Caltrain
Local Policy Maker Group (LPMG) Meeting

Thursday, January 25, 2018
6:00 p.m. – 7:30 p.m.
SamTrans Offices – Bacciocco Auditorium 2nd Floor
1250 San Carlos Ave., San Carlos

Agenda

1. LPMG Chair Report
2. Staff Report
   a. 2018 Logistics (Membership / Dates)
3. Caltrain Business Plan Update
4. Caltrain Peninsula Corridor Electrification Project Update
5. Public Comments
6. LPMG Member Comments/Requests
   a. Grade Separation Toolkit
7. Next Meetings

All items on this agenda are subject to action
Memorandum

Date: January 25, 2018
To: CalMod Local Policy Maker Group (LPMG)
From: Sebastian Petty, Project Manager
Re: Caltrain Business Plan Update

Caltrain Business Plan Update

At the January LPMG meeting Caltrain staff will present a “background” set of material to that describes the Caltrain system and provides basic, factual information about the Caltrain service and corridor. This presentation was originally provided to corridor stakeholders as part of a Business Plan workshop in the fall of 2017 and is useful in setting a “shared baseline” of system information as the basis for future Business Plan discussions.

Additionally, staff will present to the LPMG on the highlights of the draft Caltrain Business Plan Scope and Business Strategy. Caltrain staff presented these two documents to the JPB for their initial review in December and will return to the JPB with revised versions for proposed adoption in February of 2018.
Overview

• Setting a Shared Baseline
  – Organizational History and Milestones
  – Corridor, Fleet and Service
  – Ridership and Funding
  – Electrification, Business Performance and Projections
• Project Update
History and Milestones

• **1860's – 1970's**: Southern Pacific (SP) operated commercial passenger service on the Peninsula corridor between San Francisco and San Jose.

• **1980 -1992**: Caltrans assumes responsibility for the passenger service in concert with the three local partners (SamTrans, Santa Clara County Transit District and the City and County of San Francisco). SP operates the service under contract with Caltrans.

• **Late 1980's**: State decides to withdraw its oversight role and financial support for “Caltrain Service”.

• **1988**: Creation of Peninsula Corridor Joint Powers Study Board (JPB) and execution of first JPA to prepare for local takeover. SamTrans designated as managing agency.

• **1992**: JPB acquires rail corridor from SP for $212 million and assumes local control of Caltrain Service:
  - $120 million funded by State
  - Balance fronted by SamTrans
  - Amtrak awarded contract to manage/operate Caltrain Service.
History and Milestones

- **1996:** Amendment and Restatement of JPA
  - Still in effect today (1996 JPA has 10 year term followed by year-to-year continuance)
  - Members share operating costs (net of fares) using formula based on morning boardings
  - Capital costs for system replacement and enhancement shared equally among members
  - Capital funding for system expansion to be determined on a case by case basis

- **2004:** Launch of the “Baby Bullet” express service

- **2008:** ROW Reimbursement Agreement
  - Developed plan with MTC for SF and VTA to reimburse SamTrans for their shares of ROW acquisition price (principal only)
  - Designated SamTrans as the Managing Agency of the JPB for as long as SamTrans desires to retain the role

- **2012:** Transit America Services Inc. awarded contract to operate and maintain the Caltrain Service
History and Milestones

- 2011-2013: Establishment of the Blended System
  - Congresswoman Anna Eshoo, State Senator Joe Simitian, and Assemblyman Rich Gordon introduce “Blended System” concept as a response to community concerns over proposal for 4-track, fully grade separated system
  - CHSRA Business Plan confirms “early investment” and Blended System approach
  - JPB, MTC, CHSRA and six other funding partners establish an agreement to support joint Caltrain and High Speed Rail operation on a primarily 2-track Blended System and provide early investment to the Caltrain Modernization Program
  - Senate Bill 557 provides Prop 1A funds and codifies into law requirement that the rail system “primarily consist of a 2-track blended system”

- 2013-2017: Advancing Electrification
  - 2015: Peninsula Corridor Electrification Program environmentally cleared
  - 2016:
    - Cost updates, Funding Agreements with HSR and supplemental 7-Party MOU executed among funding partners
    - Funding Partner oversight protocols established
    - Contracts awarded to Balfour Beatty (electrification) and Stadler (EMUs); Limited Notices to Proceed issued
  - 2017:
    - Receipt of Federal Full Funding Grant Agreement
    - Full Notices to Proceed issued to Balfour Beatty and Stadler
Corridor

