

# **San Francisco Bay Area Rapid Transit District**

*2150 Webster Street, P. O. Box 12688, Oakland, CA 94604-2688*



## **COMMITTEE MEETING AGENDA**

**Friday, January 20, 2023**

**9:30 AM**

**Please note that an updated attachment has been added under  
Item 5.**

**via Teleconference Only. Zoom Link:  
<https://us06web.zoom.us/j/81256732915>**

**Bond Oversight Committee**

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT  
2150 Webster Street, P. O. Box 12688, Oakland, CA 94604-2688

NOTICE OF MEETING AND AGENDA  
BOND OVERSIGHT COMMITTEE  
Friday, January 20, 2023  
9:30 a.m. – 12:00 p.m.

COMMITTEE MEMBERS: Marian Breitbart, Daren Gee, Michael McGill (Chair), Catherine Newman (Vice Chair), Cindy Simon Rosenthal, Vinit Shrawagi, Sonja C. Stewart

Please note, pursuant to all necessary findings having been made by the Board of Directors of the San Francisco Bay Area Rapid Transit District (for itself as well as all subordinate legislative bodies) to continue remote public meetings in the manner contemplated under urgency legislation Assembly Bill No. 361, public participation for this meeting will be via teleconference only.

Presentation materials will be available via Legistar at <https://bart.legistar.com>

You may join the Bond Oversight Committee (BOC) Meeting via Zoom by calling 1 (833) 548-0282 and entering access code 812 5673 2915; logging in to Zoom.com and entering access code 812 5673 2915; or typing the following Zoom link into your web browser:  
<https://us06web.zoom.us/j/81256732915>

If you wish to make a public comment:

- 1) Submit written comments via email to [ljohnso@bart.gov](mailto:ljohnso@bart.gov), using “public comment” as the subject line. Your comment will be read into the record and will become a permanent part of the file. Please submit your comments as far in advance as possible. Emailed comments must be received before 9:00 a.m. of the day of the Committee meeting in order to be included in the record.
- 2) Call 1 (833) 548-0282, enter access code 812 5673 2915, dial \*9 to raise your hand when you wish to speak, and dial \*6 to unmute when you are requested to speak; log in to Zoom.com, enter access code 812 5673 2915, and use the raise hand feature; or join the Committee Meeting via the Zoom link (<https://us06web.zoom.us/j/81256732915>) and use the raise hand feature.

Public comment is limited to three (3) minutes per person. Your phone will be muted until you are called upon.

### **AGENDA**

1. Call to Order (Approximately 5 minutes)
  - A. Roll Call

2. Public Comment (Approximately 5 minutes)

3. Meeting Minutes: September 16, 2022 (For Discussion/Action  
Approximately 5 minutes)

**Attachments:** [Meeting Minutes September 16, 2022 - Item 3](#)

4. 2023 Annual Report Draft Outline Presentation (For Discussion  
Approximately 5 minutes)

1. Q&A (Approximately 10 minutes)

**Attachments:** [2023 Annual Report Draft Outline Presentation - Item 4](#)

5. Annual View of BART Safety, Reliability and Traffic Relief Program  
(Measure RR)

A. Program Successes & Challenges (For Discussion Approximately 10  
minutes)

1. Q&A (Approximately 10 minutes)

B. Financial Overview Update (For Discussion Approximately 5 minutes)

1. Q&A (Approximately 10 minutes)

C. Procurement Presentation (For Discussion Approximately 5 minutes)

1. Q&A (Approximately 10 minutes)

D. 10 MINUTE BREAK

E. Human Resources/Staffing (For Discussion Approximately 5 minutes)

1. Q&A (Approximately 10 minutes)

F. Small Business Outreach (For Discussion Approximately 5 minutes)

1. Q&A (Approximately 10 minutes)

G. Public Outreach Update (For Discussion Approximately 5 minutes)

1. Q&A (Approximately 10 minutes)

H. Measure RR Staff Organizational Chart (For Discussion/Q&A  
Approximately 5 minutes)

I. Appendix: Financial Outlook, Program Status & Milestones

1. Q&A (Approximately 10 minutes)

**Attachments:** [BART Safety Reliability and Traffic Relief Program - Item 5 - Updated](#)

6. Future Agenda Items & Questions/Committee Member Announcements (For Discussion  
Approximately 5 minutes)

7. Public Comment (Approximately 5 minutes)

8. 15 Minute Break (Approximately 15 minutes)
9. AB1234 Training (For Discussion / Approximately 2 hours)
10. Adjournment.

BART provides services/accommodations upon request to persons with disabilities and individuals who are limited English proficient who wish to address Committee matters. A request must be made within one and five days in advance of Board/Committee meetings, depending on the service requested. Please contact the Office of the District Secretary at (510) 464-6083 for information.



# San Francisco Bay Area Rapid Transit District

Measure RR Program

BART Bond Oversight Committee

Friday, September 16, 2022

9:30 AM – 12:00 PM

Via Zoom Conference Call

\*\*\*\*\*Draft Minutes\*\*\*\*\*

MEETING NUMBER	MEETING DATE	MEETING TIME
Term 4, Meeting 1	Friday, September 16, 2022	9:30 am – 12:00 pm
	<b>Present Members</b> Michael McGill, Chair Catherine Newman, Vice Chair Marian Breitbart Daren Gee Sonja C. Stewart Cindy Simon Rosenthal Vinit Shrawagi	

Agenda Item	Meeting Notes
1. Call to Order (15 minutes)	
A. Roll Call	All present except Daren Gee
2. General Public Comment	None
3. Administrative Items	
A. Approval of Meeting Minutes June 17, 2022	Ms. Breitbart makes the move, and Dr. Rosenthal seconds. Passes unanimously.
B. Ethics Training Discussion	Ms. Stewart, Mr. Shrawagi, and Vice Chair Newman need training.
4. Annual Report	

A. Follow up on 2022 Annual Report Board Presentation & Directors Feedback	Communications Officer Chris Filippi shares details on how much media and social media coverage the report received.
B. 2023 Annual Report Outline Suggestions	<p>Dr. Rosenthal says she wants to beef up the equity component of the next Annual Report. She would like to see a visual of how the Measure RR funds and work is being equitably distributed across BART communities.</p> <p>Ms. Breitbart would like the Annual Report to show how BART is leveraging RR funds with federal and other funds.</p> <p>Chair McGill says in the Chair's letter in the Annual Report he would like to mention how the staff does a good job keeping the committee up to date on all the various aspects of the bond measure.</p>
C. Appoint 2023 Annual Report Subcommittee	<p>The committee votes in the following members to serve on the 2023 Annual Report Subcommittee:</p> <p>Vinit Shrawagi, Chair Sonja C. Stewart Cindy Simon Rosenthal</p> <p>Ms. Breitbart makes the motion. Vice Chair Newman seconds the motion.</p> <p>Motion passes unanimously.</p>
5. Measure RR BART Safety, Reliability and Traffic Relief Program Presentation	
A. Measure RR Overall Progress 1. Budget & Schedule Update	<p>Assistant General Manager Carl Holmes and Acting Chief of Maintenance &amp; Engineering Sylvia Lamb are the lead presenters.</p> <p>Ms. Lamb says that staff will include a "key" to put in future reports so that people know what the "R,M,K,W,S etc." lines mean.</p> <p>Vice Chair Newman says the spring meeting (April) should have time reserved to resolve member questions/issues that haven't been resolved in previous meetings.</p>

	<p>Mr. Shrawagi would like to include on the Watch List the “Turntable Replacement at OCY and ORY” from the Mechanical Program Drill Down slide.</p> <p>Additionally, Mr. Shrawagi wants to know about the future tranches – and if we are going to accelerate the drawdown of the tranches.</p>
B. 10 Minute Break	
<p>C. Financial Outlook, Project Status &amp; Milestones</p> <ol style="list-style-type: none"> <li>1. Office of Civil Rights</li> <li>2. Human Resources/Staffing</li> <li>3. Program Updates</li> </ol>	<p>Office of Civil Rights Manager Joseph Towner presents item 5.C.1.</p> <p>Assistant General Manager Alaric Degrafinried presents and introduces new Director of Human Resources Rosalind Bolds in item 5.C.2.</p> <p>Senior Manager of Engineering Programs Suresh Devarajan presents item 5.C.3.</p>
D. Appendix: Financial Outlook, Project Status & Milestones	<p>Mr. Shrawagi wants to have in the legend for the CPI/SPI – a note that anything above 1 is good, anything below is not as good. Ms. Stewart agrees and adds the legend should also include a note that says 10% above or below a 1 should not cause the public alarm.</p>
6. Future Agenda Items & Questions	None.
7. Committee Member Announcements & Staff Announcements	<p>Dr. Rosenthal says she took a new train and thought it was a great rider experience. She says she had to transfer and got on an older car and remarked at how different the experience was.</p>
8. Adjournment	Chair McGill adjourns at 11:37 am.

## **2023 Annual Report Draft Outline**

**Overall theme:** Impact of rebuilding work on system reliability and the rider experience.

### 1. Table of Contents

### 2. Committee Chair Welcome Letter

A. Capture high quality of content shared by BART staff with the committee.

## **RR Big Picture**

### 3. Executive Summary

A. Major accomplishments of last year.

B. Answer whether we are on time and on budget.

### 4. About the Committee

A. Include A77 site visit (5/14).

### 5. The Story of RR

A. Why Measure RR was proposed and how it made ballot.

### 6. Life Span of RR

A. Updated chart with expected length of major project categories.

### 7. Equity and RR **(new item)**

A. How are projects impacting BART's stakeholders.

B. Impacts of construction and investments on various communities.

C. Are RR projects making BART more accessible for all?

### 8. Monitor impacts of large projects

A. Comprehensive public outreach plan for A77 and other RR projects.

B. Bus bridge recap and efforts to minimize rider impacts.

### 9. Red Line Cable Repairs **(new item)**

A. How BART crews raced around the clock to repair the Red Line.

B. Intense coordination on project that impacted large number of riders for months.

C. Value of RR in making repairs possible (funding/lessons learned from other projects).

### 10. RR improving BART service **(new item)**

A. Data showing improved service reliability due to improved infrastructure.

B. Highlights impact of RR on rider experience/delivering on promises to voters.



## **Major Project Categories**

### 11. Renew Track

- A. Interlocking rebuild, A77; substantial completion of rail reprofiling.

### 12. Renew Power

- A. M Line cable work completion.
- B. New power substations (Civic Center).

### 13. Tunnels and Structures

- A. Completion of M2 Bore retrofit for TBT.

### 14. Mechanical Infrastructure

### 15. Renew Stations

- A. Completion of Powell Street/19<sup>th</sup> Street Station Modifications.

### 16. Train Control

### 17. Relieve Crowding

- A. Link 21 progress.

