

# E. 14th St./Mission Blvd. and Fremont Blvd. Multimodal Corridor Project

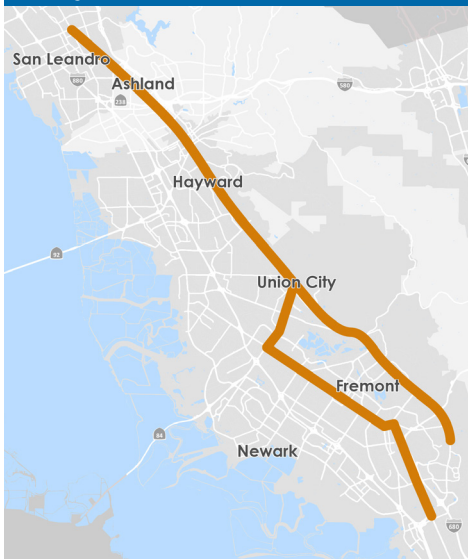
## PROJECT UPDATE

Fall 2019



## Project Overview

### Project Corridor



East 14th Street, Mission Boulevard, and Fremont Boulevard connect the communities of central and southern Alameda County with regional transportation facilities, employment areas, and activity centers. The corridor extends through five jurisdictions (San Leandro, unincorporated Alameda County, Hayward, Union City, and Fremont) and provides connections throughout the inner East Bay paralleling Interstate 880 and BART.

The E. 14th St./Mission Blvd. and Fremont Blvd. Multimodal Corridor Project (Project) will identify specific near-, mid-, and long-term multimodal mobility improvements for implementation.

### Study Area at a Glance

**5 local jurisdictions**

**314,000 residents**

**90,000 employees**

**14 Priority Development Areas**

**120 signalized intersections**

**16,800 to 36,000 vehicles per day**

**2/3 of corridor with bike lanes**

**7 transit providers plus public and private shuttles**

**7 BART stations, 2 Capitol Corridor stations, 1 ACE station (shared with Amtrak)**

## Project Goals

Multimodal improvements for the Study Area will be developed to advance the following goals:

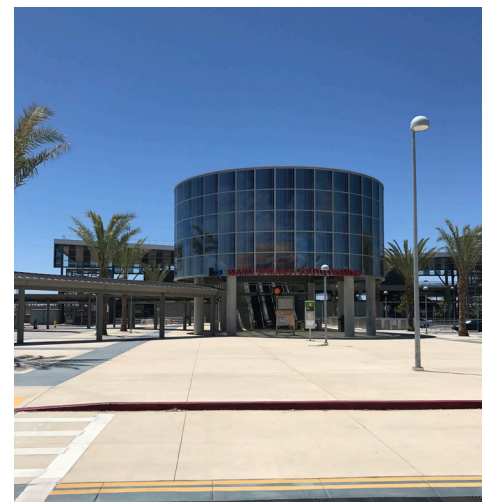
- Support planned long-term growth and economic development
- Address the range of mobility needs for those living and working in the Study Area
- Move people more efficiently within the corridor
- Increase use of alternate travel modes
- Improve connectivity between transportation modes
- Provide a safe and convenient environment for pedestrians, bicyclist, and transit users
- Provide flexibility for future changes in transportation technology

## Long-Term Improvements

Long-term improvements (7+ years) will address mobility needs over the next 20 years within the Study Area resulting from projected growth.

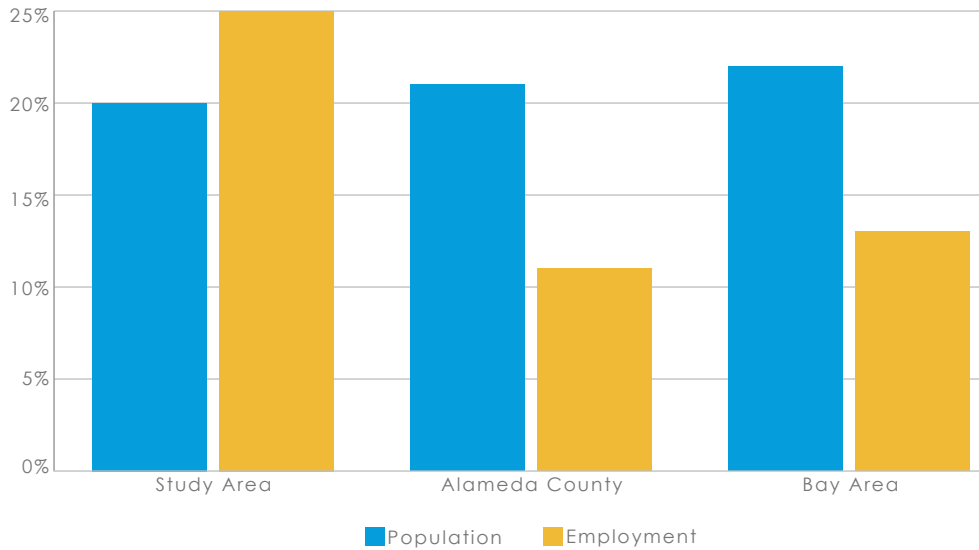
## What's Happening Soon?

Changes in the next 7 years will focus on improving existing issues related to walking, biking, driving, and using transit in the Study Area.



## Demographics

Study Area Growth 2020 to 2040



Source – Play Bay Area 2040

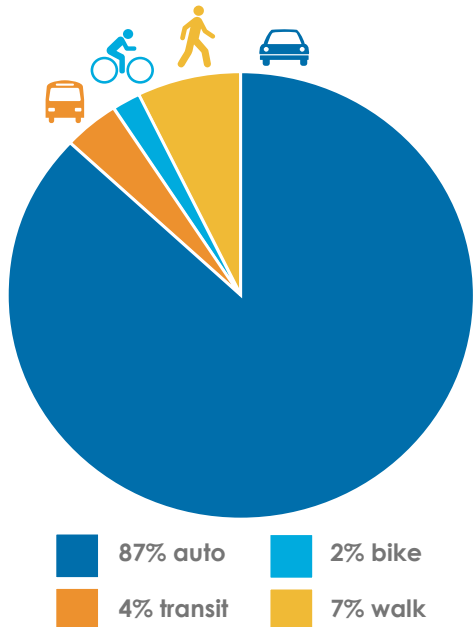
### Significant Employment Growth Projected

Total employment in the Study Area is projected to grow by 25 percent between 2020 and 2040, double the rate for Alameda County as a whole and for the nine-county Bay Area region. Population in the Study Area is projected to grow at a rate comparable to the rest of the county and region.

## Travel Markets

### Most trips made by auto

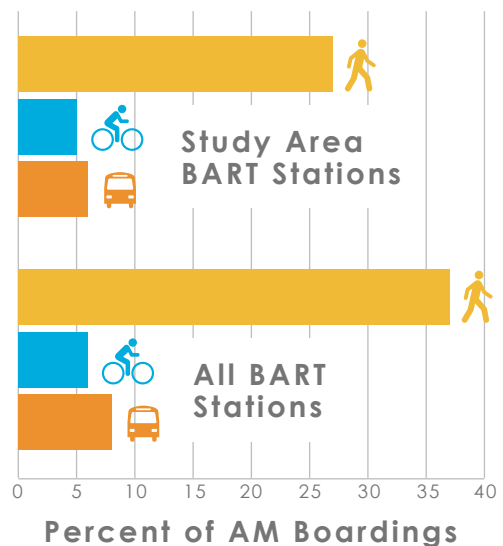
Trips by auto (including drive-alone plus rideshare) make up almost 90 percent of trips for the Study Area.



Source – Alameda Countywide Model, 2018

### BART mode of access

Within the Study Area, a smaller share of BART passengers walk and take the bus to reach the station as compared to the BART system as a whole.



Source – 2015 BART Customer Satisfaction Survey

## Safety

### Fatal and Severe Injury Collisions

84 fatal or severe injury collisions over five years



32 involving pedestrians



10 involving bicyclists

Between June 2012 and May 2017, half of fatal and severe collisions involved a pedestrian or bicyclist.

### Countywide High-Injury Network



40% of the corridor is part of the high-injury PEDESTRIAN network



25% of the corridor is part of the high-injury BICYCLIST network

The 2019 Countywide Active Transportation Plan identifies several portions of the corridor as part of the countywide high-injury network.

## Traffic Operations

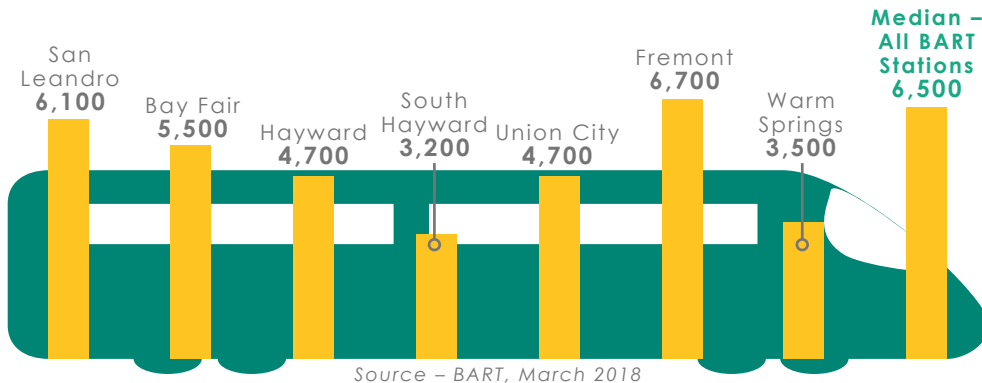
Six intersections currently operate over capacity:

- Foothill Blvd. and A St.
- Mission Blvd. and Niles Canyon Rd./Niles Blvd.
- Mission Blvd. and Mowry Ave.
- Mission Blvd. and I-680 southbound ramps
- Fremont Blvd. and Decoto Rd.
- Fremont Blvd. and Automall Pkwy.

## Transit

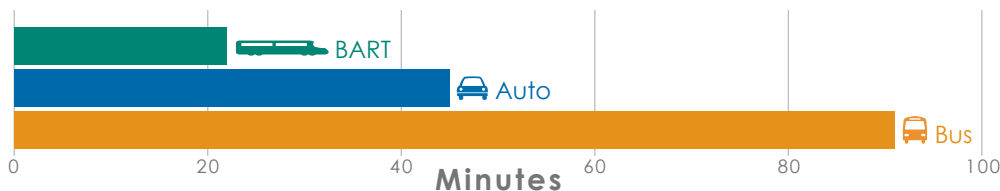
### BART ridership

Ridership at BART stations in the Study Area is generally lower than for the BART system as a whole.



### Travel Time Comparison – San Leandro to Fremont

BART is currently twice as fast as driving for end-to-end travel during the PM peak. This highlights the need for strong connections to BART to leverage its travel time advantage.



### Bus Ridership Facts

- Bus service frequencies along the corridor are as high as 13 buses per hour, accounting for multiple transit providers and service types.
- AC Transit Lines 10 and 99 have the highest bus ridership in the Study Area. Each carries more than 3,000 riders per day.
- 40% of bus passengers in the Study Area board at a BART station.





# Rapid Bus and Bus-Only Lanes

## FEATURES OF RAPID BUS

- Express bus service with fewer stops to speed up buses
- Local routes continue to operate at all stops to maintain coverage
- Low-floor buses to help riders get on and off faster
- Traffic signal technology reduces traffic delays
- Boarding islands so that buses do not block bike lanes
- Bus stops have real time arrival data for the next bus
- Rapid bus stops can be shared with local routes



Source – AC Transit



Source – AC Transit

## FEATURES OF BUS-ONLY LANES

- Part of BRT (bus rapid transit) system
- Buses have a speed advantage compared to automobiles
- Raised bus stop platform
- Tickets are purchased on the platform, not on the bus
- Traffic signal technology reduces traffic delays
- Bus stops have real time arrival data for the next bus
- Separate stops for BRT and local bus service
- Amenities like wifi, cushioned seats, and space for luggage

Bus-only lanes may be in the center of the street or along the outside curb.

### Center-Running Bus Only Lanes



Source – AC Transit

### Curb-Running Bus Only Lanes



Source – NYMTA

## MICROTRANSIT IN FREMONT

Today, most of the trips along Fremont Blvd. stay within the City of Fremont, making this area a good candidate for flexible, on-demand service.

### Features of microtransit

- On-demand service
- Flexible route and schedule
- Uses small shuttles or vans
- Examples include AC Transit Flex

### Benefits Include

- Broader community access to transit
- Increased overall transit ridership

## Protected Bike Lanes

The draft recommendations aim to:

- Address safety for bicyclists and pedestrians
- Provide comfortable travel for all ages and abilities
- Increase travel options for these shorter-distance trips

### Long-Term Vision - 2040

On-street protected bike lanes from San Leandro to Fremont, which will provide safer, more comfortable biking experience. This would involve physical separation between bike lanes and moving traffic, (on-street parking, landscaping, or flex posts).



Source – Kittelson & Associates

### Projects Underway and Proposed

- Alameda County, Hayward, and Fremont have projects underway that will add protected bike lanes to the corridor.
- Additional near-term improvements provide new or improved bike lanes in areas that are part of the Countywide High Injury Network.



Source – Alameda County Public Works Agency

## Pedestrian and Bicyclist Safety

Pedestrian safety treatments throughout the corridor will provide safer, higher-quality travel for pedestrians. Bike safety treatments along the corridor and at intersections will make it more comfortable for people to bike.

### Projects Underway and Proposed

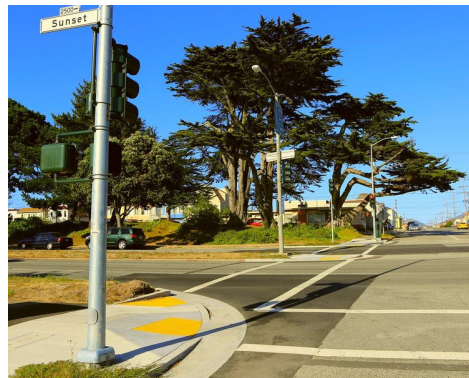
#### Pedestrian projects:

- Sidewalk gap closures
- ADA pedestrian improvements
- Pedestrian signal phasing
- Crosswalk improvements
- Streetscape improvements

#### Bicycle projects:

- Signalized intersection improvements
- Bike lane restriping
- Facilities on parallel and connecting streets
- Driveway consolidation
- Streetscape improvements
- Wayfinding

### ADA Ramp Improvement



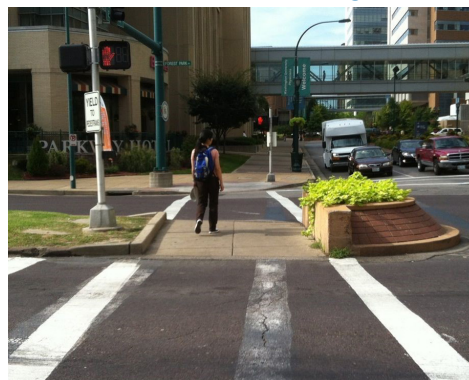
Source – Kittelson & Associates

### Pavement Resurfacing



Source – Kittelson & Associates

### Mid-block Pedestrian Refuge



Source – Alameda CTC

### Leading Pedestrian Phase

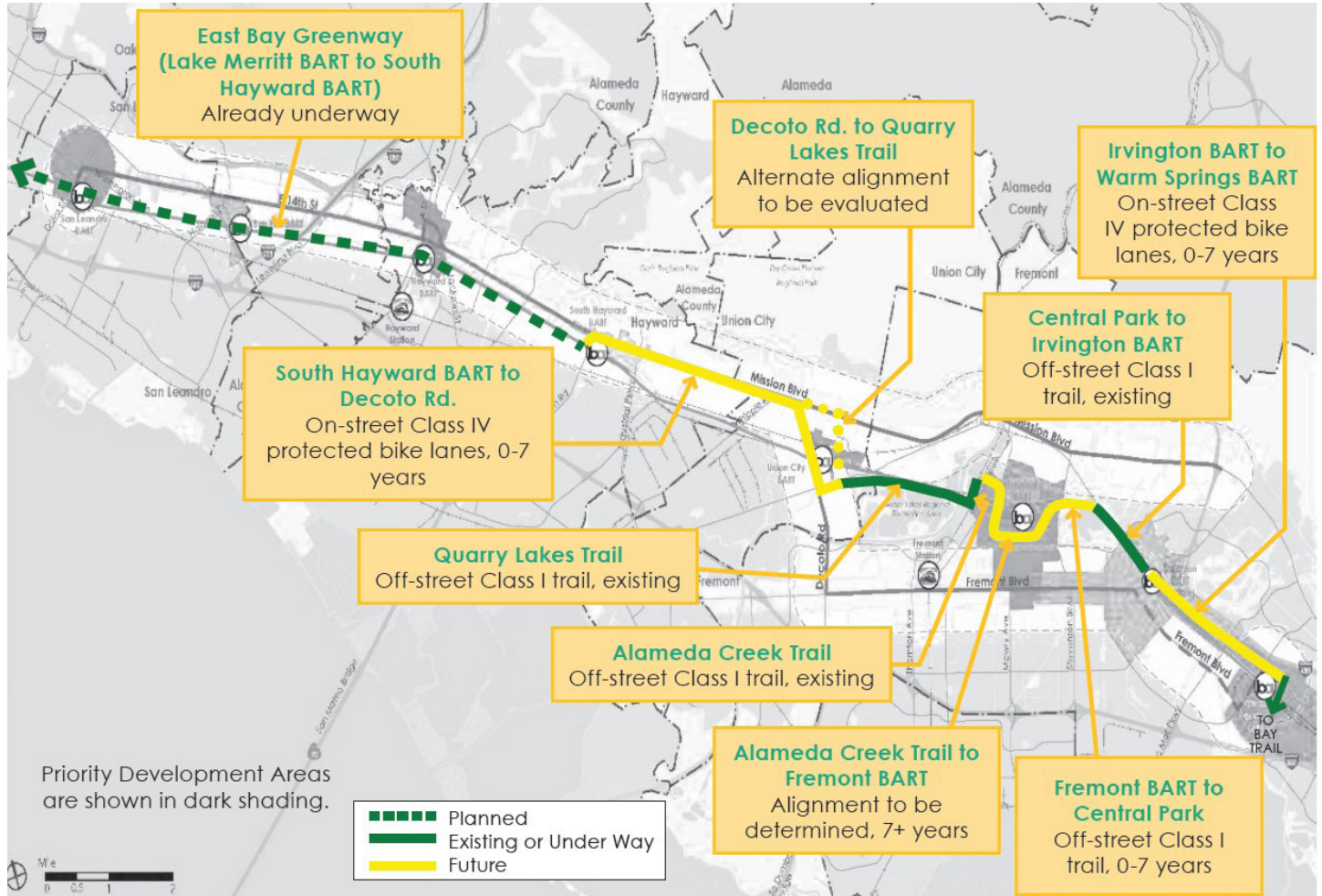


Source – City of Long Beach

# East Bay Greenway Extension

## A VISION FOR THE FUTURE

The long-term vision is for an East Bay Greenway extension from South Hayward BART to Warm Springs BART. This would use existing trails and planned bikeways, and provide safer, more comfortable travel for people walking and riding bikes.



### Already Underway: East Bay Greenway from Lake Merritt BART to South Hayward BART

The East Bay Greenway Project proposes to construct a bicycle and pedestrian facility that will generally follow the BART alignment for 16 miles through the cities of Oakland, San Leandro, and Hayward as well as the unincorporated communities of Ashland and Cherryland.

#### Existing Trails

- Quarry Lakes Trail – Alvarado Niles Rd. to Alameda Creek Trail
- Alameda Creek Trail – Decoto Rd. to Mission Blvd.
- East Bay Greenway – Central Park to Irvington BART

#### New Trails and Trail Connections

- South Hayward BART to Quarry Lakes Trail
- Alameda Creek Crossing: New bike/ped bridge
- East Bay Greenway, Alameda Creek Bridge to Fremont BART: Class I trail (further feasibility assessment is required).
- East Bay Greenway, Fremont BART to Central Park: Class I trail



Source – Alameda CTC



Source – Alameda Magazine

## Mobility Hubs

Mobility Hubs will be developed around major transportation hubs and may include:

- Bike station/bike lockers
- Real-time transit information
- Informational signage
- On-demand rideshare/ carpooling
- Microtransit services
- Shared vehicle options (carshare, bikeshare, scooters)
- Electric vehicle charging stations
- Real-time parking information
- Pedestrian and bike access infrastructure
- Supporting land uses (package delivery, convenience retail, etc.)

### Electric Vehicle Charging Stations Transit Shuttle



Source – Alameda CTC



Source – Kittelson & Associates

### Secure Bike Parking



Source – City of Oakland

### Carshare



Source – Kittelson & Associates

### Improved Pedestrian Access



Source – Kittelson & Associates

### Shared Scooters



Source – Lime

### Rideshare



Source: GIG Car Share

### Improved Bike Access



Source – Alameda CTC

## Technology and Traffic Operations

### VISION FOR THE FUTURE - 2040

The long-term vision for the corridor accommodates potential advances in technology related to connected vehicles. Connected vehicles are able “talk” to roadway infrastructure and/or other vehicles.

#### Vehicle to infrastructure communication

– Information shared between vehicles and roadway infrastructure (cameras, traffic lights, lane markers, and signage).

#### Vehicle to vehicle communication

– enables vehicles to exchange information about their speed and location. This technology would help avoid collisions.

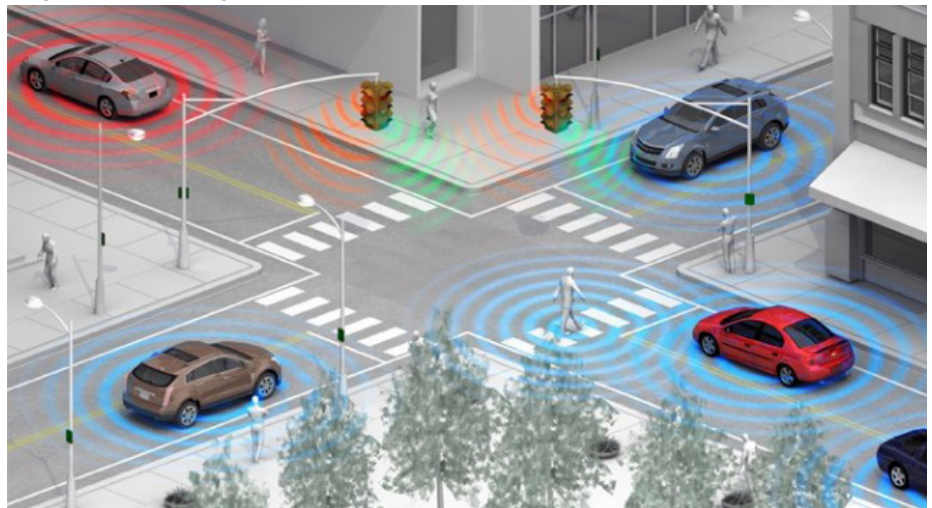
### WHAT'S HAPPENING SOON?

**Fremont Blvd. Safe and Smart Corridor** – This project uses technology and new innovation opportunities to move traffic efficiently and improve safety and circulation for pedestrians, bicyclists, and transit users. [www.fremontsmartcorridor.org](http://www.fremontsmartcorridor.org)

**Adaptive Signal Control (Hayward and Alameda County)** – Adaptive signal systems use real-time traffic information from video cameras or road sensors to determine when a traffic light should be red or green.

**Pedestrian Detection (San Leandro and Fremont)** – Caltrans is in the process of completing pedestrian signal improvements along E. 14th St. in San Leandro and Mission Blvd. in Fremont.

#### Improved Safety and Collision Avoidance



Source – [www.extremetech.com](http://www.extremetech.com)



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