

# BPAC Meeting

June 24, 2019

## BICYCLE MASTER PLAN UPDATE 2018



**City of  
Santa Clara**

# Agenda

1. Welcome and Introductions
2. Background
3. Draft Final Plan Edits



# Background



**City of  
Santa Clara**

# Vision

The City of Santa Clara is a healthy, thriving, and safe city where people of all ages and abilities may easily and comfortably ride a bicycle as a part of their daily lives.



# Project Timeline



We are here



# Project Outreach

- Meeting with Bicycle and Pedestrian Advisory Committee four times
- Project website
- Social media feeds and City Manager's Blog
- Four pop-up events in April and November
  - Health and Wellness Fair
  - Arbor Day Celebration
  - Farmer's Market
  - Northside Library
- Online mapping tool
- Public workshop in November
  - Draft recommendations
- Online PDF comment tool
- Public Workshops in March



# Draft Final Plan



**City of  
Santa Clara**

# Updates for Draft Final Plan

## **Bruce**

- Defined green stormwater infrastructure in policy 2.B.4
- Included “various required reflectors” in policy 3.A.6
- Addressed appropriate bike lane widths in Design Guidelines
- Updated Bowers Avenue extents in tables
  - Previously also listed Kiely Boulevard



# Updates for Draft Final Plan

## **Craig**

- Defined RRFB and HAWK signals in design guidelines
- Copyedited text
- Identified which train tracks is referenced in the first chapter

# Updates for Draft Final Plan

## Diane

- Removed image of previous bike plan map
- Copyedited text
- Added libraries to maps
- Add more context to the projects within the City Place development
  
- Questions about Secure Parking Area
- Question about whether RRFBS are allowed
- Question about why some projects did not have cost estimates

# Updates for Draft Final Plan

## Don

- Updated LTS map to better show STACT extension
  - Hard to see in smaller version
  
- Question about why Mountain View has higher bicycle ridership than Santa Clara

# Updates for Draft Final Plan

## Ken

- Added list of cross-county bicycle corridors (identified by VTA) to Appendix A
- Added sentence to list some of the agencies Santa Clara coordinated with for Plan development
- Added appendix listing projects completed since 2009 bike plan
- Added appendix of reported collisions in used in the Safety section

# Updates for Draft Final Plan

## APPENDIX E

# Completed Projects

This appendix lists the projects that have been completed since the 2009 City of Santa Clara Bicycle Plan Update was adopted.

### Completed Projects

Added Bike Facility	Length (miles)	Extents
Lafayette Street Bike lanes	0.8	Calle De Luna - Highway 237
Tasman Drive Buffered Bike Lanes	1.5	Calabazas Creek - Guadalupe River
Stars & Stripes Drive Bike Lanes	0.5	Centennial Boulevard - Southern end of VTA parking lot
Lakeside Drive Bike Lanes	0.1	Augustine Drive - Scott Boulevard
Scott Boulevard Bike Lanes	0.9	Central Expressway - Monroe Street
Monroe Street Bike lanes	0.5	San Tomas Aquino Creek Trail - Scott Boulevard
San Tomas Aquino Creek Trail - Spur Trail (adjacent to San Tomas Expressway)	1.3	Cabrillo Avenue - Homestead Road
Pruneridge Avenue Bike lanes	0.9	Tantau Avenue - Pomeroy Avenue
Chromite Drive Bike Route	0.3	Monroe Street - Bowers Avenue
Homestead Road Bike Lanes	0.1	White Drive - San Tomas Expressway
Park Avenue Bike Lanes	0.5	The Alameda - San Jose City Limits
Santa Clara Caltrain Station Railroad Underpass	0.1	Railroad Avenue - Brokaw Road

# Updates for Draft Final Plan

## APPENDIX F

# Bicycle-Related Collisions

This appendix lists the bicycle-related collisions in Santa Clara used as part of the analysis for this Plan.

