CITY OF CUPERTINO
VISION ZERO ACTION PLAN

COMMUNITY MEETING #2

JANUARY 23, 2024

PURPOSE OF TODAY'S MEETING

- Introductions
- What is Vision Zero?
- Collision Analysis
- Countermeasure Toolbox and Profiles
- Action Plan
- Vision Zero Programs, Partnerships, Data Collection
- Open Discussion
- Next Steps

INTRODUCTION

City of Cupertino:

- David Stillman, Transportation Manager
- Prashanth Dullu, Assistant Engineer

TJKM Transportation Consultants:

- Ruta Jariwala, Principal Engineer
- Mark Doty, Project Manager
- Gary W. Schatz, Senior Planner
- Devyani Padubidri, Assistant Transportation Planner

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)
- City of Cupertino's Climate Action Plan 2.0 (2022)
- Bollinger Road Corridor Safety Study (2021)
- Transportation Study Guidelines (2021)
- Parks and Recreation System Master Plan (2020)
- Pedestrian Transportation Plan (2018)
- 2016 Bicycle Transportation Plan (2016)
- General Plan 2040 Chapter 5: Mobility Element (2015)
- VTP2040: The Long-Range Transportation Plan for Santa Clara County
- Safe Route To School Program
- City of Cupertino School Walk Audit Report

WHAT IS VISION ZERO?

- 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.**

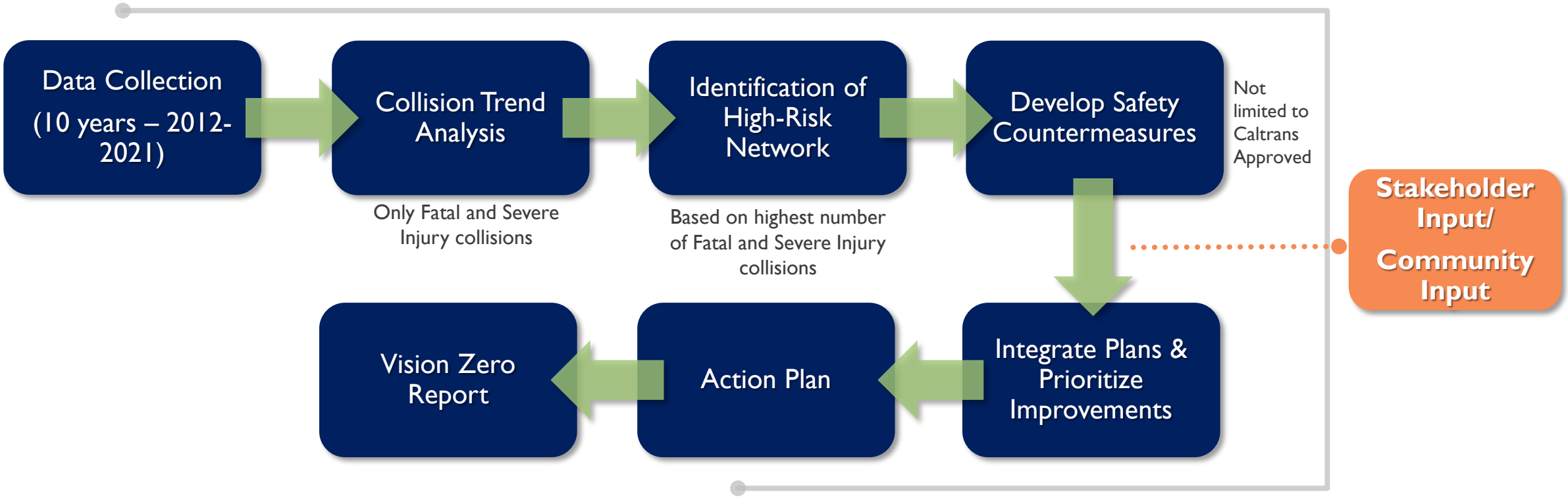
PRINCIPLES

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

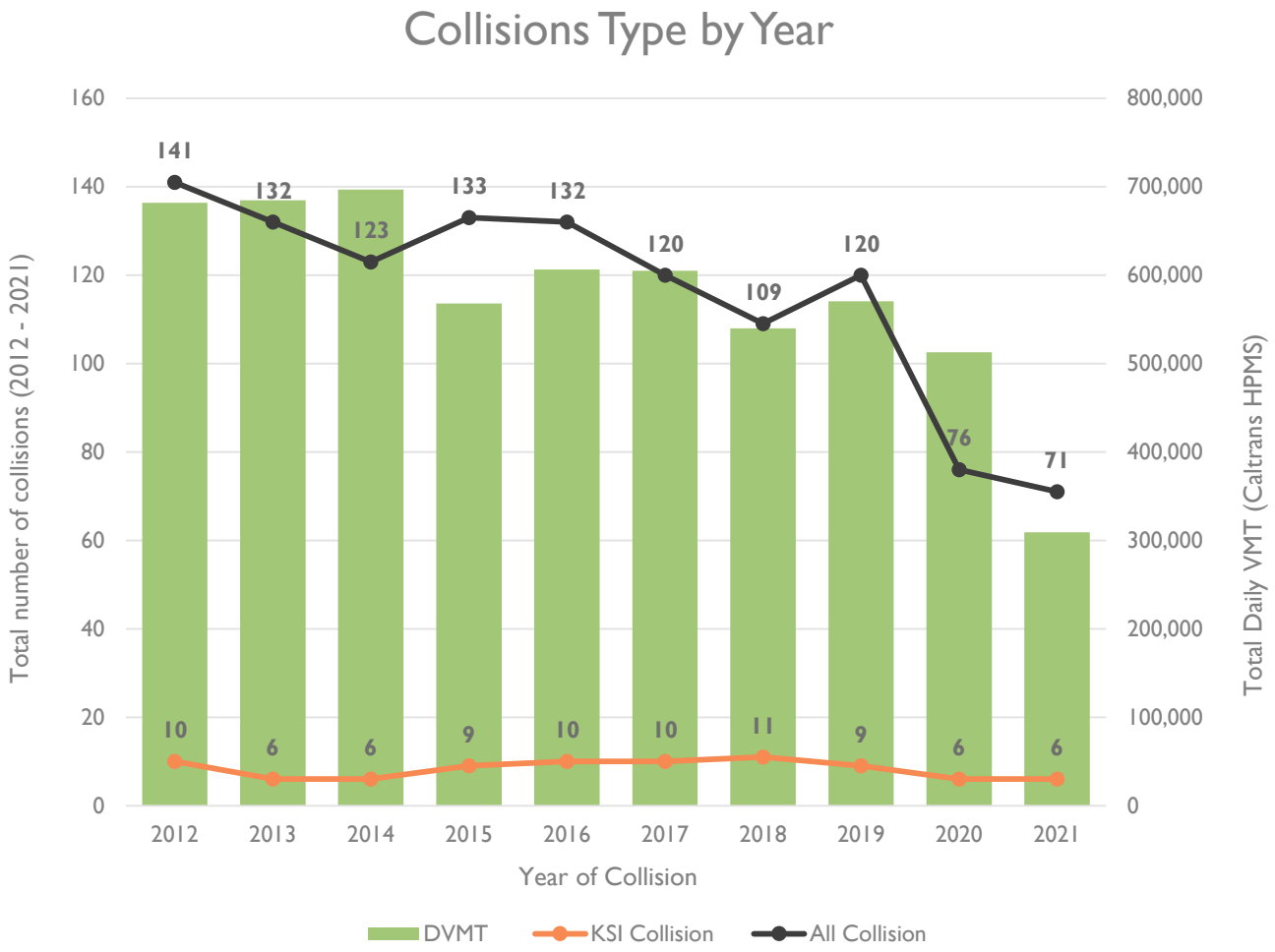
BENEFITS

- ✓ Data driven approach **to identify, analyze, and prioritize** roadway safety improvements
- ✓ Considers **stakeholder and community feedback** to identify additional traffic safety related concerns
- ✓ Allows the City to implement a **systemic approach** to address collisions
- ✓ Tailored to the City's and **Community specific traffic safety needs** – based on the data
- ✓ Implementation: City is eligible to **apply for grants** (OBAG and Safe Streets for All (SS4A))

VISION ZERO PROCESS



WHY DOES CUPERTINO NEED VISION ZERO ?



KSI: Killed and Severe Injury

- With **one crash every three days**, Cupertino's road safety is a growing concern, especially for **vulnerable users.**
- Despite traffic signals, **intersections pose a risk of fatal and severe injuries**, emphasizing the need for a comprehensive strategy.
- Cupertino's Vision Zero plan aims to **create safer streets through various measures, prioritizing safety for all.**
- The goal is to eliminate traffic fatalities and severe injuries, as they are preventable incidents with **no acceptable loss of life.**

COLLISION ANALYSIS

COLLISION TRENDS (2012 – 2021)

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

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

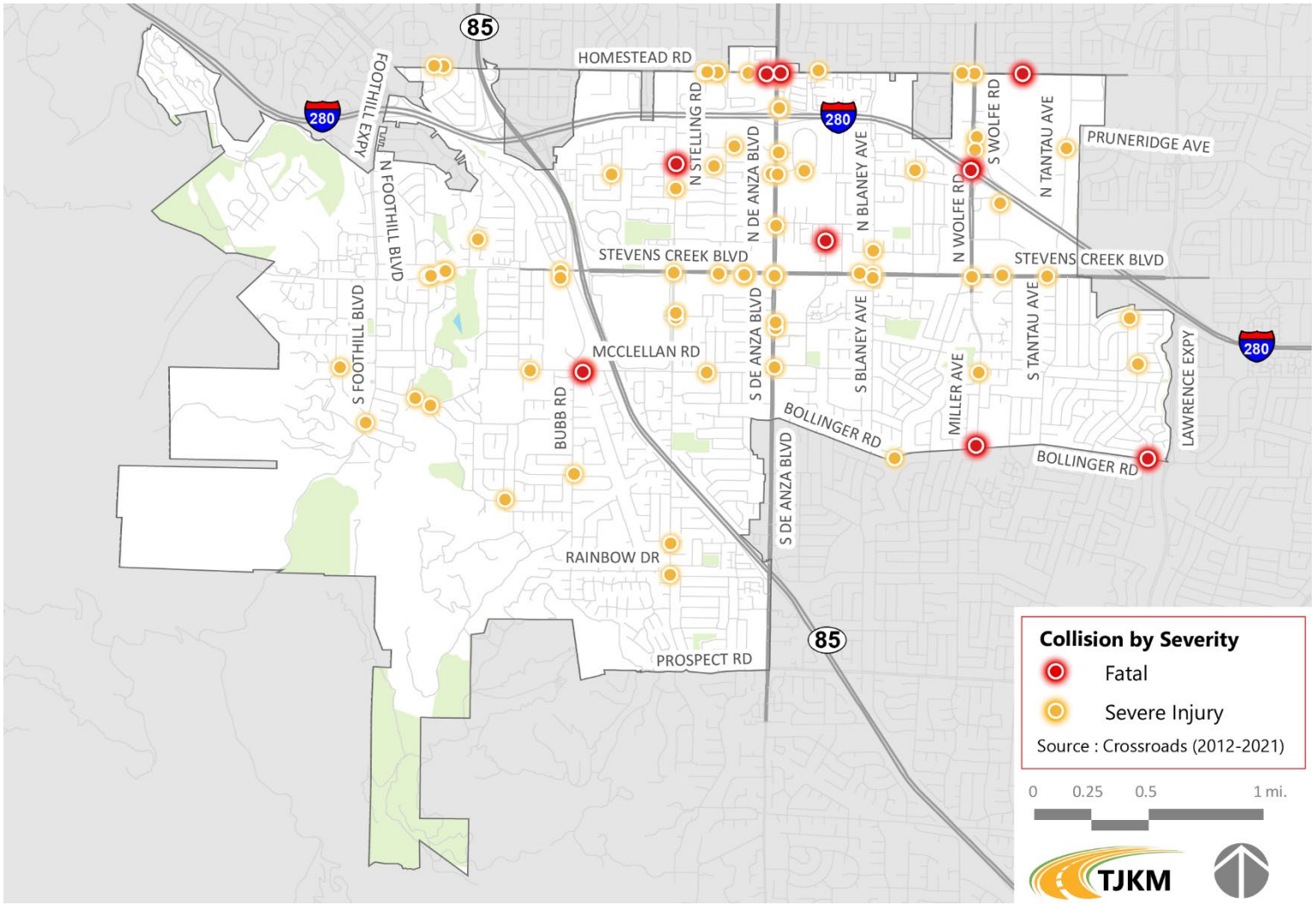
38% of all collisions involved pedestrian and bicycle yet pedestrian and bicycle collisions comprise **60%** of KSI collisions