### 18. Access Improvements

## **Measure RR Finances**

### 19. Funding with Green Bonds

- A. Highlight latest tranche issued in April.
- B. Update how bond spending meeting IRS requirements.

### 20. Program Expenditures Overview

- A. Spending breakdown by category at given time with forecasted spending amounts.

### 21. Spending Breakdown

- A. Chart showing program allocations as percentage of total bond.

### 22. RR – Only Part of the Solution

- A. Highlight BART's updated Capital Improvement Program (CIP).
- B. How is RR funding being leveraged to attract federal/state dollars.

### 23. Measuring Cost Effectiveness

- A. Highlight Earned Value Management and its use.

### 24. Putting People to Work

- A. Focus on workers behind the RR rebuilding program.

25. Small Business Outreach

- A. Highlight outreach activities including new podcast series.

**Additional Resources**

26. Committee Activities and Expenditures

27. Resources to Learn More

- A. Highlight contact and social media info for stakeholders to provide feedback to staff.

28. Helpful Links

29. Appendix

- A. List of completed projects that have received RR funding.



## 5. Measure RR BART Safety, Reliability and Traffic Relief Program Presentation

Bond Oversight Committee  
January 20, 2023



# Bond Oversight Committee

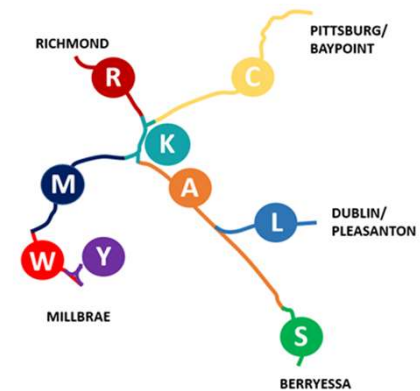
## Duties & Responsibilities

- Provide diligent, independent and public oversight over the expenditure of funds from the sale of District general obligation bonds
- Assess how bond proceeds are invested to ensure that all spending is authorized by the ballot measure
- Assess whether projects funded by bond proceeds are completed in a timely, cost-effective and quality manner consistent with the best interest of BART riders and District residents
- Publish an annual report that includes a detailed account of the Committee's activities including its expenditures



# Executive Summary

- Through September 2022, \$1.43B of the Measure RR funds have been invested to complete 44% of the work
- Successes
  - Substantial Completion: M-line 34.5kV Cable Replacement
  - Complete Trackway Demolition and Restoration for TBT Retrofit
- Challenges
  - Material availability and delivery delays
  - Increased costs of labor and materials
  - C-Line Train derailment (cont'd)
  - Approval of permits from external agencies



# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
3	36	17 (-1)	50 (-1)	47 (+2)	153

- + (Projects added in the phase)
- (Projects no longer in the phase)



## 5.A. Annual View of Measure RR BART Safety, Reliability and Traffic Relief Program



# Calendar Year 2022 Program Successes

153 Projects Total  
9 Projects Completed Construction



## M-Line

- Completed 34.5kV Cable Replacement



## Completed Station Modernizations

- Powell Street
- 19th Street

## Warm Springs West

- Pedestrian Bridge Opening



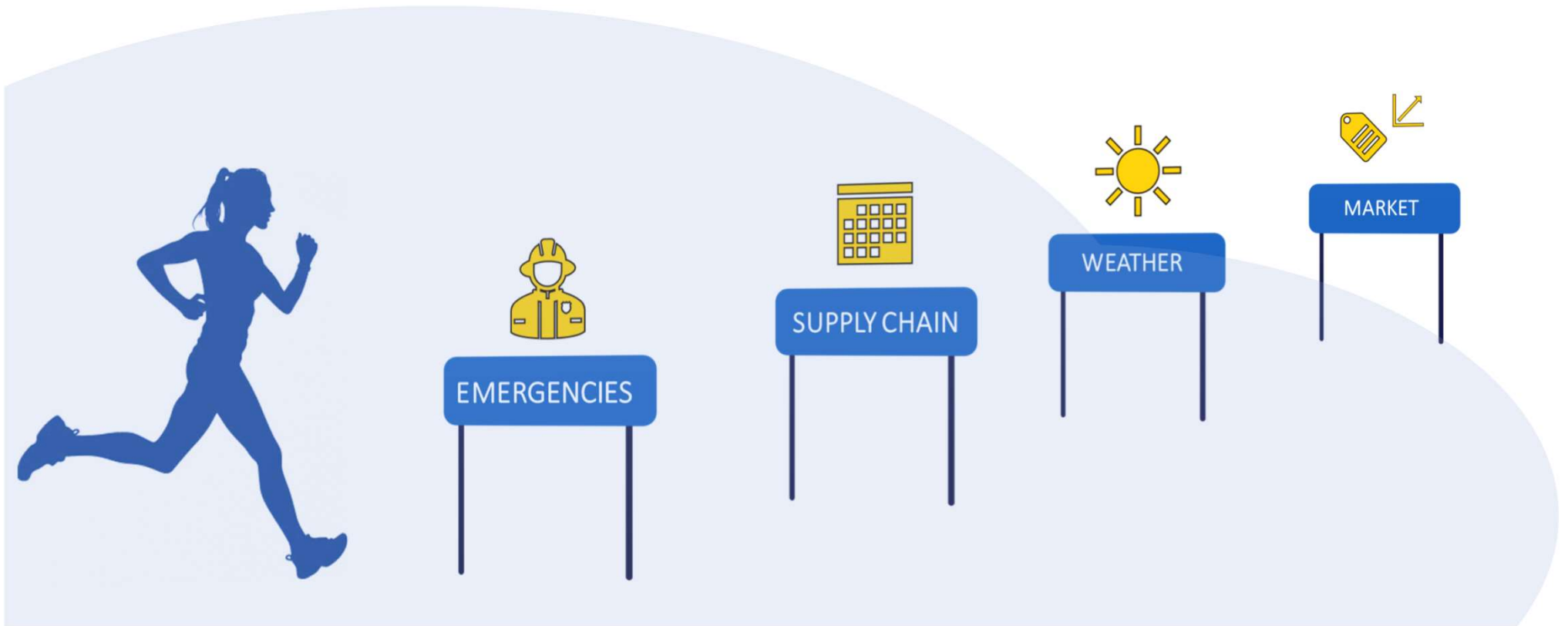
## Transbay Tube Retrofit \*

- Completed M2 Bore Retrofit
- Trackway Demolition and Restoration



\* Not included in 9 complete however majority of work complete

# Industry Challenges





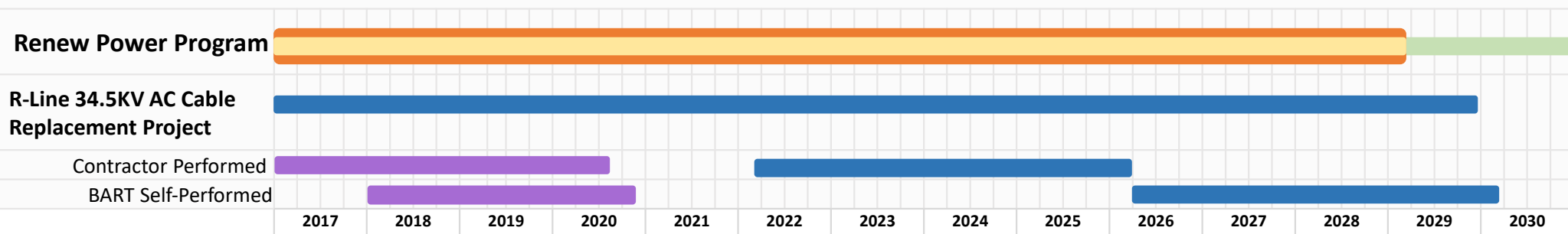
# Mitigation Opportunities – Value Engineering



- Increase Life of Assets  
e.g. **Concrete Ties vs. Wood Ties**
- Address Higher Severity Locations  
e.g. **Tunnel Waterproofing**
- Modify Construction Methodology  
e.g. **Oakland Yard Tracks**
- Opportunity for Expedited Work  
e.g. **Rail Replacement Project**

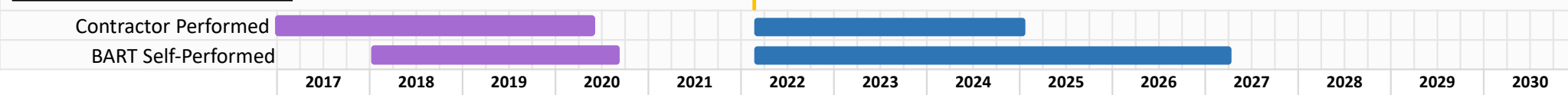
# Mitigation Opportunities – Program Schedule

## Pre Incident Schedule



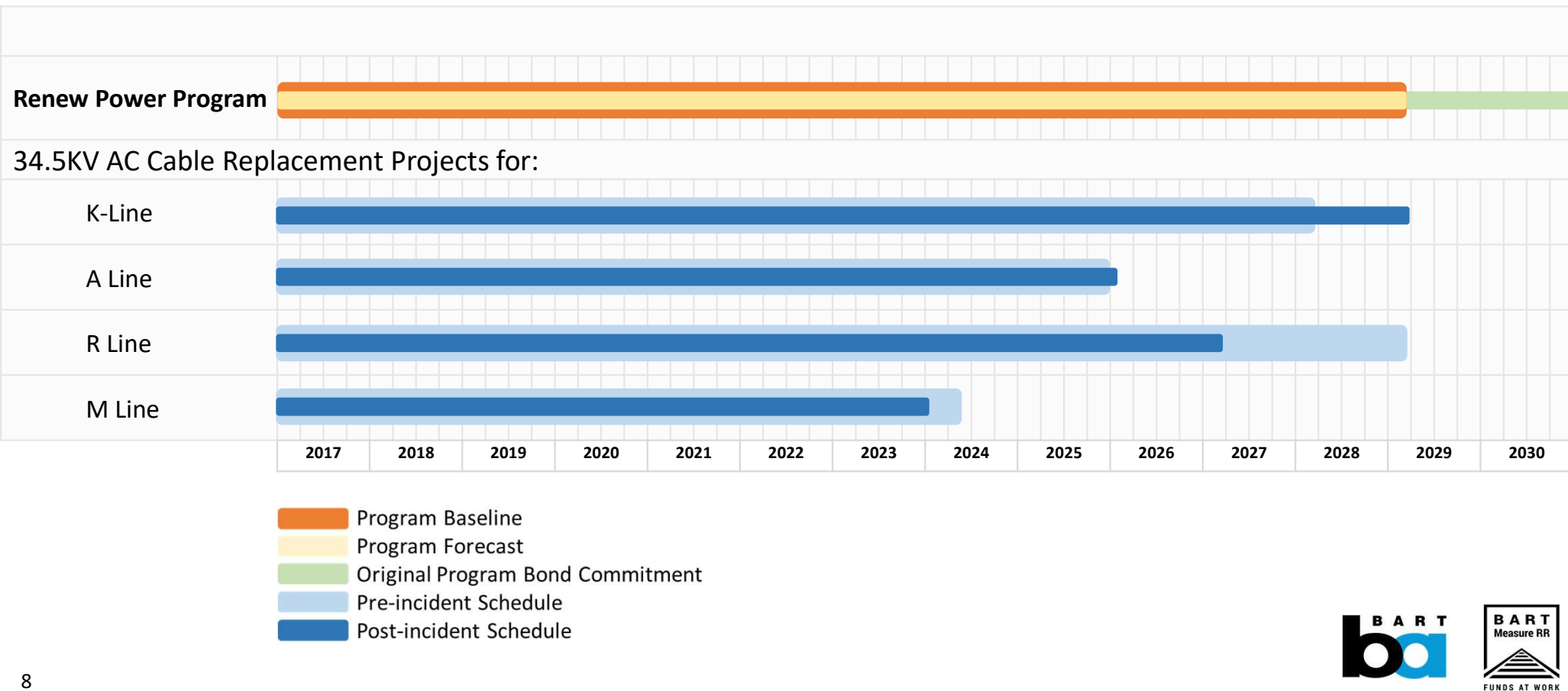
Incident Occurs March 2022

## Post Incident Schedule



- Program Baseline
- Program Forecast
- Original Program Bond Commitment
- Project Specific Schedule-Construction
- Project Specific Schedule-Design

