



Tri-Valley – San Joaquin Valley Regional Rail Authority December Board Meeting

December 11, 2019





Agenda Item #7
Executive Directors
Report

Executive Director's Report

- Briefings
 - Assemblymember Bauer-Kahan
 - Assemblymember Eggman
 - State Senator Glazer
 - Staff of Assembly Transportation Committee
 - Staff of State Senate Transportation Committee
 - Staff of State Senator Wieckowski (co-author of FASTER)
 - Caltrans Summit on the Summit
 - City of Tracy, City of Lathrop and Mountain House

Executive Director's Report

- Briefings, cont.
 - Tri-Valley Transportation Council
 - San Joaquin Partnership
 - SPUR (SF Area Planning and Urban Research Association)
 - Chancellor of Chabot-Las Positas College District
 - Tracy City Center Association
 - Silicon Valley Leadership Group Transportation Policy Committee
 - TV30 in Tri-Valley
 - Assistance with Tri-Valley Mayors upcoming trip to Wash DC

Executive Director's Report

- Other Important Meetings/Work
 - ACTC Design Workshop for I-580/managed lanes
 - SJCOG and Caltrans District 10: Congested Corridors Grant Application
 - MTC: Plan Bay Area 2050 and FASTER
 - City of Tracy: Project Team for TOD Planning
 - Alstom and Redlands Arrow Project Team
 - FASTER Bay Area Technical Advisory Group and Subcommittees
 - Kick Off meeting for Tri-Valley Hub Study
 - 18-Month Budget and Organizational Structure (ACTC/BART/SJRRC)
 - Federal Railroad Administration

