



## Hillsdale Neighborhood Traffic Projects

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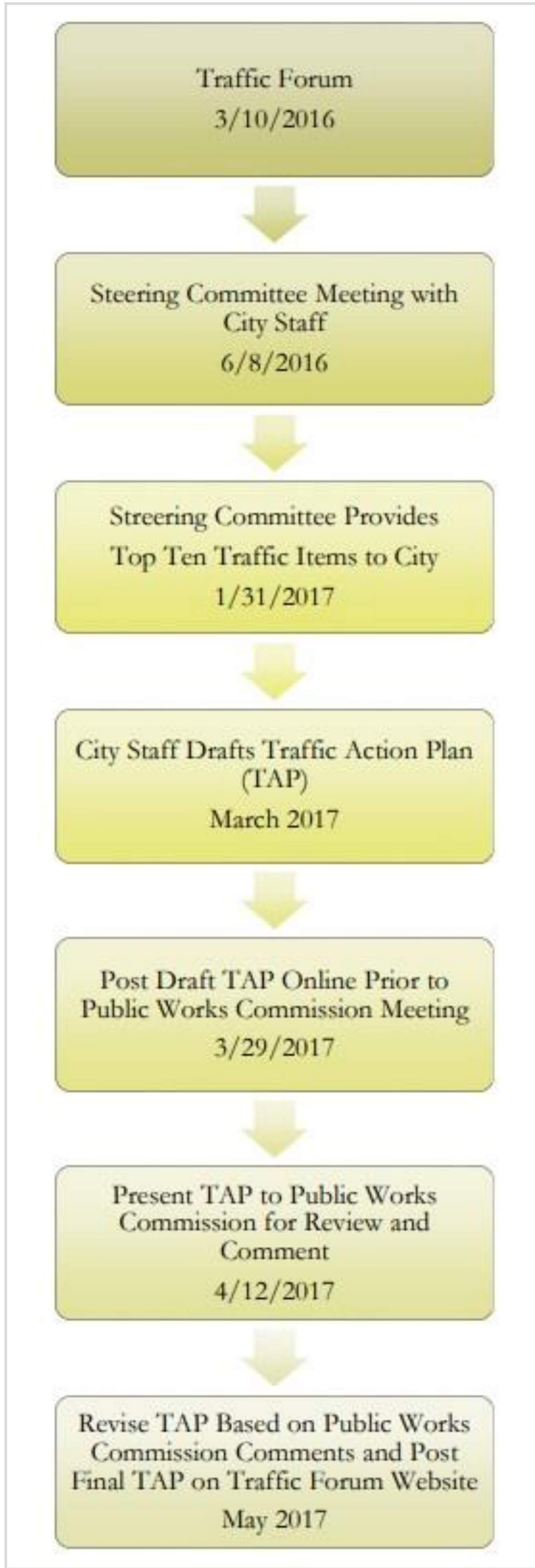
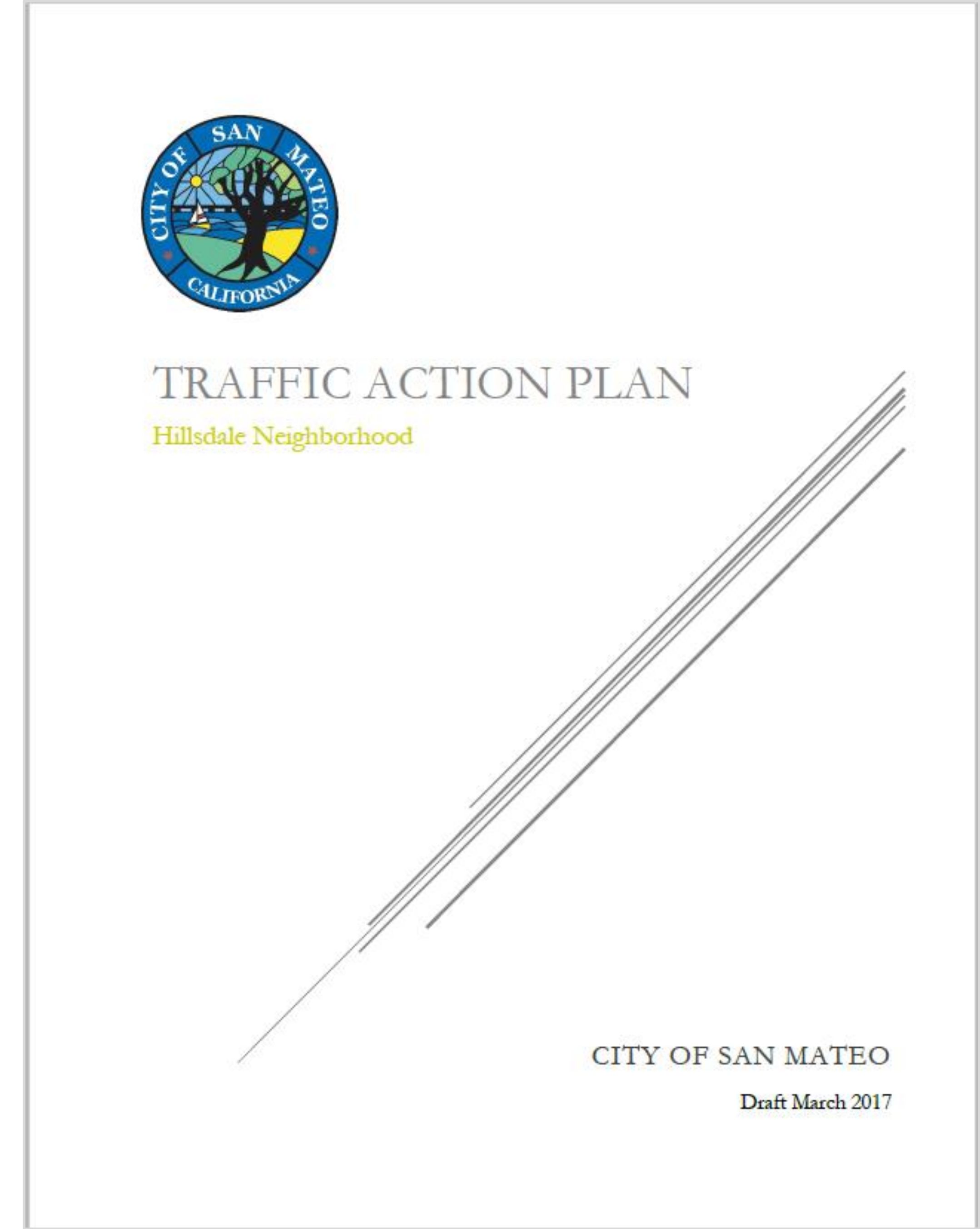


