



Caltrans community meeting in Palo Alto



Proposed Bikeway Implementation in Palo Alto

on State Route 82 (El Camino Real)

February 29, 2024, at 6PM in Palo Alto High School

AGENDA

- Introduction
- Presentation
- Q&A



**PROPOSED BIKEWAY IMPLEMENTATION
IN PALO ALTO
ON STATE ROUTE 82 (EL CAMINO REAL)**

Community meeting in Palo Alto, February 29, 2024

By Caltrans District 4, Bay Area

TOPICS

- Caltrans paving project on State Route (SR) 82 (El Camino Real)
- Planning & Mobility
- Safety Discussion for the proposed bikeway in Palo Alto
- Design Considerations



Caltrans SR 82 Paving Project



High Visibility Crosswalk



Pedestrian Hybrid Beacon



Class II Bike Lane



**Class IV
Bike Way**



APS

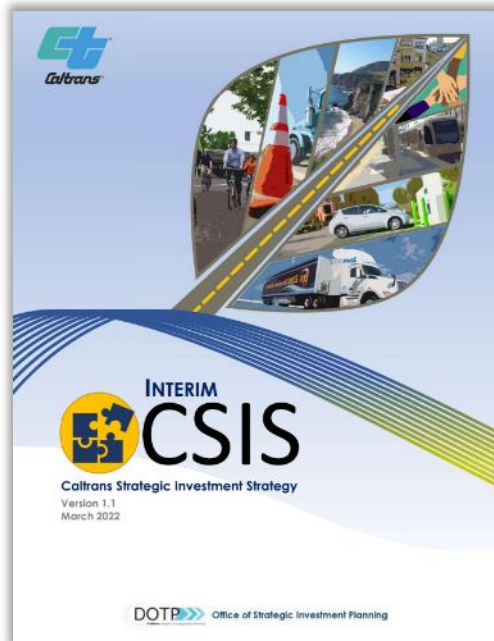
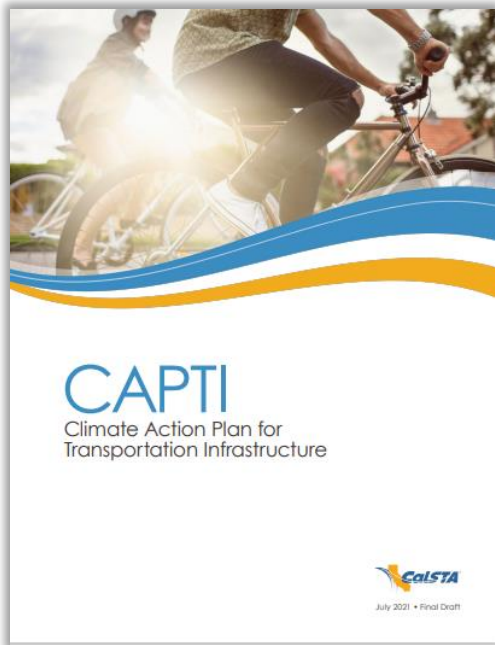
Scope:

- Pavement Rehabilitation
- Curb ramps, sidewalks, and driveways to comply with Americans with Disabilities Act (ADA) standard.
- High visibility crosswalk markings
- Electrical work
- New bikeways in Mountain View and Los Altos
- New bikeway proposal in Palo Alto