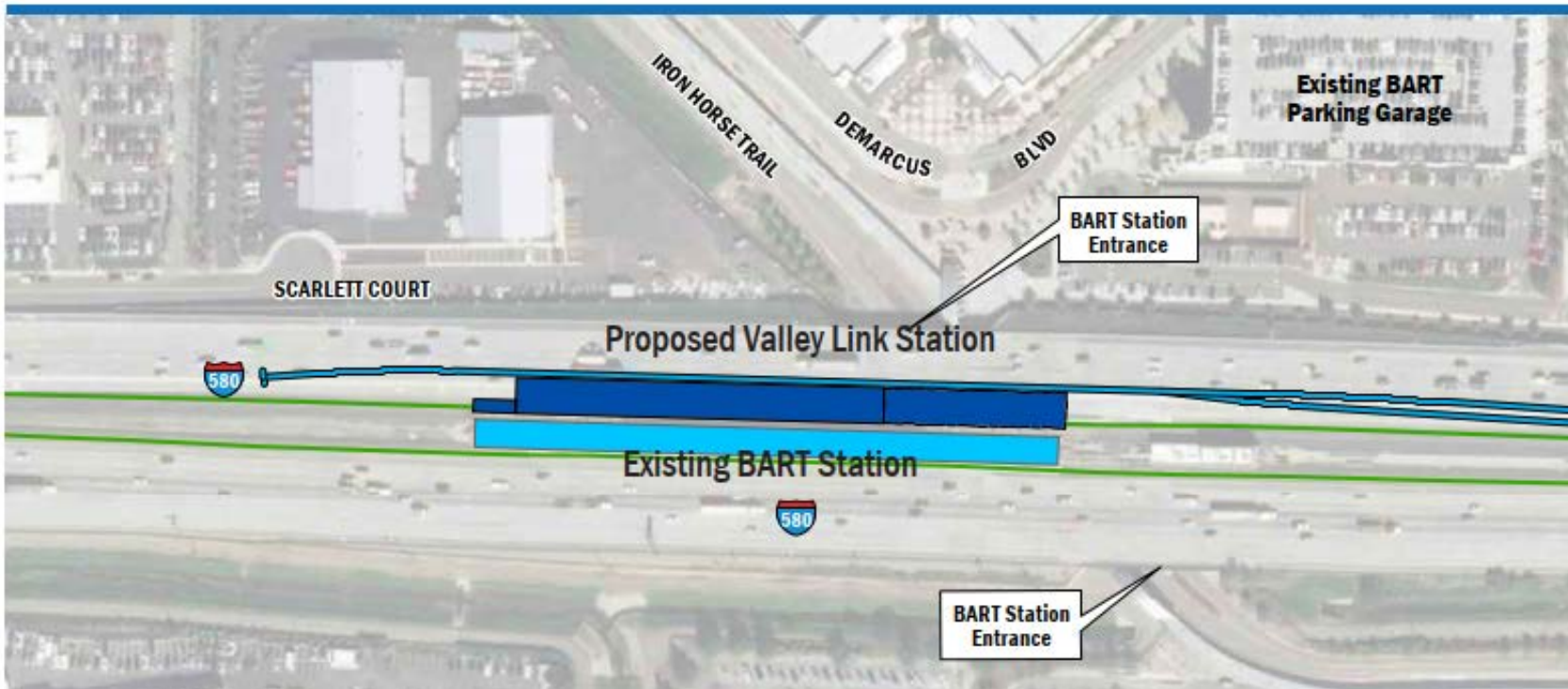
Executive Director's Report

- Big Four - Areas of Emphasis
 - FASTER Bay Area
 - Congested Corridors Grant Application
 - Environmental and Design Work
 - 18-month Budget and Organizational Structure

CEQA Update

- PSR-PDS submitted to Caltrans August 2019
 - Includes approach to ED
 - Received comments from Caltrans
 - PSR/PDS approval from Caltrans expected by end of Jan 2020
 - Caltrans PA&ED process to start 2020
- Admin Draft EIR review by the Authority Complete
 - Substantially complete addressing Admin Draft comments
- Draft EIR for public review Winter 2020
 - Working with partner agencies on key project elements
 - BART Station configuration
 - Headways
- 45-day public comment period proposed

Transfer Platform Rendering



Dublin/Pleasanton Station:
72% of the 5000 Valley Link boardings occur during the peak period ⇒ 3,600 Valley Link boardings at Dublin/Pleasanton during the peak period

2025 Distribution of Riders on Valley Link Trains



2025 Distribution of Valley Link Riders on BART Trains



BART's analysis of the need for additional BART cars and storage determined that the increment of new riders on BART attracted by Valley Link would not require additional BART car capacity in 2025.

Dublin/Pleasanton Station in 12/12 Scenario:

73% of the 13,300 Valley Link boardings occur during the peak period ⇒ 9,700 Valley Link boardings at Dublin/Pleasanton during the peak period

Dublin/Pleasanton Station in 12/24 Scenario:

73% of the 12,400 Valley Link boardings occur during the peak period ⇒ 9,000 Valley Link boardings at Dublin/Pleasanton during the peak period

2040 Distribution of Riders on Valley Link Trains

12/12 Scenario

640 riders on each Valley Link "full route" peak-period train ⇒ **100%** of capacity of a 6-car DMU train that can hold 642 riders



12/24 Scenario

85% of total peak period ridership would occur on San Joaquin Valley "full route" trains ⇒ **1,000** riders on each Valley Link "full route" peak-period train ⇒ **104%** of capacity of a 9-car DMU train that can hold 963 riders



2040 Distribution of Valley Link Riders on BART Trains

12/12 Scenario

600 of the Valley Link riders on each "full route" peak period train would be transferring to BART \Rightarrow **320** of them would be new BART riders \Rightarrow **27%** of capacity of a 10-car BART train



12/24 Scenario

950 of the Valley Link riders on each "full route" peak period train would be transferring to BART \Rightarrow **510** of them would be new BART riders \Rightarrow **43%** of capacity of a 10-car BART train





Agenda Item #8 Faster Bay Area Presentation



A FASTER Bay Area



Let's Build a FASTER Bay Area
Together

[Watch our Video](#)

