

Maude Avenue Roadway Allocation Study

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Community Meeting
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Maude Avenue Roadway Allocation Study



Agenda

- Presentation
 - Project Overview
 - Existing Conditions
 - Improvement Alternatives
- Open House



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Project Corridor





Existing Corridor

- Heavy traffic volumes during peak periods, particularly near Mathilda Avenue
- Designated as bike route
- Provides access to Bishop Elementary School, Columbia Middle School (via Morse Avenue), King's Academy (east of Wolfe Road)
- VTA Bus Route 55 between Sunnyvale Avenue and North Fair Oaks Avenue

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Project Objectives

- Provide bicycle lanes along corridor
- Support safe and efficient bicycle, pedestrian, and transit facilities
- Minimize effects on congestion



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Auto Activity

- Approximately 1,320 vehicles/hour near Mathilda Avenue during PM peak
- Approximately 750 vehicles/hour near North Fair Oaks Avenue during PM peak

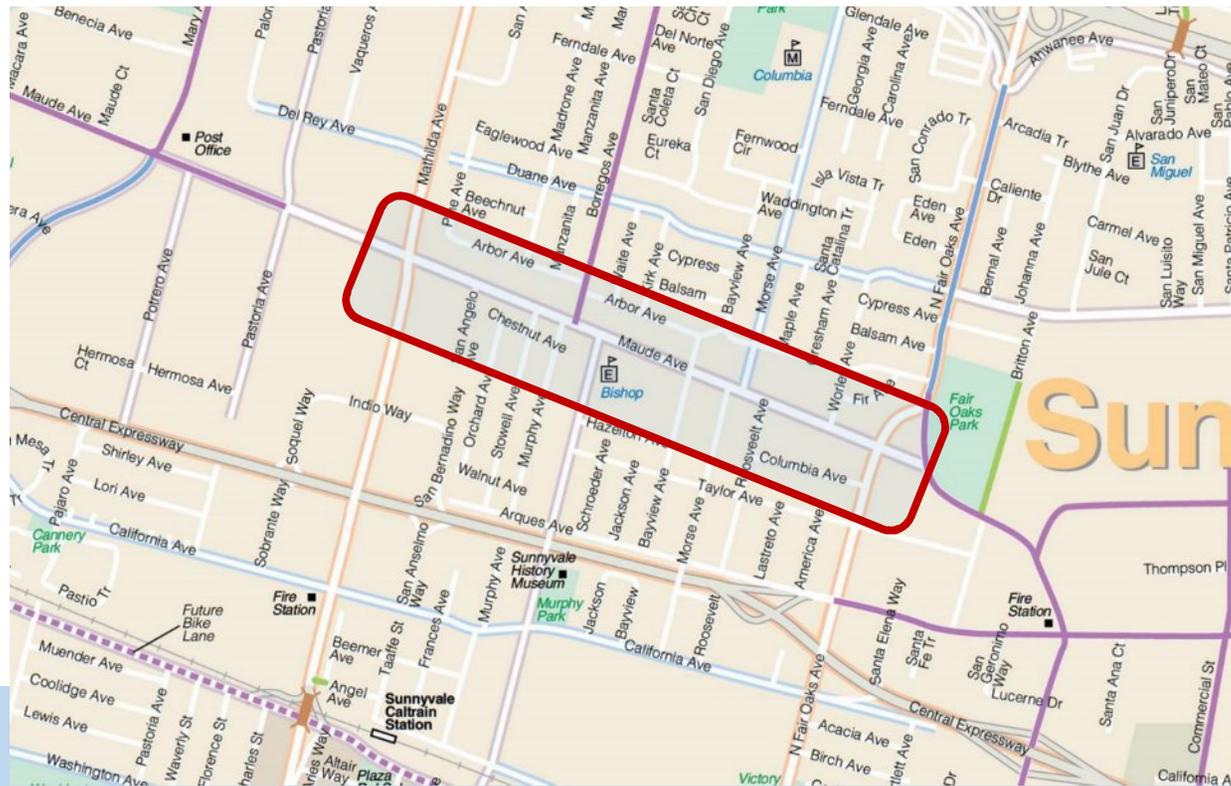


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Bike Network

- Currently designated as a bike route
- Gap in bike lanes between Pastoria Ave and Wolfe Road

