Cards:
Cubic is in the process of creating the new discount coupon on the existing Clipper system. The Clipper cards for the Pilot Program will be regular Clipper cards that have full inter- and intra-agency functionality, including transfers between agencies, but loaded with a discount coupon for Pilot Program participants. Cubic will also be responsible for producing the unique Clipper cards for each eligible participant.
- d. Coordination with Social Service Agencies and Community-Based Organizations:
MTC is working with social service agencies and community-based organizations to maximize their existing client network with residents in the Bay Area who may be eligible for this Pilot Program. Discussions are underway, and the precise roles and responsibilities for the social service agencies and community-based organizations will be determined in the coming months.
- e. Marketing and Outreach Campaign:
Contractors were selected and have created the brand and logo for this new Pilot Program, which is shown below. Contractors will be selected in the coming months to launch a marketing and outreach campaign to successfully attract users to this new program.



- f. Pilot Program Evaluation:
MTC is in the process of developing an RFP to solicit bids from third-party entities and then will select one to complete the evaluation of the Pilot Program. Tasks will include designing and implementing a process to evaluate the Pilot Program, and then completing an evaluation and report on the Pilot Program's performance near the end of its duration.

3. Completion of Pilot Program and Evaluation

MTC Evaluation of Pilot Program

As part of the Pilot Program, a formal evaluation of the Pilot Program will be completed beginning after 12 months and concluding at the end of 18 months (the end of the Pilot Program's duration). Staff have identified initial desired outcomes and indicators but will work with a third-party entity that will refine the evaluation framework, collect all reports, and analyze the results. The evaluation is anticipated to include both qualitative and quantitative metrics, and it is likely that the metrics will relate to the financial and administrative feasibility of the Pilot Program, as well as customer experience and awareness of the Pilot Program and increased use of transit and access to goods and services. Data is anticipated to be sourced from Clipper card trip data, as well as a potential survey that participants may be asked to complete about the Pilot Program.

Caltrain Evaluation of Pilot Program

In addition to the regional evaluation of the Pilot Program, Caltrain staff plan to complete an independent evaluation of the Pilot Program for Caltrain, to understand the Pilot Program's outcomes and effects for this agency. Staff will use Clipper card data, revenue data, and, if available, survey data from Pilot Program enrollees to complete the evaluation. After completing the evaluation, if the program is extended or made permanent, staff will work with the Caltrain Board of Directors to assess the possibility of continuing to participate in the program in the long term.

The draft goal below presents what Caltrain aims to achieve by participating in the Pilot Program.

- Provide a transit affordability solution that:
 - Improves mobility and access for low income riders on Caltrain;
 - Is financially viable and administratively feasible for Caltrain;
 - Does not adversely affect Caltrain's service and performance; and
 - Integrates with regional fare programs in the Bay Area.

As part of the evaluation towards achievement of that goal, the following performance measures are anticipated to be used to track progress (pending data availability):

- Enrollees:
 - Total number of enrollees that use Caltrain
 - Percentage of total Pilot Program enrollees that use Caltrain at least once
- Enrollees' Caltrain Ridership:
 - Total weekday ridership from enrollees
 - Total weekend ridership from enrollees
 - Enrollees' estimated share of total Caltrain ridership
 - Enrollees' average frequency of Caltrain use
- Enrollees' Caltrain Trips:
 - Enrollees' frequency of transfers to other transit agencies
 - Enrollees' top Caltrain stations for boardings and alightings
- Annual Revenue Impact for Caltrain:
 - Gross revenue loss from enrollees' trips

- o Estimated financial gains from enrollees' trips
- o Total subsidy provided by MTC
- o Net revenue impact from enrollees' trips

Caltrain staff intend to monitor the Pilot Program once it launches and periodically report back to the Board with information related to the program and Caltrain's evaluation metrics. The great benefit of administering the Pilot Program through the Clipper program is that Caltrain will have free access to the trip data, allowing staff to incrementally assess the number of rides, trip characteristics, and overall revenue impact of the Pilot Program for the agency. The participants' survey data from MTC's evaluation could be used to determine to what degree existing riders were riding more and the degree to which new riders were brought into the system as a result of the program.

Completion of Pilot Program – Creating a Permanent Program?

At the end of the Pilot Program, following its evaluation and assessment of its successes and challenges, MTC and the region may decide to create a long-term regional means-based fare program. MTC has set aside LCTOP and SB-1 funds not only for the Pilot Program but an ongoing, long-term program if the program continues. These annual fund sources total about \$11 million per year. Additional operators may choose to join the program after completion of the Pilot, which will affect the amount of funding available to individual operators.

If a long-term/permanent program is developed and implemented for the region, it is important to note the JPB would need to take additional action in the future to formally approve Caltrain's participation in the permanent program. This decision would likely take into account the results of the evaluations by MTC and by Caltrain.

4. Next Steps for the Pilot Program

In order to finish implementation of the Pilot Program and successfully launch it, several key tasks must be completed. First, the tasks listed in Section 2 of this report must be successfully completed, in a series of processes that are being led by MTC; JPB staff will continue to work with staff from the other transit operators and MTC to support completion of these implementation tasks.

A second task, as discussed above, requires that the governing boards of Caltrain, BART, SFMTA, and GGBHTD each approve their agencies' participation in the Pilot Program. As of July 2019, BART and SFMTA boards have approved participation in the Pilot Program. GGBHTD and Caltrain boards have yet to finalize their approval, though the JPB may take this step by adopting the proposed changes to Caltrain's Codified Tariff in September, as discussed in more detail below. It is anticipated that the board for GGBHTD will approve participation by the end of this year.

Third, each agency must authorize a program agreement with MTC regarding the terms for participation in the Pilot Program. It is anticipated that process to develop the program agreements will be commencing early fall 2019, including for Caltrain, as described in more detail below.

5. Next Steps for Caltrain to Formalize Participation

Adopt Tariff Change to Include Pilot Program Discount

In February 2019, the JPB adopted a resolution supporting Caltrain's participation in the regional means-based fare pilot program. In order for Caltrain to formalize its participation in the Pilot Program, it is necessary for the JPB to change to the Codified Tariff to add the new means-based fare discount for eligible persons. This adoption needs to be complete by late summer 2019, before the Pilot Program begins testing and then launches in early 2020.

The action to add the Pilot Program discount to the Codified Tariff is being considered as part of a single public hearing process and Title VI fare equity analysis this summer, which incorporates fare changes required to balance the JPB's budget and other recommended changes emanating from the adoption of the Caltrain Fare Policy. The public hearing on these potential changes to the Codified Tariff is being held on August 1, 2019 at the JPB meeting. The Board could approve the changes to the Codified Tariff at its September 5 meeting, including the addition of the new regional means-based fare discount for eligible persons.

Authorize Program Agreement with MTC

Additionally, in order to formalize Caltrain's participation in the Pilot Program, the Board will need to authorize a formal agreement with MTC for Pilot Program participation, which would specify the revenue loss reimbursement distribution from MTC to Caltrain. Caltrain would also work with MTC to incorporate other elements into the agreement that would provide for appropriate off-ramps for Caltrain should their use be warranted by on-going evaluation of the program from the Caltrain perspective.

Next Steps

Caltrain staff will continue to report back to the Board on progress towards the Pilot Program's implementation before its launch in early 2020. Pending all of the agencies' necessary approvals and successful completion of the implementation tasks, the Pilot Program is currently scheduled to begin in the region in early 2020.

Prepared by: Melissa Jones, Principal Planner, Caltrain Planning 650.295.6852

Peninsula Corridor Joint Powers Board
Board of Directors Meeting
1250 San Carlos Avenue, San Carlos CA 94070

MINUTES OF JULY 11, 2019

MEMBERS PRESENT: G. Gillett (Chair), C. Brinkman, J. Bruins, C. Collins, C. Stone, D. Pine

MEMBERS ABSENT: C. Chavez, D. Davis, S. Walton

STAFF PRESENT: J. Hartnett, C. Mau, T. Bartholomew, M. Bouchard, J. Brook, A. Chan, C. Gumpal, D. Hansel, B. Fitzpatrick, C. Fromson, J. Funghi, D. Hansel, J. Lipps, L. Millard-Olmeda, J. Navarro, S. Petty, C. Scarella, D. Seamans, S. van Hoften

CALL TO ORDER/PLEDGE OF ALLEGIANCE

Chair Gillian Gillett called the meeting to order at 10:07 a.m. Director Dave Pine led the Pledge of Allegiance.

ROLL CALL

District Secretary Dora Seamans called the roll and confirmed all present, with the exception of Directors Chavez, Davis and Walton who were absent.

BOARD MEMBER REQUESTS

Request to Consider Resolution to Undertake Procurement for General Counsel and Legal Advisory Services (Director Shamann Walton)

Chair Gillian Gillett took agenda Item 12(a) Resolution to Undertake Procurement for General Counsel and Legal Advisory Services (Director Shamann Walton) out of order.

Chair Gillett stated that as to Agenda Item 12(a) that Director Walton, who was not present, had requested that the agenda item be continued. In response to Director Charles Stone’s comment, Chair Gillett confirmed that continuing the agenda item requires board action.

Director Cheryl Brinkman moved to continue the agenda item to a future date, and the motion was seconded by Director Ron Collins. Chair Gillett called for public comment.

Joan Cassman, General Counsel, stated that since this agenda matter involved her as a public official in her position providing legal services to the Joint Powers Board as a partner in Hanson Bridgett, there is a possibility that there could be financial impacts on her and she felt it appropriate to leave the room during the discussion, which she then did.

Public Comment

Jeff Carter, Millbrae, commented that current legal counsel has provided legal services to Caltrain since the origination and does report to Caltrain.

Upon request of Director Bruins, Director Brinkman restated the motion to bring back the item to a future meeting.

Board member comments continued, including that the item should not be considered until sometime after the October board discussion on the Caltrain Business Plan, at a time after the Board has a chance to fully digest the Business Plan as to structure, organization and governance, and that the agenda item should not be brought back without context. The Board members asked that their comments be considered as part of the motion.

Jim Hartnett, Executive Director, confirmed the Rules of Procedure require that when the agenda item would be set is determined by the Executive Director in consultation with the Chair. Mr. Hartnett confirmed as to the motion that he had heard the Board Member comments.

Motion/Second: Brinkman/Collins

Ayes: Brinkman, Bruins, Collins, Stone, Pine, Gillett

Absent: Chavez, Davis, Walton

Noes: None

PUBLIC COMMENT FOR ITEMS NOT ON THE AGENDA

Adina Levin, Friends of Caltrain, commented on the Regional Measure, Clipper and the study on funding of cost and benefits of projects.

Scott Yarborough, San Francisco, commended staff and commented on the data and ridership.

Jeff Carter, Millbrae, requested that staff consider a business case study.

Shirley Johnson, San Francisco, expressed concern on train capacity and bike theft; and to demonstrate her concern, she remained silent for the rest of her allotted public comment time.

Karen Camacho, San Mateo, commented on leadership on Caltrain Transit Oriented Development.

Roland Lebrun, San Jose, commented on correspondence pertaining to bike, daily Caltrain riders not attending Board meetings, articles on the Daily Post and electrification.

CONSENT CALENDAR

- a. Approved Special Meeting Minutes of June 6, 2019
- b. Approved Meeting Minutes of June 6, 2019
- c. Accepted Statements of Revenues and Expenditures for May 2019
- d. Received Key Caltrain Performance Statistics for May 2019
- e. Received State and Federal Legislative Update
- f. Received Caltrain Business Plan June Monthly Update

- g. Approved Resolution 2019-24, Approved and Ratify of the Fiscal Year 2020 Property Insurance Program
- h. Update on the San Jose Diridon Integrated Station Concept Plan

Public Comment

Michelle Huttenhoff, San Jose, commented on the Caltrain Business Plan and the financials.

Adina Levin, Friends of Caltrain, concurred with subject matters relating to Caltrain and Diridon Plan and the riders.

Motion/Second: Stone/Bruins

Ayes: Brinkman, Bruins, Collins, Stone, Pine, Gillett

Absent: Chavez, Davis, Walton

Noes: None

REPORT OF THE CHAIR

Chair Gillett, provided a report on the Local Policy Making Group (LPMG) that met on June 27; highlights of the report was on the network integration services, Caltrain Business Plan and public comments.

NOMINATING COMMITTEE REPORT FOR THE CITIZENS ADVISORY COMMITTEE

Reappointment and Appointment of the Citizens Advisory Committee Members

Chair Gillett announced that the San Francisco County is not prepared to nominate a representative this month.

Director Pine announced the reappointment of Adrian Brandt and recommended new member Anna Cristina Dagum to represent the San Mateo County.

Director Jeannie Bruins announced that there are two vacancies and recommended new member Patricia Leung to represent the Santa Clara County.

REPORT OF THE CITIZENS ADVISORY COMMITTEE (CAC)

Brian Shaw, Chair of the Citizens Advisory Committee, reported on details on the recent CAC Committee meeting; highlights included the resignation of committee members from San Francisco and Santa Clara County, the concern regarding quorum and alternates to serve when member term expires and the subject about allowing the public to show slide deck.

The Board members agreed on the suggestion of alternates. Ms. Cassman, General Counsel, informed the Board and staff that there should be a resolution to reflect a change in the CAC bylaws for alternates. The Board suggested this change could possibly take place during the August meeting.

The Board members agreed that the agency should not allow the public to show slides due to possible cyber security reasons and inappropriate slides. The Board suggested handouts to the Board members.

Public comment

Roland Lebrun, San Jose, commented on presentations from other agencies.

REPORT OF THE EXECUTIVE DIRECTOR

Jim Hartnett, Executive Director, said his report is in the reading file; additional items of the report included the Clipper Card meeting with the General Managers, JPB August Board meeting will include a public hearing and there will be two Standing Committees this month (Finance and Work Program-Legislative-Planning). Mr. Hartnett also noted that staff received a report from the Civil Grand Jury and the subject is on SamTrans and Caltrain to investigate the opportunity to coordinate schedules to improve commute options for residents; staff will draft a response to share with the Board at a later date.

Peninsula Corridor Electrification Project (PCEP) Monthly Report for May 2019

John Funghi, CalMod Chief Officer, provided a monthly report on the Peninsula Corridor Electrification project (PCEP); the report highlighted the tunnel work that is nearing completion in preparation for the installation of the overhead catenary system (OCS). Staff also reported on the additional Electric Multiple Unit (EMU) cars that have arrived and the assembly process.

The Board questioned staff regarding the dashboard. Mr. Funghi responded and stated the dashboard will be included on the next report.

Monthly Report on Positive Train Control (PTC) System

Michelle Bouchard, Chief Operating Officer, Rail, reported on the Caltrain Positive Train Control Project; highlights included the status of the application to the Federal Railroad Administration (FRA) and the FRA is supportive.

Caltrain Business Plan July Update

Sebastian Petty, Director of Policy Development, reported on the Caltrain Business Plan; highlights included how the Business Plan would work, growth scenarios, network integration and outreach. Mr. Petty noted that the Business Plan would be presented at length during the August Board meeting and would include a presenter, Howard Permut, a former president of Metro North Railroad. They would discuss developing recommendations, analysis, organization and governance, and he noted that the Business Plan will only be an informational item during the August Board meeting.

Staff provided further clarification in response to Board comments and questions. The presentation can be found on the Caltrain website link provided here:

http://www.caltrain.com/Assets/_Agendas+and+Minutes/JPB/2019/2019-07-11+JPB+Business+Plan+presentation.pdf

Director Ron Collins requested a Business Plan presentation to the San Carlos City Council and Director Dave Pine requested a Business Plan presentation to the San Mateo County Board of Supervisors. Mr. Petty agreed.

Public Comment

Roland Lebrun, San Jose, commented on High Speed Rail and South San Jose, electrification and Positive Train Control.

Vaugh Wolfe, Pleasanton, commented on the corridor, capacity and longer platforms.

Jeff Carter, Millbrae, suggested longer trains and higher capacity vehicles. He commented on high speed rail and the ownership, and passing tracks.

Adina Levin, Friends of Caltrain, suggested a line on the expected ridership. She commented on high speed rail, EIR and the technical goals on the business plan.

INCREASE EXECUTIVE DIRECTOR'S CONSTRUCTION CONTRACT CHANGE ORDER AUTHORITY AND AUTHORIZE AMENDMENT TO PIPELINE RELOCATION CONTRACT WITH PG&E FOR THE 25TH AVENUE GRADE SEPARATION PROJECT

Rafael Bolon, Project Manager, provided a report; highlights include an update on the siding track relocation, project delay and amendment of the Pacific Gas & Electric agreement.

The Board expressed concern on transparency and outreach. The Board suggested noticing post cards or the local paper. Mr. Bolon apologized and agreed to seek additional means of communicating to the public.

Staff provided further clarification in response to Board comments and questions. The presentation can be found on the Caltrain website link provided here:

http://www.caltrain.com/Assets/_Agendas+and+Minutes/JPB/2019/2019-07-11+JPB+25th+Avenue+Grade+Separation.pdf

Public Comment

Adina Levin, Friends of Caltrain, expressed concern for the residents who have issues regarding construction of the project and its location as well as concerns on the replacement project and barriers.

Roland Lebrun, San Jose commented on the Hillsdale Station and the need for a chief engineer.

Jeff Carter, Millbrae, questioned why UP owns the line and potential for four (additional) tracks.

Drew, San Mateo, commented on set out track and suggested a solution to south of Hillsdale access and distance.

Approved by Resolution 2019-25
Motion/Second: Bruins/Pine
Ayes: Brinkman, Bruins, Collins, Stone, Pine, Gillett
Absent: Chavez, Davis, Walton
Noes: None

Director Stone left at 12:26 p.m.

2019 Annual Passenger Counts Presentation

The Board deferred the 2019 Annual Passenger Count presentation to a future agenda.

CORRESPONDENCE

Dora Seamans, District Secretary, stated the agency implemented automatic email replies to public when email are received; correspondence are posted weekly and approximately 24 hours prior to the Board meeting. Ms. Seamans also noted that copies are made available at the public counter during the Board meetings.

Public Comment

Roland Lebrun, San Jose, commented on the tem that was deferred on the annual passenger count, Business Plan. He commended the staff on the new posting of correspondence.

BOARD MEMBER REQUESTS

Director Pine requested that the Board meetings start at 9 a.m., Director Bruins supported the 9 a.m. start time. There was general informal consensus of the proposal. Chair Gillett requested that the Board Secretary survey the Board members that were not present.

Ms. Cassman, Legal Council noted that staff would need to amend the rules of procedure, which could be included as a consent item on a future agenda.

GENERAL COUNSEL REPORT

Closed Session: Conference with Legal Counsel – Anticipated Litigation Initiation of litigation pursuant to Government Code Section 54956.9(d)(4): One potential case.

The Board reconvened to open session at approximately 1:17 p.m.

No reportable action was taken.

**DATE/TIME OF NEXT REGULAR MEETING: THURSDAY, AUGUST 1, 2019 AT 9:00 A.M.
SAN MATEO COUNTY TRANSIT DISTRICT ADMINISTRATIVE BUILDING, 2ND FLOOR,
1250 SAN CARLOS AVENUE, SAN CARLOS, CA 94070**

Chair Gillett announced that the next meeting would be held on Thursday, August 1, 2019 at 9 a.m.

ADJOURN

The meeting was adjourned at 1:18 p.m.

An audio/video recording of this meeting is available online at www.caltrain.com. Questions may be referred to the Board Secretary's office by phone at 650.508.6279 or by email to board@caltrain.com.

**PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT**

TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: Michelle Bouchard
Chief Operating Officer, Rail

SUBJECT: **KEY CALTRAIN PERFORMANCE STATISTICS – JUNE 2019**

ACTION

Staff Coordinating Council recommends that the Board receive the Performance Report for June 2019.

SIGNIFICANCE

Staff will provide monthly updates to Key Caltrain Performance Statistics, Caltrain Shuttle Ridership, Caltrain Promotions, Special Event Updates and Social Media Analytics.

BUDGET IMPACT

There is no budget impact.

MONTHLY UPDATE

In June 2019, Caltrain's Average Weekday Ridership (AWR) increased 0.2 percent to 72,370 from calibrated June 2018 AWR of 72,207. The total number of passengers who rode Caltrain in June 2019 decreased 3.3 percent to 1,590,689 from 1,645,756 calibrated June 2018 ridership.

Farebox Revenue increased by 19.7 percent to \$10,430,319 from \$8,713,184 in June 2018. The increase was driven by higher Go Pass revenue. Effective January 2019, the Go Pass price increased to \$285 from \$237.50 and the number of eligible employees participating in the program increased.

On-time performance (OTP) for June 2019 was 90.7 percent compared to 91.9 percent OTP for June 2018. In June 2019, there were 787 minutes of delay due to mechanical issues compared to 905 minutes in June 2018.

Looking at customer service statistics, there were 8.5 complaints per 100,000 passengers in June 2019 which increased from 7.6 in June 2018.

Shuttle ridership for June 2019 decreased 5.8 percent from June 2018. For station shuttles:

- Millbrae-Broadway shuttle: 207 average daily riders
- Weekend Tamien-San Jose shuttle: 35 average daily riders

When the Marguerite shuttle ridership is removed, the impact to ridership was a decrease of 9.1 percent. Due to ongoing service issues with the Shuttle Contractor (MV Transportation) as a result of staffing shortage, there were a total of 721 DNOs (Did Not Operate) trips and a total of 11,355 DNOs in FY2019 for Caltrain in June 2019. Although DNOs have decreased in recent months for Caltrain, there are still service loses beyond previously implemented service reductions and suspensions to match available operator counts. The Belmont-Hillsdale shuttle and Menlo Park Midday Shuttle remain temporarily discontinued.

Table A

June 2019

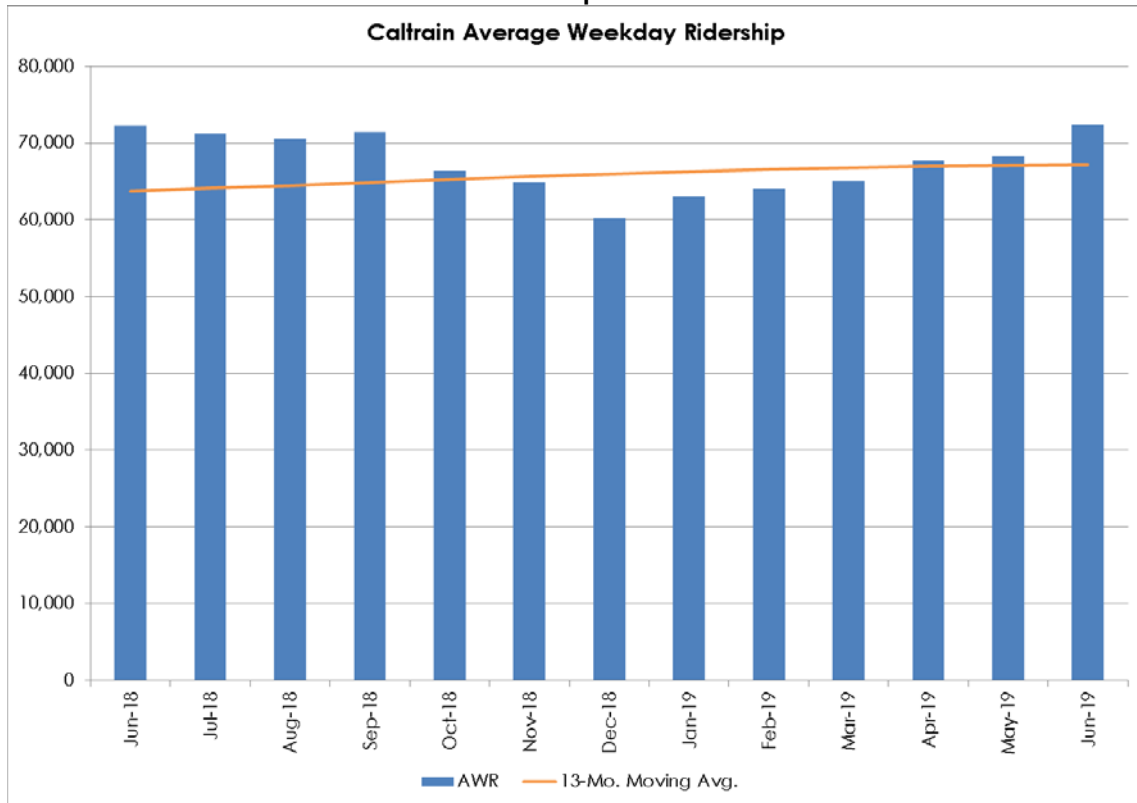
	FY2018	FY2019	% Change
Total Ridership	1,645,756*	1,590,653	-3.3%
Average Weekday Ridership	72,207*	72,370	0.2%
Total Farebox Revenue	\$ 8,713,184	\$ 10,430,319	19.7%
On-time Performance	91.9%	90.7%	-1.3%
Average Weekday Caltrain Shuttle Ridership	9,373	8,828	-5.8%

Fiscal Year to Date

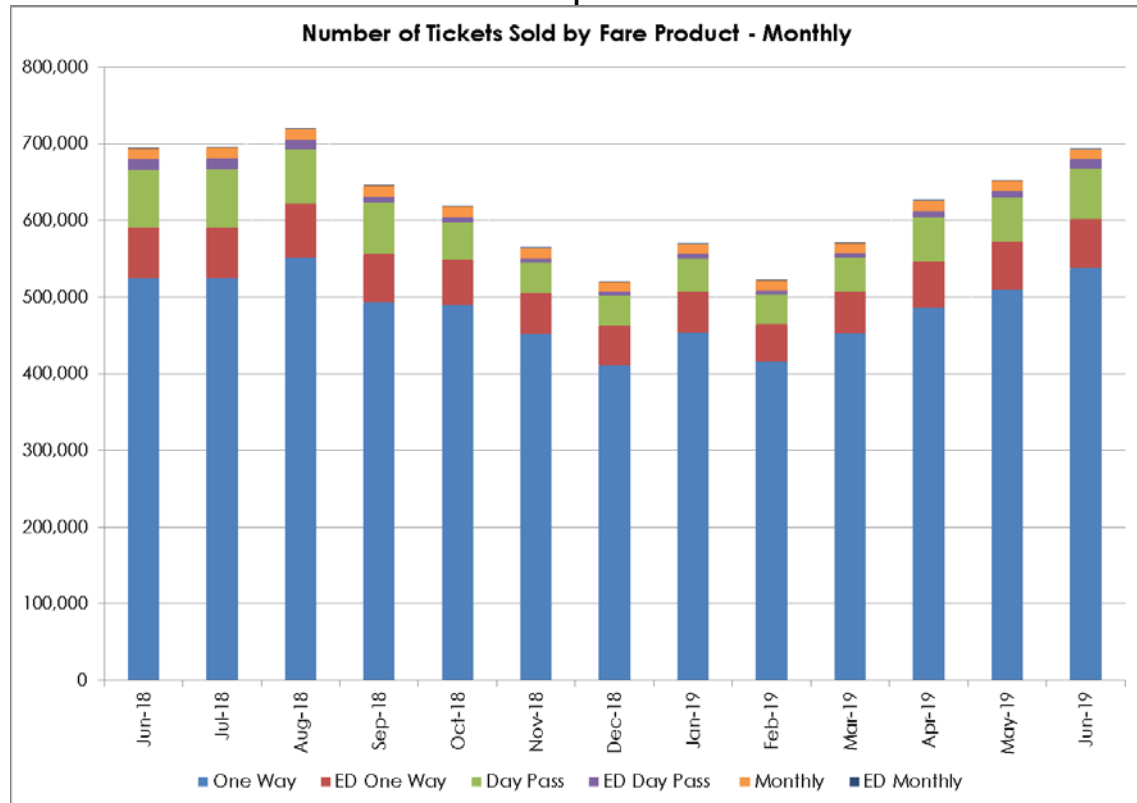
	FY2018	FY2019	% Change
Total Ridership	18,786,904*	18,398,450*	-2.1%
Average Weekday Ridership	64,403*	67,100*	4.2%
Total Farebox Revenue	\$ 88,337,012	\$ 94,811,471	7.3%
On-time Performance	94.3%	93.1%	-1.3%
Average Weekday Caltrain Shuttle Ridership	8,897	8,393	-5.7%

* = Items revised due to calibration to the ridership model

Graph A

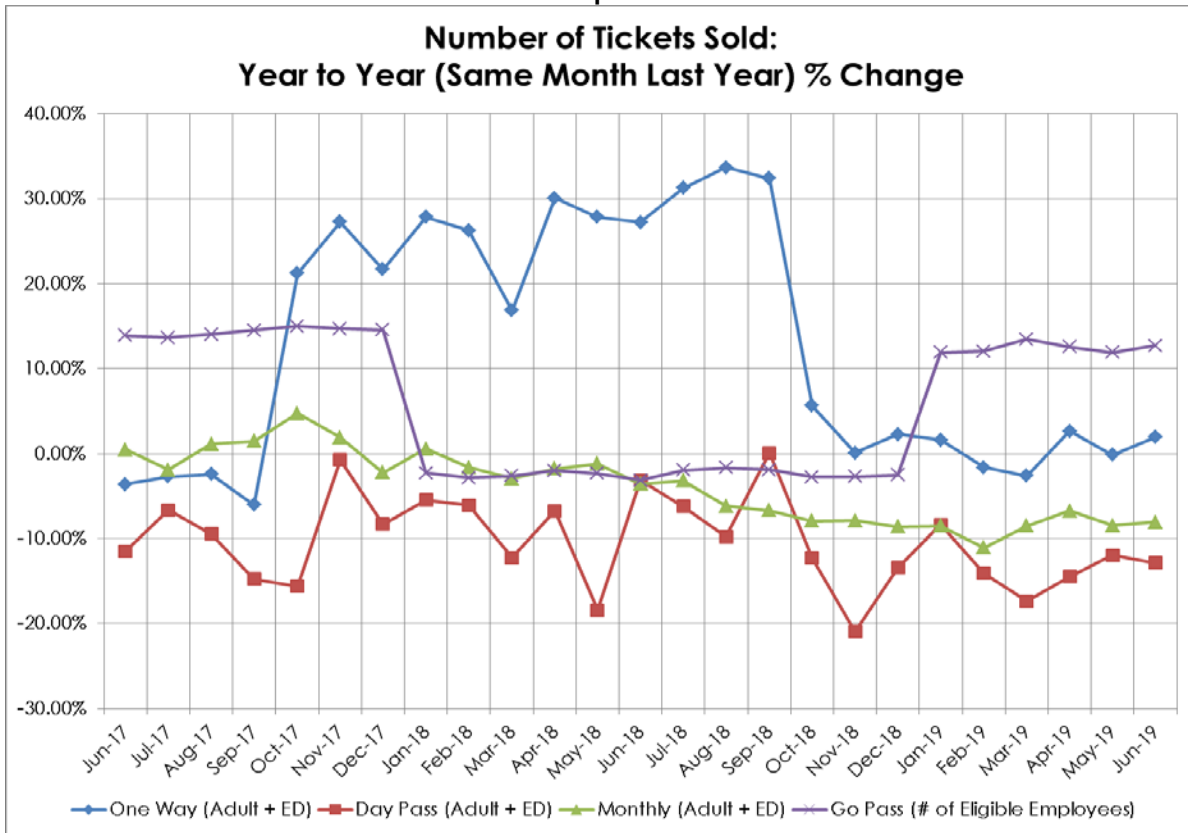


Graph B

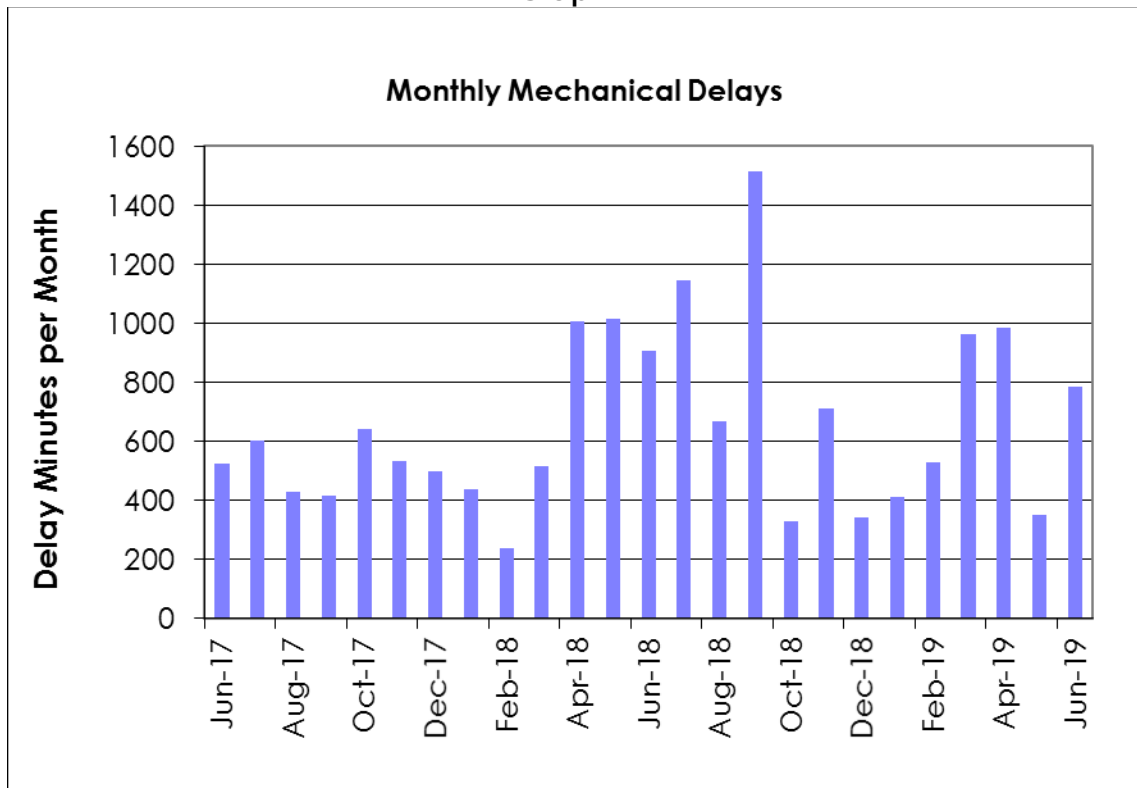


*Go Passes tracked by Monthly Number of Eligible Employees (not by Sales)

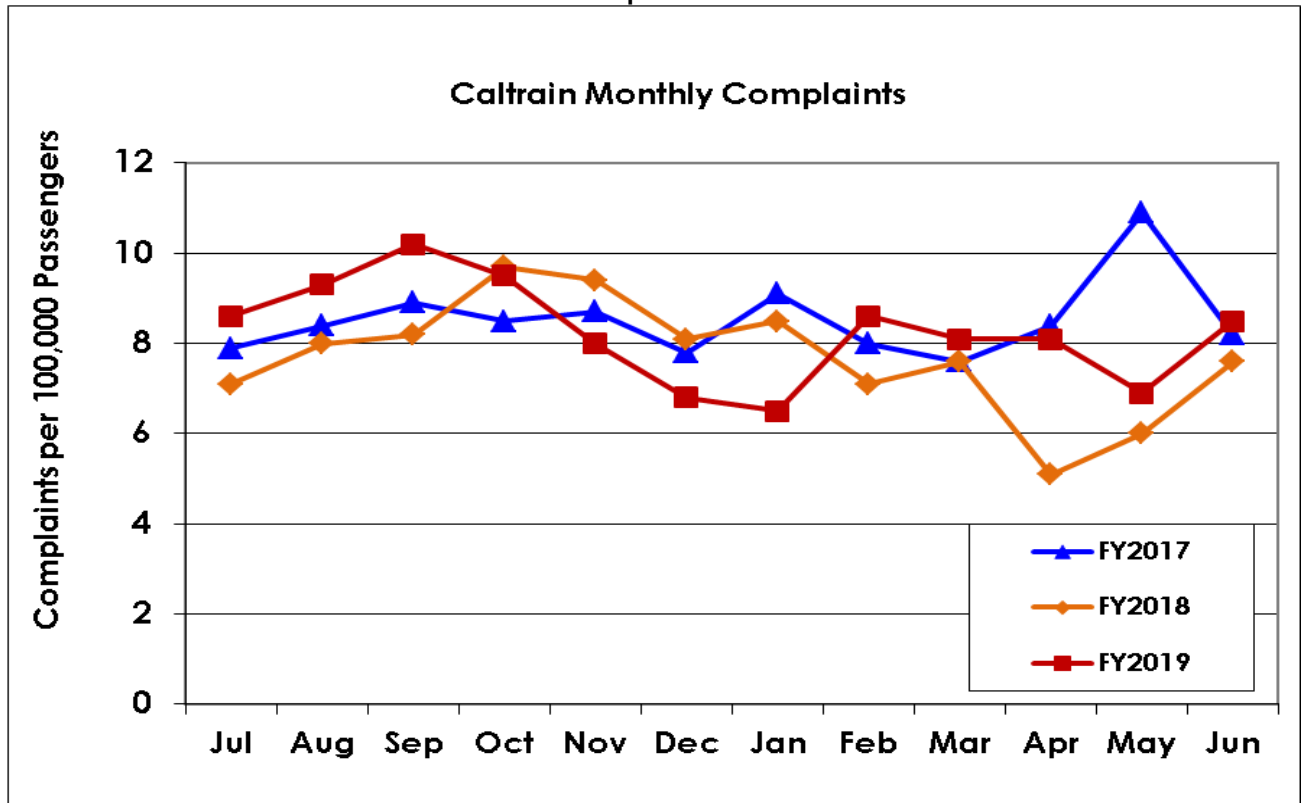
Graph C



Graph D



Graph E



Caltrain Promotions – June 2019

Gay Pride Parade – During the month of June the Communications division expanded promotion and outreach efforts for extra SF Pride service leading up to what turned out to be one of the City’s largest Pride celebrations. Staff developed digital assets (video, graphics, blog, social media content, news release) to promote the service in addition to direct press outreach, which garnered on-air radio promotion and mentions in local print news outlets. Paid social media promotion garnered over 250,000 views/impressions. In addition to promotion leading up to Pride weekend, Caltrain had ambassadors onboard the first five northbound trains, which included the special event service, to greet passengers and hand out complimentary “Ride with Pride” stickers. SF Pride weekend saw a 105% increase over 2018 (in part due to mechanical issues and different Giants game start the previous year) in boardings and alightings at San Francisco Station on Saturday, June 29, and a 15% increase over 2018 in boardings and alightings at San Francisco Station on Sunday, June 30. Several trains were reported “standing room only” throughout the weekend. SF Pride weekend also saw a spike of over 2,900 new Caltrain Mobile app downloads.

San Jose Earthquakes vs. LA Galaxy at Stanford Stadium – On Saturday, June 29, the San Jose Earthquakes played its annual California Classico at Stanford Stadium. Caltrain made special stops at Stanford Stadium station to make it more convenient for fans to get to the stadium. Staff was at the station to assist customers with directions

and Clipper cards. Communications included organic social media, updated information posted on the Special Events web page, news release/Peninsula Moves video blog and VMS/Conductor announcements. Total riders alighting and boarding at Stanford Stadium station was 987 a 15% decrease in ridership compared to 2018.

Caltrain Digital Metrics - JUNE 2019



New Followers

+ 748

Jun 19 - 178,703

May 19 - 177,955

Jun 18 - 175,134

Top Tagged Issues

1. Delay (255)

2. Bikes (83)

3. HVAC (36)

4. Clipper (28)

5. Capacity (21)

Caltrain.com Sessions

Jun 19 - 948,670

May 19 - 851,341

Jun 18 - 928,520

Social Engagement

Video Views

81,338 (May - 77,698)

Content Impressions

3,330,510 (May - 3.18M)

Interactions

39,752 (May - 70,726)

Monthly Yelp & FB Rating



(2 June reviews: 1.67/5)



@caltrain, @gocaltrain



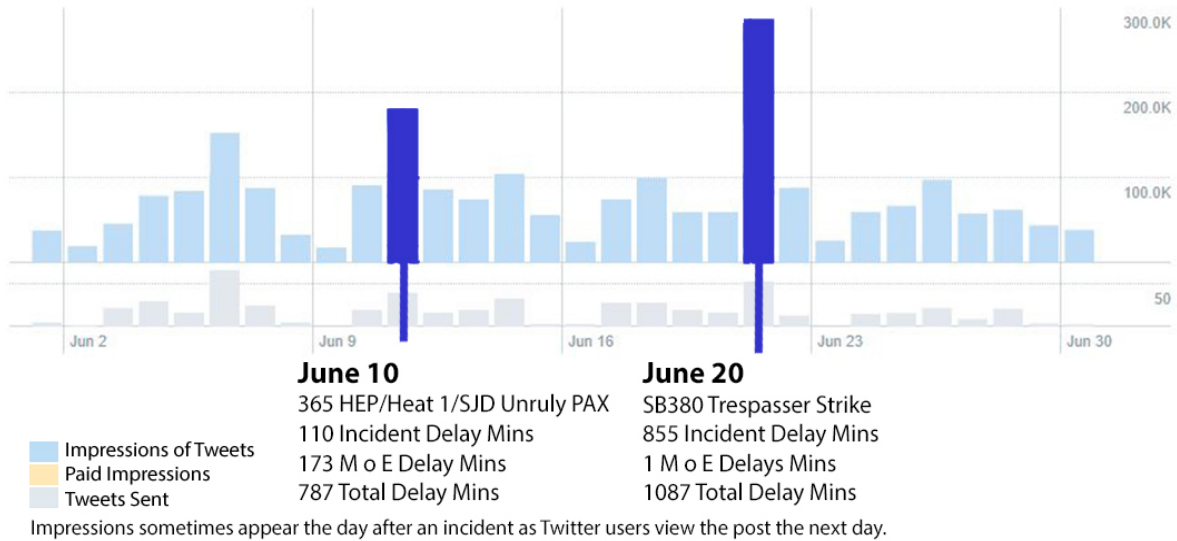
@gocaltrain



@caltrain

Twitter Impression Spikes June, 2019

Your Tweets earned **2.3M impressions** over this 30 day period



Caltrain News Coverage Report – June 2019



Total # of articles: 62 (compared to 89 in May)

Prepared by: Patrice Givens, Data Specialist 650.508.6347
 James Namba, Marketing Specialist 650.508.7924
 Jeremy Lipps, Social Media Officer 650.622.7845

**PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT**

TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: Seamus Murphy
Chief Communications Officer

SUBJECT: **STATE AND FEDERAL LEGISLATIVE UPDATE AND APPROVAL OF LEGISLATIVE PROPOSALS**

ACTION

Staff Coordinating Council recommends the Board:

1. Receive the attached Federal and State Legislative Updates
2. Approve the recommended Peninsula Corridor Joint Powers Board positions on those pieces of legislation designated for action on the attached State Legislative Matrix

SIGNIFICANCE

The 2019 Legislative Program establishes the principles that will guide the legislative and regulatory advocacy efforts. Based on those principles, staff coordinates closely with our Federal and State advocates on a wide variety of issues that are considered in Congress and the State legislature. The attached reports highlight the recent issues and actions that are relevant to the Board, and specifies those bills on which staff proposes that the District take a formal position.

Prepared By: Casey Fromson, Government and
Community Affairs Director

650-508-6493

July 11, 2019

TO: Peninsula Corridor Joint Powers Board Members

FROM: Mike Robson and Trent Smith, Edelstein Gilbert Robson & Smith, LLC
Joshua W. Shaw and Matt Robinson, Shaw / Yoder / Antwih, Inc.

RE: **STATE LEGISLATIVE UPDATE – July 2019**

Overview

The deadline for policy committees to meet and hear bills with a fiscal impact was July 11. The Legislature will break for Summer Recess on July 12, returning August 12. The last day of the first year of 2019-20 Legislative Session is September 13. We are recommending SamTrans take a support position on legislation below. Also, please see the attached bill matrix for the full list of bills we are tracking for SamTrans.

Legislation

SB 5 (Beall) Affordable Housing and Community Development Investment Program

This bill establishes the Affordable Housing and Community Development Investment Program to provide funding for local entities to pay for specified projects, including affordable housing, transit-oriented development, infill development, housing-related infrastructure, neighborhood revitalization, and infrastructure to protect communities from climate change. The bill authorizes the allocation of ERAF property tax revenues to local entities for these types of projects and requires the state General Fund to backfill schools' loss of property tax revenues. This bill establishes a statewide committee to review and approve or deny plans submitted by local agencies. **We recommend the Peninsula Corridor Joint Powers Board SUPPORT this bill.**

AB 752 (Gabriel) – Train Station Lactation Rooms. This bill requires new or renovated multimodal transit stations to include a lactation room if the construction begins after January 1, 2019. According to the author, the bill addresses a fundamental inequity for women who travel by rail or bus by ensuring that new or renovated transit stations provide a safe and adequate lactation space.

The author's office has indicated that the bill is intended to only apply to the largest transit stations. According to the bill, "multimodal transit stations" include Anaheim

Regional Transportation Intermodal Center, Bakersfield Station, Jack London Square Station in Oakland, Los Angeles Union Station, Robert J. Cabral Station in Stockton, Sacramento Valley Station in Sacramento, San Jose Diridon Station, Santa Fe Depot in San Diego, and the Salesforce Transit Center in San Francisco.

The ACLU, the American College Obstetricians and Gynecologists and the CA Breastfeeding Coalition, among others, are in support. There is no registered opposition.

The bill has passed unanimously out of all policy and fiscal committees it was heard in, as well as the Assembly Floor. It is awaiting a hearing in the Senate Appropriations Committee.

AB 1486 (Ting) – Surplus Land. This bill expands Surplus Land Act requirements for local agencies, requires local governments to include information relating to surplus lands in their housing elements and annual progress reports, and requires the state Department of Housing and Community Development to establish a database of surplus lands.

The bill is strongly opposed by local government agencies who argue that the bill imposes onerous new requirements on the disposition of surplus land and does not consider the unique needs of various local agencies and special districts.

Recent amendments to the bill modify the definition of surplus to mean “land owned in fee simple by any local agency, for which the local agency’s governing body takes formal action, in a regular public meeting, declaring that the land is surplus and not necessary for the agency’s use”. This definition replaces the previous definition opposed by local government groups. The previous definition of surplus land was defined as land not being necessary for “government operations,” a definition they argue was too narrow and did not encompass all the ways in which local agencies use land for a public purpose that are not part of daily operations.

At the bill’s June 27 hearing in the Senate Transportation Committee, the discussion among the members was focused on language regarding leases. Senator Roth reiterated concerns that the bill no longer addresses whether leases are excluded from the definition of surplus. Local agencies argue that this is a crucial fix because many agencies lease land and properties to community organizations and do not believe they should have to kick out their leasers in order to sell the land for housing. The bill’s sponsors have noted that a working group is under way to address this problem, and future language will reflect the consensus reached by the group.

The bill passed out of the Senate Governance and Finance Committee 4-3, and the Senate Housing Committee 8-3. It will be heard next in the Senate Appropriations Committee.

State Budget Enacted

On June 27, Governor Gavin Newsom [signed](#) the Fiscal Year 2019-20 State Budget. This year's budget does not contain any major policy changes affecting transportation or transit, but instead focuses on implementing the Road Repair and Accountability Act of 2017 (Chapter 5, Statutes of 2017) (SB 1). Investments made by the budget in local streets & roads, capital improvements on the state highway system, transit and housing are described in detail below.

This year's budget, based on the most recent estimates from the Department of Finance (completed as part of the May Revise), shows a slight uptick in funding for the State Transit Assistance (STA) program and various programs supporting the state's intercity and commuter rail systems. As noted in the table below, this trend does not hold for the state's Low Carbon Transit Operations Program (LCTOP) or Transit and Intercity Rail Capital Program (TIRCP), which are both supported by ongoing appropriations from the state's Cap and Trade program.

Governor's 2019-20 Budget • Revised Funding Estimates		
Source	May Revise	May Revise
STA		
Fiscal Year	2018-19	2019-20
Base (2.375%)	\$215,550	\$224,317
Gas Tax Swap (1.75%)	\$150,941	\$157,401
SB 1 (3.5%)	\$301,882	\$314,802
STA SGR (TIF)	\$105,000	\$105,000
Total	\$773,373	\$801,520
INTERCITY & COMMUTER RAIL		
Base (2.375%)*	\$215,550	\$224,317
SB 1 (0.5%)	\$43,126	\$44,972
Total	\$258,676	\$269,288
LCTOP		
Cap & Trade (5.0%)	\$149,760	\$113,087
Total	\$149,760	\$113,087
TIRCP**		
Cap & Trade (10.0%)	\$299,519	\$226,173
SB 1 (TIF)	\$245,000	\$245,000
Total	\$544,519	\$471,173
<i>* Funds also used for other Caltrans purposes</i>		
<i>**Funds included as part of five-year program</i>		

The decreased funding levels for LCTOP and TIRCP is the result of a less robust market for Cap and Trade allowances as well as off-the-top appropriations made by the Legislature in previous years, including for fire prevention.

As we previously discussed, the Governor proposed to “encourage jurisdictions to contribute to their fair share of the state’s housing supply by linking housing production to certain transportation funds.” The Administration proposed to convene stakeholders, including local governments, to assess the concept. The May Revise reaffirmed the Governor’s commitment to the effort, stating, “Housing and transportation are inextricably linked. Given this nexus and to support local jurisdictions’ ability to contribute to their fair share of the state’s housing supply, the Governor’s Budget provided that local streets and roads funds from the Road Repair and Accountability Act of 2017 (Chapter 5, Statutes of 2017) (SB 1) be distributed upon compliance with housing element law and zoning and entitling to meet updated housing goals. This linkage remains part of the housing proposal at the May Revision.” However, as of this writing, the specific proposal mentioned above has not come to fruition.

However, the Legislature and Governor did agree to some significant housing reforms and appropriated \$750 million in one-time funding for technical assistance, preparation and adoption of planning documents, and process improvements to accelerate housing production and facilitate compliance to implement the sixth cycle of the Regional Housing Need Assessment (RHNA) process (\$250 million) and funding for housing related infrastructure, including “streets, roads, or transit linkages or facilities, including, but not limited to, related access plazas or pathways, bus or transit shelters, or facilities that support pedestrian or bicycle transit” (\$500 million).

Perhaps the most controversial piece of the housing package is the expanded ability for the state to seek judicial remedies against local jurisdictions that continue to fail to adopt or implement a housing element and have been determined by a court to be out of compliance. The Court may impose fines on the jurisdiction with a minimum amount of \$10,000 and potentially up to \$100,000 per month. A local jurisdiction will have at least one year following a court order to come into compliance prior to a court imposing enhanced penalties. For any jurisdiction that fails to pay the court ordered fines, the Court may direct the State Controller to intercept any state or local funds for the purpose of paying the fines. However, only funds that could be used to pay the fines under the California Constitution are subject to being intercepted (most, if not all, transportation funds are constitutionally protected, however the courts would make this determination).

Finally, the housing package includes \$650 million in funds to assist local governments in addressing homelessness (\$275 million will be provided to cities with a population greater than 300,000, \$175 million distributed to counties, and \$190 million to Continuums of Care).

Grade Separation Funding

Below is a list of the funding sources that we are aware of and/or that have been used to fund grade separations in the recent years. The funding sources below are managed across various state agencies and departments, including the Public Utilities Commission (PUC), the California State Transportation Agency (CalSTA), the California Transportation Commission (CTC), and Caltrans.

PUC Section 190 Grade Separation Program – The Program is a [state funding program](#) to grade separate crossings between roadways and railroad tracks and provides approximately \$15 million annually, transferred from Caltrans. Agencies apply to the PUC for project funding.

State Transportation Improvement Program – The STIP, managed by Caltrans and programmed by the CTC, is primarily used to fund highway expansion projects throughout the state, but also supports grade separations. The STIP is programmed every two years (currently the 2018 STIP added \$2.2 billion in new funding). Local

agencies receive a share of STIP funding, as does the State. The STIP is funded with gasoline excise tax revenues.

Transit and Intercity Rail Capital Program – The TIRCP is managed by CalSTA and is available to fund rail and transit projects that reduce greenhouse gas emissions. The program receives funding from Cap and Trade and the recently created Transportation Improvement Fee to the tune of approximately \$500 million per year. The TIRCP is programmed over 5 years, with the most recent cycle beginning in May 2018. Caltrain received \$160 million for the CalMod project.

Proposition 1A – This \$9.9 billion Bond Act is the primary funding source for the high-speed rail project and has been used to fund a very limited number of grade separation projects in the past, including in the City of San Mateo.

Caltrain Federal Update June-July 2019

Budget & Appropriations

The House has now approved all of the appropriations bills for fiscal year (FY) 2020, except for Department of Homeland Security and Legislative Branch Appropriations bills. Nine of the ten passed bills were moved through minibus packages. The first spending package included Defense; Labor-Health and Human Services-Education; State and Foreign Operations; and Energy and Water Appropriations bills. The second spending package included: Agriculture-Food and Drug Administration; Commerce-Justice-Science; Interior-Environment; Military Construction-Veterans Affairs; and **Transportation-Housing and Urban Development** Appropriations bills. All appropriations bills in the House passed on a party line vote. The White House has threatened to veto the House Financial Services Appropriations bill, as well as the two minibus packages in their current form.

The Senate has not begun consideration of the FY 2020 appropriations bills because Senate leadership has not finalized the overall funding levels for FY 2020. And, both the House and Senate need to set the overall budget for both FY 2020 and FY 2021 to avoid sequestration (automatic spending cuts) which will occur on October 1, if Congress and the White House fail to finalize a budget deal.

The House FY 2020 Transportation-HUD appropriations bill includes \$137.1 billion. The measure would provide \$6 billion more than FY 2019 (current funding) and \$17.3 billion more than the President's budget request. Details on the bill are below:

- **Transit:** The Federal Transit Administration (FTA)'s Capital Investment Grants program would receive \$2.3 billion. Of that amount, \$1.84 billion would have to be obligated by December 31, 2021, or the Department of Transportation (DOT) would have to redistribute that money to projects already in the engineering phase. Funding details for the CIG program:
 - New Starts Projects with a current full funding grant agreement (FFGA): \$795,290,221
 - New Starts Projects without a current FFGA: \$702,709,779
 - Small Starts: \$430,768,910—this will include the **\$100 million for the Caltrain Peninsula Corridor Electrification Project**
 - The bill also includes the following language regarding the CIG program:
 - “The Committee is gravely concerned about the execution of the Capital Investment Grant program and directs the Secretary to carry out the

program in accordance with the will of Congress. The Committee notes with dismay that FTA signed only one New Starts Full-Funding grant agreement (FFGA) in 2018, no Core Capacity project FFGAs and that the vast majority of FFGAs have been Small Starts projects.”

- “The Committee directs FTA to proactively work with applicants and grantees to facilitate projects moving through the Capital Investment Grant pipeline and towards a FFGA. FTA is directed to evaluate, rate, and recommend projects for funding, and subsequently award grants to projects that meet the statutory requirements of 49 U.S.C. 5309.”
- Highways: The bill includes \$46.365 billion for federal-aid highways, the FAST Act authorized level, a \$1.1 billion increase over FY 2019. The bill also includes additional funding, \$1.75 billion, for highways (from Treasury vs. the Highway Trust Fund).
- BUILD Grants: The measure would provide \$1 billion, a \$100 million over current funding. \$20 million is included for planning and design of projects in areas of “persistent poverty.”
 - Report Language: “The Department’s prioritization of road projects came at the expense of transit-related projects, which on average received about 32 percent of awards between fiscal year 2009 and fiscal year 2016. This also contradicts the Committee’s direction to invest in a variety of transportation modes. The Committee strongly reminds the Department that highway and bridge projects have dedicated funding sources through Highway Trust Fund formula programs, and directs the Department to refocus fiscal year 2020 grants on multimodal projects which include transit, passenger rail, and pedestrian improvements. The Committee also notes that investments in projects can have benefits far beyond the project location. For example, projects in urban areas can provide benefits to rural areas. Therefore, the Committee directs the Secretary to consider the benefits of a project to the fullest extent possible and to include all relevant geographic areas.”
- Federal Railroad Administration (FRA): \$3 billion, \$96 million more than current funding.

Surface Transportation Authorization Update

On July 10, the Senate Committee on Environment and Public Works (EPW) held a [hearing](#), Investing in America’s Surface Transportation Infrastructure: The Need for a Multi-Year Reauthorization Bill, which discussed the committee’s ongoing work on a surface transportation reauthorization bill. The witnesses were:

- K. Luke Reiner, Director, Wyoming Department of Transportation
- Carlos M. Bracerias, President, American Association of State Highway and Transportation Officials (AASHTO)
- Max Kuney, President, Max J. Kuney Co.

- Vicki Arroyo, Executive Director, Georgetown Climate Center
- Carolann Wicks, Senior Policy Fellow, University of Delaware, School of Public Policy & Administration

Senate EPW Committee Chairman John Barrasso (R-WY) stated that his plans are to mark-up the committee portions (highways, safety, freight, INFA) of a reauthorization bill on August 1, and that the bill will continue the current formula programs. The EPW Committee expects to release a draft bill a week prior to the August 1 mark-up.

During the hearing, Senator Sheldon Whitehouse (D-RI) indicated that the bill includes a new competitive grant program to repair structurally deficient bridges, which is based on the [Bridge Investment Act](#) introduced by Senator Whitehouse in the last Congress. During the hearing, Senators discussed the need to implement a multi-year bill, maintain a sustainable formula funding, and the need for resilient infrastructure.

The majority of the witnesses stressed that the FAST Act authorization bill needs to be multi-year and pass on time (rather than short-term extensions), provide regulatory flexibility for states to plan their projects and spend federal funds easily, and rescind the scheduled \$7.6 billion rescission of highway contract authority that was included in the FAST Act.

While Chairman Barrasso would not comment if there will be a specific climate title, Democrats on the committee have been advocating for such measures to help with coastal infrastructure and resiliency. Other committees that have jurisdiction over other titles of the reauthorization bill have not yet announced their plans for moving forward.

House T&I Committee Holds Hearing on Capital Investment Grant (CIG) Program

On July 16, the House Committee on Transportation and Infrastructure's Subcommittee on Highways and Transit held a hearing on the "Oversight of the FTA Implementation of the Capital Investment Grant Program." K. Jane Williams, the Acting Administrator of the Federal Transit Administration (FTA), was on the first panel. The committee's discussion with Administrator Williams covered: 1) concerns about the CIG program; 2) budget reductions and new costs; 3) innovation and integration for rural communities; 4) implications of the FTA's "Dear Colleague" Letter; and 5) overall praise for the CIG program.

The second witness panel included:

- Mr. Bob Alger, President and Chief Executive Officer, The Lane Construction Corporation, on behalf of the American Road & Transportation Builders Association (ARTBA)
- Mr. Tom Gerend, Executive Director, The Kansas City Streetcar Authority
- Mr. Paul P. Skoutelas, President and CEO, American Public Transportation Association (APTA)

Subcommittee Chairwoman Eleanor Holmes Norton (D-DC) began her opening statement by expressing her concern about the increase in bureaucratic obstacles affecting the efficiency of the CIG program. She explained that the FAST Act appropriated \$2.3 billion a year to fund the CIG

program, and that the House Appropriations Committee usually appropriates funding above the authorized level because of high demand for the program. She blamed the current administration for the decrease in efficiency and funding. She fears that FTA's "Dear Colleague" letter, sent to Congress last June, will only produce higher project costs and more bureaucratic obstacles. She announced her plans to review the FAST Act before its reauthorization, reevaluate the CIG program, and if necessary amend Section 5309.

Subcommittee Ranking Member Rodney Davis (R-IL) emphasized that rural areas also need transit improvements, especially those communities supporting universities. He hoped to learn how to incentivize non-urgent urban areas to apply for CIG programs. He commended the bipartisan nature of this committee and stated that this is the fourth hearing in the series focusing on improvements for the reauthorization of the FAST Act.

Committee Chairman Peter DeFazio (D-OR) explained the committee's history of protecting the CIG program's funding over the course of the administration's proposed budget cuts. In response to every proposed cut, there has been a bipartisan appropriations bill passed to appropriate \$2.5 billion to support the CIG program. He cited a CIG oversight report that explained delays as an effect of a new environmental review process and stated that CIG projects have nearly doubled in delayed approval dates since 2017. This report also found that the new changes to the CIG approval process effected in \$845 million in extra costs. He expressed his concern about the shrinking cost shares of federal funding, decreasing from around 50% to 36.6%.

FTA Acting Administrator Williams began by announcing Secretary Chao's three goals: safety, innovation, and infrastructure investment. She explained the FTA's dedication to safety through her work in establishing state safety oversight programs, expanding the number from zero to 39 since 2017. She highlighted the FTA's Mobility on Demand program as an example of FTA's innovation. She pointed to the CIG program as the leader in modernizing and expanding public transportation across nation. CIG is authorized \$2.3 billion annually, making it the largest federal discretionary program. Speaking to the criticisms of the CIG program, she stated, "During the first two years of this Administration FTA advanced more CIG projects than the previous Administration's first two years in office – an apt comparison given that every new Administration faces a transition period.

During the first two years of this Administration – beginning January 21, 2017 through the end of 2018 – FTA signed 13 CIG construction grant agreements totaling \$3.3 billion in funding. In the same period during the previous Administration – January 21, 2009 through the end of 2010 – 10 construction grant agreements were signed totaling \$1.08 billion in funding."

As one of the successes with CIG program, Acting Administrator Williams included the **Caltrain Peninsula Corridor Electrification Project, "In 2017, the FTA executed three construction grant agreements: the Caltrain commuter rail electrification project in San Francisco..."**

She concluded by recommending local agencies pursue value capture alongside federal grants and loans.

Chinese Rolling Stock Ban Included in Senate National Defense Authorization Act (NDAA)

On June 19, the Senate incorporated legislation into their annual NDAA bill, [S. 1790](#), to prevent local transit authorities from using federal funds to purchase rolling stock from Chinese-owned manufacturers. Although it was not included in the original defense bill, Senate Armed Services Committee Chairman James Inhofe (R-OK) introduced an “amendment in the nature of a substitute” for the entire bill which incorporated this language. Three months ago, Senator John Cornyn (R-TX), Senator Tammy Baldwin (D-WI), Senate Banking Committee Chairman Mike Crapo (R-ID), and Senate Banking Committee Ranking Member Sherrod Brown (D-OH) introduced the [Transit Infrastructure Vehicle Security Act](#) in reaction to cities such as Boston, Chicago, and Los Angeles entering into contracts with CRRC Corporation, a Chinese rolling stock manufacturer.

The House version of the defense authorization bill, [H.R. 2500](#), will be voted on after the July 4th recess. The only difference between the language referring to Chinese rolling stock ban in the House and Senate version of the bill is that the House refers to rail cars specifically, while the Senate refers to both rail and bus cars.

