

# CITY OF CUPERTINO VISION ZERO ACTION PLAN

SAFE ROUTES TO SCHOOL WORKING GROUP

OCTOBER 11, 2023



# FROM LRSP VISION ZERO

- In 2022 the City of Cupertino developed its Local Roadway Safety Plan (LRSP)
- It identified safety projects and developed a countermeasure toolbox
- Stakeholder and community input was crucial in shaping the LRSP.
- Building on past planning efforts, **LRSP insights help inform Vision Zero.**

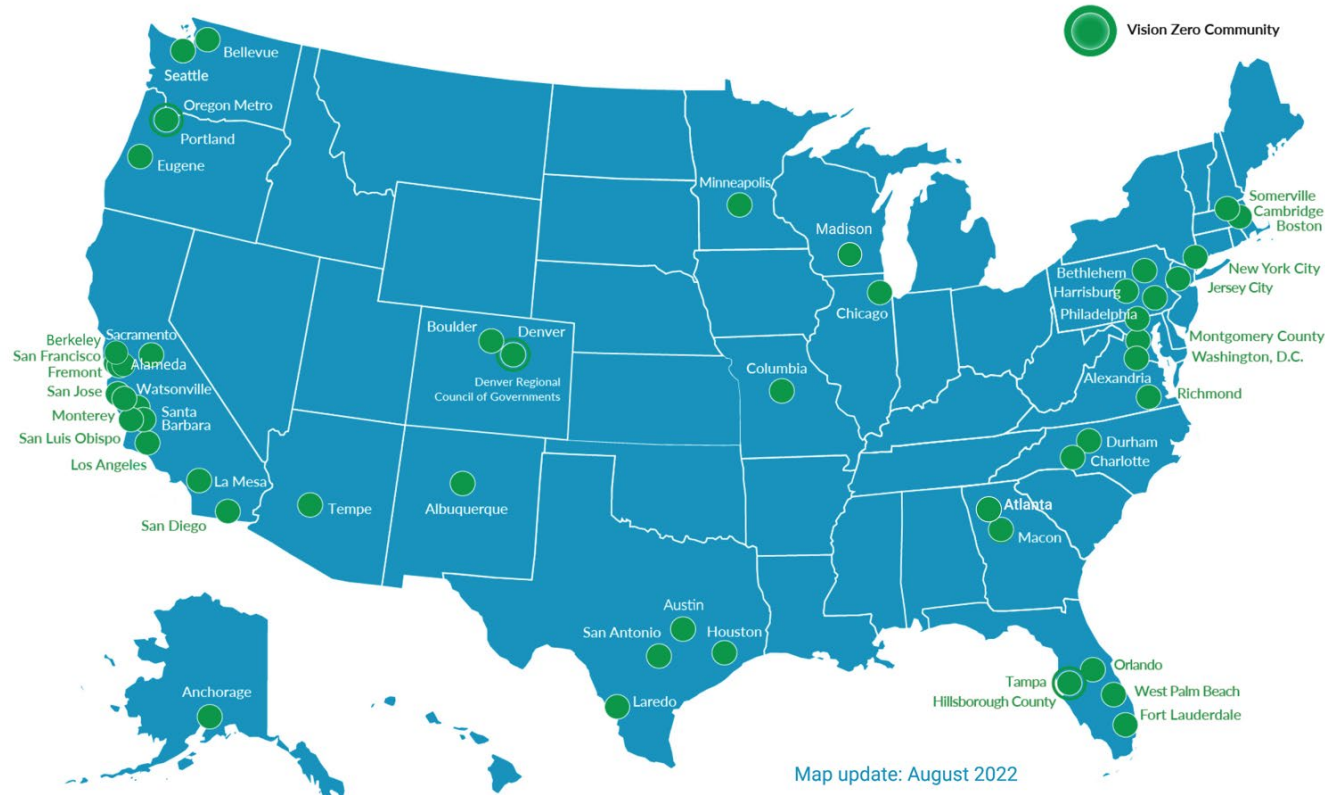
## EXISTING STREET SAFETY EFFORTS

- Local Roadway Safety Plan (LRSP) (2022)
- Bollinger Road Corridor Safety Study (2021)
- Transportation Study Guidelines (2021)
- Neighborhood Traffic Calming Program (2020)
- Parks and Recreation System Master Plan (2020)
- Pedestrian Transportation Plan (2018)
- Safe Routes to the School Program and City of Cupertino School Walk Audit Report (2016–2017)
- 2016 Bicycle Transportation Plan (2016)
- General Plan 2040 Chapter 5: Mobility Element (2015)
- VTP2040: The Long-Range Transportation Plan for Santa Clara County
- Santa Clara County Safe Routes to School Coordinator Manual (2014)