- Primarily two track system with some 4-track segments
- Varying right-of-way widths throughout corridor
- At-Grade crossings, viaducts, and bridges
- Primarily JPB owned but with exceptions and variation (especially at and around stations)

JBP owns right-of-way from SF to San Jose (51 miles)

UP owns corridor, JPB has limited trackage rights

Grade Crossings

- 42 at grade crossings on main line
- Over 400,000 vehicle crossings per day
- Wide variation in traffic levels
- 62 crossings already separated

Total Average Daily Traffic over Caltrain At-Grade Crossing (all modes)
Stations

- 32 Stations
- 29 receive regular weekday service
  - 2.5 in San Francisco
  - 11.5 in San Mateo County
  - 15 in Santa Clara County

Wide variation:
- Urban context
- Intermodal connections
- Buildings and amenities
- Ownership and management

Fleet

- 134 Passenger Cars
  - Gallery and Bombardier Sets
  - 54% past 30-year life

- 29 Locomotives
  - F40PH-2s and MP36-3Cs
  - 69% past 30-year life
Central Equipment & Maintenance Facility (CEMOF)

- Primary site for inspection, maintenance, train washing, storage, fueling and dispatching
- Completed in 2007
- 20 Acre site north of Diridon in San Jose

People

- Managed by SamTrans
- Operation of service and maintenance of trains and facilities contracted to Transit America Services Inc (contract through 2022)
- Staffing
  - 65 Rail Division staff + 19 seconded consultants
  - 60 FTE support staff from other SamTrans divisions
  - 485 TASI staff
  - 11 unions represented
Projects

• Since 2008 the JPB has delivered over $1.25 billion in completed or in-process capital projects:
  – Major SOGR work
  – Station improvements
  – Systems projects

• Future (non-electrification) projects
  – South San Francisco Station
  – 25th Ave Grade Separation
  – Guadalupe Bridge Replacement
  – Various platform and crossing improvements

Current Service

• 92 Weekday Trains
  – Express (“Baby Bullets”)
  – Limited (incl 6 Gilroy trains)
  – Locals

• 28 / 24 Weekend Trains

• Travel times (mainline)
  – <60 min for “bullets”
  – >100 min for locals

• Station Stops (mainline)
  – 6 to 7 for “bullets”
  – 24 for locals
1/24/2018

Service Distribution

Caltrain Schedule: Weekday Northbound

Ridership

• 62,000 average weekday boardings
• Distribution
  – 52% traditional peak
  – 31% reverse peak
  – 12% midday
  – 5% evening
• 22.8 mile avg trip-length

Graphic Courtesy of Alex Gude

2017 Average Weekday Boardings
Ridership and Capacity

Maximum Loads - Northbound
Caltrain 2017 Annual Count

Source: 2014 MTC Onboard Survey

First- and Last Mile Access

Source: 2014 MTC Onboard Survey
Customer Demographics

Reason for Riding Caltrain

- Avoid Traffic: 62%
- Better Route: 31%
- Reduce Use of Car: 23%
- Fix the Environment: 20%
- Save Money (Gas, Time, Wear and Tear on Car): 16%
- Other: 6%

Source: 2016 Triennial Survey

Trip Purpose

- Work: 77%
- Other: 19%
- School: 8%
- Shopping/Other: 3%
- Medical: 2%
- Other: 1%

Source: 2016 Triennial Survey

Customer Demographics

Household Income

<table>
<thead>
<tr>
<th>Income Range</th>
<th>2016 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $24,999</td>
<td>6</td>
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<tr>
<td>$25,000 to $29,999</td>
<td>2</td>
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<tr>
<td>$30,000 to $39,999</td>
<td>3</td>
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<tr>
<td>$40,000 to $49,999</td>
<td>4</td>
</tr>
<tr>
<td>$50,000 to $74,999</td>
<td>12</td>
</tr>
<tr>
<td>$75,000 to $99,999</td>
<td>13</td>
</tr>
<tr>
<td>$100,000 to $124,999</td>
<td>13</td>
</tr>
<tr>
<td>$125,000 to $149,999</td>
<td>10</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>15</td>
</tr>
<tr>
<td>$200,000 or more</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: 2016 Triennial Survey

Home Location

<table>
<thead>
<tr>
<th>Location</th>
<th>2016 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAY AREA (NET)</td>
<td>96%</td>
</tr>
<tr>
<td>SANTA CLARA COUNTY</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>SAN MATEO COUNTY</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>SAN FRANCISCO</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>ALAMEDA COUNTY</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>MARIN COUNTY</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>NAPA COUNTY</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>CONTRA COSTA COUNTY</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>SOLANO COUNTY</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>SONOMA COUNTY</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>OTHER CALIFORNIA COUNTY</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>OUTSIDE OF CALIFORNIA (NET)</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>OUTSIDE THE US</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

