Will Congress Choose a New Direction?

36th Annual Report to Congress

March 2015
San Francisco Bay Area: Transportation and Land Uses

- Urbanized Area
- Publicly Owned Parks and Open Space
- Priority Development Area (PDA) – Planned
- Priority Development Area (PDA) – Potential
- Priority Conservation Area (PCA)

ROADS
- Freeway
- Major Road

RAIL SYSTEM
- Altamont Corridor Express
- Amtrak
- BART
- Caltrain
- Light Rail (Muni & VTA)
- Cable Car (Muni)

2010 POPULATION
- > 350,000
- 50,000–350,000
- <50,000

Scale: 0–30 miles (0–48 kilometers)
# Table of Contents

## MAP-21 Reauthorization Recommendations
- Enact a Long-Term Fix to the Highway Trust Fund .................................................. 2
- National Freight Program Needed to Ensure America's Global Competitiveness .......... 6
- Metropolitan Mobility Fuels National Prosperity ......................................................... 10

## Federal Appropriations Request
- Bay Area’s New Starts Projects .................................................................................. 12

## Bay Area Update
- Bay Area’s Next Generation of Transit Projects ......................................................... 14
- Caltrain Electrification Advances Mobility on the Peninsula .......................................... 16
- Preserving the Region’s Transit Systems Is Top Priority in Plan Bay Area ...................... 18
- San Francisco Bay Area Core Capacity Transit Study ................................................... 19
- Bay Area Express Lane Network Expands Travel Choices ........................................... 20
- Vital Signs Initiative Monitors Bay Area’s Performance .............................................. 22
- Bay Area’s Economic Resurgence Drives Up Congestion ............................................ 23
- MTC Programs Keep the Bay Area on the Move ......................................................... 24
- Clipper® - It’s All You Need to Ride Transit Around the Bay ......................................... 25

## Bay Area Partnership

## MTC Commission
Enact a Long-Term Fix to the Highway Trust Fund

America once again faces a looming deadline – May 31, 2015 – when the current surface transportation bill expires. MTC calls for an end to stop-gap funding gimmicks from the General Fund. Instead, Congress should raise the gas tax to restore predictable federal transportation funding.

Since 2008, Congress has transferred $62 billion in General Fund revenue to the Highway Trust Fund (HTF) to maintain current funding levels without raising user fees. With the national average gas price dipping as low as $2.15 in early February, the impact of a higher gas tax would be dwarfed by recent fluctuations in the price of fuel.

$54 per month

Savings From Lower Gas Prices

$7 per month

Cost From 15¢/Gallon Gas Tax

Not a Partisan Issue

While raising the gas tax has long been decried as politically risky, 42 states - led by Democratic and Republican governors - have done so since 1993, the last time the federal gas tax was raised. Since 2012, 13 states have raised their gas taxes. More recently, Democrat and Republican members of the 114th Congress have been outspoken that now is the time to raise the gas tax.

<table>
<thead>
<tr>
<th>State/Governor’s Party</th>
<th>Increase (Cents/gallon)</th>
<th>State/Governor’s Party</th>
<th>Increase (Cents/gallon)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecticut (D)</td>
<td>3.8</td>
<td>New Hampshire (D)</td>
<td>4.0</td>
</tr>
<tr>
<td>Florida (R)</td>
<td>2.0</td>
<td>North Carolina (R)</td>
<td>0.1</td>
</tr>
<tr>
<td>Iowa (R)</td>
<td>10.0</td>
<td>Pennsylvania (R)</td>
<td>~9.0</td>
</tr>
<tr>
<td>Kentucky (D)</td>
<td>2.4</td>
<td>Vermont (D)</td>
<td>~6.0</td>
</tr>
<tr>
<td>Maryland (D)</td>
<td>3.5</td>
<td>Virginia (R)</td>
<td>~5.0</td>
</tr>
<tr>
<td>Massachusetts (D)</td>
<td>3.0</td>
<td>Washington, D.C. (D)</td>
<td>~1.0</td>
</tr>
<tr>
<td>Nebraska (R)</td>
<td>1.7</td>
<td>Wyoming (R)</td>
<td>10.0</td>
</tr>
</tbody>
</table>

*Increases include automatic adjustments and legislative changes. Source: http://www.eia.gov/petroleum/marketing/monthly/pdf/enote.pdf

Provide Long-Term Sustainability for the Gas Tax

 Critics of raising the gas tax point out that with vehicle miles traveled on the decline and fuel efficiency improving, gas tax revenues are on a downward trajectory. While this may be true over the long run, the extent to which it is occurring is very gradual and can be offset by indexing the tax to annual inflation or construction costs. Another approach is to link the tax to the price of fuel or replace it with a price-based tax, but with a floor provision to prevent cuts to the program. Kentucky’s gas tax is adjusted based on fuel price and has grown from 12 cents per gallon in 1993 to 37 cents in 2014.

77% of Americans support increasing infrastructure investment to create jobs

Source: United Technologies/National Journal Congressional Connection Poll, Nov. 2013

“Twenty-first century businesses need 21st century infrastructure – modern ports, and stronger bridges, faster trains and the fastest Internet. Democrats and Republicans used to agree on this... Let’s pass a bipartisan infrastructure plan.”

