



Sunnyvale

# Sunnyvale Vision Zero

Sunnyvale City Council  
July 30, 2019





Sunnyvale

# Vision Zero Overview

# Vision Zero Overview

The City of Sunnyvale's **Vision Zero Plan** works towards a goal of zero fatalities and serious injuries on its streets.



# Vision Zero Overview

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1. **“Safety First”** - prioritizes traffic safety over other transportation considerations
2. **Preventable** - acknowledges that traffic deaths and serious injuries are preventable
3. **Multidisciplinary Approach** - brings together a diverse set of stakeholders to address the complex problem of traffic safety.



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# Vision Zero in Sunnyvale

# Vision Statement

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Achieve a **50% reduction** in fatalities and serious injuries by 2029.

Continue progress towards **zero** in the ten years that follow.



# Guiding Principles

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1. Traffic deaths are unacceptable and preventable
2. Safe transportation options for all users in all communities
3. Safety over efficiency
4. A quantitative, collaborative, and equitable approach to Vision Zero actions
5. Design to anticipate error and minimize injury severity
6. Design for speeds that safely accommodate all modes of travel
7. Ongoing evaluation to measure performance against the Sunnyvale Vision Zero Plan objectives



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# Progress Update

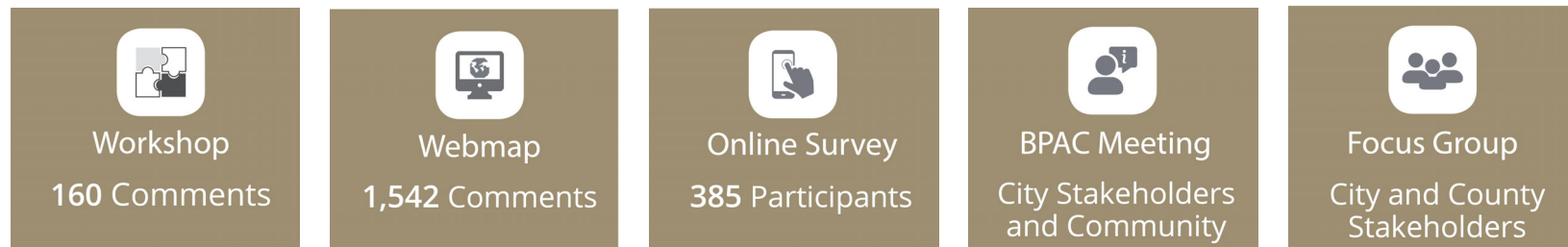


# Project Timeline

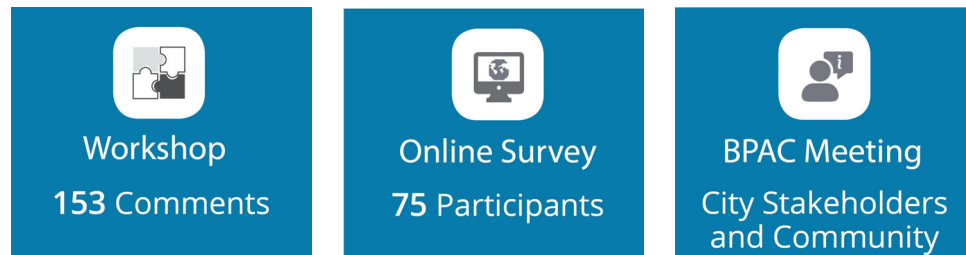


# Community Engagement

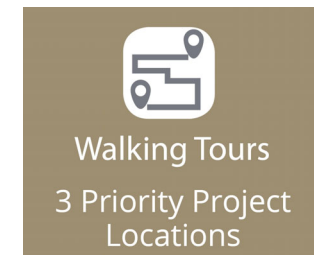
## Phase 1 – Fall 2017



## Phase 2 – Spring 2018



## Phase 3 – Fall 2018





# Plan Elements

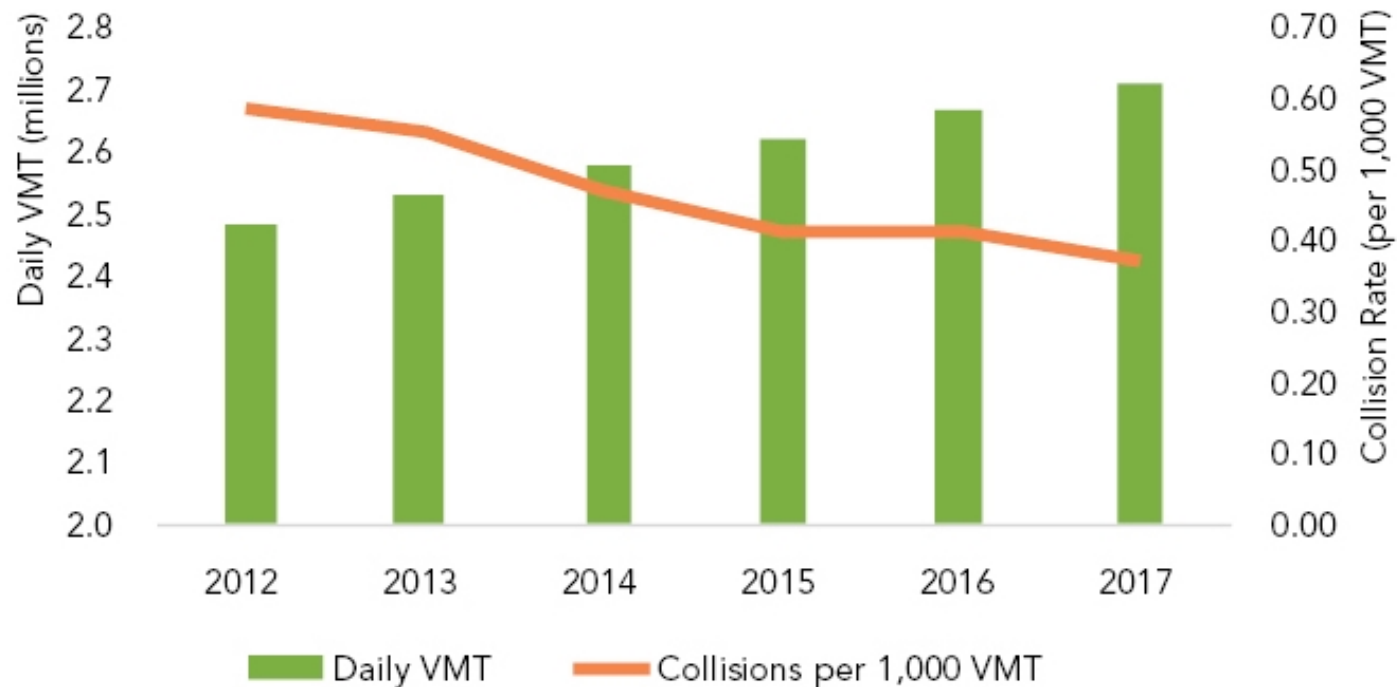
# Plan Elements

- Call to Action
- About Vision Zero
- Vision Statement & Guiding Principles
- Building on Prior Investments
- Building Blocks of Vision Zero
- Countermeasure Toolbox and Collision Profiles
- Action Plan



# Building on Prior Investment

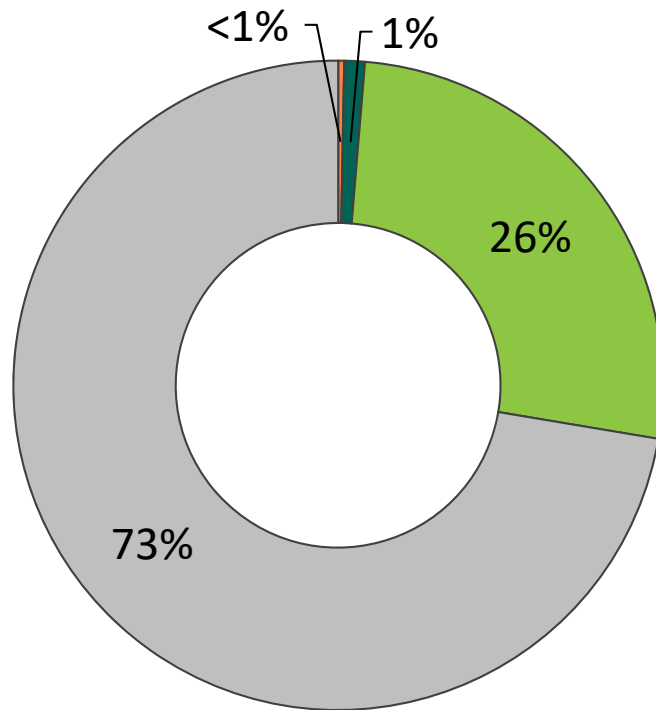
## VMT and Collision Rate



Between 2012 and 2017, Sunnyvale’s daily vehicle miles traveled (VMT) increased by **9%**, while the total number of collisions decreased. As a result, the collision rate (collisions per 1,000 VMT) decreased by **37%** between 2012 and 2017.