Report #	Date	Time	Location	Dist.	Dir.	Type of Collision	Dir. Of Travel 1	Movement Prec. Coll. 1	Dir. Of Travel 2	Movement Prec. Coll. 2	Primary Cause	Inj.	Kill
13341	1/10/13	15:21	Monroe St & Lawrence Expy	133'	East	Other	East	Making Right Turn	East	Proceeding Straight	Improper Turning	1	0
13509	1/15/13	11:02	El Camino Real & Lafayette St	0'	In Int.	Broadside		Proceeding Straight	East	Proceeding Straight	Traffic Signals and Signs	0	0
131633	2/15/13	8:23	Lafayette St & El Camino Real	0'	In Int.	Sideswipe	North	Proceeding Straight	North	Proceeding Straight	Improper Turning	1	0
132010	2/26/13	7:33	Lafayette St & Agnew Rd	0'	In Int.	Broadside	West	Proceeding Straight	West	Proceeding Straight	Auto R/W Violation	1	0
132033	2/26/13	18:10	Benton St & Pomeroy Ave	123'	East	Broadside	East	Backing	East	Proceeding Straight	Unknown	1	0
132117	2/28/13	18:57	Winchester Blvd & Stevens Creek Blvd	120'	North	Other	North	Making Right Turn	North	Proceeding Straight	Ped R/W Violation	1	0
132204	3/3/13	11:05	El Camino Real & Bowers Ave	30'	East	Vehicle - Pedestrian	West	Proceeding Straight	North	Proceeding Straight	Other Hazardous Movement	1	0
132471	3/11/13	15:22	Brookdale Dr & Curtis Ave	0'	In Int.	Broadside	East	Passing Other Vehicle	East	Making Left Turn	Improper Passing	1	0
132536	3/13/13	9:20	Benton St & Blackfield Ct	0'	In Int.	Broadside	North	Making Right Turn			Unknown	0	0
132846	3/21/13	18:10	Agnew Rd & Davis St (W)	0'	In Int.	Broadside	West	Making Left Turn	West	Proceeding Straight	Improper Turning	0	0
133426	4/6/13	13:14	Townsend Ave & Victoria Ave	0'	In Int.	Broadside	East	Making Right Turn	South	Proceeding Straight	Traffic Signals and Signs	1	0
133710	4/14/13	15:37	Monroe St & Newhall St	200'	North	Sideswipe	North	Parked	North	Proceeding Straight	Other Hazardous Movement	1	0
134111	4/25/13	20:44	Central Expy & Bowers Ave	0'	In Int.	Broadside	East	Proceeding Straight	South	Proceeding Straight	Other Hazardous Movement	1	0
134358	5/2/13	16:11	Monroe St & Scott Blvd	100'	East	Sideswipe	South	Other Unsafe Turning	West	Slowing/Stopping	Auto R/W Violation	1	0
134428	5/4/13	13:05	El Camino Real & Buchanan Dr	3'	North	Other	North	Making Right Turn	East	Proceeding Straight	Improper Turning	1	0

# Updates for Draft Final Plan

**Policy 2.B.4:** Incorporate green stormwater infrastructure to the greatest extent possible into bikeway projects considered for new City streets or reconstruction of existing City streets. Green infrastructure helps to reduce GHG emissions and stormwater runoff.

**Policy 3.A.6:** Work with the Santa Clara Police Department to host an annual bike light or required reflector giveaways before/around Daylight Savings time each fall.

## Regional Plans

### Lawrence Station Area Plan (2016)

The Station Area Plan plans for a 72-acre site (65 acres are developable), located in close proximity to the Lawrence Caltrain Station. This could accommodate up to 3,500 residential units, 100,000 square feet of neighborhood-oriented retail, and park space. "Lawrence Station will become a livable urban community and a model for encouraging walking, biking, and transit usage." The plan strives to change the area into a transit hub and create active, multi-modal streets that benefit bicyclists and pedestrians. Figure A-1 shows the proposed active transportation circulation for the station area within Santa Clara.