# Overview

- How we got here
- Where we're going and how you can help



You might remember this ...



# Neighborhood Traffic Issues

The Hillsdale Traffic Forum Steering Committee identified their top ten traffic concerns on January 31, 2017 based on information provided to them at the City meeting.

The following section presents the issues, listed by location, first in a table format, as well as presented on a map for illustration.

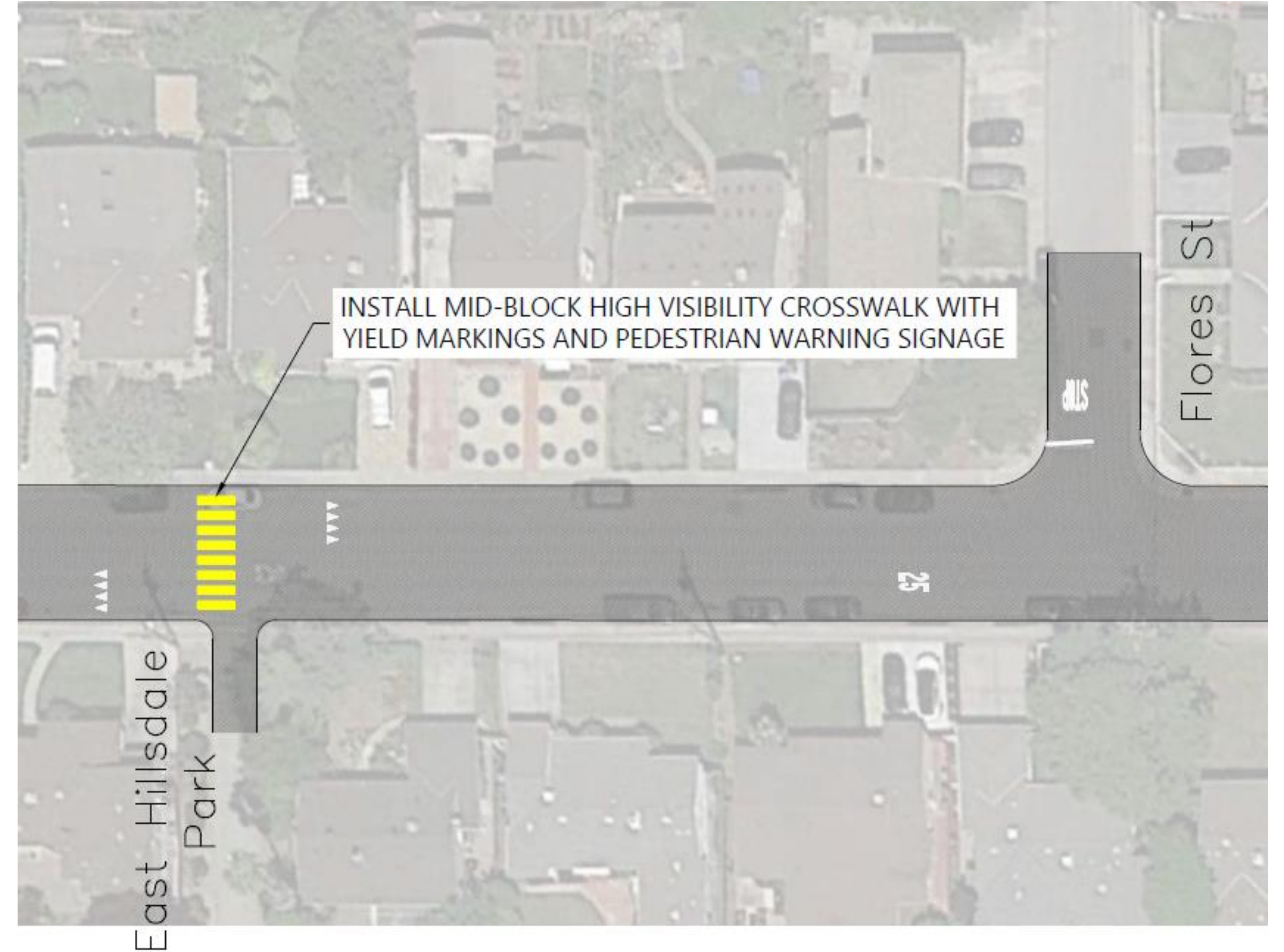
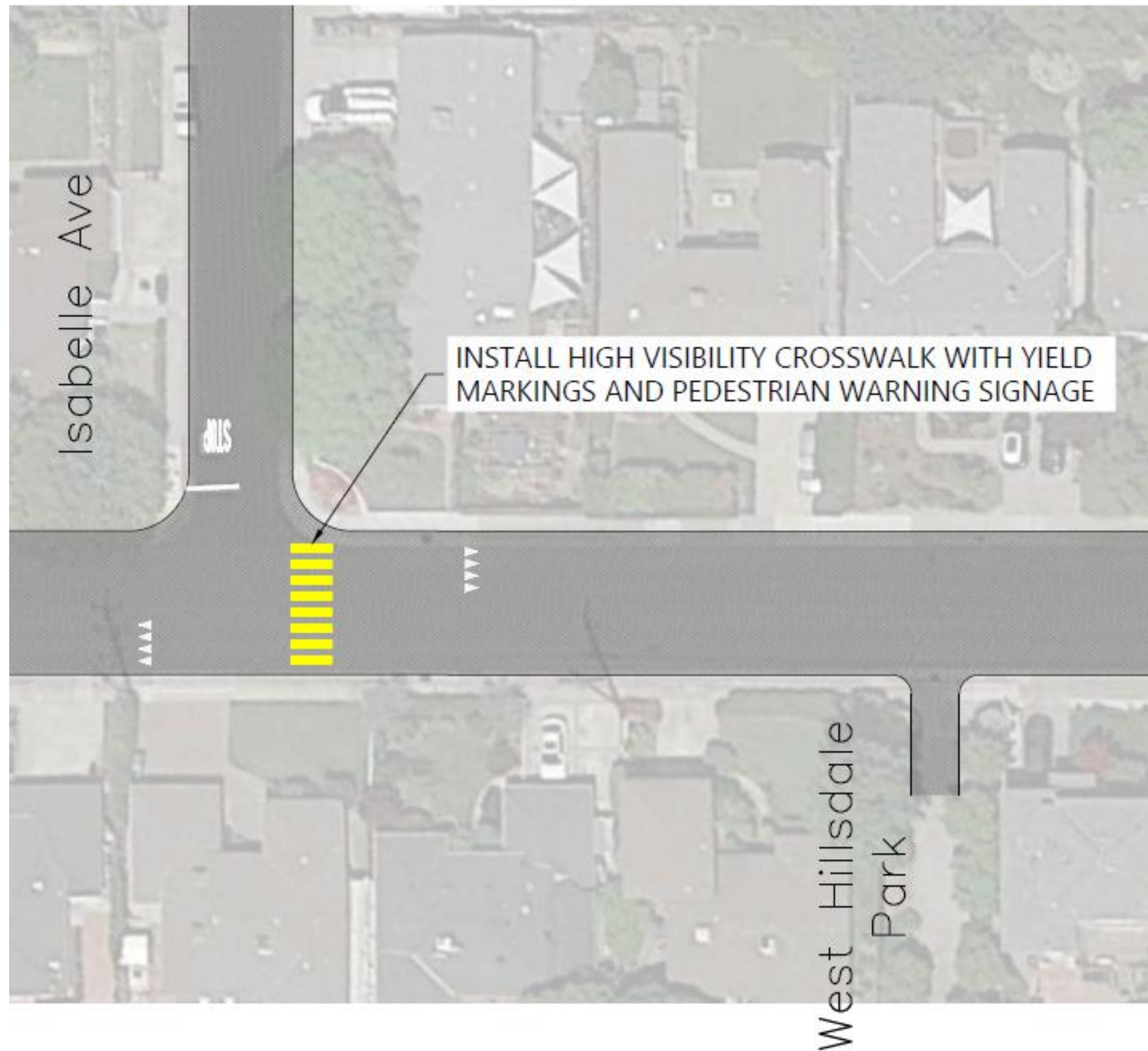
Table 1 – Hillsdale Top Ten Traffic Concerns

Neighborhood Priority	Location	Interests and Reasons
1	Alameda de las Pulgas/ W. Hillsdale Boulevard	Congestion (TFSC requests the installation of a traffic signal due to traffic congestion)
2	31 <sup>st</sup> Avenue/ Alameda de las Pulgas	Unique Neighborhood Concern (TFSC requests flashing crosswalk lighting to enhance pedestrian safety)
3	36 <sup>th</sup> Avenue/ Alameda de las Pulgas	Unique Neighborhood Concern (TFSC requests flashing crosswalk lighting to enhance pedestrian safety)
4	Hillsdale Neighborhood Schools	Unique Neighborhood Concern (TFSC requests to install or increase school signage at school crossings to enhance pedestrian safety)
5	31 <sup>st</sup> Avenue at Hillsdale parks, and 39 <sup>th</sup> Avenue at Indian Springs Park	Unique Neighborhood Concern (TFSC requests to install crosswalk entrances at parks to enhance pedestrian safety)
6	31 <sup>st</sup> Avenue between Alameda de las Pulgas and Edison Street	Speeding (TFSC requests that speed cushions be installed due to speeding concerns)
7	Hillsdale Boulevard between El Camino Real and Hillsdale High School	Unique Neighborhood Concern (TFSC requests for bike lanes to be installed)
8	Edison Street between W. Hillsdale Boulevard and 36 <sup>th</sup> Avenue	Unique Neighborhood Concern (TFSC requests to remove parking on one side of the street due to concerns regarding vehicles parked on the sidewalk as well as the narrow roadway width around the curve)
9	28 <sup>th</sup> Avenue, 31 <sup>st</sup> Avenue, and 39 <sup>th</sup> Avenue	Unique Neighborhood Concern (TFSC requests to implement weight restrictions on the roadways to keep large trucks out to the neighborhood)
10	39 <sup>th</sup> Avenue between El Camino Real and Alameda de las Pulgas	Speeding (TFSC requests to implement speed reduction measures due to concerns regarding speeding)



