

### **5.5.15. El Camino Real Sidewalk Width Study**

El Camino Real is an important pedestrian corridor with potential for significant walking activity; however, it is also a community identified challenge area. One challenge is the existing narrow sidewalks.

#### ***Recommendation***

The City should consider a study to widen sidewalk width on El Camino Real within City limits. This study will require coordination with Caltrans.

## **5.6. Project Sheets and Audit Recommendations**

This Plan includes eleven specific project improvement sheets and audit recommendations for stand-alone intersection, crosswalk, or corridor projects throughout San Mateo. These projects will involve unique improvements or have more specific detail than in the previous categories.

### **5.6.1. Project Sheets**

The following eleven project sheets provide a summary of site specific recommendations. The locations were selected based on community identified need and collision analysis.

1. 3<sup>rd</sup> Avenue and Norfolk Street Intersection Improvement
2. 3<sup>rd</sup> Avenue and Parrott Drive Intersection Improvement
3. El Camino Real and Highway 92 Intersection Improvement
4. Hayward Park Caltrain Station Path at 17<sup>th</sup> Avenue Improvement
5. Alameda de Las Pulgas and 20<sup>th</sup> Avenue Intersection Improvement
6. El Camino Real and 22<sup>nd</sup> Avenue Intersection Improvement
7. Bridgepointe Circle Midblock Crossing Improvement
8. Franklin Parkway at Saratoga Drive Intersection Improvement and Study
9. Alameda de las Pulgas Road Diet (Barneson Avenue to Crystal Springs Road)
10. El Camino Real Road Diet (2<sup>nd</sup> to 9<sup>th</sup> Avenues)
11. Norfolk Street Midblock Crossing Improvement

## 3rd Avenue and Norfolk Street Intersection Improvement

This project is designed to improve pedestrian visibility and safety. These intersection improvements will allow pedestrians to more quickly clear the median path waiting area and provide more pedestrian visibility. Wayfinding will direct pedestrians to the adjacent canal Class I path.

### Existing Conditions



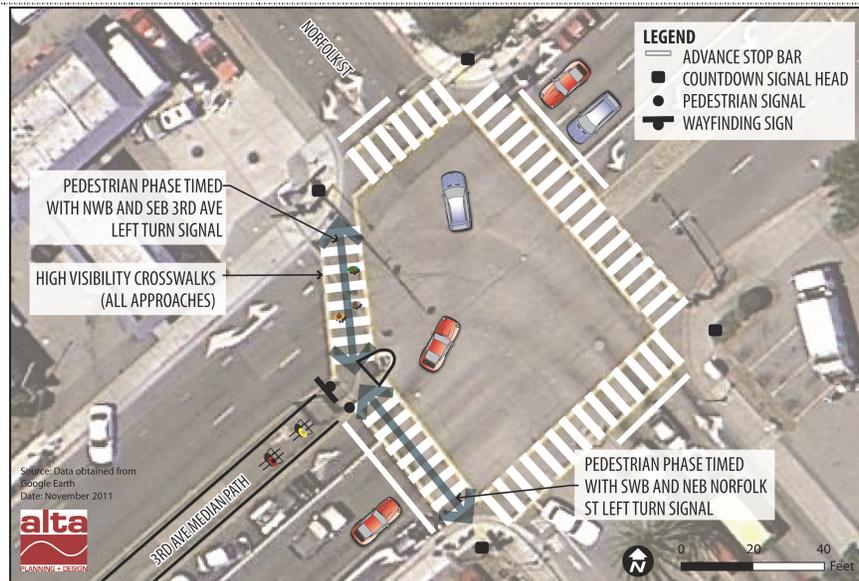
### Existing Issues

- Community-identified challenge area
- High pedestrian collision area
- Median path waiting area confined and has long waits

### Project Description

- Pedestrian phase allows crossing east leg of intersection during left turn phases
- High visibility crosswalks
- Advance stop bars
- Pedestrian countdown signals (all approaches)
- Wayfinding signs

### Project Illustration



### Project Benefits

- Minimizes pedestrian and bicycle wait time and congestion in median
- Improved pedestrian visibility and discourages vehicle encroachment into crosswalks
- Wayfinding enhances connections the Shoreline Park paths with the 3rd Avenue median path

### Cost Estimate

- High visibility crosswalks (4) - \$4,800
- Pedestrian countdown signals (10) - \$8,000
- Wayfinding: \$300
- Advance stop bars (4): \$800
- Signal phase study and adjustment: \$20,000
- Total: \$33,900**

## 3<sup>rd</sup> Avenue and Parrott Drive Intersection Improvement

This project is designed to provide more pedestrian friendly intersections with realigned curbs and shorter crossings. Improvements also provide enhanced crossings, enlarged green space, and improved bicycle lane striping.

