



2016 Bond Implementation



January 25, 2017

BART Board Workshop 2017



Measure RR Results

	Yes	No	Total	% Approving
Alameda	434,001	174,591	608,592	71.3%
Contra Costa	262,499	172,396	434,895	60.4%
San Francisco	297,640	68,379	366,019	81.3%
Total	994,140	415,366	1,409,506	70.5%






Agenda

- **Project Delivery Priorities**
 - Financing Strategy
 - Implementation Next Steps
 - Discussion



Investment Summary

	\$ Millions	% of Total Bond	Benefits		
			 Safety	 Reliability	 Crowding + Traffic Relief
REPAIR AND REPLACE CRITICAL SAFETY INFRASTRUCTURE	\$3,165	90%	✓	✓	✓
Renew track	\$625	18%	✓	✓	
Renew power infrastructure	\$1,225	35%	✓	✓	
Repair tunnels and structures	\$570	16%	✓	✓	
Renew mechanical infrastructure	\$135	4%	✓	✓	
Replace train control and other major system infrastructure to increase peak period capacity	\$400	12%	✓	✓	✓
Renew stations	\$210	6%	✓	✓	✓
RELIEVE CROWDING, REDUCE TRAFFIC CONGESTION, AND EXPAND OPPORTUNITIES TO SAFELY ACCESS STATIONS	\$335	10%	✓	✓	✓
Expand opportunities to safely access stations	\$135	4%	✓	✓	✓
Design and engineer future projects to relieve crowding, increase system redundancy, and reduce traffic congestion	\$200	6%		✓	✓
TOTAL	\$3,500	100%			



Near Term Project Delivery Criteria

- Urgent Fix-it-First Needs
- Critical Path Activities on Major Core Capacity Improvement Projects
- Shovel Ready Projects
- Early Engineering on Long Lead Projects



Renew Track – \$625 Million



Renew Track



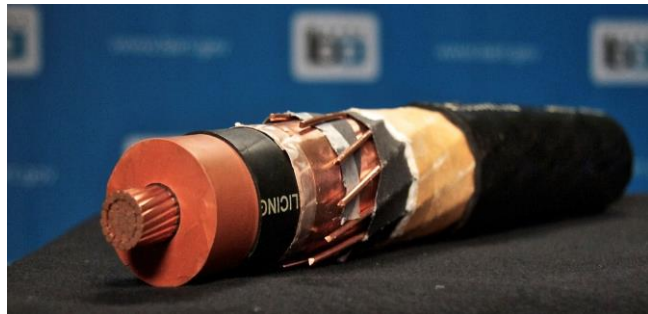
- **Scope:**
 - Replace 90 miles of track
 - Mainline & Yard
 - Rebuild Interlockings – All
 - Fastening Systems
- **Total Program: \$625 M**
- **Starting Now:**
 - 2017
 - Replace 10 miles track
 - Rebuild 2 interlockings
 - Rebuild C25 (Orinda – Lafayette) & A15 (Lake Merritt – Fruitvale)
 - 2018
 - Replace 12 miles of track
 - Rebuild 2 interlockings
 - Rebuild M03 (Oakland Tunnel – West Oakland) & C55 (Pleasant Hill – Concord)
 - Completing Hiring Plan
 - Planning & procuring material to rebuild next 4 interlockings
- **Next Steps:**
 - Hiring
 - Procure 5-Year Rail Quantity (Summer 2017)



Renew Power – \$1.225 Billion



Renew power – Cable replacement



- **Scope:**
 - Replace 34.5 kV Cable system-wide
- **Total Program: \$488 M**
- **Starting Now:**
 - Developing hiring plan & consultant contracts
 - Design M-Line - TBT to Valencia St.
 - Install
 - 19th Ave to Coliseum – Oakland
 - Valencia to 24th St. – SF
 - 19th Ave to Washington St.– Oakland
 - Washington St. to West Oakland - Oakland
- **Next Steps:**
 - Begin Design
 - Remainder of K & M Lines, R-Line, C-Line



Renew power – Substation replacement



- **Scope:**
 - Replacement 28 Substations
- **Total Program: \$301 M**
- **Starting Now:**
 - Hiring and contracting engineers for design
 - Install (ASL) San Leandro Substation & (KTE) TBT East
- **Next Steps:**
 - Award Concept Design scopes to consultants
 - Start Detailed Design - Winter 2017-2018



