



BART Safety, Reliability, and Traffic Relief Program (Measure RR) Update



BART Board
October 10, 2019



Agenda

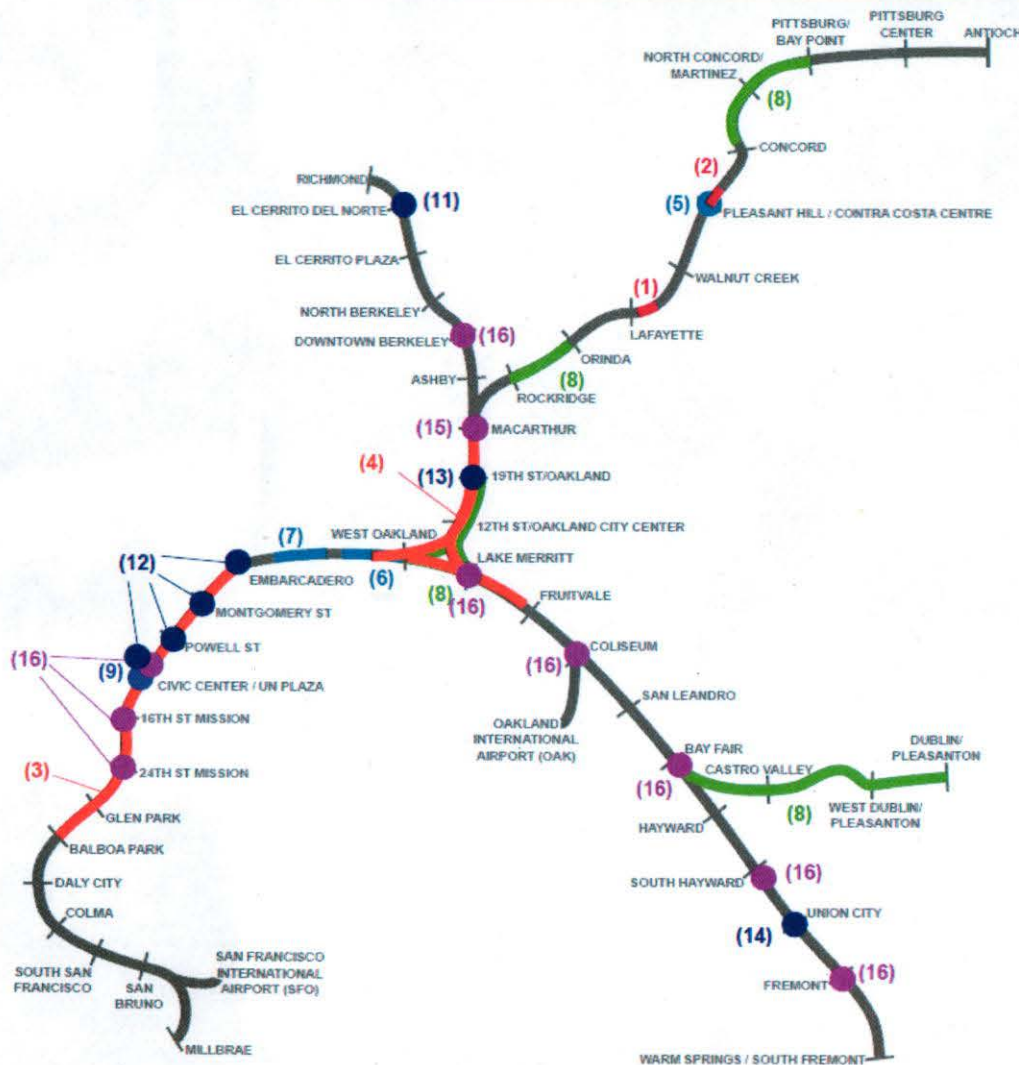
- Work Progress
- Project Performance
- Budget and Schedule Status
- Small Business & Outreach
- Safe Routes to BART



Work Progress



RR Project Progress



Renew Track

- 1 C35 Track Interlocking Replacement - Substantial Completion
- 2 C55 Track Interlocking Replacement - Substantial Completion

Renew Power Infrastructure

- 3 M-Line 34.5kV Single Tracking for Conduit Installation
- 4 K-Line 34.5kV Cable Replacement - Ongoing In-house Construction

Renew Tunnel & Structures

- 5 Platform Edge Repair at Pleasant Hill Station - Substantial Completion
- 6 Aerial Fall Protection M line - Awarded
- 7 TBT Cross Passage Doors - Substantial Completion

Renew Mechanical

- 8 Coverboard Enhancement - Ongoing Construction

Design/Engineer to Relieve Crowding

- 9 Civic Center Scissor Stairs - Issued NTP
- 10 New Rail Transbay Crossing (SA/PM) - Awarded (Not Mapped)

Renew Stations

- 11 El Cerrito Del Norte Station Modification - Construction Ongoing
- 12 San Francisco Escalator Replacement - Issued NTP
- 13 19th St Station Modernization - Awarded
- 14 Union City Intermodal Station Ph 2A - Issued NTP

Expand Safe Access

- 15 MacArthur Transit Improvements and Plaza Renovation - Substantial Completion
- 16 ADA Lighting Improvements - Substantial Completion



Replace Train Control/Increase Capacity

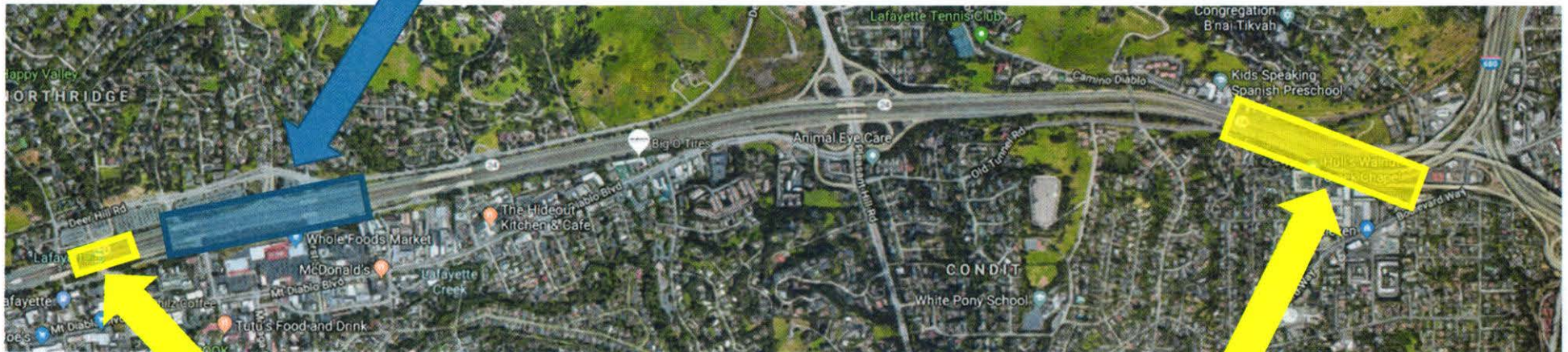
- 17 CBTC - Issued Best and Final Offer (Not Mapped)