# 31<sup>st</sup> Avenue Traffic Calming

TAP No. 5 – Install crosswalks at park entrances

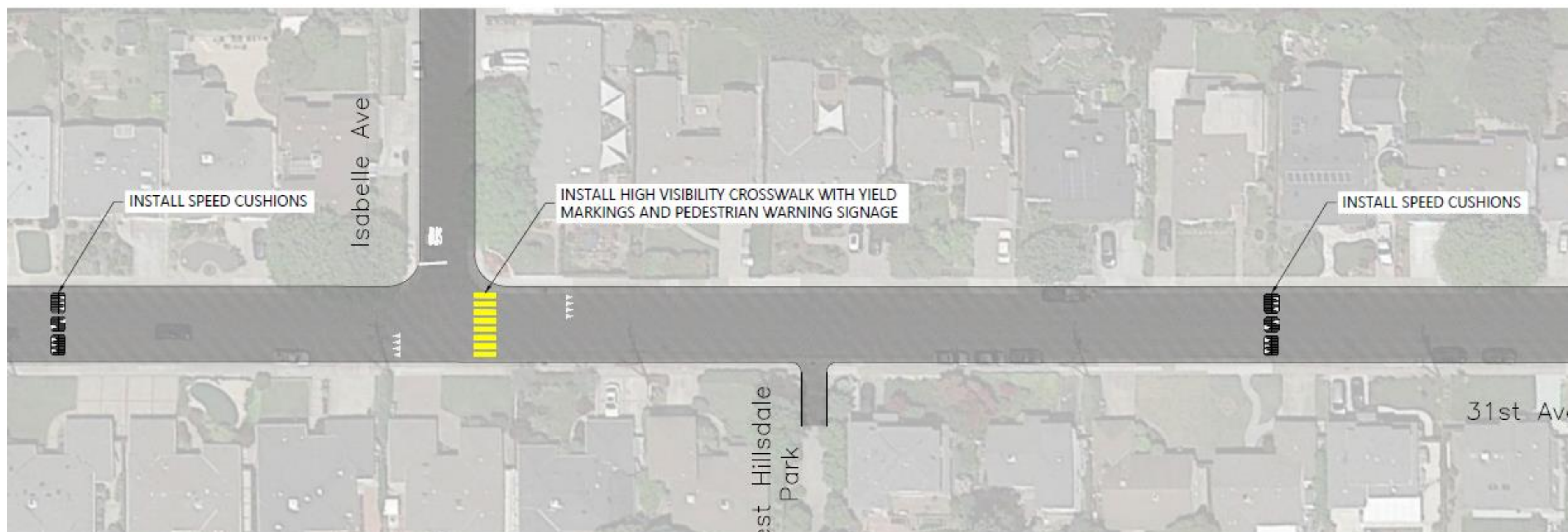
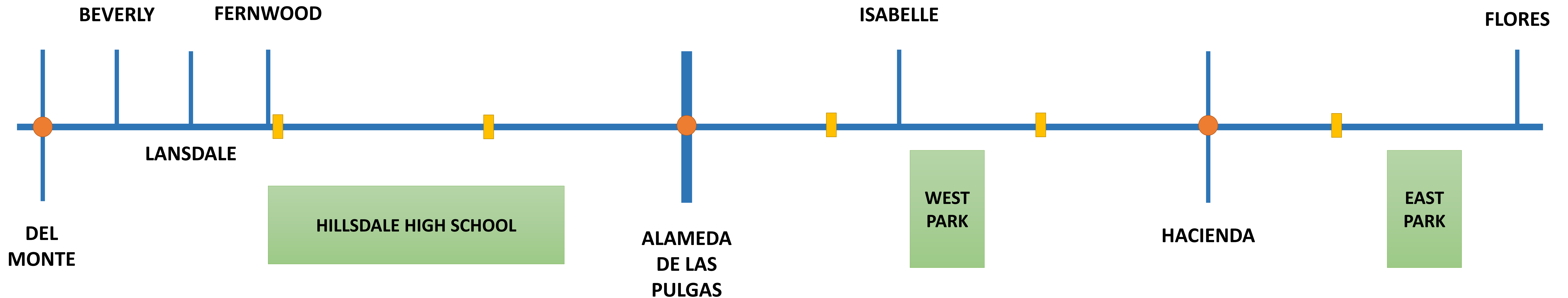




# 31<sup>st</sup> Avenue Traffic Calming

TAP No. 6 – Address speeding concerns

- All-Way Stop
- Proposed Speed Cushion



# 31<sup>st</sup> Avenue Traffic Calming

How can you help?

