



Rainier Avenue Paving & Traffic Calming Project

PUBLIC WORKSHOP – FEBRUARY 23, 2022

Tonight's agenda

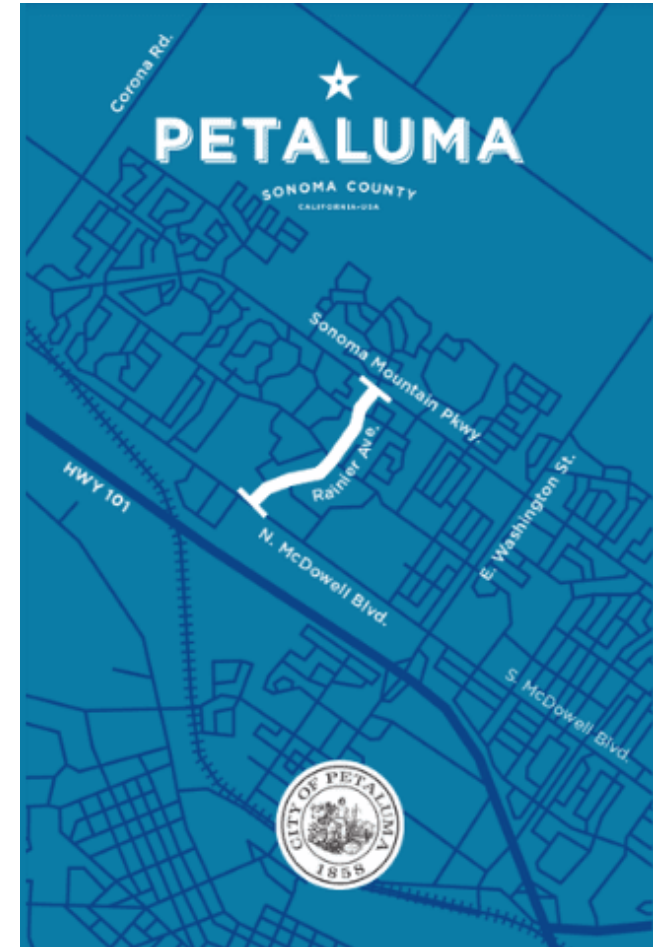
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1. Project background
 2. Current conditions
 3. Traffic calming toolkit & concepts
 4. Community input
 5. Next steps
-

Project background



Rainier Avenue

- Project limits are between Sonoma Mountain Parkway and North McDowell Boulevard
- Design considers the Crosstown Connector project
- Opportunities to provide traffic calming as part of street repaving



Repaving Rainier Avenue provides opportunities for traffic calming

Restriping Rainier Avenue can result in:

- Reducing speeding & decreasing collisions
- Providing of exclusive vehicle turning lanes
- Adding marked crosswalks
- Reducing crosswalk distances & increasing visibility
- Providing separated bicycle lanes
- Enhancing bus stops
- Enabling overall safety benefits for all modes

Capital improvement project life cycle

Community engagement



Planning
Phase

Design
Phase

Construction
Phase

We're here now

- Study existing conditions
- Establish preliminary budget
- Coordinate with other agencies

- Develop initial design
- Finalize budget
- Assess design feasibility

- Finalize design
- Complete construction
- Evaluate design/next phases

What we have heard includes ...

Make crossings safer

Add wayfinding signs for cyclists

Connect to the new Petaluma North train station

Effects on school pick-up and drop-off times?

Prevent conflicts between cyclists and car doors

Add street trees and plantings

Crossing at Acadia is important

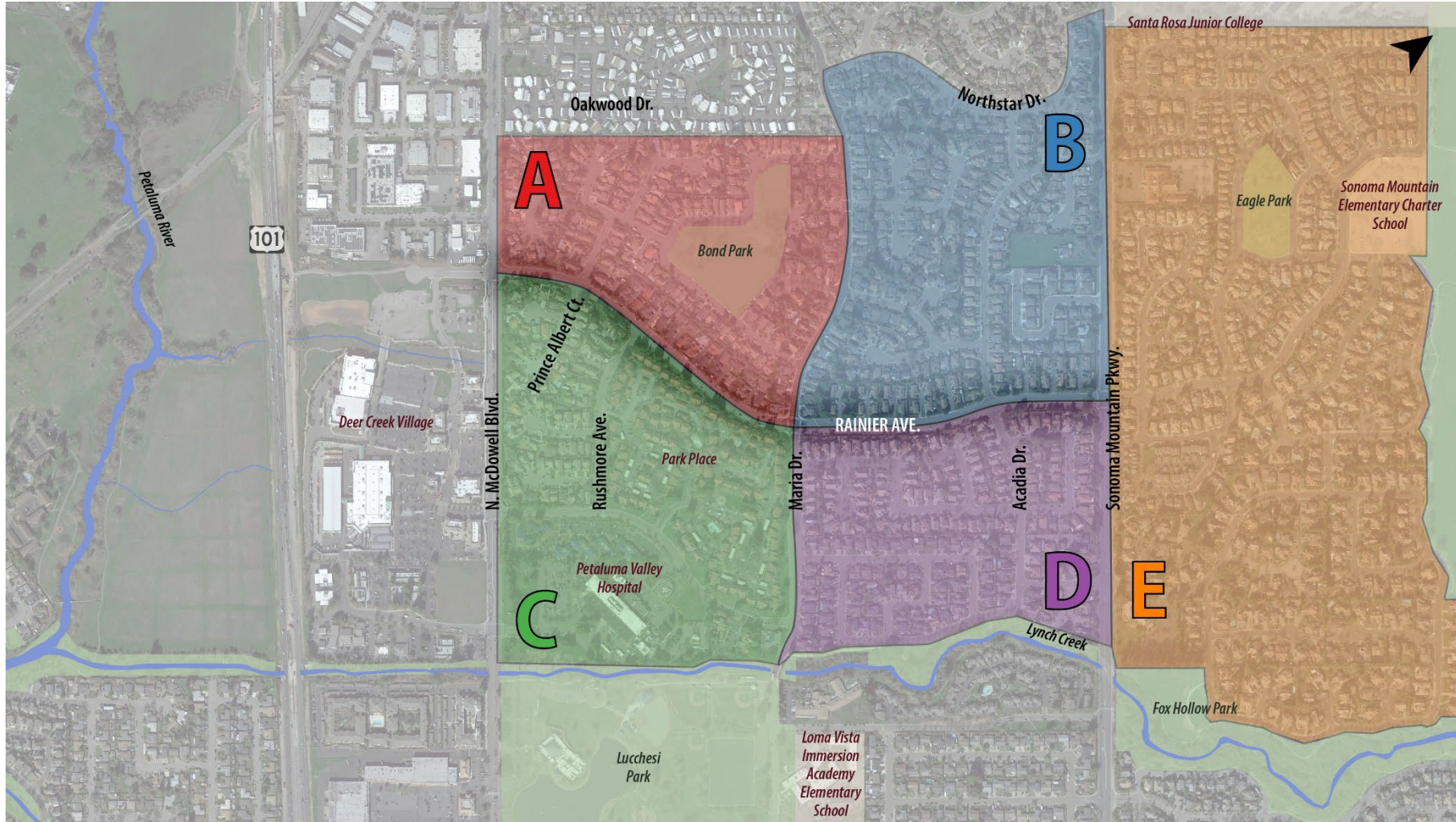
Rainier is not used by cyclists

Separate travel modes

How will the Grosstown Connector affect Rainier?

Consider roundabout at Rainier and Maria

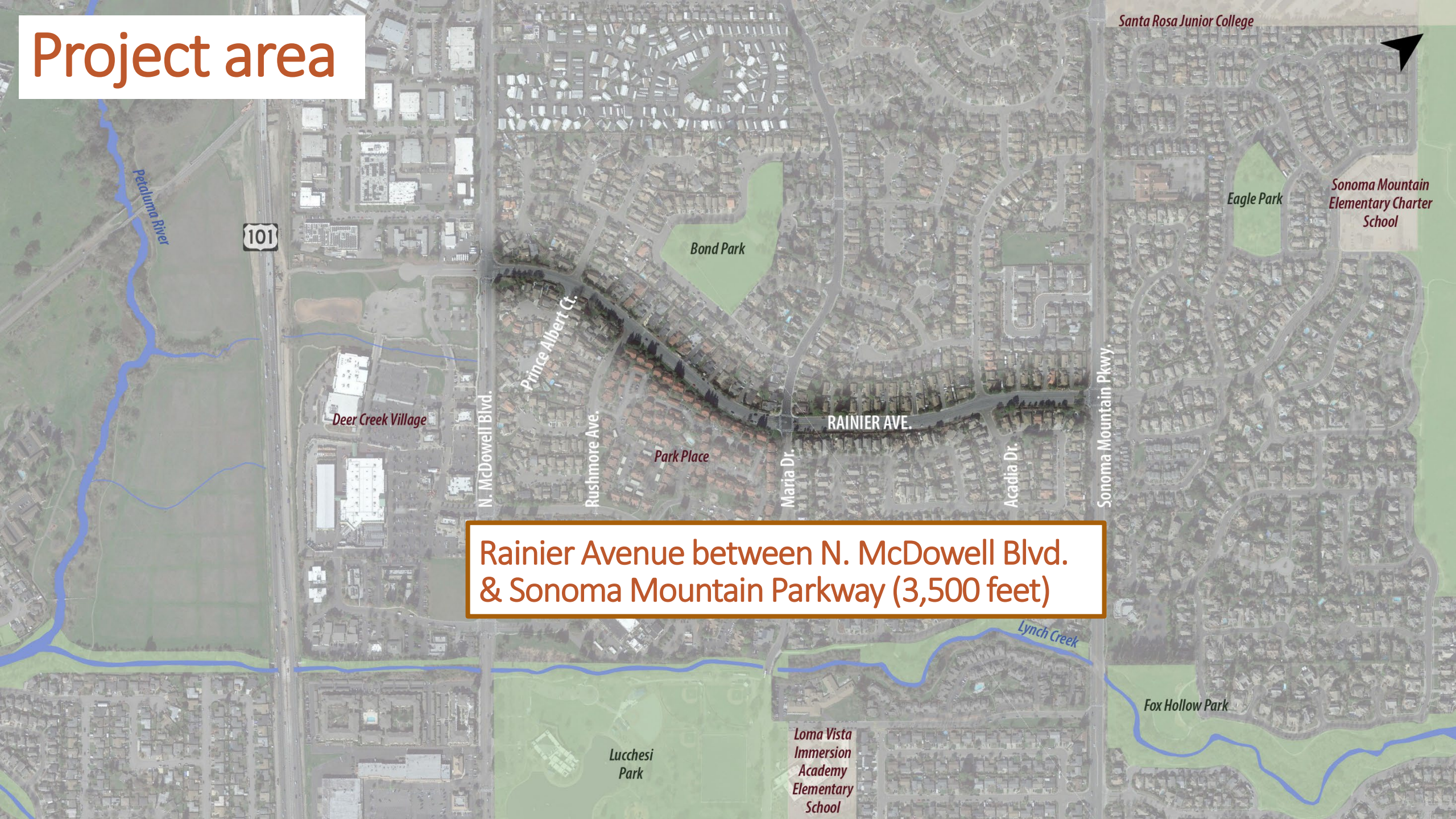
Community poll



Current conditions



Project area



Santa Rosa Junior College

Sonoma Mountain Elementary Charter School

Eagle Park

Bond Park

101

Petaluma River

Deer Creek Village

N. McDowell Blvd.

Prince Albert Ct.