88% of pedestrian and bicycle KSI collisions occurred at intersections

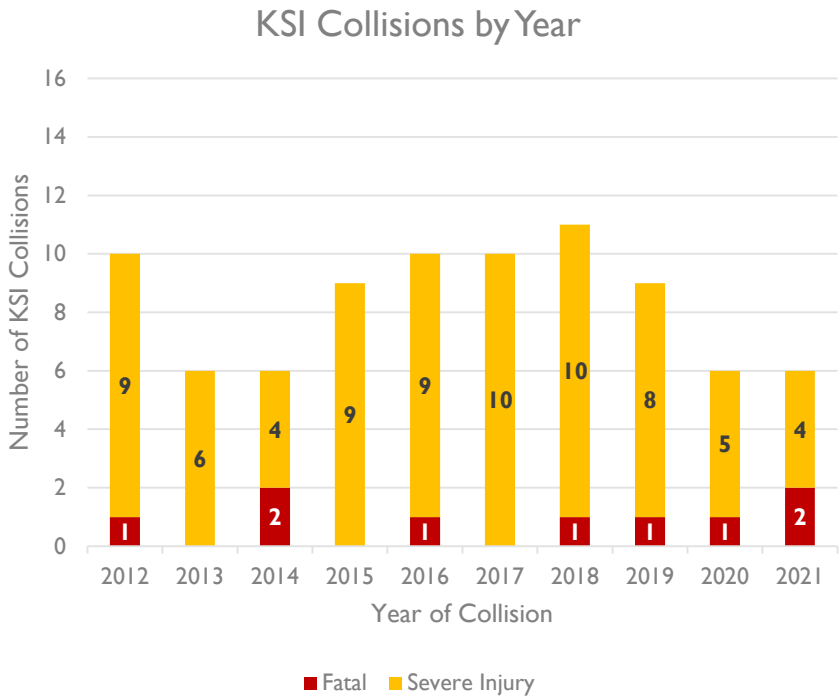
55% of pedestrian and bicycle KSI collisions occurred at signalized intersections

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



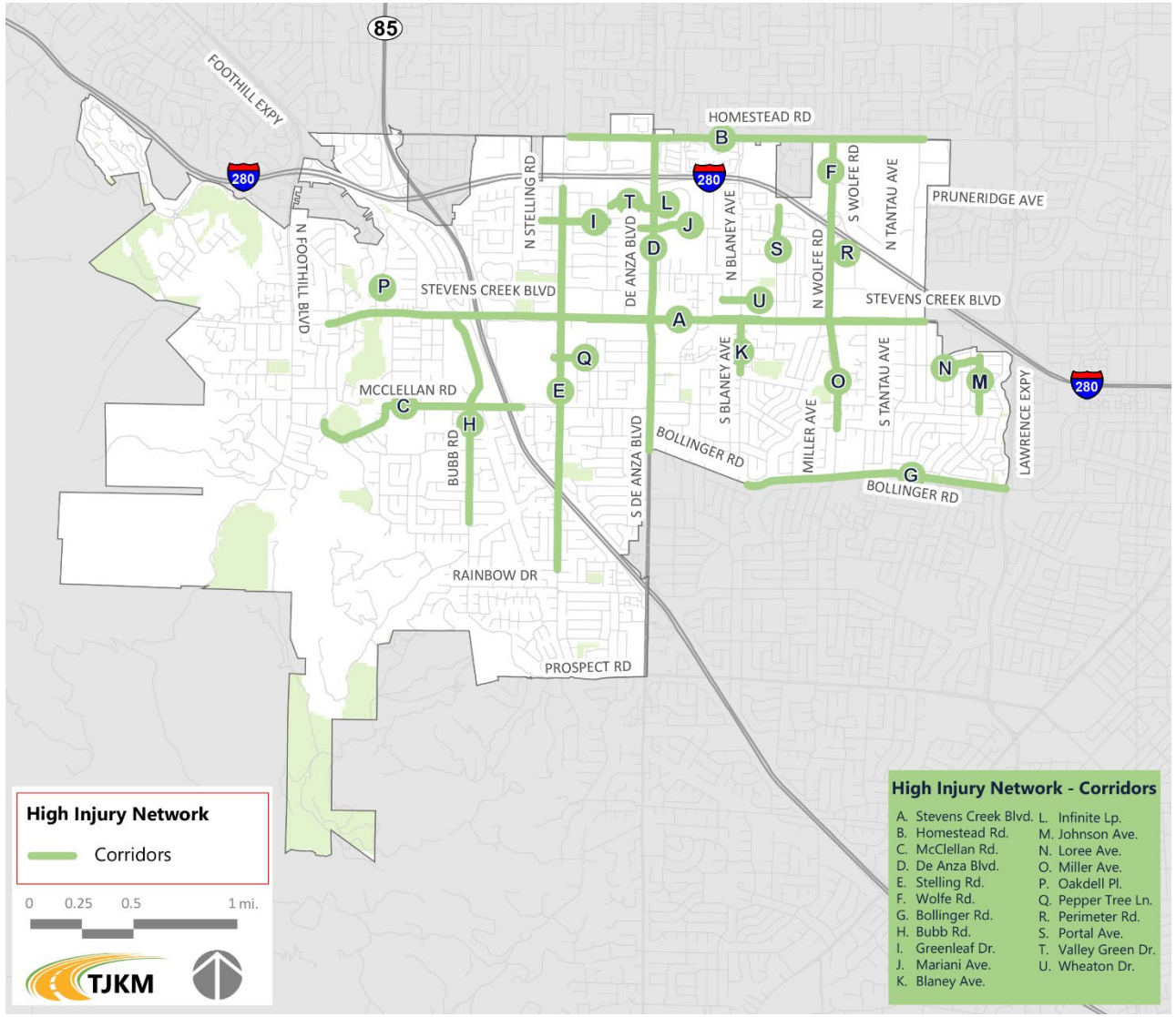
All Killed and Severe Injury Collisions (2012-2021)



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

KSI: Killed and Severe Injury

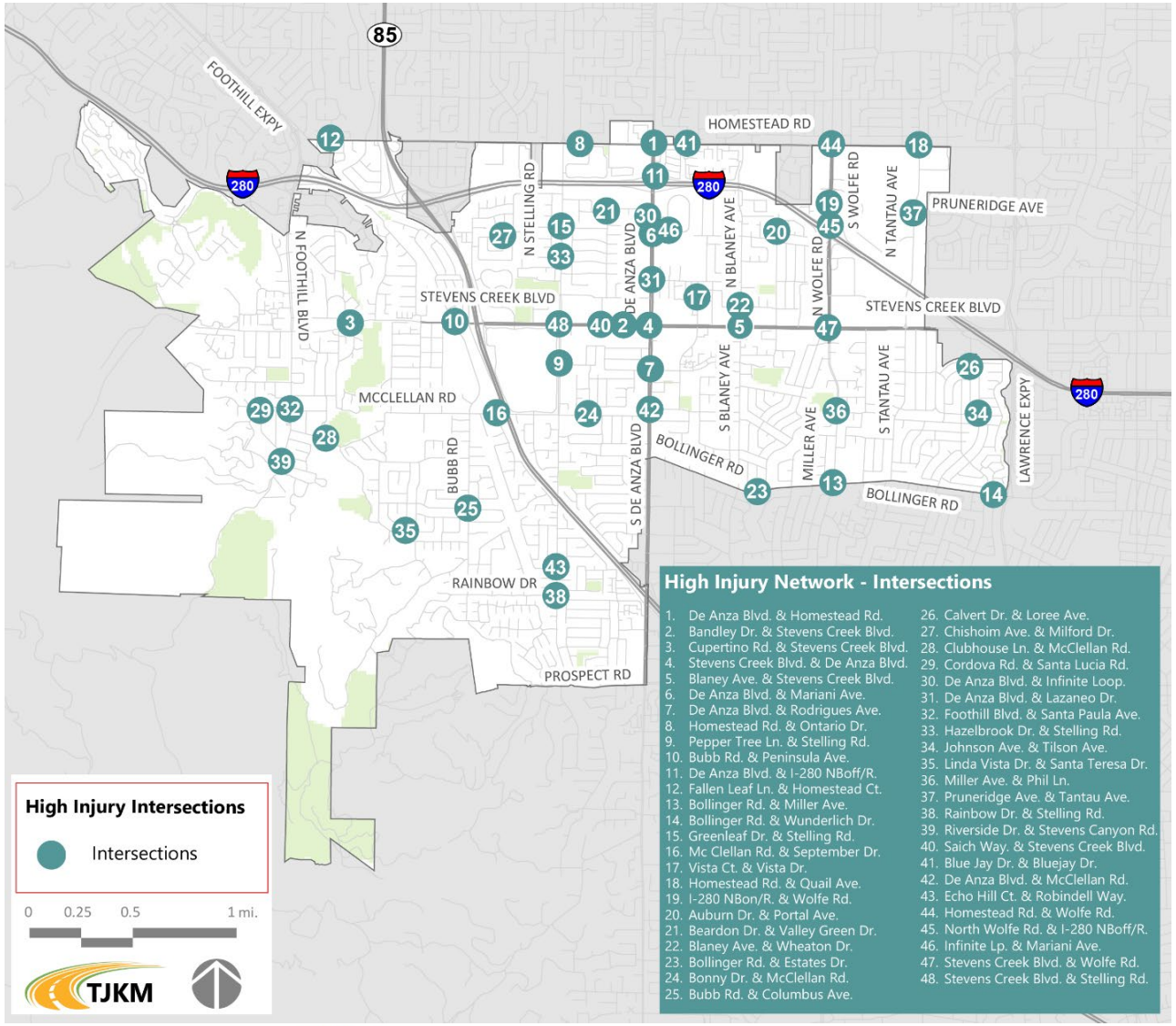
HIGH-INJURY CORRIDORS (2012-2021)



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.
- Bandley 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.
- Each profile identifies a collision type that is considered a priority concern.
- Accompanying each profile are **safety countermeasures** that are most applicable to the specific collision 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