Source: 2016 Triennial Survey
### Fares

<table>
<thead>
<tr>
<th>Fare Product</th>
<th>October 2016 Revenue</th>
<th>October 2016 Riders</th>
<th>Average Trip Distance</th>
<th>Revenue per Mile</th>
<th>Revenue per Ride</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full-Price Products</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monthly</td>
<td>$2,644,349</td>
<td>539,578</td>
<td>25.06</td>
<td>$0.19</td>
<td>$4.90</td>
</tr>
<tr>
<td>One-way - TVM</td>
<td>$1,222,561</td>
<td>161,806</td>
<td>28.69</td>
<td>$0.27</td>
<td>$7.56</td>
</tr>
<tr>
<td>One-way - Clipper</td>
<td>$1,068,078</td>
<td>218,938</td>
<td>25.7</td>
<td>$0.19</td>
<td>$4.88</td>
</tr>
<tr>
<td>Go Pass</td>
<td>$957,163</td>
<td>331,500</td>
<td>20.87</td>
<td>$0.14</td>
<td>$2.89</td>
</tr>
<tr>
<td>Day Pass</td>
<td>$924,393</td>
<td>129,262</td>
<td>31.94</td>
<td>$0.23</td>
<td>$7.15</td>
</tr>
<tr>
<td>8-Ride</td>
<td>$379,260</td>
<td>71,133</td>
<td>26.97</td>
<td>$0.20</td>
<td>$5.33</td>
</tr>
<tr>
<td><strong>Eligible Discount (ED) Products (Medicare, Senior, Youth, Disability)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED Monthly</td>
<td>$69,325</td>
<td>26,830</td>
<td>21.09</td>
<td>$0.13</td>
<td>$2.58</td>
</tr>
<tr>
<td>ED One-Way – TVM</td>
<td>$77,442</td>
<td>22,929</td>
<td>22.26</td>
<td>$0.16</td>
<td>$3.38</td>
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<td>ED One-Way – Clipper</td>
<td>$60,598</td>
<td>23,291</td>
<td>20.69</td>
<td>$0.13</td>
<td>$2.60</td>
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<tr>
<td>ED Day Pass</td>
<td>$58,989</td>
<td>20,095</td>
<td>27.48</td>
<td>$0.11</td>
<td>$2.94</td>
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<tr>
<td>ED 8 Ride</td>
<td>$8,330</td>
<td>4,571</td>
<td>18.87</td>
<td>$0.09</td>
<td>$1.82</td>
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<tr>
<td><strong>Total</strong></td>
<td>$7,470,488</td>
<td>1,570,822</td>
<td>25.11</td>
<td>$0.19</td>
<td>$4.76</td>
</tr>
</tbody>
</table>

### Revenue and Funding

Total FY18 Operating Budget = $145 Million
Revenue and Funding

- Total FY18 recurring sources of capital funding = $34.5 million
- Used for track, bridge and system repair as well as capitalized rolling stock maintenance and station repairs
- Not sufficient to cover ongoing SOGR needs, especially for rolling stock
- Specific enhancements or localized capital projects typically have separate funding plans

Electrification - Overview

<table>
<thead>
<tr>
<th>Area</th>
<th>Project</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>51 miles</td>
<td>Electrification:</td>
<td>Up to 79 mph</td>
</tr>
<tr>
<td>San Francisco to San Jose (Tamien Station)</td>
<td>• Overhead Contact System (OCS)</td>
<td>Service Increase</td>
</tr>
<tr>
<td></td>
<td>• Traction Power Facilities</td>
<td>• 6 trains / hour / direction</td>
</tr>
<tr>
<td></td>
<td>Electric Trains (EMU's)</td>
<td>• More station stops / reduced travel time</td>
</tr>
<tr>
<td></td>
<td>• 75 percent of fleet</td>
<td>• Restore Atherton &amp; Broadway service</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mixed-fleet service (interim period)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Continue tenant service</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ACE, Capital Corridor, Amtrak, Freight</td>
</tr>
</tbody>
</table>
Electrification - Financial Outlook

