

Managing Mobility: Engineering an Express Lane Network

ITS California
October 15, 2014

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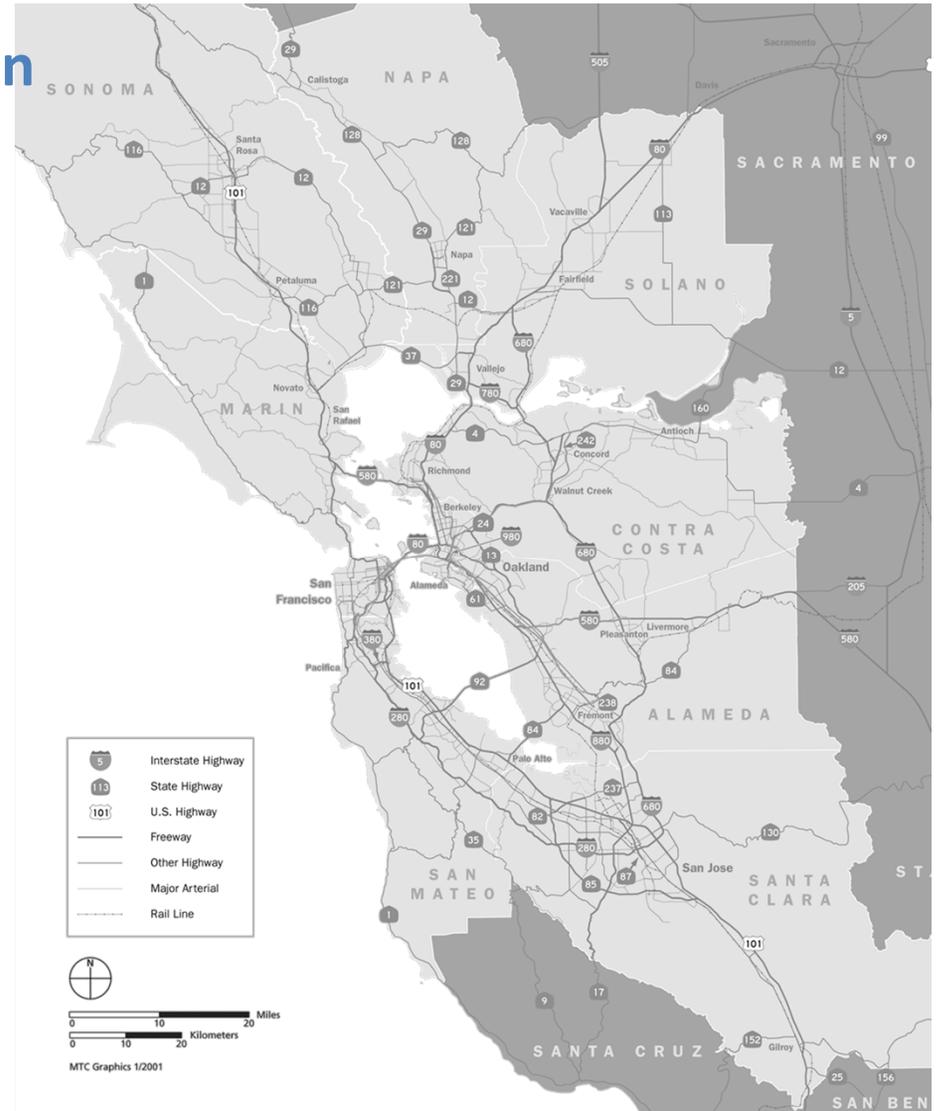
MTC Wears Many Hats

Metropolitan Transportation Commission (MTC) —

Since 1971. Planner, coordinator, manager and banker.

Bay Area Toll Authority (BATA) — Since 1998.

Responsible for collecting tolls, overseeing seismic retrofitting of the state toll bridges and running the FasTrak® electronic toll collection program.



What is an Express Lane?

- High Occupancy Toll (HOT) Lanes
- HOV with toll option
 - Carpools, buses free
 - Other drivers can choose to pay

