



▶ 5.B. Measure RR BART Safety, Reliability and Traffic Relief Program Appendix

Bond Oversight Committee | April 18, 2025

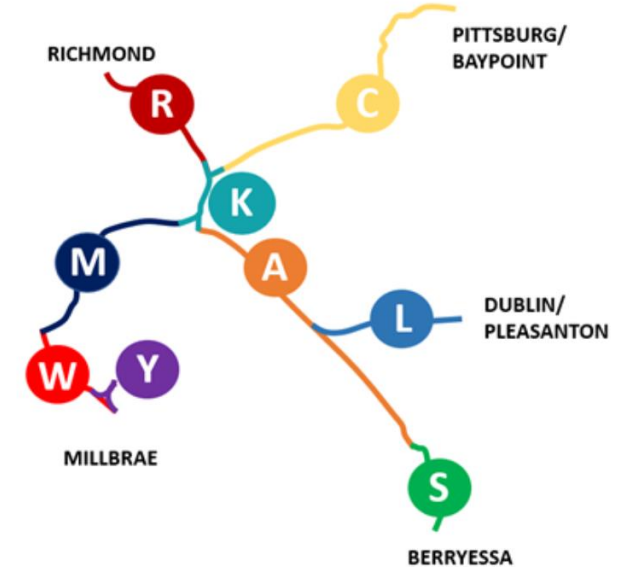


Bond Oversight Committee Duties & Responsibilities

- 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 December 2024, \$1.95B of the Measure RR funds have been invested to complete 66%* of the work.
- Successes
 - Completion of Construction for the following:
 - Civic Center Substation
 - Canopies at Montgomery Street Station and Civic Center Station
 - Escalators at Embarcadero and Montgomery Street Station
 - Hayward Maintenance Complex Phase 2 (HMC2) Civil Grading Contract



# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
10 (+2)	26 (0)	12 (-3)	56 (+3)	65 (+3)	169 (+5)

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

*To be updated in next quarter's report



5.B.1. Appendix: Cashflow and Revenue



Measure RR Cashflow (\$ Millions): Long-Term Outlook

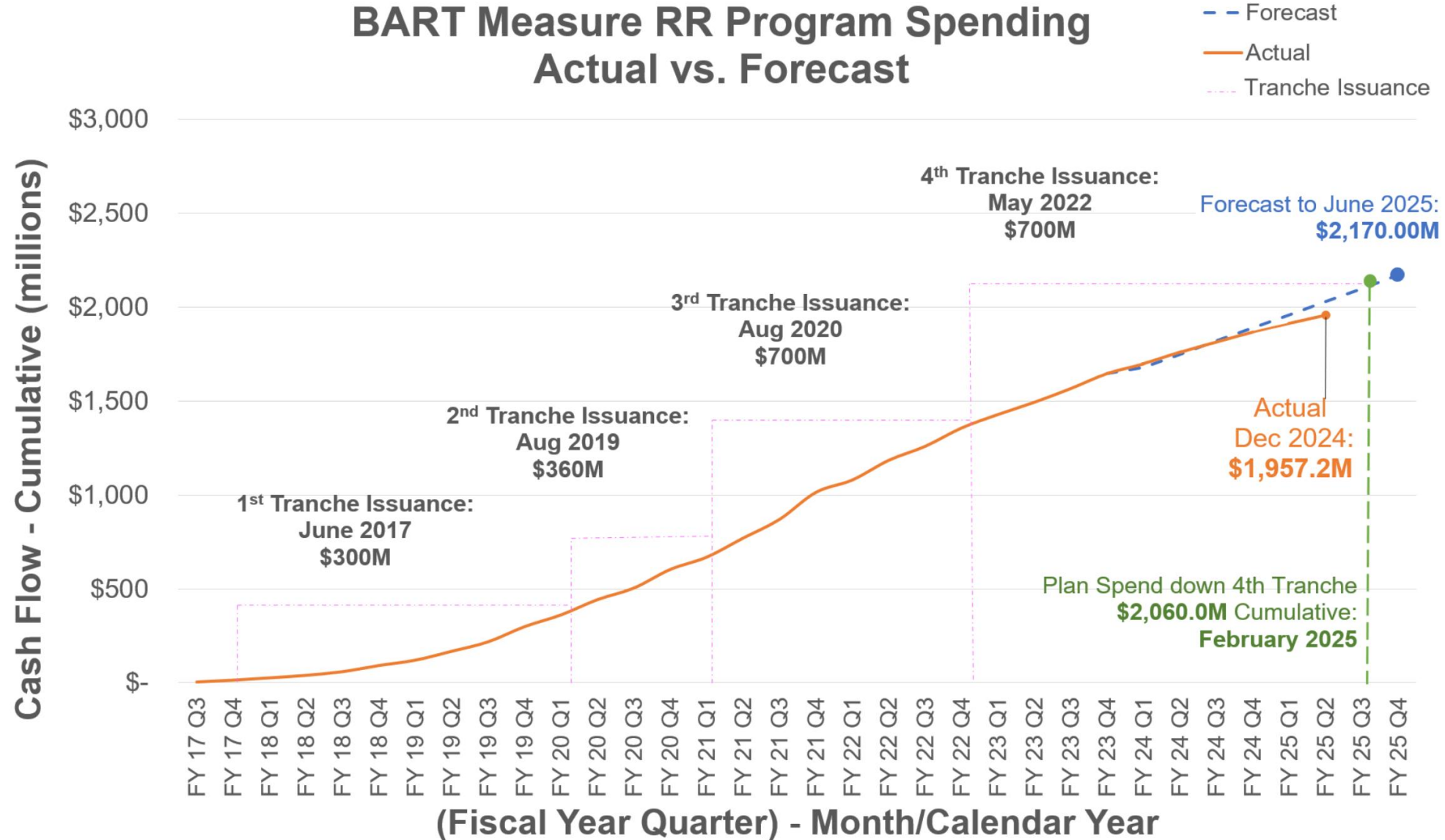
Program	Expended (thru September 2024)	Expended (thru December 2024)	Period Cashflow (Oct 2024 – December 2024)	% Expended out of Total Bond Investment	Long Term Expenditure
Renew Track	\$439.1	\$446.0	\$6.9	71%	\$625
Renew Power Infrastructure	\$763.1	\$773.2	\$10.1	63%	\$1,225
Repair Tunnels & Structures	\$264.1	\$268.7	\$4.6	49%	\$549
Renew Mechanical	\$91.2	\$92.9	\$1.7	60%	\$156
Replace Train Control/Increase Capacity	\$56.6	\$64.9	\$8.3	16%	\$400
Renew Stations	\$89.3	\$96.1	\$6.8	46%	\$210
Expand Safe Access to Stations	\$46.5	\$51.6	\$5.1	38%	\$135
Design/Engineer to Relieve Crowding*	\$161.8	\$163.8	\$2.0	82%	\$200
Total	\$1,911.7	\$1,957.2	\$45.5	56%	\$3,500