President Barack Obama
State of the Union Address, January 20, 2015
“It’s time for Congress to hike the federal gas tax and actually solve a fiscal problem instead of kicking the can down the road.”

Senator Bob Corker (R-Tennessee), January 2015

Risks of Relying on General Revenue for Transportation

While we support the Obama Administration’s proposal to substantially grow the federal transportation program, we do not support its reliance on a General Fund source of revenue. We have several specific objections to funding the program through a one-time 14 percent tax on offshore profits:

- The revenue forecast is uncertain. Unlike a gas tax, which has a high level of compliance, estimating and enforcing the taxes owed on overseas profits will be very challenging, jeopardizing funding commitments.

- Reliance on one-time funds does not provide long-term solvency for the Highway Trust Fund, leaving us with the same problem six years from now.

- When transportation has to compete with other general government needs, it does not fare well, particularly when budgets are tight. California’s experiment with this over the last decade led to numerous funding diversions and deferrals.

Highway Trust Fund Forecast

Note: Assumes expenditures growing at rate of inflation and no change in existing Highway Trust Fund taxes
Source: Congressional Budget Office, January 2015
**Gas/Diesel Excise Tax Purchasing Power, 1993-2014**

<table>
<thead>
<tr>
<th>Year</th>
<th>Diesel tax rate</th>
<th>Value of diesel tax in 1993 $</th>
<th>Gas tax rate</th>
<th>Value of gas tax in 1993 $</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Departure from User Fees Should Trigger Formula Overhaul**

If Congress continues to fund the program through general revenues, it should revisit the basis for how funds are distributed across states. It does not make sense for programs to be distributed based on how much gas tax each state generates if the gas tax contributes only half the revenue for the entire program. State-by-state equity should be reevaluated based on the source of the general revenue.

**Gas Tax Cost for Drivers**

<table>
<thead>
<tr>
<th>Cent/Gallon Increase</th>
<th>Average Cost per Day</th>
<th>Cent/Gallon Increase</th>
<th>Average Cost per Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$0.02</td>
<td>11</td>
<td>$0.18</td>
</tr>
<tr>
<td>2</td>
<td>$0.03</td>
<td>12</td>
<td>$0.19</td>
</tr>
<tr>
<td>3</td>
<td>$0.05</td>
<td>13</td>
<td>$0.21</td>
</tr>
<tr>
<td>4</td>
<td>$0.06</td>
<td>14</td>
<td>$0.23</td>
</tr>
<tr>
<td>5</td>
<td>$0.08</td>
<td>15</td>
<td>$0.24</td>
</tr>
<tr>
<td>6</td>
<td>$0.10</td>
<td>16</td>
<td>$0.26</td>
</tr>
<tr>
<td>7</td>
<td>$0.11</td>
<td>17</td>
<td>$0.28</td>
</tr>
<tr>
<td>8</td>
<td>$0.13</td>
<td>18</td>
<td>$0.29</td>
</tr>
<tr>
<td>9</td>
<td>$0.15</td>
<td>19</td>
<td>$0.31</td>
</tr>
<tr>
<td>10</td>
<td>$0.16</td>
<td>20</td>
<td>$0.32</td>
</tr>
</tbody>
</table>

“Congress hasn’t dealt seriously with the funding issue for over 20 years and it’s time to act... There’s a broad and persuasive coalition that stands ready to support Congress, including the U.S. Chamber of Commerce, National AFL-CIO, the construction and trucking industry, cyclists, professional groups, numerous associations of small and medium businesses, local governments, and transit agencies. We just need to give them something to support.”

Congressman Earl Blumenauer (D-Oregon)
February 2015
National Freight Program Needed to Ensure America’s Global Competitiveness

Exports Matter:
“With more than 95 percent of the world’s consumers projected to be outside the United States in the coming decade, as well as 80 percent of global economic growth, many U.S. metro areas are moving aggressively to capitalize on this opportunity.”
- Brookings Institution, 2013

Metropolitan areas drive global trade. In 2014, just 300 metropolitan areas across the globe – comprising only 20 percent of the population – accounted for nearly half of global economic output. Increased international trade with metro areas overseas is critical to boosting the U.S. economy as exports are responsible for more than half of the growth in economic output since the recession ended.*

Given the critical role that goods movement plays in our economy and the challenges it imposes on our transportation infrastructure, we urge Congress to adopt a National Freight Program in the successor to the Moving Ahead for Progress in the 21st Century Act (MAP-21) that incorporates the following five principles.

1. Establish a Multimodal National Freight Network

Broaden the definition of the Primary Freight Network beyond roadways and include freight rail, navigable waterways, inland ports, seaports, land ports of entry, freight intermodal connectors and airports.

2. Establish a National Freight Infrastructure Grant Program

To fund improvements to the nation’s freight infrastructure, a new national freight infrastructure grant program must be established and funded at a minimum of $2 billion per year. The program should have both a competitive program and a formula program. Eligible projects should include:

- Enhancements to the efficiency and capacity of the freight network.
- Project elements that mitigate negative impacts borne by communities adjacent to key freight infrastructure.
- Upgrades to truck fleets, cargo handling equipment, locomotives and shoreside power infrastructure to reduce energy consumption and emissions.