### Tasman East Focus Area Plan (2016)

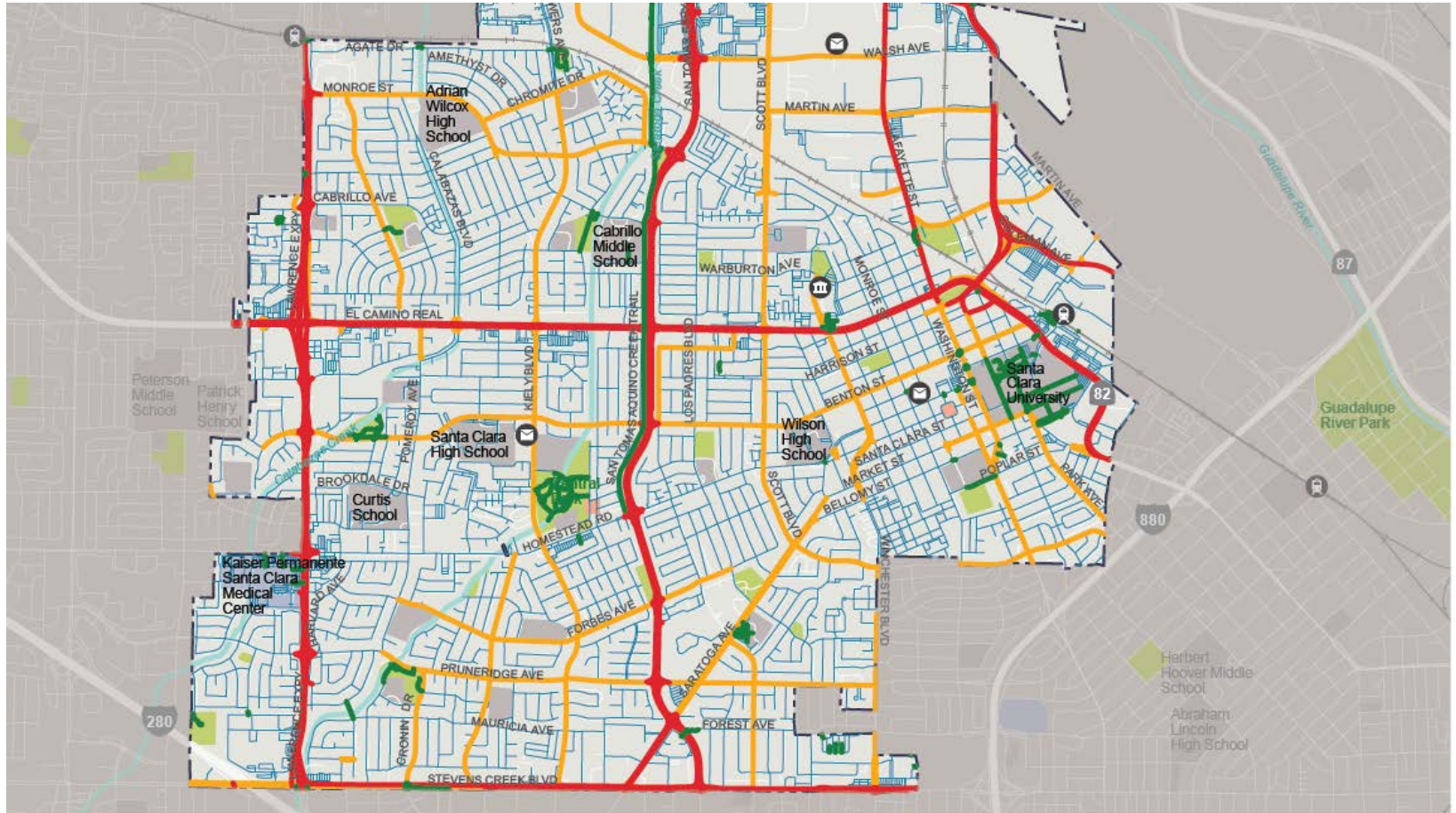
The Tasman East area is envisioned to become a vibrant, high density neighborhood that provides convenient access to nearby communities, transit, and trails. The plan recommends extending Lick Mill Boulevard and Calle del Sol and widening Calle De Luna. Bicycle facilities were recommended for most streets within the project area.

