



City of Sunnyvale

Agenda Item

25-0128

Agenda Date: 8/21/2025

REPORT TO BICYCLE AND PEDESTRIAN COMMISSION

SUBJECT

Recommend to City Council to approve the Design Alternative 1 to remove one southbound travel lane and install a Class IIB Buffered Bicycle Lane on southbound Mathilda Avenue between Ahwanee Avenue/Almanor Avenue and Maude Avenue, Find that the action is exempt from CEQA pursuant to CEQA Guideline Section 15301(c), and Direct staff to include the proposed improvements as a future unfunded project

BACKGROUND

Mathilda Avenue is a major north-south arterial and is designated as a Regional Significant Roadway, with a posted speed limit of 45 mph, connecting the Moffett Park Area to the north with Downtown Sunnyvale and the El Camino and residential areas to the south. The roadway also carries a significant amount of traffic from outside of Sunnyvale to job centers located throughout the City. Currently, between Ahwanee Avenue/Almanor Avenue and Maude Avenue, the corridor features three northbound travel lanes and a Class IIB buffered bicycle lane, while the southbound direction has four travel lanes and no bicycle facility. The City's 2020 Active Transportation Plan (ATP) proposes a Class IIB buffered bicycle lane in the southbound direction. Implementing this improvement would require a roadway reallocation to remove one southbound travel lane to provide the necessary space. To assess the potential operational effects, a traffic study was completed to evaluate how the lane reduction would affect roadway operations. The study area, which begins at the southbound US 101 off-ramp, lies within the Peery Park Specific Plan Area and is primarily composed of commercial and retail land uses.

The City Council is scheduled to consider this item on August 26, 2025.

EXISTING POLICY

General Plan, Chapter 3, *Land Use and Transportation Element Policies*:

- **LT-3** - An Effective Multimodal Transportation System: Offer the community a variety of transportation modes for local travel that are also integrated with the regional transportation system and land use pattern. Favor accommodation of alternative modes to the automobile as a means to enhance efficient transit use, bicycling, and walking and corresponding benefits to the environment, person-throughput, and qualitative improvements to the transportation system environment.
- **LT-3.24** - Ensure effective and safe traffic flows for all modes of transport through physical and operational transportation improvements.

Complete Streets Policy (No. 793-16):

- **Resolution No. 896-18 (amending Resolution No. 793-16)**: The City wishes to improve its commitment to Complete Streets and desires that its streets form a comprehensive and integrated transportation network promoting safe, equitable, and convenient travel for all users

25-0128

Agenda Date: 8/21/2025

while preserving flexibility, recognizing community context, and using the latest and best design guidelines and standards.

ENVIRONMENTAL REVIEW

The project is categorically exempt from environmental review under the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15301(c) which applies to existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities. This includes the addition of bicycle facilities (including but not limited to bicycle parking, bicycle-share facilities and bicycle lanes), pedestrian crossings, street trees, and other similar alterations that do not create additional automobile lanes.

DISCUSSION

This study included multiple elements to evaluate the feasibility of removing one travel lane in the southbound direction on Mathilda Avenue. The scope of work included an establishment of existing conditions, data collection and a traffic analysis of intersection operations, a collision analysis of the corridor, development of alternative improvements and an extensive public outreach process.

Traffic Analysis

The project team performed a traffic analysis (Attachment 5) to analyze the operational effects of removing one southbound travel lane on Mathilda Avenue between Ahwanee Avenue/Almanor Avenue and Maude Avenue. There are five (5) study intersections:

1. North Mathilda Avenue/ US-101 Southbound off-ramp
2. North Mathilda Avenue/Ahwanee Avenue/Almanor Avenue
3. North Mathilda Avenue/San Aleso Avenue
4. North Mathilda Avenue/Del Rey Avenue
5. North Mathilda Avenue/Maude Avenue

Turning movement traffic counts, bicycle counts, and pedestrian counts were collected in March 2024 for three periods: weekday AM peak hours (6-10 AM), weekday PM peak hours (4-7 PM), and weekend midday (11 AM-2 PM) at intersections 1 to 4 listed above. In addition to peak period turning movement counts, average daily traffic counts were collected at two locations along Mathilda Avenue: one north of Del Rey Avenue and one between Ahwanee Avenue/Almanor Avenue and San Aleso Avenue.