C35 – Orinda to Walnut Creek Weekend Shutdowns/Single Tracking

- Replace rail and ties
- Replace 4 switches
- Extend pocket track
- Install ductbanks
- Pour foundations for train control equipment

-  Primary Shutdown Reason
-  Piggy Back Work



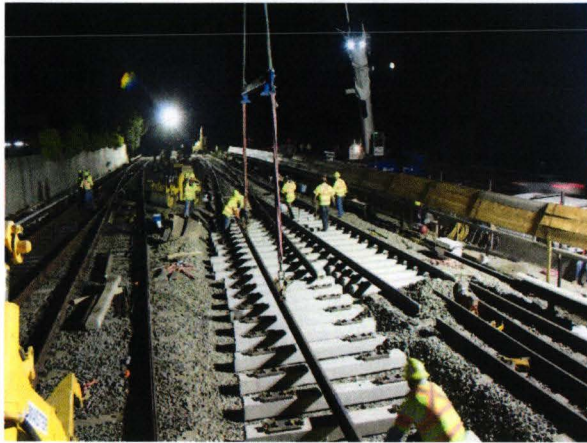
- Platform Edge Replacement
- 34.5kV Ductbank

- Replace Walnut Creek Tunnel Lighting Fixtures
- Springbrook Rd Aerial Pads
- Rebuild MW#12

Weekend Shutdowns: 7 planned, 4 needed, 3 completed
Saturday Single Tracking: 7 planned, 6 completed



C35 Track Renewal





C35 Preparation – Risk Reduction Measures

- Tie Bundles reduced from 20 to 10 EA
- 40' & 80' rail craned in at night
- Stage excavated soil between tracks to be loaded out at night
- Demolition of track done during the day
- Concrete mixed on site instead of concrete pump truck



Tabletop weekend plan exercise



C35 Track Renewal - Committee Tour & Video



Bond Oversight Committee Members at the Tour:
John Post, Project Management
Leah Edwards, League of Women Voters
Darren Gee, Civil Engineering
Catherine Newman, League of Women Voters



[Time Lapse Video](#)

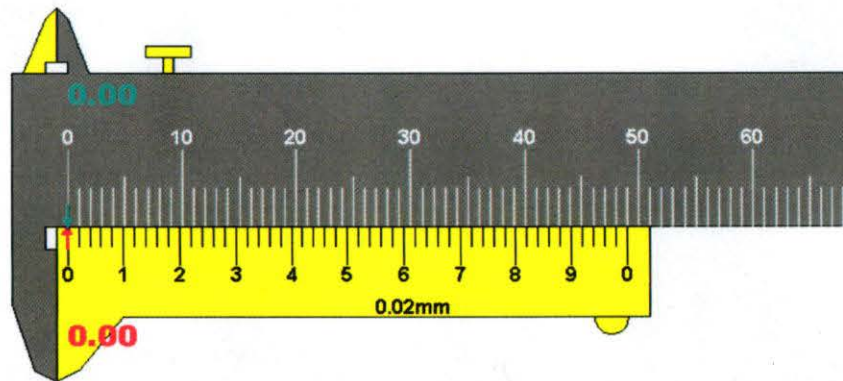


Project Performance



Earned Value Management

- ✓ Method to objectively assess a project's performance
- ✓ Snapshot in Time
- ✓ CPI Compares Earned Value against Actual Cost
- ✓ SPI Compares Earned Value against Planned Cost





Earned Value Terminology

PMI	Description	BART Description	Shown	Plan	Comments
BAC	Budget at Completion	Total Budget	✓		
BCWS	Budgeted Cost of Work Scheduled	Planned Value	✓		
BCWP	Budgeted Cost of Work Performed	Earned Value	✓		
ACWP	Actual cost of Work Performed	Expended to Date	✓		
CPI	Cost Performance Index	CPI	✓		
SPI	Schedule Performance Index	SPI	✓		
ES	Earned Schedule (Emerging PMI Trend)		●		Currently develop rollup and detail schedules
EAC	Estimate at Completion	EAC		✓	
VAC	Variance at Completion	VAC		✓	Calculated from EAC
ETC	Estimate to Complete	ETC		✓	Currently done through Budget planning process. Adding regular parametric approach.

Totals	\$ 2,554,400,000.00	4.7%	\$ 110,864,369.57	\$ 123,448,744.86	\$ 119,495,705.55	1.08	0.97
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	Total Budget	Physical % complete	Expended to Date:	Planned Value	Earned Value	CPI	SPI
Track	\$ 1,225,000,000	4.4%	\$ 46,580,039	\$ 55,534,132	\$ 53,960,835	1.16	0.97
structure	\$ 570,000,000	1.6%	\$ 9,055,282	\$ 14,327,306	\$ 9,176,813	1.01	0.64
ctures	\$ 134,400,000	3.7%	\$ 3,122,092	\$ 6,182,378	\$ 4,908,650	1.57	0.79
anical							



EVM – Additional Layers of Control

Value of Earned Value (A Project Management Tool):

Validate Commitment

Ensure Production Rates
Evaluate \$ per Quantity

Early Warning

Assess Mitigation Measures
Identify holes in the process

Build Confidence

Report Objective Measures
Discuss Risk & Mitigations
Withstand Scrutiny

Goal:

- Keep Lean: Complexity of tracking vs value of predictive action
- Apply Consistency between Self Performed and Contracted work