PROFILE 1:
Pedestrian & bicyclist are most vulnerable

PROFILE 2:
Unsafe speeds

PROFILE 3:
Improve intersection safety for all

PROFILE 4:
Pedestrian code violation

PROFILE 5:
Majority of bicycle collisions are broadside collisions

PROFILE 6:
Teenagers biking near schools and parks

PROFILE 7:
Driving under influence

PROFILE 8:
Bicycle collisions and automobile right-of-way violation

PROFILE 9:
Collisions near transit stops

COUNTERMEASURE TOOLBOX

ROADWAY DESIGN

PEDESTRIAN SAFETY

BICYCLIST SAFETY

OPERATIONS AND SIGNAL TIMING

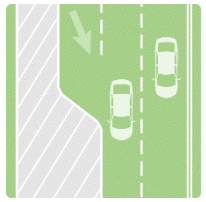
SPEED MANAGEMENT

SIGNAGE AND MARKING

EDUCATION AND PUBLIC AWARENESS

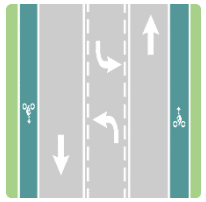
ENFORCEMENT

COUNTERMEASURE TOOLBOX - ROADWAY DESIGN



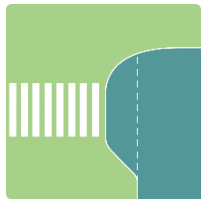
ROAD DIETS AND LANE REDUCTION

EFFICACY: ■ ■ ■
COST: ■ ■ ■
COMPLEXITY: ■ ■ ■



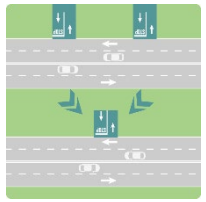
LANE RECONFIGURATION

EFFICACY: ■ ■ ■
COST: ■ ■ ■
COMPLEXITY: ■ ■ ■



CURB EXTENSIONS & BULB OUTS

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ □ □



CONSOLIDATING DRIVEWAYS

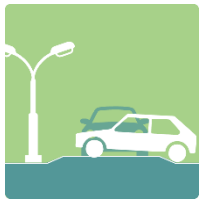
EFFICACY: ■ □ □
COST: ■ ■ □
COMPLEXITY: ■ ■ ■

ROADWAY AND INTERSECTION SAFETY LIGHTING

EFFICACY: ■ ■ ■
COST: ■ ■ ■
COMPLEXITY: ■ ■ □

INTERSECTION TIGHTENING

EFFICACY: ■ □ □
COST: ■ ■ ■
COMPLEXITY: ■ ■ □



RAISED INTERSECTIONS

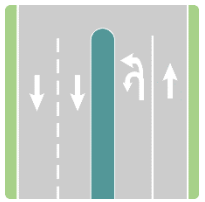
EFFICACY: ■ ■ □
COST: ■ ■ ■
COMPLEXITY: ■ ■ ■

RAISED CROSSWALK

EFFICACY: ■ ■ ■
COST: ■ ■ ■
COMPLEXITY: ■ ■ ■

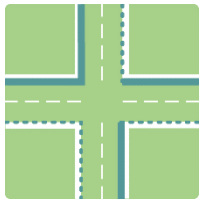
SLIP LANE CLOSURES

EFFICACY: ■ □ □
COST: ■ ■ ■
COMPLEXITY: ■ ■ ■



RAISED MEDIANS

EFFICACY: ■ ■ ■
COST: ■ ■ ■
COMPLEXITY: ■ ■ ■



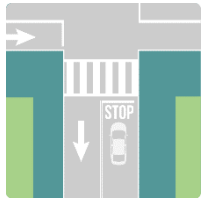
CLOSING SIDEWALK GAPS

EFFICACY: ■ ■ □
COST: ■ ■ ■
COMPLEXITY: ■ ■ ■

COUNTERMEASURE TOOLBOX – PEDESTRIAN SAFETY

MARKED CROSSWALKS

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ □ □



HIGH VISIBILITY CROSSWALKS ADVANCED STOP OR YIELD SIGNS

EFFICACY: ■ ■ ■
COST: ■ □ □
COMPLEXITY: ■ □ □

PEDESTRIAN REFUGE ISLANDS AND MEDIAN

EFFICACY: ■ ■ ■
COST: ■ ■ □
COMPLEXITY: ■ ■ □

PEDESTRIAN SCRAMBLE

EFFICACY: ■ ■ ■
COST: ■ □ □
COMPLEXITY: ■ □ □

ACCESSIBLE PEDESTRIAN SIGNAL (APS)

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □

MIDBLOCK CROSSWALKS

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □

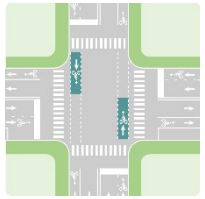
RECTANGULAR RAPID FLASHING BEACON (RRFB)

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ □ □

PEDESTRIAN HYBRID BEACON

EFFICACY: ■ ■ □
COST: ■ ■ ■
COMPLEXITY: ■ ■ □

COUNTERMEASURE TOOLBOX – BICYCLIST SAFETY



BIKE INTERSECTION MARKING

EFFICACY: ■ ■ □
COST: ■ □ □
COMPLEXITY: ■ □ □

SIGNAL DETECTION AND ACTUATION

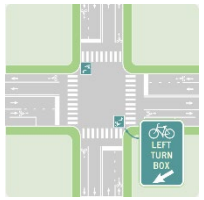
EFFICACY: ■ ■ □
COST: ■ ■ ■
COMPLEXITY: ■ ■ ■

BICYCLE SIGNAL

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □

PRIORITIZE BIKE LANES OVER ON-STREET PARKING

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ □ □



TWO-STAGE BICYCLE TURN BOX

EFFICACY: ■ ■ ■
COST: ■ ■ □
COMPLEXITY: ■ ■ □

GREEN PAVEMENT

EFFICACY: ■ □ □
COST: ■ ■ □
COMPLEXITY: ■ □ □

PROTECTED BIKEWAYS

EFFICACY: ■ ■ ■
COST: ■ ■ ■
COMPLEXITY: ■ ■ ■

BIKE BOX

EFFICACY: ■ □ □
COST: ■ ■ □
COMPLEXITY: ■ □ □

BUFFERED BIKE LANES

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □

SHARED USE TRAIL & BICYCLE PATH

EFFICACY: ■ ■ ■
COST: ■ ■ ■
COMPLEXITY: ■ ■ ■

COUNTERMEASURE TOOLBOX – OPERATIONS AND TIMING

ADAPTIVE PEDESTRIAN SIGNAL TIMING

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □

SIGNAL DETECTION & ACTUATION PED COUNTDOWN SIGNAL HEAD

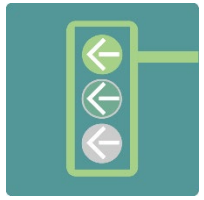
EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □

LEADING PEDESTRIAN/BICYCLE INTERVALS

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ □ □

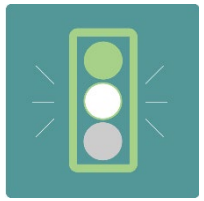
MODIFIED INTERSECTION STOP-CONTROL

EFFICACY: ■ ■ ■
COST: ■ □ □
COMPLEXITY: ■ □ □



PROTECTED LEFT TURN SIGNAL

EFFICACY: ■ ■ ■
COST: ■ ■ □
COMPLEXITY: ■ ■ □

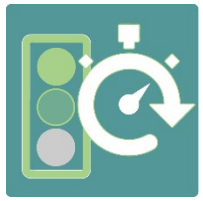


ADVANCED DILEMMA ZONE DETECTION

EFFICACY: ■ ■ □
COST: ■ ■ ■
COMPLEXITY: ■ ■ □

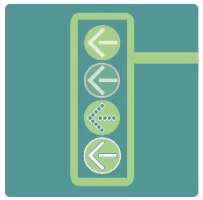
SIGNAL SYNC SLOW GREEN WAVE

EFFICACY: ■ ■ □
COST: ■ ■ ■
COMPLEXITY: ■ ■ ■



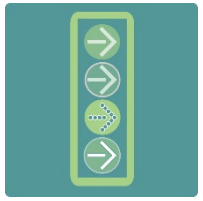
SIGNAL TIMING & PHASING IMPROVEMENTS

EFFICACY: ■ ■ ■
COST: ■ ■ ■
COMPLEXITY: ■ ■ ■



HYBRID LEFT TURN SIGNAL

EFFICACY: ■ ■ ■
COST: ■ ■ □
COMPLEXITY: ■ ■ □



FLASHING YELLOW RIGHT TURN SIGNAL

EFFICACY: ■ □ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □

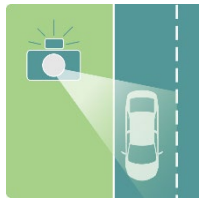
COUNTERMEASURE TOOLBOX – SPEED MANAGEMENT

VEHICLE SPEED FEEDBACK SIGN

EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■□□

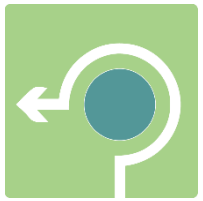
REDUCED SPEED SCHOOL ZONE

EFFICACY: ■■□
COST: ■□□
COMPLEXITY: ■□□



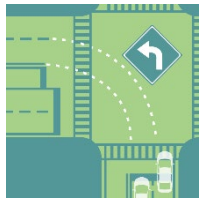
AUTOMATED SPEED ENFORCEMENT

EFFICACY: ■■□
COST: ■■■
COMPLEXITY: ■■■



CHOKERS, CHICANES, BULB OUTS, SPLITTER ISLANDS, & ROUNDABOUTS

EFFICACY: ■■□
COST: ■■■
COMPLEXITY: ■■■



TURN CALMING PROGRAM

EFFICACY: ■□□
COST: ■□□
COMPLEXITY: ■□□

SPEED CUSHIONS, SPEED HUMPS & SPEED TABLES

EFFICACY: ■■■
COST: ■■□
COMPLEXITY: ■■□

IMPROVE HIGH FRICTION SURFACE TREATMENT

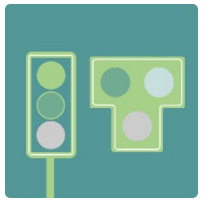
EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■■□

CONVERT SIGNAL TO MAST ARM

EFFICACY: ■■□
COST: ■■■
COMPLEXITY: ■■■

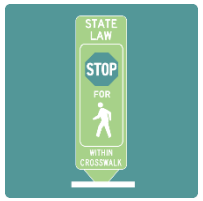
COUNTERMEASURE TOOLBOX

SIGNAGE AND MARKING



BACK-PLATES WITH RETROREFLECTIVE BORDERS

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □



PEDESTRIAN PADDLE SIGNS

EFFICACY: ■ ■ □
COST: ■ □ □
COMPLEXITY: ■ □ □

EDGE LINE

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ □ □

PARKING RESTRICTION AT INTERSECTION

EFFICACY: ■ ■ ■
COST: ■ □ □
COMPLEXITY: ■ □ □

ENFORCEMENT

HIGH VISIBILITY ENFORCEMENT

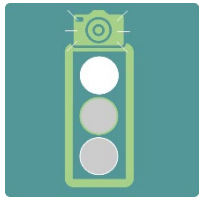
EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ ■ ■