*Full Title: Design and Engineer Future Projects to Relieve Crowding, Increase System Redundancy, and Reduce Traffic Congestion



Management of Revenue and Spending

BART Measure RR Program Spending Actual vs. Forecast



5.B.2. Appendix: Financial Outlook, Program Status & Milestones



Work Progress Since Last Meeting



*Updated Projects



Individual Program Milestones

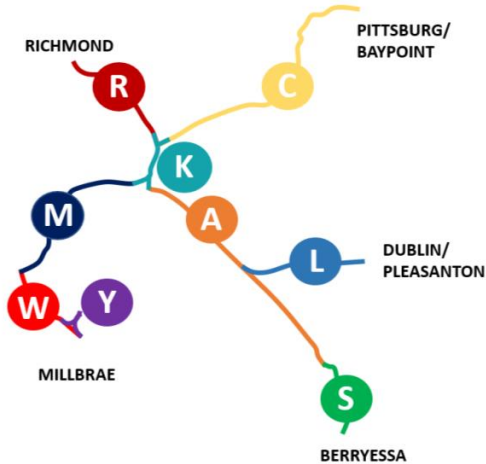


Renew Track

STATUS & MILESTONES

EXPENDED Thru 12/2024: \$446
TOTAL PROGRAM VALUE: \$625
PERIOD CASHFLOW: \$6.9

All dollar values are in millions



STATUS – Renew Track

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
1	0	1	9	11	22

MILESTONES			
Completed (Oct 2024 – Dec 2024)	Q3 (Jan 2025 – March 2025)	Q4 (Apr 2025 – June 2025)	Q1 (July 2025 – Sep 2025)
<ul style="list-style-type: none">Began Closeout for Oakland Yard Tracks		<ul style="list-style-type: none"><i>Completion of Construction for Switch Point Replacement for Hayward and Concord Yards</i><i>Completion of Construction for A77 Interlocking</i>	<ul style="list-style-type: none"><i>Advertise to Bid Direct Fixation Fasteners Material Procurement Contract</i>

Watchlist:

- Significant number of Weekend Shutdowns and Bus Bridges
- K-Line Project Reschedule

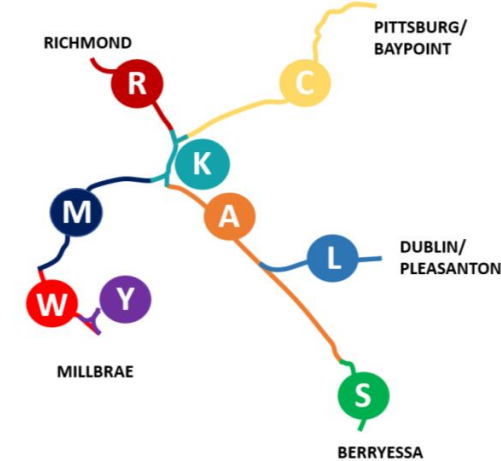
Italic: Newly added and modified milestones from previous report.



Renew Power

STATUS & MILESTONES

EXPENDED Thru 12/2024: \$773.2
TOTAL PROGRAM VALUE: \$1,225
PERIOD CASHFLOW: \$10.1
All dollar values are in millions



STATUS – Renew Power Infrastructure

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
1	7	2	18	7	35

MILESTONES			
Completed (Oct 2024 – Dec 2024)	Q3 (Jan 2025 – March 2025)	Q4 (Apr 2025 – June 2025)	Q1 (July 2025 – Sep 2025)
<ul style="list-style-type: none">Completed Construction for Civic Center Substation (MCC)Completed Contract Closeout for 34.5kV Cable Replacement from El Cerrito Plaza Substation (RCP) to Richmond Yard Substation (RRY)	<ul style="list-style-type: none">Substantial Completion for 34.5kV Cable replacement and Fiber Optic Installation between Union City Substation (AUC) and Coliseum Substation (ACO)	<ul style="list-style-type: none">Completion of Construction of Montgomery Street Substation (MMS)Issue for Bid Station Fire Alarm Replacement Phase 4Completion of Construction of SFTS Transformer/Bus UpgradeCompletion of Construction for Oakland Transition Structure (KTE) Traction Power Substation ReplacementIssue for Bid MET-G Generator Replacement Project	<ul style="list-style-type: none">Completion of 34.5kV Raceway Construction from Orinda (COR) to Acalanes Road (CAR)Substantial Completion for Traction Power Portable SubstationsCompletion of Construction for Battery Replacement for Train Control Rooms Phase 2