Current Controls: Track Re-Profile

How Executive Reports connect to the Field

Monitor

- Project Controls
- Asst Chief/Chiefs
- AGM
- General Manager
- Controller

Control

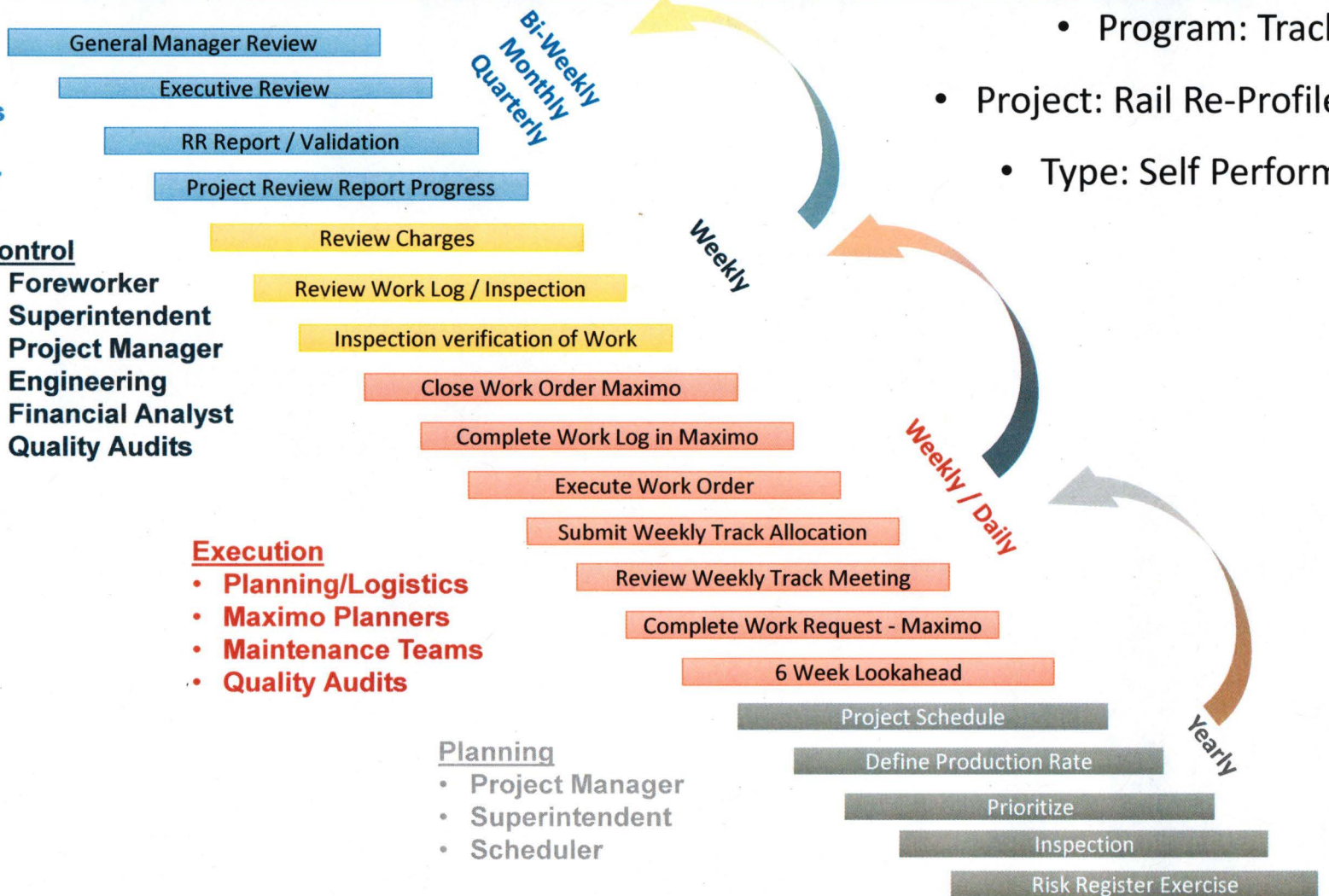
- Foreworker
- Superintendent
- Project Manager
- Engineering
- Financial Analyst
- Quality Audits

Execution

- Planning/Logistics
- Maximo Planners
- Maintenance Teams
- Quality Audits

Planning

- Project Manager
- Superintendent
- Scheduler



- Program: Track
- Project: Rail Re-Profile
- Type: Self Perform

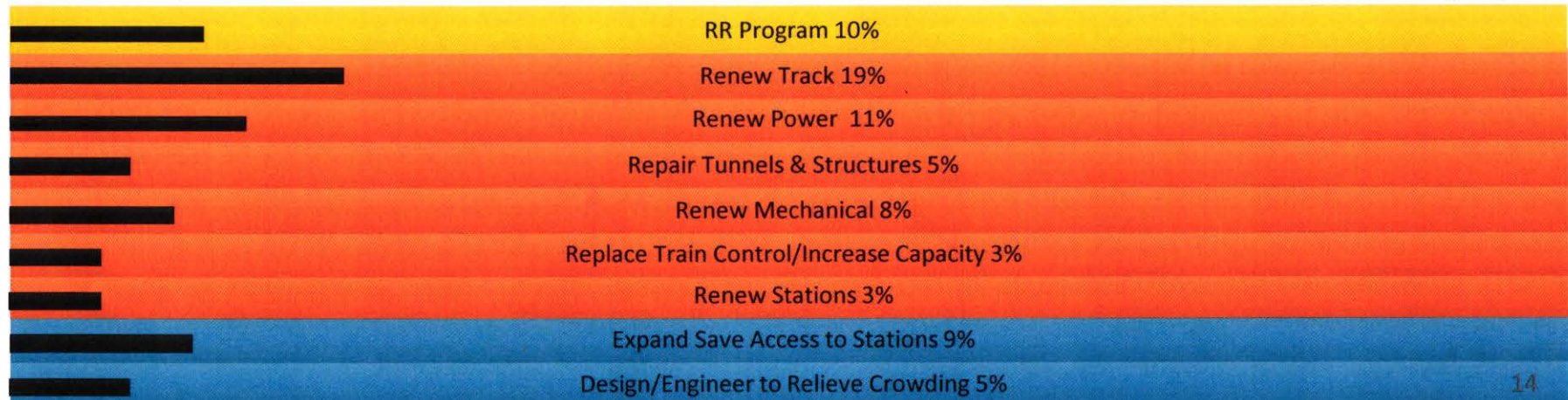


Maturity of Program Vs Accuracy of Data

ESTIMATE CLASS	Primary Characteristic	Secondary Characteristic		
	MATURITY LEVEL OF PROJECT DEFINITION DELIVERABLES Expressed as % of complete definition	END USAGE Typical purpose of estimate	METHODOLOGY Typical estimating method	EXPECTED ACCURACY RANGE Typical variation in low and high ranges (a)
Class 5	0% to 2%	Functional area, or concept screening	SF or m ² factoring, parametric models, judgment, or analogy	L: -20% to -30% H: +30% to +50%
Class 4	1% to 15%	or Schematic design or concept study	Parametric models, assembly driven models	L: -10% to -20% H: +20% to +30%
Class 3	10% to 40%	Design development, budget authorization, feasibility	Semi-detailed unit costs with assembly level line items	L: -5% to -15% H: +10% to +20%
Class 2	30% to 75%	Control or bid/tender, semi-detailed	Detailed unit cost with forced detailed take-off	L: -5% to -10% H: +5% to +15%
Class 1	65% to 100%	Check estimate or pre bid/tender, change order	Detailed unit cost with detailed take-off	L: -3% to -5% H: +3% to +10%