EDUCATIONAL INITIATIVES OVER CITATIONS

EFFICACY: ■ □ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □

TRAFFIC SAFETY DIVERSION PROGRAM

EFFICACY: ■ ■ □
COST: ■ □ □
COMPLEXITY: ■ ■ □



RED LIGHT VIOLATION CAMERAS

EFFICACY: ■ ■ □
COST: ■ ■ ■
COMPLEXITY: ■ ■ □

COUNTERMEASURE TOOLBOX - EDUCATION

EDUCATIONAL CAMPAIGN

EFFICACY: ■ □ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □

RAPID RESPONSE SAFETY COMMUNICATION PROTOCOL

EFFICACY: ■ ■ □
COST: ■ □ □
COMPLEXITY: ■ □ □

SAFE ROUTES TO SCHOOL PROGRAM

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □

SAFE ROUTES PROGRAMS

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □

SHARE THE ROAD AWARENESS PROGRAM

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □

VISION ZERO TRAINING MANUAL

EFFICACY: ■ ■ ■
COST: ■ ■ □
COMPLEXITY: ■ ■ □

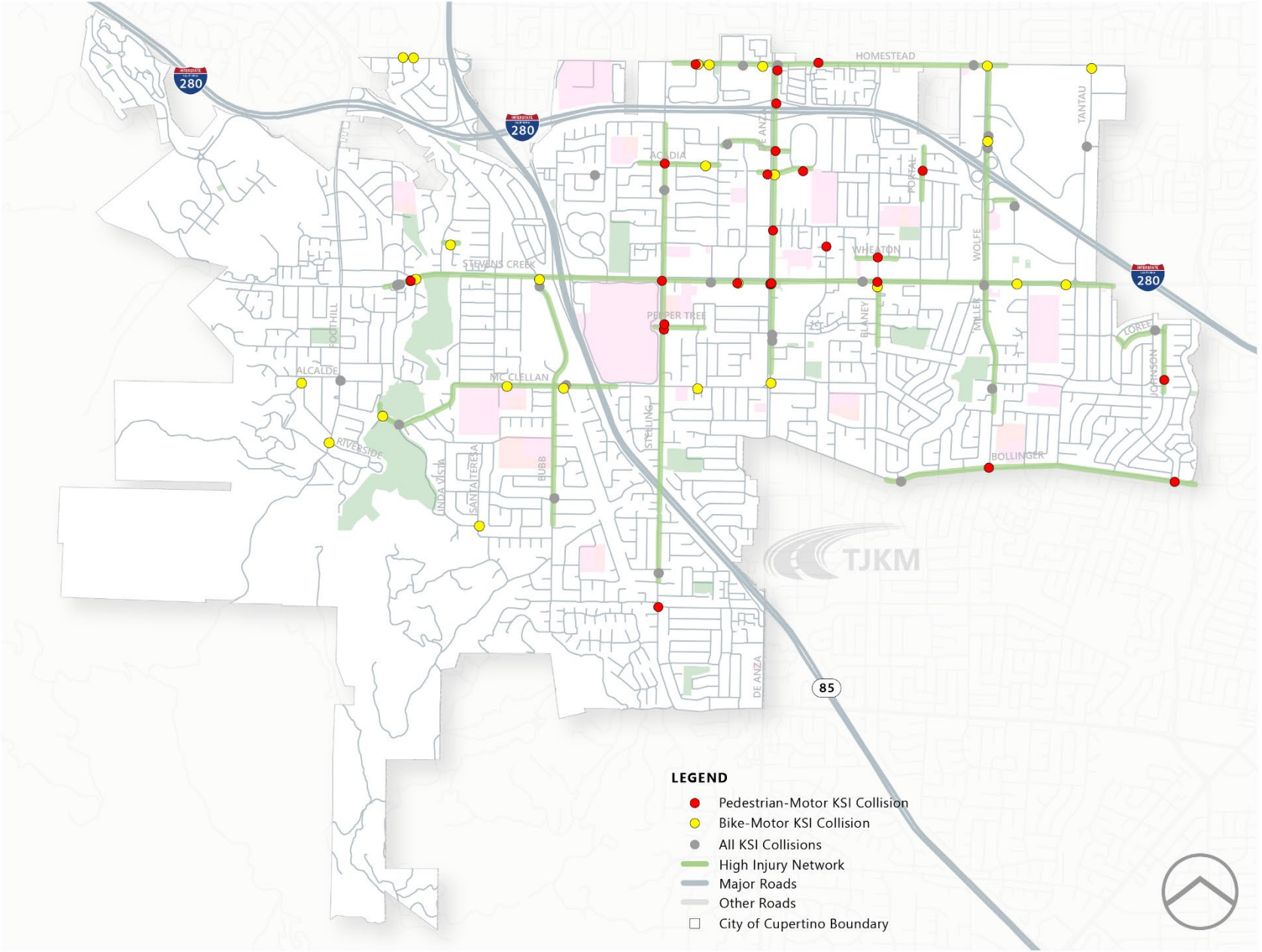
COMMUNITY PARTNERSHIP

EFFICACY: ■ ■ □
COST: ■ ■ □
COMPLEXITY: ■ ■ □

ALCOHOL USE DISORDER (AUD) ASSESSMENT & TREATMENT PROGRAMS

EFFICACY: ■ □ □
COST: ■ ■ ■
COMPLEXITY: ■ ■ ■

Profiles 1 : **PEDESTRIAN & BICYCLIST ARE MOST VULNERABLE**



MARKED CROSSWALKS
Effectively decrease the occurrence of collisions along high risk corridors

EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■□□

PEDESTRIAN REFUGE ISLANDS
Provide a safe space for pedestrians to pause between traffic

EFFICACY: ■■■
COST: ■■□
COMPLEXITY: ■■□

PROTECTED BIKEWAYS
Segregated lanes shielded by flexible posts, parked cars, and planters for safe bicycle travel separate from vehicle traffic.

EFFICACY: ■■■
COST: ■■■
COMPLEXITY: ■■■

RECTANGULAR RAPID FLASHING BEACON
Offers pedestrians and bicyclists a clear path to cross the street more safely.

EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■□□

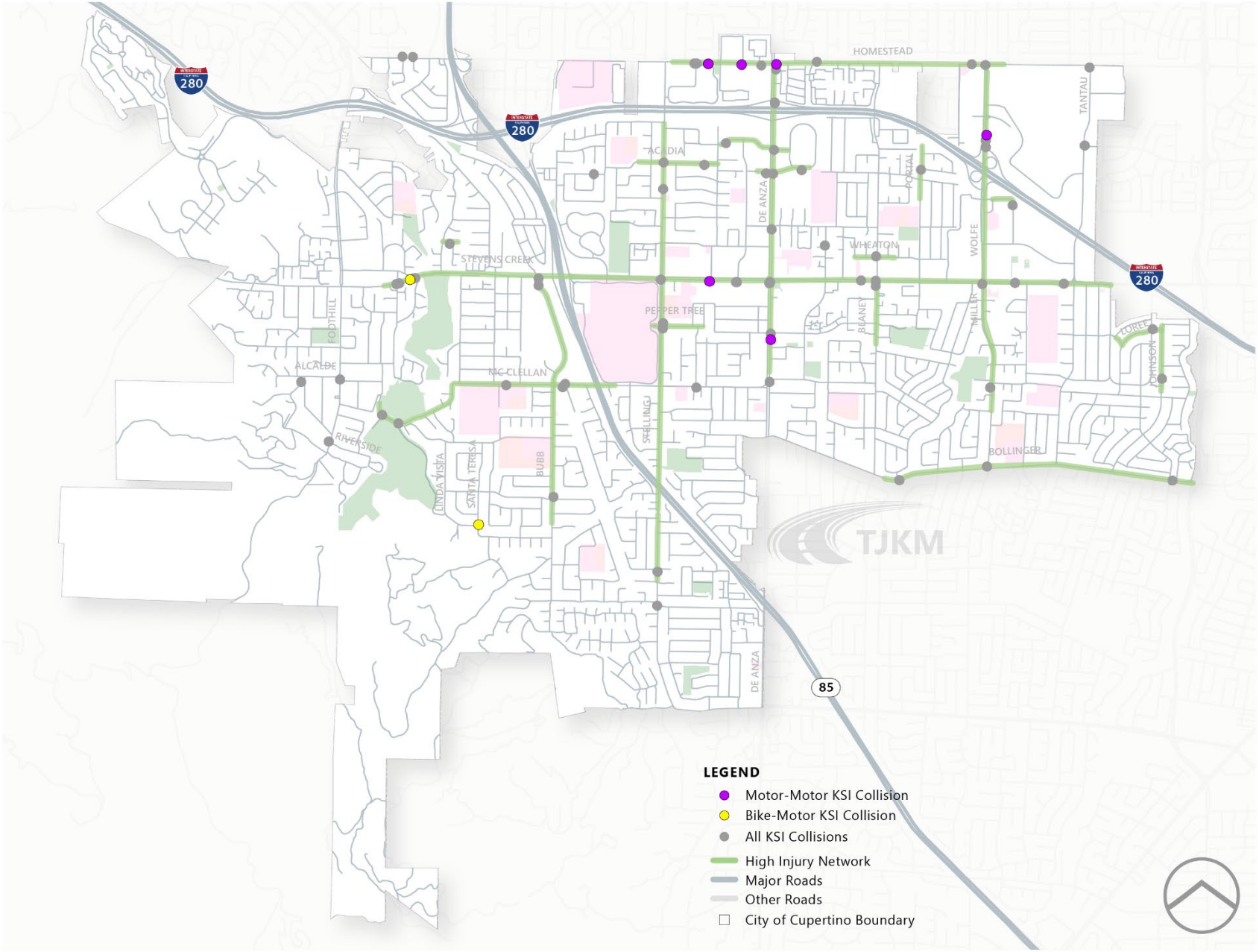
SHARE THE ROAD AWARENESS PROGRAM
Create a Share the Road Awareness Program for motorist, bicyclist and pedestrians that is easily accessible.

EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■■□

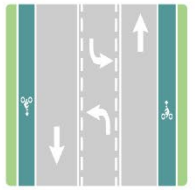
TRAFFIC SAFETY DIVERSION PROGRAM
For bicycle and pedestrian traffic violations providing access to safety courses and programs centered on biking and walking

EFFICACY: ■■□
COST: ■□□
COMPLEXITY: ■■□

Profiles 2 : **UNSAFE SPEED**



PROTECTED BIKEWAYS
Segregated lanes shielded by flexible posts, parked cars, and planters for safe bicycle travel separate from vehicle traffic.
EFFICACY: ■■■
COST: ■■■
COMPLEXITY: ■■■



LANE RECONFIGURATION
Reapportion the street to reduce excessive speeding and better serve all road users.
EFFICACY: ■■■
COST: ■■■
COMPLEXITY: ■■■

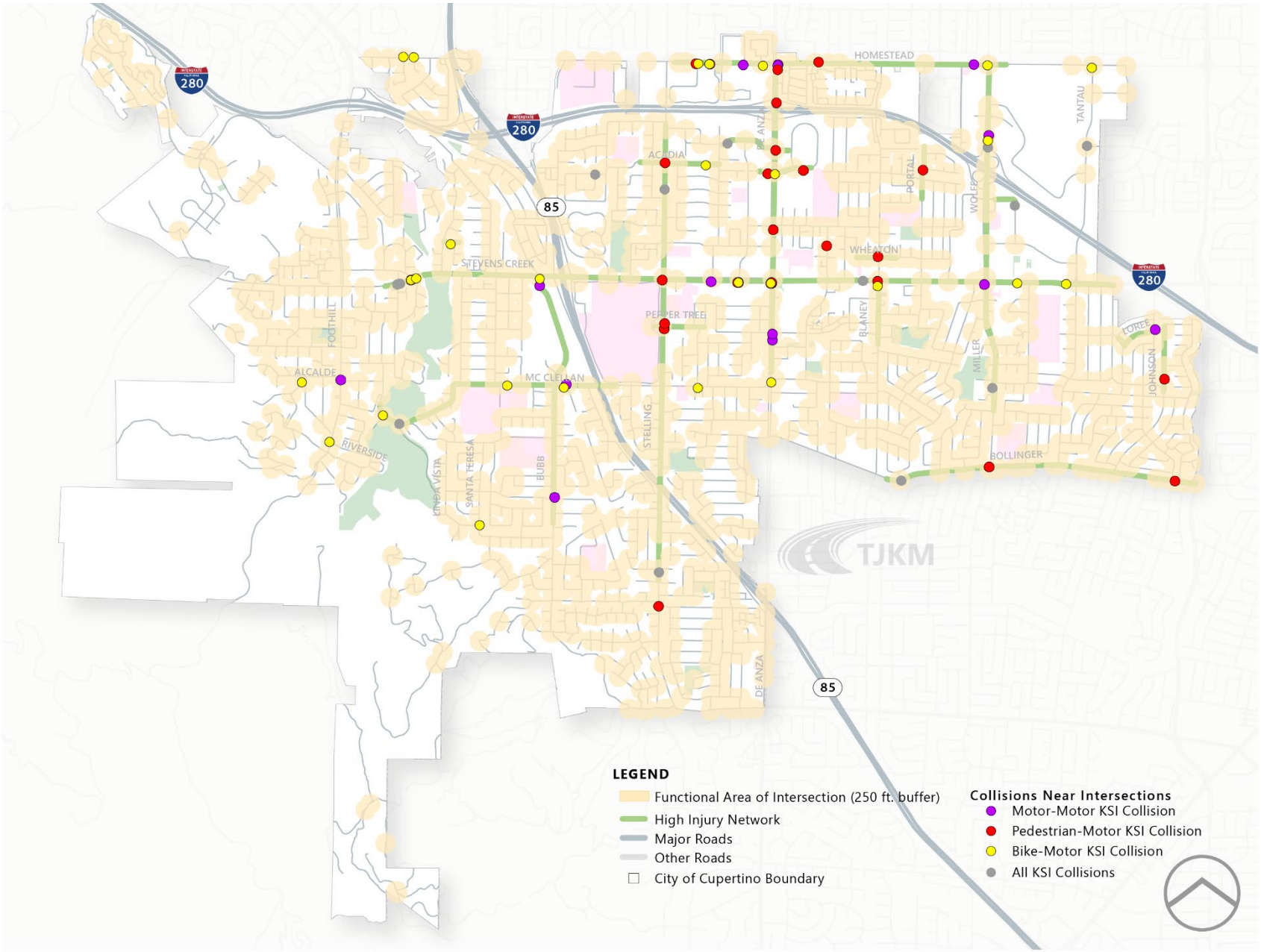
VEHICLE SPEED FEEDBACK SIGN
Radar-based vehicle speed feedback signs promote safer streets by improving drivers' speed compliance through LED displays.
EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■□□

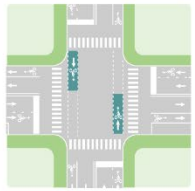
SPEED CUSHIONS, HUMP AND TABLE
Traffic calming devices that reduce vehicle speeds
EFFICACY: ■■■
COST: ■■□
COMPLEXITY: ■■□

REDUCED SPEED SCHOOL ZONE
Reduction in speed limits in school zones reduces vehicular speeds and fatal and injury collisions
EFFICACY: ■■□
COST: ■□□
COMPLEXITY: ■□□

AUTOMATED SPEED ENFORCEMENT
Automated sensors linked to cameras detect red-light running and speeding, resulting in mailed citations to violators.
EFFICACY: ■■□
COST: ■■■
COMPLEXITY: ■■■

Profiles 3 : **IMPROVE INTERSECTION SAFETY FOR ALL**





BIKE INTERSECTION MARKING
Emphasizes the priority of cyclists over turning vehicles and enhancing visibility.

EFFICACY: ■■□
COST: ■□□
COMPLEXITY: ■□□

MARKED CROSSWALKS
Effectively decrease the occurrence of collisions along high risk corridors

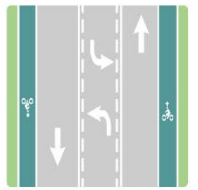
EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■□□

ADAPTIVE PEDESTRIAN SIGNAL TIMING
Sensor detects when pedestrian are present in a crossing and automatically increases crossing time when necessary

EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■■□

RAISED CROSSWALK
Reduce vehicle speeds and enhance the pedestrian crossing environment.

EFFICACY: ■■■
COST: ■■■
COMPLEXITY: ■■■



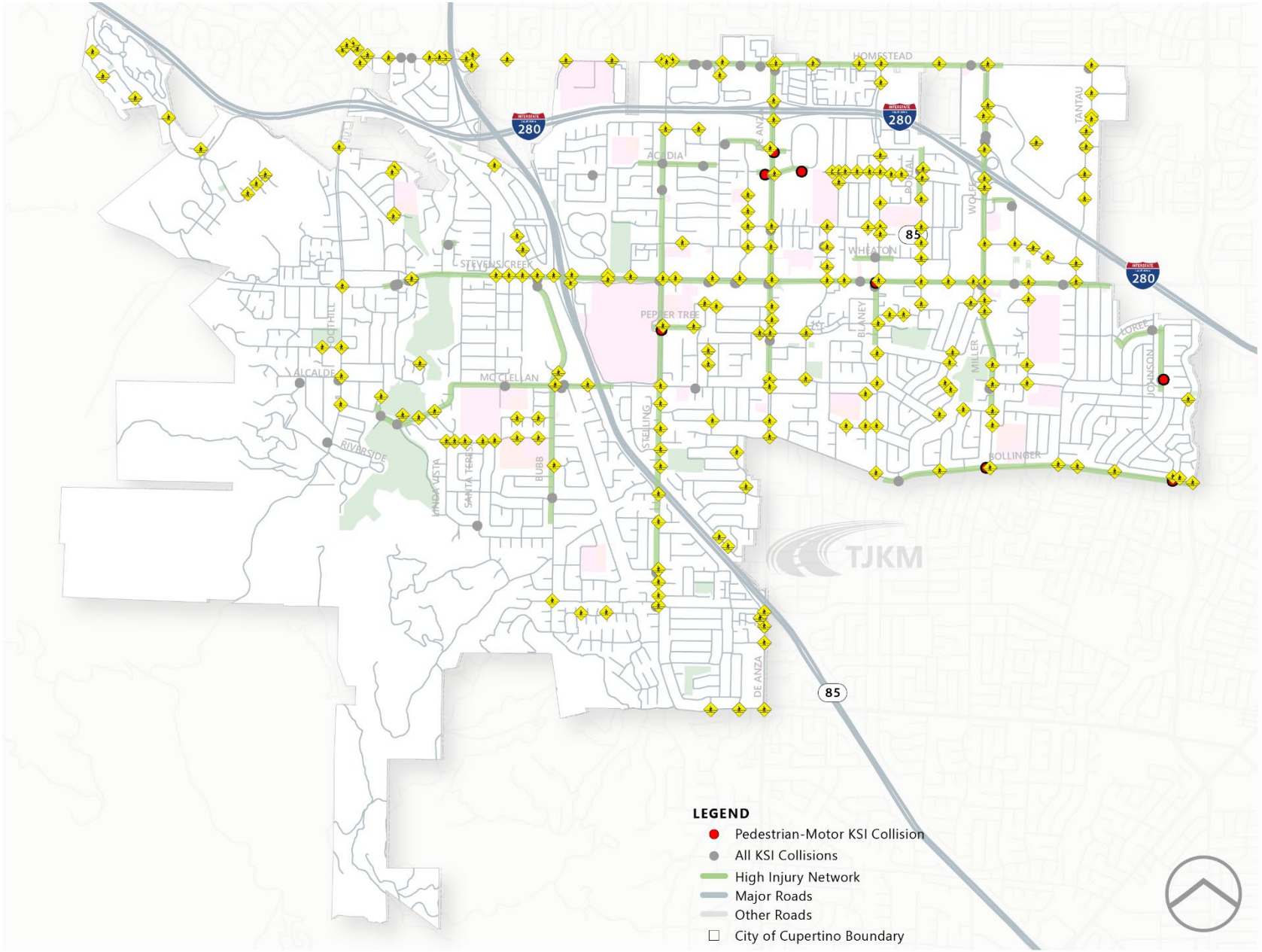
LANE RECONFIGURATION
Reapportion the street to reduce excessive speeding and better serve all road users.

EFFICACY: ■■■
COST: ■■■
COMPLEXITY: ■■■

ROUNDABOUTS
Proven safety countermeasure that reduces speeds and crash potential while better serving all roadway users

EFFICACY: ■■□
COST: ■■■
COMPLEXITY: ■■■

Profiles 4 : **PEDESTRIAN CODE VIOLATION**



MARKED CROSSWALKS
Effectively decrease the occurrence of collisions along high risk corridors

EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■□□

INTERSECTION SAFETY LIGHTING
Decreases accidents involving them during nighttime and increases awareness and response time.

EFFICACY: ■■■
COST: ■■■
COMPLEXITY: ■■□

ADAPTIVE PEDESTRIAN SIGNAL TIMING
Sensor detects when pedestrian are present in a crossing and automatically increases crossing time when necessary

EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■■□

SHARE THE ROAD AWARENESS PROGRAM
Create a Share the Road Awareness Program for motorist, bicyclist and pedestrians that is easily accessible.

EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■■□

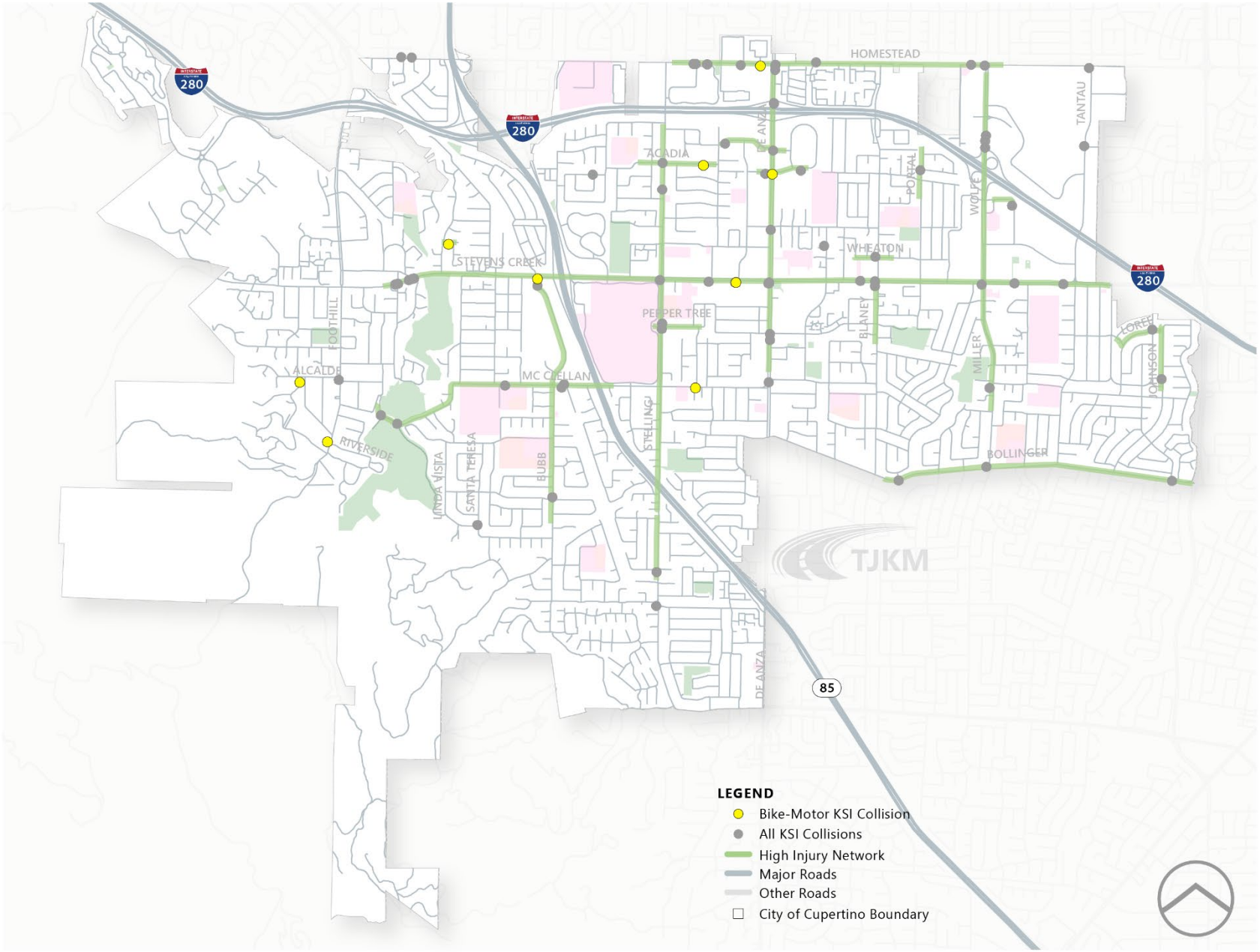
FLASHING YELLOW RIGHT TURN
Indicate that drivers may turn after yielding to oncoming traffic. These turns are considered "permissive."

EFFICACY: ■□□
COST: ■■□
COMPLEXITY: ■■□

MIDBLOCK CROSSWALKS
Increases safety by decreasing random and unexpected pedestrian crossings

EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■■□

Profiles 5 : **MAJORITY OF BIKE COLLISIONS ARE BROADSIDE COLLISIONS**



PROTECTED BIKEWAYS
Segregated lanes shielded by flexible posts, parked cars, and planters for safe bicycle travel separate from vehicle traffic.
EFFICACY: ■■■
COST: ■■■
COMPLEXITY: ■■■

TWO-STAGE BICYCLE TURN BOX
Offers bicyclists a multi-stage process to safely and more visibly make a left turn
EFFICACY: ■■■
COST: ■■□
COMPLEXITY: ■■□

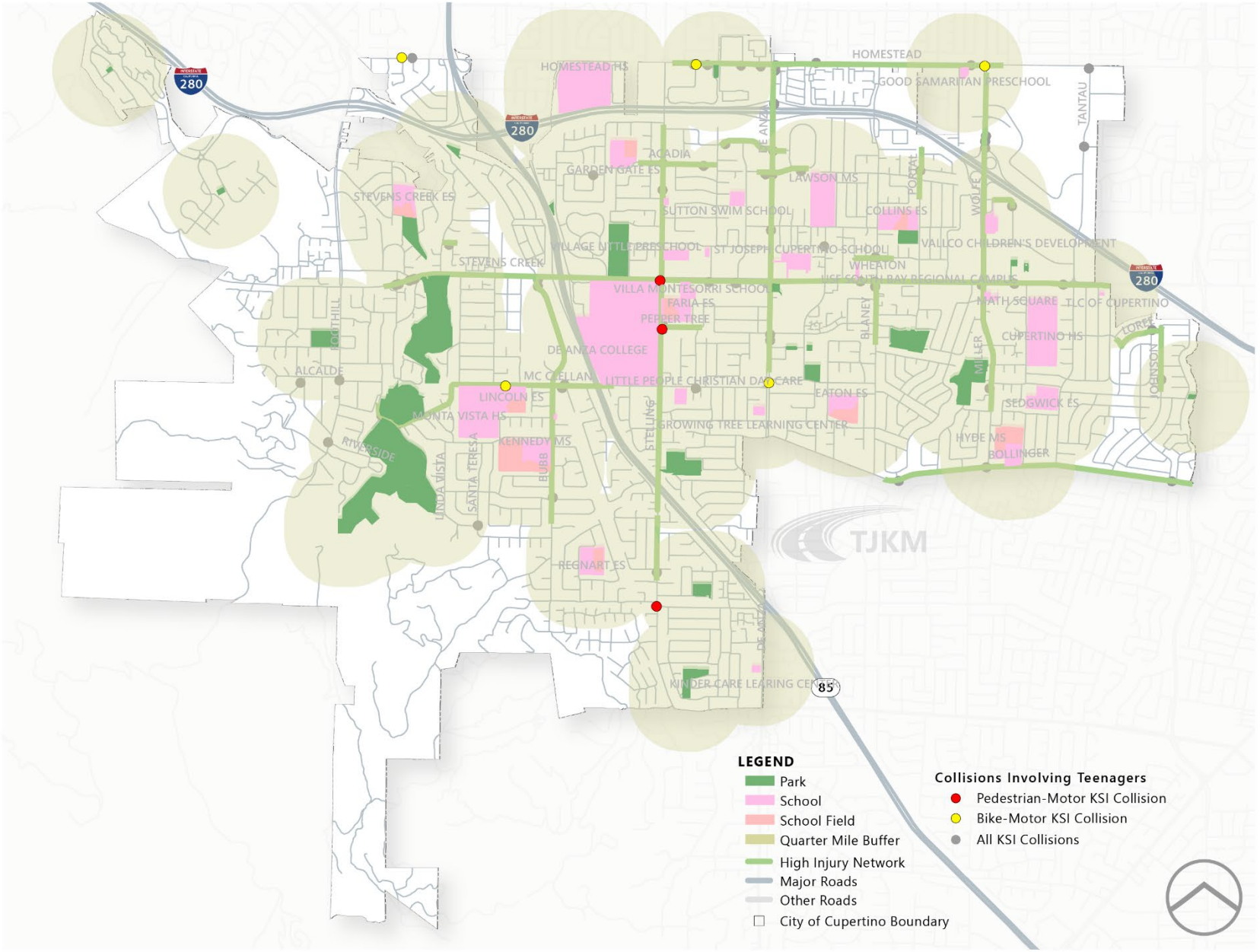
BICYCLE SIGNAL
Prioritizes bicycle movements at intersections, separating them from conflicting motor vehicles
EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■■□

TURN CALMING PROGRAM
Basic or complete hardened centerlines for left turns and Slow Turn Wedges enforces safe turning practices
EFFICACY: ■□□
COST: ■□□
COMPLEXITY: ■□□

BIKE BOX
Safe and visible way to get ahead of queuing traffic during the red signal phase.
EFFICACY: ■□□
COST: ■■□
COMPLEXITY: ■□□

FLASHING YELLOW RIGHT TURN
Indicate that drivers may turn after yielding to oncoming traffic. These turns are considered "permissive."
EFFICACY: ■□□
COST: ■■□
COMPLEXITY: ■■□

Profiles 6 : **TEENAGERS BIKING/WALKING NEAR SCHOOLS AND PARKS**



SAFE ROUTES TO SCHOOL PROGRAM

Expand the Cupertino Safe Routes to School Program to include Vision Zero Training material for students, parents and teachers.

EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■■□

REDUCED SPEED SCHOOL ZONE

Reduction in speed limits in school zones reduces vehicular speeds and fatal and injury collisions

EFFICACY: ■■□
COST: ■□□
COMPLEXITY: ■□□

BICYCLE SIGNAL

Prioritizes bicycle movements at intersections, separating them from conflicting motor vehicles

EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■■□

PROTECTED BIKEWAYS

Segregated lanes shielded by flexible posts, parked cars, and planters for safe bicycle travel separate from vehicle traffic.

EFFICACY: ■■■
COST: ■■■
COMPLEXITY: ■■■

FLASHING YELLOW RIGHT TURN

Indicate that drivers may turn after yielding to oncoming traffic. These turns are considered "permissive."

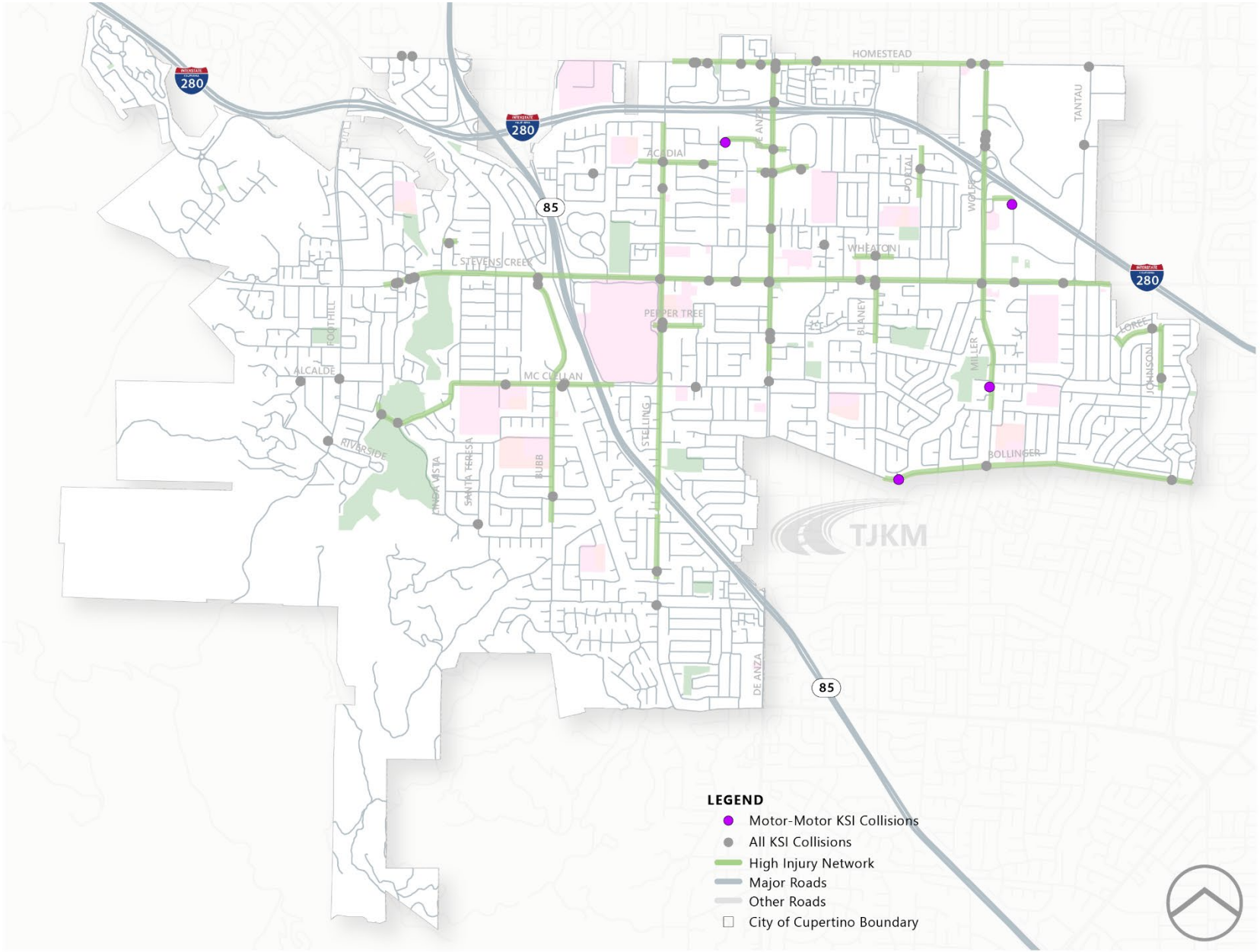
EFFICACY: ■□□
COST: ■■□
COMPLEXITY: ■■□

HIGH VISIBILITY ENFORCEMENT

Concentrate enforcement activities in areas of Cupertino where engineering and educational initiatives have already been implemented.

EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■■■

Profiles 7 : **DRIVING UNDER INFLUENCE**



ALCOHOL USE DISORDER (AUD) ASSESSMENT & TREATMENT PROGRAMS

Long-term, tailored, and specialized treatment programs can serve as an intervention

EFFICACY: ■□□
COST: ■■■
COMPLEXITY: ■■■

HIGH VISIBILITY ENFORCEMENT

Concentrate enforcement activities in areas of Cupertino where engineering and educational initiatives have already been implemented.

EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■■■

EDUCATIONAL CAMPAIGN

Work together with community organizations to distribute materials to promote

EFFICACY: ■□□
COST: ■■□
COMPLEXITY: ■■□

VEHICLE SPEED FEEDBACK SIGN

Radar-based vehicle speed feedback signs promote safer streets by improving drivers' speed compliance through LED displays.

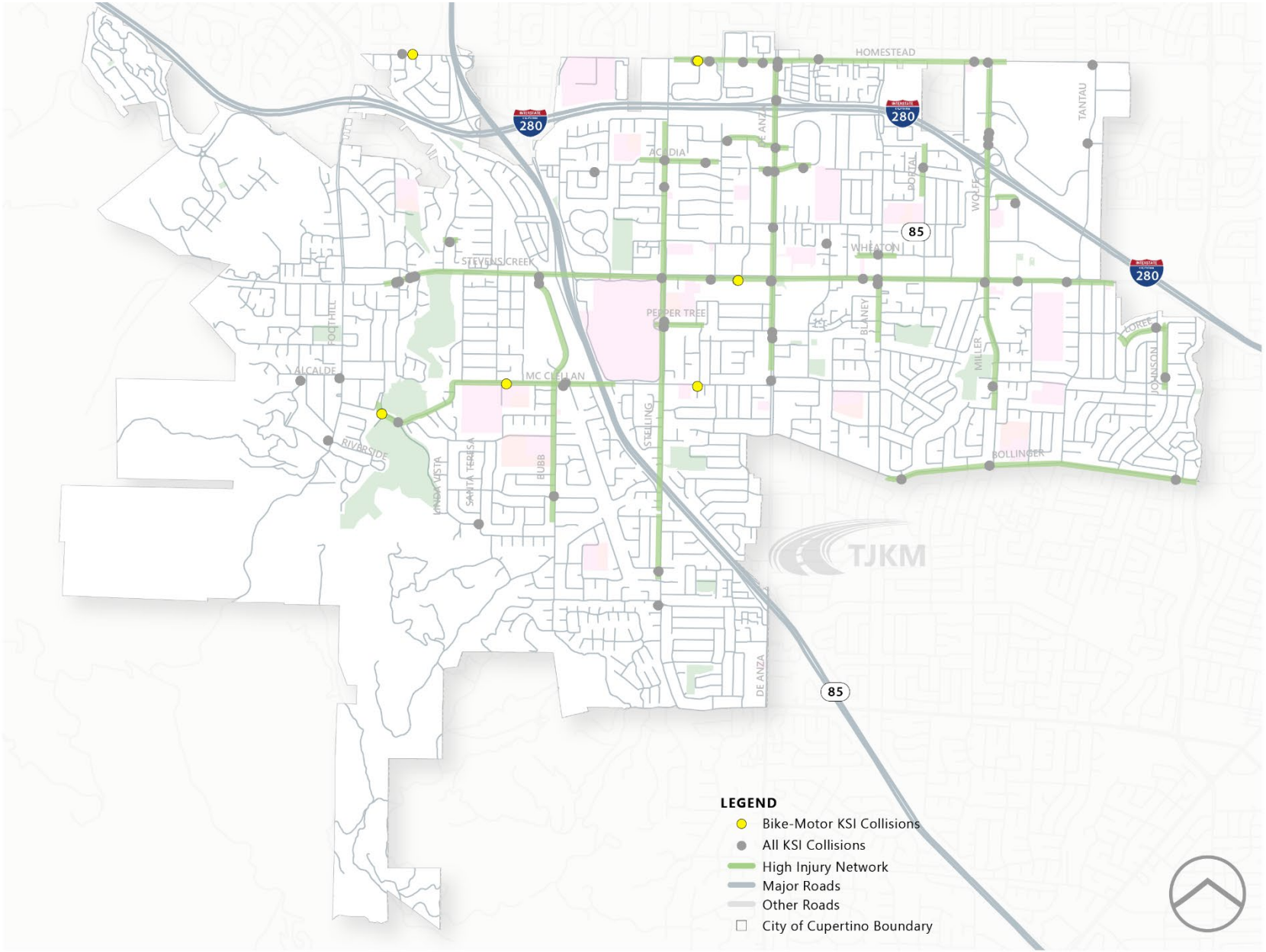
EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■□□

EDUCATIONAL INITIATIVES OVER CITATIONS

Prioritize educational initiatives while issuing citations during traffic enforcement

EFFICACY: ■□□
COST: ■■□
COMPLEXITY: ■■□

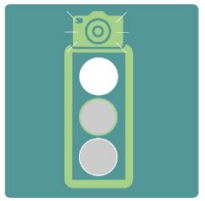
Profiles 8 : **BICYCLE COLLISIONS AND AUTOMOBILE ROW VIOLATION**



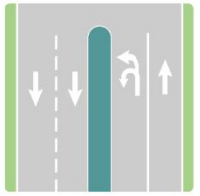
PROTECTED BIKEWAYS
Segregated lanes shielded by flexible posts, parked cars, and planters for safe bicycle travel separate from vehicle traffic.
EFFICACY: ■■■
COST: ■■■
COMPLEXITY: ■■■

TWO-STAGE BICYCLE TURN BOX
Offers bicyclists a multi-stage process to safely and more visibly make a left turn
EFFICACY: ■■■
COST: ■■□
COMPLEXITY: ■■□

ROUNDABOUTS
Proven safety countermeasure that reduces speeds and crash potential while better serving all roadway users
EFFICACY: ■■□
COST: ■■■
COMPLEXITY: ■■■

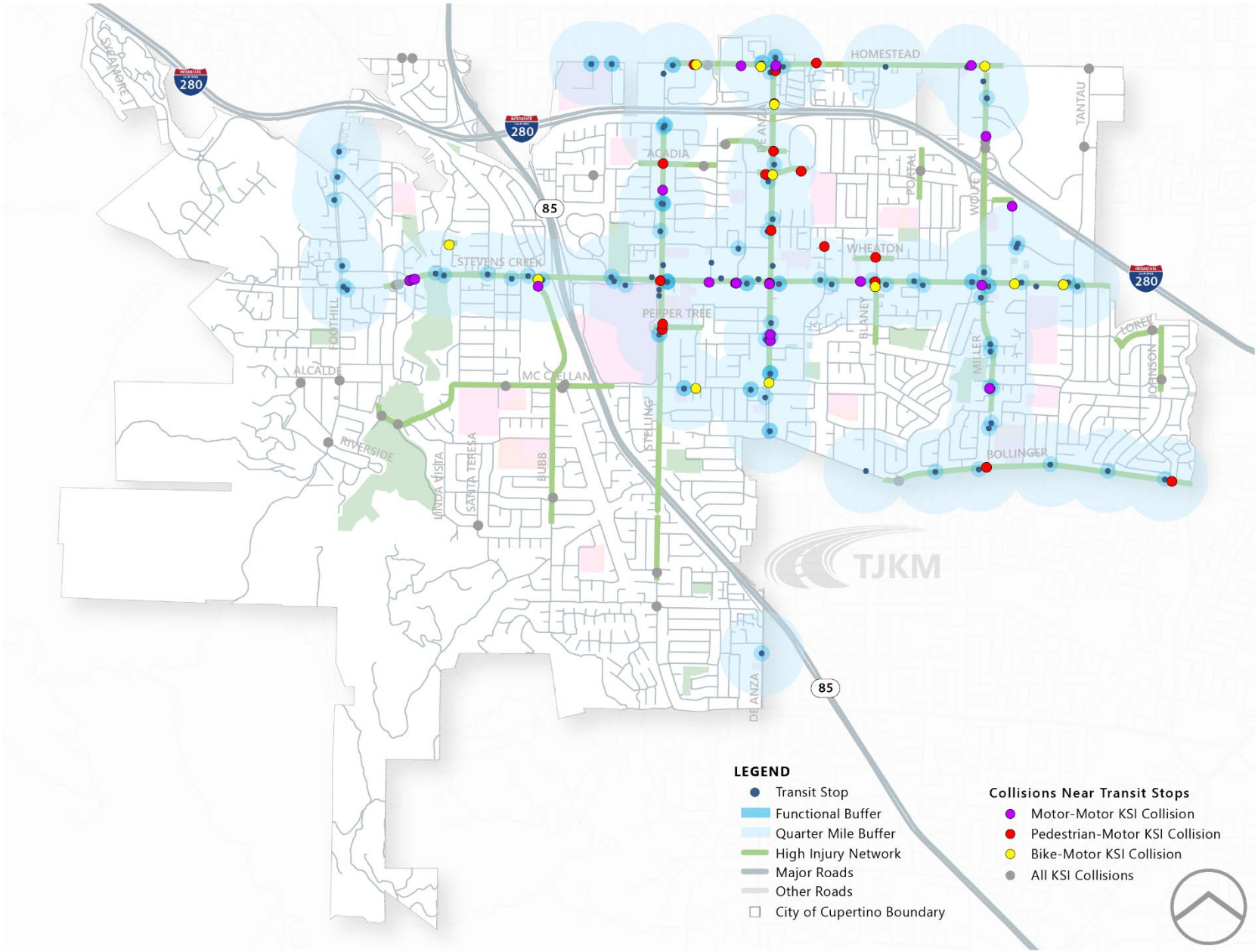


RED LIGHT VIOLATION CAMERAS
Used to automate enforcement efforts in locations where traffic stops violations occur
EFFICACY: ■■□
COST: ■■■
COMPLEXITY: ■■□



RAISED MEDIANS
Provides a physical barrier between opposing traffic lanes and restricts illegal turns and helps reduce collisions
EFFICACY: ■■■
COST: ■■■
COMPLEXITY: ■■■