# WHAT IS VISION ZERO?

## VISION ZERO NETWORK



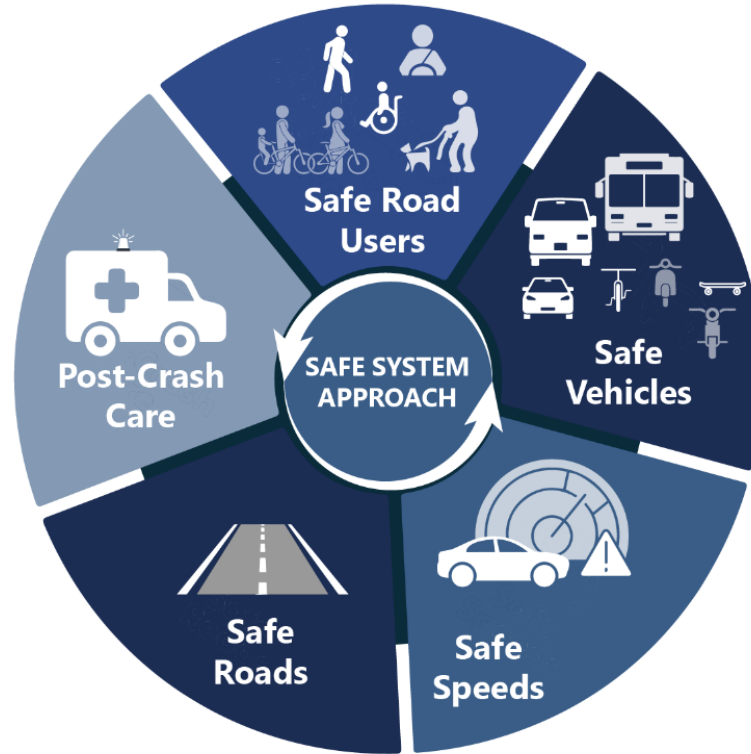
Cities that have adopted Vision Zero (Source: Vision Zero Network)

- Vision Zero combines a belief in **zero traffic fatalities with proactive strategies for safer roads.**
- It stems from a deep belief that no one should endure death or severe injury on our streets, extending that value to all individuals.
- Vision Zero's comprehensive strategy aims to **eliminate fatal and severe injury crashes, promoting safe, equitable mobility for everyone.**
- This approach prioritizes safety and **inclusivity in road planning** and design, regardless of age, ability, identity, or mode of travel.
- Originating in Sweden, Vision Zero has seen success in Europe and is **gaining momentum in various U.S. jurisdictions.**

# SAFE SYSTEMS APPROACH

## Principles:

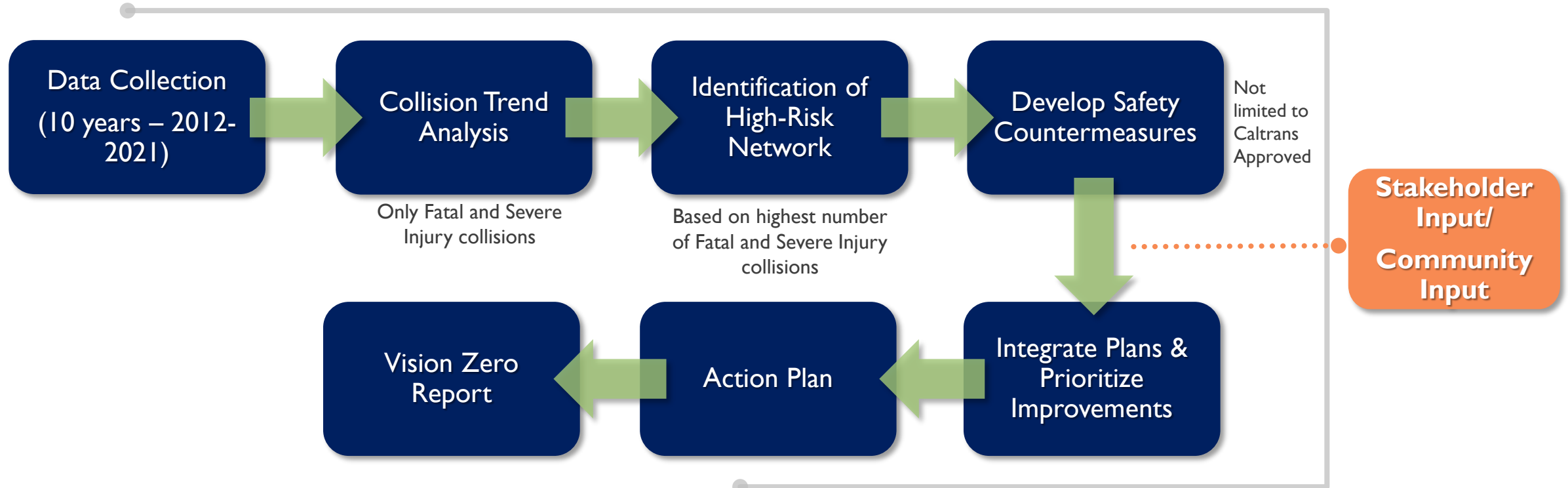
- Deaths and serious injuries are unacceptable
- Humans make mistakes
- Humans are vulnerable
- Responsibility is shared
- Safety is proactive
- Redundancy is crucial



