Program Overview
Program Overview

- San Francisco to San Jose (Tamien Station)
- 51 miles
- Project Cost: $2.44B
- Revenue Service: Fall 2024
Project Elements

- Electrification
  - Overhead Contact System (OCS)
  - Traction Power Facilities
  - Signal System

- Electric Trains
  - 19 7-car train sets (133 cars)

(Note: 96 cars funded by project; 37 cars funded by State TIRCP)
Project Benefits

- Improved Train Performance, Increased Service and Greater Capacity
- Improved Regional Air Quality and Reduced Greenhouse Gas Emissions
- Job Creation Locally and Across the Country
- Reduced Engine Noise Emanating from Trains
Project Summary
Highlights

• Revenue service date remains fall 2024
• No impact to new adopted budget
• No draw to BBII risk pool, contingency and incentive
• Funding team identified to pursue state and federal resources
• New team organization implemented
December Activities

• BBII rebaseline schedule
• Started weekly meetings with BBII to manage and mitigate shared risk
• Partnering
  - First executive partnering held December 2021
  - Project level partnering starts in January 2022
• JPB/BBII organization change to address shift from civil to systems integration and testing
• Segment 4 Readiness Review workshop
## Upcoming Milestones

<table>
<thead>
<tr>
<th>Item</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finalize FTA Recovery Plan</td>
<td>January 2022</td>
</tr>
<tr>
<td>All Foundations Installed</td>
<td>Winter 2022</td>
</tr>
<tr>
<td>Energization of Segment 4</td>
<td>Winter 2022</td>
</tr>
<tr>
<td>Major Signal System Cutovers in Segment 2</td>
<td>March 2022</td>
</tr>
<tr>
<td>Arrival of First Trainset</td>
<td>Spring 2022</td>
</tr>
<tr>
<td>Completion of Segment 4</td>
<td>Spring 2022</td>
</tr>
<tr>
<td>Revenue Service Date</td>
<td>Fall 2024</td>
</tr>
</tbody>
</table>
Reset Program Organization

- Resources focused on System Integration & Rail Activation
- New executive leadership
  - Acting Executive Director
  - Project Chief
- Legal representation Olsen Remcho
- New Program Director and responsible functions:
  - System Integration & Testing
  - Project Delivery
  - Program Controls
  - Rail Activation and Startup
Safety and Security

- Public awareness safety campaign January 2022
- Caltrain employees OCS safety awareness training January 2022
- BBII OCS safety awareness training (Look Up and Live) February 2022
- OCS awareness included in TASI roadway worker protection training
- OCS awareness training transit police
- Continued collaboration with San Jose / Santa Clara Fire Departments
- Contractors / subcontractors COVID-19 plans meeting federal, state and local requirements

### Time Period Reportable Injury Rate

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Reportable Injury Rate</th>
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<tbody>
<tr>
<td>Year-to-Date</td>
<td>1.48</td>
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<tr>
<td>Since Project Start (2017 to Today)</td>
<td>1.95</td>
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</table>

*Note: National Average Reportable Injury Rate is 2.50*
Construction Update
Construction Segments

Segment 1
San Francisco to Brisbane

Segment 2
South San Francisco to Atherton

Segment 3
Menlo Park to Santa Clara

Segment 4
Santa Clara to Tamien
Overhead Contact System

- **Foundations (3,092 total)**
  - All Foundations Complete

- **Poles (2,587 total)**
  - Segments 3, 4 and CEMOF: Complete
  - Segments 1 and 2: 758 Poles Remaining

- **Wire (1.5M linear feet total)**
  - Segments 3 and 4: Complete
  - Segments 1 and 2: 571K Linear Feet Remaining

As of January 20, 2021
Traction Power Facilities and PG&E

• Traction Power Facilities (10 Facilities)
  - Approximately 80% Complete
  - Work Remaining: Energization, Commissioning, Testing
  - All work is anticipated to be completed by fall 2022