Watchlist:

- Substation Construction
- K-Line and C-Line Project Reschedule (34.5 kV Cable & Fiber Replacement Project)

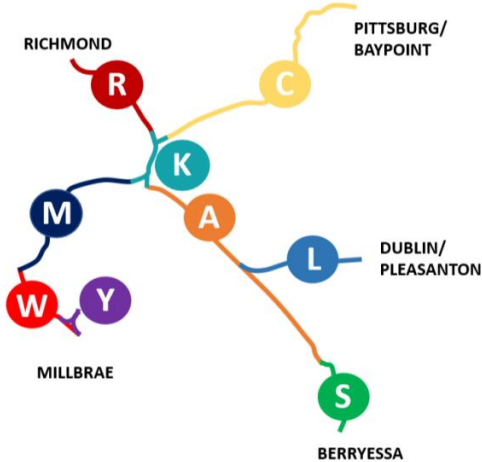
Italic: Newly added and modified milestones from previous report.



Tunnels & Structures

STATUS & MILESTONES

EXPENDED Thru 12/2024: \$268.7
TOTAL PROGRAM VALUE: \$549
PERIOD CASHFLOW: \$4.6
All dollar values are in millions



STATUS – Repair Tunnels & Structures

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
0	2	6	7	12	27

MILESTONES			
Completed (Oct 2024 – Dec 2024)	Q3 (Jan 2025 – March 2025)	Q4 (Apr 2025 – June 2025)	Q1 (July 2025 – Sep 2025)
<ul style="list-style-type: none">Completed Design for Richmond Yard Carwash Building FenceCompleted Aerial Bearing Pad Assessment	<ul style="list-style-type: none">Begin Construction for Water Intrusion at Train Control Rooms (Package 2, 4 locations)<i>Begin Construction for Slope Stabilization on L and M lines (4 sites)</i>	<ul style="list-style-type: none">Completion of Construction (In-house) of Renew Catwalks at Aerial Structure (Phase 3B)	<ul style="list-style-type: none"><i>Completion of Design for East Bay Street Grates</i>

Watchlist:

- Design for Water Intrusion at Train Control Rooms

Italic: Newly added and modified milestones from previous report.



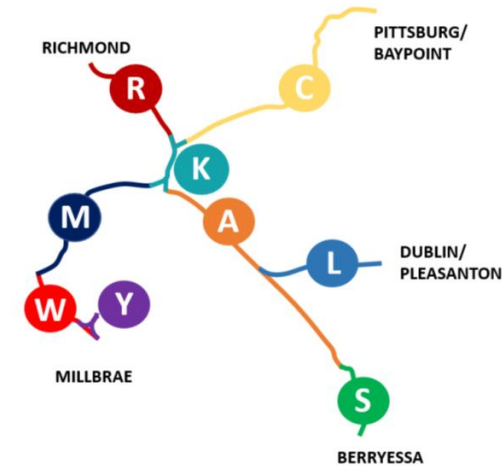
Renew Mechanical

STATUS & MILESTONES

STATUS – Renew Mechanical

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
0	4	2	4	15	25

EXPENDED Thru 12/2024: \$92.9
TOTAL PROGRAM VALUE: \$156
PERIOD CASHFLOW: \$1.7
All dollar values are in millions



MILESTONES			
Completed (Oct 2024 – Dec 2024)	Q3 (Jan 2025 – March 2025)	Q4 (Apr 2025 – June 2025)	Q1 (July 2025 – Sep 2025)
	<ul style="list-style-type: none">Procure Sewage Pumps for Sewage Replacement ProjectInstall Transbay Tube Dampers at the Oakland Transition Structure	<ul style="list-style-type: none">Install Sewage Pumps at Pittsburg/ Bay Point Station (C80) and 19th Street Station (K20)	<ul style="list-style-type: none"><i>Commissioning of Hayward Yard Fire Services</i><i>Issue for Bid Concord Yard Wheel Truing Facility</i>

Watchlist:

- Delivery Method for Fire Suppression Systems Upgrade Project

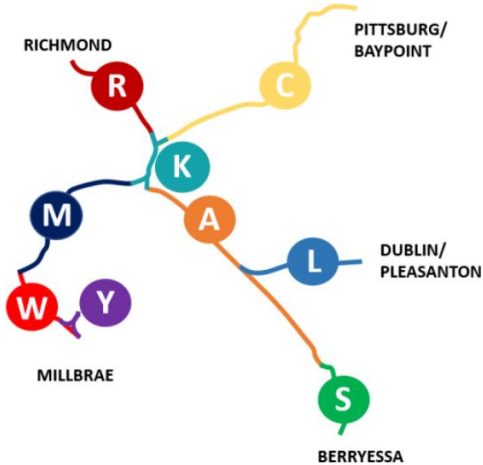
Italic: Newly added and modified milestones from previous report.