- Let us know your thoughts on
  - 1) Proposed crosswalk locations
  - 2) Proposed speed cushion locations



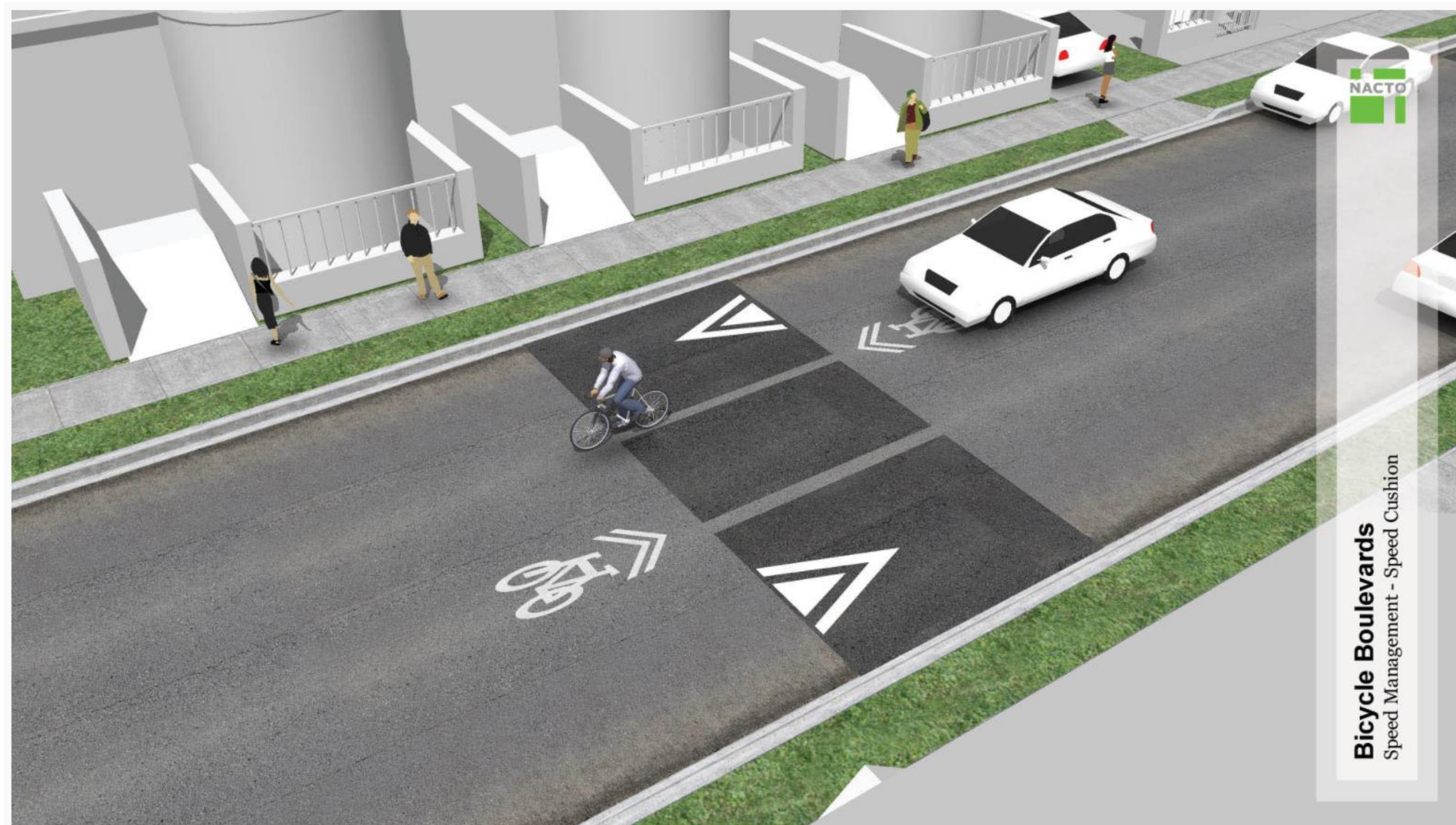
# 28<sup>th</sup> Avenue Bike Boulevard





# Bike Boulevard on 28<sup>th</sup> Avenue

- Speed reduction –
  - Goal: Reduce speeds to less than 25 mph, or 20 mph if possible
  - Potential solutions:
    - Speed cushions
    - Curb extensions
    - Mini traffic circles





# Bike Boulevard on 28<sup>th</sup> Avenue

- Volume reduction –
  - Goal: Reduce volumes to less than 3,000 vehicles per day
  - Potential solutions:
    - Traffic diversionary devices





# Bike Boulevard on 28<sup>th</sup> Avenue

- Other improvements –
  - Signing and pavement markings
  - Bike improvements at intersection crossings
  - Bike wayfinding signage
  - Crosswalk enhancements