American Association of Cost Engineers (AACE®) International Recommended Practice No. 56R-08

% Date through August '19





Earned Value Rollup by Program

RR Program	Total RR Budget	Physical % Complete	Planned Value	Earned Value	RR Accrued to Date	CPI	SPI
Renew Track	\$625	23%	\$147.9	\$147.5	\$155.2	0.95	1.00
Renew Power	\$1,225	17%	\$235.0	\$211.7	\$203.8	1.04	0.90
Repair Tunnels and Structures	\$543	7%	\$41.3	\$37.4	\$33.6	1.11	0.90
Renew Mechanical	\$162	7%	\$9.4	\$10.6	\$11.5	0.93	1.13
Replace Train Control/ Increase Capacity	\$400	3%	\$16.6	\$10.2	\$12.6	0.81	0.61
Renew Stations	\$210	5%	\$10.6	\$10.0	\$8.7	1.15	0.94
Expand Safe Access to Stations	\$135	14%	\$29.9	\$18.5	\$14.9	1.24	0.62
Design/Engineer to Relieve Crowding	\$200	5%	\$13.9	\$10.2	\$8.4	1.21	0.73
Total	\$3,500				\$448.7		



C55 Interlocking Schedule

Activity ID	Activity Name	Original Duration	Actual / Forecasted Start	Actual / Forecasted Finish	Physical % Complete
15C0004 - C55 Interlock Replacement					
Design & Planning					
C55-PLN100	Special Trade Design	0	02-Apr-18A	25-Apr-18A	100%
C55-PLN110	Special Trade Construction Planning	15	02-Apr-18A	19-Apr-18A	100%
C55-PLN130	Advertise Bus Bridge (Mile)	45	27-Jan-18A	28-Apr-18A	100%
C55-PLN120	Train Control & Traction Power (Enabling Work Design/Planning)	30	07-Feb-18A	25-Apr-18A	100%
Pre-Construction					
C55-PRC100	Special Trade Procurement - Fabrication	133	07-Apr-18A	01-Apr-19A	100%
C55-PRC110	Special Trade Procurement - Factory Inspection	0	03-Apr-18A	08-Feb-19A	100%
C55-PRC120	Special Trade Procurement - Delivery	22	19-Feb-18A	01-Apr-18A	100%
Construction					
Pre-Installation					
C55-SITE100	Install New Site Drainage and Knife Switch	61	29-May-18A	22-Aug-18A	100%
C55-SITE110	Install Physical Barrier	2	17-Aug-18A	17-Aug-18A	100%
C55-SITE120	Construct Laydown Area	20	28-Sep-18A	10-Apr-19A	100%
C55-SITE140	Clearing & Site Grading	2	30-Nov-18A	03-Dec-18A	100%
C55-SITE130	Relocate BART & Sanitary Fiber Optic Cables	42	22-Jan-19A	13-May-19A	100%
C55-SITE120	Install Jobsite Fence and Gate	10	23-Jan-19A	12-Apr-19A	100%
Installation					
C55-PW120	Tracing Lateral (needed for Conduit to relocate Train Control Junction Boxes)	40	25-Feb-19A	05-Apr-19A	100%
C55-PW110	Prep and Pour Concrete Cap	35	06-Apr-19A	24-Apr-19A	100%
C55-PW120	Run Conduit to New Location of Train Control Junction Boxes and Install Pedestals	10	06-Apr-19A	23-Apr-19A	100%
C55-PW130	Relocate Traction Power Risers	20	06-Apr-19A	09-May-19A	100%
C55-PW140	Prep and Pour Concrete Ramp	20	06-Apr-19A	09-May-19A	100%
Train Control					
C55-PW130	Remove Spike and Clamp for SW123	1	18-May-19A	18-May-19A	100%
C55-PW1310	Remove Switch Jumper	1	18-May-19A	18-May-19A	100%
C55-PW1320	Switch Tearing	1	18-May-19A	18-May-19A	100%
C55-PW1330	Run Test Train	1	18-May-19A	18-May-19A	100%
C55-PW1340	Recommission SW123	1	18-May-19A	18-May-19A	100%
C55-PW1350	Relocate Spike and Clamp for SW123	1	18-May-19A	18-May-19A	100%
Weekend Shutdowns					
C55-WND1000M	Weekend Shutdown 1 (Schedules 4-27-18), Switch 123 - Structures Support	44	27-Apr-18A	10-Jun-18A	100%
C55-WND2000	Weekend Shutdown 2 (Schedules 5-11-18), Switch 127 - Structures Support	2	27-Apr-18A	29-Apr-18A	100%
C55-WND3000	Weekend Shutdown 3 (Schedules 5-25-18), Switch 128 & 227	3	25-May-18A	28-May-18A	100%
C55-WND4000	Weekend Shutdown 4 (Schedules 6-8-18), Switch 437	2	08-Jun-18A	10-Jun-18A	100%
Post Weekend					
C55-POST100	Track Quality Assurance & Sign Off for Marine Shutdown Work	45	10-Jun-18A	30-Sep-19	90%
C55-POST110	Relocate Switch 128 (Week Day Work)	20	24-Jun-18A	28-Jun-18A	100%
C55-POST120	Relocate Switch 337 (Week Day Work)	10	01-Jul-18A	15-Jul-18A	100%
C55-POST130	Relocate Switch 443 (Week Day Work)	5	16-Jul-18A	22-Jul-18A	100%
C55-POST140	Relocate Switch 341 (Week Day Work)	5	23-Jul-18A	20-Jul-18A	100%
C55-POST150	Demolish and Off-Ramp All Equipment	10	30-Jul-18A	13-Sep-18A	100%
Project Close Out					
C55-CLO100	Project Close Out (BART)	140	16-Jul-19A	11-Feb-20	75%
Project Close Out (BART)					
C55-CLO100	Project Close Out (BART)	60	16-Jul-19A	11-Feb-20	75%
Project Close Out (BART)					
C55-CLO100	Project Close Out (BART)	112	03-Sep-19A	11-Feb-20	75%