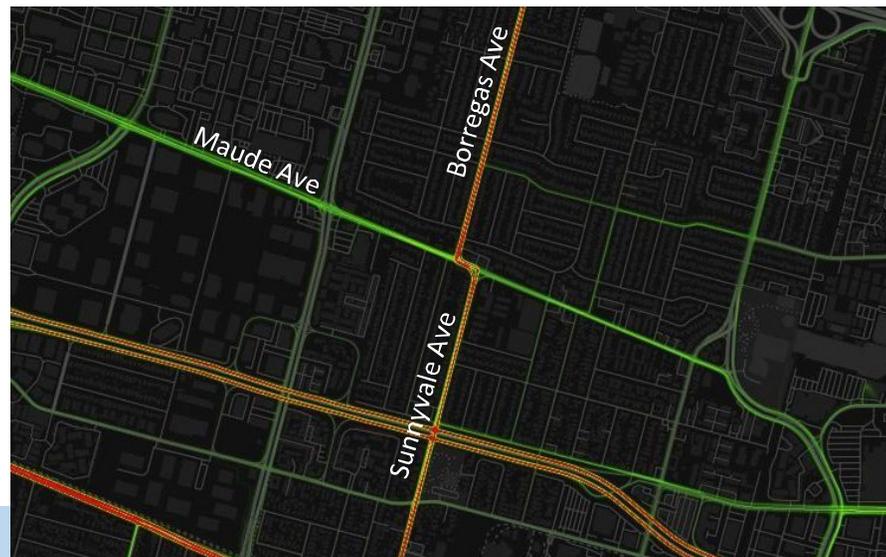


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Bike Activity

- Maude Avenue is used by approximately 40 cyclists during weekday PM peak hour at its busiest point
- Borregas – North Sunnyvale is a north-south bike corridor that connects with Maude Avenue