The intersection of Mathilda and Maude avenues is identified as a Santa Clara Valley Transportation Authority (VTA) Congestion Management Program (CMP) intersection and is monitored by VTA as part of its CMP monitoring. VTA's guidelines for traffic analysis were used for this intersection. For the PM peak hour, the 2018 counts collected for the CMP monitoring were used; for the AM peak hour, the counts collected by the city in February 2020 were used.

Based on the traffic analysis, the lane reduction in the southbound direction from four lanes to three lanes between the US-101 SB off-ramps and Maude Avenue would result in all study intersections continuing to operate at an acceptable Level of Service (LOS) E or better during the Existing Plus Project conditions for both the AM and PM peak hours. A discussion of LOS is included in the Final Report (Attachment 5).

In addition to the intersection level of service analysis, a queuing analysis was performed. The results indicate that the lane reduction could cause the southbound queue at the Mathilda Avenue and

25-0128

Agenda Date: 8/21/2025

Ahwanee Avenue/Almanor Avenue intersection to extend northward, reaching the US-101 southbound off-ramp intersection during both the AM and PM peak hours. To prevent queuing from extending into the upstream intersection, the following improvements are recommended:

- Increase traffic signal timing cycle length from 170 to 172 seconds during the AM peak on weekdays along the Mathilda Avenue corridor
- Increase traffic signal timing cycle length from 170 to 178 seconds during the PM peak on weekdays along the Mathilda Avenue corridor
- Convert the southbound shared through-right lane at the Ahwanee Avenue/Almanor Avenue intersection to a right-turn only lane

Collisions

Between January 2019 and January 2024, a total of 62 collisions were reported along the study corridor. There was a total of three (3) pedestrian-related collisions and two (2) bicyclist-related collisions out of the 62 total collisions. Of the three pedestrian-related collisions, two occurred at intersections where drivers failed to yield to pedestrians. The third collision took place in a private property parking lot, also involving a driver failing to yield. One of the bicycle-related incidents occurred when a cyclist ran a red light while traveling westbound on Maude Avenue at North Mathilda Avenue. The other involved a student riding southbound on the sidewalk along the east side of the street, in an area without a designated southbound bicycle lane.

Collision Data Breakdown (2019-2024)

Involved with	Occurrences
Motor Vehicles Only	57
Pedestrian	3
Bicycle	2
Total	62

To understand the safety performance of the studies corridor and intersections, collision data is compared against the Caltrans statewide average of crash rates and injury percentages as published by Caltrans in the 2023 Crash Data on California State Highway. This is discussed in the project final report (see Attachment 5). A corridor collision is one occurring just outside the intersection crosswalk lines. Intersection collisions are defined as those occurring within the limits of the intersection, bounded by the crosswalk lines.

For corridor collisions, the calculated crash rate for the project segments of Mathilda Avenue, excluding the intersections, is approximately 1.28 collisions per million vehicle miles traveled (MVMT). This is higher than the Caltrans Statewide average crash rate of 0.87 collisions per MVMT. The percentage of injuries recorded for this segment is 44.4%, which is also slightly above the statewide average injury percentage of 44.0%. Most of the collisions are due to factors such as unsafe speeds and improper turning. Most were of the following types: rear-end, sideswipe, and broadside collisions. Taking the factors and types into consideration, the higher-than-average corridor collision rate is likely due to the proximity of this segment to the U.S. 101 interchange as well as the vehicles merging into and out of the fourth southbound lane. By reducing this segment from four to three southbound lanes, the merging will be reduced which would reduce the likelihood of sideswipe and broadside collisions.

25-0128

Agenda Date: 8/21/2025

The intersection collisions were also calculated for the three studied intersections on North Mathilda Avenue at Ahwanee-Almanor Avenue, San Aleso Avenue, and W. Maude Avenue. All three rates are below the Statewide average rates, as seen in the table below. The percent of injuries recorded for these intersections are also below the statewide average rate for San Aleso Avenue and W. Maude Avenue. It is above the Statewide average percentage for Ahwanee-Almanor Avenue. Again, this could likely be due to the proximity to the U.S. 101 interchange and fast moving vehicles leaving the freeway.