### Countywide Bicycle Plan (2018)

The Countywide Bicycle Plan, developed by Santa Clara Valley Transportation Authority, envisions Santa Clara County being served by a countywide bicycle network that is safe, convenient, and connected, enabling people of all ages and abilities to easily bike to work, school, shopping, transit, and elsewhere. The plan supports increased bicycle parking availability at transit stations. The plan also identifies and prioritizes multiple cross-county bicycle corridors, addresses crossing major barriers, and other bicycle related infrastructure, programming, and analysis. The cross county bicycle corridors identified in this plan are listed below. See the plan for more information and a map of these projects.

- US 101 Corridor
- Alma Street/Caltrain Corridor
- Dumbarton East-West Connector
- El Camino Real/Grand Boulevard Corridor
- Shoreline/Miramonte/ San Antonio/El Monte Corridor
- Tasman/Alum Rock Light Rail Corridor/River Oaks Spur
- Mary/Old Highway 9 Corridor
- Winchester/Hedding /Berryessa/Penitencia Creek Corridor
- Wolfe/SunnyvaleSaratoga/Borregas Corridor
- North I-280/Stevens Creek-San Carlos Street Corridor
- Calabazas Creek/ Winchester/Los Gatos Boulevard Corridor
- South of I-280/Williams/ Moorpark/Alma Corridor
- Bowers/Kiely/Saratoga Avenue Corridor
- Prospect/Campbell/ Curtner/Tully Corridor
- Gilroy to Valley Fair/Santa Teresa Corridor
- Blossom Hill/Branham to Saratoga Corridor
- Oakland Road/Abel/ Milpitas Boulevard Corridor
- San Martin East-West Corridor
- Dixon Landing/Zanker/ Monterey Road Corridor
- Coyote Valley/Uvas Road Corridor
- I-680/ Silver Creek Corridor
- Hwy 152 Corridor
- Eastern South Valley Corridor
- Blaney/Sunnyvale East Channel Corridor

# Updates for Draft Final Plan



Source: City of Santa Clara, Caltrans, US Census, ESRI, VTA. Map produced March 2018.