Rushmore Ave.

Park Place

Maria Dr.

RAINIER AVE.

Acadia Dr.

Sonoma Mountain Pkwy.

Rainier Avenue between N. McDowell Blvd. & Sonoma Mountain Parkway (3,500 feet)

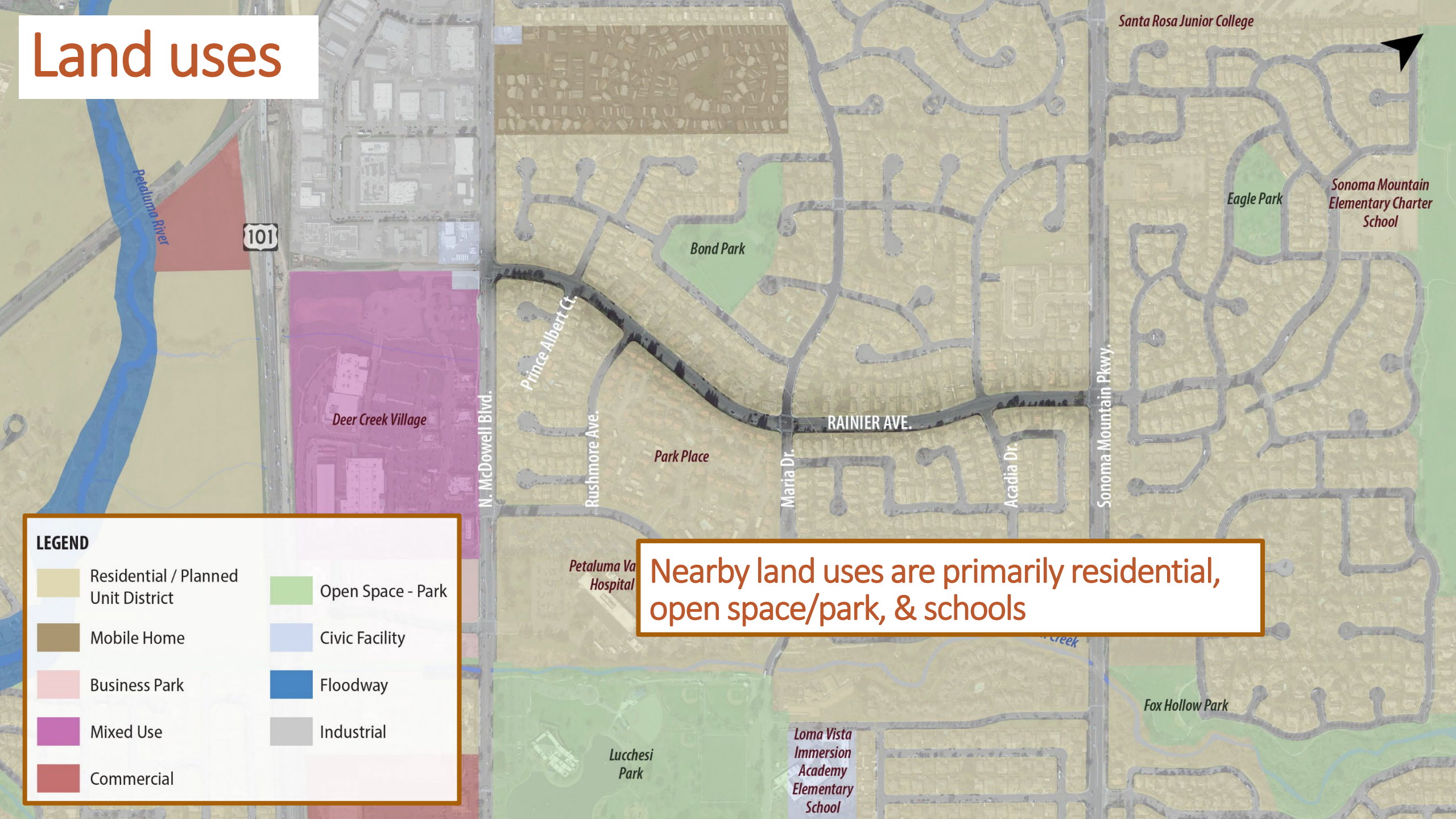
Lynch Creek

Fox Hollow Park

Lucchesi Park

Loma Vista Immersion Academy Elementary School

Land uses



Nearby land uses are primarily residential, open space/park, & schools

Roadway conditions



The roadway is up to 64 feet wide



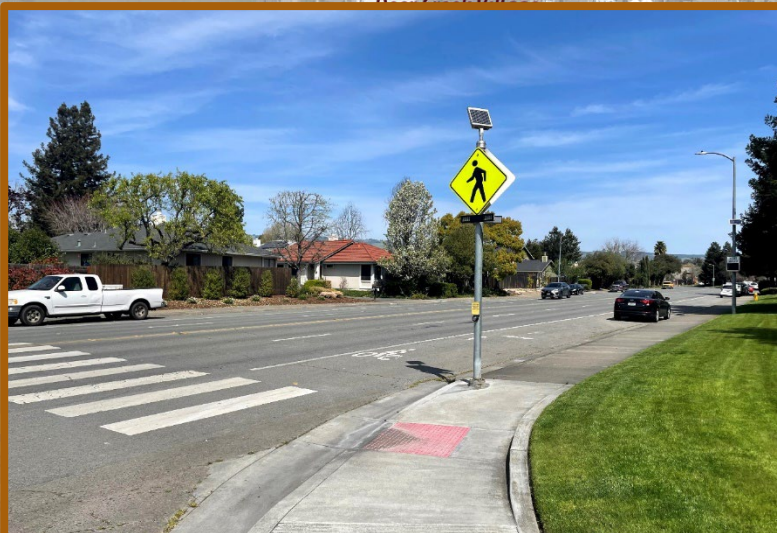
The pavement is in poor condition



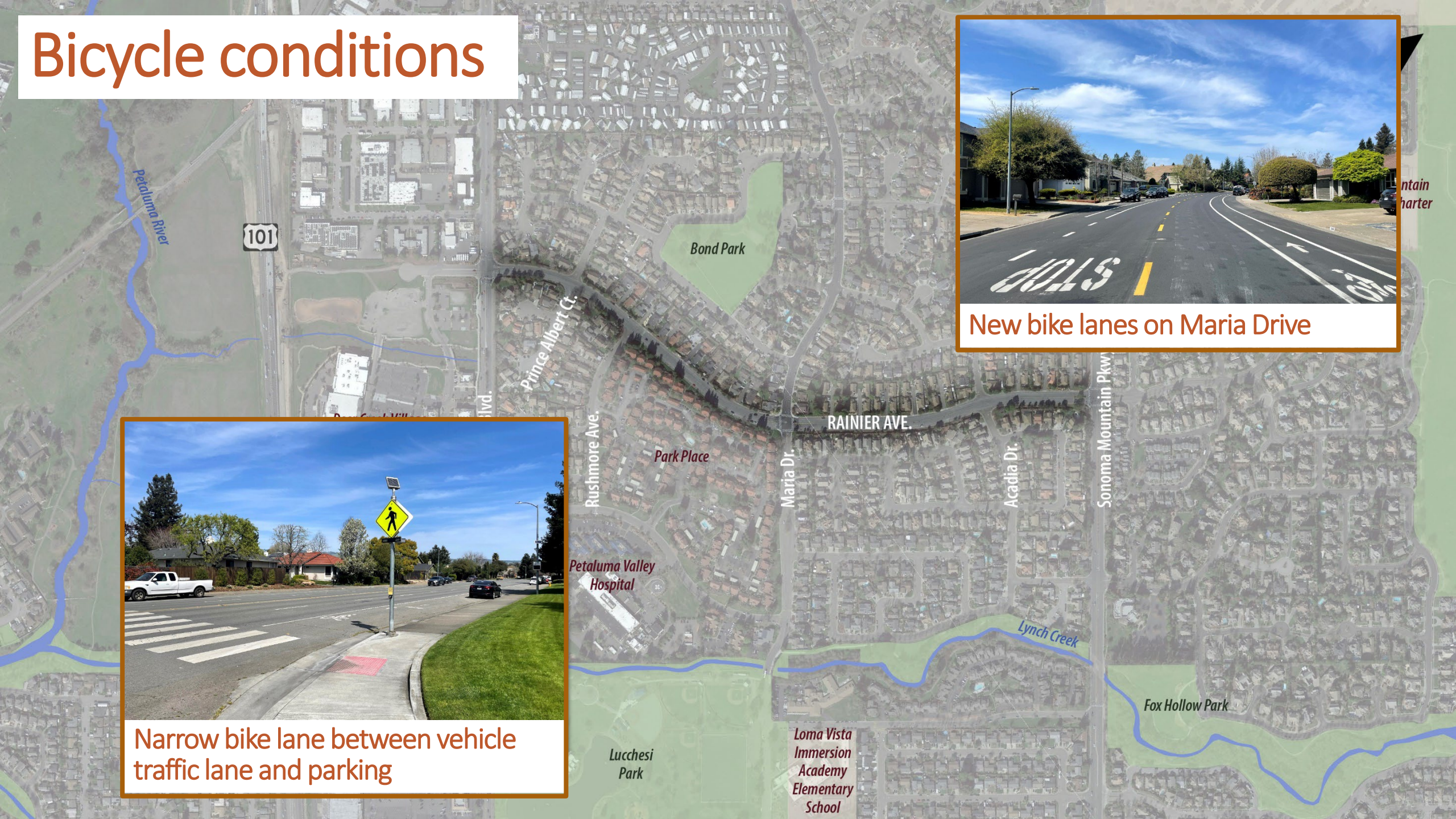
Bicycle conditions



New bike lanes on Maria Drive



Narrow bike lane between vehicle traffic lane and parking



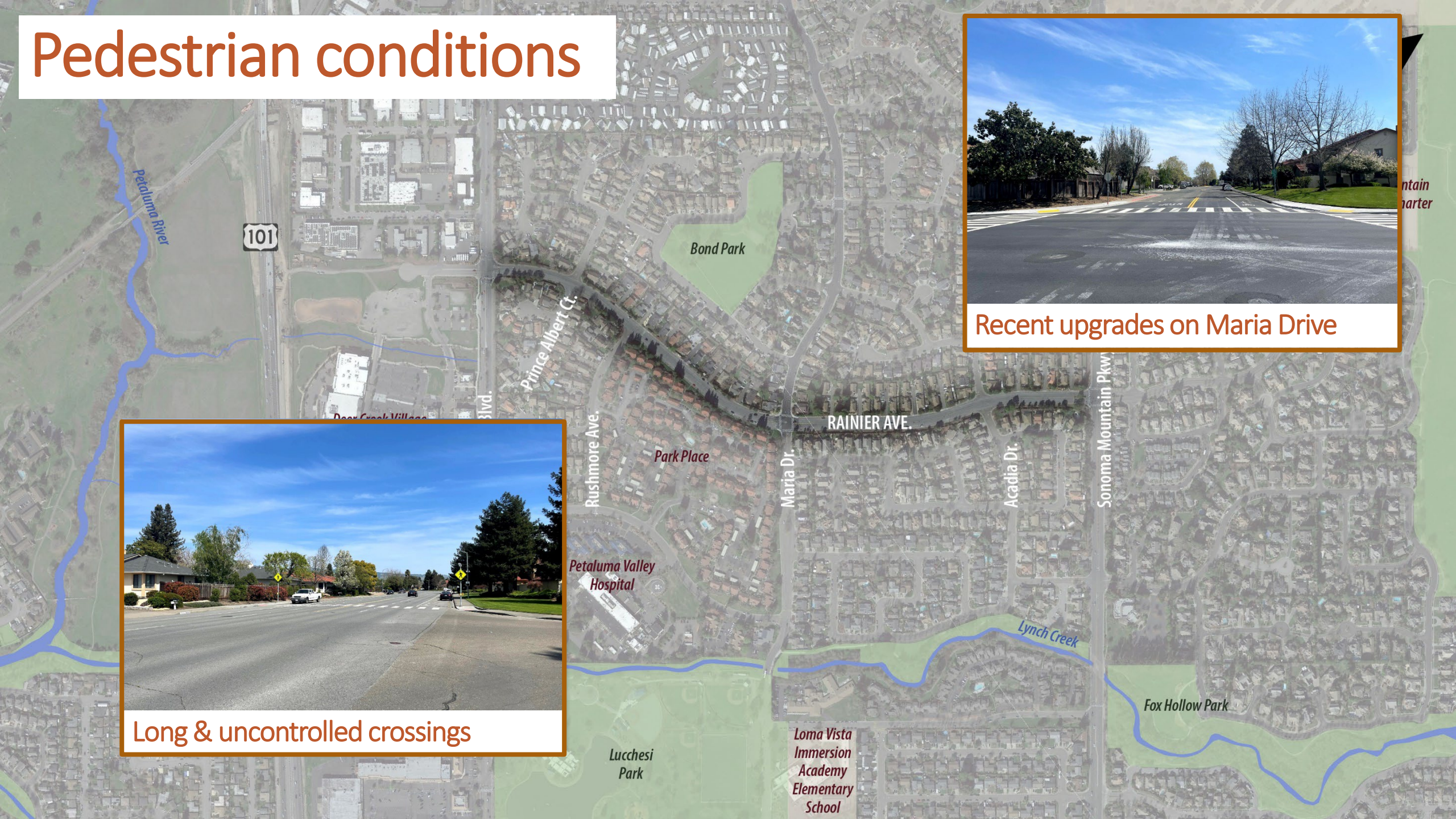
Pedestrian conditions



