



# SAN PABLO AVENUE MULTIMODAL CORRIDOR STUDY PHASE 2

CCTA Board Meeting - June 21, 2023  
Evaluation Summary



**WCCTAC**

**Kimley»Horn**





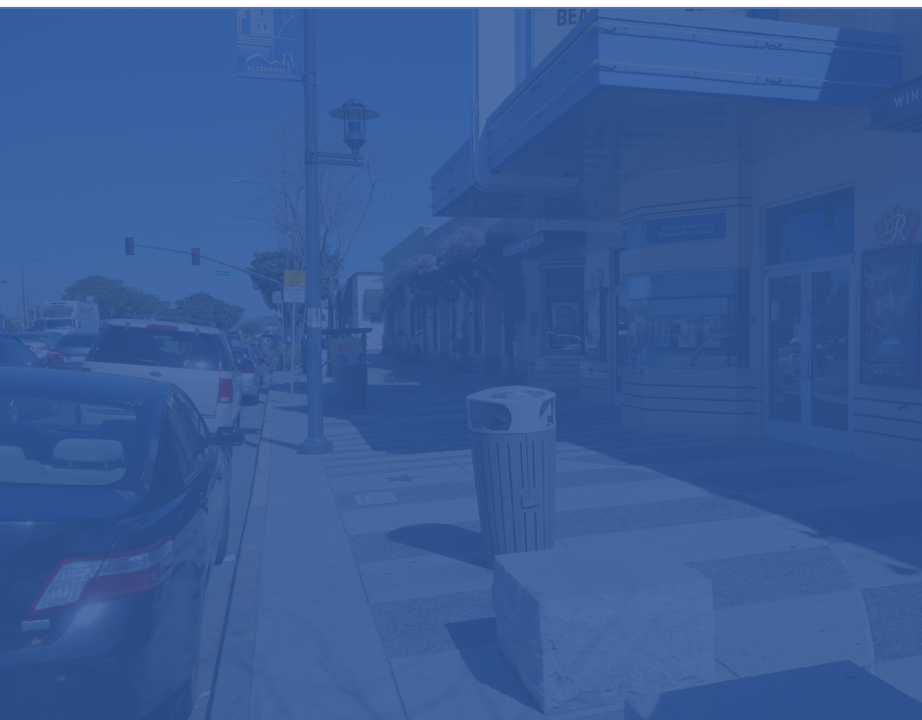
## Agenda



1. Study Purpose and Background
2. Key Findings
3. Next Step Options



# Purpose and Background







## Corridor Study Purpose

Improve multimodal mobility, efficiency, and safety to sustainably meet current and future transportation needs and help support strong growth along the corridor while still maintaining local contexts.

## Goals



Effectively and efficiently accommodate anticipated **growth**



Improve **comfort and quality** of trips for all users



Enhance **safety** for all travel modes



Support **economic development** and adopted **land use policies**



Promote **equitable** transportation and design solutions



## Corridor Study Background

- Multimodal Corridor Study began in Fall 2017
  - Phase 1: Fall 2017-Fall 2020
  - Phase 2: Winter 2021- Winter 2023
- Effort led by Alameda CTC with financial support and involvement by WCCTAC and CCTA
- Study area extended between downtown Oakland and Hilltop Mall
- Phase 1 work included:
  - Existing conditions analysis, concept development, travel demand modeling, and two rounds of public meetings and surveys



## West County Phase 2 studied ...

- Combination of facilities that could fit within existing right-of-way
- Where parking would need to be removed to provide a bike facility
- Potential near-term multi-modal safety improvements
- Benefits and trade-offs of a bus lane
- Effects on traffic if a lane is converted
- Feedback from each jurisdiction on potential solutions





## Conditions on the corridor today



Overlapping Local and Rapid Bus service provides bus service every 7 minutes south of Macdonald



Bike lanes only in some segments in the City of San Pablo and newly constructed in El Cerrito (approx. 20% of corridor)



Long gaps between pedestrian crossings and many uncontrolled crossings (e.g., multiple 0.4 mile gaps in protected crossings in El Cerrito)



Used as an alternative to I-80 for longer-distance trips - ***1/3 of auto trips are just passing through***