# Mitigation Opportunities – Program Schedule



# Mitigation Opportunities – Cost

## UTILIZING IN-HOUSE RESOURCES



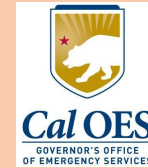
## BID PACKAGES UNBUNDLING



## VALUE ENGINEERING



## ALTERNATIVE FUNDING SOURCES



## CAPITALIZING ON SHUTDOWNS



# Mitigation Opportunities – Alternate Funding Slope Stabilization Project



**Forecasted the budget requirements of the projects' scope in comparison to the available funding**

**Cal OES grants = \$2.3M = 40% of the estimate**


## **Unbundle construction contracts**

- Solely RR for critical locations
- RR funds to expedite design/matching funds



# 2023 – Looking Forward



-  **A77 Track Interlocking Replacement**
-  **Oakland Yard Tracks**
-  **K Line Interlocking Replacement (near Rockridge Station)**
-  **Fire Alarm Replacement Phase 2**
-  **Civic Center Scissor Stairs**
-  **Balboa Park – Upper Plaza Project**

## 5.A.1. Q&A



## 5.B. Financial Overview Update



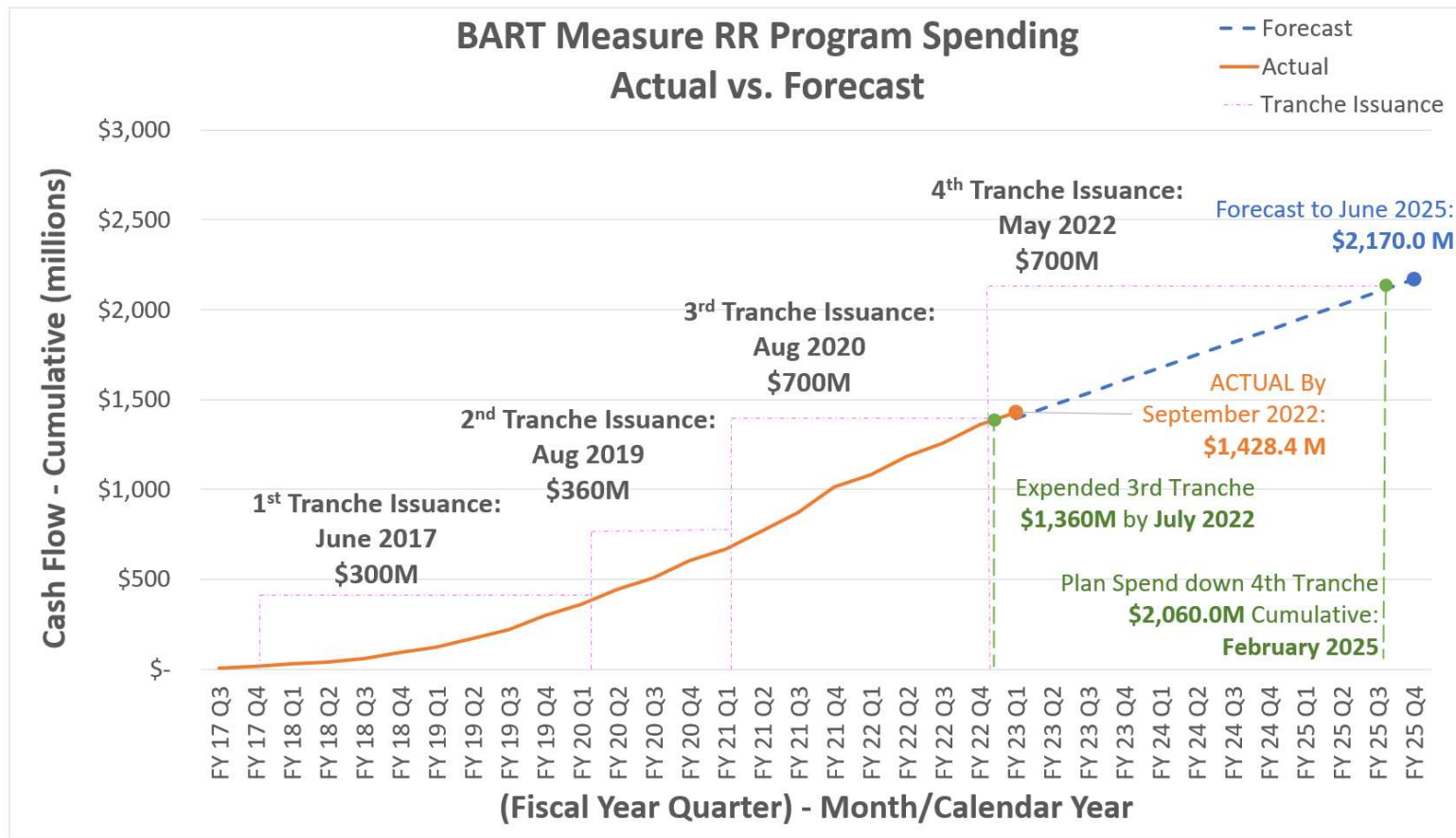


# Measure RR Cashflow (\$ Millions) – Mid-Term & Long-Term Outlook

Program	Expended (thru June 2022)	Expended (thru September 2022)	Period Cashflow (July 2022 – September 2022)	% Expended out of Total Bond Investment	Forecast Expenditures	
					MID-TERM (thru 2025)	LONG-TERM (thru End of Bond)
Renew Track	\$334.2	\$346.7	\$12.5	55%	\$433.5	\$625
Renew Power Infrastructure	\$520.0	\$552.3	\$32.3	45%	\$868.0	\$1,225
Repair Tunnels & Structures	\$190.7	\$199.8	\$9.0	36%	\$318.3	\$549
Renew Mechanical	\$71.6	\$74.0	\$2.5	47%	\$133.0	\$156
Replace Train Control/Increase Capacity	\$63.9	\$64.9	\$1.0	16%	\$113.1	\$400
Renew Stations	\$51.7	\$57.0	\$5.3	27%	\$107.1	\$210
Expand Safe Access to Stations	\$37.9	\$39.0	\$1.1	29%	\$69.2	\$135
Design/Engineer to Relieve Crowding	\$87.3	\$94.7	\$7.5	47%	\$127.8	\$200
<b>Total</b>	<b>\$1,357.3</b>	<b>\$1,428.4</b>	<b>\$71.2</b>	<b>41%</b>	<b>\$2,170.0</b>	<b>\$3,500</b>



# RR Overall Program Budget Progress



## 5.B.1. Q&A



## 5.C. Procurement Presentation





## ▶ Measure RR Update

- Overview of the BART Contracting Process
- 2023 Challenges and Opportunities



# Overview of the BART Contracting Process

## Pre-Advertisement

- Project Manager prepares a contracting plan for review by OCR and Procurement to determine unbundling opportunities and small business utilization plans
- Purchase Request package is prepared which includes final technical specifications and drawings, draft bid schedule, and other related bid documents
- Final bid/solicitation documents is prepared, reviewed, approved, printed and posted on BART's eBid system



## Pre-Bid

- Coordinate and conduct the pre-bid conference
- Respond to all questions and inquiries that are received
- If necessary, make changes to the underlying bid documents



## Bid

- Received bids/proposals
- Initiate and complete the bid review/proposal evaluation process for those meeting the minimum qualifications



## Award/Post Award

- Award to the contract to the lowest price bid or highest ranked proposal
- Prepare the Executive Decision Document (EDD) for BART Board review/approval
- Secure Board approval
- Finalize all contract documents and sign agreement
- Issue Notice-to-Proceed (NTP)



# Engineering and Construction – 2023 Challenges and Opportunities

- **Market Dynamics** – There will continue to be heightened uncertainty due to high inflation and rising interest rates. However, the overall forecast for the non-residential construction sector is positive as companies remain insulated from the economic slowdown, driven by strong infrastructure buildouts, and the substantial project backlogs developers and contractors have in their pipelines.
- **Supply Chain** – Over the past two years, the COVID-19 pandemic, transport bottlenecks, and geopolitical uncertainties have exposed vulnerabilities in the engineering and construction supply chain. These disruptions have raised material costs, confined production, and restricted freight movement. The ongoing disruptions are expected to drive the engineering and construction industry toward new business models that will bring new products and innovations to provide solutions in this rapidly changing industry.
- **Labor Shortages** – The engineering and construction industry remains significantly short of skilled workers. Labor availability in construction continues to decline, driven by declining interest in the industry, an aging population, and latent pressures in “competing” industries such as technology and trucking. Addressing the tight labor market and existing workforce amid shifting talent models will likely remain a priority for engineering and construction companies in 2023.