Intersection at Mathilda Avenue	Intersection Calculated Crash Rate	Statewide Average Crash Rate	Intersection Crash Injury Percentage	Statewide Average Crash Injury Percentage
Ahwanee-Almanor Avenue	0.08	0.33	66.7%	47.7%
San Aleso Avenue	0.16	0.33	45.5%	47.7%
W Maude Avenue	0.12	0.33	33.3%	47.7%

Proposed Improvements

Alternative 1 (Attachment 3): This alternative would remove one travel lane in the southbound direction on Mathilda Avenue between Ahwanee Avenue/Almanor Avenue and Maude Avenue to install a Class IIB bicycle lane. Additionally, the southbound shared through-right lane at the intersection of Mathilda Avenue and Ahwanee Avenue/Almanor Avenue would be converted to a southbound right-turn only lane. A striping transition would be installed between the US-101 SB off-ramp and Ahwanee Avenue/Almanor Avenue. These striping changes are within Caltrans right-of-way and have been reviewed by Caltrans with no concerns.

Alternative 2 (Attachment 4): This alternative would maintain the existing configuration on southbound Mathilda Avenue between Ahwanee Avenue/Almanor Avenue and Maude Avenue. No travel lane would be removed and no bike lane would be installed in the southbound direction.

Public Outreach Summary

The project included a series of public outreach activities and meetings. It was first presented to the Bicycle and Pedestrian Advisory Commission on June 20, 2024 (RTC No. 24-0754), followed by a combined Zoom and in-person community meeting on August 01, 2024. To raise awareness and promote participation in the online survey, the project team hosted two pop-up tabling events, one in Downtown Sunnyvale during lunchtime on Thursday, February 27, 2025, and another at the Sunnyvale Farmers Market on Saturday, March 1, 2025. The conceptual designs were later shared with the public at a second combined Zoom and in-person community meeting on March 11, 2025.

The project team promoted both community meetings and the online survey through a variety of outreach channels:

- **Postcards:** Prior to the first community meeting, postcards were mailed to property owners, residents, employers, and tenants along the study corridor. A second round of postcards was

25-0128

Agenda Date: 8/21/2025

distributed at the two pop-up tabling events to promote the second community meeting and included a link and QR code for the online survey.

- **Social Media and Email:** Both community meetings and the online survey were promoted on the City's Nextdoor and Facebook pages. Notifications were also emailed to nearby employers, including the Moffett Park Business Group, and to individuals subscribed to the project mailing list.
- **Digital Signage:** Two electronic portable changeable message signs were temporarily installed along Mathilda Avenue for one week to advertise the second outreach meeting.

The online survey was conducted from February 15, 2025 to March 24, 2025. It included five (5) questions focused on understanding the community's mobility needs, travel habits, potential behavior change with the proposed improvements, and basic demographic information. A total of 94 responses were received, and 146 visited the online survey. A full report of the summary results is provided in the final report (Attachment 5). Key findings of the survey include:

- 30% live within 5 blocks of the project corridor
- 70% drive solo or carpool to their place of destination along the corridor
- 63 respondents said that the project would change how they travel in the area
 - 44 of those 63 are currently driving, carpool, take transit, or walk
 - the remaining respondents may potentially change their route of travel or frequency of traveling on Mathilda Avenue
- 31 respondents said the project would not change their commute habits
 - 28 of those 31 are currently driving.

Following the second outreach meeting, staff received positive feedback on the proposed improvements. Additional comments received at this meeting generally concerned details about the design of the proposed bike facility. Those comments will be considered during the final design phase if Council chooses to proceed with Alternative 1.

Cost Estimates

The cost estimate for each alternative is broken down in the table below:

Alternative	Total Cost
1	\$800,000
2	\$0

This cost includes final design as well as the construction including slurry seal, striping and signage. The slurry seal and striping would be completed for the entire southbound roadway width, curb to median, from the US-101 SB off-ramp to approximately 400 feet south of Maude Avenue. This assumes this is a standalone project. If Council approves Alternative 1, staff will look for opportunities to implement this project in combination with other projects to help reduce the cost.

