Capital Programs Quarterly Progress Report FY23 – Q1

WPLP

November 16, 2022
Capital Program

- Capital Program Quarterly Report: FY23 – Q1
- Negotiated Procurements: Risk Management and Incentive Programs
Caltrain’s Rail Development Team is currently managing 28 capital projects:

- 16 in Design
- 2 in Bidding
- 9 in Construction
- 1 in Closeout

9 other projects are in the planning and miscellaneous group.
Capital Program Quarterly Report: FY23 – Q1

- Key Performance Indicator Summary

<table>
<thead>
<tr>
<th>Status Light</th>
<th>Safety</th>
<th>Schedule</th>
<th>Budget</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>100.0%</td>
<td>67.6%</td>
<td>94.6%</td>
<td>89.2%</td>
</tr>
<tr>
<td>Yellow</td>
<td>0.0%</td>
<td>5.4%</td>
<td>0.0%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Red</td>
<td>0.0%</td>
<td>27.0%</td>
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(Percentage of projects in each status light by performance category)
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(Percentage of projects in each status light by performance category)

- **Schedule KPI**
  - Significant area of the team’s focus
    - 3 improved
    - 4 slipped
Program Trend Summary for Projects in Planning, Design, or Construction

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</tr>
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<td>6</td>
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</tr>
<tr>
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<td>5</td>
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Program Trend Summary for Projects in Planning, Design, or Construction

- Mitigation plans being implemented
- Some projects have been re-baselined with changed conditions

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**Capital Program Quarterly Report: FY23 – Q1**

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- 4 Schedule increases
- 1 Budget increase
## Capital Program Projects with Mitigation Plans

<table>
<thead>
<tr>
<th>Project</th>
<th>Planned Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ticket Vending Machine Rehabilitation</td>
<td>On-going</td>
<td>Recovering from supply chain delays</td>
</tr>
<tr>
<td>Clipper Next Generation Validator Site Preparation</td>
<td>Implemented</td>
<td>Recovered from contractor submittal delays</td>
</tr>
<tr>
<td>San Mateo Replacement Parking Track</td>
<td>6/28/2023</td>
<td>CTC allocation of Caltrain's FY23 LPP funding</td>
</tr>
<tr>
<td>Churchill Ave Grade Crossing</td>
<td>CPUC Approval</td>
<td>Recover from CPUC approval duration</td>
</tr>
<tr>
<td>Bayshore Station Overpass Ped Bridge Rehab</td>
<td>On-going</td>
<td>Recovering from delay in starting site work</td>
</tr>
</tbody>
</table>
# Capital Program Projects to Re-Baselined: Near Term

<table>
<thead>
<tr>
<th>Project</th>
<th>Planned Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guadalupe River Bridge Replacement - Extension</td>
<td>Implemented</td>
<td>Updated schedule. Fund activation in November</td>
</tr>
<tr>
<td>CCF BCCF Virtualization</td>
<td>Implemented</td>
<td>With FY23 Construction funding approval - approved</td>
</tr>
<tr>
<td>San Mateo Grade Crossing Improvements</td>
<td>Implemented</td>
<td>City led final design package complete</td>
</tr>
<tr>
<td>Automatic Passenger Counter 4&lt;sup&gt;th&lt;/sup&gt; and King Station</td>
<td>October 2022</td>
<td>Update schedule for closeout</td>
</tr>
<tr>
<td>MP-36 Locomotive Mid-Life Overhaul</td>
<td>October 2022</td>
<td>Update schedule, budget, and funding</td>
</tr>
<tr>
<td>Mini High Platforms</td>
<td>November 2022</td>
<td>Update schedule</td>
</tr>
<tr>
<td>Rengstorff Grade Separation</td>
<td>November 2022</td>
<td>Approval of Cooperation Agreement for final design</td>
</tr>
<tr>
<td>Broadband Wireless Communication System</td>
<td>November 2022</td>
<td>Update schedule/budget at contract award</td>
</tr>
</tbody>
</table>
## Capital Program Projects to Re-Baselined: Future

<table>
<thead>
<tr>
<th>Project</th>
<th>Planned Date</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>CCF BCCF Virtualization</td>
<td>Implemented</td>
<td>With FY23 Construction funding approval - approved</td>
</tr>
<tr>
<td>San Francisquito Creek Bridge Replacement</td>
<td>TBD</td>
<td>At approval to proceed with next phase, funding use</td>
</tr>
<tr>
<td>Bernardo Avenue Undercrossing</td>
<td>TBD</td>
<td>At approval of next phase by local jurisdiction</td>
</tr>
<tr>
<td>Whipple Avenue Grade Separation</td>
<td>TBD</td>
<td>At approval of next phase by local jurisdiction</td>
</tr>
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</table>
Capital Program
Projects in Closeout with Variances