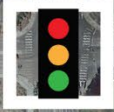
Recent upgrades on Maria Drive



Long & uncontrolled crossings



Traffic controls & crosswalks



Lack of controlled/marked crossings



LEGEND



Traffic Signal



All-Way Stop Intersection



Marked Crosswalk

Note: Only traffic controls and crosswalks along Rainier Ave. are shown.



Bus stops

Rainier Avenue serves 3 Petaluma Transit routes and 1 Sonoma County Transit route

LEGEND



Sonoma County Transit Stop



Petaluma Transit Stop

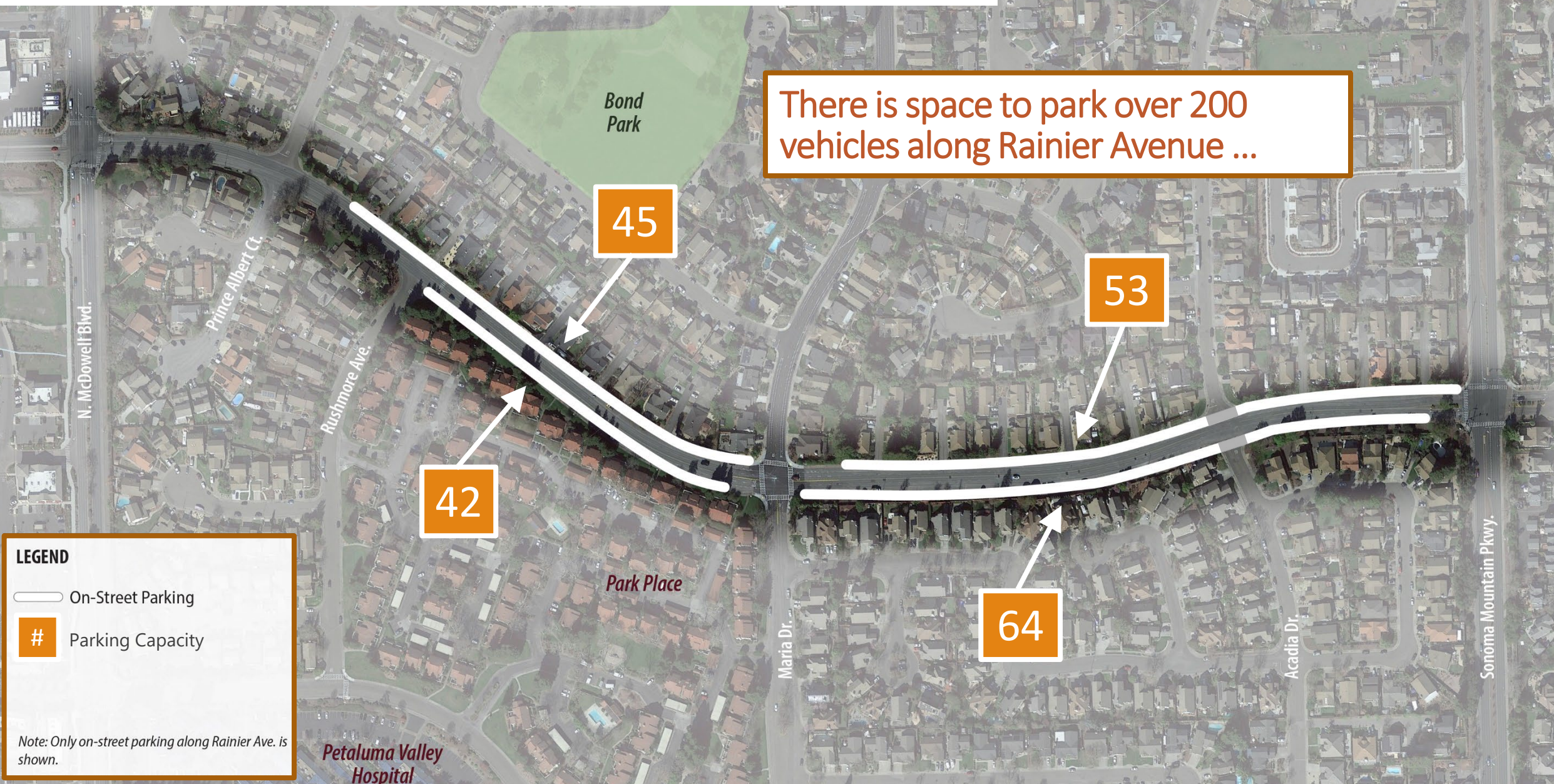
Marked Crosswalk

Note: Only transit stops along and adjacent to Rainier Ave. are shown.



Current on-street parking capacity

There is space to park over 200 vehicles along Rainier Avenue ...