# Collision Analysis

## All Collisions (%)



fatality    severe injury    non-severe injury    non-injury

Between 2012-2016:

Total Collisions – 6,244

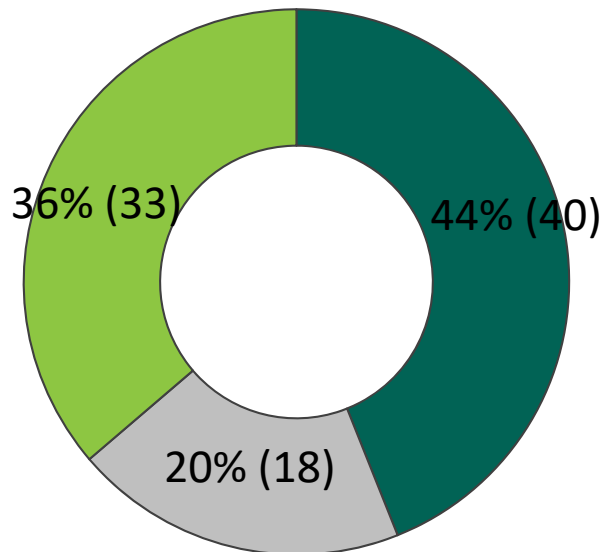
- 91 KSI Collisions
  - 21 with victims killed
  - 70 with victims severely injured

Source: Crossroads database, 2012-2016

# Collision Analysis

## Mode Split

### KSI Collisions (%)



84% of total trips are taken in automobile.