Caltrain State Legislative Matrix 7/16/2019

Bill Number (Author)	Summary	Location	Position
<p><u>AB 5 (Gonzalez D)</u> Worker status: employees and independent contractors.</p>	<p>Existing law, as established in the case of Dynamex Operations West, Inc. v. Superior Court of Los Angeles (2018) 4 Cal.5th 903 (Dynamex), creates a presumption that a worker who performs services for a hirer is an employee for purposes of claims for wages and benefits arising under wage orders issued by the Industrial Welfare Commission. Existing law requires a 3-part test, commonly known as the “ABC” test, to establish that a worker is an independent contractor for those purposes. This bill would state the intent of the Legislature to codify the decision in the Dynamex case and clarify its application. The bill would provide that the factors of the “ABC” test be applied in order to determine the status of a worker as an employee or independent contractor for all provisions of the Labor Code and the Unemployment Insurance Code, except if a statutory exemption from employment status or from a particular obligation related to employment or where a statutory grant of employment status or a particular right related to employment applies. The bill would exempt specified professions from these provisions and instead provide that the employment relationship test for those professions shall be governed by the test adopted in S. G. Borello & Sons, Inc. v. Department of Industrial Relations (1989) 48 Cal.3d 341 if certain requirements are met. These exempt professions would include, among others, licensed insurance agents, certain licensed health care professionals, registered securities broker-dealers or investment advisers, direct sales salespersons, real estate licensees, workers providing hairstyling or barbering services, electrologists, estheticians, workers providing natural hair braiding, licensed repossession agencies who meet requirements described below, and those performing work under a contract for professional services, with another business entity, or pursuant to a subcontract in the construction industry. This bill contains other related provisions and other existing laws.</p> <p>Amended: 7/11/2019</p>	Senate Appropriations	Watch
<p><u>AB 11 (Chiu D)</u> Community Redevelopment Law of 2019.</p>	<p>(1)The California Constitution, with respect to any taxes levied on taxable property in a redevelopment project established under the Community Redevelopment Law, as it then read or may be amended, authorizes the Legislature to provide for the division of those taxes under a redevelopment plan between the taxing agencies and the redevelopment agency, as provided. This bill, the Community Redevelopment Law of 2019, would authorize a city or county, or two or more cities acting jointly, to propose the formation of an affordable housing and infrastructure agency by adoption of a resolution of intention that meets specified requirements, including that the resolution of intention include a pass through</p>	Assembly 2 year	Watch

	<p>provision and an override pass through provision, as defined. The bill would require the city or county to submit that resolution to each affected taxing entity and would authorize an entity that receives that resolution to elect to not receive a pass through payment, as provided. The bill would require the city or county that adopted that resolution to hold a public hearing on the proposal to consider all written and oral objections to the formation, as well as any recommendations of the affected taxing entities, and would authorize that city or county to adopt a resolution of formation at the conclusion of that hearing. The bill would then require that city or county to submit the resolution of intention to the Strategic Growth Council for a determination as to whether the agency would promote statewide greenhouse gas reduction goals. The bill would require the council to approve formation of the agency if it determines that formation of the agency both (1) would not result in a state fiscal impact, determined as specified by the Controller, that exceeds a specified amount and (2) would promote statewide greenhouse gas reduction goals. The bill would deem an agency to be in existence as of the date of the council's approval. The bill would require the council to establish a program to provide technical assistance to a city or county desiring to form an agency pursuant to these provisions. This bill contains other related provisions and other existing laws.</p> <p>Amended: 4/11/2019</p>		
<p><u>AB 145 (Frazier D)</u> High-Speed Rail Authority: Senate confirmation.</p>	<p>Existing law creates the High-Speed Rail Authority with specified powers and duties relative to development and implementation of a high-speed train system. The authority is composed of 11 members, including 5 voting members appointed by the Governor, 4 voting members appointed by the Legislature, and 2 nonvoting legislative members. This bill would provide that the members of the authority appointed by the Governor are subject to appointment with the advice and consent of the Senate.</p> <p>Introduced: 12/13/2018</p>	Assembly 2 year	Watch
<p><u>AB 553 (Melendez R)</u> High-speed rail bonds: housing.</p>	<p>The California High-Speed Rail Act creates the High-Speed Rail Authority to develop and implement a high-speed rail system in the state. The Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century, approved by the voters as Proposition 1A at the November 4, 2008, general election, provides for the issuance of \$9 billion in general obligation bonds for high-speed rail purposes and \$950 million for other related rail purposes. Article XVI of the California Constitution requires measures authorizing general obligation bonds to specify the single object or work to be funded by the bonds and further requires a bond act to be approved by a 2/3 vote of each house of the Legislature and a majority of the voters. This bill would provide that no further bonds shall be sold for high-speed rail purposes pursuant to the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century, except as specifically provided with respect to an existing appropriation for high-speed rail purposes for early improvement projects in the Phase I blended system. The bill, subject to the above exception, would require</p>	Assembly Transportation	Watch

	<p>redirection of the unspent proceeds received from outstanding bonds issued and sold for other high-speed rail purposes before the effective date of these provisions, upon appropriation, for use in retiring the debt incurred from the issuance and sale of those outstanding bonds. The bill, subject to the above exception, would also require the net proceeds of other bonds subsequently issued and sold under the high-speed rail portion of the bond act to be made available, upon appropriation, to the Department of Housing and Community Development's Multifamily Housing Program. The bill would make no changes to the authorization under the bond act for issuance of \$950 million for rail purposes other than high-speed rail. These provisions would become effective only upon approval by the voters at the next statewide general election. This bill contains other related provisions.</p> <p>Amended: 3/13/2019</p>		
<p><u>AB 752 (Gabriel D)</u></p> <p>Public transit: transit stations: lactation rooms.</p>	<p>Existing law requires the airport manager of an airport operated by a city, county, city and county, or airport district that conducts commercial operations and that has more than one million enplanements a year, or upon new terminal construction or the replacement, expansion, or renovation of an existing terminal, to provide a room or other location at each airport terminal behind the airport security screening area for members of the public to express breast milk in private. This bill would require specific multimodal transit stations, and multimodal transit stations that meet certain criteria, that begin construction or a renovation on or after January 1, 2021, to include a lactation room. To the extent the bill imposes additional duties on a local agency, the bill would impose a state-mandated local program. This bill contains other related provisions and other existing laws.</p> <p>Amended: 7/11/2019</p>	Senate Appropriations	Watch
<p><u>AB 1486 (Ting D)</u></p> <p>Surplus land.</p>	<p>(1)Existing law prescribes requirements for the disposal of surplus land by a local agency. Existing law defines "local agency" for these purposes as every city, county, city and county, and district, including school districts of any kind or class, empowered to acquire and hold real property. Existing law defines "surplus land" for these purposes as land owned by any local agency that is determined to be no longer necessary for the agency's use, except property being held by the agency for the purpose of exchange. Existing law defines "exempt surplus land" to mean land that is less than 5,000 square feet in area, less than the applicable minimum legal residential building lot size, or has no record access and is less than 10,000 square feet in area, and that is not contiguous to land owned by a state or local agency and used for park, recreational, open-space, or affordable housing. This bill would expand the definition of "local agency" to include sewer, water, utility, and local and regional park districts, joint powers authorities, successor agencies to former redevelopment agencies, housing authorities, and other political subdivisions of this state and any instrumentality thereof that is empowered to acquire and hold real property, thereby requiring these entities to comply with these requirements for the disposal of surplus land. The bill would specify that the</p>	<p>Senate Appropriations</p> <p>8/12/2019 10 a.m. - John L. Burton Hearing Room (4203) SENATE APPROPRIATIONS, PORTANTINO, Chair</p>	Watch

	<p>term “district” includes all districts within the state, and that this change is declaratory of existing law. The bill would revise the definition of “surplus land” to mean land owned in fee simple by any local agency, for which the local agency’s governing body takes formal action, in a regular public meeting, declaring that the land is surplus and is not necessary for the agency’s use, as defined. The bill would provide that “surplus land” for these purposes includes land held in the Community Redevelopment Property Trust Fund and land that has been designated in the long-range property management plan, either for sale or for future development, as specified. The bill would also broaden the definition of “exempt surplus land” to include specified types of lands. This bill contains other related provisions and other existing laws.</p> <p>Amended: 6/27/2019</p>		
<p><u>ACA 1 (Aquiari-Curry D)</u></p> <p>Local government financing: affordable housing and public infrastructure: voter approval.</p>	<p>(1)The California Constitution prohibits the ad valorem tax rate on real property from exceeding 1% of the full cash value of the property, subject to certain exceptions. This measure would create an additional exception to the 1% limit that would authorize a city, county, city and county, or special district to levy an ad valorem tax to service bonded indebtedness incurred to fund the construction, reconstruction, rehabilitation, or replacement of public infrastructure, affordable housing, or permanent supportive housing, or the acquisition or lease of real property for those purposes, if the proposition proposing that tax is approved by 55% of the voters of the city, county, or city and county, as applicable, and the proposition includes specified accountability requirements. The measure would specify that these provisions apply to any city, county, city and county, or special district measure imposing an ad valorem tax to pay the interest and redemption charges on bonded indebtedness for these purposes that is submitted at the same election as this measure. This bill contains other related provisions and other existing laws.</p> <p>Amended: 3/18/2019</p>	Assembly Third Reading	Supported June 2019
<p><u>SB 1 (Atkins D)</u></p> <p>California Environmental, Public Health, and Workers Defense Act of 2019.</p>	<p>(1)The federal Clean Air Act regulates the discharge of air pollutants into the atmosphere. The federal Clean Water Act regulates the discharge of pollutants into water. The federal Safe Drinking Water Act establishes drinking water standards for drinking water systems. The federal Endangered Species Act of 1973 generally prohibits activities affecting threatened and endangered species listed pursuant to that act unless authorized by a permit from the United States Fish and Wildlife Service or the National Marine Fisheries Service, as appropriate. This bill would require specified agencies to take prescribed actions regarding certain federal requirements and standards pertaining to air, water, and protected species, as specified. By imposing new duties on local agencies, this bill would impose a state-mandated local program. This bill contains other related provisions and other existing laws.</p> <p>Amended: 7/1/2019</p>	Assembly Appropriations	Watch

<p><u>SB 4 (McGuire D)</u> Housing.</p>	<p>(1)The Planning and Zoning Law requires a city or county to adopt a general plan for land use development within its boundaries that includes, among other things, a housing element. Existing law requires an attached housing development to be a permitted use, not subject to a conditional use permit, on any parcel zoned for multifamily housing if at least certain percentages of the units are available at affordable housing costs to very low income, lower income, and moderate-income households for at least 30 years and if the project meets specified conditions relating to location and being subject to a discretionary decision other than a conditional use permit. Existing law provides for various incentives intended to facilitate and expedite the construction of affordable housing. This bill would authorize a development proponent of a neighborhood multifamily project or eligible transit-oriented development (TOD) project located on an eligible parcel to submit an application for a streamlined, ministerial approval process that is not subject to a conditional use permit. The bill would define a “neighborhood multifamily project” to mean a project to construct a multifamily unit of up to 2 residential dwelling units in a nonurban community, as defined, or up to 4 residential dwelling units in an urban community, as defined, that meets local height, setback, and lot coverage zoning requirements as they existed on July 1, 2019. The bill would define an “eligible TOD project” as a project located in an urban community, as defined, that meets specified height requirements, is located within 1/2 mile of an existing or planned transit station parcel or entrance, and meets other floor area ratio, density, parking, and zoning requirements. The bill also requires an eligible TOD project development proponent to develop a plan that ensures transit accessibility to the residents of the development in coordination with the applicable local transit agency. The bill would require specified TOD projects to comply with specified affordability, prevailing wage, and skilled and trained workforce requirements. The bill would also define “eligible parcel” to mean a parcel located within a city or county that has unmet regional housing needs and has produced fewer housing units than jobs over a specified period; is zoned to allow residential use and qualifies as an infill site; is not located within a historic district, coastal zone, very high fire hazard severity zone, or a flood plain; the development would not require the demolition of specified types of affordable housing; the parcel is not eligible for development under existing specified transit-oriented development authorizations; and the parcel in question has been fully reassessed on or after January 1, 2021, to reflect its full cash value, following a change in ownership. This bill contains other related provisions and other existing laws.</p> <p>Amended: 4/10/2019</p>	<p>Senate 2 year</p>	<p>Watch</p>
<p><u>SB 5 (Beall D)</u> Affordable Housing and Community Development Investment Program.</p>	<p>Existing property tax law requires the county auditor, in each fiscal year, to allocate property tax revenue to local jurisdictions in accordance with specified formulas and procedures, subject to certain modifications. Existing law requires an annual reallocation of property tax revenue from local agencies in each county to the Educational Revenue Augmentation Fund (ERAF) in that county for allocation</p>	<p>Assembly Appropriations</p>	<p>Recommend Support</p>

	<p>to specified educational entities. This bill would establish in state government the Affordable Housing and Community Development Investment Program, which would be administered by the Affordable Housing and Community Development Investment Committee. The bill would authorize a city, county, city and county, joint powers agency, enhanced infrastructure financing district, affordable housing authority, community revitalization and investment authority, transit village development district, or a combination of those entities, to apply to the Affordable Housing and Community Development Investment Committee to participate in the program and would authorize the committee to approve or deny plans for projects meeting specific criteria. The bill would also authorize certain local agencies to establish an affordable housing and community development investment agency and authorize an agency to apply for funding under the program and issue bonds, as provided, to carry out a project under the program. This bill contains other related provisions and other existing laws.</p> <p>Amended: 6/17/2019</p>		
<p><u>SB 43 (Allen D)</u></p> <p>Carbon intensity and pricing: retail products.</p>	<p>The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases. The state board is required to approve a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions level in 1990 to be achieved by 2020 and to ensure that statewide greenhouse gas emissions are reduced to at least 40% below the 1990 level by 2030. This bill would require the state board, no later than January 1, 2022, to submit a report to the Legislature on the findings from a study, as specified, to determine the feasibility and practicality of assessing the carbon intensity of all retail products subject to the tax imposed pursuant to the Sales and Use Tax Law, so that the total carbon equivalent emissions associated with such retail products can be quantified. This bill contains other existing laws.</p> <p>Amended: 7/1/2019</p>	<p>Assembly 2 year</p>	<p>Watch</p>
<p><u>SB 50 (Wiener D)</u></p> <p>Planning and zoning: housing development: streamlined approval: incentives.</p>	<p>(1) Existing law authorizes a development proponent to submit an application for a multifamily housing development that satisfies specified planning objective standards to be subject to a streamlined, ministerial approval process, as provided, and not subject to a conditional use permit. This bill would authorize a development proponent of a neighborhood multifamily project located on an eligible parcel to submit an application for a streamlined, ministerial approval process that is not subject to a conditional use permit. The bill would define a "neighborhood multifamily project" to mean a project to construct a multifamily structure on vacant land, or to convert an existing structure that does not require substantial exterior alteration into a multifamily structure, consisting of up to 4 residential dwelling units and that meets local height, setback, and lot coverage zoning requirements as they existed on July 1, 2019. The bill would also define "eligible parcel" to mean a parcel that meets specified requirements, including requirements relating to the location of the parcel and restricting the demolition of</p>	<p>Senate 2 year</p>	<p>Watch</p>

	<p>certain housing development that may already exist on the site. This bill contains other related provisions and other existing laws.</p> <p>Amended: 6/4/2019</p>		
<p><u>SB 128 (Beall D)</u></p> <p>Public contracts: Best Value Construction Contracting for Counties Pilot Program.</p>	<p>Existing law establishes a pilot program to allow the Counties of Alameda, Los Angeles, Riverside, San Bernardino, San Diego, San Mateo, Solano, and Yuba to select a bidder on the basis of best value, as defined, for construction projects in excess of \$1,000,000. Existing law also authorizes these counties to use a best value construction contracting method to award individual annual contracts, not to exceed \$3,000,000, for repair, remodeling, or other repetitive work to be done according to unit prices, as specified. Existing law establishes procedures and criteria for the selection of a best value contractor and requires that bidders verify specified information under oath. Existing law requires the board of supervisors of a participating county to submit a report that contains specified information about the projects awarded using the best value procedures described above to the appropriate policy committees of the Legislature and the Joint Legislative Budget Committee before January 1, 2020. Existing law repeals the pilot program provisions on January 1, 2020. This bill would authorize the County of Santa Clara and the County of Monterey to utilize this pilot program and would extend the operation of those provisions until January 1, 2025. The bill, instead, would require the board of supervisors of a participating county to submit the report described above to the appropriate policy committees of the Legislature and the Joint Legislative Budget Committee before March 1, 2024. By expanding the crime of perjury, this bill would impose a state-mandated local program. This bill contains other related provisions and other existing laws.</p> <p>Amended: 7/10/2019</p>	Assembly Appropriations	<p>Recommend Watch</p> <p>(Supported April 2019; gut and amended 6/19/19)</p>
<p><u>SB 146 (Beall D)</u></p> <p>Peninsula Rail Transit District.</p>	<p>Existing law, operative under certain conditions, re-designates the Peninsula Corridor Study Joint Powers Board as the Peninsula Rail Transit District, comprised of 9 members appointed from various governing bodies situated in the City and County of San Francisco and the Counties of San Mateo and Santa Clara, with specified powers. This bill would repeal the provisions relating to the Peninsula Rail Transit District.</p> <p>Introduced: 1/18/2019</p>	Assembly Transportation	Watch
<p><u>SB 147 (Beall D)</u></p> <p>High-Speed Rail Authority.</p>	<p>The California High-Speed Rail Act creates the High-Speed Rail Authority to develop and implement a high-speed train system in the state, with specified powers and duties. Existing law authorizes the authority, among other things, to keep the public informed of its activities. This bill would revise that provision to instead authorize the authority to keep the public informed through activities, including, but not limited to, community outreach events, public information workshops, and newsletters posted on the authority's internet website.</p> <p>Introduced: 1/18/2019</p>	Assembly Transportation	Watch

<p><u>SB 277 (Beall D)</u></p> <p>Road Maintenance and Rehabilitation Program: Local Partnership Program.</p>	<p>Under existing law, the California Transportation Commission allocates various state and federal transportation funds through specified state programs to local and regional transportation agencies to implement projects consistent with the requirements of those programs. Existing law continuously appropriates \$200,000,000 annually from the Road Maintenance and Rehabilitation Account for allocation by the commission for a program commonly known as the Local Partnership Program to local or regional transportation agencies that have sought and received voter approval of taxes or that have imposed certain fees, which taxes or fees are dedicated solely for road maintenance and rehabilitation and other transportation improvement projects. Existing law requires the commission, in cooperation with the Department of Transportation, transportation planning agencies, county transportation commissions, and other local agencies, to develop guidelines for the allocation of those moneys. This bill would require the commission to annually deposit 85% of these funds into the Local Partnership Formula Subaccount, which the bill would create, and 15% of these funds in the Small Counties and Uniform Developer Fees Competitive Subaccount, which the bill would create. The bill would require the commission to apportion the funds in the Local Partnership Formula Subaccount pursuant to a specified formula to local or regional transportation agencies that meet certain eligibility requirements. The bill would require the commission to allocate funds in the Small Counties and Uniform Developer Fees Competitive Subaccount through a competitive grant program to local or regional transportation agencies that meet other eligibility requirements. The bill would require the commission, in conjunction with transportation planning agencies and county transportation commissions, and in consultation with other local agencies, to develop separate guidelines for the apportionment or allocation of the funds in each subaccount that, among other things, establish the types of eligible projects consistent with specified requirements. In order to receive an apportionment of funds from the Local Partnership Formula Subaccount from the commission in a funding cycle, the bill would require an eligible entity to submit to the commission a list of projects proposed to be funded with the funds. The bill would require the commission to approve a project list submitted by a local or regional transportation agency unless a project identified in the project list is not consistent with the project eligibility guidelines.</p> <p>Amended: 7/1/2019</p>	<p>Assembly Appropriations</p>	<p>Watch</p>
<p><u>SB 279 (Galgiani D)</u></p> <p>High-Speed Rail Authority: supplemental business plan.</p>	<p>The California High-Speed Rail Act creates the High-Speed Rail Authority to develop and implement a high-speed rail system in the state. The Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century, approved by the voters as Proposition 1A at the November 4, 2008, general election, provides for the issuance of \$9 billion in general obligation bonds for high-speed rail purposes and \$950 million for other related rail purposes. Existing law requires the authority to prepare, publish, adopt, and submit to the Legislature a business plan containing specified elements, by May 1, 2014, and every 2 years thereafter. This</p>	<p>Senate 2 year</p>	<p>Watch</p>

	<p>bill would require the authority to develop and adopt a supplemental business plan for the estimated cost of completing the section of the high-speed rail system located between the City of Merced and the northern end of the initial operating segment in the County of Madera on or before February 1, 2020, and submit the supplemental business plan to the Director of Finance, a specified peer review group, and certain legislative committees.</p> <p>Amended: 3/27/2019</p>		
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**PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT**

TO: Joint Powers Board

THROUGH Jim Hartnett
Executive Director

FROM: Derek Hansel David Olmeda
Chief Financial Officer Chief Operating Office, Bus

SUBJECT: **AUTHORIZE AWARD OF CONTRACT TO PROVIDE REPAIR SERVICES FOR
MEI/SODECO (BNA57P) BILL NOTE ACCEPTORS**

ACTION

Staff Coordinating Council recommends the Board:

1. Award a contract to the lowest responsive and responsible bidder, Team One Repair, Inc. (Team One) of Suwanee, Georgia, to provide repair services for MEI/Sodeco (BNA57P) bill note acceptors (BNAs) (Services) for a not to exceed amount of \$345,000 for a five-year term. As a requirements-based contract, no amount of compensation is guaranteed.
2. Authorize the Executive Director, or his designee, to execute a contract with Team One in full conformity with the terms and conditions of the solicitation documents and in a form approved by legal counsel.

SIGNIFICANCE

Award of this contract will provide the Peninsula Corridor Joint Powers Board (JPB) with a qualified and experienced contractor to provide Services on an as-needed basis.

BUDGET IMPACT

Funds to support the Services are included in the adopted Fiscal Year 2020 Operating Budget and will be included in future operating budgets.

BACKGROUND

BNAs are an internal component of automated ticket vending machines (TVMs) located at stations along the Caltrain right-of-way that are maintained by the San Mateo County Transit District TVM maintenance staff. Staff remove BNAs from TVMs and ship them to the contractor for required cleaning and repair services. Staff replaces the removed BNAs in the TVMs with another component to allow the TVMs to continue in operation while the BNAs are being cleaned and repaired.

Staff issued an Invitation for Bids (IFB) and advertised it on the agency's procurement

website. Email notifications were sent to potential bidders registered in the procurement website which includes Disadvantaged and Small Business Enterprise (D/SBE) firms. Subcontracting opportunities for SBEs in this contract could not be identified, so the SBE preference was not applied to this contract. A pre-bid meeting was held and one potential bidder attended via a conference call. Of the bids received, neither firm is a D/SBE. Two bids were received as follows:

- | | |
|---------------------------------------|--------------|
| 1. Team One Repair, Inc., Suwanee, GA | \$344,341.25 |
| 2. VenTek Transit Inc., Petaluma, CA | \$353,688.60 |

Team One met all of the bid requirements and was determined to be the lowest, responsive and responsible bidder with the exception of minor irregularities, which legal counsel determined could be waived. Team One was established in 2000 and is certified by MEI/Sodeco to service and repair BNAs from their office in Quincy, California. The firm provides services to Sacramento Regional Transit District and Washington Metropolitan Area Transit Authority. Since 2016, on an as-needed basis, Team One has satisfactorily serviced JPB TVM coin changer cassettes, which count coins and provide change back to the customer.

The increase in contract amount between the current contract and submitted bids is due to the fact that the BNAs are no longer being made or supported by the manufacturer, MEI/Sodeco. As a result, the price of parts has increased by 70% due to scarcity and labor costs have increased by 31% due to the wear and tear of internal components in the BNAs requiring more detailed servicing and repairs. BNA units will be shipped collect to Quincy, California on Team One's overnight freight carrier's account.

The incumbent provider, VenTek Transit Inc., (VenTek) was awarded a five-year contract effective August 1, 2014 for an estimated amount of \$235,290. The contract was extended for up to five months on a month-to-month basis to provide sufficient time for the solicitation process to be completed.

Procurement Administrator II: Brian Geiger	650.508.7973
Project Manager: Gary Cox, Maintenance Supervisor	650.508.7986

RESOLUTION NO. 2019-

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

* * *

**AWARDING A CONTRACT TO TEAM ONE REPAIR, INC. TO PROVIDE
REPAIR SERVICES FOR MEI/SODECO (BNA57P) BILL NOTE ACCEPTORS
FOR A NOT-TO-EXCEED AMOUNT OF \$345,000 FOR A FIVE-YEAR TERM**

WHEREAS, the Peninsula Corridor Joint Powers Board (JPB) issued an Invitation for Bids (IFB) for repair services for MEI/Sodeco (BNA57P) bill note acceptors; and

WHEREAS, in response to the IFB, the JPB received two bids; and

WHEREAS, staff and legal counsel have reviewed the bids and determined Team One Repair, Inc. (Team One) of Suwanee, Georgia is the lowest, responsive and responsible bidder; and

WHEREAS, Staff Coordinating Council recommends, and the Executive Director concurs, that a contract be awarded to Team One, whose bid meets the requirements of the solicitation document and contains only minor irregularities that the JPB may waive.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Peninsula Corridor Joint Powers Board hereby awards a contract to Team One Repair, Inc. to provide repair services for MEI/Sodeco (BNA57P) bill note acceptors for a not-to-exceed amount of \$345,000 for a five-year term, inclusive of all taxes, delivery and other costs; and

BE IT FURTHER RESOLVED that the Executive Director or his designee is authorized to execute a contract on behalf of the Peninsula Corridor Joint Powers Board with Team One in full conformity with the terms and conditions of the solicitation documents and in a form approved by legal counsel.

Regularly passed and adopted this 1st day of August, 2019, by the following vote:

AYES:

NOES:

ABSENT:

Chair, Peninsula Corridor Joint Powers Board

ATTEST:

JPB Secretary

PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT

TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: Derek Hansel
Chief Financial Officer

Michelle Bouchard
Chief Operating Officer, Rail

SUBJECT: **AWARD OF CONTRACT FOR ON-CALL DESIGN REVIEW SERVICES**

ACTION

Staff Coordinating Council recommends the Board:

1. Award a contract to TranSystems Corporation of Berkeley, California (TranSystems) for a not-to-exceed amount of \$2,900,000 to provide on-call design review services (Services) for a five-year term at the negotiated rates specified in the proposal.
2. Authorize the Executive Director, or his designee, to execute a contract with the above firm in full conformity with the terms and conditions of the solicitation documents and in a form approved by legal counsel.

SIGNIFICANCE

The Peninsula Corridor Joint Powers Board (JPB) has a continued need for Services for completion of current and future capital program construction projects. Approval of the above actions will provide the JPB with a qualified firm to provide the needed Services. All work performed under this contract will be performed under Work Directives (WDs) issued on an as-needed, project-by-project basis. The contract will not obligate the JPB to purchase any specific level of service from TranSystems.

BUDGET IMPACT

Each WD will contain a defined scope of services, with a discrete schedule and budget. WDs will be funded from approved capital and/or operating budgets using a variety of funding sources that may include Federal, State, and local revenues and grants.

BACKGROUND

From time-to-time, the JPB has a need to supplement existing staff with Services when in-house expertise is unavailable or time constraints prevent staff from performing analysis and reviews. The consultant ensures adherence to the JPB's engineering standards for capital projects by reviewing plans and designs, calculations and specifications for rail infrastructures.

A Request for Proposals (RFP) was issued and advertised on the agency's procurement website. A pre-proposal conference was held and 12 potential proposers attended. Six firms submitted proposals:

1. TranSystems Corporation, Berkeley, California
2. Gannett Fleming, Inc., San Francisco, California
3. Auriga Corporation, Milpitas, California
4. Mott MacDonald, LLC, San Ramon, California
5. EXP U.S. Services, Inc., San Francisco, California
6. Rail Surveyors and Engineers, Inc., Belmont, California

In accordance with federal and state law governing the procurement of architectural and engineering services, proposals were evaluated, scored and ranked solely based on qualifications. A Selection Committee (Committee) composed of qualified staff from the Engineering and Maintenance department, and a subject matter expert from the Capital Program Delivery department, reviewed, scored and ranked the proposals in accordance with the following criteria:

- Qualifications and Experience of Key Personnel 25 points
- Qualifications and Experience of Firm 30 points
- Project Understanding and Management Plan 25 points
- Quality Control Plan 20 points
- Small Business Enterprise Preference 5 points

After initial review and screening of technical proposals, five of the six firms were found to be in the competitive range and were invited to interviews after which the Committee rescored all proposals and reached a final consensus ranking. The Committee determined TranSystems to be the highest ranked firm. The firm possesses the requisite experience and qualifications required for successful performance of the Services, as further defined in the solicitation documents. Staff successfully negotiated contract terms and conditions, including price, with TranSystems and determined the prices to be fair, reasonable, and consistent with those currently paid by the JPB, and other public agencies in the Bay Area, for similar services.

Staff assessed Small Business Enterprise (SBE) preference points to the proposers for their proposed utilization of SBEs. TranSystems committed to utilizing a certified SBE and Disadvantaged Business Enterprise subcontractor for 14% of the total contract value and received 1.1 points out of the 5 points available to be awarded.

On-call design review services are currently provided by TranSystems under a contract for \$2,200,000, which was awarded in 2014. The contract expires in August 2019.

Procurement Administrator II: Kevin Kelley 650.622.7892
Project Manager: Bin Zhang, Manager, Engineering Support 650.508.7999

RESOLUTION NO. 2019-

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

* * *

**AWARDING A CONTRACT TO TRANSYSTEMS CORPORATION
FOR PROVISION OF ON-CALL DESIGN REVIEW SERVICES FOR A
NOT-TO-EXCEED AMOUNT OF \$2,900,000 FOR A FIVE-YEAR TERM**

WHEREAS, the Peninsula Corridor Joint Powers Board (JPB) issued a Request for Proposals (RFP) for on-call design review services; and

WHEREAS, in response to the RFP, the JPB received six proposals; and

WHEREAS, a Selection Committee (Committee) scored and ranked all the proposals according to the qualifications-based evaluation criteria set forth in the RFP, and determined that five firms were in the competitive range; and

WHEREAS, staff reviewed the proposals found to be in the competitive range and have determined that the proposals comply with the requirements of the solicitation documents; and

WHEREAS, the Committee completed its evaluation process, including interviews and negotiation of cost with the highest-ranked proposer, and determined that TranSystems Corporation of Berkeley, California possesses the necessary qualifications and requisite experience to successfully perform the scope of services defined in the solicitation documents, and has agreed to perform the specified services at a fair and reasonable price; and

WHEREAS, Staff Coordinating Council recommends, and the Executive Director concurs, that the Board of Directors award a contract to TranSystems Corporation for on-call design review services for a not-to-exceed amount of \$2,900,000 for a five-year term.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Peninsula Corridor Joint Powers Board hereby awards a contract for on-call design review services to TranSystems Corporation for a not-to-exceed amount of \$2,900,000 for a five-year term; and

BE IT FURTHER RESOLVED the Executive Director, or his designee, is authorized to execute a contract with TranSystems Corporation in full conformity with all of the terms and conditions of the RFP and negotiated agreement, and in a form approved by legal counsel.

Regularly passed and adopted this 1st day of August, 2019 by the following vote:

AYES:

NOES:

ABSENT:

Chair, Peninsula Corridor Joint Powers Board

ATTEST:

JPB Secretary

PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT

TO: Joint Powers Board

THROUGH Jim Hartnett
Executive Director

FROM: Joan Cassman
Legal Counsel

SUBJECT: **INTRODUCTION OF AMENDMENT TO RULES OF PROCEDURE TO CHANGE
REGULAR MEETING START TIME TO 9:00 AM**

ACTION

Staff Coordinating Council recommends the Board:

1. Introduce an amendment to Section 4 of the Rules of Procedure (Rules) to change the start time of regular meetings from 10:00 a.m. to 9:00 a.m.
2. Establish the start time of the September 5, 2019 meeting as 9:00 a.m.

SIGNIFICANCE

This action will permit the Board of Directors (Board) to take action at its September Board meeting to amend its Rules to start regular meetings one hour earlier, at 9:00 a.m., and to begin the September Board meeting at that time.

BUDGET IMPACT

There is no budget impact associated with this action.

BACKGROUND

The Peninsula Corridor Joint Powers Board (PCJPB) adopted its Rules of Procedure in 1992. Section 4 of the Rules reads, in relevant part, "Except as otherwise determined by the PCJPB, regular Board meetings shall be held on the first Thursday of every month at 10:00 a.m."

Section 20 of the Rules requires a proposed amendment to the Rules to be introduced at a meeting prior to the one at which the Board approves such amendment. An earlier start time has been suggested by several Board members due to the amount of business brought before the Board and the resulting length of Board meetings, many of which have run past noon, and sometimes past 1 p.m., over the past several years.

Prepared by: Shayna van Hoften, Legal Counsel

415.995.5880

**CITIZENS ADVISORY COMMITTEE (CAC)
PENINSULA CORRIDOR JOINT POWERS BOARD (JPB)
SAN MATEO COUNTY TRANSIT DISTRICT ADMINISTRATIVE BUILDING
Bacciocco Auditorium, 2nd Floor
1250 San Carlos Avenue, San Carlos CA 94070**

MINUTES OF JULY 17, 2019

MEMBERS PRESENT: A. Brandt, A. Dagum, C. Tucker, L. Klein, R. Valenciana (Vice Chair), B. Shaw (Chair)

MEMBERS ABSENT: M. Romo, P. Escobar,

STAFF PRESENT: M. Baron, D. Hansel, C. Kwok, J. Le, L. Lopez, R. Mccauley, J. Navarrete, J. Navarro

Chair Brian Shaw called the meeting to order at 5:45 p.m. and led the Pledge of Allegiance.

INTRODUCTION OF NEW CAC MEMBER

Chair Brian Shaw introduced newly appointed San Mateo committee member, Anna Cristina Dagum. He also announced the reappointment of member Adrian Brandt.

APPROVAL OF MINUTES OF JUNE 19, 2019

Motion/Second: Tucker / Brandt
Ayes: Dagum, Klein, Valenciana, Shaw
Absent: Romo, Escobar

PUBLIC COMMENT

None

CHAIRPERSON'S REPORT

Chair Brian Shaw reported what he shared at the July JPB meeting. He stated that he shared the idea of having alternate seats for CAC members if they are unable to attend the CAC meetings. He received positive feedback from the Board. They advised that it would be up to the CAC to amend the bylaws to allow alternates to form a quorum. Chair Shaw requested this topic be added to next month's CAC agenda for further discussion and decision to amend the bylaws. He then stated that the outcome of that meeting would then be presented at the September JPB meeting.

Chair Brian Shaw then stated that he communicated the public's concern of electronic slides not allowed during the CAC meetings. He stated that the Board is in agreement with not allowing electronic slides; however they advised that members of the public can continue to provide hard copies of their handouts.

Lastly, Chair Brian Shaw reminded the committee of Member Paul Escobar's resignation effective next month. Chair Shaw read a letter from Paul Escobar addressed to the committee and his regrets for not attending the meeting.

COMMITTEE COMMENTS

Member Adrian Brandt stated that High Speed Rail Authority has released its preferred alternative for the San Francisco/San Jose section as well as the San Jose/Merced section. The public comment will be taken over the next month. There is a community working meeting coming up and the dates are available online. Mr. Brandt also stated that the HSR has chosen Alternative A for San Francisco to San Jose. He said that he is concerned with their recommendation of no passing tracks. He stated that they have no incentive to help fund the infrastructure outlined in the Business Plan.

Member Cat Tucker announced that her application for reappointment was denied due to her allotted time being up and that it was her last meeting. She stated that she is disappointed with the decision and believes the bylaws do not have restrictions on term limits. She indicated that it was a pleasure serving on the committee and working with staff.

Chair Brian Shaw thanked member Cat Tucker for her service and that she has been a great advocate for the South County.

CALTRAIN FARE CHANGES

Derek Hansel, Chief Financial Officer, presented the Caltrain Proposed Fare Changes to the committee.

The full PowerPoint presentation can be found on caltrain.com

Public comment:

Jeff Carter, Millbrae, provided printed handouts for the committee and staff. He stated that Caltrain has one of the highest farebox recoveries in the country. He stated that in February 2019, Caltrain recalibrated the ridership estimation model, which has generally led to higher average weekday ridership and lower total monthly ridership, than under the old model. Mr. Carter expressed his disappointment with trashing the monthly pass by increasing the multiplier. Mr. Carter stated the monthly pass is a loyalty product. He stated that although his time was up, he has a lot more detail on the handouts, including point to point pricing.

Andy Chow, Redwood City, stated that a few years ago when Caltrain conducted the Fare Study, he and other members of the public expected that staff would really

evaluate the fares, fare structure and equitability; however he states that things remain the same. He stated that there are concerns with equitability and solutions on how to encourage low income riders to ride Caltrain. He stated that the monthly pass does not provide flexibility for the customer. He stated that eliminating the clipper would force low income riders to pay more. Mr. Chow requested staff to consider the passengers that are purchasing the one way tickets. He said that those passengers are tourists or passengers that are attending special events like sporting events or concerts. Those are the passengers that are willing to pay more, however they are paying the same as the regular transit riders. Lastly, Mr. Chow stated that with the fare increase, Caltrain would lose riders to BART as they are opening up their service to San Jose. He suggested staff wait to increase the fare until after BART opens up the extension to San Jose to see how ridership changes and the revenue impact.

Committee Comments:

Member Ricardo Valenciana referred to slide seven, the elimination of the Clipper Card discount and asked whether the initial purpose of the Clipper Card discount was to discourage riders from purchasing paper tickets. Mr. Derek Hansel confirmed that it was. Vice Chair Valenciana then asked whether there should be a surcharge for paper usage instead. Mr. Hansel responded that the option would get to the same place; however analysis shows that low income riders use the TVM product and need to be careful to introduce a surcharge there. Vice Chair Valenciana then referred to slide nine and asked whether the Means-Based Discount Fare pilot program was being outsourced. Mr. Hansel stated that it is an MTC program a regional program and Caltrain would be one of several participants in the pilot program. Lastly, Vice Chair Valenciana asked whether Electrification and the new cars add capacity. Mr. Hansel responded that yes, in the aggregate, it adds capacity.

Member Adrian Brandt asked regarding the tradeoff between eliminating the Clipper discount vs. increasing the Go Pass by 20%, who decides the criteria and how is that decision made. Mr. Hansel responded that the Board will decide. Additionally, he stated that staff will present a recommendation and that ultimately the JPB decides. Member Brandt also asked how staff is obtaining good data on Go Pass utilization. Mr. Hansel responded that there is good data from ridership surveys from the triennials and have made simplifying assumptions from there. Mr. Brandt then asked whether some companies using the Go Pass are required to use clipper and tag on and off and whether there is good data from that source. Mr. Hansel stated that there is good data from that however is still a limited subset. Member Brandt then asked whether all companies using Go Pass will eventually use the Go Pass via Clipper. Joe Navarro, Deputy Chief, Rail Operations, stated that eventually that is the goal after the pilot program is complete. Mr. Brandt then asked whether the fare increases would be cancelled if Caltrain received a dedicated revenue source; if it were to get on the ballot and pass. Mr. Hansel stated that it would be a Board decision if that were to happen. Lastly, Mr. Brandt recommends staff to consider point to point pricing and more flexibility with fare products.

Member Anna Dagum asked for a clarification on with MTC. Mr. Hansel responded that it stands for Metropolitan Transportation Commission, the regional planning entity for all

of transportation in the nine county areas. Member Anna then asked whether there is a timeline on the proposed Caltrain tax if so, would the fare increase still happen. Mr. Hansel stated that there has been a lot of discussion on the Caltrain tax and an update by the General Manager at the Board Meeting about Faster Bay Area potentially or the Mega Measure and it is unclear as to what will happen and when it will happen and that ultimately it would be a Board decision at that time.

Member Larry Klein asked what about the Codified Tariff process is cumbersome as far as parking and bike lockers changes. Mr. Hansel responded that it includes a lot of outreach and Title VI work. Member Larry Klein asked whether any policy changes, with the new separate process outside of the Codified Tariff process, would still go through the normal channels, including through the CAC. Mr. Hansel confirmed that they would. Member Larry Klein referred to slide eleven and asked how many years are member contributions assumed constant at \$29.9M. Mr. Hansel responded that it is reasonable to assume that it is good through 2022. Member Larry Klein asked what it looks like beyond 2022. Mr. Hansel stated that there are two unknowns, the cost of electrified service from an operational perspective and future ridership with electrified service. Lastly, Member Klein expressed his interest in the Go Pass tagging on and off data to get a better picture and determine whether point to point fares makes sense.

Member Cat Tucker agrees with the point to point fares and stated that Gilroy passengers pay the most for one way tickets. She commented that no one has provided the committee with a full explanation as to why point to point fare is not offered. Chair Brian Shaw interjected and requested staff to add this item to the Agenda to allow for staff to investigate further in order to provide a response regarding why Caltrain does not offer distance based fare system. Member Cat Tucker recommended staff to have talking points during outreach events and provide the public with a list of staff's efforts to reduce cost of service, for example identifying whether fare theft is an issue, if so, what efforts are being done to address it. Mr. Hansel reported that Caltrain has ramped up fare enforcement activity with new technology. Mr. Navarro reported that Caltrain has contracted a 3rd party, Turbo data that has improved productivity and recovery.

Chair Brian Shaw asked whether the MTC Means-Based Discount Fare program is defining who are eligible participants and asked whether Caltrain is involved and Mr. Hansel confirmed that Caltrain is involved. Christiane Kwok, Manager of Fare Program Operations, stated that staff is part of the group discussing the roll-out of the program and have defined the rules of the project, however did not have specifics and offered to send them to the committee at a later date. She also confirmed that Caltrain is involved MTC Means-Based Discount Fare program. Chair Brian Shaw requested staff to provide periodic updates of the MTC Means-Based Discount Fare program because if it is a criteria for determining fares for Caltrain the committee needs to understand how this is being decided upon and the criteria. Chair Brian Shaw requested staff to place this item on the work plan to be agendaized for a later meeting. Mr. Hansel informed the committee that an update will be provided at next month's board meeting. Chair Shaw also asked about the deficit and where funding will come from to offset it and Mr. Hansel stated that the fare increases will help offset the projected deficit for FY21. Lastly, Chair Brian Shaw stated that there is administrative savings from

the Go Pass program and is not sure it is being factored into the cost per ride. He requested staff to provide more information regarding that.

PROJECT 529

Jenny Le, Management Analyst for the San Mateo County Sheriff's Office, Mike Baron, Detective for Transit Police Bureau and L. Lopez, Sheriff Office Sergeant, presented Project 529 to the committee.

The full PowerPoint presentation can be found on caltrain.com

Public Comment:

Jeff Carter, Millbrae, stated his appreciation for the presentation and the hard work of the Sheriff's office. He said that it is great that Caltrain has partnered with the Sheriff's office to help prevent bike theft at Caltrain and at stations. He also said that it addresses the concern of bikes not in view of bike passenger concerns with the new Electric trains.

Committee Comments:

Member Larry Klein stated that with increased ridership, bike riders are being encouraged to park their bikes at stations because of increased ridership and asked where bike theft happens most. Staff responded that per personal experience, theft happens more at bike racks. Member Larry Klein asked the cost of the shield sticker. Jenny Le stated that the registration kit costs online cost \$10 - \$12; however Caltrain will have three registration promotion events, one in every county and will provide free Shield stickers to the first 500 bike passengers per location.

Member Anna Dagum thanked staff for their efforts. She also stated that she agrees with having more security cameras on the platforms. She stated that personally, she would not park her bike at the station, not in fear of theft, but to avoid additional costs like the bike share program, purchasing a bike lock or renting a bike locker.

Member Adrian Brandt asked why the drop in theft at stations. Jenny Le stated that the Sheriff's office has partnered with staff to educate bike passengers on how to improve bike security in addition the Sheriff's office has been able to conduct more targeted patrol checks at stations. Member Brandt then asked how is customer online reporting being improved. Ms. Jenny Le stated that prior to the improvements; online reporting was very general and has since been updated with the Records Supervisor to tailor the fields specifically to identify bike theft and capture the data needed for investigation. Mr. Brandt then suggested to have project 529 linked with all other bike related items on the Caltrain website to ensure all bike riders have the opportunity to register their bikes.

Chair Brian Shaw asked whether bike riders that register on the Caltrain dedicated Project 529 website are then registered with all other 529 systems. Ms. Jenny Le confirmed they would be linked. She also stated that all bikes registered with other City or Law Enforcement registries would also be linked with Project 529. Lastly, Chair Shaw

asked whether there is an additional cost to Caltrain. Mr. Joe Navarro stated that there is an annual cost.

Ms. Jenny Le stated that the Caltrain Registration promotion dates have not yet been scheduled and will be shared at a later date.

STAFF REPORT UPDATE

Joe Navarro, Deputy Chief, Rail Operations, reported:

On-time Performance (OTP)

- **June:** The June 2019 OTP was 90.7% compared to 91.9% for June 2018.
 - **Vehicle on Tracks** – There was one day June 28 with a vehicle on the tracks that caused train delays.
 - **Mechanical Delays** – In June 2019 there were 787 minutes of delay due to mechanical issues compared to 905 minutes in June 2018.
 - **Trespasser Strikes** – There were two trespasser strikes on June 20 and 25, with no fatalities.
- **May:** The May 2019 OTP was 95.0% compared to 94.5% for May 2018.
 - **Trespasser Strikes** – There was one trespasser strike on May 15, resulting in a fatality.

Special Event Train Service

- **Services Performed:**
 - **Giants Baseball** – The Giants hosted fifteen regular season home games in June. Total additional ridership alighting and boarding at San Francisco station, was 36,305. Year-to-date pre and regular season ridership, alighting and boarding at San Francisco station, was 94,588, a 44 percent decrease compared to the same number of games in 2018. The Giants Nation League standing and lower attendance at Giants games may have impacted ridership.
 - **San Jose Earthquakes at Stanford Stadium** – On Saturday June 29, at 6:30 p.m., the San Jose Earthquakes soccer team hosted the Los Angeles Galaxy at Stanford Stadium. Caltrain made stops at Stanford Stadium before and after the game.

- **Gay Pride Weekend** – – On Saturday, June 29, Caltrain provided extra capacity post-festival service to accommodate crowds. On Sunday, June 30, Caltrain provided two special northbound express trains departing from San Jose for riders headed to the Gay Pride parade and festival in downtown San Francisco. Along with operating Giants Service for the 1:05 p.m. home game the same day, Caltrain provided extra capacity post-parade and festival to accommodate crowds.
- **Services Scheduled:**
 - **Gilroy Garlic Festival** – On Saturday, July 27, and Sunday, July 28, Caltrain will provide roundtrip charter service from San Jose to Gilroy for the Gilroy Garlic Festival. On both days, the train will depart San Jose Diridon Station at 10:00 a.m. and will depart Gilroy Station at 4:00 p.m. Attendees will need to purchase a ticket for the charter trains separately. Tickets are being sold in advance online at gilroygarlicfestival.com. The charter train ticket includes shuttle service to and from the Gilroy station to the festival, and includes festival admission.
- Capital Projects:
 - **Ticket Vending Machine (TVM) Rehabilitation:** Upgrade the existing TVM Server and retrofit and refurbish two existing TVM machines to become prototypes for new TVM's so that the machines are capable of performing the functions planned for the current Clipper program. The prototype machine are to be able to dispense new Clipper cards (excluding discount Clipper cards that require verification of eligibility) and have the ability of increasing the cash values of existing Clipper cards.

Currently, the prototype design is in progress. Factory Acceptance Testing of the Mockup prototype is scheduled for August 2019 and completion of the 2 prototype machines is expected by the October 2019. The option for retrofitting 12 additional TVM's, if executed, would follow the acceptance of the 2 prototypes. Funding for the option is not yet secured. There is also an option to retrofit 12 additional TVM's. There is an additional phase for the rehabilitation of the remaining 28 TVM's that was partially funded in the FY20 Capital Budget.

- **F-40 Locomotive Mid-Life Overhaul Project:** Perform mid-life overhaul of three F40PH2C locomotives. The mid-life overhaul of the locomotives shall include complete disassembly of the main diesel engine, overhauling by reconditioning re-usable main frame components and re-assembly with new engine components and replacement of the Separate Head-End Power (SEP-HEP) unit and all electrical components of the SEP-HEP compartment. All areas of the locomotive car body, trucks, wheels and electrical components shall be reconditioned to like-new condition or replaced with new material. The work shall be completed off-site at contractor's (Motive Power) facility location at Boise, Idaho.

Locomotives #'s 920 and 921 were shipped to the vendor's facility in Idaho in February and March of 2018. Locomotive #920 has been received and undergoing commissioning testing at CEMOF in San Jose. Deficiencies have been discovered during commissioning testing of #920 and are pending corrective action by the vendor. Locomotive #921 is still undergoing acceptance testing in Idaho and shipment to follow upon completion of acceptance testing. Locomotive #922 has been shipped from CEMOF and is in route to the vendor's facility.

Delays to the return of the first 2 vehicles are related to: 1) locomotive component condition that was poorer than was originally anticipated; and 2) critical personnel shortages at Motive Power, the locomotive overhaul contractor.

Public comment:
None

Committee comment:

Member Arian Brandt said that he rode the train during the SF Pride event day and observed that the trains were packed with passengers and stated that Caltrain will have challenges when train are switched with EMU as they only have one bathroom. Mr. Brandt then asked staff to elaborate on the Clipper reader relocations at the stations. Mr. Navarro stated that there were field walk-throughs conducted and looked at the possible future customer flow with possible 7-8 car trains to identify whether clipper readers need to moved and or added to the station. He stated that staff will add seven and will move some existing clipper reader locations to better serve the customer when tagging on and off.

Chair Brian Shaw offered his input to the process of moving the location of the Clipper Card Readers at the Redwood City station.

JPB CAC Work Plan

August 21, 2019

- Caltrain Business Plan Update
- Proof of Payment
- Camera System / Grade Crossing Improvements

September 18, 2019

- Rail Safety Education / Suicide Prevention Efforts
- Visual Messaging System

Items to be scheduled

- Schedule Audit – requested on 3/6/18 by Member Lauren Fernandez
- Presentation on a plan to clean-up right of way – requested by chair, Brian Shaw on 8/15/18.
- Update on Caltrain's project submissions for the Regional Transportation Plan.

DATE, TIME AND LOCATION OF NEXT REGULAR MEETING:

August 21, 2019 at 5:40 p.m., San Mateo County Transit District Administrative Building, 2nd Floor Bacciocco Auditorium, 1250 San Carlos Avenue, San Carlos, CA.

Adjourned at 7:50 pm

**PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT**

TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: John Funghi
Chief Officer, Caltrain Modernization Program

SUBJECT: **PENINSULA CORRIDOR ELECTRIFICATION PROJECT MONTHLY PROGRESS
REPORT AND QUARTERLY REPORT**

ACTION

Staff Coordinating Council recommends the Board receive the Peninsula Corridor Electrification Project (PCEP) Monthly Progress Report (MPR) and Quarterly Update. Both the MPR and the Quarterly Update are available online under "Reports and Presentations" at this webpage: http://www.caltrain.com/projectsplans/CaltrainModernization/CalMod_Document_Library.html. No action required.

SIGNIFICANCE

Staff prepares and submits a report covering the PCEP on a monthly basis and a PowerPoint presentation on a quarterly basis.

BUDGET IMPACT

There is no impact on the budget.

BACKGROUND

The MPR and Quarterly Update are intended to provide funding partners, stakeholders, and the public a PCEP overview and an overall update on project progress. These documents provide information on the scope, cost, funding, schedule, and project implementation.



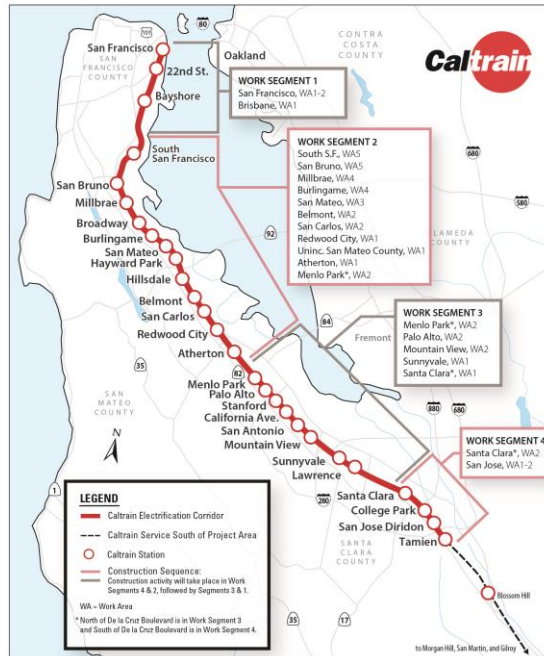
PENINSULA CORRIDOR ELECTRIFICATION PROJECT (PCEP)

Q4 Quarterly Update #19
April 1 – June 30, 2019

JPB Board Meeting
August 1, 2019
Agenda Item # 8a



PCEP Work Segment Map



CalMod ELECTRIFICATION CONTRACT UPDATE

Design Progress

Required number of OCS submittals has increased due to breaking up of segments and updated contractual requirements

Design Discipline	OCS					Signal					Traction Power				
	Required	Completed Previously	Completed this Period	Actual/Forecast	Baseline	Required	Completed Previously	Completed this Period	Actual/Forecast	Baseline	Required	Completed Previously	Completed this Period	Actual/Forecast	Baseline
Segment 1	12	2	0	4/30/20	11/2/18	3	0	0	10/27/20	9/17/19	3	1	0	7/18/19	1/27/19
Segment 2	15	12	0	7/1/19	4/7/18	66	0	0	4/6/21	3/28/19	3	2	0	7/30/19	10/24/17
Segment 3	6	2	2	11/7/19	8/26/18	10	0	0	6/17/20	4/8/19	2	1	0	7/30/19	1/27/19
Segment 4	10	11	0	7/1/19	4/23/18	24	0	0	4/29/20	7/17/18	4	4	0	2/27/18	10/24/17
Systemwide	12	10	0	12/5/17	11/27/17	14	3	0	7/10/19	1/22/18	7	7	0	9/18/19	5/12/18
Totals	55	37	2			117	3	0			19	15	0		

Note: Data as of June 30, 2019



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CalMod ELECTRIFICATION CONTRACT UPDATE

OCS Progress

Segment	Work Area	Foundations				Poles			
		Required ^a	Completed as of 3/31	Completed this Period (4/1-6/30)	Total Completed	Required	Completed as of 3/31	Completed this Period (4/1-6/30)	Total Completed
1	Tunnels	34	34	0	34	31	0	0	0
	A	309	0	May 2020 ^b	0	259	0	0	0
	B	237	0	Apr 2020 ^b	0	177	0	0	0
2	5	243 ^c	184	0	184	208	160	0	160
	4	317	238	5	243	258	170	16	186
	3	174 ^d	60	0	60	140	0	30	30
	2	248	74	0	74	205	0	10	10
3	1	206	78	0	78	154	0	0	0
	2	530	0	Sep 2019 ^b	0	460	0	0	0
4	1	397	0	171	171	313	0	0	0
	A	244	23	49	72	180	0	0	0
	B	140	55	15	70	124	0	0	0
	CEMOF	112	0	Jan 2020 ^b	0	102	0	0	0
Total:		3,191	746	240	986	2,611	330	56	386

Note: ^a Foundations Required do not match Poles Required as guy foundations are needed in some locations for extra support.

^b Planned Start Date

^c 55 foundations will be installed by SSF.

^d 64 foundations will be installed by 25th Avenue.



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CalMod ELECTRIFICATION CONTRACT UPDATE

Traction Power Facilities Progress

Facility	Sitework			Substation Building			Low / High Voltage Equipment			Transformer			Gantry		
	Last Period	This Period	To Date	Last Period	This Period	To Date	Last Period	This Period	To Date	Last Period	This Period	To Date	Last Period	This Period	To Date
TPSS-1	28%	0%	28%	0%	0%	0%	7%	0%	16%	100%	0%	100%	0%	8%	8%
TPSS-2	70%	5%	75%	20%	0%	20%	30%	5%	47%	100%	0%	100%	25%	26%	51%
SWS-1	10%	0%	10%	0%	0%	0%	7%	0%	7%	0%	100%	100%	0%	6%	6%
PS-1	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PS-2	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PS-3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PS-4	11%	0%	11%	0%	0%	0%	5%	0%	5%	0%	100%	100%	0%	0%	0%
PS-5	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PS-6	0%	15%	15%	0%	0%	0%	0%	15%	9%	0%	100%	100%	0%	0%	0%
PS-7	10%	5%	15%	0%	0%	0%	5%	5%	25%	0%	100%	100%	0%	18%	18%

Wayside Power Cubicles	Required	Installed
	28	6

Last period: Data as of March 31, 2019
 This Period: April 1, 2019 – June 30, 2019



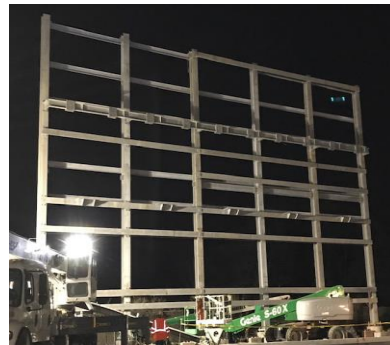
5

CalMod ELECTRIFICATION CONTRACT UPDATE

Gantry



TPS2 Isolation Gantry



TPS2



6

CalMod ELECTRIFICATION CONTRACT UPDATE

Gantry



TPS2



TPS2A



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CalMod ELECTRIFICATION CONTRACT UPDATE

Signal System

- Continued installation of signal ductbank, conduits, signal house and WPC foundations in Segments 2 and 4
- Installed signal house at Auzerais Avenue crossing & CP Mack
- Continued fabrication and testing of signal houses
- Progressed design for Auzerais, Virginia, Scott, Linden, 16th and Mission Bay grade crossings
- Technical meetings weekly to discuss progress of grade crossing design submittals
- Continued following-up meetings with FRA (Regional and Headquarters) and CPUC on a regular basis
- Began preparation of signal cutover/test plan for the next FRA meeting scheduled on 8/8

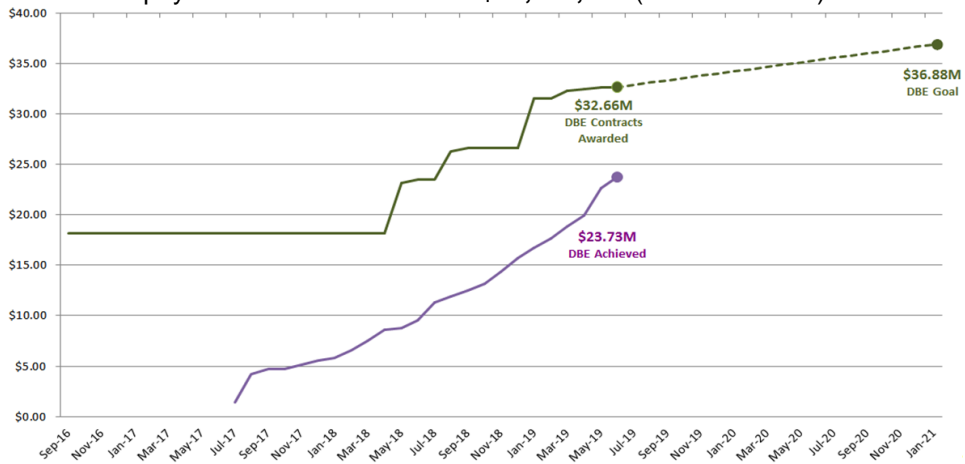


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CalMod DBE UPDATE

Disadvantaged Business Enterprises

- 5.2% (\$36,884,154) of the total DB contract value (\$709,310,651) subcontracted to DBEs
- DBE payments to date: 6/30/19: **\$23,728,113** (3.3% achieved)



CalMod DBE UPDATE

Summary Breakdown of Awarded DBE Agreements

Scope Area	DBE Award Amounts
Traffic Control	\$2,865,900
QA QC	\$7,393,276
Design	\$5,479,715
Signal/Communication	\$6,448,927
OCS Wire	\$3,265,500
Noise Monitoring	\$1,324,095
Safety and Security	\$2,384,000
Survey	\$1,200,000
Other	\$2,272,247
TOTAL	\$32,633,660

- \$4,250,494 remaining to be awarded to reach the \$36,884,154 goal

CalMod ELECTRIFICATION

Other Electrification Contracts

- Supervisory Control and Data Acquisition (SCADA)
 - Numerous functional tests completed, including power planning, field power directors, clearance and switching.
 - Prepared for demonstration of San Jose substation portion of the SCADA system.

- Centralized Equipment Maintenance and Operations Facility
 - Limited Notice to Proceed issued to ProVen in April.
 - Began processing RFIs and submittals.
 - Roadway Worker Protection training provided to ProVen management, consultants, and subcontractors
 - Preparations underway for full Notice to Proceed.



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CalMod TUNNEL CONTRACT UPDATE

ProVen Management, Inc.

- Construction Update:
 - Tunnel 1: All base scope complete except for fencing and OCS termination structure installation
 - Tunnel 2: All base scope complete except for OCS termination structure installation
 - Tunnel 3: All base scope complete except for fencing and OCS termination structure installation
 - Tunnel 4: Final scans showed some areas of over-notching, requiring additional rock bolt installation. Fencing and OCS termination structure installation remain
 - OCS Termination Structures: 34 of 34 foundations installed; OCS termination structure fabrication, procurement, and installation at all portals are dependent on PMI shop drawing submittals and subsequent review/approval. To-date, Tunnel 4 South Portal shop drawings are approved
 - Tunnel 4 Historic South Portal Reconstruction: Masonry subcontractor created test casts of archstones that were accepted by all relevant parties; preconstruction meeting occurred to discuss installation steps and requirements
 - OCS Option: Installation of drop tubes and conductor rail to occur in fall 2019; procurement for long-lead items ongoing

Update through June 30, 2019



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CalMod TUNNEL CONTRACT UPDATE

Tunnel 4 Historic South Portal Reconstruction



Test Blocks for Tunnel 4 South Portal Archstones



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CalMod TUNNEL CONTRACT UPDATE

OCS Termination Structure Foundations



Standard Foundations



Micropiles and Cap Foundation



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CalMod EMU VEHICLES

EMUs – Design & Manufacturing

- 14 Final Design Reviews of the 17 major systems completed. Remaining 3 are conditionally approved. Scheduled for completion in late 2019.
- 64 First Article Inspections total, 46 conducted, 11 closed.
- Alternate Vehicle Technology compliance (crashworthiness) validation analysis scheduled to be submitted to FRA in August.
- Scheduled FRA 'Compliance Review' of EMU design in September, and 'Sample Car Inspection' for December 2019/January 2020 timeframe.
- Change order to perform Trainset Level Design Conformance Testing at Pueblo, Colorado test facility executed.
- Stadler Salt Lake City received ISO Quality Certification.
- First trainset assembly undergoing system installation fit-up engineering. Numerous interfaces fine tuned and implemented into production.

Stadler EMU Manufacturing Progress: 133 Carshells (19 Trainsets of 7 Carshells)				
	Shells Shipped	In SLC	Out SLC	Cars at Caltrain
Trainset 1	7	7	0	0
Trainset 2	7	7	0	0
Trainset 3	7	2	0	0
Trainset 4	0	0	0	0
Trainset 5	0	0	0	0
Trainset 19	0	0	0	0
Total	21/133	16/133	0/133	0/133



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CalMod

Salt Lake City Facility Production Hall



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CalMod RISK MANAGEMENT

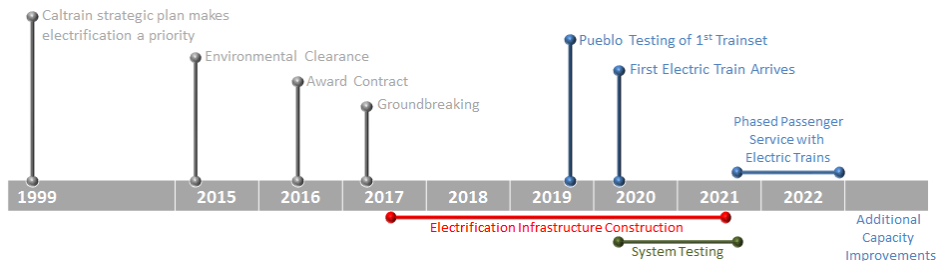
- Complete updated risk analysis and provide input for contingency planning
- Top 2 Risks:
 - BBII may be unable to develop grade crossing modifications that meets stakeholder and regulatory requirements within the program schedule
 - Advancing speed check solution
 - Coordinating with CPUC and FRA
 - Contractor sequencing of early utility location, preliminary design, and foundation construction may result in inefficiencies in construction, redesign, and reduced production rates
 - Project team is breaking down current track access delays (TAD) data to categorize different areas of delays in attempt to mitigate each specific area of delay
 - Specific actions have been planned to further mitigate track access issues, such as changes to planning process
 - Project continues to meet and work with Operations on potential mitigations for TAD moving forward



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CalMod SCHEDULE

MILESTONES



*Please keep in mind that testing and construction will overlap as each Segment will be tested individually, prior to final system testing.

Note: **Schedule Subject to Change**



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CalMod BUDGET & EXPENDITURES (in millions)

	Budget	Current Budget	FY19 Q4 Costs	Costs to Date	Estimate at Completion
Electrification	\$696.61	\$720.50	\$20.74	\$318.73	\$720.50
SCADA	\$0.00	\$3.45	\$0.00	\$1.93	\$3.45
EMU	\$550.90	\$553.90	\$2.28	\$114.97	\$553.90
PG&E	\$57.22	\$88.49	\$15.75	\$52.20	\$88.49
Tunnel Modifications	\$11.03	\$42.20	\$0.58	\$22.73	\$42.20
CEMOF Modifications	\$1.34	\$6.55	\$0.00	\$0.00	\$6.55
Separate Contract & Support Costs	\$347.62	\$331.55	\$15.67	\$210.72	\$331.55
Contingency ¹	\$315.53	\$233.61	\$0.00	\$0.00	\$228.04
Anticipated Changes	\$0.00	\$0.00	\$0.00	\$0.00	\$5.58
PCEP Total	\$1,980.25	\$1,980.25	\$55.01	\$721.28	\$1,980.25

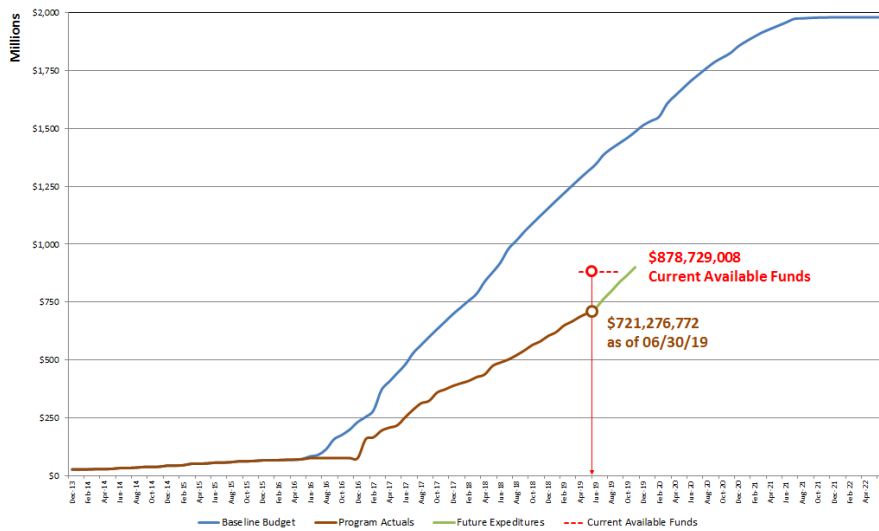
Note 1: Contingency is not for out of scope changes.

Budget / Expenditures as of June 30, 2019



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CalMod ACTUAL VS PLANNED



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CalMod CONTINGENCY¹ DRAWDOWN

Contracts	Amount	Contingency
Beginning Contingency		\$315,533,611
Drawdown		
Executed Change Orders	\$16,195,275	
SCADA Contract	\$3,446,917	
PG&E Supplemental #4	\$31,263,082	
Tunnel Modifications	\$31,386,286	
CEMOF Modifications	\$5,206,777	
Total	\$87,498,337	
Remaining Contingency		\$228,035,274

Note 1: Contingency is not for out of scope changes.

As of June 30, 2019



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CalMod ANTICIPATED CONTINGENCY¹ DRAWDOWN

Contracts	Amount	Contingency
Remaining Contingency		\$228,035,274
Pending Contingency Drawdown		
Field Orders (053 & 059) for Signal Cable Relocation	\$184,576	
PS-5 Site Relocation (Design Only)	\$348,000	
Increase Quantity for Utilities Potholing (Bid Item #9)	\$1,867,700	
Slot Drains Reroute in CEMOF Yard	\$69,000	
Testing at TTCl (Pueblo Facility)	\$3,106,428	
Total	\$5,575,704	
Anticipated Remaining Contingency		\$222,459,570

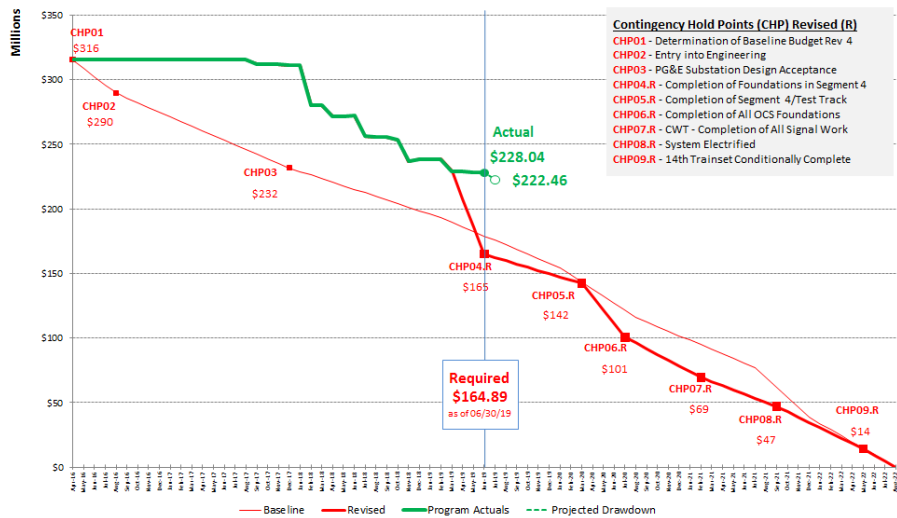
Note 1: Contingency is not for out of scope changes.

As of June 30, 2019



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CalMod CONTINGENCY DRAWDOWN CURVE



Note 1: Contingency is not for out of scope changes.



CalMod OUTREACH

- 17 Outreach events
- 23,000 Direct mailers/door hangers
- 3,161 Subscribers to the monthly e-newsletter
 - Average Open Rate – 37% (vs. 18% National Average)
- 1,950 Subscribers to the weekly e-update
- Website: CalMod.org

CALMOD E-NEWSLETTER

ELECTRIC TRAINS UPDATE

In June, electric train production continued with three battery-unbraked, 100-ton electric trains in the shop at the new S&M San Jose City Facility. First electric regional and testing activities are the focus here.

View more electric train production at www.CalMod.org/CalMod

CONSTRUCTION UPDATE

Construction to make Caltrain a modern, electric commuter rail system continues! This month, crews completed installation of foundations as well as poles along the corridor from South San Francisco to San Jose. Work was also performed on six trainset power facilities in San Jose, Redwood City, Sunnyvale, South San Francisco, and San Mateo.

To sign up for weekly construction updates or for more construction information, visit CalMod.org/Construction

CALMOD CELEBRATES EARTH MONTH

NEW ELECTRIC TRAINS WILL REDUCE POLLUTION BY 97%

April is Earth Month, so we thought we'd share some facts about how the Caltrain Modernization program is contributing to a healthier planet and a happier local community. The electrification of our fleet will result in a 97% reduction in emissions and will remove 176,000 metric tons of greenhouse gases annually, which are the main contributor to climate change. Switching from diesel to electric-powered trains also means reductions in noise pollution along the corridor. Together these environmental benefits mean a healthier habitat for people, plants, and animals alike. Over 65,000 people ride Caltrain everyday. That's a LOT of cars off the road, and electrification will allow even more people to choose a form of transportation that's only getting greener. Happy Earth Month, Caltrain riders!

Visit CalMod.org/projects/benefits to learn more.

Examples of the Monthly CalMod E-Newsletter







CONTACT

CALMOD CONTACT INFORMATION

WEBSITE  CalMod.org

EMAIL  CalMod@caltrain.com

PHONE  650-399-9659
800-660-4287 (Toll Free)

OFFICE  2121 S. El Camino, Suite A-100
San Mateo, CA 94403

FACEBOOK  www.facebook.com/caltrain

TWITTER  @caltrain



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QUESTIONS

PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT

TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: Michelle Bouchard
Chief Operating Officer, Rail

SUBJECT: **CALTRAIN POSITIVE TRAIN CONTROL PROJECT UPDATE – JULY 2019**

ACTION

Staff Coordinating Council recommends that the Board receive the Positive Train Control (PTC) report for July 2019.

SIGNIFICANCE

Staff will provide monthly updates covering PTC related activities during the previous month and provide a preview of activities anticipated to take place during the current month.

BUDGET IMPACT

There is no budget impact.