Replace Train Control

STATUS & MILESTONES

EXPENDED Thru 12/2024 : \$64.9
TOTAL PROGRAM VALUE: \$400
PERIOD CASHFLOW: \$8.3
All dollar values are in millions



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	0	6	0	6

MILESTONES			
Completed (Oct 2024 – Dec 2024)	Q3 (Jan 2025 – March 2025)	Q4 (Apr 2025 – June 2025)	Q1 (July 2025 – Sep 2025)
<ul style="list-style-type: none">Delivered Hi-Rail Vehicles (2 each) for Enabling WorksCompleted Asbestos Remediation Work in Train Control Rooms (13 Locations)Began Electrical Installations for CBTC between Millbrae and Colma Stations Phase 2	<ul style="list-style-type: none">Delivery of Transponders and Data Communication Systems (DCS) Equipment for CBTC Phase 2Completion of Migration Design Review for Axle Counter for CBTC Phase 2 (Millbrae and Colma Stations)Begin Cable Pathway Installation for CBTC between Millbrae and Colma Stations Phase 2	<ul style="list-style-type: none">Completion of Static Test on Hayward Test TrackPerform CBTC Equipment Testing at Lake Merritt Administration (LMA) Phase 1Completion of Self-Performed M-Line Pre-cutover Installation Work in Train Control Room	<ul style="list-style-type: none"><i>Completion of CBTC Equipment Testing at Lake Merritt Administration (LMA) Phase 1</i><i>Start of Equipment Testing at Phase 2 (W-Line)</i><i>Start of Self-Performed A-Line Wayside Installation</i>

Watchlist:

- None

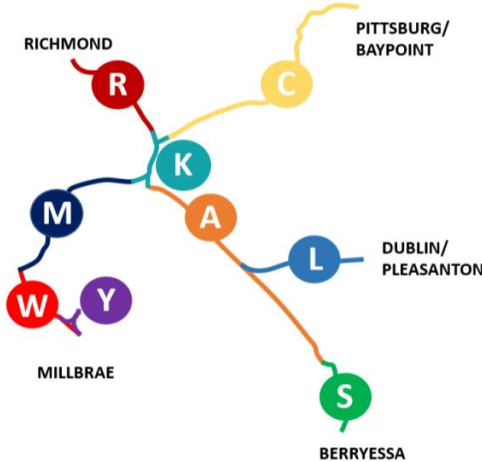
Italic: Newly added and modified milestones from previous report.



Renew Stations

STATUS & MILESTONES

EXPENDED Thru 12/2024 : **\$96.1**
TOTAL PROGRAM VALUE: **\$210**
PERIOD CASH FLOW: **\$6.8**
All dollar values are in millions



STATUS – Renew Stations

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
1	2	0	2	5	10

MILESTONES			
Completed (Oct 2024 – Dec 2024)	Q3 (Jan 2025 – March 2025)	Q4 (Apr 2025 – June 2025)	Q1 (July 2025 – Sep 2025)
<ul style="list-style-type: none">Completed Construction for S5 Street Level Escalator at Embarcadero StationCompleted Construction for Canopy 7 at Montgomery Station and Canopy 18 at Civic Center Station	<ul style="list-style-type: none">Completion of Construction for P2 Platform Escalator at Civic Center Station, and P5 Platform Escalator at Powell Street StationCompletion of Construction for Canopy 1 at Embarcadero Station and Canopy 10 at Montgomery Station	<ul style="list-style-type: none">Completion of Construction for Canopy 17 at Market StreetCompletion of Construction for P3 Platform Escalator at Embarcadero Station	<ul style="list-style-type: none">Completion of Construction for Canopy 4 at Embarcadero StationCompletion of Construction for S5 and S7 Street Escalators and P2 Platform Escalator at Montgomery Street Station, and P3 Platform Escalator at Civic Center Station

Watchlist:

- Construction of Escalators

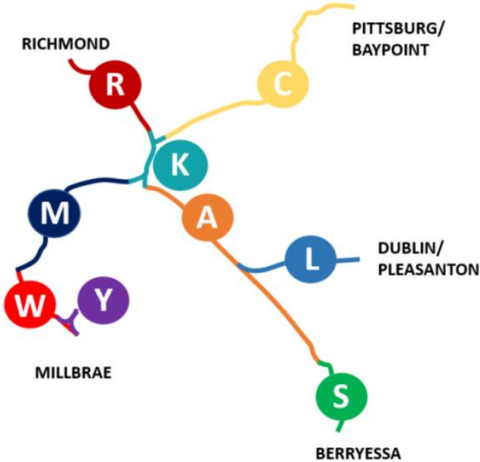
Italic: Newly added and modified milestones from previous report.