The Bay Area is in a transportation crisis



Congestion is up



Greenhouse gas emissions are up



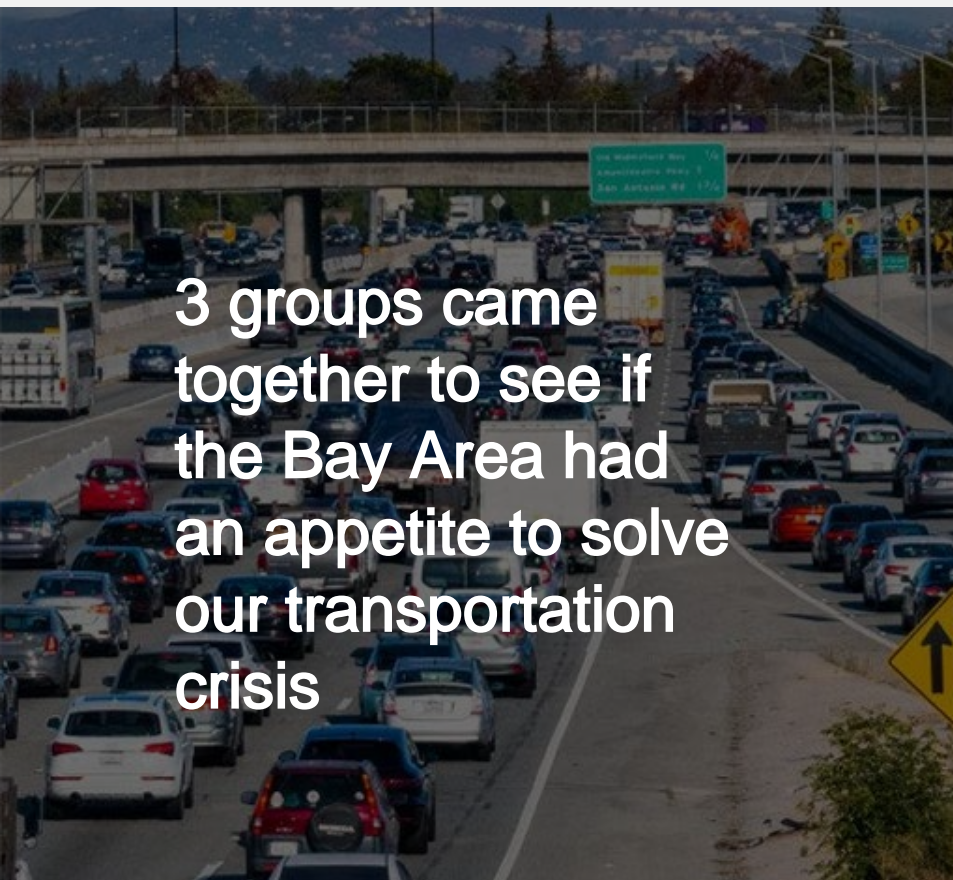
Transit ridership is down



Inequality is deepening

**Congestion up 80%, Transit down 11% since 2001, Emissions up 3% since 2010*

We can do better



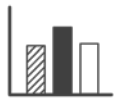
3 groups came together to see if the Bay Area had an appetite to solve our transportation crisis



Comprehensive outreach campaign



9 Focus Groups



2 Region-wide Polls



Online Survey



250+ Stakeholder Meetings



Town Halls Across Region

Regular meetings with:

Equity & Transit Advocacy Orgs

County Transportation Agencies

Environmental Groups

Labor Groups

Affordable Housing Groups

Voices for Public Transportation

What we heard



People:



Know the Bay Area is in a transportation crisis



Know that transforming transit is the solution



Willing to pay for transformational change



Want outcomes—fast, reliable, affordable, and integrated transit



Show little enthusiasm for specific projects, especially megaprojects

The public wants meaningful reform



“ Pair big Bay Area transit tax with tough decisions... There is no doubt about the need for a radical new approach to transportation.”