• PG&E
  - Single Phase Study
  - Availability of temporary power
  - Availability of permanent power
  - Completion of interconnect testing

As of December 15, 2021
Signal System and Communication
(2 Speed Check)

• Segment 4
  - Complete

• Segment 2
  - Major cutover mid-March
  - Complete remaining activities November 2022

• Segments 1 and 3
  - Work remaining: power drops, field installation, testing and cutover
  - Signal and communication work anticipated to be complete by winter 2023

As of January 21, 2022
Signal System and Communication
(2 Speed Check) – Major Signal Work in March

• Installation of 2 Speed Check hardware and software at 17 grade crossings in Burlingame and San Mateo
• Dates: March 14th to April 2nd
• City Coordination
• Public Outreach Campaign
• Changes to Revenue Service during three-week work period
  - 88 trains on weekdays (down from the current 104)
  - Peak service reduced to 3 different limited trains each hour per direction (down from 4)
  - Baby Bullet service will be suspended
  - No changes to midday, evening, and weekend schedule
Electric Trains

- Completion of 4,000 mile testing first trainset in Pueblo, CO
- First trainset to be shipped March 2022
- Rebaseline of production schedule
- 14th trainset anticipated arrival winter 2023 for revenue service fall 2024
- 19th trainset anticipated arrival fall 2024

As of December 15, 2021
Crossing Optimization Project
Project Goal

• Implement wireless activation system
• Improve grade crossing warning system performance
• Reduce crossing system activations
• Reduce gate down time
Work Completed to Date

• Concept of Operations including FRA reviews
• Submitted crossing optimization test request for FRA approval
  (public comment period ends February 2022)
• Completed throughput & communications readiness studies
• Completed optimization on-board system design
Upcoming Major Activities

- Proof of Concept: Perform pilot cutover at Virginia and Auzerais crossings Winter 2022
- Review, negotiate and approve additional work proposal with Wabtec
- Seek Change Management Board approval February 2022
- Finalize implementation schedule and total project cost March 2022
Program Management
### Program Master Schedule

Revenue Service Date Remains Fall 2024

#### PCEP Timeline Summary

<table>
<thead>
<tr>
<th>Event</th>
<th>Baseline</th>
<th>Actual</th>
<th>Forecast</th>
<th>Critical Path</th>
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</thead>
<tbody>
<tr>
<td>Construction Start Date - Sept 6, 2016</td>
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<tr>
<td>OCS Foundation</td>
<td>Q4/2022</td>
<td>Q4/22</td>
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<tr>
<td>OCS 12/31/22</td>
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<tr>
<td>Electrification - BBII TPF</td>
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<td>Signals System - 06/21/23</td>
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<td>Electrification - BBII Signal</td>
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<td>TPS 02/28/22</td>
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<td>Equipment Delivery 02/13/22</td>
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<td>Final Acceptance 07/31/24</td>
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<tr>
<td>Electrification - BBII Integrated Testing &amp; Final Acceptance</td>
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<td>Substantial Completion 06/01/24 - 06/02/24</td>
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<td>CEMOF - ProVen</td>
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<td>On-Site Support &amp; Final Acceptance 03/03/23</td>
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<td>Tunnel Modifications - ProVen</td>
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<td>Working Segment 1 OCS Construction Completion</td>
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<td>OCS Tie-In</td>
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<tr>
<td>Permanent Power - PG&amp;E</td>
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<tr>
<td>Arrival of First Trainset at JP</td>
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<tr>
<td>EMU - Stadler</td>
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<tr>
<td>Revenue Service Date (RSD Period)</td>
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#### Baseline Dates