## SAFE SYSTEM = SAFE MOBILITY



# VISION ZERO PROCESS



# COLLISION ANALYSIS

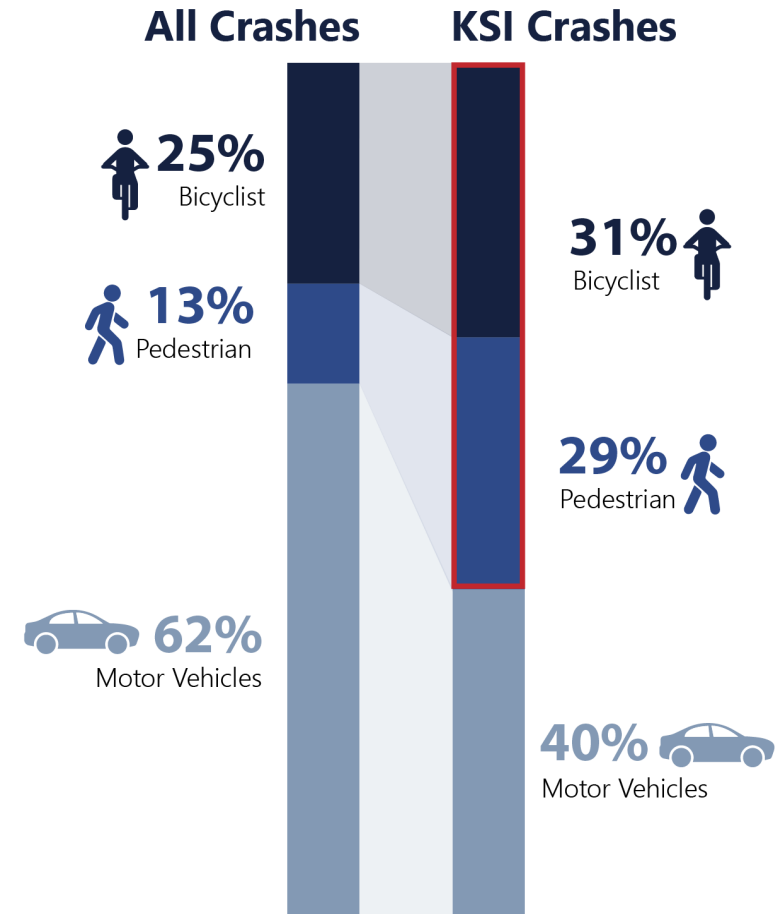


# WHY DOES CUPERTINO NEED VISION ZERO ?

Pedestrians and cyclists constitute 60% of severe and fatal crashes. Risk of serious crashes persists at intersections, despite traffic signals.

- **Comprehensive Safety Strategy:** Vision Zero prioritizes safe streets, infrastructure improvements, lower speed limits, public education, and law enforcement.
- **Safer Streets for All:** Cupertino aims to create safer streets and reduce traffic-related fatalities and injuries, acknowledging that no loss of life is acceptable.

## MOST VULNERABLE TRAVELERS



Pedestrians and bicyclists are involved in 38% of all crashes, but account for **60%** of serious injuries or fatalities.

# COLLISION TRENDS (2012 – 2021)



Cupertino saw **1157** collisions between 2012 and 2021 including **83** KSI Collisions



**88%** of pedestrian and bicycle KSI collisions occurred at intersections



Victims between 25 - 64 years represent **58%** of KSI collisions involving pedestrian and bicyclists



