

BETTER BART. BETTER BAY AREA.

**IT'S TIME TO REBUILD.**





## A LETTER FROM THE GENERAL MANAGER

BART is a precious public resource. Every day, we connect hundreds of thousands of people to the countless opportunities the Bay Area has to offer. Thanks to the enormous amount of input local leaders and residents have provided us, we have a strong plan to reinvest in our aging system.

Our plan puts us on the right path toward building a better BART, and we're committed to transparency, accountability, and integrity every step of the way.

A handwritten signature in white ink that reads "Grace Crunican". The signature is written in a cursive, flowing style.

Grace Crunican  
BART General Manager

# BUILDING A BETTER BART.



## FIXING IT FIRST

After 44 years of service and hundreds of millions of trips, it's time to repair, replace and renew the parts of BART that keep you moving. Our new fleet of train cars will arrive soon—and when they do, we will need smooth rail, well-maintained tunnels, and more electricity to power us through the commute. From earthquake safety to structure repairs, our first priority is ensuring that everything working in the background stays working—and safe.



## RELIEVING CONGESTION

The Bay Area is a unique, magnetic place. As our population increases, BART's goal is to make sure growing pains don't get in the way of either new opportunities or our destinations. We plan to upgrade our computers from Pong-era technology to a modern train control system, which means less waiting around on crowded trains or platforms and less frustration from delays. The new, additional maintenance facilities we plan on constructing will keep the maximum number of trains out on the rails serving customers—translating to fewer cars clogging our congested highways.



## IMPROVING ACCESS

How you get to BART matters just as much as how BART gets you where you need to be. Our plan includes improving customer access within and around our stations—from more parking, to new escalators and elevators, to bike stations. BART is for everyone, and we want to reduce the number of obstacles between your front door and a seat on a train.



# SO WHAT'S IN THE PLAN?



## Repair & replace critical safety infrastructure

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**90 Percent** of the Program Plan

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**\$3,165** Million

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### REPLACING WORN TRACK

BART gets extra life out of our rail because we have some of the lightest train cars in the country—but even the strongest steel wears down over time. We're replacing 90 miles of our worn, original rail with tougher, harder steel that will last even longer than what we first installed during the '60s and '70s. This new rail means you'll have a smoother, safer, and quieter ride.

### POWERING THE SYSTEM

Even though we use the cleanest energy of any public transit system in the United States, we still use an enormous amount of electricity to keep our trains—and you—moving along to your destination. Most of the parts of our system that convey power—miles of cabling, substations, converters, and backup supplies—are original components from 1972 and in a state of age-related disrepair. As the Fleet of the Future arrives and we ramp up the number of trains out on the tracks, our need for electricity will increase. More trains require more power, which adds to the stress our power system

already faces on a daily basis. Energy infrastructure replacement is both time-consuming and expensive, but without it—nobody moves. Its replacement is the largest and most critical portion of BART's future needs.

### WATERPROOFING OUR TUNNELS

Some of our stations in downtown San Francisco are below sea level, and numerous natural water sources constantly threaten to flood our tunnels. BART has an extensive safety net of water pumps and engineering solutions in place, all quietly working in the background to safeguard our subways. However, much of this safety net is reaching the end of its useful life, and small amounts of water are leaking into the tunnels. While there is no immediate risk of catastrophic flooding, humidity does build up on the rails, and—just like how potholes start—every time trains run over the moisture tiny fractures form. These tiny fractures can, in extreme cases, cause the rail to break as is what happened in early 2015, causing hours of delays. Maintaining our tunnels and keeping moisture out is a top priority.



## FIGHTING THE FAULT LINES

Earthquakes are the greatest natural hazard facing Bay Area residents, thanks to a number of fault lines crisscrossing the region. One of these major fracture zones, the Hayward fault, lies below the Berkeley Hills Tunnel under BART's yellow line. The eastern and western portions of Contra Costa County slowly slide north and



south against each other, which over the years has led to misaligned track. Since the late '60s, the misalignment in the Berkeley Hills Tunnel has increased in size to the point that trains are getting very close to the tunnel walls—and something must be done to ensure straight, safe, track between Rockridge and Orinda. BART engineers have proposed several solutions to fight the creeping fault line.

## BACKING UP OUR SYSTEM

BART's train yards and shops spring into action at the end of every night, rapidly tuning up train cars, making repairs, and preparing for the next day of service. Many of our shops are in need of refurbishment, and other systems running in the background like fire suppression and water management also need an overhaul.



People may not often see the work that goes on behind the scenes, but the tools we use are an essential part of BART. Without them, work backs up and fewer cars are available when we need them.



## MODERNIZING TRAIN CONTROL

Our automatic train control system—the part of BART that tells trains where to go, how fast they should get there, and where they are in relation to other trains—was considered cutting edge technology in 1972. It set the bar for high-tech public transit, and was the envy of the world for a period of time. However, its limitations are causing delays here in 2016 and preventing trains from running closer together. A new, modernized train control system means less waiting on platforms, more frequent and less crowded train arrivals, and fewer service disruptions. In fact, over half of all BART delays in 2015 were related to our antiquated, Pong-era train control system.

## RENOVATING OUR STATIONS

Many BART stations were originally designed to handle a much smaller number of daily passengers. Crowding puts extra stress on our ticket machines, fare gates, escalators, and elevators—and outdated design elements in some stations can make it difficult to find your way.