MONTHLY UPDATE

1. Project Schedule - Major Milestones for Caltrain PTC Implementation:

Key Project Activity	Expected Completion	Progress as of 7/19/19	Progress On Track?	Mitigation Required or Approvals Needed
Approval of Designated Revenue Service Demonstration (RSD) Test Request	May 31 st	Completed	Completed	Formal conditional approval received on September 10. Team incorporating FRA conditions in test plan to ensure compliance to approval.
Approval of revised project PTC Implementation Plan (PTCIP) and Request for Amendment (RFA)	May 31 st	Completed	Completed	Formal approval received on May 16, 2019 for PTCIP and RFA Rev. 10.
Pilot Installations (4) Completed	June 20 th	Completed	Completed	All pilots completed
Submit Designated RSD Application	Oct 15 th	Completed	Completed	RSD Application submitted and in review by FRA.
Submit Full Track RSD Application	June 7 th	Completed	Completed	Formal RSD request for full track was submitted to the FRA on June 14, 2019
Complete Critical Feature Verification & Validation (V&V) for Designated Track RSD	Oct 30 th	Completed	Completed	
Complete Designated RSD Training	Nov 14 th	Completed	Completed	Training for designated RSD personnel completed
Complete Required Vehicle Installations	Dec 3 rd	Completed	Completed	(44) Installs required for RSD completed, punch list items being addressed by Wabtec.
Meet FRA Statutory Requirements and Substitute Criteria	Dec 31	Completed	Completed	Met FRA December 31, 2018 deadline
Obtain Alternative Schedule approval from FRA	Mar 15 th 2019	Completed	Completed	Received FRA's approval on February 6, 2019.
Completion of Remaining Vehicle Installation (all 67 units)	April 30, 2019	Completed (63 Units)	Completed (63 Units)	Except three F40PH 3Cs Rehab vehicles that are out of property and one wrecked vehicle.
Full RSD - Complete Remaining Critical Feature V&V	Jan 2019	Completed	Completed	
Full RSD – Complete Wayside Interface Unit (WIU) V&V	March 15, 2019	Completed	Completed	Completed on March 15, 2019

Key Project Activity	Expected Completion	Progress as of 7/19/19	Progress On Track?	Mitigation Required or Approvals Needed
Full RSD – Complete Lab Integrated End to End Testing (LIEE)	June 30, 2019	Completed	Completed	LIEE Cycle 3 was completed ahead of schedule on June 12, 2019
Full RSD – Complete Field Integrated Testing (FIT)	August 2019	Completed	Completed	Full track FIT has completed on June 30, 2019
Full RSD – Complete Field Qualification Testing (FQT)	September 2019	Completed	Completed	Full track FQT has completed on July 14, 2019
*Commence Full RSD – Caltrain ROW	October 2019	Plan	Ahead of Schedule	Target to commence RSD in September once the FRA approves the RSD application 90 days post RSD submission.
*Complete Interoperability Testing with UPRR South of CP Lick	December 2019	Plan	Yes	Coordination effort with UPRR has commenced
*Complete Interoperability Testing with Tenant Railroads	April 30 2020	Plan		Coordination effort with AMTRAK and ACE have commenced
Submit Caltrain PTC Safety Plan to the FRA	June 01, 2020	Plan		
Complete Caltrain PTC Implementation	December 2020	Plan		

*Key project milestones for 2019/2020 have incentive payments as part of a contract negotiation concluded on May 7, 2020.

1. Major Wabtec activities for July 2019:

- o Completed all onboard installations (63 out of 67) except for three that are currently off property for overhauls and one wrecked vehicle.
 - o Punch list items are still being addressed by Wabtec.
- o Vehicle Acceptance Testing (VAT) is complete except for the four vehicles referenced above.
- o Completed BCCF Integrated Lab installation and configuration effort, BCCF Lab is ready for use for upcoming Interoperability End-to-End Testing (LIEE-I)
- o Continued ITCM Test Federation and Production Federation effort with Amtrak and other railroads for PTC testing and implementation. Production Federation with UP and BNSF were achieved.
- o Continued PTC training effort and conducted in-class training course for Operators, conductors and vehicle maintainers.
- o Finalized FIT Procedure and received approval from the FRA.
- o Continued implementation of Key Exchange Server (KES) with hosted solution from ARINC; continued KES implementation technical coordination with UPRR and commence KES Lab testing with UPRR.
- o Successfully completed Field Integrated Test (FIT) and submitted test results to the FRA.
- o Successfully completed Field Qualification Test (FQT), ten consecutive end-to-end runs on July 14, 2019 and submitted FQT results to the FRA.
- o Commence BCCF/CCF Cutover planning effort.
- o Draft Interoperability Test Request and Finalize Interoperability Test Procedure

2. Vehicle Installation:

Wabtec completed installation of (44) I-ETMS modules on the Caltrain locomotives and cab cars as required in Caltrain’s Implementation Plan and statutory criteria requirements in early November of 2018. Wabtec has completed installations on the remaining Caltrain fleet (23 additional locomotives and cab cars) on April 8, 2019. This excludes three locomotives that are off property for overhaul and one damaged cab car. Table below provides the overall status of 67-vehicle installation as of April 17, 2019. No additional update this month.

I-ETMS On-Board Installation Progress (As of 4/17/19)

Equipment	Completed	In Progress	Pending
F40	20	0	3
MP36	6	0	0
Bombardier Cab	9	0	0
NS Gallery Cab	26	0	1
MP1500	2	0	0
Total	63	0	4
%	94%	0%	6%

3. Other Key Activities for July of 2019:

This section reports on PTC project general progress and issues being performed and tracked in addition to the Wabtec contract during the current reporting month.

- o Finalized price proposal evaluation, terms and condition and technical scope for the long-term maintenance service for all systems residing in the CCF and BCCF that support Rail Operations. The new long-term maintenance service contract with ARINC will replace the current ROCS and other maintenance contracts. It is targeted for JPB Board approval in September.
- o The PTC project continues its coordination efforts with the Electrification and EMU programs via regularly scheduled status meetings. Ad hoc meetings to discuss topics requiring in-depth or immediate decisions are held as needed. Data sharing of fiber audit results and testing schedules (sharing of track and time) is ongoing to ensure both teams coordinate needs.
- o Caltrain Configuration Management (CM) process has been in place. All configuration changes are going through the CM process, project impact analyses are performed before any approval are made from the Configuration Change Control Board.
- o Herzog Technology Incorporated (HTI) team of PTC experts continued PTC go-live effort with Caltrain Operations and the PTC project team to ensure a smooth transition of PTC to operations and maintenance. These efforts include finalizing the RSD rollout plan, resource planning for both Caltrain and TASI operations and maintenance, development of RSD data collection and reporting process, and coordination of Master Service Agreements (MSA) negotiations with key suppliers required to support PTC long term service needs.

4. Change Order Log:

The additional scope items negotiated with Wabtec total \$1.42 M are needed to support the new milestone schedule approved by FRA in December. They relate to interoperability and the communications system. The funds for this scope will be taken from the board approved \$4.5M contingency. This is the only change order for this contract. This change order was reviewed and approved by the Change Management Board in May.

5. Risk Management:

Caltrain and Wabtec have agreed to share the management of an identified list of risk items that were identified during the contract negotiations. The total cost allocated to these risks is \$1.9M to be shared amongst both parties. Unrealized risks will result in cost savings to Caltrain.

To date no risks have been identified requiring use of the risk funds. Caltrain and Wabtec jointly review the shared risk register as the project progresses.

There are also risks to be monitored outside the Wabtec specific contract that the project team monitors and mitigates as necessary. The following table captures the top risks both external (outside the Wabtec contract) and internal (specific to the Wabtec contract):

Risk Item	Type	Mitigation Action
FRA process changes	External	Maintain close and open relationship with key FRA contacts to ensure all submittals are done correctly and within required time frame to achieve approvals required to enter into RSD
Interoperability delays	External	Caltrain is working with UPRR and tenants to ensure agreed to interoperability schedule dates are maintained
Track access delays	Internal	Ensure field test schedule is maintained by coordinating all fieldwork in combination with other capital project's needs, particularly the PCEP project.
Back Office Server (BOS) documentation scope creep	Internal	Ensure standard documentation supplied by Wabtec meets requirements of Caltrain specification criteria
Key Exchange Server Solution	Internal	Implementation of Caltrain Key Exchange Server timely to support Interoperability Testing with UPRR in early July.
FRA Approval of RSD Application	External	Caltrain has submitted RSD application for the full track. FIT and FQT test results were submitted this month. 90-day review period is anticipated to receive formal approval of RSD application from the FRA.
Maintenance of existing Data Communications and Wayside Infrastructure	Internal	Coordinate with Operations and TASI to ensure Data Communications and Wayside infrastructure built by previous contractor are maintained properly, so they could be reliable for PTC entering Revenue Service and PTC Operations.

6. FRA Coordination Status:

- o Continued weekly calls with FRA review team
- o Submitted and received approval of FIT/FQT Plan
- o Submitted FIT/FQT results
- o Officially has submitted RSD Application to FRA on June 14, 2019, Caltrain currently awaits conditional approval of the RSD request in order to commence Revenue Service Demonstration.
- o FRA regional test monitor visited Caltrain and witnessed FQT on July 8 and 9th of 2019.

7. Caltrain Roadmap to Full RSD and Interoperability:

- o Caltrain is pursuing the following steps to achieve Revenue Service Demonstration (RSD) and Interoperability Testing in order to achieve overall system certification.
 1. Alternative Schedule was approved on February 6, 2019
 2. Caltrain submitted the full track RSD application as planned in June 2019.
 3. Caltrain completed all field validation by the 1st quarter of 2019 to enable.
 4. Caltrain completed Laboratory Integrated Testing for full track in April of 2019.
 5. Caltrain completed Field Integrated Testing (FIT) and Field Qualification Testing (FQT) for full track to achieve full RSD by October of 2019. Currently Caltrain is targeting commence RSD in early September.
 6. Caltrain continues training remaining TASI personnel to support full track RSD and PTC operations.

7. Caltrain will commence Interoperability Laboratory Testing with tenants in summer of 2019 and commence Interoperability Testing with UPRR post Caltrain full RSD. The goal is to achieve Interoperability with UPRR by December of 2019.
8. Caltrain will commence Interoperability Testing with all other tenants on Caltrain property to achieve interoperability requirements and commence PTC governed operation by May 2020.
9. Caltrain will complete submission of final PTC Safety Plan by June 2020 and receive full system certification by December 2020.

8. Cost – Spend vs Budget with Actuals and Accruals through June 2019:

	(A)	(B)	(C)	(D)	(E)	(F) = (C - E)	(G) = (D / E)
Project Cost Analysis	Original Budget (US\$MM)	Approved Changes (Contractor) (US\$MM)	Project Current Budget (US\$MM)	Expended and Accruals To- Date (US\$MM)	Estimated at Completion (EAC) (US\$MM)	Variance at Completion (US\$MM)	% Expended of EAC
CBOSS PTC Project (Jan 2008 - Feb 2018)	\$ 231.00		\$ 239.88	\$ 202.26	\$ 202.26		
Caltain PTC Project (March 1st 2018 - June 2020):							
Integrator WABTEC Contract	\$ 43.01	\$ 1.42	\$ 44.44	\$ 21.52	\$ 44.44	\$ -	48.43%
Other Contractors	\$ 6.00	\$ -	\$ 6.00	\$ 1.70	\$ 6.00	\$ -	28.27%
Potential Changes	\$ 2.00	\$ (1.42)	\$ 0.58		\$ 0.58	\$ -	
Potential Incentive - WABTEC	\$ 2.00	\$ -	\$ 2.00		\$ 2.00		
Other Program Costs	\$ 30.34	\$ -	\$ 30.34	\$ 10.11	\$ 29.37	\$ 0.97	34.43%
Project Contingency	\$ 6.06	\$ -	\$ 6.06		\$ 6.06	\$ (0.00)	
Total PTC Project	\$ 89.41	\$ -	\$ 89.41	\$ 33.33	\$ 88.44	\$ 0.97	37.68%
Note:							
1). Expended and Accruals To-Date is through June 30, 2019;							
2). Integrator Wabtec Contract Value includes Shared Risk with Not to Exceed Total of \$1.91MM;							
3). Other Contractors amount includes ROCS Modification and potential fiber fixes;							
4). Potential Changes amount is set for future project change orders as result of WABTEC assessment and survey for the communications and office subsystems;							
5). Potential incentive amount reflects what is in the WABTEC conformed agreement;							
6). Other Program Costs includes JPB project oversight costs, TASI support and Other Direct Cost for PTC project delivery;							
7). Project contingency includes a) contingencies for WABTEC contract per Board Staff Report; b) JPB project team cost contingency;							
8). CBOSS PTC project budget and actual cost are highlighted to reflect prior March 1st, 2018 CBOSS project financial data.							
9). Negotiated additional scope items will be included in WABTEC's contract once a contract amendment is issued. There is no budget impact since project has budgeted adequate potential change for the amount of \$2MM (note no. 4 above) for added scope items. Current Project budget for WABTEC contract is updated to reflect added scope items.							

9. Upcoming Key Activities in August 2019:

- o Commence Interoperability LIEE Testing with UPRR using Caltrain newly built BCCF lab.
- o Continue BCCF readiness activities and BCCF/CCF cutover effort.
- o Continue ITCM Test Federation with other freight railroads.
- o Close out all punch list items on onboard installs and all documentations.
- o Continue interoperability coordination with UPRR, Amtrak and other tenants.
- o Continue to work closely with the FRA regional and national representatives to ensure all aspects of documentation and testing requirements are maintained and approvals (by FRA) granted. Caltrain is waiting for formal approval of RSD request from the FRA.
- o Submit final Field Qualification Testing (FOT) Test Procedure for FRA review.
- o Continue training of remaining TASI employees in support of RSD rollout. All Engineers will attend simulated training prior to commencement of the RSD.
- o Commence Pre-Revenue Service rehearsal runs post FOT to ensure Caltain and its Operator TASI are ready for initial Revenue Service.
- o Continue MP1500 locomotive Brake Testing effort that will conclude Brake Testing.
- o Submit Interoperability Test Request to the FRA.
- o Continue Physical Separation of Cell Network, PTC Virtualization and ATCS work.
- o Wabtec achieves first perform incentive – full track RSD readiness upon receiving FRA test monitor concurrence of RSD readiness and complete all RSD required documentation.

Prepared By: Matt Scanlon, Deputy Director, Systems - 650.622.7819

**PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT**

TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: Michelle Bouchard
Chief Operating Officer, Caltrain

SUBJECT: **CALTRAIN BUSINESS PLAN – PRESENTATION ON DRAFT RECOMMENDED
LONG RANGE SERVICE VISION**

ACTION

Staff Coordinating Council recommends the Board of Directors (Board) receive a staff presentation providing an informational update on the staff recommendation for Caltrain's Long Rang Service Vision.

SIGNIFICANCE

Peninsula Corridor Joint Powers Board (JPB) staff has prepared a presentation and memo summarizing Caltrain Business Plan work to date and presenting a draft recommendation for the railroad's Long Range Service Vision. The designation of a Long Range Service Vision is a key, interim step that will allow staff to then complete the Caltrain Business Plan.

The draft staff recommendation is presented for information only at this time. The recommended Long Range Service Vision will be refined based on input received from the Board and through a variety of stakeholder and public outreach activities to be conducted in August and September. Based on comments received, Staff plans to return to the Board in October to present a refined Service Vision for potential adoption.

Following the Board's potential adoption of a Long Rang Service Vision, staff will work to complete a full Business Plan document. This document will focus on defining the path of incremental service improvements and investments that Caltrain and its partners can make to realize the vision over time. The Business Plan will also include additional analysis related to first- and last-mile needs and will identify funding and revenue strategies.

BUDGET IMPACT

There is no budget impact associated with receiving this PowerPoint presentation.

BACKGROUND

In 2017, the JPB secured full funding for the Peninsula Corridor Electrification Project and issued notices to proceed to its contractors for corridor electrification and purchase of Electric Multiple Unit railcars. Now that construction on this long-awaited project is underway, the agency has the opportunity to articulate a long-term business strategy for the future of the system.

The initial concept for a Caltrain "Business Plan" was brought to the Board in April of 2017. The Board reviewed a draft scope of work for the Business Plan in December of 2017 and adopted a final Business Strategy and Scope of Work in February of 2018. Technical work on the Plan commenced in the summer of 2018. The Business Plan has been scoped to include long-range demand modeling, and service and infrastructure planning, as well as organizational analysis and an assessment of Caltrain's interface with the communities it traverses. It is an extensive planning effort that includes outreach in multiple venues. The plan will be completed in early 2020.

Prepared by: Sebastian Petty, Director of Policy Development

650.622.7831



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JIM HARTNETT
EXECUTIVE DIRECTOR

July 19, 2019

Dear Board of Directors:

This is a very exciting time for Caltrain.

After years of advocacy, planning and work, the long-envisioned Electrification of the Caltrain corridor is under construction, with passenger service scheduled to begin in 2022. This investment will improve service for our customers with faster trips, greater frequency and more capacity. It is a transformational moment for the railroad and it is also the first, foundational step in the realization of a larger future for Caltrain.

That future will be defined and guided by the Caltrain Business Plan, and the adoption of a Long Range Service Vision as a part of that plan. The draft staff recommendation for Caltrain's Long Range Service Vision shows us what this future can look like. The recommendation lays out a vision for a service that triples Caltrain's current ridership to 180,000 riders a day. It envisions express trains every 15 minutes, comprehensive coverage of local stations and greatly expanded frequencies in the middays, evenings and weekends over the full length of our system. It is a vision for a system with increased capacity, longer trains and level boarding.

The Service Vision is also about more than just Caltrain. Importantly, it pictures a system ready to expand and integrate into a larger regional rail network when the time is right. It connects and weaves together the many rail projects and investments that are already beginning to take shape around us through the work of our local, regional and state partners.

It is a vision that includes the Downtown Extension to the Salesforce Transit Center in San Francisco, potential new rail connections across the Dumbarton Bridge to connect communities across the bay, and the rebuilding of a new Diridon Station in San Jose. It is a vision that includes expanded electrified service to Gilroy and a shared corridor with High Speed Rail. It is a vision that considers the growth and needs of each of the communities along the Caltrain corridor.

I am very proud of the work undertaken to get the Business Plan this far. It has been an expansive and technically rigorous process that has challenged all of us to ask big questions and think critically about the future of the corridor, and the region. Most importantly, it has been the product of a transparent and collaborative process with our riders, our community and private sector partners, and the public.

As we work to achieve this Vision, the larger Caltrain Business Plan also considers how our organization will need to expand and evolve to deliver a service that meets the needs of our growing region. To that

end, I am very pleased to present you with a detailed organizational assessment that maps out the challenges and issues faced by Caltrain, and lays out options and guidance for the path ahead.

Finally, as we have anticipated and discussed for many years, a necessary step in achieving this Vision and the long-term sustainability of Caltrain will be to secure a dedicated source of funding. Caltrain demonstrates its importance to the region every day through the riders we carry, the communities we connect and the congestion we reduce. The recommended Long Range Service Vision demonstrates the enduring value that we can provide when given the resources to sustain ourselves and grow.

Achieving this ambitious Vision will be challenging, but we can achieve it by working one step at a time. Pending the Board's adoption of the Long Range Service Vision, staff will work over the remainder of the year to complete the Business Plan and consider the ways we will incrementally deliver and fund this Vision over the next 20+ years.

Thank you all for your support and participation in this process. We are excited to hear your feedback and input as we take this historic first step toward the evolution of the Caltrain system and mobility throughout the Peninsula.

A handwritten signature in blue ink, appearing to read "Jim Hartnett", with a long, sweeping horizontal line extending to the right.

Jim Hartnett

Executive Director, Caltrain

SUMMARY OF DRAFT RECCOMENDATION FOR CALTRAIN'S LONG RANGE SERVICE VISION

The following memo supplements the PowerPoint presentation provided to the Peninsula Corridor Joint Powers Board at their August meeting. It provides a high level summary of the service planning and business case analysis completed as part of the Caltrain Business Plan to date and explains the importance of choosing a “Long Range Service Vision” at this stage in the planning process.

The memo then describes staff’s draft recommendation for the Long Range Service Vision and explains why staff has recommended this specific vision relative to other options considered. Finally, the memo includes a narrative description of the recommended Vision and a draft of the precise language that the Board would be asked to consider for adoption in October, pending revisions or changes based on input received from the Board and through outreach planned in August and September.

A LONG RANGE VISION FOR CALTRAIN SERVICE

The Caltrain Business Plan is an expansive planning process that has been ongoing for more than a year. A major focus of the plan has been to develop analysis of different long range service options for Caltrain and to weigh the costs, revenues, benefits and impacts of these options through a detailed “Business Case” analysis. At this stage of the Business Plan process, Caltrain staff has developed and evaluated three distinct “growth scenarios” that provide illustrative options for how the Caltrain Service could grow by 2040. Based on this analysis, staff has now developed a single, recommended “Long Range Service Vision” for consideration and potential adoption by the Board.

Choosing a “Long Range Service Vision” is an important milestone in the Business Plan process. Having a clearly articulated goal for the quantity and type of service that the railroad aspires to provide in the future will provide staff with the critical guidance needed to complete the Business Plan. Once adopted, the Long Range Service Vision will create a framework that allows staff to “work backwards” from 2040, developing analysis showing how the Vision can be phased, funded and implemented over time. This analysis will be conducted in the fall of 2019 with a goal of completing the Business Plan by early 2020.

A REGIONAL VISION BUILT ON REGIONAL INVESTMENTS

Selection of a Long Range Service Vision will also allow Caltrain staff to engage efficiently and constructively in the development of other long range plans and projects throughout the region. This is particularly important since the Caltrain corridor interfaces with many different local,

state and regional transportation systems and investments. While the Long Range Service Vision is fundamentally focused on Caltrain, the Vision must account for and integrate a vast array of transportation projects that have been planned by corridor cities and regional and state partner agencies. Key projects that directly influence Caltrain’s corridor and long range service ambitions include;

- California’s High Speed Rail System
- The Downtown Extension to the Salesforce Transit Center
- The rebuilding of Diridon Station in San Jose
- Multiple grade separation projects planned and contemplated by corridor cities

The Caltrain Business Plan and Caltrain’s Long Range Vision have been deliberately developed to integrate and build on all of these projects. One of the goals of the 2040 Vision is to build a “big tent” that shows how all of the investments currently being planned in the corridor can fit together as part of a cohesive whole, with expanded Caltrain service further enhancing their value and importance.

It is important to note at the outset, that these regional and partner projects also drive a significant portion of the overall investment costs that are considered within the Long Range Service Vision. Figure 1 shows the total set of capital investments that have been included in the “baseline” growth scenario, broken down by major source.

Figure 1- Capital Investments Included in the “Baseline” 2040 Growth Scenario



All costs have been adjusted to 2018 dollars

The costs shown in Figure 1 total to \$22.1 billion in 2018 dollars and are divided into three categories;

- **Caltrain Work Underway:** Including electrification and other major capital projects that are already in progress
- **Investments Planned and Proposed by Caltrain Partners:** Including major terminal projects like the Downtown Extension (DTX) and Diridon Project as well as High Speed

Rail Investments and those grade separations that are already actively being planned by local jurisdictions. While all of these projects are in active stages of planning, most are substantially unfunded.

- **New Caltrain Investments to Support the Baseline Growth Scenario:** This category includes the essential investments that the Caltrain believes will be needed by 2040 to support the baseline level of blended service. Examples include additional electrified rolling stock (to fully electrify the fleet and expand all consists to 8-car trains), level boarding, expanded storage and maintenance facilities and additional grade crossing improvements. These projects are not funded.

These costs have been used as the basis, or “baseline,” for looking at the incremental investment that would then be required to achieve the higher levels of Caltrain service contemplated in the “moderate” and “high” growth scenarios.

DEVELOPMENT OF “GROWTH SCENARIOS”

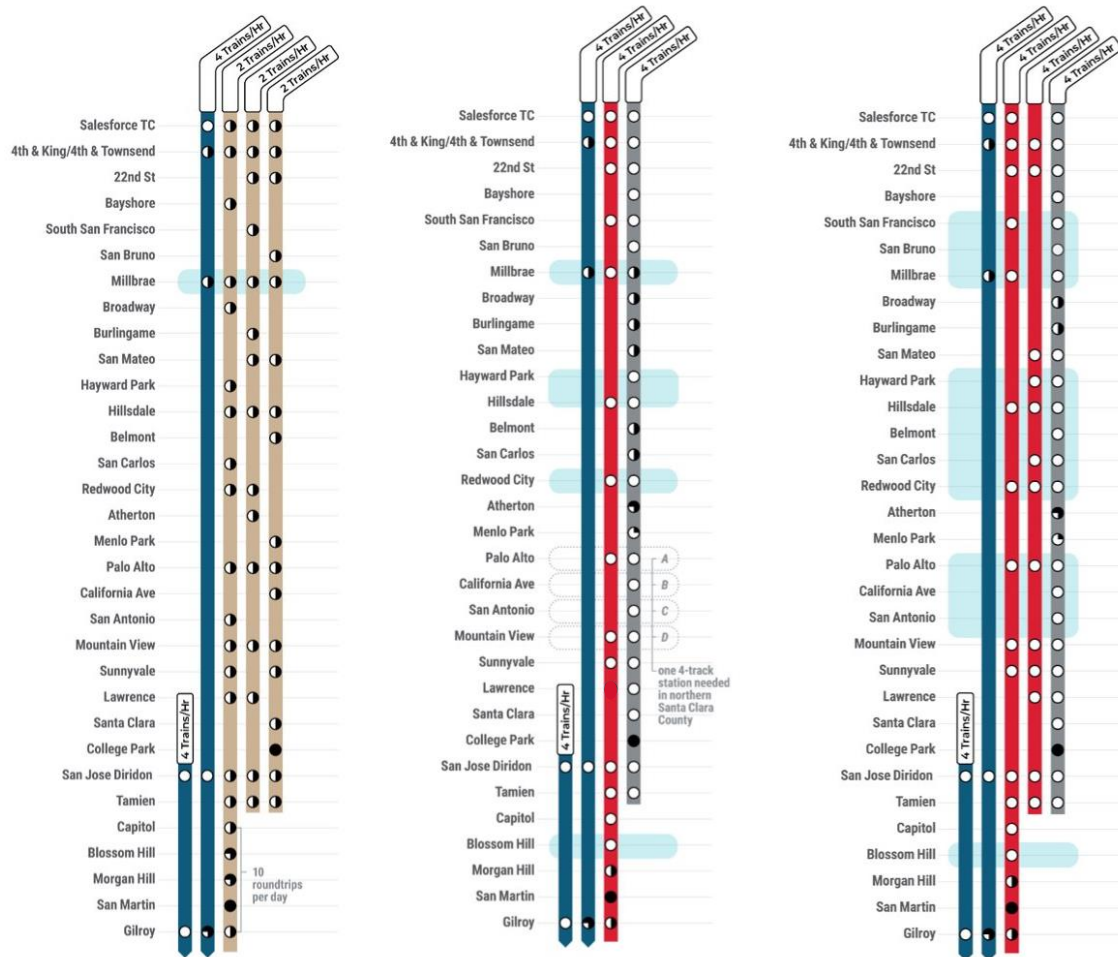
Much of the technical work of the Caltrain Business Plan over the past year has been focused on the development and refinement of three illustrative “Growth Scenarios,” each representing a different option for the kind of service that Caltrain could provide in 2040 given different levels of supporting investment. The three scenarios include a “baseline” level of service (consistent with Caltrain’s prior long range planning and the regional and partner projects discussed above) and two additional scenarios that consider what it might look like if Caltrain were to further expand service (the “moderate” and “high” growth scenarios).

Although illustrative, these growth scenarios were developed at a high level of detail through an extensive service planning process (diagramed in Figure 2). Details of each of these scenarios are shown in Figure 3 and can also be reviewed in the accompanying presentation and on the project website, www.caltrain2040.org.

Figure 2 – Growth Scenario Development Process



Figure 3 – Growth Scenario Detail



The process to develop the different growth scenarios evaluated in the Caltrain Business Plan was conducted in a highly transparent and collaborative manner. Throughout the development of the Growth Scenarios, Caltrain staff have met on a monthly basis to share information and discuss findings with a technical team of partner agency staff (the Project Partner Committee) as well as with corridor local jurisdiction staff (the City and County Staff Group) and corridor elected officials (the Local Policy Maker Group). Additionally, the project team has held quarterly stakeholder meetings with a Stakeholder Advisory Group representing over 90 different organizations and has held multiple rounds of one on one meetings with every city in the corridor. The team also developed customized “booklets” for each city, showing the impacts and benefits of different growth scenarios on their jurisdiction. All told, Caltrain staff have presented Business Plan materials at over 150 stakeholder meetings during the course of the last year.

WEIGHING CALTRAIN'S CHOICES

The detailed illustrative growth scenarios developed through the service planning process were used to model ridership, specify and estimate the costs of required capital investments, and to model detailed operating costs. These outputs were then used as the basis for developing a “Business Case” analysis of each scenario. The Business Case analysis is a structured framework that helps analyze and weigh the costs and benefits of the different options. The analysis examines five areas, each of which is presented in detail in the accompanying presentation and is discussed briefly in this memo.







Figure 4 – Areas of the Business Case Analysis



SERVICE COMPARISON

The service comparison section of the business case looks at the key service, and service-related qualities of the different scenarios and compares them on a head to head basis. The accompanying presentation provides a detailed analysis. In general, the quality of service across the options as measured by various metrics improves as the level of train service and investment increase. Conversely, however, the increased service included in the “high growth” scenario requires the construction of extensive 4-track segments in the corridor – complex infrastructure that has the potential to drive significant community impacts. A detailed service comparison is provided in the accompanying presentation and a summary table of key metrics is shown in Figure 5.

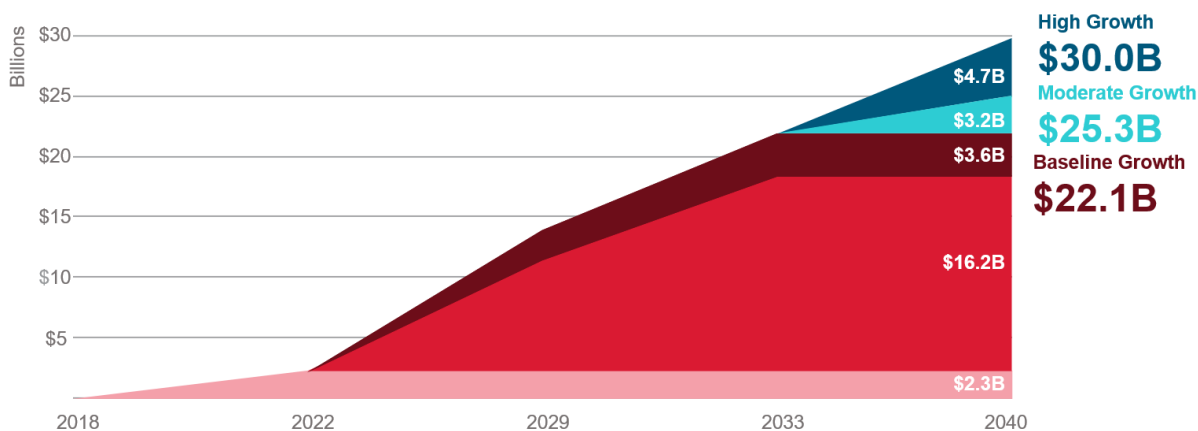
Figure 5 – Summary of Key Comparative Service Metrics

	Metric	Baseline Growth	Moderate Growth	High Growth
 Frequency	Number of Stations Served by Frequent Service (>4 TPHPD)	13 Stations	21 Stations	24 Stations
	Longest Wait Times At Major Stations Served by All Trains	22 minutes	12 minutes	8 minutes
 Connectivity	Percentage of Station Pairs Connected Without/(With) a Transfer	84% (91%)	96% (98%)	99% (99%)
	Number of Station Pairs Not Connected at All*	95	17	2
 Network Integration	Timed Connections at Regular Intervals	No	Yes	Yes
 Ridership	Daily Ridership (capacity constrained)	151,700 Riders	177,200 Riders	207,300 Riders
	Comfortable Peak Hour Train Loads?	No	Some Crowding	Yes
 Travel Time	Travel Time, San Francisco (STC) to San Jose (Diridon)	69-73 Minutes	61 Minutes	60 Minutes
	Average Travel Time per Rider, All Origin-Destination Pairs	33 Minutes	32 Minutes	31 Minutes
 Infrastructure	Passing Tracks Needed	<1 Mile	<5 Miles	15-20 Miles

FINANCIAL ANALYSIS

Detailed capital cost estimates for each scenario, building incrementally off of the “baseline” investments described previously were developed for the moderate and high growth scenarios. Figure 6 shows the baseline investment described previously, profiled over time, with the incremental additional investment required to achieve the “moderate” or “high” growth scenarios shown as an additional increment.

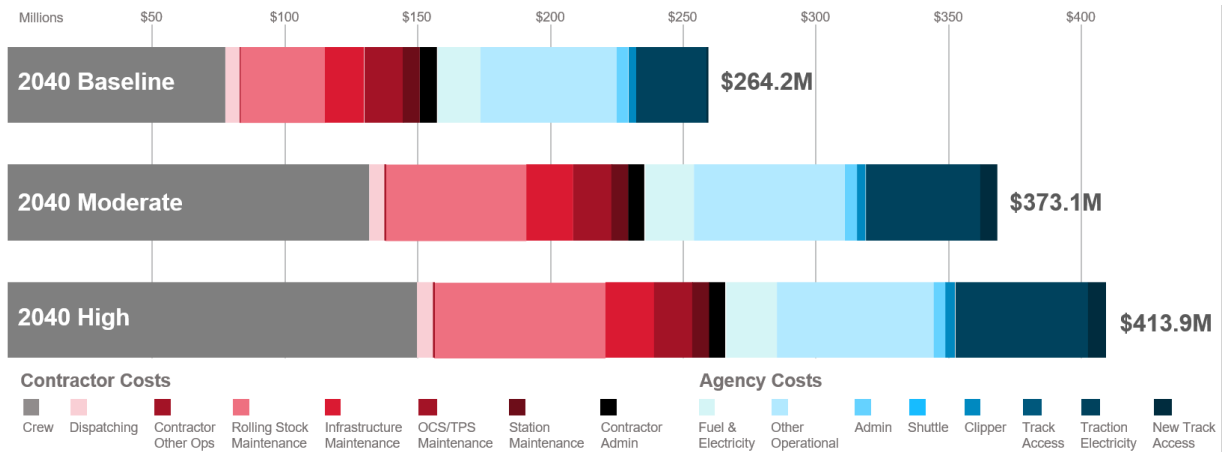
Figure 6 – Total Capital Investment by Scenario



All costs have been adjusted to 2018 dollars

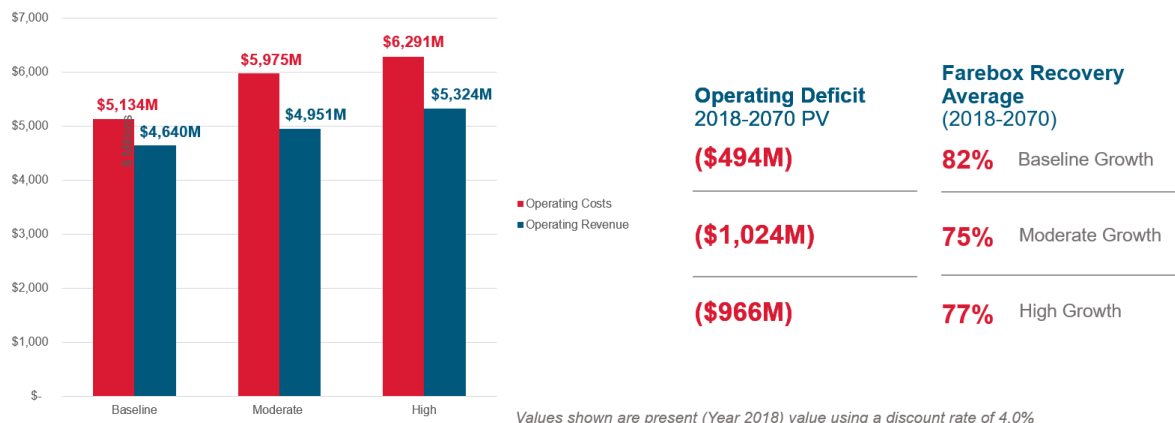
Figure 7 shows the projected 2040 annual operating and maintenance costs for each of the scenarios (in 2018 dollars).

Figure 7 – Total Operating Costs by Scenario



Finally, Figure 8 shows the net present value of total operating costs and projected revenues projected over the 2018-2070 period (the lifecycle timeframe of key investments included in each of the scenarios) along with the average fare box recovery rate across that same period. Additional financial analysis and metrics are reported in the accompanying presentation.

Figure 8 – Net Present Value of Total Operating Costs and Revenues by Scenario, 2018-2070



CALTRAIN ECONOMIC ANALYSIS

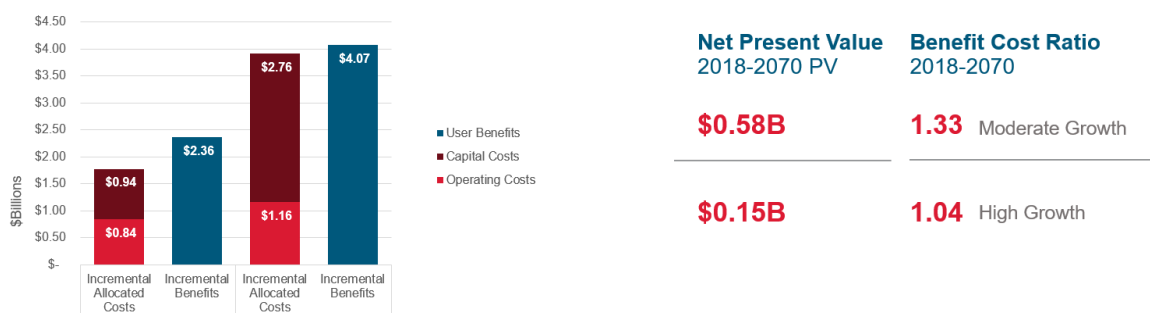
The Business Plan team also developed a series of analyses examining the economic impact of the different growth scenarios on Caltrain riders. This analysis considers the various ways that improved Caltrain service could directly benefit riders, monetizes these benefits and compares them to costs. This analysis is done on a marginal basis against the baseline scenario meaning that calculations are based on the incremental costs and benefits of the “moderate” or “high” growth scenarios relative to the baseline. Costs included in the analysis have also been “allocated” meaning that the overall costs of shared investments (eg projects that serve multiple purposes or benefit multiple users beyond just Caltrain) have been proportioned so as to fairly weigh Caltrain “costs” against Caltrain “benefits.” Calculations are performed for the period between 2040 and 2070, when each growth scenario is assumed to be fully operational. Figure 9 shows directly calculated benefits while Figure 10 shows the net present value of monetized benefits weighed against the value of incremental, allocated costs.

Figure 9 –Estimated Incremental Economic Benefits to Caltrain Users Relative to Baseline, 2040-2070

Benefit	Unit	Moderate Growth		High Growth	
		Total*	Per Year Average	Total*	Per Year Average
Existing Transit User Travel Time Savings	hours	12.9M	0.43M	20.9M	0.70M
New Transit User Travel Time Savings	hours	27.7M	0.92M	40.4M	1.35M
VMT Savings from New Transit Users (Avoided Auto Trips)	vehicle miles	9,000M	300M	16,100M	540M
Roadway Network Safety Improvements	reduced fatal/injury accidents	7,300	240	13,000	430
Public Health Benefits (from Active Transportation Mode Access)	lives saved	70	2	150	5
	reduced absent days at work	30,000	1,000	67,000	2,200

*Values rounded for presentation purposes






Figure 10 – Net Present Value and Benefit / Cost Ratio of Caltrain User Benefits Weighed Against Allocated Costs, 2040-2070



REGIONAL ANALYSIS

The Business Plan team also developed analysis and qualitative discussion of a number of “regional” benefits that would result based on different levels of investment in the Caltrain system. These benefits accrue to a general population and not just users of the system. These regional benefits are described in detail in the accompanying presentation and are summarized in Figure 11 below

Figure 11 – Summary of Regional Benefits

Metric	Baseline Growth	Moderate Growth	High Growth
 Freeway Throughput Additional Freeway Lanes	+4 lanes	+5.5 lanes	+8.5 lanes
 Regional Rail Integration Accommodation of Large-Scale Corridor-Sharing Beyond HSR	could be scaled to accommodate	could be scaled to accommodate	can accommodate
 Environmental Benefits GHG (MTCO2e)	1,108,045	1,898,330	3,006,028
 Land Value Benefits Property Value Premiums Generated by 2040 Service Growth within 1 Mile of a Station	\$10B	\$10 - \$22B	\$22B
 Economic Productivity Economic Output	\$32.8B	\$40.8B	\$47.7B
Full and Part-time Jobs	44K job-years	51K job-years	69K job-years

FLEXIBILITY AND UNCERTAINTY

Finally, the Business Plan team considered the degree of flexibility and uncertainty inherent in the growth scenarios examined. The detailed service plans developed in each scenario are “illustrative,” not definitive and much work remains both within and beyond the Business Plan process to examine specific service patterns and service levels at individual stations.

Additionally, all of the 2040 growth scenarios have been developed in a way that includes and integrates regional projects like High Speed Rail, the Downtown Extension and the rebuilding of Diridon Station. These projects are in various stages of planning and design but all currently lack the funding. There is a great deal of potential uncertainty regarding the timeframe in which they will be delivered and the final form they may ultimately take. Similarly, while larger regional visions for a greatly expanded, integrated rail network are ongoing there is a tremendous amount of uncertainty around how and when these concepts may ultimately manifest.

The issues of service flexibility and uncertainty around regional projects are particularly relevant in the context of understanding where overtake infrastructure may be required. The location and extent of required overtake infrastructure is highly sensitive to what service is being accommodated. This especially true in the “High growth” scenario where the large volume of blended train traffic creates a need for long overtakes used by multiple different operators. The

“moderate” growth scenario has over take infrastructure needs that are more modest and can be planned for more discretely.

Finally, this section of the presentation also discusses a number a series of initial financial sensitivity tests to understand how key business metrics associated with the different growth scenarios may vary in response to changing conditions.

RECCOMENDED LONG RANGE SERVICE VISION

SUMMARY AND BASIS FOR RECCOMENDATION

Caltrain staff has developed a draft recommendation for the Long Range Service Vision. This recommended Vision is described in detail below, but, as it relates to the options studied, the recommendation is that Caltrain adopt and pursue a Vision compatible with the “moderate” growth scenario while also taking a series of steps to plan for and not preclude the potential realization of the “high growth” scenario.

The extensive analysis conducted during the Business Plan process has shown that there a strong demand for expanded Caltrain service and the business case analysis conducted as part of the plan has shown that there is a clear case, based in economic and regional benefits, for pursuing a Vision that goes beyond the baseline levels of service previously contemplated. While the high growth option generates the greatest ridership and expanded regional benefits, it also comes at a higher cost and carries significantly higher levels of uncertainty and potential for community impacts. Therefore, based on the assembled evidence, staff has developed a recommendation that would direct Caltrain to pursue a service vision consistent with the “moderate” scenario while retaining the ability to expand to a level consistent with the “high growth” scenario at such time as demand warrants or the region has made the policy and funding commitments to pursue a larger, integrated rail system.

DESCRIBING THE VISION

The Long-Range Service Vision for Caltrain provides a world class service that is tailored to the future needs of our local communities, the region and the state. It responds to and integrates the committed and planned investments in the Caltrain corridor to deliver the greatest value to the public and region, while maintaining the flexibility to respond as local and regional needs develop.

The Key Features of the Service Vision Include:

- Fast and frequent all day (every day) service
 - Total peak hour frequencies of 8 Caltrain trains per direction

- Faster, all day baby bullet service with express service every 15 minutes
- Significantly increased off-peak and weekend service levels
- User friendly, show up and go service with easy to understand schedules
- Increased Capacity
 - Provides the capacity to triple today's ridership, serving nearly 180,000 people a day
 - Adding more than 5 freeway lanes worth of regional capacity
- Regional Connectivity
 - End to end service- connecting Gilroy to downtown San Francisco (all day, both ways)
 - Comprehensive local service providing coverage to every community
 - Regular service making transfers and connections easier and more predictable

Major Additional Benefits

The Vision will bring huge benefits beyond direct improvements to service. Once complete, the Vision will deliver;

- 1.3 million hours of travel time savings for existing and new Caltrain riders every year as compared to the baseline scenario
- 300 million vehicle miles not traveled every year as compared to the baseline scenario
- \$40.8 billion in regional economic output created by ongoing capital and operating investments
- By 2040 Caltrain service will add between \$25 and \$37 billion in property value premiums to residential and office properties within 1 mile of stations. (This analysis is conservative and excludes San Francisco as well as commercial, non-office properties for which estimates could not be reliably developed)
- The Vision will result in a reduction of nearly 2 million metric tons of CO₂ as well as other air quality improvements

Ready to Grow with the Region

- The Vision has been designed to integrate and add value to the many local, regional and state investments that are being planning in the Caltrain corridor. These include projects like grade separations, major improvements to terminal infrastructure and stations in San Francisco and San Jose, and the integration of the state's high speed rail system.
- The vision also anticipates the ongoing role of Caltrain in a regional rail network that in addition to high speed rail could include a new rail service in the Dumbarton corridor, a second transbay crossing, service to the Monterey peninsula and ongoing improvements to service on Capital Corridor and ACE.
- As part of the Business Plan process, staff evaluated how the service and infrastructure contemplated in the recommended Vision could scale up to an even "higher" level of growth that would allow for up to 16 trains per hour per direction and even greater regional integration and further expansion of rail. At this time, there is still a great deal

of uncertainty around the future of regional rail and Caltrain does not feel that we can independently recommend moving forward with a maximum growth approach given the high costs and potential for extensive community impacts.

- Instead, we are recommending a “do not preclude” approach that would allow for this future growth to proceed once key regional decisions and funding commitments are in place. In practice, this would mean limiting the sale or encumbrance of certain JPB land, accounting for the possibility of more trains when we do terminal and facility planning, and considering the potential need for 4 tracks as certain grade separations are designed. At the same time, Caltrain will actively participate in evolving regional conversations and will help the region and the state evaluate the feasibility and benefits of an expanded and integrated rail network. If the region is truly prepared to move forward with a full regional rail expansion Caltrain will be ready.

Capital Costs

- Achieving the Vision will also be costly- the total range of all projects contemplated to achieve the Vision from Gilroy to San Jose include up to \$25 billion (this includes roughly \$2.5 billion of Caltrain investments already paid for and underway).
 - The significant majority of this cost is driven by projects that are being planned by corridor partners (DTX in San Francisco, grade separations all along the corridor, the potential cost of the Diridon Station project, and HSR improvements- collectively account for more than \$16 billion of the total).
 - The goal of the Vision is to help knit these projects together and to add value to all of them by providing greatly improved Caltrain service. Direct Caltrain investments contemplated (beyond the existing projects already underway) total to roughly \$6.5 billion)
- New sources of funding will clearly be required to address this level of need- including to even come close to achieving the baseline. The \$22 million a year contributed by member agencies to the capital budget is not going to be sufficient to do any of this.

Operating Costs

- Projected 2040 operating annual costs for the Vision are \$373.1 million a year in current dollars (compared to about \$135 million in 2018). By way of comparison, achieving a “baseline” level of growth would cost about \$265 million a year in 2040
- Financial projections show that the efficiency of the system will remain high- we are projecting an average farebox recovery ratio of 75% (holding today’s fare levels constant with inflation). Nonetheless, the need for subsidy will grow as the size of the system increases. Caltrain may need as much as \$90 million a year in operating subsidy (compared to the roughly \$36 million in subsidy it receives today- \$30 million of which come from local member agencies). As the business plan continues we will be exploring ways to further increase system efficiency and generate additional revenues that would offset the need for direct subsidy. Nonetheless, new funding is clearly needed.

Incremental Improvements

- The Vision is not one project- it can be implemented incrementally over time with improvements to service and capacity delivered along the way. During the remainder of the Business Plan Caltrain will work to identify key incremental steps that can be delivered in the near- and medium term timeframes.
- We don't need to wait until 2040- the first major improvement in service is coming soon. Electrification, in 2022 is the first step and will mark a substantial step forward towards the realization of this vision with significant service improvements throughout the corridor.

CALTRAIN'S LONG RANGE SERVICE VISION – DRAFT LANGUAGE

The following is the specific, draft “Service Vision” language that the JPB would be asked to consider for adoption in October. This language will be reviewed and revised based on input from the Board and comments received through stakeholder and public outreach.

- 1) Caltrain's Long Range Service Vision directs the railroad to plan for a substantially expanded rail service that will address the local and regional mobility needs of the corridor while supporting local economic development activities. When fully realized, this service will provide;
 - A. A mixture of express and local Caltrain services operated in an evenly spaced, bi-directional pattern
 - B. Minimum peak hour frequencies of;
 - 8 trains per hour per direction on the JPB-owned corridor between Tamien Station in San Jose and San Francisco, extended to Salesforce Transit Center at such time as the Downtown Extension is completed
 - 4 trains per hour per direction between Blossom Hill and Tamien Stations, subject to the securing of necessary operating rights
 - 2 trains per hour per direction between and Gilroy and Blossom Hill Stations, subject to the securing of necessary operating rights
 - C. Off-peak and weekend frequencies of between 2 and 6 trains per hour per direction north of Blossom Hill and hourly between Gilroy and Blossom Hill, with future refinements to be based on realized demand

- D. Accommodation of California High Speed Rail trains, in accordance with the terms of existing and future blended system agreements between the JPB and the California High Speed Rail Authority
 - E. Delivery of these services will occur through the incremental development of corridor projects and infrastructure to be further defined through individual planning process, feasibility studies and community engagement. At this time, such infrastructure is conceptually understood to include;
 - i. Investments in rail systems including a new, high performance signal system
 - ii. Station modifications including platform lengthening, level boarding, and investments in station access facilities and amenities to support growing ridership and improve customer experience
 - iii. New and modified maintenance and storage facilities in the vicinity of both terminals as well as the expansion of the electrified Caltrain fleet
 - iv. A series of short, 4-track stations and overtakes at various points throughout the corridor
 - v. Completion of key regional and state partner projects including
 - 1. The Downtown Extension to the Salesforce Transit Center
 - 2. The reconstruction of Diridon Station and surrounding rail infrastructure
 - 3. The reconstruction and electrification of the rail corridor south of Control Point Lick to the Gilroy Station
 - 4. Additional improvements to allow for the operation of High Speed Rail service between Gilroy and San Francisco
 - 5. The substantial grade separation of the corridor as well as safety upgrades to any remaining at-grade crossings, undertaken in a coordinated strategic manner driven by the desires of individual local jurisdictions as well as legal requirements associated with any proposed 4-track segments.
- 2) Caltrain’s Long Range Service Vision further directs the railroad to continue its consideration of a potential “higher” growth level of service in the context of major regional and state rail planning. Specifically, the Long Range Service Vision directs the railroad to;
- A. Work with regional and state partners to study and evaluate both the feasibility and desirability of higher levels of service in the context of major regional and state rail initiatives including planning related to the Dumbarton Rail Corridor, the 2nd Transbay Crossing, the potential for expanded ACE and Capitol Corridor services, and ongoing planning for the California High Speed Rail system.

- B.** To take certain actions to consider and, where feasible, not preclude such higher levels of service as they specifically relate to;
 - i. The planning of rail terminals and related facilities
 - ii. The sale or permanent encumbrance of JPB land
 - iii. The design of grade separations in areas where 4-track segments may be required
 - iv. The sizing of future maintenance facilities and storage yards
 - C.** To return to the board with a recommendation regarding any formal expansion of the Long Range Service Vision at such a time as clear regional and state policy and funding commitments are in place and the feasibility of such an option on the corridor has been confirmed
- 3)** Finally, Caltrain's Long Range Service Vision directs the railroad to periodically reaffirm the Vision to ensure that it continues to provide relevant and useful guidance to the railroad. Such reaffirmations should occur;
 - A.** At a regular intervals of no less than 5 years
 - B.** In response to significant changes to JPB or partner projects that materially influence the substance of the Long Range Service Vision

**PENINSULA CORRIDOR JOINT POWERS BOARD
STAFF REPORT**

TO: Joint Powers Board

THROUGH: Jim Hartnett
Executive Director

FROM: Michelle Bouchard
Chief Operating Officer, Caltrain

SUBJECT: **CALTRAIN BUSINESS PLAN – PRESENTATION ON DRAFT ORGANIZATIONAL ASSESSMENT**

ACTION

Staff Coordinating Council recommends the Board of Directors (Board) receive the draft Organizational Assessment report developed as part of the Caltrain Business Plan along with a staff presentation summarizing the document.

SIGNIFICANCE

The Organizational Assessment work stream is a distinct component of the overall Caltrain Business Plan process and has been enabled through the partnership with Stanford University entered into by the JPB in the spring of 2018. The report has been researched and written by Howard Permut of Permut Consulting LLC, under contract to Stanford University and with assistance from the Stanford Global Projects Center as well as other outside experts. The report presents research, analysis and recommendations across a spectrum of organizational areas including service delivery, internal organization and governance.

The draft report is presented to the Board for informational purposes only at this time. Further direction on the organizational assessment will be based on Board discussion and stakeholder outreach.

BUDGET IMPACT

There is no budget impact associated with receiving this report and presentation.

BACKGROUND

In 2017, the JPB secured full funding for the Peninsula Corridor Electrification Project and issued notices to proceed to its contractors for corridor electrification and purchase of Electric Multiple Unit railcars. Now that construction on this long-awaited project is underway, the agency has the opportunity to articulate a long-term business strategy for the future of the system.

The initial concept for a Caltrain "Business Plan" was brought to the Board in April of 2017. The Board reviewed a draft scope of work for the Business Plan in December of 2017 and adopted a final Business Strategy and Scope of Work in February of 2018. Technical work on the Plan commenced in the summer of 2018. The Business Plan has been scoped to include long-range demand modeling, and service and infrastructure planning, as well as organizational analysis and an assessment of Caltrain's interface with the communities it traverses. It is an extensive planning effort that includes outreach in multiple venues. The plan will be completed in early 2020.

Prepared by: Sebastian Petty, Director of Policy Development

650.622.7831

CALTRAIN BUSINESS PLAN

ORGANIZATIONAL ASSESSMENT



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INTRODUCTION

The following report is an organizational assessment of Caltrain. It has been undertaken as one part of the “Caltrain Business Plan,” a long range plan analyzing the overall future of the Caltrain service and corridor. The delivery of this Organizational Assessment report has been deliberately timed to coincide with the Board’s consideration of different options for a “Long Range Service Vision” as part of the larger Business Plan process. As the Board considers what the long term vision for Caltrain rail service might be, this report sets out an accompanying spectrum of organizational considerations, options and recommendations that will need to be addressed as part of any larger transformation of the railroad.

Caltrain is at a pivotal moment in its history and change is coming. Since assuming its current institutional form in the early 1990s, Caltrain has experienced nearly three decades of successful growth, becoming the US’s 7th largest commuter railroad as well as the most efficient major passenger railroad in the country. Looking forward, however, the decisions to electrify the railroad and to one day share the corridor with High Speed Rail have set the agency down a path of significant change and transformation. Similarly, the Caltrain corridor and service are central to a number of major, multi-billion dollar regional projects like the Downtown Extension in San Francisco, the rebuilding of Diridon Station in San Jose, and the planned and contemplated grade separation of dozens of at-grade crossings along the rail corridor.

Caltrain’s organization is foundational to all of these changes. From its overall governance to the manner in which it delivers its day-to-day service, the railroad’s organizational choices will be instrumental to ensuring its continuing success as it prepares for a period of dynamic growth and change that may continue for decades.

This report provides a comprehensive analysis of the Caltrain organization. It addresses the related organizational areas of service delivery, internal organization and governance and lays out a spectrum of choices, focus areas and recommendations for consideration by Caltrain and its partners as they prepare for the work ahead. The report is divided into five chapters, each with a different emphasis.

- Chapters 1 through 3 provide important context, background information and comparative analyses that are intended to help the reader understand key issues surrounding the Caltrain organization and to relate the specific circumstances of Caltrain to the organizational structures and approaches used by other railroads around the country and world
- Chapter 4 is an extensive analysis of the specific issues and options available to Caltrain in the areas of service delivery, internal organization and governance
- Chapter 5 builds on the analysis of the preceding chapter and makes specific recommendations and outlines implementation steps

This report has been prepared by Howard Permut, of Permut Consulting LLC with contributing assistance from the following individuals and institutions;

- Professor Michael Bennon and the Stanford Global Projects Center (Chapter 3)
- Ratna Amin, DB Engineering & Consulting (Chapters 3 and 4)
- Lou Thompson, Thompson Galenson and Associates LLC (Chapters 3 and 4)
- Renee Marler (Chapter 4)
- David Miller, Hanson and Bridgett (Chapter 4)

The author would like to express his gratitude to the individuals listed above as well as to the many Caltrain staff, Board members and external stakeholders who provided information and made themselves available for interviews throughout

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ORGANIZATIONAL ASSESSMENT – *DRAFT REPORT*

the researching and production of this report. Finally, the author would like to extend a special thanks to Stanford University whose generous financial and administrative support made this effort possible.

CHAPTER 1: INITIAL ASSESSMENT IDENTIFYING KEY ISSUES AND AREAS FOR FOCUS

I. OBJECTIVE AND ORGANIZATION

This chapter serves as an entry point into the larger organizational assessment of Caltrain. It was written during the summer and fall of 2018 and includes a series of initial observations related to key context, themes and issues that were determined to be of importance to the overall organizational assessment. Many of these are addressed in detail through subsequent chapters in the organizational assessment while others are surfaced here but have not been analyzed further at this time. This chapter was originally completed as an independent memo in the fall of 2018 and was provided to Caltrain Board members and partner agency staff at that time for discussion. In developing this memo into the first chapter of the overall organizational assessment, some minor modifications to the text of the original memo have been made to ensure internal consistency in the overall document.

The chapter consists of three sections:

- Work completed;
- Key high-level observations regarding the Caltrain organization; and
- Organizational areas recommended for future focus as part of the Business Plan.

The objective of this chapter is to provide context for the organizational assessment portion of the Business Plan. The organizational assessment will ultimately help the Joint Powers Board (JPB) and Joint Powers Authority (JPA) members identify the organizational structure that best enables the successful implementation of Caltrain’s future service vision.

At the outside, it is important to highlight and differentiate among three related, yet different, concepts of service delivery, internal organization and governance. These concepts are used throughout the Organizational Assessment and are defined as follows:

Service Delivery is defined as how Caltrain operates and manages its services both on and off the corridor. For example, how does Caltrain fulfill its various functions such as train operations, rolling stock maintenance, track maintenance, and implementation of infrastructure improvements. The most basic management choice will revolve around the extent of the use of in-house forces as compared to third-party contractors. There are a number of different combinations and models as to how this could be done which will be explored in the organizational assessment.

- Internal Organization is defined as the manner in which Caltrain has organized itself. While there is significant overlap between this concept and the discussion of both service delivery and governance, there are many key areas of internal focus (resources, departmental functionality, and supporting/shared services) which must be independently evaluated and addressed regardless of the selected governance structure or delivery method.
- Governance is defined as the manner in which Caltrain is overseen by the JPB and JPA members. It focuses on the agency’s decision-making processes and the Board’s oversight of the Caltrain organization. The

decision as to the optimal structure will be driven by a number of factors including the basic determination of Caltrain’s future role in the region (for example, is Caltrain a mobility provider?).

II. WORK COMPLETED

This chapter was initially developed as a standalone memo in the summer and fall of 2018 and involved an extensive review of information from a variety of sources. Three trips were made to California to meet with, interview and discuss key issues with people that have substantive knowledge and influence in the Caltrain corridor. In addition, a number of telephone interviews were conducted due to time constraints and scheduling conflicts. There were also a number of follow-up meetings with many of the interviewees.

In total, over 50 people were interviewed from the JPB, Caltrain, VTA, SFMTA, SFCTA, MTC, High Speed Rail Authority (HSRA), Caltrans - Division of Rail (Caltrans), Stanford, private sector leaders and regional advocacy groups. Appendix 1 is a complete listing of the people who were interviewed in the development of this Chapter. All the interviews are confidential.

In addition, numerous documents were reviewed, including reports, organizational charts, contracts, schedules and budgets. These included both internal Caltrain documents as well as external documents from other state agencies and regional planning agencies. Appendix 2 is a listing of the key reports reviewed.

Finally, a number of project meetings with external parties were also attended and there have been regular on-going discussions with the Business Plan team as well as other key Caltrain staff.

Appendix 3 is Howard Permut’s personal vita.

III. KEY HIGH-LEVEL OBSERVATIONS

1. Change is coming.

The first and most important observation is that change is coming. The status quo is no longer viable as transformative decisions have already been made; the most critical being the electrification of the Peninsula Corridor and the agreement to share the corridor with HSR service. These changes have and will continue to impact all aspects of the Caltrain organization: how it operates, how it is perceived by its customers, how it relates to its external stakeholders, etc. In short, it is a transformational moment for Caltrain that brings both great opportunity and equally great challenges.

2. This change will inevitably require organizational change and growth.

With increased ridership, new maintenance-intensive infrastructure as well as new agreements with HSRA and other outside agencies, Caltrain’s organization will need to change and grow regardless of its chosen service delivery or governance models.

There have been positive organizational changes over the past few years including hiring of skilled staff, greater transparency and increased Board involvement but to continue this improvement, Caltrain will need to seek out the following:

- Additional staff and financial resources to address the demands currently being placed on Caltrain (discussed in more detail below);
- New railroading operational and support skills to maintain and operate an electrified railroad;
- New scheduling and operating approaches to reflect increased and blended service; and
- Additional operational and business acumen to enable negotiation of more comprehensive agreements with HSRA, other external parties and the private sector. These agreements, in particular those with HSRA and

those pertaining to 4th and King and Diridon stations, are far more complex and at a much greater scale than the agreements completed to date.

Any potential change in the service delivery and/or governance models will likely further impact the organizational structure and needs.

3. At the same time, Caltrain is having great demands placed on it.

While Caltrain needs to prepare for this future change, the organization is currently facing great demands in a number of different areas:

- There are a number of over-capacity trains. Crowding is driven by significant ridership increases with the potential for much higher ridership to come;
- Caltrain is managing the largest and highest profile infrastructure improvement program in the railroad's history (this is discussed in more detail below);
- There is an imminent need to manage and operate an electrified railroad with significantly greater service and possibly new operating patterns;
- There is a need to coordinate corridor management, train operations and infrastructure investment with HSRA (this is discussed in more detail below);
- There is a need for a corridor-wide strategy¹ to address at-grade crossings (via grade separations, closings or other treatments) involving multiple levels of government;
- There is an expectation that Caltrain will be the primary transportation solution for a heavily auto-oriented and congested corridor with a booming economy;
- There is a need for a new operating contract when the TASI contract expires in June 2022²;
- There is the potential to improve integration with other existing transit systems as well as interface with regional system expansion projects such as the Downtown Rail Extension to the Salesforce Transit Center, Dumbarton Corridor and the San Jose - Gilroy Corridor.

4. All of this is happening in a very heavily- and densely-used corridor.

Increasing the challenge is the fact that the Caltrain corridor is already very heavily used and ridership is continuing to grow. The Caltrain service:

- Is the seventh largest railroad in the US in terms of ridership;
- Is the fastest growing major railroad in the US;³
- Is the second most densely used railroad in the US as measured by ridership per track mile⁴
- Has the highest Fare Operating Ratio for commuter railroads in the US⁵, which has been driven by large ridership increases;
- Carries 50 percent more customers than Metrolink in Los Angeles on 25 percent of the trackage; and
- Is very much a regional railroad serving multiple markets: San Francisco/San Jose work trips, reverse commuters, intermediate riders and off-peak riders. Over 50 percent of the trips on the railroad are being

1 This would include, among other key factors, design criteria, funding and implementation responsibility

2 JPB has an option for a one year extension until June 2023.

3 Since 2010 Caltrain ridership has increased by 73 percent as compared to an average of 30 percent for the nine other largest rail systems in the US.

4 Excluding the service to Gilroy, the Caltrain corridor between San Francisco and San Jose is the most densely used railroad in the US.

5 Excluding BART.

made between intermediate stations⁶ as compared to a standard commuter railroad with one major terminal in the central business district. This is the highest percentage of intermediate trips in the US.

5. This is happening in an extremely diverse and growing region.

Another complicating factor is that this is occurring in an extremely diverse and unique region. The entire corridor has seen significant growth in both population and especially employment. The corridor has two major growing cities⁷ at its mainline ends with a mixture of towns and smaller cities in the middle of the corridor and south of San Jose. These communities also have major and rapidly growing employment centers.⁸ Many of these jobs are located in reasonable but not direct proximity to Caltrain stations. This level and type of growth is unique in the country.

6. There are significant potential land development opportunities on Caltrain controlled properties.

Caltrain is fortunate to control a significant amount of land that could be monetized and used for commercial development and/or used to address requests for affordable housing programs. This provides an opportunity to develop and implement a corridor-wide value capture strategy with particular focus on the two potential mega development projects at the terminals in San Francisco and San Jose.

Over the recent past, Caltrain has initiated a series of efforts that will help inform this strategy. The Business Plan will both help outline a comprehensive system-wide view of which properties will be needed for future rail infrastructure as well as provide a better understanding of the role of development in the railroad's overall future financial situation. The Rail Corridor Use Policy (RCUP) and Station Management Toolbox will provide the detailed analysis and policy tools needed to analyze and make decisions about individual properties. In combination, these studies will assist the Caltrain Board in developing and implementing an overall value capture policy, which can then drive individual development agreements.

It is important to note that there are different ways in which Caltrain could "monetize" its assets. There are two basic divergent approaches: use the funds to support individual projects or use them to provide overall financial support for system operations and maintenance. Selecting a direction, with the expectation of site specific decisions and exceptions, would be a key component of a value capture strategy.

7. This is happening with a unique and complex governing structure.

While a more complete analysis is presented later in this report, a few points that make Caltrain's current structure for a public railroad unusual in the United States (without determining pros or cons) are:

- Most public railroads are governed by a Board of Directors (elected or appointed) that has direct oversight of the railroad's management;
- Most governing board members are selected by their sponsors (in this case, the Counties) for fixed terms in a similar or consistent manner;
- Most Boards have standing committees;
- Most railroads' futures are not as intertwined with other State Agencies (HSRA, Caltrans) as Caltrain; and
- The San Mateo County Transit District plays two roles as both a JPA member and the managing authority.

⁶ Including San Jose as an intermediate station.

⁷ Since 2010, San Francisco and San Jose's populations have each grown by approximately 10 percent.

⁸ Over the past 25 years, the number of jobs has increased by 25 percent in San Mateo and Santa Clara Counties and 20 percent in San Francisco. Going forward, by 2040, the SPUR Vision Plan projects that jobs will grow (vs 2010) by 37 percent (San Mateo), 42 percent (Santa Clara), and 51 percent (San Francisco).

8. This is happening simultaneously with an evolving relationship with HSR.

As noted above, the relationship with HSRA is critical to the future of Caltrain. This is a complex multi-year relationship that will need a significant amount of ongoing attention.

In a general sense, HSRA provides both challenges with regard to service integration, service delivery, infrastructure planning, cost sharing, etc. as well as major opportunities related to the development of corridor-wide grade crossing and operational strategies, funding, political support, interline travel, etc.

Currently, there is no agreement in place that addresses the Caltrain-HSRA relationship in a global manner. The agreements that currently exist are basically project agreements that include statements committing the parties to reach future agreements on operations and cost-sharing. A more complete agreement that includes an overall framework defining each agency's respective management and operational responsibilities, cost-sharing protocols, a process to resolve future issues, and a multi-year investment plan would be extremely helpful in building a cooperative "win-win" relationship. It would greatly assist in defining a common vision for the corridor and a path forward to implementation.

9. This is happening during a period of financial uncertainty.

Caltrain is facing both uncertain future funding availability as well as a difficult cost sharing arrangement amongst the JPA members. Total partner funding has been significantly reduced over the past decade and the individual partner agencies appear to have impending financial issues that will continue or possibly exacerbate the problem.

These funding challenges affect both annual operating costs as well as capital costs:

- On the operating side, there is no dedicated funding source nor mutually agreed upon funding levels.
- On the capital side, there is inadequate funding for state of good repair investments, no mutually agreed upon funding levels and no funded multi-year capital investment plan except for the electrification project.

10. This is happening simultaneously with the implementation of a huge capital program that is critical to the future of the organization and has a number of inherent risks.

At the same time that Caltrain is facing all these issues, it is implementing the electrification program, which is an extremely complex, high profile project that is critical to Caltrain's future service and organizational credibility. Furthermore, this is happening on the heels of the challenging implementation of positive train control, which is causing concerns both at Caltrain and at many other railroads throughout the country.

The most recent risk assessment for the electrification project shows that the project has both available schedule and cost contingencies. In addition, the San Mateo Civil Grand Jury recently found that "Caltrain has adequate management processes in place to implement a project of this scale."⁹ However, any project of this size and complexity will have both schedule and budgetary concerns. Of particular note are the following potential issues:

- The coordination of the car deliveries and the availability of traction power. The current schedule has cars delivered before the traction power system will be operational requiring cars to be put in storage for a period of approximately 12 months;
- The successful implementation of the constant warning time system for grade-crossing gates;
- The interface between operations (track outages) and the contractor during the construction period; and
- The rail activation plan to accept and place the new cars in service while de-commissioning a portion of the diesel feet and then operating and maintaining a mixed fleet.

11. There also appears to be a misconception regarding the electrification project with external constituents.

There appears to be an expectation among some external constituents and the public that the completion of the electrification program is the end of the major capital investment program. In fact, this is a corridor that will require

⁹ San Mateo Civil Grand Jury Report, Project Management of the Caltrain Modernization Program, July 2018.

major capital investment for an extended period to address grade crossings, track re-alignments, maintenance facilities, yards, stations (platform length and increased height for level boarding) and signals. Beyond the need to identify funding sources for this work, these projects will have community impacts (land-takings, noise, etc.) and will also require significant track outages with attendant service restrictions. Setting realistic expectations with the public and external constituents at this time will assist Caltrain in maintaining future organizational credibility as well as obtaining additional funding.