<table>
<thead>
<tr>
<th>Project</th>
<th>Planned Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>South San Francisco Station Improvements</td>
<td>NA</td>
<td>Extended closeout period – nearing completion</td>
</tr>
<tr>
<td>Marin and Napoleon Bridge Replacement</td>
<td>Sept 2022</td>
<td>Extended closeout period – nearing completion</td>
</tr>
</tbody>
</table>

Next steps:

- Final Phase/Gate approval from Management Committee - report on project metrics
- Conduct lessons learned
- Remove project from Quarterly Report
# Capital Program Quarterly Report: FY23 – Q1

## Table S3. Individual Projects

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Title</th>
<th>Safety</th>
<th>Schedule</th>
<th>Budget</th>
<th>Funding</th>
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<tr>
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<td><strong>CONSTRUCTION/IMPLEMENTATION</strong></td>
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<tr>
<td></td>
<td>Grade Separations</td>
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<tr>
<td>002088</td>
<td>25th Avenue Grade Separation</td>
<td>● ●</td>
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<td></td>
<td>Stations</td>
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<tr>
<td>002146</td>
<td>South San Francisco Station Improvement</td>
<td>● ●</td>
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<td></td>
<td><strong>ROW Bridges</strong></td>
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<tr>
<td>100439</td>
<td>Bayshore Station Overpass Pedestrian Bridge Rehab</td>
<td>● ●</td>
<td>● ●</td>
<td>● ●</td>
<td>● ●</td>
<td>19</td>
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<tr>
<td></td>
<td><strong>ROW Communications &amp; Signals</strong></td>
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<tr>
<td>100278</td>
<td>Mary Avenue Traffic Signal Preemption</td>
<td>● ●</td>
<td>● ●</td>
<td>● ●</td>
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<tr>
<td></td>
<td><strong>Fare Collection</strong></td>
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<tr>
<td>100240</td>
<td>Ticket Vending Machines (TVM) Rehab</td>
<td>● ●</td>
<td>● ●</td>
<td>● ●</td>
<td>● ●</td>
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<td>100574</td>
<td>Clipper Next Generation Validators Site Preparations</td>
<td>● ●</td>
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<td>● ●</td>
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<td></td>
<td><strong>Miscellaneous</strong></td>
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<td>100233</td>
<td>MP-36 Locomotive Mid-Life Overhaul Project</td>
<td>● ●</td>
<td>● ●</td>
<td>● ●</td>
<td>● ●</td>
<td>40</td>
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<tr>
<td>100430</td>
<td>CCF BCCF Virtualization</td>
<td>● ●</td>
<td>● ●</td>
<td>● ●</td>
<td>● ●</td>
<td>44</td>
</tr>
<tr>
<td>100445</td>
<td>Automatic Passenger Counters at San Francisco 4th &amp; King Station</td>
<td>● ●</td>
<td>● ●</td>
<td>● ●</td>
<td>● ●</td>
<td>48</td>
</tr>
</tbody>
</table>

Portion shown here

Full report on Caltrain’s web site
Capital Program

- Capital Program Quarterly Report: FY23 – Q1
- Negotiated Procurements: Risk Management and Incentive Programs
Procurement Types

- **Public Works**
  - Erection, construction, alteration, repair, or improvement of any structure, building, road, or other improvement of any kind

- **Invitation for Bids (IFB) (Over $10,000)**
  - Lowest responsive and responsible bidder

- **Alternative contract delivery using Request for Proposal (RFP)**
  - Negotiated procurements using best value with negotiated price and terms
  - **Construction Manager/General Contractor** (Public Utilities Code Section 103394-103399.1 requirements)
  - **Design – Build** (Public Contract Code Section 22160 - 22169 requirements)
Procurement Types

Incentive and Risk Programs

• Invitation for Bids (IFB) (Over $10,000)
  o Only allowed if included with bid documents
  o Example: established dollar value for completion a set number of days early

• Alternative contract delivery using Request for Proposal (RFP)
  o Best management practice – state intent to include in contract with RFP
  o Negotiated during BAFO (Best and Final Offer) phase for Design Build
  o Negotiated during TCP (Total Contract Price) phases for Construction Manager – General Contractor
  o Must not be a cardinal change
  o In the public’s interest
Risk
• Broadly includes any item that has the potential to threaten the project’s baseline scope, schedule, or budget

Contingency
• Used to monetize the level of risk inherent for a project’s baseline scope, schedule and budget
Negotiated Procurements
Risk Management