## 5.C.1. Q&A





## 5.D. 10 Minute Break






## 5.E. Human Resources/Staffing



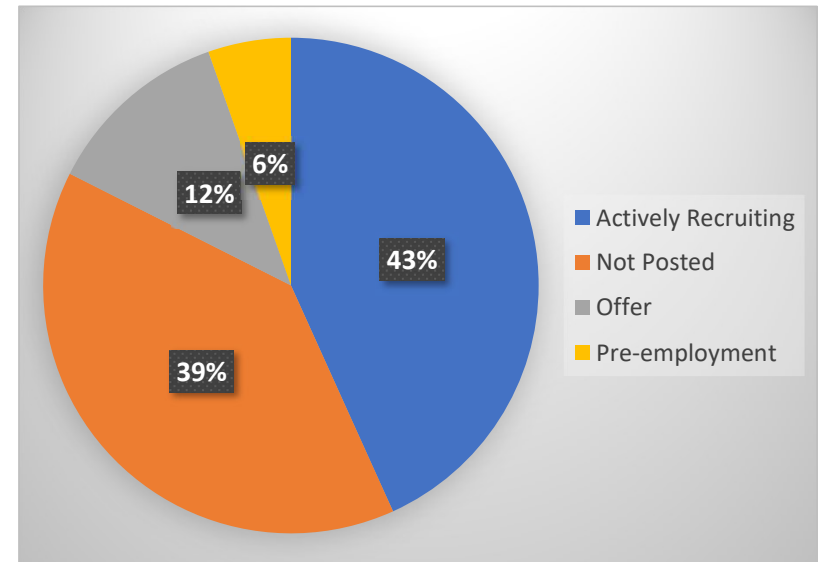
# Recruitment Status Summary

Description	Number of Positions
Filled Positions	234
Vacant Positions	74
RR Positions Hired To Date	36

	Vacant Position Categories	Number of Positions
	Engineering	22
	Project Management/Support	23
	Construction Crews	29

Data as of 1/9/2023

VACANT MEASURE RR POSITIONS



# Talent Acquisition Strategies – Vacant Positions

## *CREATING A STRONG BART TALENT SOURCING PRESENCE*



- Leveraging Internal Partnerships
  - External Affairs
  - Workforce Development
  - Office of Civil Rights



- Strengthening External Workforce Partnerships
  - Community Based Organizations
  - Educational Institutions
  - Pre-apprenticeship Programs



- Leveraging Social Media Platforms
  - Updating Marketing
  - External Job Boards



## 5.E.1. Q&A



## 5.F. Small Business Outreach



# RR Program Update – Small Business

Program	Total RR Commitment	Total RR SB Commitment	SB Commitment %	# of SB Contracts	Total RR Payments on RR Contracts	RR Payments to SBs	SB Payment %
Renew Track	\$156.6 M	\$34.3 M	22%	146	\$127.9 M	\$29.0 M	23%
Renew Power	\$411.3 M (+\$48 M)	\$120.1 M (+\$5 M)	29% (-3%)	326	\$260.2 M (+\$18 M)	\$115.3 M (+\$4 M)	44%
Repair Tunnels & Structures	\$152.4 M (+\$8 M)	\$30.7 M	20%	150	\$119.6 M	\$16.7 M	14%
Renew Mechanical	\$35.7 M	\$12.3 M	35%	79	\$26.0 M	\$9.7 M	37%
Replace Train Control/Increase Capacity	\$32.2 M	\$6.6 M	20%	119	\$24.2 M	\$2.8 M	12%
Renew Stations	\$152.3 M	\$28.6 M	19%	126	\$52.1 M (+\$8 M)	\$10.9 M	21%
Expand Safe Access to Stations	\$21.0 M	\$6.6 M	31%	170	\$14.3 M	\$4.9 M	34%
Design/Engineer to Relieve Crowding	\$137.1 M	\$34.8 M	25%	204	\$87.9 M (+\$9 M)	\$23.9 M (+\$2 M)	27%
<b>Total</b>	<b>\$1,098.5 M (+\$60 M)</b>	<b>\$274.0 M</b>	<b>25%</b>	<b>1319 (+42)</b>	<b>\$712.4 M</b>	<b>\$213.2 M (+\$10 M)</b>	<b>30%</b>

Notes: All amounts are based on RR fund percent only. Amounts are updated to October 31, 2022. Includes formal contracts only; does not include informal purchases or work performed by BART's own forces. SB totals include DBEs, MSBEs, SBs, and LSBs. Sources: RR commitments are based on RR Requisitions report, Procurement Sealed Bids Report and PeopleSoft Work Plans application. RR% for each project is based on Financial Analysts' report, RR Funds / Total Project Budget. Payments based on PeopleSoft and B2GNow.



# RR Program Update – 2022 Outreach



## Year in Review

- **46** outreach events held in calendar year 2022 with an average audience of **40** attendees\*
- Highlights:
  - Update advertising campaign resulted in significant increase in attendance
  - **19** SBSS Trainings/Outreach Sessions Completed
  - BART Outreach—Meet Project Staff (M&E, Design, Stations, Procurement teams)

## 2023

- OCR will increase collaboration efforts to provide SBs with more access to SMEs throughout the District

\*Attendance not captured at all events





## 5.F.1. Q&A



## 5.G. Public Outreach Update





## ▶ 5.G. Public Outreach Update

Presented by Chris Filippi (Communications), Jill Buschini (Marketing)  
and Amanda Cruz (Government & Community Relations)



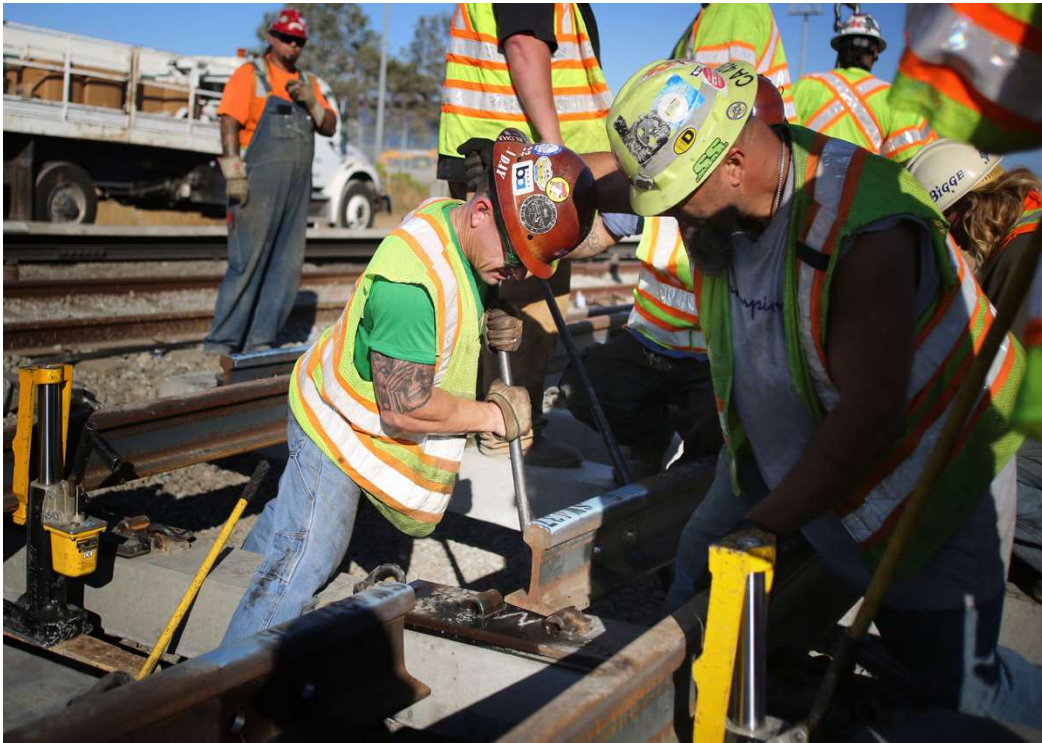
# A Comprehensive Approach to Informing Public



- Office of External Affairs coordinates public outreach
  - Government and Community Relations, Marketing, and Communications staff
- Communication begins weeks before projects first impact riders/communities
- BART uses a variety of approaches, platforms, and languages to reach external stakeholders



# Case Study: South Hayward Track shutdown



- 10 non-consecutive weekends in 2022
- South Hayward to Union City Stations
- Public outreach March - September
- Messaging focus:
  - Shutdown schedule
  - Bus bridge
  - Anticipated delays
  - Benefits of work
  - Neighborhood impacts

# Traditional and Social Media

NEWS > TRANSPORTATION

## BART announces 10-weekend track shutdown, bus transfers at South Hayward and Union City stations

The track work, which is starting this Saturday, will also occur on Memorial Day and Labor Day weekends



Passenger bulletin posted on [bart.gov](http://bart.gov) a month before with FAQ & Fact Sheet



News release sent to more than 300 reporters and news outlets



Multiple Twitter/Facebook posts before each shutdown weekend



Emails and texts sent each weekend to BART News subscribers




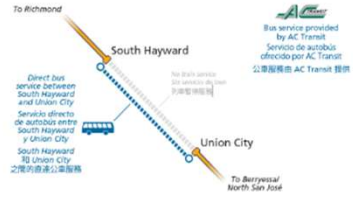
**BART**   
@SFBART | 329,522 followers



All day today and tomorrow the trackway between South Hayward and Union City will be closed for major track rebuild work.

Free @rideact bus shuttles will connect the two stations. Please plan added travel time if taking BART through the area. [bart.gov/news/articles/...](http://bart.gov/news/articles/...)

**PLANNED WORK**  
**Sept. 3 - 5 - ALL DAY**  
**Orange Line** Berryessa/North San José - Richmond  
**Green Line** Berryessa/North San José - Daly City  
Buses replace trains between South Hayward and Union City.  
Plan your trip at [www.bart.gov/planner](http://www.bart.gov/planner)



# Government and Community Relations



Mission Dolores Basilica

- Staff briefed BART Directors, local officials and staff
- Sent mailers in multiple languages to residents/businesses
- Outreach to neighborhood stakeholder groups:
  - Hayward Rotary, San Leandro Chamber of Commerce, and Hayward-South Alameda County NAACP

# Marketing Outreach

## South Hayward 和 Union City BART 車站之間將以免費 公車代替捷運列車

4 月 16-17 日	7 月 16-17 日
4 月 30 日 - 5 月 1 日	7 月 30-31 日
5 月 14-15 日	8 月 13-14 日
5 月 28-30 日 (陣亡將士紀念日週末)	9 月 3-5 日 (勞動節週末)
6 月 11-12 日	9 月 17-18 日

由於軌道安全工作的關係，乘客在這些周末期間若要往來於 South Hayward 和 Union City 之間，規劃行程應多計入 20-25 分鐘間。瀏覽 [bart.gov](http://bart.gov) 或致電 510.465.2278 查詢詳情。