## Bicycling Level of Traffic Stress

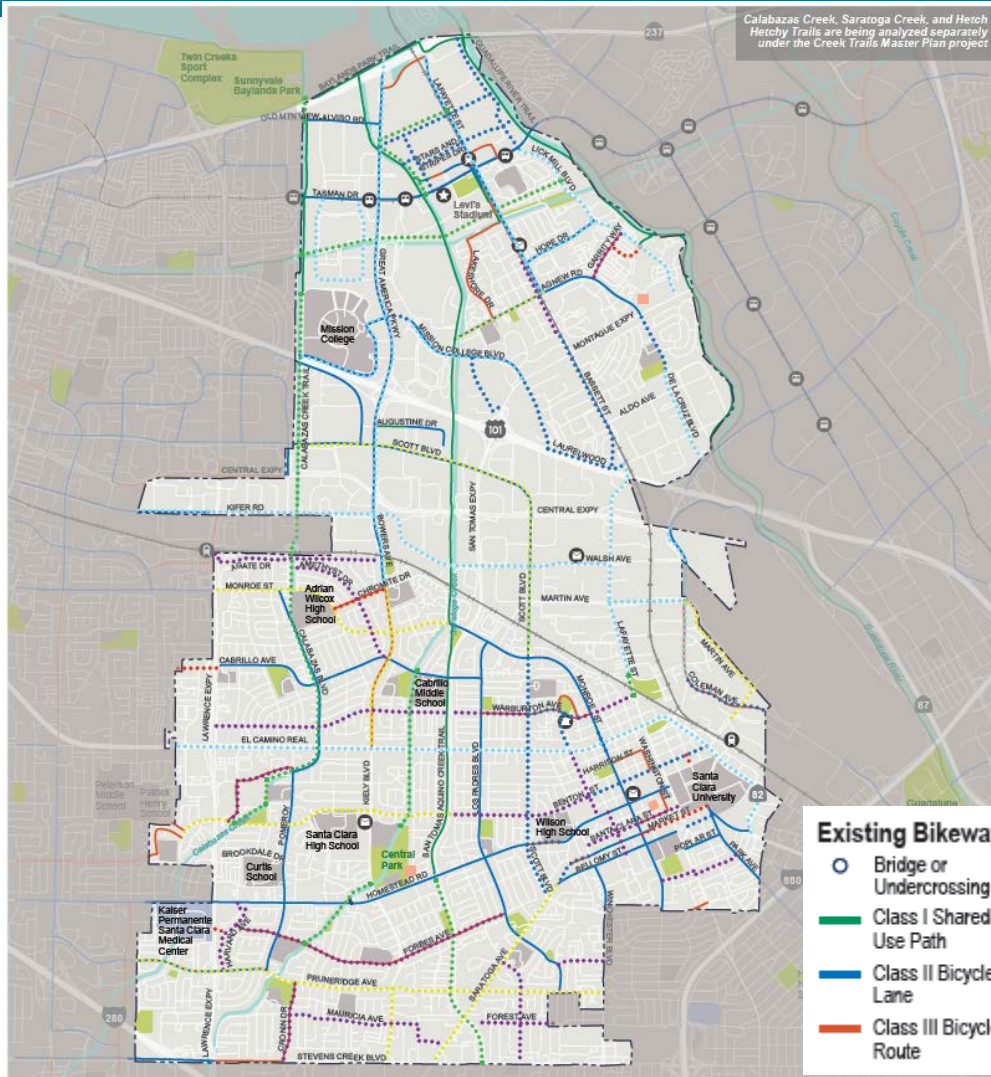


# Updated Recommendations Information



**City of  
Santa Clara**

# Bikeway Recommendations



## Existing Bikeways

- Bridge or Undercrossing
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class III Bicycle Route