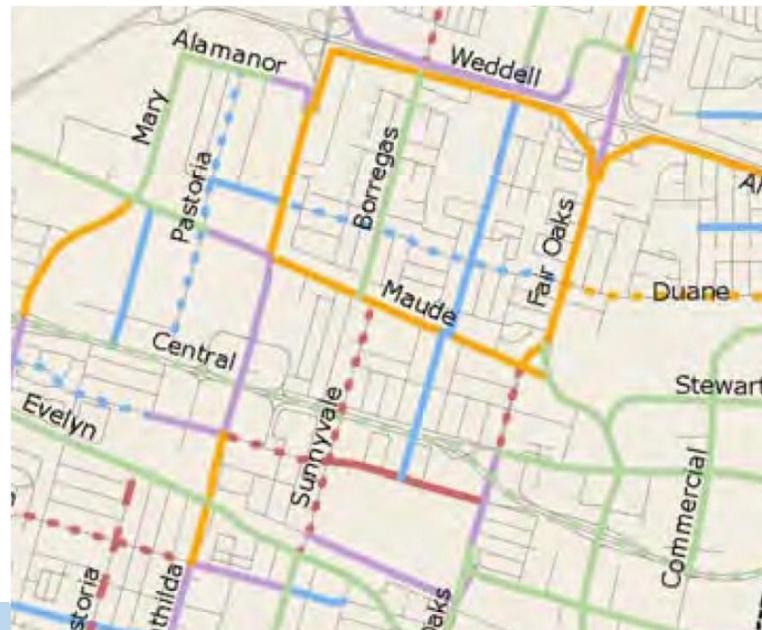
Heat map of current
bicycle activity

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Sunnyvale Bike Plan

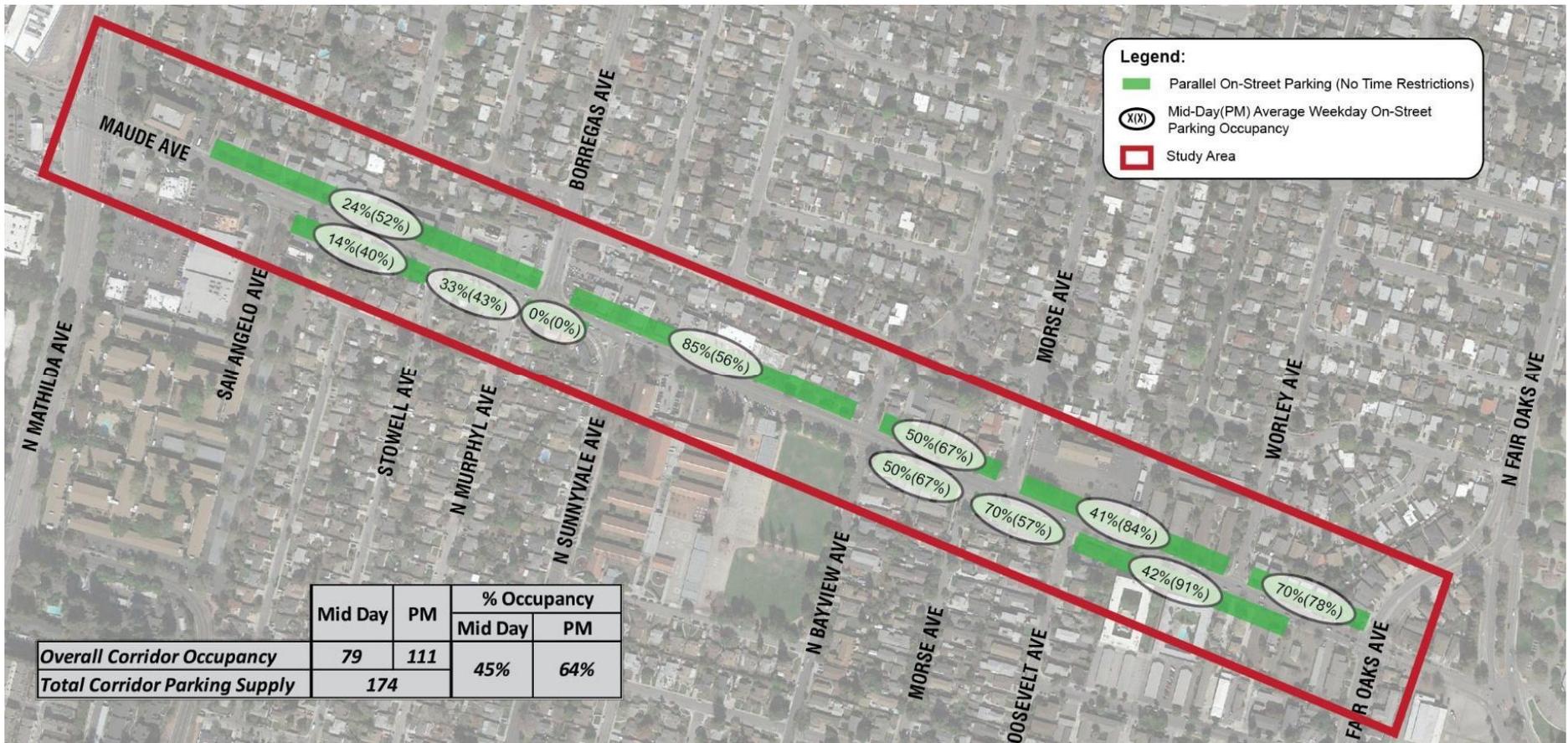
- 2006 Sunnyvale Bike Plan included a project to install bike lanes on Maude Avenue by removing on-street parking and minor widening



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On-Street Parking Utilization





Collision History (2012 to 2014)

- 79 total incidents along Maude Avenue between Mathilda and North Fair Oaks (inclusive)
 - One fatality in 2013 at North Fair Oaks
- 34 total incidents excluding Mathilda and North Fair Oaks
 - 12 injuries resulted
 - 3 involved pedestrians
 - 1 involved a cyclist
- North Bayview Avenue had 12 collisions with 7 injuries, including one pedestrian

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Collision Map





Improvement Alternatives

- No roadway widening
- No new signalization
- Two alternatives that provide bicycle lanes by converting on-street parking or center-turn lane and narrowing lane widths
- One alternative that does not provide bicycle lanes and maintains on-street parking and a center-turn lane