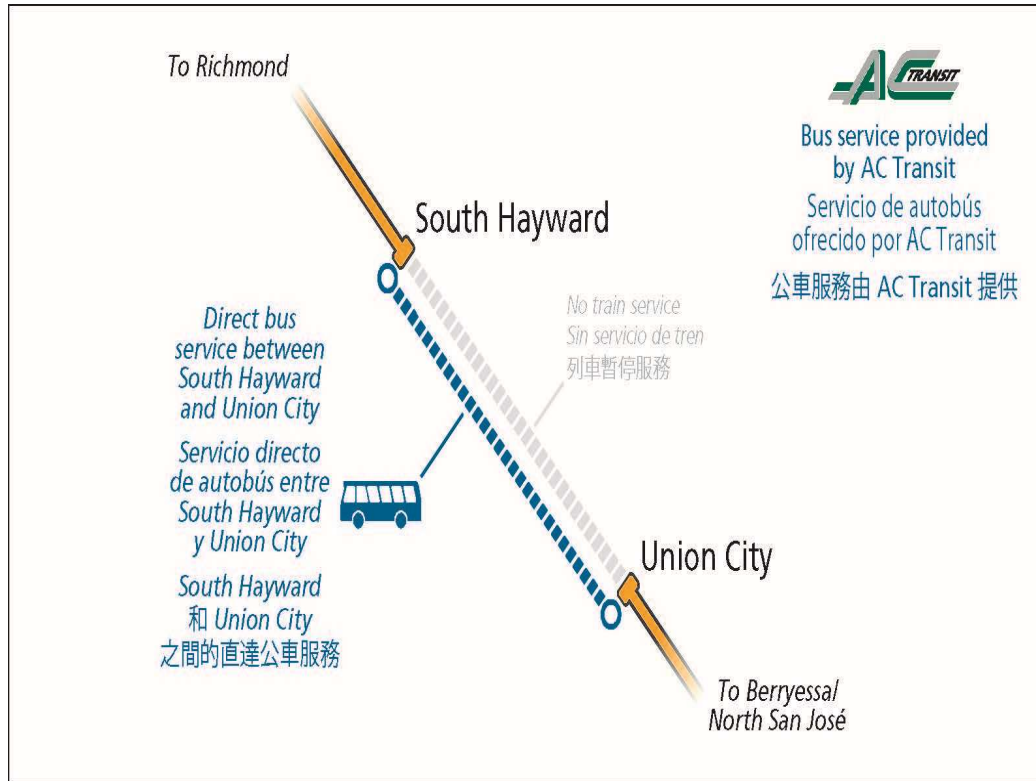


- Targeted marketing campaigns launched two days before through each weekend
- Ads targeted impacted areas and people searching/discussing travel-related keywords
- Ads on Twitter, Facebook, Instagram, Google
- Media ad buys included ethnic print publications in Spanish, Mandarin, Cantonese, Korean, and Vietnamese





# Outreach in BART System



- PA announcements in English, Spanish, and Chinese
- Systemwide digital platform signs
- Posters with project info, bus bridge map
- Info in BARTable This Week newsletter emailed to 90,000 subscribers

## 5.G.1. Q&A

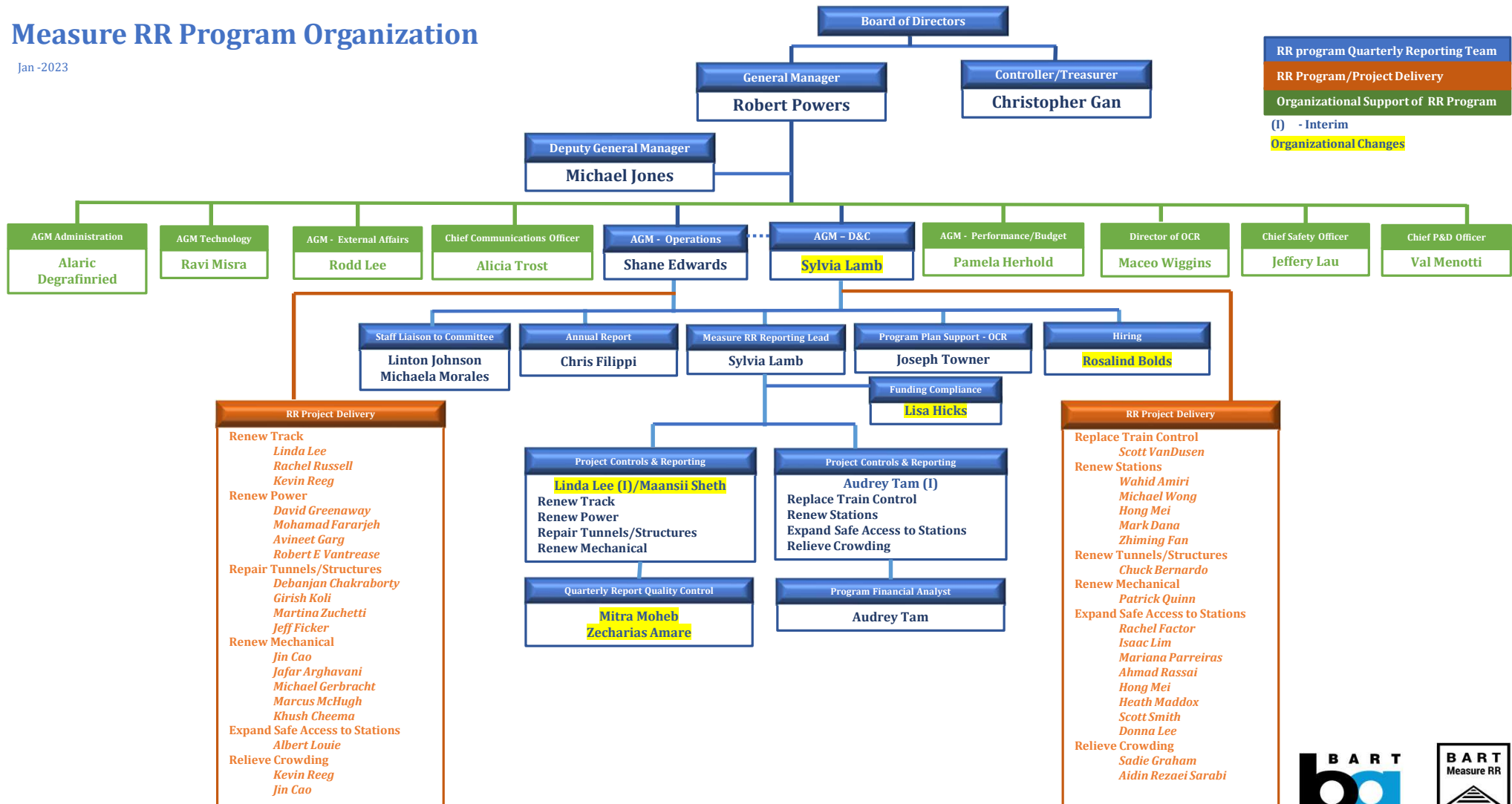


## 5.H. Measure RR Staff Organizational Chart



# Measure RR Program Organization

Jan -2023



## 5.I. Appendix: Financial Outlook, Program Status & Milestones

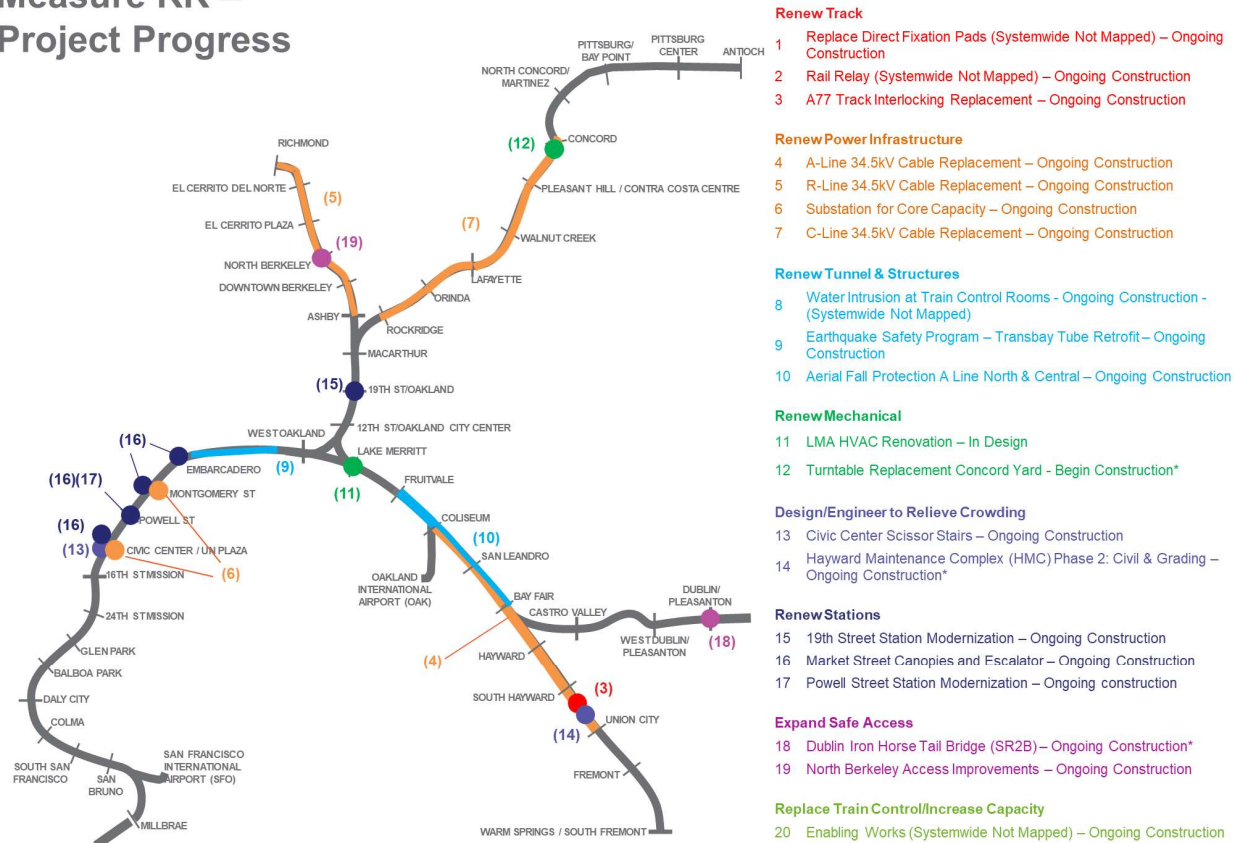


# Work Progress Since Last Meeting



# Examples of Active RR Projects in July 2022 – September 2022

## Measure RR – Project Progress



\*Updated projects

# Individual Program Milestones





# Renew Track

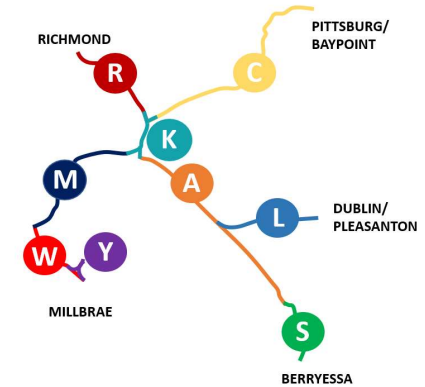
## STATUS & MILESTONES

EXPENDED Thru 9/2022: **\$346.7**

FORECAST Thru 6/2025: **\$433.5**

TOTAL PROGRAM VALUE: **\$625**

PERIOD CASHFLOW: **\$12.5**



### STATUS – Renew Track

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
0	2	1	8	9	20

### MILESTONES

Completed (Jul 2022 – Sept 2022)	Q2 (Oct 2022 – Dec 2022)	Q3 (Jan 2023 – Mar 2023)	Q4 (Apr 2023 – Jun 2023)
<ul style="list-style-type: none"> <li>Completion of Design K Line Interlocking Replacement (<i>near Rockridge Station</i>)</li> <li>Issued for Bid K Line Interlocking Replacement Special Trackwork (near MacArthur Station)</li> </ul>	<ul style="list-style-type: none"> <li>Contract Award K Line Interlocking Replacement Special Trackwork (near MacArthur Station)</li> <li>Substantial Completion of Rail Reprofile (Systemwide)</li> <li>Issue for Bid for K Line Interlocking Replacement Traction Power Materials</li> <li>Complete Design of Richmond Yard Track Rehabilitation (Phase 1 Transfer Switches)</li> </ul>	<ul style="list-style-type: none"> <li>Issue for Bid Richmond Yard Track Rehabilitation Special Trackwork (Phase 1 Transfer Switches)</li> <li>Begin Construction of K Line Interlocking Replacement (near Rockridge Station)</li> <li><i>Substantial Completion of Construction A77 Track Interlocking Replacement</i></li> <li><i>Completion of Design K Line Interlocking Replacement (near MacArthur Station)</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Substantial Completion of Construction by BART forces Oakland Yard Tracks</i></li> <li><i>Substantial Completion of Construction of K Line Interlocking Replacement (near Rockridge Station)</i></li> </ul>