**55%** of pedestrian and bicycle KSI collisions occurred at signalized intersections



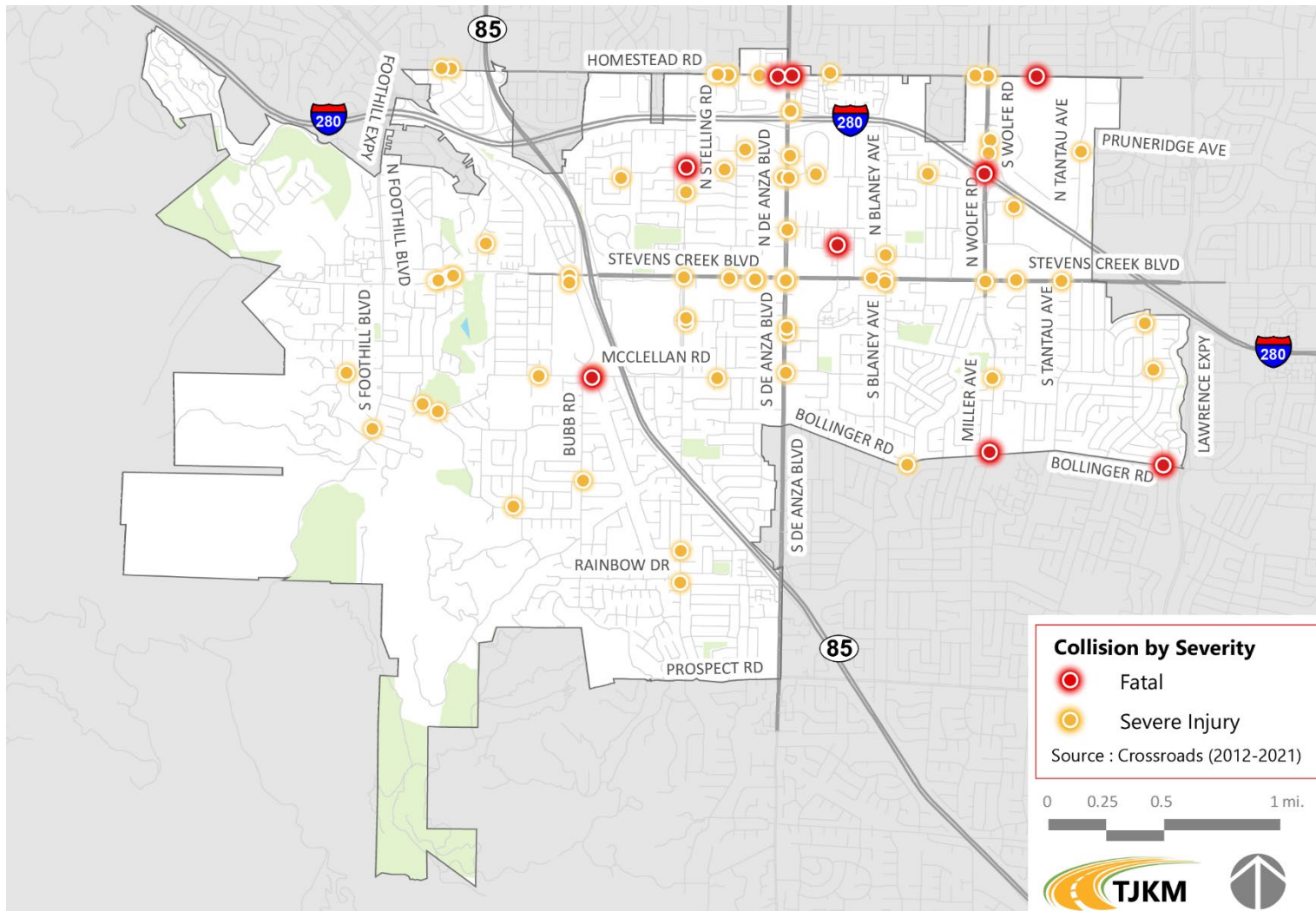
**36%** of all collisions involved pedestrian and bicycle yet pedestrian and bicycle collisions comprise **60%** of KSI collisions



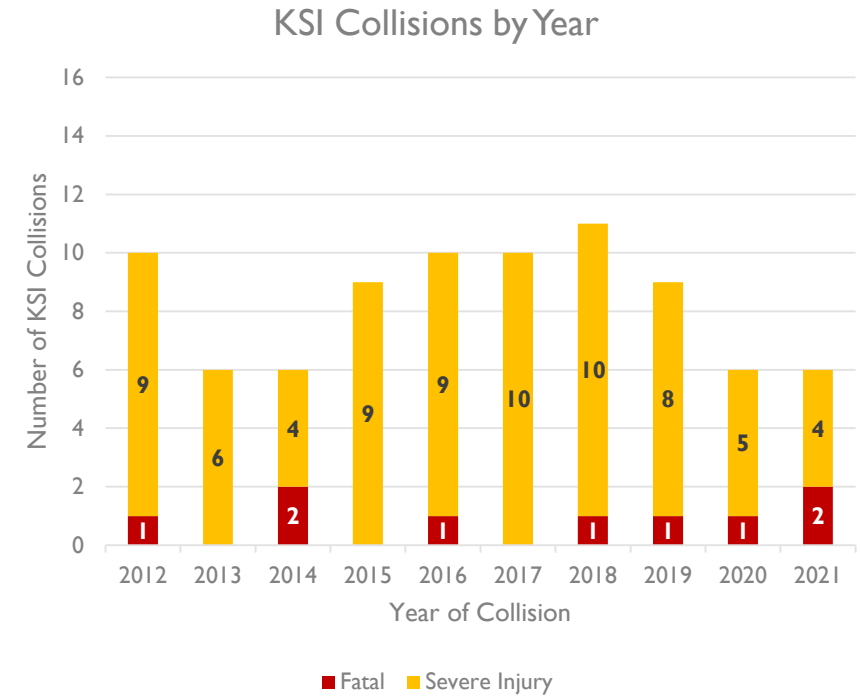
Pedestrian and bicycle KSI collisions were most likely to occur in the late afternoon or evening. **56%** of the collisions occur between 4 P.M. and 10 P.M.