pedestrian bicycle auto transit

Source: Crossroads database, 2012-2016

# Collision Analysis



**6,244** collisions between 2012 and 2016, including **91** KSI collisions



**11%** of KSI collisions involved drivers under the influence of alcohol or drugs



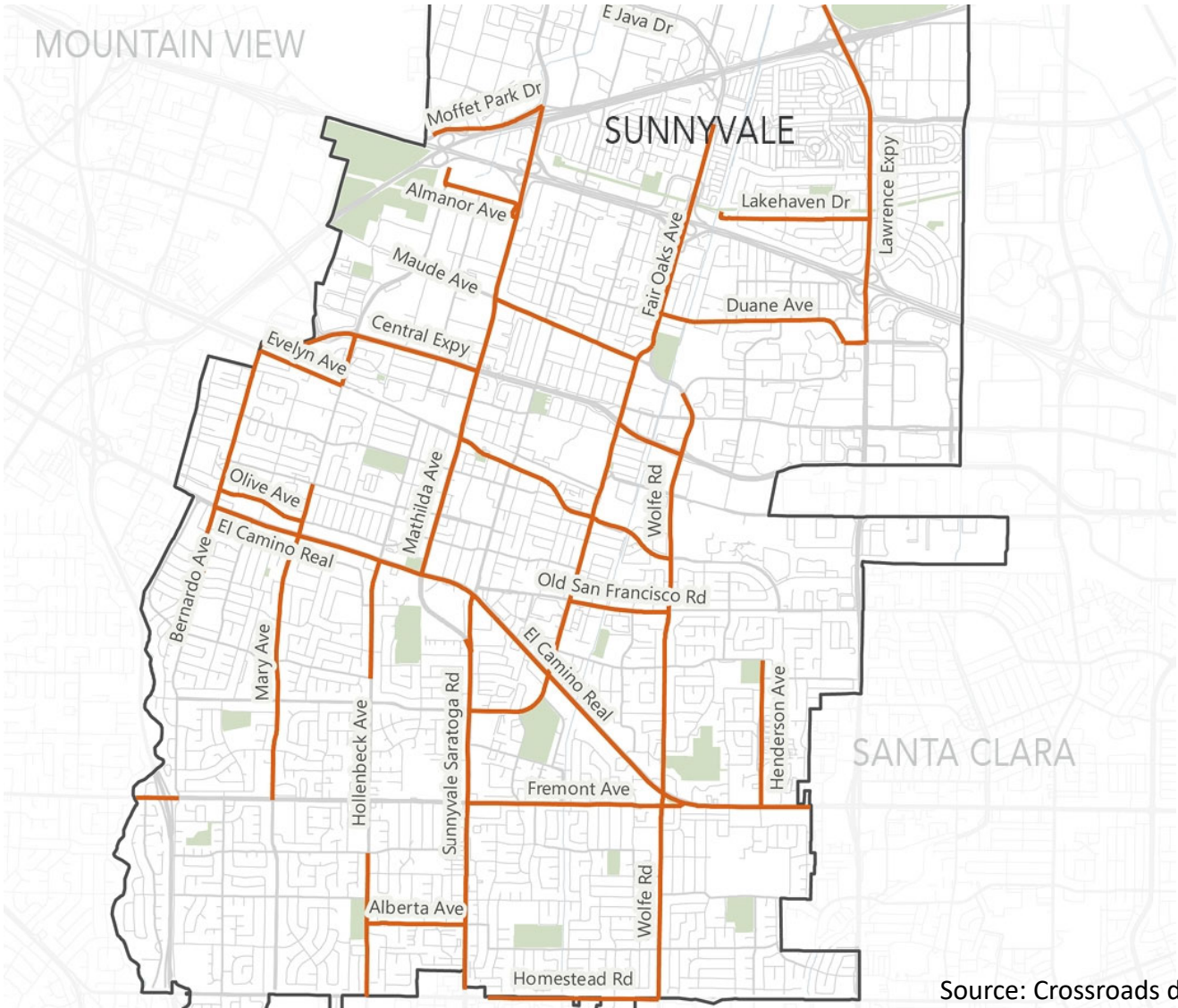
Only **10%** of all collisions involved bicyclists or pedestrians, yet comprised **56%** of KSI collisions



**72%** of pedestrian KSI collisions occurred at intersections



# High Injury Network



Source: Crossroads database, 2012-2016

# Countermeasure Toolbox (Example)

## Roadway Design



### BULB OUTS AND CURB EXTENSIONS

Raised devices that reduce the corner radius or narrow the roadway to reduce speeds of turning vehicles, improve sight lines, and shorten crossing distances.

**EFFICACY:** ● ● ○

**COST:** ● ● ○

**COMPLEXITY:** ● ○ ○



### LANE REDUCTION

Reduction in number of travel lanes, often paired with a center turn lane and/or bicycle lanes.