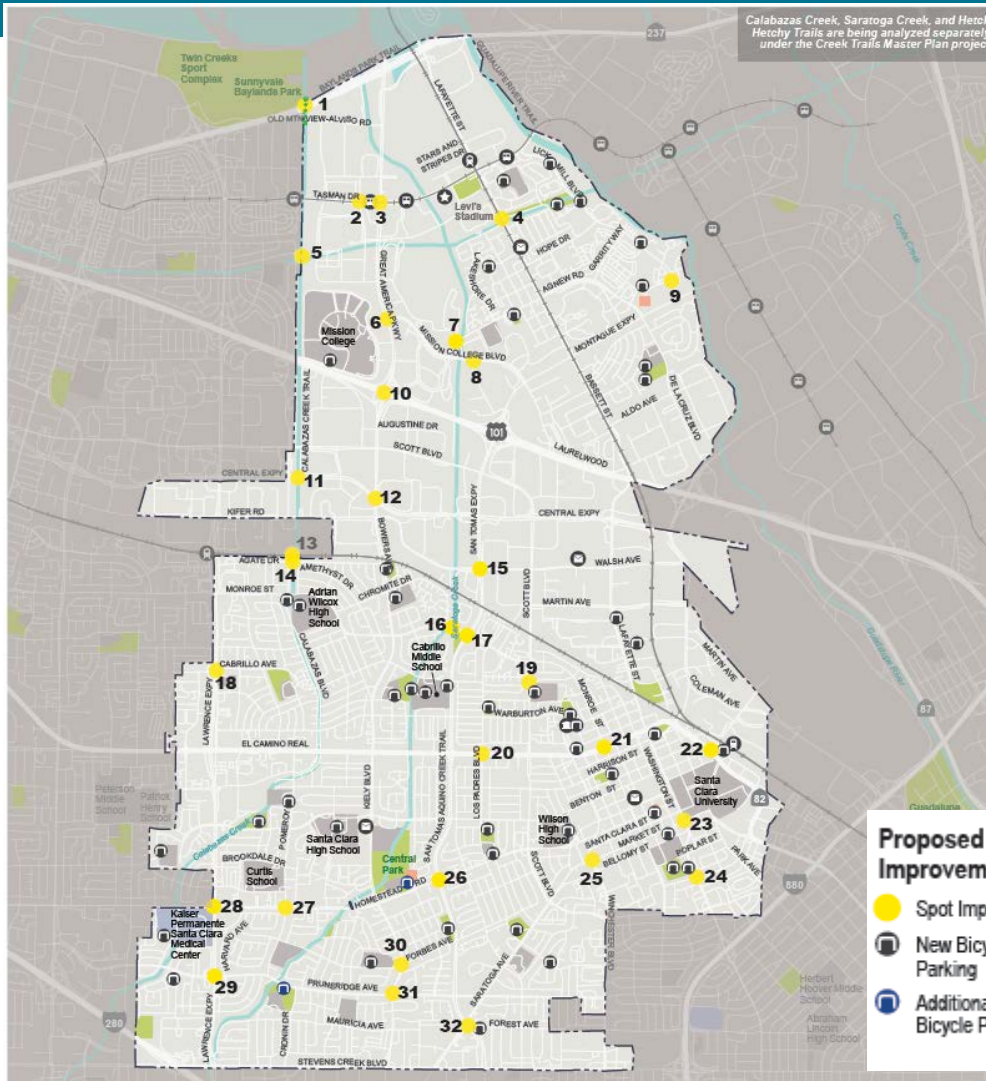
## Recommended Bikeways

- ◆◆ Class I Shared-Use Path
- ◆◆ Class II Bicycle Lane
- ◆◆ Class IIIB Buffered Bicycle Lane
- ◆◆ Class III Bicycle Route
- ◆◆ Class IIIIB Bicycle Boulevard
- ◆◆ Class IV Separated Bikeway

## Destinations + Boundaries

- 🏛️ City Hall
- 🚊 Train Station
- 🚇 Light Rail Station
- 📮 USPS Office
- 🌟 Sport Stadium
- 🎓 School
- 🏥 Hospital
- 🌳 Park
- 📖 Library