Include a Competitive Multimodal Freight Program

A discretionary, merit-based grant program for projects of national significance should be established and should comprise the majority of the National Freight Program.

- Projects should be selected by an Office of Freight Policy within the Office of the Secretary of Transportation based on objective criteria aimed at maximizing and enhancing the performance of the national freight network.
- To be eligible, projects must be included in a state’s Freight Mobility Plan. For metropolitan areas over 1 million in population, projects must be endorsed by the appropriate metropolitan planning organization (MPO).

Include a Formula-Based Freight Program

- Given that goods travel across all 50 states, a portion of the new National Freight Program should be distributed on a formula basis so that each state receives some level of funding.
- The formula should be based on freight metrics in each state.
- Projects could be selected by state departments of transportation, in consultation with ports and MPOs.
- The funds should be eligible for a wide range of projects across all modes, including port improvement projects inside and outside terminals.

Northern California Megaregion Employment in Goods Movement-Dependent Industries, 2012

- Transportation & Warehousing: 9%
- Agriculture & Forestry: 11%
- Mining, Oil & Gas <1%
- Utilities: 1%
- Construction: 12%
- Wholesale Trade: 10%
- Manufacturing: 26%
- Retail Trade: 31%

Source: U.S. Bureau of Labor Statistics, Association of Bay Area Governments
A Growing Consensus
In February 2014, MTC joined MPOs in Atlanta, Chicago, Detroit, Miami, Seattle, Southern California and other metropolitan regions to send a joint letter to Congress with three key freight policy and funding recommendations for the next federal transportation bill:
• Involve metro regions in the freight investment decision-making process
• Secure new revenue to support a dedicated Freight Trust Fund that can support a national freight program of at least $2 billion/year
• Expand the definition of the national freight network beyond roadways to include a multimodal network

3. Establish a National Freight Trust Fund Backed by New User Fees
Congress should establish a National Freight Trust Fund backed by new user fees and restricted to projects benefiting goods movement.

4. Reward Higher Local Match
To ensure that the competitive program is targeted to the most critical freight projects that will have the greatest economic benefit to the nation, we recommend:
  ▪ Incentives to reward projects with a local match from public or private sources equal to or greater than 50 percent. Incentives could include extra points in any competitive framework or a minimum set-aside for such projects.
  ▪ A minimum total project cost of $100 million for the competitive program to ensure that scarce federal resources are being invested in projects that are significant at a regional or national scale.
  ▪ Incentives to reward projects that support the national economy by improving the efficiency of exporting goods produced in the United States.

5. Finance the National Freight Trust Fund with a Combination of Revenue Sources
MTC recommends the federal program incorporate multiple revenue options so that the burden of funding the new program is distributed widely across all freight modes.

Carriage Fee
This option, sometimes referred to as a “waybill tax,” assesses a charge based on the cost of transporting goods. Such a fee is applied across all modes.
Weight-Distance Tax

A weight-distance tax is a charge based on the truck’s axle weight (commensurate to the damage done to the road) and the roads being used by the truck (charging more for high-use roads to account for the added burden that truck traffic has on the system). A number of states, including Oregon, Kentucky, New Mexico and New York, use some form of a weight-distance tax.

Indexing Existing Truck User Charges to Inflation

- Double and index the heavy vehicle use tax. The current charge ($100 plus $22 per 1,000 pounds over 55,000 pounds and $550 for every vehicle weighing over 75,000 pounds) has not been increased since 1983. It currently generates $364 million per year for the Highway Trust Fund (HTF).
- Double and index the federal excise tax on truck tires, which is imposed on the purchase of all tires with a maximum rated load over 3,500 pounds. The current tax (9.45¢ per every 10 pounds that exceeds 3,500 pounds) generates $440 million per year for the HTF.

Non-Federal Revenue Options

- Public-Private Partnership Opportunities: Expand federal tax code incentives and credit assistance to lower the cost of borrowing for the design and construction of freight-related projects. Establish a high match requirement for the grant program to create incentives for private sector investment.
In the extension of the Moving Ahead for Progress in the 21st Century Act (MAP-21), we ask Congress to increase its investment in metropolitan areas—our nation’s economic engines. Steering more funds to metro areas will not only focus federal resources where the vast majority of Americans live, it also will provide a greater return on investment for the nation as a whole. The fact is, the U.S. economy will rise and fall based on how well our metro economies perform and compete in the global marketplace.

As shown at right, the average San Francisco Bay Area resident contributes almost 60 percent more to our gross domestic product (GDP) than the average American. This is not a unique Silicon Valley phenomenon: A “metro dividend” is present in 15 of the 20 largest metropolitan areas nationwide.

Metropolitan areas enjoy a disproportionate share of the assets that will drive the next wave of economic growth. According to the Brookings Institution, just 12 percent of our nation’s landmass is taken up by the 20 Largest Metro Regions Drive the U.S. Economy.

Sources: U.S. Census Bureau, U.S. Department of Commerce, Federal Highway Administration and the American Public Transportation Association
"The economic future for states hinges largely on the performance of their metropolitan economies, which bring together the innovative firms, educated workers and critical infrastructure that will propel the next wave of U.S. economic growth."
- The Brookings Institution, 2011

The nation's top 100 metropolitan areas. But those metro areas are home to two-thirds of the nation's population, who generate 75 percent of national GDP. In addition:

- In 47 out of 50 states, a majority of the state's GDP is generated in metro areas.
- In 15 states, one large metro area accounts for the majority of economic output, while in 16 states, just two metro areas account for the majority of GDP.