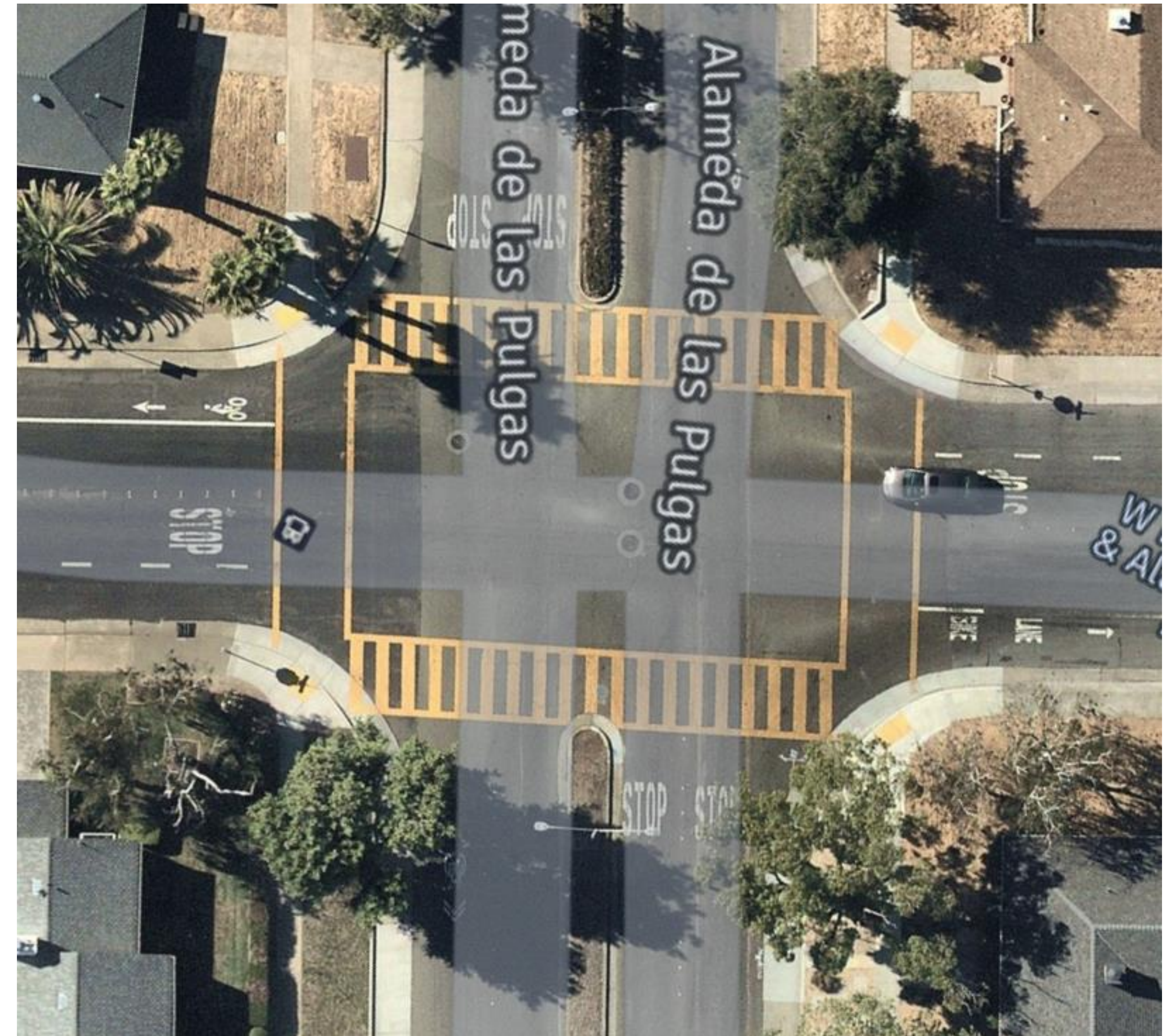
# 28<sup>th</sup> Avenue Bike Boulevard

- How can you help?
  - Let us know your thoughts on 28<sup>th</sup> Avenue
    - 1) Where would you like to see bike improvements?
    - 2) Are there locations where you would like to see sidewalk/crosswalk improvements?



# Hillsdale/Alameda de las Pulgas Traffic Signal

- TAP Item No. 1
- All-way stop
  - Morning peak hour
    - ~ 1800 vehicles
  - Afternoon peak hour
    - ~1800 vehicles
  - Weekdays
    - Between 15,000 and 20,000 vehicles/day





# Hillsdale/Alameda de las Pulgas Traffic Signal

- Analysis
  - Meets volume traffic signal warrants
- Reduces delays at intersection
  - AM Stop: 49 sec/veh
  - AM Traffic Signal: 12 sec/veh
  - PM Stop: 60 sec/veh
  - PM Traffic Signal: 10 sec/veh

California MUTCD 2014 Edition  
(FHWA's MUTCD 2009 Edition, including Revisions 1 & 2, as amended for use in California)

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Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)

DIST

CO

RTE

PM

COUNT DATE

CALC

DATE

CHK

DATE

Major St:

Minor St:

Critical Approach Speed

mph

Critical Approach Speed

mph

Speed limit or critical speed on major street traffic > 40 mph

☐

or

☐

RURAL (R)

In built up area of isolated community of < 10,000 population

☐

URBAN (U)

WARRANT 1 - Eight Hour Vehicular Volume

SATISFIED

YES

☐

NO

☐

(Condition A or Condition B or combination of A and B must be satisfied)

Condition A - Minimum Vehicle Volume

100% SATISFIED

YES

☐

NO

☐

80% SATISFIED

YES

☐

NO

☐

MINIMUM REQUIREMENTS  
(80% SHOWN IN BRACKETS)