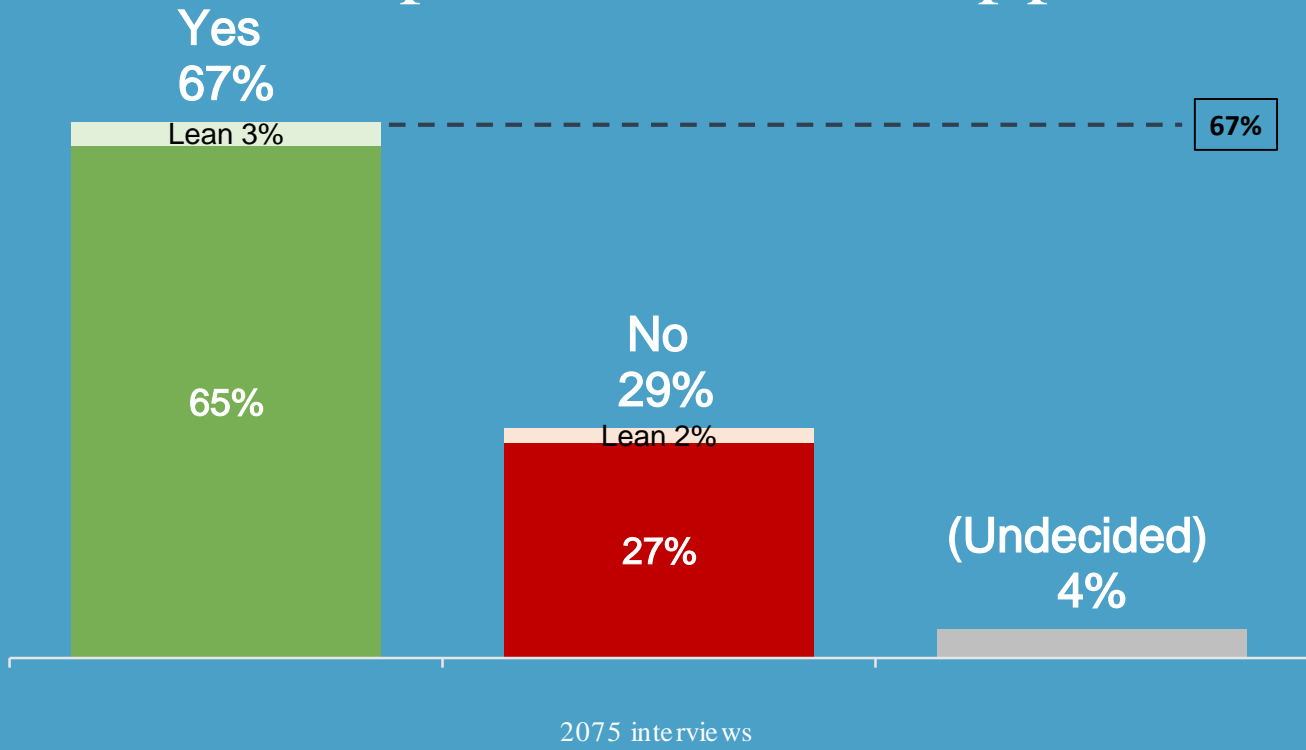
San Francisco Chronicle

“ The last thing we need is yet another ballot measure with a grab bag of projects. What’s needed is a holistic approach that integrates the Bay Area’s 26 bus, train and ferry agencies and nine congestion management agencies.”

The Mercury News



1% Sales Tax increase to transform transit polls at 67% support





Seattle and Los Angeles have passed regional transit measures in 2016 of a similar scale





The FASTER Vision: a Regional Transit Network that's faster than driving alone

FASTER Transit is ...



High quality service:



transit comes **every 12 minutes** in most places



transit is out of traffic—that means **faster transit and fewer cars** sitting in traffic