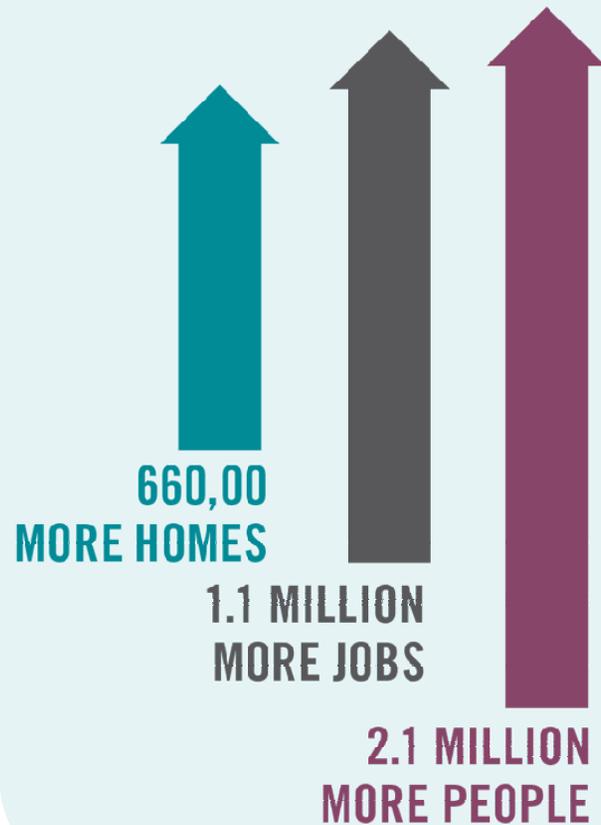


- Electronic toll
- Dynamic tolls keep lane free flowing (congestion pricing)

Why Express Lanes?

While the region grows...

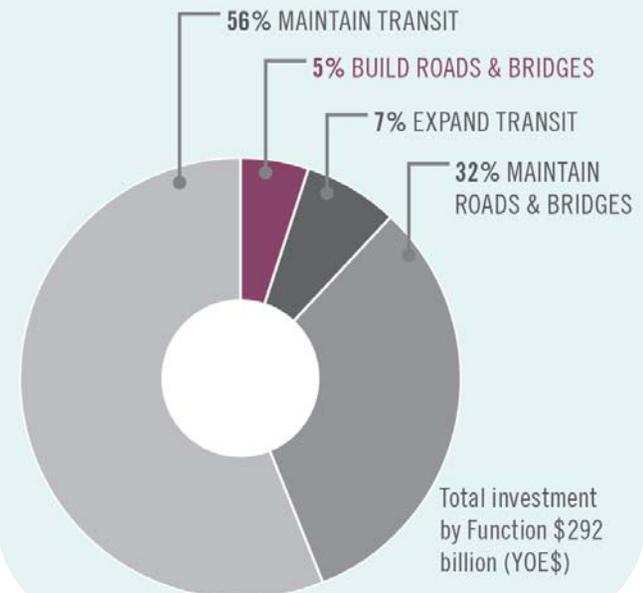
REGIONAL GROWTH
BY 2040:



Spending on new
infrastructure is set

SF BAY AREA REGIONAL
INVESTMENT BY 2040:

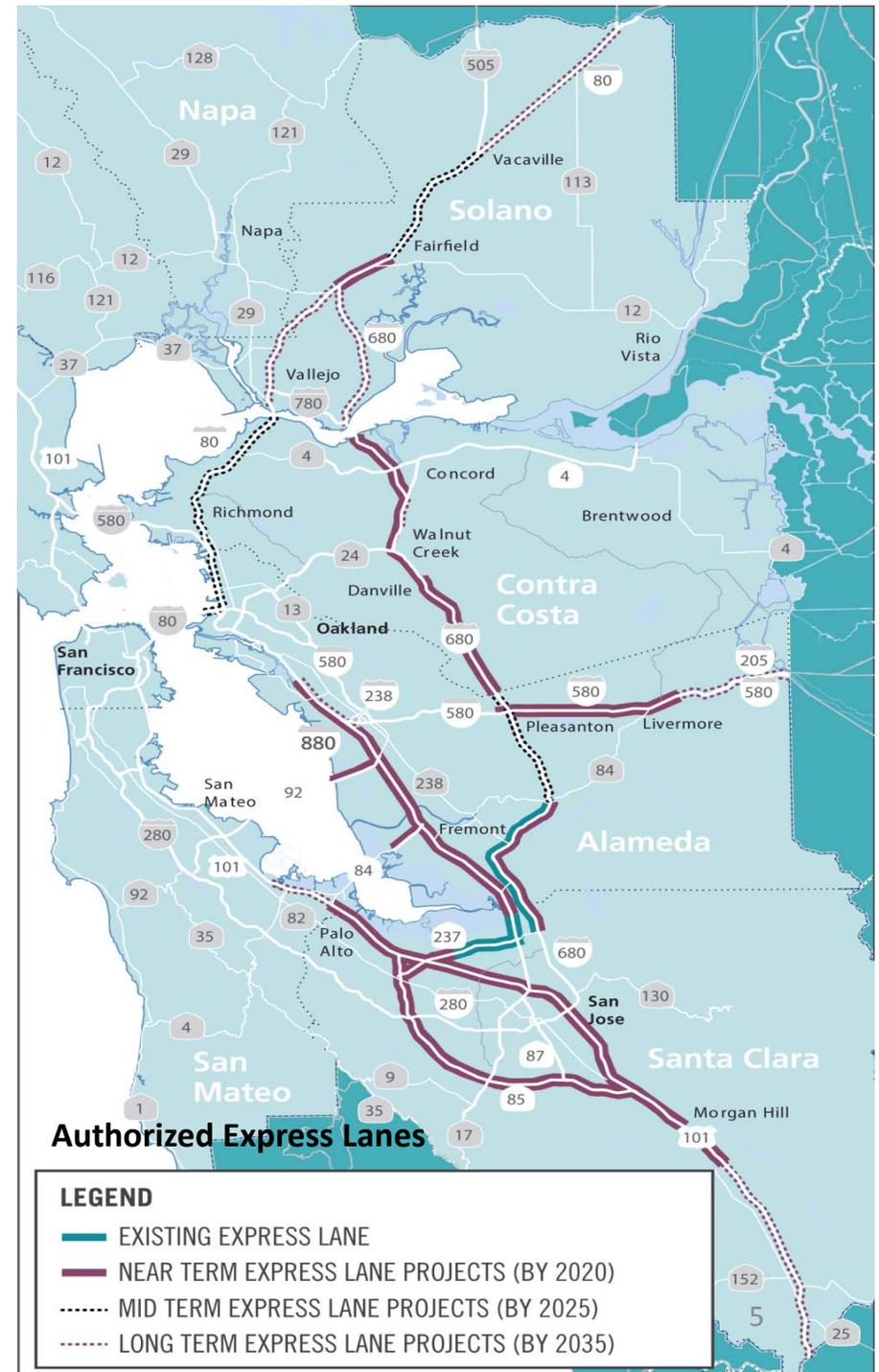
ONLY 5% OF THE REGION'S
TRANSPORTATION DOLLARS WILL BE
USED TO BUILD NEW ROADS.



Bay Area Express Lanes

Goal: Improve Mobility

- Encourage carpools and express buses
- Make the best use of HOV lane capacity
- Offer a new choice
- Provide more reliable travel times



Bay Area Express Lanes

Network by Operator

Regional Coordination

- Executives
- Technical Staff
- Public Information Staff



Bay Area Express Lanes Web Portal



WELCOME

Bay Area transportation agencies are developing a 550-mile network of Bay Area Express Lanes that will be completed in 2035. MTC will convert 150 miles of existing High Occupancy Vehicle (HOV) lanes to express lanes and add 120 miles of new lanes to close network gaps. Ultimately, MTC will operate 270 miles of Bay Area Express Lanes.

BENEFITS

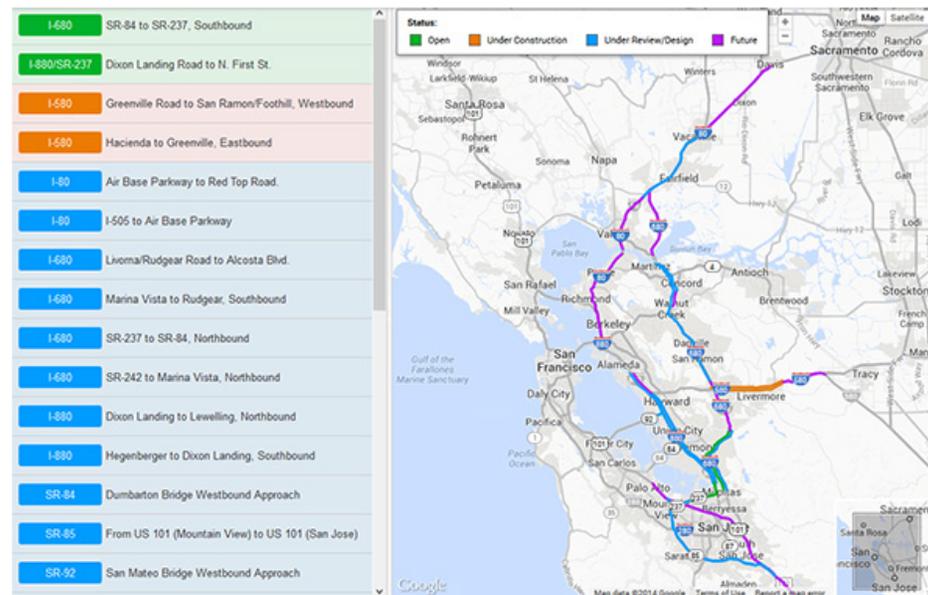
Bay Area Express Lanes will:

- Create a seamless network of HOV lanes to encourage carpools, vanpools and transit use,
- Make the best use of HOV lane capacity,
- Provide drivers with the choice for a more reliable travel option, and
- Better manage lanes to keep traffic moving

FIND IT FAST

[Express Lanes FAQs](#)

BAY AREA EXPRESS LANES



Regional Customer Service Center

Golden Gate Bridge
Automatic Tolling



BATA
7 State-Owned
Toll Bridges



ACTC I-680
I-580 (2015)
Express Lanes



MTC
Express Lanes
(2016)



**BATA Regional
Customer
Service
Center**

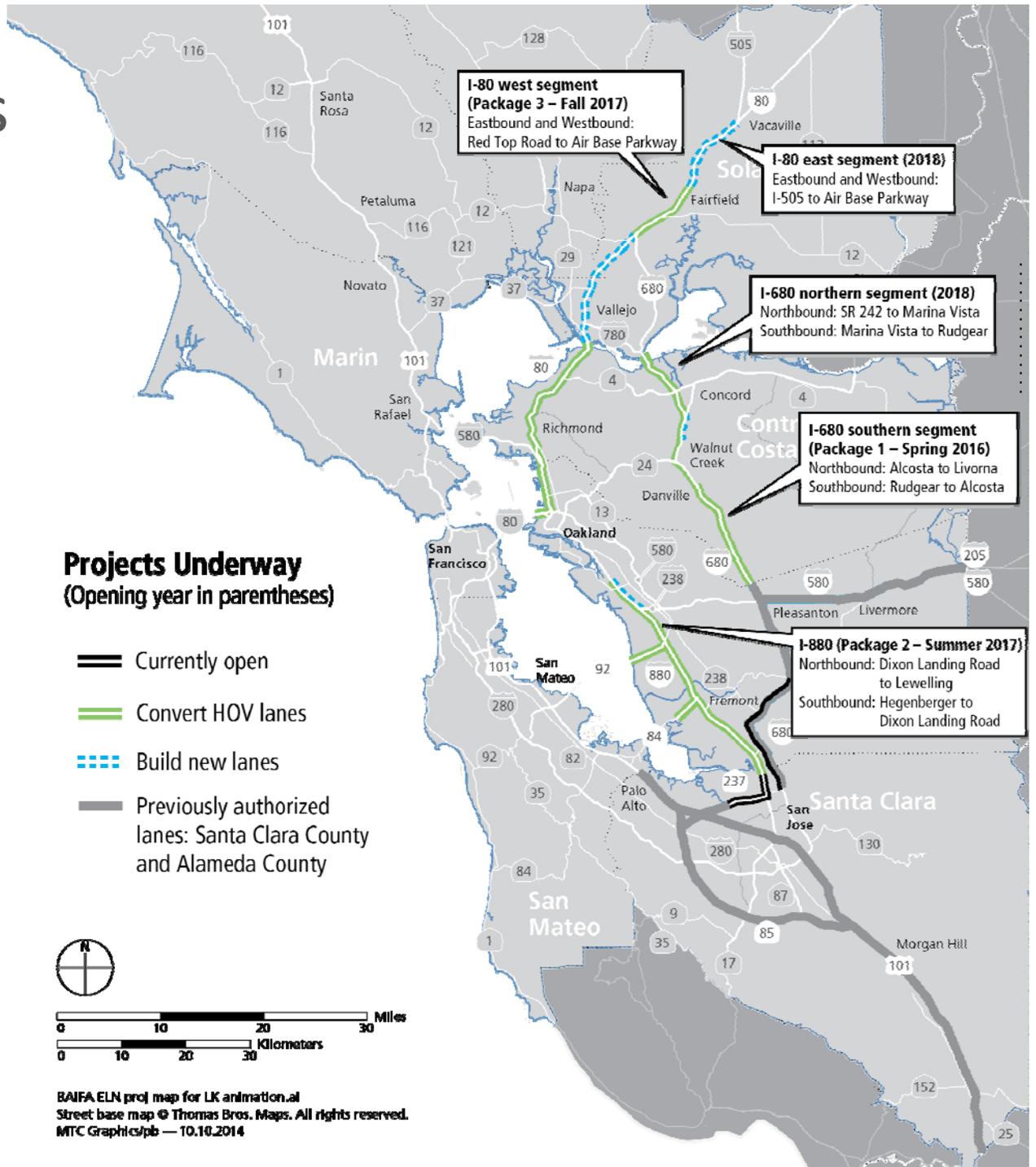
VTA SR-237
US 101/237 (2017)
Express Lanes