# FOCUSING ON FATALITIES AND SEVERE INJURIES

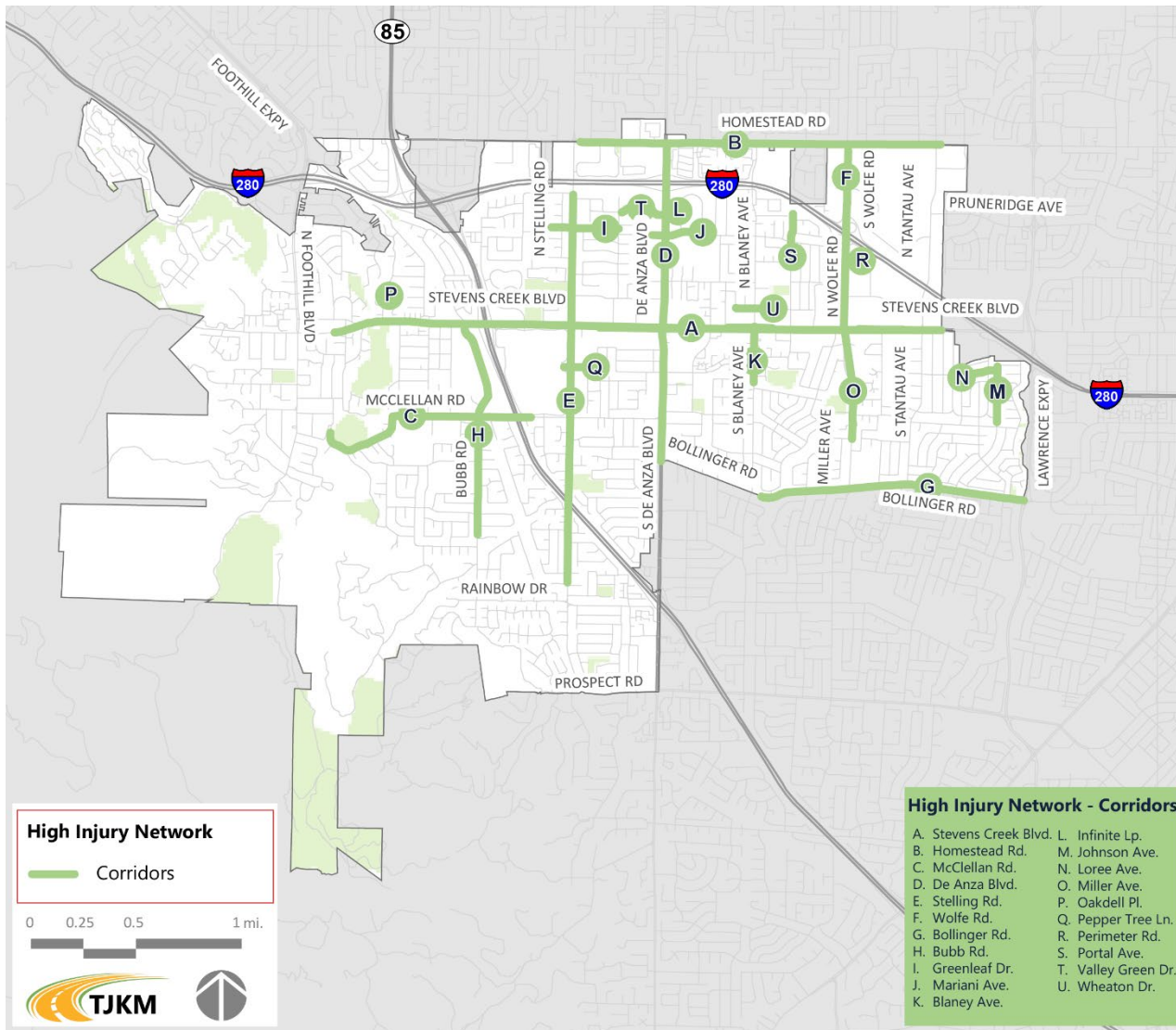


All Killed and Severe Injury Collisions (2012-2021)



- Between 2012 and 2021 there were **nine** fatalities and **74** severe injuries reported.