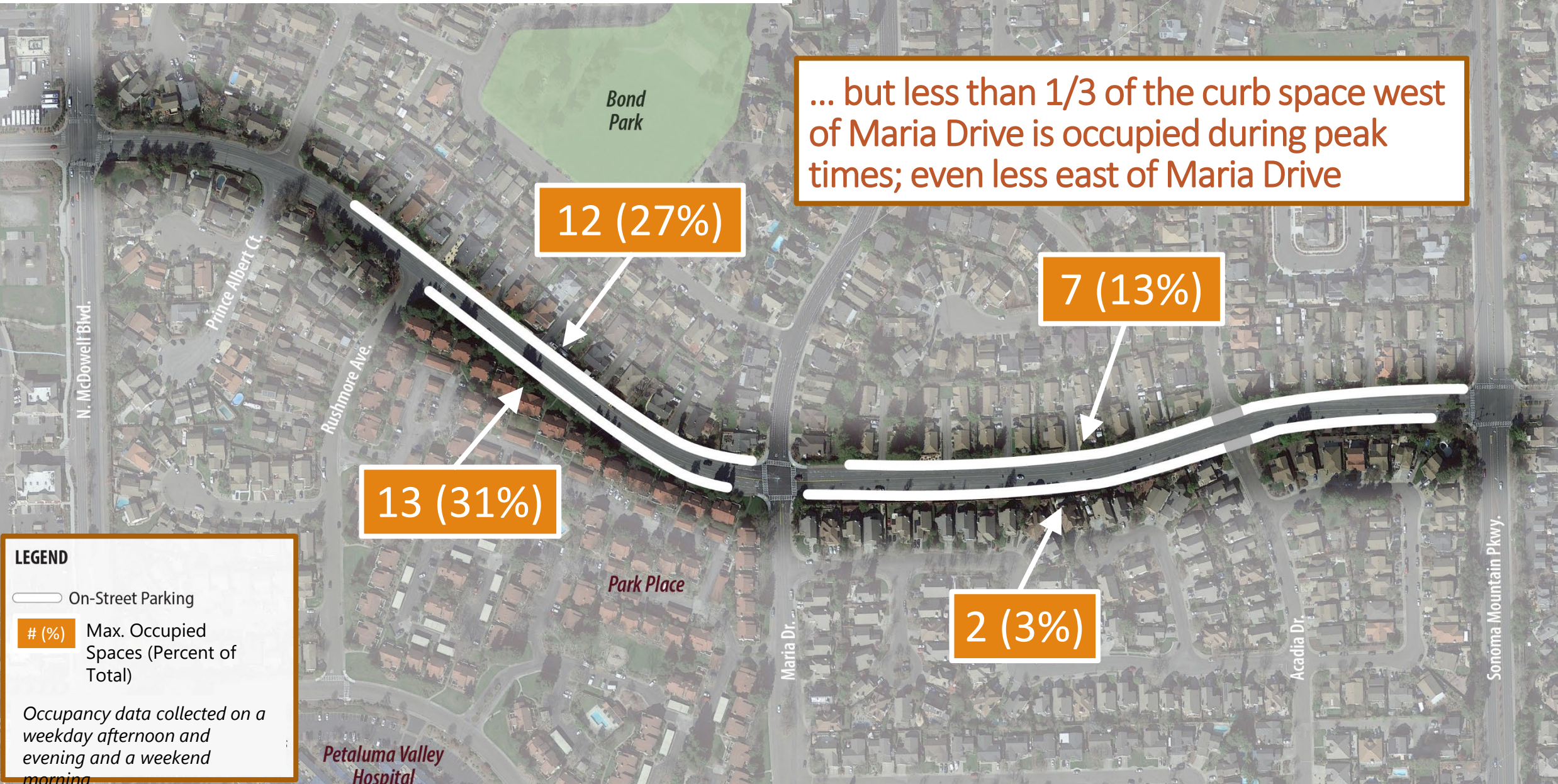
LEGEND

- On-Street Parking
- # Parking Capacity

Note: Only on-street parking along Rainier Ave. is shown.

On-street parking demand

... but less than 1/3 of the curb space west of Maria Drive is occupied during peak times; even less east of Maria Drive



LEGEND

— On-Street Parking

(%) Max. Occupied Spaces (Percent of Total)

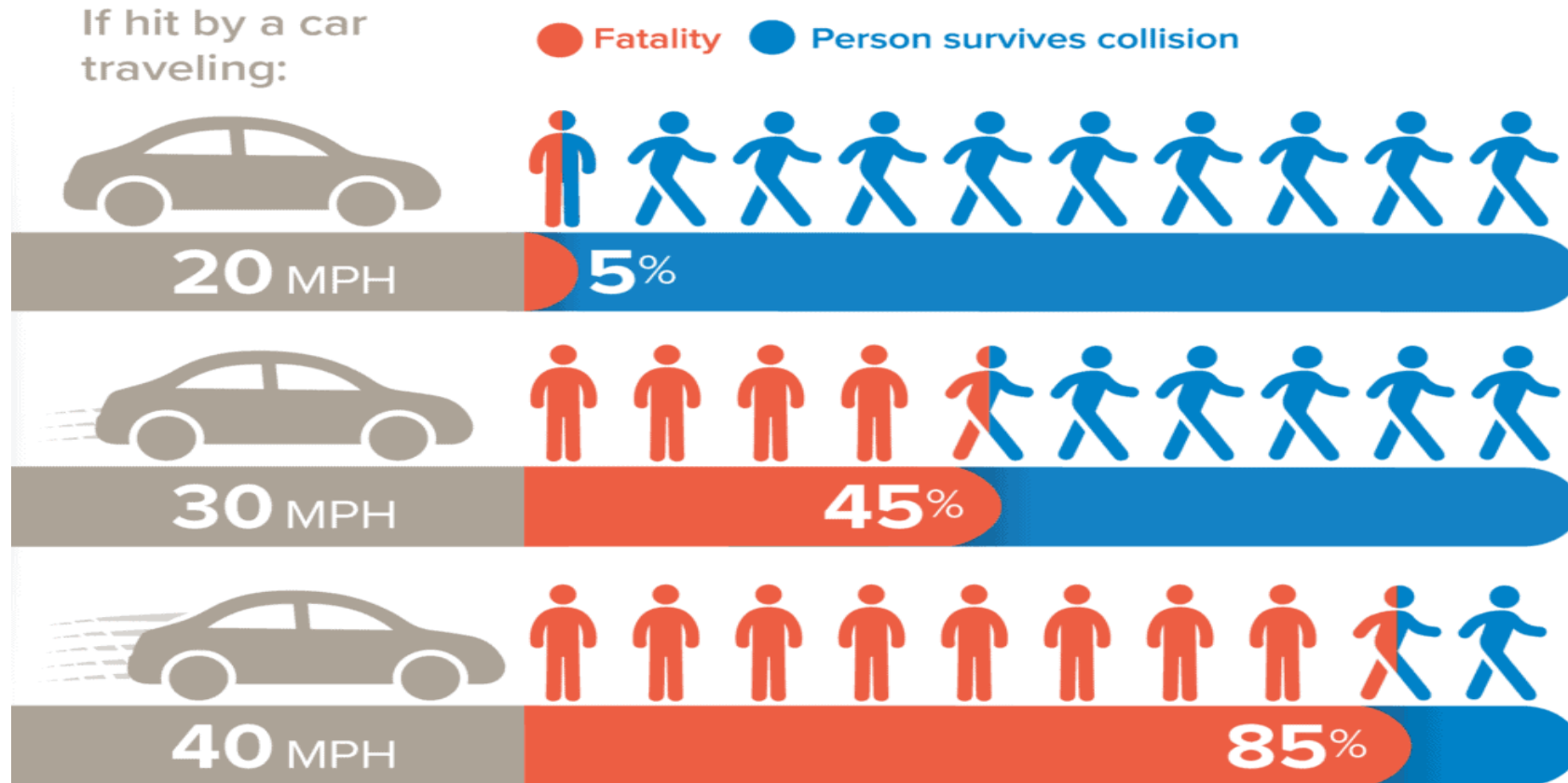
Occupancy data collected on a weekday afternoon and evening and a weekend morning

Vehicle speeds on Rainier Avenue

- Posted speed limit: 35 mph
- Critical speed (85th percentile): 40 mph
- High speeds: 45 mph or more
- Wide road contributes to high speeds in residential area
- “Re-design” can accommodate vehicle and parking demands ... and reduce speeding
- Assembly Bill No. 43; speed zoning only in 2024