Benefits of Providing Striped Bike Lanes

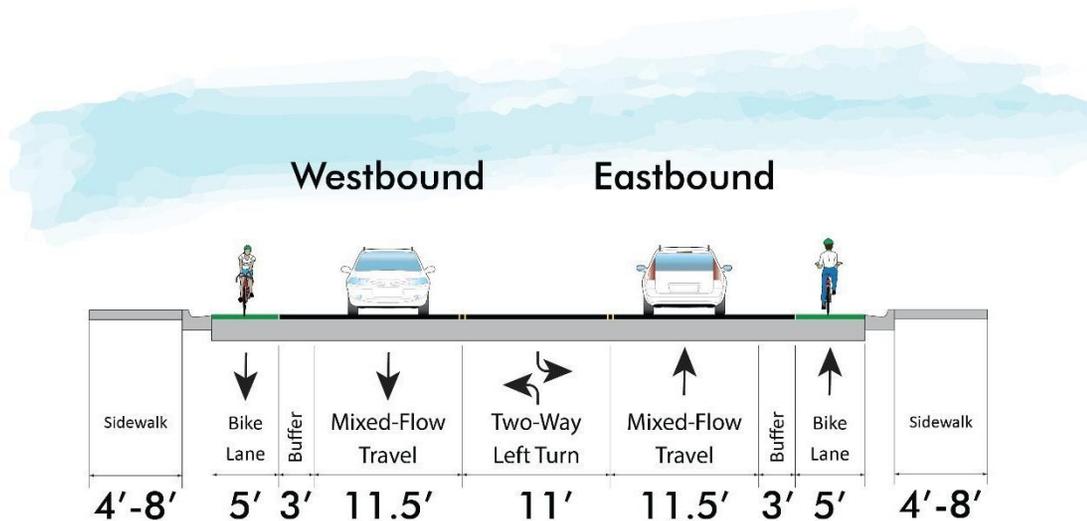
- Defines roadway space for users
- Proven to reduce injury risk to cyclists
- Shown to shift bicyclists from sidewalk to bike lane, which benefits pedestrians
- Increases amount of bicycle activity

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Alternative 1

- Convert on-street parking to buffered bike lanes
 - Consistent with adopted Sunnyvale Bicycle Plan



Example of a Buffered Bike Lane (Mathilda)

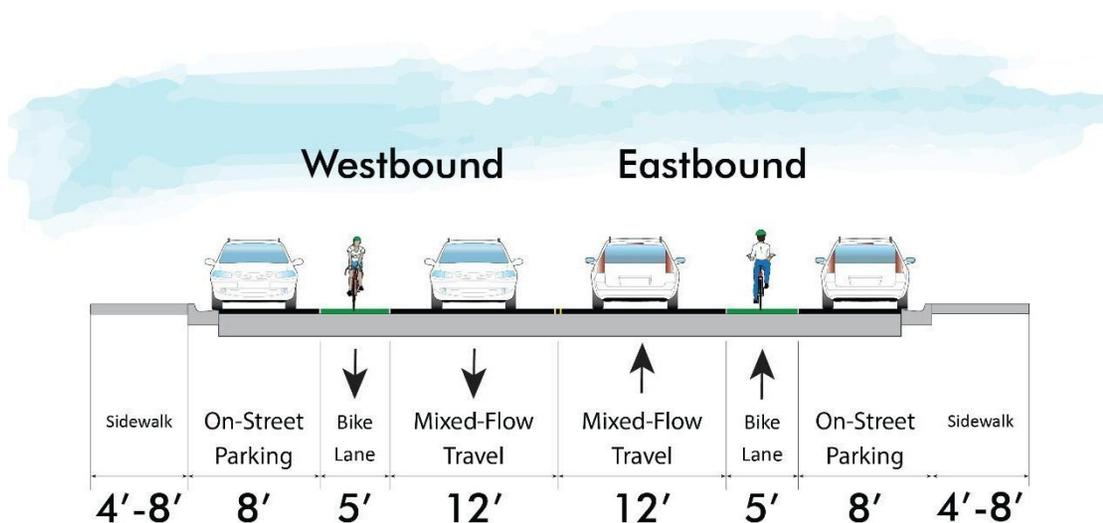


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Alternative 2

- Convert center-turn lane and left-turn lanes into bike lanes
 - Maintain left-turn lanes at higher volume intersections by losing some on-street parking



