

## CITY OF LANCASTER PRELIMINARY SAFE ROUTES TO SCHOOL PLAN PHASES I AND II



Los Angeles County Department of Public Health

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## INTRODUCTION

The City of Lancaster has embarked on an effort to improve safety at all of its public schools. The City was awarded a grant from the County of Los Angeles Department of Public Health (DPH) to create a City of Lancaster Safe Routes to School (SRTS) Plan (the Plan). The Plan will include SRTS plans for each school, and citywide efforts to support and complement the individual plans. This document details work completed thus far and future steps.

There are two primary purposes for SRTS plans:

1. To make it safer for students to walk and bicycle to school
2. To increase the number of students walking and bicycling to school

In addition to safety benefits, there are health benefits for students who walk and bike to school. Environmental benefits result as fewer parents drive their children to school every day. Additionally, as children and families adopt more active lifestyles, their quality of life increases, they have more free time from driving less, and community relationships are strengthened. All of these benefits combine to create more livable neighborhoods surrounding schools where children walk or bike to school.

This document contains a program for a “5E” approach to making walking and bicycling safer and more attractive to Lancaster’s students and parents. The 5Es include the following:

- Engineering—to make physical improvements to the routes that students use to walk or bicycle to school
- Education—to teach students safe walking and bicycling habits, to teach parents the importance of safe driving habits, and to emphasize health and environmental benefits
- Encouragement—to promote walking and bicycling to school so more students choose to do so
- Enforcement—to ensure that rules and laws of the road are followed, as well as safe pick-up and drop-off practices are adhered to at the schools
- Evaluation—to track the Plan to assess its success and to modify it accordingly

Experience shows that this approach yields successful results in both making our communities safer to walk and bicycle in, and increasing the number of students doing so.

The DPH grant funds a range of efforts at the schools to develop and initiate the Plan. The grant is used to do the following:

- Conduct a variety of workshops at schools
- Assess the safety issues
- Plan physical modifications to the routes
- Set up SRTS committees that will carry out the Plan
- Train people in how to run the programs within the Plan

- Prepare future grant applications to fund engineering improvements and programmatic efforts

The Antelope Valley Partners for Health serves as a key partner in the process to develop and implement the Plan. The organization takes the lead in forming SRTS committees at schools and implementing programs at the schools. Two citywide committees help to steer the project. A Technical Advisory Committee (TAC) provides broad oversight, data, and technical support. The TAC includes principals from each school as well as representatives from the following organizations:

- Each of the three school districts (Lancaster School District, Eastside Union School District, and Westside Union School District)
- Antelope Valley School Transportation Agency
- Antelope Valley Partners for Health
- Los Angeles County Department of Public Health
- Los Angeles County Sheriff's Department
- City of Lancaster City Manager's office, Planning Department, Traffic Engineering, Public Works Department, and Parks Department

A second committee, the Community Advisory Committee (CAC), provides hands-on support to promote and implement the program. Its membership includes:

This project began in August of 2013 with representatives from the City and the consulting group holding introductory meetings with both the TAC and CAC. In September of 2013, the City and the consulting group began conducting walk audit workshops and training people to carry out programs. The consultant facilitated the workshops, developed SRTS plans, and conducted training.

The project is divided into four terms. During the first term, the City, schools and consultant conducted walk audit workshops and prepared engineering plans for the first six schools, all from Lancaster School District. Those schools were the following:

- El Dorado Elementary School
- Lincoln Elementary School
- Linda Verde Elementary School
- Miller Elementary School
- Piute Middle School
- West Wind Elementary School

The second term included the following schools from Lancaster School District:

- Amargosa Middle School
- Discovery Elementary School
- Jack Northrop Elementary School
- Monte Vista Elementary School
- Nancy Cory Elementary School
- New Vista Middle School

- Sierra Elementary School

One school from the Eastside Union School District:

- Columbia Elementary School

And one school from the Westside Union School District:

- Valley View Elementary School

A nationally-certified SRTS instructor from the consultant team facilitated the SRTS workshops. The workshops began with a presentation that described why SRTS is important, along with a sampling of engineering devices that can be applied to make walking and bicycling safer. After the presentation, stakeholder attendees walked around the school and identified safety concerns at particular locations along common routes to each school. Upon returning to the presentation room, attendees drew on large-scale maps of their schools and the surrounding areas. Each group marked common walking and cycling routes to their school and identified key issues and locations needing improvement. The groups identified general safety issues, as well as location-specific safety issues. These led to the creation of SRTS plans for each school.

The workshops were also used to initiate formation of SRTS committees at each school. Ideally, these committees are led by parents, and have participation from school administration, students, crossing guards, various city departments, and the sheriff's department, as well as neighborhood/community organizations.

## EVALUATION

In the beginning of the process, baseline surveys were taken to learn about existing commute to school patterns. As the Plan's programs unfold, they should show increases in the number of students walking and bicycling. Since engineering improvements (physical modifications made to streets and intersections) will likely be made after this planning effort ends, initial improvements will result from the programs alone. Further increases can be expected once the physical improvements are made. Table 1 below shows the results of the first baseline tally conducted in classrooms in the fall of 2013. The numbers shown are three-day averages.

**Table 1: Baseline Commute to School Tally**

School	Walk	Bicycle	Other Self-Driven	School Bus	Family Vehicle	Carpool with Children of Other Family	AVTA Bus	Other
Amargosa Creek Middle School								
Desert View Elementary School								
Discovery Elementary School								
El Dorado Elementary School	170	14	4	2	341	32		
Endeavour Middle School								
Jack Northrop Elementary School								
Joshua Elementary School								
Lincoln Elementary School	114	7	18	8	246	32		
Linda Verde Elementary School	104	0	7	20	161	18		
Mariposa Elementary School								
Miller Elementary School	91	2	5	1	370	48		

<b>Monte Vista Elementary School</b>								
<b>Nancy Cory Elementary School</b>								
<b>New Vista Middle School</b>								
<b>Piute Middle School</b>	117	13	5	10	303	49		
<b>Sierra Elementary School</b>								
<b>Sunnydale Elementary School</b>								
<b>West Wind Elementary School</b>	91	14	2	11	646	40		
<b>Columbia Elementary School</b>								
<b>Gifford C. Cole Elementary School</b>								
<b>Tierra Bonita Elementary School</b>								
<b>Del Sur K-8</b>								
<b>Mountain School K-8</b>								
<b>Sundown Elementary School</b>								
<b>Valley View Elementary School</b>								
<b>Antelope Valley High School</b>								
<b>Eastside High School</b>								
<b>Lancaster High School</b>								
<b>Quartz Hill High School</b>								
<b>SOAR High School</b>								
<b>Total by Mode</b>								
<b>% Mode</b>								

## DESIGN GUIDANCE

Many traffic control devices, signs, markings, and other street design features can be used to make walking and bicycling to school safer. This section highlights some of the most important and most commonly recommended.

### California Manual on Uniform Traffic Control Devices (MUTCD) Signs and Markings

The California MUTCD has developed standards and guidance to be used for signs and markings. Some are mandatory, others are advisory, and some are optional. The following subsection shows the basic signs and markings used around schools.

#### Signs



S1-1

Many school signs begin with the basic School Advanced Warning sign labeled “S1-1”. It is used to notify street users that they are entering a School Area that includes school buildings or grounds, a school crossing, or a related activity adjacent to the street. It can identify the location of the beginning of a School Zone. It also combines with other signs to designate the location of school crossings.



or



Assembly A

The School Warning Assembly A includes the School (SP-4) plaque. This should be posted at the school boundary, and may be posted up to 500 feet in advance of the school boundary. It may also be accompanied with arrows pointing to the school if on another street.



Assembly B

The School Crosswalk Warning Assembly B includes S1-1 with an arrow. It shall be posted at a crosswalk that is not controlled by a stop sign or traffic signal.





**Assembly D**

The School Advanced Warning Assembly D includes the S1-1 sign along with either Ahead (W16-9P) or a distance sign e.g. “200 FT” (W16-2aP). It should be used on the approach of a crosswalk that is not controlled by a stop sign or traffic signal. It is optional where an S1-1 sign is posted. It may also be accompanied with arrows pointing to the school if on another street.



**Assembly C**

The School Speed Limit Sign (Assembly C) includes a Speed Limit (R2-1) sign, with a School (S4-3P) sign, and When Children Are Present (S4-2P). The Assembly C sign should be used where a reduced school speed limit zone has been established based on an engineering study or where a reduced school speed limit is specified by statute. The sign should be placed where the reduced school speed limit exists. It may be placed up to 500 feet in advance of the school boundary. The sign should be used on streets where speed limits contiguous to a school or school grounds are greater than 25 mph. The prima facie speed limit of 25 mph is in effect for Assembly C. With an engineering study (designated by the CA MUTCD) a city may reduce the school speed limit to 15 mph on a residential street where some other conditions are met.



**R1-6**

In-Street signs (R1-6) may include a School (S4-3P) and be placed in a crosswalk that is not controlled by a traffic signal. These are useful where speeding is a problem.



R1-5

Yield Here to Pedestrians (R1-5) signs should be placed at the location of Advanced Yield Lines.



W82-1

Railroad warning signs (W82-1) signs can be used to alert pedestrians of railroad crossings.

### Markings

High-visibility crosswalks generally have longitudinal lines that run in the same direction as the street. They are sometimes called “zebra-stripe” crosswalks, or “continental” crosswalks. If they have lateral (transverse) lines along with longitudinal lines they are called “ladder” crosswalks. Motorists can see these much better than typical transverse-line or “transverse” crosswalks.



Zebra-stripe Crosswalk



Ladder Crosswalk



Transverse-line Crosswalk

Crosswalks must be yellow where the street is contiguous to a school building or school grounds. It may be yellow if it is within 600 feet of the school grounds. If there are no other crosswalks between the intersection and school, the crosswalk may be yellow up to 2,800 feet from the school grounds. However, white crosswalks may be more visible than yellow crosswalks especially when the markings fade, so it may be advisable to color them white where away from school grounds.



SLOW SCHOOL XING Marking

SLOW SCHOOL XING markings may be used in advance of yellow school crosswalks where there are not stop signs, traffic signals or yield signs. They shall be yellow with the word XING at least 100 feet in advance of the crosswalk.

SCHOOL markings may be used with School Assemblies A or C and shall be yellow. It should be adjacent to the signs. It should not be used where SLOW SCHOOL XING markings exist.

Advanced Yield Lines indicate where users of the streets are required to yield to pedestrians in an upcoming crosswalk. They may be used in advance of marked crosswalks at locations not controlled by a stop sign or traffic signal. They are white and are designed as “shark’s teeth”. They shall be placed between 20 and 50 feet in advance of the crosswalk and parking shall be prohibited between the markings and the crosswalk. They are marked along with posting of R1-5 signs.

Advanced Stop Lines indicate where users of streets are required to stop where there are marked crosswalks with stop signs or traffic signals. They should be placed at least four feet in advance of the marked crosswalk. They shall be white.



Advanced Yield Line



Advanced Stop Line

## Other Devices

### Curb Extensions

Curb extensions are used to shorten the crossing distance for pedestrians, to improve visibility, and to slow turning motorists. They provide space and geometry for perpendicular curb ramps. They are also called “curb extensions” at intersections. Curb extensions may be irregular in shape to fit into the context. They may be solid and flush with the curb (shown in next photograph), or broken up into islands to compensate for drainage issues as shown in the diagram.



Curb Extension with Islands



Flush Curb Extension



**Crossing Islands**

### **Crossing Islands**

Crossing islands break up the distance pedestrians have to cross streets into two phases. This allows them to cross streets at locations not controlled by stop signs or traffic signals.



**Raised Crosswalk**

### **Raised Crosswalks**

Raised crosswalks slow traffic, improve visibility and make pedestrians more prominent. They are especially useful at crosswalks that are not controlled by traffic signals.



**Inverted-U Bike Rack**

### **Bike Racks**

Bicycle racks should support bicycles well and provide a convenient location to lock up. Generally, “inverted-U” racks are widely used because they incorporate these two attributes. Inverted-U racks, or something similar, are recommended.

## SRTS PLANS BY SCHOOL

Comments from walk audit workshops were brought along when fieldwork was conducted so that the resulting plans address the issues raised. The fieldwork also identified new issues, which the plans address.

The planned physical improvements along school routes are described in the following pages. The design section at the end of this document provides definitions and guidance on these improvements. All bulb-outs and curb extensions will include perpendicular curb ramps and truncated dome tactile devices for the sight-impaired. All pedestrian signals will include audible signals for the sight-impaired.

This is a *planned* list of improvements. The list gives the City projects that it can seek funds for. The City may want to change the list over time, as the list is conceptual. Engineering will need to be conducted prior to construction.

Maps on the following pages illustrate common routes that students take to get to school. The proposed improvements were planned along these routes. The crossing improvements are numbered and shown on the map with their corresponding numbers.

Some of the improvement locations coincide with planning work conducted for the Master Plan for Trails and Bikeways. In these locations, the same recommendations are generally used, but may be modified where certain improvements have taken place.

All of the engineering recommendations are subject to modification based on further study, changing conditions, funding availability, and other factors. The City retains flexibility to construct modified improvements. The City may also implement improvements incrementally as funding and opportunities arise. All improvements are subject to the approval of the Public Works Department and other appropriate City departments.

Any recommended traffic calming will have to follow standard City policies and procedures. Speed humps, for example, require signatures of support from 2/3 of the affected residents.

Each school and school district will determine the location of bicycle parking on school. Ideally, bicycle parking should be located conveniently for the users, in places where it won't conflict with pedestrians, near entrances and in visible locations for security.

### C. Discovery Elementary School





## Walk Audit Workshop

A walk audit workshop was conducted on December 3, 2013. The following key stakeholders attended:

- School principal
- Assistant principal
- Parents
- Representatives from the Lancaster School District
- Representatives from the City Planning Department, City Manager's office, and City Parks, Recreation, and Arts Department
- Representatives from Antelope Valley Partners for Health
- Representatives from the Westside Union School District

## Safety Issues Raised at the Stakeholder Workshop

### General

- Speeding
- Poor or no sidewalks
- Lack of marked crosswalks
- Lack of school signs
- Double parking in the school lot
- Drivers not yielding to pedestrians
- Need more crossing guards
- Lack of pedestrian crossings
- Lack of enforcement
- Pedestrians not following the rules
- Congestion in the parking lot—students walking in lanes of traffic

### Location Specific

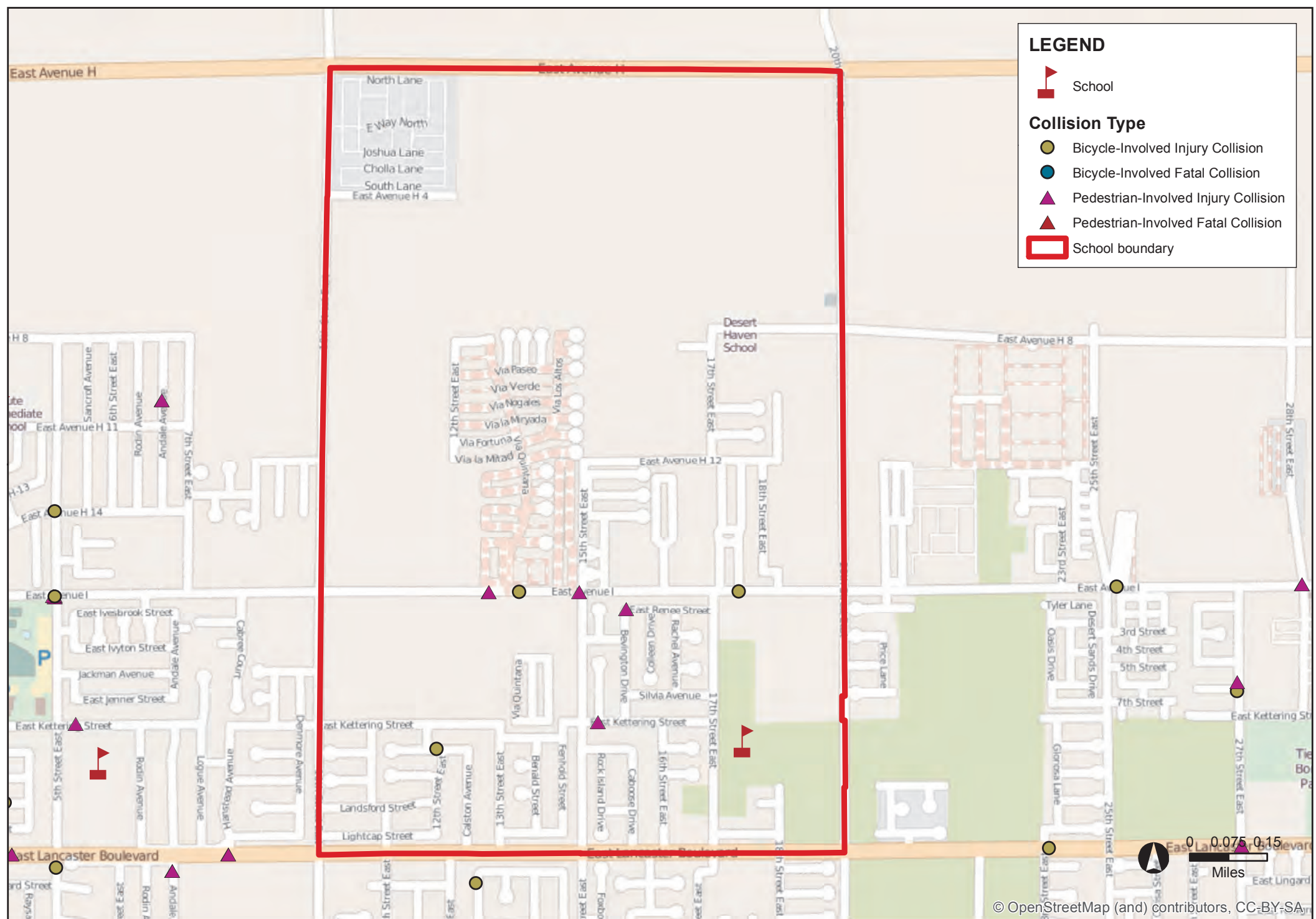
- School parking lot
  - congestion
  - students crossing traffic
  - no sidewalks on the sides of the lot
- 17<sup>th</sup> St. East & Ave. I
  - no marked crosswalk
- Challenger Way between Ave. H and Ave. I
  - no sidewalk
  - speeding
- 15<sup>th</sup> St. East & Kettering St.

- no school crossing signs
  - difficult to cross 15<sup>th</sup> St. East
- 17<sup>th</sup> St. East & Lancaster Blvd.
  - lack of sidewalk
  - motorists don't stop
  - no traffic signal
- 18<sup>th</sup> St. East & Lancaster Blvd.
  - no sidewalk
  - students cross mid-block from parking in the desert
- Lancaster Blvd. between 18<sup>th</sup> St. East & 20<sup>th</sup> St. East
  - no sidewalk



### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2007 and 2011.



# Bicycle and Pedestrian Collisions 2007 - 2011

## Discovery Elementary School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.

# SRTS Plan - Discovery Elementary School



## Existing Conditions and Engineering Recommendations

### Crossing Improvements

#### C1. School Parking Lot

##### Existing

- 3 sets of 2 lanes
- 2 of these go in both directions
- 1 goes only northbound for the drop-off
- No sidewalks on the sides

##### Proposed

- Make all the lanes 1-way northbound
- Add parking stops on the north and south ends to delineate a protected pedestrian walkway to connect the sidewalks on 17<sup>th</sup> St. East with the front of the school (approximately 40' on the north side and 140' on the south side)
- Add a zebra-stripe crosswalk to connect the new pedestrian walkway on the south side to the sidewalk in front of the school
- Add a curb ramp for this new crossing



### C2. 17<sup>th</sup> St. East & Kettering St.

#### Existing

- 4-way stop
- Yellow transverse crosswalks on the east and south legs
- Crossing guard

#### Proposed

- Add a yellow zebra-stripe crosswalk to all legs (4)
- Add advanced stop lines to all legs (4)
- Add curb extensions to all crossing faces (after new sidewalks are installed on the NW corner) (8)



### C3. 17<sup>th</sup> St. & Ave. I

#### Existing

- No marked crosswalk

#### Proposed

- Add a yellow zebra-stripe crosswalk on the east leg (1)
- Add large curb extensions to both sides of the east leg crosswalk (2)
- Add advanced yield lines to crossing approaches of the east leg crosswalk (2)
- Add R1-5 signs to crossing approaches to the east leg crosswalk (2)
- Add Assembly D signs to crossing approaches to the east leg crosswalk (2)
- Add Assembly B signs to the east leg crosswalk (2)
- Add crossing islands to the east leg crosswalk (1 pair)
- Add pedestrian-activated rapid flash beacons to the east leg crosswalk (1 set)



#### C4. 17<sup>th</sup> St. East & Lancaster Blvd.

##### Existing

- 2-way stop for 17<sup>th</sup> St.
- Yellow ladder crosswalk on the west leg
- Yellow transverse crosswalk on the north leg
- Advanced yield lines on both crossing approaches to the west leg
- R1-5 signs to crossing approaches of the west leg
- Assembly D signs to crossing approaches of the west leg
- Assembly B signs to the west leg crosswalk
- Bike lanes on Lancaster Blvd.

##### Proposed

- Add crossing islands to the west leg crosswalk (1 pair)
- Add a zebra-stripe crosswalk on the north and south legs (2)
- Add curb extensions to both crossing faces of the north leg (2)
- Add advanced stop lines to the north and south leg crosswalks (2)

### C5. 15<sup>th</sup> St. East & Lancaster Blvd.

#### Existing

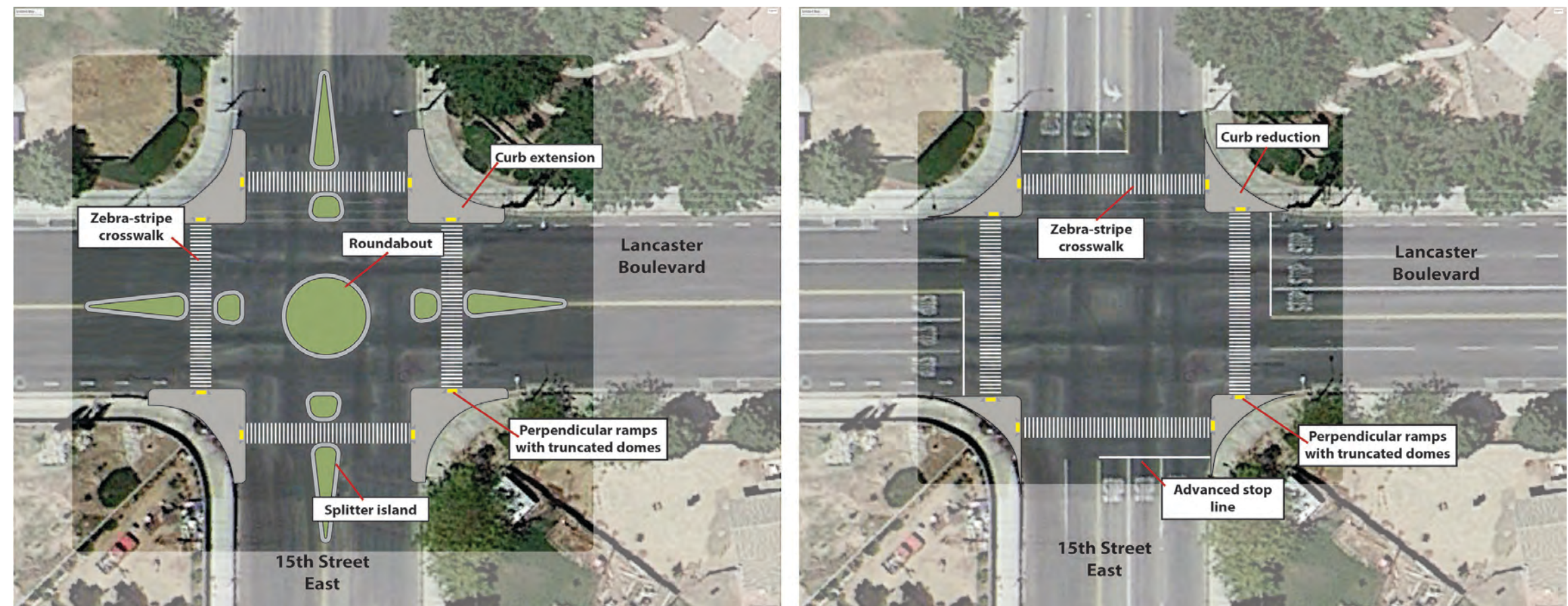
- 4-way stop
- Transverse-line crosswalks across all legs
- Crossing guard

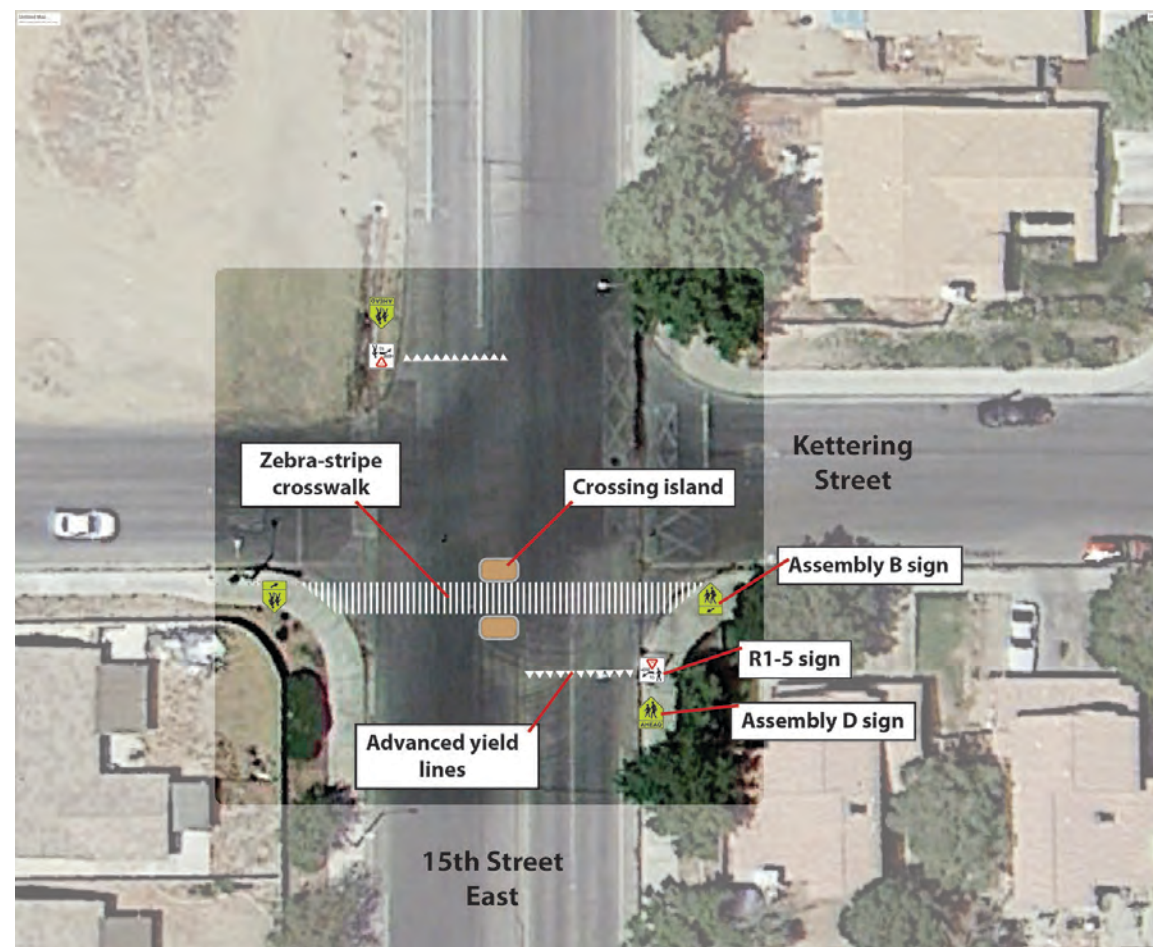
#### Proposed Option 1

- Replace stop signs with a roundabout (assumes reduction of travel lanes on Lancaster Blvd. and 15<sup>th</sup> St. East to create single-lane approaches)
- Add curb extensions to all crossing faces (8)

#### Proposed Option 2

- Add zebra-stripe crosswalks to all legs (4)
- Add advanced stop lines to all legs (4)
- Reduce the curb return on all corners (4)





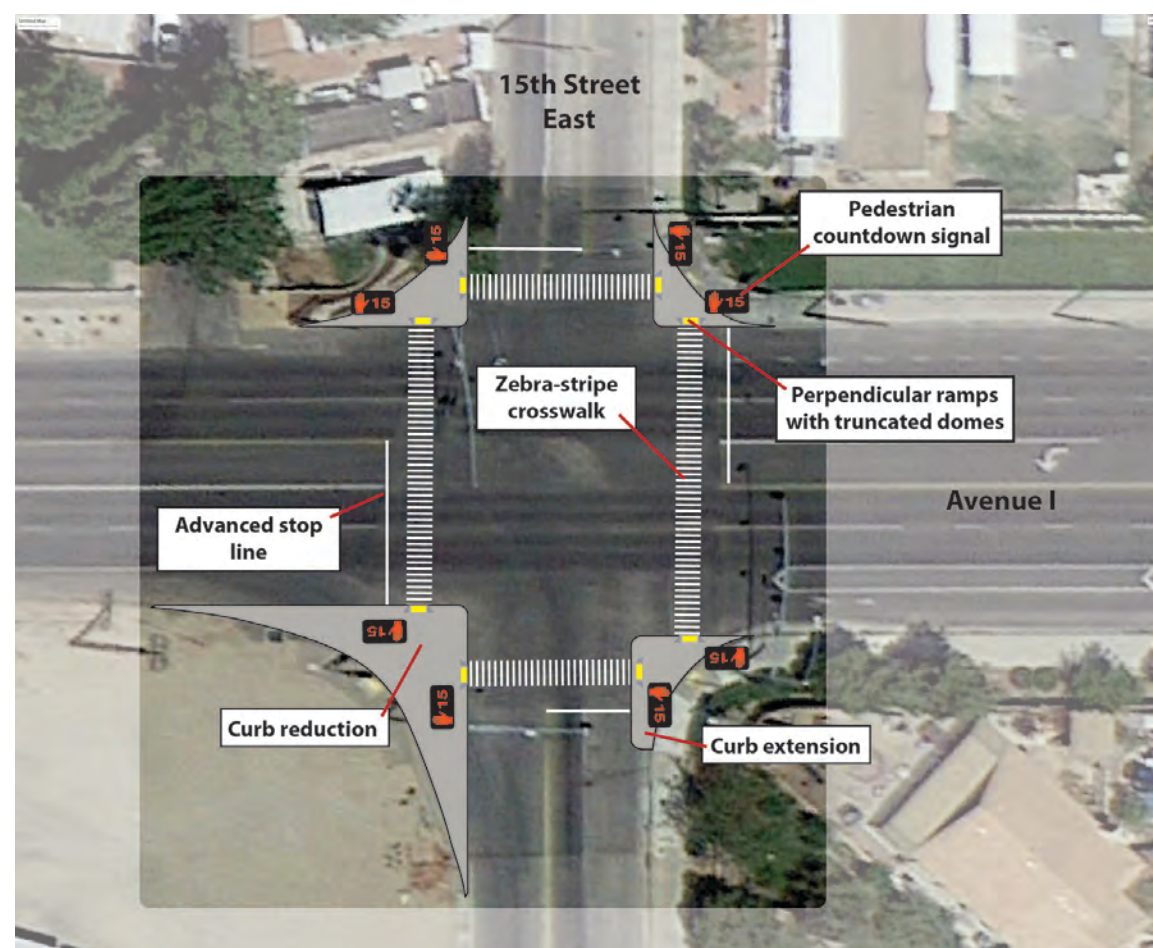
### C6. 15<sup>th</sup> St. East & Kettering St.

#### Existing

- No marked crosswalk

#### Proposed

- Add a new zebra-stripe crosswalk on the south leg (1)
- Add advanced yield lines to both crossing approaches of the south leg crosswalk (2)
- Add R1-5 signs to both crossing approaches of the south leg (2)
- Add Assembly D signs to both crossing approaches of the south leg (2)
- Add Assembly B signs to the south leg crosswalk (2)
- Add crossing islands to the south leg crosswalk (1 pair)



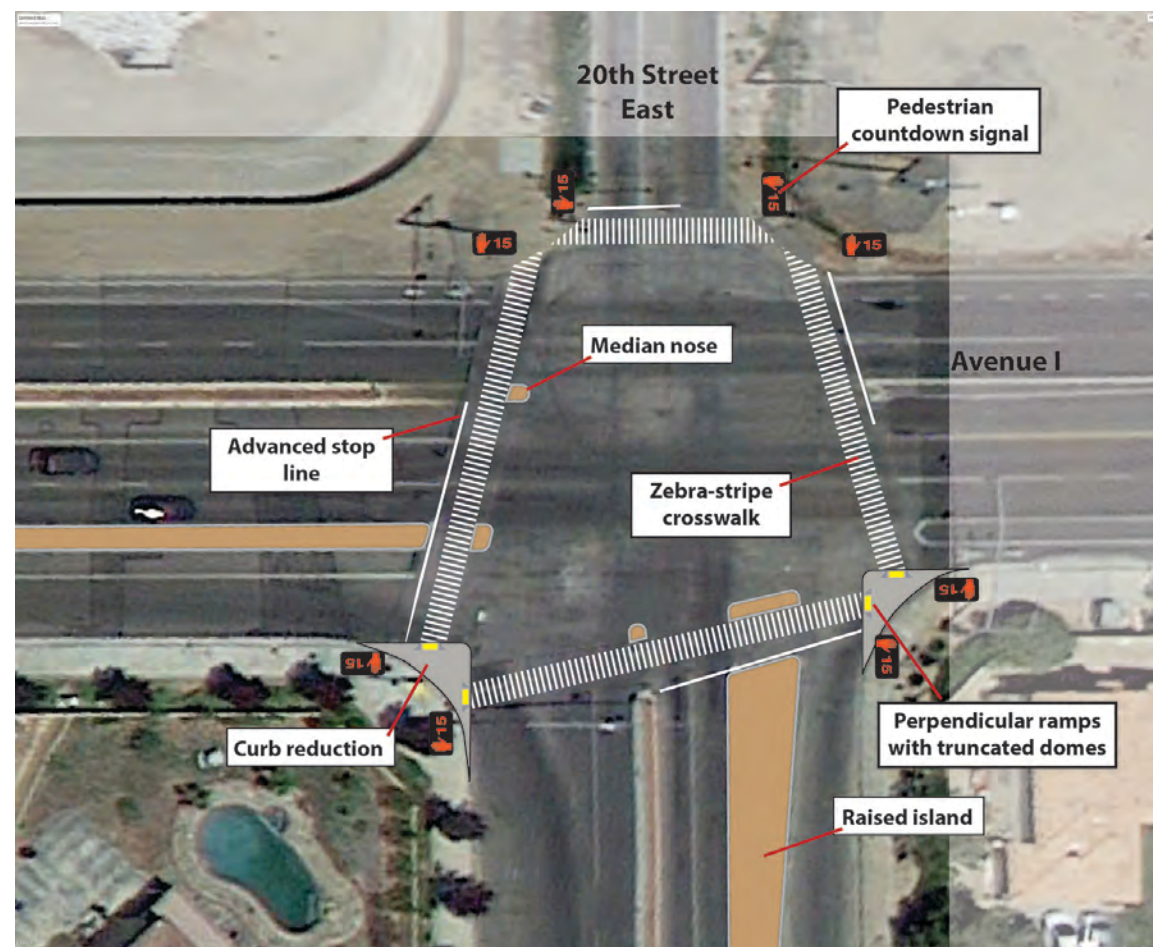
### C7. 15<sup>th</sup> St. East & Ave. I

#### Existing

- Signalized intersection
- Transverse-line crosswalks on all legs
- Protected left-turns from Ave. I onto 15<sup>th</sup> St. East
- Crossing guard

#### Proposed

- Add a zebra-stripe crosswalk on all legs (4)
- Add an advanced stop line to the crosswalks on all legs (4)
- Add countdown signals to all crossings (8)
- Add a curb extension to the SE crossing face of Ave. I (1)
- Reduce the curb returns on the NW, NE, and SW corners (3)



### C8. 20<sup>th</sup> St. East & Ave. I

#### Existing

- Signalized intersection
- Transverse-line crosswalks on all crossings

#### Proposed

- Add a zebra-stripe crosswalk to all legs (4)
- Add an advanced stop line to all legs (4)
- Add pedestrian countdown signals to all legs (8)
- Add median noses to the west and south legs (2)
- Reduce the curb return on the SE and SW corners (2)
- Add raised islands where painted islands exist on the west and south legs (2 pairs)



## Linear Treatments

- Add new sidewalks at the following locations:
  - along the west side of 17<sup>th</sup> St. from Lancaster Blvd. to the south end of the school (approximately 625')
  - along the east side of 17<sup>th</sup> St. East from Kettering St. to the existing development just south of Ave. I (approximately 830')
  - along the east side of 15<sup>th</sup> St. East from Kettering St. to Ave. I (approximately 1,320')
  - along the east side of Challenger Way on from Ave. H to Ave. H-14 (approximately 1,320')
  - along the east side of Challenger Way from Ave. I to Kettering St.
  - along the south side of Ave. I from Challenger Way to 15<sup>th</sup> St. (approximately 2,640')
  - along the north side of Kettering St. from 17<sup>th</sup> St. East to the new development just west of 18<sup>th</sup> St. East (approximately 400')
- Add S1-1 School signs on Kettering St. on both approaches to the school (2)
- Reduce 15<sup>th</sup> St. East to 2 lanes from Ave. I to Lancaster Blvd., and widen and color the bike lanes (consistent with the Master Plan of Trails and Bikeways) (0.5 mi.)
- Reduce Lancaster Blvd. to 2 lanes from Challenger Way to 20<sup>th</sup> St. East, and widen, color, and add buffers to the bike lanes (consistent with the Master Plan of Trails and Bikeways) (1.0 mi.)