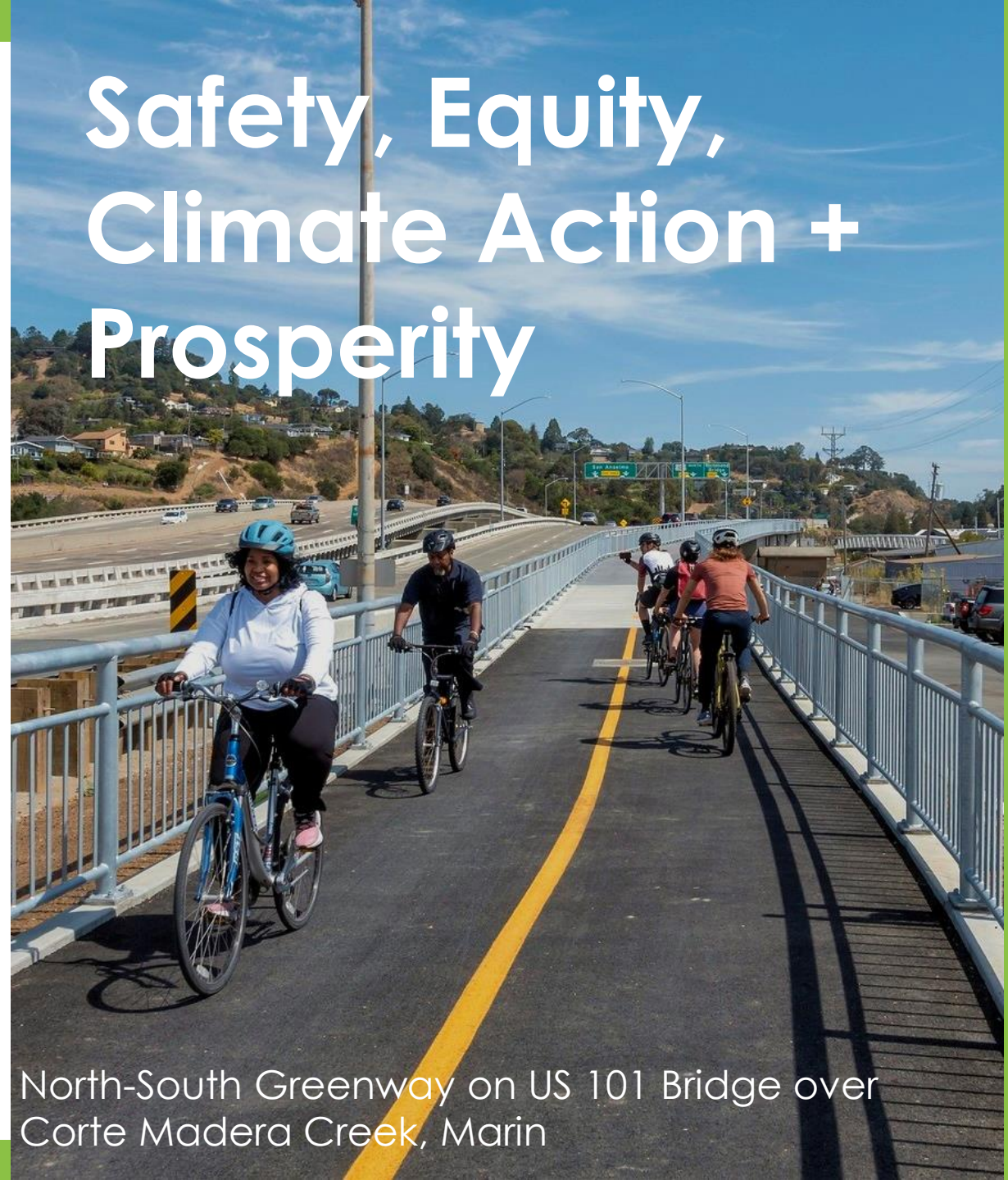
Schedule:

- In construction and completion in fall 2025(T).

Planning & Mobility Strategic Priorities



Safety, Equity, Climate Action + Prosperity



North-South Greenway on US 101 Bridge over
Corte Madera Creek, Marin



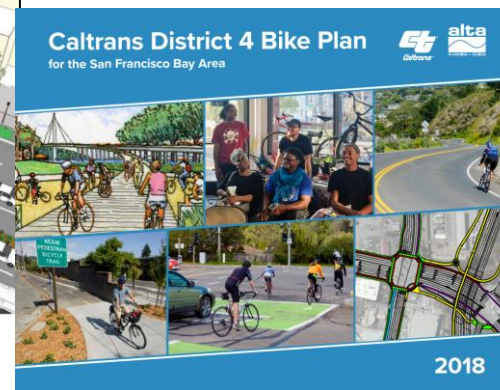
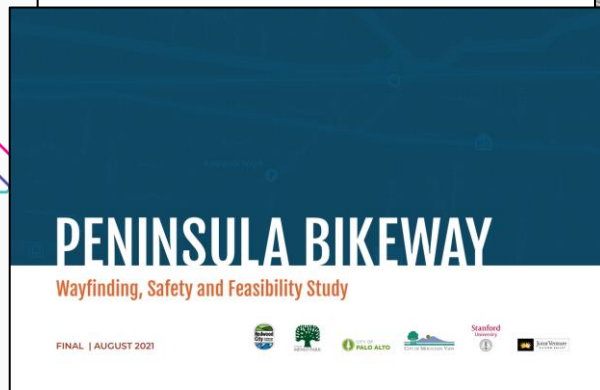
Director's Policy 37 Complete Streets

It is "Caltrans' organizational priority to encourage and maximize walking, biking, transit, and passenger rail."

Planning

The need for bikeway improvements on El Camino Real has been documented in numerous county, regional and city planning efforts:

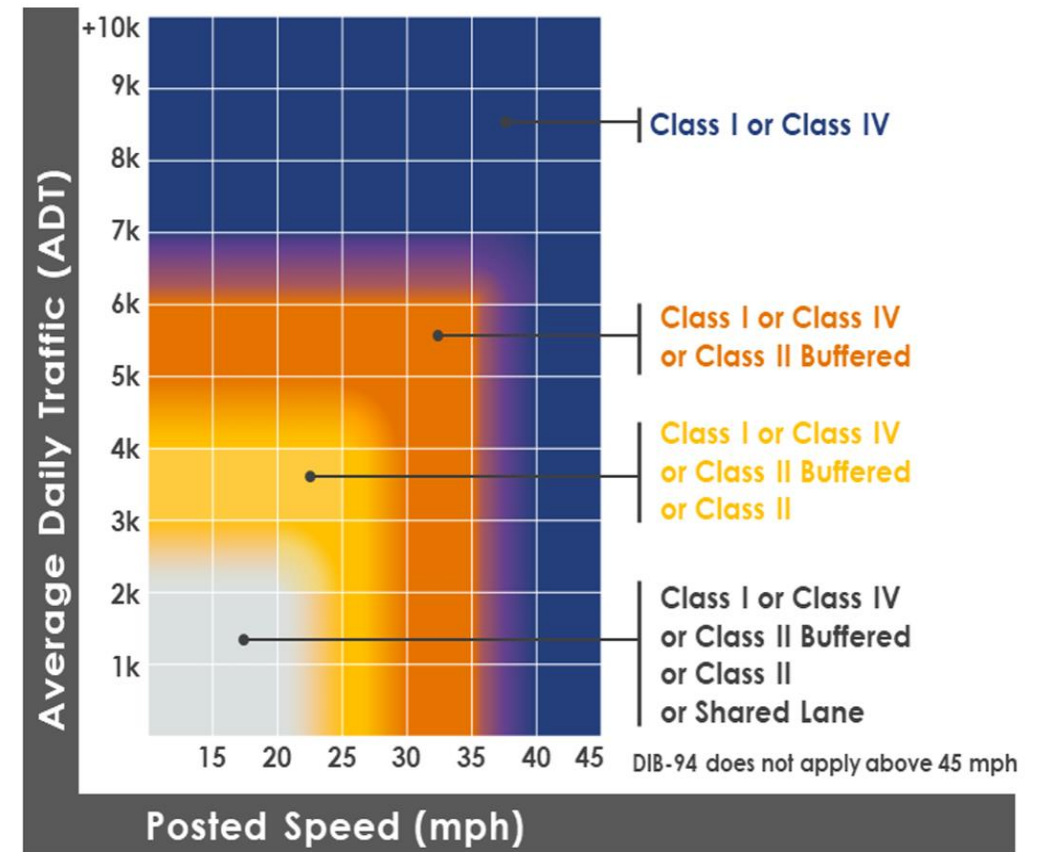
- **VTA Bicycle Superhighway Implementation Plan (2021)**
- **Peninsula Bikeway Wayfinding, Safety and Feasibility Study (2021)**
- **Grand Boulevard Initiative Palo Alto Safety Study (2019)**
- **Caltrans District 4 Bike Plan (2018)**
- **VTA Countywide Bike Plan (2018)**



Improving Mobility for Bicyclists on El Camino Real

- El Camino Real connects many downtowns and business districts between San Jose and San Francisco.
- The proposed bikeway would connect to existing local and regional bikeways within Palo Alto
- Class IV separated bikeways align with FHWA and Caltrans bikeway selection guidance.

Figure 5-A - Recommended Bicycle Facilities for Urban Areas, Suburban Areas, and Rural Main Streets



El Camino Real Bikeways In Development

Caltrans SHOPP projects proposing bikeways on El Camino Real (tentative construction years):

- Mountain View and Los Altos (2024)
- Redwood City and Atherton (2026)
- Daly City, Colma, South San Francisco (2026)
- Santa Clara (2026)
- South San Francisco (2028)
- Palo Alto (potential in 2024/2025)

El Camino Real Bikeways

Proposed Bikeways projected to be installed as part of Caltrans SHOPP projects, with construction start anticipated between 2024- 2028 on SR-82





**SAFETY DISCUSSION
ON THE IMPLEMENTATION OF BIKEWAY
IN PALO ALTO ON SR 82 (ECR)**

Topics

- **Caltrans' Safety-First Mindset**
- **Bicyclist Safety Improvement Monitoring Program**
- **Review of Crash History**
- **Safety Enhancement Recommendation**

Safety-First Mindset

- Priority: safety for all road users
- Vision: elimination of all fatal and serious injury
- How: adoption of the Safe System Approach