- **2020**
  - Q1: 01/01/20
  - Q2: 04/01/20
  - Q3: 07/01/20
  - Q4: 10/01/20
- **2021**
  - Q1: 01/01/21
  - Q2: 04/01/21
  - Q3: 07/01/21
  - Q4: 10/01/21
- **2022**
  - Q1: 01/01/22
  - Q2: 04/01/22
  - Q3: 07/01/22
  - Q4: 10/01/22
- **2023**
  - Q1: 01/01/23
  - Q2: 04/01/23
  - Q3: 07/01/23
  - Q4: 10/01/23
- **2024**
  - Q1: 01/01/24
  - Q2: 04/01/24
  - Q3: 07/01/24
  - Q4: 10/01/24

#### Contingency

- **Baseline**
- **Dependency**
- **Critical Path**
- **Actual**
- **Forecast**
- **Data Date as of 11/30/2021**

#### Contingency Ranges

- **(6 Months)**
- **(Potential Delay)**

#### Target RSD - 04/1/2024

- **PG&E RSCD with contingency** 08/26/24
Top Risks

| Green = Mitigations/actions identified and no impact to budget/schedule |
| Yellow = Mitigations/actions identified and potential impact to budget/schedule |
| Red = Impact to budget/schedule |

- Delay of two speed check design, installation and testing
- $410M funding gap
- Single Phase Study approval delay may impact testing and energization of Segment 4
- Delays in parts supply chain affecting vehicle production
- System integration and interface with existing operational systems testing duration and resources
- Different site condition resulting duct bank construction delay impacting signal cutover schedule
## Program Budget

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Current Budget (1)</th>
<th>Cost for Month (2)</th>
<th>Cost to Date (3)</th>
<th>Estimate to Complete</th>
<th>Project Total</th>
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<tbody>
<tr>
<td>Electrification</td>
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<td>EMU</td>
<td>$693,551,258</td>
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<tr>
<td>Program Total</td>
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<td>$1,402,057,228</td>
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<td>$2,442,690,696</td>
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</table>

Notes:
1 “Current Budget” includes executed change orders and awarded contracts
2 "Cost This Month" represents cost of work performed November 2021
3 "Cost To Date" includes actuals (amount paid) and accruals (amount of work performed) as of November 2021
## Contingency, Risk and Incentive

<table>
<thead>
<tr>
<th></th>
<th>Project Contingency</th>
<th>BBI Shared Risk Pool</th>
<th>BBII Incentive Pool*</th>
<th>Total</th>
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<tbody>
<tr>
<td><strong>Baseline Amount</strong></td>
<td>$40.0M</td>
<td>$50.0M</td>
<td>$18.5M</td>
<td>$108.5M</td>
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<td>as of 12/6/21</td>
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<tr>
<td><strong>Usage</strong></td>
<td>($0.0M)</td>
<td>($0.0M)</td>
<td>($0.0M)</td>
<td>($0.0M)</td>
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<tr>
<td>through 12/31/21</td>
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<tr>
<td><strong>Remaining Balance</strong></td>
<td>$40.0M</td>
<td>$50.0M</td>
<td>$18.5M</td>
<td>$108.5M</td>
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</tbody>
</table>

*Note: Total incentive includes carryover from original budget and $15M from BBII global settlement*
Funding Update

• Develop $410M Funding Plan
  - Identified consultant support and prepare federal /state funding action plan
  - Developing collateral materials (jobs map, etc.)

• Federal Update
  - Tracking Notice of Funding Availability (NOFA) / administration push for significant awards in 2022
  - Continuing to meet with federal delegation and funding agencies regarding project need
  - Seeking clarity on Capital Investment Grants funding eligibility
  - Advocating for FY22 appropriations language to maximize funding for Full Funding Grant Agreement projects in need
Funding Update, cont.

- **State Update**
  - Tracking Notice of Funding Availabilities (NOFAs)
  - Meeting with state delegation and funding agencies regarding project need
  - Governor’s Budget Included $9.1B for transportation
  - Discussion with Budget Chairs underway geographic targets and existing funding formula vs TIRCP language flexibility
Upcoming Board Actions

• No upcoming JPB actions forecasted

• Future reporting items
  - Draw down of contingency, risk and incentive
  - Contract capacity/budget actions