- Projections show that electrification will allow Caltrain to serve more riders at a lower cost per passenger
- However, Caltrain projects an ongoing annual need for $30-$40 million in operating subsidies:
  - Similar to FY2001-2011 ($30 - $40 million typical)
  - More than recent years ($17-25 million)
- Need for capital funding also increasing as existing infrastructure and fleet ages and new systems are added
- Caltrain will be at risk if member contributions fall short or if ridership significantly declines

Business Metrics
Context: Ridership

- Average Weekday Ridership (in thousands)
- Annual Ridership (in millions)
- Annual Passanger Miles (in tens of millions)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Ridership</th>
<th>Ridership (in millions)</th>
<th>Passanger Miles (in tens of millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2005</td>
<td>26.5</td>
<td>20.3</td>
<td>9.5</td>
</tr>
<tr>
<td>FY2006</td>
<td>29.8</td>
<td>23.9</td>
<td>10.1</td>
</tr>
<tr>
<td>FY2007</td>
<td>31.5</td>
<td>28.0</td>
<td>11.0</td>
</tr>
<tr>
<td>FY2008</td>
<td>34.8</td>
<td>27.3</td>
<td>12.0</td>
</tr>
<tr>
<td>FY2009</td>
<td>36.2</td>
<td>29.3</td>
<td>12.7</td>
</tr>
<tr>
<td>FY2010</td>
<td>34.1</td>
<td>29.5</td>
<td>12.0</td>
</tr>
<tr>
<td>FY2011</td>
<td>37.8</td>
<td>28.9</td>
<td>14.1</td>
</tr>
<tr>
<td>FY2012</td>
<td>42.4</td>
<td>30.0</td>
<td>15.6</td>
</tr>
<tr>
<td>FY2013</td>
<td>47.1</td>
<td>34.6</td>
<td>15.7</td>
</tr>
<tr>
<td>FY2014</td>
<td>52.6</td>
<td>47.5</td>
<td>17.0</td>
</tr>
<tr>
<td>FY2015</td>
<td>58.2</td>
<td>48.8</td>
<td>18.5</td>
</tr>
<tr>
<td>FY2016</td>
<td>62.4</td>
<td></td>
<td>19.2</td>
</tr>
</tbody>
</table>

CPI Adjusted to millions of FY2016 Dollars

Context: Operating Funding

- Other / Onetime Sources
- Member Contributions - SamTrans
- Member Contributions - VTA
- Member Contributions - CCSF
- Operating Grants
- Other Revenues

CPI Adjusted to millions of FY2016 Dollars
Business Metrics

Percentage Change in Key Operating Metrics - CPI Adjusted

Caltrain Business Plan Project Update
The Caltrain Business Plan

The purpose of the Caltrain Business Plan is to maximize the value of the public investment in Electrification.

The Business Plan will identify the steps and resources needed to truly modernize the railroad.

The Business Plan will lay out the strategic position and importance of the Caltrain corridor and how Caltrain can maximize its effectiveness and integrate with a growing, megaregional rail system.

Process

- April 2017 - Business Plan concept introduced to JPB
- July – Update to JPB
- August – Formation of Ad Hoc Committee
- September – Stakeholder workshop
- October / November – Ongoing outreach
- December – Draft Business Strategy and Scope presented to JPB
Draft Business Strategy

Key Questions

• Stakeholder outreach helped identify three “big picture” interrelated questions

- What is the Service Vision for Caltrain?
- How Can the service be delivered as effectively as possible?
- How does Caltrain interact and connect with the communities it touches?
Draft Business Strategy

- Caltrain’s core business is rail service.
- The primary task of the Business Plan is to aid in the selection of a detailed, achievable Service Vision for Caltrain that provides maximum value to its customers.
- Caltrain’s organizational, governance, and commercial and contracting strategies will be evaluated as part of a comprehensive structural assessment of what is needed to deliver value and support the long term success of the Service Vision.
- The Business Plan should explore economic, policy and technical approaches that will allow Caltrain to strategically and equitably manage its interface with communities in a way that minimizes impacts, generates value, and supports the Service Vision.