Existing Center-Turn Lane Would be Removed

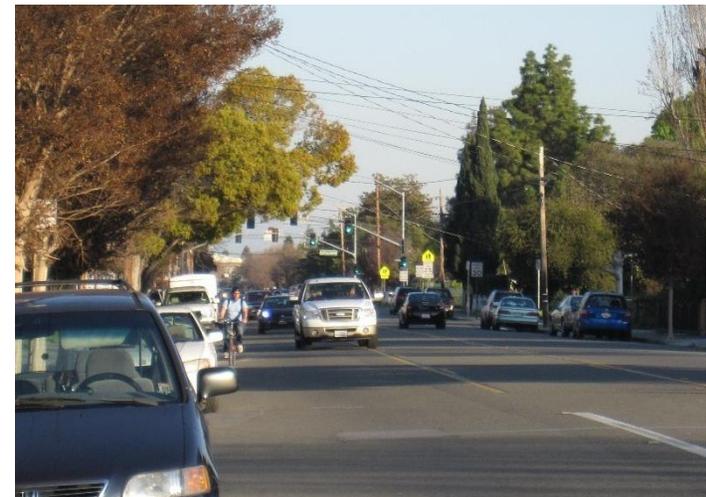
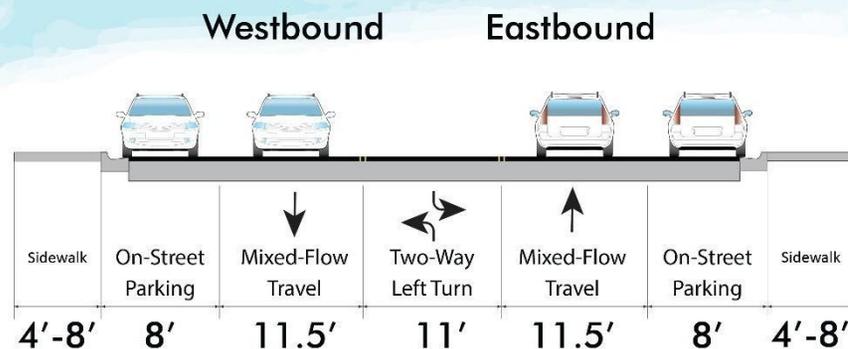


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Alternative 3

- Maintain existing geometry – do not provide bicycle lanes
 - Limited additional striping and signage

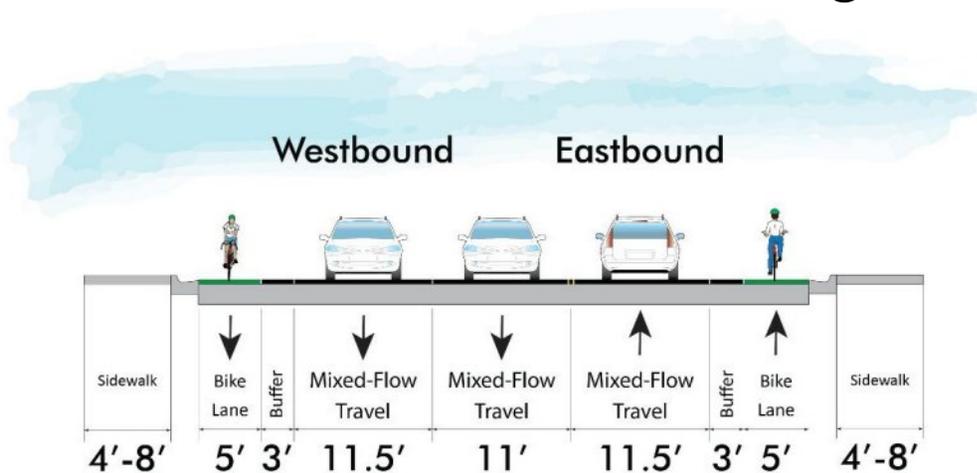


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Option

- West of Borregas Avenue:
 - Remove parking and center-turn lane and provide buffered bike lanes and an additional westbound through lane
 - Can implement either Alternative 1 or Alternative 2 treatments east of Borregas Avenue



Additional Through Lane Across Mathilda



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Other Modifications in All Alternatives

- Eliminate channelized right-turn movements at Sunnyvale Avenue
- Relocate VTA bus stop to reduce mid-block crossings
- Remove one westbound left-turn lane and lengthen westbound left-turn pocket approaching Mathilda Avenue (Alternatives 1, 2, and Option)





Comparison of Alternatives - Bicycles

- Alternative 1 provides bike lanes with a 3-foot buffer and no on-street parking
 - Separates bicycles from vehicles
 - Eliminates door swing hazard from parked cars
 - Proven to significantly increase bicycle activity
- Alternative 2 provides bike lanes adjacent to on-street parking
- Alternative 3 does not provide bike lanes