Renew power – New Substations



- **Scope:**
 - 2 New added capacity substations
 - Civic Center
 - Montgomery
- **Total Program: \$41.90 M**
- **Happening Now:**
 - Initiating 30% Engineering
- **Next Steps:**
 - Detailed design to start in 2018
 - Construction to start Fall 2019



Renew power – Electrical Systems



- **Scope:**
 - TBT Generator & switchgear replacement
 - Uninterruptible Power (train control protection)
 - Tunnel Lighting
 - Station Fire Alarm replacement
 - Station Emergency Lighting
- **Total Program: \$225 M**
- **Happening Now:**
 - TBT Emergency Generator & Switchgear – Final design review
 - Tunnel Lighting – Final design review
- **Next Steps:**
 - Design Station Projects
 - Procure 20 Uninterrupted Power Supply (UPS)
 - Advertise (Winter 2017-2018)
 - Tunnel Lighting
 - Station Emergency Lighting



Repair tunnels & structures –
\$570 Million



Repair tunnels and structure – Structures



- **Scope:**
 - M line Tunnel Water Intrusion
 - Replace TBT Cross Passage Doors
 - Renew Roofs for Train Control Rooms to solve water intrusion
 - Waterproof Substation Roofs
 - Fall Protection
- **Total Program: \$451.25 M**
- **Happening Now:**
 - M line Water Intrusion Study
 - Waterproof Substation Roofs
 - 3 in FY17
 - 10/year start FY18 (7 years)
 - Advertise Cross Passage Doors – March 2017
- **Next Steps:**
 - Fall Protection Construction – procure design consultant
 - South Hayward Station
 - Hayward Shop structure



Repair tunnels and structure – Transbay Tube (TBT) Retrofit options



- **Scope:**
 - Full retrofit of 7 additional TBT sections
- **Total Program: \$53.75 M**
- **Happening Now:**
 - Preparing options' change order documentation
- **Next Steps:**
 - Exercise options



Repair tunnels and structure – Upper A-Line Seismic Operability Upgrade



- **Scope:**
 - Preliminary engineering of the Upper A-Line retrofit (from Lake Merritt to Coliseum)
- **Total Program: \$5 M**
- **Happening Now:**
 - Early scoping
- **Next Steps:**
 - Preliminary engineering scheduled to start in Summer 2017



Repair tunnels and structure – Berkeley Hills Tunnel (BHT) Creep



- **Scope:**
 - Excavate interior lining of BHT tunnel
 - Realign the trackway
- **Total Program: \$60 M**
- **Happening Now:**
 - Early scoping
- **Next Steps:**
 - Detailed design scheduled to start in Summer 2017
 - Award construction contracts



Renew mechanical infrastructure –
\$135 Million



Renew mechanical infrastructure – Mechanical Infrastructure



- **Scope:**
 - Storm Water Treatment
 - Replace underground utilities at Yards
 - Replace HVAC in Facilities
 - Fire suppression at Lake Merritt Administrative building
 - Replace Lake Merritt Computer Room Cooling Unit
- **Total Program: \$135 M**
- **Happening Now:**
 - Design LMA Computer Room Cooling Unit- Complete Summer 2017
 - Solicit consultants for Storm Water Treatment Study – Complete Fall 2017
- **Next Steps:**
 - Perform Existing Condition Assessment - Yard utilities



Replace train control and other infrastructure to increase peak capacity – \$400 Million



Train control and other major system infrastructure – Train Control Modernization Program (TCMP)



Up to 25% Increase in Train Capacity

Fixed-Block Signaling System: Existing Train Control Technology

24 Trans-Bay trains per hour per direction during peak hour



Communications-Based Train Control: Needed to Increase Capacity and Assure Reliability