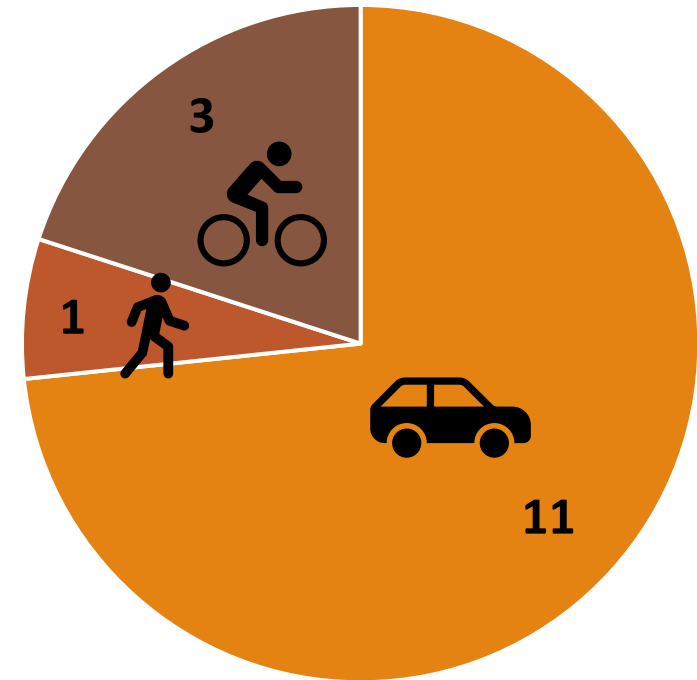
Speed impact on injuries & fatalities



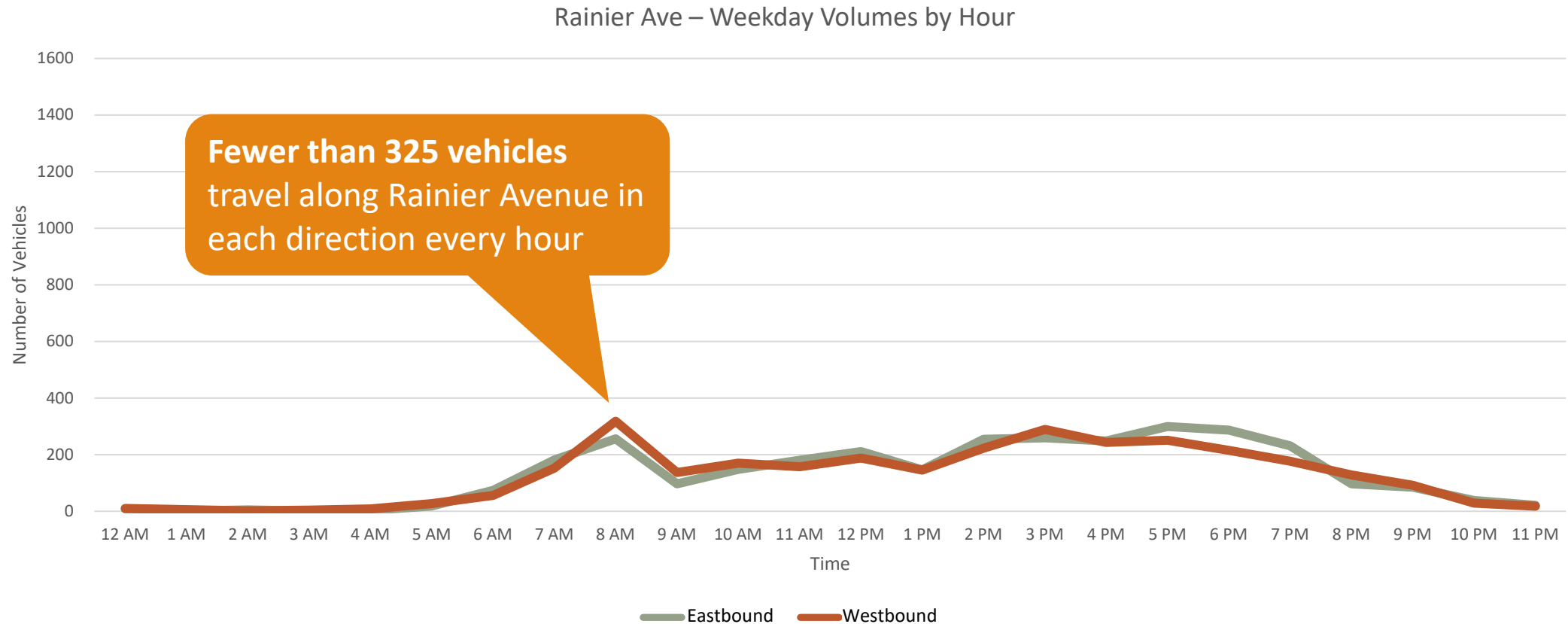
National Traffic Safety Board (2017) Reducing Speeding-Related Crashes Involving Passenger Vehicles. Available from: <https://www.nts.gov/safety/safety-studies/Documents/SS1701.pdf>

Reported collisions include high rate of injuries

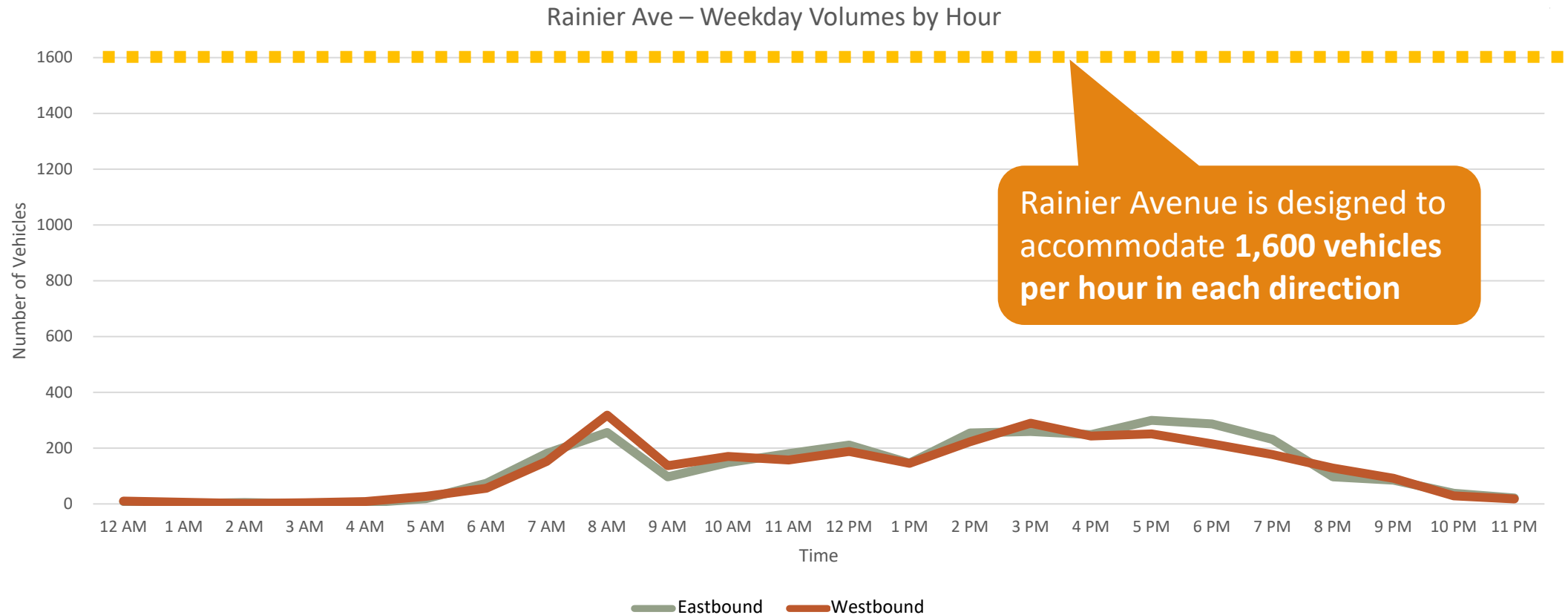
- 15 reported collisions on Rainier Avenue between 2015 and 2019
- 9 consisted of injuries, including all collisions with pedestrians and bicyclists
- Collisions caused by excessive speeds, automobile right-of-way violations, improper turning



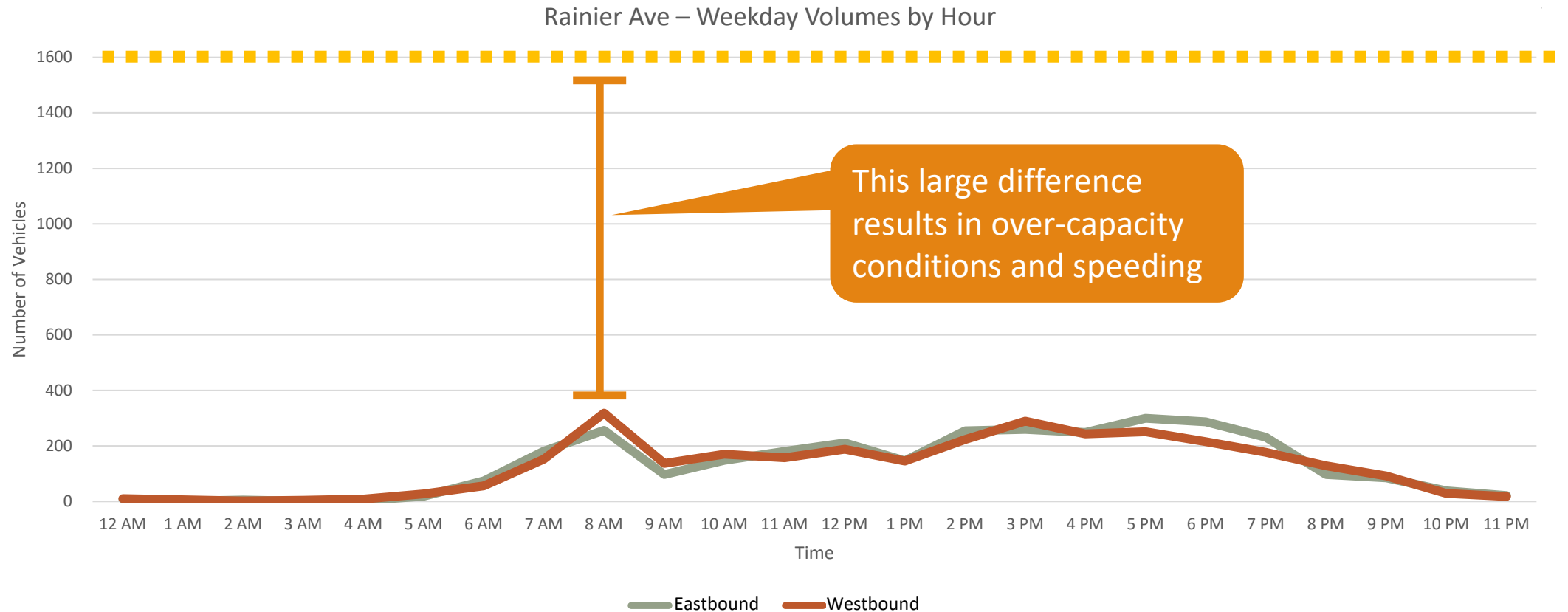
During peak hours, Rainier Avenue carries about 325 vehicles each way ...



... but its capacity is over 4 times that!



Which leads to speeding (along a 4-lane street)



Traffic calming (quick-build) & concepts



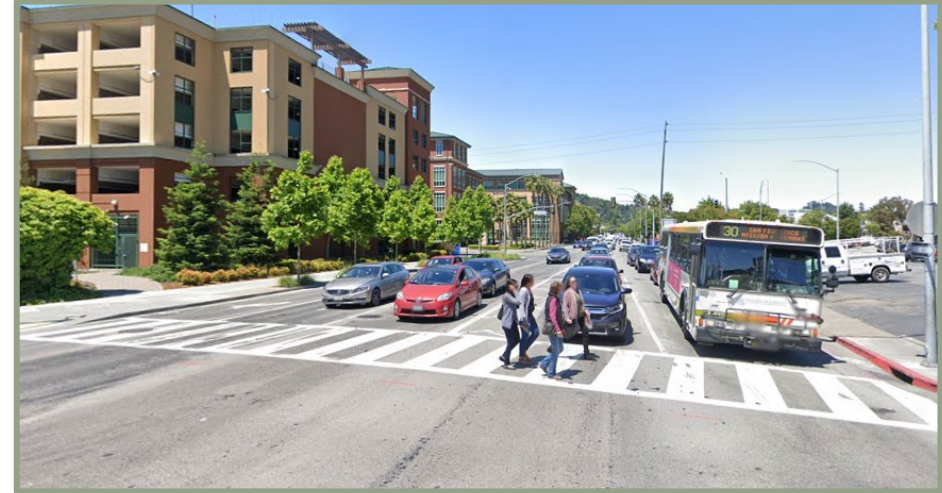
Sample quick-build enhancements



Sample quick-build enhancements

High-visibility crosswalk

High-visibility crosswalks make pedestrians more visible to drivers and alert drivers to the potential of a pedestrian.