Station Access

STATUS & MILESTONES

EXPENDED Thru 12/2024 : \$51.6
TOTAL PROGRAM VALUE: \$135
PERIOD CASHFLOW: \$5.1
All dollar values are in millions



STATUS – Expand Safe Access to Stations

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
4	9	1	9	13	36

MILESTONES			
Completed (Oct 2024 – Dec 2024)	Q3 (Jan 2025 – March 2025)	Q4 (Apr 2025 – June 2025)	Q1 (July 2025 – Sep 2025)
<ul style="list-style-type: none">Completed Design for Pittsburg/Bay Point Shared Mobility Improvement ProjectCompleted Exterior Construction for ADA Access Corrections at Castro Valley, Rockridge, and Richmond StationsCompleted Construction of SR2B-funded Iron Horse Trail Bridge Project<i>Completed Construction on the Ashby Bicycle Access Improvement Project</i>		<ul style="list-style-type: none">Issue for Bid Dublin/Pleasanton Station Access ImprovementsCompletion of 100% Redesign for PA System Improvements<i>Completion of Construction of SR2B-funded El Cerrito Del Norte Street Improvements</i><i>Completion of Construction of SR2B-funded Pittsburg Center BART Pedestrian Connectivity Project</i>	<ul style="list-style-type: none"><i>Completion of Construction of North Berkeley Station Access Improvement Project</i><i>Issue for Bid Pittsburg/Bay Point Shared Mobility Improvement Project</i><i>Completion of 100% Design for Wayfinding Improvements Phase 4.1 at North Berkeley, Rockridge, and Fruitvale Stations</i>

Watchlist:

- None

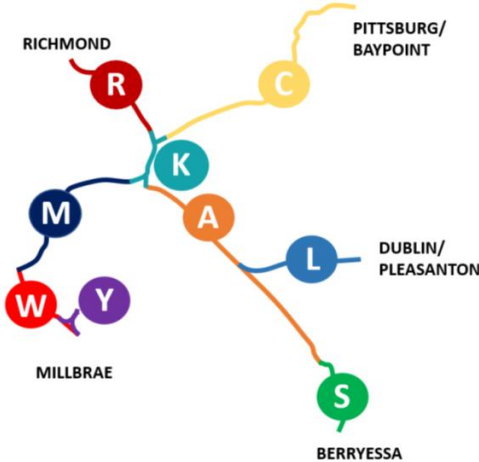
*Milestone for Completion of Construction of Stairway Bicycle Channels at Civic Center, Embarcadero, 24th Street postponed due to project reprioritization *Italic: Newly added and modified milestones from previous report.*

Relieve Crowding*

STATUS & MILESTONES

*Full Title: Design and Engineer Future Projects to Relieve Crowding, Increase System Redundancy, and Reduce Traffic Congestion

EXPENDED Thru 12/2024 : **\$163.8**
TOTAL PROGRAM VALUE: **\$200**
PERIOD CASHFLOW: **\$2.0**
All dollar values are in millions



STATUS – Design / Engineer to Relieve Crowding*

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
3	2	0	1	2	8

MILESTONES			
Completed (Oct 2024 – Dec 2024)	Q3 (Jan 2025 – March 2025)	Q4 (Apr 2025 – June 2025)	Q1 (July 2025 – Sep 2025)
<ul style="list-style-type: none">Completed Construction for the Civil Grading Contract	<ul style="list-style-type: none">Completion of Trackwork Procurement Contract	<ul style="list-style-type: none"><i>FTA Review of East Storage Yard (ESY) Optimization Plan</i><i>Completion of Design for Embarcadero Platform Elevator Project</i>	<ul style="list-style-type: none"><i>FTA Acceptance of East Storage Yard (ESY) Optimization Plan</i>

Watchlist:

- Phasing for Embarcadero South Stairs Expansion and Platform Elevator Modernization
- Hayward Maintenance Complex Phase 2 (HMC2) Optimization Plan

Italic: Newly added and modified milestones from previous report.



Budget and Schedule Status



Earned Value Rollup by Program As of Dec 2024

Goal: CPI and SPI between 0.9 and 1.1

RR Program	Total RR Budget	Physical % Complete	Planned Value	Earned Value	Accrued to Date	CPI	SPI
Renew Track							
Renew Power							
Repair Tunnels and Structures							
Renew Mechanical							
Replace Train Control/ Increase Capacity							
Renew Stations							
Expand Safe Access to Stations							
Design/Engineer to Relieve Crowding*							
Total							

This information will be provided in the next quarter's report.

CPI – Cost Performance Index

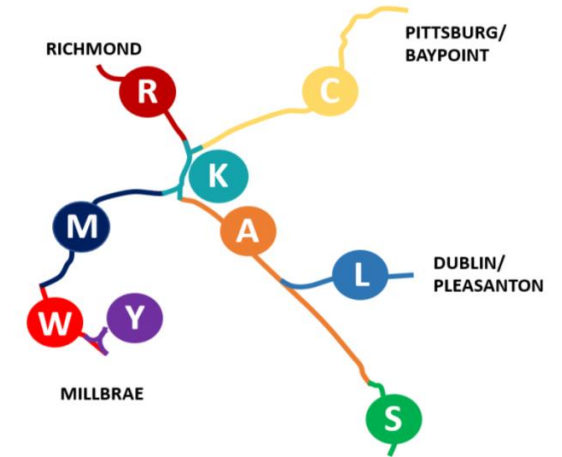
SPI – Schedule Performance Index

*Full Title: Design and Engineer Future Projects to Relieve Crowding, Increase System Redundancy, and Reduce Traffic Congestion



Track Program Detail

Project	Count
Number of Projects (>25% Spent)	19
CPI <0.9 or >1.1	2
SPI <0.9 or >1.1	3
Number of Risk Register Updates Performed in Previous Period	7
Number of Project(s) with Quality Reviews Performed in Previous Period	2