### Existing Conditions



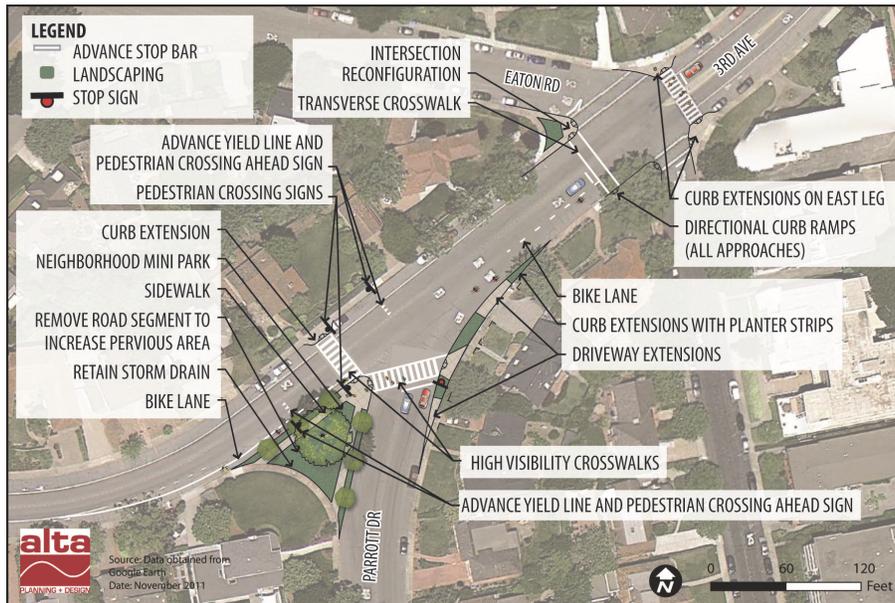
### Existing Issues

- Community identified challenge area
- Wide turn radii encourages fast motor vehicle speeds
- No marked pedestrian facilities on existing island green space
- Lack of crosswalks

### Project Description

- Reconfigure intersection at Eaton Road (reduced curb radii west corner; curb extensions east leg; transverse crosswalk east approach; diagonal curb ramps and advance stop bars all approaches)
- Green space at Parrott Drive (mini park replaces slip lane on southwest approach; high visibility crosswalk south approach; curb extensions and planting areas southeast approach; advance stop bars all approaches)
- Bike lanes on the south side of 3<sup>rd</sup> Avenue through the project area on the south side of 3<sup>rd</sup> Avenue through the project area

### Project Illustration



### Project Benefits

- Increased public park space
- Reduced motor vehicle speeds
- Improved pedestrian visibility and safety
- Enhanced connectivity to Downtown, De Anza Historical Park and San Mateo Public Library

### Cost Estimate

- Mini-park: \$155,000
- High visibility crosswalks (2): \$2,400
- Transverse crosswalk (1): \$1,000
- Advance stop bars (4): \$800
- Advance yield lines (2): \$600
- Pedestrian signage (5): \$1,500
- Curb extensions (4): \$100,000
- Sidewalk extension: \$18,000
- Planter strip: \$10,000
- Bike lane: \$400
- Total: \$289,400**

## El Camino Real and Highway 92 Intersection Improvement

This project improves pedestrian visibility at the Highway 92 on- and off-ramps for Highway 92 along El Camino Real. Pedestrian-scale lighting, signs, and high-visibility crosswalks would improve safety and connectivity.

### Existing Issues

Community-identified challenge area  
 Limited pedestrian visibility

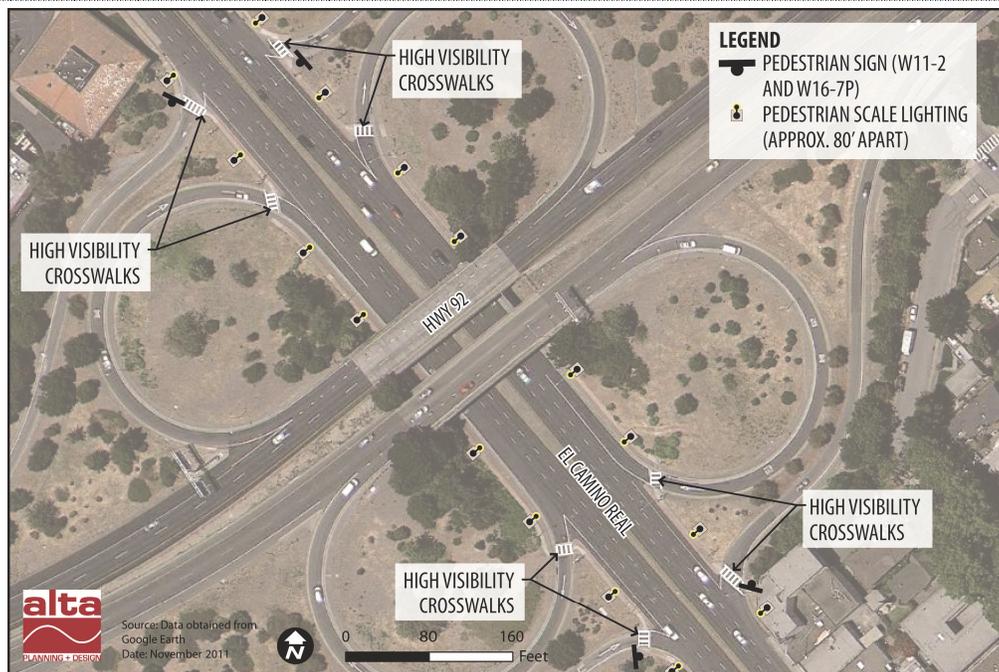
### Project Description

High visibility crosswalks across all Hwy 92 on- and off-ramps at El Camino Real  
 Pedestrian signs  
 Pedestrian scale lighting