SFO
Parking



MTC Focus



Multi-County Governance

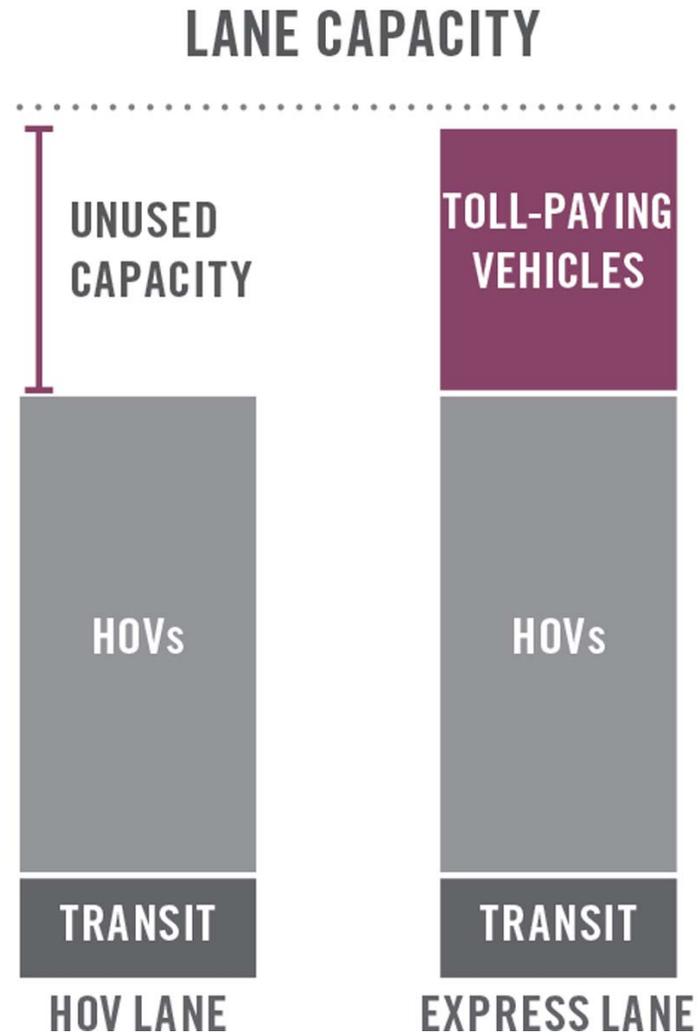
- The Bay Area Infrastructure Financing Authority was created by MTC and BATA in 2006 to finance the toll bridge seismic program.
- Amended in 2011 to include implementation, operation and financing of express lane for MTC.
- Membership can be augmented as the network grows

Bay Area Infrastructure Financing Authority Membership

1. MTC Chair
2. BATA Oversight Chair
3. MTC Commissioner from Alameda County
4. MTC Commissioner from Contra Costa County
5. MTC Commissioner from Solano County
6. Cal STA (non-voting)