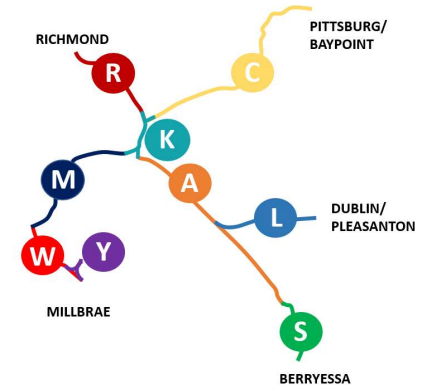
### Watchlist:

- None

*Italic: Modified milestones from previous report.*

# Renew Power STATUS & MILESTONES

EXPENDED Thru 9/2022: **\$552.3**  
 FORECAST Thru 6/2025: **\$868.0**  
 TOTAL PROGRAM VALUE: **\$1,225**  
 PERIOD CASHFLOW: **\$32.3**



## STATUS – Renew Power Infrastructure

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
0	4	4	17	4	29

MILESTONES			
Completed (Jul 2022 – Sept 2022)	Q2 (Oct 2022 – Dec 2022)	Q3 (Jan 2023 – Mar 2023)	Q4 (Apr 2023 – Jun 2023)
<ul style="list-style-type: none"> <li>Issued for Bid Walnut Creek Traction Power Substation Replacement</li> <li><i>Substantial Completion of M-line 34.5kV Cable Replacement</i></li> </ul>	<ul style="list-style-type: none"> <li>Contract Award Station Fire Alarm Replacement Phase 3</li> <li>Substantial Completion of CWS Transformer Replacement</li> <li><i>Begin Construction K-line 34.5kV Cable Replacement (KOW – KTE)</i></li> </ul>	<ul style="list-style-type: none"> <li>Substantial Completion of Fire Alarm Replacement Phase 2</li> <li>Design Completion for Fire Alarm Replacement Phase 4</li> <li>Issue for Bid for the Cast Coil Transformer Replacement Project</li> <li><i>Completion of Design for MET G Generator Replacement Project</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Issue for Bid PG&amp;E Feed for Gap Breaker Project</i></li> <li><i>Notice to Proceed for Cast Coil Transformer Replacement</i></li> <li><i>Completion of Construction Phase 2 for Systemwide Stations Facilities Grounding Assessment</i></li> </ul>

### Watchlist:

- Procurement Phase for Walnut Creek Traction Power Substation Replacement

*Italic: Modified milestones from previous report.*



# Tunnels & Structures

## STATUS & MILESTONES

EXPENDED Thru 9/2022: **\$199.8**

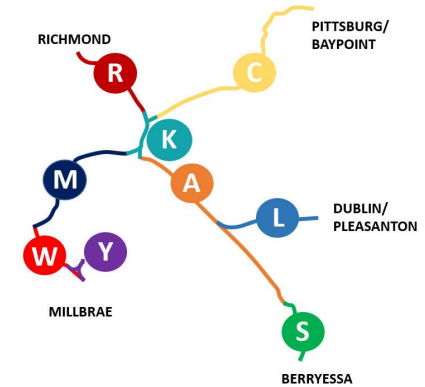
FORECAST Thru 6/2025: **\$318.3**

TOTAL PROGRAM VALUE: **\$549**

PERIOD CASHFLOW: **\$9.0**

### STATUS – Repair Tunnels & Structures

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
0	9	1	8	8	26



MILESTONES			
Completed (Jul 2022 – Sept 2022)	Q2 (Oct 2022 – Dec 2022)	Q3 (Jan 2023 – Mar 2023)	Q4 (Apr 2023 – Jun 2023)
<ul style="list-style-type: none"> <li>Completed Trackway Demolition and Restoration for TBT Retrofit</li> <li><i>Began Construction for Water Intrusion at Escalator &amp; Elevator</i></li> </ul>	<ul style="list-style-type: none"> <li>Completion of Construction Aerial Fall Protection (A Line North &amp; Central)</li> <li>Completion of Design for Water Intrusion at Train Control Rooms (Package 2)</li> <li>Completion of M2 Bore Retrofit for TBT Retrofit</li> </ul>	<ul style="list-style-type: none"> <li>Completion of Design for Slope Stabilization Systemwide</li> <li><i>Complete Pump System Upgrade for TBT Retrofit</i></li> <li><i>Completion of Design for Tunnel Waterproofing at Oakland WYE (formerly R Line)</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Completion of Design for Tunnel Waterproofing at M Line</i></li> <li><i>Completion of Design for Water Intrusion at Train Control Rooms (Package 3)</i></li> <li><i>Completion of Construction for Water Intrusion at Escalator &amp; Elevator</i></li> <li><i>Completion of Design for Street Grate and Vent Shaft (East Bay)</i></li> </ul>

### Watchlist:

- Environmental Clearance for Slope Stabilization Systemwide

*Italic: Modified milestones from previous report.*

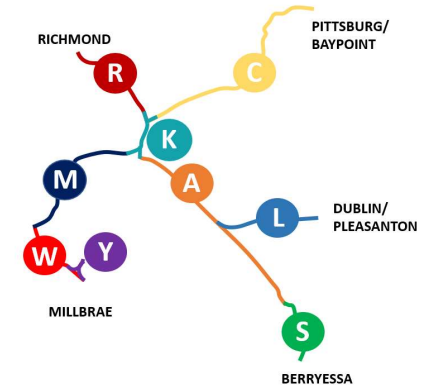


# Renew Mechanical STATUS & MILESTONES

EXPENDED Thru 9/2022: **\$74.0**  
 FORECAST Thru 6/2025: **\$133.0**  
 TOTAL PROGRAM VALUE: **\$156**  
 PERIOD CASHFLOW: **\$2.5**

## STATUS – Renew Mechanical

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
1	7	3	4	11	26



MILESTONES			
Completed (Jul 2022 – Sept 2022)	Q2 (Oct 2022 – Dec 2022)	Q3 (Jan 2023 – Mar 2023)	Q4 (Apr 2023 – Jun 2023)
<ul style="list-style-type: none"> <li>Began Construction for Fire Services at Hayward Yard</li> </ul>	<ul style="list-style-type: none"> <li><i>Begin Construction for Turntable Replacement Concord Yard</i></li> </ul>	<ul style="list-style-type: none"> <li>Issue for Bid Fire Suppression Upgrade</li> <li>Procurement of Concord Yard Dual Gauge Wheel Truing Equipment</li> <li>Completion of Design for LMA HVAC Renovation</li> </ul>	<ul style="list-style-type: none"> <li><i>Issue for Bid LMA HVAC Renovation</i></li> <li><i>Advertise Concord Yard Wheel Truing Facility</i></li> </ul>

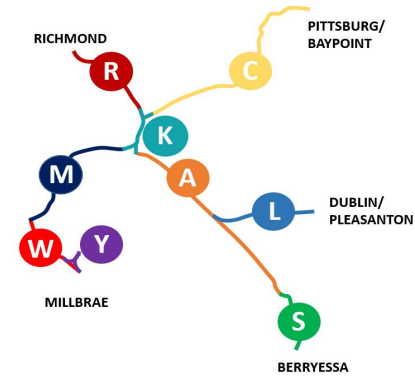
## Watchlist:

- None

*Italic: Modified milestones from previous report.*

# Replace Train Control STATUS & MILESTONES

EXPENDED Thru 9/2022: \$64.9  
FORECAST Thru 6/2025: \$113.1  
TOTAL PROGRAM VALUE: \$400  
PERIOD CASHFLOW: \$1.0



## STATUS – Replace Train Control / Increase Capacity

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
0	0	2	4	0	6

MILESTONES			
Completed (Jul 2022 – Sept 2022)	Q2 (Oct 2022 – Dec 2022)	Q3 (Jan 2023 – Mar 2023)	Q4 (Apr 2023 – Jun 2023)
<ul style="list-style-type: none"> <li>Completed CBTC Preliminary Design Gate 2 and continue FDR</li> <li>Started Automatic Train Supervision (ATS) Human Machine Interface (HMI) &amp; ATS sub-system requirement for Build Release 3 testing</li> <li>Began proof of concept installation at Hayward Test Track</li> <li>Advertised for Haz Mat on-call for Enabling Works</li> </ul>	<ul style="list-style-type: none"> <li><i>Start Phase 0 Test Track Migration Design Submittals</i></li> </ul>	<ul style="list-style-type: none"> <li>Completion of Vehicle Impacted Preliminary Design Review (PDR)</li> <li><i>Issue NTP for Haz Mat on-call for Enabling Works</i></li> <li><i>Advertise Contract K-Line Enabling works</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Begin Construction Dublin Test Track</i></li> <li><i>Complete CBTC Oakland Lab Installation</i></li> <li><i>Start CBTC equipment installations at Hayward Test Track</i></li> <li><i>Install foundations at Dublin and Hayward Test Track</i></li> </ul>