### Existing Conditions



### Project Illustration



### Project Benefits

Improves pedestrian visibility at Highway 92 on- and off-ramps  
 Improves connections to shopping areas north and south of Highway 92

### Cost Estimate

High visibility crosswalks (8): \$9,600  
 Pedestrian signage (8): \$2,400  
 Pedestrian scale lighting (32): \$288,000  
**Total: \$300,000**

# Hayward Park Caltrain Station Path at 17<sup>th</sup> Avenue Improvement

This project adds a pedestrian path and improved landscaping to an existing Hayward Park Caltrain Station access path. Pedestrian-scale lighting, wayfinding signs, and other improvements would guide pedestrians to Caltrain and enhance the environment.

## Existing Conditions



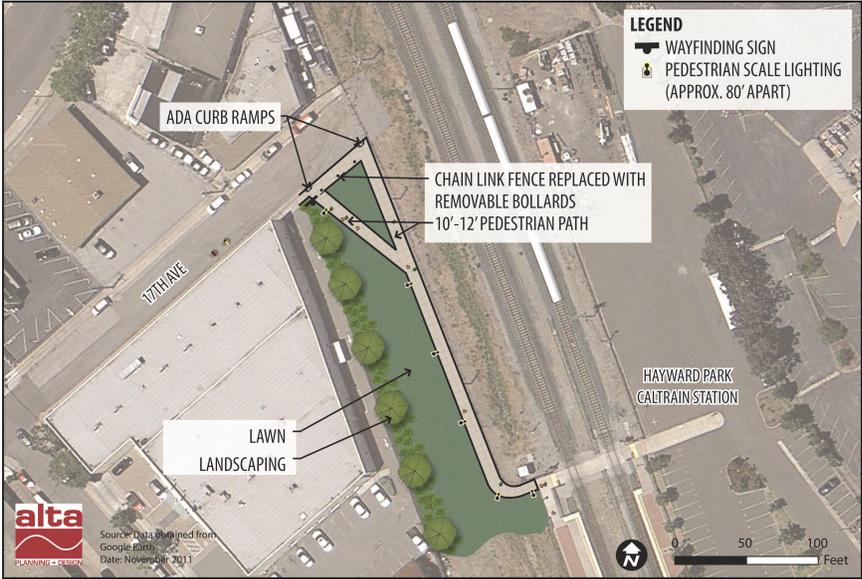
## Existing Issues

- Lack of ADA improvements
- Lack of landscaping
- Personal safety concerns

## Project Description

- Pedestrian path accessing the Hayward Park Caltrain Station
- Chain link fence replaced with removable bollards
- Curb ramps on 17<sup>th</sup> Avenue
- Pedestrian-scale lighting
- Wayfinding signs Caltrain station

## Project Illustration



## Project Benefits

- Encourages non-motorized access to transit
- Provides a safer, accessible, and more pleasant walking environment

## Cost Estimate

- Curb ramp (2): \$8,000
- Wayfinding (1): \$300
- Pedestrian scale lighting (7): \$63,000
- Upgrade path: \$64,200
- Landscaping: \$320,000

Total: \$455,500

## Alameda de las Pulgas and 20<sup>th</sup> Avenue Improvement

This intersection is a key part of the route to Junipero Serra High School and other neighboring schools. High-visibility crosswalks, curb extensions, and curb ramps are recommended to improve walking conditions and meet ADA requirements.

### Existing Conditions



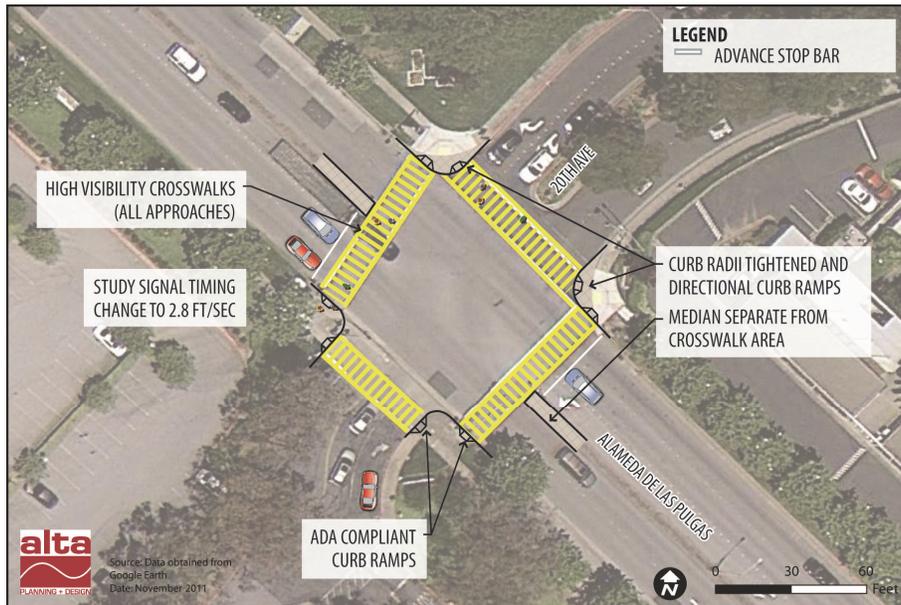
### Existing Issues

School area (Junipero Serra High, Aragon High, and Borel Middle)  
 High pedestrian collision area – crash history indicates pedestrian vulnerability in the crosswalks  
 Median in Alameda de las Pulgas extends into crosswalk on south side