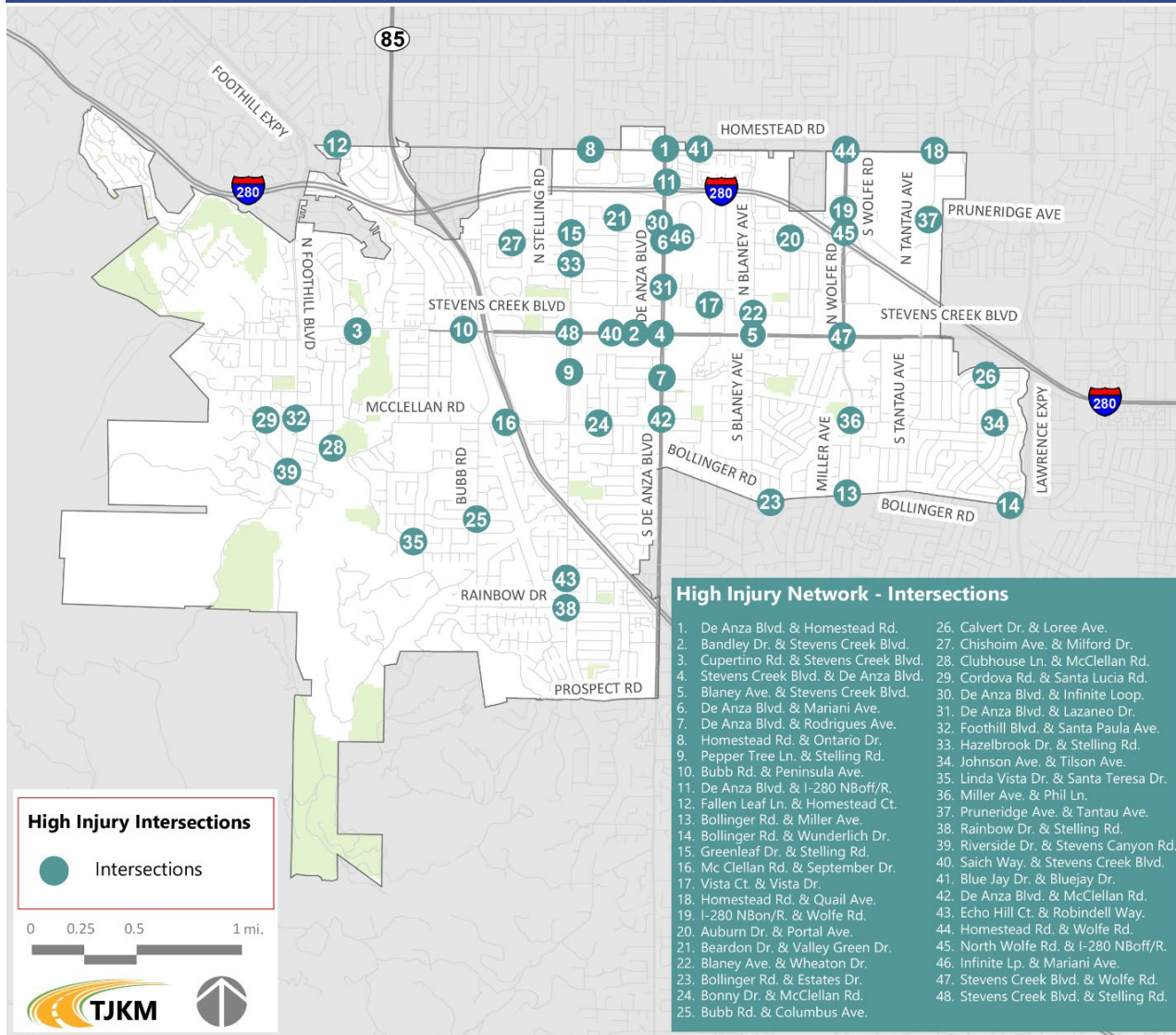
# HIGH-INJURY CORRIDORS (2012-2021)



The roadways that had the highest number of collisions include:

- Stevens Creek Boulevard
- Homestead Road
- McClellan Road
- De Anza Boulevard
- Stelling Road
- Wolfe Road
- Bollinger Road

# HIGH-INJURY INTERSECTIONS (2012-2021)



The intersections that had fatalities and multiple severe injury crashes are:

- De Anza Boulevard & Homestead Road.
- Bandy Drive & Stevens Creek Boulevard
- Cupertino Road & Stevens Creek Boulevard
- Stevens Creek Boulevard & De Anza Boulevard
- Blaney Avenue & Stevens Creek Boulevard
- De Anza Boulevard & Mariani Avenue
- De Anza Boulevard & Rodrigues Avenue

# COLLISION PROFILES

- The City of Cupertino has identified top nine collision profiles that emphasizes the trends observed in crashes resulting in people being killed or seriously injured (KSI).
- These profiles are developed through the analysis of collision data and relevant environmental factors.
- Accompanying each profile are safety countermeasures that are most applicable to the specific crash and location context.
- These countermeasures, which include engineering, education, and enforcement strategies, form a toolbox of safety interventions that the City of Cupertino will utilize to implement projects tailored to address unique safety issues.