## Bicycle Parking

- Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

## Program Plan

Education

Encouragement

Enforcement

### D. El Dorado Elementary School





## Walk Audit Workshop

A walk audit workshop was conducted on September 6, 2013. The following key stakeholders attended:

- School principal
- Parents
- Representatives from the Lancaster School District
- Representatives from the City Planning Department and City Manager's office
- Representatives from Antelope Valley Partners for Health

## Safety Issues Raised at the Stakeholder Workshop

### General

- Speeding
- Poor or no sidewalks
- Lack of marked crosswalks
- Lack of signs
- Parents are parking along the curb
- Lack of lighting in the park
- Bike racks are inconveniently located
- No bike lanes
- Poor drainage
- Need better pedestrian crossings
- Some sidewalks are too narrow
- Parents are driving around crossing guards
- Need more crossing guards

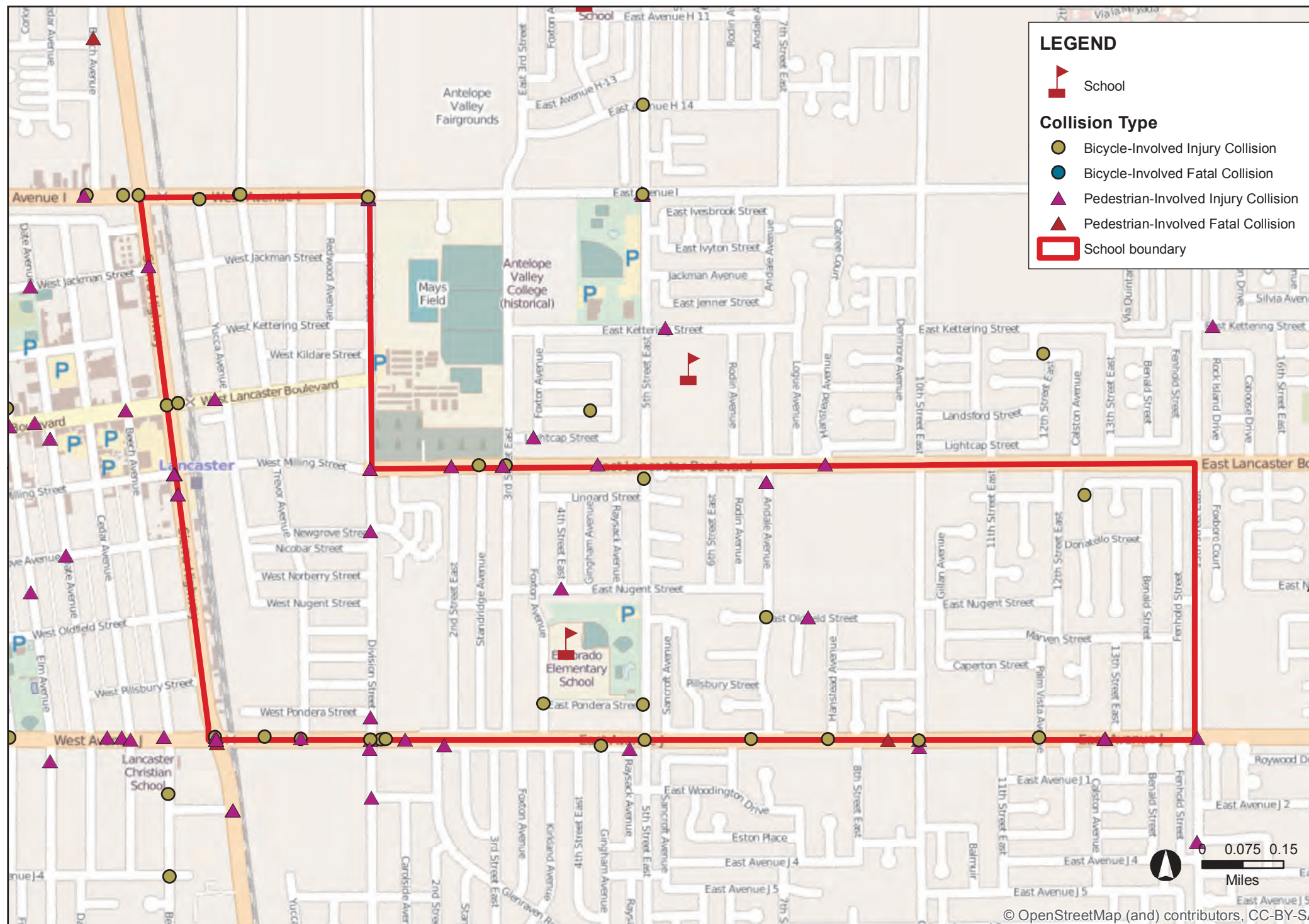
### Specific

- Lack of signs along Foxtan Ave.
- Parents parking illegally to pick up students
- Sidewalk needs to be widened along Foxtan Ave.; it gets muddy after rain
- Need a safe pedestrian crossing over Foxtan Ave. to connect with the sidewalk through El Dorado Park; better lighting needed at this location
- Need a safe pedestrian crossing over Foxtan Ave. to connect with the entrance of the preschool north of the elementary school; need signals there

- Trash and broken glass exist in the parkway along Foxtan Ave.
- Paths needed in El Dorado Park for students to cross north-south west of the baseball field, and east-west south of the baseball field
- People sleep in El Dorado Park; lights and more security needed in the park, and the park is overgrown
- The fence behind the school needs to be higher
- Motorists speed on Ave. J
- Need signals to reduce speed on Pondera St.
- Need “15 mph Speed Zone” signs along 5<sup>th</sup> St. East
- No sidewalks along Nugent St., Gingham Ave., 3<sup>rd</sup> St. East, and on parts of Foxtan Ave.
- Need a sidewalk along the school on the west side to provide another school entrance
- Foxtan Ave. and Pondera St.
  - parents park along the curb and block crosswalks at the corner
  - a red curb, another crosswalk, and a stop sign are needed there
  - no crossing guard
  - motorists speed along 5<sup>th</sup> St. East and around the corner
- 5<sup>th</sup> St. East and Oldfield St.
  - no marked crosswalk
  - need a safe pedestrian crossing
- 5<sup>th</sup> St. East and Ave. J
  - too wide to cross
  - motorists speed and go around the crossing guard
- 5<sup>th</sup> St. East and Nugent St.
  - the pedestrian warning lights don’t work

### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2007 and 2011.



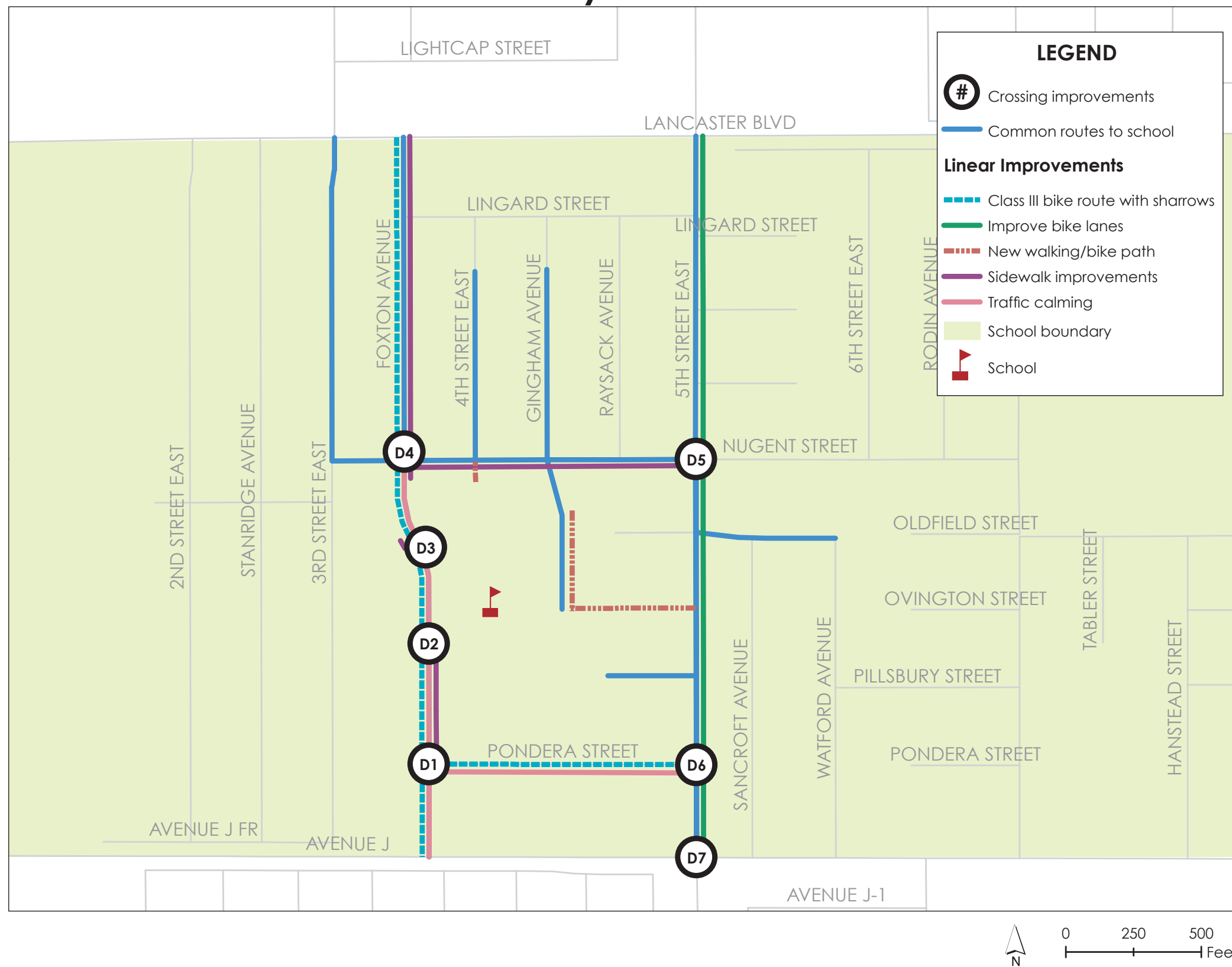
# Bicycle and Pedestrian Collisions 2007 - 2011

## El Dorado Elementary School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.

### SRTS Plan - El Dorado Elementary School



## Existing Conditions and Engineering Recommendations

### Crossing Improvements

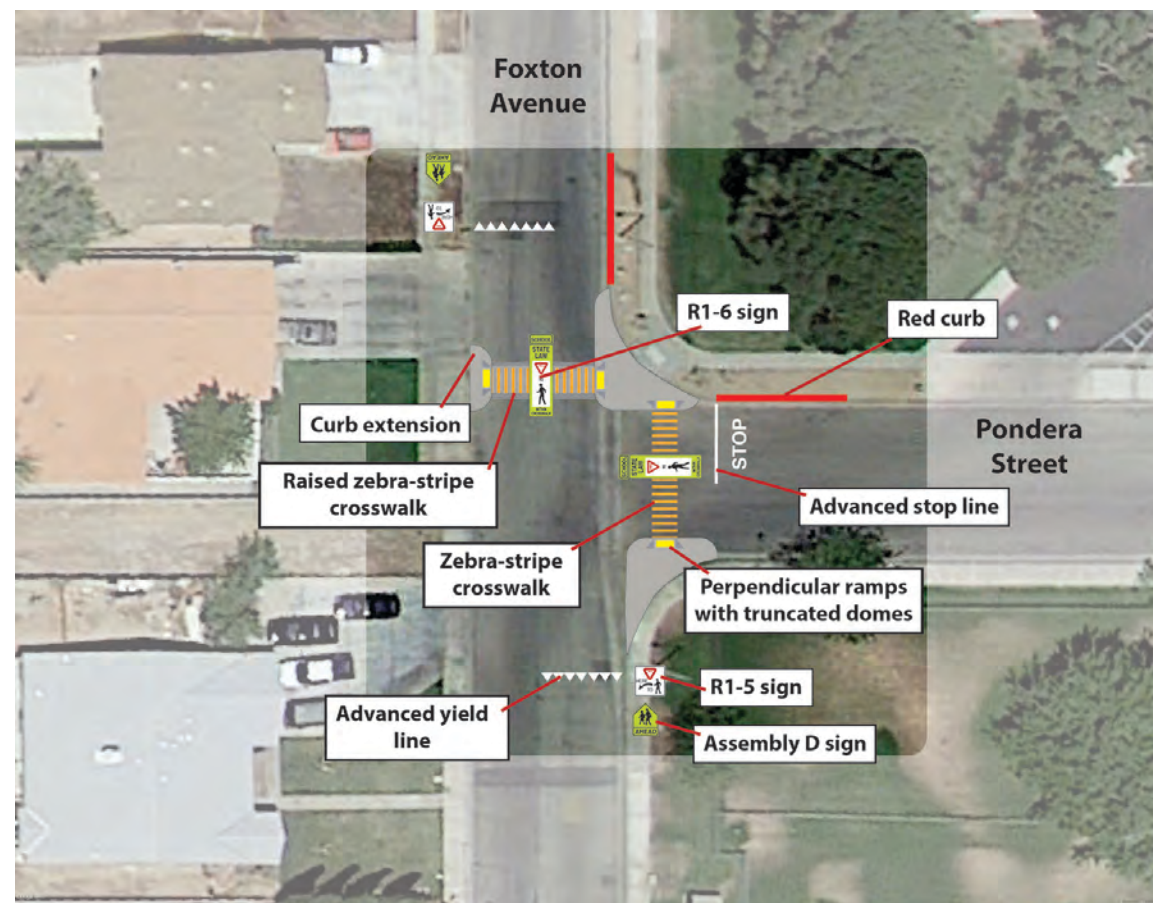
#### D1. Foxton Ave. and Pondera St.

##### Existing

- T-intersection
- 1-way stop for Pondera St.
- Yellow transverse-line crosswalks on the north and east legs
- Old School Xing sign at the north leg crosswalk
- SLOW SCHOOL CROSSING pavement markers on Foxton Ave. on both approaches to the north leg crosswalk
- Assembly B sign on Foxton Ave. southbound
- Both streets have two lanes and on-street parking
- No truncated domes on ramps

##### Proposed

- Add a raised zebra-stripe crosswalk to the north leg (1)
- Add a zebra-stripe crosswalk to the east leg (1)
- Add curb extensions to both crossing faces of the north and east legs (4)
- Add R1-6 signs to both crosswalks (2)
- Add advanced yield lines to the north leg crosswalk (2)
- Add Assembly D signs to the north leg crosswalk (2)
- Add R1-5 signs to the north leg crosswalk (2)
- Add an advanced stop line to the east leg crosswalk (1)
- Add a red curb to both sides of the NE corner (1)





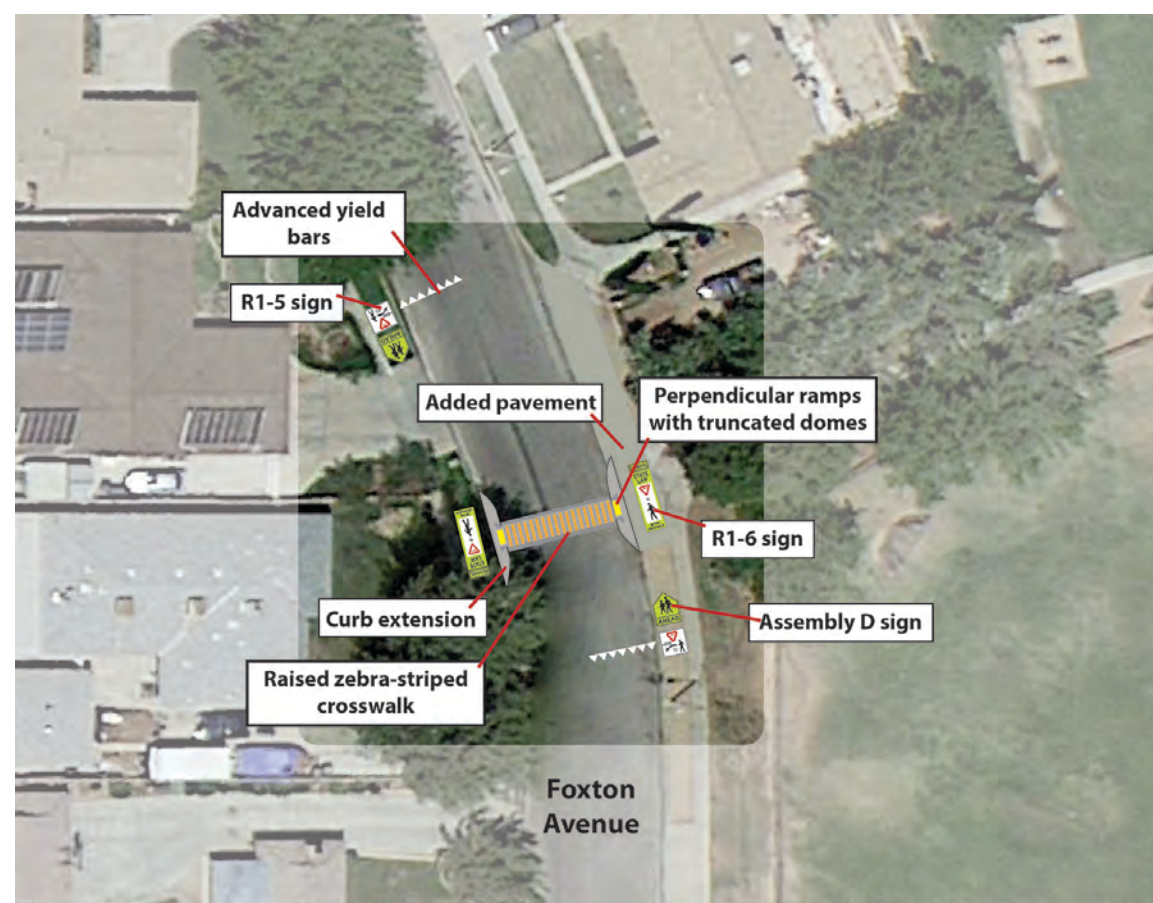
## D2. Foxton Ave. in front of the Preschool

### Existing

- No marked crosswalk

### Proposed

- Add a raised yellow zebra-stripe crosswalk (1)
- Add large curb extensions to both sides of the new crosswalk (2)
- Add advanced yield lines to crossing approaches (2)
- Add R1-5 signs to crossing approaches (2)
- Add Assembly D signs to crossing approaches (2)
- Add R1-6 signs to the crossing (2)



## D3. Foxton Ave. at Entrance to El Dorado Park Sidewalk

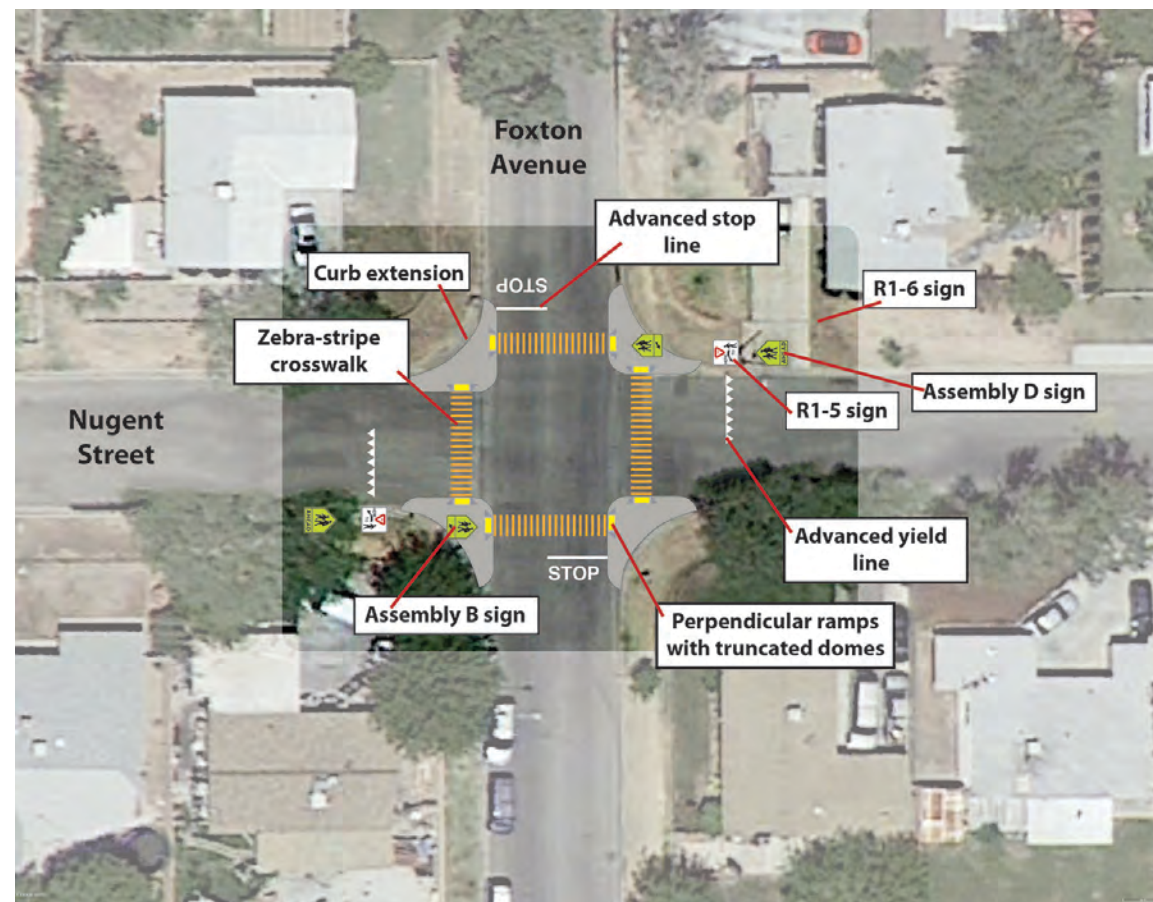
### Existing

- No marked crosswalk

### Proposed

- Add a raised yellow zebra-stripe crosswalk (1)
- Add large curb extensions to both sides of the new crosswalk (2)
- Add advanced yield lines to crossing approaches (2)
- Add R1-5 signs to crossing approaches (2)
- Add Assembly D signs to crossing approaches (2)
- Add R1-6 signs to the crossing (2)
- Pave the connection from the new crosswalk to the sidewalk on the east side (1)





#### D4. Foxton Ave. and Nugent St.

##### Existing

- 2-way stop for Foxton Ave.
- Yellow transverse-line crosswalks on the east, west and south legs
- Old “School Xing” sign at the crosswalks on the east and west legs
- SLOW SCHOOL CROSSING pavement markers on Nugent St. on both approaches to the crosswalk
- Both streets have two lanes and on-street parking
- No sidewalks or curb ramps

##### Proposed

- Add zebra-stripe crosswalks on all legs (4)
- Add sidewalks as described in “Linear Improvements” section below
- Add curb extensions to all crossing faces (8)
- Add advanced yield lines to the east and west leg crosswalks (2)
- Add R1-5 signs to the east and west leg crosswalk approaches (4)
- Add Assembly D signs to the east and west leg crosswalk approaches (4)
- Add Assembly B signs to the east and west leg crosswalks (4)
- Add advanced stop lines to the north and south leg crosswalks (2)



#### D5. 5<sup>th</sup> St. East and Nugent St.

##### Existing

- 2-way stop for Nugent St.
- Uncontrolled crossing of the south leg
- Yellow ladder crosswalk across the south leg
- Flashing beacons for this crossing; flashers not working
- Advanced yield lines to the south leg crosswalk
- R1-5 signs on the south leg crosswalk

##### Proposed

- Fix flashing beacons
- Add Assembly D signs to the south leg crosswalk approaches (2)
- Add crossing islands to the south leg crosswalk (1 pair)
- Option: Add curb extensions to both crossing faces of the south leg crosswalk (2)



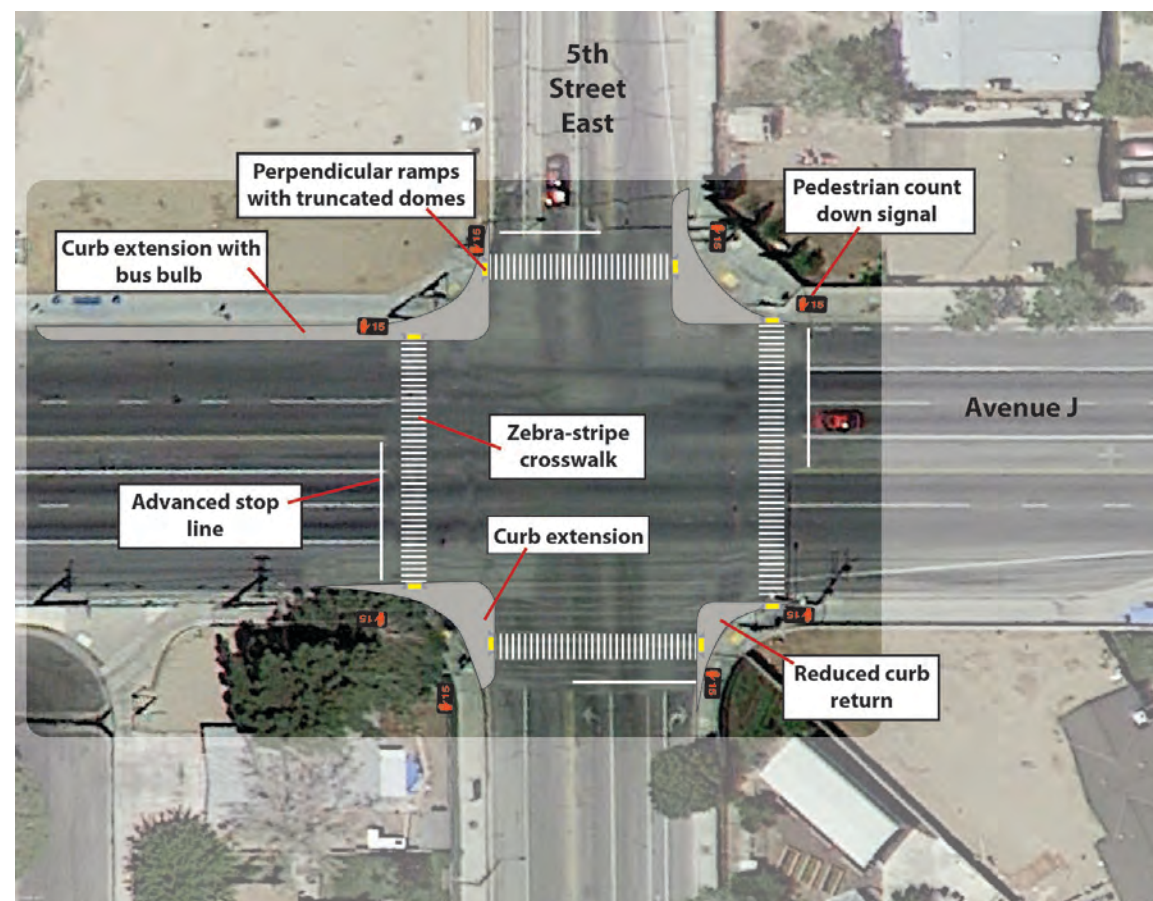
#### D6. 5<sup>th</sup> St. East and Pondera St.

##### Existing

- T-intersection
- 1-way stop for Pondera St.
- Yellow transverse-line crosswalk on west leg

##### Proposed

- Add a zebra-stripe crosswalk on west leg (1)
- Add an advanced stop line to west leg crosswalk (1)
- Add curb extensions to both crossing faces of west leg crosswalk (2)



#### D7. 5<sup>th</sup> St. East and Ave. J

##### Existing

- Signalized intersection
- Transverse-line crosswalks on all four crossings
- Bus stops on the north side of Ave. J, west of 5<sup>th</sup> St. East, and on the south side of Ave. J east of 5<sup>th</sup> St. East

##### Proposed

- Add a zebra-stripe crosswalk to all legs (4)
- Add an advanced stop line to all legs (4)
- Add pedestrian countdown signals to all legs (8)
- Add a curb extension to north side of west leg with a bus bulb (1)
- Reduce the curb return on the SE and SW corners (2)
- Add curb extensions on the NE corner of the east leg, and SW corner of the west leg (2)

### Linear Treatments

- Add new sidewalks at the following locations:
  - parallel to Foxtan Ave. just next to the school on school property to connect the existing sidewalk with the entrance (approximately 80')
  - widen the sidewalk along Foxtan Ave. next to the school into the parkway (approximately 730')
  - on the east side of Foxtan Ave. just north of the entrance to El Dorado Park (approximately 35')
  - on both sides of Foxtan Ave. approximately 110' south of Nugent St. to Lancaster Blvd. (approximately 2,200')
  - along Nugent Ave. from Foxtan Ave. to 5<sup>th</sup> St. East where missing (missing entirely from the north side, and much of the way on the south side) (approximately 1,600')
- Add Assembly C signs with digital speed feedback on 5<sup>th</sup> St. East between Norberry St. and Ave J (4)
- Add speed feedback signs along Ave. J between 3<sup>rd</sup> St. East and Rodin Ave. (4)
- Add Assembly C 15 mph signs on Foxtan Ave. and on both sides of the school (2) and on Pondera St. (2) if supported by an engineering study
- Add speed humps for traffic calming on Foxtan Ave. between Nugent St. and Ave. J (4) and on Pondera St. from Foxtan Ave. to 5<sup>th</sup> St. East (2)
- Add a Class III bike route with sharrows and directional signs along Foxtan Ave. between Lancaster Ave. and Ave. J (0.5 mi.), and on Pondera St. from Foxtan Ave. to 5<sup>th</sup> St. East (0.15 mi.)
- Improve bike lanes on 5<sup>th</sup> St. East with recommendations from the Master Plan of Trails and Bikeways from Ave. J to Lancaster Blvd. (stripe 7'-wide parking lanes, 6' colored bike lanes, add pavement stencils and signs) (0.5 mi.)
- Add a new walking/bicycling path from Nugent St. at 4<sup>th</sup> St. East to the perimeter path in El Dorado Park (approximately 150')
- Add a new walking/bicycling path between the sidewalk in El Dorado Park running east-west north of the baseball field and the school, just west of the baseball field (approximately 300') (coordinate entrance with the school)
- Add a new walking/bicycling path through El Dorado Park between 5<sup>th</sup> St. East and the school, just south of the baseball field (approximately 300') (coordinate entrance with the school)

### Bicycle Parking

- Add racks for 10 bicycles as described in the Design section. Add racks for 10 skateboards/scooters. Add more if needed.

**Program Plan**

Education

Encouragement

Enforcement

### H. Lincoln Elementary School





## Walk Audit Workshop

A walk audit workshop was conducted on September 12, 2013. The following key stakeholders attended:

- School Principal
- Parents
- School Director of Facilities
- Duty aide
- Teacher
- Representatives from the Lancaster School District
- Representatives from the City Planning Department, City Department of Public Works, City Manager's office, and City Parks, Recreation, & Arts Department
- Representatives from the Los Angeles County Department of Public Health
- Representatives from Antelope Valley Partners for Health

## Safety Issues Raised at the Stakeholder Workshop

### General

- Speeding
- Jaywalking
- U-turns in front of the school
- Double parking
- Parking in the bike lane
- Parking in the red zone, in front of fire hydrants, and in disabled parking
- Parking in the center-turn lane
- Motorists disobeying crossing guards
- Impatient parents
- Young kids walking alone
- Loose dogs
- Crime in the area
- Poor access to school buses

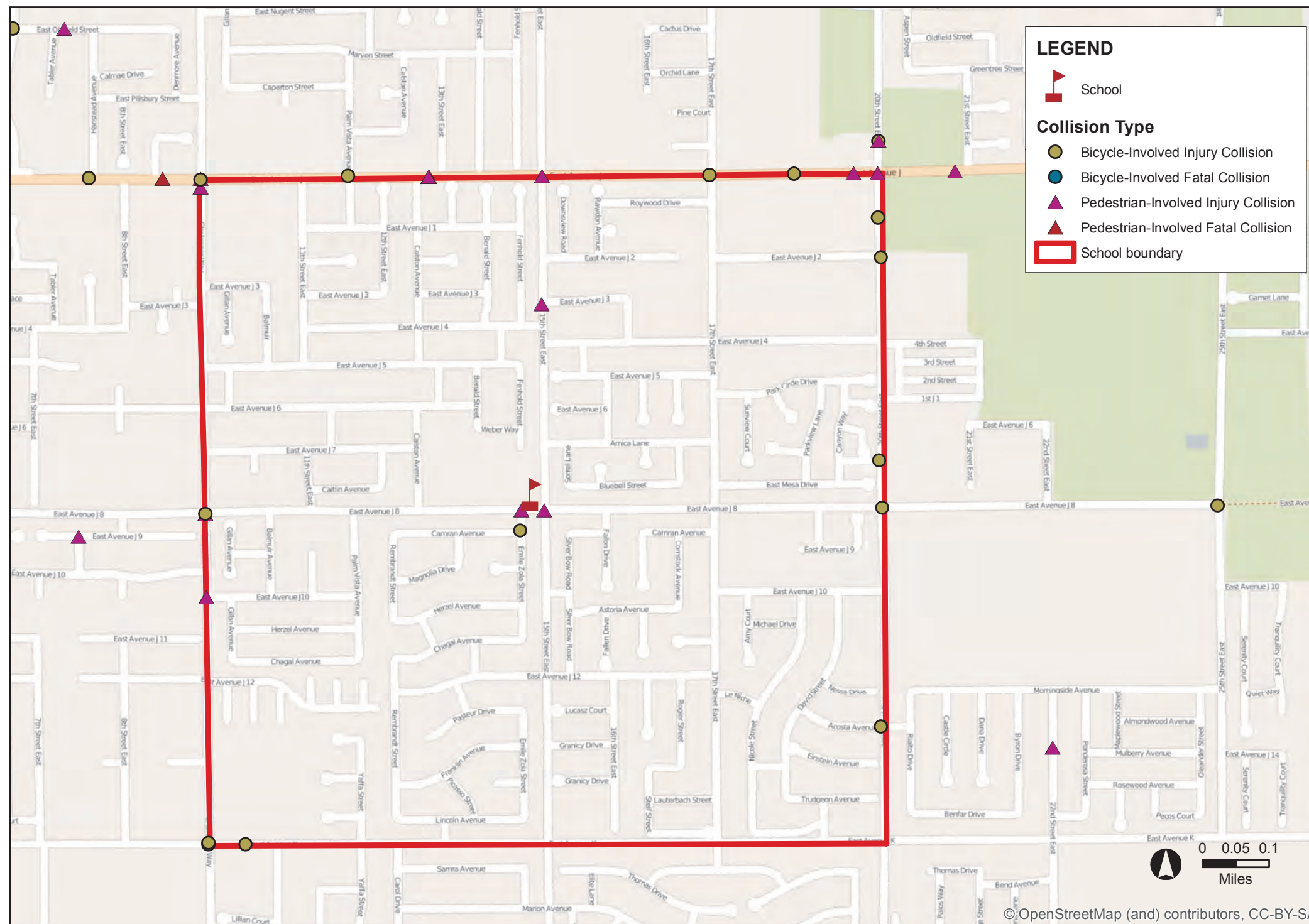
### Location-Specific Issues

- Parents leaving cars while in line for pick-up
- Parents entering the parking lot blocking the sidewalk
- Parents going out the parking lot the wrong way
- Parents not yielding to students when leaving the parking lot
- Speeding on 15<sup>th</sup> St. East
- Speeding on Ave. J-8
- 45 mph sign on each corner just past the school
- People parking on Ave. J-8 and encouraging jaywalking

- No marked crosswalk at 17<sup>th</sup> St. East
- No marked crosswalk at 20<sup>th</sup> St. East
- No marked crosswalk at Fallon Dr.
- No marked crosswalk at Arnica Ln.
- No marked crosswalk at Ave. J-4
- No marked crosswalk at Ave. J-12

### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2007 and 2011.



# Bicycle and Pedestrian Collisions 2007 - 2011

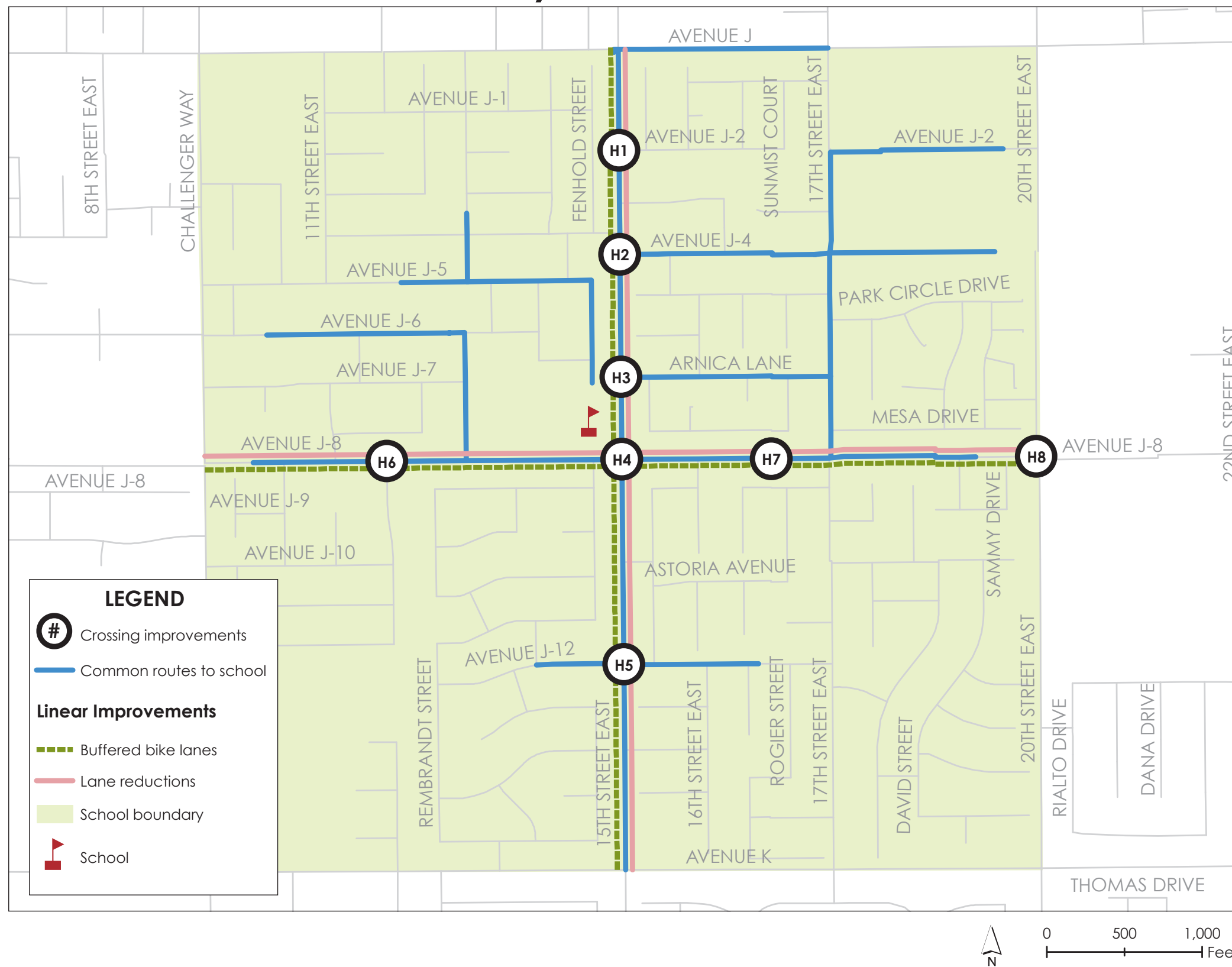
## Lincoln Elementary School

Source of Data: University of California Transportation Injury Mapping System



The map below shows the proposed engineering projects along common routes used by students to get to school.

## SRTS Plan - Lincoln Elementary School



## Existing Conditions and Engineering Recommendations

### Linear Improvements

Linear improvements are shown first for Lincoln Elementary School because they provide the foundation for crossing improvements. Consistent with the Master Plan of Trails and Bikeways, lane reductions are recommended on 15<sup>th</sup> St. East from Ave. J to Ave K (1.0 mi.), and on Ave. J-8 from Challenger Way to 20<sup>th</sup> St. East (1.0 mi.). These improvements are assumed in all of the pedestrian crossings of 15<sup>th</sup> St. East and Ave. J-8.