U

R

U

R

APPROACH LANES

1

2 or More

Hour

Both Approaches - Major Street

500  
(400)

350  
(280)

600  
(480)

420  
(336)

Highest Approach - Minor Street

150  
(120)

105  
(84)

200  
(160)

140  
(112)

Condition B - Interruption of Continuous Traffic

100% SATISFIED

YES

☐

NO

☐

80% SATISFIED

YES

☐

NO

☐

MINIMUM REQUIREMENTS  
(80% SHOWN IN BRACKETS)

U

R

U

R

APPROACH LANES

1

2 or More

Hour

Both Approaches - Major Street

750  
(600)

525  
(420)

900  
(720)

630  
(504)

Highest Approach - Minor Street

75  
(60)

53  
(42)

100  
(80)

70  
(56)

Combination of Conditions A & B

SATISFIED

YES

☐

NO

☐

REQUIREMENT

CONDITION

✓

FULFILLED

TWO CONDITIONS SATISFIED 80%

A. MINIMUM VEHICULAR VOLUME  
AND  
B. INTERRUPTION OF CONTINUOUS TRAFFIC

Yes

☐

No

☐

AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS

Yes

☐

No

☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Chapter 4C – Traffic Control Signal Needs Studies  
Part 4 – Highway Traffic Signals

November 7, 2014

California MUTCD 2014 Edition  
(FHWA's MUTCD 2009 Edition, including Revisions 1 & 2, as amended for use in California)

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Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)

WARRANT 2 - Four Hour Vehicular Volume

SATISFIED\*

YES

☐

NO

☐

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES

One

2 or More

Hour

Both Approaches - Major Street

Higher Approach - Minor Street

\*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)

Yes

☐

No

☐

OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)

Yes

☐

No

☐

WARRANT 3 - Peak Hour

SATISFIED

YES

☐

NO

☐

(Part A or Part B must be satisfied)

PART A

SATISFIED

YES

☐

NO

☐

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; AND

Yes

☐

No

☐

2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND

Yes

☐

No

☐

3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 600 vph for intersections with three approaches.

Yes

☐

No

☐

PART B

SATISFIED

YES

☐

NO

☐

APPROACH LANES

One

2 or More

Hour

Both Approaches - Major Street

Higher Approach - Minor Street

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)

Yes

☐

No

☐

OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)