Draft Scope of Work
Task 1- the “Strategic Case” for Caltrain

- Define the long range markets and opportunities for rail service on (and beyond) the Peninsula
- Consider opportunities for connection and integration with other systems
- Understand local, regional and mega-regional demographic trends, development patterns and environmental context as they relate to rail
- Consider the long range outlook of the overall future Bay Area transportation network
Task 2- Identifying Options

- Analyze options for the evolution of rail service on the Peninsula corridor (trains/hour, local vs. express, stopping patterns and connectivity)
- Understand infrastructure, fleet, ridership, cost and revenue implications and develop “business case” analysis of choices
- Assess the “Caltrain Organization” and understand how peer railways are organized nationally and internationally
- Identify and quantify the full range of community impacts, benefits and opportunities the railroad creates. Focus on value creation / development and grade-crossing impacts

Proposed Board Action – Adopt a “Service Vision”

- Adopt a long range “Service Vision” for the Caltrain corridor including:
  - Incremental, interim steps and timeframes to evolve from current service levels to the 2040 Service Vision
  - Preliminary performance targets for Caltrain service including ridership, service characteristics, costs and revenues.
- Provides guidance for development of detailed business plan
- Supports ongoing plans and projects throughout region including planning work related to Diridon
- Serves as the basis for grounding future organizational needs and understanding of community benefits and impacts
Task 3- Develop the Business Plan

- Optimize and refine the service assumptions included in the “Service Vision”. Detailed focus on the first 10-years of electrified service
- Incorporate additional issues and strategies including customer experience, first- and last-mile connections, TOD, fares and retailing strategies
- Work with Caltrain’s partners to develop an organizational strategy identifying how the organization could grow and change in support of the Service Vision
- Work with Caltrain’s partners and local jurisdictions to develop a community interface strategy that maximizes the community benefits the Service Vision creates while minimizing and mitigating impacts

Task 4- Funding and Implementation

- Develop a funding plan or funding scenarios for implementation of recommend services and investments
- Understand what can be funded through self-generated revenues and monetization of assets
- Identify where new funding sources may be needed and analyze potential options including measures, value-capture strategies and public private partnerships
- Develop a focused implementation plan that identifies steps that the organization and its partners must take within the next 5-years
Outreach and Engagement

- Major outreach and engagement campaign planned
- Customer and public engagement through dedicated website and visual communications tools, meetings, station-based outreach, social media engagement and surveying
- Coordination with local jurisdiction staff and policy makers through the City and County Staff Coordinating Group / LPMG as well as direct meetings
- Outreach to state and federal policymakers
- Presentations to partner agency boards and committees
- Coordination and outreach to community groups, advocacy organizations and business groups

Project Structure
Next Steps

- Continue outreach and take feedback on materials
- Revise Business Strategy and Scope
- Identify initial funding and begin consultant procurement activities
- Present refined Business Strategy and Scope to Board for proposed adoption in February 2018
Memorandum

Date: January 25, 2018

To: CalMod Local Policy Maker Group (LPMG)

From: Michael Burns, CalMod Chief Officer

Re: Peninsula Corridor Electrification Project Update

Construction Update
The construction schedule for the corridor is phased with construction activities occurring first in segments 2 and 4 followed by construction activities in segments 1 and 3.
During January, construction activities have been taking place in work segment 2 and Segment 4. Work includes utility potholing and relocation, tree pruning / removal, signal inspection and foundation installation. To date, over 200 foundations have been installed in South San Francisco, San Bruno and Millbrae.

Public Meetings About PCEP Construction (Occurred):
- Atherton – January 2018
- San Jose – November 2017
- Redwood City – November 2017
- Belmont / San Carlos – October 2017
- San Mateo – September 2017
- Burlingame / Millbrae – August 2017
- South San Francisco / San Bruno – July 2017

Over the next month, the construction work will progress to the other cities within work segment 2 and 4. Caltrain will continue to hold community meetings prior to construction activities in work area.

Notification of the construction work and public meetings have been disseminated by direct mail to residents adjacent to the tracks, weekly construction notice emails, weekly website updates, social and traditional media. There will be a new, more user-friendly website that is launched in February.

City Design Review Meetings
Caltrain is continuing to meet with cities where 65% overhead contact system pole design is complete. Currently, this includes cities in Segments 2 and 4 (see map).

Project Contact Info
- Website: www.caltrain.com/PCEPConstruction
- 24-Hour Project Hotline: 650.399.9659
- Project Email: calmod@caltrain.com
- Sign-up for Weekly E-Updates: www.caltrain.com/PCEPConstruction
- Project Office: Open 9-5; 2121 S. El Camino, San Mateo, CA 94403
Electric Train Design
Manufacturing of the electric train shells continues as parts, such as the cab underframes and side frame components, are being amassed to be spliced together as part of the sub-assembly work. Paint testing has also commenced on representative side shells.

Exterior Paint Test Samples

Carsheell Sub Assembly Lay-down Area with Representative Side Walls & Roofs

The detailed PCEP November monthly report is available here: