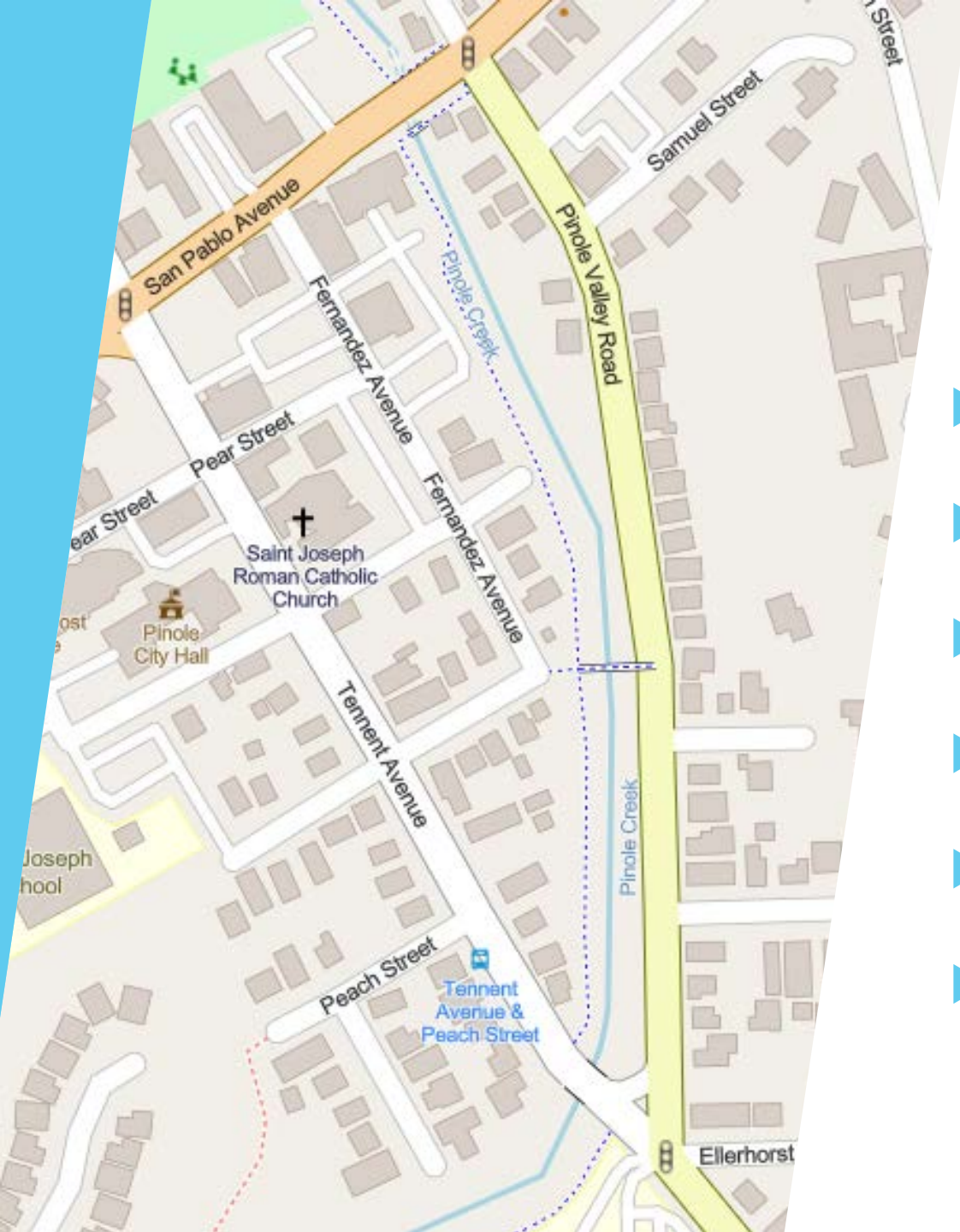


SAFETY IMPROVEMENTS ON THE TENNENT AVENUE CORRIDOR

OCTOBER 18, 2022

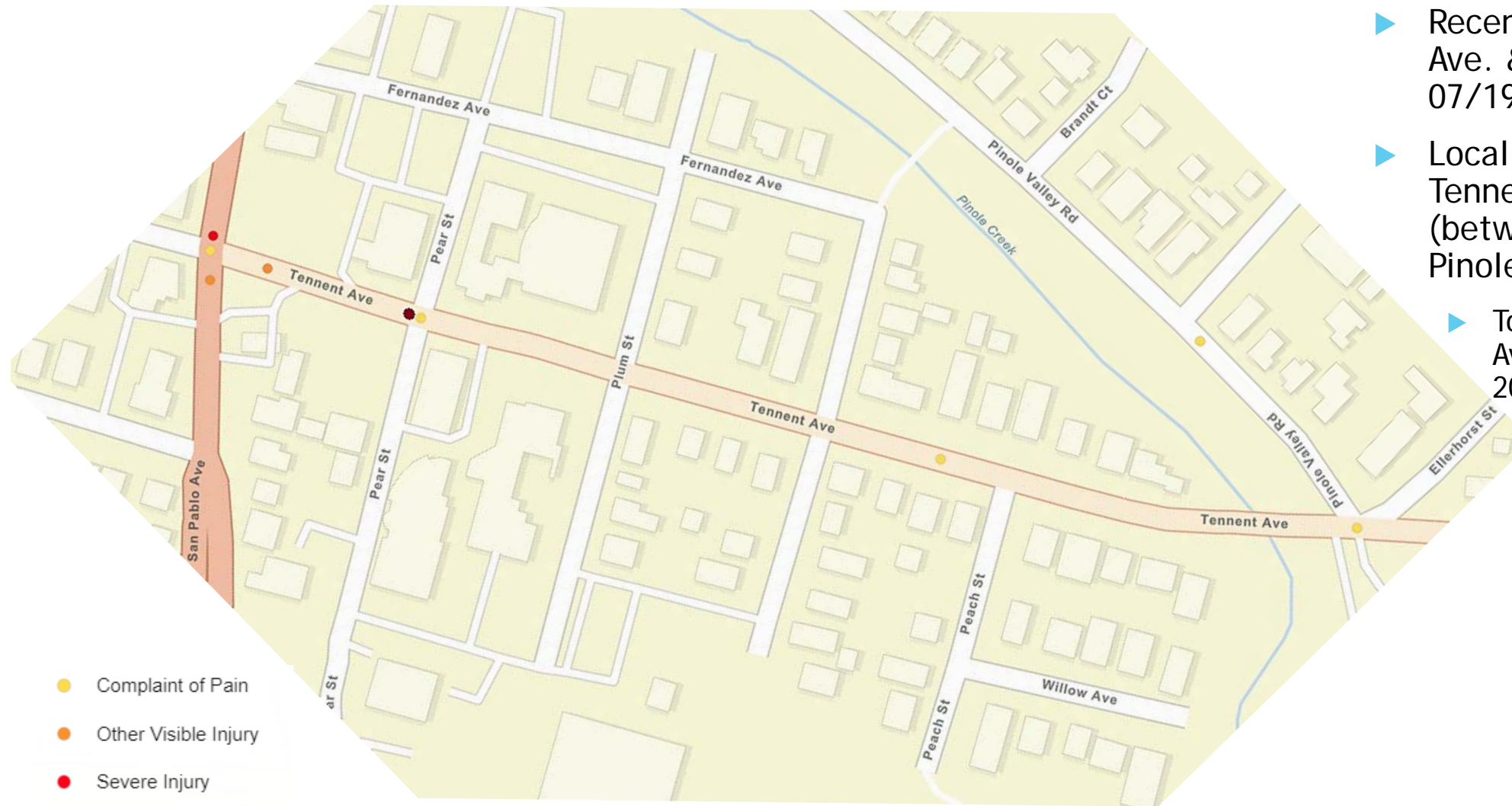




PRESENTATION OVERVIEW

- ▶ Corridor Collision History
- ▶ Local Road Safety Plan
- ▶ Traffic Study
- ▶ Community Input
- ▶ Recommendations
- ▶ Next Steps

TENNENT AVE. CORRIDOR COLLISION HISTORY



- ▶ Recent Fatality on Tennent Ave. & Pear Street - 07/19/2022
- ▶ Local Road Safety Plan - Tennent Ave. Corridor (between San Pablo Ave. - Pinole Valley Road)
 - ▶ Total Collisions on Tennent Ave. Corridor: 7 (between 2015 - 2019)
 - ▶ 3 Collisions at Tennent Ave. & San Pablo Ave.
 - ▶ 1 Collision mid-block between San Pablo Ave. and Pear St.
 - ▶ 1 Collision at Tennent Ave. & Pear St.
 - ▶ 1 Collision mid-block between Plum St. & Peach St.
 - ▶ 1 Collision at Tennent Ave. & Pinole Valley Rd.

LOCAL ROAD SAFETY PLAN



- ▶ Identify, analyze, and prioritize roadway safety improvements to reduce fatalities and injuries
- ▶ Existing conditions analysis used 2015 - 2019 collision data
- ▶ Collision analysis
 - ❖ Identification of collision trends: types, severity, violation category, lighting conditions, etc.
 - ❖ Geographic analysis: spatial identification of top trends
- ▶ Tennent Ave. Corridor - high injury corridor & 2 high injury intersections
 - ❖ High injury intersections: Tennent Ave. & San Pablo Ave. AND Tennent Ave. & Pinole Valley Rd.

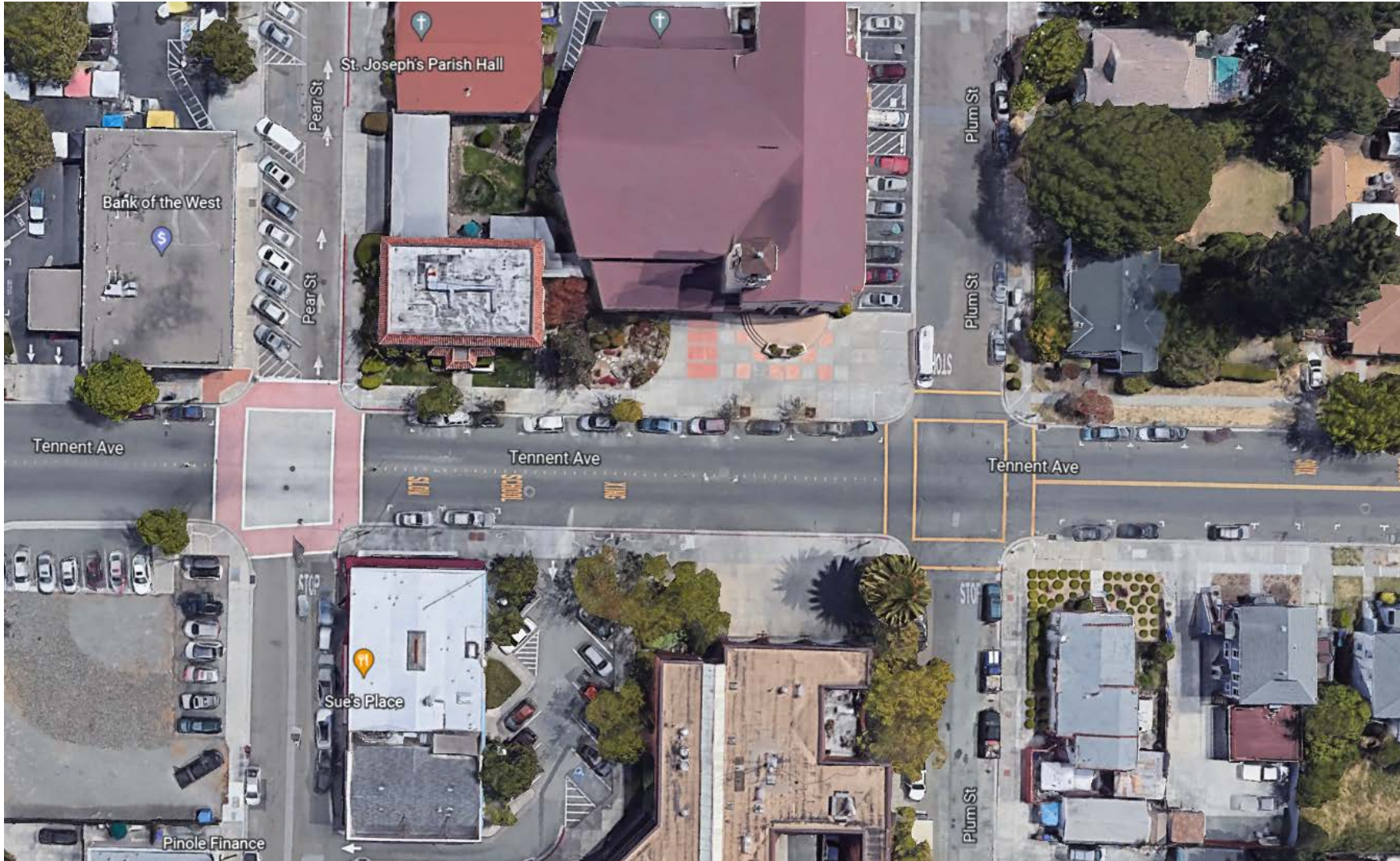
LRSP – TENNENT AVE. CORRIDOR COUNTERMEASURES & RECOMMENDATIONS



- ▶ Improve signal timing include providing leading pedestrian interval to reduce the probability of a vehicle turning conflict with pedestrians.
- ▶ Install advance stop bars before crosswalks
- ▶ Upgrade curb ramps and/or install directional curb ramps that are compliance with current accessibility standards
- ▶ Install yield limit lines at approaches to slip lanes or remove the slip lane at Tennent Avenue and San Pablo Avenue intersection
- ▶ Assess feasibility of a roundabout intersection at Pinole Valley Road and Tennent Avenue

IMMEDIATE CONCERNS

- ▶ Tennent Ave. & Pear St.
- ▶ Tennent Ave. & Plum St.



TRAFFIC STUDY

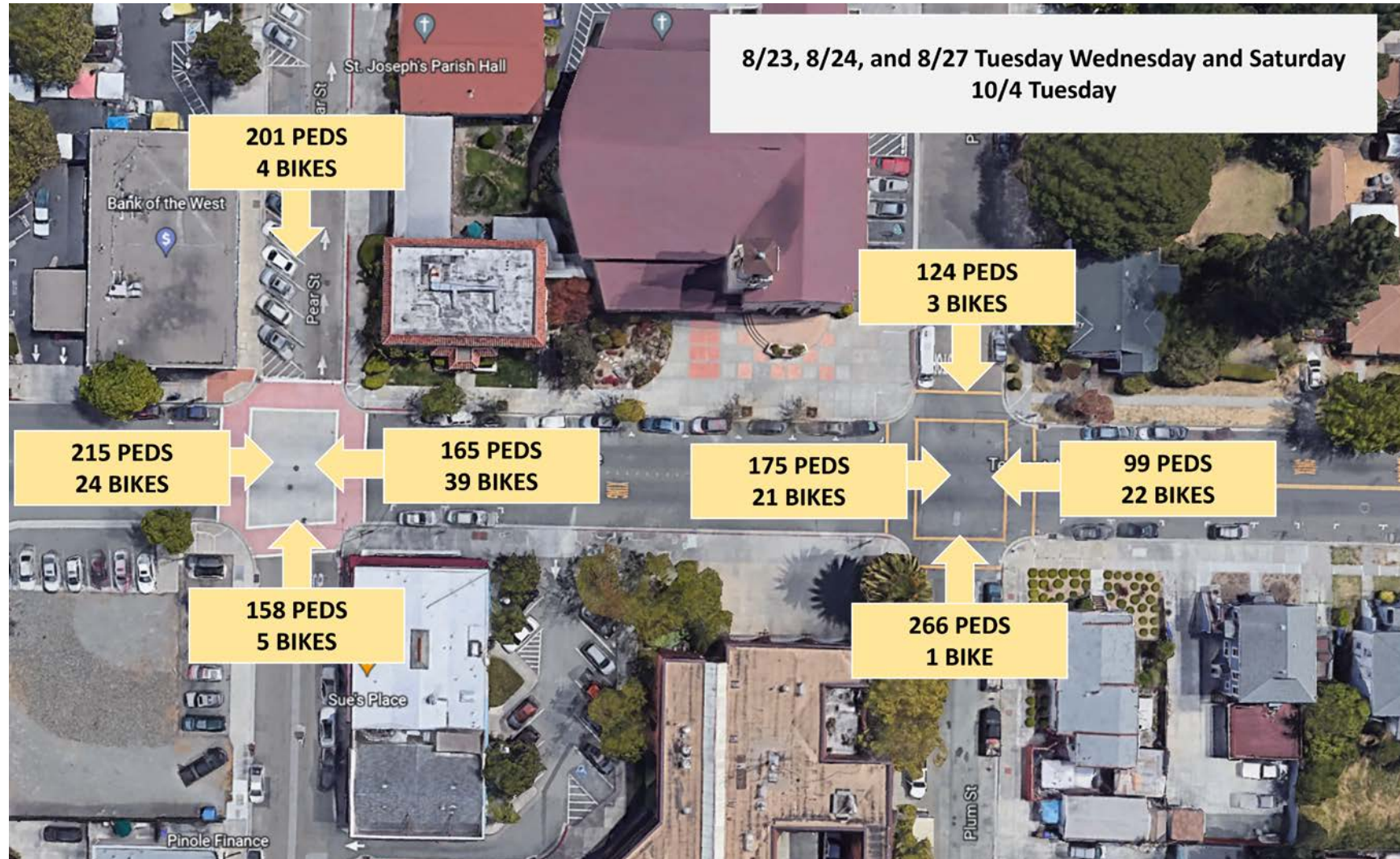
- ▶ Speed Survey
- ▶ Traffic Counts (auto, pedestrian, bicycle)
- ▶ Evaluation of current circulation patterns
- ▶ Community Input

2-8
NEAR MISS ~ NOT YIELDING TO CROSSING
SCHOOL STARTS @ 8:00 AM (MOST ARRIVE)
→ GATE OPENS @ 7:40 AM (7:50 ~ 7:57 AM)
• PARK BY POST OFFICE
• STUDENT CROSS TRAFFIC WHEN PARENTS PARK @ CHALK.
• CROSSING 6. ARE ~~ARE~~ AVAILABLE
~ CHILDREN GO TO 9:00 AM
WITH FIRST PERIOD.
• 3:05 PM. ALL GRADES
• NO BIKING. ~ UNSAFE
• 60% OF ARRIVAL COME BY CROSSING TR. @
P.M. 2:00 PM → PM IS LOWER.
• 350 STUDENTS.
• 2:50 ~ 3:10 IS DIFFICULT.
• COLLECT ELEMENTARY DATA IN THE E/B
DIRECTION
• HARD TO CROSS W/ MULT. CHILDREN.
• 3 POLICE OFFICERS IN SINGLE
LIMITED RESOURCES.

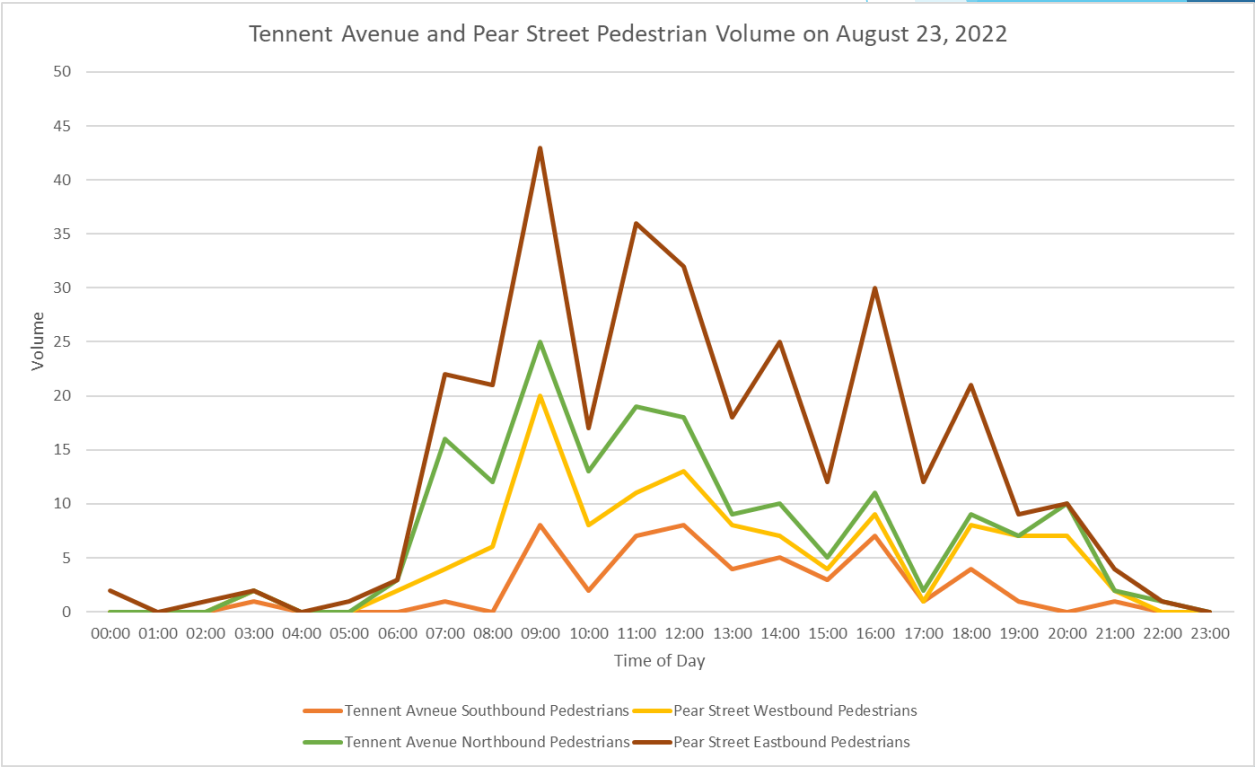
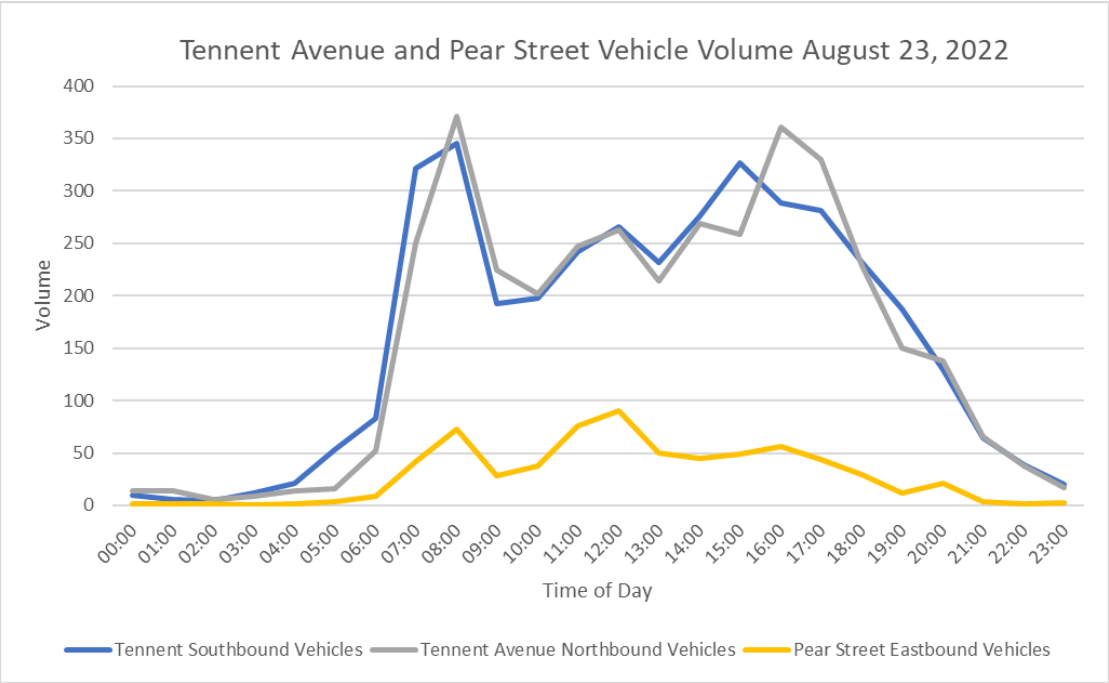
VEHICLE DATA (24 -HOUR)



PEDESTRIAN AND BICYCLE DATA (24- HOUR)

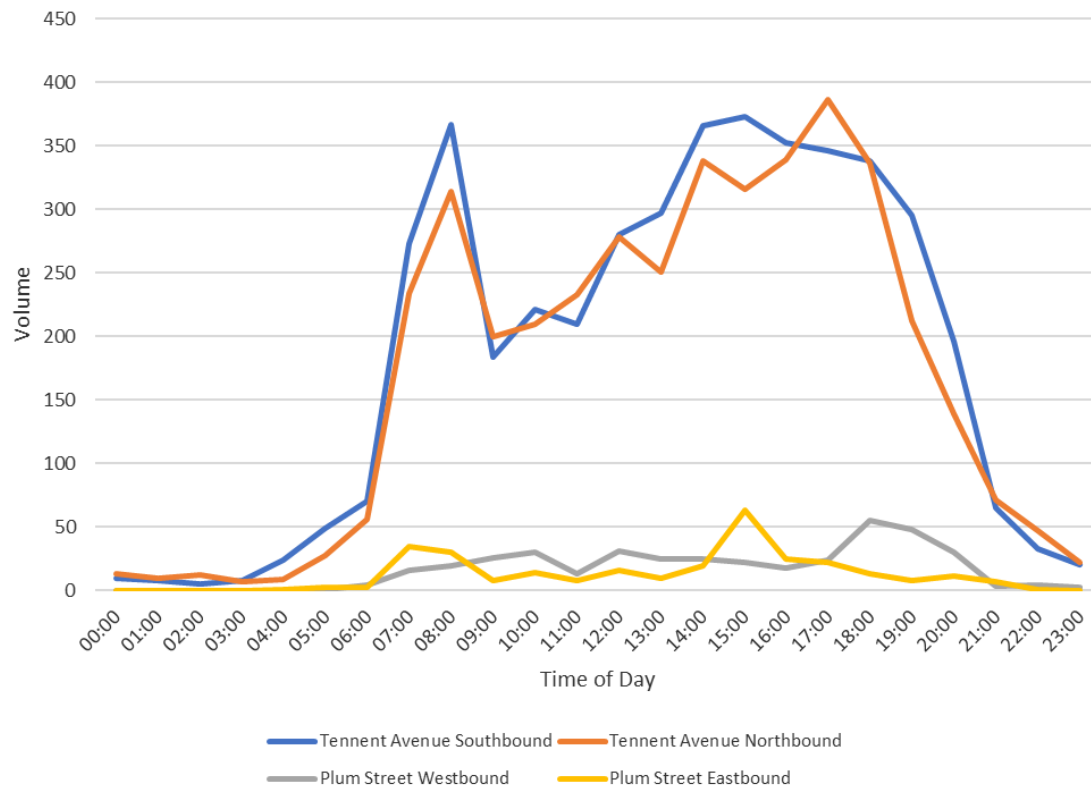


TENNENT AVE. & PEAR STREET TRAFFIC DATA

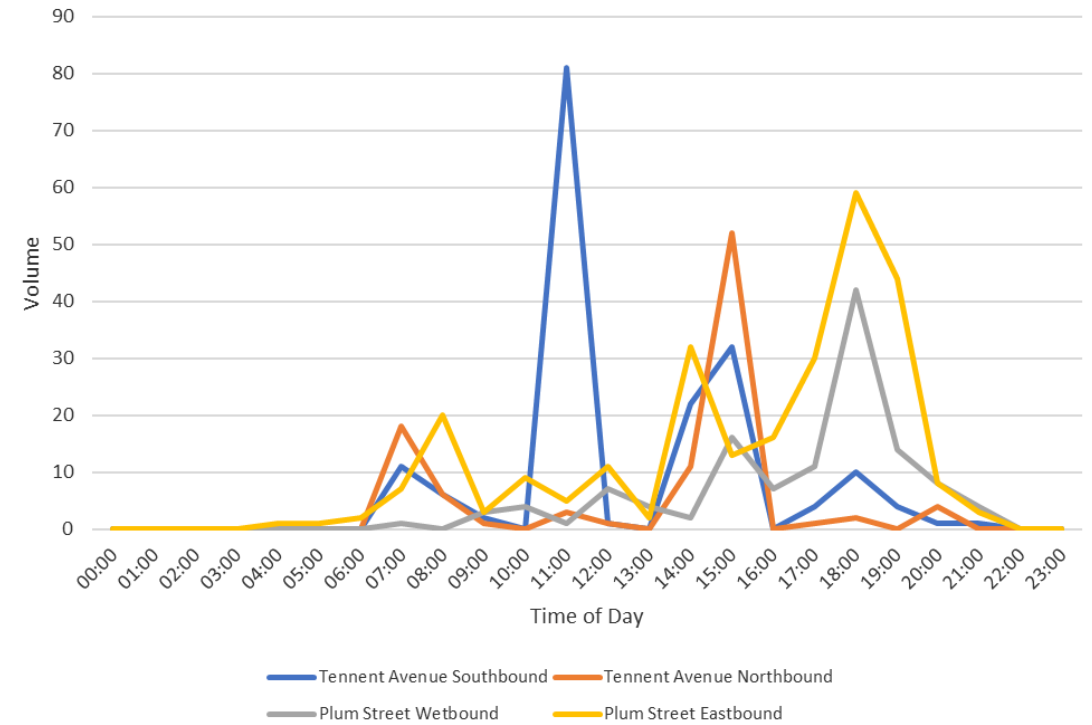


TENNENT AVE. & PLUM STREET TRAFFIC DATA

Tennent Avenue and Plum Street Vehicle Volume October 4, 2022



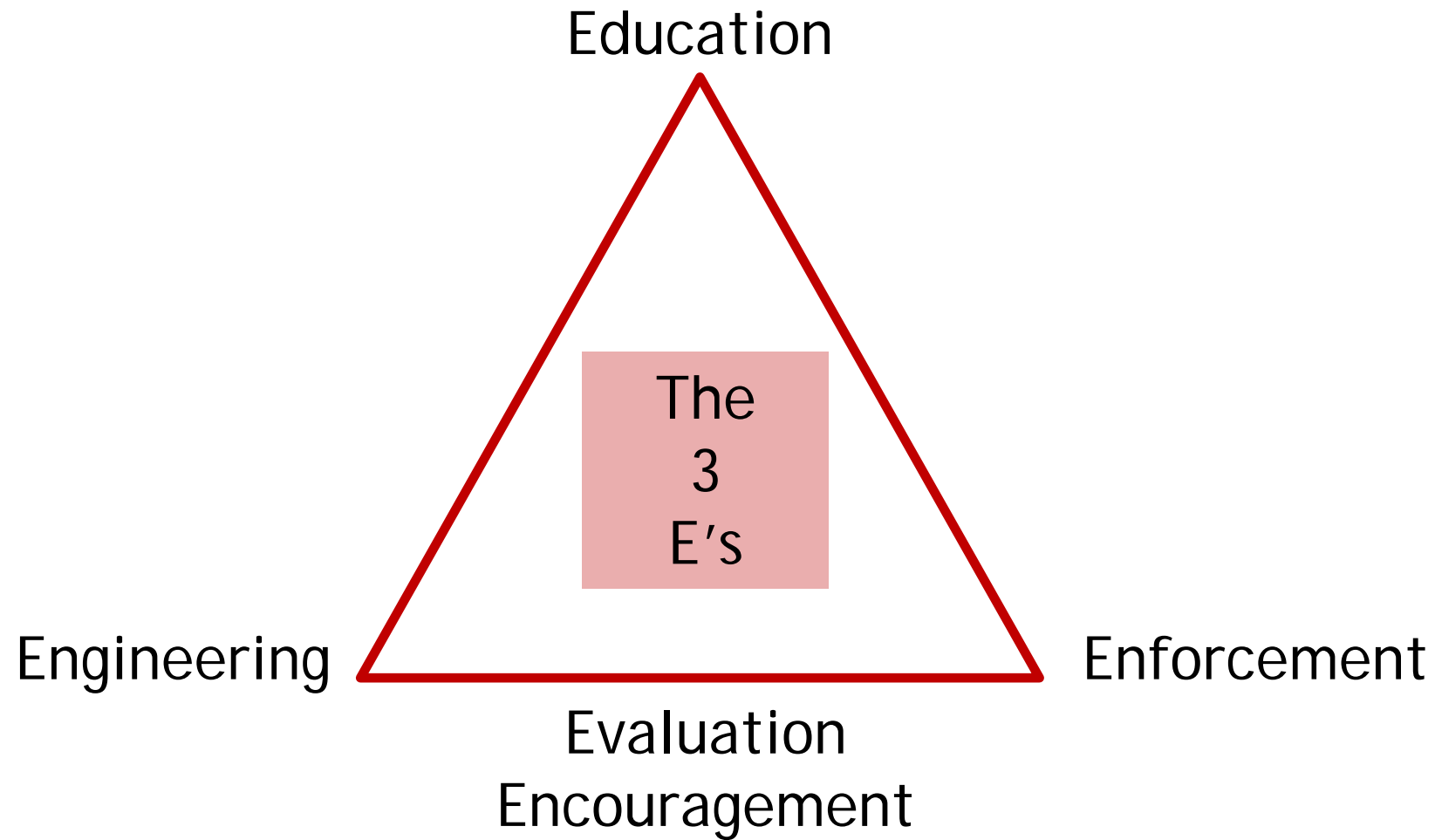
Tennent Avenue and Plum Street Pedestrian Volume October 4, 2022