#### Existing 15<sup>th</sup> St. East and Ave. J-8

- 4 lanes
- Center-turn lane
- Bike lanes
- 64' wide
- Speed feedback signs
- Assembly C signs
- Assembly A signs
- SLOW SCHOOL XING pavement markers

#### Proposed Option 1

- 2 lanes
- Center-turn lane with interspersed median islands
- On-street parking
- Buffered bike lanes

7' parking, 2' buffer, 6' bike lane, 2' buffer, 10' travel lane, 10' center-turn lane/median, 10' travel lane, 2' buffer, 6' bike lane, 2' buffer, 7' parking

#### Proposed Option 2

- 2 lanes
- Center-turn lane with interspersed median islands
- On-street parking
- Protected bike lanes

8' bike lane, 2' protective buffer, 7' parking, 2' buffer, 10' travel lane, 10' center-turn lane/median, 10' travel lane, 7' parking, 2' protective buffer, 8' bike lane



## Crossing Improvements

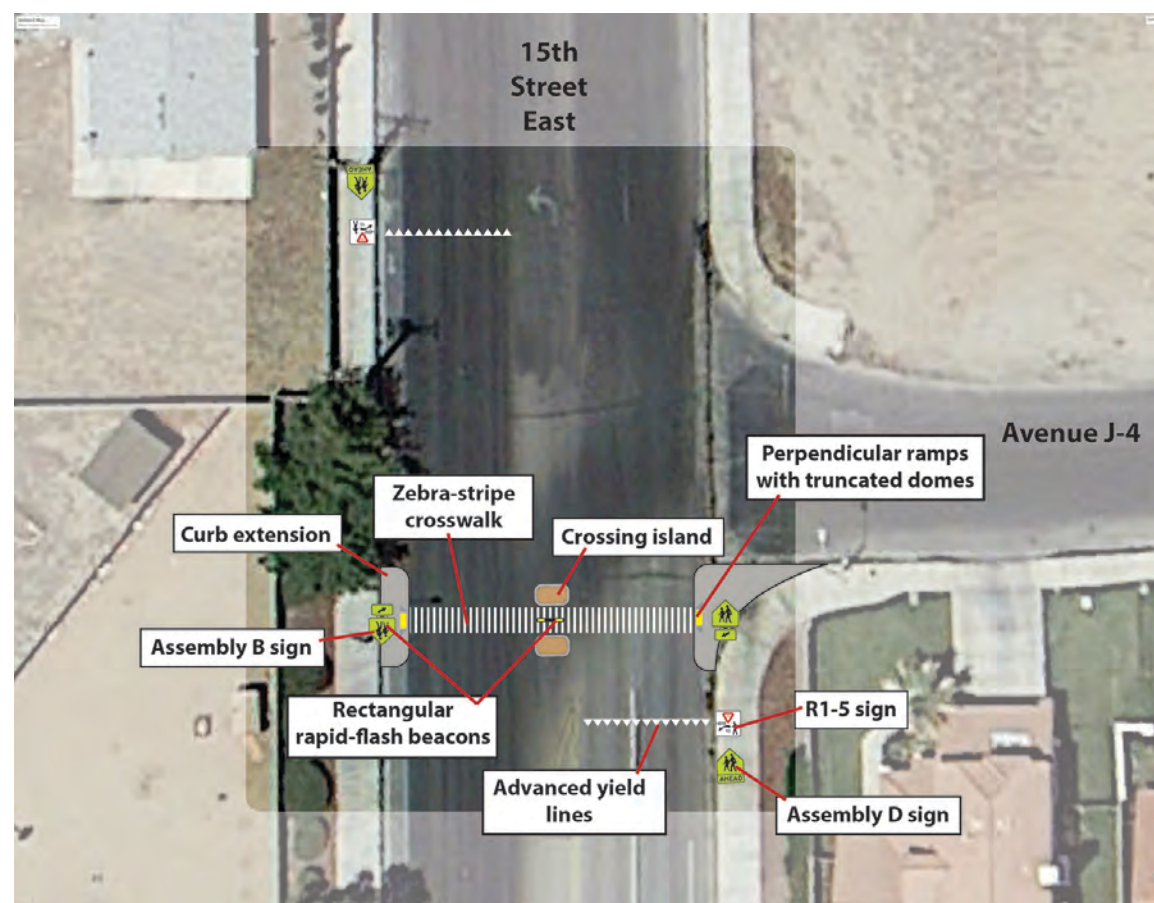
### H1. 15<sup>th</sup> St. East & Ave. J-2

#### Existing

- 1-way stop for Ave. J-2
- No marked crosswalk

#### Proposed

- Add a zebra-stripe crosswalk on the south leg (1)
- Add advanced yield lines to the south leg approaches (2)
- Add R1-5 signs to the south leg approaches (2)
- Add Assembly B signs to the south leg (2)
- Add Assembly D signs to the south leg approaches (2)
- Add crossing islands to the south leg crosswalk (1 pair)
- Add pedestrian-activated rapid flash beacons to the south leg crosswalk (1 set)
- Add curb extensions to both sides of the south leg crosswalk with Proposed Option 1 treatment of 15<sup>th</sup> St. East (2)



### H2. 15<sup>th</sup> St. East & Ave. J-4

#### Existing

- 1-way stop for Ave. J-4
- No marked crosswalk

#### Proposed

- Add a zebra-stripe crosswalk on the south leg (1)
- Add advanced yield lines to the south leg approaches (2)
- Add R1-5 signs to the south leg approaches (2)
- Add Assembly B signs to the south leg (2)
- Add Assembly D signs to the south leg approaches (2)
- Add crossing islands to the south leg crosswalk (1 pair)
- Add pedestrian-activated rapid flash beacons to the south leg crosswalk (1 set)
- Add curb extensions to both sides of the south leg crosswalk with Proposed Option 1 treatment of 15<sup>th</sup> St. East (2)



### H3. 15<sup>th</sup> St. East & Arnica Ln.

#### Existing

- 1-way stop for Ave. Arnica Ln.
- No marked crosswalk

#### Proposed

- Add zebra-stripe crosswalks on the south and east legs (2)
- Add advanced yield lines to the south leg approaches (2)
- Add R1-5 signs to the south leg approaches (2)
- Add Assembly B signs to the south leg (2)
- Add Assembly D signs to the south leg approaches (2)
- Add crossing islands to the south leg crosswalk (1 pair)
- Add pedestrian-activated rapid flash beacons to the south leg crosswalk (1 set)
- Add an advanced stop line to the east leg (1)
- Add curb extensions to both sides of the east leg (2)
- Add curb extensions to both sides of the south leg crosswalk with Proposed Option 1 treatment of 15<sup>th</sup> St. East (2)

#### H4. 15<sup>th</sup> St. East & Ave. J-8

##### Existing

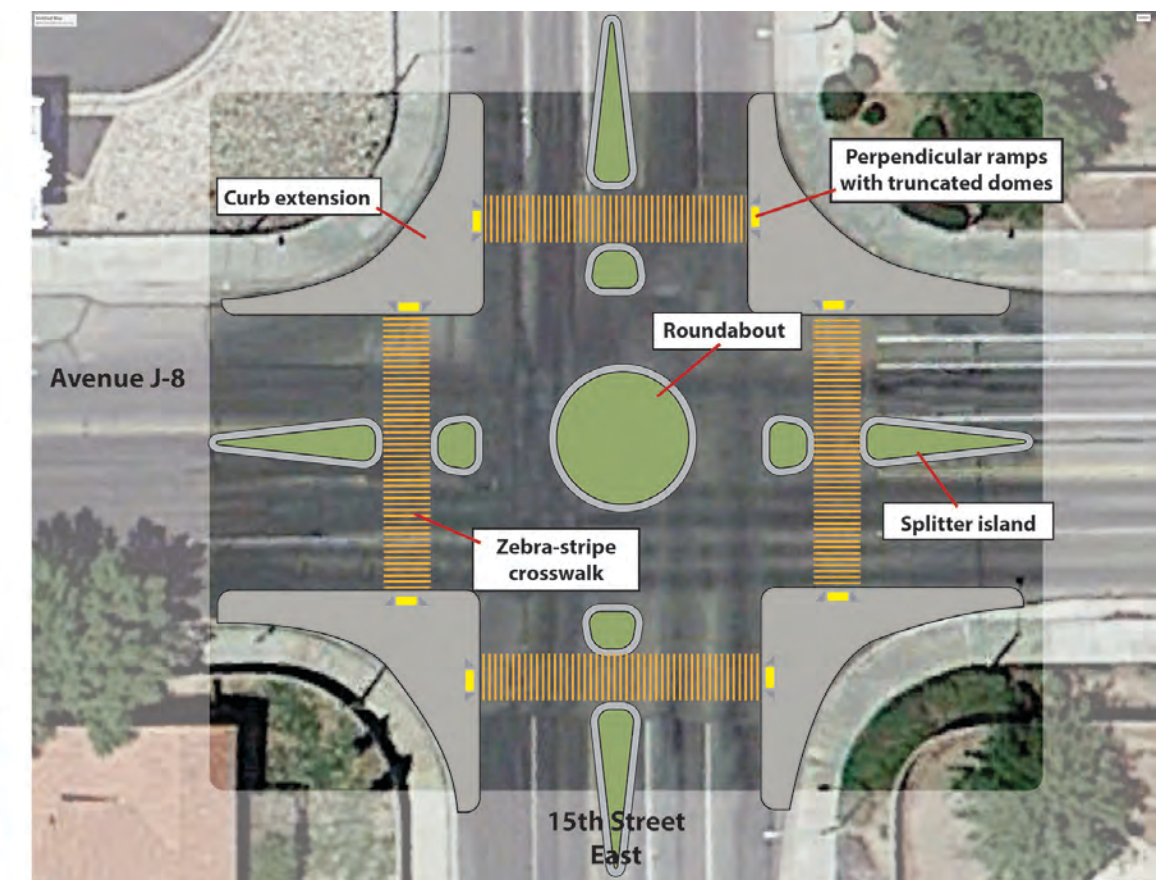
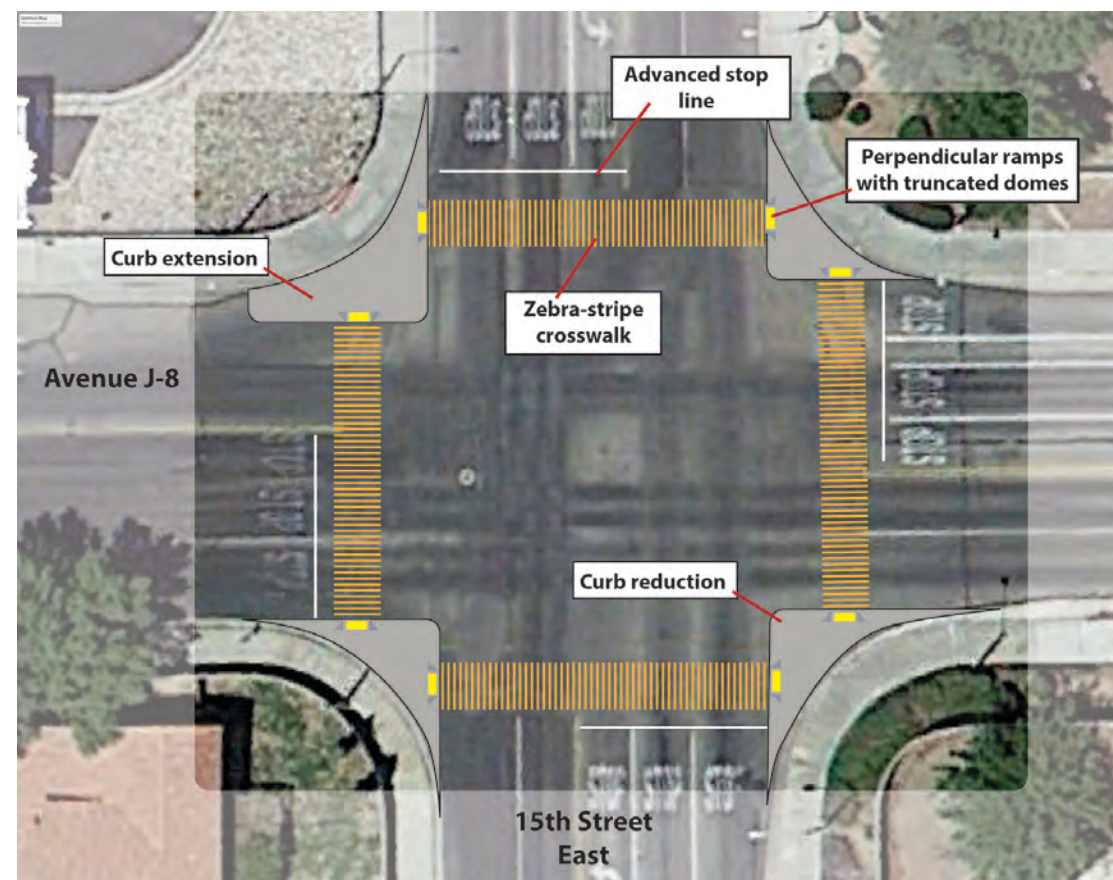
- 4-way stop
- Yellow transverse-line crosswalks on all 4 legs
- No truncated domes on all corners
- 2 crossing guards

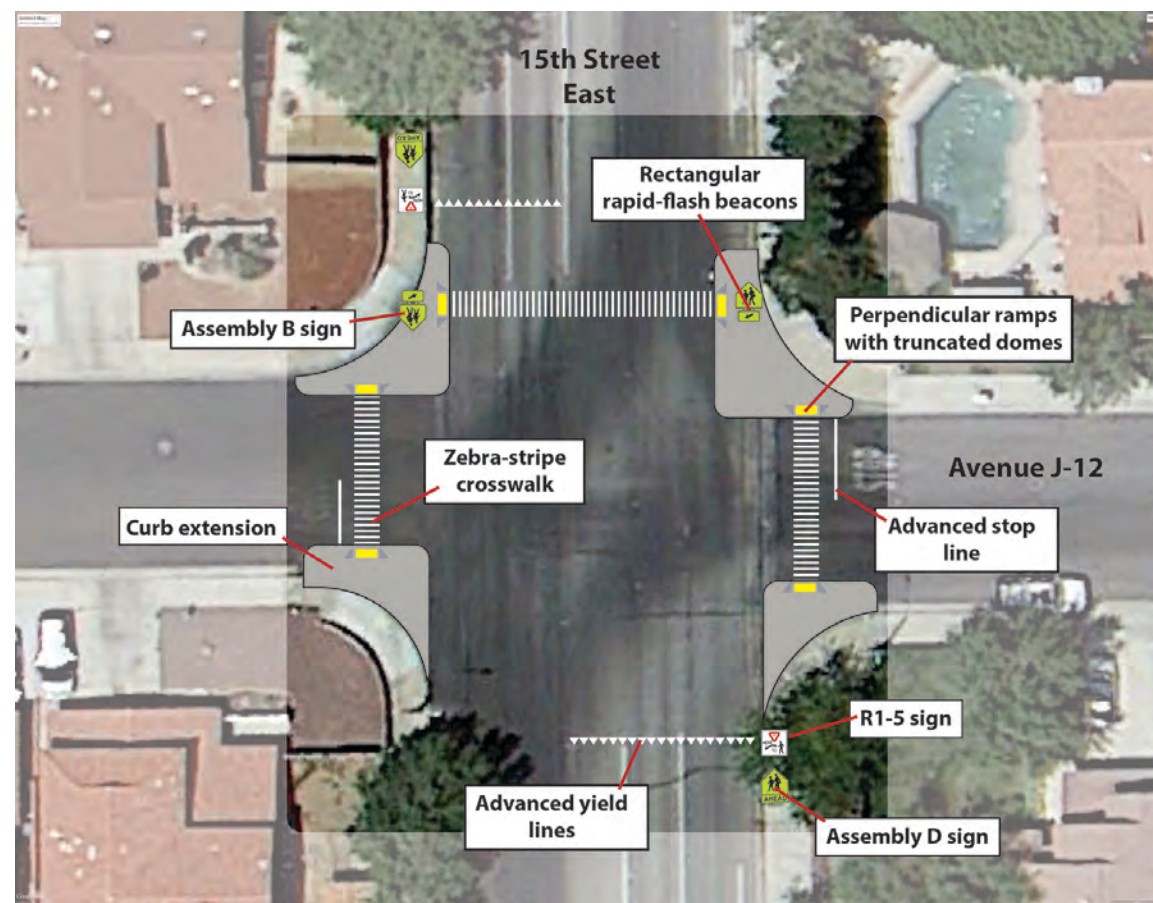
##### Proposed Option 1 (consistent with Master Plan of Trails and Bikeways)

- Add yellow zebra-stripe crosswalks on all legs (4)
- Widen crosswalks to 15'
- Add a curb extension on the NW corner to cross the west leg (1)
- Reduce curb returns to all other corners (3)

##### Proposed Option 2 (only with road diets on 15<sup>th</sup> St. East and Ave. J-8)

- Replace stop signs with a roundabout
- Add curb extensions on all corners to choke the intersection down





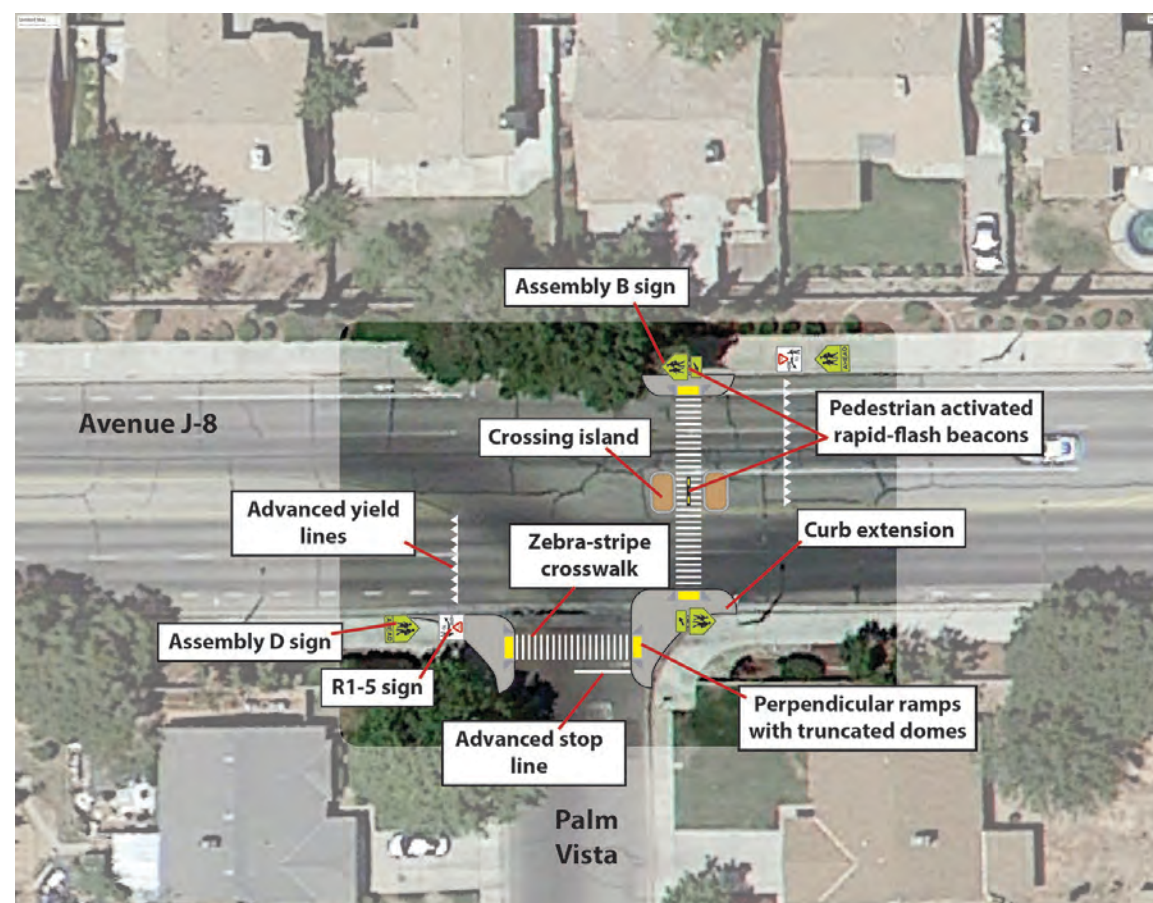
#### H5. 15<sup>th</sup> St. East & Ave. J-12

##### Existing

- 2-way stop for Ave. J-12
- No marked crosswalk

##### Proposed

- Add zebra-stripe crosswalks on the north, east, and west legs (3)
- Add advanced yield lines to the north leg approaches (2)
- Add R1-5 signs to the north leg approaches (2)
- Add Assembly B signs to the north leg (2)
- Add Assembly D signs to the north leg approaches (2)
- Add pedestrian-activated rapid flash beacons to the north leg crosswalk (1 set)
- Add advanced stop lines to the east and west legs (2)
- Add curb extensions to both sides of the east and west legs (4)
- Add curb extensions to both sides of the north leg crosswalk with Proposed Option 1 treatment of 15<sup>th</sup> St. East (2)



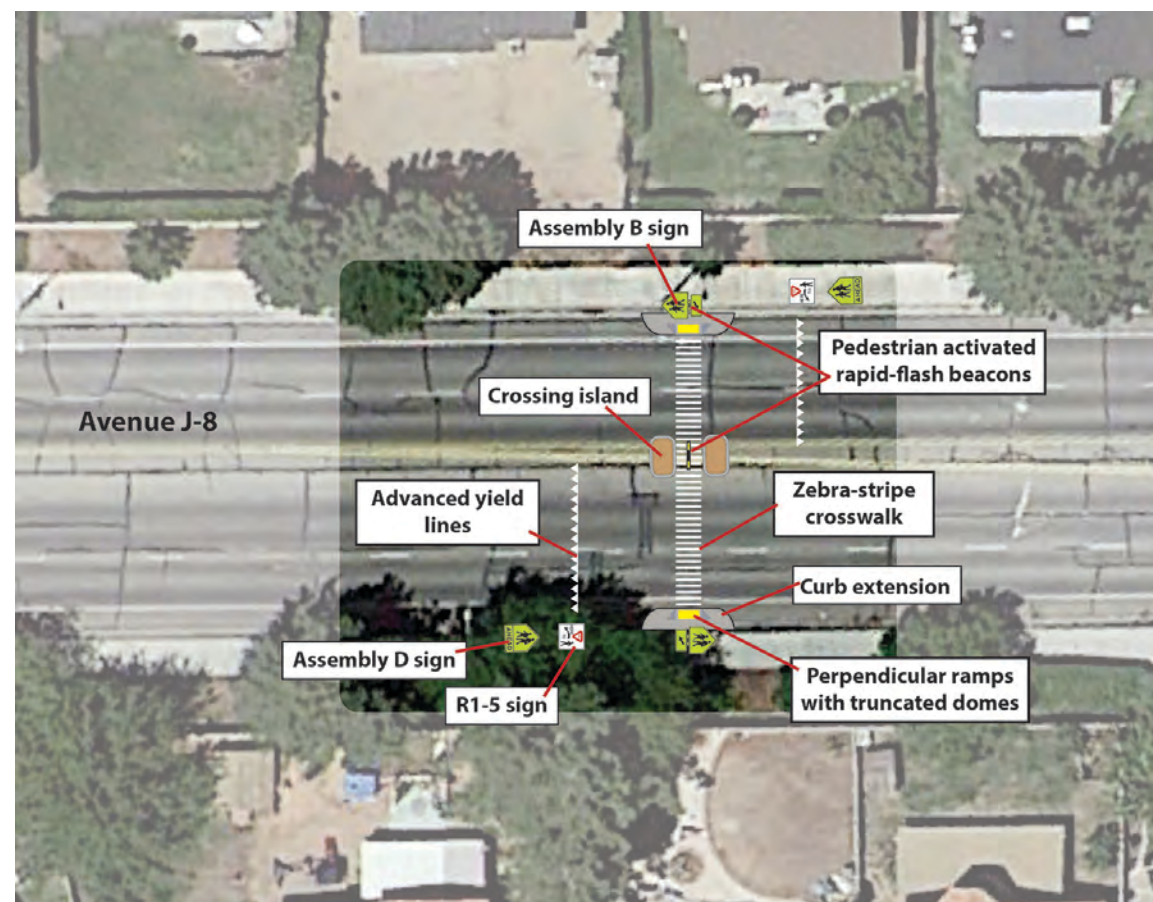
#### H6. Ave. J-8 & Palm Vista Ave.

##### Existing

- 1-way stop for Palm Vista Ave.

##### Proposed

- Add zebra-stripe crosswalks on the south and east legs (2)
- Add advanced yield lines to the east leg approaches (2)
- Add R1-5 signs to the east leg approaches (2)
- Add Assembly B signs to the east leg (2)
- Add Assembly D signs to the east leg approaches (2)
- Add crossing islands to the east leg crosswalk (1 pair)
- Add pedestrian-activated rapid flash beacons to the east leg crosswalk (1 set)
- Add an advanced stop line to the south leg (1)
- Add curb extensions to both sides of the south leg (2)
- Add curb extensions to both sides of the east leg crosswalk with Option 1 Proposed treatment of Ave. J-8 (2)



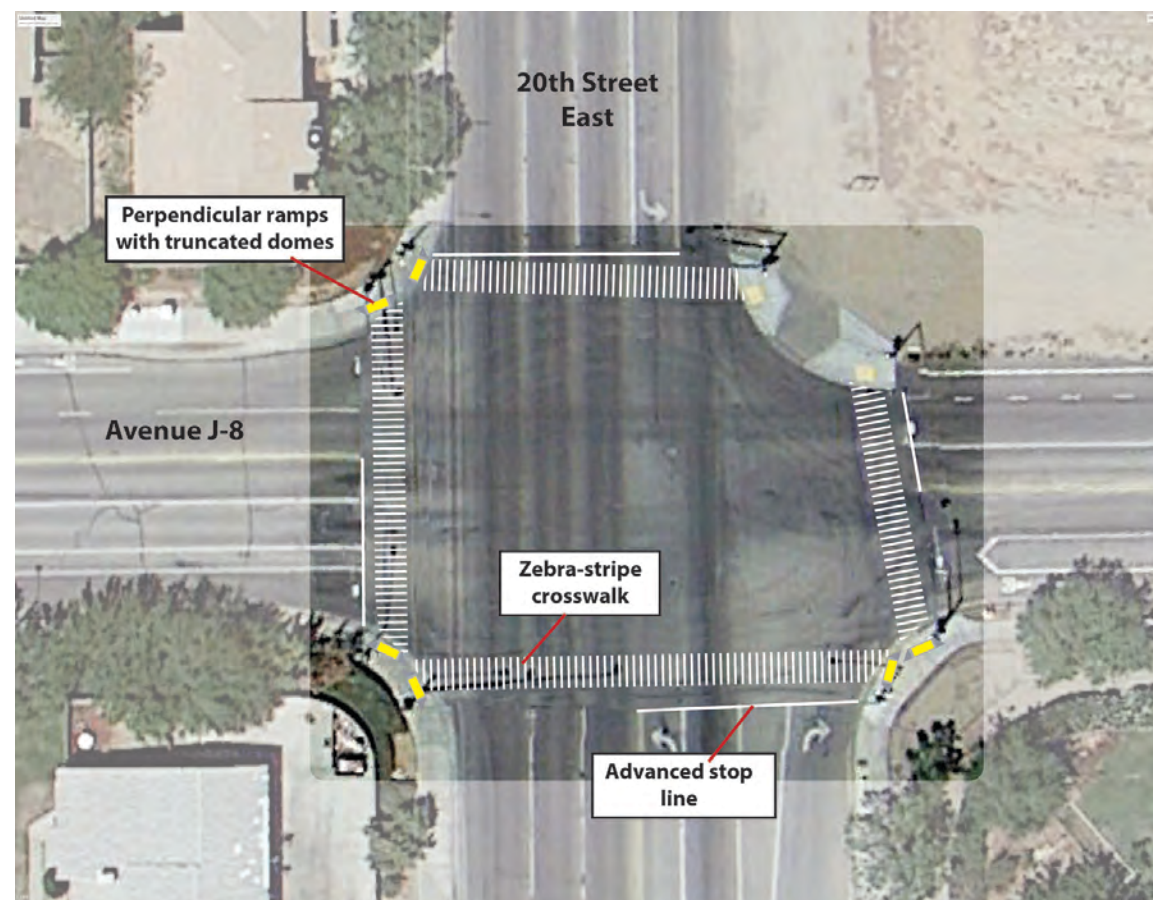
### H7. Ave. J-8 & halfway between Fallon Dr. and 17<sup>th</sup> St. East

#### Existing

- No marked crosswalk

#### Proposed

- Add zebra-stripe crosswalk (1)
- Add advanced yield lines to both crosswalk approaches (2)
- Add R1-5 signs to both crosswalk approaches (2)
- Add Assembly B signs to the new crosswalk (2)
- Add Assembly D signs to both crosswalk approaches (2)
- Add crossing islands to the new crosswalk (1 pair)
- Add pedestrian-activated rapid flash beacons to the new crosswalk (1 set)



### H8. Ave. J-8 & 20<sup>th</sup> St. East

#### Existing

- Signalized intersection
- Countdown signals
- Transverse-line crosswalks on all legs

#### Proposed

- Add zebra-stripe crosswalks on all legs (4)
- Add advanced stop lines to all legs (4)
- Add truncated domes to NW, SW and SE corners (3)

**Bicycle Facilities**

- Add racks for 10 bicycles as described in the Design section. Add racks for 10 skateboards/scooters. Add more if needed.

**Program Plan**

Education

Encouragement

Enforcement



## I. Linda Verde Elementary School





## Walk Audit Workshop

A walk audit workshop was conducted on September 11, 2013. The following key stakeholders attended:

- School principal
- School administrative staff
- Librarian
- Parents
- Representatives from the Lancaster School District
- Representatives from the City Planning Department, City Public Works Department, and City Parks, Recreation, and Arts Department
- Representatives from the Sheriff's Office
- Representatives from Antelope Valley Partners for Health

## Safety Issues Raised at the Stakeholder Workshop

### General

- Speeding
- Poor or narrow sidewalks
- Lack of marked crosswalks
- Parents dropping off on the other side of the street
- Need more crossing guards
- Parents disobeying crossing guards
- U-turns in front of the school
- Motorists running stop signs
- Kids not using crosswalks
- Bullying
- Loose dogs
- Pedophiles living in the area
- Double parking
- Parents crossing without using crosswalks

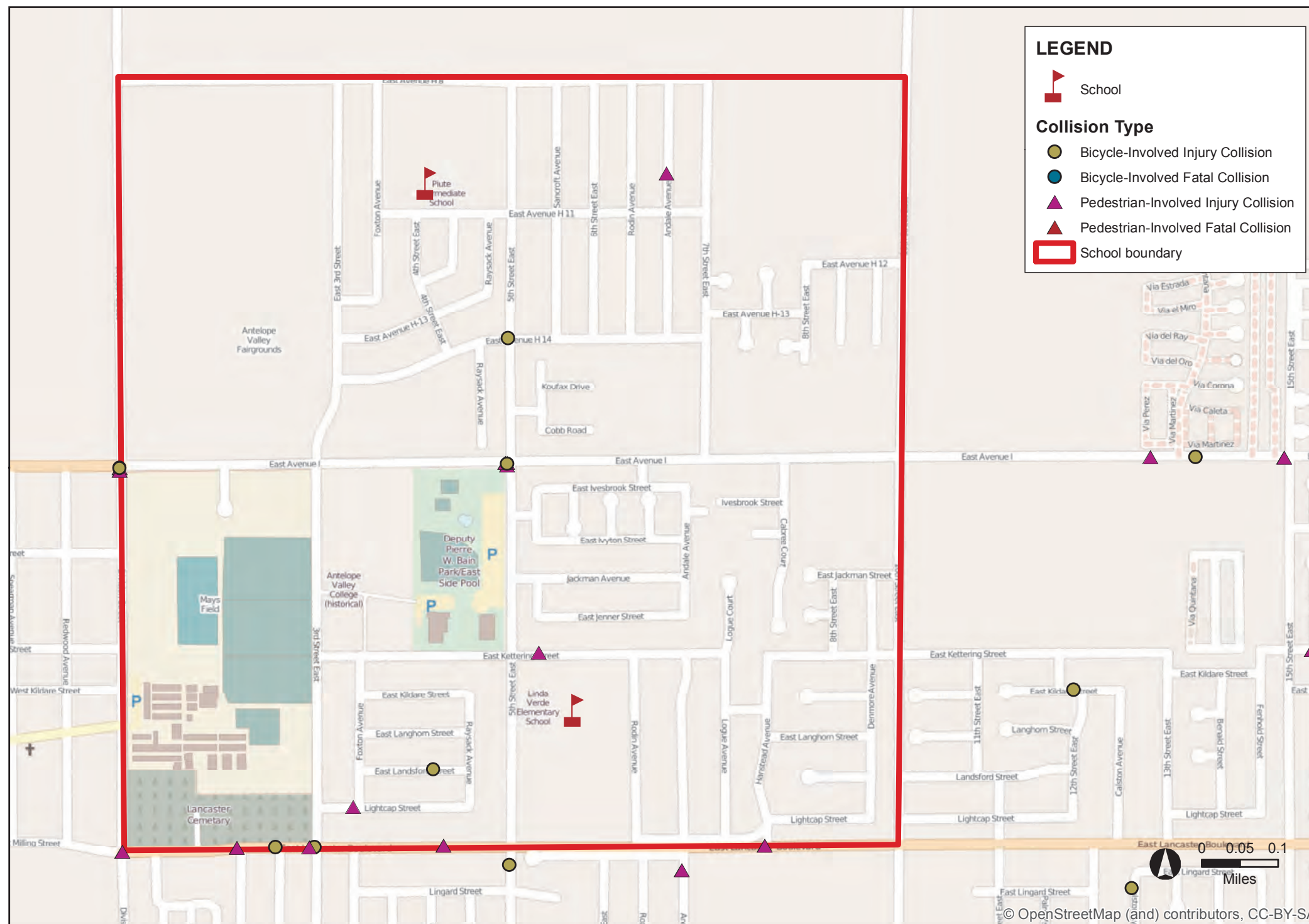
### Location-Specific Issues

- Parents drive into the exit side of the school office parking lot
- No walkway from the school to Rodin Ave.
- Lancaster Blvd. and Andale Ave.
  - no marked crosswalks
  - motorists speed both directions through the frontage road because there are no stop signs there
- 5<sup>th</sup> St. East and Kettering St.
  - difficult to walk across

- motorists speed and fail to stop for the stop signs
- 5<sup>th</sup> St. East and Ave. I
  - very wide
  - the light changes fast
  - turning cars don't wait for pedestrians
  - people drive in the bike lanes
- 3<sup>rd</sup> St. East and Ave. H-8
  - motorists speed
  - turning cars don't look for or wait for pedestrians in the crosswalk
- 5<sup>th</sup> St. East and Ave. H-14
  - motorists speeding through the intersection

### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2007 and 2011.



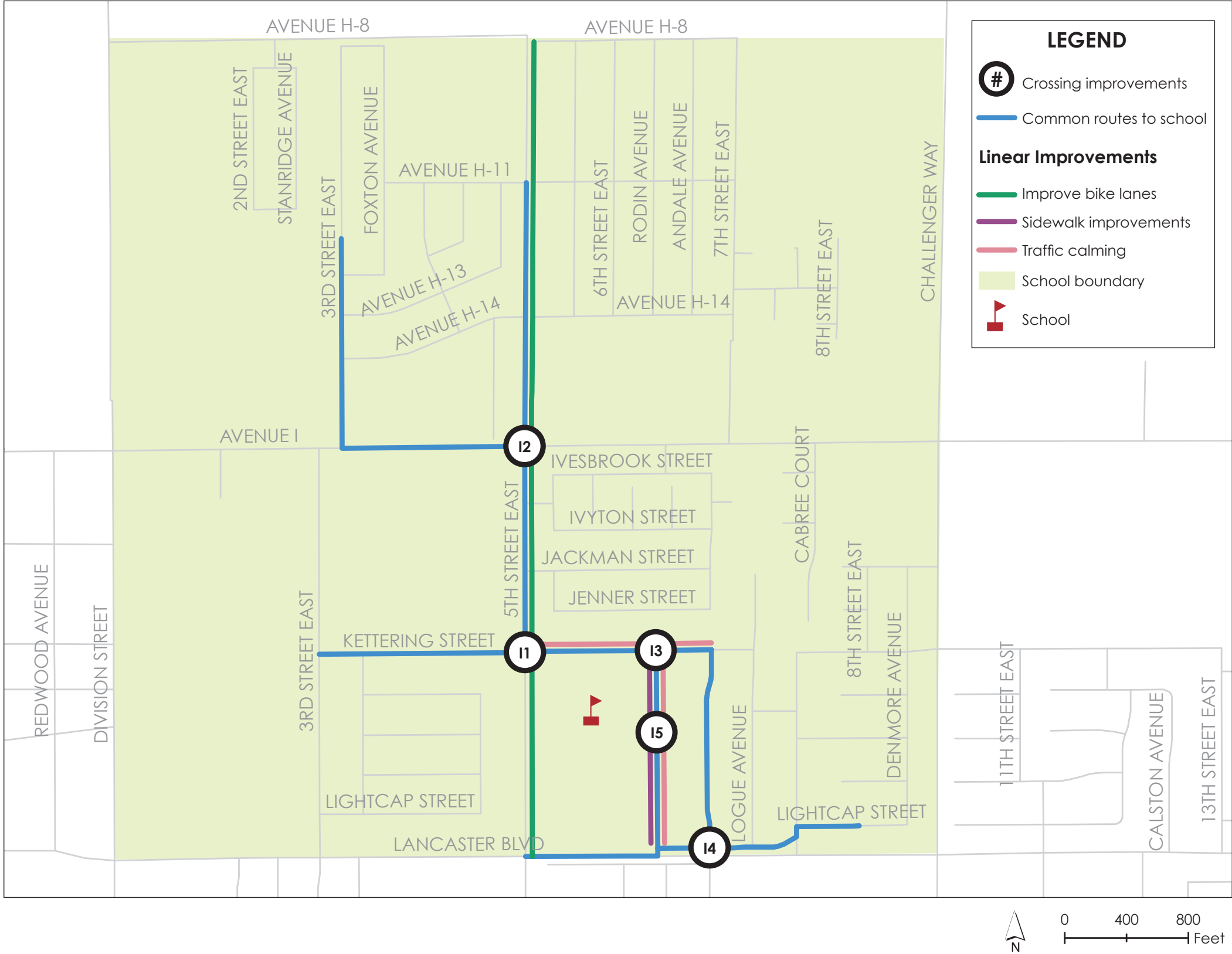
# Bicycle and Pedestrian Collisions 2007 - 2011

## Linda Verde Elementary School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.

# SRTS Plan - Linda Verde Elementary School



## Existing Conditions and Engineering Recommendations

### Crossing Improvements

#### I1. 5<sup>th</sup> St. East and Kettering St.

##### Existing

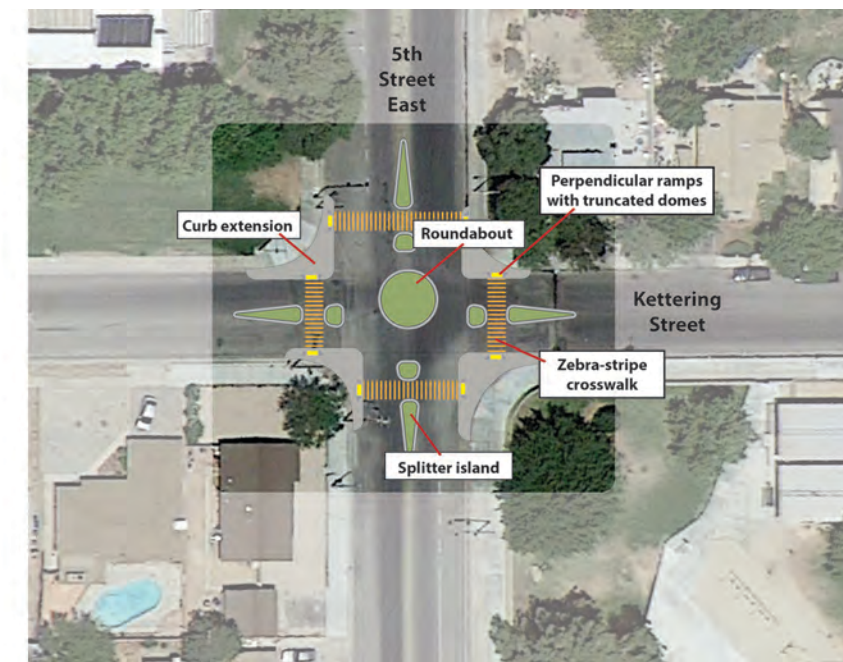
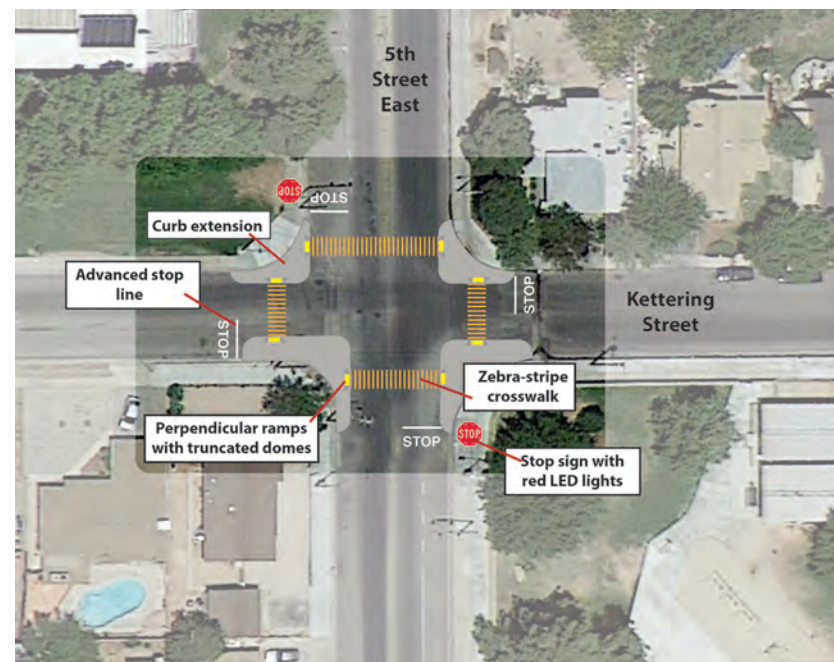
- 4-way stop
- Yellow transverse-line crosswalks on the east, west, and north legs; the south leg has a yellow ladder crosswalk
- Both streets have two lanes and on-street parking
- No truncated domes on ramps
- Overhead flashing beacons on 5<sup>th</sup> St. East
- Crossing guard during school opening and dismissal