C55 Interlocking EVM

Physical %
Complete = 99%

CPI = 0.90

SPI = 1.05

TRACK C55 Interlocking Construction				98.8%	\$ 8,853,610	\$ 9,709,274.06	\$ 8,362,234.27	\$ 8,743,228.13	0.90	1.05
Schedule of values	BL Start Dates	BL Finish Dates	BL Duration	Physical % Complete	Budget at Completion (BAC)	(ACWP) (Expended to-date)	Budget Cost of Work Scheduled (BCWS) (Planned Value)	Budget Cost of Work Performed (BCWP) (Earned Value)	CPI	SPI
PRE CONSTRUCTION SUPPORT	9/1/2018	12/28/2018	4	100.0%	\$ 30,093	\$ 34,890.59	\$ 30,093.20	\$ 30,093.20	0.86	1.00
PROCUREMENT (MATERIAL)			0	100.0%	\$ -	\$ -	\$ -	\$ -		
CONSTRUCTION	1/27/2019	11/12/2019	10	98.7%	\$ 8,823,516	\$ 9,674,383.47	\$ 8,332,141.07	\$ 8,713,134.99	0.90	1.05
Pre-Weekend Shutdown (Pre-Con)	5/29/2018	5/19/2019	12	100.0%	\$ 1,290,918	\$ 1,300,000.00	\$ 1,290,918.00	\$ 1,290,918.00	0.99	1.00
Weekend Shutdown	4/27/2019	6/10/2019	1	100.0%	\$ 5,885,268	\$ 6,805,093.72	\$ 5,885,267.83	\$ 5,885,267.83	0.86	1.00
BUS BRIDGE C55 Media	1/27/2019	3/28/2019	2	100.0%	\$ 60,000	\$ 600,000.00	\$ 60,000.00	\$ 60,000.00	0.10	1.00
BUS BRIDGE C55	4/27/2019	6/10/2019	1	100.0%	\$ 975,346	\$ 849,211.75	\$ 975,345.50	\$ 975,345.50	1.15	1.00
Post-weekend Shutdown/Close out	6/10/2019	11/12/2019	5	80.0%	\$ 551,907	\$ 60,000.00	\$ 60,531.74	\$ 441,525.60	7.36	7.29
TRAIN CONTROL SUPPORT	2/7/2019	5/19/2019	3	100.0%	\$ 60,078	\$ 60,078.00	\$ 60,078.00	\$ 60,078.00	1.00	1.00
PROJECT Contingency					\$ 8,853,610					



Budget and Schedule Status



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

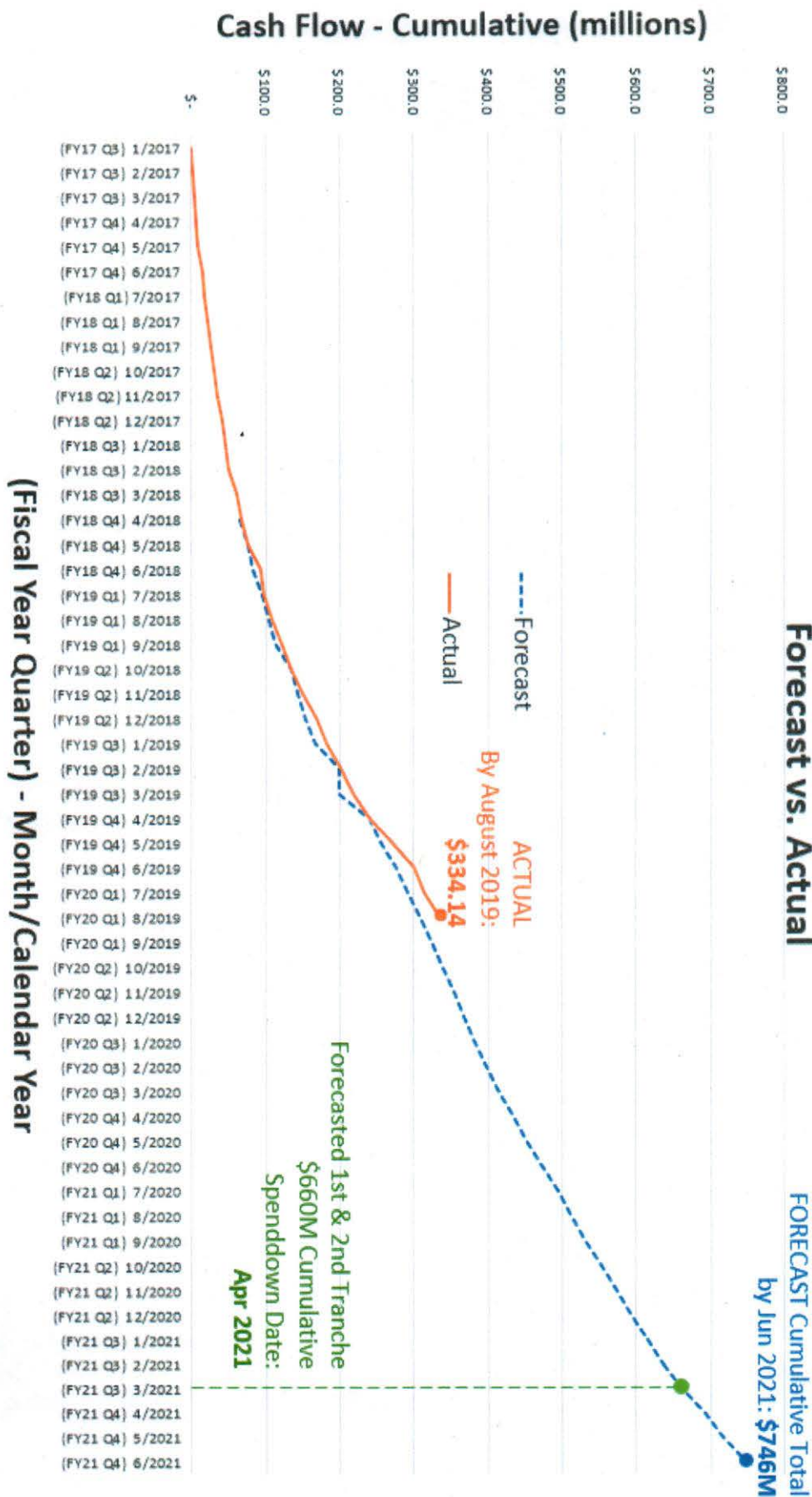
Program	Expended (thru December 2018)	Expended (thru August 2019)	% Expended out of Total Bond Investment	Forecast Expenditures		
				SHORT-TERM (thru June 2021)	MID-TERM (thru 2025)	LONG-TERM (thru End of Bond)
Renew Track	\$73.3	\$117.0	19%	\$183	\$400	\$625
Renew Power Infrastructure	\$61.9	\$136.7	11%	\$248	\$608	\$1,225
Repair Tunnels & Structures	\$13.8	\$30.8	5%	\$57	\$268	\$570
Renew Mechanical	\$4.6	\$10.5	8%	\$41	\$65	\$135
Replace Train Control/Increase Capacity	\$3.7	\$11.6	3%	\$32	\$286	\$400
Renew Stations	\$3.1	\$6.7	3%	\$29	\$148	\$210
Expand Safe Access to Stations	\$3.7	\$11.5	9%	\$37	\$86	\$135
Design/Engineer to Relieve Crowding	\$4.5	\$9.3	5%	\$33	\$69	\$200
Total	\$168.6	\$334.1	10%	\$660	\$1,930	\$3,500