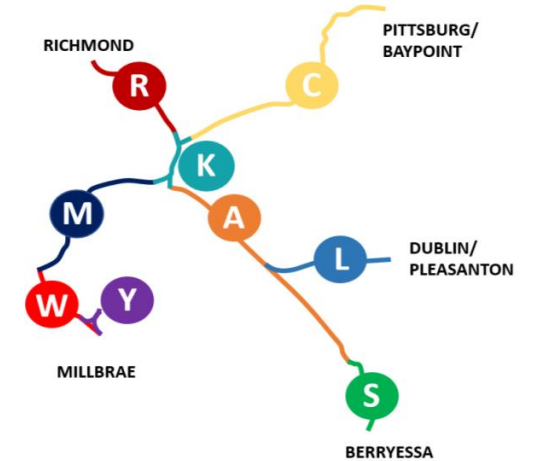


Project	Physical % Complete	CPI	SPI	Comments
Switch Replacement	84%	0.90	1.23	Completed more locations than planned
Frog Capital Maintenance	86%	0.97	0.86	Schedule impact due to unexpected asset degradation, rework needed
R65 Mainline Interlocking	100%	1.24	1.00	Production efficiency
Rail Re-Profiling	100%	1.26	1.00	Production efficiency
K-Line Interlocking K23, K25, C15	37%	1.00	0.69	Project is behind schedule due to revised Weekend Shutdown Schedule



Power Program Detail

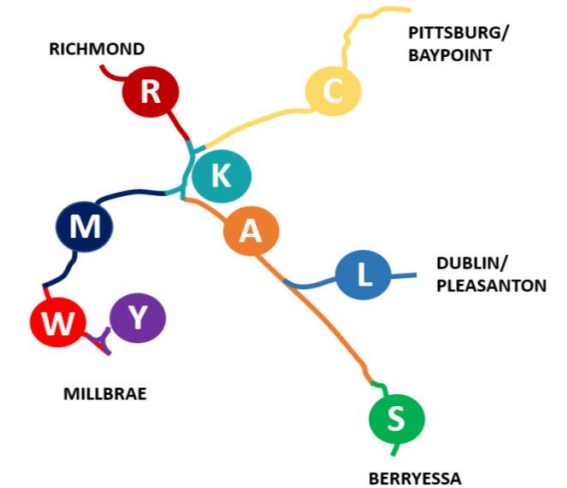
Project	Count
Number of Projects (>25% Spent)	27
CPI <0.9 or >1.1	4
SPI <0.9 or >1.1	7
Number of Risk Register Updates Performed in Previous Period	17
Number of Project(s) with Quality Reviews Performed in Previous Period	4



Project	Physical % Complete	CPI	SPI	Comments
R-Line 34.5kV AC Cable Replacement	93%	0.84	1.33	Emergency repair work performed by in-house forces. Contractor finished work ahead of schedule
C-Line 34.5kV AC Cable Replacement	20%	0.58	0.67	Carrying over the cost and schedule impact from the previous emergency repair work on the R-Line Cable project
K-Line 34.5kV AC Cable Replacement	50%	1.08	0.62	Impacted by availability of resources
PG&E Power feed to MXP Gap Breaker	27%	0.92	0.27	Impacted by coordination with external agencies
SFTS Transformer / Bus Upgrade	59%	0.86	0.69	Impacted by coordination with external agencies for transformer design, testing and installation
Substations for Core Capacity	86%	0.90	0.77	Impacted by extended testing duration
Battery Room Replacement for Train Control Rooms	93%	0.88	0.93	Delayed due to ongoing scope discussions for 2 locations
Systemwide MPR & Rectifier Renovation	61%	1.0	0.87	Impacted by availability of resources

Tunnels & Structures Program Detail

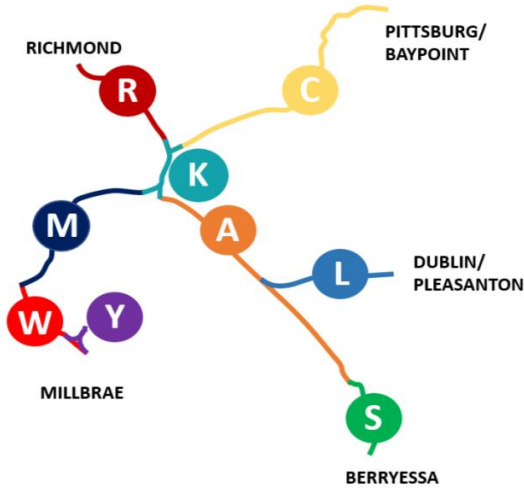
Project	Count
Number of Projects (>25% Spent)	26
CPI <0.9 or >1.1	4
SPI <0.9 or >1.1	3
Number of Risk Register Updates Performed in Previous Period	3
Number of Project(s) with Quality Reviews Performed in Previous Period	2



Project	Physical % Complete	CPI	SPI	Comments
Aerial Catwalk Renewal	46%	1.13	1.03	Efficiency with installation at more easily accessible locations
Slope stabilization (AC, CCC, SFC)	74%	0.76	0.55	Delay carried over from extended environmental clearance
Substation Roofs	53%	0.86	0.56	Additional safety requirements & training impacted the schedule
Wayside Signage Inspection and Inventory	55%	0.76	0.55	Delay due to availability of resources and challenging locations