### Project Description

Reconfigure curb radii (west approaches)  
 High visibility crosswalks (all approaches)  
 Leading pedestrian intervals (if warranted and feasible)  
 Pedestrian signal timing assumes a walking speed of 2.8 feet per second  
 Median separated from crosswalk

### Project Illustration



### Project Benefits

Increases pedestrian visibility  
 Enhances safe routes to high school  
 Meets ADA requirements

### Cost Estimate

High visibility crosswalk (4): \$4,800  
 Curb ramp (8): \$32,000  
 Advance stop bars (2): \$400  
 Tighten curb radii (2): \$50,000  
 Remove median from crosswalk: \$15,000

Total: \$102,200

## El Camino Real and 22<sup>nd</sup> Avenue Intersection Improvement

This project provides an enhanced crossing of El Camino Real in an area where few other pedestrian crossings exist. Recommendations at this mid-block crossing improve motorist yielding behavior and minimize pedestrian jaywalking.

### Existing Conditions



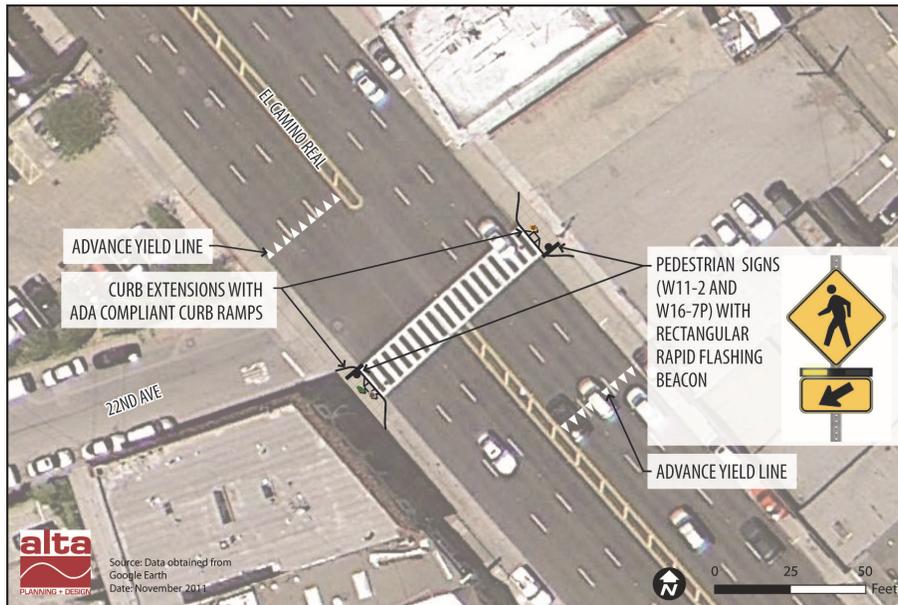
### Existing Issues

- Frequent pedestrian collision area, including a fatality
- Existing uncontrolled crossing with marked crosswalk across six travel lanes
- Low motorist yield rate
- Existing curb ramps do not meet ADA accessibility standards
- Nearest controlled crossing over 850 feet away
- Prevalence of jaywalking supports need for improved crossing facilities

### Project Description

- Rapid rectangular flashing beacons (both approaches)
- Curb extensions with ADA compliant curb ramps
- Pedestrian crossing signs

### Project Illustration



### Project Benefits

- Increases motorist compliance with pedestrian right-of-way
- Improves safety for pedestrian crossings

### Resources

FHWA Safer Journey Countermeasures: 3,23

### Cost Estimate

- Advance yield lines (2): 600
- Curb extensions (2): \$50,000
- Curb ramps (2): \$8,000
- Rectangular rapid flashing beacons (2): \$30,000
- Pedestrian Signage (2): \$600

Total: \$88,600

## Bridgepointe Circle Midblock Crossing Improvement

A new high-visibility crosswalk across Bridgepointe Circle - Chess Drive will provide a marked pedestrian crossing between two distant crossings along preferred pedestrian path of travel.