MTC joins the coalition of the **National League of Cities**, **The U.S. Conference of Mayors**, and the **Association of Metropolitan Planning Organizations**, among others, calling on Congress to significantly increase investment in metro areas by:

- Increasing to 75 percent the share of STP funds that are distributed by population; and
- Suballocating 100 percent of Transportation Alternatives Program funds by population.

MTC further calls on Congress to establish a new performance-based funding program for major metro areas with a population of 1 million or more.
Bay Area’s New Starts Projects

The Bay Area’s two largest federal Capital Investment Program projects – BART Silicon Valley and San Francisco’s Central Subway – are well under construction, while two Small Starts projects are scheduled to begin construction later this year.

BART Silicon Valley Under Construction

<table>
<thead>
<tr>
<th>Project Funding Plans (Dollar amounts in millions)</th>
<th>Local</th>
<th>State</th>
<th>Federal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BART Silicon Valley/Phase 1</td>
<td>$1,179</td>
<td>$251</td>
<td>$900</td>
<td>$2,330</td>
</tr>
<tr>
<td>San Francisco Central Subway</td>
<td>$124</td>
<td>$471</td>
<td>$983</td>
<td>$1,578</td>
</tr>
<tr>
<td>Van Ness BRT</td>
<td>$80</td>
<td>$7</td>
<td>$75</td>
<td>$162</td>
</tr>
<tr>
<td>East Bay BRT</td>
<td>$80</td>
<td>$13</td>
<td>$81</td>
<td>$174</td>
</tr>
</tbody>
</table>

Significant progress has been made on Phase 1 of the Santa Clara Valley Transportation Authority’s (VTA) BART Silicon Valley Project, the Berryessa Extension. The line is slated to open in mid-2017, spurring great interest in the future phase to downtown San Jose.

Planning is underway to integrate VTA bus and light rail service with BART to meet the increasing mobility demands in Silicon Valley due to the rebounding economy and job growth.

MTC urges Congress to appropriate $165 million for VTA’s BART Berryessa Extension, consistent with the President’s fiscal year 2016 request.

The 10-mile BART extension will link Bay Area residents to major Silicon Valley employers.

Construction of the Montaque Station in the City of Milpitas, one of two new stations being built during Phase 1 of BART to Silicon Valley (Photo: Courtesy of VTA)
San Francisco Transit Improvements

Central Subway Project
San Francisco’s Central Subway project is advancing on schedule with construction of stations and subway tunnels well underway and scheduled to continue until 2018. The project is scheduled to open to the public in 2019. When the 1.7 mile extension is completed, trains will travel mostly underground from the 4th Street Caltrain Station to Chinatown, bypassing heavy traffic. Four new stations will be built:

- 4th and Brannan Station (street level)
- Yerba Buena/Moscone Station (subway)
- Union Square Station (subway)
- Chinatown Station (subway)

MTC urges Congress to appropriate $165 million for the Central Subway project, consistent with the President’s fiscal year 2016 request.

Van Ness Avenue Bus Rapid Transit (BRT)
MTC also supports the Van Ness Avenue BRT Small Starts project, which will accelerate bus service along one of San Francisco’s primary north-south thoroughfares, cutting travel time by 33 percent and improving reliability by 50 percent. The project is currently at 65 percent design, with construction scheduled to start in late 2015.

MTC urges Congress to appropriate $29.6 million toward the project, consistent with the President’s fiscal year 2016 request.

Funding Plan Complete for East Bay BRT
AC Transit’s 9.5-mile BRT project received its last increment of federal Small Starts funding in February 2015. The project will improve the speed and reliability of transit service – five minute headways during peak weekday periods – in one of the densest and most transit-dependent areas in the region. Construction is expected to begin later this summer, with service opening in November 2017.
Bay Area’s Next Generation of Transit Projects

Plan Bay Area – the region’s long-range transportation plan – includes agreement about the next generation of projects to seek federal funding through the highly competitive Capital Investment Program. MTC has endorsed three major rail investments for the next round of funds:

- San Francisco Transbay Transit Center (Phase 2)/Caltrain Downtown Extension (DTX)
- BART Silicon Valley (Phase 2)
- BART Transbay Corridor Core Capacity

San Francisco Transbay Transit Center (Phase 2)/DTX

The second phase of the Transbay Transit Center Project, commonly referred to as the Downtown Extension or DTX, will modify the existing Caltrain station at Fourth and King streets, and extend the Caltrain rail line downtown into the new Transit Center near the heart of the Financial District, giving more commuters easy access to public transit.

The underground rail line is slated to run beneath Second Street and is being designed to accommodate high-speed rail and potential rail connections to the East Bay, making the new Transit Center a future hub for high-speed rail in Northern California.

BART Silicon Valley: Phase 2 Extension

With the full funding grant agreement secured for the first phase of BART Silicon Valley, VTA is in the environmental phase for the Phase 2 extension from Berryessa to Santa Clara and anticipates submitting a request to enter into the New Starts process in Spring 2016. The six-mile extension includes five miles of tunnel and four stations (Alum Rock, Downtown San Jose, Diridon Station and Santa Clara).