- Data indicates potential for auto to bus mode shift

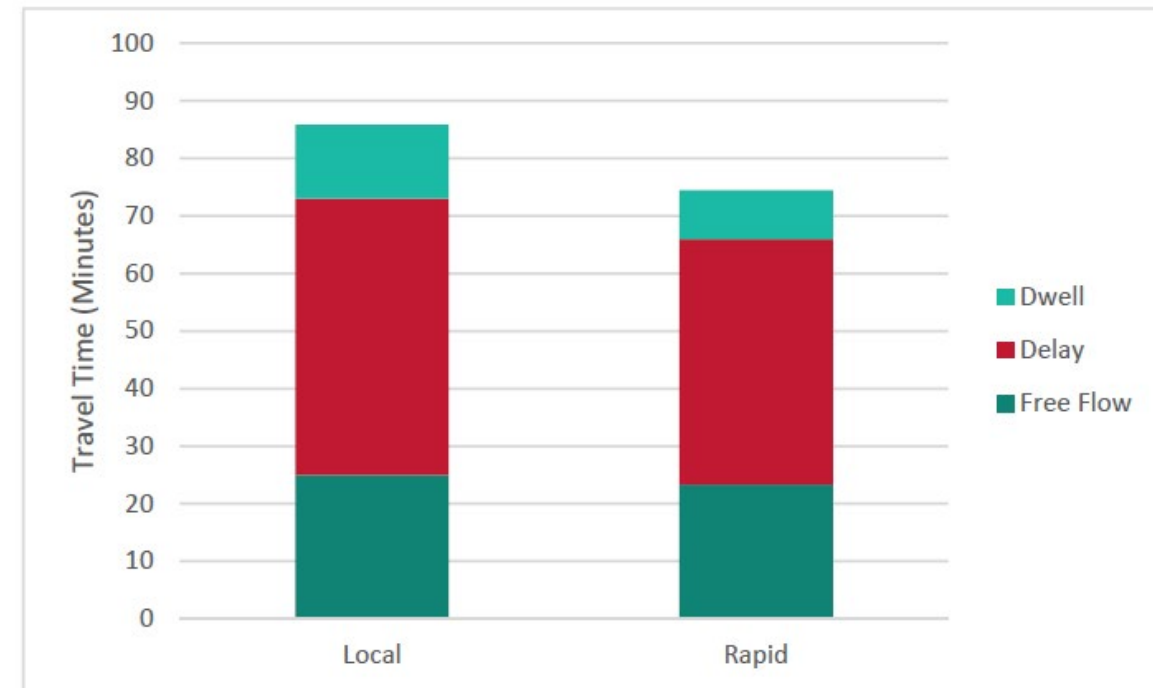




## Existing Safety and Congestion Challenges

- During peak period, Rapid buses spend 57% of travel time stuck in congestion
  - Without improvements, forecast a 69% increase in PM traffic delay by 2035
- History of safety issues
  - 293 injuries or fatalities in recent 5-year period
  - 73 involving pedestrians or cyclists, including 3 deaths

PM Peak Period Northbound Bus Travel Time

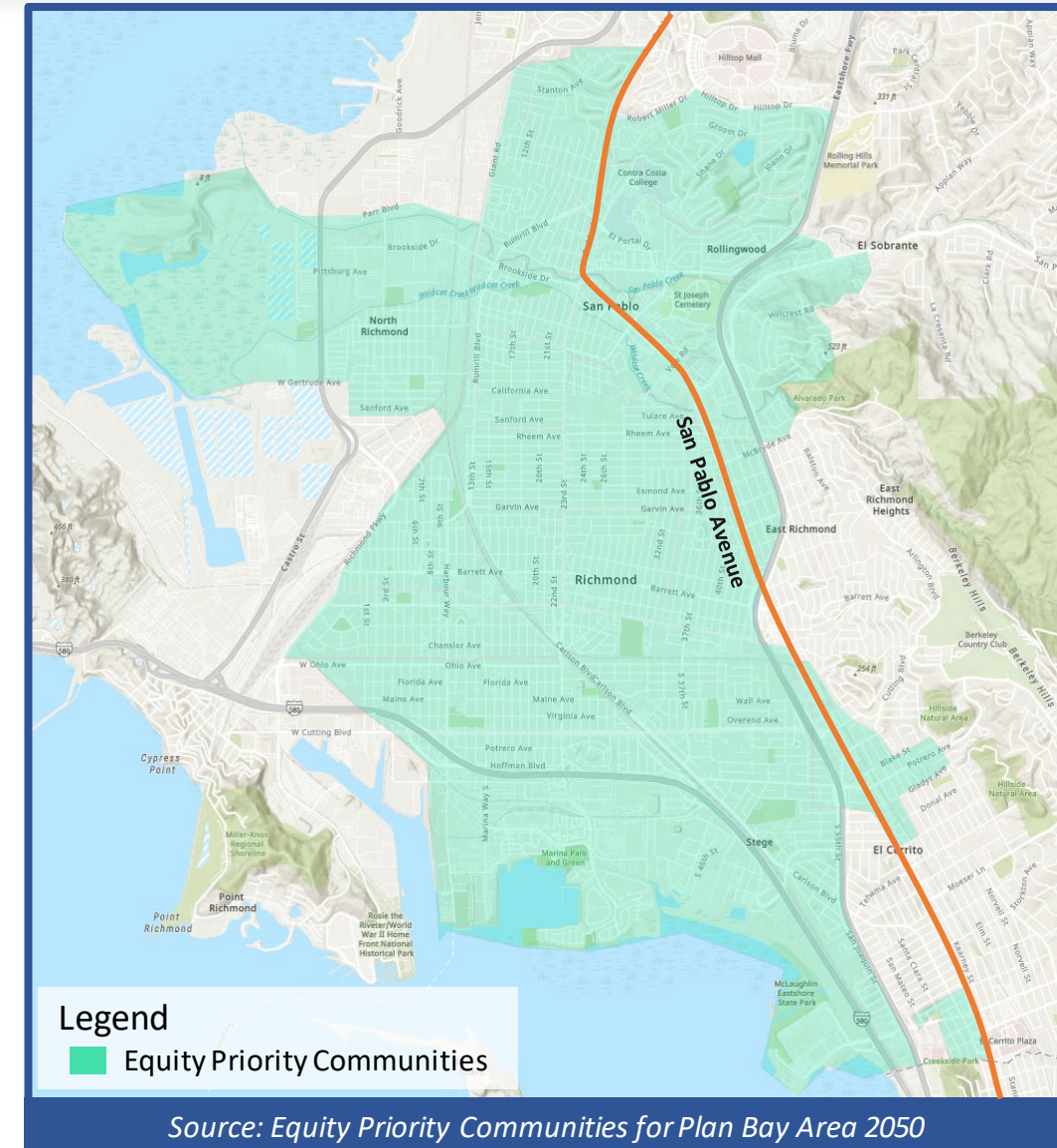






## Transit and Equity

- Well-utilized today
  - 12,500 daily bus riders (approx. half in Contra Costa County)
  - More riders on 72-series routes than any other AC Transit route (14% of the entire system ridership)
- Improving transit in this corridor is an equitable solution
  - 77% of 72-series passengers are non-white
  - 61% of 72-series passengers make less than \$50,000 per year
- 93% of study area within ¼ mile of an equity priority community



Source: Equity Priority Communities for Plan Bay Area 2050



## What are the options to improve transit?

### Existing Service

- “Rapid” Branded Service Overlaid with Local Service
- Transit Signal Priority (TSP)

### Bus Rapid Transit

- Dedicated bus lanes
- Improved TSP
- Enhanced Stations
- Improved Station Access
- Distinctive Branding
- Level Boarding
- Off-Board Payment
- More frequent service





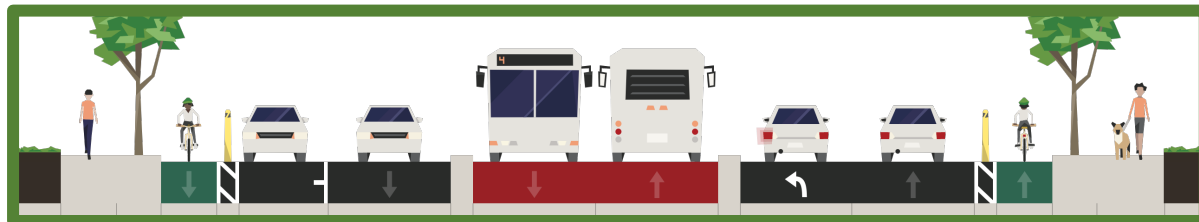


## How could BRT be configured in this corridor?

### Center-Running Bus Lanes



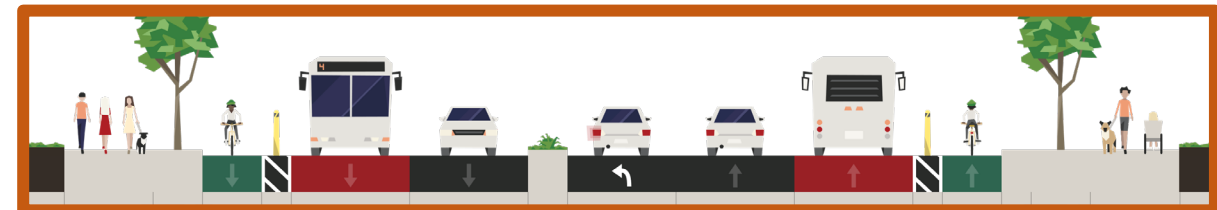
Image Source: SFMTA



### Side-Running Bus Lanes

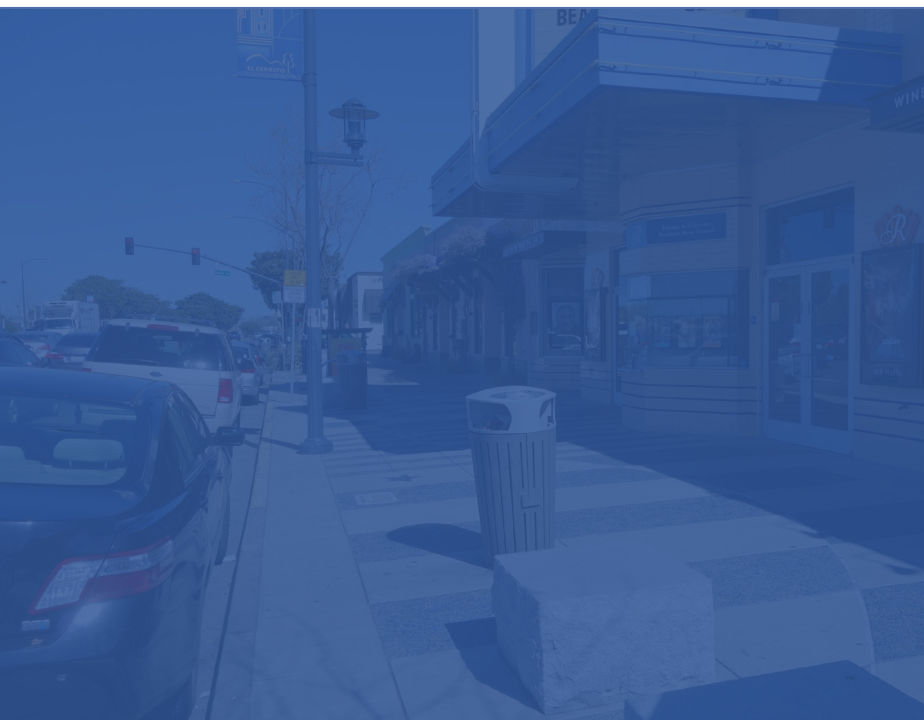


Image Source: Kimley-Horn





# Key Findings







## Transit

- **Center-running** bus lanes provide 30%-45% transit travel time savings
    - Approximately 10% faster than **side-running**
  - **Side-running** bus lanes avoid some of the implementation challenges of **center-running** and can be easily used by all bus routes in the corridor
  - **Center-running** bus lanes provide greatest opportunity for both parking and bike facilities throughout the corridor.
- **Support for enhancing transit, but feedback was mixed between “going big” with center-running, support for side-running, and concern about impacts of a bus-only lane**

# Bikes

- Bike lanes or cycle tracks are feasible to be implemented, but would require removal of parking in many areas
  - On-street parking is currently plentiful
  - New, more dense development will change the role of on-street parking
- Providing a protected bicycle facility would still result in the corridor having a high level of stress for cyclists
  - **Varying support between bike facilities on San Pablo Avenue and bike facilities on parallel streets**
  - **Concerns about impact on businesses from parking removal for new bike facilities**







## Pedestrians

- Corridor has experienced fatalities and high number of injuries to pedestrians
  - Challenges include difficult crossings, lack of crossings, poor accessibility, poor lighting, high vehicle speeds
- Safety improvement opportunities at locations throughout the corridor
  - Pedestrian improvements are generally lower-cost and don't preclude other improvements
- **Concerns about safety for elderly and mobility-impaired pedestrians**
- **Widespread support for advancing pedestrian improvements**



Images Source: Google

# Next Step Options

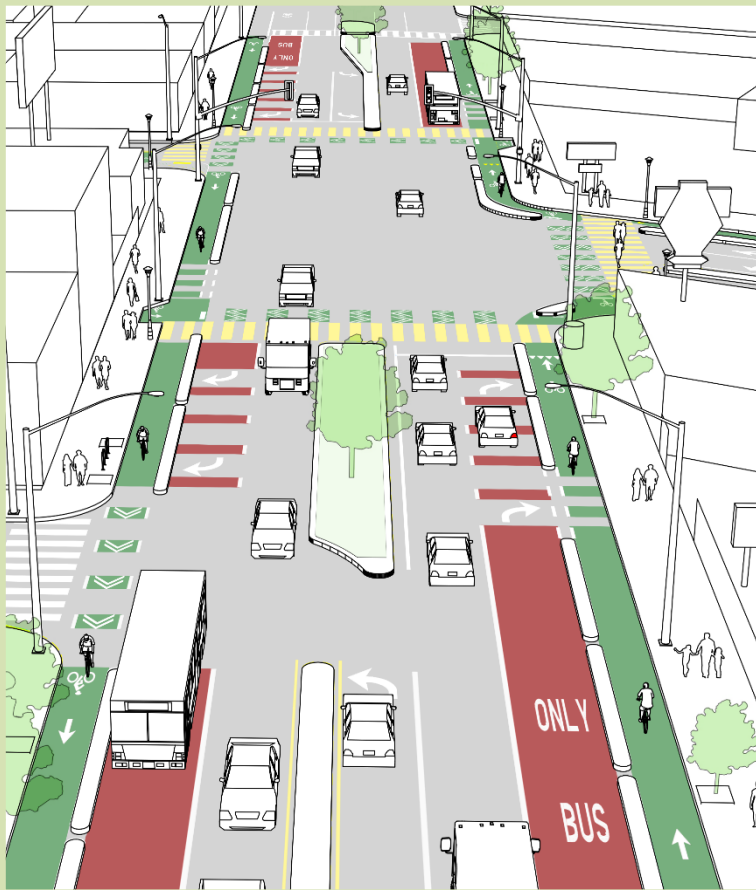






# What is Alameda County doing?

## Near-Term Design Concept



Three concurrent project efforts:

- #1 Safety Enhancements throughout Corridor
  - Focused on pedestrian safety and accessibility and bicycle crossings
  - Bus bulbs provide additional space at bus stops and to allow in-lane stopping for transit
- #2 Bus and Bike Lanes Project in Oakland, Emeryville, and South Berkeley
  - Convert auto lane to bus lane
  - Convert parking lane to protected bike lane
    - Parking and loading moved to side streets in most locations
  - Protected intersections and other bicycle treatments
  - Evaluation phase after project implementation
- #3 Bike improvements on parallel network in Berkeley, Albany, and North Oakland
  - While continuing long-term planning efforts in those cities





## WCCTAC Board Direction for Next Steps

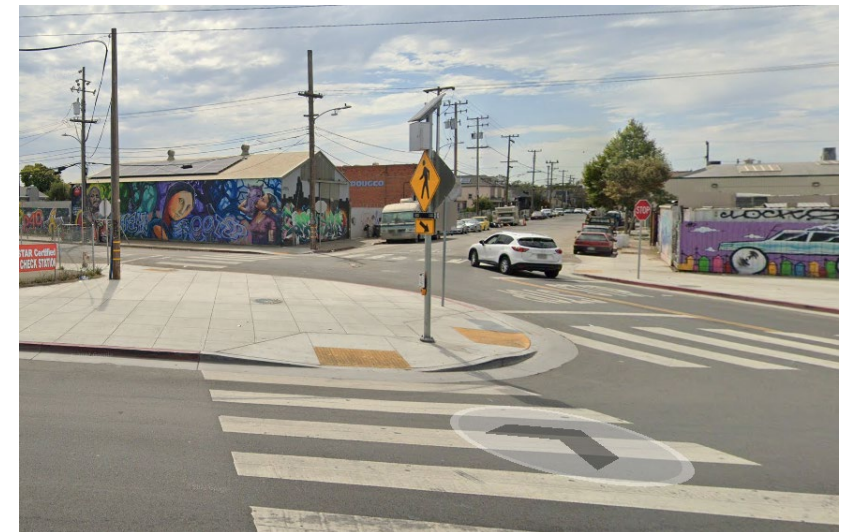
Subject to local jurisdiction and AC Transit's participation:

- Advance “Element 1”: Multimodal Safety Improvements
  - Advance design and outreach to formalize list of improvements with jurisdictions
  - Establish necessary working agreements
  - Request for CCTA to serve as design and implementation lead
  - Seek funding for outreach, design and construction process
  - Begin concept design and cost estimates
- Continue Discussion for “Element 2”: Bus Only Lane Demonstration
  - At a staff level, further explore interest for a demo project with Richmond, El Cerrito and AC Transit



## Element 1: Priority Multimodal Safety Improvements

- Improved Pedestrian Crossings
  - Signalization, New Beacons, New Crosswalks, Median Protection, Lighting, and High-Visibility Striping
- Improved Bike Crossings Across San Pablo Ave
- Accessibility Upgrades
- Remove/Modify free right-turns
- Bulbouts into side-streets
- Bus Bulbs at Rapid Stops
- Bus Stop Relocation
- Bus Stop Consolidation





## Element 1: Priority Multimodal Safety Improvements

- 70+ improvements at 40-45 intersections to benefit pedestrian safety, bicycle safety, transit access, and transit operations
  - Each improvement has independent utility, so implementation can be phased
  - Efficiency, consistency, and cumulative benefits in implementing corridor-wide
- CCTA and WCCTAC partner to identify funding and conduct outreach
  - Very preliminary estimated construction cost range of \$20M-\$35M, design cost range of \$3M-\$5M
  - Numerous potential state and federal grant funding sources, but many require local match
- Local jurisdictions partner for design review and establish maintenance commitment





## Element 2: Near-term bus lanes demonstration project on a portion of the corridor

- Contingent on local jurisdiction and AC Transit support
  - Initial interest by El Cerrito and Richmond at staff level
  - Requires coordination with AC Transit on the potential corresponding operational changes and their support on the extents and elements of a BRT demonstration project
  - Next steps could include a follow-on planning study that refines the details of a BRT demonstration project
    - *Begin with 1- to 2-mile segment – consider Cutting to Solano (outside of Caltrans jurisdiction)*
- Need further engagement with local jurisdictions, community engagement, and design to determine accompanying roadway improvements
  - Bike facility is possible to include in project, with trade-off of parking loss. Local jurisdictions would need to provide direction on roadway priorities

# Backup Slides

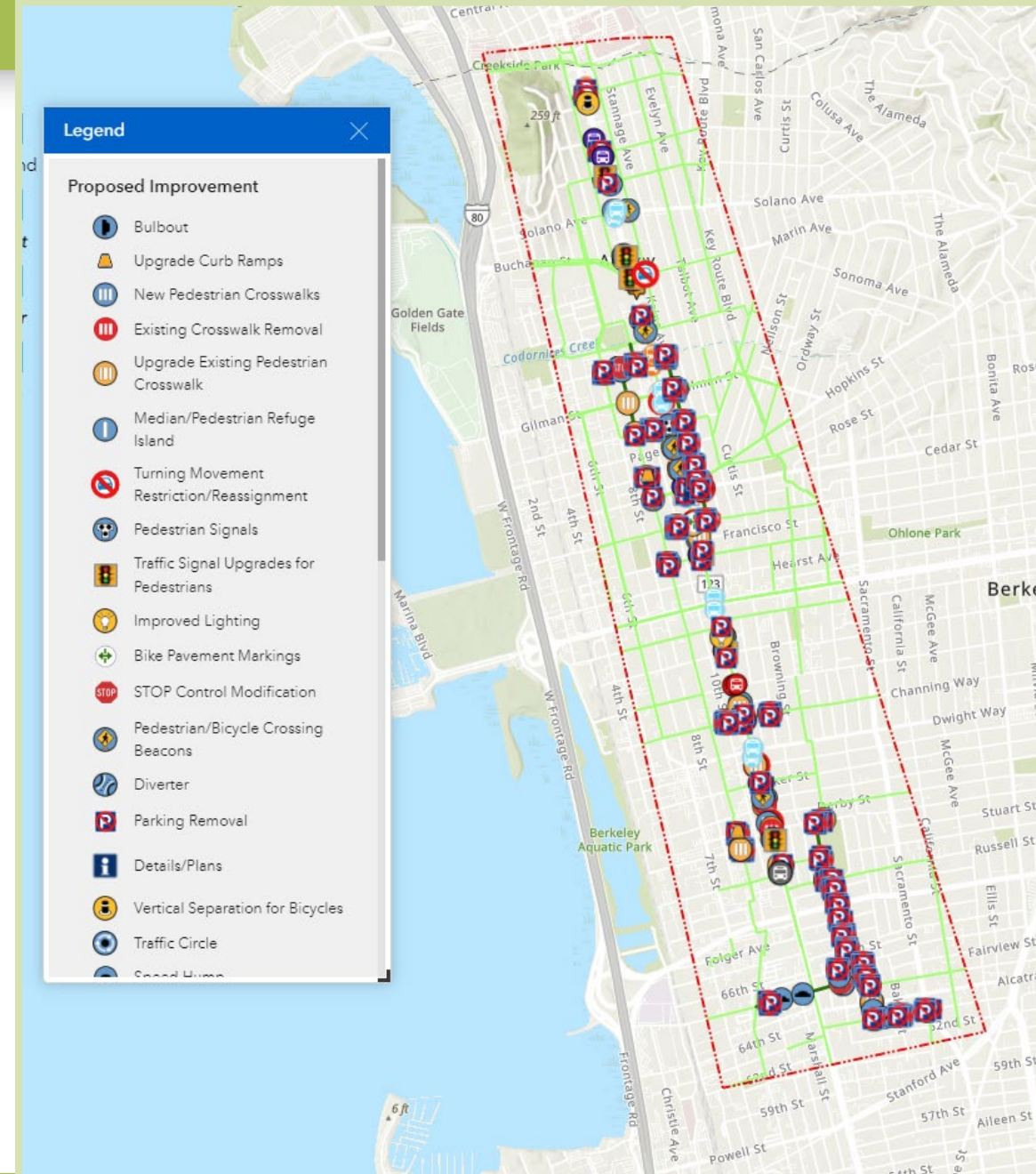




# Alameda CTC Progress

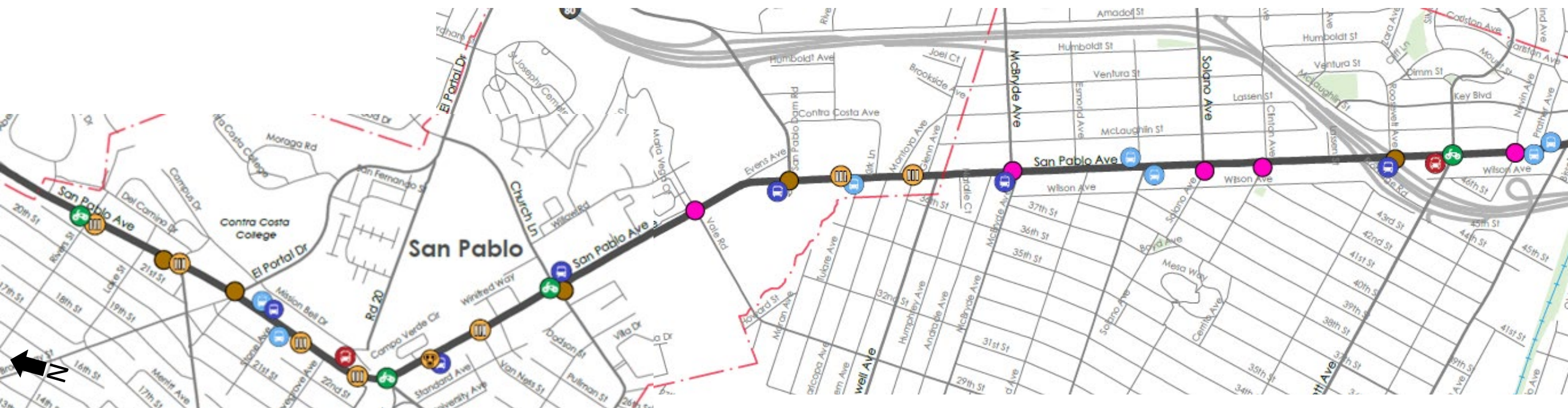
- All projects previously funded through Final Design
- Construction Funding – Total of \$54M received in last few months
  - Project #1: Safety Enhancements (close to fully funded)
    - OBAG 3 - \$10M; ATP - \$9M; SS4A - \$10M
    - Currently working through PA/ED with Caltrans
  - Project #2: Bus/Bike
    - OBAG 3 - \$10M
    - Currently working through PID and PA/ED with Caltrans
  - Project #3: Parallel Bike (close to fully funded)
    - OBAG 3 - \$10M; SS4A - \$5M
    - Currently in preliminary engineering
- Outreach Activities
  - Currently conducting outreach for Safety Enhancements and Parallel Bike
  - Major outreach activities for Bus/Bike planned for Spring 2023