### Watchlist:

- CBTC Lab Installation – Securing Building Permit from City of Oakland

*Italic: Modified milestones from previous report.*



# Renew Stations STATUS & MILESTONES

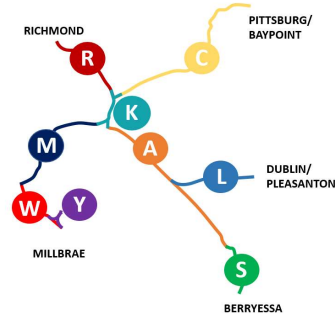
## STATUS – Renew Stations

EXPENDED Thru 9/2022: **\$57.0**

FORECAST Thru 6/2025: **\$107.1**

TOTAL PROGRAM VALUE: **\$210**

PERIOD CASHFLOW: **\$5.3**



# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
0	2	0	4	3	9

### MILESTONES

Completed (Jul 2022 – Sept 2022)	Q2 (Oct 2022 – Dec 2022)	Q3 (Jan 2023 – Mar 2023)	Q4 (Apr 2023 – Jun 2023)
<ul style="list-style-type: none"> <li>Completed last of 2<sup>nd</sup> Group and continue with 3<sup>rd</sup> Group of Market Street Escalators installation</li> <li>Completed new office, breakroom and utility room at Sector 6 – Powell Modernization</li> <li>Completed LED lighting at platform and trackside – Powell Modernization</li> <li>Completed painting at platform level – Powell Modernization</li> <li>Completed new Station Agent Booth and Fare Gate cutovers at the north end – 19<sup>th</sup> St Station Modernization.</li> <li>Completed new south end fare gate array – 19<sup>th</sup> St Station Modernization</li> </ul>	<ul style="list-style-type: none"> <li>Completion of renovation of System Services Offices for Powell St. Station Modernization</li> <li>Completion of staircase LED lighting enhancement – Powell Modernization</li> <li>Installation of Light Box Art Work at Hallidie Plaza – Powell Modernization</li> <li>Completion of Art wall relocation – Powell Modernization</li> <li><i>Construction Substantial Completion – Powell Modernization</i></li> <li>Contract Completion for 19<sup>th</sup> St Station Modernization</li> <li>Completion of Embarcadero platform escalator P2 for Market Street Escalators Project.</li> </ul>	<ul style="list-style-type: none"> <li><i>Completion of the first four canopies at Embarcadero, Montgomery St., Powell St., and Civic Center for Market Street Entry Canopies Contract</i></li> <li><i>Installation of next canopies at each of Montgomery St., and Powell St., Stations for Market Street Entry Canopies Contract</i></li> <li><i>Completion of Montgomery Station platform escalator P4 for Market Street Escalators Project</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Completion of Powell Street Station platform escalator P3 for Market Street Escalators Project</i></li> </ul>

### Watchlist:

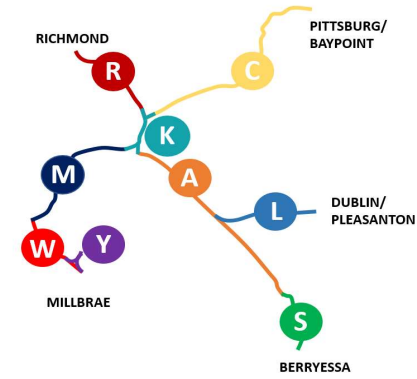
- None

*Italic: Modified milestones from previous report.*



# Station Access STATUS & MILESTONES

EXPENDED Thru 9/2022: **\$39.0**  
 FORECAST Thru 6/2025: **\$69.2**  
 TOTAL PROGRAM VALUE: **\$135**  
 PERIOD CASHFLOW: **\$1.1**



## STATUS – Expand Safe Access to Stations

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
0	10	6	3	11	30

MILESTONES			
Completed (Jul 2022 – Sept 2022)	Q2 (Oct 2022 – Dec 2022)	Q3 (Jan 2023 – Mar 2023)	Q4 (Apr 2023 – Jun 2023)
<ul style="list-style-type: none"> <li>Completed Design for 19<sup>th</sup> St. Active Access Improvement Project</li> <li>Began Construction of SR2B-funded City of Fremont Walnut Ave./Liberty St. protected intersection</li> <li>Advertised for the East Bay Greenway II Project</li> <li>Advertised for Wayfinding Improvements Phase 4</li> </ul>	<ul style="list-style-type: none"> <li><i>Re-Advertise for Accessibility Improvement (Phase 1 &amp; 2)</i></li> <li>Completion of construction of SR2B-funded SFMTA 5<sup>th</sup> Street Improvement project</li> <li>Begin Construction for Balboa Park – Upper Plaza Project</li> <li>Award for Wayfinding Improvements Phase 4</li> <li><i>Advertise for PA System Improvement</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Award for Accessibility Improvement (Phase 1 &amp; 2)</i></li> <li><i>Award for PA System Improvement</i></li> <li>Completion of design for Ashby Access Improvement Project</li> <li><i>Completion of design for the Dublin/Pleasanton Access Improvement Project</i></li> <li>NTP for East Bay Greenway II Project</li> <li><i>Completion of Construction for 12th St. Bike Racks</i></li> </ul>	<ul style="list-style-type: none"> <li><i>NTP for Accessibility Improvement (Phase 1 &amp; 2)</i></li> <li><i>NTP for PA System Improvement</i></li> </ul>

## Watchlist:

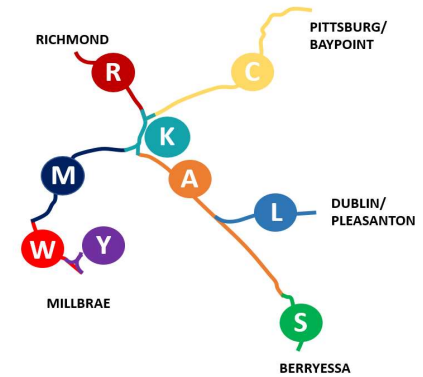
City of Pittsburg BART Ped/Bike Connectivity Project Construction

*Italic: Modified milestones from previous report.*



# Relieve Crowding STATUS & MILESTONES

EXPENDED Thru 9/2022: **\$94.7**  
 FORECAST Thru 6/2025: **\$127.8**  
 TOTAL PROGRAM VALUE: **\$200**  
 PERIOD CASHFLOW: **\$7.5**



## STATUS – Design / Engineer to Relieve Crowding

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
2	2	0	2	1	7

MILESTONES			
Completed (Jul 2022 – Sept 2022)	Q2 (Oct 2022 – Dec 2022)	Q3 (Jan 2023 – Mar 2023)	Q4 (Apr 2023 – Jun 2023)
<ul style="list-style-type: none"> <li>Mobilization for Hayward Maintenance Complex Phase 2: Civil/Grading</li> <li>Completed of Opportunities and Constraints Report and Freight Rail Coordination Study for Link21 (NTRC)</li> </ul>	<ul style="list-style-type: none"> <li>Completion of Construction for Civic Center Platform Stairs</li> <li><i>Link21 Public Outreach – Introduction to Concepts</i></li> </ul>	<ul style="list-style-type: none"> <li>Complete Design for Hayward Maintenance Complex 2: East Storage Yard</li> <li><i>Link21: Cocreation Round 4 (NTRC)</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Public Outreach – Full list of Concepts for Link21 (NTRC)</i></li> <li><i>Completion of Travel Demand and Land Use Model for Link21 (NTRC)</i></li> </ul>

### Watchlist:

- None

*Italic: Modified milestones from previous report.*



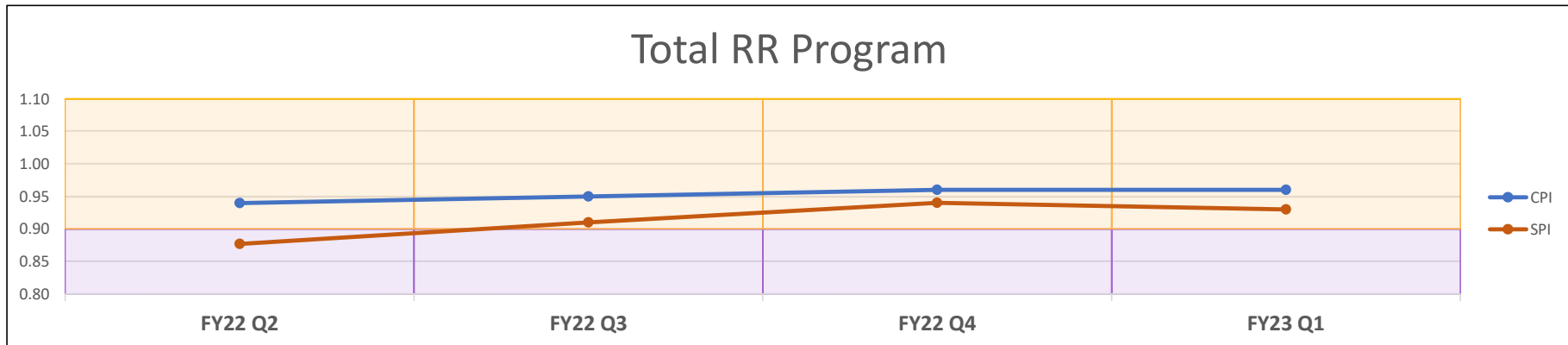


# Budget and Schedule Status



# Earned Value Rollup by Program As of September 2022

Goal: CPI and SPI between 0.9 and 1.1



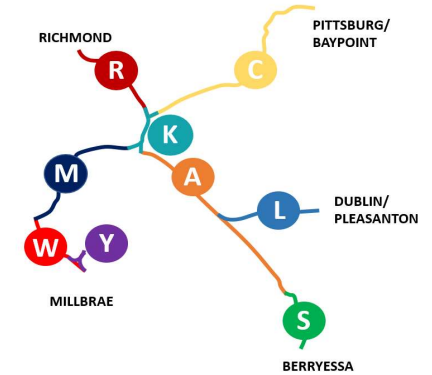
RR Program	Total RR Budget	Physical % Complete	Planned Value	Earned Value	RR Accrued to Date	CPI	SPI
Renew Track	\$625	64%	\$393.23	\$401.14	\$386.91	1.04	1.02
Renew Power	\$1,225	47%	\$679.05	\$576.79	\$661.50	0.87	0.85
Repair Tunnels and Structures	\$549	39%	\$209.68	\$212.17	\$207.23	1.02	1.01
Renew Mechanical	\$156	51%	\$80.99	\$80.24	\$78.35	1.02	0.99
Replace Train Control/ Increase Capacity	\$400	15%	\$71.84	\$61.52	\$65.10	0.95	0.86
Renew Stations	\$210	30%	\$61.56	\$62.03	\$58.11	1.07	1.01
Expand Safe Access to Stations	\$135	29%	\$42.40	\$39.00	\$36.08	1.08	0.92
Design/Engineer to Relieve Crowding	\$200	50%	\$107.56	\$99.62	\$99.86	1.00	0.93
<b>Total</b>	<b>\$3,500</b>	<b>44%</b>	<b>\$1,646.32</b>	<b>\$1,532.53</b>	<b>\$1,593.14</b>	<b>0.96</b>	<b>0.93</b>

CPI – Cost Performance Index    SPI – Schedule Performance Index



# Track Program Drill Down

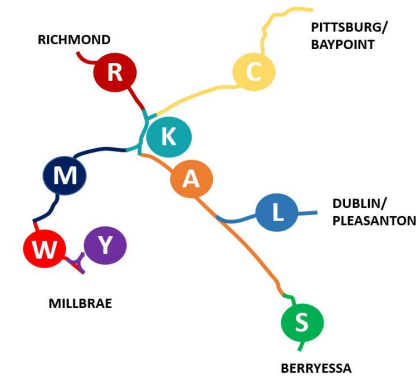
Project	Count
Number of Projects (>25% Spent)	17
CPI <0.9 or >1.1	2
SPI <0.9 or >1.1	1
Number of Risk Register Updates Performed in Previous Period	14
Number of Project(s) with Quality Reviews Performed in Previous Period	6



Project	Physical % Complete	CPI	SPI	Comments
Rail Re-Profiling	98%	1.24	0.99	Expended less than planned due to BART self performing some of the work.
Replace Direct Fixation Pads	83%	1.02	1.57	Realized efficiencies during construction.
Switch Replacement	53%	0.88	1.10	Realized efficiency from extended blanket hours but at higher cost.