Curb ramps

Ramps meeting Americans with Disabilities Act standards allow safer access for people with disabilities.



Sample quick-build enhancements

Bike lane

Bike lanes are defined by pavement striping and signage. They can be buffered – using additional striping to provide greater separation from vehicles – or unbuffered.



Protected bikeway

Protected bikeways are for exclusive use of bicycles and provide separation between the bikeway and vehicular traffic.



Sample quick-build enhancements

Median pedestrian refuge island

Median islands are areas of space in between travel lanes where driving is prohibited. Median islands can be used to facilitate pedestrian and bicycle crossings, narrow the travel lanes and slow vehicle speeds.



Street trees

Street trees alter drivers' perception of lane width and signal to drivers that they are approaching a populated area, causing drivers to reduce travel speeds.



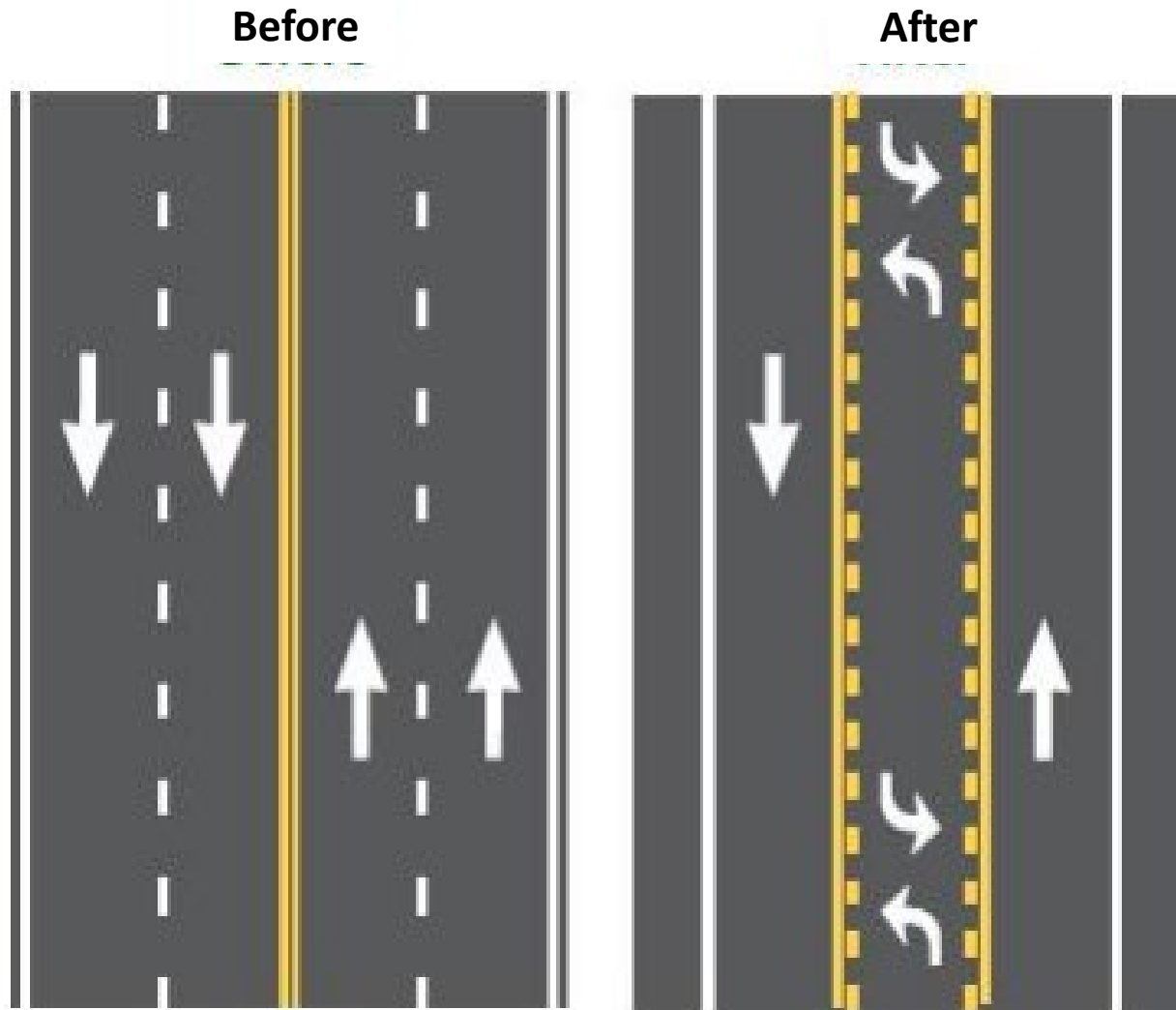
Sample quick-build enhancements

Traffic calming

Traffic calming consists of physical design and other road measures to reduce vehicle speeds and improve safety for all users. Measures can include lane reallocation, roadway or lane narrowing, and horizontal shifts in traffic flow.



Advantages of a 3-lane street



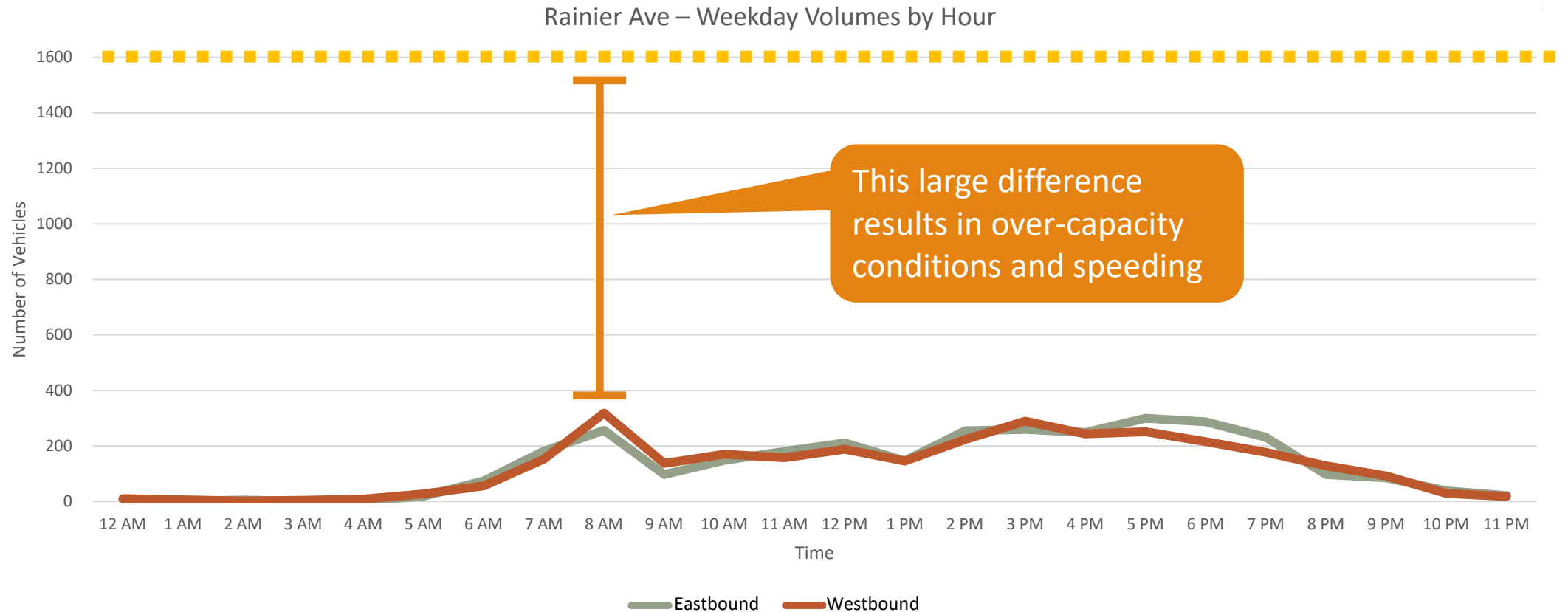
Advantages of a 3-lane street

According to the Federal Highway Administration:

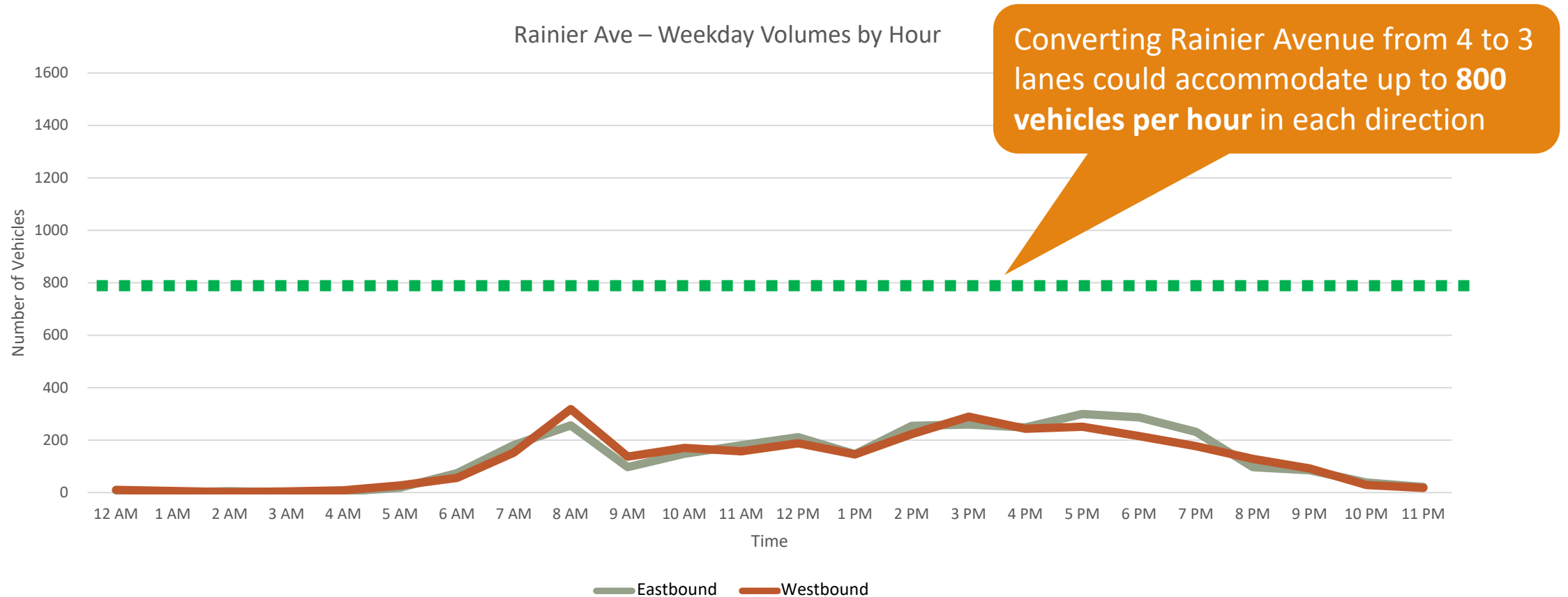
- Reduces collisions by at least 19%
- Decreases speeds by at least 3 mph
- Results in less severe collisions
- Provides fewer vehicle lanes to cross
- Enables better visibility for pedestrians
- Allows space for bicyclists
- Provides smoother travel flow