# Spot Improvements

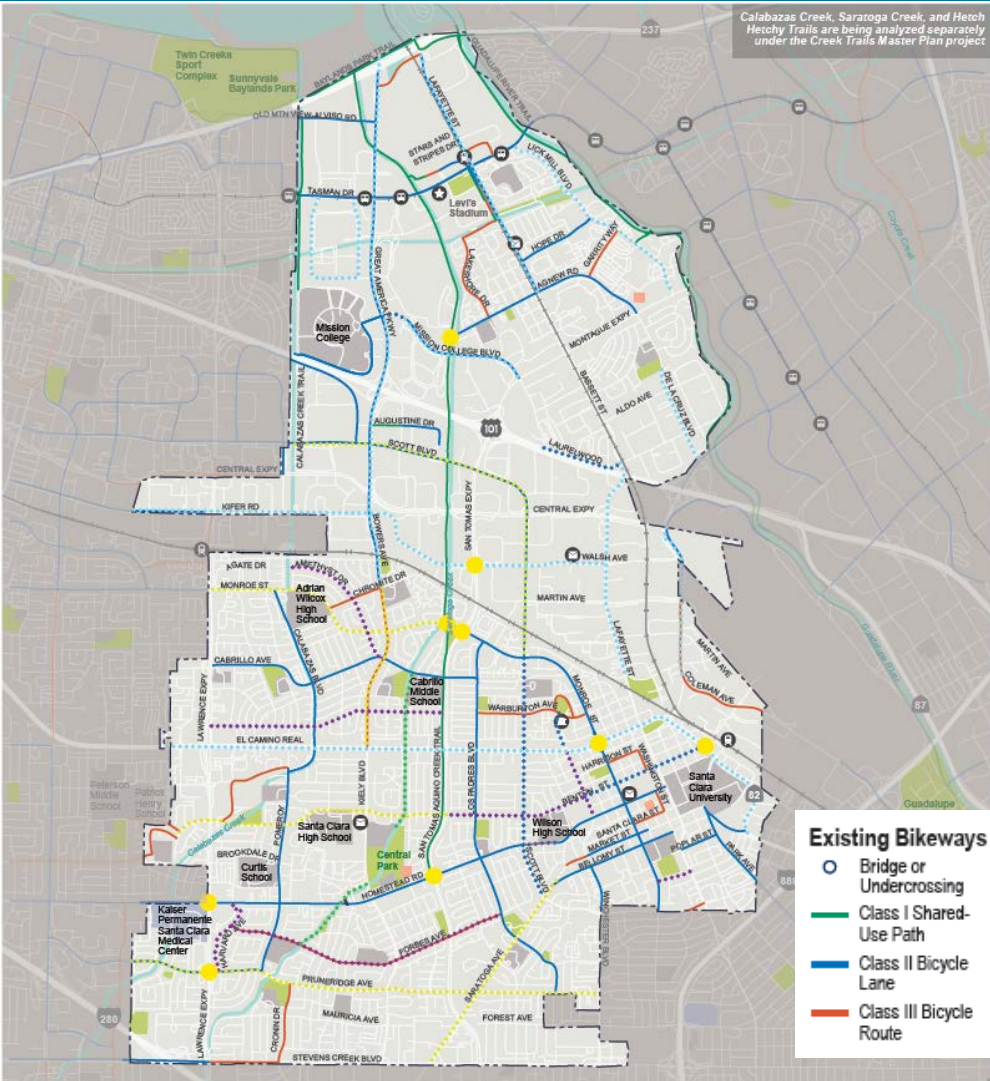


- 79 total spot improvements
- 47 new bike parking locations
  - 9 Priority projects

# Priority Projects

Calabazas Creek, Saratoga Creek, and Hetch Hetchy Trails are being analyzed separately under the Creek Trails Master Plan project

- 46.7 miles of all priority bikeways
- 19.2 miles of priority Class IV separated bikeways
- Nine (9) spot improvements
- Price tag: \$11,153,000 - \$28,009,000+



**Existing Bikeways**

- Bridge or Undercrossing
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class III Bicycle Route

**Recommended Bikeways**

- Class I Shared-Use Path
- Class II Bicycle Lane
- Class IIIB Buffered Bicycle Lane
- Class III Bicycle Route
- Class IIIB Bicycle Boulevard
- Class IV Separated Bikeway