**EFFICACY:** ● ● ●

**COST:** ● ● ●

**COMPLEXITY:** ● ● ●

# Collision Profiles (Example)

## Walking or Bicycling on Major Roadway (Expressway, Arterial, or Collector)

### Key Countermeasures



Adaptive Pedestrian Signal System



Pedestrian Refuge Island  
and Median



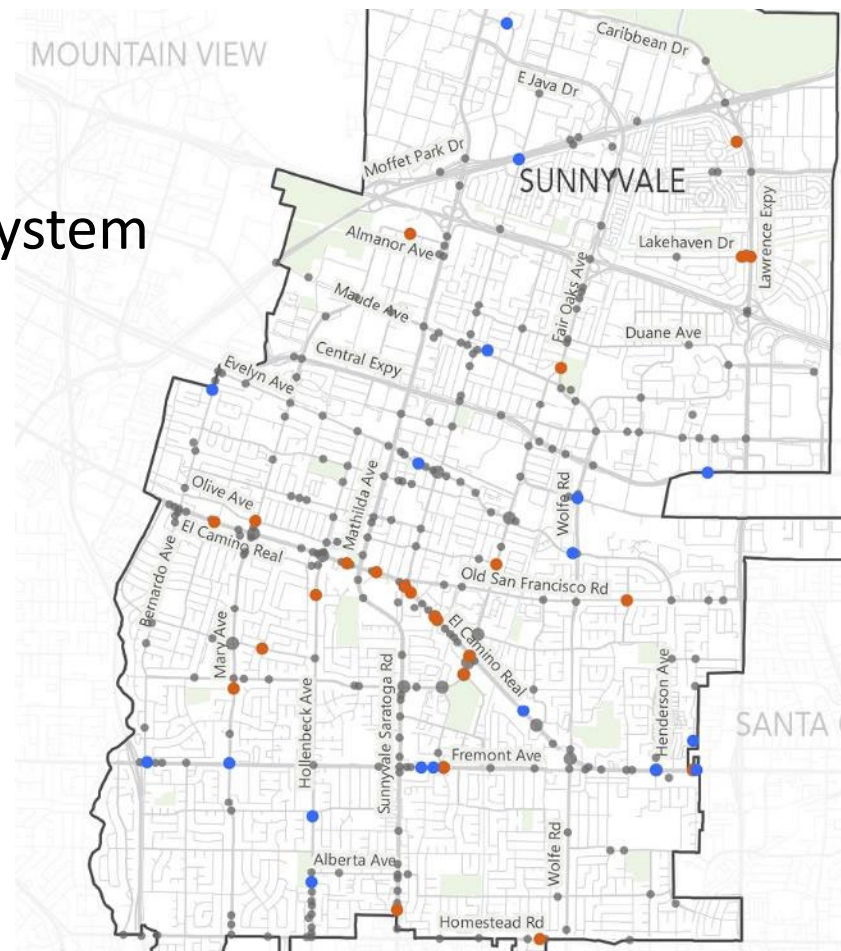
Protected Bikeway



Protected Turns



Roadway and Intersection  
Safety Lighting



# Implementable Actions

The Implementation Actions are organized into four action areas:



Vision Zero Program  
Initiatives and Evaluation



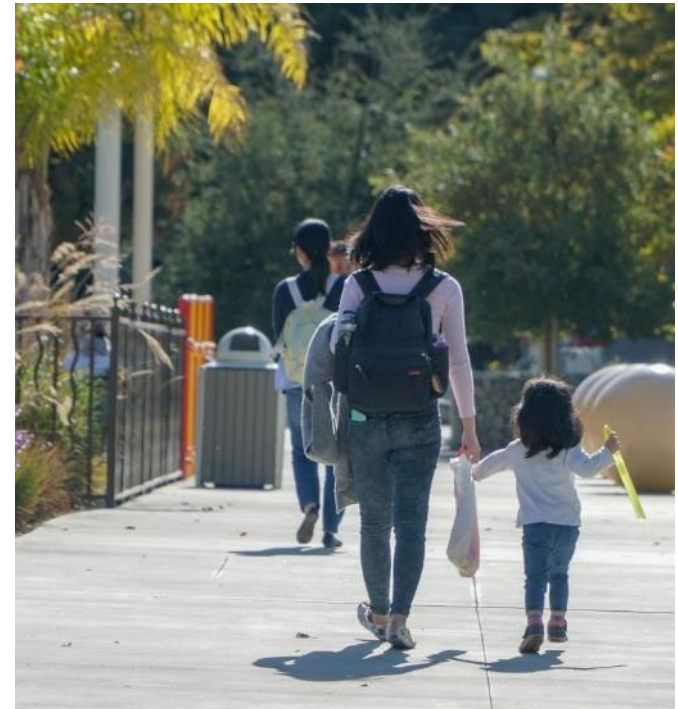
Street Design and Operation



Behavioral Change

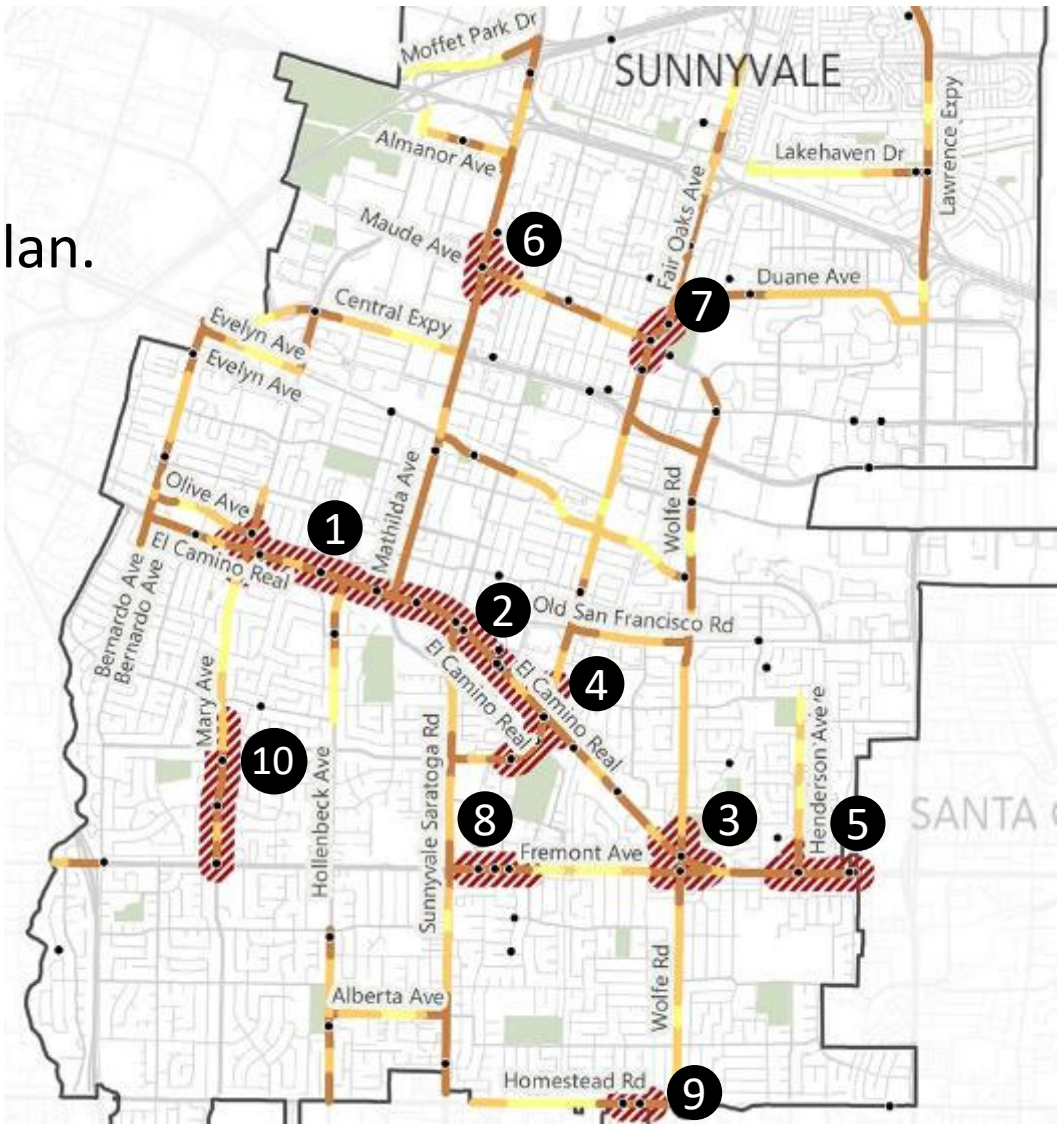


Vulnerable Road Users



# Priority Locations

Specific locations are noted in the plan.



# Priority Locations (Example)

Location 8 - Fremont Avenue between Sunnyvale-Saratoga Road and Floyd Avenue

## Collision History (2012-2016)



## Notable Collision Patterns



Speed-related conflict



Walking or bicycling on expressway, arterial, or collector



Mid-block bicycle conflict



Left turn at signalized intersection

# Priority Locations (Example)

Location 8 - Fremont Avenue between Sunnyvale-Saratoga Road and Floyd Avenue

## Fremont Avenue Corridor Improvements

- Lane width reduction to 11' where feasible
- Buffered bike lane where feasible
- Green pavement marking in conflict zone
- Speed feedback signs and traffic enforcement
- Improved street lighting



Example: Buffered Bike Lane

# Priority Locations (Example)

Location 8 - Fremont Avenue between Sunnyvale-Saratoga Road and Floyd Avenue

## Signalized Intersection Improvements

- High-visibility crosswalks
- Curb extensions to reduce turning radii
- Leading Pedestrian Intervals (LPI)
- Adaptive pedestrian signal systems
- Bicycle detection