Once completed, the entire 16-mile BART Silicon Valley Extension will create a new transit option serving downtown...
BART will connect with future high-speed rail at the planned Diridon Station in San Jose. (Rendering: Courtesy of VTA)

San Jose, San Jose State University, HP Pavilion, Santa Clara University, major employment and shopping centers and ultimately, high-speed rail at San Jose’s Diridon Station.

### Next Generation Transit Funding Plans (Dollar amounts in millions)

<table>
<thead>
<tr>
<th></th>
<th>Previously Committed</th>
<th>New Starts</th>
<th>Other Funding</th>
<th>Total</th>
<th>New Starts Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transbay Transit Center Phase 2 – Caltrain Downtown Extension</td>
<td>$524</td>
<td>$650</td>
<td>$1,421</td>
<td>$2,595</td>
<td>25%</td>
</tr>
<tr>
<td>BART to San Jose/Santa Clara Phase 2</td>
<td>$1,000</td>
<td>$1,100</td>
<td>$2,600</td>
<td>$4,700</td>
<td>23%</td>
</tr>
</tbody>
</table>

Note: “Other Funding” refers to a variety of local, state and federal funds that would be committed to the project.
Source: Santa Clara Valley Transportation Authority and San Francisco County Transportation Authority

### BART Transbay Corridor Core Capacity

MTC supports BART’s December 2014 request to the Federal Transit Administration to accept the Transbay Corridor Core Capacity project into the project development phase of the Capital Investment Program. The proposed project includes a number of elements MTC has also committed to funding, including communication-based train control and expansion of the rail car fleet to allow closer headways and more frequent service. The preliminary cost estimate for the project is $1.6-$2.0 billion and BART estimates it could complete the project development work within two years.
Caltrain Electrification Advances Mobility on the Peninsula

In preparation for future high-speed rail service, the California High-Speed Rail Authority is working in partnership with local agencies on a plan to upgrade the Peninsula Corridor between San Francisco and San Jose. The Governor’s fiscal year 2015-16 State Budget includes $600 million for Caltrain electrification from high-speed rail bond proceeds, consistent with the $1.8 billion Caltrain modernization funding plan.

A Landmark Agreement

In 2012, nine local, regional and state government entities approved an agreement to invest in the Caltrain Modernization Program, a set of projects to upgrade the Caltrain corridor, where ridership has more than doubled in recent years.

The first step is the installation of the $231 million Communications Based Overlay Signal System Positive Train Control (CBOSS PTC), which is an upgraded signal system that will:

- Equip the corridor with federally mandated safety and service improvement technology.
- Eliminate the risk of train-to-train collisions, better manage train speeds, and provide additional safety for railroad workers.
- Increase reliability and operating performance through better train schedule management and improved grade crossing performance.
With electrification, Caltrain will provide faster, more frequent service to accommodate growing demand.

The key component of the Caltrain Modernization Program is the Peninsula Corridor Electrification project, which will convert Caltrain from traditional diesel-powered service to modern Electric Multiple Unit (EMU) trains, and prepare the corridor for future high-speed rail service. This project will:

- Improve train performance. Faster acceleration and deceleration will allow for more frequent service and faster travel times.
- Provide high-speed rail compatible electrical infrastructure, setting the stage for future blended commuter and statewide high-speed rail service.
- Improve the financial sustainability of Caltrain. Growing ridership will increase fare revenues, and conversion from diesel to electricity will reduce fuel costs.
- Improve regional air quality by eliminating over 176,000 tons of CO₂ per year and the system’s greenhouse gas emissions by over 97 percent.

**Capacity Enhancements**
Caltrain is exploring additional improvements to maximize the system’s capacity including:

- Level boarding to reduce dwell times at stations
- Longer platforms to accommodate longer trains

**Funding**
Caltrain is working with its regional funding partners to identify and actively pursue additional funding that will be needed to advance the project.

**Caltrain Modernization Funding**

$1.8 Billion*

| Source: Peninsula Corridor Joint Powers Board |

$730 State Propositions 1A & 1B

$375 Federal

$195 Local Peninsula Corridor Joint Powers Board

$451 Funding To Be Determined

* Dollars in year of expenditure
Preserving the Region’s Transit Systems Is Top Priority in Plan Bay Area

MTC directs 88 percent of available regional, state and federal funds to keeping the current transportation system in working order, with 56 percent dedicated to maintaining and operating our transit systems and 32 percent dedicated to maintaining our roadway and bridge network.

While our current long-range plan fully funds existing transit service levels over the 28-year period, there remains a $17 billion shortfall to achieve an optimal state of good repair for our transit systems.

Transit Core Capacity Challenge Grant Program

In response to this transit capital funding shortfall, in December 2013 the Commission established a $7.5 billion Transit Core Capacity Challenge Grant Program focused on the capital modernization needs of the region’s three largest transit operators – AC Transit, BART and San Francisco MTA, which carry over 80 percent of the region’s passengers as well as more than three-quarters of the minority and low-income passengers. The plan dedicates $4.9 billion toward fleet replacement, helping to ensure the reliability of transit service into the future.
With the economy booming, transit crowding is becoming a major concern. In 2014, MTC received a $1 million Transportation Investment Generating Economic Recovery (TIGER) Planning Grant in partnership with the region’s transit operators to conduct a Transit Core Capacity Study to identify a package of investments that expand transit capacity and improve reliability and connectivity to rapidly growing core job centers and housing in the Bay Area.