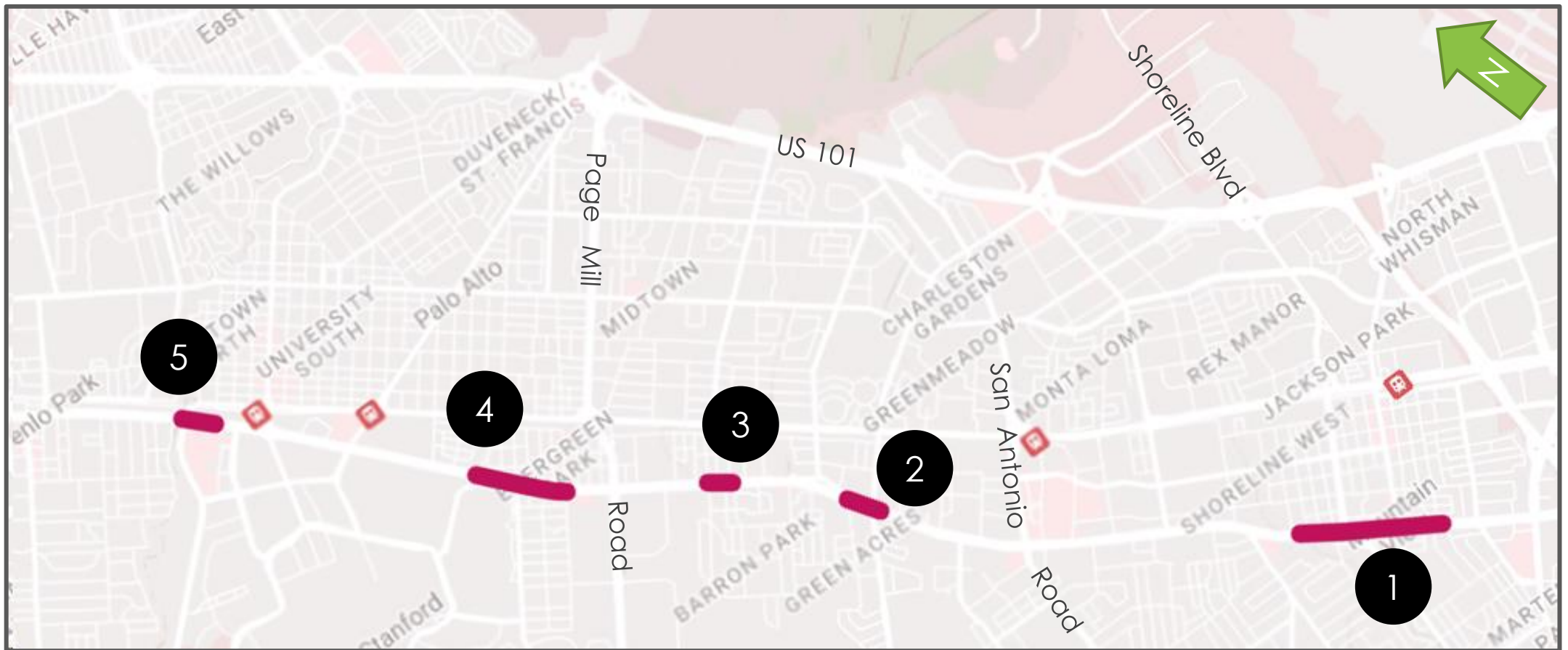
Bicyclist Safety Improvement Monitoring Program

Purpose: identify and investigate areas with high concentration of bicyclist-involved crashes

Date range covered by the Monitoring Program:
Jan 1, 2016 – Dec 31, 2020
(5-year period)

Bicyclist Safety Improvement Monitoring Program

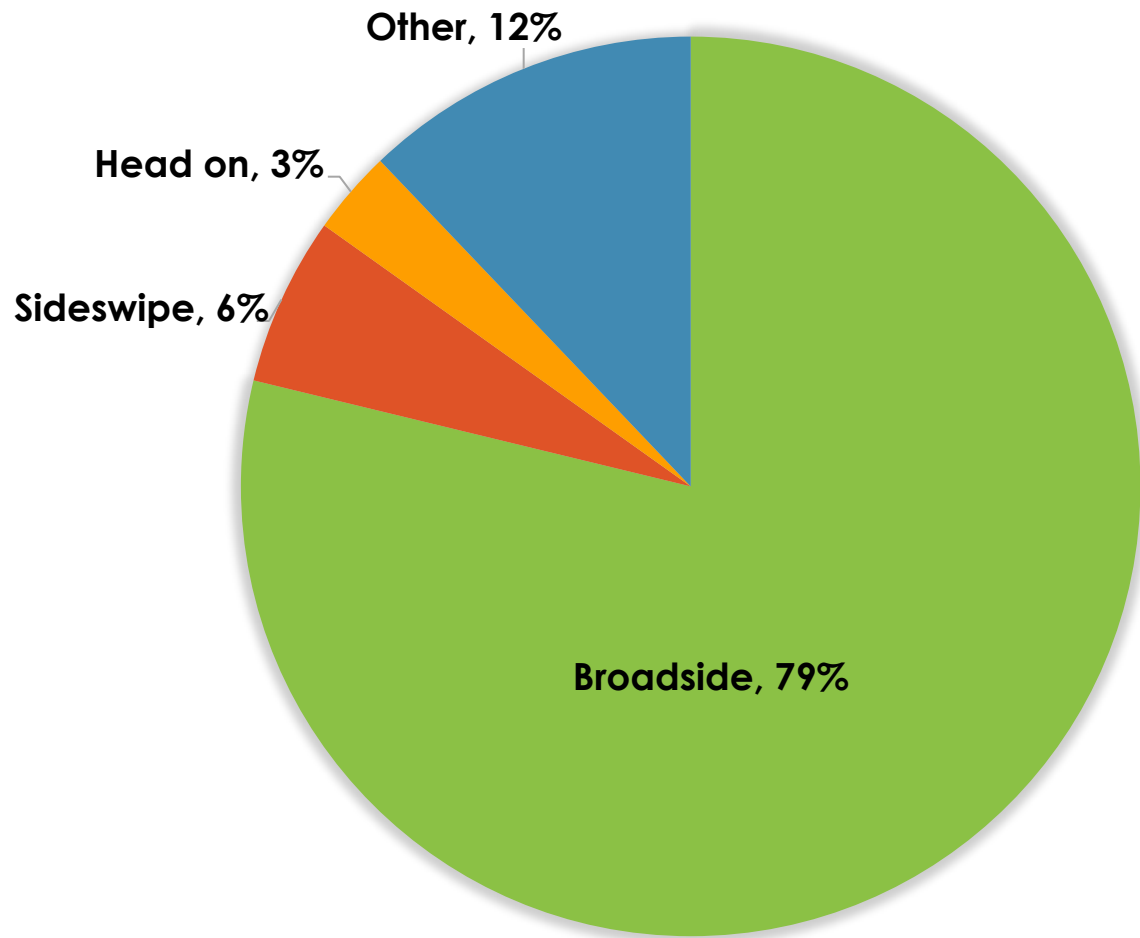
1. Bonita Ave to Mariposa Ave (Mountain View)
2. West Charleston Rd to Maybell Ave (**Palo Alto**)
3. Wilton Ave to Matadero Ave (**Palo Alto**)
4. California to Park Blvd (**Palo Alto**)
5. Entrance to El Camino Park to Quarry Rd (**Palo Alto**)