12. This is happening at a time that major private sector companies and many external constituents are fully engaged and have significant expectation that Caltrain will be a major part of the solution to the corridor’s major transportation challenges.

Another unique and critical factor is that the Bay Area has a number of private sector companies and universities that are engaged with the public sector. This engagement, led by Stanford, is manifested in their interest in Caltrain and their extensive involvement in the Business Planning process. They are looking towards Caltrain as a major part of the solution to improve accessibility in the Corridor.

Further, there is a general positive perception of Caltrain and an accompanying level of support with partner agencies as well as local planning agencies, non-governmental organizations and advocacy groups. This degree of support and involvement, including the funding of a portion of the Business Plan, is very atypical in the country. On balance, it is a positive development as it provides the opportunity for future funding, political support as well as customers. However, this support can change quickly if Caltrain is perceived as being unable to deliver a Business Plan with a realistic implementation strategy and schedule or is unable to improve future service.

13. In a slightly different vein, this is also happening during a time period when there may be an opportunity for Caltrain to build support by increasing rail service as long as it does not impinge upon construction windows.

While there is and will be a significant amount of construction ongoing over the next few years, there may also be an opportunity to add small amounts of rail service in the weekday off-peak and evening periods as there appears to be a significant market for this service. If feasible, this would illustrate to Caltrain’s customers and external partners the vision of improving service wherever possible while also garnering some political capital that may be useful in the future.

14. The extent of Caltrain’s success in meeting these demands will not only greatly affect the organization’s future but will have major impacts on the regional economy.

In short, what Caltrain does really matters to the region!

IV. ORGANIZATIONAL AREAS FOR FUTURE FOCUS

Based on the research and discussions to date, the following are major areas of future focus that will need to be addressed by Caltrain.

1. What is Caltrain’s future role on the corridor: corridor manager, rail operator, mobility provider, developer or combination thereof?

Caltrain currently plays a number of different roles on the corridor. With the exception of rail operator, the roles are partially fulfilled (for example, Caltrain is a partial mobility manager in that it supports some but not all bus shuttle service connecting to the system). A critical issue for Caltrain is determining to what extent the organization will more fully engage these different roles. Caltrain’s posture relative to these roles will underlie future relationships and agreements with HSRA, partner agencies, local jurisdictions, private businesses, the development community and other external constituencies. Further, it is a key factor in determining the organizational structure with regard to both service delivery and governance.

2. What is Caltrain’s service delivery model starting in 2022 and what structure provides the most effective way to deliver the future service?

The confluence of the completion of the electrification project and the ending of the TASI contract in 2022 provides Caltrain with the opportunity to redefine how it provides its service. This in part will be a function of Caltrain’s role in the corridor as discussed above.

There are a number of different options for service delivery ranging from doing work in-house to full contracting with third parties. These contracts can be for operations, operations and maintenance, operations/maintenance/financing or combinations thereof. Different approaches can be used for transportation, maintenance of way, maintenance of equipment, administrative functions, and real estate development. A third party could be a private operator such as TASI or an operator procured through HSRA.

Typically, this service delivery decision revolves around a balance of organizational capability, cost, level of control over service delivery/fare setting, funding availability and stability and, importantly, financial risk (i.e. which party bears the revenue risk). Caltrain’s priorities ought to determine the relative weight of these different criteria.

As noted above, this will be a central focus of the organizational assessment.

One final point is that the organizational strategy, while moving Caltrain towards its desired end-state delivery structure, will also simultaneously need to ensure continued operations in a seamless fashion for customers and enable timely completion of the electrification program. Over the next twelve months, this would entail the selection of a desired structure, the initial implementation of the strategy including required staffing and/or the development, procurement and negotiation of potential new agreements. It may also include a possible short term extension to the TASI contract as appropriate.

3. What information does Caltrain have to inform the above discussion?

In order to make the best possible decisions regarding service delivery, Caltrain will need adequate information with respect to railroad operations for current operations, future needs and alternative service delivery concepts. The work currently being done as part of the Business Plan will address many of these needs.¹⁰ Specifically, the following information is most important:

- Cost (both aggregate and disaggregate) to provide current service;
- Cost drivers for current service;
- Key performance metrics for current service;
- Projected future operating costs (including the impact of electrification); and
- Projected future capital needs.

To the extent additional work is required, this should be done at the earliest possible date.

4. What organizational bandwidth and resources are needed both short term and long term to implement Caltrain’s future servicevision (both skills and amount of resources)?

While Caltrain has a number of skilled professionals, it will need expanded organizational capability, including individuals with railroad specific knowledge, to prepare for and provide future operations. The decision regarding service delivery will determine where these skills should be housed (at Caltrain or with a third party) but in either case, these skills will be needed. Currently, it appears that there are a number of areas where staff are stretched and there are large numbers of vacancies. Some of the areas that will need to be reviewed and addressed are as follows:

- Positions to operate a large and ultimately high speed electrified railroad (safety, operations, maintenance of equipment, maintenance of way, planning, procurement, IT and administration);

¹⁰ This work is being done by First Class Partners in conjunction with Caltrain staff.

- Positions to provide improved customer interfaces: ticketing, mobile apps and real time information;
- Positions to develop plans and strategies (i.e. fares, development policies), specify multi-year capital investment programs and work to obtain necessary funding
- Positions to implement major infrastructure projects;
- Positions to negotiate potential future agreements with critical external parties such as HSRA, Union Pacific, a future short line freight operator and other regional transit agencies;
- Positions to support procurement of a new service provider and to oversee performance management on an on-going basis (assuming JPB decides to use a third-party contractor for some portion of service delivery);
- Positions to support community and external interfaces with both other transit agencies and other public and private organizations that will grow in conjunction with the growth of Caltrain; and
- Positions to support expanded duties such as mobility management and real estate development to capture the value created by Caltrain service (if the JPB decides to undertake this work).

As part of this review, there is the need to identify which functions require additional railroad expertise and training as contrasted those needing more general transportation knowledge. Relatedly, those functions that can be managed by people with a more generalized set of skills should be identified as they could be considered for consolidation as part of a service delivery option that includes an “administrative service center” concept. This concept will be reviewed as part of the different service delivery models.

5. What is needed for Caltrain to attract and retain the necessary talent to operate a major railroad?

The issue of attracting people to work and live on the Peninsula is a challenge faced by all public and private employers. However, in order to successfully expand organizational bandwidth, especially in areas requiring increasingly specialized railroad expertise, Caltrain will need to develop a talent acquisition and retention strategy. This will be difficult given that one of the consistent themes that was regularly expressed by both internal and external people was that Caltrain has a very dedicated staff but that it struggles mightily to fill positions and attract qualified personnel. This will become more critical as the need for additional organizational capability develops over the next few years. Further complicating this is the fact that the rail industry workforce is generally older and there are a large number of people retiring, thereby increasing the industry-wide demand for a limited number of skilled individuals.

There are a few elements to this:

- What needs to be done to improve Caltrain’s image, increase its profile in the industry and become an employer of choice?
- What changes in compensation need to be made to reflect the extremely high cost of living in the Bay Area and especially the Peninsula?
- What type of employee training and development programs are needed to expand employee skills, provide a career path for employees and help staff retention?
- What would the impact be of including Caltrain in the Federal Railroad Retirement System? This is a very complex issue that will need detailed research. On the positive side, it could be a key step in attracting mid-level managers with 10 to 20 years of experience. On the downside, it could be extremely costly.

6. What process improvements are needed to maintain and improve upon Caltrain’s efficiency and effectiveness?

This question was raised by a number of internal staff who believe that there is an imbalance between process and decision-making that has led to an aversion to making decisions and taking actions. Others believe that other process improvements in select areas would have a positive impact. While the following is not meant to be exhaustive, some of the areas noted were:

- Interface between operations and construction;

- Interface between operations and administrative staff (HR, Procurement);
- Construction oversight;
- Design standards;
- Budget development; and
- Capital planning.

7. What reporting systems are needed to monitor/evaluate major project implementation and ongoing operational performance for different audiences (JPB, CEO, senior staff, public, outside agencies)?

A related issue is the adequacy of the reporting that is done with respect to both operational performance and project delivery for internal and external audiences. As the electrification project progresses, external party awareness of project details will likely increase as will their level of interest.¹¹ Having transparent and comprehensive reports will be critical for both internal project oversight as well as building organizational credibility with key external constituents.

8. What governance structure is most likely to enable successful outcomes for Caltrain with a significantly expanded mission?

This is an extremely complex issue as it involves setting policies, decision-making, oversight of the CEO and their team, and the nature of funding arrangements between the parties. There is a wide range of options and the decision ought to reflect the priorities of the JPA members. Typically, key factors include cost sharing, control over decision-making, implementation ability (what is required legally, what is politically acceptable, etc.) and transparency.

Furthermore, the best governance structure will be in part a function of the service vision as well as the service delivery option that is chosen. It could also be implemented in different ways: incrementally, all at once or a combination thereof. In addition, the structure should position Caltrain to successfully address known looming problems such as need for new funding sources and the need for agreements with HSRA.

In addition, in the event that Caltrain service were to extend beyond the current three-county geographic area (i.e. towards the East Bay as part of a Dumbarton extension or south into Monterey County), an alternative governing structure may be required or appropriate.

As noted previously, this will also be a central focus of the organizational assessment.

9. What organizational and cultural changes are needed to support Caltrain's future business vision and organizational strategy?

Finally, regardless of the specific service delivery and governance structure that are ultimately selected, Caltrain will be going through a transformation. As part of this, the organizational culture and structure (i.e. the definition of responsibility, reporting relationships, etc.) will likely have to change and specific initiatives will need to be detailed and implemented to help guide Caltrain through this period. As important, the communication protocols between the staff and board will need to be reviewed and modified as appropriate. Finally, the results of ongoing studies should be used to develop explicit Board policies that will enable staff to implement projects more efficiently.

¹¹ The fact that the previously noted San Mateo Civil Grand Jury report states "it is difficult for the public to find and access useful summary project information and that searching for key project terms on the Caltrain and CalMod websites doesn't yield useful results" is indicative of the extensive attention the project will face as it moves forward.

CHAPTER 2: DEFINING THE STANDARD FUNCTIONS OF A MAJOR PASSENGER RAILROAD AND MAPPING THE CALTRAIN ORGANIZATION

I. OBJECTIVE AND ORGANIZATION

This chapter outlines the core functions and outputs that are required for the successful operation of a major passenger railroad and then describes the specific manner in which these activities are currently organized and undertaken by Caltrain.

Railroads are complex entities. Defining their organizational structure, both generally, and specifically at Caltrain, has been undertaken as a foundational piece of analysis to support the Business Plan's organizational assessment. This mapping is used to provide the basis for the comparative analysis that is undertaken with other national and international properties in Chapter 3 and also provides a grounded and specific basis for the organizational recommendations in Chapter 5. Additionally, the mapping is intended to serve as a written reference document for interested partners and stakeholders who may not be as directly familiar with the full scope and organization of the railroad.

It is worth noting that the description and mapping of railroad functions (both generically and specifically at Caltrain) is done from two different perspectives. The first describes high level railroad "outputs" – the major outward facing functions that all railroads deliver. The second describes the detailed organizational activities required to produce these outputs and identifies the parties responsible for their execution.

II. HIGH LEVEL OVERVIEW OF RAILROAD FUNCTIONS AND OUTPUTS

It is important to start with the simple fact that a major passenger railroad exists to transport customers in a safe, convenient, economical and reliable manner.¹² It also provides numerous other ancillary benefits: increases in land values, environmental benefits, safety benefits, and improved accessibility, among others.

To accomplish this core function, however, is an extremely complex undertaking. While passenger railroads have different organizational structures, there are certain essential features and functions that are common to all. The functions described may be governed and delivered by a single organization or may be provided by any combination of multiple public and private entities with different areas of focus and responsibility. However, a well-functioning railroad requires all of the major activities or outputs summarized below.

¹² The functions described in this chapter are defined for railroads using a standard gauge of 4'8.5" (like Caltrain). The basic functionality would be the same for railroads using a wider gauge (BART).

TRAIN OPERATIONS AND MAINTENANCE

This is the daily and safe operation of revenue and non-revenue trains. It comprises the customer facing operations of the service, dispatching of equipment, including that from other railroads, the cleaning of equipment and the inspection and maintenance of the equipment to meet all federal and state regulations. Underlying this operation is the development of service plans and schedules.

INFRASTRUCTURE OPERATIONS, MAINTENANCE AND DELIVERY

This is the daily operation, maintenance and inspection of track, signal systems, civil structures and facilities to enable a safe and reliable operation and maintenance and to meet all federal and state regulations. In addition, it includes the delivery of capital projects to improve the infrastructure. Underlying this is the development of multi-year capital investment programs and strategies to obtain the necessary funding.

CUSTOMER PAYMENT AND INFORMATION SYSTEMS

This is a primary customer facing function that involves the collection of passenger revenue and the provision of customer information. Underlying this function is the development of fare policies, fare tariffs, integrated fares and revenue collection strategies (fare gates, ticket-vending machines (TVMs), regional fare media, mobile/internet-based ticketing). Underlying the customer information system is the development of information plans and systems as well as system maintenance. Note that this frequently includes both direct communications as well as coordination and dissemination of information through trip planning applications and third-party channels.

STATION OPERATIONS AND MAINTENANCE

This includes the safe operation, maintenance and cleaning of station facilities including platforms and ticket selling devices. This function is at times done in conjunction with other organizations and political entities (usually local cities).

To an even greater degree than stations, the following two functions are frequently done in conjunction with other organizations and political entities.

ACCESS AND EGRESS

This is the daily provision of a means for customers to access and egress the railroad. This includes the direct operation and management or coordination of parking, connecting bus and shuttle services (provided by either the railroad, local government including both transit agencies and municipalities, or the private sector), taxis/ride-hailing, and walking, bicycling and other forms of active transportation. Underlying this is the development of access plans and agreements with outside entities including local municipalities, local and regional transit agencies, transit management associations, and the private sector.

COMMERCIAL ACTIVITIES

This can include a wide range of functions and activities that monetize the railroad's assets in a way that supports or complements either its operations or its capital improvement program. Examples are major developments that utilize railroad property, advertising, station leasing, and right-of-way leasing (often for fiber optics or other utilities). All of these activities involve extensive and specialized negotiations with the private sector and at times with other public entities.

III. HIGH LEVEL OVERVIEW OF TYPICAL LARGE US RAILROAD ORGANIZATION

Prior to discussing the detailed functionality of a generic railroad and of Caltrain specifically, it is useful to outline at a high level the organizational units of large US passenger railroads that handle their core functions in-house or contract out select functions. These would include:

- Board of Directors/CEO who provide executive leadership;
- Operations who provides the daily service;
- Safety and Security who oversee the safe operation of the service;
- Finance who oversee the financial functioning of the railroad;
- Administration who support the functioning of the company;
- Planning who provides direction for the company;
- Capital Programs/Engineering who implement programs and projects for the company;
- Real Estate that monetizes the assets as well as obtains property to support on-going railroad functions; and
- Communications/Government Relations who interact with critical external audiences.

It is also important to note that passenger railroads operate in a very comprehensive and complex regulatory environment. In the United States, the operations of passenger railroads are overseen by the Federal Railway Administration (FRA) that has strong powers to impact and direct operating and safety outcomes. In addition, railroads are affected by the Federal Transit Administration (FTA), Department of Labor and State (i.e. California Public Utilities Commission (PUC)) regulations. Furthermore, railroads frequently have agreements with other transportation providers (freight railroads, local parking authorities, local bus authorities) and are strongly influenced by the plans and policies of other state, regional and local public entities that provide needed funding. In short, they exist in a very complex environment.

While the core “outputs” of a railroad described in the previous section will be broadly similar across organizations, the exact functions being undertaken by any railroad will reflect the organization’s current situation: its size, geographic scope, history, and the critical upcoming issues. For example, agencies with large capital expansion programs will likely have larger engineering and capital program management departments and expend more resources in that area than legacy systems that are more focused on daily operations. The question of who undertakes these functions in different circumstances: the railroad itself, an outside contractor, a host railroad (Amtrak or freight) or some combination thereof will be examined in more detail in later phases of the organizational assessment process. These responsibilities vary greatly from railroad to railroad - there is no standard model.

Finally, for ease of reference, these functions have been categorized into the departments and divisions that frequently, but not always, are responsible for completing these tasks. Where a task is frequently done by more than one department, which is often the case, it is noted.

IV.DETAILED DISCUSSION OF RAILROAD FUNCTIONAL UNITS

BOARD OF DIRECTORS

While Board responsibilities vary widely across the industry, the basic functions include:

- Setting policy;
- Approving business plans;
- Selecting the CEO;
- Approving major contracts;
- Approving budgets and capital programs; and
- Approving fares and service provided.

CEO

The CEO, in conjunction with the Board, sets the corporate vision and goals and is then responsible for implementing these goals. Key functions include:

- Acting as the public face of the organization;
- Developing the corporate culture;
- Managing all aspects of the organization;
- Managing emergency situations;
- Resolving major problems and conflicts; and
- Interfacing with political decision-makers and key external constituents.

OPERATIONS DIVISION

This is usually the largest group in a passenger rail agency and is responsible for the provision of daily service. It includes the delivery of the detailed functions described below. The specific organization of these functions into departments may vary between organizations, but a typical structure would be as summarized as follows.

1. TRANSPORTATION

The Transportation department delivers the daily service to the customers: The basic functions include:

- Safe operation of the trains;
- Crew book development, which determines the work assignment for all train and engine crews (sometimes in conjunction with the Operations Planning department);
- Crew management, which manages the daily assignment of personnel (engineers, conductors, ticket collectors) to the trains including the extra list and conductor flags (to support construction contracts);
- Monitoring compliance to ensure that engineers, conductors and ticket collectors are performing their job;
- Fleet management, which involves moving trains to their appropriate location for either revenue service, storage or maintenance; and
- Dispatching trains, which is done in the control center. This is a critical function as the dispatchers' control the flow of rail traffic over the corridor (train prioritization) as well as crisis management.

2. MAINTENANCE OF WAY

The Maintenance of Way department is responsible for maintaining the railroad's infrastructure. This includes daily maintenance, compliance with FRA and other applicable regulations, and in certain organizations the implementation of select capital projects. The basic functions include:

- Track maintenance, which involves main line track, sidings and switches;
- Power system maintenance, which involves the electrical system including substations (this is done for both third rail and overhead catenary systems);
- Signals and communications maintenance, which involves the signal system, the communication network (usually fiber optics) and in many instances responsibility for maintaining a portion of the Positive Train Control system (PTC); and
- Bridges and buildings maintenance, which involves railroad buildings (shops, field headquarters) and structures.

3. MAINTENANCE OF EQUIPMENT

The Maintenance of Equipment department is responsible for maintaining the railroad's rolling stock, including locomotives, coaches and electric multiple units. The basic functions include:

- Daily repairs and inspection of equipment to meet the service needs as well as remain in compliance with FRA regulations;
- Cleaning of trains;
- Implementation of select capital projects;
- Responsibility to maintain non-revenue rolling stock (track machinery, inspection vehicles); and
- Responsibility, in certain instances, for the implementation and maintenance of the PTC system components on-board the vehicle.

4. STATIONS/CUSTOMER SERVICE/TICKET SELLING

This is a department whose responsibility has generally evolved and grown over the past few years across the industry. Their responsibility varies at different agencies but in general utilizes front-line employees that interface directly with customers. Their key functions are to:

- Maintain and clean stations and ancillary facilities such as parking lots and inter-modal facilities (frequently with localities);
- Handle the provision of customer information (signage, station announcements, operation of real time information systems, etc.);
- Manage lost-and-found;
- Manage and respond to customer complaints;
- Manage different aspects of ticket sales via different methods: ticket agents, Ticket Vending Machines (TVMs), conductor devices, apps, mail, and corporate agreements (usually in conjunction with the Finance and Operating divisions); and
- Manage connecting services (usually buses) during scheduled and unscheduled rail disruptions.

SAFETY AND SECURITY DIVISION

This division contains three basic functions: safety, security and policing. It is organized differently throughout the industry.

1. SAFETY

The Safety department is responsible for the development and implementation of corporate safety programs. Key functions are to:

- Develop and manage on-going safety programs, frequently in close coordination with the operations and engineering divisions;
- Perform safety audits and post incident reviews; and
- Interface with the FRA (especially with regard to incidents and FRA inspections).

2. SECURITY

The Security department is responsible to ensure the safe keeping of the railroad's assets.

3. POLICE

The Police department is responsible for policing the railroad's operations to maintain a safe environment, including both stations and on-board vehicles. Frequently, policing is provided by a combination of railroad and local municipal and state police officers.

FINANCIAL DIVISION

The Finance division is responsible for managing the corporate finances. While the structure varies greatly between railroads, there are typically a few basic departments.

1. BUDGET DEPARTMENT

The Budget department develops and monitors the corporate budget and multi-year financial plan. The authority that rests in the Budget department varies widely between agencies (from a basic monitoring function to a major decision-making responsibility). Their basic functions are to:

- Manage the agency budget process;
- Provide reports to outside agencies (FTA, States, etc.);
- Depending upon the agency, they may also have a major role in the development of fare and non-passenger revenue strategies (frequently in conjunction with the Planning, Marketing and Operations divisions); and
- Similarly, they may assist in the management of the agency's key performance indicators.

2. ACCOUNTING

The Accounting department typically has the following functions:

- Receipt of monies;
- Payroll management;
- Payment of bills;
- In certain instances, collection of revenues from stations, ticket vending machines and third-party providers; and
- Maintaining the corporate financial records.

REAL ESTATE DIVISION

The Real Estate division is typically a stand-alone division or is part of the Finance division. Regardless, it typically has a series of functions:

- Management of railroad owned properties and leases;
- Obtaining land, easements and permits for construction projects;

- Monetizing assets; and
- Negotiation of agreements for major developments (typically with the Legal department).

ADMINISTRATIVE DIVISION

Railroads typically include a wide range of functions in the administrative area, but the particulars are very specific to individual railroads. As discussed below, much of the work is jointly done by an administrative and operating or other user department that frequently leads to a matrix type organization. Key functions that are included are listed below:

1. PROCUREMENT

The Procurement department is responsible for the procurement of the systems, third party contracts and materials needed to operate, maintain and support the railroad. A large portion of this work is done in conjunction with the department using these services.

The Procurement department is a critical lynch pin in successful railroad operations. It must follow procurement procedures that are driven by complex federal, state and local regulations. The procurement process is also quite transparent and can lead to high visibility lawsuits. In addition, the department will typically procure a very wide range of goods and services from basic rolling stock parts and professional services to major infrastructure contracts.

All of these requirements lead to the industry wide issue of the extent to which the Procurement department has the resources and technical skills needed to fulfill its responsibilities, especially as it relates to the award of larger-scale and complex third-party contracts. One such example is the procurement of major third-party design, build, operate and maintain contracts (somewhat similar to Caltrain's current operating contract with TASI). The complexity and importance of these issues usually results in pairing the procurement staff with user/legal/planning department staff and/or the development of an agency wide task force that oversees these types of major procurements. These task forces will frequently report to the CEO and the senior management.

Basic functions of the department are to:

- Manage the procurement process so that it is done in accordance with company policies, procedures and legal requirements as well as all applicable federal and state regulations, and
- Monitor work on on-going contracts to ensure contract compliance.

2. INFORMATION TECHNOLOGY

The Information Technology (IT) department usually manages the railroad's hardware and software systems, but typically does not manage the signals and communications function, which is handled by the Maintenance of Way, Signals and Communications group. For many systems (asset management, etc.) they support another department's work while for others (office computers, etc.) they are responsible for the full operation and maintenance of the system. In addition, the IT department typically has the following roles:

- Support key customer facing systems such as ticket selling and provision of customer information. This is usually done in conjunction with the Customer Service and Transportation departments.
- Work with third party providers to develop and manage operational support and customer apps.

3. HUMAN RESOURCES/TALENT MANAGEMENT

The Human Resource (HR) department is responsible for providing the railway with the people needed to operate and manage the system, including both management and union personnel. Similar to the Procurement department, across the railroad industry, HR departments face a number of evolving challenges in meeting their mission: an aging workforce, the need to hire people with specialized skills, a heavily unionized work force and the need to coordinate their activities very closely with the other departments. Basic functions include:

- Recruitment of new personnel;

- Development and management of corporate compensation programs;
- Development and management of corporate employment policies;
- Managing the discipline process, usually in conjunction with the Labor Relations department for union employees; and
- Talent management, which involves the identification of needed organizational skills as well as the specification of employee development programs to provide these skills.

4. TRAINING

Training is closely related to the HR function and in certain organizations is a combined function. Industry-wide, Training Departments are faced with the need to evolve their approach to adapt to the increased use of technology in the industry (rolling stock maintenance, PTC maintenance, etc.). Basic functions include:

- Training of most if not all operating division personnel (train and engine crews, maintenance of way, maintenance of equipment) though in some cases it is done jointly with the Operating Department;
- Developing and maintaining training programs; and
- Ensuring that employees receive the necessary FRA certifications.

5. LABOR RELATIONS

Labor relations is typically the department that deals with the union leadership and union issues. This includes:

- The negotiation of union contracts;
- The on-going administration of union contracts (including discipline and regular disputes over work rules and practices); and
- On-going interface with the union leadership.

6. EQUAL EMPLOYMENT OPPORTUNITIES OFFICE

The Equal Employment Opportunities (EEO) office is responsible for the development and administration of corporate EEO policies, which address issues of non-discrimination (e.g., age, sex, race). In many railroads, they work with the Procurement department to encourage the participation of small and minority owned business in railroad contracts.

7. LEGAL

The authority that rests in the Legal department varies greatly between organizations. In certain cases, they are a central part of the key decision-making team; in others they play a lesser or slightly more administrative role. The responsibilities typically include:

- Negotiation of contracts (frequently with the Procurement department);
- Overseeing of claims against the railroad;
- Negotiation of multi-agency agreements; and
- Monitoring compliance with respect to everything from regulatory agreements to contract disputes to environmental compliance.

PLANNING DIVISION

The role of the Planning division varies greatly from agency to agency. They have regular interfaces with almost all departments within the railroad though their decision-making authority varies greatly. The key functions include:

- Operations and service planning, which entails the development of the customer train schedules and in some cases, ancillary products, such as crewbooks, fleet plans, etc. This can also include long term service plans.
- Fare policy (usually with the Finance division).

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- Capital planning, which is responsible for the development of multi-year investment plans (frequently with the Operating and Engineering divisions).
- Strategic planning, which is responsible for the development of business plans, corporate strategies and key initiatives.
- Long-range planning where long term studies and major plans are developed. This would include conducting environmental review under the National Environmental Policy Act (NEPA) and in California, the California Environmental Quality Act (CEQA).
- Process improvement/performance measurement, which involves the use of key performance indicators and targeted studies to improve the efficiency and effectiveness of the railroad. This is frequently done with the Operating and Budget departments.
- Negotiation of third-party agreements (developers, other operators, municipalities, etc.). This too is usually done in conjunction with the legal, finance, real estate and engineering departments.

CAPITAL PROGRAM MANAGEMENT/ENGINEERING DIVISION

The Capital Program Management/Engineering department is also organized differently at each agency. Their basic responsibilities are:

- Implementation of the major portion of the railroad's capital program (with the basic infrastructure work done by the Maintenance of Way department). This would include grade-separations, station work, line extensions, procurement of vehicles, electrification, etc.
- Management of third-party contracts and depending upon the project size, use of a third-party construction management firm as well as outside inspectors.
- In some cases, they are responsible for developing and maintaining engineering standards.
- In some cases, this division will also be responsible for the development, writing and administrating of grant applications (this is frequently done in conjunction with the Planning division).

COMMUNICATIONS/GOVERNMENT RELATIONS DIVISION

This division is the primary group who interacts with numerous external stakeholders. It is organized in a variety of different ways throughout the industry though the overall functionality is fairly constant.

1. MARKETING

The Marketing department develops programs to increase ridership and revenue as well as promote the corporate brand. They usually are responsible to conduct market research studies.

2. PRESS/PR/SOCIAL MEDIA

This department typically works closely with Marketing and Government relations. Key functions are:

- Daily interaction with the local media and during emergencies becoming a key face of the agency, and
- Development, in conjunction with the marketing department, of the corporate messaging program.

3. COMMUNITY OUTREACH/GOVERNMENT RELATIONS

The Community Outreach/Government Relations department is responsible for maintaining on-going relationships with key external stakeholders. This would include municipalities, elected officials, state officials and advocacy groups among others.

V. SUMMARY OF STANDARD RAILROAD FUNCTIONALITY

In conclusion, while railroads all provide and deliver a similar set of core outputs, the organization(s) that support them differ substantially in scope and responsibility. These differences are strongly driven by two factors:

- The specific circumstances of the railroad, with major differences between organizations that are expanding rapidly or are responsible for the delivery of major capital projects versus those that are operating existing stable systems. This results in different organizational structures, different allocation of resources and areas of focus well as different skill sets.
- The precise set of responsibilities for the railroad as certain functions may be done by outside organizations including private contractors.

This analysis serves as the basis for the work in this chapter, as well as Chapter 3. Next in this chapter, the Caltrain organization is mapped to identify how Caltrain performs its basic functions, while in Chapter 3 the manner in which other railroads in the US and abroad are structured is examined. This information is synthesized in Chapter 4, where alternative service delivery and governance options for Caltrain to meet its 2040 vision are evaluated at a high level.

VI. MAPPING THE CALTRAIN ORGANIZATION

The following sections build on the standard railroad functionality defined above and explain how specific rail functions and tasks are organized and delivered at Caltrain.

Given the size, history, complexity and structuring of Caltrain’s operations, many of the functions are shared by different organizational entities. For purposes of this chapter, entities are identified when they have significant responsibility for a function; entities with tangential involvement are not designated. For all functions, an explanatory note is included to provide more detail.

In all cases, responsibility is assigned to one or more of six different groups:

- **Caltrain Management:**
 - Rail Division/CalMod
 - San Mateo County Transit District (i.e. “District”) Shared Services
- **Caltrain Contractor:**
 - TASI
 - Other
- **Non Caltrain:**
 - Outside public partners
 - Outside private partners.

This mapping is based on an analysis of Caltrain’s organizational chart, the TASI organizational chart and contract as well as numerous interviews with Caltrain staff during the summer of 2018 and further discussions with senior staff in March 2019.

In order to map these functions in a clear fashion, it is useful to define the different organizational entities that comprise and interact to form “Caltrain” and specify the relationship between them. **Figure 1** at the end of the chapter provides this information.

VII.CALTRAIN’S HIGH LEVEL OUTPUTS

Table 1 outlines the responsibility for high level functions and outputs for Caltrain.

Table 1: Caltrain’s High Level Outputs

	Caltrain Management		Caltrain Contractor		Non-Caltrain		Notes
	Rail Division + CalMod	District Shared Services	TASI	Other 3rd Party Contractors	Outside Entities (Public partners and cities)	Outside Entities (Private)	
Train Operations	X		X				1
Train Maintenance	X		X				1
Infrastructure Maintenance	X		X				1
Infrastructure Construction	X	X	X	X			2
Customer Payments	X	X	X		X		3
Customer Information Systems		X	X		X		4
Station Operations/ Maintenance			X		X		5
Station Access/ Egress	X				X	X	6
Commercial Activities	X	X					7

Notes:

- Under a contract with Caltrain, TASI has direct responsibility for train operations, equipment and infrastructure maintenance. Rail Division provides oversight of both the service and contract, develops the train schedule, implements on-going maintenance programs and coordinates rail service for special events and major construction activities including the Peninsula Corridor Electrification Program.
- Rail Division and CalMod departments oversee third-party contractors implementing funded projects. TASI provides field support (flags). District shared services manages the procurement process for Rail Division and CalMod projects. The Rail Division and CalMod manage the contracts and provide project management services. In certain instances, the Rail Division oversees construction of real estate development and other major non-rail projects on District property. There is no underlying multi-year rail capital infrastructure plan that balances funding and needs.
- JPB is responsible for setting fare policy and codified tariff changes with the support of the District shared services and Rail Division. Rail Division determines fare collection procedures and programs. TASI is responsible for enforcing the fare tariff on board the trains. Rail Division is responsible for purchasing and installing fare sales/collection devices (ticket vending machines, Clipper card tag on/tag off devices). District shared services collects the revenue, maintains the underlying computer systems, and provides customer service. District staff maintains the ticket vending machines (TVMs). The Clipper devices are maintained by TASI and District shared services. MTC developed and oversees the Clipper Card Program. District shared services is responsible for the Go Pass program.
- District shared services is responsible for providing the informational content for signage, social media, third-party apps and press releases. TASI is responsible for maintaining the public address systems and majority of the station signage; some of this is maintained by local communities.
- TASI is responsible for the operation and maintenance of the vast majority of the train stations, platforms and parking lots. In certain cases, the local municipality is responsible. Rail Division oversees the contract and undertakes station planning.
- Rail Division is responsible for the planning and managing of station access/egress facilities (parking lots, bicycle facilities, etc.). Third parties, including SamTrans, VTA, SFMTA, ACE, Capitol Corridor, BART, and private companies, all provide connecting services as well.
- Rail Division is responsible for the planning of transit-oriented development (TOD) at the two terminals, with support from District shared services. All other commercial development work, including TOD at intermediate stations, is done by Rail Division and District shared services. Managing of leases and obtaining easements and access for railroad operations and construction is done by District shared services.

VIII. CALTRAIN'S DETAILED FUNCTIONALITY

Table 2 below provides similar information for the detailed functionality.

Table 2: Caltrain's Detailed Functionality

	Caltrain Management		Caltrain Contractor		Non-Caltrain		Notes
	Rail Division + CalMod	District Shared Services	TASI	Other 3rd Party Contractors	Outside Entities (Public partners and cities)	Outside Entities (Private)	
CEO	X	X					1
Operations							
Transportation	X		X				2
Maintenance of Way	X		X				3
Maintenance of Equipment	X		X				4
Maintenance of Stations	X		X		X		5
Customer Service		X	X				6
Ticket Selling and Tariff Enforcement	X	X	X		X		7
Safety and Security							
Safety	X	X	X	X			8
Police				X			9
Security		X		X			10
Finance							
Budget	X	X	X				11
Accounting		X					12
Treasury and Payroll		X					12
Insurance and Claims Management		X					12
Real Estate and Commercial Activities							
Managing leases and railroad-owned property		X					13
Obtaining land, easements, and permits for construction projections		X					13
Reaching commercial agreements with third parties		X					13
Planning for TOD, including policy development, terminal development, and TOD at stations	X	X					13
Joint development projects on JPB property	X	X					13

Table 2: Caltrain’s Detailed Functionality

	Caltrain Management		Caltrain Contractor		Non-Caltrain		Notes
	Rail Division + CalMod	District Shared Services	TASI	Other 3rd Party Contractors	Outside Entities (Public partners and cities)	Outside Entities (Private)	
Administration							
Procurement	X	X	X				14
IT	X	X					15
HR/Talent Management		X	X	X			16
Training			X				17
Labor Relations	X		X				18
EEO		X	X				19
Legal				X			20
Contract Management and Agreements	X	X		X			21
Planning							
Operations Planning	X		X				22
Strategic Business Planning	X						23
Environmental Planning (EIS)	X	X					24
Capital Planning and Programming							25
Facility Planning	X						26
Performance Measurement and Process Improvement	X		X				27
Capital Program Management/Engineering							
Infrastructure Construction	X			X			28
Asset Management	X						29
Grants		X					30
Communications and Government Relations							
Press		X					31
Marketing		X					31
Outreach		X					31
Other							
Sustainability		X					32
First Mile/Last Mile	X	X			X	X	33

Notes:

1. Caltrain CEO performs all the standard CEO executive level functions: representing the agency to the public and key external constituents, developing the corporate culture and organizational vision, managing the organization, managing emergencies, and making critical decisions. CEO manages both shared services and rail division staff, including the Chief Officer of Rail who is responsible for critical railroad operations and functions with the exception of those which are the undertaken by CalMod and District shared services.

2. TASI is responsible for providing the train service: crewing the trains, managing the fleet, dispatching the trains, and monitoring compliance with operating rules. Rail Division oversees the contract and the operation, approves the crewbook, and coordinates construction activities with TASI.
3. TASI is responsible for FRA required infrastructure inspections and maintenance of track, signals, communications, bridges/tunnels and buildings. Rail Division oversees the contract and the operation as well as manages select projects. For manning changes from the base contract, TASI proposes changes for Rail Division approval. This is usually done as part of the budget process.
4. TASI is responsible for rolling stock maintenance, cleaning of trains and FRA required inspections. Rail Division oversees the contract and the operation as well as manages select projects. Manning changes are handled in the same manner as above.
5. TASI is responsible for maintaining most stations, platforms, parking lots and inter-modal facilities, with municipalities or partner transit agencies handling the remainder. Rail Division oversees the contract and undertakes station planning.
6. District shared services is responsible for the provision of customer information content (signage, social media, electronic signs) and works with third-party app providers. District shared services provide customer service for Caltrain passengers. TASI is responsible for maintaining station public address systems and signage. TASI, in conjunction with the Rail Division, is also responsible for Lost and Found. TASI manages the use of buses for scheduled or unscheduled outages with the appropriate bus provider.
7. JPB is responsible for setting fare policy and codified tariff changes with the support of the District shared services and Rail Division. Rail Division determines fare collection procedures and programs. TASI is responsible for enforcing the fare tariff on board the trains. Rail Division is responsible for purchasing and installing fare sales/collection devices (ticket vending machines, Clipper card tag on/tag off devices). District shared services collects the revenue, maintains the underlying computer systems, and provides customer service. District staff maintains the TVMs. The Clipper devices are maintained by TASI and District shared services. MTC developed and oversees the Clipper Card Program. District shared services is responsible for the Go Pass program.
8. District shared services provides oversight to safety programs and conducts safety audits and inspections. Rail Division develops the system safety plan in conjunction with the District Safety Department. TASI implements safety programs, policies and training for both their employees and third-party contractors as well as conducts incident investigations. Third-party contractors are used for safety training on major projects involving outside contractors.
9. Policing is provided under contract to Caltrain by the San Mateo County sheriff for the entire system.
10. District shared services provides program oversight. A third-party contractor provides security for passengers and facilities.
11. District shared services is primarily responsible for the operating budget function. Rail Division oversees TASI budget and assists in the development of portions of the Caltrain budget (utilities, fuel, etc.). The Rail Division and District shared services jointly develop the capital budget with input from TASI for the state of good repair element.
12. District shared services is responsible for the accounting, payroll, claims, insurance and treasury functions.
13. District shared services is responsible for the real estate functions, including managing leases and railroad owned properties; obtaining land, easements, and permits for construction projections; and reaching commercial agreements with third parties. The Rail Division and District shared services are both responsible for development of policies related to TOD. District shared services leads the process for joint development projects on JPB property with support from the Rail Division. The Rail Division is responsible for the planning of TOD at the two terminals, with support from District shared services. All other commercial development work, including TOD at intermediate stations, is done by Rail Division and District shared services.
14. District shared services is responsible for procurement for all rail projects and materials other than work procured by TASI under its agreement. Rail Division oversees TASI procurements.
15. District shared services is responsible for the IT function that support administrative functions (non-vital systems). Rail Division is responsible for IT functions that support rail operations (vital systems). There are on-going discussions regarding respective responsibilities for functions that straddle these two classifications.

16. District shared services is responsible for the basic human resource functions/talent management. For certain select positions, an outside recruitment firm is used. TASI is responsible for hiring their own employees however, the Rail Division has the authority to approve TASI senior management (the GM and their direct reports).
17. TASI is responsible for the training and certifying as needed all its employees.
18. TASI negotiates labor contracts with the unions (this has occurred twice during the contract duration) and handles daily issues in collaboration with the Rail Division; costs are borne by Caltrain.
19. District shared services is responsible for the EEO function for District employees and TASI is responsible for their employees.
20. Legal services are contracted out to Hanson and Bridgett.
21. Rail Division oversees TASI contract. Negotiation of inter-agency agreements is done by Legal Department and Rail Division. Some contracts, such as the On-Call Transportation Planning contract, are managed by District shared services.
22. Rail Division is responsible for train schedules; TASI provides input.
23. Rail Division is responsible for the Business Plan.
24. Cal Mod is responsible for environmental clearance of their projects. District shared services handles all other projects.
25. The development of system wide multi-year investment plans that balance funding and needs is not currently done. The Business Plan will provide the foundation for the development of future investment programs.
26. Rail Division is responsible for planning both major terminal and station projects as well as other infrastructure projects.
27. Rail Division is responsible for data collection and analysis. TASI prepares operational and contract compliance reports as defined in the TASI contract.
28. CalMod oversees the contractors implementing the electrification, SF tunnel modifications and the EMU contract with Stadler. Rail Division is responsible for implementing all other projects (PTC, grade-separations, signals, stations, etc.). TASI implements smaller low-cost projects directly.
29. Rail Division has an asset management plan.
30. District shared services is responsible for grant applications; Rail Division provides significant input and support for major project applications.
31. District shared services is responsible for all press, government relations, community outreach, public outreach, marketing and market research.
32. District shared services is responsible for all sustainability programs.
33. Rail Division is responsible for the planning and managing of station access/egress facilities (parking lots, bicycle facilities, etc.). District shared services and third parties manage the planning and operation of connecting shuttle bus/van services. Connecting transportation services are provided by SamTrans, VTA, SFMTA, ACE, Capitol Corridor, BART, and private companies as well.

IX.OBSERVATIONS

Based on this analysis as well as information received in interviews with Rail Division and District shared services staff, the following are my general observations regarding the existing Caltrain organization. These are important as they serve as a starting point for discussion of the organizational structure that is best suited to support the ongoing service and commitments of the railroad and deliver Caltrain's future Service Vision. Chapter 4 of this organizational analysis will include this discussion of possible future directions for the organization.

1. There is significant bifurcated responsibility throughout the Caltrain organization. This is a natural result of two phenomena:
 - Utilization of a third-party contractor to provide rail service; and
 - Having a robust shared services function.

The key question going forward is to determine if these are the most effective organizational structures for Caltrain as it strives to grow its service and achieve a more expansive service vision.

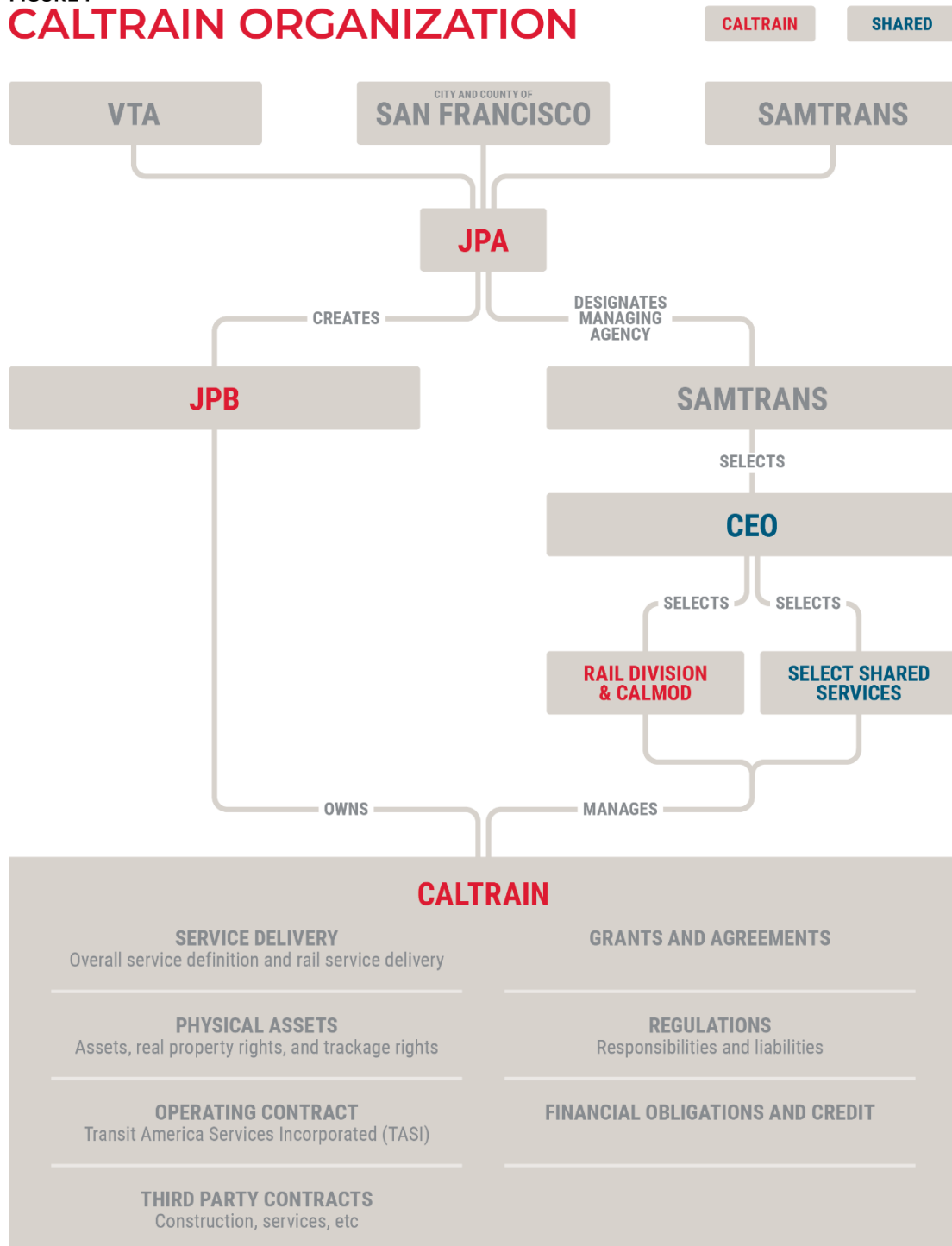
2. In providing the operations functions, the respective responsibilities of TASI and the Rail Division can be more clearly defined. Most importantly, the future organizational structure and responsibilities in the Rail Division need to be directly aligned with either a new operating contract or an explicit, higher level decision to begin conducting certain work with in-house forces.
3. As future capital investment programs are developed, a decision will need to be made as to how best implement and manage major construction projects. There are three basic units that could deliver these programs: Rail Division, Caltrain Special Projects Division (i.e. an organizational unit similar to CalMod) or an outside entity such as a special purpose district or authority. The decision will be a function of many factors including governance, funding, and organizational capability/reputation. However, it is structured, it is critical that the rail operational and service requirements are met by the implementing group.

One possible structure could be:

- Megaprojects such as DTX, grade separations, Diridon Station are managed by either an outside party or a special Caltrain division.
 - Major projects, such as a new shop, new signal system, and station/platform programs, are managed by Caltrain Rail.
4. One atypical organizational situation is having District staff directly responsible for maintaining the Ticket Vending Machine system, which is used solely by the railroad customers in contrast to the majority of rail systems that are maintained under contract to the Rail Division. Maintenance of Ticket Vending Machines is usually done within the railroad organization.
 5. As is frequently the case, there are differing opinions within the organization as to how well some of the shared service functions are working; in particular, Safety, IT, Procurement, and Human Resources. This may be a result of inadequate resources, a lack of necessary skills or a combination thereof. As Caltrain grows and strives to achieve its vision, this will require focused attention and resolution.
 6. Despite limited organizational resources due to financial constraints, the Caltrain organization has had many successes, including provision of high-quality rail service for a growing customer base, implementing major capital programs, undertaking a comprehensive business planning process and taking the initial steps towards transforming itself into a major railroad. This provides a strong base upon which to build the future Caltrain organization.

FIGURE 1

CALTRAIN ORGANIZATION



CHAPTER 3: SUMMARY AND COMPARISON OF ORGANIZATIONAL STRUCTURE OF OTHER COMMUTER RAILROADS AND PUBLIC AGENCIES

I. OBJECTIVE AND ORGANIZATION

This chapter is a discussion of the manner in which other railroads and public agencies provide their core operating and maintenance functions.¹³ It does not focus on capital project delivery. From this information, comparisons will be drawn with Caltrain and key lessons and themes highlighted.

Two different sets of analysis have been completed:

- General review of how all North American railroads deliver their core service; and
- Detailed case studies of six US and three international railroads with an eye towards three specific issues that are central to Caltrain’s future. These include: (1) organizational governance; (2) service delivery options; and (3) organizational structure with a focus on shared services. Depending upon the situation, shared services could entail sharing across different modes within a single organization (“internal shared services”) or shared services between different modes and different organizations (“external shared services”). MBTA and SEPTA are examples of the former while Caltrain and the other US cases are examples of the latter.

II. GENERAL REVIEW OF NORTH AMERICAN RAILROAD SERVICE DELIVERY MODELS

There is an extremely wide range of core service delivery models in use throughout the United States and Canada. These can be classified into three basic service models in use today:

In-house model – The Transit Agency uses its own workforce to provide the primary functions of the railroad. Examples of this are Metro-North (New York), New Jersey Transit (NJT) and Southeastern Pennsylvania Transportation Authority (SEPTA).¹⁴ The in-house model is most common in the older and larger legacy properties in the Northeast, though the

¹³ Major assistance has been provided by Professor Michael Bennon of the Stanford Global Projects Center and Ratna Amin. Much of the information in this section is based on the TCRP Report Contracting Commuter Rail Services, Volumes 1 and 2, National Academy of Science 2018. This report is an excellent resource for more detailed future analysis of alternative service delivery models. <http://www.trb.org/Main/Blurbs/178090.aspx>

¹⁴ The portions of the NJT and SEPTA systems not on the Northeast Corridor are operated by in-house personnel; the Northeast Corridor is operated by Amtrak.

Utah Transit Authority and the Sonoma-Marín Area Rail Transit District (SMART) have selected this model in the last 10 years.

Contracted or Third-Party Model – The agency contracts with a third party that uses its own forces to provide the primary functions of the railroad. Examples of this are Caltrain, GO Transit (Toronto), and the Massachusetts Bay Transit Authority (MBTA). This work can be done either by a host railroad (e.g., the Union Pacific doing infrastructure maintenance between Tamien and Gilroy) or a contractor supplying service on infrastructure owned by the agency (e.g., TASI for Caltrain). This is the most common contracting arrangement in North America.

There are two basic types of contracting models: bundled and un-bundled. Bundled is where the agency contracts with a single entity to provide the primary operations and maintenance functions. Caltrain’s relationship with TASI is an example of that. Un-bundled is where the agency has two or more contracts to provide these functions, usually divided between train operations and rolling stock/infrastructure maintenance. Metrolink’s recent use of four different contractors is an example of this approach.¹⁵

Mixed Model – This is simply the case where the agency uses a combination of the in-house and contracted arrangements. The prime example of this is METRA (Chicago), though almost all agencies, including Caltrain, have to some degree a mixed delivery approach.

Table 3¹⁶ is a summary of how North American passenger railroads deliver their services. Note that the rail functions are defined at a higher level than is the case later in this chapter, which provides a detailed mapping of Caltrain’s service delivery approach. While it is therefore difficult to make exact comparisons, **Table 3** gives a good overview of both industry approaches in North America and specific agency approaches.

Of note:

- Caltrain uses the same contracting model as the majority of commuter railroads in North America.
- In general, the larger and older railroads are the predominant users of in-house forces. However, two new agencies, SMART and Utah Transit Authority, also use in-house forces, while GO Transit, which is rapidly growing and is projected to become the largest commuter railroad in North America within ten years, uses the contracted services model.
- Not only is there significant variation between properties, but in the majority of cases, agencies use different models on different parts of their network (e.g., NJT and Metra use in-house forces to deliver service on some of their lines while Amtrak and freight railroads provide service on other lines).
- The TCRP authors note that the service delivery option does not have a clear impact on operating or financial performance metrics.¹⁷

The determination of which models are used by the different properties is largely a function of the following factors:

- Ownership of the railroad – It is common for the owner to set certain requirements to use their forces for all or selected functions as a condition of allowing an operator to provide passenger service. In turn, this is frequently driven by the host railroad’s labor agreements.
- Agency organizational capacity – The organizational bandwidth may not be sufficient for an agency to operate rail services on its own even if they have that option.

¹⁵ There are separate contractors for the Maintenance of Way, Maintenance of Equipment, Maintenance of Signals and Communications and Train Operations functions. The Metrolink case study describes the agency’s recent choice to reduce the number of contractors through bundling.

¹⁶ Summarized from TCRP Research Report 200: Contracting Commuter Rail Services.

¹⁷ TCRP Report 200, Volume 1, pg. 37

CALTRAIN BUSINESS PLAN

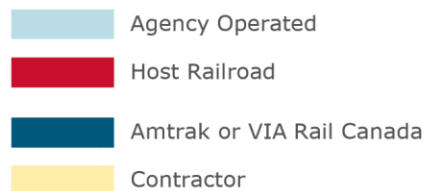
ORGANIZATIONAL ASSESSMENT – *DRAFT REPORT*

- Agency mission – Certain agencies have been formed with limited mission statements that are focused on planning and/or funding commuter rail service and thus directly providing service is not within their scope.
- Operating environment – A final, and major, factor is that each decision is made in the context of the local situation at that particular point in time. Issues such as contract timing, regional planning, funding levels, and labor agreements will be major determinants of which service model is chosen.

TABLE 3: APPROACHES TO SERVICE DELIVERY FOR COMMUTER RAIL SYSTEMS *

System	Service Area	Train Operations	Dispatch	Maintenance of Way	Maintenance of Equipment
Agency Operated and Maintained Commuter Rail (7)					
LIRR	New York City–Long Island, NY	Agency Operated	Agency Operated	Agency Operated	Agency Operated
Metro-North	New York City–North and East NY	Agency Operated	Agency Operated	Agency Operated	Agency Operated
NJ TRANSIT	New Jersey–New York City	Agency Operated	Agency Operated	Amtrak or VIA Rail Canada	Contractor
SEPTA	Philadelphia, PA	Agency Operated	Agency Operated	Amtrak or VIA Rail Canada	Agency Operated
South Shore Line	South Bend, IN–Chicago, IL	Agency Operated	Agency Operated	Host Railroad	Host Railroad
FrontRunner	Ogden–Salt Lake City–Provo, UT	Agency Operated	Agency Operated	Agency Operated	Agency Operated
SMART	Sonoma–Marin counties, CA	Agency Operated	Agency Operated	Agency Operated	Agency Operated
Contracted Commuter Rail–Bundled (12)					
MBTA	Boston, MA	Agency Operated	Agency Operated	Agency Operated	Agency Operated
MARC	Brunswick and Camden Lines and Penn Line, Baltimore, MD	Amtrak or VIA Rail Canada	Host Railroad	Host Railroad	Agency Operated
SLE	New Haven–New London, CT	Amtrak or VIA Rail Canada	Host Railroad	Host Railroad	Amtrak or VIA Rail Canada
Caltrain	San Francisco–San Jose, CA	Agency Operated	Host Railroad	Host Railroad	Agency Operated
COASTER	San Diego County, CA	Agency Operated	Agency Operated	Agency Operated	Agency Operated
TRE	Dallas–Fort Worth, TX	Agency Operated	Agency Operated	Agency Operated	Agency Operated
ACE	Stockton–San Jose, CA	Agency Operated	Host Railroad	Host Railroad	Agency Operated
Rail Runner	Albuquerque–Santa Fe, NM	Agency Operated	Agency Operated	Agency Operated	Agency Operated
Music City Star	Nashville, TN	Agency Operated	Host Railroad	Host Railroad	Agency Operated
MetroRail	Austin, TX	Agency Operated	Agency Operated	Agency Operated	Agency Operated
A-train	Denton County, TX	Agency Operated	Agency Operated	Agency Operated	Agency Operated
RTD	Denver, CO	Agency Operated	Agency Operated	Agency Operated	Agency Operated
Contracted Commuter Rail–Unbundled (8)					
GO Transit	Toronto–Hamilton, Ontario, Canada	Agency Operated	Host Railroad	Agency Operated	Host Railroad
RTM	Montreal, Quebec, Canada	Agency Operated	Host Railroad	Agency Operated	Host Railroad
Tri-Rail	South Florida	Agency Operated	Agency Operated	Agency Operated	Agency Operated
Metrolink	Los Angeles, CA	Amtrak or VIA Rail Canada	Agency Operated	Host Railroad	Host Railroad
VRE	Northern VA–Washington, D.C.	Agency Operated	Host Railroad	Host Railroad	Agency Operated
WCE	Vancouver, BC, Canada	Agency Operated	Host Railroad	Host Railroad	Amtrak or VIA Rail Canada
Souder	Tacoma–Seattle–Everett, WA	Host Railroad	Host Railroad	Host Railroad	Amtrak or VIA Rail Canada
SunRail	Central Florida–Orlando, FL	Agency Operated	Agency Operated	Agency Operated	Amtrak or VIA Rail Canada
Mixed Agency Operated and Contracted Host Railroad (3)					
Metra	Chicago, IL	Agency Operated	Host Railroad	Agency Operated	Host Railroad
Northstar	St. Cloud–Minneapolis, MN	Host Railroad	Host Railroad	Host Railroad	Agency Operated
WES	Wilsonville–Beaverton, OR	Host Railroad	Host Railroad	Host Railroad	Agency Operated

Updated March 2018



* TCRP Report 200, Contracting Commuter Rail Services, Vol. 1, pg. 4

Table 4 provides a summary of the high-level strengths and challenges of these models as applied to Caltrain at this time.

TABLE 4: HIGH LEVEL STRENGTHS AND CHALLENGES FOR SERVICE DELIVERY OPTIONS

Service Delivery Options	Strengths	Challenges
In House Model	Direct control that matches agency accountability	Cost and bureaucratic rigidity
	Direct accountability to the customer	Maintaining operations during transition period from contractual model to in-house model
	Seamless customer experience; no transitions in responsibility	
Bundled Contracting Model	Single accountable contractor	Single point of failure and significant risk if contractor fails to perform
	Consistent and easier contract management and oversight	Maintaining operations during transition period for new contractor
	Opportunity to partner with private sector and take advantage of competitive market forces	
Unbundled Contracting Model	Contractor skills/experience are specific to the function	Extensive interfaces between contractors; potential that they defer responsibility to another contractor
	May increase number of potential contractors	Contract administration and oversight is more complex
	Opportunity to partner with private sector and take advantage of competitive market forces	Increased agency effort to manage interfaces
Mixed Model	Greater accountability to the customer	Extensive interfaces between agency and contractor
	Agency can add targeted contractor expertise where needed	Maintaining operations during transition period to new contractor

From a Caltrain perspective, the three key takeaways are:

- In comparison to other US railroads, Caltrain has significantly greater flexibility in determining its service delivery model as:¹⁸
 - It owns the right-of-way from San Jose to San Francisco;
 - It determines train schedules and dispatches the trains;¹⁹
 - It is and will continue to be the predominant user of the corridor; and
 - Its governance structure gives the JPB complete discretion in selecting a service delivery model.
- There is no universally “correct” model that Caltrain should adopt, as each model in use across North America reflects the specific circumstances that the commuter railroad agency faced when it made its decision. As Caltrain begins the process to determine its future service delivery model (which is discussed in Chapter 4), there are many lessons to be learned from other railroads.

¹⁸ As the portion of the line between Gilroy and Tamien is owned by the Union Pacific, there are different and greater constraints on this segment than from San Jose to San Francisco.

¹⁹ Subject to certain agreements with HSRA and the Union Pacific.

- Regardless of the model selected, the agency retains ultimate responsibility for the service delivered and the political environment will expect that. Contractor failure does not provide a “level of protection for the agency.”

III.DETAILED US CASE STUDIES

The following case studies were selected to provide further detail and insights that are directly applicable to Caltrain as it considers and develops its future organization, service delivery and governance structures. In specific, the key areas of focus for each individual railroad are as follows:

1. Capitol Corridor Joint Power Authority (CCJPA): governance model and external shared service arrangement
2. Southern California Regional Rail Authority (SCRRA) d/b/a Metrolink: governance model and external shared service arrangement
3. San Joaquin Regional Rail Commission (SJRRC) d/b/a ACE: governance model and external shared service arrangement
4. Sonoma-Marín Area Rail Transit (SMART): governance model
5. Massachusetts Bay Transportation Authority (MBTA): internal shared service arrangement
6. Southeastern Pennsylvania Transportation Authority (SEPTA): internal shared service arrangement

The information in the case studies is based on both publicly available information as well as detailed interviews with senior staff at the agencies.

Table 5 provides additional system description information regarding the six case studies. **Table 6** summarizes select governance aspects for the agencies. Each case study goes into more depth and notes comparisons with Caltrain.

TABLE 5: US CASE STUDIES – SYSTEM COMPARISON WITH CALTRAIN

	Peninsula Corridor Joint Powers Board (PCJPB) dba Caltrain	Capital Corridor Joint Powers Authority	Southern California Regional Rail Authority (SCRRA) dba Metrolink	San Joaquin Regional Rail Commission (SJRRRC) dba Altamont Corridor Express (ACE)	Sonoma–Marin Area Rail Transit (SMART)	Massachusetts Bay Transportation Authority (MBTA)	Southeastern Pennsylvania Transportation Authority (SEPTA)
Location/ Geography	San Francisco Bay Area, CA Peninsula – 3 Counties	San Jose - Sacramento, CA – 5 Counties	Los Angeles Basin – 5 Counties	San Jose - San Joaquin Valley, CA – 3 Counties	Marin-Sonoma, CA – 2 Counties	Boston Region, MA	Philadelphia Region, PA
Route Miles	77	168	538	85	43	398	280
Ridership (annual unlinked passenger trips)	18.35 million	1.6 million	13.75 million	1.29 million	~1 million	33.83 million	36.18 million
Passenger Miles (annual)	406 million	105 million	420 million	56 million	N/A	698 million	426 million
Traffic Density (passenger miles/route mile, annual)	5.25 million	0.62 million	0.78 million	0.66 million	N/A	1.75 million	1.52 million
Right-of-Way Owner (one-way route miles)	PCJPB 52 miles, UPRR 25 miles	UPRR 166 miles, PCJCB 2 miles	SCRRA 388 miles, BNSF 115 miles, UPRR 84 miles	UPRR 83 miles, PCJPB 3 miles	SMART 42 miles	MBTA 358 miles, Amtrak 30 miles	SEPTA 151 miles, Amtrak 108 miles, CSX 15 miles, City of Philadelphia 6 miles
Service Delivery Method – Train Operations	Independent Contractor	Amtrak	Amtrak	Independent Contractor	Agency	Independent Contractor	Agency
Service Delivery Method – Maintenance of Infrastructure	UPRR, Independent Contractor	UPRR, Independent Contractor	Independent Contractor	UPRR	Agency	Amtrak, Independent Contractor	Agency, Amtrak
Service Delivery Method – Maintenance of Equipment	Independent Contractor	Amtrak	Independent Contractor	Independent Contractor	Agency	Independent Contractor	Agency

CALTRAIN BUSINESS PLAN

ORGANIZATIONAL ASSESSMENT – DRAFT REPORT

	Peninsula Corridor Joint Powers Board (PCJPB) dba Caltrain	Capital Corridor Joint Powers Authority	Southern California Regional Rail Authority (SCRRRA) dba Metrolink	San Joaquin Regional Rail Commission (SJRRCC) dba Altamont Corridor Express (ACE)	Sonoma–Marin Area Rail Transit (SMART)	Massachusetts Bay Transportation Authority (MBTA)	Southeastern Pennsylvania Transportation Authority (SEPTA)
Major Operating Funding Sources	Fare Revenues, Local Funds (Member Agencies)	Fare Revenues, State Funds	Local Funds (Member Agencies), Fare Revenues, Freight/Amtrak Revenue	County Sales Taxes, Local Funds, Fare Revenues, State Funds	Dedicated Sales/Use Tax, State Funds	Dedicated Regional Sales Tax, Fare Revenues, Non-Fare Revenue (Advertising, Real Estate, Parking)	State Funds, Fare Revenues
Major Capital Funding Sources	Local Funds (Member Agencies), Federal Funds, CA High-Speed Rail	State Funds	Federal Funds, State Funds, Local Funds (Member Agencies)	State Funds, Federal Funds, Local Funds	Federal Funds, State Funds	Federal Funds, State Funds, MBTA Revenue Bonds	State Funds, Federal Assistance, SEPTA Capital Financing

Notes:

1. From 2017 National Transit Database. Route miles is the length of the right-of-way over which passenger service is operated.
2. Contracting Commuter Rail Services Volume 2: Commuter Rail System Profiles, 2018 (based on National Transit Database).
3. FY 17.Source: "Performance Report 2017" (PDF). Capitol Corridor Joint Powers Authority.
4. <https://sonomamarintrain.org/node/278>.
5. From 2017 National Transit Database. Passenger miles are the cumulative sum of the distances ridden by each passenger.
6. PCPCB = Peninsula Corridor Joint Powers Board; UPRR = Union Pacific Railroad; SCRRRA = Southern California Regional Rail Agency; SMART = Sonoma-Marín Area Rail Transit; MBTA = Massachusetts Bay Transportation Authority; SEPTA = Southeastern Pennsylvania Transportation Authority.
7. At this time SMART rail does not own all of the tracks for its planned extension north to Cloverdale. North Coast Rail Authority is the owner of the tracks north of Windsor.
8. http://www.caltrain.com/Assets/_Agendas+and+Minutes/JPB/Board+of+Directors/Presentations/2018/PCJPB+FY18+Operating+Budget.pdf.
9. https://images.capitolcorridor.org/wp-content/uploads/2019/04/CCJPABizPlanFY1920_04.12.19.pdf.
10. Freight railroads and Amtrak Intercity Services operating over territory owned by Member Agencies provide maintenance-of-way revenues and dispatching revenues, based upon existing agreements. <https://www.metrolinktrains.com/globalassets/about/financial-reports/fy2018-19-adopted-budget.pdf>.
11. <https://www.acerail.com/getattachment/About/Board/Work-Program-20182019-TEXT.pdf?lang=en-US>.
12. <https://www.sonomamarintrain.org/sites/default/files/Financial%20Documents/FY%202018-19%20Approved%20Budget%20And%20FY%202017-18%20Year%20End.pdf>.
13. <https://cdn.mbta.com/sites/default/files/fmcb-meeting-docs/2019/04-april/2018-04-08-fmcb-K-fy20-final-itemized-operating-budget-support-accessible.pdf>.
14. <http://septa.org/strategic-plan/2020-03-operating-budget-proposal.pdf>.