Opportunities and Challenges

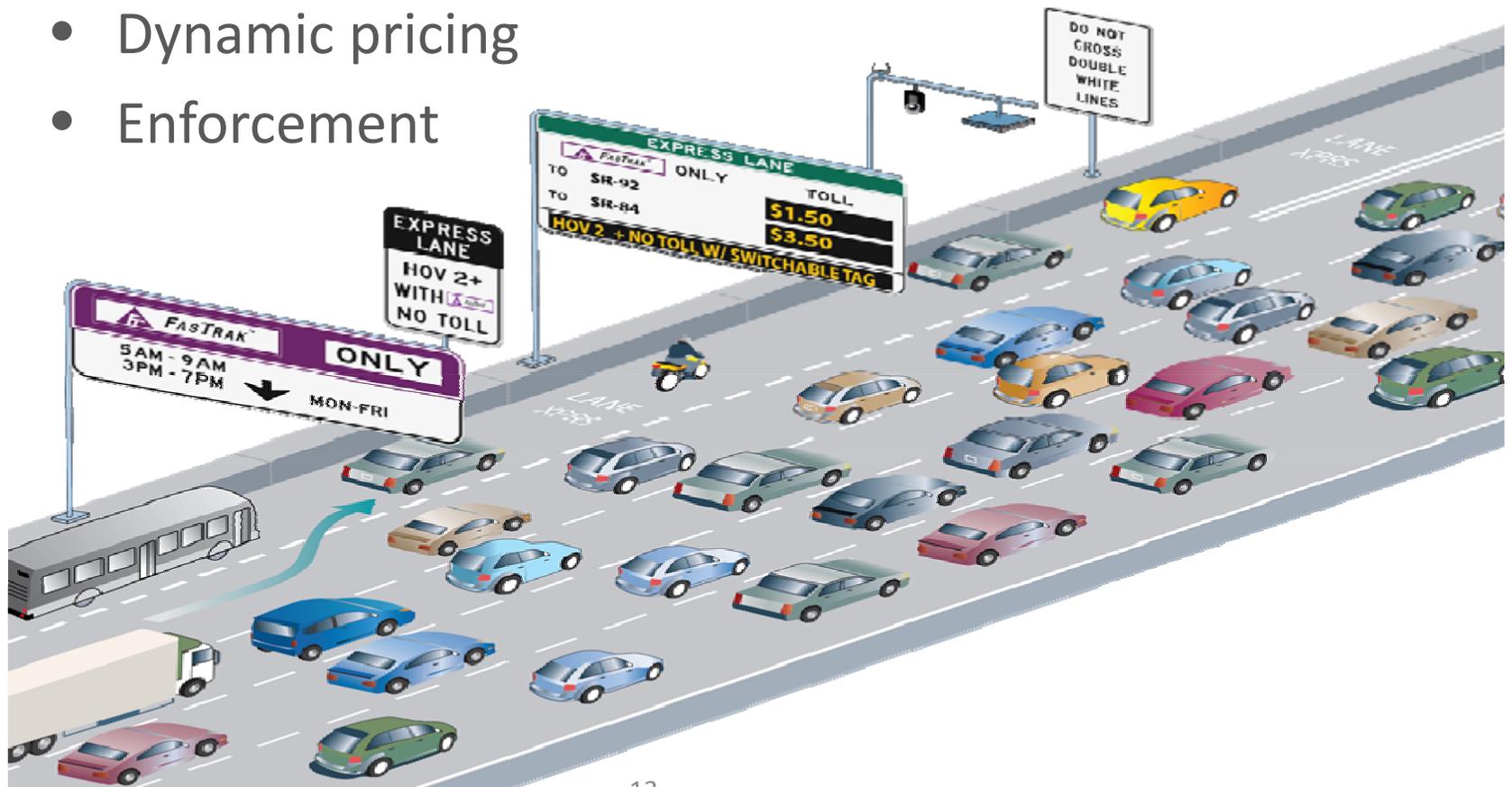


Opportunities and Challenges



Achieving Mobility Improvements

- Mostly single lane in each direction
- Maintain open access where possible
 - Use buffers where necessary
- Dynamic pricing
- Enforcement



Mobility Improvements by Managing Weaving

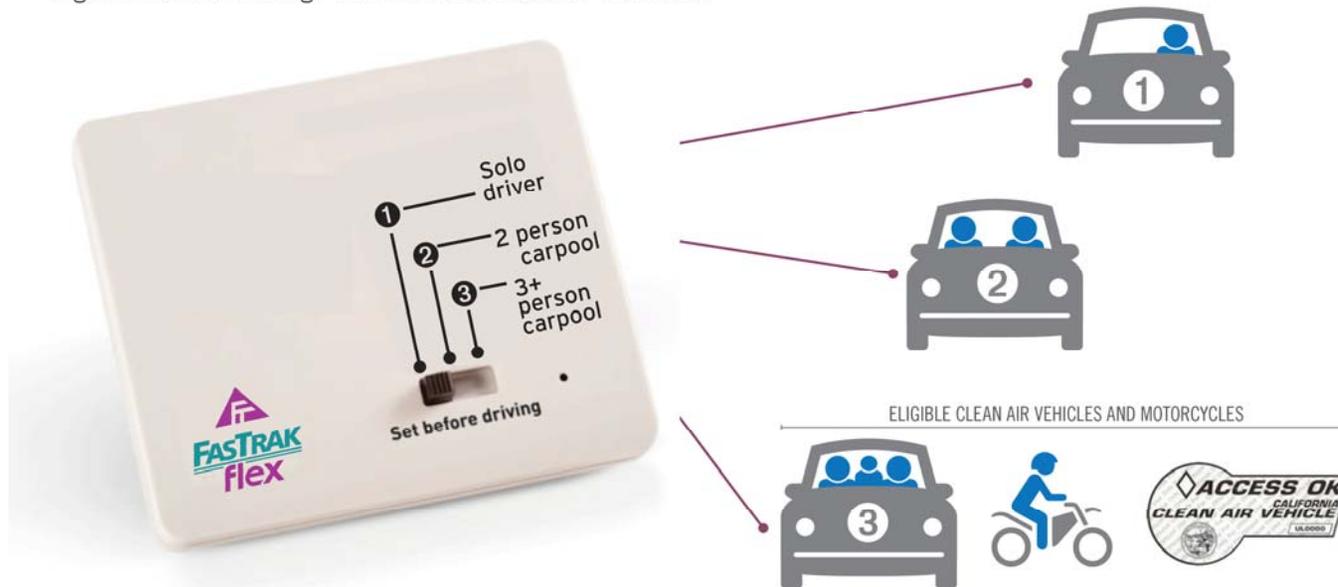


Enforcement

- Switchable toll tags
- License plate recognition
- Increased CHP presence
- Beacon light alerts
- CHP enforcement areas
- Citations issued for violations

FasTrak® Flex Toll Tags

Before driving, move the switch to show the number of people in the vehicle. Solo drivers can also use regular FasTrak® tags. Switchable toll tags will become available in mid 2015.



Toll System Innovations



- Single contract for three corridors with the ability to add corridors

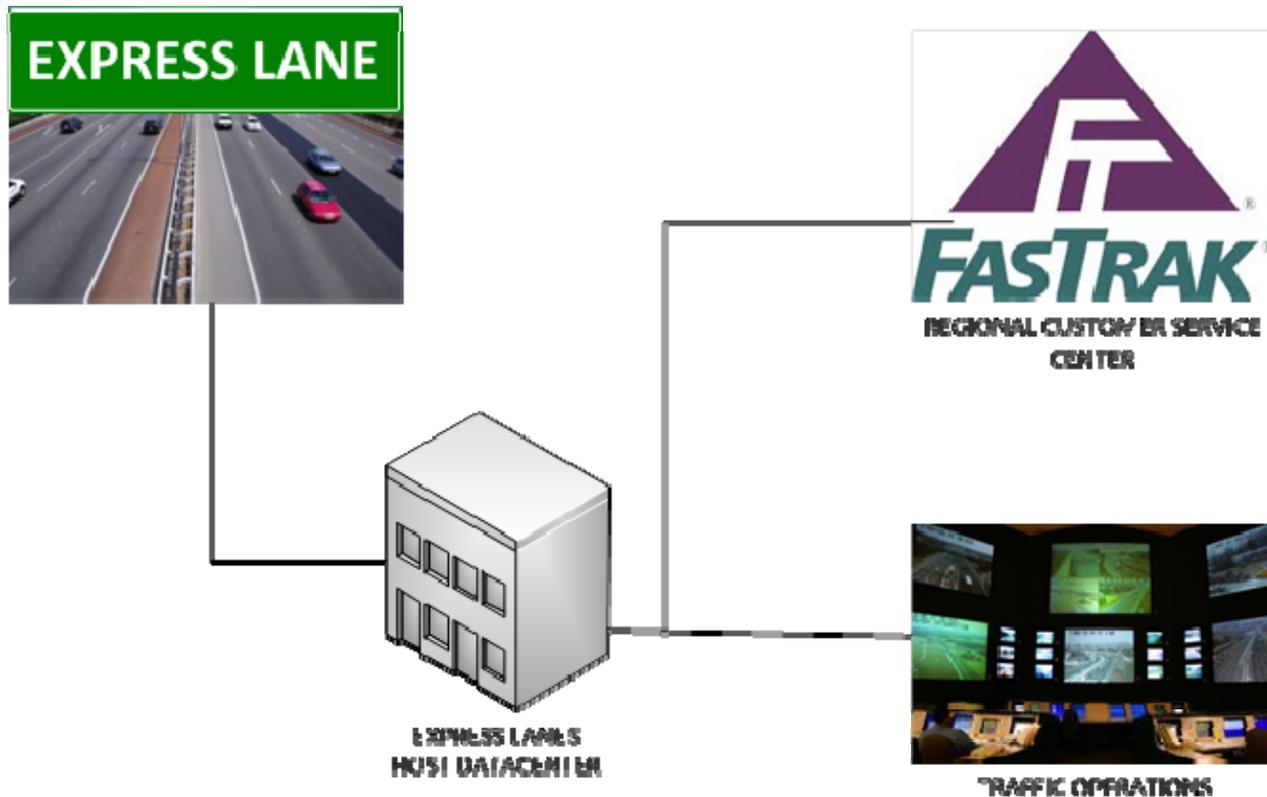


- Complex trip building due to open access. Must match toll tags and license plates consistently, multiple times.