### Existing Conditions



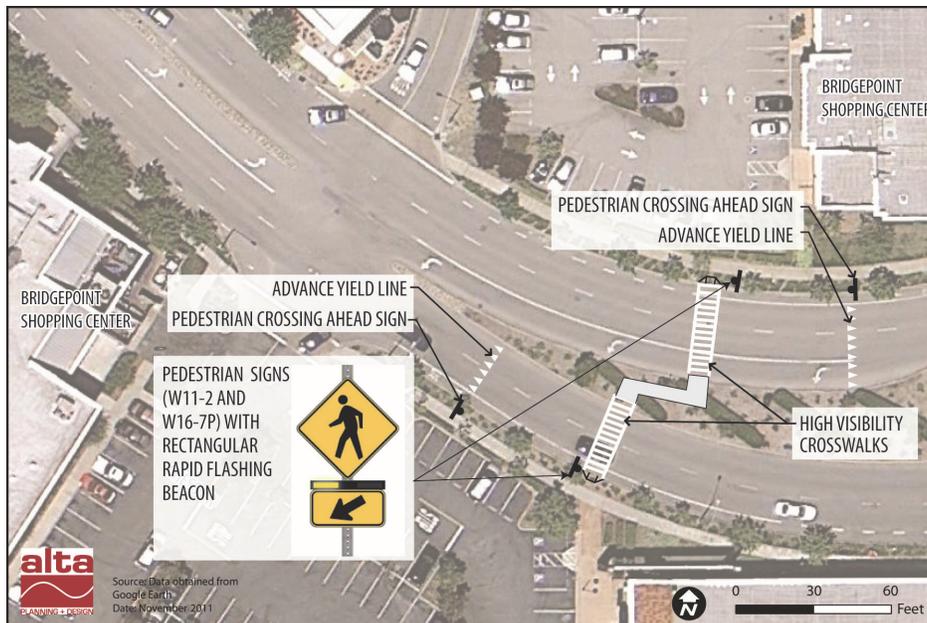
### Existing Issues

Uncontrolled crossing of major arterial  
Nearest controlled crossings over 400 feet in either direction.

### Project Description

Walkway aligned to increase pedestrian visibility  
Rectangular rapid flashing beacons  
Pedestrian crossing signs

### Project Illustration



### Project Benefits

Provides a needed mid-block crossing of this arterial street, improving pedestrian efficiency. Off-set design increases the visibility of oncoming traffic.

### Resources

FHWA: Pedestrian and Bicyclist Safety and Mobility in Europe, Chapter 3  
Federal MUTCD

### Cost Estimate

Advance yield lines (2): \$600  
Curb ramps (2): \$8,000  
High visibility crosswalk: \$2,400  
Path through median: \$25,000  
Pedestrian signage (2): \$600  
Rectangular rapid flashing beacons (4): \$60,000

Total: \$96,600

## Franklin Pkwy at Saratoga Drive Crossing Improvement and Study

This project improves connections between an existing and a proposed multi-use path on Franklin Parkway at Saratoga Drive. The lack of a pedestrian crossing on the south leg, where the multi-use paths meet, is a gap in the network with important connections to the planned Hillsdale Pedestrian/Bicycle Overcrossing.

### Existing Conditions



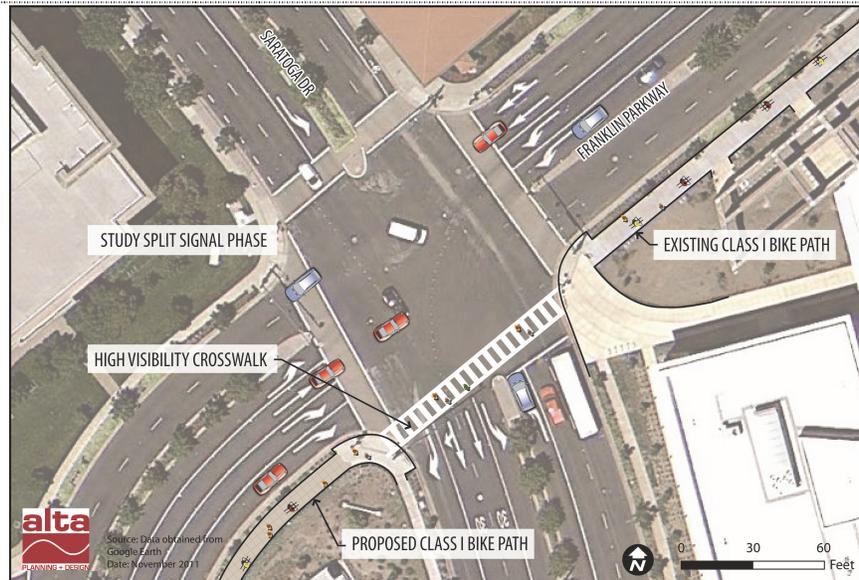
### Existing Issues

- Proposed and existing multi-use path on south side of Franklin Parkway west of Saratoga Dr will not connect
- Lack of crosswalk at preferred crossing leg between two paths
- Network gap to planned Hillsdale Pedestrian/Bicycle Overcrossing

### Project Description

- High visibility crosswalk (south leg)
- Split signal phase study

### Project Illustration



### Project Benefits

- Reduced number of crossings for trail users
- Significantly shortens trail user travel distance
- Improved path user visibility
- Reduced unsafe crossing behavior

### Cost Estimate

- Study: \$15,000
- High visibility crosswalk: \$1,200

Total: \$16,200

## Alameda de las Pulgas Road Diet (Barneson to Crystal Springs)

This project improves the pedestrian environment with reallocation of roadway space and wider sidewalks.

Existing travel lane configuration results in high vehicular speeds and an uncomfortable pedestrian environment. This project reapportions roadway space and enhances a key route to Baywood Elementary and Aragon High.