TABLE 6: US CASE STUDIES – BOARD COMPOSITION AND OPERATIONS COMPARISON WITH CALTRAIN

	Peninsula Corridor Joint Powers Board (PCJPB) dba Caltrain	Capital Corridor Joint Powers Authority	Southern California Regional Rail Authority (SCRRA) dba Metrolink	San Joaquin Regional Rail Commission (SJRRC) dba Altamont Corridor Express (ACE)	Sonoma–Marin Area Rail Transit (SMART)	Massachusetts Bay Transportation Authority (MBTA)	Southeastern Pennsylvania Transportation Authority (SEPTA)
Number of Board Members	9 members	16 members	11 members	8 members	12 members	Overseen by 2 governing bodies: <ul style="list-style-type: none"> • 5 members on the Fiscal and Management Control Board;⁴ • 11 members on MassDOT Board 	15 members
Board Member Appointment Authority	<ul style="list-style-type: none"> • 3 - City and County of San Francisco¹ • 3 - San Mateo County² • 3 - Santa Clara Valley Transportation Authority³ 	<ul style="list-style-type: none"> • 6 - BART Board of Directors • 2 - Sacramento Regional Transit District • 2 - Santa Clara Valley Transportation Authority • 2 - Yolo County Transportation District • 2 - Solano Transportation Authority • 2 - Placer County Transportation Planning Agency 	<ul style="list-style-type: none"> • 4 - Los Angeles County Metropolitan Transportation Authority • 2 - Orange County Transportation Authority • 2 - Riverside County Transportation Commission • 2 - San Bernardino County Transportation Authority • 1 - Ventura County Transportation Commission 	<ul style="list-style-type: none"> • 6 - San Joaquin County (full voting members)⁵ • 2 - Alameda County (special voting members) 	<ul style="list-style-type: none"> • 2 - Sonoma County Board of Supervisors • 2 - Marin County Board of Supervisors • 3 - Sonoma County city councils • 3 - Marin County city councils • 2 - Golden Gate Bridge, Highway and Transportation District 	<ul style="list-style-type: none"> • Governor retains appointment authority of FMCB and MassDOT Board 	<ul style="list-style-type: none"> • 2 - Bucks County • 2 - Chester County • 2 - Delaware County • 2 - Montgomery County • 2 - City of Philadelphia • 1 - appointed by the Governor of Pennsylvania • 4 appointed by Pennsylvania legislative leadership

CALTRAIN BUSINESS PLAN

ORGANIZATIONAL ASSESSMENT – DRAFT REPORT

	Peninsula Corridor Joint Powers Board (PCJPB) dba Caltrain	Capital Corridor Joint Powers Authority	Southern California Regional Rail Authority (SCRRA) dba Metrolink	San Joaquin Regional Rail Commission (SJRRRC) dba Altamont Corridor Express (ACE)	Sonoma–Marin Area Rail Transit (SMART)	Massachusetts Bay Transportation Authority (MBTA)	Southeastern Pennsylvania Transportation Authority (SEPTA)
Board Standing Committees	Under establishment ⁶ (Planning, Finance/Budget)	None ⁷	Executive Management and Audit	None	None	<ul style="list-style-type: none"> • Finance and Audit • Capital Programs • Rail Vision Advisory 	<ul style="list-style-type: none"> • Administration • Audit and Oversight • Budget, Planning and Information Technology • Operations Pension
Board Terms	Designated by member agencies	Designated by member agencies	Designated by member agencies	Regular Voting Commissioners serve 4-year terms	Staggered 4-year terms	FMCB - limited term by legislation through 2020	Designated by member agencies
Meeting Schedule	Minimum once per month	Every other month, starting in February	Minimum once per month, normally twice per month	Once per month	Twice per month	FMCB meets weekly/biweekly	Once per month

Notes:

1. 1 seat appointed by the Mayor, 1 seat appointed by the S.F. Municipal Transportation Agency (SFMTA), 1 appointed by the County Board of Supervisors.
2. 1 seat appointed by the Cities Selection Committee, 1 seat appointed by the San Mateo County Transit District (SamTrans), 1 appointed by the County Board of Supervisors.
3. 1 seat for the County Board of Supervisors representative on the MTC (if that person declines to serve, the MTC representative chosen by the Cities Selection Committee will take that role), 2 seats appointed by the Santa Clara Valley Transportation Authority (VTA) (if county supervisors are not appointed, one member must be from San Jose and another from a city other than San Jose).
4. The Fiscal and Management Control Board (FMCB) is responsible for governance, finances, agency structure, and operations.
5. The members appointed by the San Joaquin Council of Governments (SJCOG) are based on nominations by local government. The regular voting commissioners must reside in San Joaquin County and serve a term of four years. The SJRRRC board also consists of several ex-officio or nonvoting members. These members represent Caltrans District 10, the San Joaquin Regional Transit District, the San Joaquin Council of Governments, and the Stanislaus Council of Governments.
6. Caltrain also has an ad-hoc committee for the Caltrain Business Plan.
7. CCJPA Board has an ad-hoc committee that considers deeper policy issues which arise from time to time.

CAPITOL CORRIDOR JOINT POWERS AUTHORITY (CCJPA)

- a. **Description** – The Capitol Corridor Joint Powers Authority (CCJPA) manages the operation of the Capitol Corridor Service, an Amtrak-contracted intercity passenger train service connecting Auburn through Sacramento to San Jose in Northern California. The Capitol Corridor Service was created by the California Department of Transportation in partnership with Amtrak in 1991 after California voters approved funding to add more passenger services between San Jose and Sacramento. In 1998, governance of the service was transferred from the State to the newly formed Capitol Corridor Joint Powers Authority (CCJPA).²⁰ Today, CCJPA is one of three State-sponsored intercity rail Joint Powers Authorities in California (together with SJJPA and LOSSAN).²¹

Capitol Corridor trains share the rail corridor with freight trains on 168 miles of Union Pacific Railroad (UPRR) tracks (except for two miles of tracks near San Jose that belong to the JPB). The service is operating at the maximum number of operating slots allowed by UPRR and Caltrain, and further service expansion requires agreement between the CCJPA, UPRR and Caltrain on necessary capacity-increasing track infrastructure projects.

- b. **Governance** – The CCJPA Board is composed of 16 directors appointed from transit agency representatives from eight counties (two directors from each county). The San Francisco Bay Area Transit District (BART), as a three-county district, has six seats on the CCJPA Board. The Chair and Vice Chair serve two terms; at any given time, one represents the northern half of the route and the other represents the southern half of the route.

CCJPA receives all its operating funding support from the State. Any contributions from member agencies are on a voluntary basis, such as contributions to the CCJPA for joint marketing promotions/campaigns. The CCJPA legislation requires a two-thirds vote for its annual Business Plan, which includes the CCJPA’s funding request to the State to support the proposed annual service plan; all other actions before the Board require a simple majority vote for passage including the adoption of its annual budget.

Since its creation, the Capitol Corridor service has been managed by BART through the “Agreement Between Capitol Corridor JPA and the BART District for Administrative Support” (ASA). The ASA has been renewed multiple times with BART, though the CCJPA Board retains the option to choose another Managing Agency after the expiration of each term of the ASA. As the Managing Agency, BART is responsible for day-to-day operational management of the service and administrative support to the CCJPA Board. All Capitol Corridor JPA employees are BART employees. Through this support agreement, BART provides two types of shared staff. First, BART provides the Executive Director, General Counsel, Controller-Treasurer, and Secretary for the CCJPA. In practice, the CCJPA Managing Director (also a BART employee) leads all administration, planning, budget development, and similar activities for the Capitol Corridor service and the CCJPA Board. The second type of BART staffing is defined contract support services. BART’s contracted services for CCJPA typically include human resources, procurement, legal services, accounting, capital program/project management, and information technology services. Approximately one-fifth of CCJPA’s administrative budget goes to BART for these specified services.²²

²⁰ On July 1996, [Senate Bill 457](#) was passed, which provided for the creation of the Capitol Corridor Joint Powers Board (CCJPA/Board). On December 31, 1996, the CCJPA entered into a Joint Exercise of Powers Agreement with six public transportation agencies to establish the Capitol Corridor Joint Powers Authority (CCJPA) (State of California, 1996). On July 1, 1998, the CCJPA entered into an Interagency Transfer Agreement (ITA) with the State of California, Department of Transportation. The ITA provided for the transfer of the responsibility for administration, managing and control of the operation of the Capitol Corridor Rail Service from the State to the CCJPA.

²¹ There are three “state-supported” inter-city rail lines in California funded through Caltrans’ Rail Division, each a Joint Powers Authority. In 2015, governance responsibilities for two of these routes were transferred from the State to the San Joaquin Joint Powers Authority and to the Los Angeles – San Diego – San Luis Obispo Rail Corridor (LOSSAN) Corridor Joint Powers Authority. All three services are augmented with Amtrak “Thruway” bus services that extend the reach of the train routes.

²² The CCJPA-BART Administrative Support Agreement details which support services are provided by BART. <https://images.capitolcorridor.org/wp-content/uploads/2017/09/CA-CC-CCJPA-BARTSupportAgmt.pdf>

Per the ASA, BART’s controller-treasurer provides an annual independent audit of CCJPA’s accounts to the CCJPA Board.

In addition to services prescribed under the ASA, CCJPA may choose whether to hire BART or another entity for other services. For example, in October 2005 CCJPA moved call center services from the Amtrak reservation center to the BART Customer Services/Telephone Information Center.

It is the responsibility of the BART General Manager as the CCJPA Executive Director to hire the CCJPA Managing Director. A new Managing Director is currently being hired, as the current Managing Director is retiring; CCJPA board members are being consulted by the BART General Manager during this process.

- c. **Service Delivery** - CCJPA has contracted with Amtrak to operate and maintain locomotives and passenger cars. CCJPA staff coordinates with Amtrak to monitor rail and bus operations; oversees rail vehicle and station maintenance; interfaces with Amtrak and the UPRR on dispatching and railroad-related issues; and coordinates with stakeholders to develop and implement an annual Capital Improvement Plan.
- d. **Comparison to Caltrain** - Like Caltrain, Capitol Corridor ridership has been growing – a 20% increase over the last 5 years. However, CCJPA differs from Caltrain in many ways. CCJPA doesn’t own its tracks or stations; it receives State funding for operations and capital projects; as the CCJPA receives no local or regional funds, it does not require member agencies to provide funding; and, its board is composed wholly of transit agency board members.

CCJPA also has shared services – provided by BART – though CCJPA contracts with BART for more narrowly-defined administrative services. With respect to various elements of rail service operations, the CCJPA has the option to contract with other entities for those services. The CCJPA Managing Director reports to the CCJPA Board for all aspects of the railroad.²³ The CCJPA Managing Director’s sole responsibility is to manage the operation and capital program of the Capitol Corridor service. This is different from Caltrain where the railroad CEO has additional responsibilities at SMCTA and SMCTD.

SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY (SCRRA)

- a. **Description** - Southern California Regional Rail Authority (SCRRA) operates Metrolink, the commuter rail system that serves Los Angeles, Orange, Riverside, San Bernardino, Ventura and San Diego counties. SCRRA was founded in 1991 and began operations October 1992, after four of the counties, all but Ventura County, passed transportation sales taxes. At that time the State and member agencies purchased most but not all the tracks on which Metrolink operates services.

About two-thirds of the railroad right-of-way is publicly owned and about one-third is owned by two freight railroads, BNSF and UPRR. Local jurisdictions, Caltrans, and some member agencies own and operate the Metrolink stations. Amtrak long-distance trains and the State-subsidized Pacific Surfliner trains (locally managed by LOSSAN) jointly serve several of the stations with Metrolink. A major multi-agency capital investment program is underway to upgrade infrastructure that facilitates more service in preparation for the 2028 Olympic Games. In the long-term, California High-Speed Rail Authority planned services would blend with Metrolink’s services in certain corridors.

- b. **Governance** - The SCRRA is a joint powers authority; the 11-member board represents the transportation commissions of Los Angeles, Orange, Riverside, San Bernardino and Ventura counties. The Los Angeles County Metropolitan Transportation Authority has a plurality of seats on the board (four); however, it takes two counties (six votes) for any proposals to pass. This voting structure supports the intent for Metrolink to be a regional service.

²³ On paper, the BART’s General Manager serves as the CCJPA Executive Director. In actuality, the ED delegates these responsibilities to the Managing Director.

The SCRRA Board directly hires its CEO and General Counsel. The Executive Management and Audit Committee (EMAC) composed of one regular member from each agency; these members also serve on the Board of Directors. The EMAC meets on a quarterly basis and is responsible for reviewing high priority items for the Authority, particularly as it pertains to policy and audit compliance. The EMAC agenda items are provided in the next scheduled Board of Directors' meeting for final action, as necessary.

SCRRA lacks a long-term, dedicated funding source; SCRRA has conducted initial analysis to develop a source(s). SCRRA operating and capital budgets must be approved by each of the member governments. Member agencies provide operating subsidies for operating costs not covered by farebox revenue and contribute to some capital improvements through an annual budgeting process. The budgeting process relies on complicated formulas to determine each member's contribution. When a member county wants more service, it provides subsidy increases. In years when agencies are not able to pay for the service, reductions to those services are implemented. When two counties pay for service on a shared line, a reduced contribution by one county tends to lead to a reduction by the sharing county. Member agencies can stop paying and terminate their membership in the JPA with one year's notice.

Metrolink completed a major asset rehabilitation plan in 2018 that has enabled the agency to augment the annual budget process with forecasted costs for the next four years. Metrolink staff stated this has improved its budget process with member agencies.

- c. **Service Delivery** - In 2018, the SCRRA Board decided to bundle its current operations and maintenance contracts with the goal of increasing efficiency and assisting the Authority in raising ridership by improving customer service. Metrolink has four existing contracts that would be replaced by one contract for the duration of ten years with extension options (RFP is expected to be released soon). The current contracts are as follows:
- Operations (train crews) with Amtrak
 - Maintenance (rolling stock) with Bombardier
 - Maintenance (track, structures and right-of-way) with Transdev
 - Maintenance (signals, communications and train control) with Mass Electric

The future contractor(s) will be responsible for all operational activities of Metrolink service, maintenance of rolling stock and infrastructure, as well as construction support (as required). Should the contractor exceed specified performance standards, they can receive a fixed amount incentive payment to be allocated annually.

Metrolink does not utilize staff from other transportation agencies, other than when collaborating on share projects with member agencies. In recent years, member agencies have delivered some Metrolink rehabilitation and most expansion projects, with design oversight, flagging and signal installation provided by Metrolink.

- d. **Comparison with Caltrain** - Like Caltrain, Metrolink is governed by several counties, lacks a dedicated funding source, and relies on member agency contributions to fund operations and some capital projects. Another similarity between the agencies is plans for blended services with California High-Speed Rail. However, there are many differences: Metrolink is wholly independent from its member counties, acting as a contracted service provider pursuant to the JPA. The SCRRA directly hires its staff and does not use shared services. Metrolink member contributions are more oriented to paying for services provided on specific lines in member counties rather than to the whole rail system. A recent asset management study/strategic plan enables a budget process that looks beyond the current year. Another difference from Caltrain is that the SCRRC has an Executive Management and Audit Committee that reviews agency priorities, which results in significant influence on the full Board's activities.

SAN JOAQUIN REGIONAL RAIL COMMISSION (SJRRRC)

- a. **Description** - The San Joaquin Regional Rail Commission (SJRRRC) governs the Altamont Corridor Express (ACE), a commuter rail service in Northern California that connects Stockton and San Jose via Fremont through three counties. The rail service was launched in 1998 to connect the Central Valley to Silicon Valley on Union Pacific tracks. The ACE service received funding after Measure K, a half-cent sales tax for transportation, which was strongly supported by voters of San Joaquin County in 1990.

Governance - SJRRRC is governed by a Board of Directors that consists of six full-voting members from San Joaquin County and two special-voting members from Alameda County and no members from Santa Clara County. When the ACE service began operations, it was governed by a three-county Altamont Corridor Express Joint Powers Board with equal representation from San Joaquin County, Alameda County and Santa Clara County. However, this JPA was dissolved in 2003 when VTA faced budget constraints. The SJRRRC board, which previously only served San Joaquin County, was expanded to add Alameda County (only voting on issues related to its ACE service) and a Cooperative Services Agreement was put in place with Santa Clara County. As a result, the SJRRRC remains the primary owner and operator of the ACE service. (NEEDS A SECTION B)

The SJRRRC operates as a policy board, like the Capitol Corridor Board, without deep involvement in day-to-day operations. ACE member counties have helped with funding the ACE service in some instances, particularly San Joaquin COG.

The SJRRRC also serves as the managing agency for the San Joaquin Joint Powers Agency (SJJPA) that operates the State-subsidized San Joaquin inter-city rail service between Bakersfield and Oakland/Sacramento (contracted to Amtrak). The SJJPA chose SJRRRC for a three-year contract that has now been extended for another five years. The majority of SJRRRC staff work for both the ACE and San Joaquin services. There is one shared General Manager for the two agencies, hired by the SJRRRC Board. The SJRRRC/SJJPA shared staff model was chosen for administration efficiencies, coordinated planning, and engagement at a multi-regional scale. Since SJRRRC provides shared services to two boards, SJRRRC staff time is allocated between the two rail services. Detailed accounting is kept by staff and each Board sees a monthly report of staff time tracked against yearly expenses. SJJPA is now beginning a billion-dollar investment program that will extend services to three new counties.

- b. **Service Delivery** - SJRRRC is the owner/operator for the ACE service, overseeing the day-to-day management, planning and support services necessary to operate the trains. SJRRRC issued a contract for operations and maintenance of equipment to Herzog Transit Services in 1998. SJRRRC staff perform fare enforcement and ticketing for the ACE service.
- c. **Comparison with Caltrain** – The ACE service, with four roundtrips per day, is a far smaller service than Caltrain. Like Caltrain, SJRRRC depends on operating funding and investment from its member counties and doesn't get State operating funds. While SJRRRC is also a three-county service, only two of the counties are represented on the Board and not evenly (six members from San Joaquin County; two special-voting members from Alameda County).

While Caltrain's shared services are between a rail group and local transit agency and a transportation authority, SJRRRC is an example of shared services between two rail agencies.

SONOMA-MARIN AREA RAIL TRANSIT DISTRICT (SMART)

- a. **Description** - Sonoma-Marin Area Rail Transit (SMART) is a new commuter rail system running between Sonoma and San Rafael in Northern California. SMART was formed in 2002 and is funded primarily by the Measure Q two-county sales tax, which passed in 2008. The first 43-mile phase of the line opened for public service in late 2017, operating on tracks that the SMART District owns. SMART was formed as a District, rather than a joint powers authority, to put a sales tax on the ballot and to provide autonomy and longevity for the agency.

During its first weeks of operation, SMART provided service during the devastating Sonoma wildfires when the parallel Highway 101 was closed. Though it is a new agency, SMART is being asked to play a larger and larger role in the North Bay transit system.

- b. **Governance** - The SMART Board is responsible for all aspects of agency operations and policy and appoints the General Manager of the organization. The 12-member Board consists of members from cities and county governments along the system route and representatives from the Golden Gate Bridge, Highway and Transportation District. SMART Board committees were used for the early work of launching SMART; however, they are no longer utilized.

Local agencies do not contribute funding directly to SMART operations or capital needs apart from small local capital projects (operations are mostly funded by SMART District voter approved sales tax and fare revenue; capital projects are funded mostly by Federal and State funds). In the future, SMART may look to new local sales taxes for additional and continued funding and could put its own funding measure on the ballot. SMART has been balancing establishing passenger rail operations while simultaneously building substantial capital projects during its first few years of services (including expansion of service to Larkspur, Cloverdale, Healdsburg and Windsor and infill station expansion in Novato and Petaluma).

- c. **Service Delivery** - Nearly all system operations, rolling stock and track maintenance, as well as signal maintenance and repair, are managed by agency staff directly. Although SMART possesses requisite legal authority to contract out these functions, its enabling legislation contains unique labor protection provisions guaranteeing employment priority, together with wage and benefit protections, for employees of the Golden Gate Bridge, Highway and Transportation District bus division – whose positions of employment might have been adversely affected by the commencement of parallel commuter rail service in the same transportation corridor. These circumstances influenced the SMART governing board to decide to operate its system on an in-house basis. SMART has hired 200 of its own employees since its creation. The agency has found using its own workforce for nearly all functions has been challenging due to the hiring and management demands, but also beneficial as it increases SMART's span of control from a labor relations perspective.
- d. **Comparison with Caltrain** - SMART is a new service and agency. Like Caltrain, SMART owns most of the tracks it uses; is governed largely by locally elected officials along the route; raises most of its funding locally; and, the organization is being stretched by large capital projects. However, SMART is a District and not a joint powers authority and also has a dedicated two-county sales tax. Furthermore, SMART does not contract out for its rail operations and maintenance and does not share services with any other transportation agency. Like other Bay Area transit agencies, attracting and retaining staff has been a growing challenge due to housing costs, exacerbated by the North Bay Fires that destroyed thousands of homes.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY (MBTA)

- a. **Description** - The Massachusetts Bay Transportation Authority (MBTA) operates subway, bus, ferry, para-transit and commuter rail services in the greater Boston area. While the transit system is much older, MBTA as an agency has been in operation since 1964. The commuter system is largely owned by the MBTA, and it contracts out its operation to Keolis (this is by far the largest third-party operating contract in the US). The railroad system is also facing significant challenges in serving a growing market in an extremely congested region.

Interestingly, the MBTA is undertaking a very similar effort as the Caltrain Business Plan, titled the Rail Vision Study. The study is defining the MBTA's vision for future rail service, the infrastructure needed to achieve this goal (i.e., extent of electrification, additional trackage, etc.), as well as the best service delivery model to achieve the goal.

- b. **Governance** – MBTA is currently governed by a Fiscal Management and Control Board (FMCB) that was created by the Governor in 2015 in response to major service difficulties. The Governor appoints the Board members who have extensive authority to manage the MBTA. The FMCB structure is in place until July 2020 at which time it will either be extended, or a previous form of governance will be put in place. Authority is clearly centralized in the Governor's Office. This structure and associated issues are completely different than those facing Caltrain.
- c. **Service Delivery** – MBTA is inherently a highly centralized internal shared services organization. All its different modes are treated similarly so that the Chief Operating Officer oversees operations on the subway, light rail, commuter rail, and bus networks, and the Chief Administrative Officer oversees the administrative support departments (procurement, human resources, etc.) for all modes. They are in the process of formulating a single capital delivery and planning department for all the modes. Similar to TASI, Keolis is responsible for hiring and supervising its own employees. The MBTA has an external shared service arrangement with the Massachusetts DOT with respect to legal and civil rights functions. Previously they shared the human resource function, but that no longer is the case.
- d. **Comparison to Caltrain** – The MBTA is facing similar challenges as Caltrain and is approaching them in a similar manner. They share with Caltrain the utilization of a third-party contract operator. With respect to internal shared services, they have an organizational model that basically organizes and consolidates all the modes by function, and it meets their corporate needs. As it relates to the administrative departments, they have found that this arrangement works and that they do not have trouble attracting the necessary rail expertise. Given all the similarities, on-going dialogue with the MBTA staff may be quite informative.

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY (SEPTA)

- a. **System Description** - The Southeastern Pennsylvania Transportation Authority (SEPTA) is an instrumentality of the Commonwealth of Pennsylvania created by the State Legislature. It provides subway, light rail, bus and commuter rail service to the Philadelphia region. Service is also provided to New Jersey (Trenton) and Delaware (Wilmington/Newark), with the latter involving a purchase of service agreement. The commuter rail system is owned by SEPTA with the exception of the critical Northeast Corridor trackage, including the Keystone Corridor to Harrisburg, 30th Street Station and a couple of other smaller lines. It operates its system with its own employees, with the exception of operating and maintaining Amtrak owned facilities; Amtrak employees do this work.
- b. **Governance** – SEPTA is governed by a Board consisting of appointees of the Governor, Legislature, local counties and the City of Philadelphia. The Board chair is voted in by the Board and the same person has served as Chair for over 20 years. A Board member, or members representing a county or counties that have one third or more of the population of the metropolitan area, can veto any item approved by the Board. However, the veto may be overridden with the vote of at least 75 percent of the full Board within 30 days, though this is rare as the Board usually votes unanimously.

- c. **Service Delivery** – SEPTA is similar to the MBTA in that it is a highly centralized shared services operation. Again, the Assistant General Manager for Operations oversees all the modes while the Deputy General Manager oversees all the administrative functions. Unlike the MBTA, SEPTA is responsible for hiring and managing all its rail employees with the exception of those that work for Amtrak.
- d. **Comparison to Caltrain** – SEPTA is quite dissimilar from Caltrain in how it is governed and how it provides its services with in-house employees. However, it is another example of an organization structured around internal shared services. They face problems in attracting personnel with the necessary railroad skills, but this is more a function of the market than their organizational structure.

In summary, the case studies have provided additional insight into how other US commuter railroads deal with service delivery and governance questions. This information is referenced in Chapter 4 as part of the analysis of specific governance and service delivery options for Caltrain.

II. INTERNATIONAL CASE STUDIES

Prior to discussing the three specific case studies, it is worth noting that as a general practice, the private sector has been more deeply involved in various aspects of the delivery and operation of rail improvements and services in Europe, Canada and South America than in the US. Various business models have been tried and they frequently evolve over time (a prime example being the UK railways, which are discussed below). Each model is a unique balance among control, risk and reward, but all are structured to introduce and take advantage of competitive tension and market forces. In general, the public sector usually sets public policy objectives and retains ownership of the infrastructure and many of the other assets, while the private sector operates rail services and, in certain cases, controls fares.

These international case studies were selected because they each represent a significantly different business model or governance arrangement in delivering passenger rail transportation than is found in the US. In all three case studies, the business model involves the private sector and/or the use of market forces to drive desired outcomes to a greater degree than Caltrain does today. While the different business models discussed here may not be wholly or directly transferable to Caltrain's circumstances due to differing regulatory, political and historical factors, they are meant to be both aspirational and illustrative so as to provide the JPB members with a broad range of different models for managing the railroad as well as provide some lessons learned with respect to:

- Using the private sector to deliver services efficiently and to monetize assets;
- Coordinating real estate development with railway access;
- Joint use by multiple carriers on a publicly owned corridor; and
- Separation of responsibility for infrastructure and operations.

The specific cases are as follows:

- The Bern-Lötschberg-Simplon railway (now called BLS) in Switzerland is a rail system under combined private and public company ownership that manages its infrastructure, coordinates scheduling with the Swiss national railway (SBB) and provides its own services as well as connecting services with the SBB.
- The Kintetsu Rail Company in Japan is a for-profit, vertically integrated private corporation operating regional rail services that connects at various points with the former JNR companies, as well as owning a number of different business lines outside the rail sector.
- The Chiltern Railroad in the UK is an example of a railroad operating under a franchise model where responsibility for infrastructure and train operations is divided between the public and the private sector.

TABLE 7: INTERNATIONAL CASE STUDIES - SYSTEM COMPARISON WITH CALTRAIN

	Caltrain¹	BLS²	Chiltern³	Kintetsu⁴
Service Area	San Francisco, San Jose, Gilroy	Bern Canton and Adjacent Tourist Services	Birmingham, London, Oxford	Nara, Nagoya, Kyoto, Osaka
Route miles	77.4	261	225	309
Ridership (annual)	18.35 million	n/a	28.1 million	583.7 million
Passenger-Miles (annual)	406 million	623.5 million	992.7 million	6,792 million
Traffic Density (passenger miles/ route mile)	5.25 million	2.4 million	4.4 million	22.0 million

Sources:

1. From 2017 National Transit Database. Route miles is the length of the right-of-way over which passenger service is operated.
2. "International Railway Statistics," Union internationale de chemins de fer.
3. Office of Rail Regulation, United Kingdom.
4. Correspondence with researcher at the Institute of Transportation Economics.

BLS – SWITZERLAND

BLS is one of Switzerland’s largest transport companies. It is a railway conglomerate that provides suburban and regional passenger services in the Canton of Bern and local and touristic services in nearby mountainous regions. The BLS system size and passenger services are roughly three times the size of Caltrain, though subsidiaries providing freight, bus and lake steamer ship services add diversity to the system. BLS is fully coordinated with the much larger Swiss National Railways (SBB), though it does provide duplicate services in a few markets.

BLS both operates trains and owns and maintains its infrastructure. Two subsidiaries are responsible for this work: the first operates the BLS trains and the Canton of Bern is the majority owner (the National Government, other Cantons and the private sector also are owners), while the second is responsible for infrastructure maintenance and the Swiss National Government is the majority owner. The operating subsidiary dispatches the line. The National Government coordinates the train schedules for BLS and SBB. They both operate on each other’s infrastructure. BLS performs infrastructure maintenance on its trackage at the direction of the National Government. This arrangement and decision-making process ensures that the local and national services are integrated. This has worked extremely well as both BLS and the SBB are well known for providing high quality service with excellent on-time records (BLS is 95 percent, SBB is 98 percent).

Applying this model to Caltrain would involve Caltrain:

- Separating responsibility for operations and infrastructure (this is discussed in more detail in the Chiltern case study);
- Becoming a corridor manager responsible for infrastructure maintenance, joint scheduling, and allocation of train slots to other rail carriers (including High-Speed Rail and freight) in the corridor as well as operation of commuter services;
- Developing new processes to coordinate and integrate different rail services; and
- Developing a coordinated fare policy with other passenger rail carriers on the corridor.

KINTETSU RAIL COMPANY – JAPAN

Though most international attention has been focused on the Japanese “Bullet Trains” (Shinkansen) operated by the successor railways to the old Japanese National Railways (JNR), about 30 percent of the Japanese rail network has always been made up of wholly private railroads that existed outside of the former JNR system. Most of these railways, of which Kintetsu is a good example, exist to operate suburban services in the major urban areas of Japan and to diversify into a wide range of activities related to the rail services. They are examples of highly vertically integrated companies that typically include railway operations (both passenger and freight), real estate investments, bus and other non-rail forms of transportation, air freight, television, resorts, and in two cases, owning baseball teams.

Kintetsu is entirely private, owning all of its infrastructure and rolling stock. It operates high-density, conventional suburban services centered in Nara, but connecting to Nagoya, Kyoto and Osaka. Kintetsu sets service levels as well as controls passenger fares.

Though the Kintetsu system is about four times the system length of Caltrain, it carries roughly half as many passengers each week as Caltrain carries in a year. The overall conglomerate to which it belongs has annual revenues approaching \$27 billion but does not report the share of rail within this total.

Applying this model to Caltrain would, in the extreme, involve Caltrain:

- Privatizing its operation;
- Aggressively expanding into business lines other than railroading with the goal of maximizing financial return;
- Operating the railroad with a singular focus on the bottom line; and
- Operating in a largely de-regulated environment.

Assuming less of a dramatic change, it would involve Caltrain:

- Increasing its focus on station development with private partners or on its own to better capture the real estate value it generates;
- Partnering with the private sector on new ways and new business arrangements to monetizing and capturing the value it generates; and
- Assessing its services and fare policies from a commercial as well as social viewpoint.

CHILTERN RAIL – UK

Chiltern Railways is a privately-owned train operating company owned by Arriva operating on public infrastructure. Arriva has won the franchise to operate commuter and regional rail services on five routes in the UK. The Chiltern franchise carries approximately 50 percent more passengers than Caltrain. Interestingly, the density of traffic (passenger-miles per mile of line served), an important indicator of underlying economics, is actually higher on Caltrain than on Chiltern. It is an example of the UK franchising model, which is described in detail below.

This model had its origins in the decline of British Railways (BR) post World War II. By the early 1990s, the British Government decided that growing deficits and ever poorer service had become unsustainable and decided to break up the railway and privatize it in its entirety.

The basic approach – separating infrastructure from all operations – was partly influenced by contemporary changes in Sweden and in the European Union (EU) where infrastructure separation had become an objective. In Sweden, the objective was to clarify the economics of the infrastructure versus the various operations, so the government could decide what it wanted to pay for. In the EU, the European Commission (the governing agency of the EU) wanted to break the link between operator and infrastructure owner so that multiple operators could use the same track and so that the government support

could be targeted to social services while commercial services (domestic and international freight) could compete more fairly with road and water. By separating infrastructure from operations, the Commission also wanted to promote the rise of competition across borders and in domestic markets from multi-country operators. These objectives were translated into specific policies that required the infrastructure to be separated from operations and that users of the infrastructure be charged non-discriminatory access fees.

The U.K. government decided to go even farther by privatizing everything. The approach was to create an infrastructure company (then called Railtrack, subsequently taken back into public control, and now called Network Rail) that would permit all users equal and neutral access with access charges intended to collect the full cost of the infrastructure. Railtrack was sold on the stock market and fully privatized. About 25 Train Operating Companies (TOCs) were awarded mostly exclusive franchises to serve various pre-existing business lines of the old BR. Potential franchisees bid for 5- to 10-year franchised service on the basis of maximum payment to, or minimum payment from, the government for the stated service. In some cases, the franchise paid to government from the beginning, in others the government paid at the beginning and then was to receive payments in future years and in some cases, support payments were predicted for the life of the franchise. The rolling stock was sold to companies (“ROSCOs”) that maintained the equipment and leased it to the operating franchises. The ROSCOs also began to purchase new rolling stock and lease it to franchises. Several freight companies were also created and sold to investors.

The outcome has been mixed. Passenger demand rapidly reversed a downward trend of many years and has, since the franchising, grown more rapidly than most other EU rail systems. Railtrack went bankrupt because of poor cost estimating and control as well as safety concerns and had to be brought back under government control as a quasi-public corporation. The initial three ROSCOs have been joined by five more. While there have been complaints about their competitive behavior (or lack thereof), the ROSCOs continue to fulfill their purpose of permitting mostly short-term franchises to use rolling stock that has a much longer life than the franchise. The freight franchises have been bought and sold several times but continue to operate although they have had problems of adequate access to the network that is dominated by passenger services.

The TOCs have also had a mixed history. Of the original 25, there are now 18. Many went bankrupt or gave up their franchise because of poor performance. Some of these were re-bid successfully; some were taken into public control and remain there. As a general observation, the short haul and suburban franchises tended to do less well and need more public support, the longer haul franchises did better and needed less support. The Chiltern franchise has changed over the years and has been bought and sold several times.

Applying this model to Caltrain would involve Caltrain:

- Separating infrastructure responsibility from that of train operations. This could mean the splitting of Caltrain into different functional organizations (an infrastructure company and one or more train operating companies that could be franchised to either other private or public entities) or for Caltrain to continue to be both the infrastructure provider as well as the operator of commuter services and allow other passenger operators to use the corridor through trackage right agreements including access fees.
- Clearly determining and separating infrastructure and train operating costs so as to provide a basis for both setting access fees and gaining better insight into the relative economics of different decisions facing Caltrain. The work by First Class Partners in the Business Plan will greatly assist in this effort.
- Determining the structure and degree of risk that Caltrain is willing to take as part of its potential future third party operating contract
- Assessing its role as a market driven as opposed to publicly supported passenger carrier.

CHAPTER 4: ORGANIZATIONAL AND GOVERNANCE REVIEW AND ANALYSIS

I. OBJECTIVE AND ORGANIZATION

This chapter is based on the work done in the previous chapters²⁴ as well as significant additional analysis of organizational and governance options.²⁵ It is structured to provide the Peninsula Joint Powers Board (JPB or Board) and member agencies with a defined set of choices as to a path forward with regard to three critical organizational areas:

- Service delivery
- Internal organization
- Governance structure

In each of these sections, alternative paths are outlined and high-level impacts delineated.

II. DEFINITION OF TERMS

For purposes of clarity and to enable a more focused discussion, the above aspects of organization and governance have been defined and are discussed in separate sections. It is important to recognize that there is significant overlap and interaction between them as choices in one area could well impact choices in another area. For example, a decision as to the service delivery mechanism will affect the optimal internal organization. As warranted, these types of connections are noted throughout the paper.

Service Delivery – This is the manner in which Caltrain operates and delivers its services. Chapter 2 outlined this in detail for the current situation. This section will define and analyze alternative future operating structures, with a particular focus on how Caltrain will deliver its daily train service after the expiration of the current TASI contract term in June 2022. Note that this section discusses the delivery of train service not the implementation of capital projects, which is addressed in both the internal organization and governance sections.

Internal Organization – This is the manner in which Caltrain has organized itself. While there is overlap with the discussion of core governance, this section identifies key areas of focus (resources, departmental functionality, and supporting/shared services) that must be addressed regardless of the selected governance structure.

Governance Options – These options are divided into two types of governance structures:

- **Core Governance Structure** – This is the manner in which the Caltrain organization is overseen by the JPB and member agencies or, in some options, by a potential successor governing body. Discussion is focused on the legal form of governance as well as the structural relationship between the governing body and the Caltrain management and delivery organization. This section will define and evaluate alternative structures that could be

²⁴ These have been documented in previous chapters, including Chapter 1 (Organizational Assessment), Chapter 2 (Defining Standard Functions of Major Railroads and Mapping the Caltrain Organization), and Chapter 3 (Summary and Comparison of Organizational Structure of Other Railroads and Public Agencies).

²⁵ Major assistance was provided by a team of outside experts: Renee Marler, David Miller, Lou Thompson and Ratna Amin.

used by the JPB or a successor governing body to govern Caltrain. These options are either “self-directed” as they can largely be implemented by the JPB and the member agencies, or “non-self-directed” as they require the significant participation of parties external to the JPB and the member agencies.

- **Parallel Governance Considerations and Structures** – This section discusses several governance-level issues, considerations and structures that the JPB and its member agencies may wish to address independent of (or in combination with) the core governance structure of the railroad. Generally, these relate to specific major issues and would require extensive involvement and support from external parties. Examples of this would include participation in a regional construction agency or a grade separation district.

III. HIGH-LEVEL QUESTIONS FOR BOARD/MEMBER AGENCY DECISION MAKING

Prior to reviewing this information, it is important to highlight the basic questions for the JPB and member agency consideration:

- Timing – Is this the right time to be having this discussion? Relatedly, what are the implications if no decisions are reached?
- Recommendations – What are the recommendations or key focus areas?
- Implementation Plan – What additional work is needed?

Chapter 5 will include discussion of each of these questions as they relate to the three organizational areas. Select recommendations as to possible paths forward will be made.

IV. CONTEXT

As the Board and member agencies review the different organizational elements and choices described here, it is important to view them within the context of Caltrain’s current and future environment.

Today, the Caltrain organization is challenged to plan for successful outcomes across four different workflows. The railroad must:

- Serve its existing customers and sustain its existing service;
- Complete the Peninsula Corridor Electrification Project and launch a transformed, electrified service (as well as supporting other near-and mid-term capital projects);
- Plan for significantly increased ridership and additional train service; and
- Plan for and actualize a future of continued expansion and integration with significant local, regional and state projects including an extensive program of grade separations, major terminal projects in San Francisco and San Jose, and integration with both a statewide high speed rail system as well as other statewide rail systems.

The above underscores the fact that Caltrain has already embarked upon a path that requires significant organizational change. The status quo is no longer viable as transformative decisions have already been made, the most critical being the electrification of the corridor and the future sharing of the corridor with the High Speed Rail Authority (HSRA). In addition, the Business Plan lays out an ambitious future vision requiring major new capital-intensive projects and expanded operations. In combination, these changes will impact all aspects of Caltrain’s operations and organization and come with attendant opportunities and challenges.

Implementation of substantial organizational change always requires a great deal of organizational focus and energy. For each of the options under consideration there will be differential impacts on the Caltrain organization, which will drive the amount of effort and resources needed to transition to a new structure. This will be undertaken in the same time period as other significant transformational change:

- Completion of the electrification project and the initiation of expanded electric service;
- Selection of a new train operator or extension of the existing contract; and
- Initial steps toward the implementation of the Business Plan.

These factors will make the transition to the desired outcome much more complex and require very careful and comprehensive transition planning.

Within the context of the Caltrain corridor there are many possibilities and unknowns that have the potential to materially impact and influence the preferred organizational and governance structure for Caltrain. Key uncertainties include the availability of major new funding for the railroad and its partners (with potentially attendant changes to how the region manages and delivers rail service) and the exact timing of key mega projects and services including High Speed Rail, the Downtown Rail Extension (DTX) of passenger rail service from 4th and King Station to Salesforce Transit Center (STC) in San Francisco, a rebuilt Diridon Station, or even a second Transbay crossing. Furthermore, there is discussion of new future services that could well be integrated with Caltrain, including future Dumbarton service and extension of service south of Gilroy. In this environment Caltrain must address the challenge of continuing its own work to improve its organization and system while also proactively and positively coordinating with these larger projects and opportunities.

Finally, the Business Planning process has engaged the private sector in a significant manner. Meeting their expectations for a clear and viable path forward will provide a strong foundation for future collaboration and their support for the needed major investments outlined in the Business Plan.

V. SERVICE DELIVERY OPTIONS

This section of the chapter focuses on service delivery. It is organized as follows:

- Section A: Overview
- Section B: Current Service Delivery Method
- Section C: Optional Models
- Section D: Other Considerations
- Section E: Summary

A. OVERVIEW

As outlined in Chapter 3, there are innumerable options to be considered for delivering rail service, both domestically and around the world. Models vary from rail agency to rail agency and within individual agencies. There are many factors that result in the selection of a service delivery model by an agency at any given point in time. It is important to emphasize that there is no “correct” model that can simply be adopted for Caltrain’s use at this time. Instead, Caltrain needs to consider a number of factors outlined below to determine which model is the one that will enable the agency to achieve its 2040 service vision, to provide excellent service during the coming decades, and to navigate its immediate changes over the next five to ten years. It is also important to note that the model can change over the next 20 years to reflect Caltrain’s situation at any point in time; incremental evolution over time is a possibility and has been used by many railroads throughout the world (the UK experience with Railtrack being transformed into Network Rail being a prime example).

The importance to Caltrain of selecting the most cost-effective model for its current situation cannot be overstated. The manner in which Caltrain provides its services will have a critical impact on the overall success of Caltrain going forward.

It will affect all elements of the organization including customer service, finances, capital improvements, safety and internal organizational structure. A well-conceived strategy is critical.

It is important to note that the models outlined in this section have been defined at a conceptual level. Additional analysis would be required to fully define the models.

B. CURRENT SERVICE DELIVERY METHOD

Caltrain currently contracts with TASI to provide rail services, including track maintenance, rolling stock maintenance and operating services.²⁶ The current contract was initiated in 2011. The end date of the current contract is June 2022. Caltrain has a one-year option to extend the contract as well as an agreement to extend the contract through 2027 subject to negotiation of satisfactory commercial terms and possible FTA approval.

This is a bundled service contract as TASI has responsibility to deliver all the key elements of infrastructure maintenance, rolling stock maintenance and train operations.²⁷ As outlined in Chapter 2, TASI's work is supplemented in certain functional areas by work undertaken directly by Caltrain staff or other contractors.

The contract in essence is a cost-plus or gross cost contract with performance incentives and penalties. The contract is quite comprehensive and outlines in detail TASI's responsibilities. Each year as part of the budget cycle, TASI prepares its projected costs to operate the service and the underlying manning plans, which are then reviewed and ultimately approved by Caltrain staff and the JPB as part of the annual budget. Caltrain staff oversee contractual performance. In addition, Caltrain staff may propose certain new programs that TASI will be directed to implement.²⁸

The overall contract value is approximately \$110M annually²⁹ plus the opportunity to earn approximately \$4.5M in performance incentives. The incentive plan is defined carefully and provides incentives for: management/budget control; safety; on-time performance; customer service; equipment reliability; and infrastructure reliability. The incentive plan also includes specified penalties for certain clearly enumerated infractions.

With regard to finances, TASI has an incentive to remain within the budget but does not have an incentive to be more efficient or generate additional revenues. Caltrain owns the revenue risk, including the collection of revenue. TASI negotiates directly with the unions while Caltrain is responsible for paying the costs of the settlements. There are no formal gain-sharing provisions in the contract (i.e. programs that would reduce costs or increase revenues whereby the benefits are shared between TASI and Caltrain).³⁰

Overall, Caltrain staff expressed general satisfaction with the agreement and TASI performance. Caltrain staff has identified areas of possible improvement including a revised performance incentive/penalty regime and defining a gain-sharing agreement(s) that could be potentially be included in a new contracting agreement. In addition, the internal need for sufficient resources and more effective contract performance oversight through the use of key performance indicators and revised processes was highlighted.

²⁶ Prior to this, Caltrain contracted with Amtrak to provide the services for nearly 20 years. At the time of the transition to TASI operation, in compliance with the applicable federal labor law protection (13c) requirements, the Amtrak workforce, with the exception of senior management, was offered the opportunity to transfer to TASI. The wages and benefits negotiated by TASI largely replicated the preexisting Amtrak contracts and provided equivalent compensation.

²⁷ The differences between "bundled" and "unbundled" contracts is discussed in Chapter 3.

²⁸ As long as the Caltrain requests are consistent with labor agreements and fully reimbursed, Caltrain has full discretion in implementing these changes.

²⁹ This includes funding for operations (\$90M), capitalized maintenance (\$7M) and capital support and miscellaneous services (\$15M).

³⁰ Examples of this could involve the contractor suggesting a program to reduce energy costs with the savings shared between the contractor and Caltrain or the contractor identifying a new profitable revenue stream (i.e. WiFi), and the parties sharing the profits and, potentially, the related investment.

C. OPTIONAL MODELS

ANALYTICAL FACTORS

Prior to the discussion of different service delivery models, it is important to consider the factors or perspectives within which each model should be viewed. Key factors include:

- Degree to which the model helps achieve Caltrain corporate objectives;³¹
- Ability to accommodate the service vision outlined in the Business Plan with the significant expansion of service and the operation of electric trains;
- Flexibility to address possible future regional developments: service expansion, operation of HSR on the corridor, and development of regional rail governance models;
- Balancing of reputational and financial risk, control and cost;
- Anticipated market response and associated cost;
- Implications for labor agreements and federally mandated labor protection provisions commonly known as 13c labor protections; and
- Ease of transition and associated risk.

In addition, given the immediate need for Caltrain to develop a strategy for service delivery post June 2022, a few other factors need to be given particular consideration as part of the determination of the service delivery model for the period three to ten years out. These factors include:

- Organizational bandwidth during a period of significant transformational change (especially electrification, which will require major shifts in necessary skills, numbers of people and training);
- Transition requirements;
- Length of time needed to negotiate a new contract with TASI or another provider;
- Degree of risk to on-going service delivery; and
- Current contractor market conditions.

ALTERNATIVE SERVICE DELIVERY MODELS³²

Extension of TASI Contract with Modifications

This option would entail Caltrain providing notice to TASI that it is interested in engaging in negotiations to extend and modify the contract through 2027 with the proviso that FTA approval may be required. It should be noted that the TASI contract has been in place during a period when the amount of service (number of trains, number and type of rail cars and extent of system) has remained relatively constant. Caltrain is entering a period of significant transformation and expansion. In the negotiation, the contract structure and terms will need to be analyzed to ensure that they match the situation over the next eight years. Modifications could center on those areas that have been identified for possible improvement including gain sharing agreements, revised performance incentives/penalties and other items identified by Caltrain staff as well as modifications needed to transition into and operate an expanded electric service. As part of this, Caltrain would review its internal contract management processes and resources to ensure adequate oversight.

³¹ For example, in the event that financial goals are most critical, a model that incorporates greater private sector involvement, higher risk and profit motives would be preferred. Conversely, if social benefits (reduced pollution, enhanced land use) are most critical, a model that maximizes public sector control would be preferred because a higher degree of public support will be needed.

³² The option of full privatization is discussed in the Governance Section of this chapter.

To implement this strategy, Caltrain would organize an internal interdisciplinary task force with the possible inclusion of external consultants to carry out this negotiation. Based on previous Caltrain experience, it is estimated that this entire process would take approximately two years.

Solicitation of a Service Provider through the Standard Procurement Process

In this instance, Caltrain would go to the market to solicit a service provider effective June 2022 or June 2023 (dependent upon a decision to exercise the TASI option or not). Initially, Caltrain would have to determine the model structure that is desired. Once this was done, Caltrain would initiate the procurement process and develop an appropriate Request for Information / Qualifications or Proposals as needed, evaluate proposals, select a vendor and possibly manage a transition period if TASI was not selected.

Alternative model structures for this approach are discussed below.

1. Bundled or Unbundled Contract

In the event of a bundled contract, Caltrain would award a single contract for all rail operations. In the case of an unbundled contract, Caltrain would award separate contracts for different functions. Likely this would entail a Maintenance of Way contract, a Maintenance of Equipment contract³³ and a Train Operator contract. Train dispatching would either be part of the Maintenance of Way or Train Operator contract. A variant of this would be for an additional contract for catenary/power system maintenance as this requires extremely specialized skills. Caltrain staff would be responsible for managing the interfaces between the different contractors; these are likely to require significant resources.

The unbundled model is used more frequently in Europe than in the US.³⁴ In the US, it is usually used when the commuter railroad is operating on infrastructure owned by another railroad (i.e. the host railroad) and the host railroad insists upon maintaining its own infrastructure and dispatching trains. This instance does not apply to Caltrain. Metrolink has used this model, though it is now changing to a fully bundled contracting approach.

Another variant of this model would be to include the design and construction of selected capital improvements (known as a design/build/operate/maintain or “DBOM” contract). A more complicated version would add financing to the contract; i.e. “DBOMF.” Given the massive capital requirements outlined in the Business Plan as well as the lack of an identified funding source, these models are best viewed as long-term possibilities.

Key factors to consider in choosing whether the bundled or unbundled model is best for Caltrain at this time are:

- Benefit of specialized expertise;
- Anticipated private sector market response;
- Extent of required management of interfaces; and
- Need for negotiation and administration of multiple contracts.

Caltrain needs to balance the relative merits of these factors. For example, an unbundled contract would provide greater specialized expertise (eg, rolling stock maintenance); however, it would require Caltrain to devote significant resources to manage the interfaces between contractors with different priorities (e.g. infrastructure maintenance and train operations). Caltrain would also need to administer multiple complex contracts in the unbundled model. Finally, Caltrain would need to assess the expected response of the private sector to either of the contracting approaches.

³³ This is often given to the manufacturer of the rolling stock. Caltrain had this option with Stadler but declined to exercise the option due to its high costs.

³⁴ As outlined in Chapter 3, the UK, with Network Rail handling infrastructure, franchises managing operations, and the ROSCOs furnishing rolling stock, is an example of a totally unbundled system.

It is estimated that the procurement of a new contract and the associated transition period would take two to three years depending upon the selected contracting model with the bundled contract likely requiring the shorter time implementation period.

2. Gross Cost or Net Cost Models

A second basic decision is which of these two structures is preferred. In the gross cost model (also referred to as the cost-plus model), the service provider has its approved costs fully reimbursed and is typically paid an additional profit and/or accepts an incentive regime. This is basically the current TASI contract cost model. The other model is the net cost model where the operator takes on a portion or the entire amount of the revenue and cost risk. This type of contract has sometimes been used in Europe (as was discussed in the Chapter 3 example of Chiltern Rail) but has not been used in the US.³⁵

The net cost model could have the benefit of certain kinds of gainsharing but would require Caltrain to undertake extensive analysis and negotiation, especially surrounding future passenger revenues and control of fares. Applying it to an unbundled set of contracts would greatly add to the complexity. Given the degree of transformation occurring at Caltrain over the next five years, consideration of the net cost model would be best done at a future date.

Provision of Services with In-House Forces

Another alternative service delivery option could be to reverse the policy of contracting-out and adopt the use of in-house Caltrain employees to provide rail service. As noted in Chapter 3, this model is used by a number of US railroads, including the large legacy operations in Chicago, New York, New Jersey and Philadelphia. Two new recent operators, SMART and Utah Transit Authority, also have selected this model. Given the magnitude of this change, careful analysis would be required. Issues to be examined would include the financial cost (including participation in the federal Railroad Retirement System), development of necessary organizational bandwidth and associated restructuring of the organization, need for a direct role in the collective bargaining process, management of a transition plan and the degree of incremental control (and associated benefit) that would be gained. As with the net cost model above, given the amount of transformation over the next five years, this would best be considered at a future date.

D. OTHER CONSIDERATIONS

As part of the selection of the desired contracting model, there are a few other factors for Caltrain's consideration:

Contract Term

As part of either a new solicitation or an extension of the TASI contract, Caltrain will have to decide the length of the contract term, the periods of performance and the determination of options. While the contract must be consistent with FTA guidelines, there is a balancing between the scope of services and degree of risk that a contractor will accept and the length of the contract. Contractors will usually accept more risk if there is a longer contract term as this provides them with greater certainty and with the period of time needed to recover their investment.³⁶ Further, this provides greater price stability and reduced transaction costs. There appears to be a trend towards longer contracts throughout the US.³⁷

Caltrain will also have to determine its solicitation process. In particular, it will have to determine how to structure the process (exact use of an RFI, RFQ and RFP) and the extent of market soundings that would be conducted. Typically, the more complex the agreement, the greater the use of market soundings and intermediate steps such as RFIs and RFQs. As an example, HSRA issued a Request for Expressions of Interest (RFEI) to potential investors in the HSR system. There were

³⁵ An example of an operator taking revenue risk is the case of the Buenos Aires Metro. In this instance, the concession is for 30 years and the concessionaire was required to project demand, revenue (with fares specified), operating costs, and the timing and cost of a specified investment program. The government chose the combination of required operating support and capital costs that minimized the total public cost.

³⁶ An example of this is in the UK where the government wanted to keep the franchises relatively short (5-7 years) in order to enhance public oversight. It was then necessary to create the ROSCOs and Railtrack/Network Rail in order to give the equipment and infrastructure providers enough time to recover their investments.

³⁷ TCRP Research Report 200, Contracting Commuter Rail Services, pg. 6.

over 60 responses and they were valuable in establishing the terms under which private investors would actually be interested; this has had a significant impact on subsequent HSRA financial plans.

Development of Strategy/Desired Result

As a first step, Caltrain must have clear priorities, with the first step being the development of a corporate strategy. This would include such issues as the scope of services that it will want to contract out and the degree to which Caltrain wants the contractor to take risk (revenue and/or cost) and furnish investment. For example, does Caltrain desire the contractor to be responsible for additional construction work or play a greater role in certain functional areas? Relatedly, what type of incentive/penalty regime is desired as compared with the system today?

Organization of the Negotiating Team

Caltrain will have to develop this team using internal resources possibly supplemented by outside expertise. To obtain an optimal result, the team needs to be interdisciplinary and involve numerous departments (legal, finance, operations, planning) with clear delineations of responsibility. Accurate and detailed cost and revenue information will be critical; the integrated business model developed by First Class Partnerships for the Business Plan will be extremely valuable. Senior staff must be significantly involved as numerous trade-offs will be required throughout the negotiations. Given the importance of this negotiation, Caltrain may also want to form an Ad Hoc Board Committee to oversee this process.

E. SUMMARY OF SECTION V

This section has outlined the current service delivery method and has analyzed alternative models. In Chapter 5, a recommended path forward for delivering Caltrain service is outlined for JPB and member agency consideration.

VI. INTERNAL ORGANIZATION

This section of Chapter 4 addresses the issues of internal organization. It is organized as follows:

- Section A: Overview
- Section B: Resource Requirements
- Section C: Areas for Future Focus
- Section D: Summary

A. OVERVIEW

As outlined in previous chapters, Caltrain is the seventh largest commuter rail system in the US and is growing rapidly. It is an efficient and complex organization which, despite limited resources due to funding constraints, has had significant success providing high-quality services to a growing ridership base, implementing major capital programs, and undertaking a comprehensive business planning process.

At the same time, many of its staff members identified its limited resources as a major and pressing problem. In addition to this, it is facing a series of major immediate challenges in a rapidly evolving environment including the introduction of expanded electrified railroad service and the need to determine the future structure of its third-party operating contract. In the slightly longer term, there will likely be major changes in the corridor including the implementation of a significant grade separation program, the total reconstruction of the two terminals and the possible blending of service with High Speed Rail. To address these challenges, the organization must grow and will need to identify the funding and resources to do so. Note that this situation is common across every long range growth scenario contemplated in the Business Plan and is an issue regardless of the specific long range service vision selected by the Board.

The critical issue of internal organization and resourcing is discussed in detail below. Following this, a series of important complementary supplemental actions are outlined and discussed.

B. RESOURCE REQUIREMENTS

A constant theme throughout discussions with Caltrain and external agency staff is the extent to which the railroad, due to financial limitations, does not have adequate organizational resources to fulfill and sustain its current mission, let alone the greatly expanded one outlined in the Business Plan.

A very high-level analysis, shown in **Table 8**, comparing Caltrain to the six largest US commuter railroads, found that Caltrain is the most productive major US railroad as measured by the amount of, car miles operated per employee and passenger miles carried per employee. In addition, it produces 22 percent more car miles per employee and 107 percent more passenger miles per employee than the average of all the other systems.³⁸ This illustrates the degree to which Caltrain's staffing is beneath the industry norm. As an illustration, if Caltrain were to meet the average staffing level of the other railroads, it would add at least 100+ positions.³⁹

In summary, it is clear that Caltrain is significantly under resourced for today's work outputs, let alone to address its upcoming transformation, its projected growth, its need to expand many functional areas (discussed later in this section), and the implementation of a long range service vision. A more detailed analysis that looks at resource needs by function is required to determine the correct number of additional positions for each department and for the entire railroad. From this a determination of future funding requirements to adequately staff the railroad needs to be determined.

³⁸ This actually understates the difference, as all the other major railroads except Metro North and Metra have certain major maintenance and station functions performed by Amtrak, whose staffing is not included in these numbers.

³⁹ This is the most conservative calculation as it is based on car miles per employee and does not account for the significant number of Amtrak staff that perform infrastructure and station maintenance on the Northeast Corridor.

Table 8: Comparison of Caltrain to Large US Commuter Rail Properties

Agency Name	Total Employees	Car Miles	Car Miles Per Employee	Passenger Miles	Passenger Miles Per Employee	Footnote
NJ Transit	4,850	61,500,000	12,700	2,077,100,000	428,300	1
Long Island Rail Road	7,331	67,100,000	9,200	2,996,900,000	408,800	4
Metro-North Railroad	6,461	68,600,000	10,700	2,271,000,000	351,500	
Metra	4,797	43,700,000	9,200	1,577,400,000	328,900	3
MBTA	2,394	25,000,000	10,500	697,700,000	291,500	5
SEPTA	1,921	19,500,000	10,200	426,200,000	221,900	2
Average	4,626	47,600,000	10,400	1,674,400,000	338,500	6
Caltrain	580	7,400,000	12,700	406,100,000	700,000	7

Caltrain Performance vs. Average **+22%** **+107%**

Sources:
 Metrics and Service Data Tables, National Transit Database, 2017, Federal Transit Administration.
 Employees Data Tables, National Transit Database, 2017, Federal Transit Administration.
 MBTA Commuter Rail Fact Sheet.

- Notes:
1. Staffing excludes Northeast Corridor and Penn Station Infrastructure Maintenance.
 2. Staffing excludes Northeast Corridor, 30th Street Station, and Harrisburg Line Infrastructure Maintenance.
 3. Staffing excludes services not directly operated by Metra (BNSF and UP).
 4. Staffing excludes Penn Station Infrastructure Maintenance.
 5. Staffing excludes Northeast Corridor and South Street Station Infrastructure Maintenance.
 6. Average excludes Caltrain.
 7. Caltrain includes both TASI employees and Caltrain employees working on the railroad.

C. ADDITIONAL AREAS OF ORGANIZATIONAL FOCUS

Beyond the general need to fund additional positions, there are a number of other organizational issues that will require immediate attention. While some of the organizational issues are related to final governance and service delivery decisions, there are a number of changes that can be de-coupled from these larger issues. This section details key organizational elements that need to be addressed now.

1. Shared Services
2. Critical Interfaces
3. Functions
4. Attracting and retaining talent and skills

SHARED SERVICES

As noted in Chapter 2, Caltrain has a significant amount of bifurcated responsibility due to the use of a third-party contractor to provide rail operations as well as the historical arrangements between the member agencies. This has led to a large amount of shared services between the Caltrain Rail Division and TASI as well as those shared between the Rail Division and the San Mateo County Transit District.⁴⁰

⁴⁰ These are delineated in detail in Chapter 2. An example of the former sharing is Human Resources or Budget; an example of the latter is maintenance of way or operations planning.

Note that the discussion below is viewed through the lens of what is needed to fulfill the railroad’s mission and is presented independent of the tie-in between shared services and governance.⁴¹ This information could then be used to provide guidance to the broader governance conversation between the member agencies.⁴²

The determination of the optimal extent of shared services from an internal organizational perspective would reflect the following factors:

- The degree to which specialized railroad skills are necessary
- The financial savings or cost
- Clear lines of authority and priority setting
- The selected service delivery model

The first factor is critical as shared services are most effective when the skills needed for the different modes are transferable. Within Caltrain, there seems to be a consensus that certain functions such as budget, accounting, treasury, and marketing/communications are working well. There are differences of opinion as to the effectiveness of other shared services, in particular information technology (IT), procurement, human resources (HR), and safety. A more detailed analysis is needed to determine the underlying problem and recommended solution.⁴³

The second factor is the financial impact of sharing services. This is a complex issue as it involves specification of alternative organizational options, allocation of costs, and determination of overhead, amongst other factors. In addition, modifications may involve resolution of a variety of historical issues between the parties (eg, pension liabilities). A detailed analysis of this issue is needed.

If services are shared, there need to be clear lines of responsibility and authority whereby both the user department and the one fulfilling the request understand each other’s roles, as well as a process to determine priorities in the shared service department.

Finally, with respect to the service delivery model, if the current use of a third-party operator is maintained, the organization should be structured so as to provide the most effective oversight of the contractor with clarity as to the relative responsibilities of Caltrain and TASI staff. This may entail re-thinking both the processes used as well as the resources needed to manage the contractor.

In summary, the issues of which services should be shared and with whom is intertwined with decisions on governance and service delivery. At the same time, some of these issues need to be addressed immediately while the larger governance conversation is evolving. The analysis of shared services would fit within the resource analysis outlined above and would, to the extent practical, be coordinated with the selected governance and service delivery path.

CRITICAL INTERFACES

A second area of focus is the extent to which different departments and individuals have clearly defined lines of authority and responsibility and how well key interfaces are working. As noted in Chapter 1, the following critical interfaces have been identified as worthy of examination:

- Interface between operations and construction;
- Interface between operations and administrative staff;
- Construction oversight;

⁴¹ This is discussed extensively in the governance section of this chapter.

⁴² It should be noted that some of the governance models outlined in the governance section would, by definition, result in a change in shared services. For example, if a new structure such as a district form of governance is selected, the provision of shared services would have to change.

⁴³ For example, the need to improve and expand HR’s hiring process for rail positions could be resolved either through a separate HR rail department or a specialized group within the current department.

- Design standards;
- Budget development; and
- Capital planning.

To ensure successful outcomes, the organizational infrastructure (i.e, reporting responsibilities, decision-making processes, etc.) needs to be well defined and each part of the organization needs to understand and follow its role.

FUNCTIONAL AREAS

Directly related to the above is the fact that Caltrain will require a different type and level of output from certain key functional areas, regardless of its governance structure, to accommodate its major transformation. Based on numerous discussions with Caltrain staff, the following areas are highlighted for future focus:

1. Planning Department – The growth and transformation of Caltrain mandates the need for a department with the resources, accountability, and authority to set the corporate vision and then drive its implementation. Once completed, the reorganization that the Chief Railroad Officer is in the process of implementing will meet this need.
2. Contracts/Agreements – Caltrain will, in all likelihood, be negotiating a number of major agreements and contractual relationships with a number of external parties, including:
 - Agreements related to the San Francisco Terminal, including both potential development at the Fourth & King Yard as well as pertaining to the construction and operating of the DTX;
 - Agreements related to the construction and development of Diridon Station;
 - Future operating and business agreements with HSRA; and
 - Other development agreements with municipalities.

To successfully complete these agreements, organizational re-alignment will likely be necessary, including additional staff and consultant resources, restructuring of internal processes to include a wide range of departments and re-alignment of the organizational structure with clear lines of responsibility.

3. Rail Activation Plan – There is an immediate need to put together a multi-functional team to support the seamless introduction of expanded electric service in 2022. This would be an integrated plan that ties together the construction and operation of the new facilities, new cars, positive train control system, and the constant warning grade crossing system. Specific areas of focus would include testing, maintenance procedures, training, safety programs, operating protocols, and schedule development. This would involve all aspects of the organization with possible consultant assistance. TASI may also be involved dependent upon the service delivery decision made by the JPB.
4. IT – With its increased dependence on complex technology, Caltrain will need both greater IT capacity and bandwidth, as the focus of the IT work expands to include more front-line customer facing systems (i.e., passenger information and ticketing systems) as well as new operational systems (i.e., positive train control and new power monitoring systems). In addition, the approach to this function as a shared service, a separate railroad function or a hybrid needs to be resolved.
5. Procurement and Human Resources – As the railroad organization grows, Caltrain will need these departments to have the necessary rail specific knowledge and experience as well as the resources and processes to be significantly faster and more nimble in providing support. This is the case regardless if these are provided as shared services or become separate departments supporting the railroad.
6. Real Estate/Commercial Activities – In addition to the major terminal projects noted above, it is likely that in conjunction with ridership and service increases and the continuing housing crisis in the Bay Area that station area development will become a more important function for Caltrain. Furthermore, there will likely be a continued

and intensified push for Caltrain to monetize its assets to the extent practical as a possible fund source for operations and/or capital investment. This will entail expanding the capacity of the current department.

7. Performance Management – With the growth of Caltrain, the development of a robust and sophisticated set of performance measures (KPIs) to assist and expand senior staff’s ability to manage overall corporate performance will be needed. In addition, a new third-party operator agreement could well include new performance measures. Relatedly, an expanded ability to analyze and use “big data” and perform root cause analysis for any number of functions (operational performance, asset management) would be valuable.
8. First Mile/Last Mile – With the anticipated large increase in ridership, new arrangements will be required to enable people to both access Caltrain and reach their destinations. Further technical analysis of this issue will be conducted in the Business Plan process. Ultimately, addressing first- and last- mile needs will likely involve a menu of different actions: parking, publicly-operated feeder services, private employer buses, bicycles, pedestrian access, and agreements with mobility companies. Additional staff resources and processes will be required to manage this complex and highly political process.
9. Capital Project Implementation – As future capital programs are developed, a decision will have to be made as to how best implement and manage major construction projects. This could be done by the Rail Division, a Caltrain Special Construction Division (an organizational unit similar to CalMod) or an outside entity such as a special purpose district or a regional construction authority.⁴⁴ The decision as to the path forward may well involve external parties and will likely develop over a period of time. From a Caltrain perspective, the key issues will be governance, project scope, funding, organizational capability/reputation, and ensuring that the operational and service needs of the railroad are met by the implementing group.

A detailed review of these functional areas is needed, will identify needed resources and should be integrated with the resource analysis noted above.

TALENT AND SKILL RETENTION

Another common theme that was raised by Caltrain staff is the need to attract and retain talent. There are many very talented people at the senior levels of the organization, however there is also a high vacancy rate. Using the Rail Division as an example, there is a 21 percent vacancy rate. This is undoubtedly due in part to the high cost of living in the Bay Area,⁴⁵ however, there may be additional issues that are making it hard to attract and retain talented people: lengthy and complicated hiring processes, organizational cultural reputation, wage and benefit scale, lack of participation in the railroad retirement system, internal training and development programs, etc. An analysis of this situation needs to be undertaken to determine and address the underlying causal factors.

A second issue is that there are a large number of seconded consultant staff. Again, using the Rail Division as an example, 25 percent of all filled positions are full time consultants. This strategy is typically most effective when an organization has a known “bump” or increase in needed resources for a set period of time and then will reduce the organization to its prior size. However, this situation does not apply to Caltrain as it will be needing to increase its staff over the next decade to achieve its mission. The downside of using seconded consultants in lieu of staff is that it brings an inherent lack of stability. This situation also needs to be evaluated and a clear approach delineated and implemented.

A final issue is the need to attract the necessary skill-based workforce to deliver the kinds of services and projects that will be needed to plan and support an increasingly complex railroad, as well as, ultimately, the long range service vision selected by the Board. The following skill sets will be critical:

- Analytical and financial skills to negotiate a new operator agreement as well as possible external agency agreements;

⁴⁴ Both of these are discussed in detail in the governance section of this chapter.

⁴⁵ In certain departments such as IT, there is also the significant competition with Silicon Valley employers.

- Financial skills to develop and implement asset management systems;
- Operational and maintenance skills to run and manage, for the first time, an electrified railroad (a portion of which will be housed by the third-party contractor);
- Capital planning skills to develop long term investment plans and interface with other regional rail operators;
- Operational planning skills to develop expanded schedules that will likely be frequently changing to accommodate construction projects;
- Facility planning and business skills to represent Caltrain in complex projects, such as DTX, Diridon Station and Dumbarton;
- Real estate/business skills to assist in the above major developments as well as to monetize other Caltrain assets;
- Administrative skills in the areas of human resources and procurement to support the Business Plan vision;
- Technological skills to support the new electrified railroad (including new power and signal systems) as well as customer facing services (ticketing, information); and
- Community interface/political skills to assist in program and project definition, funding and implementation.

A determination needs to be made as to the extent that these skills currently exist in the organization and at what resourcing levels, which skills are best provided by external consultants and the optimal process to obtain the missing skills.

D. SUMMARY OF SECTION VI

This section has reviewed and analyzed Caltrain's internal organizational structure. In Chapter 5, a recommended path forward addressing both the need for additional resources as well other critical organizational issues is outlined for JPB and member agency consideration.

VII. GOVERNANCE OPTIONS

This section of the chapter addresses the issue of governance options. It is organized as follows:

- Section A: Overview
- Section B: General Description of Joint Powers Authorities
- Section C: History of Caltrain Governance Structure
- Section D: Description and Analysis of Core Governance Options A through E
- Section E: Description and Analysis of Parallel Governance Options F through I and Considerations
- Section F: Summary

A. OVERVIEW

As noted throughout the chapter, Caltrain is facing significant opportunities and challenges. As part of this, consideration of governance options for policymaking and oversight for the rail system is an integral component of the Organizational Assessment study. In this section, a range of preliminary governance structures for Caltrain are identified, including projected timelines associated with the effectuation of governance changes and delineation of high-level implications of each option. Lessons learned from the case studies of other US and international railroads in Chapter 3 have been incorporated in this analysis.

It is important to emphasize that the opportunities presented in this section should be viewed as preliminary in nature. Implementation of structural governmental changes involves a wide range of considerations including service and project delivery, personnel impacts, financial impacts and political acceptability and feasibility at a level of detail beyond this study.

Importantly, underlying the assessment of the various models that follows is the common assumption that a dedicated source of revenues will become available via a regional sales tax measure or by other means to enable implementation of the service vision to be adopted through the Business Plan. Accordingly, the enumeration of modified or new governance models is not pegged to the premise that a new source of revenues to support Caltrain will emerge inherently from the selection of any one of them. Otherwise stated, any modification of the existing Caltrain governance structure will not alone solve the financial challenges faced by the organization or the organizational issue of limited resources. From a legal standpoint, governance and finance are separate considerations, although it is recognized that from a political standpoint there may be a propensity to tie the two together.