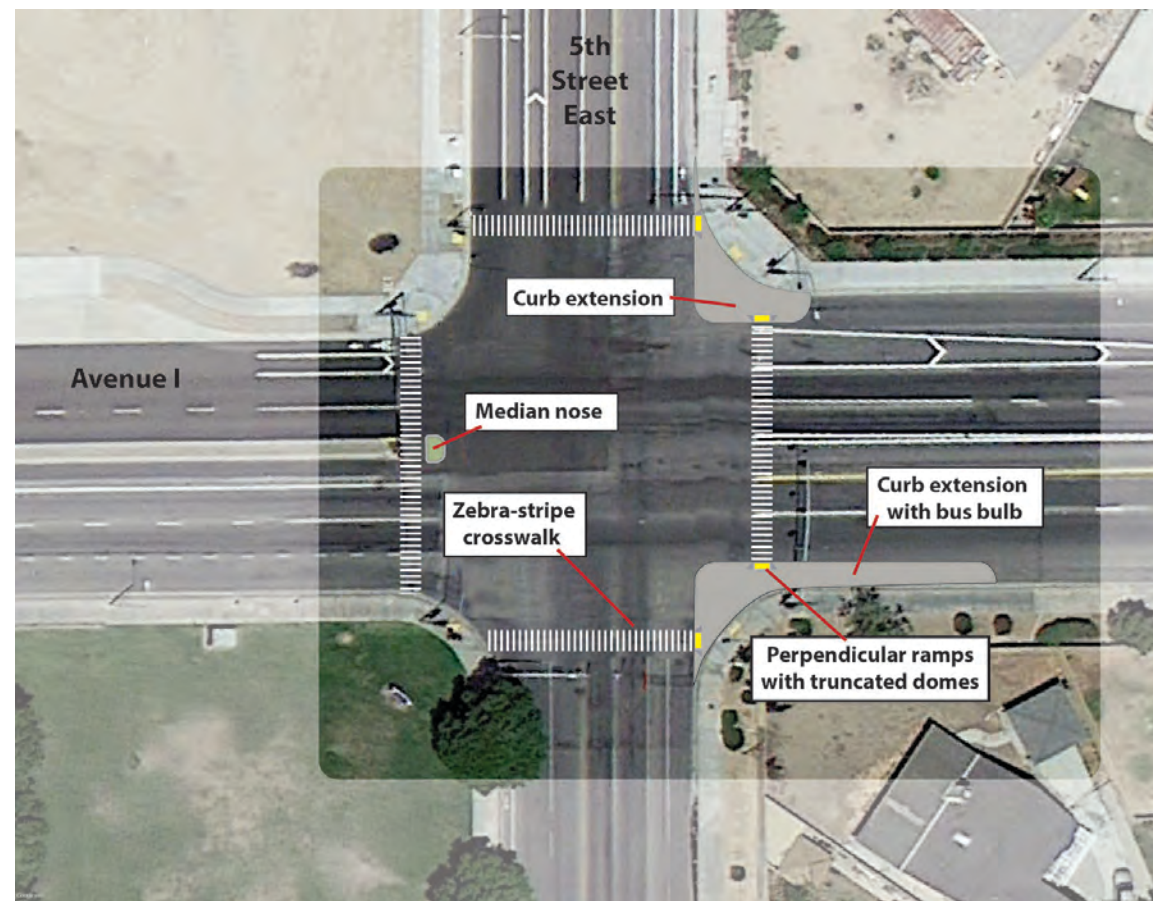
##### Proposed Option 1

- Add zebra-stripe crosswalks on all legs (1)
- Add curb extensions to all legs (8)
- Add advanced stop lines to all crosswalks (4)
- Remove overhead beacons (1)
- Add red LED lights to the perimeter of stops signs on 5<sup>th</sup> St. East (2)

##### Proposed Option 2

- Replace 4-way stop with a roundabout
- Add curb extensions to all corners
- Remove overhead beacons (1)





## I2. Ave. I and 5<sup>th</sup> St. East

### Existing

- Signalized intersection
- Countdown signals
- Transverse-line crosswalks on all legs
- Crossing guard during school opening and dismissal

### Proposed

- Add zebra-stripe crosswalks to all legs (1)
- Add a curb extension with bus bulb on the SE corner of Ave. I (1)
- Add a wide curb extension on the NE corner of Ave I (1)
- Add median nose to the small median island on west leg (1)



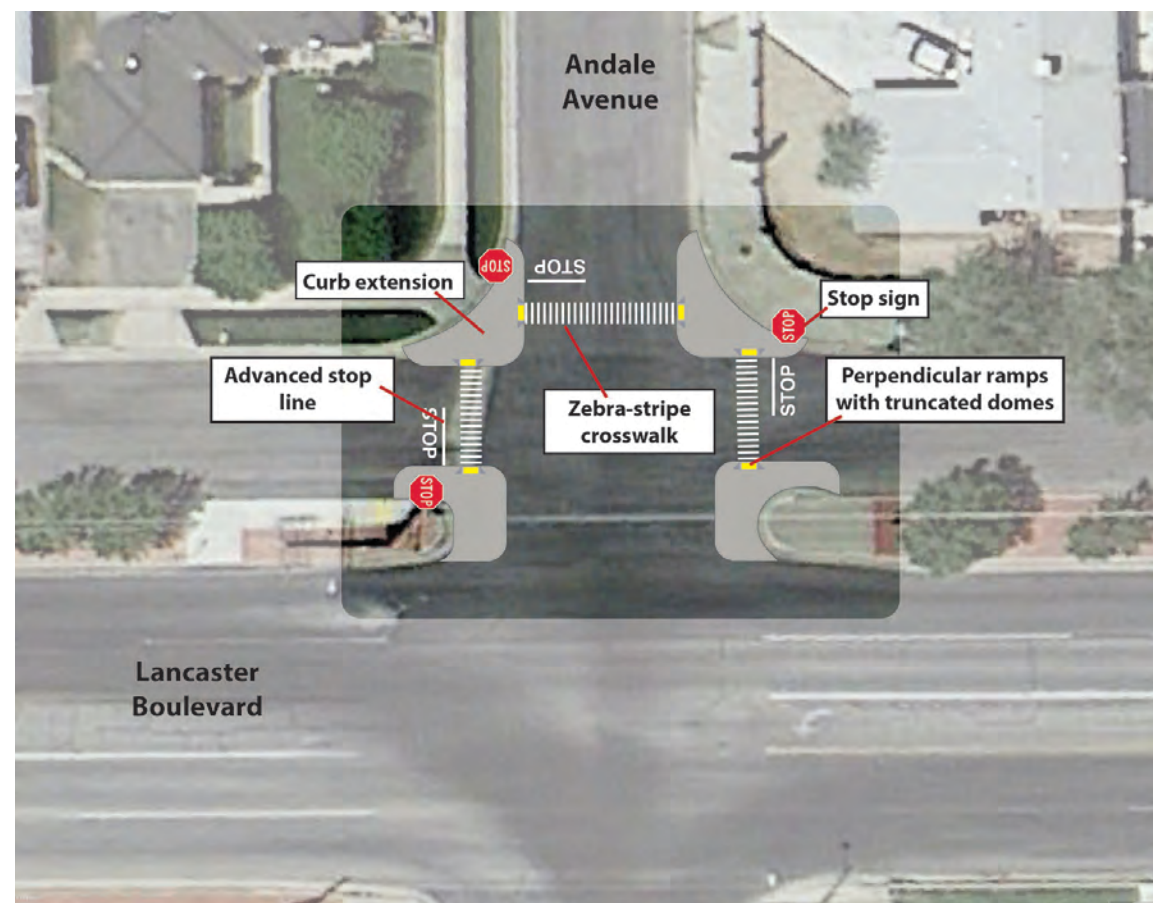
## I3. Rodin Ave. at Kettering St.

### Existing

- Uncontrolled T-intersection
- SLOW SCHOOL XING pavement markings on both approaches to the west leg crosswalk
- Yellow transverse-line crosswalks over the west and south legs

### Proposed

- Add a stop sign on south leg (1)
- Add a raised yellow zebra-stripe crosswalk on the west leg (1)
- Add a yellow zebra-stripe crosswalk on the south leg (1)
- Add curb extensions to both sides of the west leg crosswalk (2)
- Add advanced yield lines to the both west leg crossing approaches (3)
- Add R1-5 signs to the west leg crossing approaches (2)
- Add Assembly D signs to the west leg crossing approaches (2)
- Add crossing islands to the south leg crosswalk (1 pair)
- Add R1-6 signs to west leg crosswalk (1)



#### 14. Lancaster Blvd. frontage road and Andale Ave.

##### Existing

- Uncontrolled intersection of frontage road in both directions
- Stop sign on the median island separating the frontage road from Lancaster Blvd.

##### Proposed

- Add stop signs to the north, east and west leg crossings (3)
- Add zebra-stripe crosswalks on the north, east and west leg crossings (3)
- Add advanced stop lines to the north, east and west leg crossings (3)
- Add curb extensions to all crossing faces (8)

#### 15. Rodin Ave. behind school

- Open the back gate to improve pedestrian access



**Linear Treatments**

- Sidewalk along Rodin Ave. between Kettering Ave. and the Lancaster Blvd. frontage road is 5' wide with 7' of parkway. Widen the sidewalk into the parkway (approximately 350').
- Add speed humps, median islands, mid-block curb extensions, and/or chicanes for traffic calming along Rodin Ave. between Kettering Ave. and the Lancaster Blvd. frontage road, and on Kettering Ave. between 5<sup>th</sup> St. East and Andale Ave.
- Add speed feedback signs on 5<sup>th</sup> St. East between Lancaster Ave. and Ave. I (4)
- Improve bike lanes on 5<sup>th</sup> St. East from Ave. H-8 to Lancaster Blvd. with improvements listed in the Master Plan of Trails and Bikeways (widen and color bike lanes to 6'-7', stripe 7' parking lane, add bike pavement stencils and signs) (1 mi.)

**Bicycle Facilities**

- Add racks for 10 bicycles as described in the Design section. Add racks for 10 skateboards/scooters. Add more if needed.

**Program Plan**

Education

Encouragement

Enforcement

## J. Mariposa Elementary School





## Walk Audit Workshop

A walk audit workshop was conducted on December 11, 2013. The following key stakeholders attended:

- School principal
- School employees
- Parents
- Representatives from the Lancaster Unified School District
- Representatives from the City Manager's Office, City Planning Department and City Public Works Department
- Representatives from the Los Angeles County Department of Public Health
- Representatives from Antelope Valley Partners for Health
- A representative from Kaiser Permanente

## Safety Issues Raised at the Stakeholder Workshop

### General

- Speeding
- Drivers not stopping
- Mid-block crossings

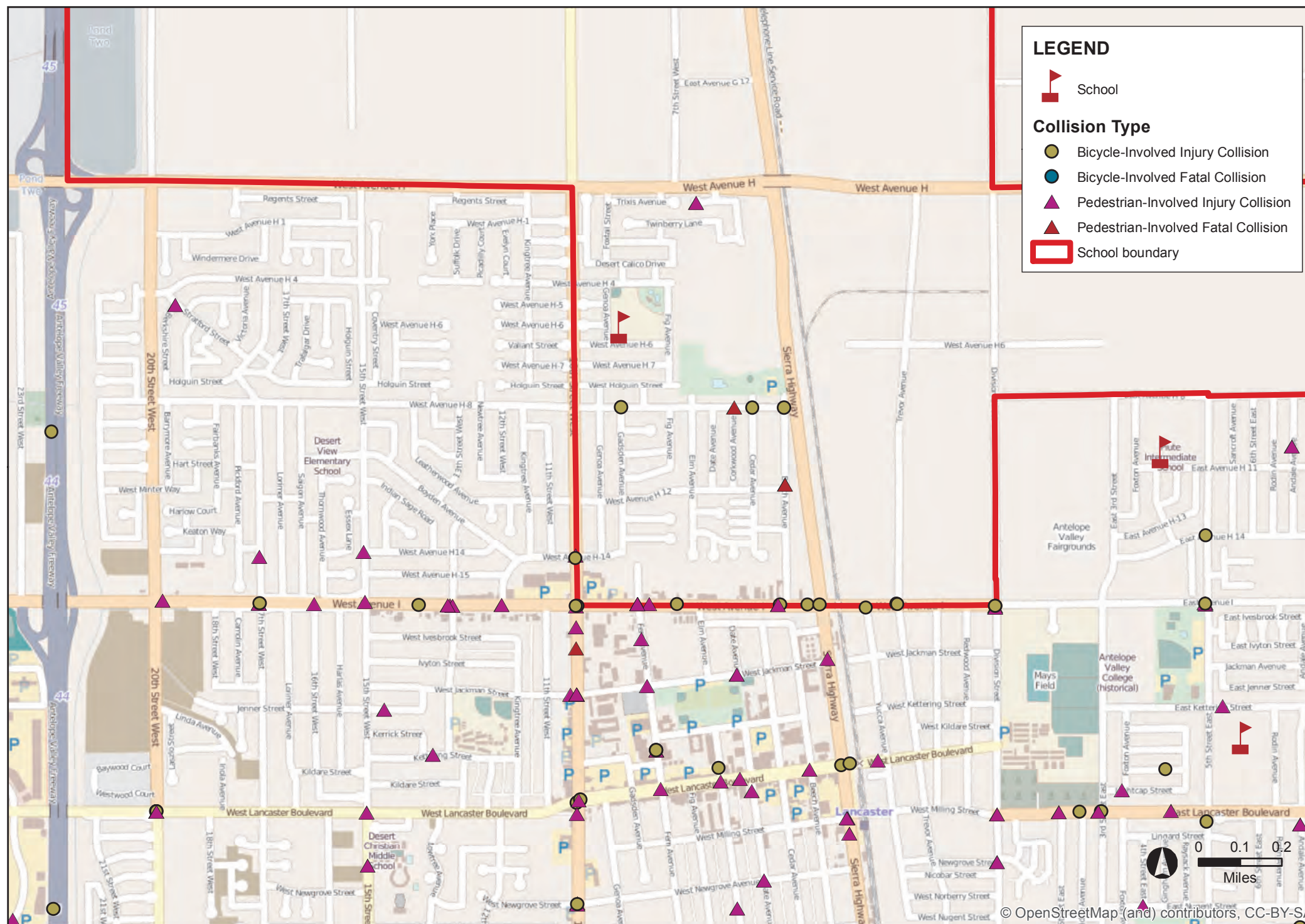
### Location Specific

- Ave. H-6 & Fig Ave.
  - speeding
  - motorists not stopping
- Ave. H-4 & Fig Ave.
  - speeding
  - motorists not stopping
- Ave. H-4 & Genoa Ave.
  - speeding
  - motorists not stopping
- Ave. H-6 & 10<sup>th</sup> St. West
  - difficult pedestrian crossing
- Ave. H-8 & 10<sup>th</sup> St. West
  - difficult pedestrian crossing
- Need a path to connect Fig Ave. between Ave. H-2 and Ave. H-4

- Sidewalks missing
  - Genoa Ave. from Ave. H-12 to Ave. H-14
  - Ave. H-14 from Genoa Ave. to 10<sup>th</sup> St. West
  - Along the 10<sup>th</sup> St. West frontage road from Ave. H-8 to Ave. H-6

### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2007 and 2011.



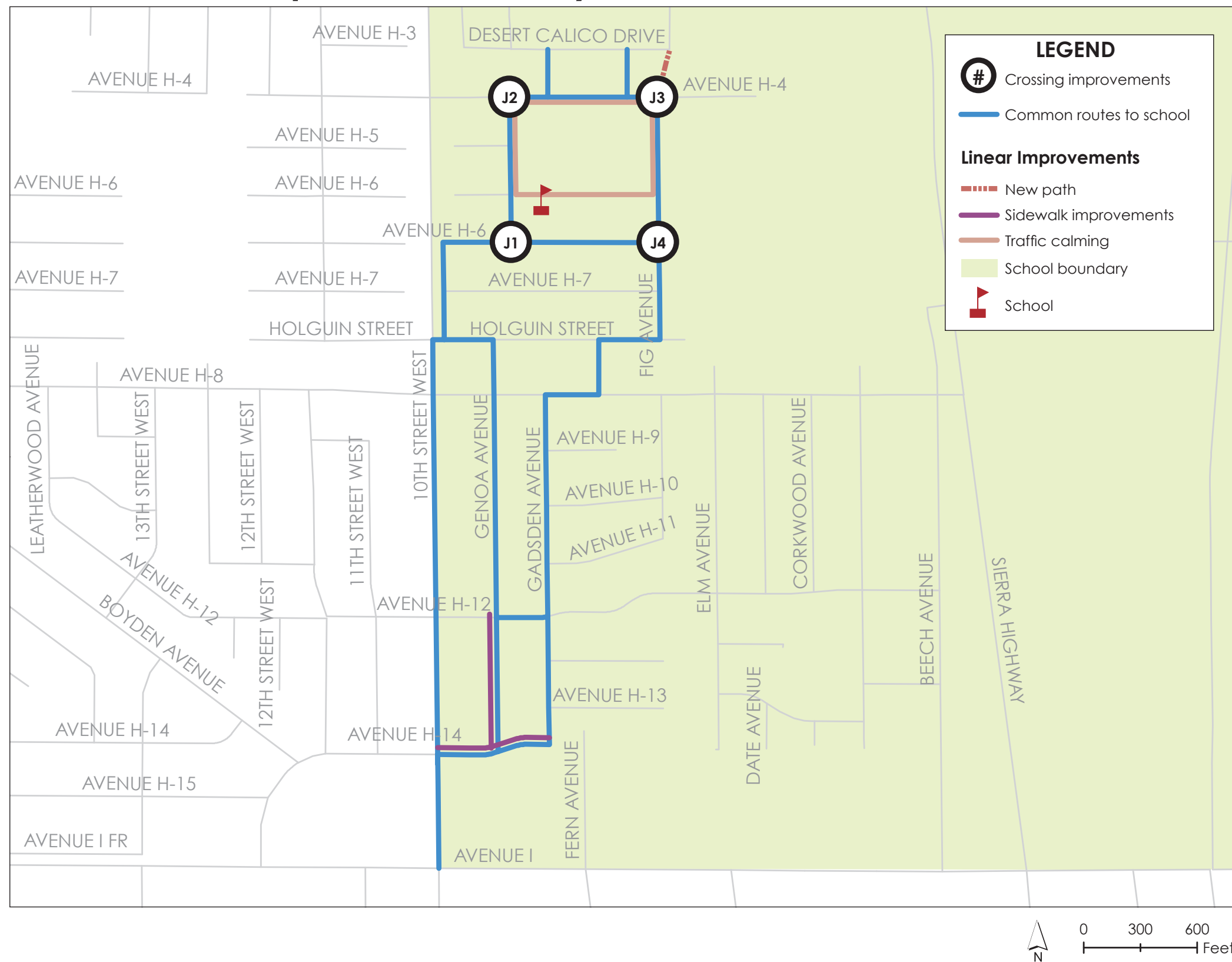
# Bicycle and Pedestrian Collisions 2007 - 2011

## Mariposa Elementary School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.

## SRTS Plan - Mariposa Elementary School



## Existing Conditions and Engineering Recommendations

### Crossing Improvements

#### J1. Ave. H-6 & Genoa Ave.

##### Existing

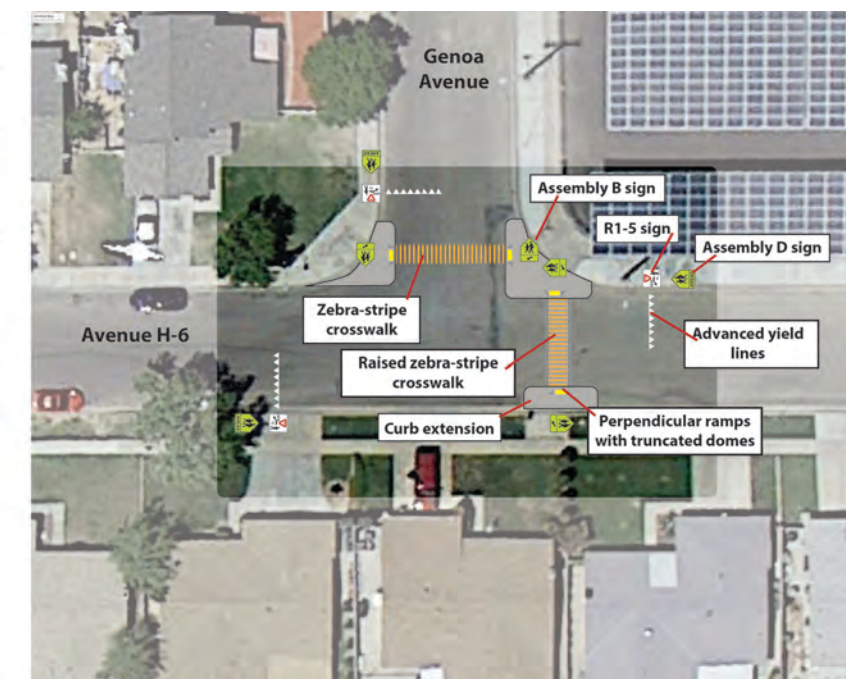
- T-intersection
- Uncontrolled
- Yellow transverse line crosswalk on the east leg
- Old crosswalk signs

##### Proposed Option 1

- Add a traffic circle
- Add curb extensions as necessary to create deflection
- Add yellow zebra-stripe crosswalks to all legs (3)

##### Proposed Option 2

- Add zebra-stripe crosswalks to the north and east legs (2)
- Add curb extensions to both crossing faces of the north and east legs (4)
- Add a raised crosswalk to the east leg (1)
- Add advanced yield lines to all approaches to the north and east legs (3)
- Add R1-5 signs to all approaches to the north and east legs (3)
- Add Assembly D signs to all approaches to the north and east legs (3)
- Add Assembly B signs to both crosswalks (2)





## J2. Ave. H-4 & Genoa Ave.

### Existing

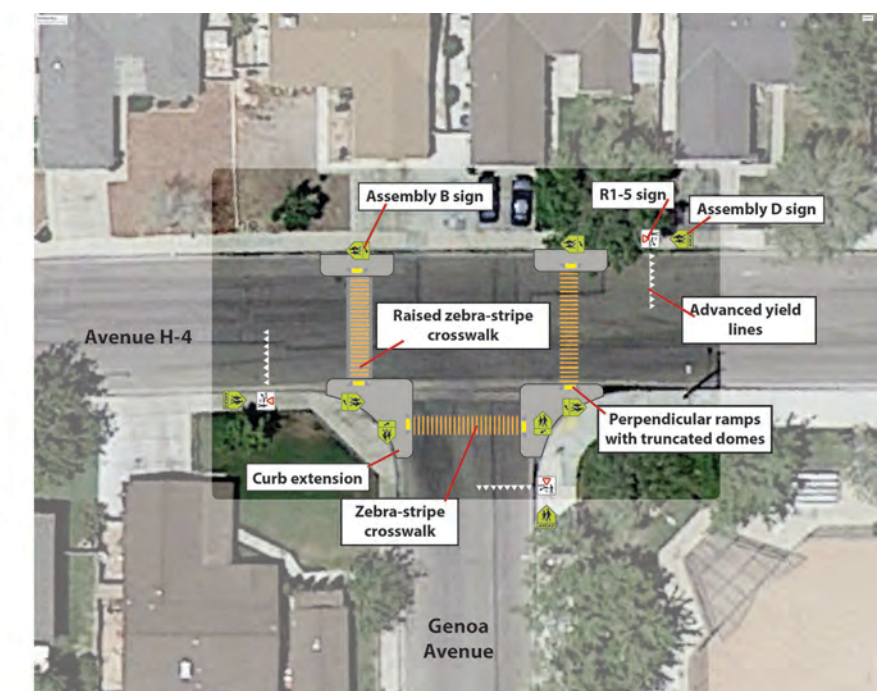
- T-intersection
- Uncontrolled
- No marked crosswalks

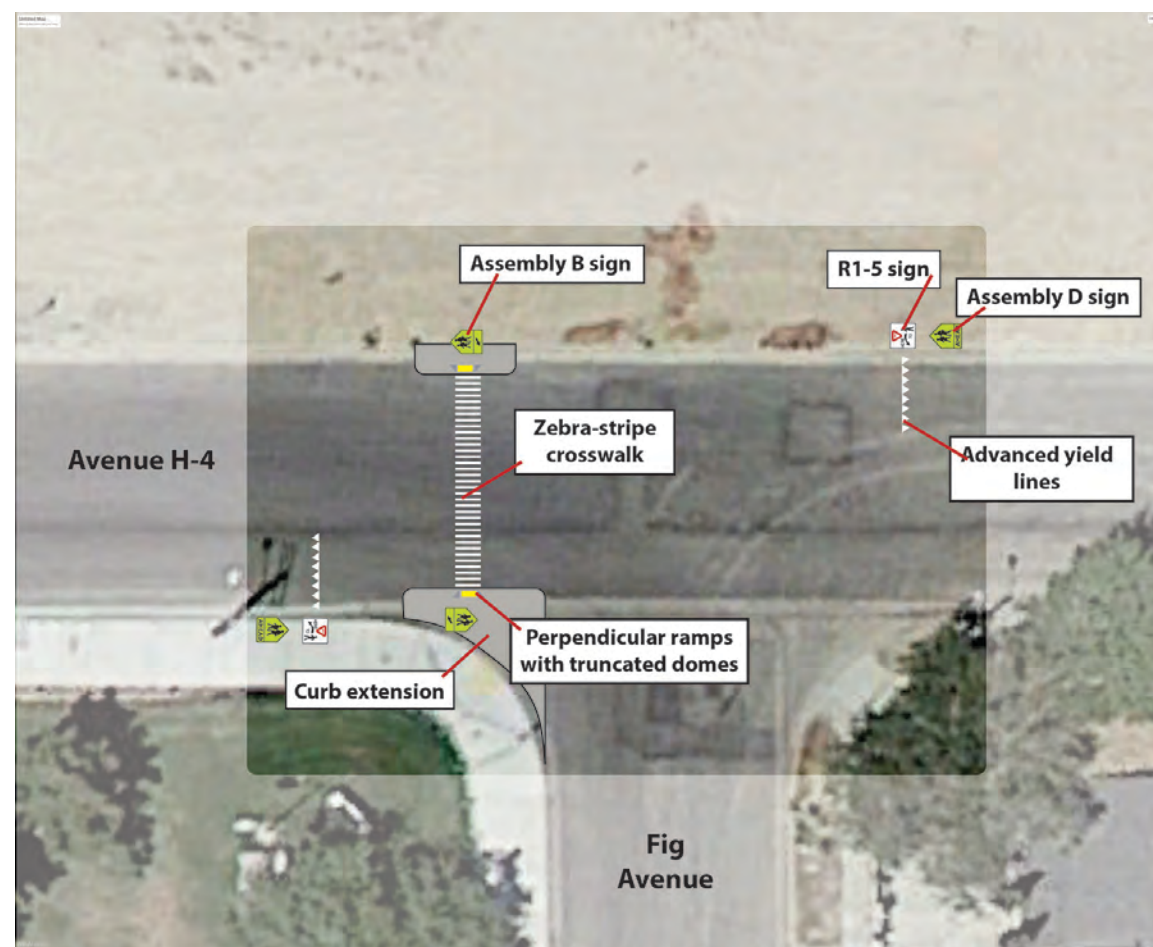
### Proposed Option 1

- Add a traffic circle
- Add curb extensions as necessary to create deflection
- Add yellow zebra-stripe crosswalks to all legs (3)

### Proposed Option 2

- Add zebra-stripe crosswalks to the north and east legs (2)
- Add curb extensions to both crossing faces of the east, west, and south legs (6)
- Add a raised crosswalk to the west leg (1)
- Add advanced yield lines to all approaches to the east, west, and south legs (3)
- Add R1-5 signs to all approaches to the east, west, and south legs (3)
- Add Assembly D signs to the east, west, and south legs (3)
- Add Assembly B signs to all crosswalks (3)





### J3. Ave. H-4 & Fig Ave.

#### Existing

- T-intersection
- Uncontrolled
- No marked crosswalks

#### Proposed

- Add a zebra-stripe crosswalk to the west leg (1)
- Add curb extensions to both crossing the west leg (2)
- Add advanced yield lines to both crossing approaches to the west leg (2)
- Add R1-5 signs to both approaches of the west leg (2)
- Add Assembly D signs to both approaches of the west leg (2)
- Add an Assembly B sign to the west leg crosswalk (1)
- Add a curb ramp to connect with a new path on the north side (1)

#### J4. Ave. H-6 & Fig Ave.

##### Existing

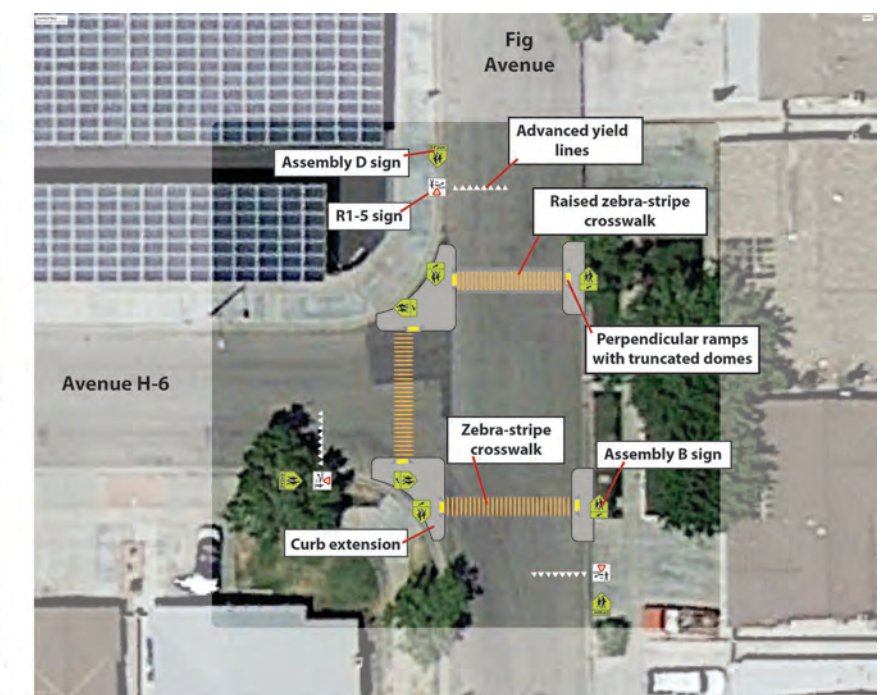
- T-intersection
- Uncontrolled
- Yellow transverse line crosswalk on the north and west legs

##### Proposed Option 1

- Add a traffic circle
- Add curb extensions as necessary to create deflection
- Add yellow zebra-stripe crosswalks to all legs (3)

##### Proposed Option 2

- Add zebra-stripe crosswalks to the north, south, and west legs (3)
- Add curb extensions to both crossing faces of the north, south, and west legs (6)
- Add a raised crosswalk to the north leg (1)
- Add advanced yield lines to all approaches to the north, south, and west legs (3)
- Add R1-5 signs to all approaches to the north, south, and west legs (3)
- Add Assembly D signs to all approaches to the north, south, and west legs (3)
- Add Assembly B signs to all crosswalks (3)



### **Linear Treatments**

- Add new sidewalks at the following locations:
  - along both sides of Genoa Ave. from H-12 to H-14 (approximately 1,400')
  - along both sides of Ave. H-14 from Gadsden Ave. to 10<sup>th</sup> St. West (approximately 1,200')
- Coordinate with the property owner to add a new path (perhaps graded earthen) from the Fig Ave. right-of-way from Larkspur Ln. to Ave. H-4 (approximately 220')
- Add speed humps (4 sets) and 4 interspersed islands along Genoa Ave. between Ave. H-4 and Ave. H-6 for traffic calming
- Add speed humps (4 sets) and 4 interspersed islands along Fig Ave. between Ave. H-4 and Ave. H-6 for traffic calming
- Add speed humps (4 sets) and 4 interspersed islands along Ave. H-4 between Genoa Ave. and Fig Ave. for traffic calming
- Add speed humps (4 sets) and 4 interspersed islands along Ave. H-6 between Genoa Ave. and Fig Ave. for traffic calming

### **Bicycle Parking**

- Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

**Program Plan**

Education

Encouragement

Enforcement

## K. Miller Elementary School





## Walk Audit Workshop

A walk audit workshop was conducted on September 13, 2013. The following key stakeholders attended:

- School principal
- Parents
- Teacher
- Students
- School nurse
- Duty aide
- Representatives from the City Planning Department and City Parks, Recreation, & Arts Department
- Representatives from the Los Angeles Department of Public Health
- Representatives from Antelope Valley Partners for Health

## Safety Issues Raised at the Stakeholder Workshop

### General

- Speeding
- Lack of sidewalks
- Lack of marked crosswalks
- Lack of bike lanes
- Lack of school signs
- Lack of street lighting
- Motorists not yielding to pedestrians
- Double and triple parking
- Lack of a path across the desert
- Animals in the desert
- Trash
- Tumbleweeds blocking the sidewalks
- Loose dogs

### Location-Specific Issues

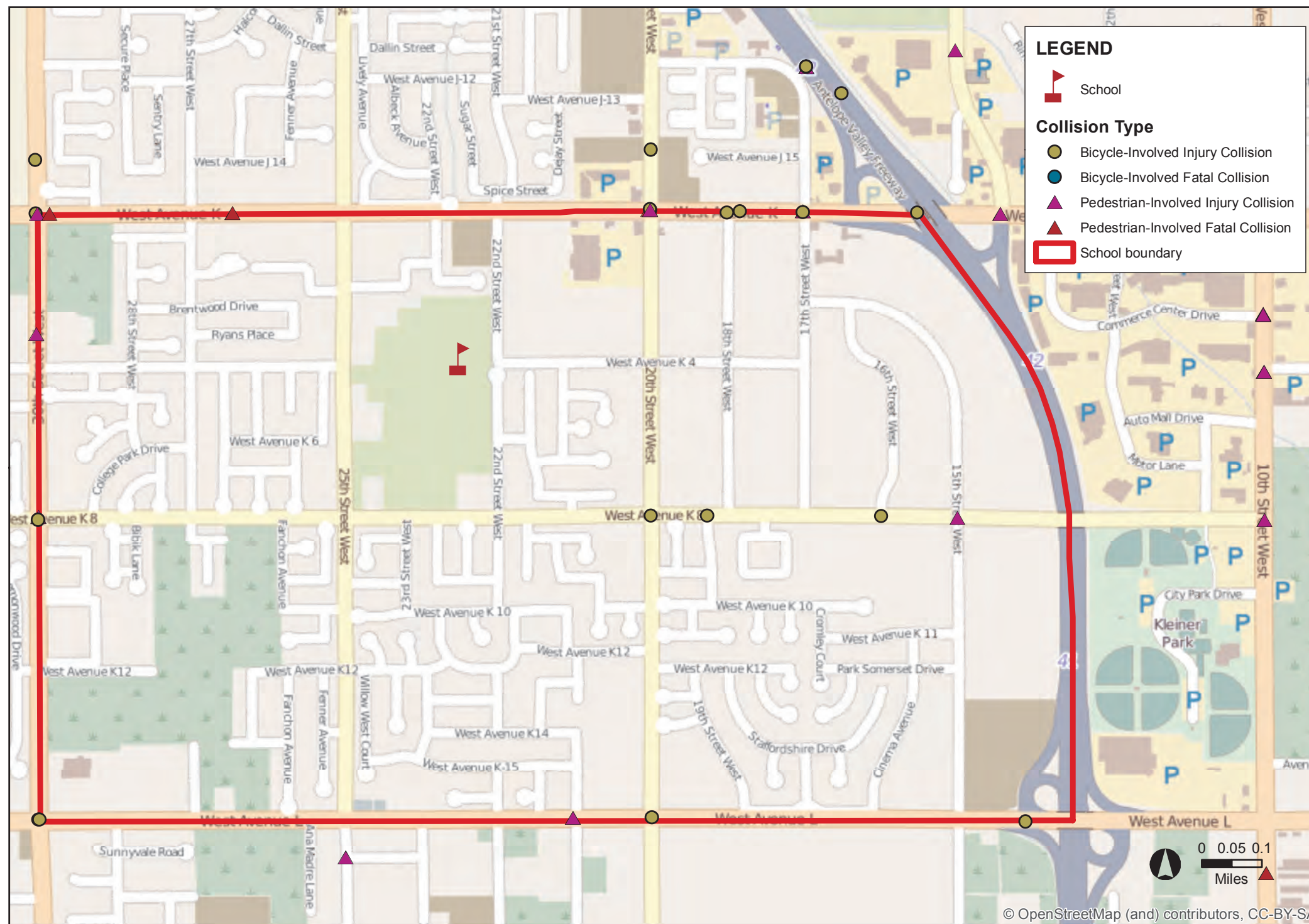
- Ave. K-8 & 22<sup>nd</sup> St. West
  - speeding
  - no controls
  - no sidewalks
  - no school zone signs
  - no lights

- difficult crossing
- Ave. K-14 & 17<sup>th</sup> St. West
  - speeding
  - no sidewalk
- Ave. K-4 & 22<sup>nd</sup> St. West—lack of connection
- Ave. K-8—high-speed traffic
- Ave. K-7 east of 22<sup>nd</sup> St. West
  - difficult to cross because of poor visibility
  - motorists don't stop
- Ave. K-6 & Sunny Ln.—difficult crossing
- 22<sup>nd</sup> St. West south of Ave. K—no sidewalks
- Ave. K-4 east of 20<sup>th</sup> St. West—no sidewalks
- 22<sup>nd</sup> St. West north of Ave. L—no sidewalks
- 25<sup>th</sup> St. West & Ave. L
  - no sidewalks
  - no lights
- Parking and loading area—motorists conflict with pedestrians



### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2007 and 2011.