MEETING WITH ST. JOSEPH – 10/5/2022

- ▶ Significant number of students utilize Tennent Avenue to access schools
- ▶ Motor vehicles do not yield for pedestrians
- ▶ Schools' struggle with acquiring crossing guard volunteers
- ▶ Issues with the slip lane on San Pablo Avenue and Tennent Avenue which allows drivers to continue at the same speed with transitioning to a new street
- ▶ Higher congestion in the morning
- ▶ Limited visibility of the right-turn only sign on Plum Street (east-bound)
- ▶ Challenges with loading and unloading strategies

TRAFFIC SAFETY RECOMMENDATIONS



ALL WAY STOP CONTROL – WARRANT ANALYSIS



- Stop sign installation regulated by the MUTCD Section 2B.07

Traffic Data for:

Hour		Traffic Count	
		Tennent Avenue	Pear Street
08:00	08:45	716	89
09:00	09:45	416	59
10:00	10:45	400	49
11:00	11:45	489	97
12:00	12:45	529	110
13:00	13:45	446	63
14:00	14:45	545	62
15:00	15:45	586	57

Hour		Traffic Count	
		Tennent Avenue	Plum Street
11:00	11:45	443	27
12:00	12:45	558	65
13:00	13:45	548	41
14:00	14:45	704	80
15:00	15:45	689	114
16:00	16:45	691	67
17:00	17:45	732	87
18:00	18:45	674	169