Yes

☐

No

☐

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

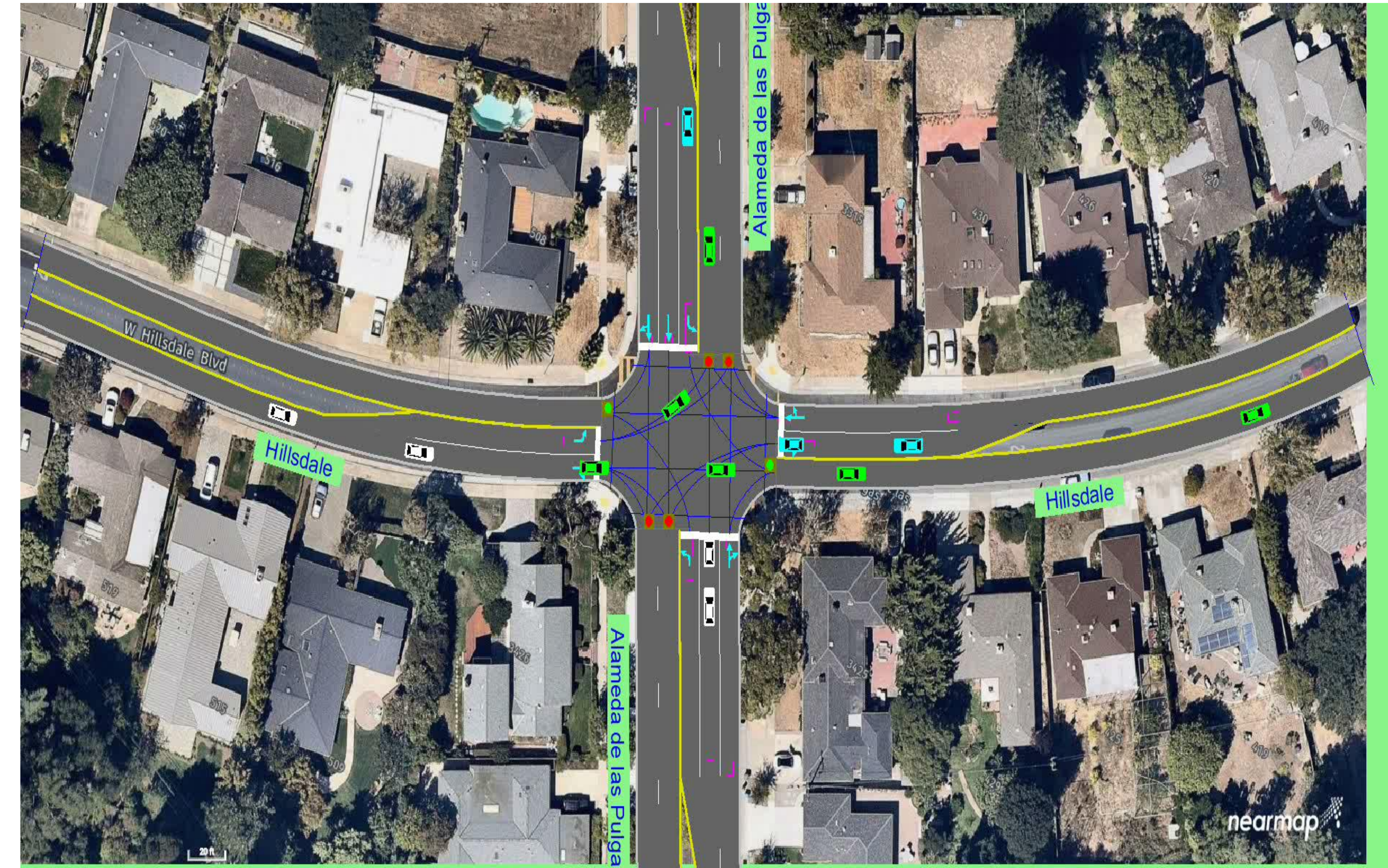
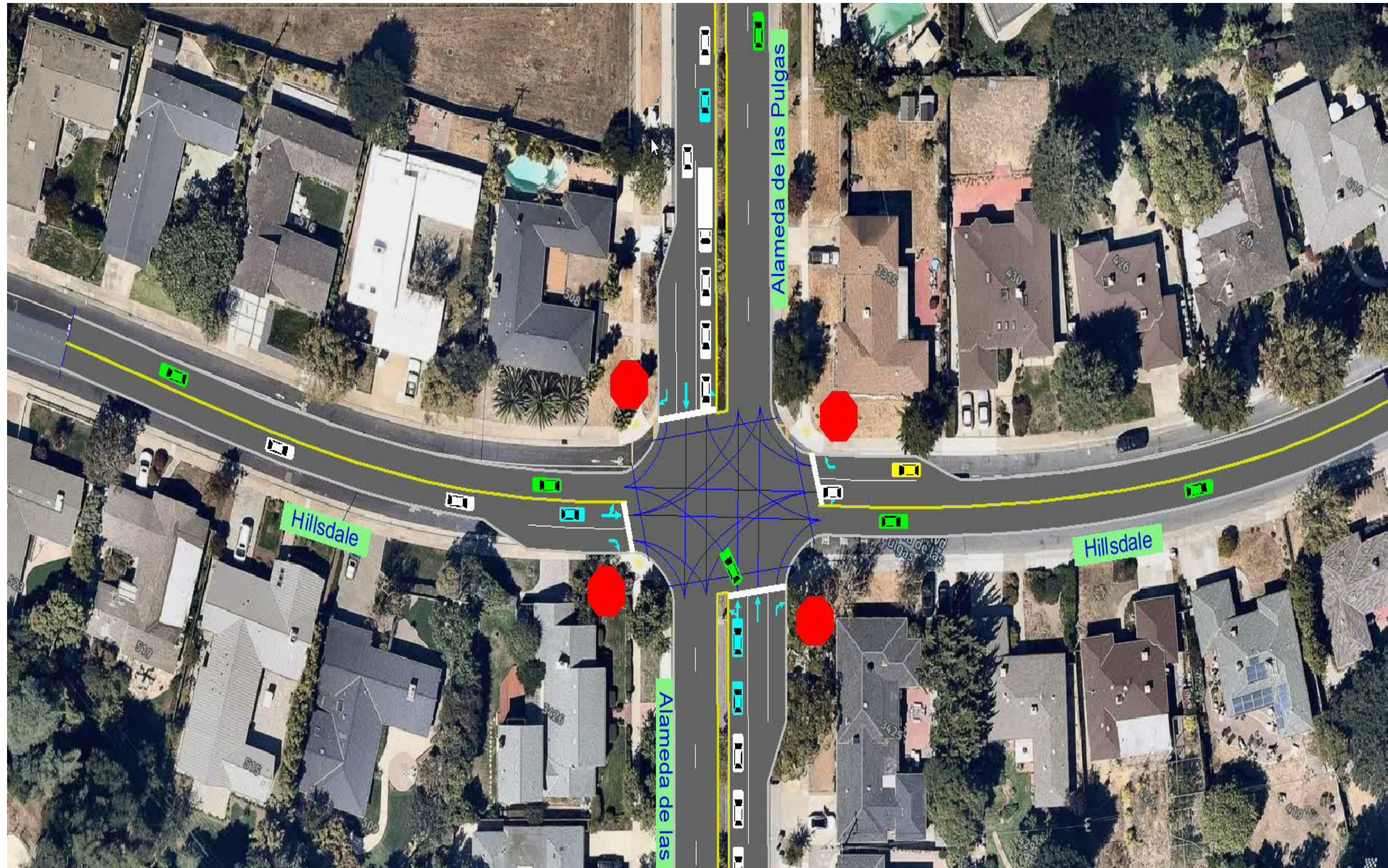
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November 7, 2014



# Hillsdale/Alameda de las Pulgas Traffic Signal

## Morning Peak Hour Comparison





# Hillsdale/Alameda de las Pulgas Traffic Signal

## Afternoon Peak Hour Comparison





# Hillsdale/Alameda de las Pulgas Traffic Signal

- How can you help?
  - What do you think about a potential traffic signal?
  - What are your concerns?
  - What would you like about a traffic signal?





Thank you for your time.



You can reach me at:

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[www.cityofsanmateo.org/publicworks](http://www.cityofsanmateo.org/publicworks)

Stewards of your infrastructure

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