### Existing Conditions



### Existing Issues

School area (Baywood Elementary, Aragon High, and Borel Middle School)

Wide roadway encourages high motor vehicle travel speeds

Senior facilities and Borel Park nearby

### Project Description

Road diet reduces road to two travel lanes and two-way left turn lane (see sections next page)

Wider sidewalk or bike lanes along corridor

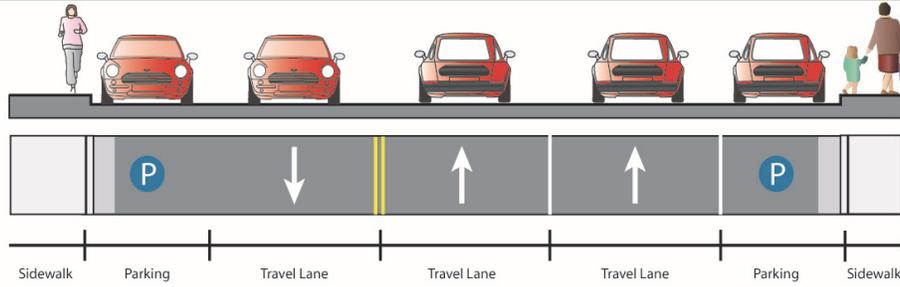
Wider sidewalks at Baywood Elementary

Consider landscaped pedestrian refuge island at crossing at Alameda de las Pulgas and Kentucky Avenue

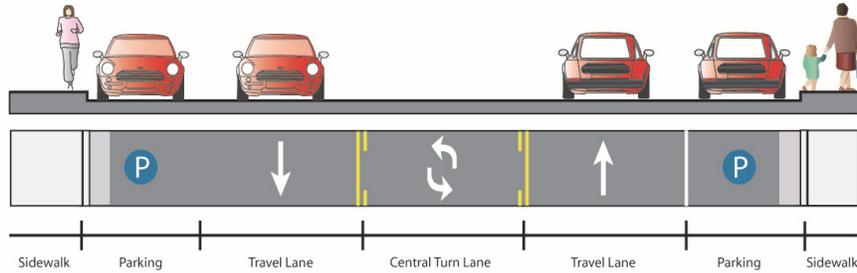
Sharrows

### Project Illustration

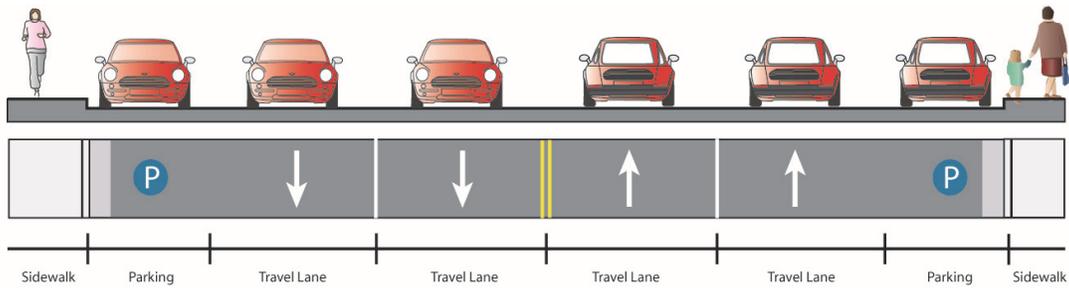




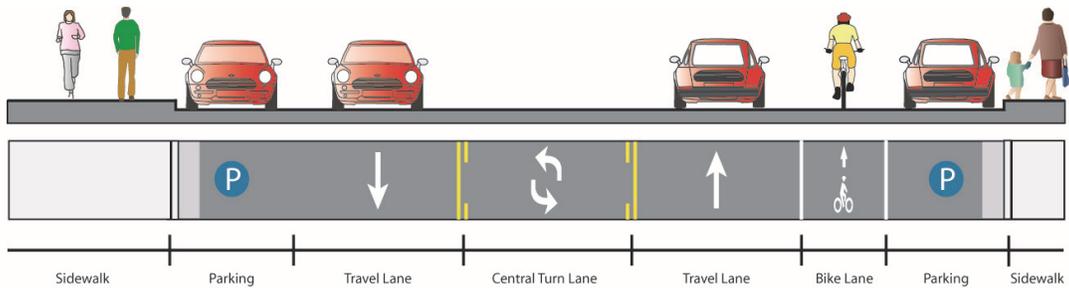
Alameda De La Pulgas - Existing Section A - A' (facing northwest)



Alameda De La Pulgas - Proposed Section A - A' (facing northwest)



Alameda De La Pulgas - Existing Section B - B' (facing west)



Alameda De La Pulgas - Proposed Section B - B' (facing west)  
(Left side shows wide sidewalk option; right side shows bike lane option)

**Project Benefits**

Reduces the number of conflict points  
Provides dedicated space for pedestrians and/or bicyclists

**Resources**

FHWA: Evaluation of Lane Reduction "Road Diet" Measures on Crashes, 2010

**Cost Estimate**

Study: \$10,000  
Restriping: \$14,700  
Widen sidewalk: \$51,000  
Replace/reconfigure signals/poles: TBD  
Total: \$95,800

## El Camino Real Road Diet (2<sup>nd</sup> to 9<sup>th</sup> Avenues)

El Camino Real north of 2<sup>nd</sup> Avenue includes two travel lanes in each direction and this project extends this configuration to 9<sup>th</sup> Avenue. This project also includes installation of pedestrian amenities that will improve safety and access to downtown. This improvement supports the Sustainable Initiatives Plan by encouraging walking to downtown, as well as to the downtown San Mateo Caltrain.