PROVEN SAFETY COUNTERMEASURES



SIGNS AND STRIPING



RAPID FLASHING BEACON

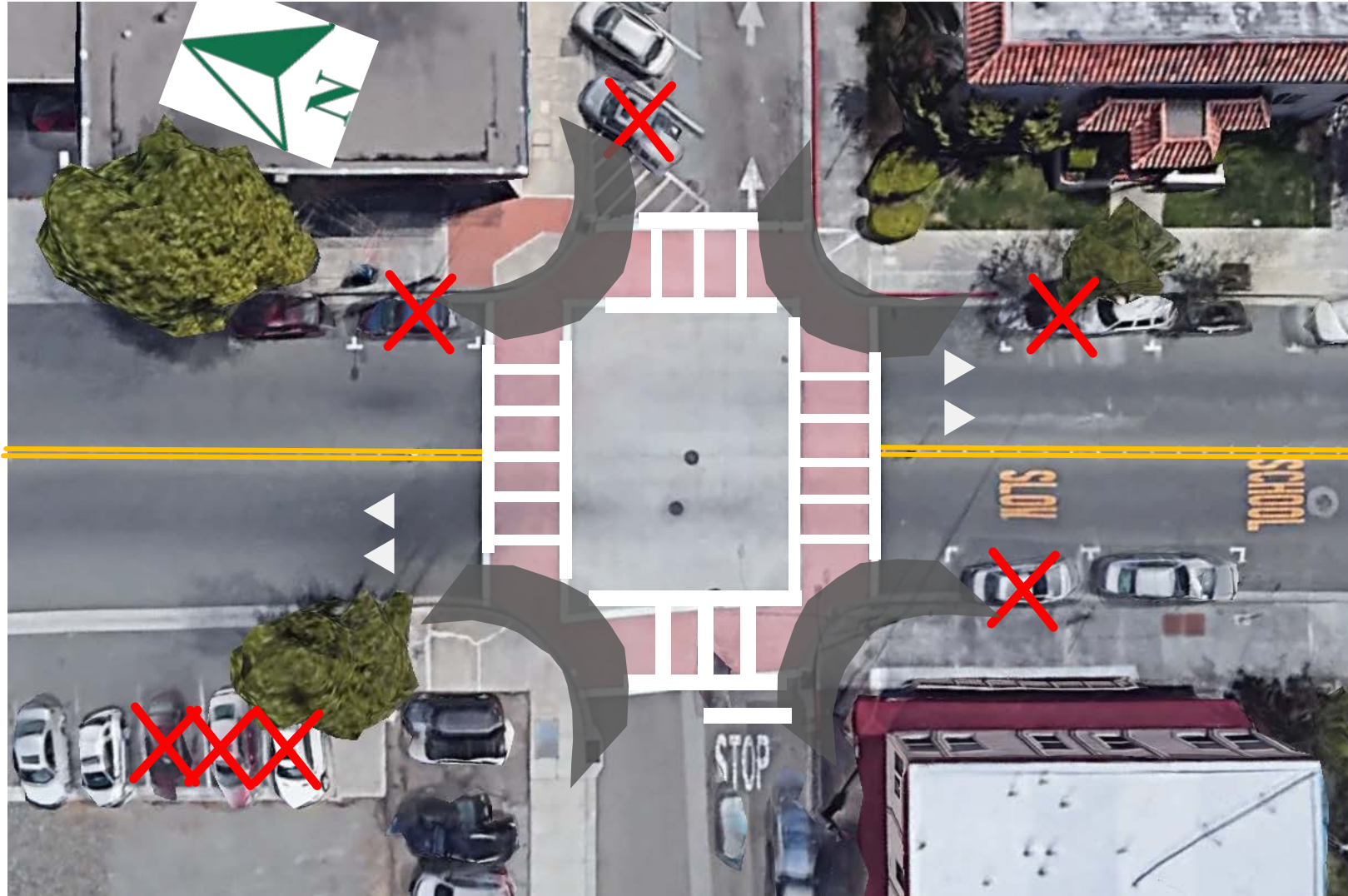


BULBOUTS



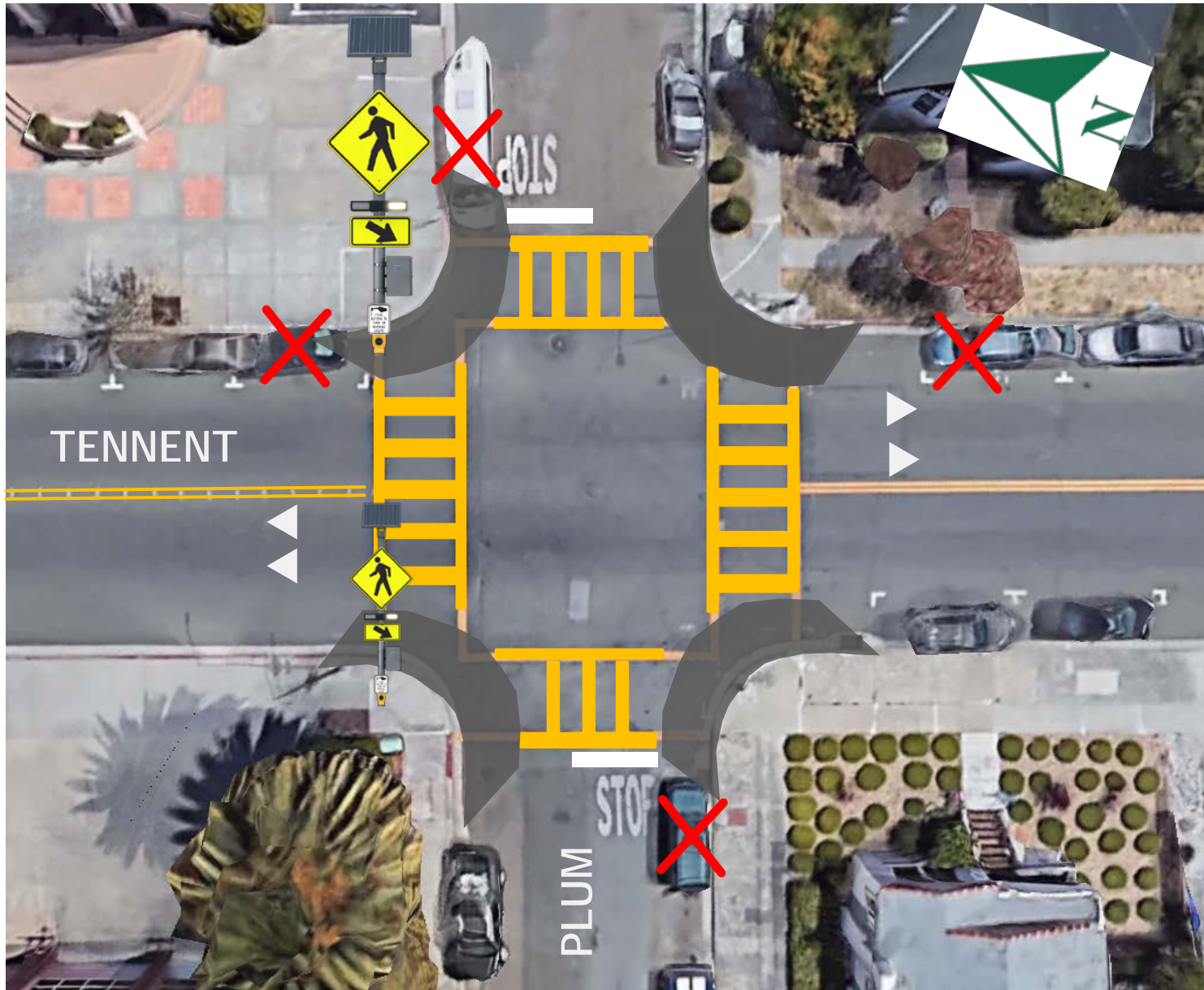
RECOMMENDED COUNTERMEASURES FOR PEAR STREET AND PLUM STREET

TENNENT AVE. & PEAR ST.



- ▶ Remove parking
- ▶ Add bulb-outs
- ▶ High visibility crosswalk
- ▶ Advance stop bar

TENNENT AVE. & PLUM ST.



- ▶ Installation of RRFB at North leg of intersection
- ▶ Remove parking
- ▶ Add bulb-outs
- ▶ High visibility crosswalk
- ▶ Advance stop bar

MEASURES CONSIDERED BUT NOT RECOMMENDED

- ▶ Traffic calming circle
- ▶ Roundabout
- ▶ Speed Humps
- ▶ High Intensity Activated Crosswalk Beacon (HAWK) Signal



SAFETY RECOMMENDATIONS

TENNENT AVE. & PEAR ST.

- ▶ Bulb outs at all the corners which will require removal of several parking stalls to increase visibility
- ▶ High visibility crosswalks and pavement markings on all legs
- ▶ High visibility yield road signs

TENNENT AVE. & PLUM ST.

- ▶ Bulb outs at all the corners which will require removal of several parking stalls to increase visibility
- ▶ A Rectangular Rapid Flashing Beacon (RRFB)
- ▶ High visibility crosswalks and pavement markings on all legs
- ▶ High visibility yield road signs

Continue to collaborate with St. Joseph school to review its student drop off and pick up procedures to minimize the potential of pedestrian and vehicle conflict

NEXT STEPS

- ▶ City staff seeks Council direction on next steps which could include:
 - ▶ Revise CIP and appropriate funding to implement the recommended traffic safety improvements at Plum and/or Pear Streets;
 - ▶ Complete additional analysis on the feasibility of other types of traffic safety improvements (i.e., roundabouts, K-71 bollards, etc.); or
 - ▶ Wait to receive the LRSP and take any desired action on its recommendations related to the Tennent Avenue corridor.