30 Trans-Bay trains per hour per direction during peak hour

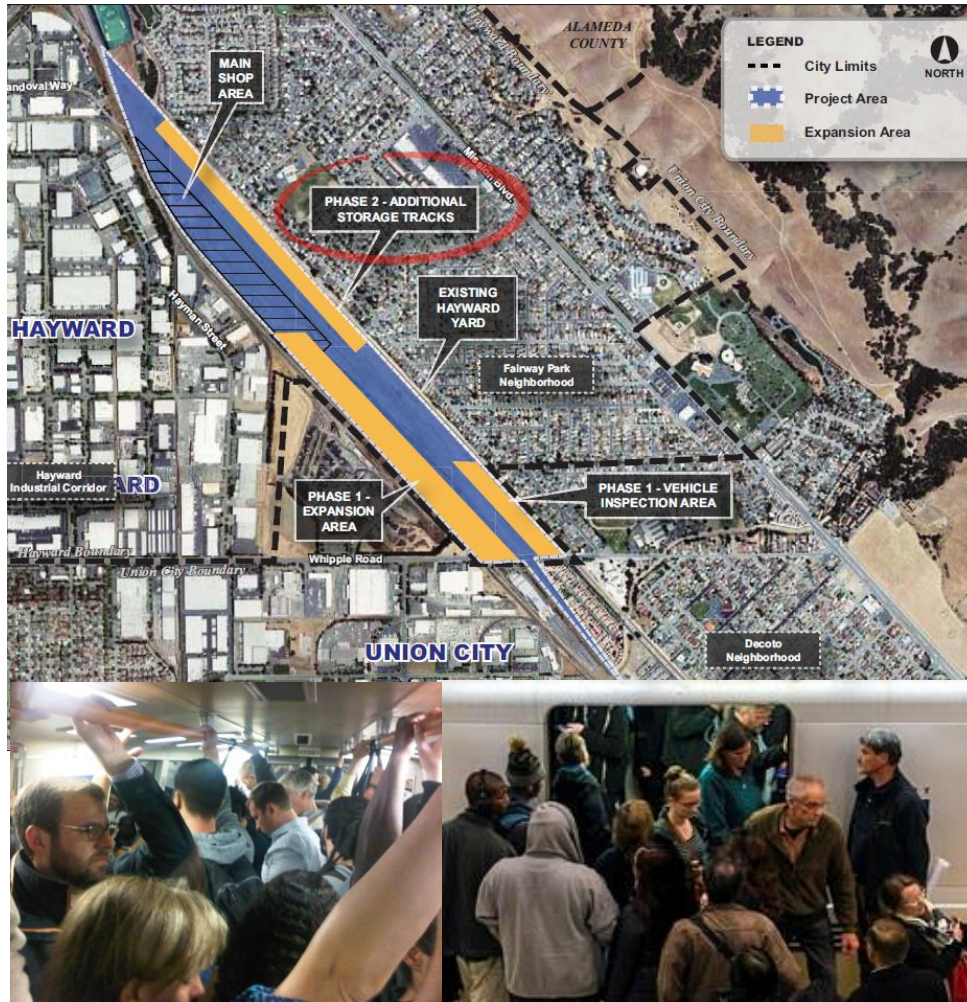


... along with BART Fleet of the Future and Enhanced Traction Power

- **Scope:**
 - Upgrade Legacy train control system to Communication-Based Train Control (CBTC)
- **Total Program: \$398.8 M** (BART share of \$915 M FTA Core Capacity project)
- **Happening Now:**
 - Preparation of Design-Build bid documents
- **Next Steps:**
 - Advertise RFP in Summer 2017
 - Award Design-Build contract late 2018



Train control and other major system infrastructure – New Starts (Core Capacity)



- **Scope:**
 - Design/Engineering for expanded maintenance facility for increased fleet (HMC – Phase II)
 - Design/Engineering for new traction power substation at Richmond Yard
 - Design/Engineering for new traction power substation at Pleasant Hill (Minert Ave.)
 - Design/Engineering for new traction power substation at Oakland 34th St.
- **Total Program: \$1.2 M**
- **Happening Now:**
 - Initiating 30% design
 - These items have already been approved by FTA for inclusion in Core Capacity
- **Next Steps:**
 - Complete 30% design
 - Include in request to move Core Capacity project from Project Development to Engineering phase