Region’s Economic, Environmental and Equity Goals Depend on Increased Transit Capacity

Major Bay Area employers have identified cost of living as the main barrier to future growth. Reinforcing regional transit access to jobs in San Francisco from the less expensive East Bay is an essential strategy to address this barrier. Without a dramatic increase in transit capacity serving San Francisco’s core job centers, the Bay Area’s economic, environmental and equity goals will be challenging to realize.

Focus on San Francisco Core Job Centers

The study will consider all the major travel corridors serving San Francisco’s core job centers in prioritizing the next generation of transit capacity upgrades. Project development work will focus on the Bay Bridge Transbay Corridor and the San Francisco Muni Metro Corridor. Several transit systems serve the core today, including Bay Area Rapid Transit (BART), the San Francisco Municipal Transportation Agency (SFMTA), AC Transit, Caltrain and ferry operators. The South Bay will develop strategies to improve connectivity to and between transit in the South Bay.
Bay Area Express Lane Network Expands Travel Choices

Bay Area transportation agencies are developing a 550-mile network of express lanes that will offer a reliable, congestion-free commute.

Express lanes are high-occupancy vehicle (HOV) lanes that are free for carpools, vanpools, buses and other eligible vehicles but allow solo drivers to pay tolls to use the lane. MTC (along with the Alameda County Transportation Commission and Santa Clara Valley Transportation Agency) is developing a 550-mile express lane network in Alameda, Contra Costa, Santa Clara and Solano counties.

Much of the system will be built by converting existing HOV lanes into express lanes, where carpools will continue to ride for free. MTC will convert 150 miles of existing HOV lanes to express lanes and add 120 miles of new lanes to close gaps.

Bay Area Express Lanes will:
- Create a seamless network of HOV lanes to encourage carpools, vanpools and transit use.
- Better manage traffic by making the best use of HOV lane capacity.
- Provide drivers with a reliable travel time for those trips when they can't afford to be late.

Today, two Bay Area express lanes are operational: I-680 southbound from Sunol to San Jose and State Route 237 between Milpitas and San Jose. A new express lane on I-580 between Livermore and Dublin is scheduled to open this fall, followed by I-680 in Contra Costa in 2016 and I-80 in Solano County in 2017.

For the latest on the Bay Area express lanes, visit www.mtcexpresslanes.org/projects/express_lanes/

How Express Lanes Work

1. Skip-stripe lane markings show where to enter and exit the express lane.
2. All vehicles must have a regular or FasTrak® Flex toll tag to drive in the express lane during hours of operation.
3. Carpools, vanpools and other eligible vehicles with FasTrak® Flex travel toll-free.
4. Pricing signs display the toll to travel to destinations using the express lane. Tolls will vary with traffic levels.
5. Electronic toll tag readers automatically charge the appropriate tolls to a vehicle's FasTrak® account.
6. Solid double-stripe lane markings show where it is illegal to enter and exit the express lane.
WHY EXPRESS LANTES?
BAY AREA GROWTH
BY 2040:

- 660,000
  MORE HOMES

- 1.1 MILLION
  MORE JOBS

- 2.1 MILLION
  MORE PEOPLE

HOW EXPRESS LANES HELP:
Move More People
Maximize Existing Capacity
Expand the HOV Network

LANE CAPACITY

TOLL-PAYING VEHICLES

HOVs

TRANSIT

HOVS

TRANSIT

TRANSPORT

LEGEND

- Existing Express Lane
- Near-term Express Lane Projects (By 2020)
- Mid-term Express Lane Projects (By 2025)
- Long-term Express Lane Projects (By 2035)

Road pricing improvements described in Plan Bay Area will expand the region’s express lane network greatly by 2040. (Photo inset: Noah Berger)
Vital Signs Initiative Monitors Bay Area’s Performance

In January 2015, the region launched a new initiative to track the Bay Area’s progress toward reaching key transportation, land use, environmental and economic policy goals. The Vital Signs initiative measures a wide range of indicators to gauge the performance of our dynamic region.

Vital Signs’ first phase examined nearly 20 different transportation indicators. Want to know which Bay Area highway has the most potholes? Whether more people ride Caltrain or VTA? How the commute in Vallejo compares to that in San Jose? The Vital Signs website provides an overview of each performance area — with links to pages for individual performance measures.

Recurrent Weekday Freeway Delay By County*

*In 2013, Napa and Solano county freeways did not experience recurrent weekday conditions below 35 mph.
Source: INRIX/Iters/MTC, 2013

Topics to be covered in the next phases of Vital Signs include:

**Land Use (March 2015)**
- Residential locations
- Employment locations
- Housing construction
- Greenfield development

**Economy (March 2015)**
- Job creation by industry
- Unemployment rate by industry
- Workforce participation by age
- Household income distribution
- Median housing unit price
- Poverty rates

**Environment (June 2015)**
- Bay fill/restoration
- Commercial growth in areas vulnerable to sea level rise
- Gasoline sales
- Particulate matter concentrations
Bay Area’s Economic Resurgence Drives Up Congestion

The first of dozens of performance measures to be released by MTC as part of its Vital Signs initiative was a comprehensive report on Bay Area freeway congestion, the first such regionwide analysis since 2009.