New weatherproofing plans include canopy enclosures to protect our escalators and station entrances from weather, vandalism, and misuse. Improvements are currently underway, with backlit station names and clear navigational signposts already being installed in downtown San Francisco and elsewhere throughout the system.



# Relieve crowding, reduce traffic congestion, & expand opportunities to safely access stations

**10 Percent** of the Program Plan

**\$335** Million

## BRINGING YOU TO BART

How you get to BART matters just as much as how we get you where you need to be. Our existing parking lots are full to the brim—and there are a number of ideas in the works for how we could expand options while also connecting to and improving bus access. For cyclists, we’ve already begun opening Bike Stations at locations throughout the areas we serve—with intent to expand. Secure bike parking keeps cars off the road, and pollution out of the air. Also part of BART’s strategy for improvement is our plan to reduce barriers for senior riders or our differently abled passengers. Replacing our difficult-to-hear public announcement speakers, guardrails, and handrails will help everyone safely find their way.

## EXPANDING OPTIONS

When BART needs to quickly move a train from one area to another, we rely on having specialized tracks called crossovers. Crossover tracks are like a passing lane for trains—meaning that if there’s a blockage up ahead, we have the flexibility to move trains around whatever is causing the problem. This flexibility lessens delay times and helps us keep passengers on their way to their destinations in a timely manner. In addition, BART is laying down definite plans for new storage tracks, additional rail to mirror existing service, and many other projects to help increase the number of people who can ride on BART.

Summary of Investments	\$ Millions	% of Total Bond
<b>REPAIR AND REPLACE CRITICAL SAFETY INFRASTRUCTURE</b>	<b>\$3,165</b>	<b>90%</b>
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%
<b>RELIEVE CROWDING, REDUCE TRAFFIC CONGESTION, AND EXPAND OPPORTUNITIES TO SAFELY ACCESS STATIONS</b>	<b>\$335</b>	<b>10%</b>
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%
<b>TOTAL</b>	<b>\$3,500</b>	<b>100%</b>

*Note on Governance:* Governance measures will include an independent oversight committee, spending restrictions, and annual audits. Funding cannot be taken away by the state. *Note on Planned Expenditures:* Spending in the two major investment categories is fixed. As BART tailors investments to respond to system needs, actual spending within each of the two major categories may vary by up to 15% of the total. For example, if the tunnels and structures repair projects need less of this funding, up to 15% of the grand total for repairing and replacing critical safety infrastructure (15% of \$3.165B) can be shifted to another of the projects within that category such as renewing power infrastructure. However, BART cannot transfer that 15% savings to projects in the other major category to expand opportunities to safely access stations.

# PROTECTING PUBLIC TRUST.

## INCLUDING YOUR INPUT

Our plan is based on hard data—collected using international best practices and a strong internal accountability program (asset management software) which gives us the exact life span for all the different physical parts of BART. We've also held over 200 meetings with diverse community groups throughout the Bay Area to give our plan context, and to get an idea of how we can improve the lives of the people we serve. We've included elected officials, businesses, labor groups, environmental organizations, seniors, disability advocacy groups, community organizers, social justice advocates, and individuals in this process—and remain committed to having an open conversation about our future. We've received over 1,500 responses to date, and continue to educate and listen wherever we go.



## SAFEGUARDING YOUR INVESTMENT

In 2004, voters approved \$980 million for BART's earthquake safety program. Since then, we've proven ourselves to be a responsible and trustworthy steward of public funds. We've reinforced parking garages, strengthened maintenance facilities, fortified stations, and protected the Transbay Tube—guarding our riders against the threat of earthquakes while building trust and saving millions of dollars.

The BART Board of Directors is considering a \$3.5 billion general obligation bond on the ballot in November to help pay for the necessary repairs and upgrades we need to keep the Bay Area moving smoothly. If the bond measure passes, an Independent Oversight Committee will be established to ensure our plans are carried out with an excess of transparency, accountability, and integrity. The Committee will be able to regularly audit BART, and will publish an annual, public, independent report outlining any concerns that could arise from how we carry out our plan.

## REPRESENTING YOUR INTERESTS

BART's governing structure is open and democratic—nine elected officials represent the people of various districts in Alameda, Contra Costa, and San Francisco counties. Visit [www.bart.gov/about/bod](http://www.bart.gov/about/bod) to find out who represents you, and how you can make your voice heard.

To download a pdf of the 2016 System Renewal Program Plan, visit us at [www.bart.gov/about/financials](http://www.bart.gov/about/financials)





## VISIT US

Visit the Better BART website for the latest updates on how we're building a better BART.

[www.bart.gov/BetterBART](http://www.bart.gov/BetterBART)



## TALK TO US

Send us a tweet to start the conversation. We'll answer any questions you have as quickly as possible.

[@SFBART](https://twitter.com/SFBART)



## MEET WITH US

Interested in finding out more? Contact us to request a personal presentation from BART to you and your group.

[BetterBART@bart.gov](mailto:BetterBART@bart.gov)



## BE WITH US

BART is for everyone—show us how we move you. Tag us on Instagram to be included on the Better BART site.

[#BetterBART](https://www.instagram.com/BetterBART)

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