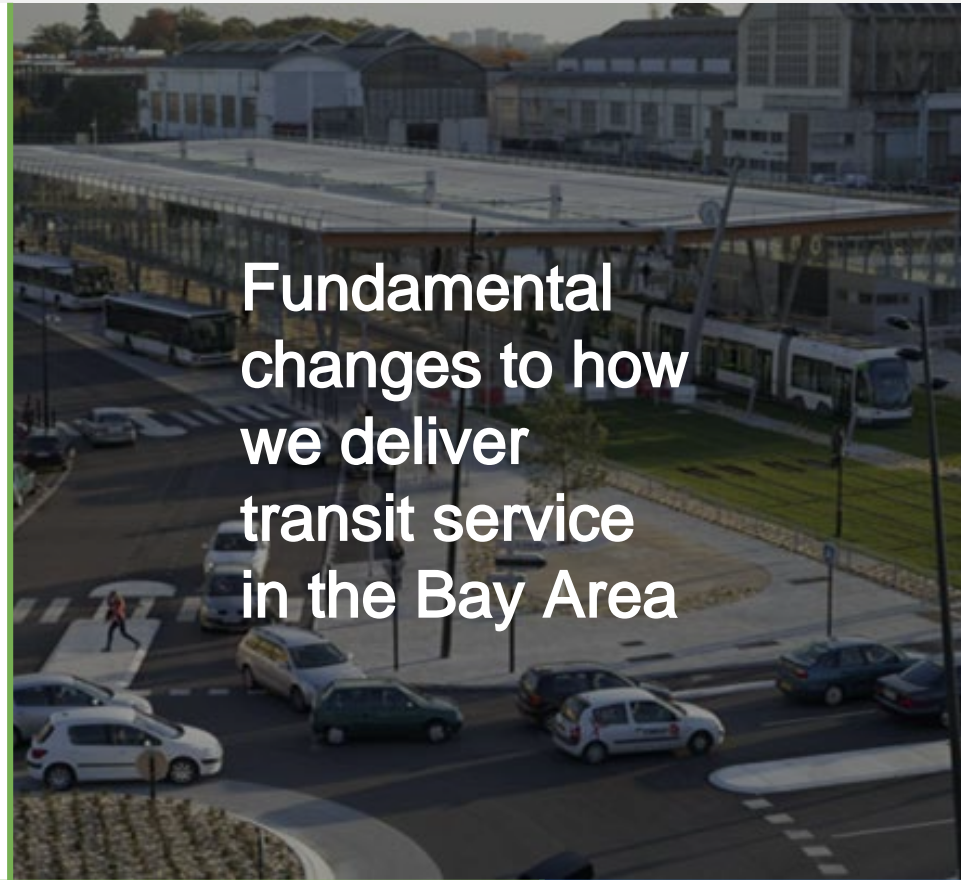


transit serves the entire region

Delivering FASTER

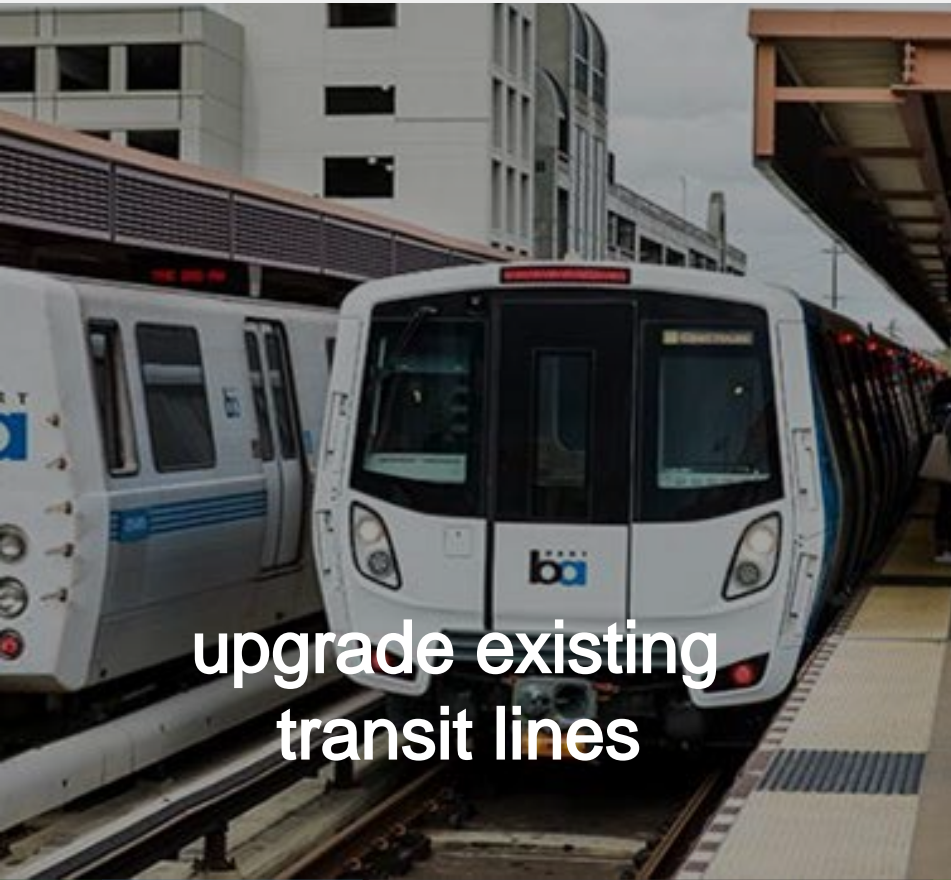


**A \$100bn
investment in a
Regional Transit
Network
(FASTER Transit)**



**Fundamental
changes to how
we deliver
transit service
in the Bay Area**

FASTER will

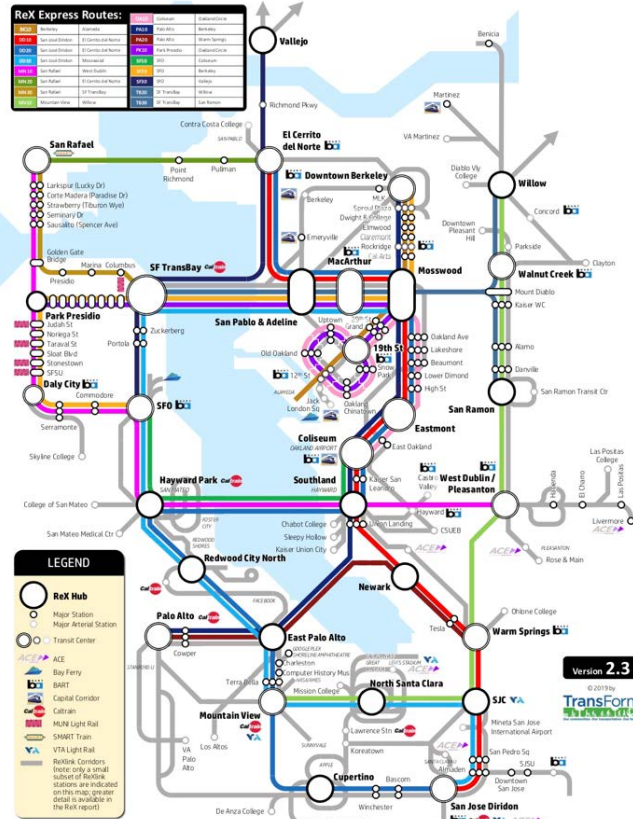


upgrade existing
transit lines



develop new
transit lines

FASTER may include...



A 9-County Rapid Bus Network running on a completed Express Lane Network

Equitable



The most equitable transportation revenue measure in Bay Area history



Shield low income families from the sales tax increase with a **Sales Tax Fairness Credit**



Exploring a mandate requiring the **region's employers to invest in sustainable commutes for millions of workers**



Provide **massively discounted transit fares to students and low -income riders** on a permanent basis



all communities receive their share of FASTER's transformative benefits:



Each commute shed will receive billions of dollars in guaranteed investment.



Each transit operator will receive guaranteed investments (including money for staff) to support local transit service and connecting communities to FASTER.



Each county will receive guaranteed investments to support safe walking, biking and micromobility use.

Transforming how we do Transit



**Supercharge project
delivery reducing cost and
delays**

- Streamline Process
- Transit Construction
Center of Excellence

**Enable transit work
as one regional
network:**

- Seamless customer
experience across transit
operators
- Regional network planned
at the regional scale

Outcomes first, projects second



We will only write into the measure FASTER Network projects that are sufficiently defined and can be delivered in a short enough time that we can **project with confidence that they will be transformative** —meeting objective performance metrics —and good value for money.

We will also put guardrails in the measure so that these projects would need to be re-evaluated for funding if they no longer deliver transformative outcomes or are good value for money.



All projects funded for the FASTER Network will:



deliver transit that is faster than driving alone

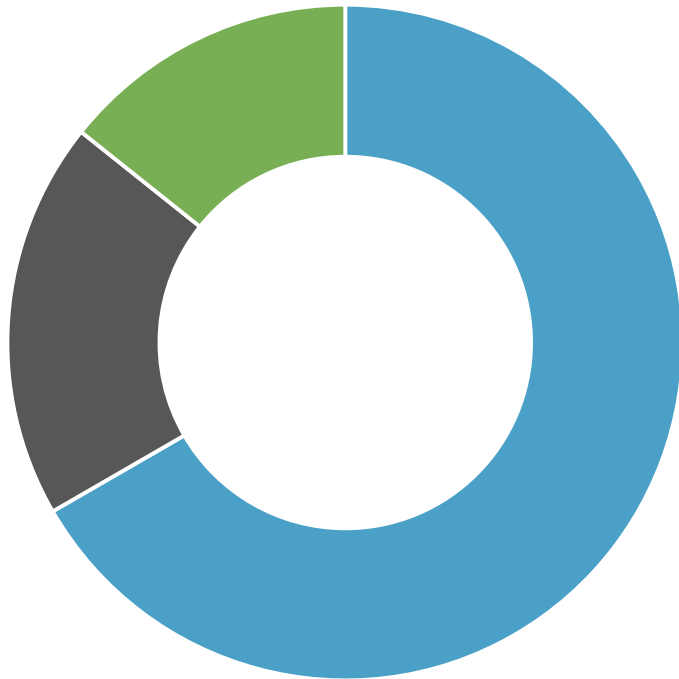


deliver transformative outcomes, based on objective performance metrics



be a good value for money

Draft Expenditure Plan



- 1. FASTER Transit Network Build Out & Operations
- 2. Connect to the FASTER Transit Network
- 3. Make Network Affordable & Seamless

+ 4. Employer-Funded Sustainable Commute Subsidies

1: FASTER Transit Network Build Out & Operations



Upgrade existing service to FASTER standards



**Expand and operate new FASTER lines,
including:**

- a new 9-county Rapid Bus Network running on a completed Express Lane Network



FASTER will serve the entire Bay Area, *with guaranteed investments in each commute shed*

2: Connect to the FASTER Transit Network



Local Transit: Service connecting communities to FASTER Transit Network



Active Transportation: Complete, connected bike & pedestrian networks, connecting communities to FASTER Transit Network, as well as jobs, schools and parks



Regional Transportation Innovation: Investments in emerging transportation technologies to increase access to the FASTER network

3: Make Network Affordable & Seamless



- Sales Tax Fairness Credit



- Means-based & student fares



- Funding integrated fares & seamless customer experience



- Funding construction & operations workforce development



- Funding a Project Delivery & Operations Excellence Center



- Funding and empowering service planning & coordination to ensure the FASTER Network operates as a single, seamless system

4: Employer-Funded Sustainable Commute Subsidies



A mandate requiring the region's large employers to invest billions of dollars in the sustainable commutes of millions of their workers

Potential Min. Standards for FASTER Network Investments



- **Rapid** = frequencies of 12 minutes or less in most places
= faster than solo driving (during peak)



- **Reliable** = Out of traffic (or prioritized over it)



- **Networked** = synched scheduling and short wait times; shared hub stations; uniform fare system, FASTER branded wayfinding



- **Sustainable** = congestion reducing (decrease vehicle miles traveled), sea level rise ready



- **Fully Funded** = Funding for project construction & operations identified 4 years after first FASTER funding commitment, and before project construction funds released



- **Regional Connections** = Connects to growing dense and transit -oriented population centers, major transit -oriented job centers, and major transit -oriented education or healthcare institutions

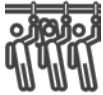


- **Efficiently Delivered** = Best -practices for project delivery / operations excellence

Potential Prioritization Framework for FASTER Network Investments



- Cost effectiveness



- Ridership



- Seamless connection to the FASTER network



- Connections for disadvantaged communities, and policies to protect residents vulnerable to displacement



- Connections to communities that are planning for affordable and middle -income housing



This FASTER Transit Network would attract hundreds of thousands more riders onto transit, and significantly reduce congestion for drivers.

Next steps



Outreach continues

Local Elected Leaders

Regional Stakeholders

State Legislators

Riders



Technical Advisory Group

MTC, Caltrans, County Transportation Agencies, Transit Agencies *(meeting every 2 weeks)*



Regular Updates to MTC Commission, Transit Agency Boards,
County Transportation Agency Boards



Synching up with Plan Bay Area 2050



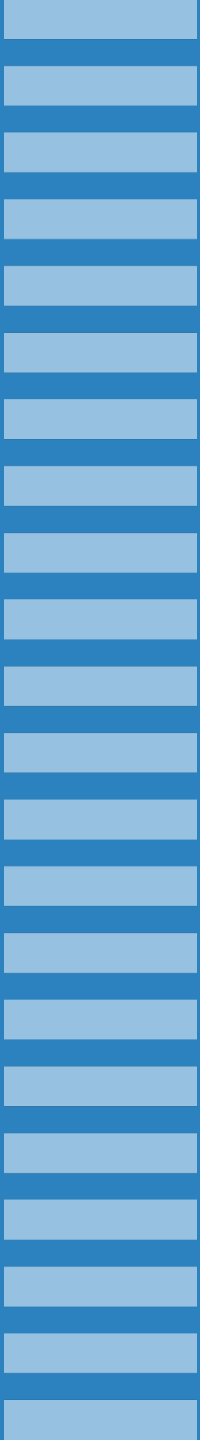
Initial legislative structure, SB 278 (Beall), in development



Join Us

Learn more and take our survey at www.FASTERBayArea.org

Contact us at Info@FASTERBayArea.org



Agenda Item #9 Zero Emission Vehicle Options

What Is Zero-Emission?