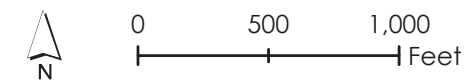
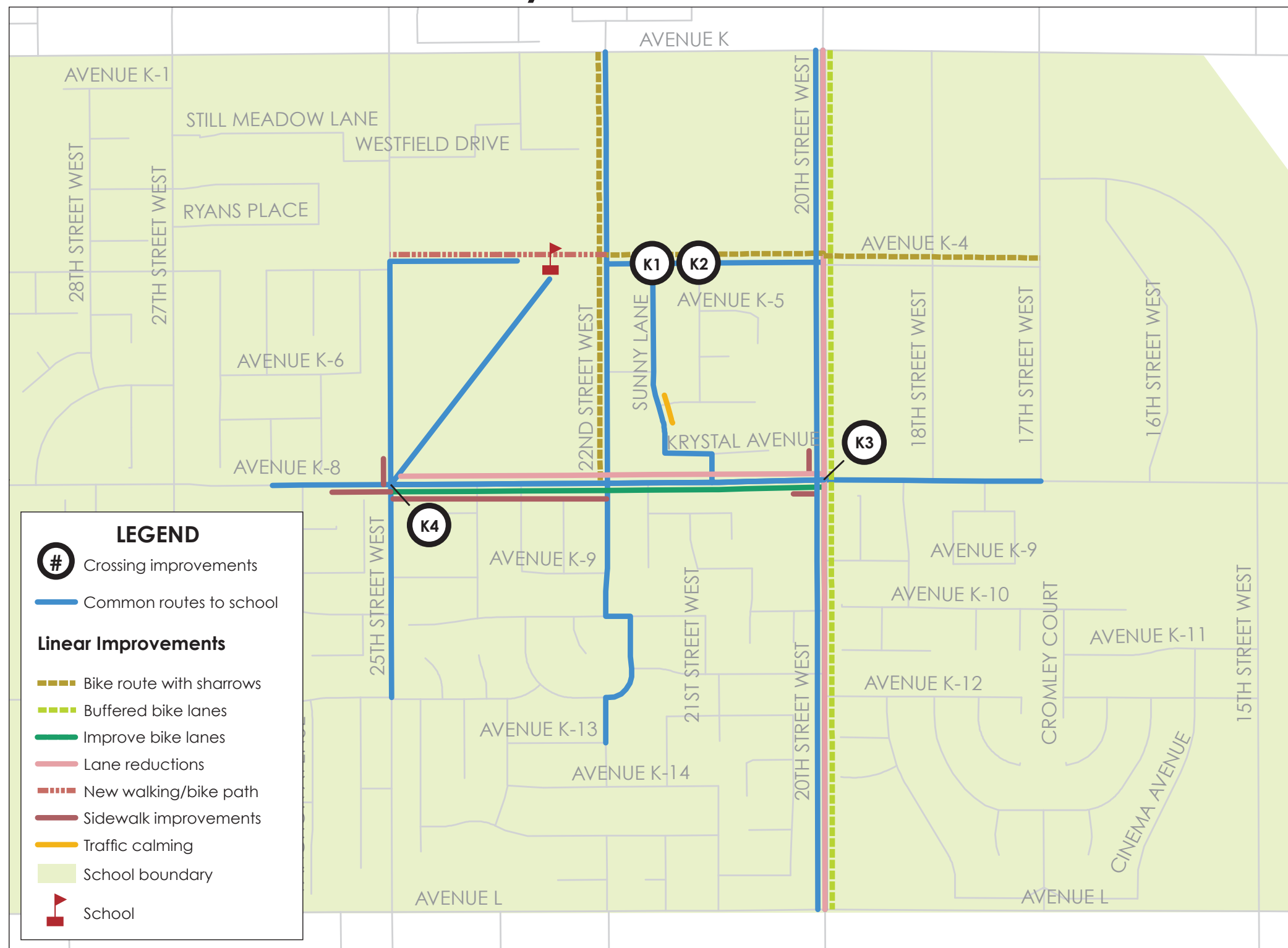


## Bicycle and Pedestrian Collisions 2007 - 2011 Miller Elementary School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.

## SRTS Plan - Miller Elementary School



## Existing Conditions and Engineering Recommendations

### Crossing Improvements

#### K1. Crosswalk over Ave. K-4 Connecting Sunny Lane

##### Existing

- Yellow transverse-line crosswalk
- No curb ramps
- Assembly B and D signs
- Crossing guard

##### Proposed

- Move the crosswalk to line up with the Sunny Ln. cul-de-sac connection
- Add a raised yellow zebra-stripe crosswalk (1)
- Add curb extensions to both sides of the crosswalk (2)
- Add an R1-6 sign (1)
- Add advanced yield lines to both approaches (2)
- Add R1-5 signs to both approaches (2)



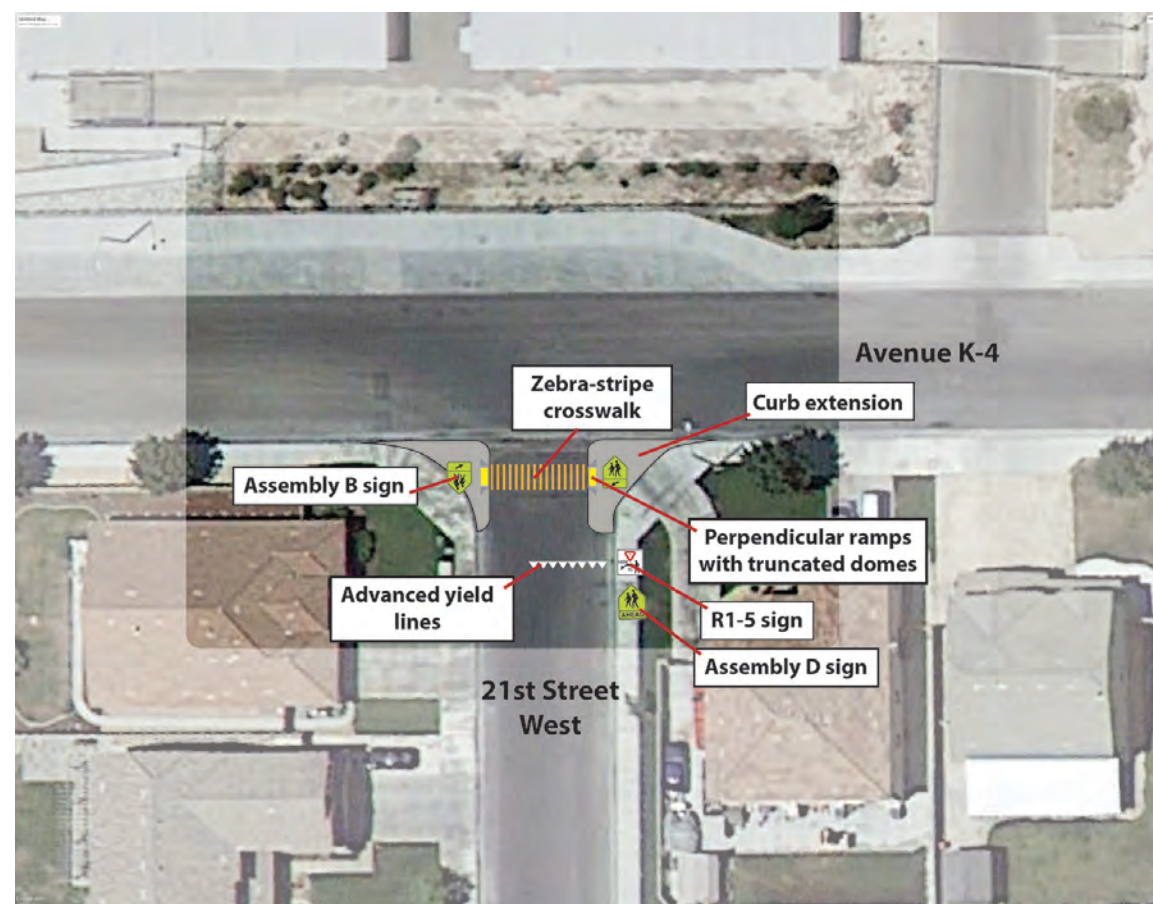
#### K2. Ave. K-4 & 21<sup>st</sup> St. West

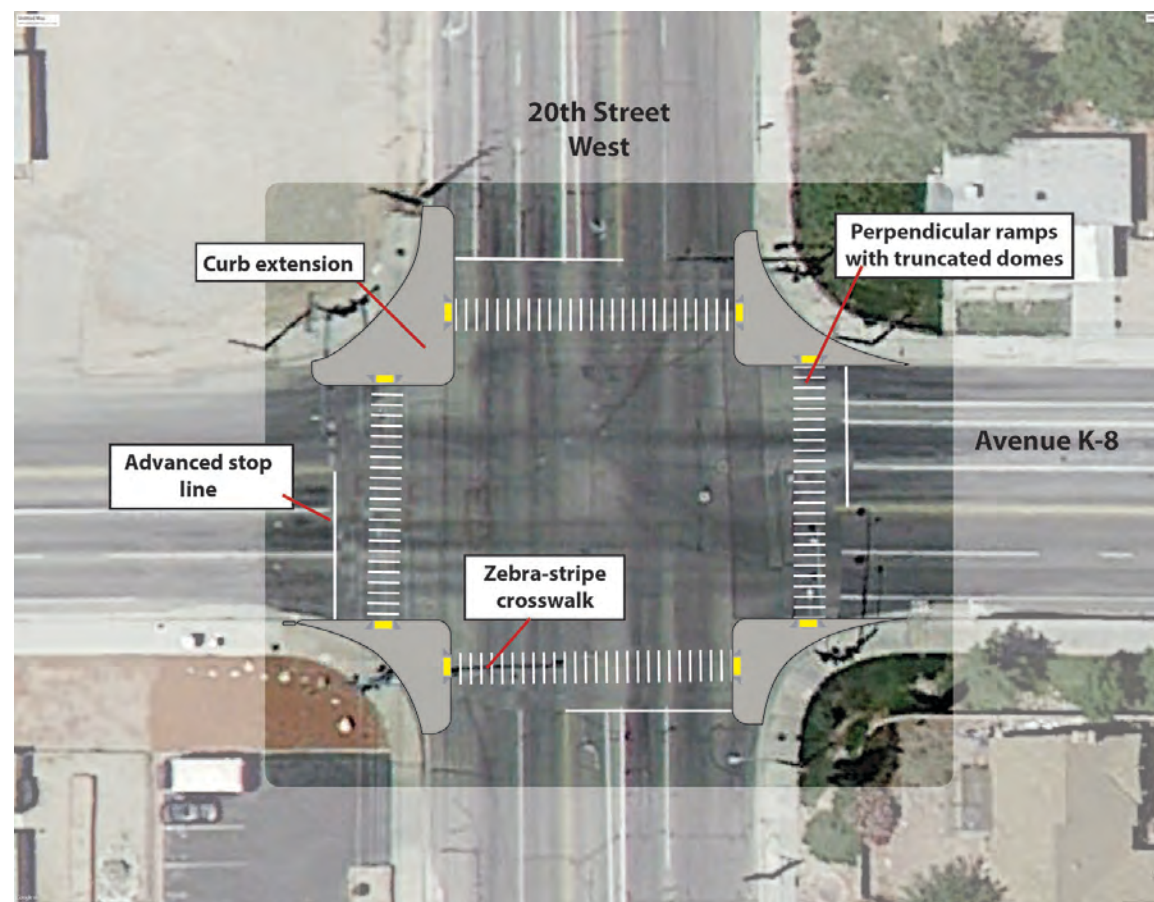
##### Existing

- Uncontrolled intersection
- T-intersection
- Yellow transverse-line crosswalk on south leg

##### Proposed

- Add a yellow zebra-stripe crosswalk on the south leg (1)
- Add an advanced yield line to the approach to the south leg (1)
- Add an R1-5 sign to the approach to the south leg (1)
- Add curb extensions to both sides of the south leg crosswalk (2)





### K3. Ave. K-8 & 20<sup>th</sup> St. West

#### Existing

- Signalized intersection
- Countdown signals
- Transverse-line crosswalks on all 4 legs
- Missing sidewalks on 20<sup>th</sup> St. West just north of Ave. K-8, just west of 20<sup>th</sup> St. West, 20<sup>th</sup> St. West starting a short distance south of the intersection

#### Proposed

- Add zebra-stripe crosswalks to all legs (4)
- Add advanced stop lines to all legs (4)
- After lanes are reduced on 20<sup>th</sup> St. West, add curb extensions to both sides of the north and south legs (4)
- Add curb extension to the NW corner for the west leg (1)

#### K4. Ave. K-8 & 25<sup>th</sup> St. West

##### Existing

- 4-way stop
- NE/NW corners undeveloped with no sidewalks

##### Proposed Option 1

- Reduce lanes on Ave. K-8 and 25<sup>th</sup> St. West to 2 each and replace the 4-way stop with a roundabout
- Add curb extensions to choke down the intersection
- Add sidewalks

##### Proposed Option 2

- Reduce lanes on Ave. K-8 and 25<sup>th</sup> St. West to 2 each
- Add zebra-stripe crosswalks to all legs (4)
- Add advanced stop lines to all legs (4)
- Add curb extensions to both sides of the south leg (2)
- Reduce the curb return on the SE and SW corners of 25<sup>th</sup> St. West (2)
- Add new sidewalks with tight curb radii
- Replace left-turn lanes on 25<sup>th</sup> St. West with crossing islands (1 pair)



### Linear Treatments

- Reduce 20<sup>th</sup> St. West to 4 lanes, with a center-turn lane, colored buffered bike lanes, and on-street parking (8' parking, 6' colored bike lane, 2' buffer, 11' travel lane, 10' travel lane, 10' center-turn lane, 10' travel lane, 11' travel lane, 2' buffer, 6' colored bike lane, 8' on-street parking) from Ave. J-8 to Ave. L (1.5 mi.)
- Add traffic calming with speed humps, median islands, mid-block curb extensions, and/or chicanes along Sunny Ln. near Ave. K-7
- Add a bike route with sharrows along 22<sup>nd</sup> St. West from Ave. K to Ave. K-4, and on Ave. K-4 from Ave. 22<sup>nd</sup> to 17<sup>th</sup> St. West (0.75 mi.)
- Add a bike route with sharrows along 22<sup>nd</sup> St. West from Ave. K-4 to Ave. K-8 (0.25 mi.)
- Reduce Ave. K-8 to 1 lane eastbound, widen bike lanes to 6' or 7', and color the bike lanes from 25<sup>th</sup> St. West to 20<sup>th</sup> St. West (consistent with the Master Plan of Trails and Bikeways) (0.5 mi.)
- Work with the owner of the undeveloped property between 22<sup>nd</sup> St. West and 25<sup>th</sup> St. West to add a pedestrian and bicycle path to connect Ave. K-4 (approximately 1,330')
- Add Jaguar footprints along the sidewalks to guide students to crosswalks along Ave. K-4 from 20<sup>th</sup> St. West
- Add new sidewalks:
  - on the west side of 20<sup>th</sup> St. West just north of Ave. K-8 to the existing sidewalk (approximately 130')
  - on the north side of Ave. K-8 just west of 20<sup>th</sup> St. West to the existing sidewalk (approximately 150')
  - on the north side of Ave. K-8 from 22<sup>nd</sup> St. West to 25<sup>th</sup> St. West (approximately 1,300')
  - on the north side of Ave K-8 from 25<sup>th</sup> St. West, west to the existing development (approximately 265')
  - on the west side of 25<sup>th</sup> St. West, north from Ave. K-8 to the existing sidewalk (approximately 160')

### Bicycle Facilities

- Add racks for 10 bicycles as described in the Design section. Add racks for 10 skateboards/scooters. Add more if needed.

**Program Plan**

Education

Encouragement

Enforcement

### O. Piute Middle School







## Walk Audit Workshop

A walk audit workshop was conducted on September 11, 2013. The following key stakeholders attended:

- School principal
- Parents
- Students
- Teachers
- Representatives from the Lancaster School District
- Representatives from the City Planning Department, City Public Works Department, and City Parks, Recreation, and Arts Department
- Representatives from the Los Angeles County Department of Public Health
- Representatives from Antelope Valley Partners for Health

## Safety Issues Raised at the Stakeholder Workshop

### General

- Speeding
- Lack of sidewalks
- Lack of marked crosswalks
- Motorists not following rules of the road
- Motorists not stopping for pedestrians
- Traffic congestion
- Parking on crosswalks
- Drop-off parking loop conflicts with pedestrians
- Faded paint on curbs
- Personal safety in the park; some people fighting
- Fear of abduction
- Skateboards and scooters prohibited by policy; investigate revising the policy

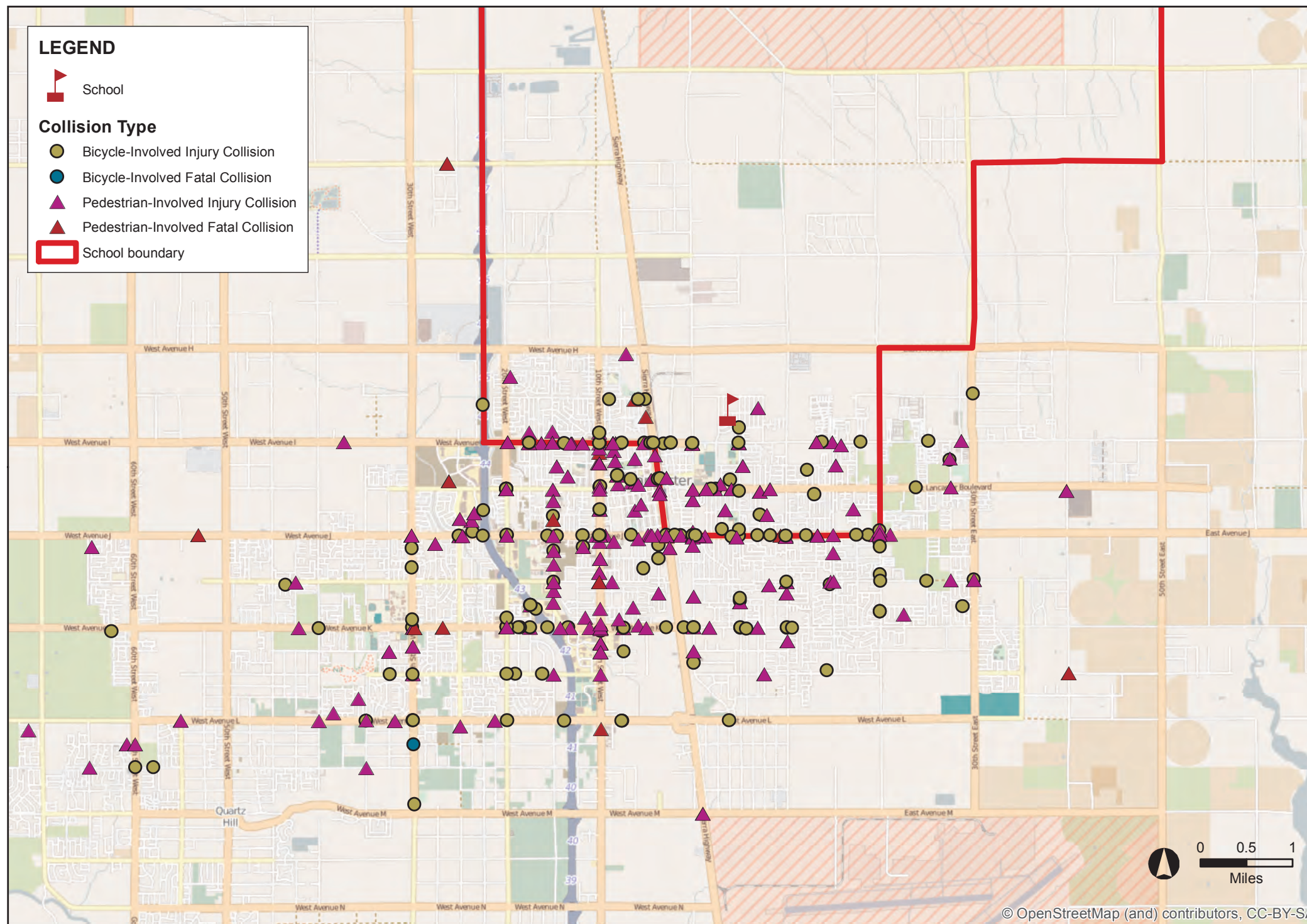
### Location-Specific Issues

- Ave. I and Division St.
  - walk signal cycle is too short
- 5<sup>th</sup> St. East and Ave. I
  - short walk signal cycle
  - many motorists turn and fail to stop for pedestrians
- Motorists drive in the bike lanes on 5<sup>th</sup> St. East
- 3<sup>rd</sup> St. East and Ave. I

- short walk signal cycle
  - no crossing guard
  - many pedestrians cross there to get to the 7-11 store
- 5<sup>th</sup> St. East and Ave. H-11
  - motorists speed through the intersection and fail to stop for pedestrians
  - motorists disobey crossing guards
  - the crossing is very wide
  - large curb radii
  - crossing guard needs to wear a vest
- Ave. H-11 and Foxtan Ave.
  - no stop signs
  - motorists drive fast and don't stop at the crosswalk
  - missing curb ramps; existing ramps are non-compliant
- Ave. H-11 and Gingham Ave.
  - missing curb ramps; existing ramps are non-compliant
  - cars block the crosswalk
  - Gingham Ave. has no sidewalk
  - red curbs are faded
- There are no sidewalks to cross the railroad tracks on Ave. I
- The bike racks need replacing
- Investigate moving the bus loading area to Ave. H-8 to improve visibility for pedestrians
- An ice cream truck parks on the island of the 5<sup>th</sup> St. East frontage road south of H-11 causing students to stand on the island

### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2007 and 2011.



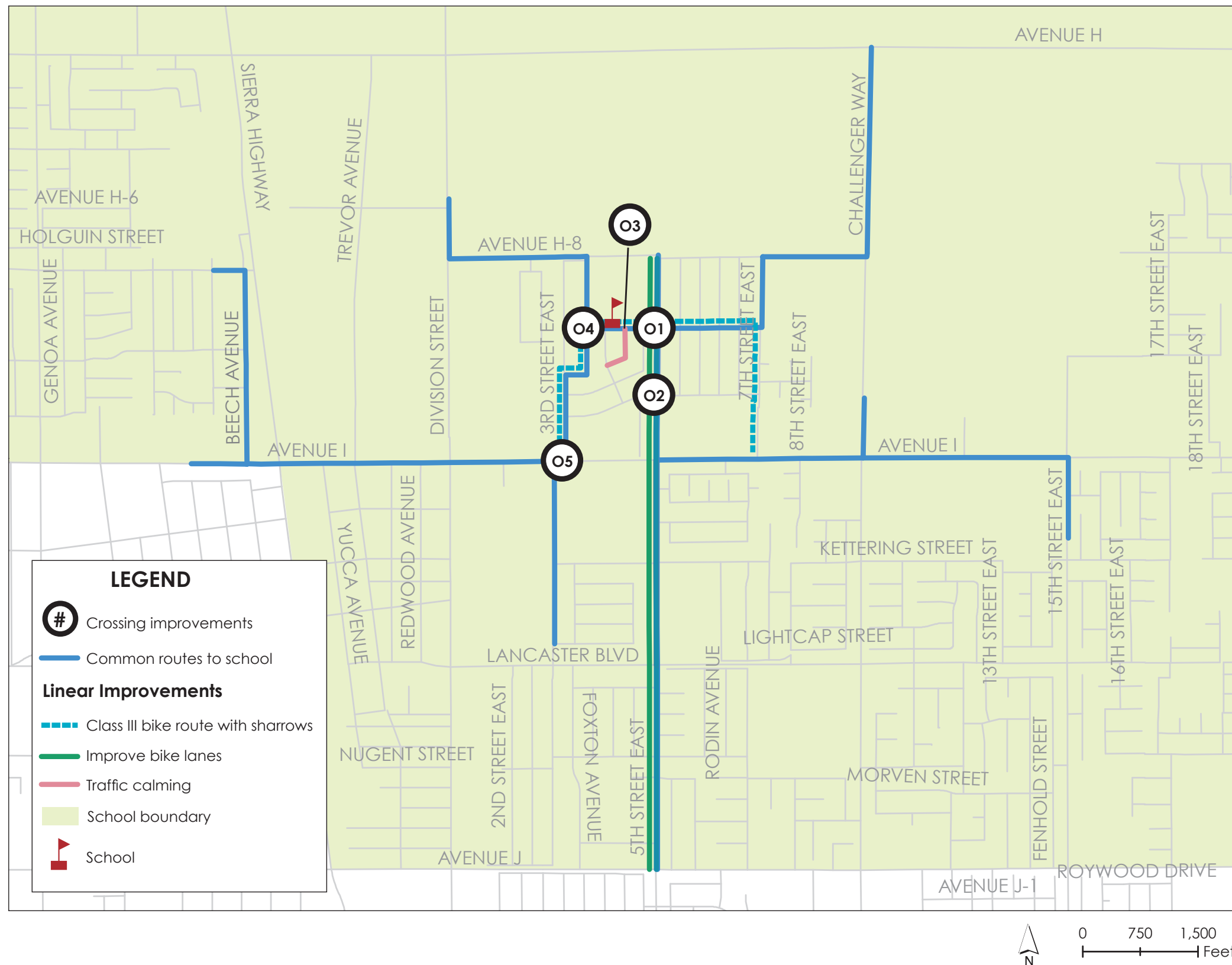
# Bicycle and Pedestrian Collisions 2007 - 2011

## Piute Middle School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.

### SRTS Plan - Piute Middle School



## Existing Conditions and Engineering Recommendations

### Crossing Improvements

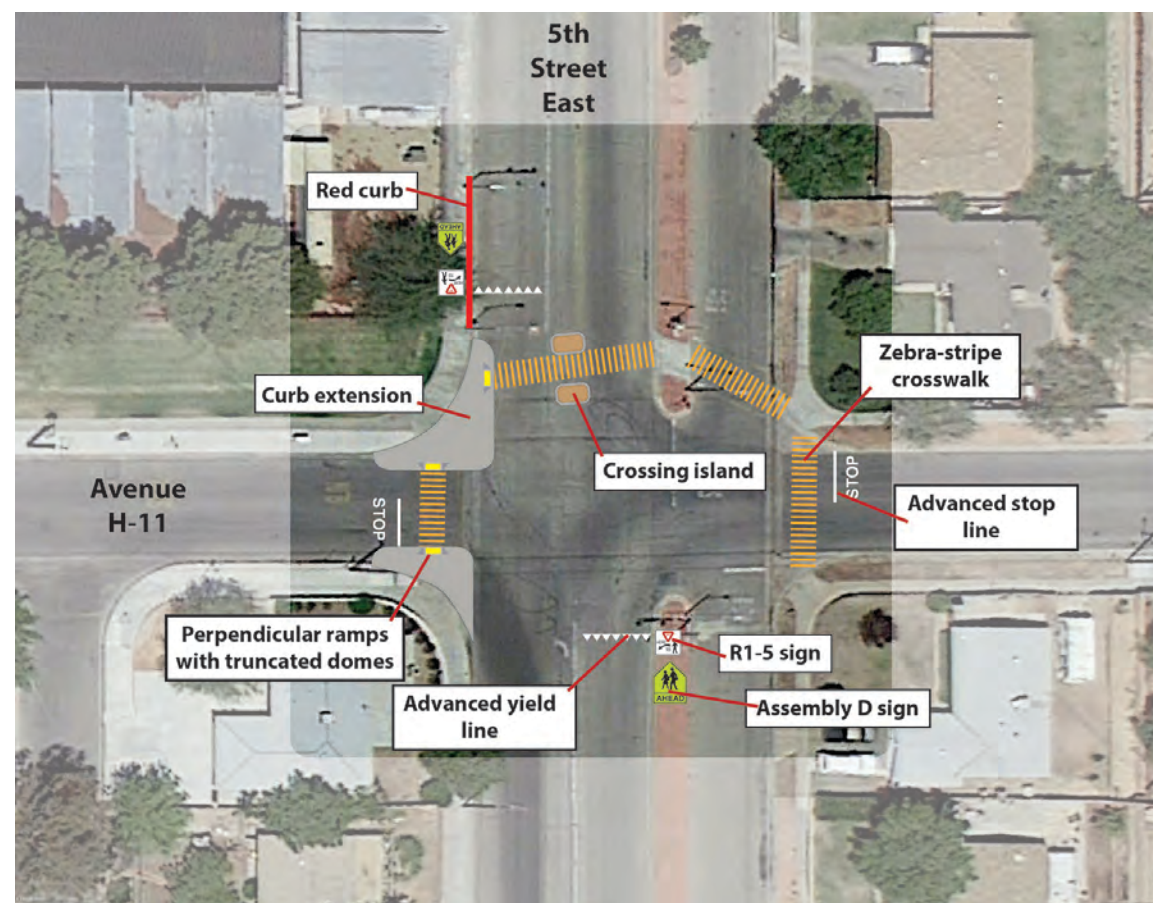
#### O1. 5<sup>th</sup> St. East and Ave. H-11

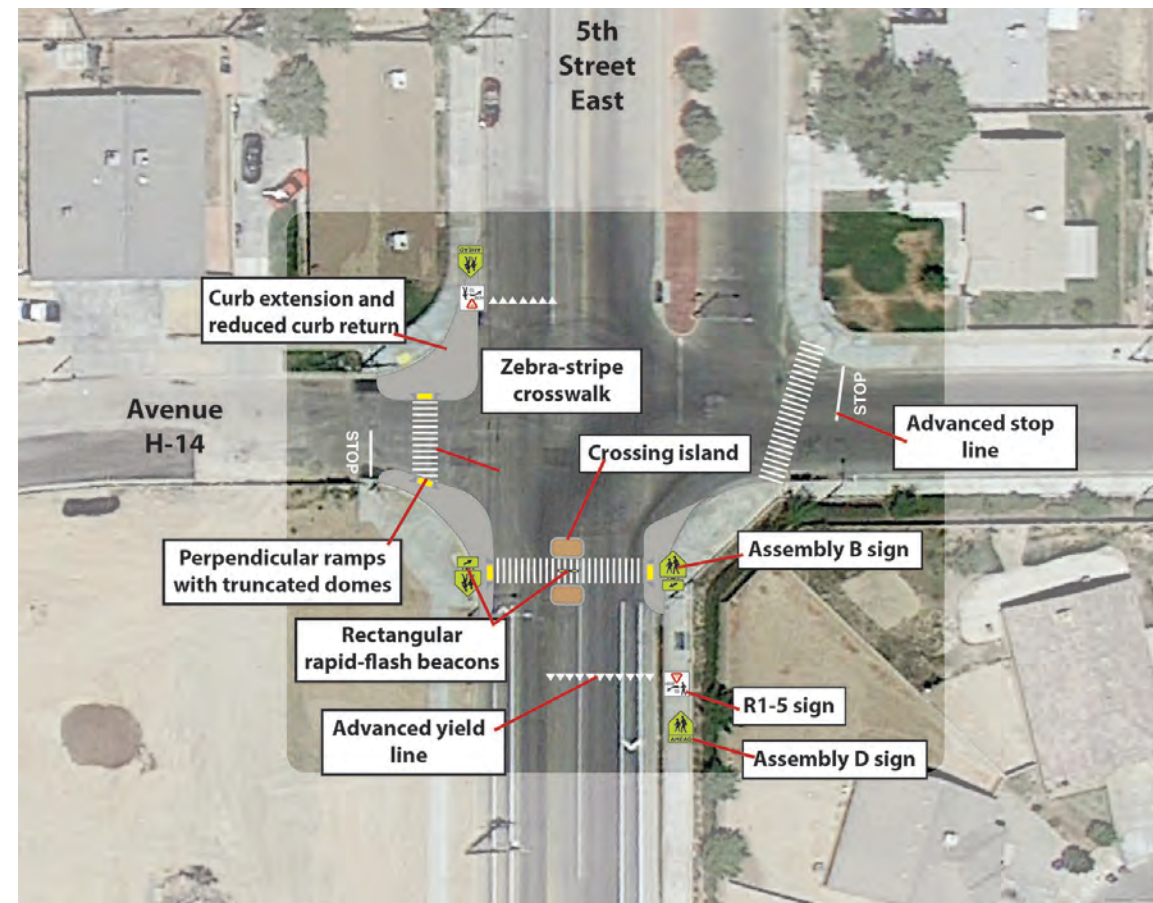
##### Existing

- 2-way stop for Ave. H-11
- Frontage road on the east side of 5<sup>th</sup> St. East
- Yellow zebra-stripe crosswalk over the north leg
- Yellow transverse-line crosswalks over the 5<sup>th</sup> St. East frontage road and on the west leg
- SLOW SCHOOL XING pavement markings on both crossing approaches to the north leg crossing
- Flashing beacon for north leg crosswalk
- Crossing guard during school opening and dismissal

##### Proposed

- Add zebra-stripe crosswalks to east and west legs and over the frontage road on the north leg (3)
- Add curb extensions to the west leg crosswalk (2)
- Add advanced stop lines to east and west leg crosswalks (2)
- Add a yellow zebra-stripe crosswalk on the north leg (1)
- Add advanced yield lines to the both crossing approaches of the north leg crosswalk (2)
- Add R1-5 signs to both crossing approaches of the north leg (2)
- Add Assembly D signs to both crossing approaches of the north leg (2)
- Replace left-turn lane on the north leg with crossing islands (1 pair)
- Add curb extension to the west side of the north leg crosswalk (in conjunction with adding on-street parking on 5<sup>th</sup> St. East that is in line with bus parking) (1)
- Add a red curb between bus parking and the north leg crosswalk (1)





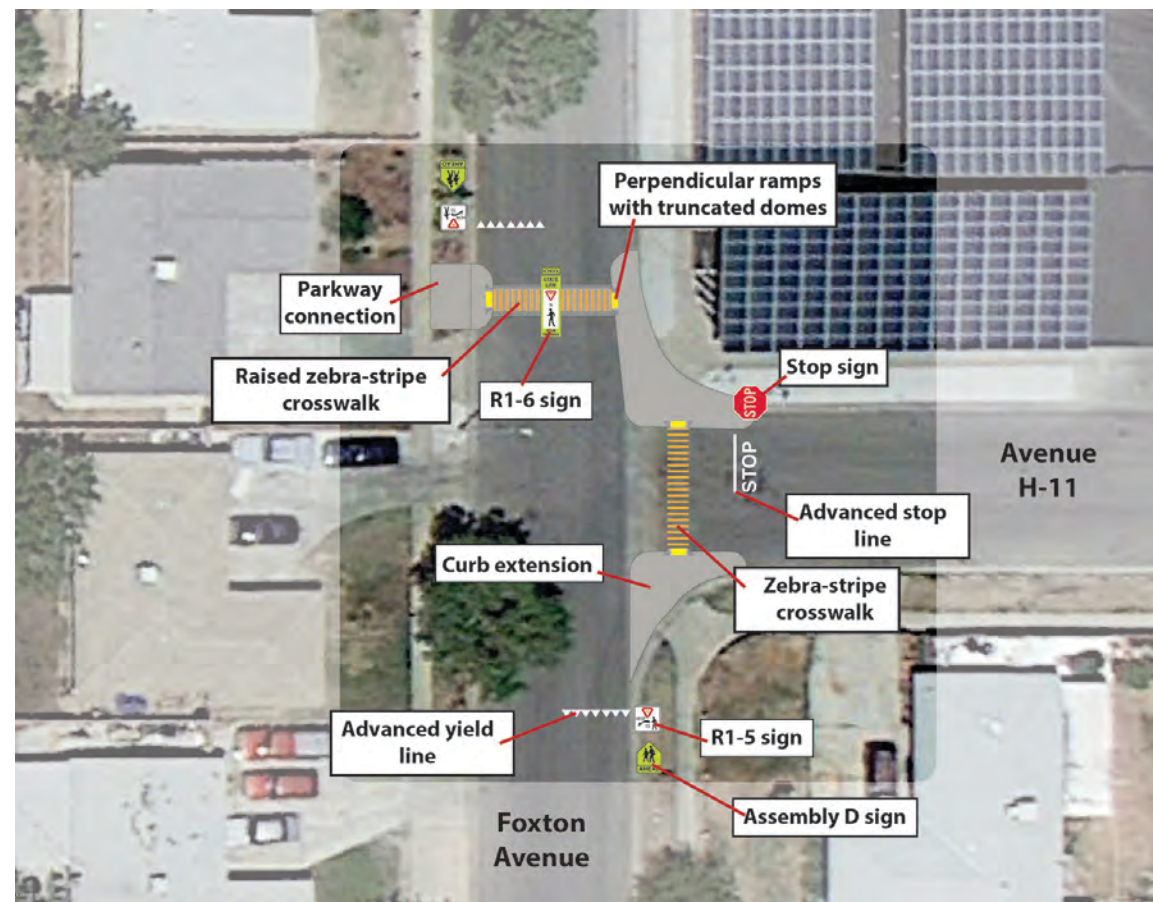
## O2. 5<sup>th</sup> St. East and Ave. H-14

### Existing

- 2-way stop for Ave. H-14
- No marked crosswalk to cross 5<sup>th</sup> St. East
- Transverse-line crosswalk over the west leg

### Proposed

- Add zebra-stripe crosswalks on the east and west legs (2)
- Add curb extensions to both crossing faces of the west leg crosswalk (2)
- Add curb extensions to both crossing faces of the south leg crosswalk (2)
- Add advanced stop lines to the east and west leg crosswalks (2)
- Add a zebra-stripe crosswalk on the south leg (1)
- Add advanced yield lines to both south leg crosswalk approaches (2)
- Add R1-5 signs to both south leg crosswalk approaches (2)
- Add Assembly D signs to both south leg crosswalk approaches (2)
- Replace the northbound left-turn lane on the south leg with crossing islands (1 pair)
- Add pedestrian-activated rapid-flash beacons to the south leg crosswalk (1 set)
- Reduce the curb return on the NW corner for north leg crosswalk (1)



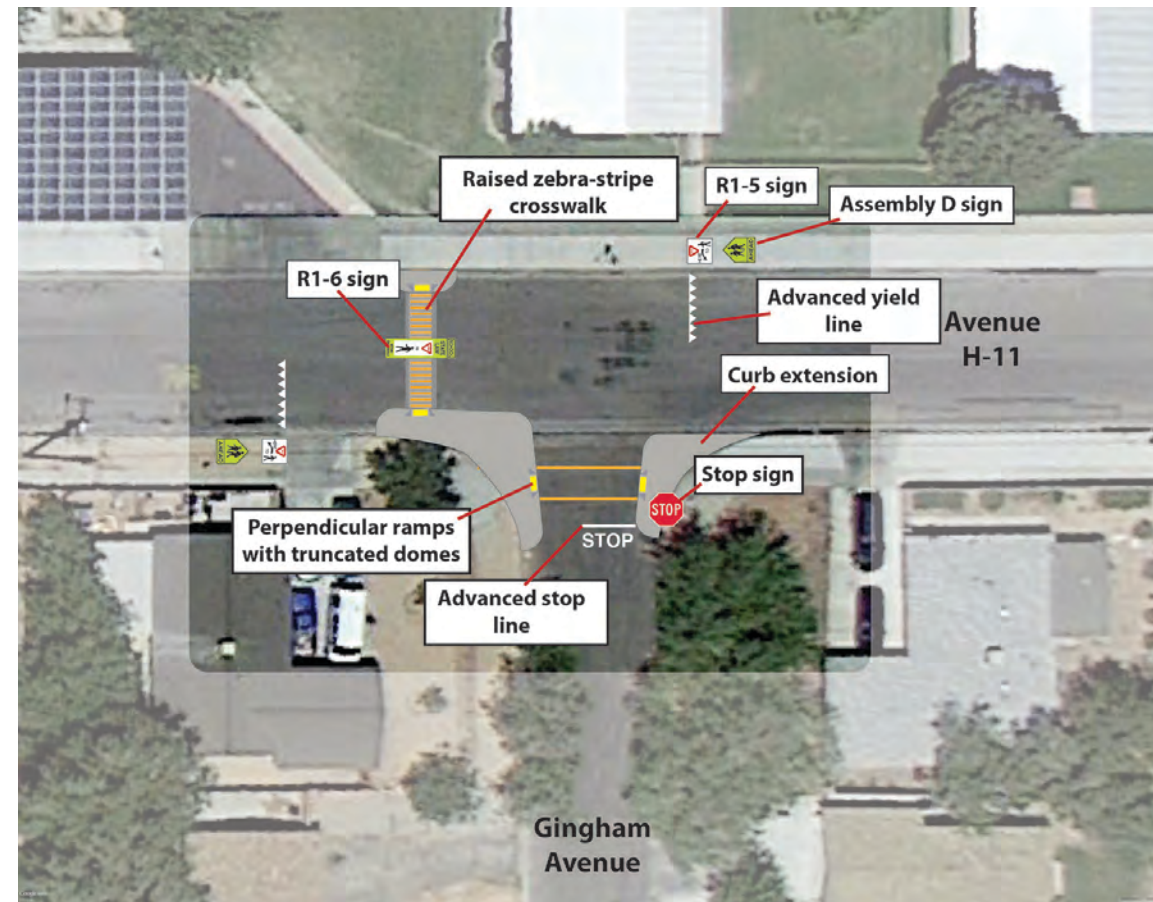
### O3. Ave. H-11 and Foxton Ave.