The following governance structural options will be discussed in the sections that follow:

Core Governance Options

As defined earlier, these are alternative structures by which the Caltrain organization could be governed by the JPB and JPA members or, in some options, by a potential successor agency. This is further divided into those options that are self-directed as they can largely be implemented by the JPB or JPA member agencies and those that are not self-directed as they require significant participation of parties external to the JPB and member agencies.

Self-Directed Options - Three Basic Types

1. JPB as currently structured and administered - **OPTION A**
2. Various configurations of the JPB:
 - a. JPB as currently structured, coupled with modifications relative to governing board oversight and the provision of managerial services by San Mateo County Transit District (SMCTD) - **OPTION B**
 - b. JPB as currently structured, but reorganized as a railroad authority that hires its management and administrative employees directly - **OPTION C**

- c. JPB as currently structured, but reorganized as a railroad authority that hires its management and administrative employees directly and supplements on an as-needed basis with expertise from JPA member agency staff - **OPTION D**
3. Creation of a Special District, the Peninsula Rail Transit District (PRTD), to govern and administer Caltrain - **OPTION E**

Non-Self-Directed Options - Regional integration in various configurations:

1. Existing agencies with expanded regional cooperation - **OPTION F**
2. Existing agencies with regional integration of key functions –**OPTION G**
3. Consolidated regional authority with subsidiary railroads – **OPTION H**
4. Fully consolidated regional railroad – **OPTION I**

Parallel Governance Considerations and Structures

These include several governance issues and structures that the JPB and its partner agencies may wish to address independent of (or in combination with) the core governance structure. They include:

- Megaproject delivery by new organizations:
 - Construction Authority to deliver megaprojects such as the Downtown Extensions (DTX) and Diridon Station
 - Grade Separation District to manage grade separations
- Geographic expansion/integration with other railroads to include new arrangements with:
 - High Speed Rail Authority
 - Other rail carriers
- Increased Private Sector Role

B. GENERAL DESCRIPTION OF JOINT POWERS AUTHORITIES

Joint powers authorities (JPA) represent a common form of local and regional governance in California. Such an authority is created when two or more public agencies agree by contract to the exercise of powers that are held in common by the contracting parties. The general enabling statutes that delineate the authority for creation of JPAs is codified in the California Government Code commencing at Section 6500.

In practice, JPAs have been created to perform a wide range of governmental services such as fire protection, library resources, recreation and congestion management and transportation. Notably, insofar as intercity and regional railroads are concerned, JPAs have been the form of governance structure selected by Caltrain as well as the Capitol Corridor, Metrolink and ACE. The range of powers exercised by these JPAs is comprehensive and fundamentally similar to those of transit authorities, such as VTA and SMCTD, that are created pursuant to State enabling statutes in the form of special districts.

C. HISTORY OF CALTRAIN GOVERNANCE STRUCTURE

The acquisition of the peninsula rail corridor was facilitated by a JPA created in 1988 known as the Peninsula Corridor Study Joint Powers Board. This agency initially limited its powers and purposes to the undertaking of planning studies for the eventual takeover of the Caltrain system governance from the State of California, the agency that had overseen and

managed the system pursuant to a contract with the Southern Pacific Transportation Company (SP) that commenced in 1980. Among the planning objectives of the JPA was the acquisition of the rail corridor then owned by SP.

It was upon the successful acquisition of the rail corridor in 1991 that the member agencies of the JPA reached a new agreement which, among other things, transformed the agency from one limited to planning to one that assumed operating authority and responsibility. This entity has remained intact since its establishment in 1991 although the joint powers agreement has been amended for various purposes on a few occasions, most recently in 1996.

The Caltrain JPA is governed by a 9-member appointed board (JPB or Board) as follows:

- Santa Clara Valley Transportation Authority (VTA) board appoints three representatives: (1) one must be a member of the VTA board representing the City of Santa Clara or the County of Santa Clara; (2) one must be a member of the VTA board representing the County of Santa Clara or a city other than San Jose; and (3) a member who represents the County on the Metropolitan Transportation Commission (MTC), or if that person declines to serve, by the MTC representatives appointed by the Cities Selection Committee or if that person declines to serve, a member of the VTA board appointed by VTA;
- SMCTD has three representatives who serve as SMCTD board members and who are appointed, respectively, by the SMCTD board, the San Mateo County Board of Supervisors and the Cities Selection Committee; and
- San Francisco has three representatives, one of whom is appointed by the Mayor, another by the Board of Supervisors and another by the San Francisco Metropolitan Transportation Authority.

The JPB possesses a vast array of powers that may be exercised by JPAs under applicable laws, including the power to contract, to own property, to employ agents and employees and to incur debt. Currently the JPA does not itself possess the power of eminent domain. When it has been necessary on rare occasions, the JPB has relied upon a member agency to acquire property on its behalf by exercise of the member agency's eminent domain authority. If desired, the JPA could be amended by the member agencies to include eminent domain authority.

The JPB has been managed by SMCTD since its inception per agreement of the member agencies codified in Section 6(B) of the JPA. A number of factors led to the selection of SMCTD by its partner JPB members. Among them was the premise that reliance on a JPB member agency with existing managerial capabilities would meet the needs of the JPB, thereby avoiding the creation of a new bureaucracy with attendant supplemental administrative costs. Additionally, the role played by SMCTD over a period of years in leading the effort to prevent abandonment of the rail service in the corridor sought by SP and later in leading the negotiations for acquisition of the rail corridor rendered SMCTD the consensus choice of the member agencies to manage the railroad.

In addition to the JPA provisions, the member agencies entered into a separate Real Property Ownership Agreement (RPOA) in December 1991 to address the subject of local funding for acquisition of the rail corridor from SP. In order to close the \$202 million transaction, funding from local sources totaling approximately \$81 million was necessary to supplement \$120 million of funding that had been allocated by the State of California. Due to the inability of VTA and San Francisco to provide their respective shares of approximately \$34.7 million and \$8.3 million, SMCTD agreed to advance those amounts on their behalf. In the RPOA, VTA and SF agreed to make best efforts to repay the SMCTD advance with interest. To protect its interests, SMCTD was made a co-owner of the rail corridor in San Mateo County and was granted an equitable lien interest in the right of way in SF and Santa Clara Counties.

Subsequently, in 2008, with the assistance of the Metropolitan Transportation Commission, the JPA members reached an agreement memorialized in an amendment to the RPOA that addressed repayment of the SMCTD advance. Per the terms of the amendment, SF and VTA agreed to repay the principal amounts that had been advanced by SMCTD. SMCTD, in turn, agreed to forego payment of interest that had accrued since 1991 on those advances in return for which SMCTD was granted the contractual right to serve as the JPB's managerial and administrative arm as long as it wishes to do so. The significance of the RPOA in the context of consideration of potential governance changes is the fact that implementation of fundamental changes to the current JPB management structure would require the consent of SMCTD.

The JPA includes provisions requiring financial support derived from the JPB's member agencies:

- Annual operating costs (including SMCTD's administrative costs) not covered by fares, grants or other sources of revenue are largely allocated to each member agency on the basis of county of origin boards of passengers at stations within their respective counties, adjusted annually pursuant to a ridership survey. For the 2018-2019 fiscal year, the member agency respective shares of the JPB's net operating deficit are 27.6 percent for SF, 30 percent for SMCTD and 42.4 percent for VTA. For the 2019-2020 fiscal year, the percentages based on the most recent ridership survey conducted earlier this year will be 27 percent for SF, 30.6 percent for SMCTD and 42.4 percent for VTA. In actual dollars the anticipated financial contributions of the member agencies during the 2018-2019 fiscal year will be approximately \$7 million for SF, \$7.6 million for SMCTD and \$10.8 million for VTA.
- Systemwide capital replacement and enhancement project costs are provided by JPA members in addition to the contributions set forth above and are shared equally among the member agencies. Examples of projects falling in this category are track and ballast replacement and rolling stock overhauls. The FY 2018-19 capital budget totals \$42.7 million. Of that amount, the member agency shares are \$7.5 million each with the remainder coming from outside grants.
- Costs of certain capital projects such as station upgrade projects and grade separation projects that are local rather than systemwide in character are not shared by all of the JPB members. Rather, those projects are undertaken by and financed by the member agency in whose county the particular project is located.

The development of the JPB's annual operating and capital budgets involves multiple steps and approvals of member agency operational and capital contributions by multiple governing boards. The process begins with the preparation of preliminary budgets by SMCTD for initial review by the Staff Coordinating Council, a body comprised of staff members of the three JPB member agencies. Thereafter the preliminary budgets are presented as informational items at one or more JPB governing board meetings. The budgets then are reviewed by the member agencies of the JPB each of which then advises the JPB whether it is able to afford the projected costs allocated to it in the proposed budgets. There then typically ensues a process of budget revisions to accommodate what the member agencies indicate they are able to pay. In some years that process results in the need to effect service modifications and/or fare adjustments. The need to defer undertaking certain capital projects also results relatively frequently. Ultimately the final budgets must be formally approved by the JPB and the governing boards of each member agency.

In connection with the rail corridor acquisition from SP, the JPB acquired trackage rights rather than fee title from SP to permit operation of limited service in the then SP and now Union Pacific Transportation Company-owned rail corridor between the city of Gilroy and the southern terminus of the JPB's ownership rights in San Jose. The trackage rights that were acquired for the sum of \$8 million, \$4 million of which was derived from the State of California and \$4 million from VTA's predecessor, the Santa Clara County Transit District, allowed operation of four round-trip trains per day between Gilroy and the San Jose Diridon Station. The JPA provides that the net operating costs of the Gilroy service as well as all capital improvement costs are the responsibility of VTA. Since 2001, however, it has been the practice to include the Gilroy costs in the systemwide Caltrain operating budget such that those costs are borne by the three agencies.

The JPB has the right to assign its interest in the Lick-Gilroy Trackage Rights⁴⁶ Agreement (TRA). Specifically, JPB has the right to assign, without having to obtain UP's prior consent, to a successor agency, to one or more of the JPB member agencies or counties, to the Peninsula Rail District, to the State of California Department Of Transportation (DOT) or to an existing or to be formed public, quasi-public or nonprofit entity formed or authorized to own JPB's interests provided the successors or assignees have the legal power and authority to assume all of the rights and obligations of the JPB.

With regard to freight trackage rights in the main line corridor, UP holds easement rights to carry out its common carrier freight service obligations. Currently UP operates three freight trains per day Monday through Friday to and from its freight yard in South San Francisco as well as one train on Sundays. Crushed granite and marble comprise approximately two-

⁴⁶ Control Point Lick is two miles south of Tamien Station.

thirds of the cargo transported on the line. As in the case of the Gilroy corridor discussed above, a TRA governs the relationship of the parties in areas such as maintenance cost allocation, construction of capital improvements and liability risk allocation. The TRA also addresses hours of freight service operations on the main line. Freight may operate in the corridor whenever there is a period of at least 30 minutes headway between passenger trains with the understanding that between midnight and 5:00 a.m. at least one main line track must be made available for freight service. The main line corridor TRA contains an identical provision allowing JPB to assign its rights in the agreement as described above with regard to the Gilroy line.

In addition to freight operations that currently are operated by UP, the JPB has entered into a series of agreements with the HSRA in anticipation of future high speed rail operations in the corridor by or on behalf of HSRA. More particularly, the JPB and HSRA have entered into contracts pursuant to which HSRA has agreed to allocate \$713 million of State of California Proposition 1A bond funds to the JPB to be applied toward the cost of construction of the Caltrain corridor electrification project. The corridor electrification infrastructure has been designed and currently is being constructed in a manner that will enable HSRA to utilize the electrification infrastructure when it commences rail operations in the JPB rail corridor. Additionally, the JPB/HSRA agreements confirm that corridor electrification will enable a minimum of eight electric train slots per hour per direction to be created, two of which will be guaranteed to HSRA with the understanding that HSRA will be allocated an additional two train slots per direction per hour subject to the parties jointly determining additional capital investments and/or alternative operating patterns necessary to accommodate that addition. To enable HSRA to operate its high speed rail service, the JPB will grant HSRA an easement interest in the rail corridor pursuant to which requisite possessory rights will be conveyed to HSRA. Existing agreements between the parties also contemplate the undertaking of joint blended system planning and execution of future agreements required to address a wide array of issues whose resolution will be essential to enable future shared use of the corridor by the JPB and HSRA.

Federal, state and regional funding agencies have determined that the JPB qualifies as an eligible recipient of grant funds allocated by such agencies. The JPB also has the authority to issue debt and has done so on multiple occasions. The assets of the system, including the right of way and rolling stock, are owned by the JPB; however, as noted above, by reason of the local funding advances provided by SMCTD on behalf of the other member agencies at the time of acquisition of the peninsula rail corridor, SMCTD is a co-owner of that portion of the rail corridor situated in San Mateo County and holds lien rights on the rail corridor in San Francisco and Santa Clara counties.

D. DESCRIPTION AND ANALYSIS OF CORE GOVERNANCE OPTIONS

ANALYTICAL FACTORS

Prior to discussion of different governance models, it is important to outline the factors or perspective within which each model should be considered. Key factors include in no particular order:

- Ability to deliver Caltrain's 2040 service vision;
- Ability to maintain high quality service while transitioning the organization through potential transformation;
- Ability to implement major construction projects as well as integrate Caltrain with other regional and local projects;
- Transparency of finances;
- Clear lines of authority and responsibility;
- Ability to address concerns that the interests of one of the member agencies has precedence;
- Impact on Caltrain finances and its ability to attract needed new funding;
- Political acceptability;
- Flexibility to respond to change (i.e. not to preclude certain future possibilities);
- Impact on Caltrain personnel;
- Regulatory impacts (if any); and

- Extent of risk that Caltrain wants to take both during the transition period and long term.

SELF-DIRECTED OPTIONS

This section presents the range of options that are self-directed, as they can largely be implemented by the JPB or JPA member agencies. It includes the following options:

1. JPB as currently structured and administered - **Option A**
2. Various configurations of the JPB:
 - a. JPB as currently structured, coupled with modifications relative to governing board oversight and the provision of managerial services by San Mateo County Transit District (SMCTD) - **Option B**
 - b. JPB as currently structured, but reorganized as a railroad authority that hires its management and administrative employees directly - **Option C**
 - c. JPB as currently structured, but reorganized as a railroad authority that hires its management and administrative employees directly and supplements on an as-needed basis with expertise from JPA member agency staff - **Option D**
3. Creation of a Special District, the Peninsula Rail Transit District (PRTD), to govern and administer Caltrain - **Option E**

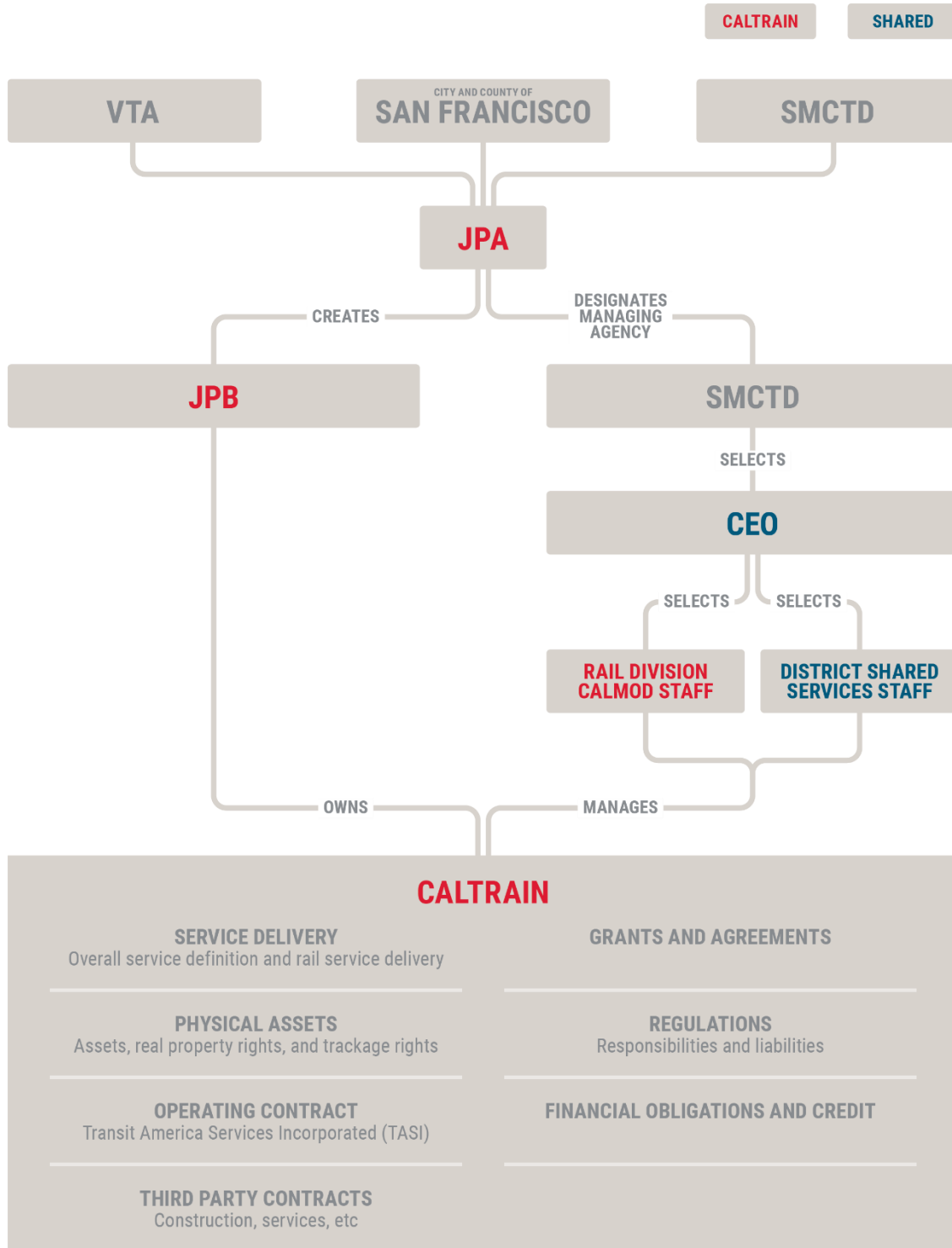
Option A: Retention of the Status Quo

This maintains the current situation whereby the JPB constitutes the entity that is responsible for all aspects of the Caltrain rail system, including planning, operations and maintenance oversight and undertaking of major capital improvement projects. As discussed above, actual rail operations and maintenance has been provided since inception of the JPB by third party contractors pursuant to contractual arrangements with the JPB. This could continue or an alternative service delivery method utilized as outlined in the service delivery section of this chapter. SMCTD would continue to serve as managing agency of the JPB and in that capacity, through employees and consultants it hires, SMCTD would oversee and administer the Caltrain operations and maintenance contract and be responsible for the day-to-day management of the agency.

In that SMCTD manages multiple agencies (Caltrain, SamTrans bus and Redi-Wheels paratransit service, and the San Mateo County Transportation Authority), many of the services performed by SMCTD, such as in the areas of procurement and human resources, are carried out by SMCTD staff on a shared services basis. Similarly, SMCTD's executive management team, including its General Manager/CEO, oversee Caltrain along with two other agencies, although in recent years the preponderance of their time has been devoted to Caltrain. At the present time, approximately one-half of the total Caltrain workforce is in the Rail Division and work 100 percent of their time on Caltrain, and the remainder are shared with SMCTD and SMCTA.⁴⁷ Overall, this arrangement allows for the sharing of employment costs among multiple agencies, although challenges can arise from time to time in obtaining resources in a timely manner in light of competing demands for services of various personnel whose expertise is made available to multiple agencies. The lack of adequate financial resources to the JPB also can be a constraint relative to enabling SMCTD to hire a sufficient number of individuals with specialized skill sets associated with running a railroad. **Figure 1** illustrates the relationships of the different organizational entities under Option A.

⁴⁷ As measured by Full Time Equivalents.

FIGURE 1: OPTION A
CURRENT CALTRAIN ORGANIZATION



In addition to the rights, powers and commitments described above, the JPB in its current form possesses the requisite authority to expand its service within as well as outside of the area currently being served, and to meet the future service objectives for the Caltrain rail system to be established pursuant to the Business Plan. Subject to reaching an agreement to obtain requisite rail corridor ownership or trackage rights, the exercise of JPB’s power to enlarge its rail service area (e.g. expansion of service to Santa Cruz and expansion of service to areas of Alameda County accessed via the Dumbarton rail corridor) can be implemented by a Board resolution accompanied by an amendment to its fare tariff. Additionally, the JPB was granted authority to levy a 0.125% sales tax for Caltrain operating and capital purposes pursuant to legislation enacted in 2017 (Chapter 653, codified in the California Revenue and Taxation Code commencing at Section 7286.65) subject to satisfaction of various procedural requisites and the obtaining of approval by 2/3 of all of the voters in the member agency counties.

At the same time, questions have been raised as to whether the existing governance and associated staffing structure is the best way to meet Caltrain’s future service goals and needs.⁴⁸ Alternative self-directed potential governance models are described below.

Option B: Retention of the JPA as currently structured coupled with modifications relative to governing board oversight and the provision of managerial services by SMCTD

Based upon interviews that have been conducted with Board members, staff, and other interested parties, a number of refinements to the way in which the JPB currently operates have been suggested for consideration. **Figure 2** illustrates the relationships of the different organizational entities under Option B.

Among the proposals that have been identified as worthy of discussion are the following:

- Establishment by the Board of Standing Committees

Creation of a committee system would be designed to facilitate more in-depth connection between the governing board and managing agency staff on key policy issues and to enable broader engagement with the public by providing sufficient time for discussion of critical items. A committee process also is envisioned as a potential means to streamline the conduct of the meetings of the full board. The Board is in the process of implementing two committees: Finance/Budget and Planning. In the future, potential committees could be formed to review and oversee high priority items such as major capital improvements, the strategy to procure rail services post the current TASI contract term, or the implementation of new railroad service.

Means of Implementation: By action of the JPB.

- Board Evaluation of SMCTD as Caltrain Manager and Administrator

Ideas worthy of consideration in this regard include the following:

1. The preparation of annual goals and objectives by the Executive Director in consultation with the Board, coupled with annual evaluation by the Board regarding the managing agency’s performance pegged to adopted goals and objectives.
2. Formalizing the process for recruitment of the Executive Director to include representatives of the JPB participating actively with the SMCTD board in the selection process, in a manner akin to the informal process that was followed during the most recent recruitment process in 2014.

Means of implementation: By agreement between JPB and SMCTD.

⁴⁸ Note that other issues related to organizational resources and internal structure have been discussed in previous sections of this report.

A variant of item (2) would involve creation of a structure whereby SMCTD in agreement with the JPB would select the Caltrain chief executive officer employed by SMCTD.⁴⁹

Means of implementation: By agreement between JPB and SMCTD.

- Creation of a Member Agency CEO Executive Council

As an additional method to promote communication on key Caltrain matters and to engender organizational cohesiveness, establishment of regular meetings among the CEOs of the member agencies might be considered. Through this vehicle, JPB's Executive Director would be able to keep his CEO colleagues directly informed of key issues facing the organization and to obtain their suggestions and advice on an as-needed basis. Financial issues, including those necessitating member agency contributions, would be among issues routinely addressed.

Means of Implementation: By action of JPB's Executive Director with the consent of the San Francisco and VTA CEOs.

- Resource Sharing Among the Member Agencies

Recognizing the challenges periodically encountered in recruiting specialized railroad experts to perform various functions (e.g., procurement, engineering/construction oversight), the JPB through SMCTD might turn to VTA and San Francisco agencies from time-to-time to provide supplemental administrative support on an as-needed basis.

Means of implementation: By actions of the JPB and its member agencies.

- Internal Processes to Address Specialized Expertise Required for Management of Caltrain

Ideas that have been offered include modifying the current shared services structure to provide specialized rail expertise. This topic is discussed in detail in the organizational section of this chapter.

Means of implementation: By action of the JPB.

- More Extensive Engagement of the Private Sector Partners in the Corridor

Among ideas that have surfaced include supplementing the increased efforts in recent years to connect with the private sector (as evidenced by their financial support for the Business Plan) by creating a Caltrain Business Task Force. Additional private sector connectivity options might include (1) provision of private sector funding for planning and capital project design/construction projects and (2) provision of specialized expertise to assist Caltrain in areas such as real estate development projects.

Means of implementation: By action of the JPB and private sector partners in the corridor.

⁴⁹ An alternative option of having the JPB approve and hire the Executive Director while keeping SMCTD as the managing agent was considered. However, this option would blur the lines of authority and decision-making between the SMCTD General Manager and the Executive Director position, and neither would have a clear set of responsibilities. Questions would almost certainly arise as to which position would be responsible for making different decisions. For example, there would be basic questions, such as who determines what decisions should be brought to the JPB for action; who would have hiring and firing authority over SMCTD employees working either full or part-time for Caltrain; and who would decide how future organizational changes would be structured (including those related to shared services). In summary, it would be exceedingly difficult to distinguish and clearly define the roles of the two positions, and this would likely lead to internal confusion and conflict over time. For this reason, this option is not recommended for further consideration, and the broadening of the role of the JPB in the selection and evaluation of the Executive Director in concert with the SMCTD Board is thought to be a better option.

- Creation of Fixed Terms of Office for Board Members

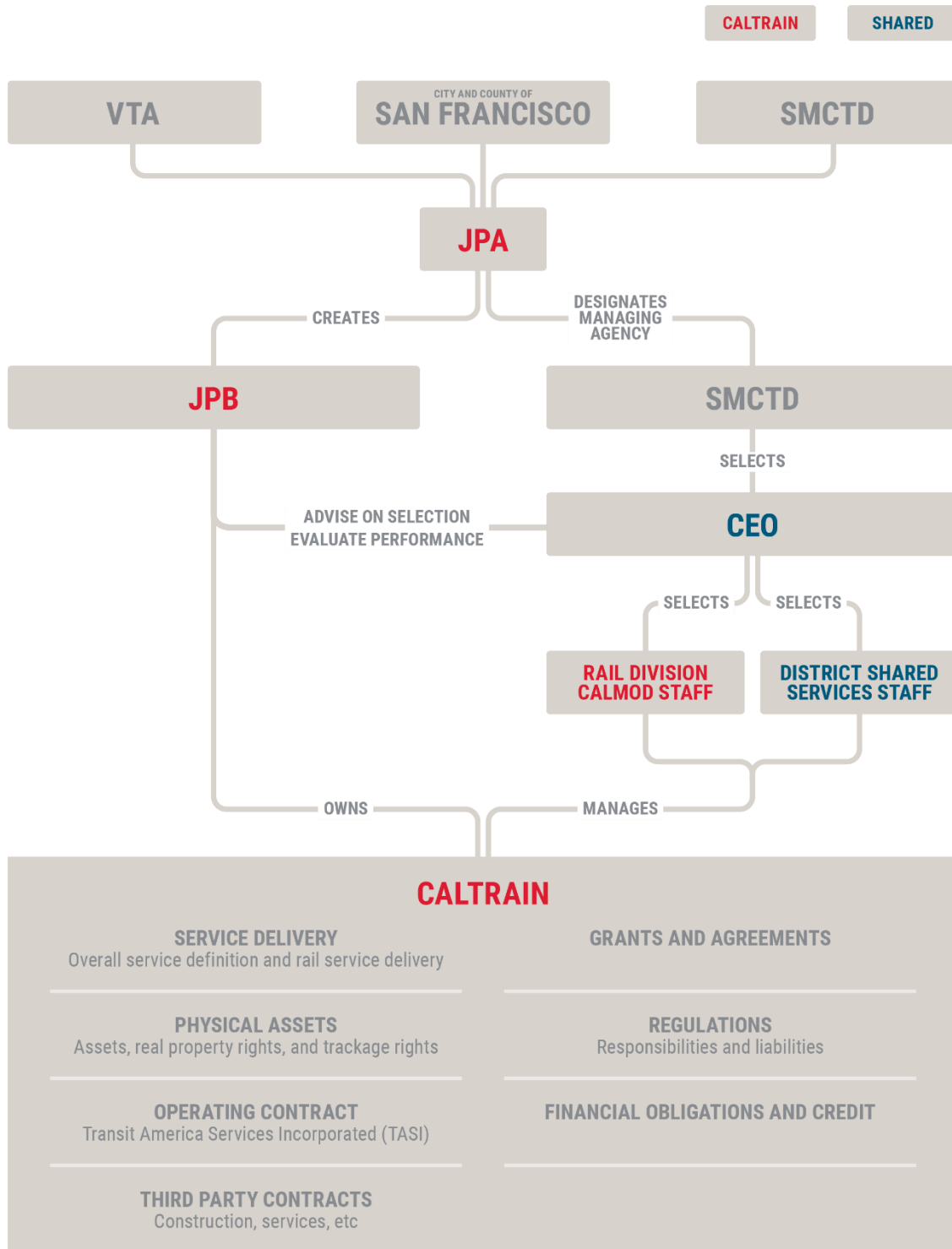
Currently Board members serve at the pleasure of their appointing authorities. Suggestions have been made that establishing fixed terms of office for Board members would better assure continuity of knowledge and familiarity with the goals, objectives and purposes of the JPB and would mitigate turnover on the Board that has taken place increasingly frequently in the recent past.⁵⁰

Means of implementation: By amendment of the JPA, which would require agreement by the governing boards of the member agencies of the JPB.

Time to implement from decision to proceed with this option: Given that these options are self-directed and thus can be implemented by action of the JPB or member agencies, one year or less should be sufficient to affect the type of changes described in Option B.

⁵⁰ Of the cases studied in Chapter 3, this is done by SMART, San Joaquin Regional Rail Commission, and MBTA.

**FIGURE 2: OPTION B
 JPA MODIFICATIONS**



Option C: Retention of the JPA as currently structured, but reorganized as a railroad authority that hires its management and administrative employees directly

This option builds upon the previous option by retention of the JPA structure as the form of governance but is coupled with an internal reorganization process by which the JPB would hire its own staff or railroad employees in lieu of reliance upon the SMCTD organization exclusively.⁵¹ **Figure 3** illustrates the relationships of the different organizational entities under Option C.

Retention of its own staff would establish a direct hiring, reporting and evaluation relationship between the Board and its executive director. Hiring of personnel directly would ensure that the focus of the management team would be exclusively on the rail system. This structure would also improve financial clarity as the costs and revenues of the railroad would be separate from SMCTD.⁵² In addition, JPA hiring of staff would address any concerns arising from staff serving two agencies that may not always share the same interests, or any perception that at times the objectives of one party would be favored over the other.

A similar model is used by Metrolink and ACE, which are organized as commuter railroad authorities managed by staff that are hired by and directly reportable to their governing boards.

An area requiring additional study is the cost implications to the JPB and to SMCTD as well if the JPB were to decide to hire its own independent management team. Specifically, the JPB would need to pay for 100 percent of the costs of its CEO, COO and all other administrative positions in contrast with the existing arrangement by which only a portion of the costs of shared positions is allocated by SMCTD to the JPB. Consideration of this option will necessitate an in-depth analysis and assessment of personnel costs in the areas of wages and benefits, particularly pension benefits, associated with hiring railroad employees directly as compared with the existing managerial and staffing relationship.

In addition to the future costs of wages and benefits to be paid to railroad employees, currently unfunded CalPERS pension and retiree health costs benefits liabilities attributable to SMCTD employees who serve Caltrain will warrant evaluation in conjunction with the transformation of the current organization to a railroad authority. An actuarial assessment process and potential cost allocations associated with these issues to JPB member agencies will be needed. This may add a level of complexity to a transition plan but is not expected to constitute an insurmountable obstacle per se to effecting change in the governance structure. These issues pertain equally to consideration of the special district creation option discussed in the next section of this analysis.⁵³

A change of this order of magnitude should not affect the JPB's status as an eligible grantee of funds from federal, state and regional funding agencies. It would not require Caltrain to join the Railroad Retirement System as long as operations continue to be performed by a third-party contractor. Nor would it affect the statutory eligibility of the JPB to seek voter approval to implement the sale tax measure described above.

One of the key issues requiring study associated with a governance change of this order of magnitude involves risk assessment. Successful implementation of this option would necessitate special efforts to assure that the day-to-day operation of Caltrain and administration of ongoing capital projects are attended to safely and reliably while concurrently transitioning the JPA into to an entirely new form of Caltrain management.

⁵¹ Note that in this option, it is likely that employees of the railroad authority would consist of both existing staff transferring to the new authority and newly hired staff.

⁵² Allocation of costs would only occur for those shared services that are retained.

⁵³ As noted previously, in 2008 the JPA members entered into an amendment of the RPOA whereby SF and VTA agreed to repay principal amounts previously advanced by SMCTD on their behalf to facilitate purchase of the peninsula rail corridor. At the current time, \$19.7 million of the repayment commitment attributable to VTA remains unpaid. It is reasonable to anticipate that an agreement to restructure the JPB in a way that would involve replacement of SMCTD as Managing Agency would likely include addressing this outstanding monetary obligation.

Considering the financial as well as political implications associated with this kind of change, it is reasonable to anticipate it would take at least one to two years to obtain the requisite understandings and agreements among the JPB's member agencies. The implementation phase, involving recruitment of personnel to serve the JPB and rearrangement of the SMCTD forces, together with orderly transition of on-going capital project oversight, would require additional time.

Means of Implementation: Agreement of and vote by member agencies to amend the JPA agreement

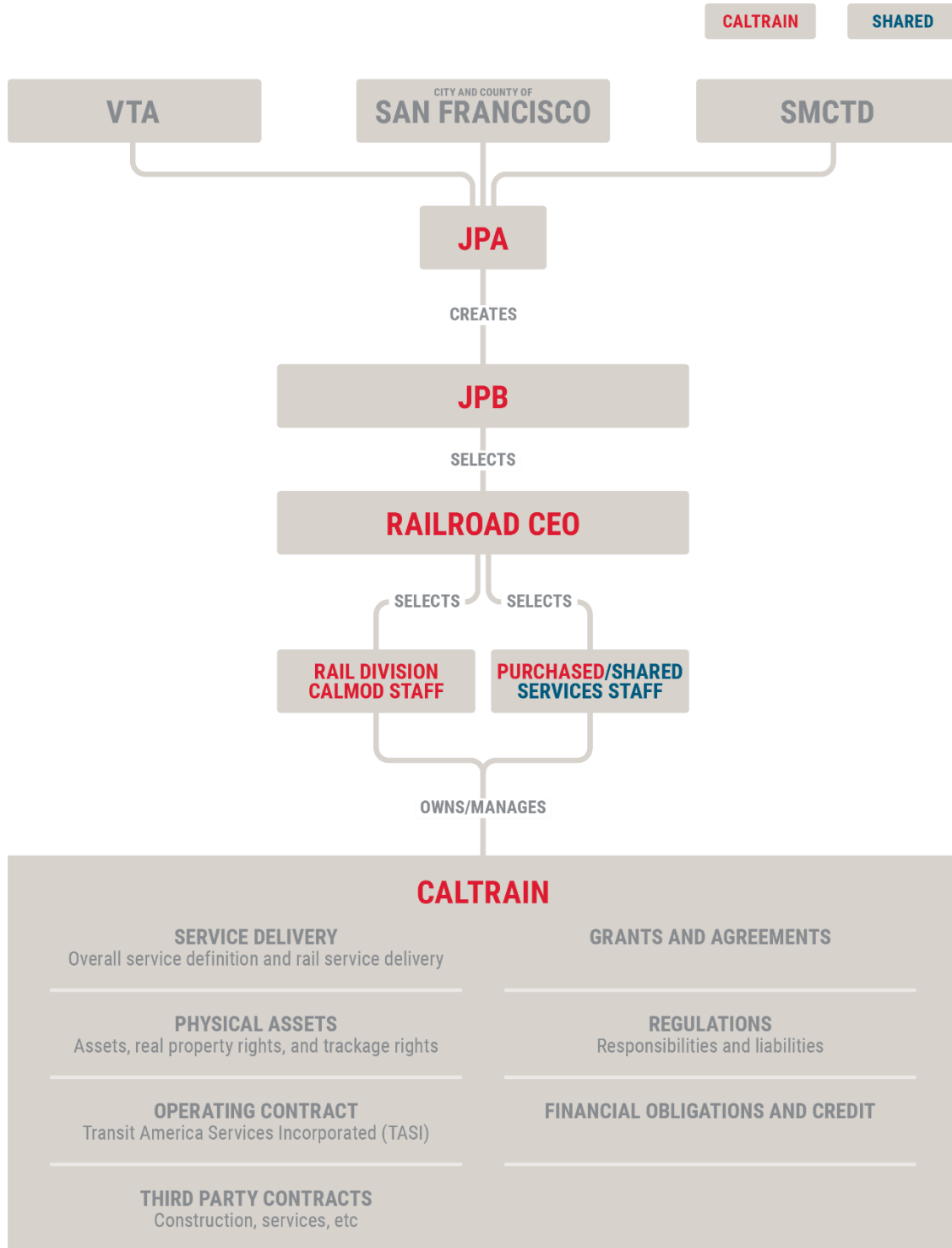
Time to implement from decision to proceed with this option: 18 months to three years

OPTION D: Retention of JPA as currently structured, reorganized as a railroad authority that hires its management and administrative employees directly; supplemented on an as needed basis with expertise from JPA member agency staff

This is a minor variation of Option C. A possible means of mitigating cost impacts would be for the JPB to engage certain positions directly while relying on member agency staff to fulfill or to supplement the provision of various functions. Either an upfront agreement with one or more member agencies, or contracts on an as needed basis, would represent a means for implementation of this framework. **Figure 3** shows this relationship.

The project implementation time frame and risk analysis for this option fundamentally would replicate the assessment of these issues as set forth in the Option C analysis.

FIGURE 3: OPTION C AND D
RAILROAD AUTHORITY



Option E: Creation of a Special District, Peninsula Rail Transit District (PRTD), to govern and administer Caltrain

Another future governance option is transforming the JPB into a statutorily authorized special district. The provision of local and regional governmental services in California often is undertaken pursuant to a special district form of governance. In the public transportation industry, in particular, special districts represent the norm for single county transportation authorities, such as SMCTD and VTA. There also are examples of multi-county multi-modal transportation authorities created by special district legislation, including the Golden Gate Bridge, Highway and Transportation District, BART and SMART.

Special district enabling legislation typically addresses the following key elements:

- Agency purpose;
- Governing Board composition, including the appointment process and terms of office;
- Duties and responsibilities of the Board and the CEO/General Manager;
- Designation of officers of the district;
- Fiscal powers, including borrowing and taxation authority;
- Personnel provisions, including collective bargaining rights and retirement system; and
- District powers in various areas such as procurement, real estate and construction.

As discussed above, these powers would not differ substantively from the powers held by the JPA, however, some functions may be streamlined. In particular, absent an amendment of the existing JPA, eminent domain authority would reside with the special district rather than having to rely upon its member agencies to exercise that power. In addition, a district is seen by some as providing greater institutional stability.⁵⁴

It is noteworthy that shortly before the member agencies of the JPB agreed to assume rail operating authority, legislation was enacted that would authorize creation of a Peninsula Rail Transit District (PRTD). More particularly, in 1988, the Legislature expressly authorized the JPB's member agencies to elect to be governed by a special district. Among other things, this legislation prescribed the composition of the governing board (nine appointed members, with three from each of the counties comprising the Caltrain existing service area) and delegated various powers to the district. Fundamentally, this legislation was intended to serve as a placeholder to cover the contingency of the JPB deciding to opt for a special district governance structure. However, at that time, there was no impetus by the parties to create a special district. As a placeholder, the PRTD legislation is limited in scope when compared with the customary delineation of powers and duties common to the enabling legislation of other transit agencies in California.

A decision to convert the JPB from a JPA to a special district would necessitate amending the Peninsula Rail Transit District enabling legislation in a number of respects, including amending the above referenced legislation authorizing the JPB to seek voter approval of a sales tax measure to confer that authority on the special district.

A special district would, in theory, anticipate a more streamlined budget approval process falling within the sole province of the special district governing board, in contrast with the existing JPA structure that necessitates member agency action to approve annual operating and capital budgets. That outcome, however, would come about only if funding directly available to the agency were obtained in amounts sufficient to cover costs of operation and capital improvements such that dependency on annual funding from the current members of the JPB or their constituent counties would not be required. As noted previously, a mere change in the governance structure would not obviate the need for ongoing financial support from SF, SMCTD and VTA. As a result, the budget approval process would not necessarily be more streamlined than the current one.

Similar to Option C above, the transformation to a special district would warrant evaluation of the currently unfunded CalPERS pension and retiree health costs benefits liabilities attributable to SMCTD employees who serve Caltrain, as well

⁵⁴ The experience of SMART executives was that the change from a JPA to district governance has been beneficial, as it has provided organizational stability, better allowed for long-term decision making, better enabled them to raise funding and compete for Federal and State monies and has reduced competition with other County services for funding.

as the future costs of wages and benefits to be paid to railroad employees.⁵⁵ Additionally, to transform the JPA to a special district would require an agreement to be negotiated with SMCTD addressing its ownership and lien rights in the rail corridor as discussed in Option C.

As respects debt issuance and access to capital markets, according to the JPB's CFO, the process for issuing debt by a special district would be less cumbersome than is the case under a JPA. That is because it is necessary under a JPA model for the governing boards of the member agencies of a JPA to take action approving the issuance of debt, a process that adds time and effort to the process. Additionally, from a credit risk perspective, the JPB's CFO believes that rating agencies would find the credit of a special district to be more secure than a JPA, based on the greater theoretical risk of dissolution of a JPA by action of one or more of its members, than would be the case with a special district. In turn, he has opined that interest costs likely would be slightly cheaper under the special district model.

As respects the matter of liquidity, it should be noted that the JPB currently is supported by SMCTD from time to time to meet Caltrain's cash flow needs. Ongoing support in this area by one or more member agencies or constituent counties may well be necessary for effective implementation of this option or Option C.

Once the requisite legislative authority is in place, several actions would be required by the newly formed special district and the existing JPB to effectuate the actual transfer of power. Among the required actions would be:

- Agreements with the JPB and member agencies to effect transfer of the JPB's assets and liabilities, including trackage rights;
- Obtaining certification from funding agencies at federal, state and regional levels relative to the capacity and financial viability of the new special district; and
- Likely need to obtain agreements with the member agencies of the JPB to provide ongoing financial contributions toward operations and capital improvements.

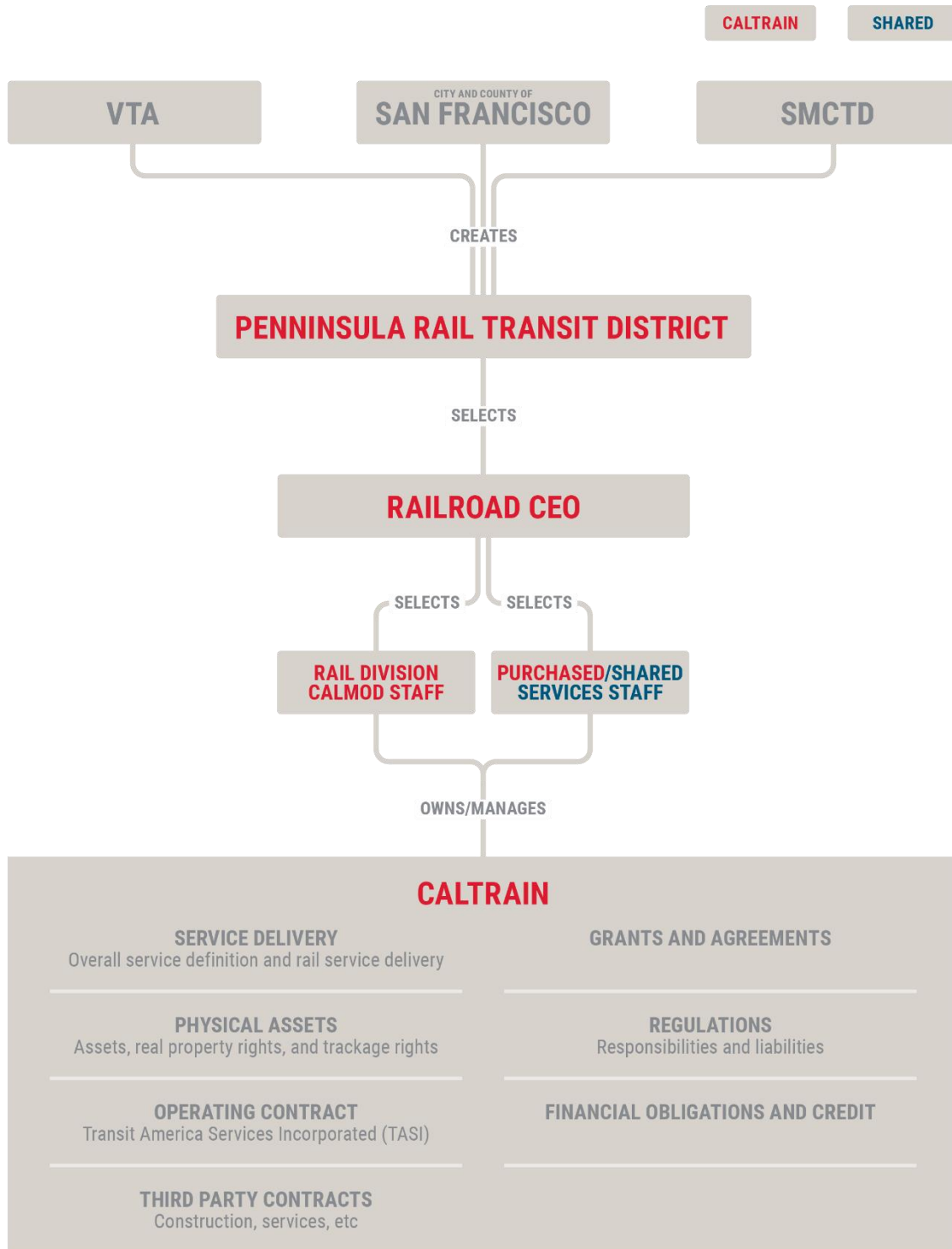
Means of Implementation: passage of specific legislative authority, agreements to transfer assets and liabilities to District including agreements addressing SMCTD ownership and lien rights in the rail corridor, and funding agreements as described above.

Time to implement from decision to proceed with this option: The time period to reach agreement among the JPB's member agencies on a special district governance system, to effect necessary action by the California Legislature, and to enter into various ancillary agreements described above is projected to take two to three years from the time that the JPB's member agencies reach agreement to transform the JPA into a special district. Consensus among the member agencies concerning amendment specifics would constitute an important prerequisite to seeking such legislation.

Figure 4 illustrates the relationships of the different organizational entities under Option E.

⁵⁵ Formation of a special district would not require Caltrain to join the Railroad Retirement System as long as rail operations continue to be performed by a third-party operator.

**FIGURE 4: OPTION E
 PENNINSULA RAIL TRANSIT DISTRICT**



SUMMARY AND COMPARISON OF THE SELF-DIRECTED GOVERNANCE OPTIONS

Table 9 summarizes the different functionality of the self-directed options. The determination of the most advantageous self-directed model for Caltrain at this point in time is quite complex and will require a balancing of a number of the different factors identified above. Additional study will be required to quantify the impacts of the different models and extensive dialogue required for a consensus approach to be reached. Ultimately, this is a political decision that will be made by the decision-makers. Again, it is important to emphasize that none of these options addresses the critical need for additional resources.

TABLE 9: FUNCTIONALITY OF ALTERNATIVE SELF-DIRECTED GOVERNANCE STRUCTURES

	Existing Joint Powers Authority (JPA) (Option A)	Existing JPA with Proposed Changes (Option B)	Existing JPA with Railroad Staff (Options C, D)	Special District - Peninsula Rail Transit District (Option E)
Governance Authority	Current JPA agreement as amended in 1996	May require or warrant some amendment of JPA	Requires amendment of JPA	Peninsula Rail Transit District legislation must be amended
Flexibility for Future Changes to Governance	By agreement between JPB and SMCTD	By agreement between JPB and SMCTD	By Agreement between JPB and SMCTD	As provided for in legislation
Time/Steps to Implement Change	None needed	Within a year by agreement of JPB	1.5 - 3 years	2.5 - 3 years
Asset Ownership*	JPB	JPB	JPB	Transfer to special district
Service Area	By agreement of JPB	By agreement of JPB	By agreement of JPB	To be determined by legislation
Effect on Existing Caltrain Agreements	None	Minimal if any	Some changes needed	Amendment of agreements to substitute special district
Financial Support by Source:	Existing Joint Powers Authority (JPA) (Option A)	Existing JPA with Proposed Changes (Option B)	Existing JPA with Railroad Staff (Options C, D)	Special District - Peninsula Rail Transit District (Option E)
Member Agency Financial Support	By agreement of JPA members	By agreement of JPA members	By agreement of JPA members	By new agreement of counties and/or transit agencies in service area
Authority to Incur Debt and Encumber Assets	Yes	Yes	Yes	Yes
Eligible to receive SB 797 or other sales tax proceeds	Eligible	Eligible	Eligible	Statutory amendment likely needed to direct tax proceeds from JPA to special district
Federal Funding	Eligible	Eligible	Eligible	Special district must establish eligibility
State and Local Funding	Eligible	Eligible	Eligible	Special district must establish eligibility

* Until repaid as provided for by the 2008 RPOA amendment, SMCTD holds a co-ownership interest in the peninsula rail corridor situated in San Mateo County.

NON-SELF-DIRECTED OPTIONS

An alternative governance model for the Caltrain system could involve either the full or partial integration of the Caltrain corridor and service into a larger regional (or mega-regional) governance framework.⁵⁶ Unlike the other options discussed previously, this approach could not be self-directed by the existing JPB and its member agencies and other parties will play significant roles.

Note that the term “regional” is used as shorthand to describe systems and governance structures that extend beyond the existing three counties that currently participate in the JPB. At this time, the potential geography of a regional or megaregional governance system for rail is not clear. Such a system could be aligned to the 9-county Bay Area or could be structured to include the participation of the full northern California Megaregion (including both the Sacramento region as well as the Northern San Joaquin Valley). No specific geography is assumed or implied in the discussions below. Similarly, a new regional entity could be a wholly new institution or could be attached to a modified version of an existing regional or state organization - again, no assumption or implication is made or implied at this time.

The options described below are:

- Existing agencies with expanded regional cooperation – **Option F**
- Existing agencies with regional integration of key functions – **Option G**
- Consolidated regional authority with subsidiary railroads – **Option H**
- Fully consolidated regional railroad – **Option I**

The process to implement such outcomes would be significantly more complex and more time consuming than the self-directed options. At the same time, such options may be intrinsically tied to the funding and implementation of key portions of the Business Plan and initiatives being undertaken by other agencies. Prior to implementing these options, very careful and comprehensive analysis needs to be done to understand the pros and cons as well as the implications with regard to transferring authority and decision-making, funding, cost and service delivery among other functionality.

At various points in the region’s history, different models for the consolidation of Bay Area rail and transit agencies, either in their entirety or by specific function, have been proposed or studied. Most recently, the idea of “regionalizing” different aspects of the Bay Area’s rail and transit systems has been promoted through the efforts of advocacy groups like SPUR, Seamless Bay Area, and others with a near term focus on regional fare integration and schedule coordination and a longer term focus on regional funding measures. The impetus to think about consolidating rail services and projects under a regional or mega-regional structure has also been prompted by the ambitious vision for rail expansion articulated in the 2018 State Rail Plan as well as questions around the planning and delivery of major shared infrastructure projects like the Downtown Extension (DTX), the rebuilding of Diridon Station, the Dumbarton rail bridge, the Bay Area segment of the California High Speed Rail System, and a potential second transbay rail crossing.

Discussion of a regional governance approach is inherently more speculative than the self-directed options presented previously. This chapter describes several, highly generalized, “illustrative” approaches to reorganization of rail serving the Bay Area. These models have been presented to illustrate various possibilities and options to consider should the Caltrain Board, its partner agencies, and other external agencies wish to promote and participate in the development of a more regionalized form of governance and organization for rail. These approaches are not mutually exclusive and can be seen as a potential progression or an evolution over time based on the specific circumstances, choices and needs of the region at a specific point in time. They could also be advanced in parallel with the self-directed governance changes discussed previously in Options A-E.

⁵⁶ Note this paper focuses on rail only. Variations could include regional multimodal agencies.

Option F: Regional Cooperation

This option describes a “sub governance” approach to regionalization that could be initiated directly by existing railroads and transit entities on either a bilateral or multi-lateral basis. Under this model, operators would agree, through MOUs or other agreement mechanisms, to coordinate key functions. Examples of this kind of direct, agreement-based coordination are extremely common for commuter railroads throughout the United States where operators agree to share certain facilities and functions, cooperate on joint projects, or share tracks. In the Bay Area, existing examples include: (1) Caltrain/BART agreement to coordinate maintenance of the Millbrae station; and (2) Caltrain/Capital Corridor/ACE agreement to govern trackage rights and the use of Diridon Station.

The regional coordination model could be applied to a number of other issues and functions including schedule coordination, operations on different railroad’s infrastructure, sharing of certain functions, and fare coordination and ticketing system implementation.

Option G: Regional Integration of Key Functions

Building from Option F is Option G, which is a regional approach where individual railroads and transit agencies would remain in place but where key organizational responsibilities would be “evolved up” to one or more regional entities. At the most basic level, this option could simply include the extraction of certain specific activities from the purview of individual railroads or transit agencies (for example, the creation of a regional construction authority to assume responsibility for the delivery of major capital projects, or the establishment and management of a regionally coordinated fare system). Structured in a more comprehensive manner, however, this approach could significantly remake the institutional landscape of rail and transit in the region by creating different layers of functionality and responsibility operating in coordination across the region while still providing for the existence of many individual operators.

The Verkehrsverbüende or “transport alliances” found in Germany, Austria and Switzerland represent examples of this striated approach to coordinated services. The BLS case is similar. In these examples, the regional transport alliance typically assumes responsibility for a range of planning, contracting, and coordinating functions including, critically, fare integration and ticketing, setting detailed standards and performance metrics, and distributing revenues and subsidies among operators. Individual transit operators continue to have the responsibility for day-to-day operations and maintenance.

Implementation of this option would be more complex than Option F as it significantly modifies and transfers existing arrangements of authority, decision-making, and financing. Key questions such as Board representation, risk transfers between authorities and dispute resolutions would have to be negotiated and resolved. Conversely, such a model may be a pre-requisite to achieve both regional goals as well as implement the Caltrain Business Plan. For example, regional fare integration and statewide integrated ticketing are topics of active discussion at different levels of government that may soon develop into formalized proposals. Similarly, a regional construction authority may be critical given the number of large, multi-operator projects in the Bay Area, including both the Downtown Extension project (DTX) and the rebuilding of Diridon Station. (The topic of a regional construction authority to be established by State legislation is also discussed separately later in the chapter).

This approach could be pursued either as a stand-alone option or be a step towards Options H and I discussed below. In either case, a transition plan would need to be developed to ensure minimal impact as key individuals would be changing their agency and position.

Option H: Consolidated Regional Authority with Subsidiary Railroads

Option H, a consolidated regional authority with subsidiary railroads, is the next step toward increased consolidation and regional control. In this option, individual railroads would be governed and organized under a single regional authority. The regional authority would be responsible for the oversight of the subsidiaries, make critical decisions impacting the subsidiaries, be responsible for funding the subsidiaries, and provide broad governance. It would also provide critical coordinating, administrative and shared service functions. Underneath this umbrella authority, subsidiary railroads would retain a level of individual organizational integrity and autonomy, allowing them to manage their organizations, corridors and services directly.

The New York Metropolitan Transportation Authority (MTA) is an example of a regional authority with subsidiary and affiliate railroads and services organized similarly to the generalized description provided for Option H. Under the MTA, there are individual subsidiaries including: New York City Transit (buses and subways), Metro North, the Long Island Railroad, a capital construction agency and a Bridge and Tunnel toll authority. Importantly, the entire MTA and its subsidiary agencies are governed by a single Board of Directors, with Board committees providing governance oversight of individual subsidiaries. It should be noted that this model includes different labor agreements for the individual agencies.

Implementation of Option H would likely be more complex given the expanded transfer of responsibility from the individual operators to the regional authority. As with Option C, a comprehensive transition plan will be required. One key difference from Option C is that once such an authority is formed, there is a clearer delineation of authority and responsibility.

Option I: Fully Consolidated Regional Railroad

The most extreme approach to regional governance of rail would be through the direct and total consolidation of multiple railroads and their constituent functions into a single, regional organization which would be overseen by a single Board of Directors. While such an approach could be structured in different ways, it would fundamentally involve the transfer of all of Caltrain's existing responsibilities, services and assets to a larger entity operating at either a regional or mega-regional scale. This entity would combine and integrate any number of rail services and properties such as ACE, Capitol Corridor, or even BART into a consolidated organization operating under a single governance structure. In addition to the delivery of rail services, a consolidated agency of this scale would presumably also be well positioned to take on a major role in other regional transportation and project delivery services including the planning and delivery major capital infrastructure, the provision of access and feeder services, and pursuit of joint development opportunities at stations.

Many examples of powerful, consolidated rail agencies operating at a regional scale can be found around the world. Metrolinx, the regional transportation agency for the greater Toronto Area, provides a particularly relevant example since it was recently created by the province of Ontario in 2006. It directly oversees the operation of a major regional railroad and bus network (GO Transit) as well as a regional fare payment system (the Presto Card). It is also charged with planning and delivering a massive and transformational expansion of the region's transit network, including new light rail lines, new subways, station area developments and, most applicable to Caltrain, the Go Expansion project. This is a multibillion-dollar program to electrify and greatly increase service frequency and ridership on the GO railroad system.

This would be the most complex option to implement as it would involve enabling State legislation, and a series of complex negotiations and transactions that would address the transfer and transition of governance, decision-making, funding, and agency responsibilities into a single, consolidated organization. A key issue for Option I compared to Option H is that existing and future labor agreements would be impacted and may become a central issue. A comprehensive transition plan would again be critical. As with Option H, post implementation, the lines of responsibility and authority would be clear.

CALTRAIN BUSINESS PLAN
RAILROAD ORGANIZATIONAL APPROACHES
 1 OF 2

TODAY

Separate Railroad A

- Service Planning
- Fares & Information Systems
- Stations
- Major Capital Projects
- Infrastructure Maintenance
- Train Operations
- Access & Egress
- Commercial Activities
- General Admin Services

Separate Railroad B

- Service Planning
- Fares & Information Systems
- Stations
- Major Capital Projects
- Infrastructure Maintenance
- Train Operations
- Access & Egress
- Commercial Activities
- General Admin Services

**OPTION F
 REGIONAL
 COOPERATION**

Separate Railroad A

- Service Planning
- Fares & Information Systems
- Stations
- Major Capital Projects
- Infrastructure Maintenance
- Train Operations
- Access & Egress
- Commercial Activities
- General Admin Services



Separate Railroad B

- Service Planning
- Fares & Information Systems
- Stations
- Major Capital Projects
- Infrastructure Maintenance
- Train Operations
- Access & Egress
- Commercial Activities
- General Admin Services

**OPTION G
 REGIONAL
 INTEGRATION
 OF KEY
 FUNCTIONS**

Regional Entity

Service Planning, Fares & Information Systems, Stations, Major Capital Projects

Separate Railroad A

- Infrastructure Maintenance
- Train Operations
- Access & Egress
- Commercial Activities
- General Admin Services

Separate Railroad B

- Infrastructure Maintenance
- Train Operations
- Access & Egress
- Commercial Activities
- General Admin Services

Discrete Governance Entities

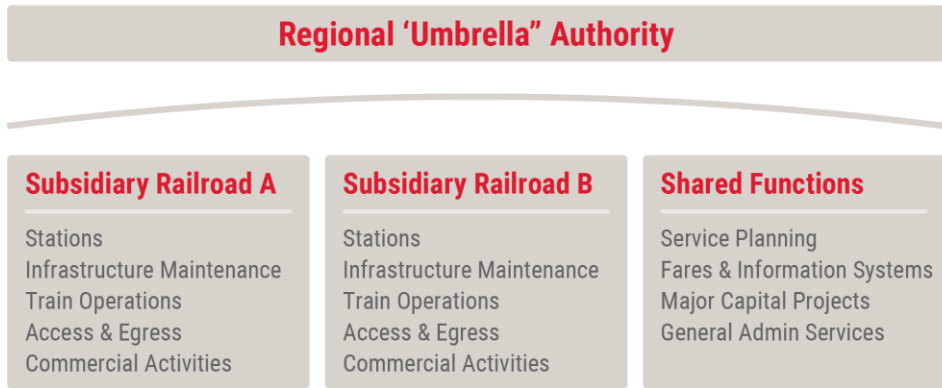
Regional Organization

Sub-Regional Organization

Organizational functions listed are illustrative only. They do not reflect Recommendations or specific proposals

CALTRAIN BUSINESS PLAN
RAILROAD ORGANIZATIONAL APPROACHES
 2 OF 2

OPTION H
**CONSOLIDATED
 REGIONAL
 AUTHORITY
 WITH
 SUBSIDIARY
 RAILROADS**



OPTION I
**FULLY
 CONSOLIDATED
 REGIONAL
 RAILROAD**



Discrete Governance Entities



*Organizational functions listed are illustrative only.
 They do not reflect Recommendations or specific proposals*

E. PARALLEL GOVERNANCE OPTIONS AND CONSIDERATIONS

This is a discussion of several governance-level issues, considerations and structures that the JPB and its member agencies may want to address regardless of (or in combination with) the core governance structure of the railroad, which are discussed previously in Section D. Generally, these relate to specific major issues or projects and would require extensive external agency involvement and support. In certain specific cases, especially with regard to the delivery of megaprojects, these options may be needed for a successful outcome.

Some of the issues discussed could be effectively addressed at a “sub-governance” level (in some cases through direct agreements and MOUs, in others through particular decisions or strategies around contracting and delivery choices) but all are issues of great significance that have the potential to fundamentally shape the scope of Caltrain’s organizational mission, the domain of activities under its control, and its future success.

The key issues addressed in this section include:

- The delivery of megaprojects on and surrounding the Caltrain corridor including the construction of the Downtown Extension (DTX) to the Salesforce Transit Center, the reconstruction of Diridon Station and surrounding rail infrastructure, the upgrading of the corridor to accept 110 mile per hour (mph) service, and the delivery of a multibillion-dollar program of grade separations.
- Caltrain’s relationship to other railroads and train operators including the future sharing of the Peninsula Corridor with HSRA and other operators as well as the potential geographic expansion of Caltrain service onto corridors not owned by the JPB (including expanded service to Gilroy, the potential extension of services to Monterey County, the potential use of the Dumbarton Bridge, and the potential for service expansion through a second Transbay Tube).
- Caltrain’s relationship to the private sector including the potential for direct engagement with private sector entities around complex development projects, the incorporation of private sector actors and competitive tensions into the delivery of services and projects (also covered in the service delivery section of this chapter), and the potential for commercialization of certain aspects of the railroad’s business.

MEGAPROJECT DELIVERY

As noted throughout the paper, there are a number of major complex capital projects on or adjacent to the Caltrain corridor that will have major impacts on Caltrain service. In each case, there are many different agencies involved in the project. By illustration a non-exhaustive listing includes:

- DTX: JPB, HSRA, Transbay Joint Powers Authority (TJPA), San Francisco County Transportation Authority (SFCTA), City and County of San Francisco.
- Diridon Station and Adjacent Infrastructure: JPB, HSRA, VTA, Capital Corridor, San Joaquin Regional Rail Commission (SJRRC), ACE, Union Pacific, BART, City of San Jose.
- Grade Separations: JPB, HSRA, VTA, affected counties and municipalities, and California Public Utilities Commission.
- Corridor Infrastructure Improvements needed to deliver the Business Plan Service Vision: JPB, HSRA, municipalities.
- Dumbarton: JPB, HSRA, ACE, SMCTD, UP, Crossbay Private Partners.

In addition to the agencies listed above, both the State and the Metropolitan Transit Commission would be major partners. Federal agencies such as the Federal Railroad Administration and the Federal Transit Administration may participate, as well.

Given the magnitude of coordination required, the feasibility of creating agencies for the sole purpose of planning, funding and constructing large capital projects is worthy of consideration. These would constitute independent authorities created

for the performance of auxiliary functions under circumstances in which a special purpose district would be in a better position than Caltrain (or another existing entity) to implement the project. This could be for financial, resource availability, organizational capacity, service priority or other reasons. If formed, the relationship between the Special District and Caltrain (and other agencies as warranted) would have to be carefully defined and specified.

This interface between construction and operations must be tightly controlled with clear understanding of outcomes, project scope and schedule. This is true for both “green field” projects and those being constructed on an active operating railroad. In addition, the Construction District would need to have staffing with expertise in railroad operations and maintenance.

Two forms of governance created for the purpose of building major capital projects have been identified for which the California Legislature has provided requisite enabling authority. These are Special Construction Authorities and Grade Separation Districts. Each of these forms of governance are addressed in the paragraphs that follow.

Special Construction Authority

A Special Construction Authority is an independent agency authorized by legislation to plan and construct specific projects. The most relevant example is the Foothill Gold Line Construction Authority (Gold Line Authority or Authority) created in 1998 by the California State Legislature, SB 1847 (later updated in 2011-AB706 and 2012- AB1600). This agency was created to resume design and construction of the Los Angeles to Pasadena Metro Gold Line project (Gold Line), which had been suspended by the Los Angeles County Metropolitan Transportation Authority (Metro) earlier that same year. Strong community interest in completing the Gold Line was the impetus for the creation of the Gold Line Authority. Transferring the project to a low-overhead construction authority was thought to reduce project costs and expedite the project schedule.

Upon completion and testing of each segment, the Gold Line Authority is required to transfer the project to Metro to operate. Metro then becomes the responsible agency and owner. This relationship is formalized in a Master Cooperative Agreement approved by both the Gold Line Authority and Metro Boards.

The Gold Line Authority is governed by a nine-member board (five voting and four non-voting). Responsibility for appointing the Board was designated in the legislation forming the district. Members are appointed by municipalities served by the line, the LA Metro, the San Gabriel Valley Council of Governments, and the Governor.

As a sole purpose entity, the Gold Line Authority is a lean agency with less than a dozen permanent staff members. To augment the permanent staff, the agency contracts for major functions such as planning and program management.

The Authority completed the first segment of the Gold Line from Los Angeles to Pasadena in just under three years, and the 13.7-mile line opened in 2003. Upon completion, the Authority transferred Phase 1 to Metro to operate. The legislation creating the Authority also authorized the planning and construction of any “fixed mass transit guide way eastward to Claremont” (later amended to extend to Montclair). The Authority broke ground on the second segment from Pasadena to Azusa in June 2010, which was completed in September 2015. The 11.5-mile, six station extension was then turned over to Metro to operate in 2016. A third segment from Glendora to Montclair to extend the Gold Line 12.3 miles and add six stations began construction in 2017.

A substantial portion of the Gold Line extensions are built along the BNSF right-of-way, which was purchased by Metro in the early 1990s for the project. In 2011, the railroad shared-use agreement was amended when BNSF agreed to abandon their rights to use a portion of the corridor.

Factors to consider in evaluating the Gold Line Authority experience:

- Construction of the Gold Line was situated substantially within railroad right-of-way acquired by Metro and as originally planned by Metro. As a result, Gold Line project costs and construction complexity were reduced, especially in contrast to projects requiring property rights acquisition and urban construction.

- The Authority's role in construction of the Gold Line extensions is concurrent with Metro's execution of a massive and unprecedented construction portfolio in the region, particularly accelerated since 2009 with passage of Measures R and M. One factor in the execution of the Measure R projects has been Metro's capacity to construct megaprojects concurrently while also functioning as a regional programming and operating agency. This situation provides an example of the utility of a special construction authority to execute discrete projects and thereby reduce the strain on the regional transportation agency or agencies undertaking construction of concurrent megaprojects.

Should Caltrain or other regional agencies contemplate the creation of a Construction Authority for execution of a major project(s), specific legislative authority including the composition of the governing Board would be required. In addition, comprehensive agreements addressing funding mechanisms, planning and construction requirements, technical specification reviews, and operational agreements would be needed. Consideration of a Construction Authority for the region should include an evaluation of the pros and cons, including an in-depth understanding of the Gold Line project experience.

Grade Separation District

A grade separation district is an independent agency formed pursuant to legislation codified in the California Streets and Highways Code commencing at Section 8100. This statutory framework permits the board of supervisors in any county, upon a finding that the safety and welfare of the residents of contiguous areas within the county require the formation of a district to provide for a separation of grade, to so declare by resolution. If two or more cities are involved in the proposed project without any unincorporated territory included in the project, the board of supervisors may adopt the resolution only if the interested city councils so request. The enabling legislation delineates the process for creation of a grade separation district including the necessity for the holding of an election. The district is created upon the affirmative vote of a majority of the voters in each city and a majority of voters in the unincorporated area included within the proposed district.