### Existing Conditions



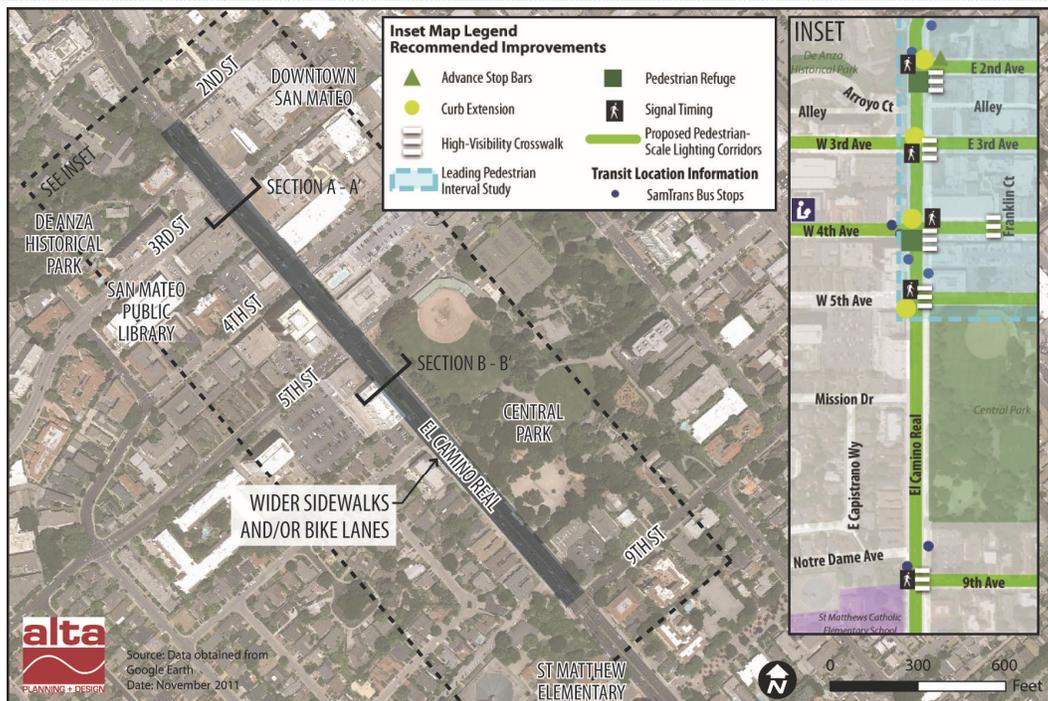
### Existing Issues

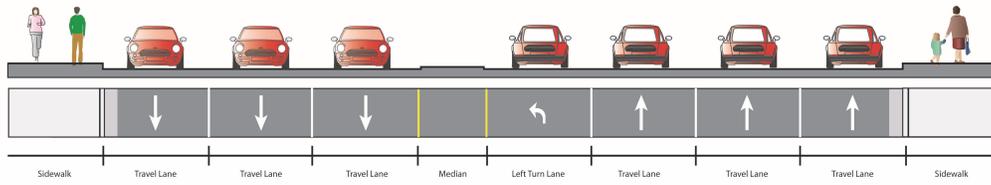
- High pedestrian collision frequency between 2<sup>nd</sup> and 9<sup>th</sup> Avenues
- High pedestrian activity
- School area (St. Matthews Elementary)
- Close to downtown San Mateo, including public library, Central Park, senior housing developments and Caltrain

### Project Description

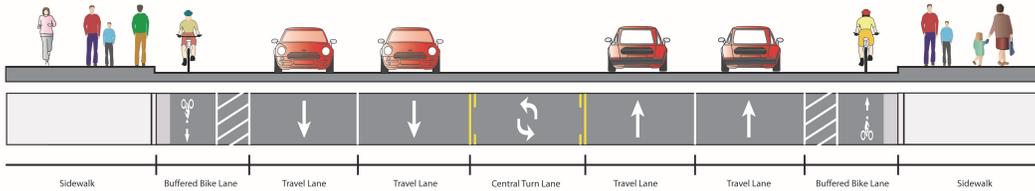
- Road diet reduces road to two lanes with a two-way left turn lane (see sections next page)
- Leading pedestrian interval study
- Improved signal timing
- Pedestrian-scale lighting
- Wider sidewalks or bike lanes
- High visibility crosswalks
- Curb extensions

### Project Illustration

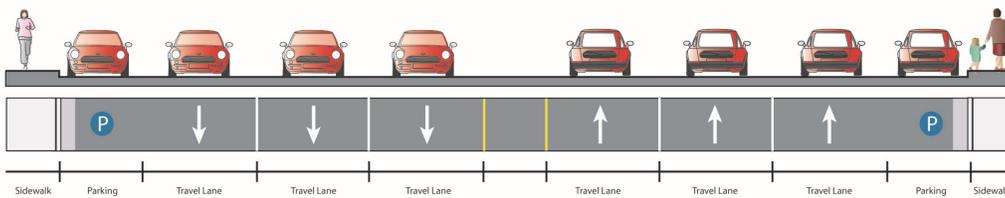




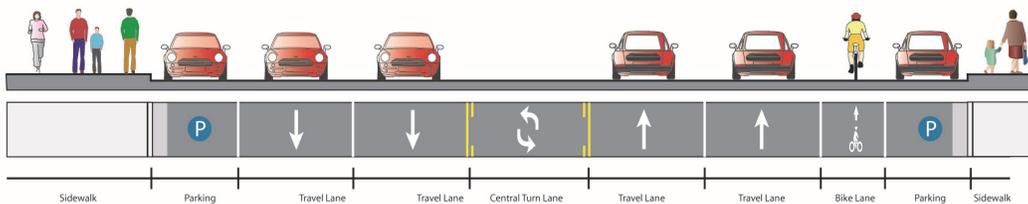
El Camino Real - Existing Section A - A' (facing northeast)