#### Existing

- T-intersection
- Uncontrolled intersection
- Missing curb ramp; existing ramps non-compliant
- Yellow transverse-line crosswalks on the north and east legs
- Old school crosswalk signs
- SLOW SCHOOL XING pavement markings on the approach to east leg crossing
- Crossing guard during school opening and dismissal

#### Proposed

- Add a stop sign to east leg (1)
- Add raised yellow zebra-stripe crosswalks to the north leg (1)
- Add a zebra-stripe crosswalk to the east leg (1)
- Add curb extensions to both sides of both crosswalks (4)
- Add advanced yield lines to both crossing approaches of the north leg (2)
- Add R1-5 signs to both crossing approaches of the north leg (2)
- Add Assembly D signs to both crossing approaches of the north leg (2)
- Add R1-6 sign to the north leg crosswalk (1)
- Add a connection through the parkway on the north leg (1)



#### O4. Ave. H-11 and Gingham Ave.

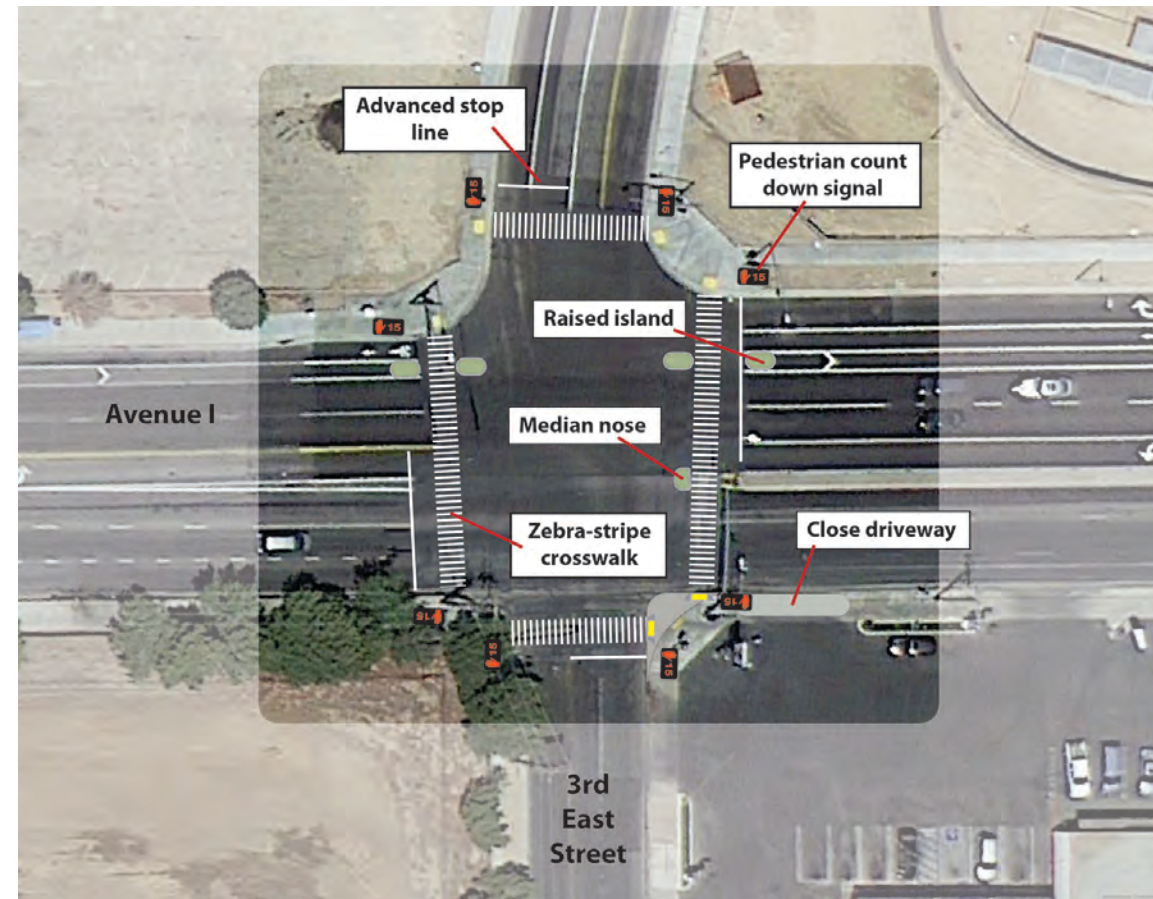
##### Existing

- T-intersection
- Uncontrolled intersection
- Missing curb ramp; existing ramps non-compliant
- Yellow transverse-line crosswalks over the north and west legs
- Old school crosswalk signs
- SLOW SCHOOL XING pavement markings on the approach to the Ave. H-11 crossing
- No sidewalks on Gingham Ave.

##### Proposed

- Add a stop sign to the south leg (1)
- Add a raised yellow zebra-stripe crosswalk to the west leg (1)
- Add curb extensions to both sides of the south and west leg crosswalks (4)
- Add advanced yield lines to the west leg crossing approaches (2)
- Add R1-5 signs to the west leg crossing approaches (2)
- Add Assembly D signs to the west leg crossing approaches (2)
- Replace old crosswalk signs with R1-6 signs on the west leg crosswalk (1)





## O5. Ave. I and 3<sup>rd</sup> St. East

### Existing

- Signalized intersection
- Transverse-line crosswalks

### Proposed

- Add zebra-stripe crosswalks to all legs (4)
- Add advanced stop lines to all crosswalks (4)
- Add countdown signals to all legs (8)
- Add median noses to the small median islands on Ave. I (2)
- Fill in the painted bike lane buffer with raised islands on Ave. I at the intersection (2)
- Reduce the curb return on the SE corner (1)
- Close the driveway on Ave. I just east of 5<sup>th</sup> St. East (1)

**Linear Treatments**

- Sidewalk is missing along Gingham Ave. This street is only 30' wide. Consider adding speed humps, median islands, mid-block curb extensions, and/or chicanes to slow traffic.
- Add speed feedback signs on 5<sup>th</sup> St. East between Ave. I and Ave. H-8 (4)
- Improve bike lanes on 5<sup>th</sup> St. East from Ave. H-8 to Lancaster Blvd. with improvements listed in the Master Plan of Trails and Bikeways (widen and color bike lanes to 6'-7', stripe 7' parking lane, add bike pavement stencils and signs) (1.0 mi.)
- Add a Class III bike route with sharrows and directions signs starting at the intersection of Ave. I and 3<sup>rd</sup> St. East along 3<sup>rd</sup> St. East, Foxtan Ave., Ave. H-11, and 7<sup>th</sup> St. East back to Ave. I (1.1 mi.)

**Bicycle Facilities**

- Add racks for 30 bicycles as described in the Design section. Add racks for 30 skateboards/scooters. Add more if needed.

**Program Plan**

Education

Encouragement

Enforcement

## P. Sierra Elementary School





## Walk Audit Workshop

One walk audit workshop was conducted on December 9, 2013 and a second one on December 16, 2013. The following key stakeholders attended:

- School principal
- School employees
- A teacher
- Parents
- A student
- Representatives from the Lancaster School District
- Representatives from the City Planning Department, City Public Works Department and City Manager's office
- Representatives from Antelope Valley Partners for Health

## Safety Issues Raised at the Stakeholder Workshop

### General

- Speeding
- Lack of sidewalks
- Lack of stop signs
- Drivers not yielding to pedestrians
- Need more crossing guards
- Congestion in the parking lot—students walking in lanes of traffic

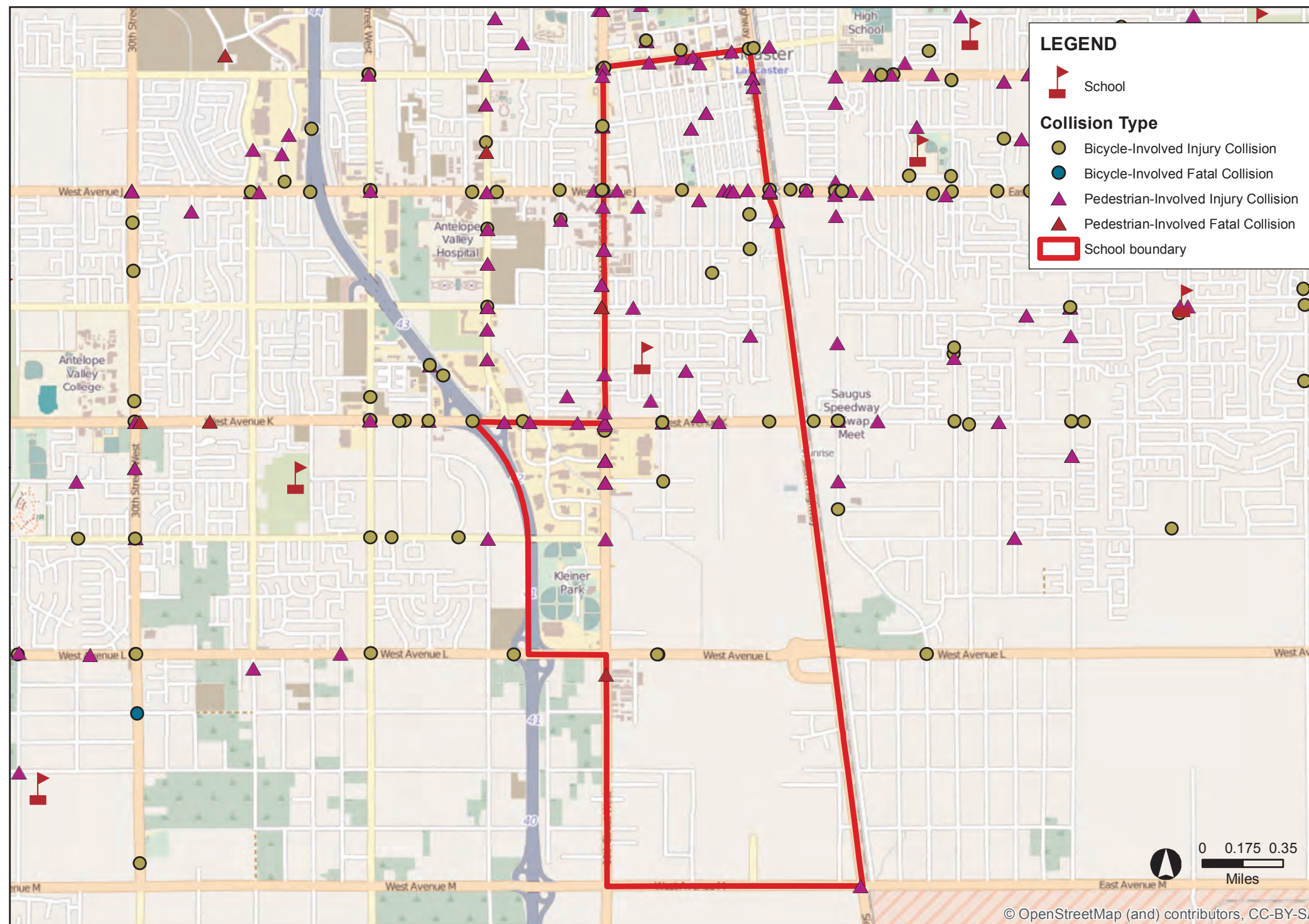
### Location Specific

- Ave. J-8 & Heaton Ave.
  - speeding
  - motorists not stopping
  - flashers not always working – maybe a pedestrian-activated rapid flash beacon would help
  - crosswalk striping is not very visible
- Ave. J-10 & Heaton Ave.
  - not all crosswalks marked
  - crossing is difficult
- Ave. J-12 & Heaton Ave.
  - speeding
  - motorists not stopping
  - no curb ramp on the south side of the east leg
  - the stop sign is too high
  - there are no stop lines

- need an all-way stop
  - the pedestrian warning signs are not well placed
- Gadsden Ave. & Ave. J-10
  - not all crosswalks marked
  - speeding
  - motorists not stopping
- Gadsden Ave. & Ave. J-12
  - speeding
  - motorists not stopping
  - pavement markings are faded
- Gadsden Ave. & Ave. K
  - too wide
  - speeding
- 10<sup>th</sup> St. West & Ave. J-12
  - no marked crosswalk
  - speeding
  - no traffic signal
  - heavy traffic from the commercial area at 10<sup>th</sup> St. West and Ave. K
- Sidewalks missing
  - Ave. J-12 near Gadsden Ave.
  - Beech Ave. between Ave. J-5 and Ave. J-12
  - Gadsden Ave. between Ave. K and Ave. J-12
- Ave. J-9
  - speeding
- Ave. J-10 between Gadsden Ave. and Beech Ave.
  - lack of street lighting
  - sidewalks need repair
- Heaton Ave. north of the school
  - lack of street striping
  - crosswalks are not very visible
- Ave. J-12 from Birchtree Ave. to the school
  - no sidewalk
  - speeding
- Gadsden Ave. from Ave. K-8 to Ave. J-9
  - speeding
  - sidewalk needs repair
- Beech Ave. from Ave. J-9 to Ave. J-10
  - no sidewalk
  - icy gutters

### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2007 and 2011.



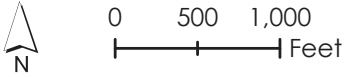
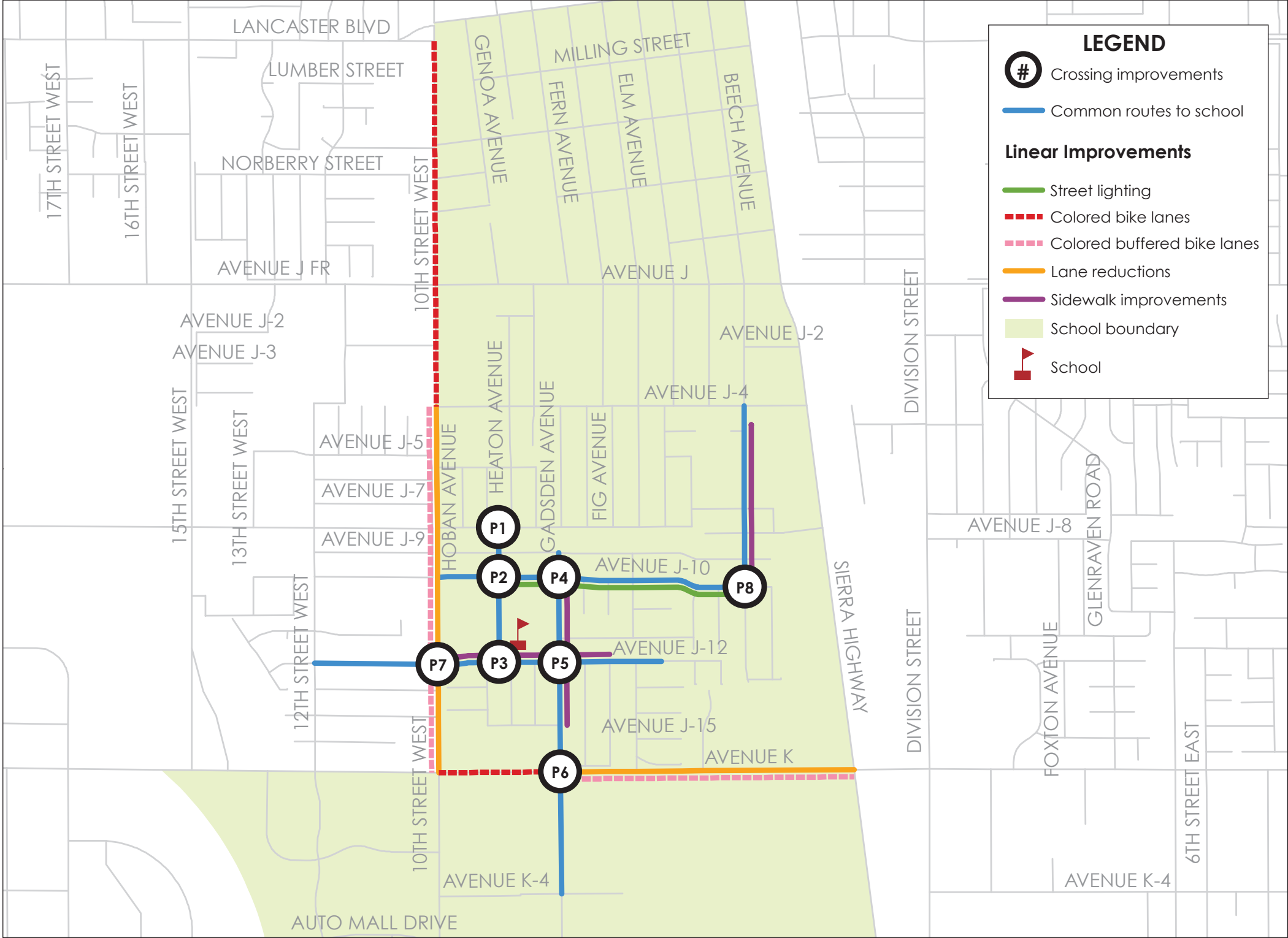
## Bicycle and Pedestrian Collisions 2007 - 2011

### Sierra Elementary School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.

# SRTS Plan - Sierra Elementary School







## Existing Conditions and Engineering Recommendations

### Crossing Improvements

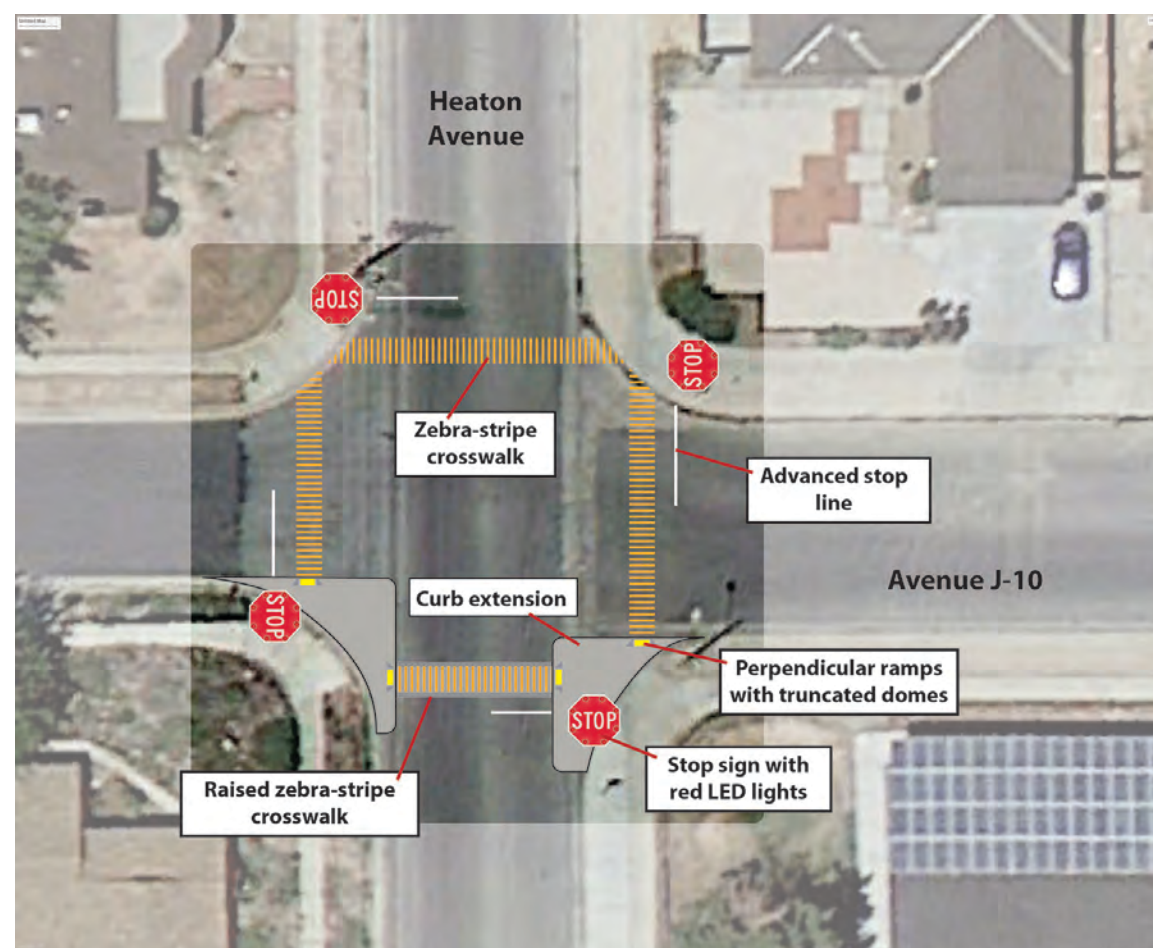
#### P1. Ave. J-8 & Heaton Ave.

##### Existing

- Offset intersection
- Yellow ladder crosswalk midway between the two segments of offset Heaton Ave.
- Advanced stop lines on both approaches to the Heaton Ave. crosswalk
- R1-5 signs on both approaches to the Heaton Ave. crosswalk
- Assembly B signs
- Assembly D signs with flashing beacons
- Crosswalk not very visible
- Crossing guard

##### Proposed

- Replace yellow crosswalk with a white zebra-stripe crosswalk crossing Ave. J-8 (1)
- Add crossing islands to this crosswalk (1 pair)
- Add pedestrian-activated rapid flash beacons to this crosswalk (1 set)



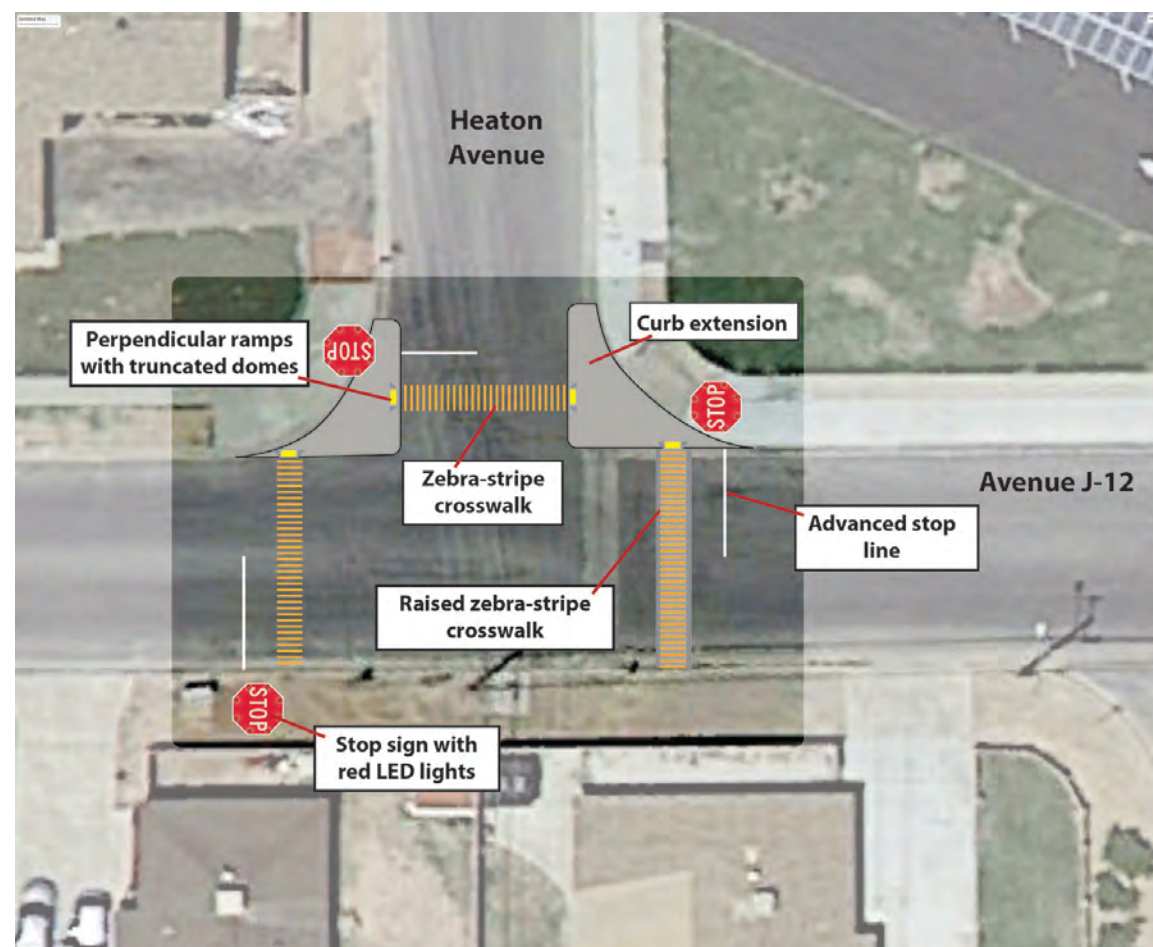
#### P2. Ave. J-10 & Heaton Ave.

##### Existing

- 4-way stop
- Yellow transverse crosswalks on the east and south legs

##### Proposed

- Add a yellow zebra-stripe crosswalk to all legs (4)
- Add advanced stop lines to all legs (4)
- Add red flashing LED lights to the perimeter of all the stop signs (4 sets)
- Add a raised crosswalk on the south leg (1)
- Add curb extensions to both crossing faces of the south leg (2)



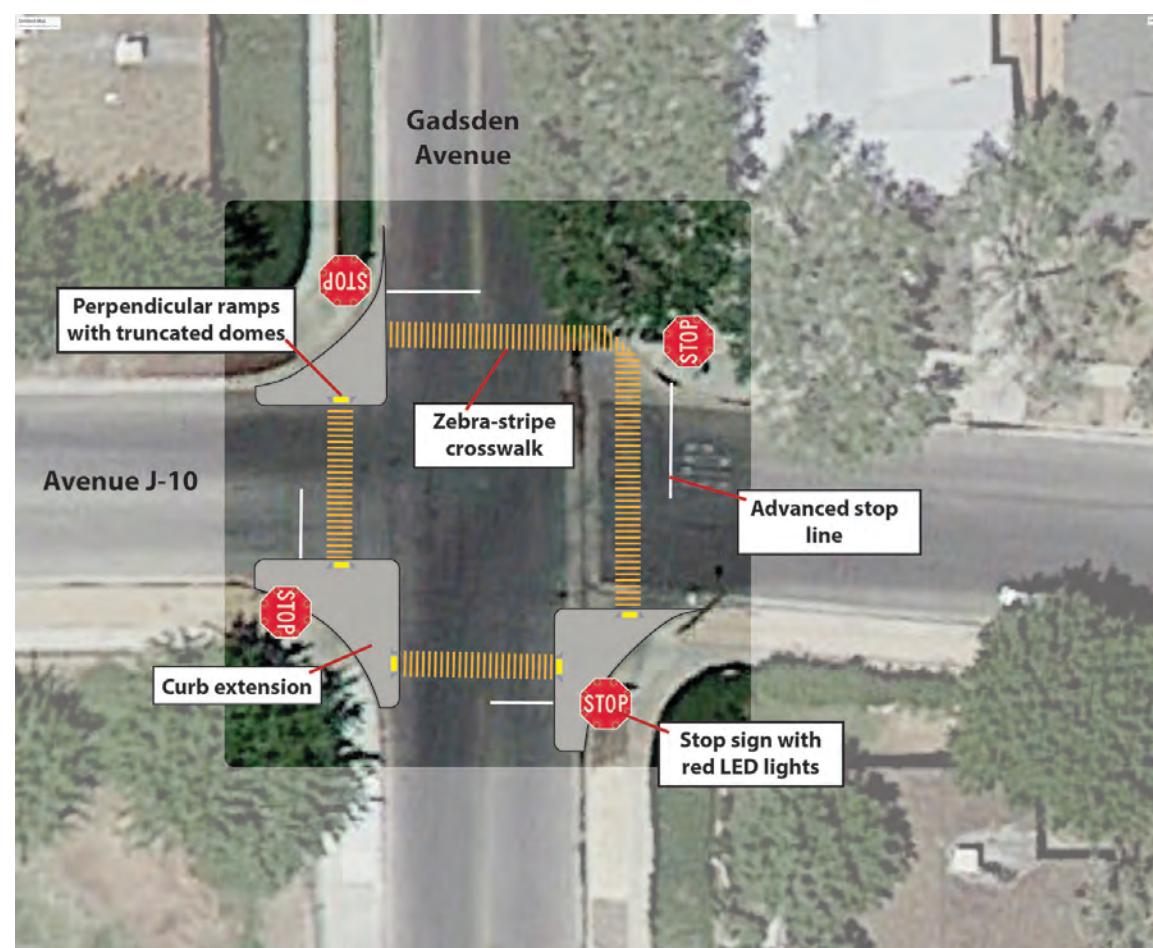
### P3. Ave. J-12 & Heaton Ave.

#### Existing

- T-intersection
- 3-way stop
- Yellow transverse crosswalks on the north and east legs
- No curb ramp on the SE corner

#### Proposed

- Add a yellow zebra-stripe crosswalk to all legs (3)
- Add advanced stop lines to all legs (3)
- Add red flashing LED lights to the perimeter of all the stop signs (3 sets)
- Add a raised crosswalk on the east leg (1)
- Add curb extensions to both crossing faces of the north leg (2)
- Lower the stop sign that is presently too high and not very visible



### P4. Ave. J-10 & Gadsden Ave.

#### Existing

- 4-way stop
- Yellow transverse crosswalks on the west and south legs

#### Proposed

- Add a yellow zebra-stripe crosswalk to all legs (4)
- Add advanced stop lines to all legs (4)
- Add red flashing LED lights to the perimeter of all the stop signs (4 sets)
- Add curb extensions to both crossing faces of the south and west legs (4)



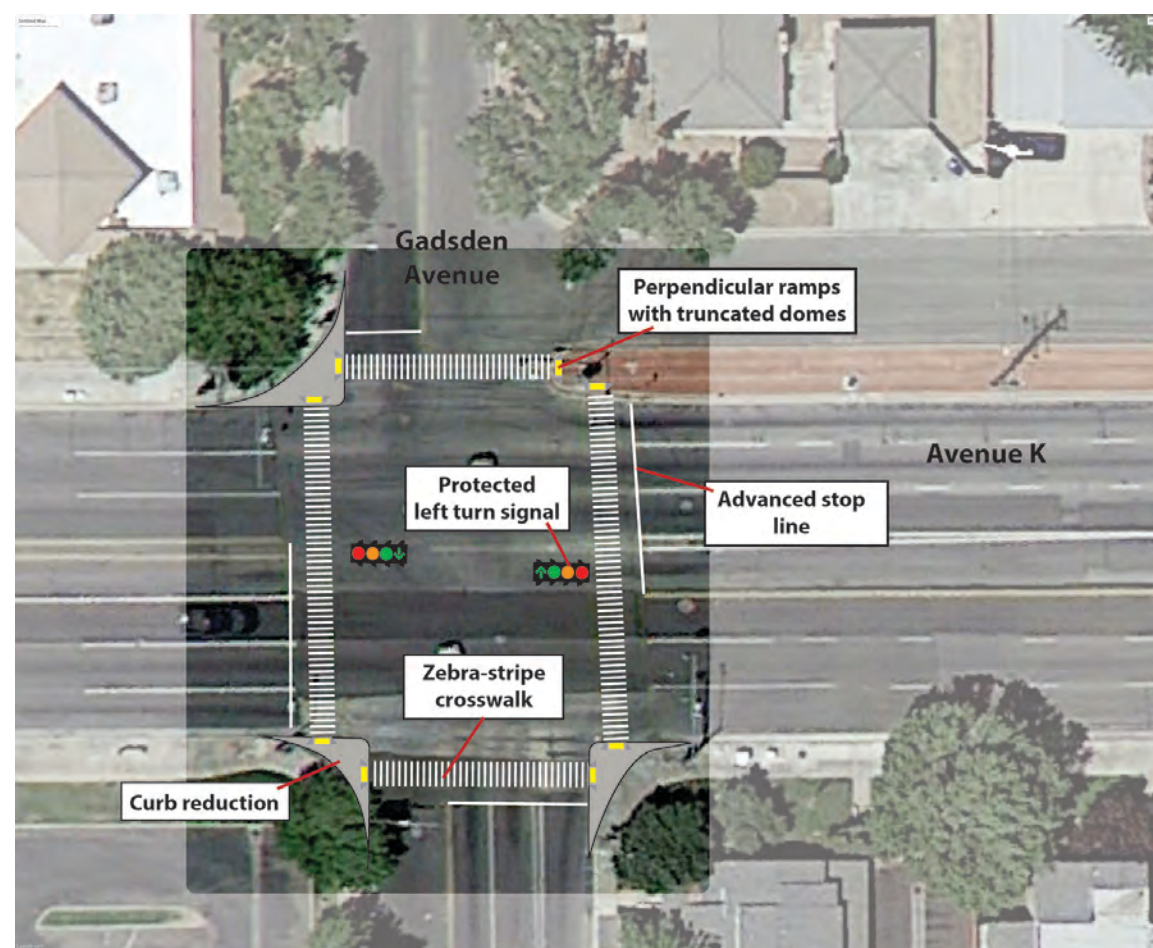
### P5. Ave. J-12 & Gadsden Ave.

#### Existing

- 4-way stop
- Yellow transverse crosswalks on the north, west, and east legs
- Crossing guard

#### Proposed

- Add a yellow zebra-stripe crosswalk to all legs (4)
- Add advanced stop lines to all legs (4)
- Add red flashing LED lights to the perimeter of all the stop signs (4 sets)
- Add a raised crosswalk on the north and west legs (2)



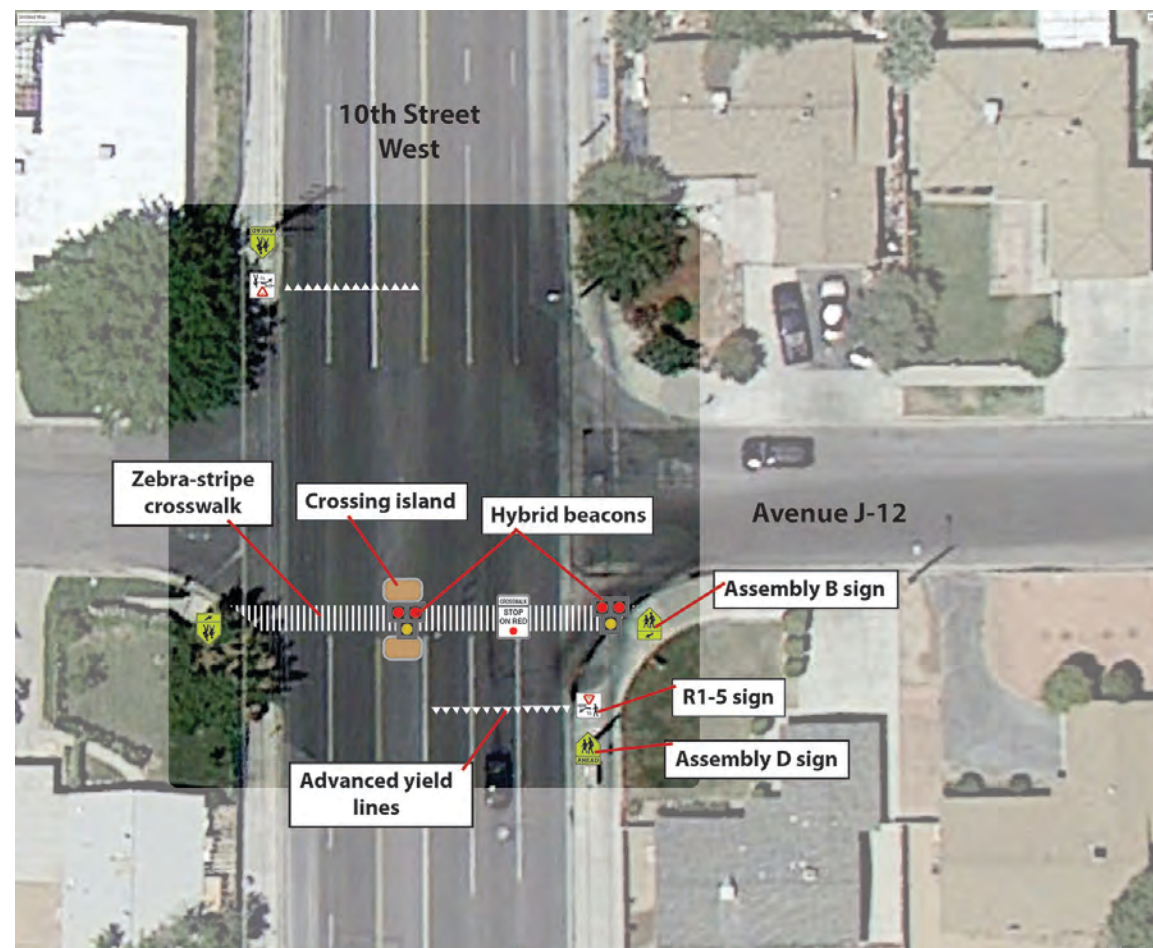
### P6. Ave. K & Gadsden Ave.

#### Existing

- Signalized intersection
- Yellow transverse crosswalks on all legs
- Protected-permissive left-turn signals from Ave. K
- No curb ramps on the NE corner where a median separates the frontage street from Ave. K

#### Proposed

- Replace yellow crosswalks with white zebra-stripe crosswalks on all legs (4)
- Add advanced stop lines to all legs (4)
- Add new curb ramps to the NE corner (2)
- Change left-turn signals on Ave. K from protected-permissive to protected only (2)
- Reduce curb returns on the NW, SE, and SW corners (3)



### P7. 10<sup>th</sup> St. West & Ave. J-12

#### Existing

- No marked crosswalk
- 2-way stop for Ave. J-12

#### Proposed

- Add hybrid beacons to cross the south leg (1 set) (conduct warrant study first)
- Add a zebra-stripe crosswalk on the south leg (1)
- Add crossing islands to the south leg crosswalk (1 pair)
- Add advanced yield lines to both crossing approaches of the south leg crosswalk (2)
- Add R1-5 signs to both crossing approaches of the south leg (2)
- Add Assembly D signs to both crossing approaches of the south leg (2)
- Add Assembly B signs to the south leg crosswalk (2)



### P8. Ave. J-10 & Beech Ave.

#### Existing

- No marked crosswalk
- 2-way stop for Ave. J-10

#### Proposed

- Add zebra-stripe crosswalks to all legs (4)
- Add advanced stop lines on Ave. J-10 (2)
- Add advanced yield lines to both crossing approaches of the north and south leg crosswalks (2)
- Add R1-5 signs to both crossing approaches of the north and south legs (2)
- Add Assembly D signs to both crossing approaches of the north and south legs (2)
- Add Assembly B signs to the north and south leg crosswalks (2)

### Linear Treatments

- Add new sidewalks at the following locations:
  - along the west side of Heaton Ave. from Ave. J10 to Ave. J-12 (approximately 890')
  - along Ave. J-12 on both sides from Fig Ave. to Gadsden Ave. and along the south side from 10<sup>th</sup> St. West to Gadsden Ave. (approximately 2,100')
  - along the east side of Beech Ave. from Ave. J-5 to Ave. J-7; along both sides of Beech Ave. from Ave. J-7 to Ave. J-10 (approximately 2,000')
  - along both sides of Gadsden Ave. from Poston St. to Ave. K and along the east side of Gadsden Ave. from Poston St. to Ave. J-12 (approximately 1,530')
  - Add street lighting along Ave. J-10 between Beech Ave. and Heaton Ave. (approximately 2,670')
- Reduce 10<sup>th</sup> St. West to 2 lanes from Ave. K to Ave. J-4 and add 6' wide colored, buffered bike lanes; add colored bike lanes from Ave. J-4 to Lancaster Blvd. (0.75 mi.)
- Add colored bike lanes on Ave. K from 10<sup>th</sup> St. West to Gadsden Ave. (consistent with the Master Plan of Trails and Bikeways) (0.25 mi.)
- Reduce Ave. K to 2 lanes from Gadsden Ave. to Sierra Hwy. and add 6' wide colored, buffered bike lanes (consistent with the Master Plan of Trails and Bikeways) (0.6 mi.)