RR Overall Program Budget Progress

BART Measure RR Program Spending

Forecast vs. Actual



Issue New Bonds



Individual Program Milestones



Renew Track

STATUS & MILESTONES

EXPENDED Thru 8/2019: \$117.0

FORECAST Thru 6/2021: \$183

TOTAL PROGRAM VALUE: \$625

STATUS – Renew Track

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
4	3	3	8	2	20

MILESTONES

Completed (Jun 2019 – Jul 2019)	Q1 (Aug 2019 – Sep 2019)	Q2 (Oct 2019 – Dec 2019)	Q3 (Jan 2020 – Mar 2020)
<ul style="list-style-type: none"> Substantial completion of C55 Interlocking Replacements (near Concord) A65/75 (Between Hayward & S. Hayward) Interlock Replacement Design Board Award for Rail Re-Profilng 	<ul style="list-style-type: none"> Weekend Shutdowns for C35 (Near Lafayette) Interlocking Replacement Complete construction on C55 Interlocking Replacement Notice to Proceed (NTP) for Rail Re Profiling Services Start special track procurement for C25 (Near Orinda) Interlocking Replacement 	<ul style="list-style-type: none"> Continue work on C35 Interlocking Replacement 	<ul style="list-style-type: none"> NTP of A65 Interlocking Replacement



Renew Power STATUS & MILESTONES

EXPENDED Thru 8/2019: \$136.7

FORECAST Thru 6/2021: \$248

TOTAL PROGRAM VALUE: \$1,225

STATUS – Renew Power Infrastructure

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
0	9	8	9	1	27

MILESTONES

Completed (Jun 2019 – Jul 2019)	Q1 (Aug 2019 – Sep 2019)	Q2 (Oct 2019 – Dec 2019)	Q3 (Jan 2020 – Mar 2020)
<ul style="list-style-type: none"> • Delivery of ASL substation equipment • Start Cable System Installation for Replace M Line 34.5 kV Cable • Complete design for Station Emergency Lighting Upgrade • Complete design for Replace A and R line 34.5 kV Cable 	<ul style="list-style-type: none"> • Start design of new East Bay substations • Complete Design to Replace MXP Gap Breaker (at M85 (near Balboa Park) interlocking) • Complete design for Civic Center and Montgomery substations • Advertise Replace A line 34.5kV Cable • Advertise TPSS Replacements (Ph 1) • Advertise Station Emergency Lighting Upgrade (11 locations) 	<ul style="list-style-type: none"> • Advertise Civic Center and Montgomery Substations • Advertise Replace R line 34.5 kV Cable 	<ul style="list-style-type: none"> • Complete design for Station Fire Alarm Replacement Phase 3 • Complete design for 34.5kV Blocking Scheme Systemwide



Tunnels & Structures

STATUS & MILESTONES

EXPENDED Thru 8/2019: \$30.8

FORECAST Thru 6/2021: \$57

TOTAL PROGRAM VALUE: \$570

STATUS – Repair Tunnels & Structures

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
1	17	1	7	0	26

MILESTONES

Completed (Jun 2019 – Jul 2019)	Q1 (Aug 2019 – Sep 2019)	Q2 (Oct 2019 – Dec 2019)	Q3 (Jan 2020 – Mar 2020)
<ul style="list-style-type: none"> Award Aerial Fall Protection M-Line Start Catwalk Hanger Rod Replacement pilot program Start Materials Procurement for Wayside Regulatory Signage 	<ul style="list-style-type: none"> Complete Platform Edge Rehabilitation at Lafayette station Start Construction of Catwalk Hanger Rod Replacement pilot program Complete study for Fremont Line (A Line) Seismic Operability Complete Caldecott BART Tunnel Creep Repair Design Study Perform condition assessment for Water Intrusion into Elevator/Escalator rooms 	<ul style="list-style-type: none"> Start Construction Aerial Fall Protection M-Line Continue construction on substation walls Continue work on Replace Cross Passage Doors 	<ul style="list-style-type: none"> Complete design for Renew Catwalks on Aerials A Line Substantial Complete on Replace Cross Passage Doors



Renew Mechanical

STATUS & MILESTONES

EXPENDED Thru 8/2019: \$10.5

FORECAST Thru 6/2021: \$41

TOTAL PROGRAM VALUE: \$135

STATUS – Renew Mechanical

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
1	12	7	4	0	24

MILESTONES

Completed (Jun 2019 – Jul 2019)	Q1 (Aug 2019 – Sep 2019)	Q2 (Oct 2019 – Dec 2019)	Q3 (Jan 2020 – Mar 2020)
<ul style="list-style-type: none"> • Issue NTP for Concord Yard Fire Protection • Complete design for Concord Truing Facility • Complete design for Replace Backflow Preventers 	<ul style="list-style-type: none"> • Complete design for Replace LMA Computer Room Emergency Cooling System • Complete design for Replace Concord Yard Turntable • Complete design for Richmond Car Lifts 	<ul style="list-style-type: none"> • Ongoing work to Replace Access Ladders • Ongoing work on Coverboard Enhancement • Ongoing work on Replace Underground Utilities • Advertise Concord Yard Wheel Truing Facility • Issue NTP for Replace Rotoclones • Board approval of Richmond Yard Fire Services 	<ul style="list-style-type: none"> • NTP for Facilities HVAC Equipment Replacement Systemwide • NTP for Richmond Yard Fire Services