Profiles 9 : **COLLISIONS NEAR TRANSIT STOPS**



PROTECTED BIKEWAYS
Segregated lanes shielded by flexible posts, parked cars, and planters for safe bicycle travel separate from vehicle traffic.
EFFICACY: ■■■
COST: ■■■
COMPLEXITY: ■■■

MARKED CROSSWALKS
Effectively decrease the occurrence of collisions along high risk corridors
EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■□□

PEDESTRIAN HYBRID BEACON
Warn and control traffic at unsignalized intersections while providing instantaneous service with less delay
EFFICACY: ■■□
COST: ■■■
COMPLEXITY: ■■□

RECTANGULAR RAPID FLASHING BEACON
Offers pedestrians and bicyclists a clear path to cross the street more safely.
EFFICACY: ■■□
COST: ■■□
COMPLEXITY: ■□□

ACTION PLAN

VISION ZERO PROGRAM: STRATEGIES AND ASSESSMENT

No.	Safety Strategy	Timeline	City Resources
Vision Zero Program Initiative			
A.1	Vision Zero Task Force	Short-term	Low
A.2	Dedicated and Permanent Funding	Short-term	Medium to High
A.3	Media Workshop	Short-term	Low
Promotion and Integration			
A.4	Public Meeting	Short-Term	Low
A.5	Online Collision Map	Medium-Term	Medium
A.6	Future Plans	Continuous	Low
Data Collection & Program Evaluation			
A.7	Program Monitoring	Medium-Term	Medium
A.8	Collision Report Training	Long-Term	Low
A.9	Data Completeness	Medium-Term	Low
A.10	Bicycle and Pedestrian Count Data	Medium-Term	Medium

ACTION PLAN

ENHANCING STREET LAYOUT AND MANAGEMENT

No	Safety Strategy	Timeline	City Resources
High Injury Network Infrastructure			
B.1	Priority Location	Medium-Term	High
B.2	List Prioritized Project	Medium-Term	Medium
B.3	Low-Cost Improvements	Medium-Term	Medium
B.4	Stakeholder Engagement	Medium-Term	Low
Operations and Technology			
B.5	Signal Timing Updates	Short-Term	Medium
B.6	Intelligent Transportation Systems (ITS)	Long-Term	High
Policies and Design			
B.7	Design Review	Long-Term	Low
B.8	Complete Streets	Medium-Term	Low

ACTION PLAN

CULTIVATING A POSITIVE ROAD USER BEHAVIOR

No	Safety Strategy	Timeline	City Resources
Education and Outreach			
C.1	Education Campaign	Medium-Term	High
C.2	Speed Feedback Signs	Medium-Term	Medium
C.3	Targeted Outreach	Medium-Term	Medium
Enforcement			
C.4	Police Academy	Short-Term	Low
Providing Alternatives to Driving			
C.5	Subsidized Transit	Medium-Term	Medium
C.6	Late-Night Options	Long-Term	Medium
C.7	Curbside Management	Medium-Term	Medium

ACTION PLAN

VULNERABLE ROAD USERS

No	Safety Strategy	Timeline	City Resources
Bicyclist and Pedestrian			
D.1	Bicycle Network	Ongoing	High
D.2	Pedestrian Crossing	Medium-Term	High
D.3	Turning Vehicles at Intersections	Long-Term	High
Children and Seniors			
D.4	High-Visibility Crosswalk	Medium-Term	Medium
D.5	Senior Awareness	Medium-Term	Medium
D.6	Traffic Education for Safe Routes to School	Medium-Term	Medium

TRANSPORTATION TECHNOLOGY

INTERSECTION SAFETY STRATEGIES

- Bicycle and Pedestrian Detection
- Wayfinding and Orientation Assistance Devices
- Accessible Pedestrian Signals with Custom Speech Messages

POST CRASH RESPONSE STRATEGIES

- Next-Generation Emergency Vehicle Preemption
- Technology and Training for Crash Detail Recording
- Dynamic Traffic Rerouting

PROACTIVE SAFETY ANALYSIS STRATEGIES

- Automated Speed Data Collection
- Signal System Enhancement for Red Light Detection
- Near-Miss Traffic Incident Identification Systems

CITY OF CUPERTINO'S LEADERSHIP STRATEGIES

- Requirement for Latest Crash Reduction Tech in City Fleet
- Right-sizing City-Owned Vehicles with Safety Tech
- Equipping City Fleet Vehicles with Safety Devices

PARTNERSHIP WITH VTA

- Evaluation of Transit Priority Treatments
- Implementation of New Transit Vehicle Engineering Principles
- Provision of Protected Crossings for Transit Patrons

FINE-GRAINED URBAN TRANSPORTATION STRATEGIES

- Integration of Autonomous Vehicles, Micro Mobility, Drones
- Vehicle-to-Vehicle (V2V) and Vehicle-to-Infrastructure (V2I) Interconnection
- Collaboration with Tech Companies for Autonomous Vehicle Testing

LEGISLATION AND ORDINANCE

- Enactment of Ordinances Balancing Tech Needs and Societal Expectations

EDUCATIONAL PROGRAMS

- Safe routes to school
- Americans with disabilities act engagement
- Walking/cycling/transit field days
- Community walking audits
- Medical services providers
- Improving access to transit

SafeRoutes

CUPERTINO SAFE ROUTES TO SCHOOL

TRAFFIC ENFORCEMENT PROGRAMS

- High visibility enforcement
- Traffic violators school
- Red light violation cameras
- Traffic safety diversion program
- Publicized sobriety checkpoints
- High visibility saturation patrols

PARTNERSHIP

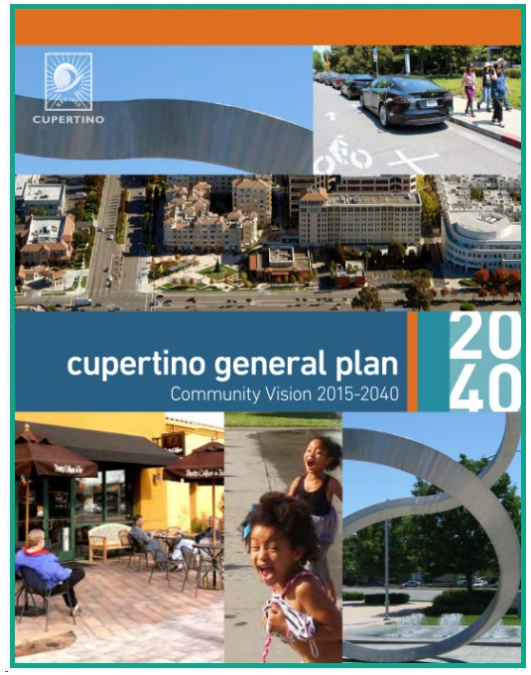
- Collaboration with nearby cities
- Public health and medical institution
- Private sector engagement
- Advocacy for safer delivery vehicles
- Traffic safety education in schools
- Community and school ambassador programs

CONTINUOUS DATA COLLECTION

- Annual collision analysis and reporting
- Online dashboard platform
- High injury network map
- Complete injury and fatality reporting

VISION ZERO & GENERAL PLAN UPDATE

- **CHAPTER 1 – INTRODUCTION**
  - Propose removing the sentence accepting crashes as inevitable and emphasize the integration of Vision Zero principles into guiding principles.
- **CHAPTER 3 – LAND USE AND COMMUNITY DESIGN**
  - Integrate Vision Zero into the chapter's policies, especially Policy LU-1.1, recognizing the link between public health, street safety, and quality of life.
- **CHAPTER 5 – MOBILITY ELEMENT**
  - Recommend adopting a "desired operating speed" methodology and designing streets to a people-centric scale to promote sustained change and walkability.
- **CHAPTER 6 – ENVIRONMENTAL RESOURCES AND SUSTAINABILITY**
  - Include language supporting sustainability aspects, such as softening streets through landscaping and bioswales, with a focus on Vision Zero principles.
- **CHAPTER 7 – HEALTH AND SAFETY**
  - Expand the chapter to include traffic crashes and Vision Zero principles, citing examples like Carmel, Indiana, and emphasizing sustainable approaches to health



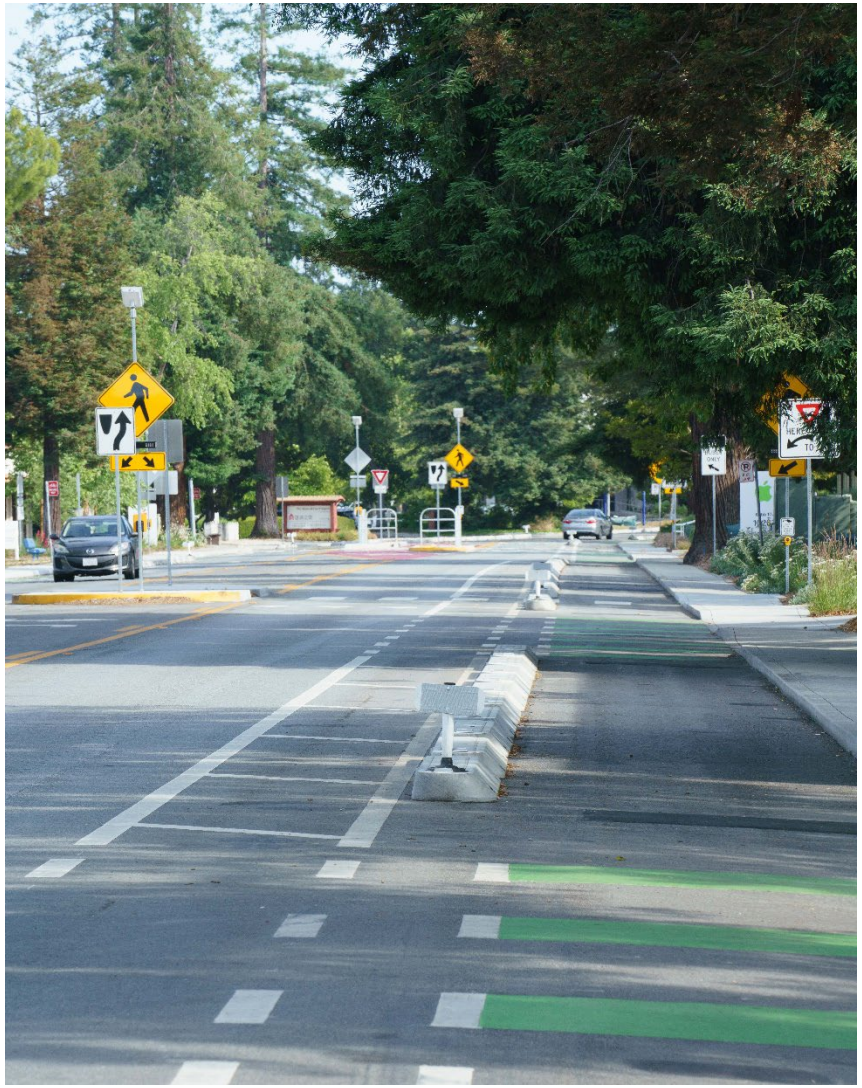
HOW TO GET INVOLVED

- Task a driving education class
- Pledge to not text
- Install anti-texting software on phone
- Observe rules of road when driving
- Bicycling etiquette
- Be an alert pedestrian
- Safe routes for all

OPEN DISCUSSION

NEXT STEPS

- **Finalize Vision Zero Action Plan**



THANK YOU !

CITY OF CUPERTINO