Bike Related Crash History Review

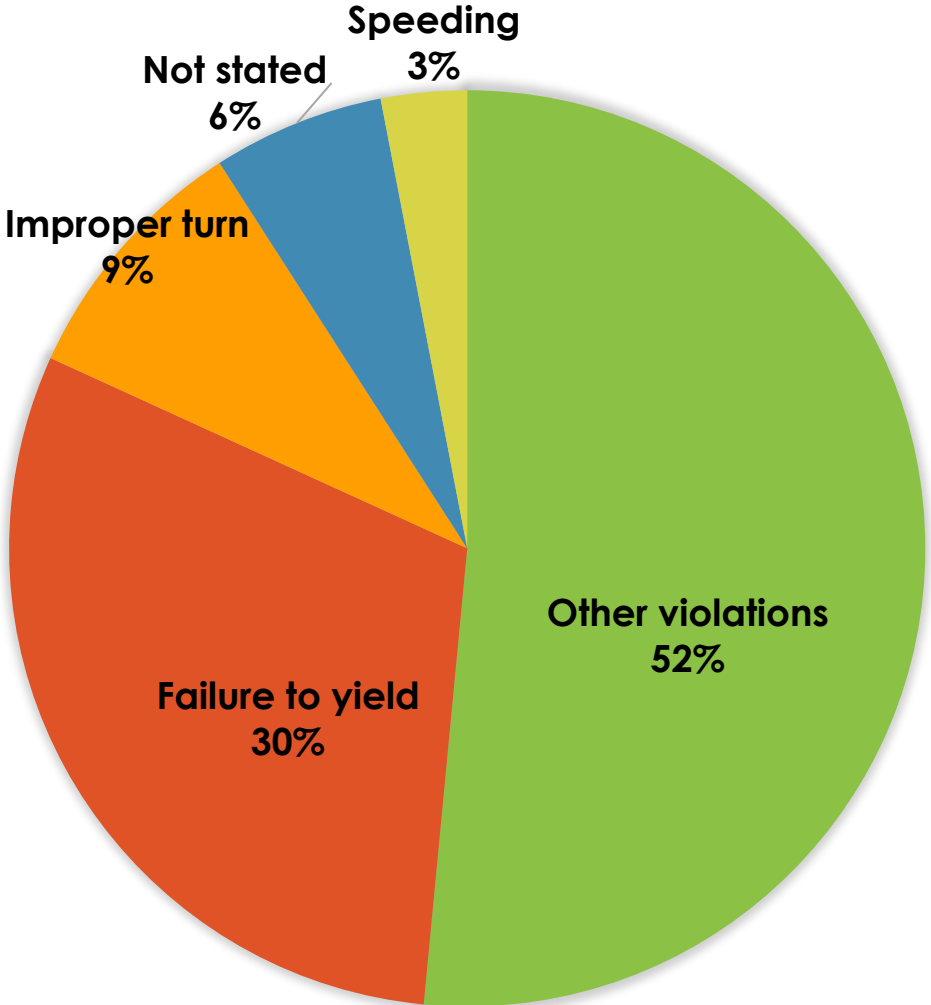
Highway Segments Along El Camino Real	Number of Bicyclist-related Crashes (1/1/2016 – 12/31/2020)	
	Fatality	Injury
1. Bonita Ave to Mariposa Ave (MV)	0	12
2. West Charleston Rd to Maybell Ave	0	4
3. Wilton Ave to Matadero Ave	0	4
4. California Ave to Park Blvd	1	8
5. Entrance to El Camino Park to Quarry Rd	0	4
Total	1	32
	33	

Bike Related Crash History Review (Crash Type)



Collision Type	Number of Crashes	
Broadside	26	(78.8%)
Other	4	(12.1%)
Sideswipe	2	(6.1%)
Head on	1	(3%)

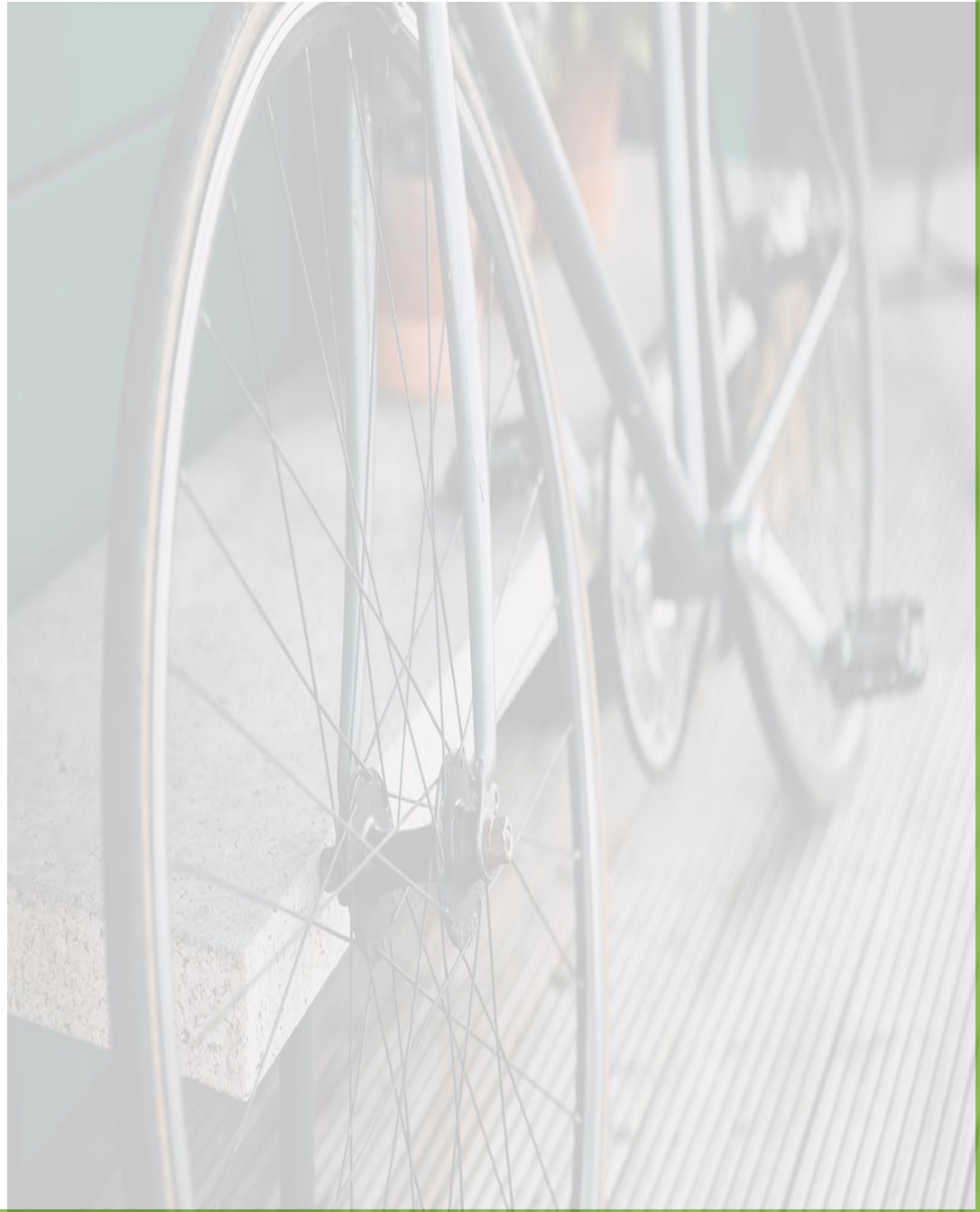
Bike Related Crash History Review (Primary Collision Factor)



Primary Collision Factor	Number of Crashes
Other violations	17 (51.5%)
Failure to yield	10 (30.3%)
Improper turn	3 (9.1%)
Not stated	2 (6.1%)
Speeding	1 (3%)

Bike-Related Crash Pattern / Mitigation

1. Drivers' Failure to Yield
2. Bikes Going Against Flow of Traffic
3. Red Light Violation



Bike-Related Crash Pattern / Mitigation

1. Drivers' Failure to Yield

Potential Underlying Issues

- Distraction
- Visibility issue
- Unclear right-of-way assignment

Potential Mitigations

- Upgrade / improve signs, markings
- Ensure clear line of sight
- Driver education
- Provide bike boxes at select intersections

Bike-Related Crash Pattern / Mitigation

2. Bikes Going Against Flow of Traffic

Potential Underlying Issues	Potential Mitigations
<ul style="list-style-type: none">• Lack of designated area for bicycling• High-stress bike riding environment	<ul style="list-style-type: none">• Provide standard bike facility designating portion of roadway for bikes• Installing appropriate signs and markings to indicate direction of bike travel

Bike-Related Crash Pattern / Mitigation

3. Red Light Violation

Potential Underlying Issues	Potential Mitigations
<ul style="list-style-type: none">• Speeding	<ul style="list-style-type: none">• Traffic enforcement• Education
<ul style="list-style-type: none">• Not able to see signal equipment	<ul style="list-style-type: none">• Ensure signal visibility
<ul style="list-style-type: none">• Signal timing	<ul style="list-style-type: none">• Verify appropriate signal timing

Safety Enhancement Recommendation:

- Implement bikeway on El Camino Real with the on-going Caltrans pavement rehabilitation project

Benefits:

- Provides bike network connectivity between various communities along El Camino Real
- Reduces the incidence of bicyclist riding against the flow of traffic
- Lessens potential for conflict between bikes and vehicles
- Improves traffic safety on El Camino Real



Proposed Bikeway Implementation on SR 82

Bikeway Design Considerations

- Right of Way
- On-Street Parking
- Intersections and Driveways
- Transit Stops (VTA)



Proposed Bikeway & Right of Way along SR 82



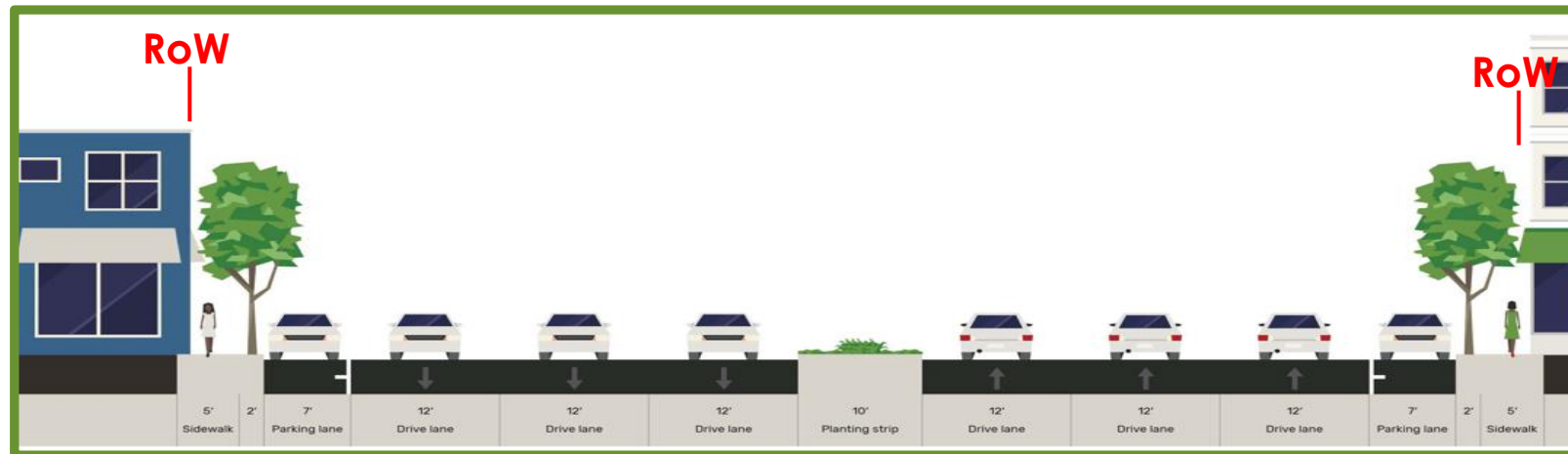
RoW = 130 ft



RoW = 121 ft



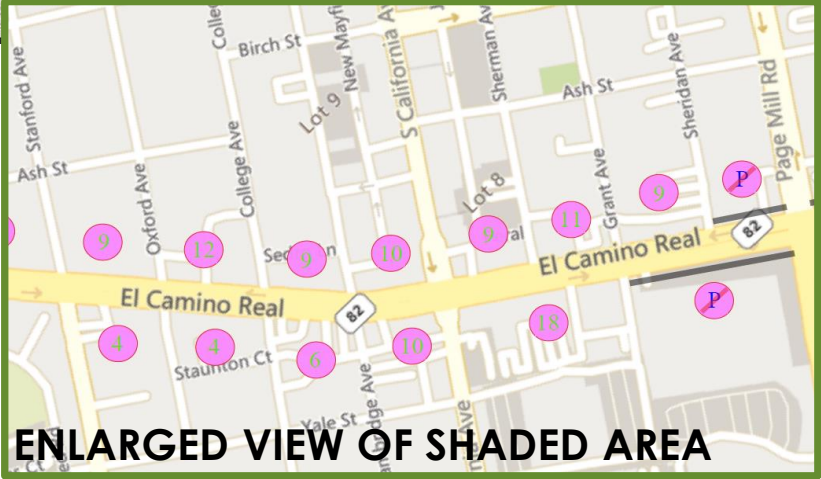
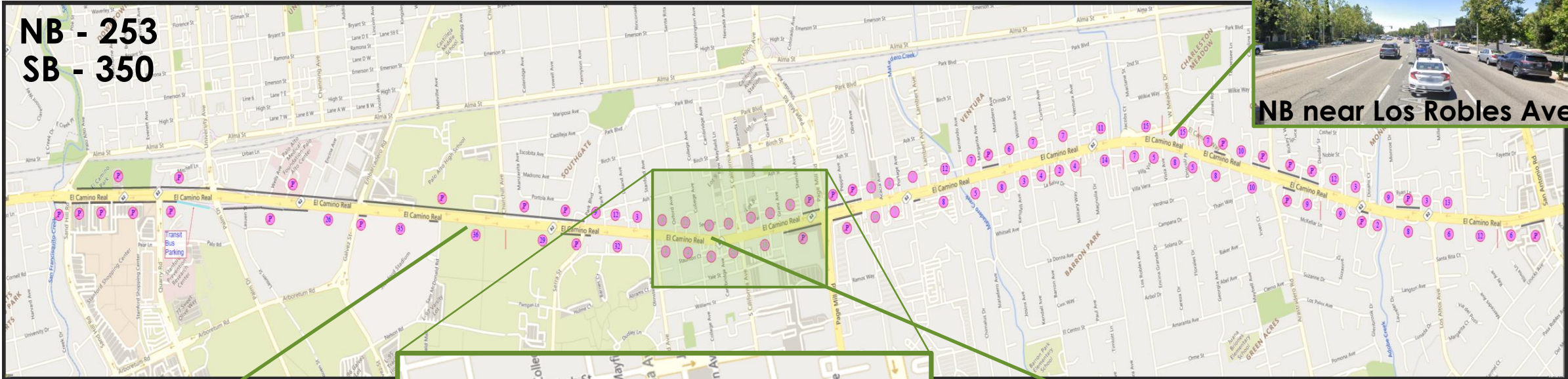
RoW = 100 ft



Right of Way Various:

- Back of sidewalk (TYPICAL)
- Face of curb
- Or Lip of Gutter

Proposed Bikeway & On-Street Parking along SR 82



Proposed Bikeway & Transit Stops along SR 82

Transit Stops:

- Conflict zones
- Provide room for buses to pull in and out



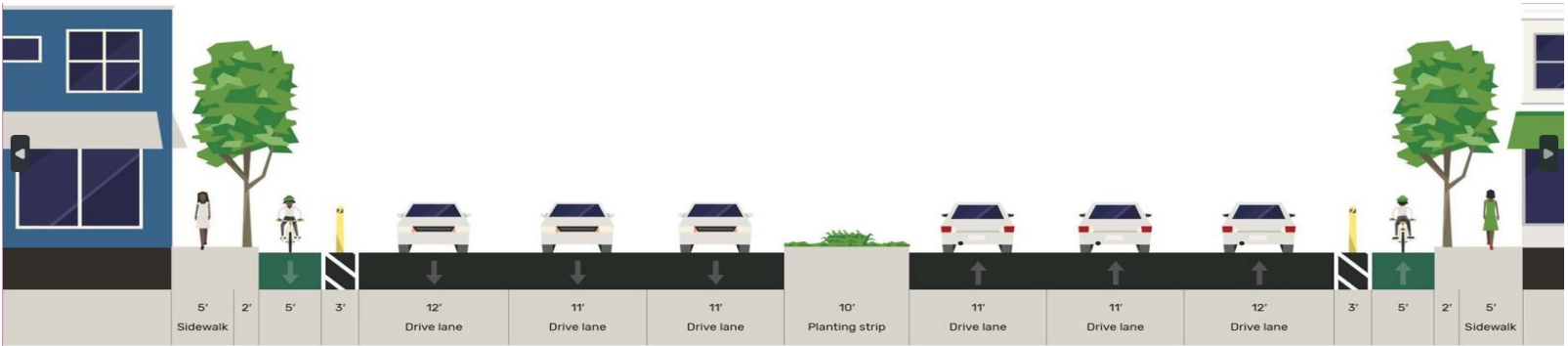
Proposed Bikeway Plan View (partial)



Proposed Bikeway Typical Cross-Section (Before and After)



Before



After

Class IV (shown)



SR 82 / California Ave



San Francisco, CA. (Source: Dianne Yee)

Proposed Bikeway (BEFORE) (at California Ave)



Northbound

Southbound

Proposed Bikeway (After) Rendering (at California Ave)



Northbound

Southbound

Proposed Bikeway

Alternatives that were Considered

1. MAINTAINING ON-STREET PARKING
2. LANE WIDTH REDUCTION
3. ROADWAY DIET (POSSIBLE FUTURE PROJECT BY CITY OR STATE – NOT PART OF PROJECT SCOPE)

Proposed Bikeway implementation in Palo Alto



NEXT STEPS:

- **Joint Pedestrian and Bicycle Advisory Committee (PABAC)/City/School Transportation Safety Committee (CSTSC) Special Meeting:**
March 7, 6:30 p.m. at Mitchell Park Community Center
Adobe Room, 3700 Middlefield Road
- **Joint Planning and Transportation Commission/Human Relations Commission Meeting:**
Wednesday, March 13, 6 p.m., City Hall Council Chambers,
250 Hamilton Avenue.
- **City Council Meeting :**
Monday, April 1, 6 pm(Tentative), City Hall, Council Chambers,
250 Hamilton Avenue.

THANK YOU!

QUESTIONS/COMMENTS?