Replace Train Control

STATUS & MILESTONES

EXPENDED Thru 8/2019: \$11.6

FORECAST Thru 6/2021: \$32

TOTAL PROGRAM VALUE: \$400

STATUS – Replace Train Control / Increase Capacity

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

MILESTONES

Completed (Jun 2019 – Jul 2019)	Q1 (Aug 2019 – Sep 2019)	Q2 (Oct 2019 – Dec 2019)	Q3 (Jan 2020 – Mar 2020)
<ul style="list-style-type: none"> • Prepare & Negotiation with Computer-Based Train Control Contractors • Prepare changes for Best and Final Offer • Continue Integrated Computer System Enabling work 	<ul style="list-style-type: none"> • Issued Design Build Best and Final Offer Modification #1 	<ul style="list-style-type: none"> • Notice of Award for Design Build Contract • Start owner controlled insurance program contract preparations for Design Build Contract • Issue 60% /100% Design Review Power Supply Cabinets & Switch Machine/Train Control Room Power Cable (enabling work) • Advertise Construction Management & Design Support During Construction On-Call Contract(s) 	<ul style="list-style-type: none"> • NTP Design Build Contract • Procurement Advertise Power Supply Cabinets & Switch Machine/Train Control Room Power Cable (enabling work)



Renew Stations

STATUS & MILESTONES

EXPENDED Thru 8/2019: \$6.7
 FORECAST Thru 6/2021: \$29
 TOTAL PROGRAM VALUE: \$210

STATUS – Renew Stations

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
1	1	1	3	0	6

MILESTONES

Completed (Jun 2019 – Jul 2019)	Q1 (Aug 2019 – Sep 2019)	Q2 (Oct 2019 – Dec 2019)	Q3 (Jan 2020 – Mar 2020)
<ul style="list-style-type: none"> • Union City Intermodal Station Phase 2A – Notice to Proceed 	<ul style="list-style-type: none"> • Process escalator fabrication and administrative submittals • 19th St Station (07EA-120) – Awarded • Advertise Canopy Contract 	<ul style="list-style-type: none"> • Finalize escalator submittal to allow fabrication of escalators to begin • 19th St Station (07EA-120) – Notice to Proceed • Award Canopy Contract 	<ul style="list-style-type: none"> • Canopy Contract – Notice to Proceed • Fabrication of escalators



Station Access STATUS & MILESTONES

EXPENDED Thru 8/2019: \$11.5
FORECAST Thru 6/2021: \$37
TOTAL PROGRAM VALUE: \$135

STATUS – Expand Safe Access to Stations

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
1	13	2	4	3	23

MILESTONES

Completed (Jun 2019 – Jul 2019)	Q1 (Aug 2019 – Sep 2019)	Q2 (Oct 2019 – Dec 2019)	Q3 (Jan 2020 – Mar 2020)
<ul style="list-style-type: none"> Embarcadero and Civic Center Bike Station Modernization – Received and Evaluated Bids eBART – Antioch Parking Lot Contract – Completed Design MacArthur Transit Improvement – Punch List Items and Initiated Close-Out for MacArthur Transit Improvement 	<ul style="list-style-type: none"> Embarcadero and Civic Center Bike Station Modernization – Awarded and Executed Contract eBART – Antioch Parking Lot Contract – Advertised Bicycle Stair Channels 12th St., 24th St., Civic Center, Coliseum, Embarcadero, Lake Merritt, Walnut Creek – Finalizing Bid Documents ADA Lighting Improvements (Substantial Completion) Warm Springs West Pedestrian Bridge – Complete Truss Bridge Erection 	<ul style="list-style-type: none"> eBART – Antioch Parking Lot Contract – Award Bicycle Stair Channels - Advertise Warm Springs West Pedestrian Bridge – Cable Stay Bridge Pylon Erection 	<ul style="list-style-type: none"> Bicycle Stair Channels Contract – Award



Relieve Crowding STATUS & MILESTONES

EXPENDED Thru 8/2019: \$9.3
FORECAST Thru 6/2021: \$33
TOTAL PROGRAM VALUE: \$200

STATUS – Design / Engineer to Relieve Crowding

# Projects in Planning	# Projects in Design	# Projects in Bid/Award	# Projects in Construction	# Projects Completed	TOTAL # Projects
2	4	1	1	0	8

MILESTONES

Completed (Jun 2019 – Jul 2019)	Q1 (Aug 2019 – Sep 2019)	Q2 (Oct 2019 – Dec 2019)	Q3 (Jan 2020 – Mar 2020)
<ul style="list-style-type: none"> New Transbay Rail Crossing – Strategic Advising & Program Management - Awarded 	<ul style="list-style-type: none"> New Transbay Rail Crossing: Issue Notice to Proceed for Contract 2 Work Plan (Strategic Advising & Program Management) Hayward Maintenance Complex Phase 2: Civil/Grading 60% Design Hayward Maintenance Complex Phase 2: Complete Design for Trackwork Procurement Advertise Embarcadero New Platform Elevator Civic Center Station Scissor Stairs - Begin Site Mobilization 	<ul style="list-style-type: none"> Hayward Maintenance Complex Phase 2: Trackwork Procurement – Advertise Platform Screen Doors Pilot Project –Complete Preliminary Engineering Design Award Embarcadero New Platform Elevator 	<ul style="list-style-type: none"> Embarcadero New Platform Elevator – Notice to Proceed



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	\$73,703,440	\$17,764,003	80	65	\$ 22,339,856	\$ 4,564,830	20%
Renew Power	\$161,622,239	\$80,069,903	154	153	\$ 68,977,647	\$ 31,341,555	45%
Repair Tunnels & Structures	\$91,698,111	\$20,296,201	84	81	\$ 35,702,446	\$ 3,826,121	11%
Renew Mechanical	\$23,762,421	\$8,758,988	43	41	\$ 4,290,287	\$ 1,113,159	26%
Replace Train Control / Increase Capacity	\$7,925,014	\$1,095,291	16	15	\$ 1,173,407	\$ 63,415	5%
Renew Stations	\$140,266,156	\$25,058,565	59	57	\$ 5,318,066	\$ 2,264,139	43%
Expand Safe Access to Stations	\$12,944,009	\$3,415,411	75	69	\$ 3,217,112	\$ 923,577	29%
Design/Engineer to Relieve Crowding	\$17,722,662	\$5,083,487	28	27	\$ 4,270,183	\$ 615,435	14%
Total	\$ 529,644,052	\$ 161,541,850	538	508	\$ 145,289,004	\$ 44,712,231	31%

Notes: All amounts are based on RR fund percent only. Amounts are updated to September 27, 2019. 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 – Outreach



- Recently Completed Events

- DBE Certifications Workshop (Oakland)
- Small Business and Subconsultant Pre-Construction Workshop (Oakland)
- Association of General Contractors - Public Works Expo (Lafayette)
- Richmond Chamber of Commerce Annual Economic Summit (Richmond)



- Upcoming Events

- Oakland African American Chamber of Commerce Business Awards (Oakland)
- CPUC Business Expo (Citrus Heights)
- SFPUC's Women in Construction Expo (SF)
- Business Outreach Committee - Meet the Primes (Oakland)