Mechanical Program Detail

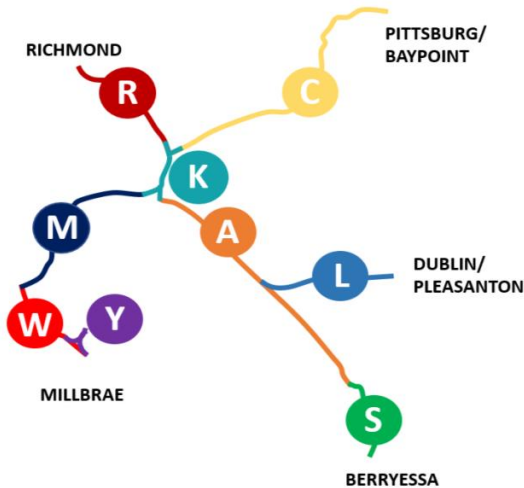
Project	Count
Number of Projects (>25% Spent)	27
CPI <0.9 or >1.1	2
SPI <0.9 or >1.1	1
Number of Risk Register Updates Performed in Previous Period	5
Number of Project(s) with Quality Reviews Performed in Previous Period	0



Project	Physical % Complete	CPI	SPI	Comments
Replace Backflow Preventers	97%	2.23	0.97	Change in delivery method (to self-performed) created a benefit to both cost and schedule
Replace Sewage Pumps	50%	0.92	0.82	Delay due to design package completion
Transbay Tube Dampers Overhaul	80%	1.14	1.05	Procurement effort is optimized and ahead of schedule

Renew Stations Program Detail

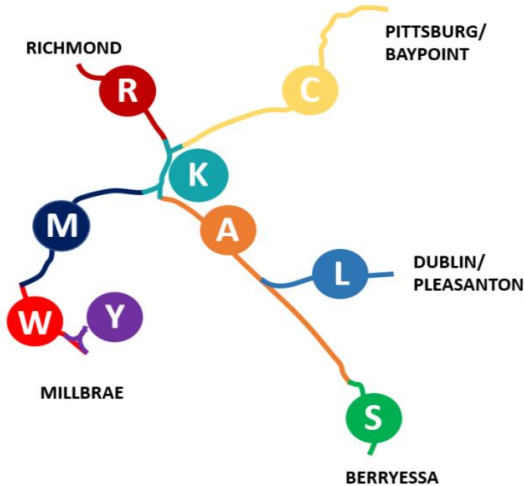
Project	Count
Number of Projects (>25% Spent)	8
CPI <0.9 or >1.1	0
SPI <0.9 or >1.1	0
Number of Risk Register Updates Performed in Previous Period	0
Number of Project(s) with Quality Reviews Performed in Previous Period	0



Project	Physical % Complete	CPI	SPI	Comments
There are no projects with CPI and SPI outside the range of 0.9 and 1.1				

Station Access Program Detail

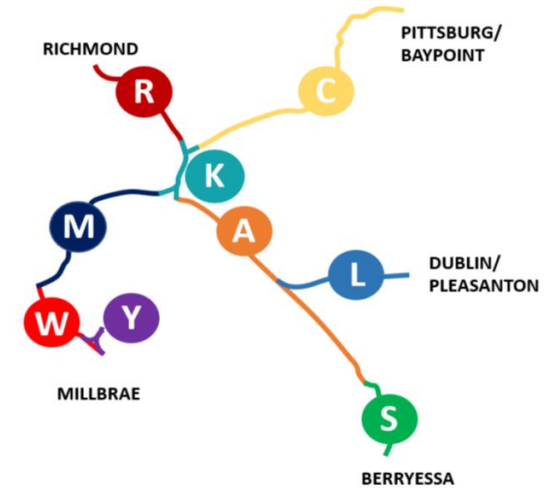
Project	Count
Number of Projects (>25% Spent)	25
CPI <0.9 or >1.1	2
SPI <0.9 or >1.1	1
Number of Risk Register Updates Performed in Previous Period	6
Number of Project(s) with Quality Reviews Performed in Previous Period	2



Project	Physical % Complete	CPI	SPI	Comments
North Berkeley Station Access Improvement	94%	1.16	0.94	Realized efficiencies in Construction phase
Bicycle Stair Channels	59%	1.21	0.92	Project incurring lower labor rates than planned