El Camino Real - Proposed Section A - A' (facing northeast)  
(Buffered bike lane and minor sidewalk expansion)



El Camino Real - Existing Section B - B' (facing northeast)



El Camino Real - Proposed Section B - B' (facing northeast)  
(Left side shows wide sidewalk option; right side shows bike lane and minor sidewalk expansion option)

**Project Benefits**

- Reduces the number of conflict points along the corridor
- Improves motorist access to destinations
- Enhances pedestrian connectivity and safety
- Encourages pedestrian access to downtown destinations
- Provides dedicated space for bicycling
- Reduces pedestrian crossing distances

**Resources**

- FHWA: Evaluation of Lane Reduction "Road Diet"
- Measures on Crashes, 2010

**Cost Estimate**

- Study: \$30,000
- Restriping: \$18,400
- High visibility crosswalks (5): \$7,200
- Signal phase adjustment: \$100,000
- Replace/reconfigure signals/poles: TBD
- Total: \$155,600**

## Norfolk Street Midblock Crossing Improvement

This project improves the pedestrian environment with the reallocation of roadway space and increased pedestrian visibility.

### Existing Conditions



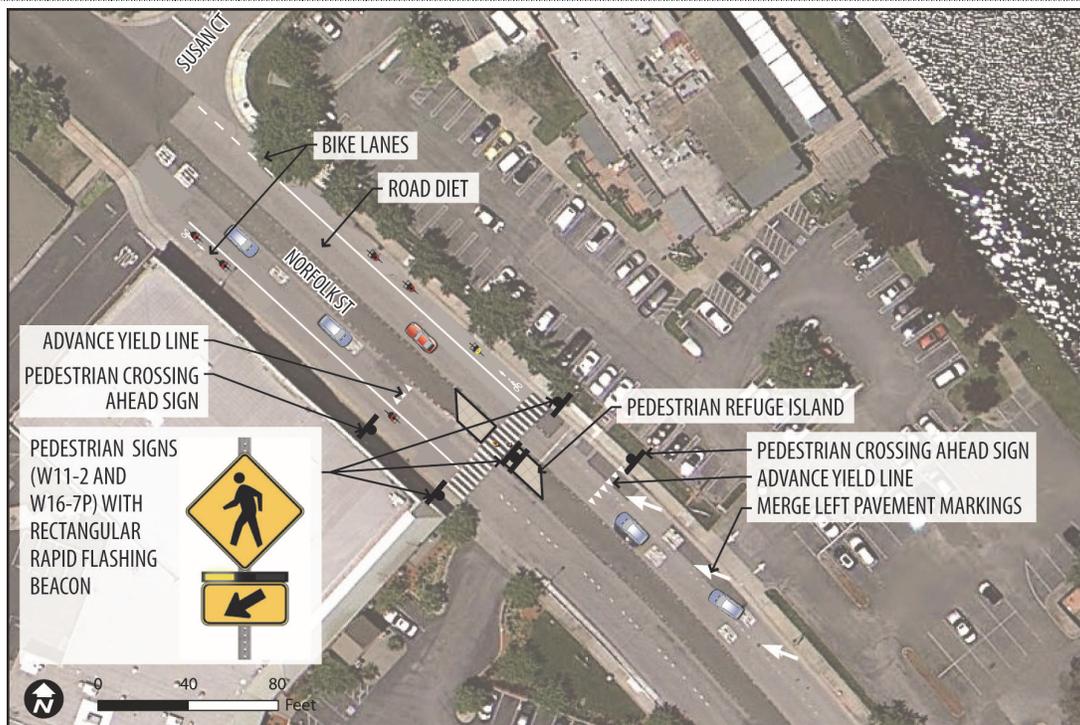
### Existing Issues

Uncontrolled pedestrian crossing and four travel lanes  
 Crossing is adjacent to busy commercial driveway  
 Crossing provides key access to commercial activity and SamTrans bus stop

### Project Description

- Road diet
- Bike lanes
- Pedestrian refuge island
- Rectangular rapid flashing beacons
- Pedestrian crossing signs
- Advance yield lines

### Project Illustration



### Project Benefits

Enhances mid-block crossing, improving pedestrian visibility.  
 Improves onstreet bicycle circulation

### Cost Estimate

- Bike lanes: \$1000
- Pedestrian refuge island: \$30,000
- Rectangular rapid flashing beacons: \$60,000
- Pedestrian crossing signs: \$600
- Advance yield lines: \$600
- Pedestrian lighting (2): \$18,000

**Total: \$110,200**