The report found a major reshuffling of the region’s worst “Top 10” congestion hotspots, as shown below:

Bay Area Top Ten Congestion Locations, 2013

<table>
<thead>
<tr>
<th>2013 RANK</th>
<th>2008 RANK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>I-80 Eastbound p.m., San Francisco County US 101 to Hillcrest Road</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>I-80 Southbound a.m., Alameda County I-280 to Dixon Landing Road</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>US 101 Southbound p.m., Santa Clara County Fair Oaks Avenue to Oakland Road</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>I-80 Westbound a.m., Alameda County West of CA-4 to Powell Street</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>I-680 Northbound p.m., Contra Costa County Bollinger Canyon Road to Treat Boulevard</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>I-580 Westbound a.m., Alameda County San Joaquin County line to Fallon Road</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>31</td>
</tr>
<tr>
<td>I-680 Northbound p.m., Alameda County CA-262/Mission Boulevard to CA-84</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>I-80 Eastbound p.m., Alameda County W. Grand Avenue to Gilman Street</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>CA-24 Eastbound p.m., Alameda/Contra Costa counties, 27th Street to Wilder Road</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>US 101 Northbound p.m., San Mateo County Woodside Road to Hillsdale Boulevard</td>
<td></td>
</tr>
</tbody>
</table>

Other findings from the initial phase of the Vital Signs project include:

- The Bay Area’s regional average pavement condition index score has stagnated at 66 out of 100 points for five consecutive years, far below the 75-point target necessary to achieve a state of good repair.
- In 2013, Bay Area freeway commuters spent 37 percent more time stuck in traffic compared to 2010, with average per-commuter delay now higher than at any time in at least 15 years.
- Many of the Bay Area’s buses, railcars and fare machines have exceeded their useful life and need to be replaced to ensure reliable operation.
MTC Programs Keep the Bay Area On the Move

511: The Go-To Source for Getting There
MTC's award-winning traveler information system broke usage records once again in 2014 as Bay Area residents turned to 511 for help navigating their way around the region. In particular:

- The strengthening economy created more crowded commute routes.
- Late year political protests forced temporary closures of freeways and transit systems alike.
- The opening of Levi's Stadium in Santa Clara spurred many of the San Francisco 49ers faithful to investigate new game-day travel options.

Fueled in part by a major winter storm and protest activities in San Francisco and the East Bay, the 511 Traffic page at 511.org in December 2014 set a new one-month activity record with 1.1 million visits, while the 511 mobile app registered more than 156,000 visits the same month. The mobile app's 377,000 visits in the October-December quarter exceeded the previous quarterly record by more than 40 percent.

More Bay Area Drivers Get on FasTrak®
MTC's FasTrak electronic toll collection program maintained its double-digit growth rate in 2014, with the number of active accounts jumping nearly 15 percent from just under 1.4 million in January 2014 to nearly 1.6 million at year-end.

Some 70 percent of all motorists crossing the region's seven state-owned toll bridges during peak hours now pay their tolls with FasTrak, while 90 percent of Golden Gate Bridge motorists pay with FasTrak. FasTrak can be used in every lane of the region's toll bridges and on the Express Lanes in Alameda and Santa Clara counties. With the opening of new Express Lanes in eastern Alameda County in late 2015, MTC will soon make available the switchable FasTrak Flex® tags now used by travelers on Interstate 10 and Interstate 110 in Los Angeles County.

| FasTrak® Share of Traffic on Bay Area Bridges |
|-----------------|---------|
| Bridge          | Percent Share |
| Antioch         | 55%      |
| Benicia-Martinez| 67%      |
| Carquinez       | 63%      |
| Dumbarton       | 69%      |
| Golden Gate     | 90%      |
| Richmond-San Rafael | 71%      |
| San Francisco-Oakland Bay Bridge | 74% |
| San Mateo-Hayward | 70% |

Peak periods of 5 a.m. to 10 a.m. and 3 p.m. to 7 p.m. weekdays
Clipper® – It’s All You Need to Ride Transit Around the Bay

Clipper, the all-in-one regional transit fare payment card launched by MTC in 2010, maintained its steady growth in 2014 as more and more riders embrace the convenience and security of the card. By October 2014, Bay Area residents and visitors alike were using Clipper to pay over 780,000 transit fares each weekday.

Named for the sleek clipper ships that provided the fastest trips to Gold Rush-era San Francisco,

the Clipper card streamlines Bay Area transit by simplifying fare transactions. Commuters no longer need to carry correct change or buy multiple tickets for different transit systems. Passengers can obtain Clipper cards online or at almost 500 retail locations, add value to their cards automatically from a bank account or credit card, and access automated online service 24/7.

**Transit Benefits Loaded Directly Onto Clipper**

Employers who provide transit benefits can automatically load the value directly onto their employees’ Clipper cards, making transit even easier to use.