Risk Management programs

• Identify – the what
• Assess – likelihood and impact
• Respond – the action plan
  o Avoid
  o Reduce
  o Transfer
  o Retain
• Manage the time-based action plan

Appropriate management and allocation of risks a critical success factor for project delivery
Negotiated Procurements
Risk Management

• Alternative contract delivery models provide opportunity for *early contractor involvement*

• This early involvement provides the opportunity to *enhance* the *effectiveness* of risk management

• Owner – Design – Contractor *collaboratively develop* a comprehensive list of risks – risk register

• During *design phase*, the team seeks to *avoid* and *reduce risks*
For construction phase risks that are retained or transferred

- Develop the monetized value of the risk

- Determine who is best suited to manage the risk
  - Owner held risk
  - Contractor held risk
  - Shared risk

- Establish a Risk Table
  - Prior to construction defining the value and responsibility
  - Define rules for over and under runs
Negotiated Procurements
Risk Management

Risk Responses

• **Transfer**
  • By contract or agreement transfer to another party

• **Guiding principles**
  o Transfer to those **best capable of managing**
  o **Equitable** allocation of risk
  o Transferring risk is **not free**

• **Example**
  o TriMet’s Orange Line East Segment property acquisition
  o Property acquisition delays may impact efficient construction
  o Contractor paid $1.2m to accept risk
Negotiated Procurements
Risk Management

Risk Responses

• **Transfer (shared)**
  • By contract or agreement transfer *portion* to another party

• **Example**
  o TriMet’s Tilikum Crossing
  o Cable stayed structure across Willamette River
  o On critical path of $1.49 billion project
  o *Risk pool* for unforeseen subsurface conditions for 10’ diameter deep shafts
    o $4 m risk pool: any underrun split 75% owner - 25% contractor
    o $4 m - $10m: cost split 75% owner - 25% contractor
    o Over $10m: costs 100% owner
Negotiated Procurements
Risk Management

Risk Responses

• **Retain**
  • Retain and **protect against** it
    • Risks are **unavoidable** – like contaminated media

• **Action**
  • **Establish contingencies** that can absorb realized risks
Both negotiated procurement methods provide the ability to allocate risk

- CM/GC
  - Risk Tables during TCP negotiations

- Design Build
  - Seek input on risks from construction community prior to RFP
    - Request for Industry Comment – identify top 10 risks
  - Discussion on risks during confidential one-on-ones with short listed teams
  - Defined risk table as part of BAFO for all short-listed teams
Negotiated Procurements

Incentive Programs

Structured program with the intent to drive performance on elements critical to Caltrain’s business needs

- Elements vary and are selected based on unique character of each project
- Criteria evaluation may be quantitative and/or qualitative
- Portion of Contractor’s fee put “at-risk” (67%-75% Contractor funded, example $2m)
- Incentive pool increased with Caltrain funds (25%-33% Caltrain funded, example $1m)
- “B” level performance – Contract earns their “at-risk” fee back
- Performance above a “B” level – Contractor earns supplemental Caltrain funds
Negotiated Procurements
Incentive Programs

Example Criteria

• Safety
  • Recordable Incident Rate, Loss Time
  • Near Miss Reporting, Safety walks, Site cleanliness

• Schedule Control, Impact to Traveling Public
  • Impact to Caltrain operation, roadways, adjacent transit service
  • Interim milestones
  • Final completion
Example Criteria

• Cost Control
  o Duration of processing change order
  o Percent of increase in Contract value for non Caltrain added items

• Quality
  o Non-Conforming Reports – duration to resolve items

• Diversity Contracting
  o Exceeded RFP commitment, mentoring new skills
Negotiated Procurements
Incentive Programs

Two Teams participate in Quarterly Review Sessions to evaluate performance

• Project Team:
  • Contractor Construction Manager
  • Caltrain Construction Manager

• Incentive Program Leadership Team
  • Contractor Senior Executive
  • Caltrain Senior Executive
  • External Senior Level Stakeholder Representative (example: Chair of Business Association)
Negotiated Procurements
Incentive Programs

Quarterly Review Sessions to evaluate performance

• Project Team
  • Contractor and Caltrain Construction Manager each **prepare and present** a written report detailing performance against criteria

• Incentive Program Leadership Team
  • Deliberate and reach consensus on score for each review criteria
  • **Earned funds** are distributed next pay request
  • **Unearned funds** are deducted from Contract at project close out
  • **Discussion at executive level linked to fee drives field performance**
Changes

- Evaluate **construction delivery options** to select the most appropriate method to minimize construction impacts, enhance cost and schedule certainty, and effectively manage risk – in place

- Evaluate construction contracts for appropriate use of **risk and/or incentive programs** to support effective delivery – add to low bid contracts
Questions