The subject legislation provides for a 5-member governing board and confers broad powers to the agency, including the power to plan, design and build the project and to exercise the power of eminent domain. A grade separation district also has the power to issue bonds and to levy property taxes subject to obtaining approval from 2/3 of those who cast ballots in a duly called election.

Although implementation of grade separation projects to date within the Caltrain rail corridor have been designed and constructed by means other than a grade separation district (e.g., contractual arrangements between local funding agencies, the JPB and the cities or county in the jurisdiction of the project), there is precedent for the creation of such districts elsewhere in California. In 1954, the Kern County Board of Supervisors invoked the grade separation district enabling authority, resulting in the creation of the Greater Bakersfield Separation of Grade District whose duties were to separate dangerous at-grade intersections of roadways and railroads by means of underpasses or overpasses.

Considering the large number of at-grade crossings that remain along the Caltrain rail corridor, the grade separation district legislation offers opportunities for the three counties and the cities within those counties to address elimination of crossings and tie to local community design plans. Any such undertaking would of necessity require execution of an agreement with the Caltrain governing board in light of the JPB's ownership of property rights in the intersections and taking into account impact on Caltrain's then-existing and planned future operations in the area.

GEOGRAPHIC EXPANSION/INTEGRATION WITH OTHER RAILROADS

While currently Caltrain is the only passenger operator serving its system from San Jose to San Francisco (and the predominant user between San Jose and Gilroy),⁵⁷ there are a variety of potential ways in which it would participate in a regional rail system. It should be noted that currently ACE, Capitol Corridor and the Union Pacific (freight service) have relatively limited tenant relationships with Caltrain. The two most basic options are for (1) Caltrain to coordinate its services with HSRA and (2) for Caltrain to become more of a corridor manager as well as expand its services beyond the three-county region.

⁵⁷ It should be noted that both ACE and the Capitol Corridor trains utilize a small portion of the corridor north of San Jose.

Coordination with High Speed Rail

In 2012, HSRA and Caltrain adopted the concept of “blended service” on the Peninsula, which basically meant that high speed trains will operate jointly with Caltrain over the existing Caltrain corridor. Proposition 1A allocated \$600 million for electrification of Caltrain and HSRA added another \$120 million to finance the added capacity for the HSRA electric trains.

The inception of HSRA service on the Caltrain corridor, at such time as it happens, will have a profound impact on Caltrain’s management and operations. HSRA has a right to 4 train paths running at 110 miles per hour, which will have to operate in conjunction with between 6 and 12 Caltrain trains (the low growth and high growth scenarios outlined in the Business Plan). While much service planning has been done in the Business Plan, given the existing track capacity, there is significant potential for conflicts between the services. In addition, a significant capital expense beyond the current electrification project will be required, including: a new signal system, new platforms, grade separations, and new trackage. Agreements will be needed to fund and implement these projects. In addition, agreements will be needed to cover joint operation: scheduling, right of way maintenance, train dispatching, station activities, joint ticketing, etc. There are many different variations of such agreements around the world, but the key factor is that before HSRA begins service on the corridor, these types of agreements are both required and inevitable.⁵⁸

Joint investment and operation on the same line by several railroads that compete for capacity and possibly for some of the same customers is never easy. Caltrain will need to determine the nature of the relationship it desires with the HSRA and then negotiate to reach an agreement. Absent an external mandate, this will involve balancing control, funding and risk to determine the optimal solution.

The following outlines the basic range of governance options in ascending order of complexity:

- Agreement where each party’s responsibility is defined and the operations are basically kept separate. In this case, Caltrain would continue to maintain the corridor, operate its own service, dispatch the line and be reimbursed by HSRA for their use of the corridor.
- Agreement as above except that the parties agree to share certain services. Examples could be shared equipment maintenance or shared dispatching. This could involve shared facilities or include a shared workforce.
- Agreement similar to the above except that the parties also agree to share certain revenues.
- Agreement whereby each of the parties agrees to franchise its services to the same rail operator with the intent to maximize coordination and efficiency. This is by far the most complex and difficult option.

In addition, looking beyond the current system to the south, HSRA has proposed to pay for electrifying the Union Pacific (UP) line from Gilroy to San Jose on which UP, HSRA and Caltrain would operate jointly.⁵⁹ HSRA service on the Peninsula would have the effect of extending the reach of the regional commuter system south into the Central Valley. Again, agreements would have to be reached between HSRA and Caltrain. However, in this section of the corridor, HSRA or the State would be the owner and operator of the line and Caltrain would be the tenant railroad.

In summary, given the degree of uncertainty regarding the future of HSRA, the re-definition of the relationship between the parties is a long-term consideration. However, if HSRA does ultimately operate over the corridor, this re-definition will be absolutely necessary. Such a negotiation will require that Caltrain have a comprehensive and detailed understanding of the costs of providing its service – in particular, the costs to operate and maintain the trains as compared to the infrastructure. The integrated business model developed by First Class Partnerships for the Business Plan will be valuable in this instance. Finally, in the event that funding for corridor improvements becomes available in the next few years, a short-term action would be to go beyond the current project agreements and develop a more comprehensive global agreement with HSRA.

⁵⁸ Examples of questions that will need to be addressed include does anyone have schedule priority; are there incentives/penalties for train performance; who performs which maintenance activity.

⁵⁹ The State is separately negotiating the purchase of the right of way from the Union Pacific.

Corridor Manager/Expanded Operator

Caltrain has the opportunity to consider modifying its role to become a corridor manager as well as a service provider for a larger regional geography. This would largely mirror the BLS case in Switzerland. As a corridor manager, it would be responsible for maintaining the railway between Tamien and San Francisco, coordinating schedules over the line (in accordance with HSRA and other signatory agreements), and operating trains in the corridor and possibly beyond to the East Bay (via the Dumbarton Bridge) and Monterey County.

In the event that a second transbay crossing is built to connect with Caltrain, a new governance structure would undoubtedly be formed to enable operation of a regional rail network from Sacramento to San Jose. On a lesser scale, the initiation of service over the Dumbarton Bridge could result in significant governance change as well.

INCREASED ROLE OF THE PRIVATE SECTOR

The private sector currently plays a relatively minor role in Caltrain with the exception of the third-party contracts with TASI, Balfour Beatty, Stadler and various construction entities. There are also a variety of leases, concession agreements, and possible naming rights, but no major revenue sharing agreements at this time.

Needless to say, the most dramatic governance change for Caltrain would be to fully privatize the railroad. This would entail the sale of the track and rolling stock as well as possibly the right-of-way and stations to a private investor.⁶⁰ Given Caltrain's current high fare recovery ratio⁶¹ and its growth opportunities, Caltrain is one of the few passenger railroads in the US that could realistically be considered for privatization.

As was discussed in Chapter 3, privatization of the national rail network was commenced in Japan in 1987, when Japanese National Railways (JNR) was split into six private passenger railroads and has been extremely successful. In contrast, it was also tried in the UK with the formation of Railtrack, which failed and was re-nationalized into Network Rail. Of course, the inability of the private sector to operate the peninsula railroad profitably led in the 1970s to the abdication of responsibility by Southern Pacific and attendant transfer of financial responsibility to support railroad operations and capital investment by the public sector. Of note is that in the last few years, Virgin America, the only private inter-city passenger service in the country, initiated passenger service in Florida.

Privatization would raise a number of complex issues including:

- Determining the appropriate balance between the public interest (accessibility, environmental benefit, safety, etc.) and the private interest (fare revenues, profit, etc.);
- Extent of public control over the railroad's operation (including service levels, fares, etc.);
- Identification of the funding for the capital investment needed in the corridor;
- Valuation of the railroad's assets;
- Treatment of sales proceeds (if any) including the possibility that the federal and state governments may have a financial interest in the right-of-way and rolling stock; and
- Extent of private sector interest.

Given the magnitude of this change, it is unlikely to be pursued at this point in time. However, there are a multitude of ways in which the private sector can become more involved in Caltrain:

- Through a new operator agreement that re-balances risks and rewards (as discussed in the Service Delivery section);

⁶⁰ A variation of this model is to sell the assets to a non-profit corporation. An example of this is the Presidio Trust, though no major passenger railroads follow this model.

⁶¹ With the exception of BART, this is the highest fare operating ratio for a regional passenger railroad in the US.

- Joint station development in San Francisco, San Jose and select major intermediate stations;
- Monetization of railroad assets and right-of-way without impacting current or future provision of rail service; and
- Provision of first mile/last mile services.

All of these potential partnerships will be extremely complex transactions and will require that Caltrain have the organizational bandwidth and skills to negotiate these agreements.

F. SUMMARY OF SECTION VII

This section has outlined and reviewed a number of different governance options, including those that can be implemented by the JPB members or the member agencies as well as those that involve external parties. In Chapter 5, a recommended approach to the different governance options is outlined for JPB and member agency consideration.

CHAPTER 5: ORGANIZATIONAL ASSESSMENT RECOMMENDATIONS

I. OBJECTIVE AND ORGANIZATION

This final chapter includes a recommended path forward for each of the three critical organizational areas:

- Service Delivery – The manner in which Caltrain operates and delivers its service
- Internal Organization – The manner in which Caltrain has organized itself
- Governance – The manner in which Caltrain is overseen

For each of these areas, the recommendations are framed by the answers to the questions posed in Chapter 4:

- Timing - Is this the right time to be having this discussion? What are the implications if no decisions are reached?
- Recommendations - What are the recommendations or key focus areas
- Implementation plan - What additional work is needed?

II. SERVICE DELIVERY

A. TIMING

The time is right to address this issue and to immediately initiate development of a strategy for future service delivery for the next five to seven years,⁶² as the end of the basic term of the TASI contract is rapidly approaching. The contract will end in June 2022 and includes a one year extension option for Caltrain. There is a further opportunity to negotiate a five year extension (through 2027) pending FTA approval. Both contract extensions will follow the scheduled completion of the PCEP project and will have to include new provisions for the expanded electrified service as well as possible construction support of major infrastructure improvements outlined in the long term service vision recommended through the Business Plan. This differs from the current contract, which has been in effect during a time of relative stability. In addition, a number of contractual improvements have been suggested and could be included in either extension. All of this will increase the complexity of the contract as well as the time it will take to negotiate the agreement.

The longer Caltrain waits to develop a strategy, the less leverage it has in discussions with TASI or another operator as the calendar will become a constraint. Implementation of a procurement process to identify a new operator will take two to three years. Starting work now maximizes Caltrain's flexibility and provides the widest range of options on a contract that is critical to the railroad's customer service and financial outcomes.

⁶² At this time, there are too many unknowns to determine the optimal strategy to deliver the 2040 service vision. The options have been delineated in Chapter 4 and a long term decision is best made in the future in conjunction with progress on implementing key projects and services outlined in the vision.

B. RECOMMENDATIONS

It is recommended that Caltrain should develop a comprehensive strategy to obtain a third-party operator (either TASI or another operator) using a bundled contract whereby the operator provides the primary operations and maintenance functions (similar to what TASI does today). This is the most direct approach and has been successful to date. The options of bringing the work in-house or procuring a series of unbundled third-party contractors should be eliminated from consideration as near-term options as it is unclear that these approaches will yield significant benefit and pursuing either of them will require large amounts of additional organizational bandwidth. This is at a time when the railroad has limited resources and is stretched to complete the PCEP, initiate work on the Business Plan, and engage in discussions regarding major projects (San Francisco Terminals, Diridon Station, etc.) whose schedule will be driven by external parties.

The strategy needs to ensure that Caltrain can achieve its goals with the minimum amount of disruption to the organization. Time must be initially dedicated to a comprehensive internal prioritization of the desired elements in the new agreement. These would include addressing such issues as how to develop contract terms for a dynamic situation where electrification will be introduced and service levels will be likely changing during the duration of the contract; how to maximize Caltrain's future flexibility; the extent of duties to be performed by the contractor; the internal organization structure to monitor contract performance; the extent of risk and gain-sharing between Caltrain and the third party contractor; the incentive and penalty regime; and the length of contract and procurement process (degree of market soundings, use of RFQs and RFPs if direct negotiations with TASI are not successful). Additional dialogue with FTA as to their opinion on a five year extension with TASI is also critical.

Once the above work is completed, a time-frame would be identified within which negotiations with TASI on an extension would take place. This time-frame would set a date certain to complete the negotiations so that Caltrain would have adequate time to procure another operator if negotiations are not successful.

C. IMPLEMENTATION PLAN

To manage this process, it is recommended that Caltrain immediately form an interdisciplinary task force of senior staff (including legal, finance, and operations staff, among others) that would be responsible for developing and implementing the strategy to procure an operator post June 2022. Clear assignment of responsibilities and leadership roles would be defined, a work plan specified and budgets developed.⁶³ Consultant assistance would likely be useful. An appropriate level of Board involvement would be identified.

III. INTERNAL ORGANIZATION

A. TIMING

Given the magnitude of challenges facing Caltrain staff, this issue needs to be addressed immediately by initiating a series of actions that address current deficiencies as well as prepare for the major changes coming within the next five years. The agency's financial limitations mean that Caltrain is already resource constrained, an issue that has been noted by a number of Caltrain staff. This issue is combined with the impending transition to an electrified railroad, Caltrain's commitment to participate in major local, regional and state projects, and the larger changes contemplated in the Business Plan; together they mandate organizational change and expansion. In fact, this has already started with the reorganization in the Chief Railroad Officer's division and the specification of an expanded Planning Department.

Maintaining the status quo is not a realistic option, as it will make it impossible for Caltrain to provide high quality existing or expanded rail service, participate constructively on major regional projects, and implement its Business Plan, given current levels of resourcing.

B. RECOMMENDATIONS

It is recommended that Caltrain address this issue on three separate but related paths:

⁶³ The integrated business model developed by First Class Partners will be an important tool available for use by the Task Force.

- Address vacancies immediately. To do this, Caltrain would undertake a 30 day review of budgeted, vacant positions to confirm that they are critical or can be exchanged for other pressing needs and develop a strategy to fill the positions. Subsequent to that, the strategy would be implemented immediately.
- Undertake a three to six month study that would evaluate the current organization and identify specific modifications that are recommended over the next two to five years.⁶⁴ The study would be completed so that its results could be included in the FY2020-21 Budget. The study would provide recommendations on the following interrelated topics:
 - Balance of available and required resources and determination of additional needed positions by department and by year;
 - Review of shared service functions with respect to functional output, prioritization of user department needs, and financial implications among other factors, with proposed path forward by function (this would be coordinated with any on-going governance discussions);
 - Modifications as necessary of the Rail Division to better monitor third party contracts, whose cost and complexity will grow over the next few years;
 - Mapping and analysis of key interfaces and processes outlined in Chapter 4;
 - Review of key functions outlined in Chapter 4;
 - Talent attraction/retention and use of seconded consultants;
 - Identification of critical skills needed and methods to attract them to Caltrain including, but not limited to, those outlined in Chapter 4;
 - Detailed projection of costs by year for the proposed next steps; and
 - Develop a strategy to provide the resources that will be necessary to fund the additional positions identified as part of the above study.

A study of this nature is best undertaken by an external consultant. However, for it to be successful, it needs to be led and supported by the senior team at Caltrain and coordinated with any ongoing governance discussions. The Caltrain organization is extremely complex and such an effort could easily go astray without the proper leadership. Furthermore, this type of study invariably results in differing opinions and conflicts between people; the role of the senior leadership team is to ensure productive dialogue.

C. IMPLEMENTATION PLAN

To undertake the vacancy review, it is recommended that Caltrain identify a senior executive to oversee the review. In addition, supplemental HR resources may be required to fill the vacant positions.

To initiate the resource study, it is recommended that Caltrain appoint a multidisciplinary task force led by a senior staff member. The task force would first develop a scope of work and accompanying budget, work with the Procurement Department to solicit and select the best consultant and then serve as the steering committee for this effort.

Finally, to develop the funding strategy, it is recommended that Caltrain have its Chief Financial Officer coordinate with the study team to calculate required funding and then work to identify fund sources that would be available for the FY2020 to FY2021 budget. Absent a new fund source, Caltrain will likely need to engage in transparent discussions with partner agencies and stakeholders about the ability of the railroad to realistically support certain services and projects.

⁶⁴ This work ought to be updated on a regular basis to reflect the rapidly changing conditions that Caltrain will be encountering over the next two decades.

IV. GOVERNANCE

A. TIMING

The issues of governance are wide-ranging and complex, but in all cases, it is in Caltrain's interest to address the issues, the alternative approaches, and the next steps at this point in time.⁶⁵ The railroad is at a transformational moment and faces a complicated future. Addressing issues of governance in a proactive and constructive manner will help ensure that the interests of the system and its riders are best represented. As outlined in Chapter 4, the major governance options facing Caltrain can be put into two, non-exclusive, groupings⁶⁶:

- Self-directed governance options that can be resolved between either JPB members or the JPB member agencies. These include various configurations of the JPB:
 - Maintained in the current structure;
 - Maintained in the current structure with modifications;
 - Reorganized as a railroad authority hiring its own staff;
 - Reorganized as a railroad authority hiring its own staff and using select shared services; and
 - Reorganized as a district.
- Governance options or governance-related considerations that involve external parties. These include:
 - Maintain existing agencies with expanded regional cooperation;
 - Maintain existing agencies with regional integration of key functions;
 - Develop a new, consolidated regional authority with subsidiary railroads;
 - Develop a new, fully consolidated regional railroad;
 - Develop a new regional authority implementing megaprojects (grade separations, Diridon Station, SF Terminal, or others);
 - Integration and agreements with High Speed Rail Authority and/or other railroads; and
 - Expanded involvement with the private sector.

With regard to the self-directed options, the timing is right to engage in a structured dialogue between the JPB member agencies. An agreement on a path forward with respect to the self-directed options would remove a source of potential discord and enable the organization to focus on its critical issues of completing the PCEP, transitioning to an expanded electrified railroad, initiating the implementation of the Business Plan, identifying a service provider post-2022, and reviewing and modifying the organizational structure. Failing to address this question will result in these issues lingering and will make it more difficult for the organization to successfully address its core challenges and goals.

It is also in Caltrain's interest to constructively and actively engage in discussions related to the second group of governance options involving external parties. In all cases, the option of not partaking in these discussions can only hinder Caltrain and reduce its ability to influence larger regional issues in a manner that supports the needs of the system and its riders.

⁶⁵ As with the other two organizational areas, these discussions and Caltrain's positions will evolve over time as Caltrain and other external parties progress different projects, funding plans and implementation measures.

⁶⁶ These options are discussed in great detail in the governance section in Chapter 4.

B. RECOMMENDATIONS.

For the self-directed governance options, it is recommended that Caltrain convene a structured dialogue amongst the member agencies to discuss next steps and a path forward. Chapter 4 has laid out different viable options in great detail. While it is within the direct purview of the JPB to direct smaller procedural changes to Caltrain’s governance most of the changes described require the amendment of the JPA, meaning that the JPB member agencies have the sole authority and responsibility to direct and enact these changes.

One suggested approach to address this would be for the general managers (GMs) of the member agencies to form a small task force, consisting of themselves or a senior staff person who can represent and speak for the agency.⁶⁷ The task force would manage a process that would use the information in Chapter 4 as a starting point, agree upon mutual goals for Caltrain, conduct additional analysis as needed, and fully socialize the options. They would be charged with attempting to reach consensus as to which governance option is desired and providing a recommendation to their member agency. They would be given a strict timeframe for this effort. The most important point is to develop a structured process that directly involves the agencies who have the authority to enact any desired changes.

For the second group of options, each approach is slightly different:

- Formation of a New Regional Railroad Authority or other Regionalized Structure – It is critical that Caltrain be involved in these discussions, even if they are in early stages. While the regional concepts reviewed in Chapter 4 are long term in nature, they could form the basis for significant change in how rail services are managed in the Bay Area, including the future of the JPB and the Caltrain service. Further, they may become the nexus for the formation of future regional funding measures. Caltrain’s constructive participation would only increase its influence and has no downside.
- New Regional Construction Authority to Plan, Fund and Implement Megaprojects - It is also critical that Caltrain be involved in the discussion of a potential regional construction authority, and, over time, develop clear positions on the significant issues surrounding these projects. This authority would potentially be involved in projects (terminal stations, grade separations) that directly affect Caltrain’s operations and finances. Furthermore, absent such an authority, it is not evident how these projects would be financed or implemented by Caltrain.
- Development of Agreements with High Speed Rail Authority or Other Railroads– Caltrain should remain involved in the dialogue with HSRA given that their futures are intertwined. In particular, Caltrain should work with HSRA and the State to understand which additional agreements should be negotiated, while also observing how HSRA’s plans and timeline for implementation are clarified over the next few years.
- Private Sector – As Caltrain reviews its financial needs and future projects, it may need to more deeply engage the private sector to help monetize its assets and deliver services. The nature of the dialogue will evolve dependent upon Caltrain’s financial requirements and will be clarified through further funding and financial analysis anticipated as part of the Business Plan.

C. IMPLEMENTATION PLAN

With regard to the self-directed options, if the member agencies agree with the approach outlined above or develop an alternative approach, the next step is for the parties to initiate the process.

With regard to the external party discussions, the next step is for Caltrain to continue and expand its current engagement in certain projects (San Francisco Terminal, Diridon Station in particular) as well as determine the extent to which it wants to advocate for some of the other institutional options (such as a regional construction authority or grade crossing district). For other regional options not driven by Caltrain (e.g. regional rail authority), Caltrain would continue to be a participant in the discussion. As part of this, Caltrain needs to identify the resources and analyses required for these different streams of work.

⁶⁷ For the City and County of San Francisco, the signatory agency is the City of San Francisco and the JPA was signed by the Mayor. It is assumed that the different officials in SF would determine the appointment of their representative to this committee.

APPENDIX

I. PARTICIPANTS IN INITIAL STAKEHOLDER INTERVIEWS

The following individuals were interviewed by Howard Permut during the summer and fall of 2018. These interviews served as a basis for the development of Chapter 1 as well as subsequent work.

CALTRAIN

Jim Hartnett

Michelle Bouchard

Carter Mau

Rafael Bolon

Stacy Cocke

Dave Couch

Brian Fitzpatrick

Casey Fromson

John Funghi

Lin Guan

Derek Hansel

Liria Lirano

David Miller

Seamus Murphy

Sebastian Petty

Joe Navarro

Melissa Reggiardo

Liz Scanlon

Danielle Stewart

Matt Verhoff

JPB AD HOC COMMITTEE

Jeanie Bruins

Gillian Gillett

Charles Stone

Cindy Chavez

JPB MEMBERS

Cheryl Brinkman

Dev Davis

Jeff Gee

Dave Pine

Monique Zmuda

OTHER REGIONAL TRANSIT AND TRANSPORTATION AGENCIES

Alix Bockelman, MTC

Tilly Chang, SFCTA

Nuria Fernandez, VTA

Steve Heminger, MTC

Ed Reiskin, SFMTA

STANFORD

Bob Reidy

Lesley Lowe

PRIVATE FUNDERS

Carla Boragno, Genentech

Winsome Bowen, Facebook

Mark Golan, Google

Mark Hansen, Prologis

Brendon Harrington, Google

John Tenanes, Facebook

HIGH SPEED RAIL

Brian Kelly

Frank Vacca

Boris Lipkin

CALTRANS AND CALSTA

Chad Edison, Deputy Secretary, Transportation

Kyle Gradinger, Caltrans Division of Rail

REGIONAL ADVOCACY AGENCIES (NGO)

Ratna Amin, SPUR

Adina Levin, Friends of Caltrain

REGIONAL BUSINESS GROUPS

Carl Guardino, SVLG

Rosanne Foust, SAMCEDA

OTHER KEY INDIVIDUALS

Michael Burns

Lou Thompson

II. KEY REPORTS REVIEWED

AGREEMENTS AND CONTRACTS

JPA Agreement and Amendments
TASI Agreement and Amendments
HSRA Agreements and Amendments
HSRA PMFA (March 2018)
FTA Full Funding Grant Agreement UP Agreement
Stadler Contract
Balfour Beatty Contract Stanford/Caltrain MOU
Project Partner Committee Charter (Draft)

CALTRAIN PUBLIC DOCUMENTS

Business Plan Presentations to the JPB Board
Minutes regarding the Business Plan
Peninsula Corridor Electrification Project Monthly Report (April 2018)
Business Plan Presentations to External Groups (LPMG; County Staff Coordinating Group) Caltrain Strategic Plan FY 2015 - 2024
Caltrain Short Range Transit Plan FY 2015 - 2024

CALTRAIN INTERNAL DOCUMENTS

Operating and Capital Budgets (FY2018, FY2019) Organization Chart
Train Schedules/Equipment Cycles
Ridership Counts
Track Charts
Operating Reports
Valuation Reports
Right-of-Way Video
TASI Organization Chart
TASI Performance Reports
TASI Performance Fee Report
Various in-progress Studies and Analyses

CALTRAIN BUSINESS PLAN

ORGANIZATIONAL ASSESSMENT – *DRAFT REPORT*

OTHER PUBLIC AGENCY PLANS

2018 State Rail Plan

HSRA 2018 Business Plan

ADVOCACY GROUP PLANS

Caltrain Vision (SPUR)

Moving San Mateo County Forward (Transform)

OTHER

Caltrain Grand Jury

III.HOWARD PERMUT PERSONAL VITA

Howard Permut is an experienced independent management consultant providing advice to both public and private US and international clients. He has over 40 years of experience in the public transit field.

After starting his career in Chicago with the Chicago Transit Authority and the Regional Transportation Authority, Mr. Permut was part of the original team that formed Metro North Railroad in 1983. He held a series of progressively more senior executive positions culminating in his appointment as President from 2008 until his retirement in January 2014.

Mr. Permut's work was instrumental in Metro North's transformation to a leading transit agency. His initiatives expanded ridership, improved safety and customer service, increased financial efficiency, implemented new fare and revenue generating strategies, redeveloped Grand Central Terminal and rebuilt the railroad's infrastructure. As President, he led the railroad during a time of critical economic, weather, safety and operational challenges. During his tenure, Metro North was the first and only American railroad to receive the International Brunel Jury Award for best design and engineering among global railroads.

Mr. Permut has been a leader in strategic transit industry activities involving the American Public Transportation Association, Federal Railroad Administration, Transit Center, and the Transportation Cooperative Research Program. He has lectured on transit management and leadership topics at universities throughout the world, including Curtin University (Perth), National Defense University, the University of Pennsylvania, Yale, and Northwestern University. He was part of the team that developed and launched the National Transit Institute's Senior Leadership Program. He currently works with the Eno Center for Transportation leadership in both developing and delivering executive educational materials.

He currently is a member of the Metrolinx Capital Oversight Committee, is Board Chair of Teatown Lake Reservation, a major environmental organization in Westchester County and is a member of the Sustainable Westchester Board of Advisors. Previously he has been a member of the Eno Board of Advisors and a Senior Fellow at the Regional Plan Association.

He has a bachelor's in geography from SUNY Binghamton, a master's in transportation from Northwestern University, and attended the Harvard University Kennedy School Senior Executive in State and Local Government Program.

Choosing a Long Range Vision

Caltrain Business Plan

JPB

August 1, 2019



Agenda for Today



Executive Director Remarks



A Long Range Vision for Caltrain Service

Why Do We Need a Vision and What Are We Deciding?

Developing Scenarios

Weighing Caltrain's Choices

Staff Recommendation



From Vision to Business Plan - Next Steps



Organizational Assessment



Executive Director Remarks

3

A Long Range Vision For Caltrain Service

4

Why Does Caltrain Need a Vision?



5

Caltrain is part of a dynamic corridor



6

Connecting many different communities



Within a growing and challenged region

Only 18% of Bay Area households could afford a median-priced home



Map: Here's how much time, money you lose commuting in the Bay Area

Depending on your income, it could be enough for a down payment on a house within five years

California releases air quality guidelines for schools dealing with wildfire smoke

Recommendations available 'just in time for fire season,' coming school year



Urban growth is a global phenomenon.



London, England

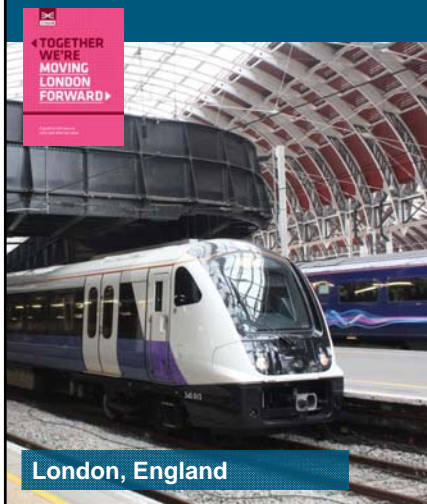


Buenos Aires, Argentina



Toronto, Canada

Rail investments remain an essential tool to shape and manage growth.



London, England

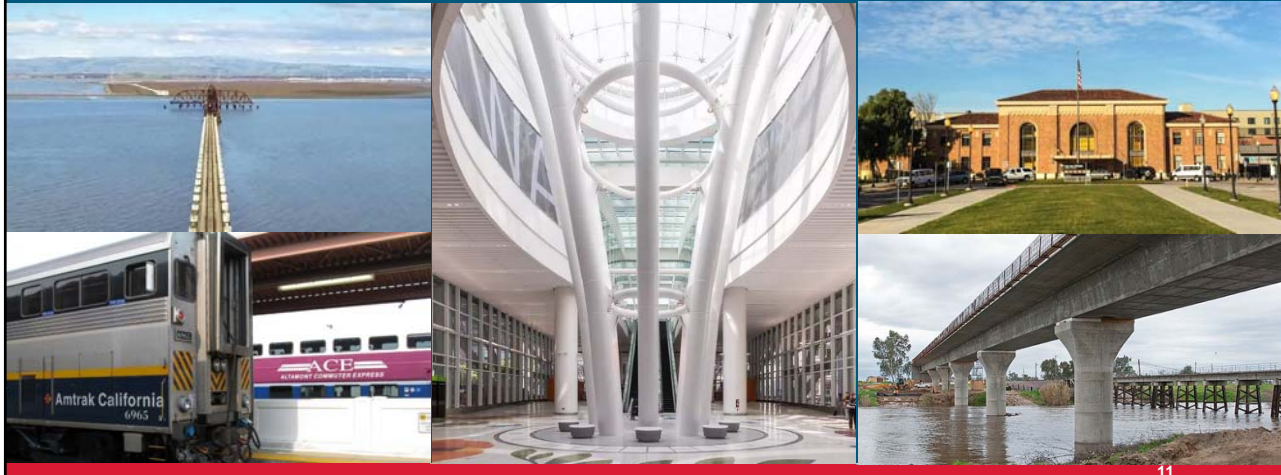


Buenos Aires, Argentina



Toronto, Canada

The future of rail in the Bay Area is still coming together, with many different plans and projects underway.



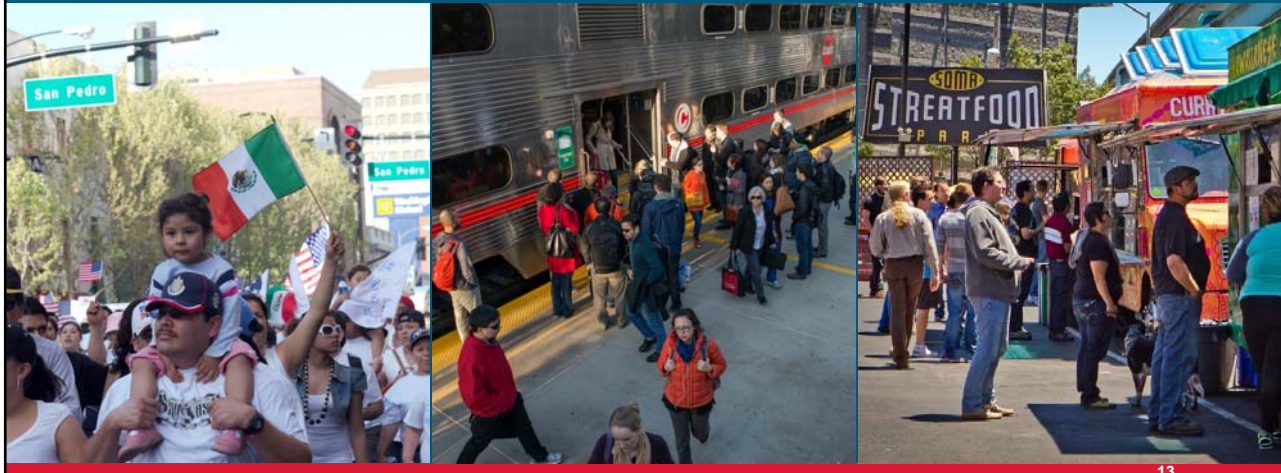
11

Caltrain will be the first, modern electrified railroad in California. The Vision we choose will shape the future of rail in the region and the state.



12

And our success will mean that we make every day life easier for the people who live and work in our communities.



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What is a Long Range Service Vision?

A Long Range Service Vision describes an achievable “End State” for the Corridor in 2040



Train Service

- Frequencies
- Stopping patterns
- Service types
- Number of trains



Infrastructure Needs

- Fleet
- Systems
- Infrastructure
- Support facilities



Costs

- Operating
- Maintenance
- Capital



Outcomes

- Ridership
- Mobility benefits
- Revenues

Choosing a Long Range Service Vision is a key step in developing the Business Plan

The Long Range Service Vision sets a target for the future that we and our partners can grow towards incrementally

A *successful* Long Range Service Vision:

- Is rooted in thorough and credible analysis
- Respects, integrates, and supports the existing plans and commitments that Caltrain and its partners have made
- Is detailed enough to provide actionable guidance to the agency as it develops its own plans and engages with local, regional, and state partners
- Is sufficiently flexible to remain relevant even as the details, timing, and costs of individual projects change or evolve



15

Board Guidance and Timeline



16

Baselining the Vision

What state, regional, and local projects have already been built or planned in the Caltrain Corridor for 2040?

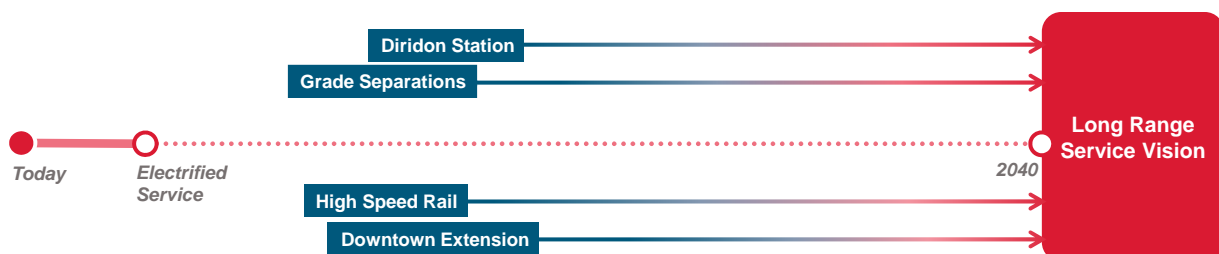
What kind of service has been contemplated previously?

How do they fit together and what do they cost?



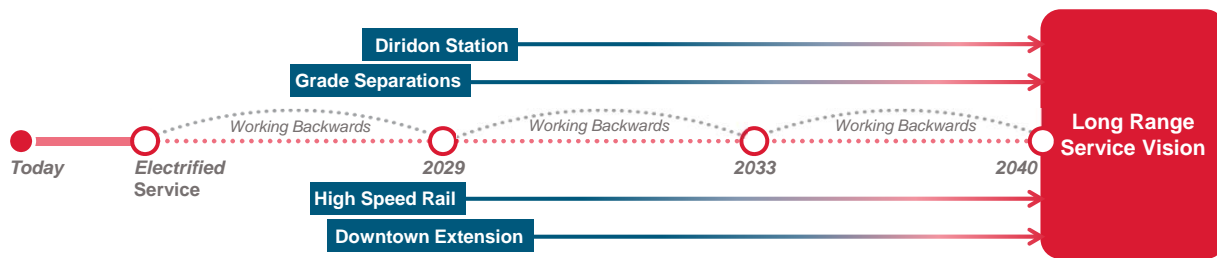
17

The vision must account for and integrate a complex set of plans and projects across many timeframes.

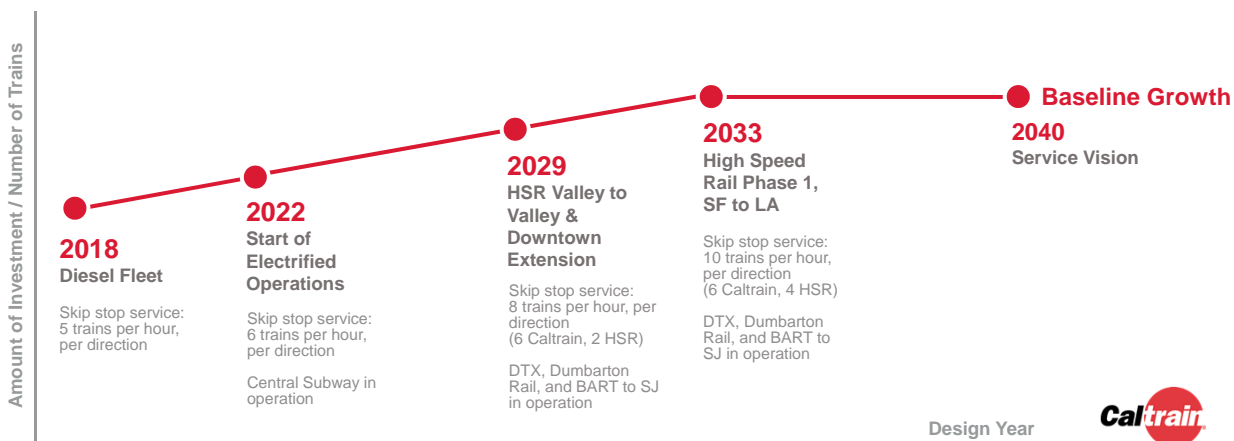


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Once we've chosen the "big" vision, we can work back to define the best path to get there.



Getting to a Baseline



2040 Baseline Growth: Service Details



Today

- Caltrain runs a maximum of **5 trains per peak hour per direction** with limited service outside of peak, weekday commute hours

2022-2033

- With the completion of electrification in 2022, Caltrain will run **6 trains per peak hour per direction** and will improve its off-peak service
- Previously, long range planning has not looked at increasing Caltrain's maximum service beyond 6 trains per hour per direction
- Instead, Caltrain's long range plans have focused on the "blended system" – sharing the corridor with up to 4 HSR trains by 2033

2040 Baseline

- Skip stop service with **6 trains per peak hour per direction** and 4 HSR trains
- New passing tracks at Millbrae
- Bunched service results in irregular Caltrain headways; each pattern arrives over span of 10 minutes, then a 20-minute gap between trains
- Three half-hourly skip stop patterns each with similar travel times
- South of Tamien, peak-direction skip stop service with 10 round trips per day
- This "baseline" service is consistent with HSR's ongoing environmental process

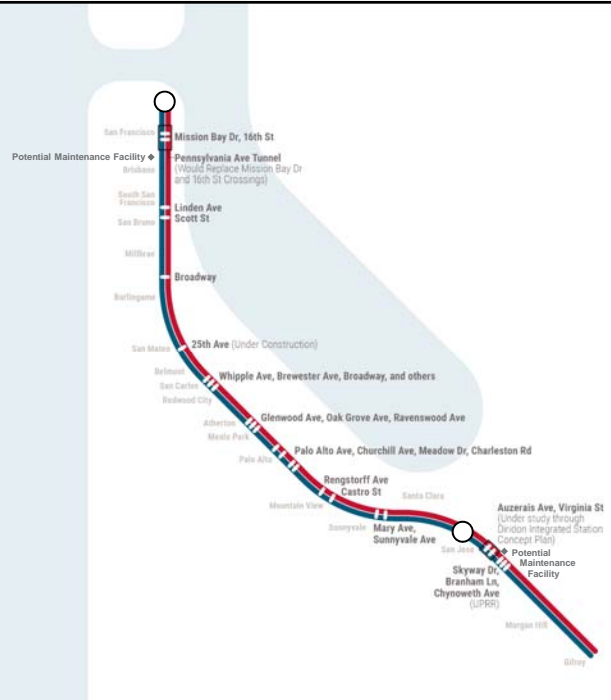
Baseline Investments

While the "Baseline" for the 2040 Service Vision contemplates only modest increases in Caltrain service beyond electrification, there are many other investments planned for the Caltrain corridor before 2040.

Some of these projects are directly required to enable the baseline level of service while others reflect the goals and commitments of Caltrain's local, regional and state partners.

Baseline investments include:

1. Caltrain projects already underway
2. Local, Regional & State partner projects that directly influence Caltrain
3. Additional Caltrain investments needed to fill out the baseline and support blended operations

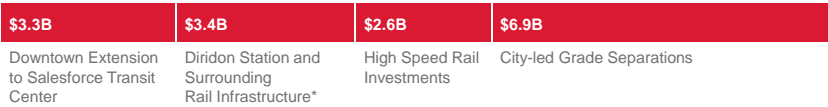


The Baseline Costs \$22.1 Billion

\$2.3B
Caltrain Work Underway



\$16.2B
Investments Planned and Proposed by Caltrain Partners



\$3.6B
New Caltrain Investments to Support Baseline Growth Scenario



* Placeholder cost pending detailed cost estimate to be developed through Diridon Integrated Station Concept Plan

Baseline Investments by Investment Type



Track & Rail

- Curve straightening & track upgrades to achieve 110mph
- 4-tracking for Millbrae Station
- SJ to Gilroy corridor rebuild to three tracks



Systems

- New signal systems (Caltrain and HSR)
- Additional communication systems
- SJ to Gilroy OCS/TPS system




Stations and Platforms

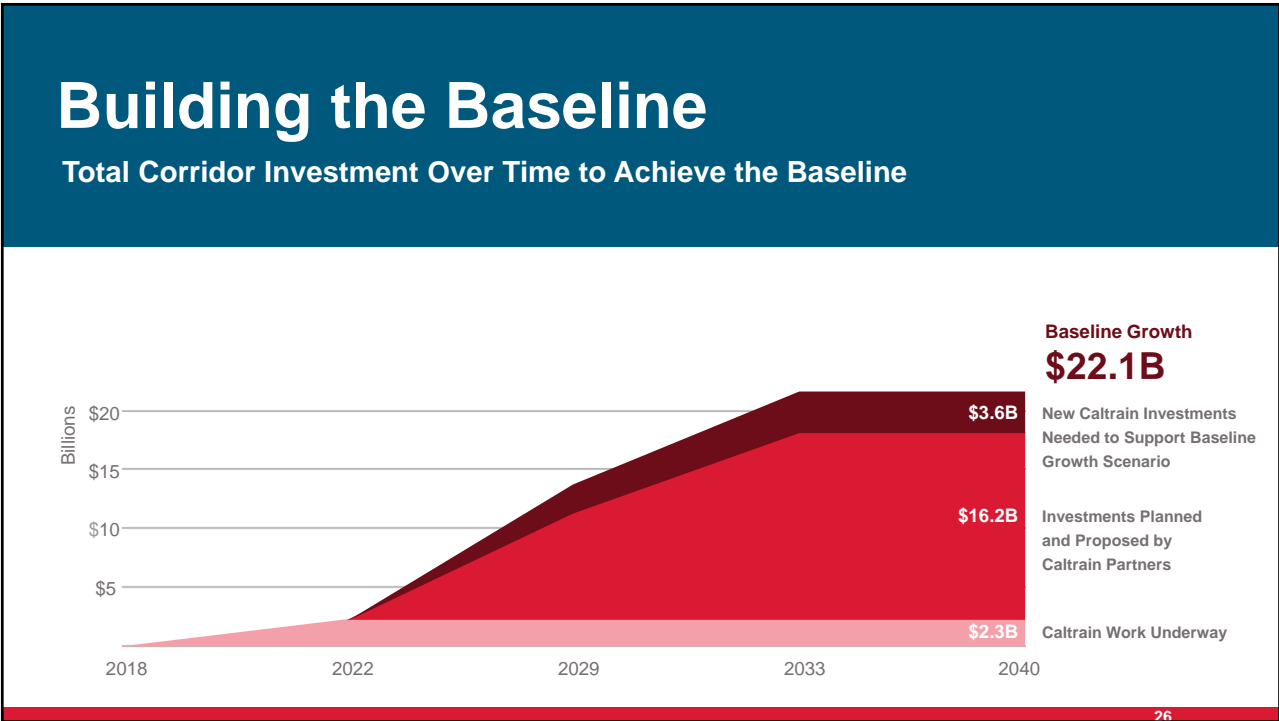
- Station access improvements
- Platform extensions for 8-car trains
- Level boarding
- 22nd Street station improvements
- HSR station at Gilroy
- SJ to Gilroy rebuild of all Caltrain stations



Baseline Investments by Investment Type

- ✚
Grade Crossings & Separations
 - Grade separation investments including all City-led plans and projects
- 🚪
Terminals & Yards
 - Completion of DTX
 - Diridon Station project
 - North LMF and CEMOF relocation
- 🚆
Fleet
 - PCEP fleet costs
 - Fleet upgrades for Baseline service





What does it mean for Caltrain to Choose a Long Range Vision?

Caltrain's 2040 Service Vision needs to be a "Big Tent"

- The Caltrain corridor is a key regional transportation asset and many of our partner cities and agencies have major commitments or planned investments (Projects) in the corridor. The vast majority of these are substantially unfunded.
- The "Baseline Vision" incorporates these investments, as well as the basic improvements that Caltrain will need by 2040 to operate a fully modernized blended system at "baseline" levels of frequency.
- Building from this "baseline," Caltrain has assessed options for incremental expansion of service

Caltrain's core question as it considers a Long Range Service Vision:

How Much Service Should We Provide?

27

Developing Scenarios

28

Market Demand

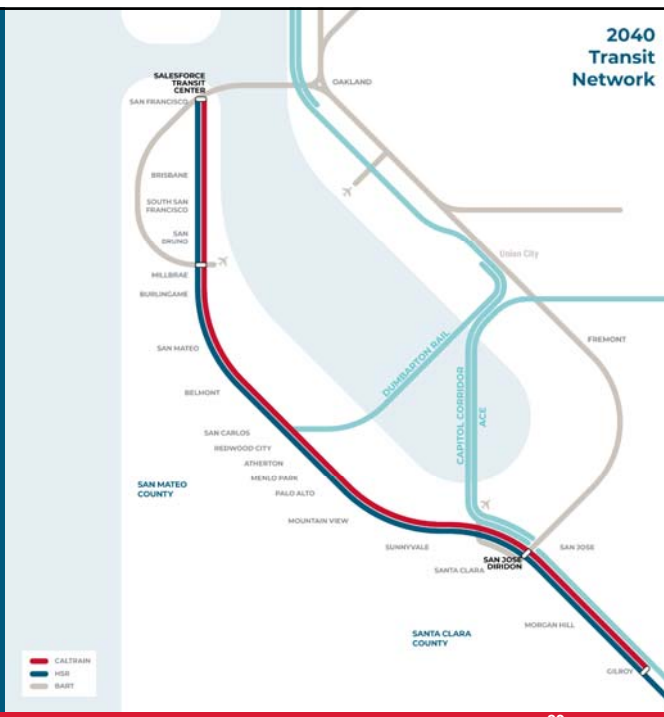
Today, Caltrain serves bidirectional and polycentric ridership demand

- ~60,000 daily boardings
- Highly concentrated around stations with fastest & most frequent service
- One-third of trips occur in reverse-peak direction
- Half of trips occur outside of San Francisco

By 2040, Caltrain has the potential to serve a market of over 200,000 daily riders

- Corridor expected to add 1.2 million people and jobs within 2 miles of Caltrain (+40%)¹
- Significant freeway congestion
- Major infrastructure projects further increase Caltrain demand
 - BART to Santa Clara County
 - Downtown Extension/Pennsylvania Avenue Tunnel
 - Dumbarton Rail

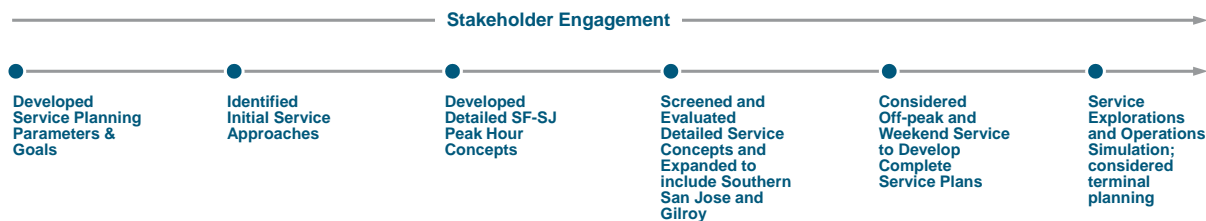
¹Based on Plan Bay Area forecasts and approved projects by individual cities



Service Planning Process

2018

2019



Outreach Activities to Date

July 2018 – August 2019 Timeline

	2018			2019											
	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	
Local Policy Maker Group	•	•	•		•	•		•	•	•		•	•	•	
City/County Staff Coordinating Group	•	•	•		•	•		•	•	•		•	•	•	
Project Partner Committee	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Stakeholder Advisory Group				•		•					•			•	
Partner General Manager				•			•				•		•		
Targeted Online Engagement Website Launch, Data Visualization Challenge, Reddit/YouTube Live, Online Open House					•			•			•		•	•	
Community Meetings SPUR, Friends of Caltrain, Station Outreach					•		•	•	•		•	•		•	
Sister Agency Presentations SFCTA, SF Capital Planning, TJPA, SamTrans, SMCTA, CCAG, VTA, MTC, Diridon Station JPAB					•	•	•	•	•	•	•	•	•	•	

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Outreach Activities to Date

As of July 20, 2019 - by the Numbers

Stakeholders Engaged

21

Jurisdictions

26

Public Agencies

93

Organizations in Stakeholder
Advisory Group

156

Stakeholder
Meetings

Public Outreach

51

Public Meetings
and Presentations

1,000+

Survey Responses

14,300+

Website Views

258,200+

Social Media Engagements

32

Public Engagement

Community Meetings



50+ public meetings, more scheduled here:
www.caltrain2040.org/get-involved

Online Open House

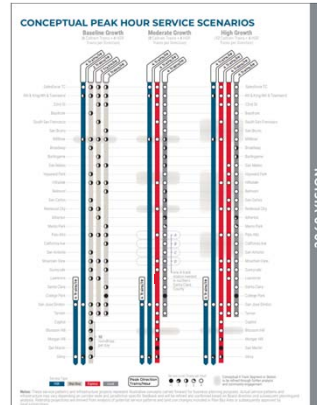
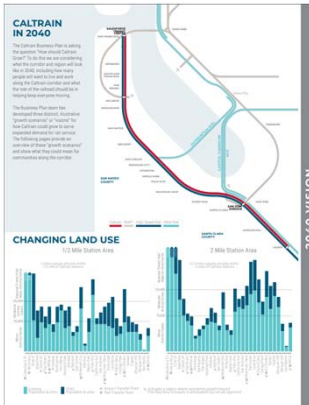
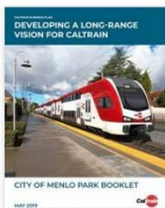


Online Open House:
www.caltrain2040.org/openhouse

Variety of Engagement Tools



Individual Jurisdiction Outreach City Booklets



View the booklets at: www.caltrain2040.org

Individual Jurisdiction Outreach

July 2018 – August 2019 Timeline

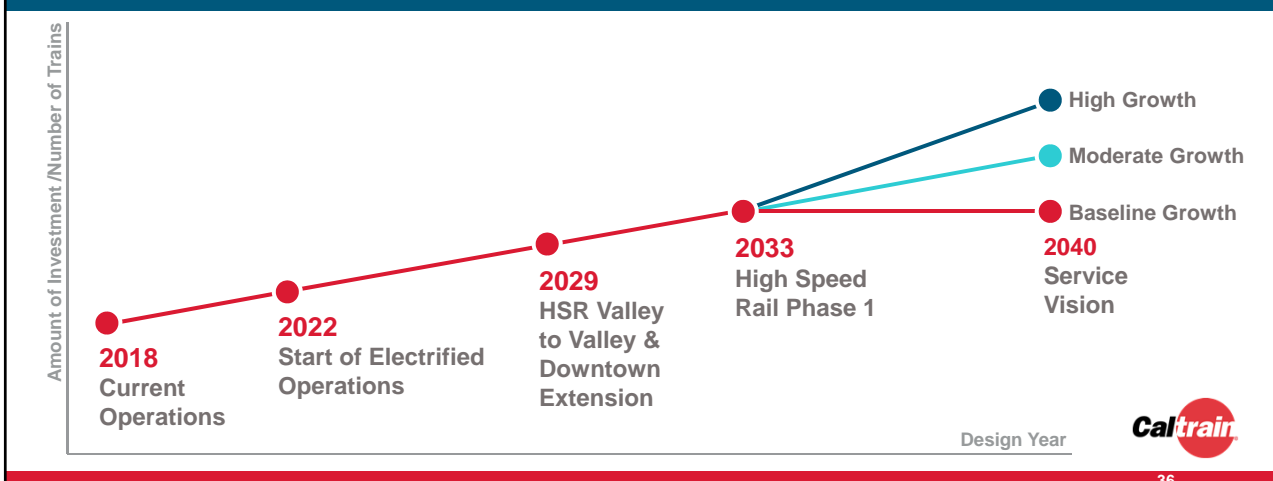
	Atherton	Belmont	Brisbane	Burlingame	Gilroy	Menlo Park	Millbrae	Morgan Hill	Mountain View	Palo Alto	Redwood City	San Bruno	San Carlos	San Francisco	San Jose	San Mateo	Santa Clara	South San Francisco	Sunnyvale	
Round 1: Fall 2018 Railroad-Community Interface Meeting	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Round 2: Spring 2019 Railroad-Community Interface Meeting	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
City Council Meeting Scheduled or Completed		✓	✓	✓		✓	✓		✓	✓	✓		✓	✓*	✓	✓			✓	

*SFCTA

View individual jurisdiction booklets at: www.caltrain2040.org/community-interface



How Much Service Should Caltrain Provide?



2040 Baseline Growth Scenario



Trains per Hour, per Direction

Peak: 6 Caltrain + 4 HSR
Off-Peak: 3 Caltrain + 3 HSR

Stopping Pattern

Skip stop

Travel Time, STC-Diridon

69-73 Min

New Passing Tracks

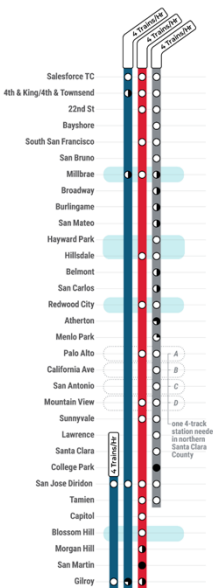
Millbrae

Service Plan Description

- Bunched service results in irregular Caltrain headways; each pattern arrives over span of 10 minutes, then a 20-minute gap between trains
- Three half-hourly skip stop patterns each with similar travel times
- South of Tamien, peak-direction skip stop service with 10 round trips per day



2040 Moderate Growth Scenario



Trains per Hour, per Direction

Peak: 8 Caltrain + 4 HSR
Off-Peak: 6 Caltrain + 3 HSR

Stopping Pattern

Local / Express with timed transfer at Redwood City

Travel Time, STC-Diridon

61 Min (Express)
85 Min (Local)

New Passing Tracks

Millbrae, Hayward Park-Hillsdale, Redwood City, Northern Santa Clara County, Blossom Hill

Service Plan Description

- Local and Express trains each operating at 15-minute frequencies with timed cross-platform transfer at Redwood City
- Skip stop pattern for some mid-Peninsula stations; some origin-destination pairs not served at all
- Trains serve Capitol and Blossom Hill every 15 minutes and Morgan Hill and Gilroy every 30 minutes



2040 High Growth Scenario



Trains per Hour, per Direction

Peak: 12 Caltrain + 4 HSR
Off-Peak: 6 Caltrain + 3 HSR

Stopping Pattern

Local / Express A / Express B with timed transfer at Redwood City

Travel Time, STC-Diridon

61 Min (Express A)
82 Min (Local)

New Passing Tracks

South San Francisco-Millbrae, Hayward Park-Redwood City, northern Santa Clara County, Blossom Hill

Service Plan Description

- Local and Express A trains each operating at 15-minute frequencies with timed cross-platform transfer at Redwood City
- Express B trains operate every 15 minutes between 4th & King and Tamien
- Local trains make nearly all stops
- Trains serve Capitol and Blossom Hill every 15 minutes and Morgan Hill and Gilroy every 30 mins

Weighing Caltrain's Choices

What is a Business Case?

A **Business Case** is a decision-making framework used by transportation agencies around the world. They are intended to objectively assess whether an investment makes sense and provides long term value to the public. They can include different components that variously focus on the strategic, financial, economic, and deliverability elements of different projects or programs.



MetroLinx GO
Toronto, Canada



**Brighton Main Line
Route Strategy**
London, England



**TransPennine Express
Rail Franchise**
Northern England



High Speed 2
England



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Components of the Business Case Analysis

We have adapted a traditional Business Case Analysis to the specific, and complicated circumstances of the Caltrain corridor.

Collectively, this analysis helps provide guidance as to whether we should remain on the "baseline" course or if there is value in choosing a Long Range Service Vision for Caltrain that aims higher.

The following slides present and weigh analyses in each of the following areas.

**Service
Comparison**

**Financial
Analysis**

**Caltrain
Economic
Analysis**

**Regional
Analysis**

**Flexibility and
Uncertainty**

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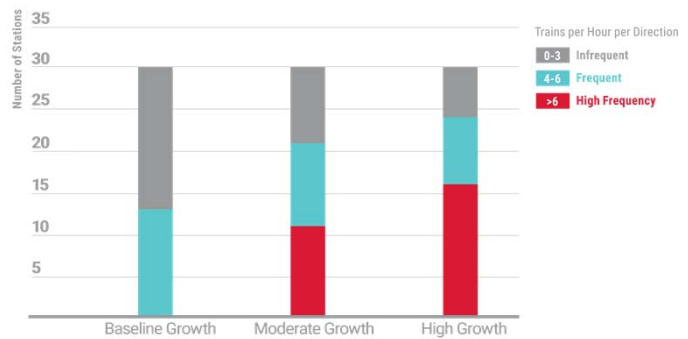
Service Comparison


The following slides present a direct comparison of service-based performance metrics between the different 2040 Growth Scenarios.



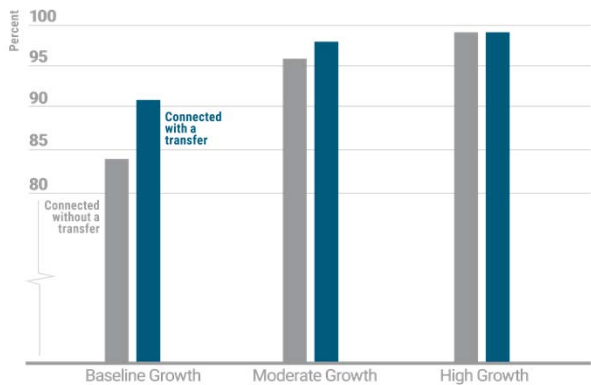
Peak Period Frequency

The **number of stations** receiving frequent or high frequency service increases substantially in the Moderate and High Growth Scenarios due to higher train volumes in the peak period.



Metric	Baseline Growth	Moderate Growth	High Growth
 Number of Stations Served by Frequent Service (>4 TPHPD)	13 Stations	21 Stations	24 Stations
Frequency Longest wait times at major stations served by all trains	22 minutes	12 minutes	8 minutes

Coverage and Internal Connectivity




The Moderate and High Growth Scenarios serve nearly all origin-destination pairs, while the Baseline offers less connectivity.

The Baseline Growth scenario operates three skip stop patterns. Sixteen percent of station pairs are not connected without a transfer, and nine percent of all station OD pairs (95 total) are not connected at all.

The Moderate Growth scenario operates a partially skip stop local pattern and an express pattern. Four percent of station pairs are not connected without a transfer, and two percent of station OD pairs (17 total) are not connected at all.

The High Growth scenario operates a local pattern and an express pattern that connects nearly all stations (99%) directly.

Metric	Baseline Growth	Moderate Growth	High Growth
 Percentage of Station Pairs Connected Without / (With) a Transfer	84% (91%)	96% (98%)	99% (99%)
Connectivity Number of Station Pairs Not Connected at All*	95	17	2

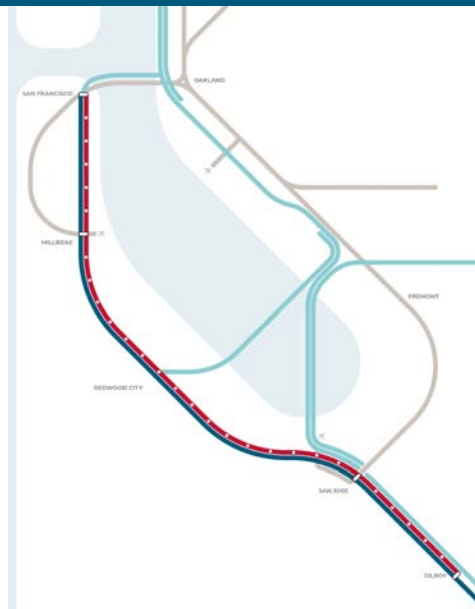
*Defined as trips requiring out-of-direction travel or transfers in excess of 15 minutes


Network Connectivity

The Moderate and High Growth Scenarios enable timed connections to the regional transit network.

The Baseline Growth Scenario's irregular wait times inhibit timed connections with other transit services.

The Moderate Growth and High Growth scenarios are highly structured, repeating patterns "pulsed" out of major terminals. These service patterns provide excellent opportunities for seamless, coordinated connections with other transit services.

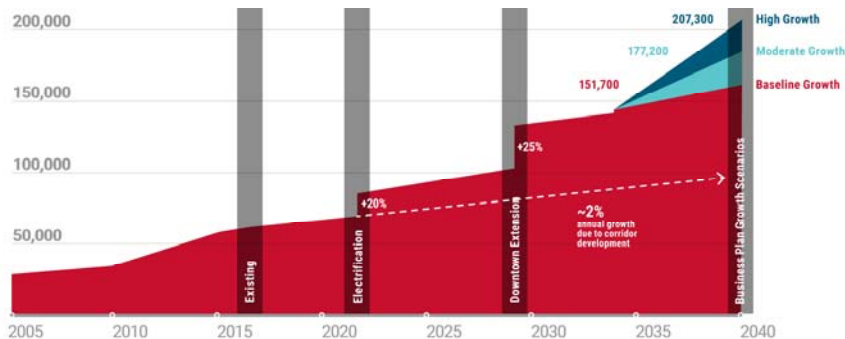



Metric	Baseline Growth	Moderate Growth	High Growth
 Timed Connections at Regular Intervals	No	Yes	Yes

Ridership

On its current **Baseline** path, Caltrain would experience a *demand* of 161,000 daily riders by 2040.

The **Moderate and High Growth** scenarios would increase *demand* to 185,000 and 207,000 riders, respectively, leading to ridership and VMT saving increases.



Metric	Baseline Growth	Moderate Growth	High Growth	
 Ridership	Daily Ridership*	151,700 Riders	177,200 Riders	207,300 Riders
	Comfortable Peak Hour Train Loads?*	No	Crowding on some trains	Yes

*Crowd Constrained Ridership (135%)


Travel Time

The **Moderate and High Growth** service plans provide the fastest travel times for major origin-destination pairs with express service, while the **Baseline** provides faster travel times for minor origin-destination pairs with skip stop service.

In-vehicle travel times are influenced by a range of factors, such as stopping patterns, signaling systems, locations of passing tracks, and rolling stock.

While maximum speeds on the corridor would increase from 79 MPH to 110 MPH by 2040 in all scenarios, travel time reductions are somewhat limited by increased levels of train traffic along a mostly two track corridor and increased density of stops served.

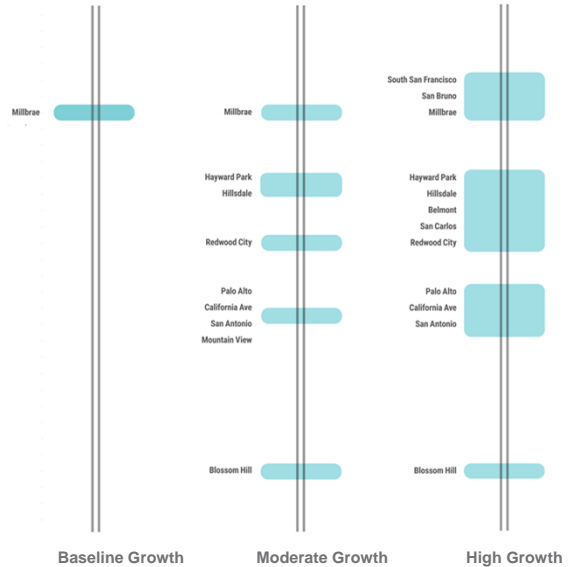



Metric	Baseline Growth	Moderate Growth	High Growth	
 Travel Time	Travel Time, San Francisco (STC) to San Jose (Diridon)	69-73 Minutes	61 Minutes	60 Minutes
	Average Travel Time per Rider, All Origin-Destination Pairs	33 Minutes	32 Minutes	31 Minutes

New 4 Track Infrastructure Required

The **Moderate and High Growth** service plans require passing track infrastructure to support blended service with HSR, so that faster trains can pass slower trains at multiple points in the corridor

 Conceptual 4 Track Segment or Station to be refined through further analysis and community engagement.



	Metric	Baseline Growth	Moderate Growth	High Growth
 Infrastructure	Passing Tracks Needed	<1 Mile	<5 Miles	15-20 Miles

Financial Analysis

The following slides analyze how Caltrain's financial performance would differ in each of the 2040 growth scenarios.



Structuring the Investment Program

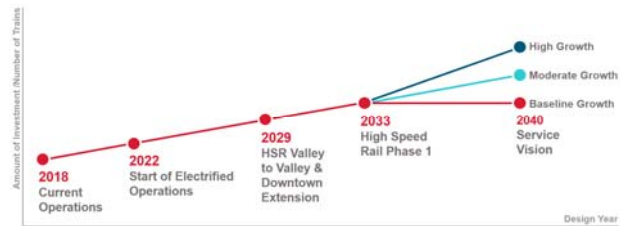
The Business Plan identifies a program of individual corridor investments that collectively support expanded rail service.

This program is categorized **functionally** by investment type:

- Track and Rail
- Systems
- Stations and Platforms
- Grade Crossings and Separations
- Terminals and Yards
- Fleet

And **temporally** structured by the assumed dates that key service changes and events are planned for the corridor:

- 2022 - Start of electrified service
- 2029 - Opening of DTX and initial HSR service
- 2033 - Full Phase 1 HSR service
- 2040 - Service Vision Build Out



CALTRAIN BUSINESS PLAN
CAPITAL INVESTMENTS: DESCRIPTION 1 OF 2

INVESTMENT CATEGORY	2022-2029				2030-2033		2034-2040	
	2022	2023	2024	2025	2030	2033	2034	2040
1.1
1.2
1.3

2 OF 2



Capital Investments

The following slides present projections of the total cost of investments required to support the different 2040 Growth Scenarios.

Many of these investments - particularly those included in the baseline - are not exclusively "Caltrain" projects. They are needed for a variety of reasons and serve multiple purposes and beneficiaries.