Relieve Crowding* Program Detail

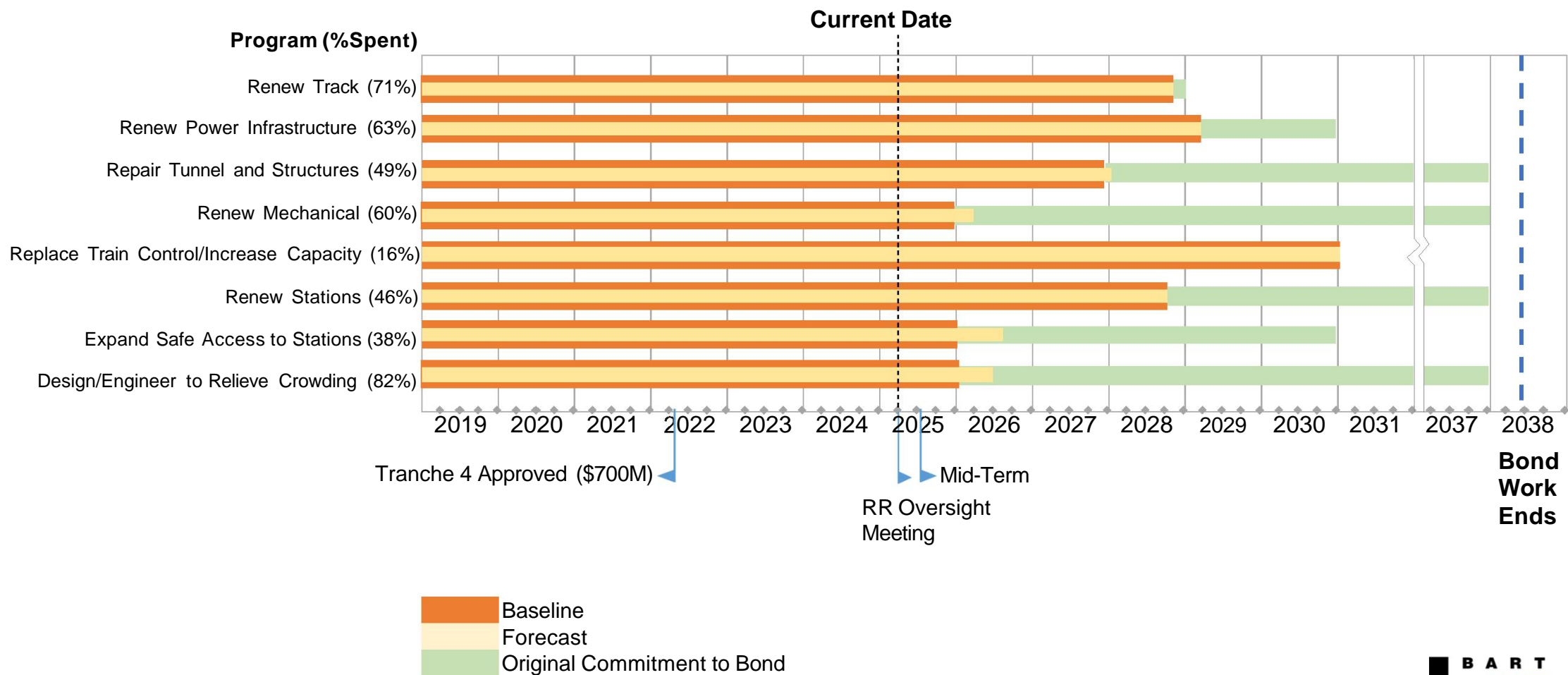
Project	Count
Number of Projects (>25% Spent)	7
CPI <0.9 or >1.1	2
SPI <0.9 or >1.1	3
Number of Risk Register Updates Performed in Previous Period	2
Number of Project(s) with Quality Reviews Performed in Previous Period	1



Project	Physical % Complete	CPI	SPI	Comments
HMC East Storage Yard	27%	0.81	0.75	Currently being reevaluated due to significant funding gap
Embarcadero Platform Elevator	26%	0.92	0.76	Design behind schedule due to additional scope for Elevator Machine Room fire sprinkler design change

*Full Title: Design and Engineer Future Projects to Relieve Crowding, Increase System Redundancy, and Reduce Traffic Congestion on

Program Level Schedule Update



5.B.3. 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	\$168.4 M	\$39.3 M	23%	196	\$151.0 M	\$36.5 M	24%
Renew Power	\$463.7 M	\$140.3 M	30%	479 (+20)	\$365.8 M (+\$8M)	\$147.3 M (+\$2M)	40%
Repair Tunnels & Structures	\$163.8 M	\$37.5 M	23%	229	\$135.9 M	\$22.7 M	17%
Renew Mechanical	\$40.7 M	\$14.2 M	35%	105	\$30.8 M	\$12.2 M	40%
Replace Train Control/Increase Capacity	\$58.0 M	\$11.3 M	19%	215	\$37.6 M	\$4.9 M	13%
Renew Stations	\$163.3 M	\$30.9 M	19%	157	\$90.8 M (+\$11M)	\$15.4 M	17%
Expand Safe Access to Stations	\$24.6 M	\$7.5 M	31%	196	\$21.5 M	\$7.1 M	33%
Design/Engineer to Relieve Crowding	\$146.7 M	\$36.3 M	25%	243	\$135.8 M	\$35.9 M	26%
Total	\$1,229.1 M (+\$7M)	\$317.3 M (+\$2M)	26%	1819 (+41)	\$969.2 M (+\$32M)	\$282.1 M (+\$8M)	29%

Notes: All amounts are based on RR fund percent only. Amounts are updated to February 28, 2025. 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 - Small Business Outreach



*BART Civil Rights Staff Presents to
Small Businesses at BHQ*

Recently Completed Events

- **12/5/24:** “How to do Business with BART” – Zoom
- **2/13/25:** “Learn about BART’s Equity Programs and Certifications Opportunities” – Zoom
- **2/19/25:** “East Bay Procurement Summit” – Hayward, CA

Upcoming Events (Tentative Dates)

- **5/19/25:** “2025 Small Business Summit” – Oakland, CA
- **5/20/25:** “Small Business Certifications Workshop” – Zoom
- **5/21/25:** “Small Business Support Services – Pre Award Workshop” – Zoom

Thank you!



Acronyms

ADA	Americans with Disabilities Act
CBTC	Communication Based Train Control
CPI	Cost Performance Index
DBE	Disadvantaged Business Enterprise
EAC	Estimate At Completion
ETC	Estimate to Complete
EVM	Earn Value Management
HMC	Hayward Maintenance Complex
LSB	Local Small Business
MPR	Multi-Function Protection Relay
MSBE	Micro Small Business Entity
OCIO	Office of the Chief Information Officer
OID	Office of Infrastructure Delivery
PA	Public Announcement
SB	Small Business
SPI	Schedule Performance Index
TCMP	Train Control Modernization Program