FISCAL IMPACT

The total project cost for Alternative 1 is approximately \$800,000. There is currently no funding for final design or construction. After the selection of the alternative, staff will look for grant opportunities for the design and construction phases for the project and work through a future budget process to create a Capital Improvement Project for City Council consideration. Staff will also look for

25-0128

Agenda Date: 8/21/2025

opportunities to implement this project in combination with other projects to help reduce the cost. This project may potentially be incorporated into the Annual Slurry Seal program: the Mathilda Avenue segment is expected to receive slurry seal treatment within the next 5-10 years, depending on its pavement condition index. Alternatively, the recent slurry seal design on Mathilda Avenue allows buffered bicycle lanes to be added in the southbound direction without additional slurry sealing or striping changes, offering a significantly lower-cost implementation option.

PUBLIC CONTACT

Public contact was made by posting the meeting agenda on the City's official-notice bulletin board at City Hall. In addition, the agenda and this report are available at the City Hall reception desk located on the first floor of City Hall at 456 W. Olive Avenue (during normal business hours), and on the City's website.

ALTERNATIVES

1. Recommend to City Council to approve the Design Alternative 1 to remove one southbound travel lane and install a Class IIB Buffered Bicycle Lane on southbound Mathilda Avenue between Ahwanee Avenue/Almanor Avenue and Maude Avenue, find that the action is exempt from CEQA pursuant to CEQA Guideline Section 15301(c), and direct staff to include the proposed improvements as a future unfunded project .
2. Recommend to City Council Design Alternative 2 to maintain the existing southbound Mathilda Avenue configuration between Ahwanee Avenue/Almanor Avenue and Maude Avenue (no change to existing conditions).

RECOMMENDATION

Alternative 1: Recommend to City Council to approve the Design Alternative 1 to remove one southbound travel lane and install a Class IIB Buffered Bicycle Lane on southbound Mathilda Avenue between Ahwanee Avenue/Almanor Avenue and Maude Avenue, find that the action is exempt from CEQA pursuant to CEQA Guideline Section 15301(c), and direct staff to include the proposed improvements as a future unfunded project.

Staff recommends installing a Class IIB buffered bicycle lane on southbound Mathilda Avenue between Ahwanee Avenue/Almanor Avenue and Maude Avenue to close an existing gap in the bicycle network. Once implemented, the bicycle lanes on southbound Mathilda Avenue will be continuous from Java Drive to Washington Avenue. Mathilda Avenue is a major arterial and a key commute corridor, connecting residential developments in south Sunnyvale to the employment centers in the Peery Park and Moffett Park areas. This project supports the goals of the ATP by improving bicycle network connectivity. Additionally, the proposed improvements would establish a consistent roadway configuration with buffered bike lanes in both directions along Mathilda Avenue between Ahwanee Avenue/Almanor Avenue and Maude Avenue.

LEVINE ACT

The Levine Act (Gov. Code Section 84308) prohibits city officials from participating in certain decisions regarding licenses, permits, and other entitlements for use if the official has received a campaign contribution of more than \$500 from a party, participant, or agent of a party or participant in the previous 12 months. The Levine Act is intended to prevent financial influence on decisions that affect specific, identifiable persons or participants. For more information see the Fair Political Practices Commission website: www.fppc.ca.gov/learn/pay-to-play-limits-and-prohibitions.html

25-0128

Agenda Date: 8/21/2025

A check in the checklist below indicates that the action being considered falls under a Levine Act category or exemption:

SUBJECT TO THE LEVINE ACT

- ☐ Land development entitlements
- ☐ Other permit, license, or entitlement for use
- ☐ Contract or franchise

EXEMPT FROM THE LEVINE ACT

- ☐ Competitively bid contract*
- ☐ Labor or personal employment contract
- ☐ Contract under \$50,000 or non-fiscal
- ☐ Contract between public agencies
- ☒ General policy and legislative actions

* "Competitively bid" means a contract that must be awarded to the lowest responsive and responsible bidder.

Prepared by: Thinh Le, Transportation Engineer

Reviewed by: Angela Obeso, Interim Transportation and Traffic Manager

Reviewed by: Chip Taylor, Director, Department of Public Works

Reviewed by: Sarah Johnson-Rios, Assistant City Manager

Approved by: Tim Kirby, City Manager

ATTACHMENTS

1. Reserved for Report to Council
2. Corridor Map
3. Alternative 1 Proposed Improvements
4. Alternative 2 No Build-Existing Conditions
5. Mathilda Avenue Bike Lane Study - Final Report