The Baseline Costs \$22.1 Billion

\$2.3B
Caltrain Work
Underway

\$2.3B

\$16.2B
Investments Planned and
Proposed by Caltrain Partners

\$3.3B

Downtown Extension
to Salesforce Transit
Center

\$3.4B

Diridon Station and
Surrounding
Rail Infrastructure*

\$2.6B

High Speed Rail
Investments

\$6.9B

City-led Grade Separations

\$3.6B
New Caltrain Investments to
Support Baseline Growth
Scenario

\$3.6B

* Placeholder cost pending detailed cost estimate to be developed through Diridon Integrated Station Concept Plan

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Moderate & High Growth Investments

The following additional investments are incremental to the "Baseline" Scenario and enable service levels and ridership levels contemplated in the "Moderate" and "High" Scenarios



Additional Station Enhancements

- Moderate: +\$100M
- High: +\$300M



Additional grade crossing investments

- Moderate: +\$500M
- High: +\$2.1B



Additional Fleet

- Moderate: +\$700M
- High: +\$1.3B



Expanded storage and maintenance yards

- Moderate: +\$300M
- High: +\$400M



Moderate: Station overtakes: +\$900M

4 short overtakes needed to support express and HSR overtakes of local trains



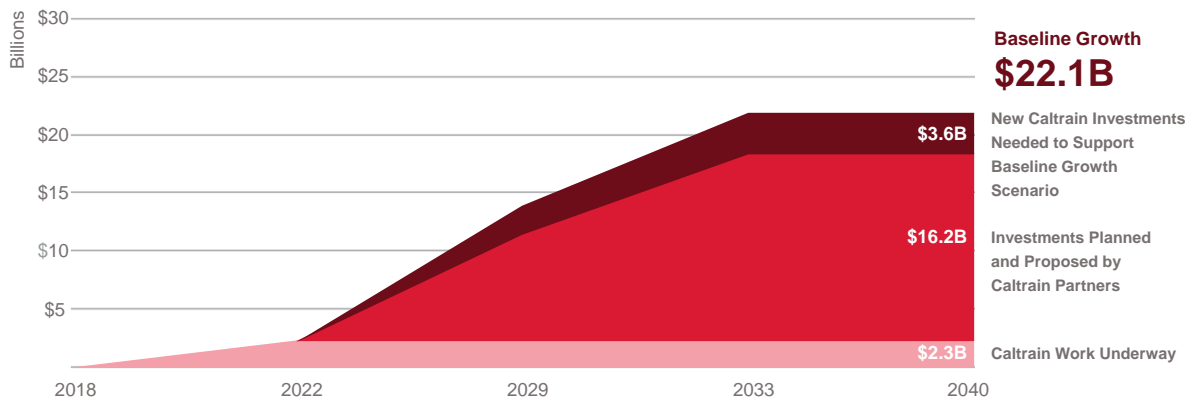
High: Station and running overtakes: +\$3.2B

Up to 15 miles of passing tracks and station overtakes as needed to support express and HSR passing of local trains

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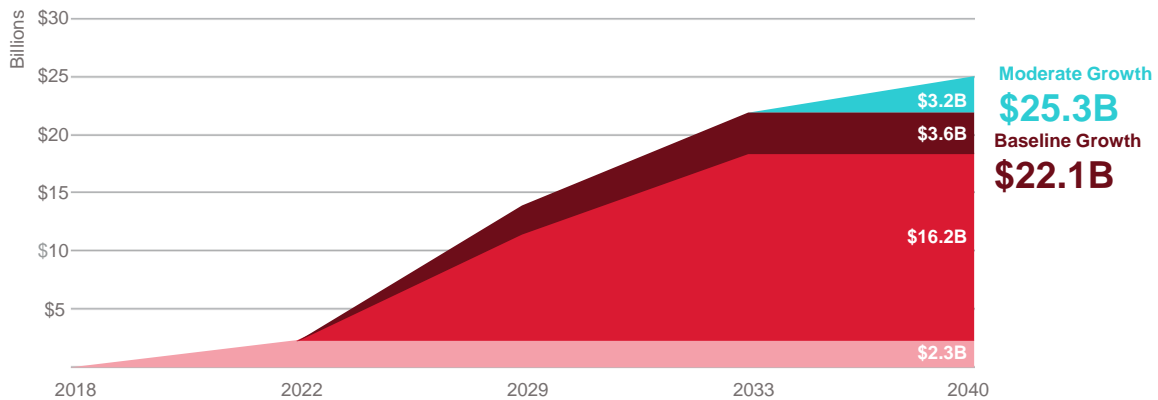
Investing for Growth

Total Corridor Investment Over Time by Growth Scenario



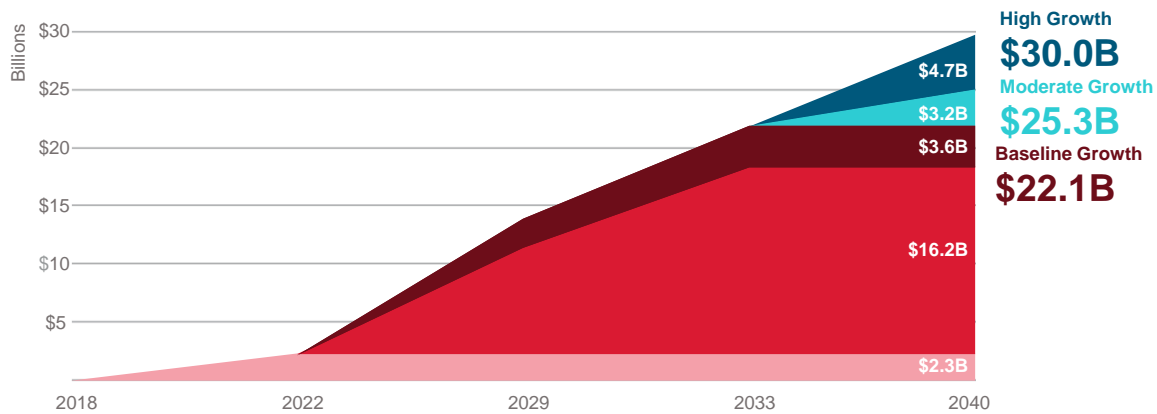
Investing for Growth

Total Corridor Investment Over Time by Growth Scenario



Investing for Growth

Total Corridor Investment Over Time by Growth Scenario



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Operating & Maintenance Costs

The following slides present projections of Caltrain's future operating and maintenance costs.

These projections have been developed through detailed modeling of Caltrain's existing operations and a projection of how costs will change over time with new investments and changes to service on the corridor.

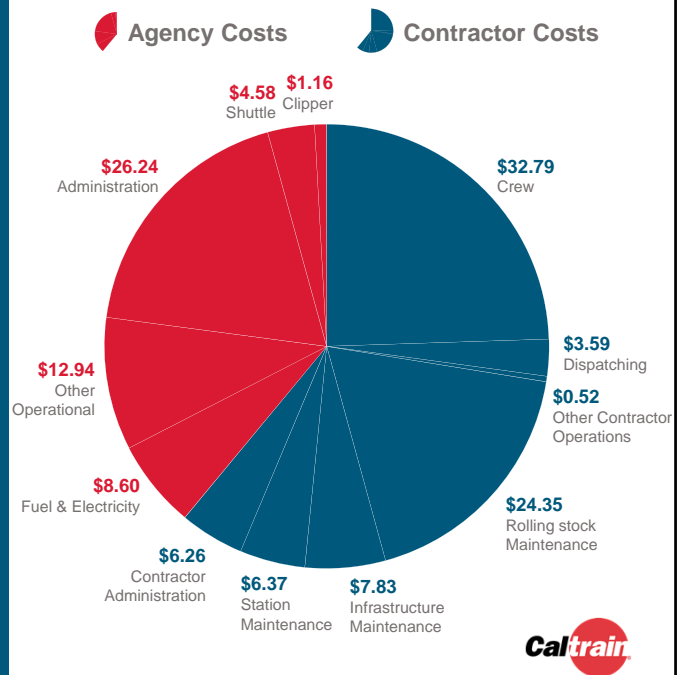


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Current Operating Costs

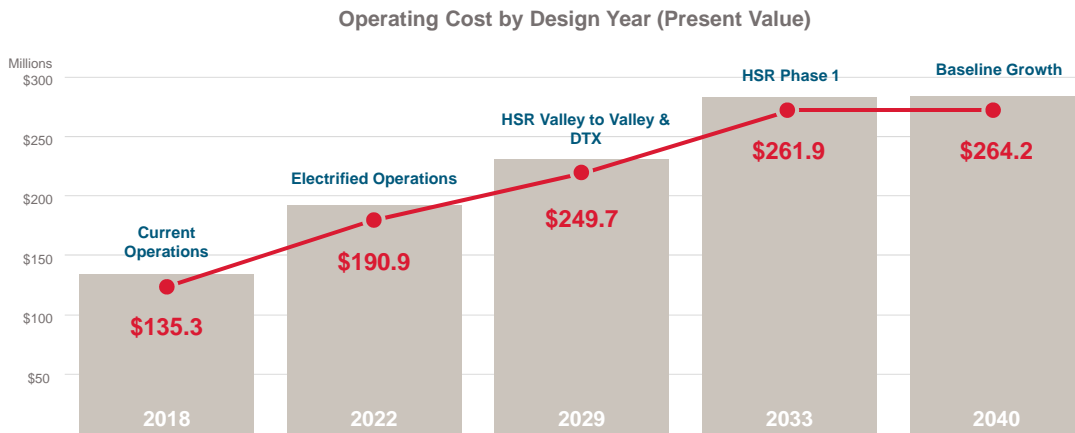
Existing (2018) contractor and agency operating costs (in \$millions)

Total 2018 Operating Cost: \$135.3 million



A Changing System to Baseline Growth

The Caltrain service and corridor are changing. As the system grows and as the corridor serves more trains and riders, overall operating costs will increase.



Key Drivers of Change

Operating & Maintenance Costs

2017 to 2022

- Increased service levels require additional crew costs and traction energy costs (electricity/fuel)
- A ramp-up in administrative staff is required to manage the expanded operation and new capital commitments
- New OCS/TPS equipment requires maintenance

2022 to 2029

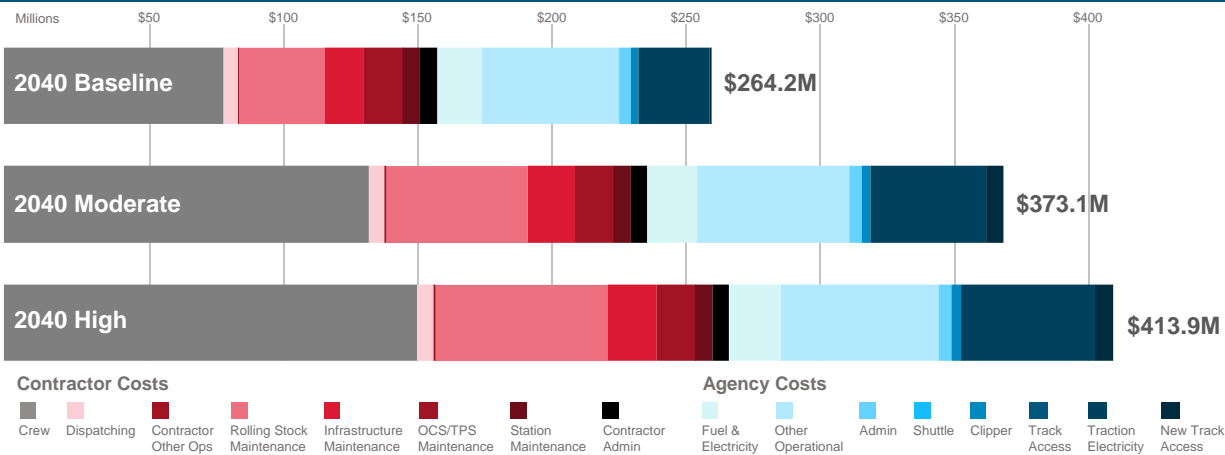
- Increased service levels require additional crew costs and traction energy costs (electricity)
- A further ramp-up in administrative staff is required to manage the expanded, blended operation
- Increase in service levels, fleet size and train lengths causes increase in fleet maintenance costs and infrastructure maintenance costs

2029 to 2033

- Administrative staff continues to grow with the size of the operation
- Increased service levels require traction energy costs (electricity) and infrastructure and fleet maintenance costs

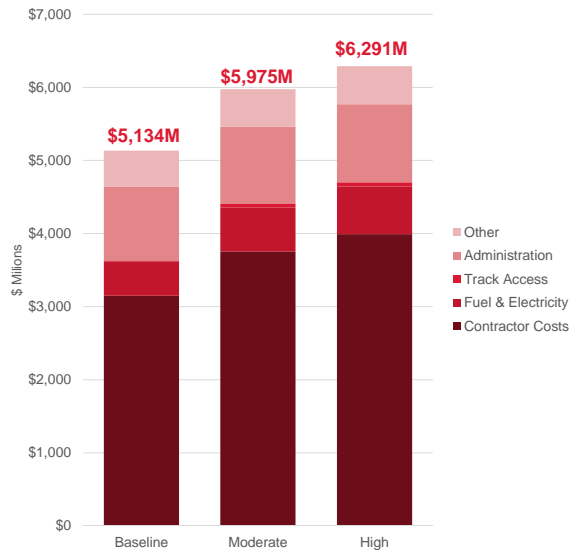


Year 2040 Operating Costs



Operating Costs Summary

Total Costs 2018 to 2070



Values shown are present (Year 2018) value using a discount rate of 4.0%



Operating Revenue Summary

Total Revenue 2018 to 2070

Track Access Income

Definition: Income from railroads using JPB infrastructure

Assumption: HSR share of track maintenance + current small amounts

Parking Revenue

Definition: Income from Caltrain drivers who pay to park

Assumption: changes in supply by growth scenario; existing occupancy and existing revenue per space remains constant

Passenger Revenue

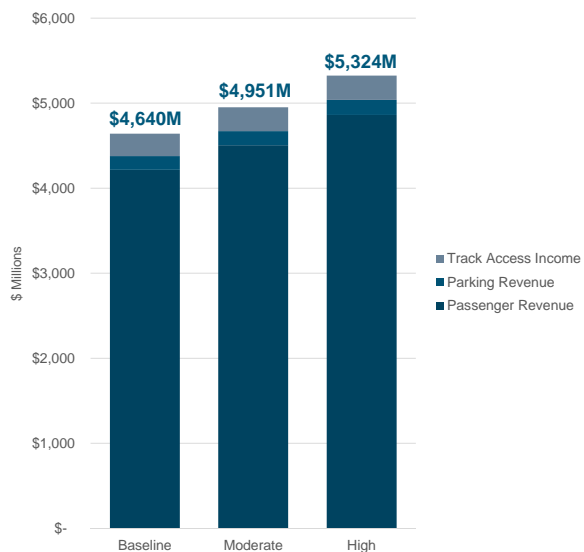
Definition: Fare revenue from Caltrain riders

Assumption: Average fares remain constant in real terms

Revenues Not analyzed at this Stage

Shuttle Revenue and other incomes including real estate and advertising were not modeled at this stage of the Business Plan. Existing revenues were held constant and projected forward.

These and other potential revenue sources will be analyzed in detail after the Board adopts a long range service vision.

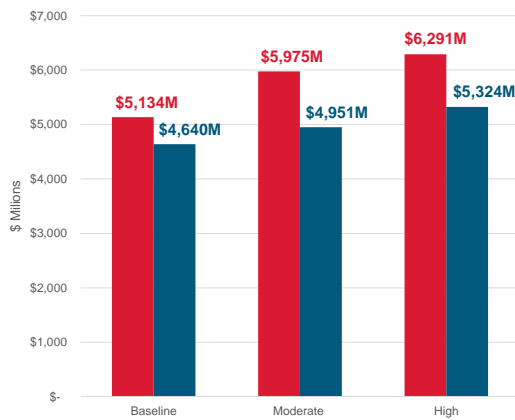


Values shown are present (Year 2018) value using a discount rate of 4.0%



Total Operating Costs and Revenue

Total 2018 to 2070



Operating Deficit
2018-2070 PV

(\$494M)

(\$1,024M)

(\$966M)

Farebox Recovery
Average
(2018-2070)

82% Baseline Growth

75% Moderate Growth

77% High Growth

Values shown are present (Year 2018) value using a discount rate of 4.0%



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Cost Allocation

Balancing Costs and Benefits



Overall corridor investment costs have been subcategorized and allocated so that we can more fairly and directly weigh the "costs" of expanded Caltrain service against the "benefits".

This process does not reflect project delivery or funding responsibility – it is simply a way to "disentangle" the costs of complex, multi-use investments so that we can assess the direct benefits of expanded Caltrain service relative to costs.

Allocation By Category:

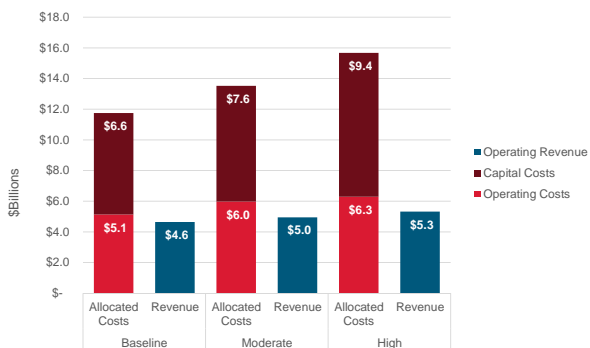
- **Track** – Overtakes allocated per prime user, maintenance of tracks shared on a usage basis
- **Terminals and Stations** – costs allocated to Caltrain based on platform usage
- **Grade Separations** – costs allocated to Caltrain based on legal requirements
- **Systems and Equipment** – capital costs allocation varies based on timing and system; maintenance generally shared
- **Maintenance Facilities** – Caltrain's own facility costs
- **Fleet** – Caltrain's own fleet costs



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Financial Analysis

Total Caltrain Allocated Costs and Revenue 2018 to 2070



Values shown are present (Year 2018) value using a discount rate of 4.0%

Net Investment
2018-2070 Present Value

- (\$7.1B)** Baseline Growth
- (\$8.6B)** Moderate Growth
- (\$10.3B)** High Growth

Incremental Investment over Baseline
2018-2070 Present Value

- (\$1.5B)** Moderate Growth
- (\$3.2B)** High Growth



Caltrain Economic Case

The following slides analyze the economic benefits of the different 2040 growth scenarios as they apply to existing and future Caltrain riders. These benefits are expressed relative to the baseline.



Caltrain User Benefits:

The following user benefits were analyzed, quantified, and monetized as part of the Caltrain Economic Case.

These benefits are analyzed on an incremental basis.

Existing Transit User Time Savings

Definition: improvements to travel times due to increased service levels and faster trains

Assumption: Number of existing transit trips; net travel time between station pairings; value of time

New Transit User Time Savings

Definition: improvements in travel times for drivers that switch to Caltrain

Assumption: Number of new transit trips; net travel time between station pairings; value of time

Auto Operating Cost Savings

Definition: reductions to auto operating and out-of-pocket costs for drivers who switch from driving to Caltrain due to improved service

Assumption: Fuel cost (excluding taxes); Non-fuel costs (maintenance, repairs, and tires; vehicle depreciation)

Roadway Network Safety

Definition: reductions in collisions from fewer drivers on parallel roadways

Assumption: Reduced number of vehicles; accident rate by severity; accident costs by severity

Public Health Benefits

Definition: Improvements to public health from new riders using active transportation modes (bicycles and walking) to access Caltrain stations

Assumption: Access mode share by station (bike/walk); avg absence per employee; percent of sick days reduced when active at least 30 min per day; avg. distance to access station by mode; value of reduced absenteeism; percent reduction in mortality per annual (bike/walk) miles; mortality rate (bike/walk); mortality reduction cost

Note: Revenue is not included as a benefit for the Caltrain Economic Case

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Caltrain User Benefits over Baseline

Total Benefits 2018 to 2070, Average Annual Benefits 2040 to 2070

Benefit	Unit	Moderate Growth		High Growth	
		Total*	Per Year Average	Total*	Per Year Average
Existing Transit User Travel Time Savings	hours	12.9M	0.43M	20.9M	0.70M
New Transit User Travel Time Savings	hours	27.7M	0.92M	40.4M	1.35M
Avoided Auto Trips (VMT Savings from New Transit Users)	vehicle miles	9,000M	300M	16,100M	540M
Roadway Network Safety Improvements	reduced fatal/injury accidents	7,300	240	13,000	430
Public Health Benefits (from Active Transportation Mode Access)	lives saved	70	2	150	5
	reduced absent days at work	30,000	1,000	67,000	2,200

*Values rounded for presentation purposes

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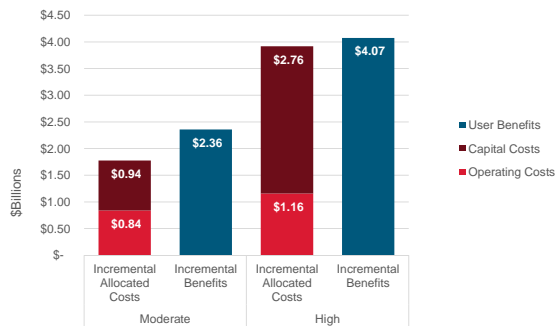
Caltrain User Benefits and Costs

Present Value of Benefits and Incremental Costs from 2018-2070

	Moderate Growth	High Growth
Existing Transit User Travel Time Savings	\$0.65B	\$0.97B
New Transit User Travel Time Savings	\$0.18B	\$0.30B
VMT/Auto Operating Cost Savings	\$0.94B	\$1.68B
Roadway Network Safety Improvements	\$0.39B	\$0.70B
Public Health Benefits	\$0.19B	\$0.42B
Total Benefits	\$2.36B	\$4.07B
Incremental Capital Cost	(\$0.94B)	(\$2.76B)
Incremental O&M Cost	(\$0.84B)	(\$1.16B)
Total Costs	(\$1.78B)	(\$3.92B)
Benefit-Cost Ratio	1.33	1.04
Net Present Value	\$0.58B	\$0.15B

Caltrain Economic Case by Scenario

Incremental Benefits and Costs 2018-2070



Net Present Value 2018-2070 PV	Benefit Cost Ratio 2018-2070
\$0.58B	1.33 Moderate Growth
\$0.15B	1.04 High Growth

Values shown are present (Year 2018) value using a discount rate of 4.0%



Regional Analysis

The following slides present analysis related to how the different growth scenarios could benefit the larger region.



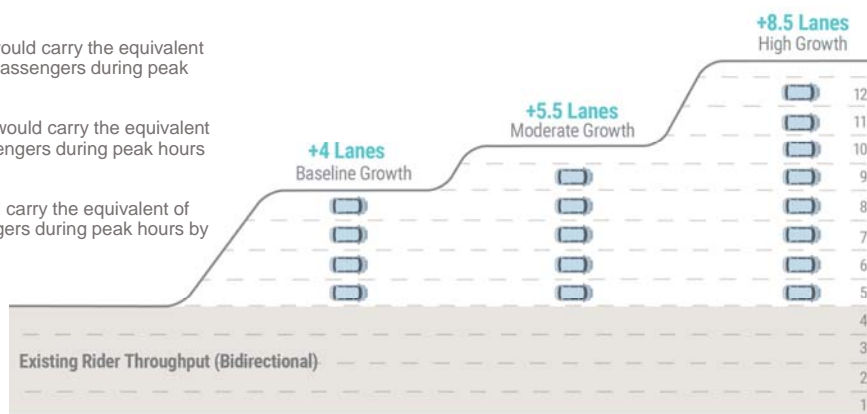
Freeway Throughput

Today, Caltrain carries 4 freeway lanes worth of people during peak hours. By 2040, the proposed growth scenarios will carry an additional 4 to 8.5 freeway lanes worth of passengers.

The **Baseline Growth** scenario would carry the equivalent of 4 new freeway lanes worth of passengers during peak hours by 2040.

The **Moderate Growth** scenario would carry the equivalent of 5.5 new freeway lanes of passengers during peak hours by 2040.

The **High Growth** scenario would carry the equivalent of 8.5 new freeway lanes of passengers during peak hours by 2040.



*Assumes vehicle occupancy of 1.1 persons/vehicle and lane capacity of 1,500 vehicles/hour.

Regional Rail Integration

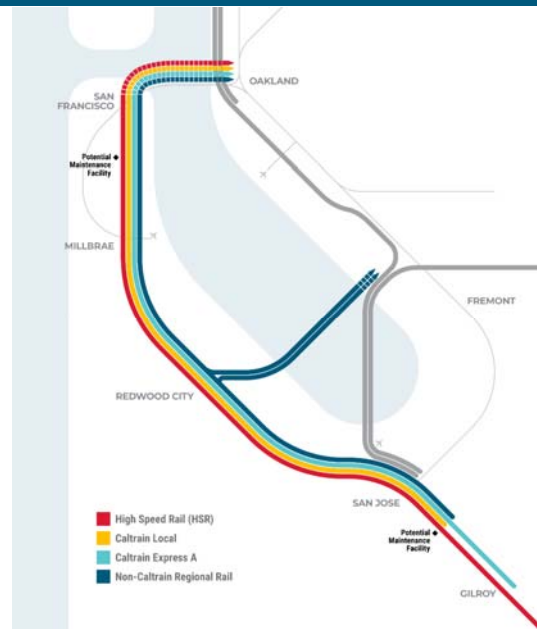
All service scenarios are compatible with regional rail needs.

High Growth anticipates large-scale corridor sharing, or "interlining" through investments in 4-track segments.

Baseline & Moderate Growth preserve the ability to scale up to large-scale corridor sharing but hold off on proactive investments until regional needs are better defined.

Examples of active studies and plans ongoing in the region that could advance the potential need for significant interlining onto Caltrain's corridor include:

- A standard gauge transbay crossing connecting San Francisco and the East Bay
- The reactivation of the Dumbarton rail bridge
- The development of expanded, "visionary" levels of service by ACE or Capital Corridor into San Jose



Environmental Benefits

Emissions Reductions 2022 to 2070

All scenarios deliver significant environmental benefits - both through the elimination of remaining diesel train service and the diversion of a substantial number of auto trips.

	GHG Savings (MTCO2e)	ROG Emissions Reductions (lbs)	NOx Emissions Reductions (lbs)	PM2.5 Emissions Reductions (lbs)	Diesel PM Emissions Reductions (lbs)
Baseline	1,108,045	426,970	7,065,695	247,750	264,588
Moderate	1,898,330	450,131	7,199,666	251,535	269,889
High Growth	3,006,028	482,662	7,387,824	256,854	277,336

Assumes conversion to 100% renewable power starting in 2029, consistent with CHSRA goals. Analysis conducted using the California Air Resources Board Quantification Methodology for transit and intercity rail capital program investments.

Land Value Benefits from Caltrain Service

Existing Residential and Office Benefits

Statistical and comparative analyses were performed to estimate the impact of existing Caltrain service on property values in the vicinity of stations. These relationships were used to forecast impacts of the Growth Scenarios on property values.

Residential Property Value Premiums

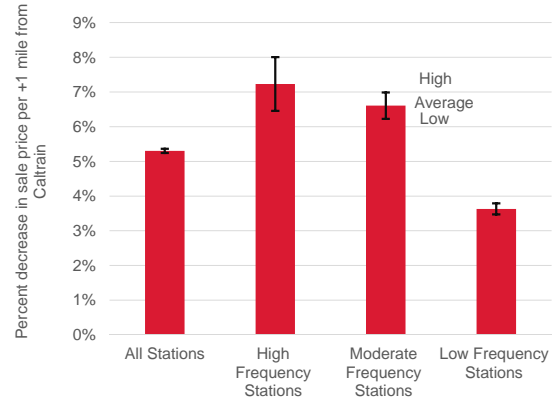
3%-7% Single-Family Home

2%-6% Condominium

Office Property Value Premiums

Office rents **20% higher** within a half-mile of Caltrain

Single-Family Home Property Value Premium



Land Value Benefits from Caltrain Service

2040 Growth Scenario Benefits

Total Estimated Property Value Benefits of Caltrain Service

2040 Baseline

\$13B

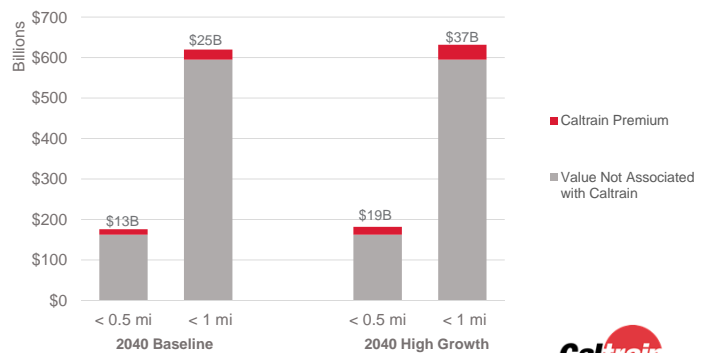
\$25B

2040 High Growth

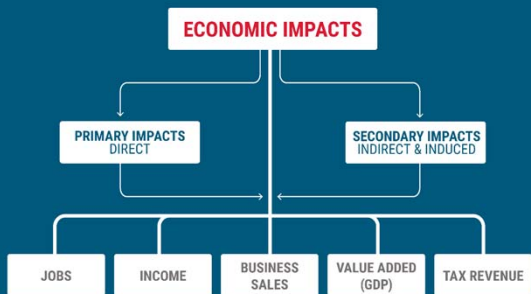
\$19B Within ½ mile

\$37B Within 1 mile

Estimated Residential and Office Property Values by Growth Scenario (\$2019)



Regional Economic Impact Analysis



Economic Impact Analysis (EIA) looks at the total economic impact of each growth scenario, including:

- Direct effects of initial capital costs
- Long-term operating cost spending
- Multiplier effects generated by these direct expenditures

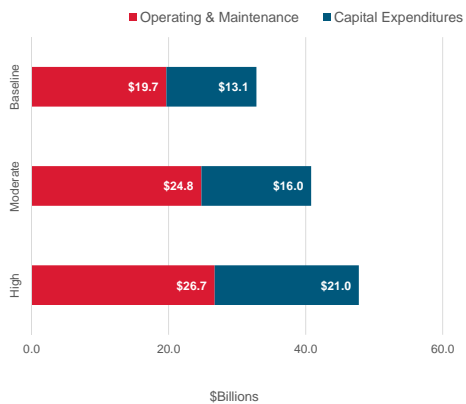
The following economic effects are estimated:

- Direct effect (capital and operating costs)
- Indirect effect (supply-chain spending)
- Induced effect (employee spending)
- Total effect (Direct + Indirect + Induced)



Regional Economic Impact

Total Output 2018 to 2070



Total Economic Output 2018-2070

\$32.8B
\$40.8B
\$47.7B

Jobs* from Capital Spending 2018-2070

44K job-years Baseline Growth
51K job-years Moderate Growth
69K job-years High Growth

Incremental Output over Baseline

\$8.0B
\$14.9B

Incremental Jobs over Baseline

7K job-years Moderate Growth
24K job-years High Growth

Values shown are present (Year 2018) value using a discount rate of 4.0%. Jobs are considered full- and part-time jobs in San Francisco, San Mateo and Santa Clara Counties

Flexibility and Uncertainty

The “2040 Service Vision” will set a generalized framework for growth. There are still many unknowns regarding exactly how both the Caltrain corridor and the regional rail network may evolve. This section helps frame some of those unknowns and opportunities.



R1

Status of Regional and State Projects

Status of Major Projects Impacting the Caltrain Corridor

Project	Development Status
ACE Forward and Altamont Vision service expansion of ACE	Conceptual Planning and Environmental
Capital Corridor Vision	Conceptual Planning
City-led grade separations	Various (conceptual planning thru detail design)
Diridon Station and Surrounding Rail Infrastructure	Conceptual Planning (pre-Environmental)
Downtown Extension to Salesforce Transit Center	Environmental and Design
Dumbarton Rail Crossing	Planning and pre-Environmental
HSR Investments	Environmental and Design
Second Transbay Crossing	Conceptual Planning

R2

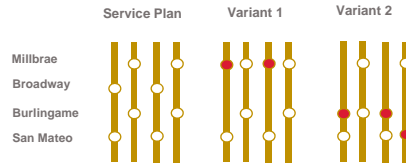
Flexibility to Refine Illustrative Service Planning

Service planning work to date has been focused on the development of detailed, illustrative growth scenarios for the Caltrain corridor. Future work will be needed to determine:

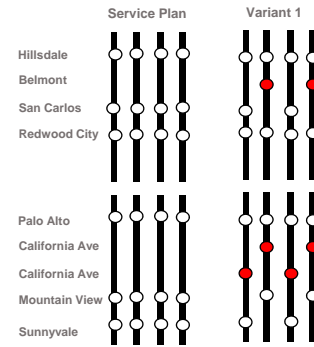
- Exact service levels and station stopping patterns
- Opportunities to close or add stations (such as the proposed Oakdale Station)
- Specific infrastructure locations and designs to support service needs

Example Service Plan Variants

Moderate Growth, Mid-Peninsula, Local Service



High Growth, Peninsula, Express B Service



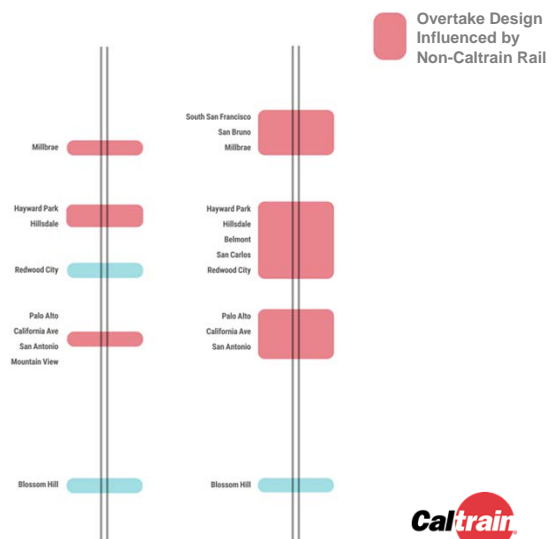
Implications of Uncertainty to Growth Scenarios

The **High Growth Scenario** most directly accommodates large-scale corridor sharing and expanded service, but the details of this scenario - including potential stopping patterns and location and extent of required infrastructure - are also highly influenced by state and regional projects.

The **Moderate Growth Scenario** does not directly accommodate the same level of growth but has infrastructure that can be more discretely planned. It has the potential to scale up as regional projects are further confirmed, defined, and funded.

4-Track Infrastructure Uncertainty

Segments Dependent on Design Input/Timing of Regional and State Projects



Initial Financial and Economic Sensitivity Testing

Four high level sensitivity tests were performed to determine the durability of key business metrics if assumptions change. Tests were performed individually (one at a time):

- Discount Rate +/- 2 points
- Value of Time Saved to Riders +/-10%
- Capital Costs +/-10%
- Operating and Maintenance Costs +/-5%

The range of impacts on key metrics from initial tests results are summarized in the table.

Range of Results Across All Sensitivity Tests

Key Metric	Original Value	Low	High
Farebox Recovery Ratio			
Moderate Growth	75%	72%	79%
High Growth	77%	74%	81%
Percent Change in Net Investment			
Moderate Growth	-	26%	-18%
High Growth	-	29%	-19%
Benefit Cost Ratio			
Moderate Growth	1.33	1.13	1.55
High Growth	1.04	0.83	1.30



Summary



Service

Metric	Baseline Growth	Moderate Growth	High Growth	
Frequency	Number of Stations Served by Frequent Service (>4 TPHPD)	13 Stations	21 Stations	24 Stations
	Longest Wait Times At Major Stations Served by All Trains	22 minutes	12 minutes	8 minutes
Connectivity	Percentage of Station Pairs Connected Without/(With) a Transfer	84% (91%)	96% (98%)	99% (99%)
	Number of Station Pairs Not Connected at All	95	17	2
Network Integration	Timed Connections at Regular Intervals	No	Yes	Yes
Ridership	Daily Ridership (capacity constrained)	151,700 Riders	177,200 Riders	207,300 Riders
	Comfortable Peak Hour Train Loads?	No	Some Crowding	Yes
Travel Time	Travel Time, San Francisco (STC) to San Jose (Diridon)	69-73 Minutes	61 Minutes	60 Minutes
	Average Travel Time per Rider, All Origin-Destination Pairs	33 Minutes	32 Minutes	31 Minutes
Infrastructure	Passing Tracks Needed	<1 Mile	<5 Miles	15-20 Miles

Summary

Financial
Analysis






Caltrain
Economic
Case

Metric	Baseline Growth	Moderate Growth	High Growth	
 Financial Metrics	Total Capital Costs	(\$22.1B)	(\$25.3B)	(\$30.0B)
	Caltrain Allocated Capital Costs	(\$6.6B)	(\$7.6B)	(\$9.4B)
	Total Operating Costs	(\$5.1B)	(\$6.0B)	(\$6.3B)
	Year 2040 Operating Costs	(\$0.26B)	(\$0.37B)	(\$0.41B)
	Farebox Recovery Ratio	82%	75%	77%
 Caltrain Economic Metrics	Net Investment	(\$7.1B)	(\$8.6B)	(\$10.3B)
	Net Present Value	-	\$0.58B	\$0.15B
	Benefit Cost Ratio	-	1.33	1.04

Except for Total Capital Costs, values are shown as a present (Year 2018) value using a discount rate of 4.0% and cover the period from 2018-2070.

Summary

Regional
Analysis

Metric	Baseline Growth	Moderate Growth	High Growth	
 Freeway Throughput	Additional Freeway Lanes	+4 lanes	+5.5 lanes	+8.5 lanes
 Regional Rail Integration	Accommodation of Large-Scale Corridor-Sharing Beyond HSR	could be scaled to accommodate	could be scaled to accommodate	can accommodate
 Environmental Benefits	GHG (MTCO2e)	1,108,045	1,898,330	3,006,028
 Land Value Benefits	Property Value Premiums Generated by 2040 Service Growth within 1 Mile of a Station	\$10B	\$10 - \$22B	\$22B
 Economic Productivity	Economic Output	\$32.8B	\$40.8B	\$47.7B
	Full and Part-time Jobs	44K job-years	51K job-years	69K job-years

Summary



Uncertainties to consider in selecting a Service Vision for Caltrain include:

- Ultimate design and timing of key regional projects impacting the corridor is still in flux and may change
- All scenarios have a degree of flexibility; detailed service and infrastructure planning will be an ongoing process
- Scale and location of passing tracks needed are sensitive to state and regional rail plans, particularly in the high growth scenario
- Key business metrics may shift as fundamental assumptions change

The Moderate Growth Scenario:

- Does not directly accommodate large-scale corridor sharing but has the potential to scale up
- Has a high level of confidence that the Benefit-Cost Ratio to Caltrain is over 1.0 even if key assumptions change

The High Growth Scenario:

- Most directly accommodates large-scale corridor sharing and interlining but infrastructure is sensitive to changes in regional and state assumptions
- Has less certainty that Benefit-Cost Ratio to Caltrain is solidly over 1.0 should key assumptions change

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Staff Recommendation

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Caltrain Long Range Service Vision: Staff Recommendation

(1) Caltrain's Long Range Service Vision directs the railroad to plan for a substantially expanded rail service that will address the local and regional mobility needs of the corridor while supporting local economic development activities. When fully realized, this service will provide;

- A. A mixture of express and local Caltrain services operated in an evenly spaced, bi-directional pattern.
- B. Minimum peak hour frequencies of;
 - i. 8 trains per hour per direction on the JPB-owned corridor between Tamien Station in San Jose and San Francisco extended to Salesforce Transit Center at such time as the Downtown Extension is completed
 - ii. 4 trains per hour per direction between Blossom Hill and Tamien Stations, subject to the securing of necessary operating rights
 - iii. 2 trains per hour per direction between and Gilroy and Blossom Hill Stations, subject to the securing of necessary operating rights



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Caltrain Long Range Service Vision: Staff Recommendation

(1) Continued

- C. Off-peak and weekend frequencies of between 2 and 6 trains per hour per direction north of Blossom Hill and hourly between Gilroy and Blossom Hill, with future refinements to be based on realized demand
- D. Accommodation of California High Speed Rail trains, in accordance with the terms of existing and future blended system agreements between the JPB and the California High Speed Rail Authority
- E. Delivery of these services will occur through the incremental development of corridor projects and infrastructure to be further defined through individual planning process, feasibility studies, and community engagement. At this time, such infrastructure is conceptually understood to include;
 - i. Investments in rail systems including a new, high performance signal system
 - ii. Station modifications including platform lengthening, level boarding, and investments in station access facilities and amenities to support growing ridership and improve customer experience
 - iii. New and modified maintenance and storage facilities in the vicinity of both terminals as well as the expansion of the electrified Caltrain fleet



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Caltrain Long Range Service Vision: Staff Recommendation

(1) Continued

- E. Delivery of these services will occur through the incremental development of corridor projects and infrastructure to be further defined through individual planning process, feasibility studies, and community engagement. At this time, such infrastructure is conceptually understood to include;
 - iv. A series of short, 4-track stations and overtakes at various points throughout the corridor
 - v. Completion of key regional and state partner projects including
 - a. The Downtown Extension to the Salesforce Transit Center
 - b. The reconstruction of Diridon Station and surrounding rail infrastructure
 - c. The reconstruction and electrification of the rail corridor south of Control Point Lick to the Gilroy Station
 - d. Additional improvements to allow for the operation of High Speed Rail service between Gilroy and San Francisco
 - e. The substantial grade separation of the corridor as well as safety upgrades to any remaining at-grade crossings, undertaken in a coordinated strategic manner driven by the desires of individual local jurisdictions as well as legal requirements associated with any proposed 4-track segments.



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Caltrain Long Range Service Vision: Staff Recommendation

(2) Caltrain's Long Range Service Vision further directs the railroad to continue its consideration of a potential "higher" growth level of service in the context of major regional and state rail planning. Specifically, the Long Range Service Vision directs the railroad to;

- A. Work with regional and state partners to study and evaluate both the feasibility and desirability of higher levels of service in the context of major regional and state rail initiatives including planning related to the Dumbarton Rail Corridor, the 2nd Transbay Crossing, the potential for expanded ACE and Capitol Corridor services, and ongoing planning for the California High Speed Rail system.
- B. To take certain actions to consider and, where feasible, not preclude such higher levels of service as they specifically relate to;
 - i. The planning of rail terminals and related facilities
 - ii. The sale or permanent encumbrance of JPB land
 - iii. The design of grade separations in areas where 4-track segments may be required
 - iv. The sizing of future maintenance facilities and storage yards
- C. To return to the board with a recommendation regarding any formal expansion of the Long Range Service Vision at such a time as clear regional and state policy and funding commitments are in place and the feasibility of such an option on the corridor has been confirmed



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Caltrain Long Range Service Vision: Staff Recommendation

(3) Finally, Caltrain's Long Range Service Vision directs the railroad to periodically reaffirm the Vision to ensure that it continues to provide relevant and useful guidance to the railroad. Such reaffirmations should occur;

- A. At a regular intervals of no less than 5 years
- B. In response to significant changes to JPB or partner projects that materially influence the substance of the Long Range Service Vision



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Caltrain Long Range Service Vision: Staff Recommendation

The features of the Service Vision include:

- **Fast and frequent all day (every day) service: user friendly, show up and go**
 - Faster, all day baby bullet service with express service every 15 minutes
 - Significantly increased off-peak and weekend service levels
 - Comprehensive local service providing coverage to every community
- **Increased Capacity**
 - Tripling today's ridership, serving nearly 180,000 people a day
 - Adding the equivalent capacity of more than 5 freeway lanes worth of regional capacity
- **Regional Connectivity**
 - End to end service - connecting Gilroy to downtown San Francisco (all day, both ways)
 - Regular service making transfers and connections easier and more predictable



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Caltrain Long Range Service Vision: Staff Recommendation

- The Service Vision maximizes the benefits of local, regional and state sponsored projects including
 - Local investments in grade separations
 - Improved terminal infrastructure (Diridon and San Francisco).
 - High Speed Rail
- The Service Vision establishes Caltrain as a leader in implementing a regional rail network providing the service and infrastructure that can respond and grow to meet regional needs.
- Work is already underway on implementing the Vision. It starts with the electrification of the service in 2022. From that point a series of incremental improvements will deliver increasingly improved service over time - we don't have to wait until 2040.



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From Vision to Plan – Next Steps

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Planned and Completed Outreach

The Caltrain Business Plan team will expand outreach activities during the months of July, August, and September as the Board considers a draft recommendation for a long range service vision.

The Board will receive a summary of outreach undertaken and feedback received prior to any request to take action on the long range service vision.

For updated public presentation information visit: <https://www.caltrain2040.org/get-involved/>

July, August, September

List as of today

- **July 12** Partner General Managers / Executives
- **July 22** Online Public Meeting
- **July 24** Caltrain Planning Subcommittee Meeting
- **July 24** Caltrain Access and Accessibility Committee
- **July/August** Federal and State Delegation Briefings
- **August** Launch of the "Online Open House"
- **August 8** Stakeholder Advisory Group
- **August 12** General Public Meeting San Jose
- **August 14** Caltrain City/County Staff Group
- **August 14** General Public Meeting San Francisco
- **August 16** SB 797 Agency Group
- **August 21** Caltrain Citizen Advisory Committee
- **August 22** Caltrain Local Policy Maker Group
- **August 29** General Public Meeting San Carlos
- **August 1 – September 24** Sister Agency Boards
 - VTA (*August 1*)
 - MTC (*September 4*)
 - SamTrans (*September 4*)
 - SMCTA (*September 5*)
 - SFCTA (*September 24*)
- **August/September** Rider Outreach
- **August/September** City Councils, as requested
- **September** Santa Clara County Board of Supervisors
- **September 17** San Mateo County Boards of Supervisors
- **September 19** Caltrain Bicycle Advisory Committee



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Once We've Chosen the "Big" Vision, We Can Work Back to Define the Best Path to Get There



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Completing the Business Plan

Completion of the Business Plan is targeted for early 2020.

When staff returns to the Board in October, a detailed roadmap for the completion of the Plan will be provided for discussion.

Key Focus Areas to Complete the Plan:

Service Analysis

- "Walk back" of incremental phasing and steps to implement the vision
- Focus on post-electrification generation of investments

First and Last Mile

- Long term needs and phasing
- Analysis of strategies and outcomes

Funding and Revenues

- Existing and new funding sources
- Commercial strategies and revenue opportunities
- Efficiencies

Additional Organizational Assessment and Community Interface Work



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Organizational Assessment

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Overview



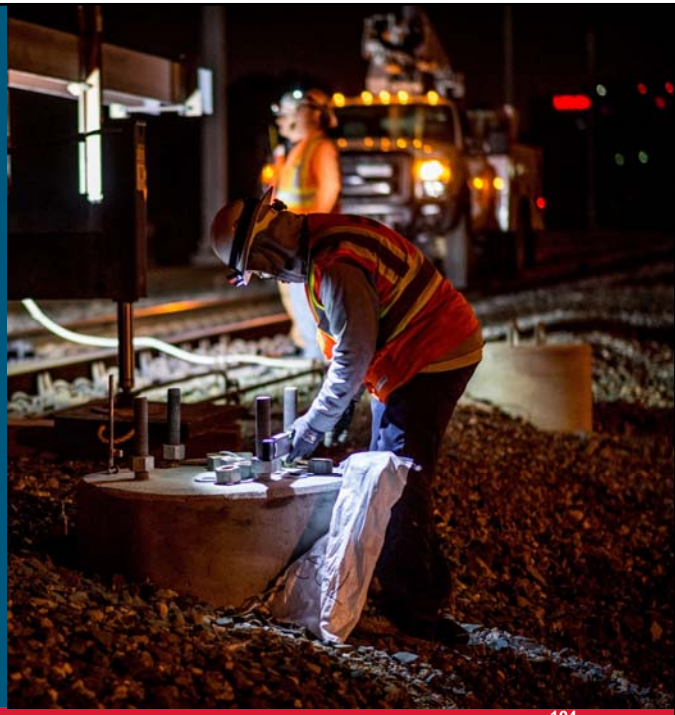
103 DRAFT

Change is Coming

Today, Caltrain operates a successful and efficient commuter rail service

Looking forward, both the railroad and the region have made transformative decisions and commitments that compel organizational change

Finally, realization of the long range service vision specified through the Business Plan will require additional organizational transformation



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Three Critical Organizational Areas



Service Delivery

What is it?

How Caltrain operates and delivers its services

What is the Focus?

Focus on train service delivery and contracting mechanism



Internal Organization

How Caltrain organizes itself

Focus on resources, functionality, shared services



Governance

How Caltrain is overseen by a governing body

Focus on options for self-directed change, regional integration, and certain parallel considerations

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Key Questions for Each Area



Timing

Questions

Is this the right time to be having this discussion?

What are the implications if no decisions are reached?



Recommendations And Focus Areas

What are the recommendations or key focus areas?



Implementation

What additional work is needed?

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Organizational Assessment Process



Initial Assessment

Conducted over 50 interviews and reviewed documents and reports

Documented key observations and areas requiring organizational focus



Defining Railroad Functions & Mapping the Current Caltrain Organization

Outlined basic functions necessary to plan, operate, and maintain a major regional railroad

Analyzed how Caltrain currently completes the work



Comparison to Other US and International Railroads

Reviewed how other agencies are governed, organized and deliver service



Detailed Organizational Analysis

Detailed analysis to identify options and focus areas related to service delivery, internal organization and governance



Recommendations

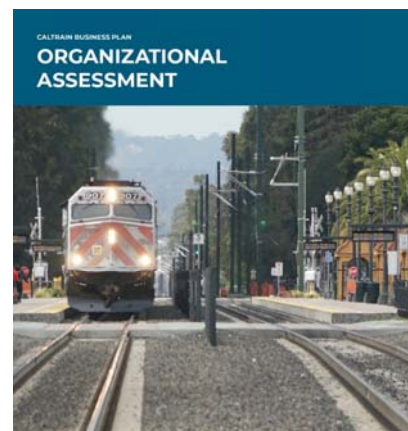
Identified specific recommendations and implementation steps

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Organizational Assessment Report

The Organizational Assessment was developed by Howard Permut of Permut Consulting LLC and former President of Metro-North.

Key areas of Howard's work have been supported by the Stanford Global Projects Center and a team of outside experts



JULY 2009



Read the full report at www.caltrain2040.org

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What is the Current Caltrain Organization?



Governance

- Caltrain is a Joint Powers Authority, formed through a Joint Powers Agreement (JPA) between three member agencies
- The system is governed by the Peninsula Corridor Joint Powers Board (JPB), a 9-member board appointed under the terms of the JPA



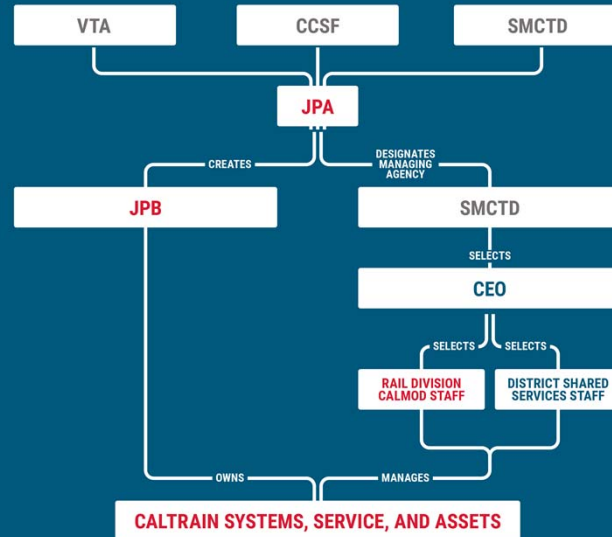
Internal Organization

- The JPA designates the San Mateo County Transit District (SMCTD) as Caltrain's "managing agency"
- SMCTD employees manage and administer the Caltrain system, either as part of a Caltrain-dedicated department or through a shared services arrangement with other SMCTD business lines



Service Delivery

- The JPB contracts with a private company, Transit America Services Inc (TASI) for the direct operation of the Caltrain service and maintenance of the railroad's assets. The operating contract is managed by SMCTD



Roles and Responsibilities at Caltrain are Complex

Caltrain fulfills all of the functions of a major railroad but does so within a complicated framework that creates bifurcated responsibilities for many key activities. This is because the railroad;

- Is managed within a multi-modal, shared services agency
- Delivers service through a 3rd party contract
- Traverses 21 local jurisdictions

DETAILED FUNCTIONALITY

The matrix below provides similar information for the detailed functionality.

	Caltrain Management		Caltrain Contractor		Non-Caltrain		Notes
	Rail Division + CalMod	SamTrans Shared Services	TASI	Other 3rd Party Contractors	Outside Entities (Public partners and cities)	Outside Entities (Private)	
CEO	X	X					1
Operations							
Transportation	X		X				2
Maintenance of Way	X		X				3
Maintenance of Equipment	X		X				4
Maintenance of Stations	X		X		X		5
Customer Service		X	X				6
Ticket Selling and Tariff Enforcement	X	X	X		X		7
Safety and Security							
Safety	X	X	X	X			8
Police				X			9
Security		X		X			10
Finance							
Budget	X	X	X				11
Accounting		X					12
Treasury and Payroll		X					12
Insurance and Claims Management		X					12
Real Estate and Commercial Activities							
Managing leases and railroad-owned property		X					13
Obtaining land, easements, and permits for construction projects		X					13
Reaching commercial agreements with third parties		X					13

Details of Caltrain's organization and functionality are discussed in Chapter 2 of the Organizational Assessment Report

Comparison to Other US Systems

We compared Caltrain with a spectrum of US peer passenger railroads, focusing on how they approach the issues of service delivery, internal organization and governance

US Peer Railroads



Capitol Corridor
(CCJPA)



METROLINK
Southern California
Regional Rail Authority
(Metrolink)



San Joaquin Regional
Rail Commission (ACE)



Sonoma-Marin Area
Rail Transit (SMART)



Massachusetts Bay
Transportation
Authority (MBTA)



Southeastern
Pennsylvania
Transportation
Authority (SEPTA)

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Comparison to Other International Systems

We also reviewed three international railways to understand how their organizational structures enable their success in specific areas such as monetizing real estate assets, sharing corridors with multiple carriers and incentivizing the private sector to deliver services efficiently

International Peer Railroads



Bern-Lötschberg-Simplon
(BLS) Railway (Switzerland)



Kintetsu Rail Company (Japan)



Chiltern Railways (UK)

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Comparison to Other Systems- Lessons Learned

The detailed comparison with other systems can be found In Chapter 3 of the Organizational Assessment Report

Service Delivery

- There is no standard or “correct” model for service delivery; the choice reflects the specific circumstances the railroads face at a given point in time
- Third party service contracting, similar to Caltrain, is the most common delivery method in the US. In-house service delivery is generally used in older US railroads but SMART is a recent counter example
- There is no clear correlation between the model used and financial or service performance
- International railways utilize the private sector to a much greater degree than US railroads with greater risk transfer
- The agency retains ultimate responsibility regardless of the method selected

Internal Organization

- Shared services are used at select other railroads, however the structure of arrangements varies
- There are major differences between organizations that are expanding rapidly or delivering major capital projects versus those that are operating existing stable systems

Governance

- Board composition, committee structure vary greatly across agencies.
- Member agency involvement in budget development process is related to both board structure and to funding sources.
- Most boards have a more direct and exclusive (not shared) relationship to its railroad executives than Caltrain.

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Service Delivery



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Service Delivery

Caltrain's existing operating contract expires in 2022 and includes a one year option to extend. There is an opportunity to negotiate a five year extension pending FTA approval.

The agency must choose what to do.

Considerations

- Many potential options to choose from and model can evolve over time
- Railroad is transitioning from a stable operation to a period of dynamic change

Key Factors Informing Choices

- Ability of chosen model to achieve Caltrain's corporate objectives and support planned services and projects
- Balancing of reputational and financial risk, control and cost;
- Anticipated market response and associated costs
- Implications for labor agreements and federal labor protection provisions
- Timing of transition and associated risks
- Maintaining adequate negotiating leverage
- Organizational bandwidth



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Service Delivery

Caltrain has three distinct options to choose from for service delivery.

Service Delivery Options

1. Extension of TASI contract with modifications
2. Solicitation of a service provider through the standard procurement process
 - Bundled or unbundled contract
 - Gross cost or net cost models
3. Provision of services with in-house forces



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Service Delivery

Recommendations

Timing

- Immediately initiate development of a comprehensive strategy for future service delivery including prioritization of new contract elements
- Caltrain should discuss extension with FTA
- Starting work now maximizes Caltrain's flexibility and provides the widest range of options

Recommendation

- Recommended that Caltrain should pursue extension of the TASI contract with a set deadline to complete the negotiation.
- Deadline would be set so that Caltrain would have sufficient time to procure another operator if negotiations are not successful.

Implementation

- Form an inter-disciplinary task force of senior staff
- Develop a work plan and schedule reflecting the above



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Internal Organization



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Internal Organization

Staff Resourcing

- Caltrain is the most efficient major passenger railroad in the country as measured by basic outputs per employee (car miles and passenger miles per employee)
- Caltrain is significantly under resourced for today's work outputs let alone to successfully implement the recommended service vision

COMPARISON OF CALTRAIN TO LARGE US COMMUTER RAIL PROPERTIES

Agency Name	Total Employees	Car Miles	Car Miles Per Employee	Passenger Miles	Passenger Miles Per Employee	Footnote
NJ Transit	4,850	61,500,000	12,700	2,077,100,000	428,300	1
Long Island Rail Road	7,331	67,100,000	9,200	2,996,900,000	408,800	4
Metro-North Railroad	6,461	68,600,000	10,700	2,271,000,000	351,500	
Metra	4,797	43,700,000	9,200	1,577,400,000	328,900	3
MBTA	2,394	25,000,000	10,500	697,700,000	291,500	5
SEPTA	1,821	19,500,000	10,200	426,200,000	221,600	2
Average	4,626	47,600,000	10,400	1,674,400,000	338,500	6
Caltrain	580	7,400,000	12,700	406,100,000	700,000	7
Caltrain Performance vs. Average			+22%		+107%	

Sources:

Metrics and Service Data Tables, National Transit Database, 2017, Federal Transit Administration.
Employees Data Tables, National Transit Database, 2017, Federal Transit Administration.
MBTA Commuter Rail Fact Sheet.

Notes:

1. Staffing excludes Northeast Corridor and Penn Station Infrastructure Maintenance.
2. Staffing excludes Northeast Corridor, 30th Street Station, and Hainsburg Line Infrastructure Maintenance.
3. Staffing excludes services not directly operated by Metra (BNSF and UP).
4. Staffing excludes Penn Station Infrastructure Maintenance.
5. Staffing excludes Northeast Corridor and South Street Station Infrastructure Maintenance.
6. Average excludes Caltrain.
7. Caltrain includes both TASI employees and Caltrain employees working on the railroad.

Details of Caltrain's internal organization are discussed in Chapter 4 of the Organizational Assessment Report



Internal Organization

Shared Services

As the railroad grows in scope and complexity a key issue is which services can effectively be shared with other organizations, and which ones will require dedicated focus and rail specialization.

Shared Services Considerations

Changes to specific service sharing arrangements should reflect consideration of:

- The degree to which specialized railroad skills are necessary
- The financial savings (or costs) generated through sharing arrangements.
- The need for clear lines of responsibility and authority within the organization
- The selected service delivery model
- The selected governance model



Internal Organization

Functions & Processes

As it enters into a period of major transformation, Caltrain will require a different type and level of output from key functional areas. It will also need to intensify its focus on critical process interfaces

Attracting and Retaining Talent and Skills

Another common theme has been the need to attract and retain talent. This is challenging in a high cost area.

Key Functions and Functional Areas that Require Focus

- Planning Department (underway)
- Contracts and agreements with external parties
- Rail Activation Plan
- IT
- Procurement and Human Resources
- Performance Management
- First Mile/Last Mile at stations
- Capital Project Implementation

Key Issues Related to Talent and Skill Retention

- Addressing high vacancy rates
- Large number of “seconded” consultant staff
- Need to attract skill-based workforce to deliver the service vision



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Internal Organization

Recommendations

Timing

- Now is time to take actions that address current deficiencies and prepare the organization for the next five years
- Maintaining the status quo will not allow Caltrain to provide high quality expanded rail service, participate constructively on major regional projects, and implement its Business Plan

Recommendation

- Address vacancies immediately
- Undertake a complete organizational study and identify specific modifications to be implemented in FY20 / 21 Budget and for the upcoming five years
- Develop financial resourcing strategy

Implementation

- Form an inter-disciplinary task force led by a senior staff member to address vacancies
- Develop a work plan and conduct study over next 3 to 6 months



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Governance



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Governance

Overview

A critical assumption is a dedicated source of revenues will become available - any modification of the existing Caltrain governance structure will not alone solve the financial challenges faced by the organization

Structure

Governance options and considerations are discussed within three groups;

- 1) Self-directed options
- 2) Regional (Non-self directed) options
- 3) Parallel considerations

Many of the options described within these groups are not mutually exclusive



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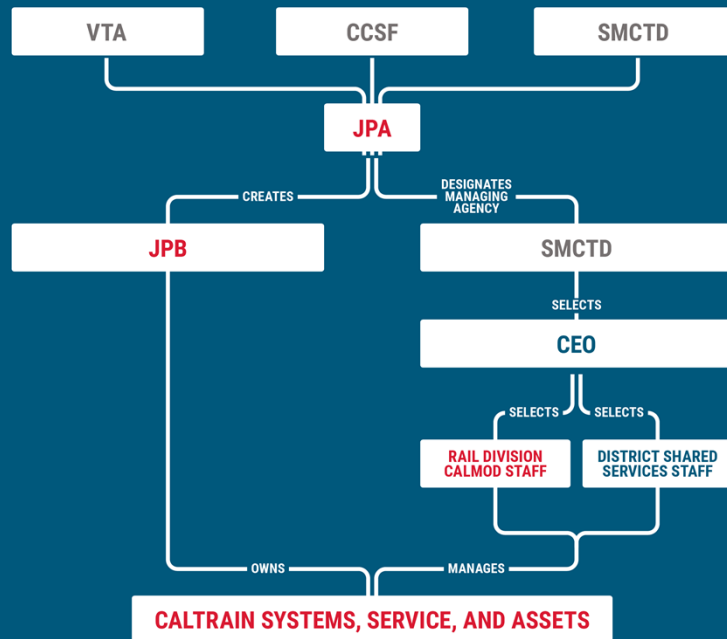
Governance

Self-Directed Options

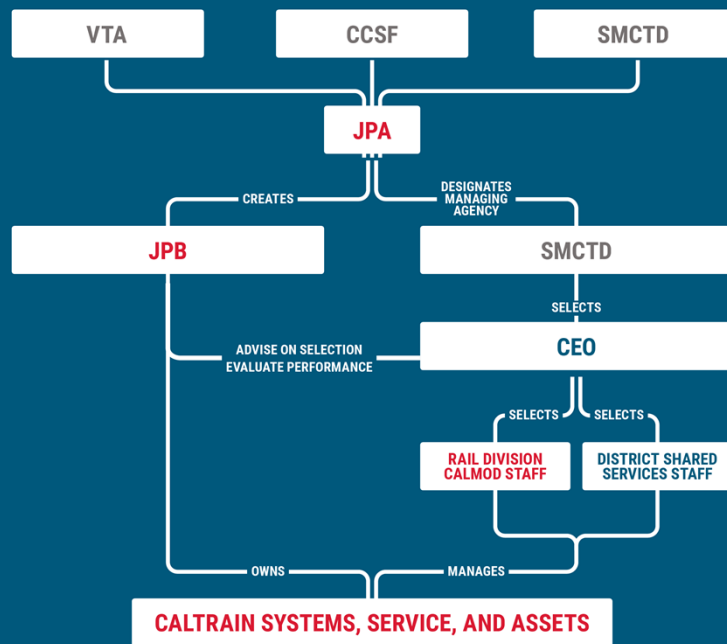
The following governance models are described as “self directed” because their implementation could be initiated by agreement of Caltrain’s member agencies



Governance Self-Directed Option A: Retention of the Status Quo

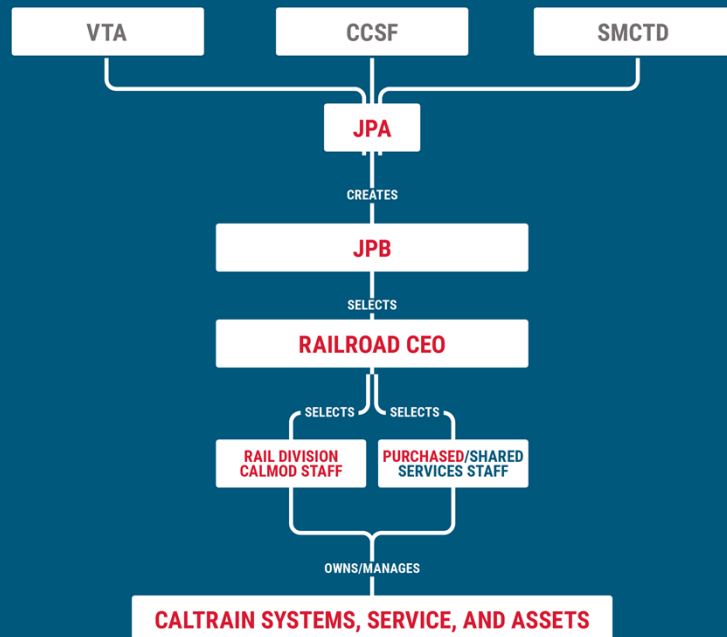


**Governance
Self-Directed Option B:
JPB as Currently
Structured Coupled
with Modifications**

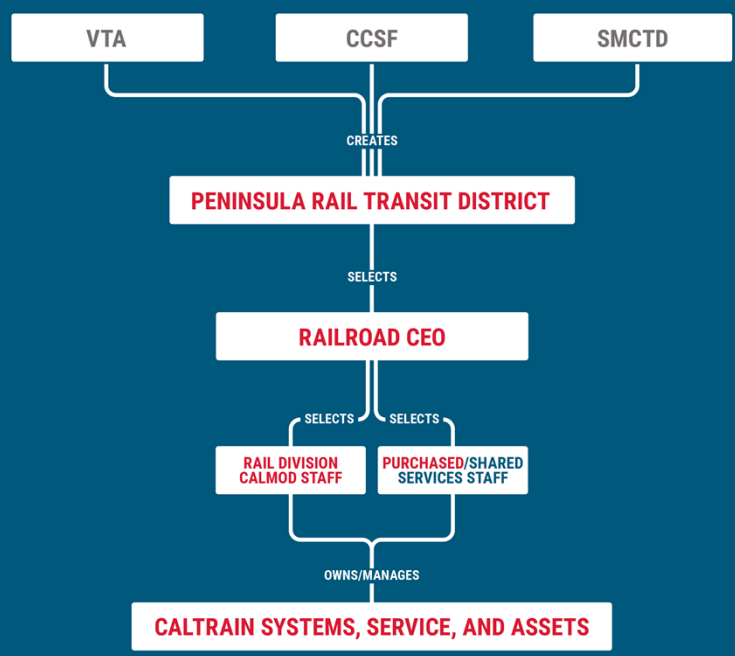


**Governance
Self-Directed Option C:
Retention of the JPA as currently
structured but reorganized as a
railroad authority that directly
hires its management and
administrative employees**

**Self-Directed Option D:
Same as Option C except that
staffing is supplemented on an
as needed basis with expertise
from JPA member agencies**



Self-Directed Option E: Creation of a Special District to Govern and Administer Caltrain - Peninsula Rail Transit District (PRTD)



Governance

Non Self- Directed Options

The non-self-directed options described here include options for either the full or partial regional, or mega-regional integration of multiple railroads and agencies

The process to implement these options would be significantly more complex. At the same time, such options may be intrinsically tied to the funding and implementation of key portions of the Business Plan and initiatives being undertaken by other agencies.

Very careful and comprehensive analysis needs to be done to understand the pros and cons as well as the implications with regard to transferring authority and decision-making, funding, cost and service delivery to another organization.



Non-Self Directed Options Current Operations

Separate Railroad A

Separate Railroad B

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Non-Self Directed Options Option F: Regional Cooperation

Separate Railroad A



Coordinated
Activities by
Agreement



Separate Railroad B

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Non-Self Directed Options Option G: Regional Integration of Key Functions



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Non-Self Directed Options Option H: Consolidated Regional Rail Authority with Subsidiary Railroads



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Non-Self Directed Options

Option I: Fully Consolidated Regional Railroad

Consolidated Regional Railroad

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Governance

Parallel Governance Considerations and Structures

There are a number of “governance-level” issues that Caltrain must consider regardless of its ultimate core governance model.

In some instances these may be addressed through parallel or separate governance structures or agreements

Megaproject Delivery

- Major organizational issue
- May be addressed through separate Construction Authority or grade separation district

Integration with other Railroads

- Coordination with HSR around use of shared infrastructure
- Potential to look at interlining of other operators and/or geographic expansion of Caltrain services

Increased Role of Private Sector

- Commercialization or privatization of all or parts of railroad’s business



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Governance

Recommendations: Self-directed Options

Timing

- Timing is right to engage in discussion and review of self-directed options given magnitude of transformation faced by Caltrain

Recommendation

- Organizational assessment provides a menu of *viable* self-directed governance options
- Most options require amendment to JPA- which falls under the purview and responsibility of Caltrain's member agencies
- Recommendation that member agencies should reach consensus on preferred option

Implementation

- General Managers of the member agencies should form a task force of themselves or a senior empowered representative of their agency to review options and make recommendation to their boards within a specified time period



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Governance

Recommendations: Non Self-directed Options & Parallel Considerations

Timing

- It is in Caltrain's interest to constructively and actively engage in discussions related to regional governance and key parallel considerations

Recommendations

- Caltrain should be involved in all aspects of regional rail discussions (options F through I) even if discussions are in early stages
- Caltrain should develop a position on the potential for a regional construction authority
- Caltrain should continue to work with the State and High Speed Rail Authority to define needed future agreements in conjunction with the evolution of the Authority's plans
- Caltrain should work, through the remainder of the Business Plan, to identify areas where private sector partnerships may be most beneficial to its mission



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FOR MORE INFORMATION
WWW.CALTRAIN2040.ORG
BUSINESSPLAN@CALTRAIN.COM
650-508-6499