# Power Program Drill Down

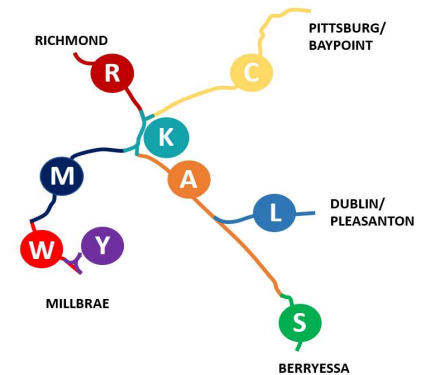
Project	Count
Number of Projects (>25% Spent)	19
CPI <0.9 or >1.1	6
SPI <0.9 or >1.1	4
Number of Risk Register Updates Performed in Previous Period	5
Number of Project(s) with Quality Reviews Performed in Previous Period	2



Project	Physical % Complete	CPI	SPI	Comments
Emergency Generator for Transbay Tube	94%	0.87	0.94	Costs increased due to administering complex change orders
M-Line 34.5kV AC Cable Replacement	94%	0.97	1.17	Project has reached substantial completion for cable installation ahead of schedule
San Leandro and Transbay Tube East Substation Replacements	91%	0.83	0.97	Costs of pre-requisite work increased due to complex site conditions. Working with contractor to minimize project impact
A-Line 34.5kV AC Cable Replacement	60%	0.84	1.08	Differing site conditions lead to multiple change orders. Working with contractor to minimize project impact
Substation for Core Capacity	60%	1.07	0.89	Delayed due to increased environmental remediation
Stations Emergency Lighting	54%	0.84	0.59	Change notice executed to address differing site conditions
R-Line 34.5kV AC Cable Replacement	39%	0.86	0.95	Accelerated installation impacted by R-Line emergency as work was performed over extended hours and multiple crews.
SFTS Transformer / Bus Upgrade	31%	0.69	0.31	Coordination with external agencies for transformer design, testing and installation plans

# Tunnels & Structures Program Drill Down

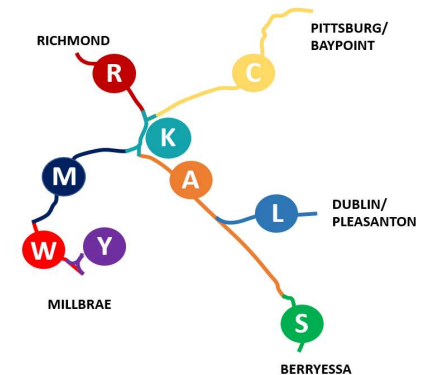
Project	Count
Number of Projects (>25% Spent)	26
CPI <0.9 or >1.1	3
SPI <0.9 or >1.1	3
Number of Risk Register Updates Performed in Previous Period	16
Number of Project(s) with Quality Reviews Performed in Previous Period	7



Project	Physical % Complete	CPI	SPI	Comments
Rehab Expansion Joints at Abutment	90%	1.19	0.92	Realized Efficiency in Design
Fences Systemwide	89%	0.86	0.91	CM charges as a result of negotiations and coordination are impacting costs. Contract has stopped work.
Water Intrusion Escalator/Elevator	80%	1.00	0.80	Installation progress impacted by R-Line emergency repairs
Wayside Regulatory Signage	52%	1.09	0.88	Resources reallocated to higher priority projects
Substation Roofs	41%	1.21	1.01	Easier locations are completed, which cost less.
Slope Stabilizations SWD	38%	0.99	0.82	Final Design is delayed due to Environmental Clearance

# Mechanical Program Drill Down

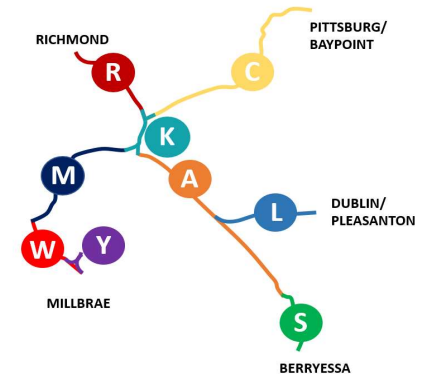
Project	Count
Number of Projects (>25% Spent)	21
CPI <0.9 or >1.1	1
SPI <0.9 or >1.1	1
Number of Risk Register Updates Performed in Previous Period	14
Number of Project(s) with Quality Reviews Performed in Previous Period	1



Project	Physical % Complete	CPI	SPI	Comments
Replace Fire Hoses and Piping	99%	1.24	0.99	Self-performed to improve efficiency.
Replace Backflow Preventers	52%	1.09	0.87	Change in deliver method (to self-performed) is causing a delay in completion, but a cost benefit.

# Station Access Program Drill Down

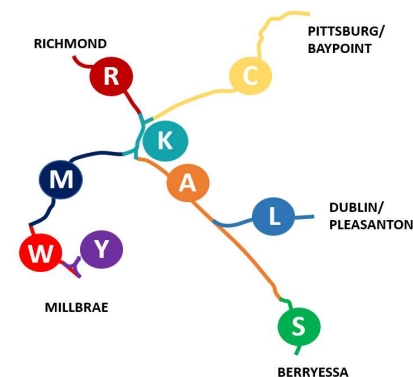
Project	Count
Number of Projects (>25% Spent)	15
CPI <0.9 or >1.1	1
SPI <0.9 or >1.1	0
Number of Risk Register Updates Performed in Previous Period	0
Number of Project(s) with Quality Reviews Performed in Previous Period	0



Project	Physical % Complete	CPI	SPI	Comments
North Berkeley Station Access Improvement	27%	0.92	0.69	Resources reallocated to higher priority projects

# Relieve Crowding Program Drill Down

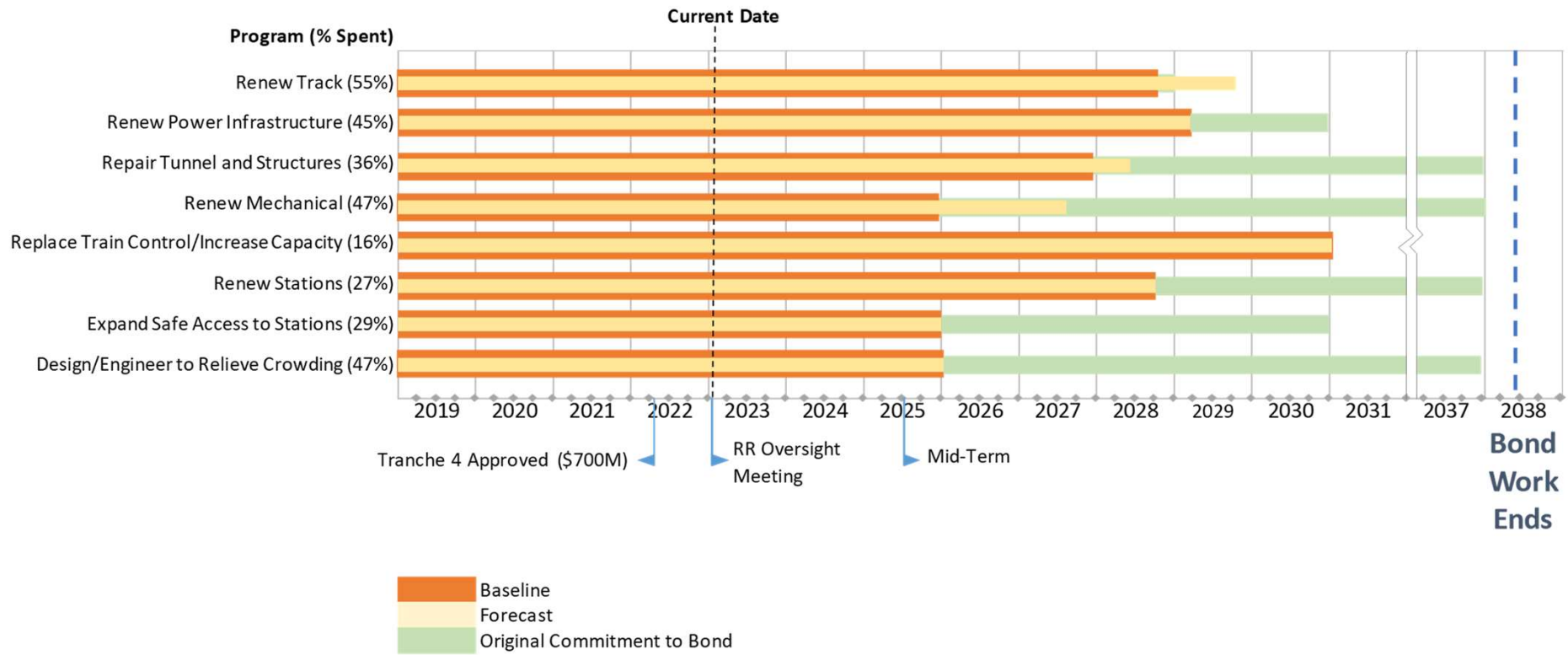
Project	Count
Number of Projects (>25% Spent)	5
CPI <0.9 or >1.1	1
SPI <0.9 or >1.1	2
Number of Risk Register Updates Performed in Previous Period	1
Number of Project(s) with Quality Reviews Performed in Previous Period	1



Project	Physical % Complete	CPI	SPI	Comments
Civic Center Scissor Stairs	83%	0.94	0.85	Stainless steel cladding fabricating taking longer than anticipated
Hayward Maintenance Phase 2	40%	1.13	0.78	Schedule recovery from stop notice issued to consultant team



# Program Level Schedule Update



## Next Steps

- Appoint 2023 Annual Report Sub-committee
- April 2023 Bond Oversight Meeting

# Thank you!