Backhaul Network

- Data communications network
- Repair existing, empty conduit
- Down payment on a broader regional transportation communications network



Progress

Complete

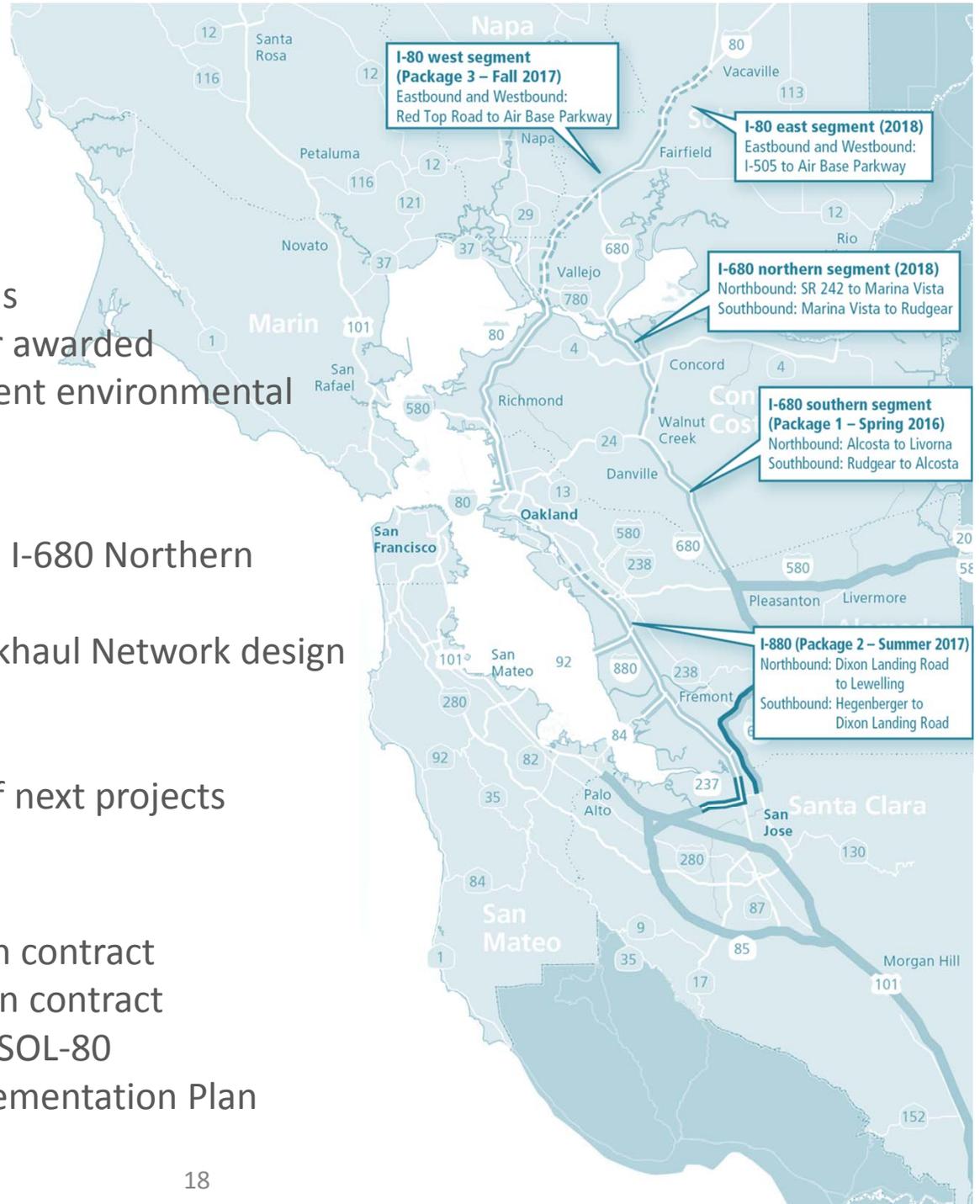
- Concept of Operations
- Toll System Integrator awarded
- I-680 Southern Segment environmental

In Progress

- Environmental: I-880, I-680 Northern Segment; I-80
- Communications Backhaul Network design
- Toll system design
- I-680 civil design
- Review sequencing of next projects

Next Steps 2015

- Backhaul construction contract
- I-680 civil construction contract
- Civil design on I-880, SOL-80
- Managed Lanes Implementation Plan



Managed Lanes Implementation Plan

- Define and evaluate the performance of existing, planned and expanded system
- Assess managed lanes policies (e.g., vehicle occupancy, hours of operations, access)
- Evaluate system enhancements (e.g., freeway management, express bus, park-ride lots)
- Engage partner agencies & interested organizations



Thank You!



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