### Bicycle Parking

- Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

**Program Plan**

Education

Encouragement

Enforcement

### R. West Wind Elementary School





## Walk Audit Workshop

A walk audit workshop was conducted on September 9, 2013. The following key stakeholders attended:

- School principal
- Parents
- Students
- Teachers
- Representatives from the Lancaster School District
- Representatives from the Westside Union School District
- Representatives from the Parent Teacher Association
- Representatives from the City Planning Department, City Public Works Department, City Manager's office, and City Parks, Recreation, & Arts Department
- Representatives from the Los Angeles County Department of Public Health
- Representatives from Antelope Valley Partners for Health

## Safety Issues Raised at the Stakeholder Workshop

### General

- Speeding
- Lack of marked crosswalks
- Lack of signs
- Poor or no sidewalks
- Parents park on the curb
- Lack of bike lanes
- Inadequate curb ramps
- Poor mobility on residential streets
- Shorter/safer crossings
- Congestion
- Bike racks are inconvenient
- Poor drainage
- Need a path across the desert

### Specific

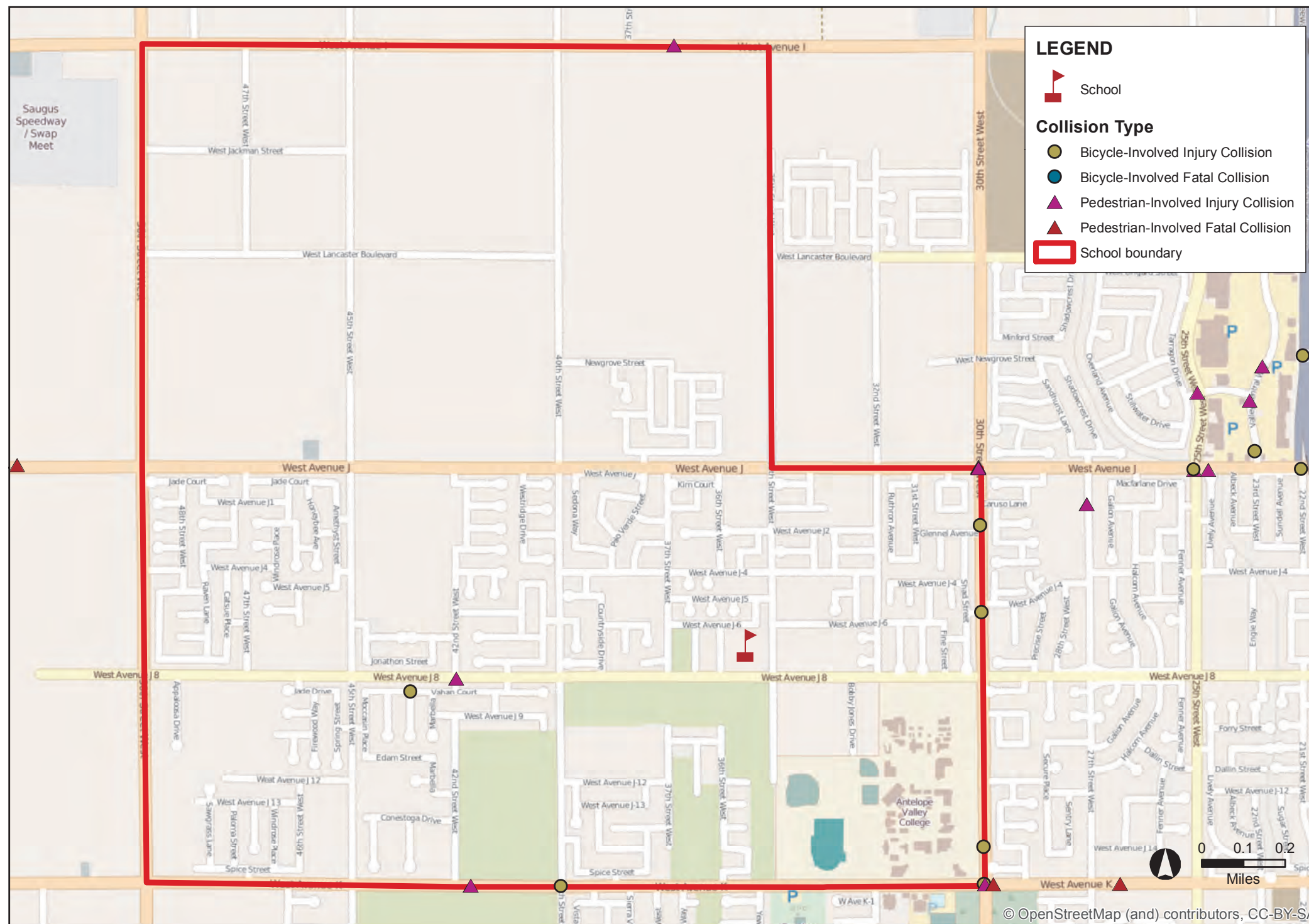
- Speeding on Ave. J-8
- Overgrown landscaping on Ave. J-8



- Traffic backs up from 36<sup>th</sup> St. West onto Ave. J-8 in both directions during school drop-off and dismissal, making turning difficult
- Red curb is needed at the bus stop on 35<sup>th</sup> St. West
- Parents line up in the bike lane on Ave. J-8
- School parking lot is used for drop-off and pick-up with parents waiting on 36<sup>th</sup> St. West
- 35<sup>th</sup> St. West north of Ave. J-8 has uneven sidewalks
- No good trail across the desert south of J-8
- 35<sup>th</sup> St. West and Ave. J-8
  - large intersection with curb ramps only on NW and SE corners
  - traffic backs up into this intersection during drop-off and pick-up
  - no crossing guards
  - drainage issues
  - roundabout was discussed
  - missing sidewalks
- 35<sup>th</sup> St. West and Ave. J-6
  - stop sign is not visible
  - crosswalks not very visible; a red curb needed
  - curb ramps are not good
- 36<sup>th</sup> St. West and Ave. J-6
  - some curb ramps missing
  - better crossing needed
- 40<sup>th</sup> St. West and Ave. J-8
  - motorists speed through this intersection from both streets
  - intersection is very large with wide crossings
- Ave. J-5 and Amherst Ln.
  - sidewalks are uplifted in the area
  - some curb ramps missing, and others need improvement
- Ave. J-8 and Amherst Ln.
  - motorists double park and drop off kids in the street

### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2007 and 2011.



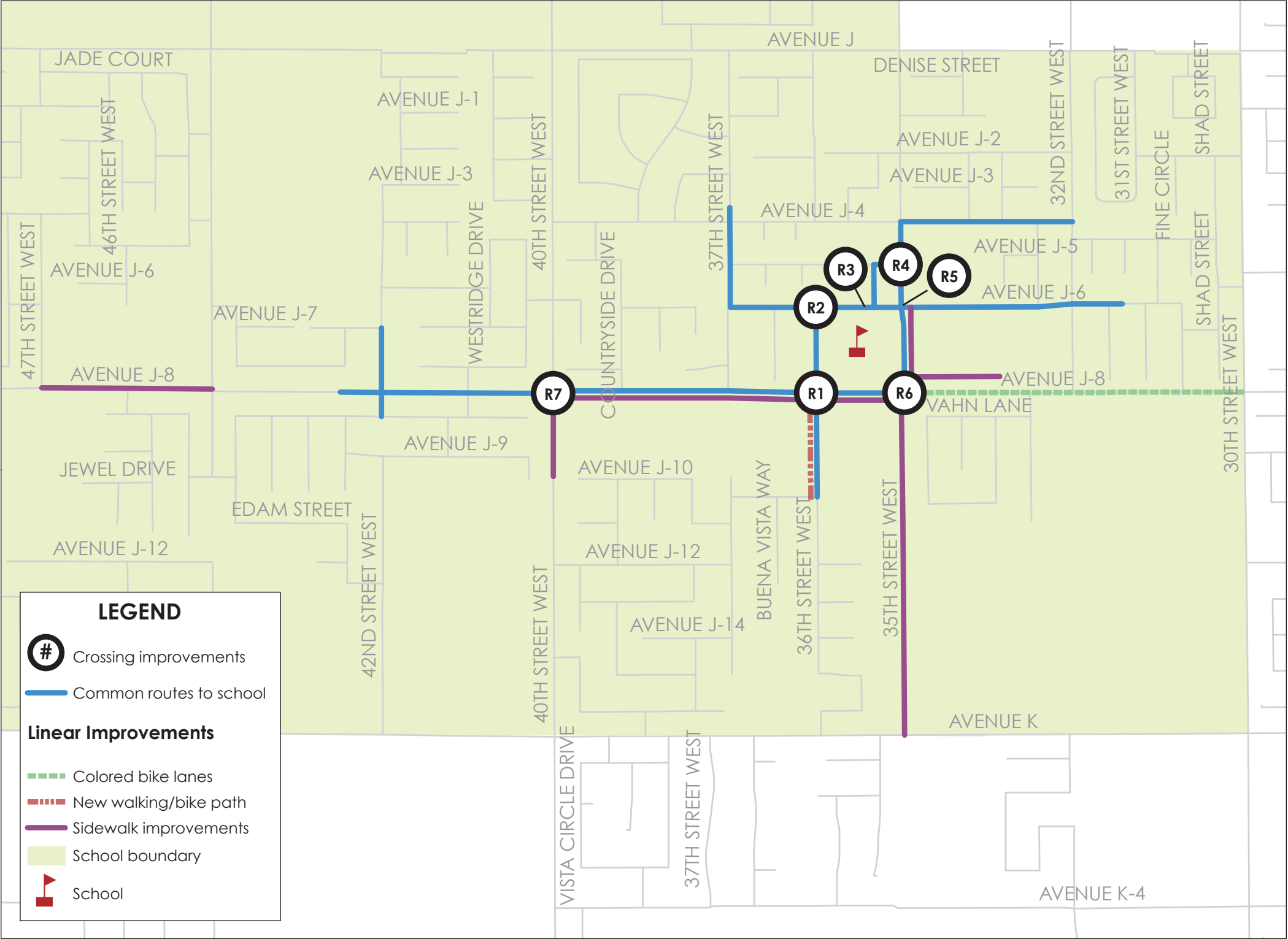
# Bicycle and Pedestrian Collisions 2007 - 2011

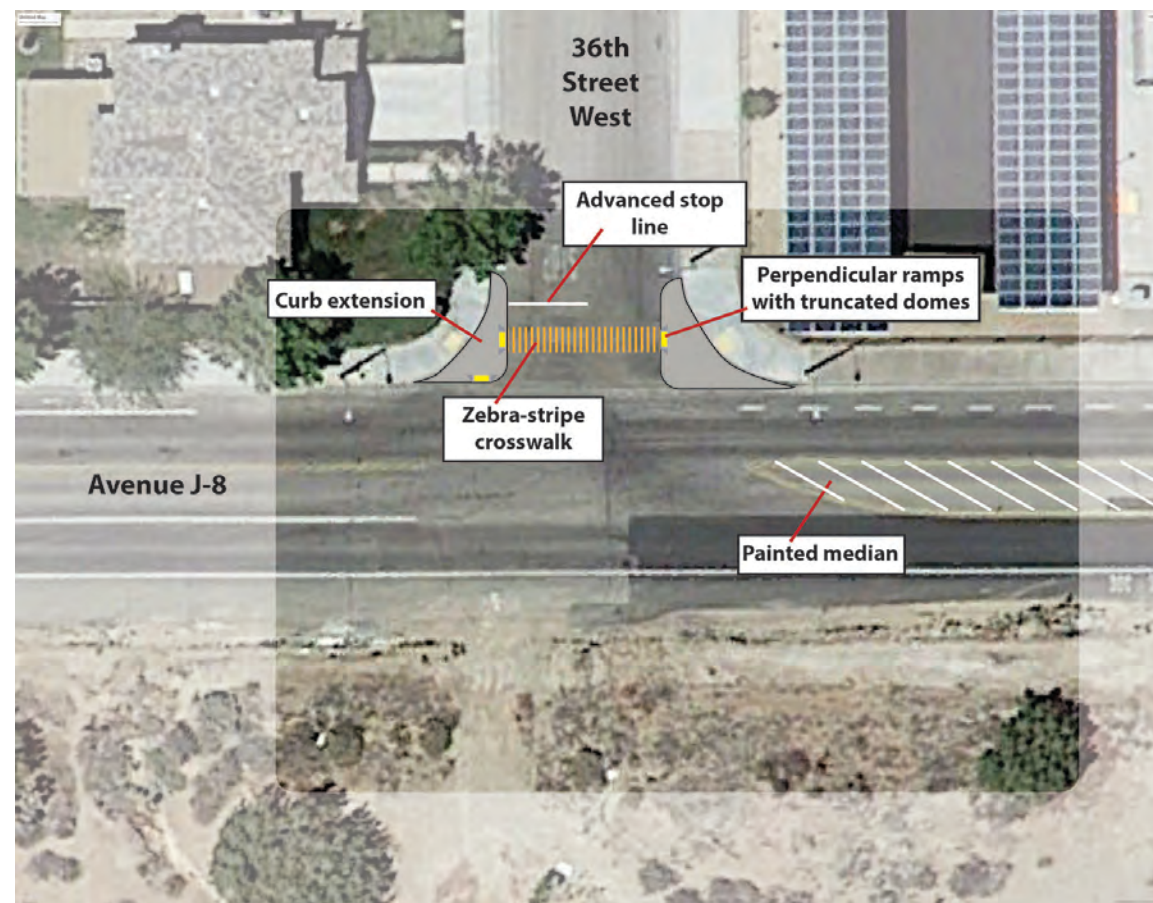
## West Wind Elementary School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.

# SRTS Plan - West Wind Elementary School





## Existing Conditions and Engineering Recommendations

### Crossing Improvements

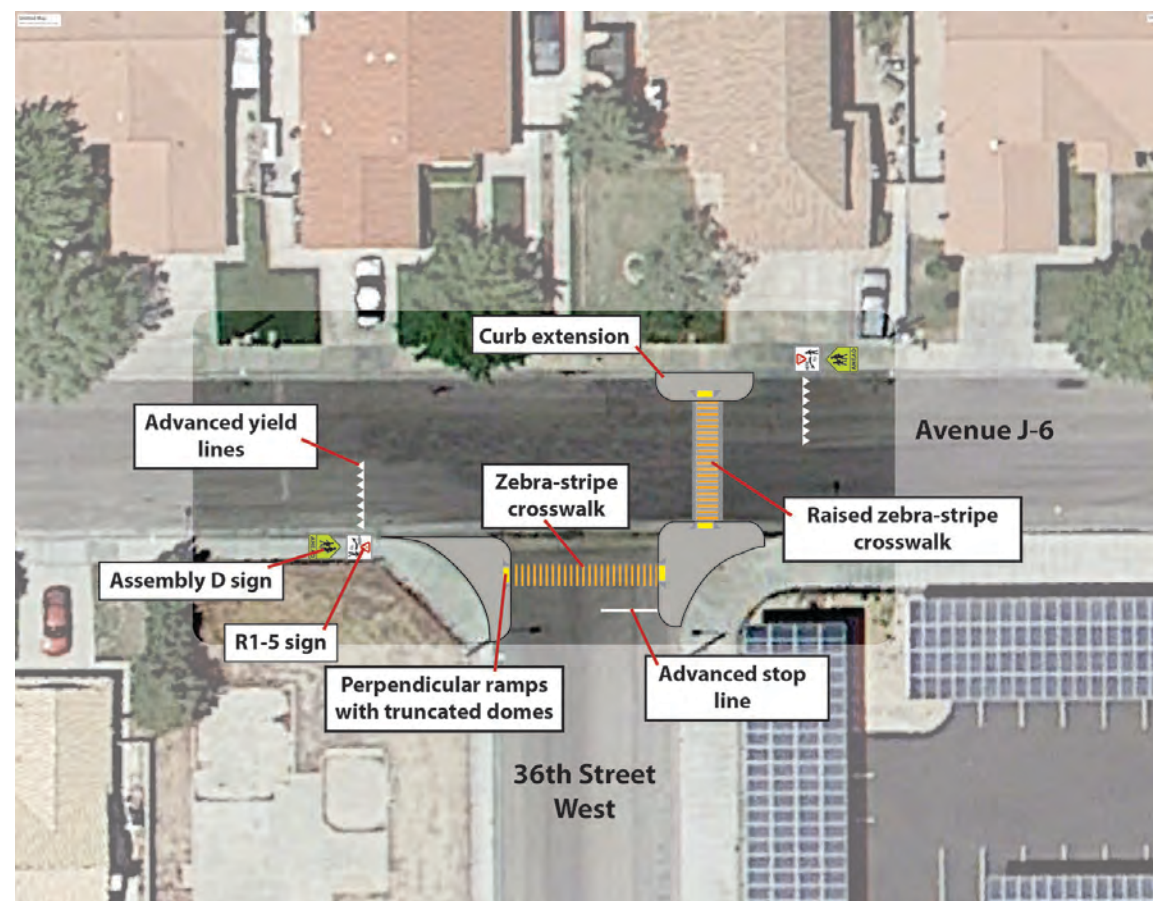
#### R1. Ave. J-8 & 36<sup>th</sup> St. West

##### Existing

- 1-way stop for 36<sup>th</sup> St. West
- Yellow transverse-line crosswalk on the north leg

##### Proposed

- Add a yellow zebra-stripe crosswalk on the north leg (1)
- Add an advanced stop line to the north leg crosswalk (1)
- Add curb extensions on both sides of the north leg crosswalk (2)
- Add a painted median to the east leg (1)



#### R2. Ave. J-6 & 36<sup>th</sup> St. West

##### Existing

- T-intersection
- 1-way stop for 36<sup>th</sup> St. West
- Yellow transverse-line crosswalk on the east and south legs
- Assembly B signs on the east leg crosswalk

##### Proposed

- Add raised yellow zebra-stripe crosswalks on the east leg (1)
- Add zebra-stripe crosswalk to the south leg (1)
- Add curb extensions to both sides of the east and south leg crosswalks (4)
- Add advanced yield lines to the east leg crossing approaches (2)
- Add an advanced stop line to the south leg (1)
- Add R1-5 signs to the east leg crossing approaches (2)
- Add Assembly D signs to the east leg crossing approaches (2)



### R3. Ave. J-6 at Pedestrian Entrance to School

Add a red curb on the south side just west of the pedestrian entrance



### R4. 35<sup>th</sup> St. West & Ave. J-5

#### Existing

- T-intersection
- 1-way stop for Ave. J-5
- No marked crosswalk

#### Proposed

- Add a yellow zebra-stripe crosswalk to the west leg (1)
- Add curb extensions to both sides of the west leg crosswalk (2)
- Add an advanced stop line to the west leg crosswalk (1)



## R5. 35<sup>th</sup> St. West & Ave. J-6

### Existing

- T-intersection
- 3-way stop
- Yellow transverse-line crosswalk on the north leg

### Proposed

- Add a yellow zebra-stripe crosswalk to the north leg (1)
- Add curb extensions to both sides of the north leg crosswalk (2)
- Add advanced stop lines to the north leg crosswalk (2)
- Replace the left-turn lane and add crossing islands to the north leg crosswalk (1 pair)
- Add a marked crosswalk on the east leg when the new sidewalk on 35<sup>th</sup> St. West south of Ave. J-6 is built

## R6. Ave. J-8 & 35<sup>th</sup> St. West

### Existing

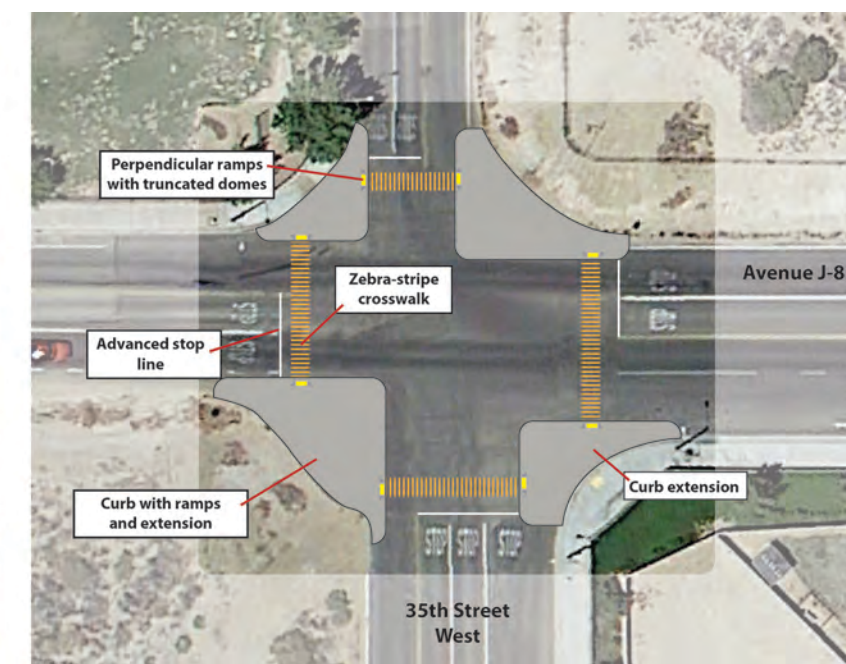
- 4-way stop
- Yellow transverse-line crosswalks on all legs
- 35<sup>th</sup> St. West has 2 lanes, a center-turn lane north of Ave. J-8; 1 lane northbound, 1 right-turn lane, 1 left-turn lane south of Ave. J-8
- Ave. J-8 has 2 lanes, a center-turn lane and bike lanes west of 35<sup>th</sup> St. West; 2 lanes eastbound, 1 lane westbound, a center-turn lane and bike lanes east of 35<sup>th</sup> St. West
- There are sidewalks on the NW and SE corners, but none on the NE and SW corners where there is no development

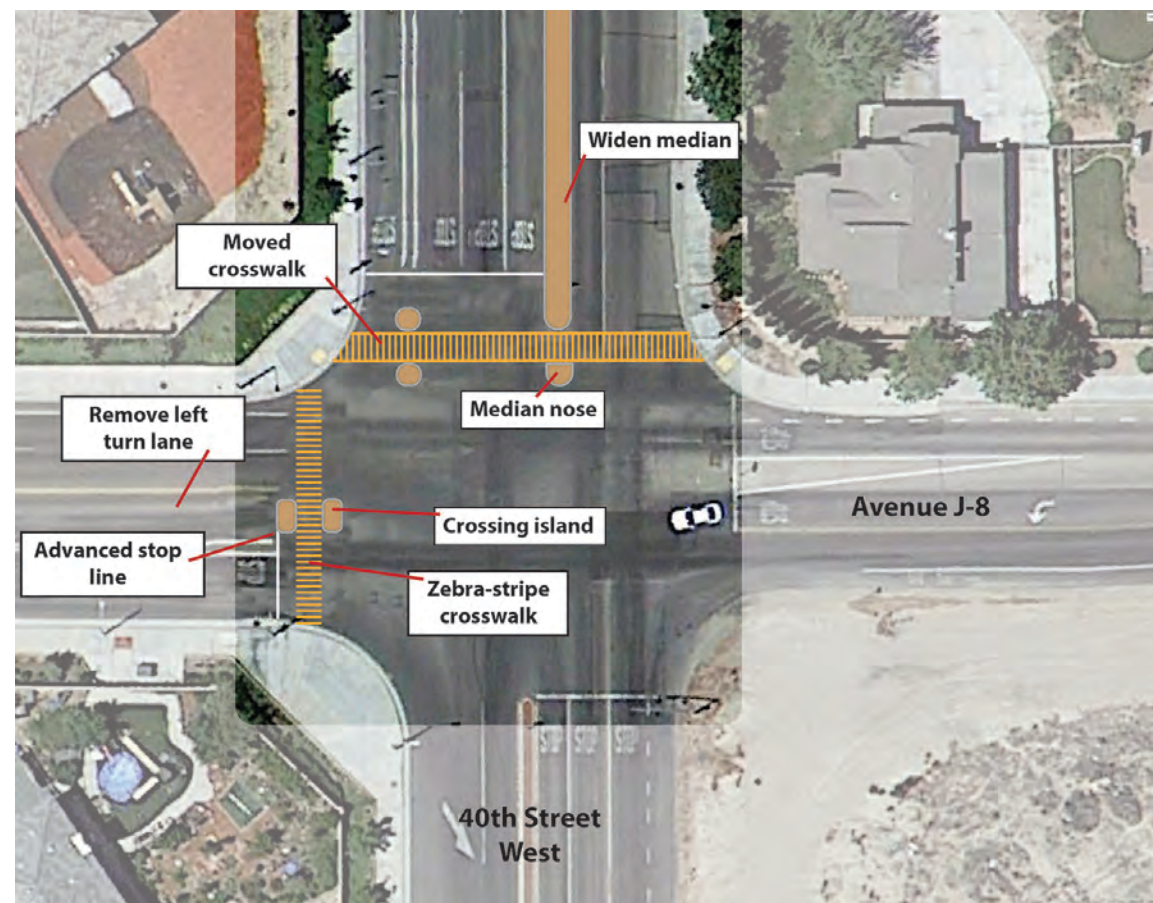
### Proposed Option 1

- Replace stop signs and turn lanes with a roundabout
- Dropping turn lanes would allow for width for bike lanes along 35<sup>th</sup> St. West

### Proposed Option 2

- Add yellow zebra-stripe crosswalks on all legs (4)
- Add advanced stop lines to all crosswalks (4)
- Add a curb with ramps and a waiting area on the SW corner (1)
- Eliminate right-turn lanes and extend curbs on all corners (8)
- When sidewalks are added to NE and SW, add double curb ramps with tight curb returns





## R7. 40<sup>th</sup> St. West & Ave. J-8

### Existing

- 4-way stop
- Yellow transverse-line crosswalk on the west leg
- Yellow ladder crosswalk on the north leg
- Ave. J-8 has 2 lanes and a center turn-lane east of 40<sup>th</sup> St. West; 2 lanes westbound, 1 lane eastbound, a right-turn lane, and a left-turn lane west of 40<sup>th</sup> St. West
- 40<sup>th</sup> St. West has 4 lanes, a median with a left-turn lane and a right-turn lane north of Ave. J-8; 2 lanes northbound, 1 lane southbound, a left-turn lane and bike lanes south of Ave. J-8
- No development or sidewalk on the SE corner
- Large painted island between travel lanes and the right-turn lane on 40<sup>th</sup> St. West north of Ave. J-8
- 4' median on 40<sup>th</sup> St. West at the intersection

### Proposed

- Move the north leg crosswalk further north to place it in the crossing islands (1)
- Narrow the painted island on the north leg to add 2' to the median (1)
- Replace the painted island with curbed crossing islands (1 pair)
- Add a zebra-stripe crosswalk to the west leg (1)
- Add a nose to the median on the north leg (1)
- Add an advanced stop line to the west and north legs (2)
- Eliminate the left-turn lane on the west leg and add crossing islands (1 pair)



**Linear Treatments: Signs and Markings**

- Add new sidewalks at the following locations:
  - Along Ave. J-8 from 35<sup>th</sup> St. West to 3/4 of the way to Bobby Jones Dr. on the north side (approximately 640')
  - Along Ave. J-8 from 35<sup>th</sup> St. West to 40<sup>th</sup> St. West on the south side (approximately 2,640')
  - Along 35<sup>th</sup> St. West from Ave. J-8 to Ave. K on the west side, and from Ave. J-6 to Ave. J-8 on the east side (approximately 3,260')
  - Along the Ave. J-8 north side between 47<sup>th</sup> St. West and 45<sup>th</sup> St. West on the north side (approximately 1,320')
  - Along 40<sup>th</sup> St. West from Ave. J-8 to Ave. J-10 on the east side (approximately 620')
- Add a new path through the desert to connect 36<sup>th</sup> St. West south of Ave. J-8 (approximately 620')
- Add Assembly A signs along Ave. J-8 (2)
- Add speed feedback signs on Ave. J-8 near the school (2)
- Add colored bike lanes and widen to 6' on Ave. J-8 from 30<sup>th</sup> St. West to 35<sup>th</sup> St. West (0.5 mi.)

**Bicycle Facilities**

- Add racks for 10 bicycles as described in the Design section. Add racks for 10 skateboards/scooters. Add more if needed.

**Program Plan**

Education

Encouragement

Enforcement

### S. Columbia Elementary School





## Walk Audit Workshop

A walk audit workshop was conducted on December 10, 2013. The following key stakeholders attended:

- School principal
- Assistant principal
- Campus supervisor
- School employees
- Parents
- Representatives from the City Planning Department and City Public Works Department
- Representatives from Antelope Valley Partners for Health

## Safety Issues Raised at the Stakeholder Workshop

### General

- Speeding
- Lack of sidewalks
- Stop signs not in visible locations
- Drivers not yielding to pedestrians
- Drivers not stopping at stop signs
- Motorists cutting across the desert
- Students being dropped off on the opposite side of the street
- Some days high school students are dismissed early and intimidate elementary students

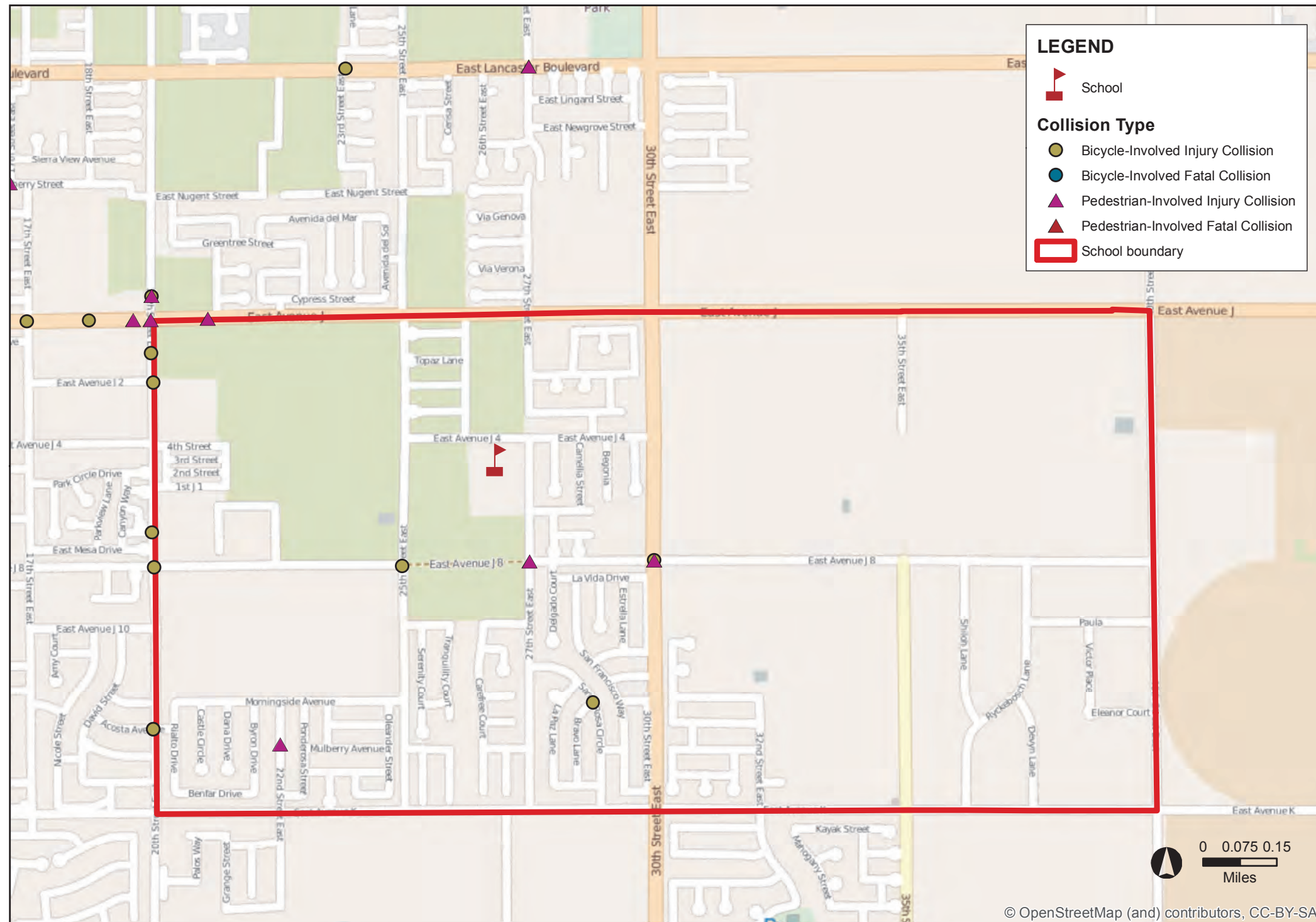
### Location Specific

- Ave. J-4 & 27<sup>th</sup> St. East
  - speeding
  - motorists not stopping
  - poor location of the stop sign
- Ave. J-8 & 27<sup>th</sup> St. East
  - no marked crosswalk
  - no stop sign on Ave. J-8
  - no sidewalk
  - motorists not respecting the crossing guard
- Ave. J-4 & 26<sup>th</sup> St. East
  - speeding
  - motorists cutting across the desert
  - narrow sidewalk
- Ave. J-6 & 27<sup>th</sup> St. East
  - motorists cutting across the desert and turning onto 27<sup>th</sup> St. East

- Sidewalks missing
  - 27<sup>th</sup> St. East from Ave. J-6 to Ave. J-10
  - 27<sup>th</sup> St. East has no connection from Ave. J-2 to Ave. J-4
  - Ave. J-4 from 25<sup>th</sup> St. East to 26<sup>th</sup> St. East

**Maps**

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2007 and 2011.



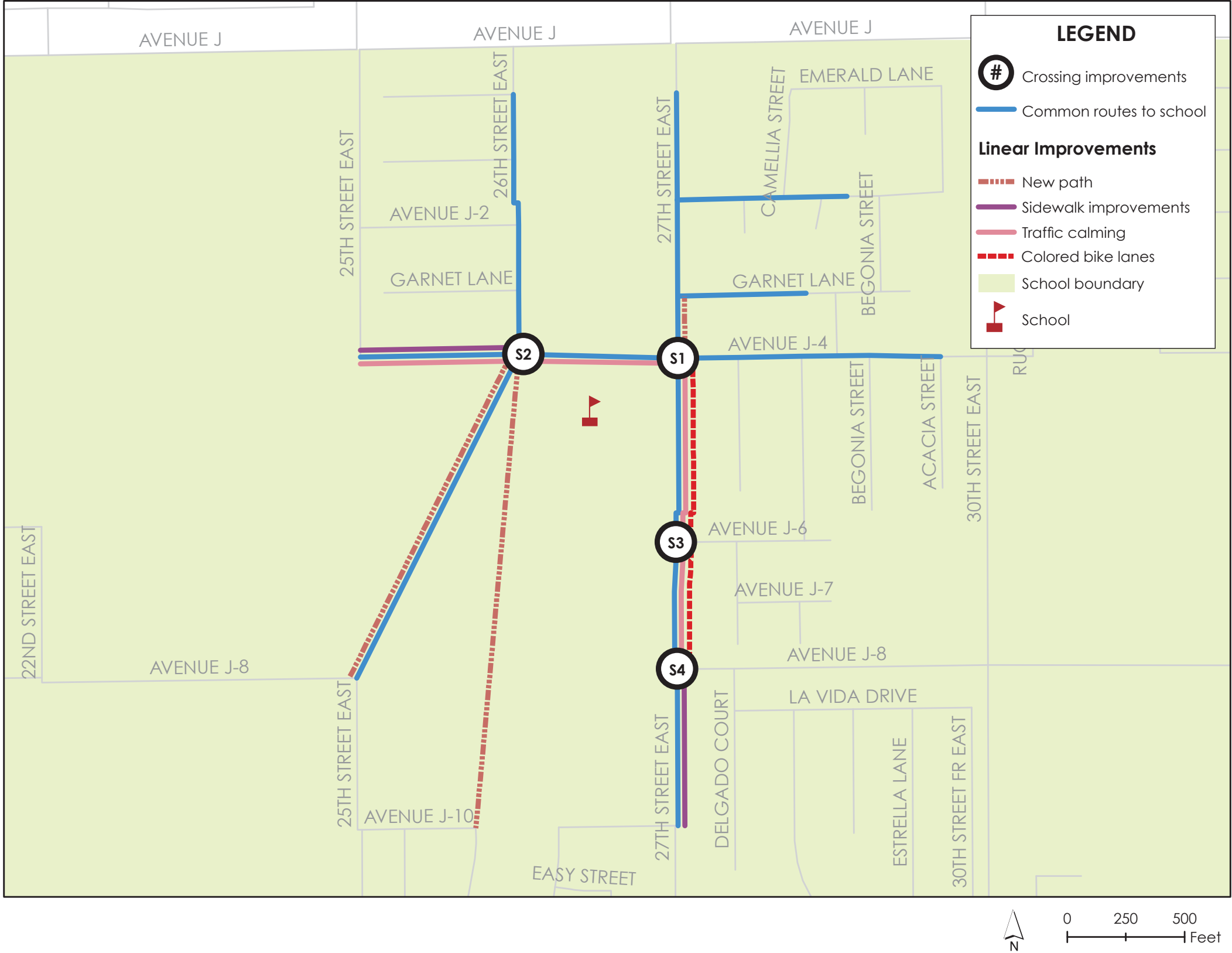
# Bicycle and Pedestrian Collisions 2007 - 2011

## Columbia Elementary School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.

# SRTS Plan - Columbia Elementary School





## Existing Conditions and Engineering Recommendations

### Crossing Improvements

#### S1. Ave. J-4 & 27<sup>th</sup> St. East

##### Existing

- T-intersection
- 3-way stop
- Yellow transverse line crosswalks on the south and east legs
- Stop sign poorly located
- Crossing guard

##### Proposed

- Add zebra-stripe crosswalks to all legs (3)
- Add advanced stop lines to all legs (3)
- Move the stop sign on the east side closer (1)
- Add red flashing LED lights to all stop signs (3)
- Add curb extensions to the east and south legs (4)
- Add raised crosswalks to the east and south legs (2)
- Add a curb ramp for a new path connecting to Ave. J-4 (1)

#### S2. Ave. J-4 & 26<sup>th</sup> St. East

##### Existing

- T-intersection
- 3-way stop
- Yellow transverse crosswalks on the west leg
- Motorists cut across the desert to Ave. J-4 here

##### Proposed

- Add a yellow zebra-stripe crosswalk to the west leg (1)
- Add an advanced stop line to the west leg (1)
- Add red flashing LED lights to the perimeter of all stop signs (3)
- Add a raised crosswalk on the west leg (1)
- Add curb extensions to both crossing faces of the west leg (2)
- A new sidewalk with a curb along Ave. J-4 will prevent motorists from cutting through





### S3. Ave. J-6 & 27<sup>th</sup> St. East

#### Existing

- T-intersection
- 1-way stop for Ave. J-6
- Yellow transverse crosswalks on the east leg

#### Proposed

- Add a yellow zebra-stripe crosswalk to the north and east legs (2)
- Add an advanced stop line to the east leg (1)
- Add a raised crosswalk to the north leg (1)
- Add curb extensions to both crossing faces to the north and east legs (4)
- Add advanced yield lines to both crossing approaches to the north leg crosswalk (2)
- Add R1-5 signs to both crossing approaches to the north leg (2)
- Add Assembly D signs to both crossing approaches to the north leg (2)
- Add an Assembly B sign to the north leg crosswalk (1)
- A new sidewalk with curbs will stop motorists from cutting across here



### S4. Ave. J-8 & 27<sup>th</sup> St. East

#### Existing

- T-intersection
- 2-way stop for 27<sup>th</sup> St. East
- No marked crosswalks
- Stop sign on the northbound side not visible enough

#### Proposed

- Add a yellow zebra-stripe crosswalk to all legs (3)
- Add advanced stop lines to the north and south legs (2)
- Add curb extensions to both crossing faces of all legs (3)
- Move the northbound stop sign to a more visible location (1)
- Add an advanced yield line to the crossing approach of the east leg crosswalk (1)
- Add an R1-5 sign to the crossing approach of the east leg (1)
- Add an Assembly D sign to the crossing approach of the east leg (1)
- Add an Assembly B sign to the east leg crosswalk (1)