## Safety Enhancements Project Map





# Element 1: Priority Multimodal Safety Improvements



## Legend

### Transit Improvements



Bus Bulb Improvement at Rapid Stop



Bus Stop Relocation



Bus Stop Removal

### Pedestrian/Bicycle Improvements



PHB/RRFB at Unsignalized Intersections



Additional Crosswalks at Signalized Intersections



Bike Crossings to Existing Facilities

### Other Safety Improvements



Pork Chop/Free-right Removal



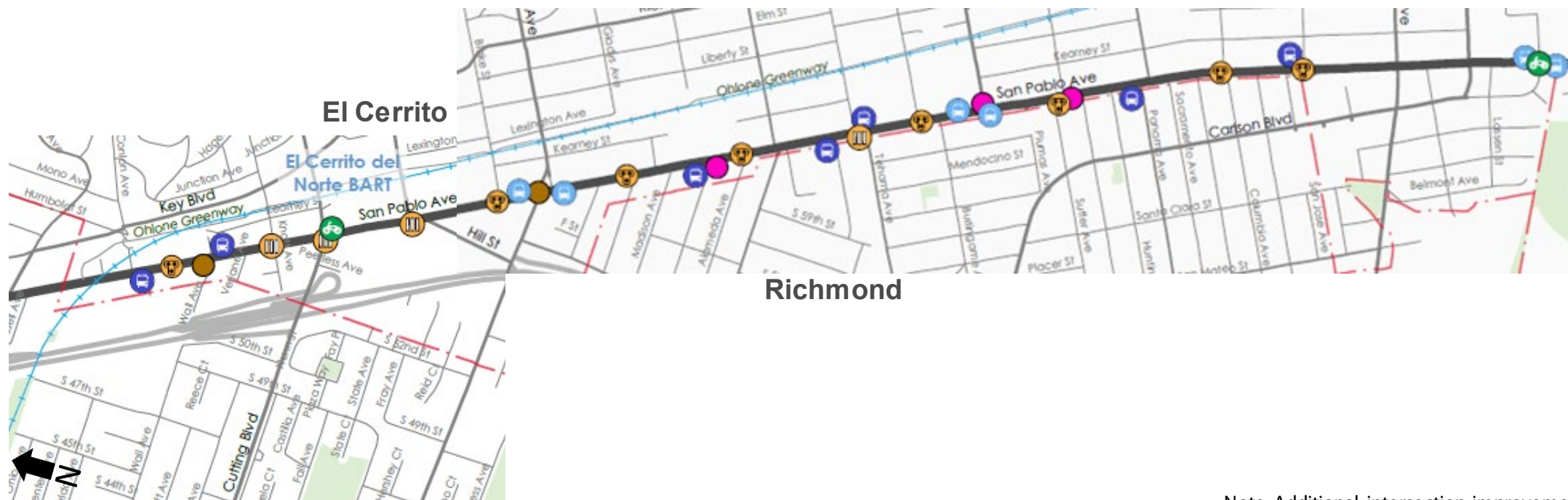
Side-street Bulbout

Note: Additional intersection improvements recommended but not shown would include high-visibility crosswalks, median crosswalk protection areas, advanced limit lines, ADA curb ramp upgrades, and directional curb ramps at locations throughout the study corridor. Bus stop changes shown are preliminary and subject to refinement through a corridor-wide analysis being advanced by AC Transit.





# Element 1: Priority Multimodal Safety Improvements



## Legend

### Transit Improvements

- Bus Bulb Improvement at Rapid Stop
- Bus Stop Relocation
- Bus Stop Removal

### Pedestrian/Bicycle Improvements

- PHB/RRFB at Unsignalized Intersections
- Additional Crosswalks at Signalized Intersections
- Bike Crossings to Existing Facilities

### Other Safety Improvements

- Pork Chop/Free-right Removal
- Side-street Bulbout

Note: Additional intersection improvements recommended but not shown would include high-visibility crosswalks, median crosswalk protection areas, advanced limit lines, ADA curb ramp upgrades, and directional curb ramps at locations throughout the study corridor. Bus stop changes shown are preliminary and subject to refinement through a corridor-wide analysis being advanced by AC Transit.



## Benefits of CCTA Taking Lead on Element 1

- Ensures coordinated project across jurisdictional boundaries
- More efficient to implement by one entity given scale and complexity
- Cities have indicated a lack of available staff capacity
- Aligned with CCTA's engineering and project development experience (especially Caltrans involvement)
- Enhances grant competitiveness by emphasizing inter-agency collaboration
- Can mirror Alameda CTC's role to the south





## Council/Board/Community Presentations

Meeting	Date
WCCTAC Board	May 31, 2022
Richmond City Council	June 28, 2022
San Pablo City Council	July 18, 2022
El Cerrito City Council	July 19, 2022
AC Transit Board	July 27, 2022
East Richmond Neighborhoods	October 13, 2022