- Zero emission means what comes out of the trains is free of pollutants
- There is more than one way to implement a zero-emission train



Joe Raedle/Getty Images

Zero Emission Trains – Hydrogen Fuel Cell Electric

- 18 Alstom iLINT trains are in use in Germany
- Stadler is building a hydrogen train for San Bernadino



Electric

- Commuter rail electric trains use overhead wires for power
- Low-speed, short-range trains like streetcars can be completely off-wire or partial off-wire
- A partial off-wire system is possible for commuter service



Sources of Energy – Hydrogen Fuel Cell

- Hydrogen can be purchased and stored
- It can also be made two ways –
 - Using natural gas, water and electricity
 - Using just electricity and extra water



Photo: Sunline Transit

Sources of Energy – Hydrogen Fuel Cell

Electricity can be generated on site to power a hydrogen fuel plant

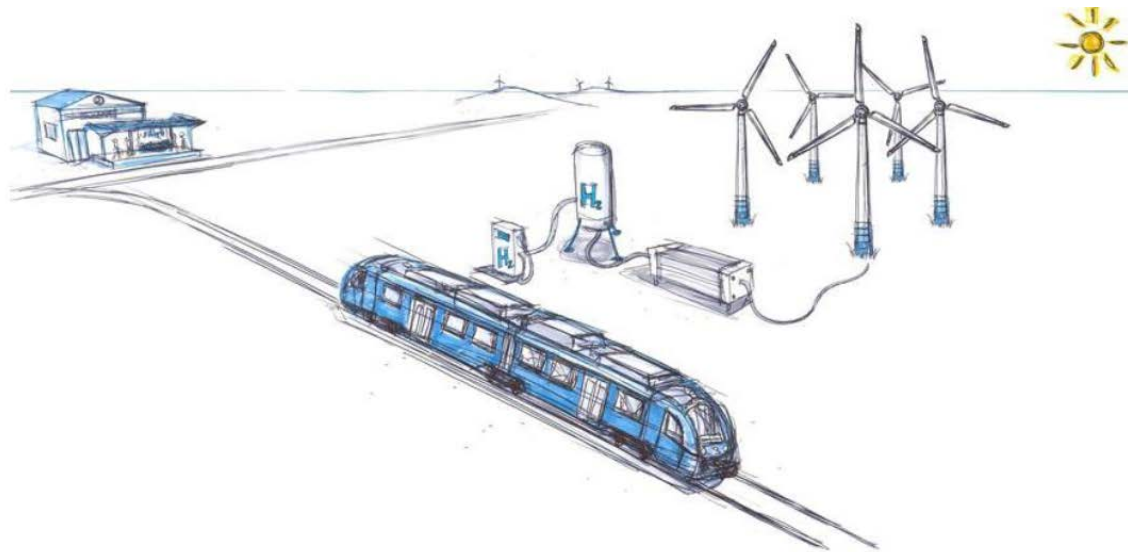


Illustration Alstom Group, used with permission

Sources of Energy - Electric

- Batteries can charge in motion with overhead wire in the middle segment of Valley Link, and potentially at the terminal stations
- Electricity can be generated on site to power the overhead wires and chargers

Resiliency

- Energy storage, fuel or electricity is needed when:
 - hydrogen generation plant is down
 - solar power is low
 - utility power is not available
- Typically, overhead wire systems use more than one utility circuit for back up
- Overhead wire “traction power” systems can charge back up batteries to power trains and systems

Cost

- \$150M would be needed for either zero-emission upgrade
- This is an “order of magnitude” amount that can be refined with further study

Grants

- CARB and TIRCP offer grants for projects that are shown to lower emissions
- Other grant monies may be available if the project is shown to provide more pollution-reduction benefits