### Linear Treatments

- Add new sidewalks at the following locations:
  - along the south side of Ave. J-4 from 25<sup>th</sup> St. East to 26<sup>th</sup> St. East (approximately 660')
  - along the west side of 27<sup>th</sup> St. East from Ave. J-10 to Ave. J-6 (approximately 1,150')
- Coordinate with the property owner to add a new path (perhaps graded earthen) from Ave. J-8 and 25<sup>th</sup> St. East to Ave. J-4 and 26<sup>th</sup> St. East (approximately 1,500')
- Coordinate with the property owner to add a new path (perhaps graded earthen) from Ave. J-10 and Tranquility Ct. to Ave. J-4 and 26<sup>th</sup> St. East (approximately 2,000')
- Add a paved path along the 27<sup>th</sup> St. East right-of-way from Garnet Ln. to Ave. J-4 (approximately 250')
- Add speed humps (3 sets) along 27<sup>th</sup> St. East between Ave. J-4 and Ave. J-8 for traffic calming
- Add speed humps (3 sets) along Ave. J-4 between 25<sup>th</sup> St. East and 27<sup>th</sup> St. East for traffic calming
- Add colored bike lanes on 27<sup>th</sup> St. East from Ave. J-4 to Ave. J-8 (0.15 mi.)
- Add an S1-1 sign on the northbound side of 27<sup>th</sup> St. East north of Ave. J-6 (1)

### Bicycle Parking

- Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

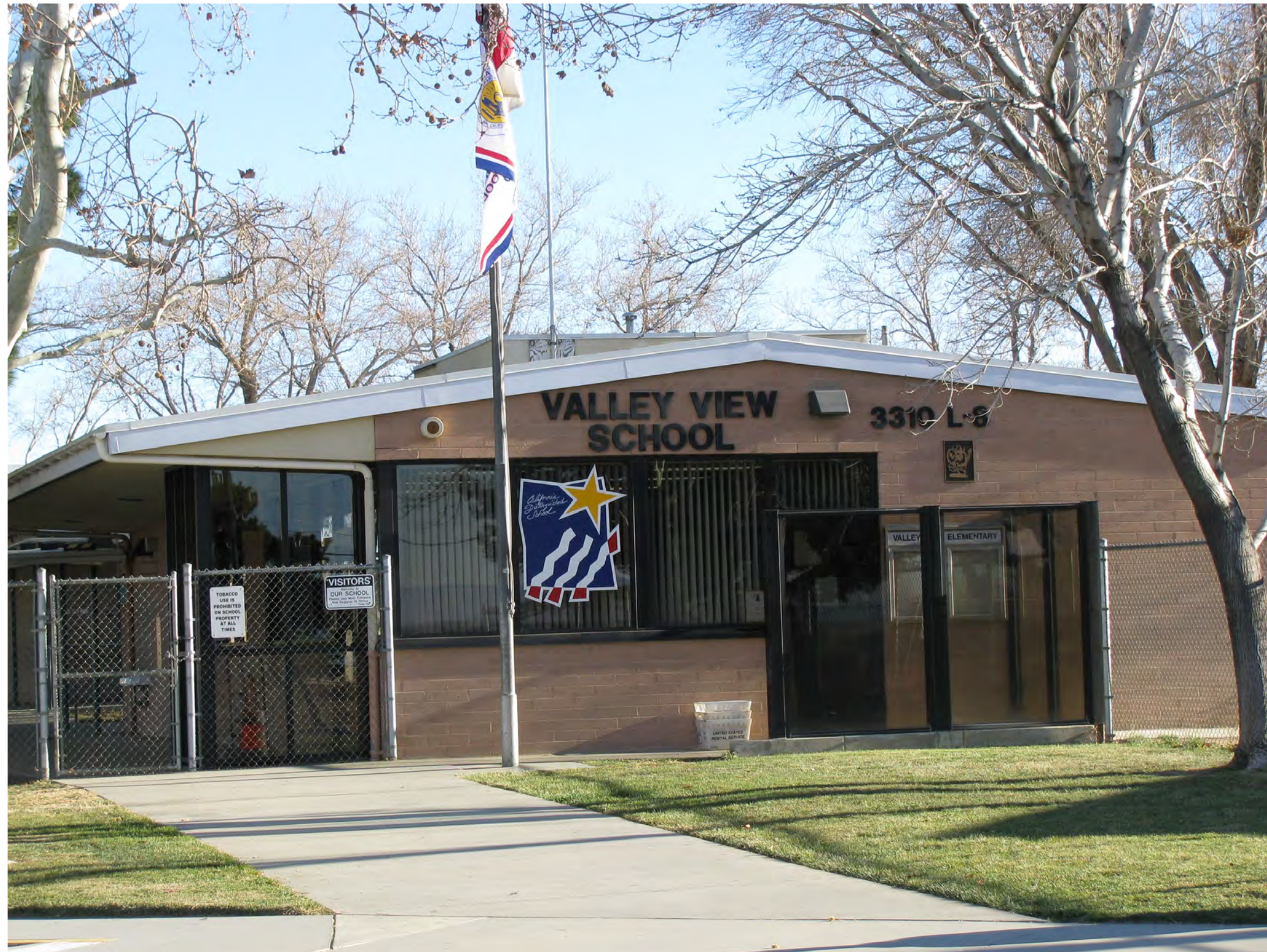
**Program Plan**

Education

Encouragement

Enforcement

### Y. Valley View Elementary School





## Walk Audit Workshop

A walk audit workshop was conducted on December 9, 2013. The following key stakeholders attended:

- School principal
- School employees
- A Teacher
- Parents
- Western Union School District Risk Manager
- Representatives from the City Planning Department, City Manager's office, and City Public Works Department
- Representatives from Antelope Valley Partners for Health

## Safety Issues Raised at the Stakeholder Workshop

### General

- Speeding
- Lack of sidewalks
- Lack of signs

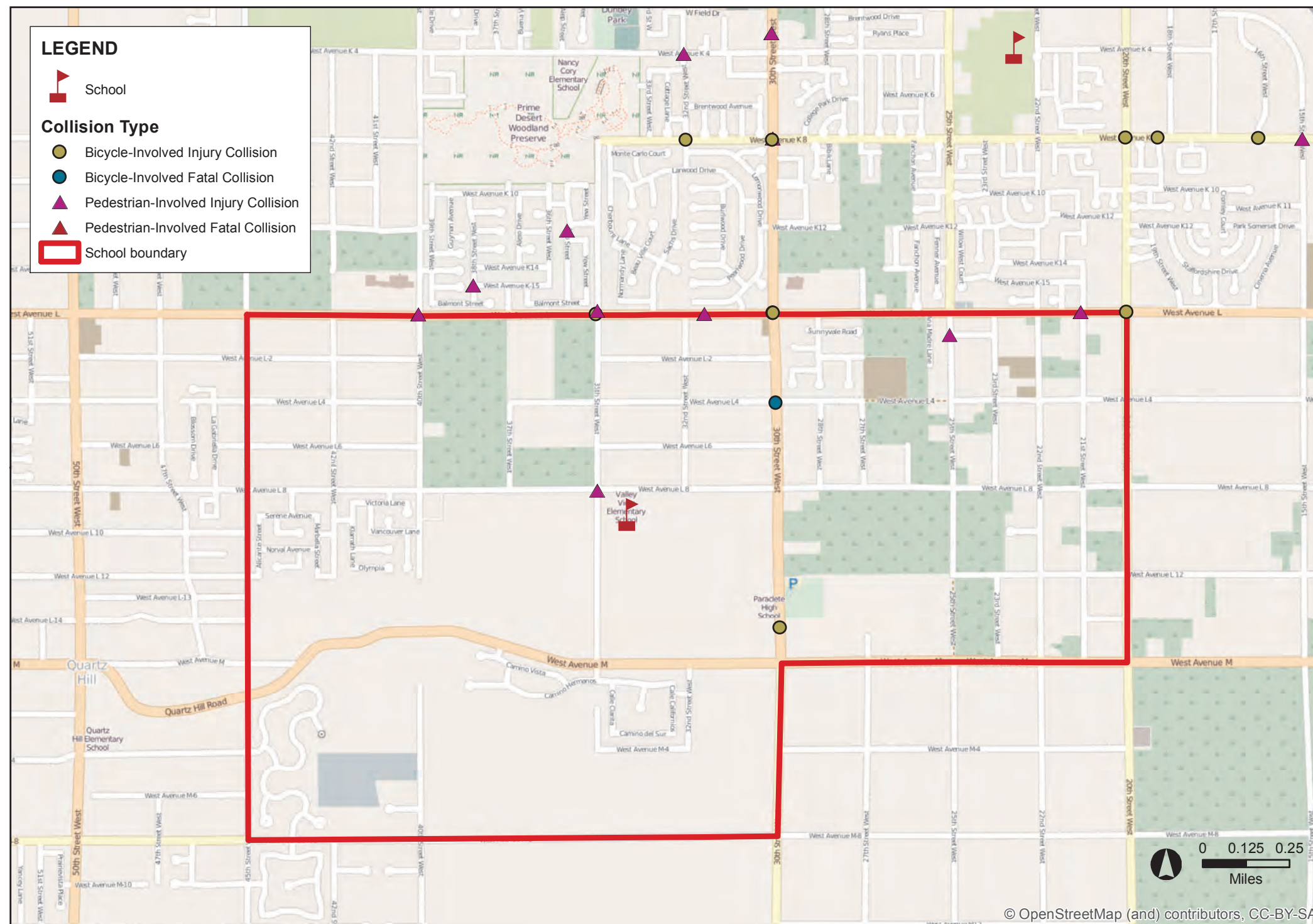
### Location Specific

- Ave. L-8 & 35<sup>th</sup> St. East
  - difficult to cross
  - crosswalks not visible
  - poor drainage
- Ave. L-8 & 32<sup>nd</sup> St. East
  - no marked crosswalk
- Ave. L-8 & 30<sup>th</sup> St. East
  - no pedestrian heads on the south and west legs
- Ave. L-8 & 40<sup>th</sup> St. East
  - no stop for Ave. L-8
  - no marked crosswalks
- Ave. M & 35<sup>th</sup> St. East
  - speeding
  - no marked crosswalk
- Ave. L-8
  - lack of sidewalks

- lack of signs
  - speeding
- 35<sup>th</sup> St. East
  - lack of sidewalks
  - lack of signs
  - speeding
- 35<sup>th</sup> St. East between the east school driveway and the east end of the school property
  - narrow sidewalk
- Ave. M
  - discontinuous sidewalk

### Maps

The following map displays bicyclist and pedestrian involved crashes for a five-year period between 2007 and 2011.



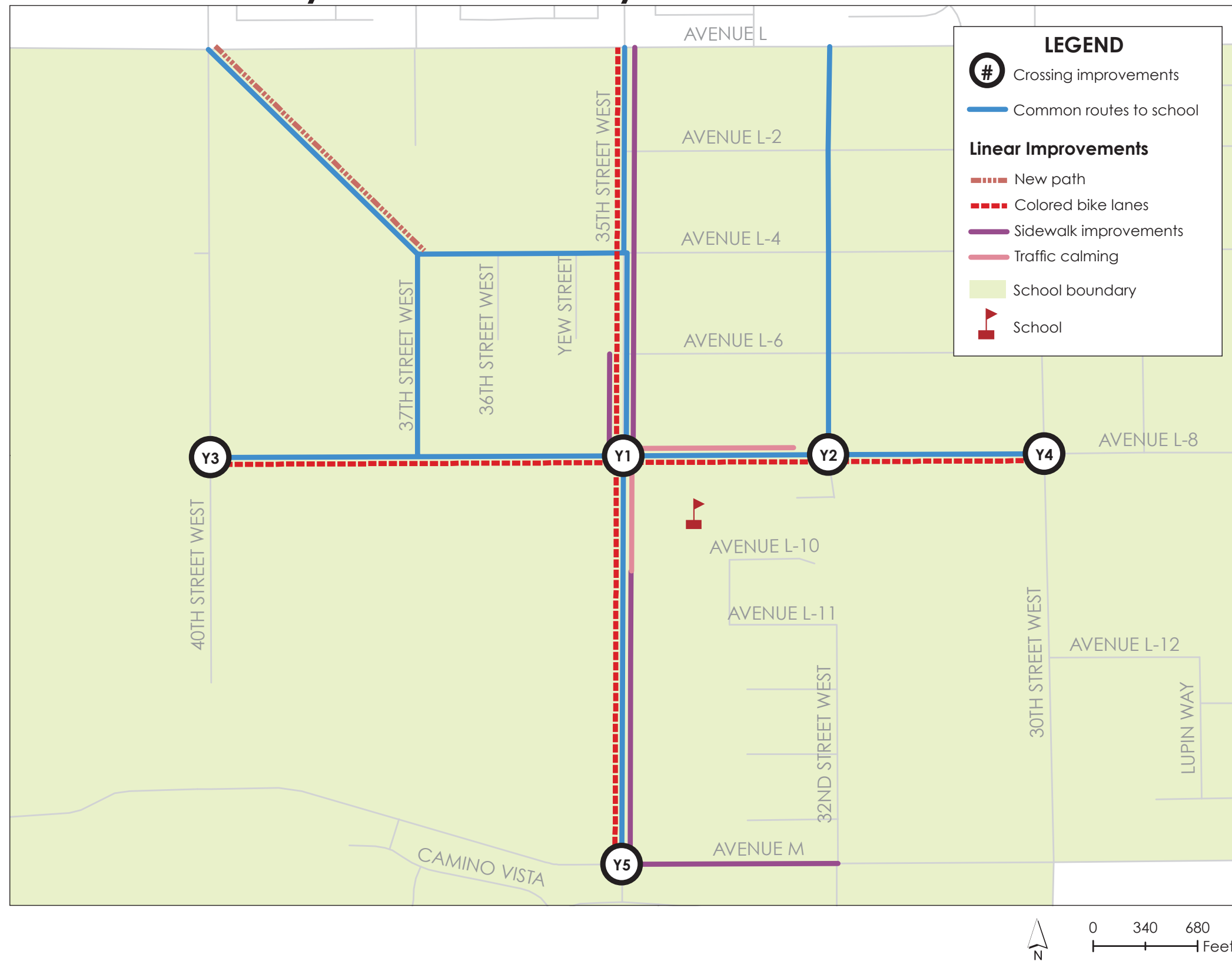
# Bicycle and Pedestrian Collisions 2007 - 2011

## Valley View Elementary School

Source of Data: University of California Transportation Injury Mapping System

The map below shows the proposed engineering projects along common routes used by students to get to school.

### SRTS Plan - Valley View Elementary School





## Existing Conditions and Engineering Recommendations

The City has funded and will soon construct a sidewalk along Ave. L-8 from 30<sup>th</sup> St. East to 40<sup>th</sup> St. East.

### Crossing Improvements

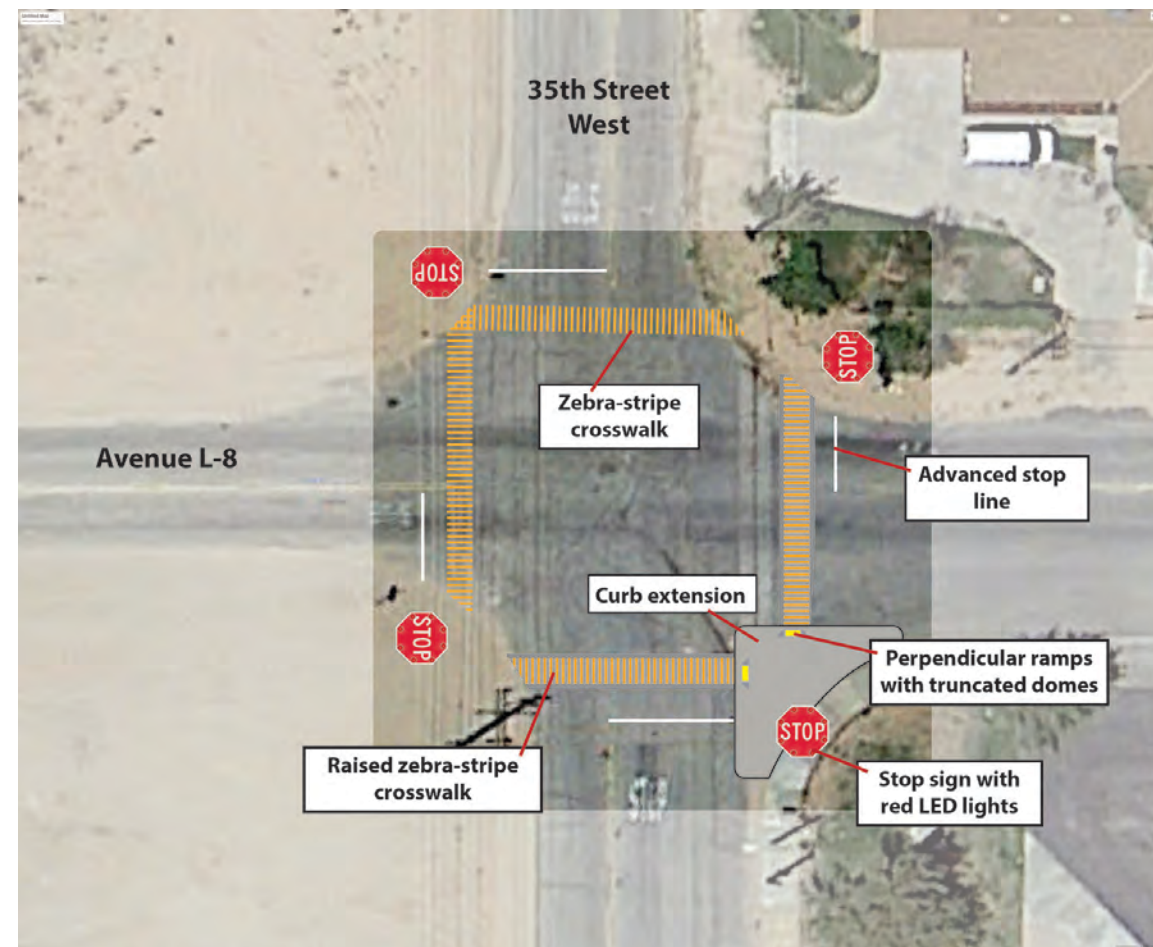
#### Y1. Ave. L-8 & 35<sup>th</sup> St. West

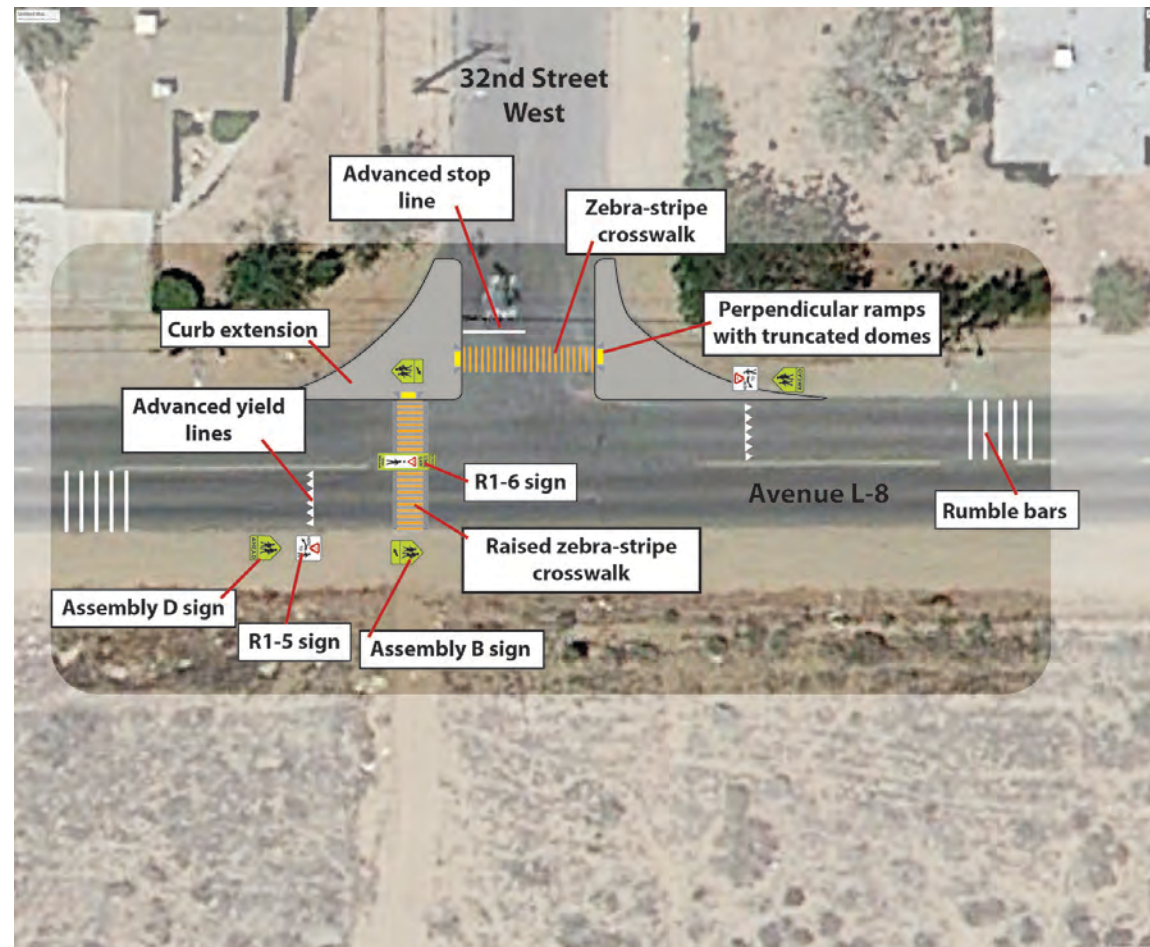
##### Existing

- 4-way stop
- Yellow transverse crosswalks on the east, west, and south legs
- Drainage problems
- Crossing guard

##### Proposed

- Add a yellow zebra-stripe crosswalk to all legs (4)
- Add advanced stop lines to all legs (4)
- Add red flashing LED lights to the perimeter of all the stop signs (4 sets)
- Add a raised crosswalk on the east and south legs (2)
- Add curb extensions to the east crossing face of the south leg, and the south crossing face of the east leg (2)
- Investigate resolving drainage issue





## Y2. Ave. L-8 & 32<sup>nd</sup> St. West

### Existing

- T-intersection
- 1-way stop for 32<sup>nd</sup> St. West
- No marked crosswalk

### Proposed

- Add a raised zebra-stripe crosswalk on the south leg (1)
- Add curb extensions to both crossing faces of the south leg (2)
- Add advanced yield lines to both crossing approaches of the west leg crosswalk (2)
- Add R1-5 signs to both crossing approaches of the west leg (2)
- Add Assembly D signs to both crossing approaches of the west leg (2)
- Add R1-6 signs to the west leg crosswalk (2)
- Add rumble bars to both crossing approaches of the west leg (4 sets)

### Y3. Ave. L-8 & 40<sup>th</sup> St. West

#### Existing

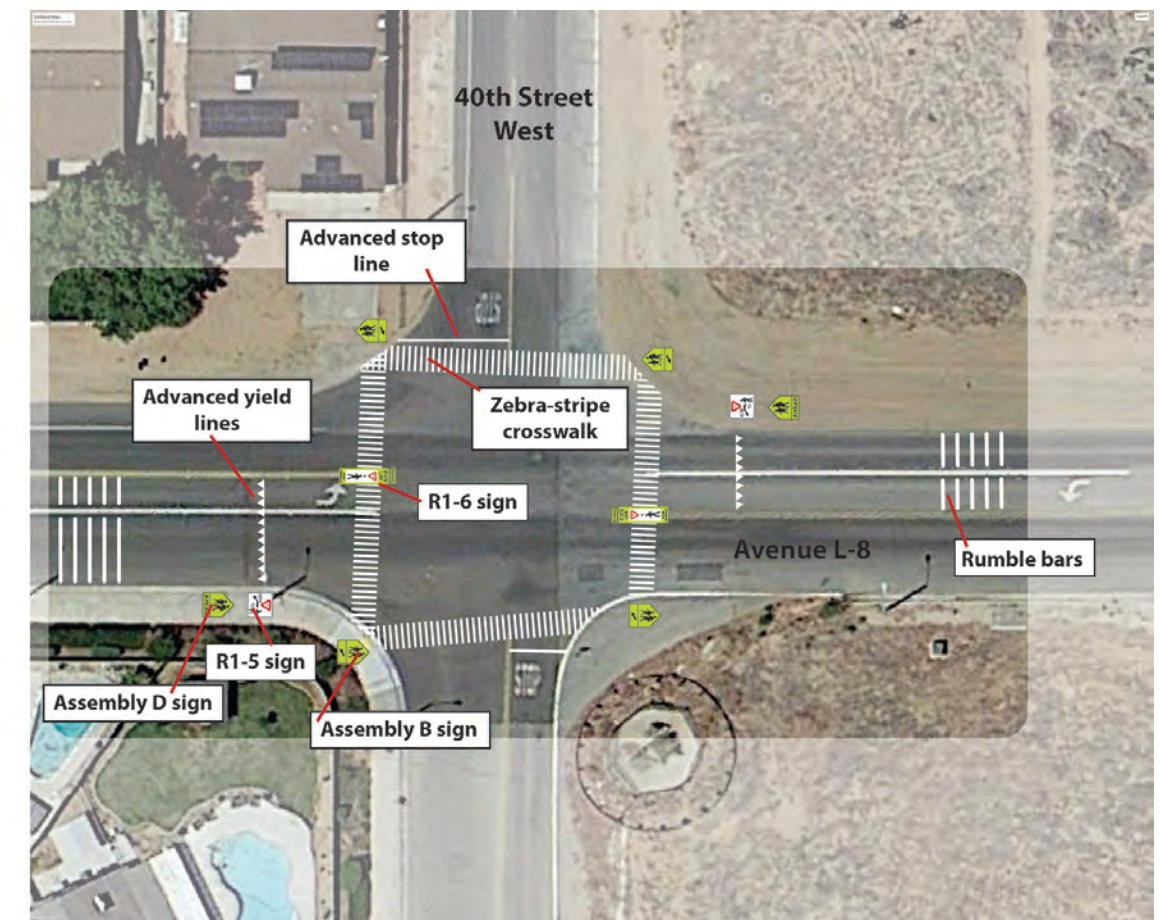
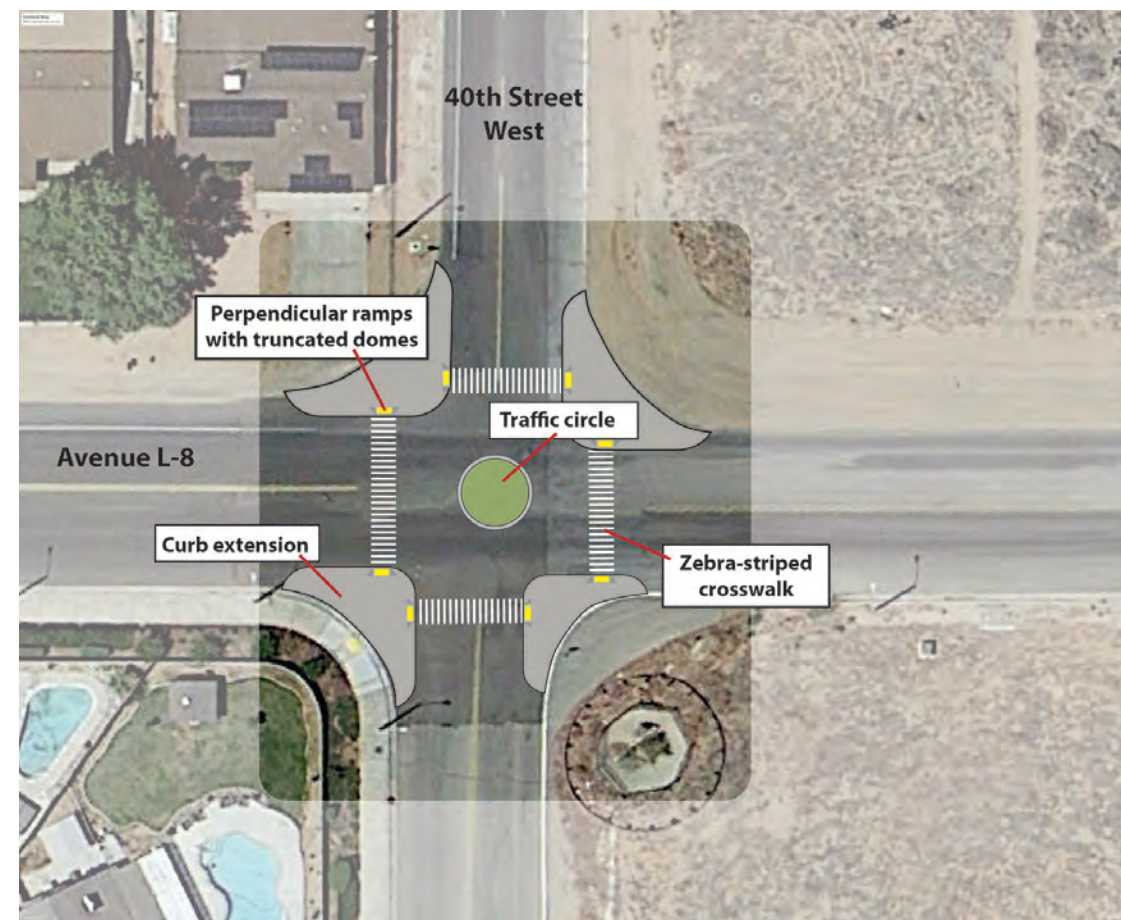
- 2-way stop for 40<sup>th</sup> St. West
- No marked crosswalks

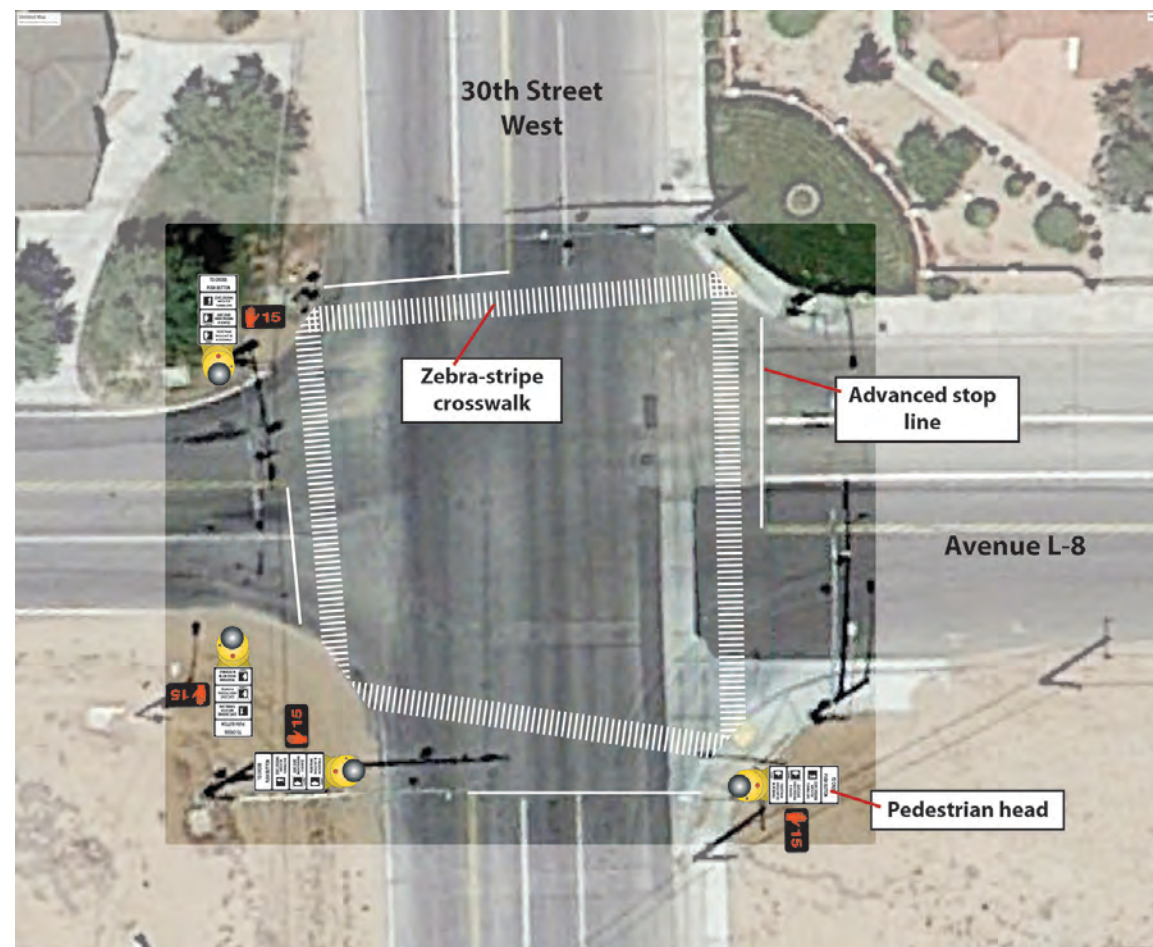
#### Proposed Option 1

- Replace the stop signs with a traffic circle or small roundabout (1)
- Add extended curbs on the corners (4)
- Add zebra-stripe crosswalks to all legs (4)

#### Proposed Option 2

- Add a zebra-stripe crosswalk to all legs (4)
- Add advanced stop lines to the north and south legs (4)
- Add advanced yield lines to both crossing approaches to the east and west leg crosswalks (2)
- Add R1-5 signs to both crossing approaches to the east and west legs (2)
- Add Assembly D signs to both crossing approaches to the east and west legs (2)
- Add R1-6 signs to the east and west leg crosswalks (2)
- Add rumble bars to both crossing approaches to the east and west legs (4 sets)





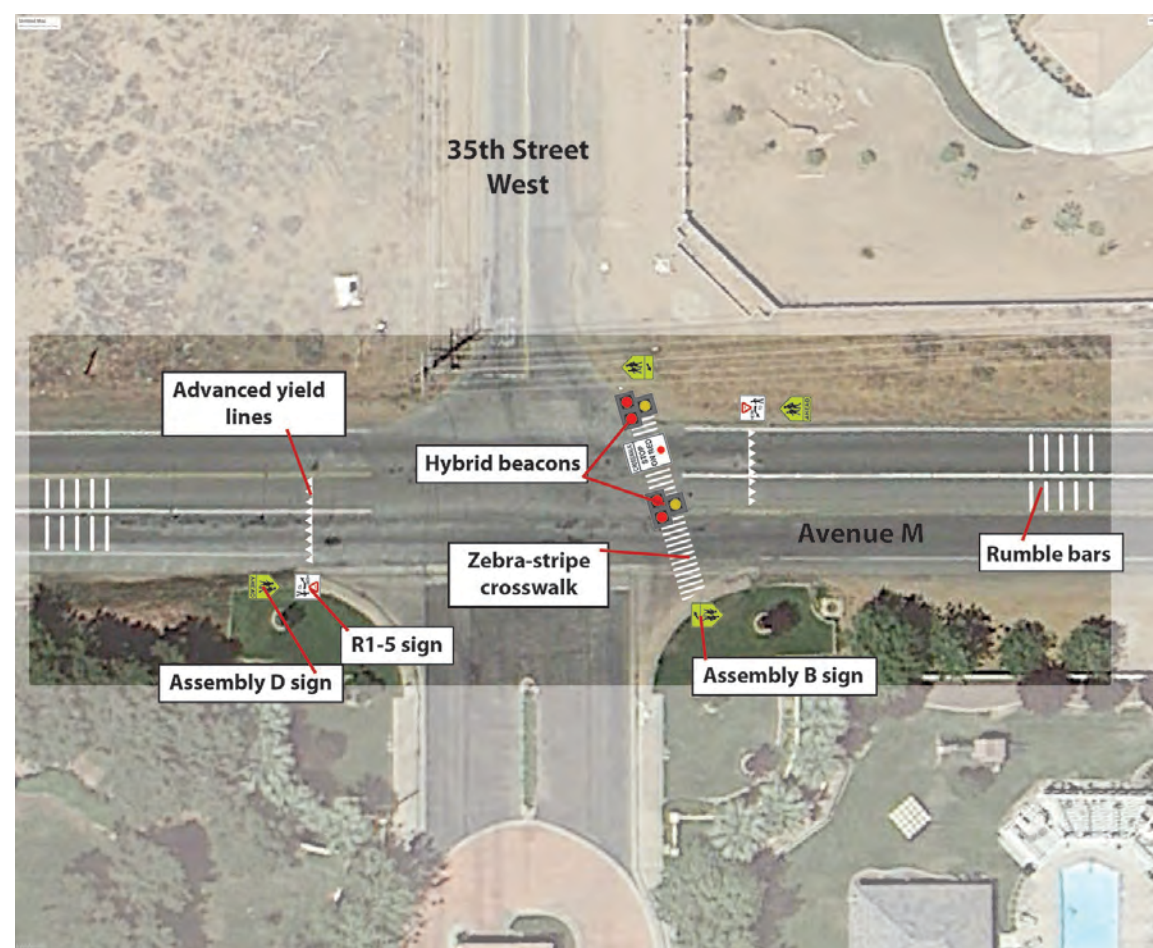
#### Y4. Ave. L-8 & 30<sup>th</sup> St. West

##### Existing

- Signalized intersection
- Transverse crosswalks on the north and east legs
- Pedestrian heads on the north and east legs

##### Proposed

- Add a zebra-stripe crosswalk to all legs (4)
- Add advanced stop lines to all legs (4)
- Add pedestrian heads to the south and west legs (4)



#### Y5. Ave. M & 35<sup>th</sup> St. West

##### Existing

- T-intersection
- 1-way stop for 35<sup>th</sup> St. West
- No marked crosswalks

##### Proposed

- Add a zebra-stripe crosswalk to the east leg (1)
- Add a pedestrian-activated hybrid beacon to the east leg (1) (conduct a warrant study first)
- Add advanced yield lines to both crossing approaches to the east leg crosswalk (2)
- Add R1-5 signs to both crossing approaches to the east leg (2)
- Add Assembly D signs to both crossing approaches to the east leg (2)
- Add Assembly B signs to the east leg crosswalk (2)
- Add rumble bars to both crossing approaches to the east leg (4 sets)

### Linear Treatments

- Add new sidewalks at the following locations:
  - along the east side of 35<sup>th</sup> St. West from Ave. L to Ave. M (except where the school sidewalk is) (approximately 2,300') and along the west side from Ave. L-6 to Ave. L-8 (approximately 630')
  - along Ave. M on the south side from where the sidewalk ends near 32<sup>nd</sup> St. West to 35<sup>th</sup> St. West (approximately 1,340')
  - Where there is no development, consider pylons or parking stops to provide a protected shoulder instead of a paved sidewalk as an interim measure
- Add S1-1 signs to all approaches to the school on 35<sup>th</sup> St. East and Ave. L-8 (4)
- Add SCHOOL pavement markings to the east and south approaches to the school on 35<sup>th</sup> St. East and Ave. L-8 (2)
- Add speed humps for traffic calming to 35<sup>th</sup> St. East and L-8 on all approaches to the school (4 sets)
- Add speed feedback signs to the north and west approaches to the school (2)
- Add wide (6'-7') colored bike lanes on Ave. L-8 from 30<sup>th</sup> St. West to 40<sup>th</sup> St. West (1.0 mi.)
- Add 7' colored bike lanes on 35<sup>th</sup> St. West from Ave. L to Ave. M (consistent with the Master Plan of Trails and Bikeways) (1.0 mi.)
- Work with the property owner to create a soil stabilized path or asphalt path from Ave. L & 40<sup>th</sup> St. West to Ave. L-4 and 37<sup>th</sup> St. West (approximately 1,850')

### Bicycle Parking

- Add racks for 10 bicycles as described in the Design Guidance section. Add racks for 10 skateboards/scooters. Add more if needed.

**Program Plan**

Education

Encouragement

Enforcement