# COLLISION PROFILES



Pedestrian & bicyclist within the city are most vulnerable



Unsafe speeds



Driving under influence



Majority of pedestrian and bicycle collisions occur at intersections



Teenagers biking near schools and parks



Majority of bicycle collisions are broadside collisions



Pedestrian violation led to majority of pedestrian collisions



Majority of bicycle collision occur due to violation of automobile right-of-way



Collisions near transit stops

# COUNTERMEASURE TOOLBOX



**ROADWAY DESIGN**



**PEDESTRIAN SAFETY**



**BICYCLIST SAFETY**



**OPERATIONS AND  
SIGNAL TIMING**



**SPEED MANAGEMENT**



**SIGNAGE AND MARKING**

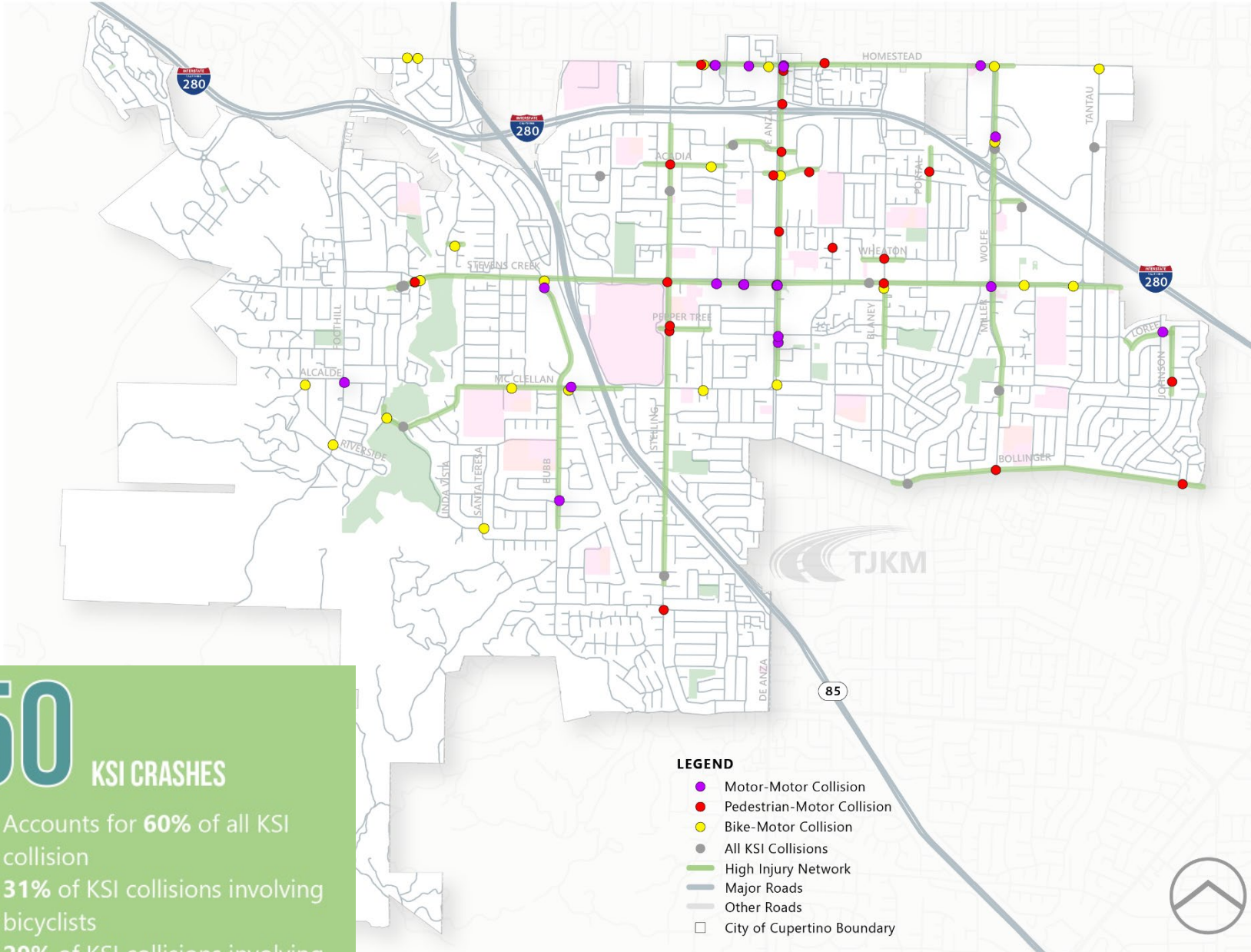


**EDUCATION AND  
PUBLIC AWARENESS**



**ENFORCEMENT**

# Profiles 1 : PEDESTRIAN & BICYCLIST ARE MOST VULNERABLE



- LEGEND**
- Motor-Motor Collision
  - Pedestrian-Motor Collision
  - Bike-Motor Collision
  - All KSI Collisions
  - High Injury Network
  - Major Roads
  - Other Roads
  - City of Cupertino Boundary