**The Next Generation**

Today, Clipper serves 13 transit operators which collectively carry over 95 percent of the Bay Area’s transit riders. In 2015, MTC is turning our attention to the next generation of Clipper that will launch in 2020, soliciting feedback from customers and the general public at futureofclipper.com.

22,354,963
Clipper boardings on Bay Area transit systems in October 2014

$44,159,825
Amount of Clipper-generated fare revenue collected in October 2014

The new mascot Clip gets the word out about the Clipper card on YouTube. (Photo: Noah Berger)
Bay Area Partnership

MTC works in partnership with the top staff of various regional transportation agencies, environmental protection agencies, and local and regional stakeholders, listed here.

**Transit Operators**
- Alameda-Contra Costa Transit District (AC Transit) - David J. Armijo 510.891.4793
- Bay Area Rapid Transit District (BART) - Grace Crunican 510.464.6060
- Bay Area Water Emergency Transit Authority - Nina Rannells 415.291.3377
- Central Contra Costa Transit Authority (County Connection) - Rick Ramacier 925.680.2050
- Eastern Contra Costa Transit Authority (Tri Delta) - Jeanne Krieg 925.754.6622
- Transbay Joint Powers Authority - Maria Ayerdi-Kaplan 415.597.4620
- Western Contra Costa Transit Authority - Charles Anderson 510.724.3331

**Airports and Seaports**
- Port of Oakland - Chris Lyle 510.627.1100
- Livermore Municipal Airport - Leander Hauri 925.960.8220

**Regional Agencies**
- Association of Bay Area Governments - Ezra Rapport 510.464.7927
- Bay Area Air Quality Management District - Jack P. Broadbent 415.749.5052
- Metropolitan Transportation Commission - Steve Heminger 510.817.5810
- San Francisco Bay Conservation and Development Commission - Larry Goldzband 415.352.3600

**Congestion Management Agencies**
- Alameda County Transportation Commission - Arthur L. Dao 510.208.7402
- Contra Costa Transportation Authority - Randell H. Iwasaki 925.256.4724
- Transportation Authority of Marin - Dianne Steinhauser 415.226.0815
- Napa County Transportation and Planning Agency - Suzanne Smith 707.565.5373
- Santa Clara County Transportation Authority - Tilly Chang 415.522.4800
- City/County Association of Governments of San Mateo County - Sandy L. Wong 650.599.1406

**Public Works Departments**
- City of San Jose - Hans Larsen 408.535.3850
- County of Sonoma - Susan Klassen 707.565.3580
- City of San Mateo - Larry A. Patterson 650.522.7303

**State Agencies**
- California Air Resources Board - Richard Corey 916.322.2990
- California Highway Patrol, Golden Gate Division - Avery Browne 707.648.4180
- California Transportation Commission - Will Kempton 916.654.4245
- California Department of Transportation - Malcolm Dougherty 916.654.6130
- Caltrans District 4 - Bijan Sartipi 510.286.5900

**Federal Agencies**
- Environmental Protection Agency, Region 9 - Jared Blumenfeld 415.947.8702
- Federal Highway Administration, California Division - Vincent Mammano 916.498.5015
- Federal Transit Administration, Region 9 - Leslie T. Rogers 415.744.3133
COMMISSIONERS
Dave Cortese, Chair
Santa Clara County
Alicia C. Aguirre
Cities of San Mateo County
Tom Azumbrado
U.S. Department of Housing
and Urban Development
Jason Baker
Cities of Santa Clara County
Tom Bates
Cities of Alameda County
David Campos
City and County of San Francisco
Dorene M. Giacopini
U.S. Department of Transportation
Federal D. Glover
Contra Costa County
Scott Haggerty
Alameda County
Anne W. Halsted
San Francisco Bay Conservation and Development Commission
Steve Kinsey
Marin County and Cities
Sam Liccardo
San Jose Mayor’s Appointee
Mark Luce
Napa County and Cities
Jake Mackenzie
Sonoma County and Cities
Julie Pierce
Association of Bay Area Governments
Bijan Sartipi
California State Transportation Agency
Libby Schaaf
Oakland Mayor’s Appointee
James P. Spering
Solano County and Cities
Adrienne J. Tissier
San Mateo County
Scott Wiener
San Francisco Mayor’s Appointee
Amy Rein Worth
Cities of Contra Costa County

MTC STAFF
Steve Heminger
Executive Director
Alix Bockelman
Deputy Executive Director, Policy
Andrew B. Fremier
Deputy Executive Director, Operations
Randy Rentschler
Director, Legislation and Public Affairs

New Commissioners

Jason Baker
Representing the Cities of Santa Clara County
Julie Pierce
Representing Association of Bay Area Governments
Libby Schaaf
Oakland Mayor, representing the City of Oakland
Acknowledgments

Project Staff
Authors
Rebecca Long, Randy Rentschler, John Goodwin

Editorial Staff
Karin Betts, Georgia Lambert

Graphic Design and Production
Peter Beeler

Map Design
Peter Beeler

Printer
Dakota Press, San Leandro

Credits
All images are from MTC archives, unless credited or noted below.

Front Cover
Illustration - Jack Desrocher

Text Pages
Page 8
Port of Oakland - Bill Hall

Page 23
I-880 congestion - Noah Berger

Page 24
SFOBB toll plaza - Noah Berger