Rainier Avenue's 4 lanes encourage speeding and other unsafe behaviors

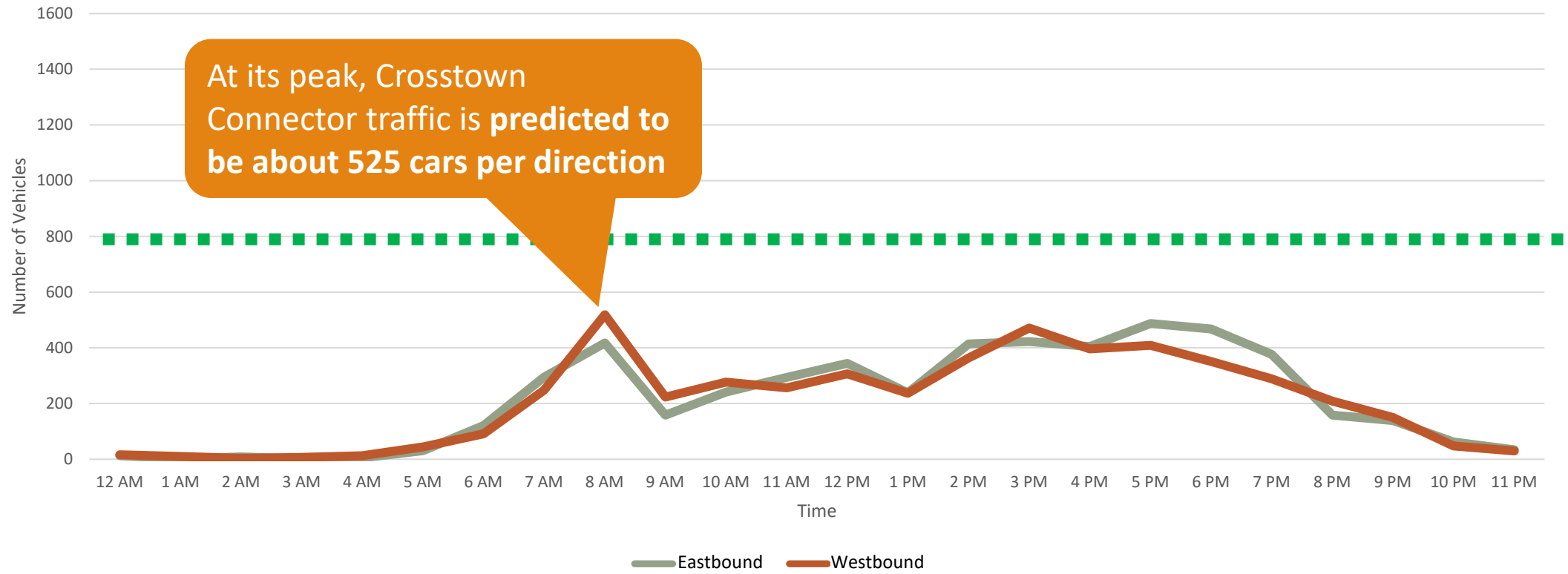


Reducing the number of lanes would serve vehicles and provide traffic calming ...



... even with Crosstown Connector traffic

Rainier Ave - Predicted Future Weekday Volumes by Hour



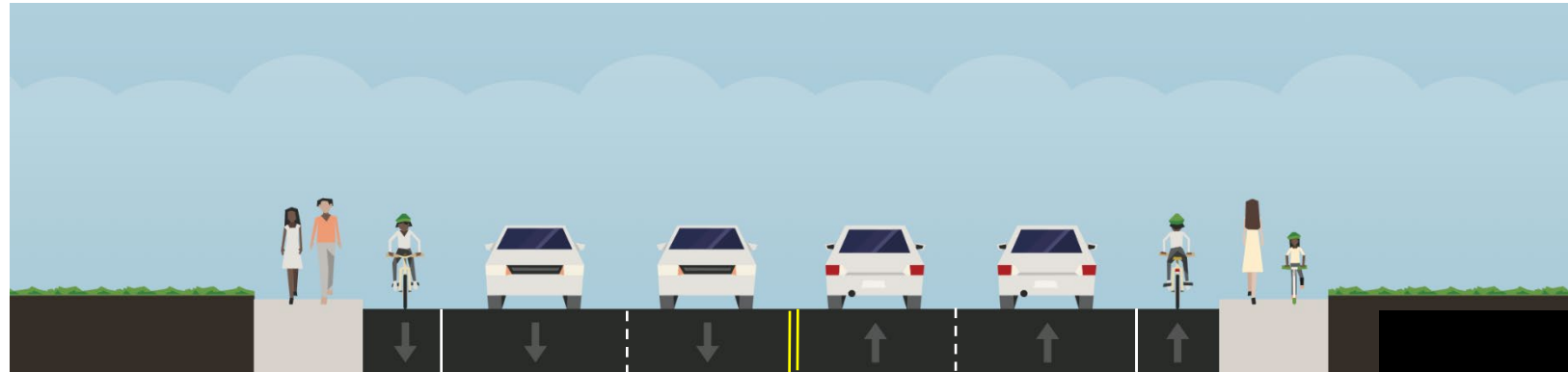
Preliminary concepts



N. McDowell Blvd. to Rushmore Avenue

Existing:

- 4 vehicle lanes
- Narrow bike lanes



Recommendation:

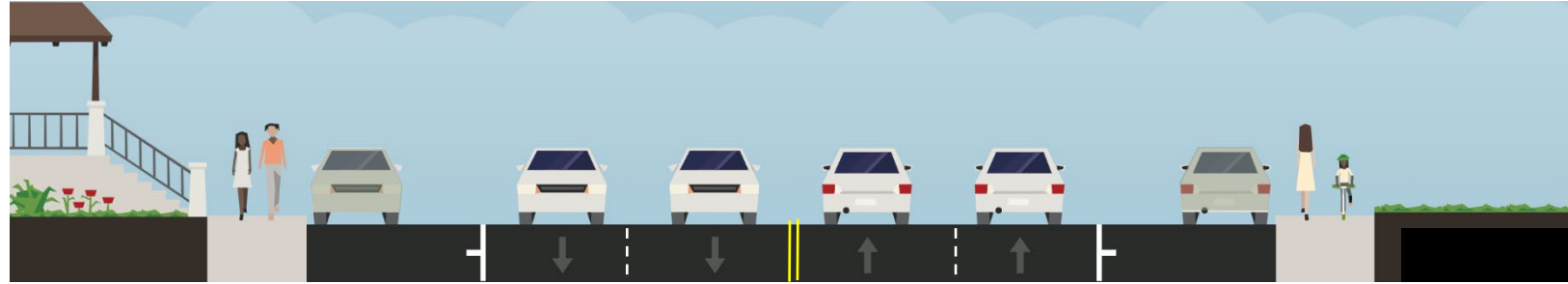
- Traffic calming with
- 3 vehicle lanes
- Protected bikeways
- Crosswalk enhancements



Rushmore Ave. to Sonoma Mountain Pkwy.

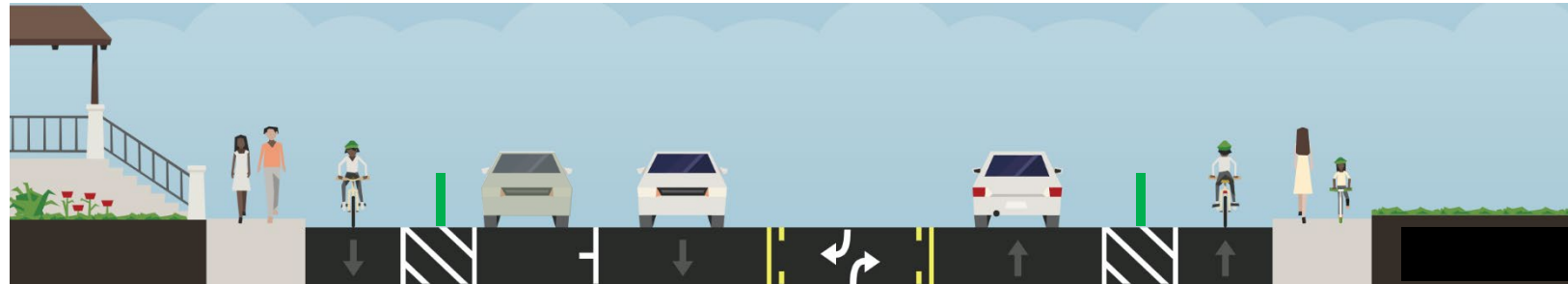
Existing:

- 4 vehicle lanes
- Narrow bike lanes



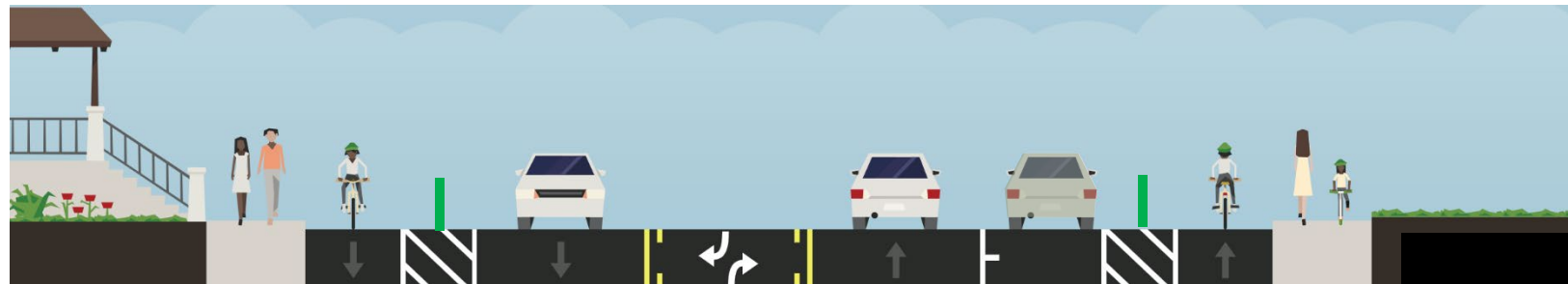
Option A (north parking):

- Traffic calming with
- 3 vehicle lanes
- Protected bikeways
- Crosswalk enhancements
- Parking on north side

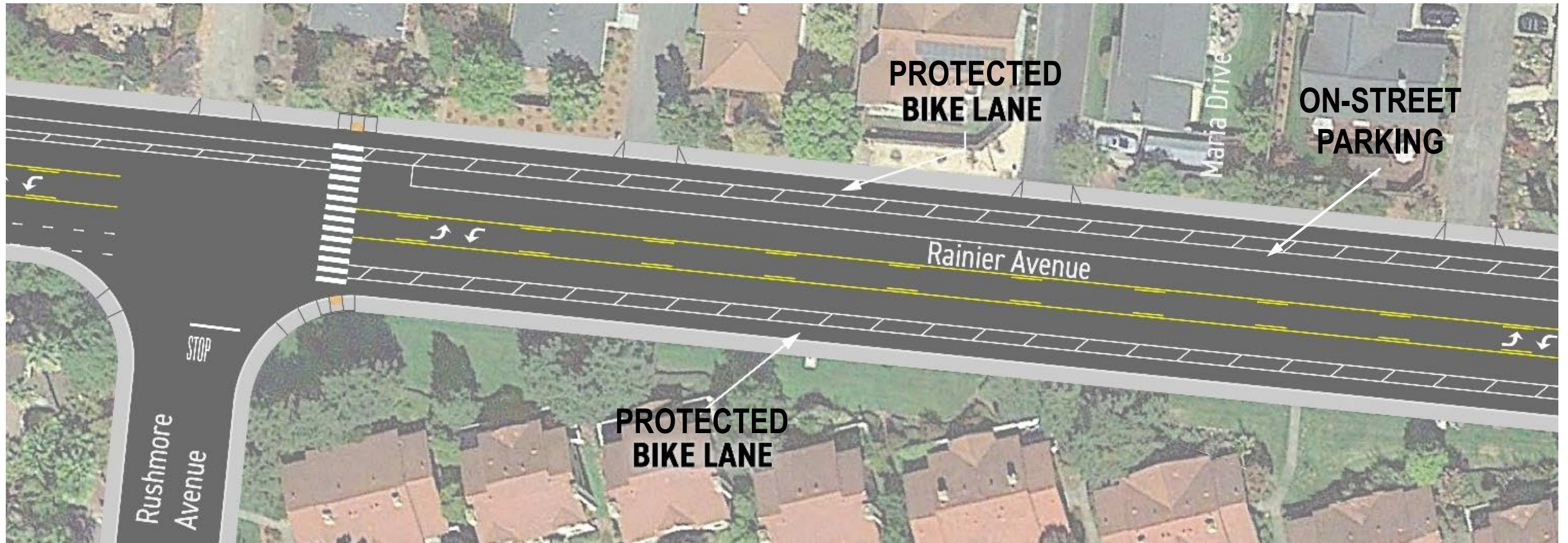


Option B (south parking):

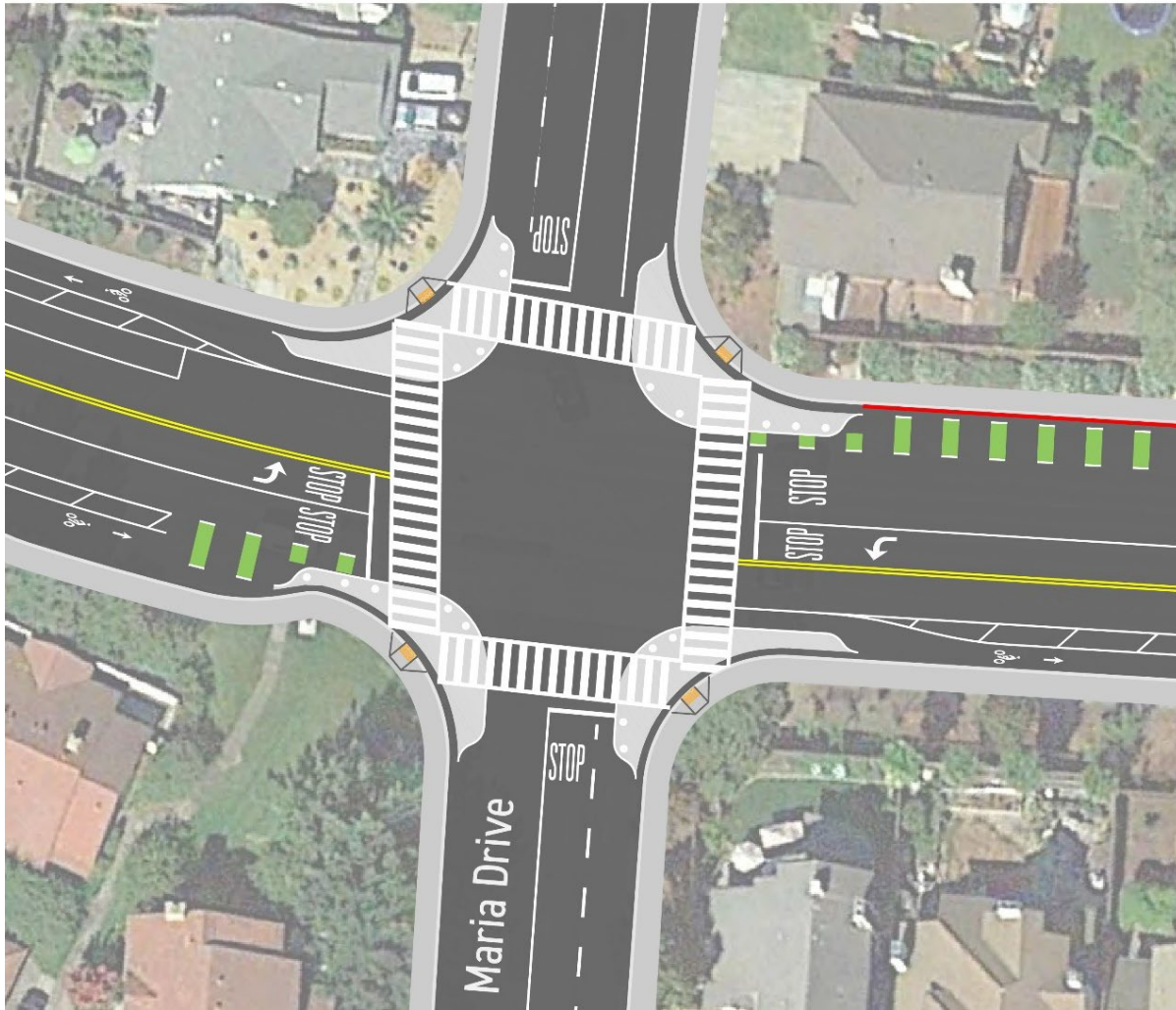
- Traffic calming with
- 3 vehicle lanes
- Protected bikeways
- Crosswalk enhancements
- Parking on south side



Option A (north side parking)



Concept for Maria Drive intersection



- Provides exclusive left turn lanes
- Increases pedestrian visibility and reduces crosswalk length
- Improves overall safety

Traffic calming and safety benefits



- Slows vehicle speeds
- Accommodates traffic
- Increases safety for left turns from Rainier
- Increases safety for left turns onto Rainier



- Slows vehicle speeds, making crossings safer
- Reduces crossing distance
- Increases pedestrian visibility, especially for children



- Slows vehicle speeds, increasing cyclist safety
- Reduces vehicle lane changes
- Increases separation between cyclists and vehicles

Community poll



Community input



Tell us about...

- Your experiences traveling along or across Rainier Avenue
- Your input on potential traffic calming and safety enhancements



Please raise your hand to speak

The image shows a Zoom meeting interface. The main window is dark with a 'Speaker View' label in the top right. A 'Zoom Meeting ID:' label is in the top left. The bottom toolbar contains icons for Unmute, Stop Video, Invite, Participants (22), Share Screen, Chat, Record, Reactions, and Leave Meeting. A red arrow points from the 'Reactions' icon to a callout box. The callout box contains a row of reaction emojis: clapping hands, thumbs up, laughing face, neutral face, heart, and confetti. Below these is a button with a hand icon and the text 'Raise Hand'. Another red arrow points from the 'Raise Hand' button to the 'Reactions' icon in the toolbar. On the right side, the 'Participants (22)' list is visible, showing names like Janet Chang (Me), Tammy Seale (Host), Grant R, Sloan Campi, and Mark Teague (Co-host) with status icons for hand-raising, audio, and video. Below the list are controls for 'Raise Hand', 'yes', 'no', 'go slower', 'go faster', and 'more', along with an 'Unmute Me' button. The 'Zoom Group Chat' section is partially visible at the bottom right.

***9 or choose 'Reactions,' then 'Raise Hand'**

Zoom Meeting ID: Speaker View

Participants (22)

Find a participant

Janet Chang (Me)

Tammy Seale (Host)

GR Grant R

SC Sloan Campi

MT Mark Teague (Co-host)

Raise Hand yes no go slower go faster more

Unmute Me

Zoom Group Chat

To: Everyone

Type message here...

Unmute Stop Video Invite Participants 22 Share Screen Chat Record Reactions Leave Meeting

Next steps

- Incorporate community feedback
- Complete project design (Spring 2022*)
- Bid project and award contract (Summer 2022*)
- Begin construction (Fall 2022*)

* Note: All dates are tentative



For more information or to provide feedback:

<https://cityofpetaluma.org/rainier-active-transportation-improvements-with-paving-project/>