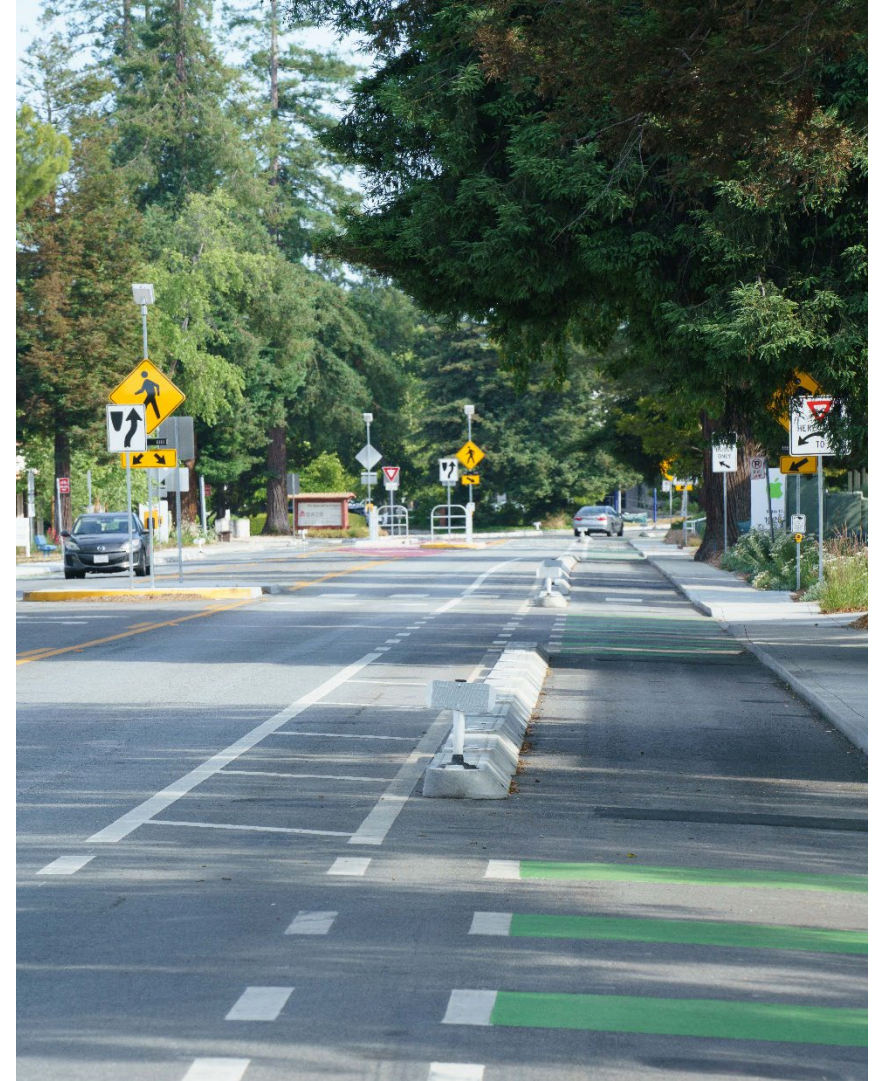
**50 KSI CRASHES**

- Accounts for **60%** of all KSI collision
- **31%** of KSI collisions involving bicyclists
- **29%** of KSI collisions involving pedestrian

	<p><b>MARKED CROSSWALKS</b> Effectively decrease the occurrence of collisions along high risk corridors</p> <p>EFFICACY: ■■■■ COST: ■■■■ COMPLEXITY: ■■■■</p>
	<p><b>PEDESTRIAN REFUGE ISLANDS</b> Provide a safe space for pedestrians to pause between traffic</p> <p>EFFICACY: ■■■■ COST: ■■■■ COMPLEXITY: ■■■■</p>
	<p><b>PROTECTED BIKEWAYS</b> Segregated lanes shielded by flexible posts, parked cars, and planters for safe bicycle travel separate from vehicle traffic.</p> <p>EFFICACY: ■■■■ COST: ■■■■ COMPLEXITY: ■■■■</p>
	<p><b>RECTANGULAR RAPID FLASHING BEACON</b> Offers pedestrians and bicyclists a clear path to cross the street more safely.</p> <p>EFFICACY: ■■■■ COST: ■■■■ COMPLEXITY: ■■■■</p>
	<p><b>SHARE THE ROAD AWARENESS PROGRAM</b> Create a Share the Road Awareness Program for motorist, bicyclist and pedestrians that is easily accessible.</p> <p>EFFICACY: ■■■■ COST: ■■■■ COMPLEXITY: ■■■■</p>
	<p><b>TRAFFIC SAFETY DIVERSION PROGRAM</b> For bicycle and pedestrian traffic violations providing access to safety courses and programs centered on biking and walking</p> <p>EFFICACY: ■■■■ COST: ■■■■ COMPLEXITY: ■■■■</p>

# NEXT STEPS

- Identify **Priority Project Locations**
- Identify **Funding Sources**
- Develop an **Implementation Plan**
- **Draft Vision Zero Action Plan**





THANK YOU !

CITY OF CUPERTINO