Renew Stations – \$210 Million



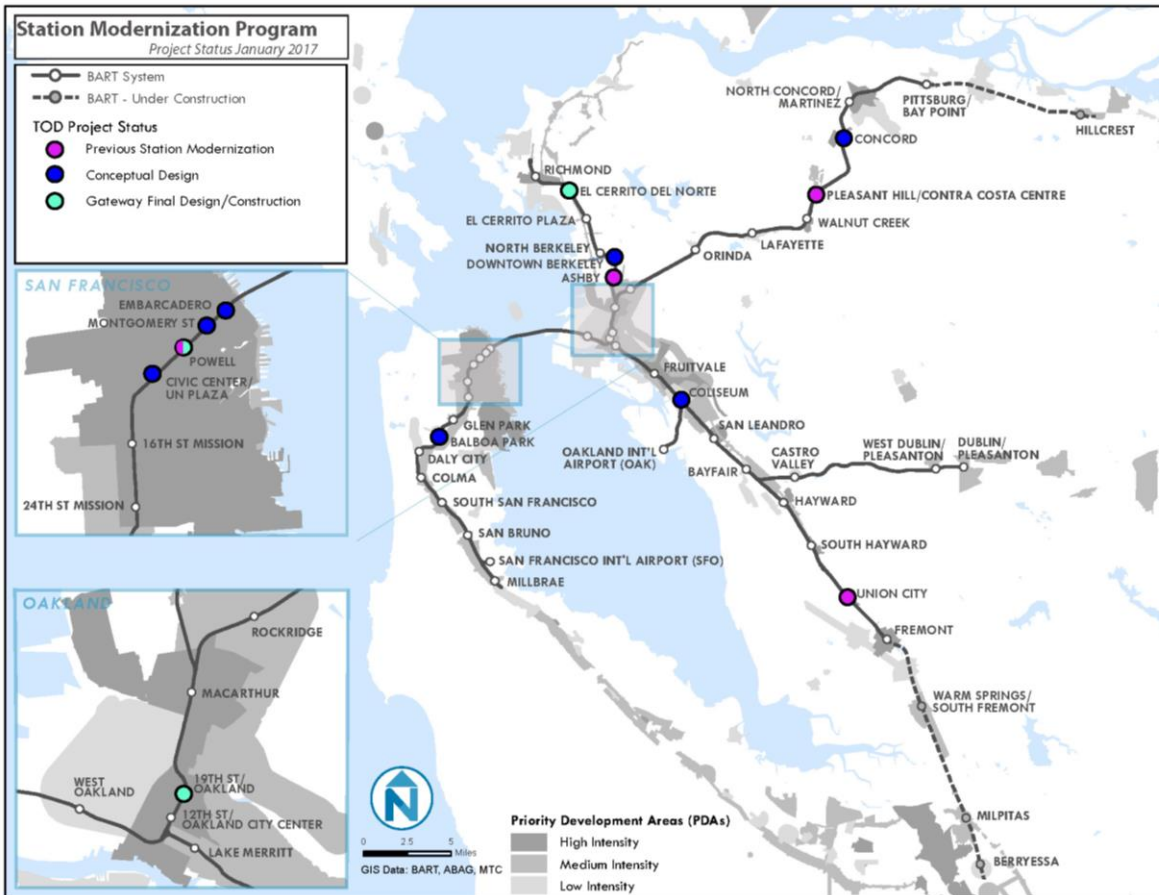
Renew Stations – Escalator Renovation and Canopy Program



- **Scope:**
 - Replace platform and street escalators
 - Design and construct escalator/stair canopies
- **Total Program: \$ 190 M**
 - Leverage additional funding from San Francisco GO Bond, State Prop 1 B and Alameda Measure BB
- **Happening Now:**
 - Develop bid documents for expanded base escalator renovation base order
 - Award base contract for 2 canopies for 2 escalators (Powell and Civic Center)
- **Next Steps:**
 - Award contracts for escalators and remaining canopies in Downtown San Francisco, Mission Street and Oakland stations



Renew Stations – Station Modernization



Scope:

- 4 station modernization conceptual plans
- 2 station modernization detailed design /construction

Total Program: \$ 20 M

- Including gap funding for El Cerrito del Norte
- Funds will leverage other sources

Happening Now:

- Final Design/Construction for 3 stations
- Concept design completed for 6 stations
- Concept design draft for 2 stations

Next Steps:

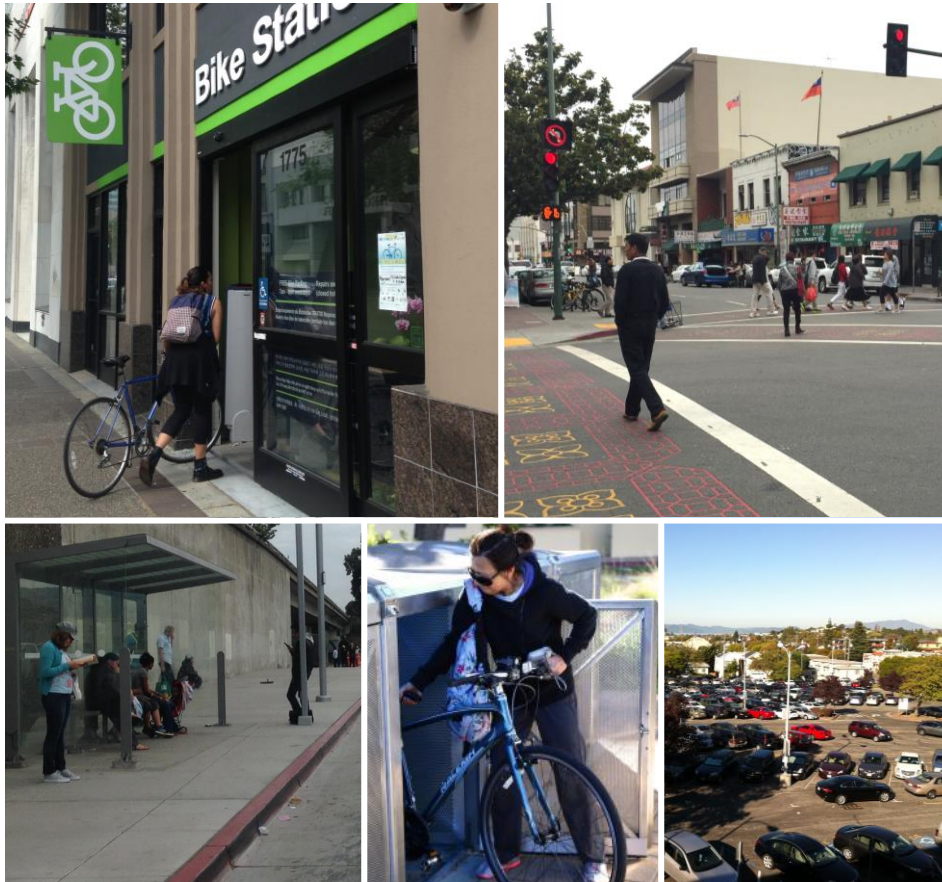
- Conceptual plans 2 stations per year (Summer 2017-2018)
- Detailed design/construction for two stations (2018-2022)



Station Access – \$135 Million



Expand Opportunities to Safely Access Stations



- **Scope:**
 - Achieve Station Access Policy Goals & Targets
 - Improve Active Transportation and enhance Access for Seniors & People with Disabilities
 - Renew Transit Transfer Facilities
 - Improve Parking Availability
- **Total Program: \$135 M**
 - Funds will leverage other sources
- **Happening Now:**
 - MacArthur Plaza and Under-Freeway Lighting
 - Bike Station Project Development
 - Ohlone Greenway at El Cerrito del Norte
 - Iron Horse Trail at Dublin/Pleasanton
 - Concord Plaza
 - eBART Corridor Access Study
 - Multimodal Access Design Guidelines
 - Districtwide Accessibility Improvement Plan
- **Next Steps:**
 - Advance design and implementation