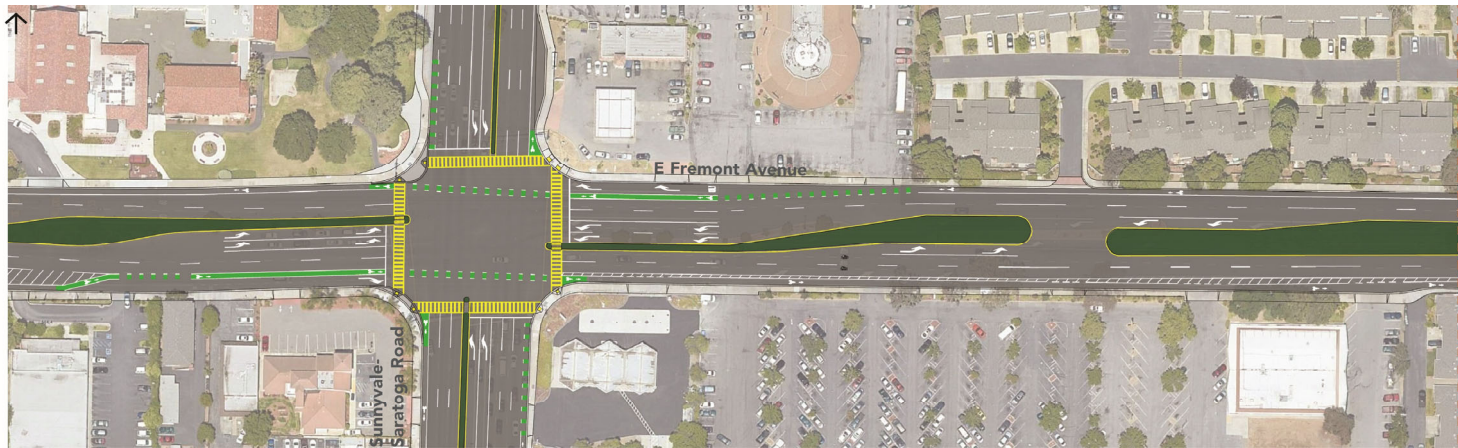


Example: High-visibility crosswalk and directional curb ramps



# Priority Locations (Example)

## Location 8 - Fremont Avenue between Sunnyvale-Saratoga Road and Floyd Avenue



Match Line - See Below Left

POTENTIAL COUNTERMEASURES FOR ILLUSTRATION PURPOSES ONLY – FUTURE SITE-SPECIFIC PROJECT EVALUATION AND ENGINEERING REQUIRED.



Match Line - See Above Right

POTENTIAL COUNTERMEASURES FOR ILLUSTRATION PURPOSES ONLY – FUTURE SITE-SPECIFIC PROJECT EVALUATION AND ENGINEERING REQUIRED.



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# Recommendation

# Bicycle and Pedestrian Advisory Committee (BPAC) Recommendation

## BPAC Recommendation: 7-0 Vote

- Alternative 2: Recommend to City Council to Adopt the Vision Zero Plan with modifications
  - ◆ Prioritize Vision Zero Program Initiatives:
    - A.1 Vision Zero Task Force
    - A.2 Dedicated Funding

# Recommendation

## Considerations

- Alternative 1: Adopt the Vision Zero Plan
- Alternative 2: Adopt the Vision Zero Plan with Modifications
- Alternative 3: Do Not Adopt the Vision Zero Plan
- Alternative 4: Other Action as Directed by Council

## Staff Recommendation

- Alternative 1: Adopt the Vision Zero Plan



# Next Steps

## Next Steps – City of Sunnyvale

Incorporate **Vision Zero Implementable Actions** in Capital Improvement Programs (CIP)

### Current CIP Projects

- 15 MPH Speed Zone near Schools
- Maude Avenue Streetscape Project
- Roadway Safety Plan
- Active Transportation Plan
- Pedestrian and Bicycle Improvements at Fremont Ave. and Manet Dr./Bobwhite Ave.

## Next Steps – The Community

- Pledge to **Not Text** while Driving, Biking or Walking

### As a Driver

- Be aware of surroundings
- Obey traffic rules
- Yield to pedestrians and bicyclists when turning at intersections

### As a Bicyclist

- Obey traffic rules
- Use lights and reflectors at night

### As a Pedestrian

- Stay alert
- Stay visible
- Do not assume drivers see you or will yield to you

# Vision Statement

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Thank you  
for your  
contributions!