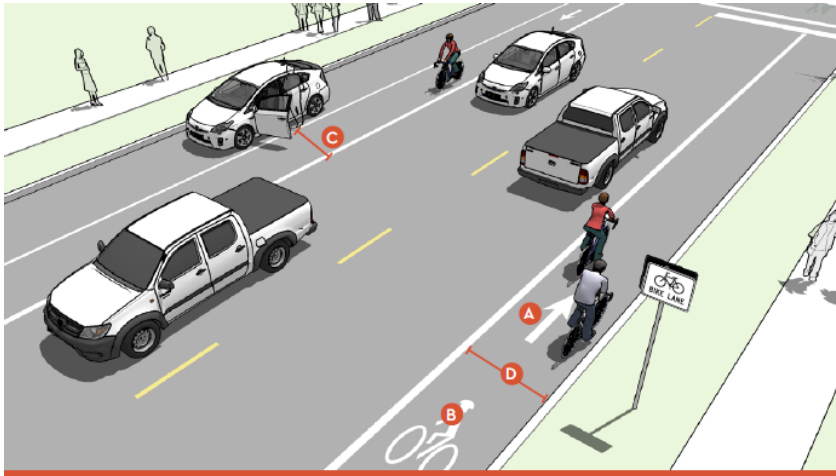
**Proposed Improvements**

- Spot Improvement

**Destinations + Boundaries**

- City Hall
- Train Station
- Light Rail Station
- USPS Office
- Sport Stadium
- School
- Hospital
- Park
- Library

# Design Guidelines



## Bicycle Lanes

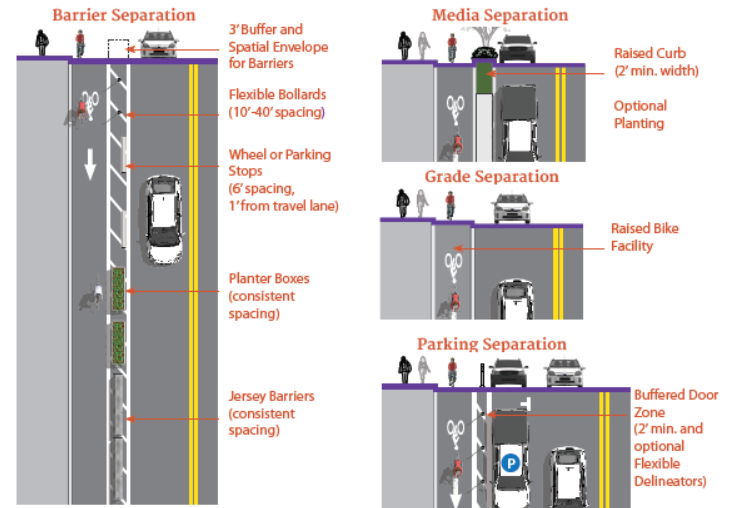
On-street bike lanes (Class II Bikeways) designate an exclusive space for bicyclists through the use of pavement markings and signs. The bike lane is located directly adjacent to motor vehicle travel lanes and travels in the same direction as motor vehicle traffic. Bike lanes are typically on the right side of the street, between the adjacent travel lane and curb, road edge, or parking lane.

### TYPICAL APPLICATION

- Bike lanes may be used on any street with adequate space, but are most effective on streets with moderate traffic volumes  $\geq 6,000$  ADT ( $\geq 3,000$  preferred).
- Bike lanes are most appropriate on streets with moderate speeds  $\geq 25$  mph.
- Appropriate for skilled adult riders on most streets.
- May be appropriate for children when configured as 6+ ft wide lanes on lower-speed, lower-volume streets with one lane in each direction.

### DESIGN FEATURES

- A** Include a bicycle lane marking at the beginning of blocks and at 500 ft intervals along the route.
- B** In-lane cyclist icon should be depicted wearing a helmet.
- C** 6 ft width preferred adjacent to on-street parking (5 ft min.) (HDM)
- D** 6 ft preferred adjacent to curb and gutter (VTA) or 4 ft more than the gutter pan width.



## Separated Bikeway Barriers

Separated bikeways may use a variety of vertical elements to physically separate the bikeway from adjacent travel lanes. Barriers may be robust constructed elements such as curbs, or may be more interim in nature, such as flexible delineator posts.

### TYPICAL APPLICATION

Appropriate barriers for retrofit projects:

- Parked Cars
- Flexible delineators
- Bollards
- Planter boxes; K-Rail/Jersey barrier
- Wheel or Parking stops

Appropriate barriers for reconstruction projects:

- Curb separation
- Medians
- Landscaped medians
- Raised or protected bikeway with vertical or mountable curb
- Pedestrian safety islands

# Next Steps

- June 24, 2019 - BPAC Recommendation to Council
- August 20, 2019 – City Council Meeting

# Questions?