Relieve crowding/system redundancy
– \$200 Million



Relieve crowding/system redundancy – Transbay Tube (TBT) Phase 2

Transbay Corridor

Existing Conditions
Westbound to SF Core
AM Peak Hour

10,000 People in Cars

29,000 Transit Trips

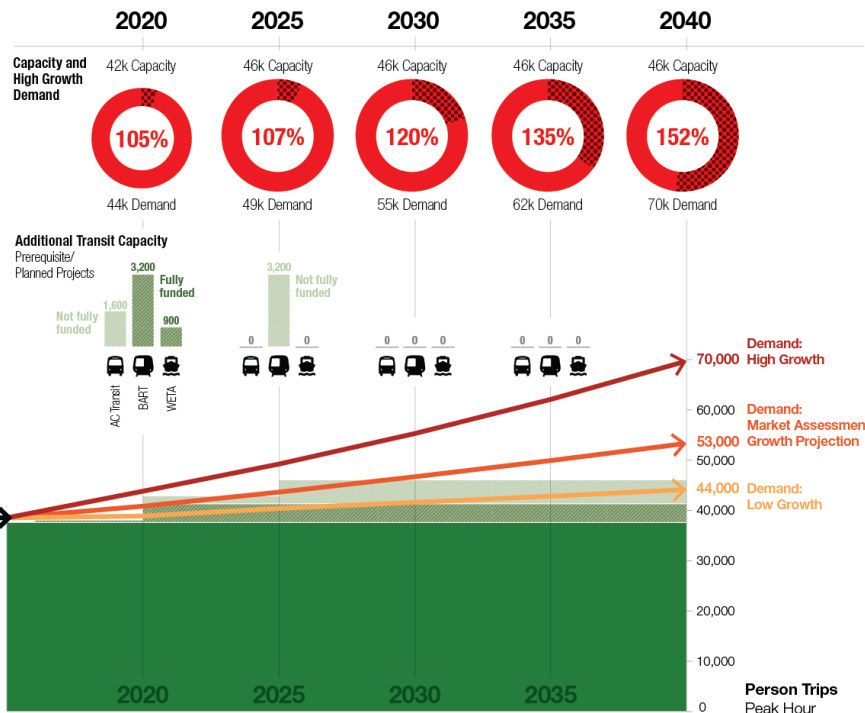
2,700 AC Transit & WestCAT bus
25,000 BART
1,300 WETA ferry

2015

37k Capacity

105%

39k Demand



- **Scope:**

- Partner with mainline rail agencies
- Examine governance and funding
- Conduct regional market analysis
- Develop service plan for rail networks
- Develop operations plan and detailed transportation model
- Initiate conceptual engineering

- **Initial Phase: \$10 M**

- **Happening Now:**

- Develop scope
- Preliminary work with MTC

- **Next Steps:**

- Initiate Project Advancement Plan in Fall 2017 and other activities in early 2018



Relieve crowding/system redundancy – BART Metro/Core Capacity



- **Scope:**
 - Design and construction of BART Metro infrastructure improvements, such as extended tail tracks, crossovers, station circulation improvements
- **Initial Phase: \$21 M**
- **Happening Now:**
 - Engineering tail track extensions identified in 2013 Study
 - Project development for FTA New Starts Core Capacity
- **Next Steps:**
 - Continue Tail Tracks design through Spring 2018
 - Tail Tracks Construction 2018-2019
 - Initiate Engineering on additional improvements
 - Advance to Engineering phase of FTA's program



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2017 Financing Schedule

January

- Underwriting Pool RFP Issued
- Treasury, M&E, P&D, Capital Planning Confirm Proposed Financing Size

March

- Underwriter Selected
- BART Board Considers Debt Policy
- Financing Kickoff Meeting

May

- Marketing to Investors
- Pricing
- Financial Close

February

- 2017 Financing Documents Initial Drafts
- Green Bonds Certification Process Initiated