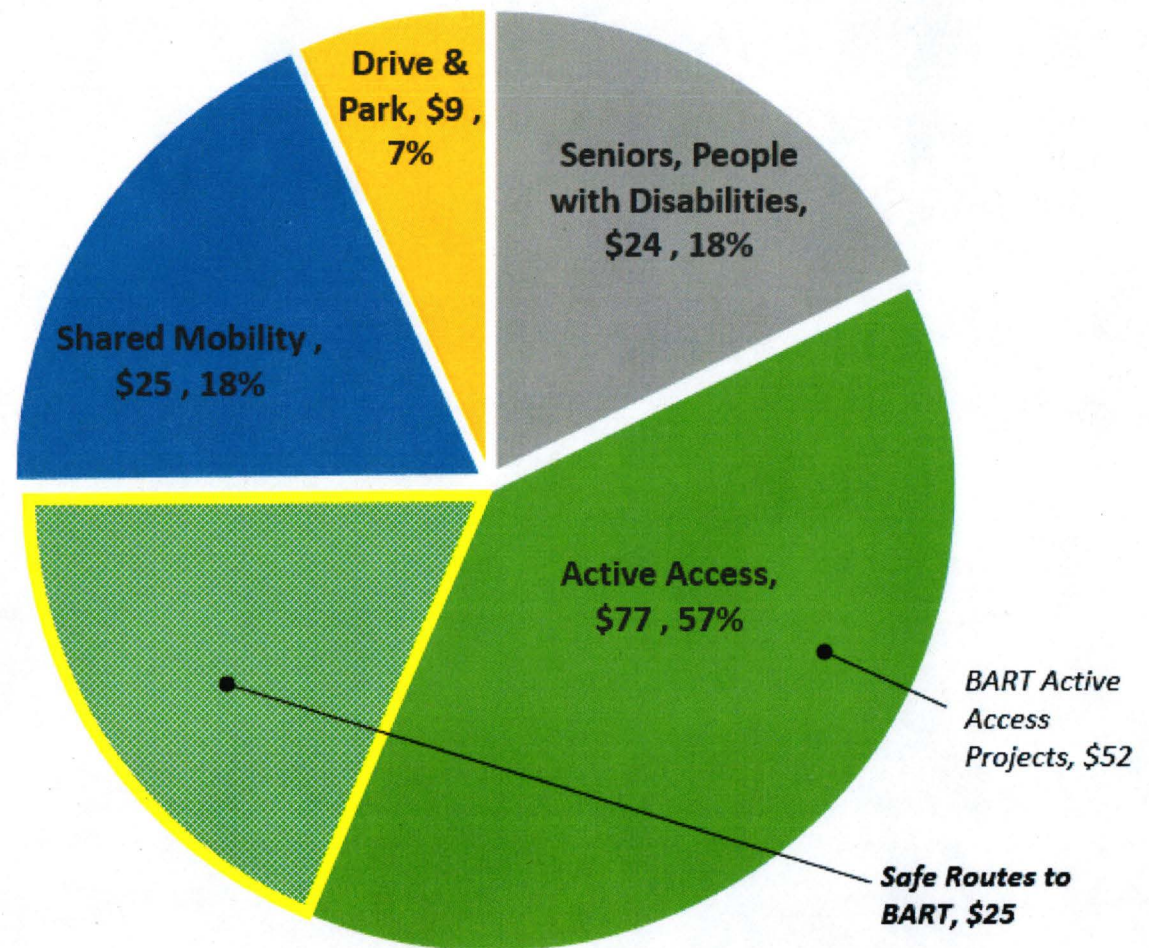
Safe Routes to BART



Measure RR: Expand Opportunities to Safely Access Stations – Safe Routes to BART Grant Program

Intended Allocation by Mode (\$135 M)

- Access program is 4% of \$3.5 B Measure RR funds
- Invest to meet 2016 Access Policy objectives
 - Safe, healthier Greener
 - More Riders
 - More Productive and Efficient
 - Better Experience
 - Equitable Services
 - Innovation and Partnerships
- Invest to meet mode share targets
 - Increase active access from 44% to 52%
 - Decrease parking access from 27% to 16%





Measure RR: Expand Opportunities to Safely Access Stations – Safe Routes to BART Grant Program

Safe Routes to BART Program

Overview: Help partner agencies implement active transportation capital projects off BART property to support BART's Access Policy, expand station access choices and make it safer and easier for all riders to use the system.

Program Goals:

1. **Project Readiness:** Deliver near-term, enduring active access improvements to real property that demonstrate a clear nexus to a BART station.
2. **Mode Shift:** Expand opportunities to access BART stations with potential to shift people from driving and parking to walking and biking.
3. **Stakeholder Support:** Collaborate with local partners to create more sustainable communities.
4. **Equitable:** Provide equitable access for disadvantaged communities.
5. **Safety:** Enhance personal safety and security; add to passenger comfort and sense of place.
6. **Complete communities:** Promote Transit-Oriented Development (TOD).
7. **Leverage:** Leverage other funding sources to deliver improvements.



Measure RR: Expand Opportunities to Safely Access Stations – Safe Routes to BART Grant Program

Outreach for Program Development

- Staff has met with key stakeholders early on for framework development
 - Metropolitan Transportation Commission (MTC)
 - San Francisco County Transportation Authority (SFCTA)
 - Contra Costa Transportation Authority (CCTA)
 - Alameda County Transportation Commission (ACTC)
 - BART Bicycle Task Force (BBATF)
 - Advocacy groups
- Presented to Congestion Management technical advisory committees with representation from all cities in the 3 counties
- Continued outreach after program launch (website, webinars, etc.)



Measure RR: Expand Opportunities to Safely Access Stations – Safe Routes to BART Grant Program

Safe Routes to BART Program Details (Preliminary Program)

Tentative Launch:

- Winter 2020 with applications due in Spring 2020

Program elements:

- Competitive grant program of up to approximately \$25 M
- Num. and frequency of cycles: TBD, but predictable
- First cycle: Around \$5M, funding between \$500,000 to \$1,500,000/agreement
- 1 project submission/BART station
- Monthly reporting
- BART's non-federal Local Small Business Program for Measure RR funded projects required

Commitment from Project Sponsors:

- Minimum Match: 30%
- Minimum of 35% design complete, construction phase eligible
- Evidence of demonstrated support of governing body, executive staff
- Funding plan required
- Delivery plan (schedule and major milestones) required

BART Board:

- Return to Board for an Action Item by the end of the year