April

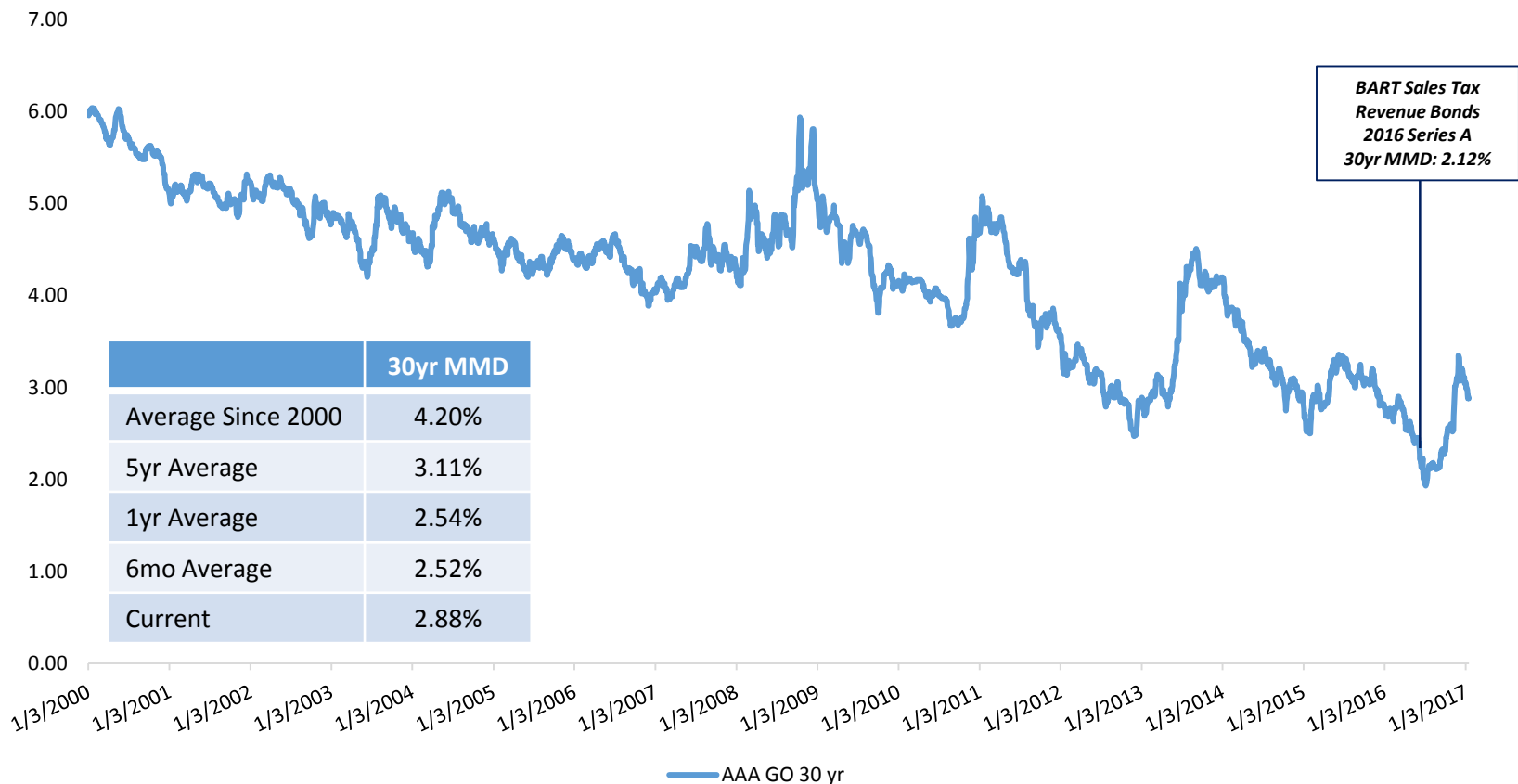
- Complete Financing Documents
- BART Board Considers 2017 Financing
- Rating Agency Meetings

Activities after Board Consideration would only be undertaken if the Board authorizes/approves



Historical Interest Rates

Historical 30yr Municipal Market Data (MMD) GO AAA





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Implementation Next Steps

- Award 6 General Engineering Service Contracts (GECs) totaling \$150 M
- Complete hiring plan
- Determine work space needs
- Advisory Committee
- Small business plan



Bond Oversight Committee Update



BART Board Workshop 2017



Bond Oversight Committee

- Set of administrative procedures & protocols finalized
- Letters sent to designated organizations (Reso #5321)
- Follow up calls/meetings to encourage participation completed
- Schedule established:
 - April 2017:** Board Appoints Committee Members
 - May 2017:** Committee Member Orientation
 - July 2017:** First Committee Meeting



Small Business Participation

- Outreach
 - Broad and extensive outreach in the new 9-county Market Area for construction
 - Improved communication with the small business bidding community including the Vendor Portal implementation
 - Webpage for G.O. Bond Opportunities
 - G.O. Bond Vendor Fair
- New tools to support small businesses
 - Small Business Supportive Services
 - Mentor-Protégé program
 - Enhanced Matchmaking
 - Exploring Bonding Assistance
- Unbundling contracts to create opportunities for small business



Small Business Participation

- Economic Opportunity Programs
 - Small Business Program
 - Up to 5% bid preference for small business primes and bidders meeting the small business subcontracting goal
 - Explore feasibility of a local business component
 - Non-Discrimination Program for Subcontracting
 - Updating availability percentages from Disparity Study
 - Refining availability percentages based on the type of work
 - DBE Program for contracts with USDOT funding
 - Set asides for micro small businesses and goals for small business



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