

SUBJECT: Vineyards Parkway Traffic Update

DEPARTMENT: Engineering

STAFF: Allen Baguilar, Director of Engineering/City Engineer

TITLE/RECOMMENDATION

Receive an update on Vineyards Parkway related to speed limit painting, reassessment of a stop sign warrant, landscaping reductions, rectangular rapid flashing beacons ("RRFB's"), parks and amphitheater mitigations.

FISCAL IMPACT

Staff was successful in obtaining a Transportation Development Act ("TDA") grant award of \$100,000 to acquire additional RRFB's and flashing crosswalk ahead signs. The grant award will provide sufficient funding for the purchase and installation of new RRFB's at Solera Street/Trilogy Parkway and Andalucia/Sacred Mountain intersections.

BACKGROUND

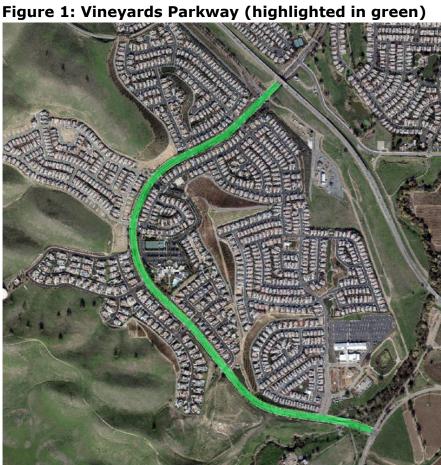
Vineyards Parkway is a 1.6-mile long public street that serves the Trilogy at the Vineyards neighborhood and connects between Fairview Avenue to the north and Marsh Creek Road to the south (Figure 1). It consists of two vehicle and two bike lanes (one in each direction) separated by a 16-foot wide landscaped median island with meandering 10-foot wide multi-use paths on both sides. Vineyards Parkway also serves Los Medanos Community College and Club Los Meganos. In the event the amphitheater and event center contemplated by the City are eventually built, Vineyards Parkway would also serve these facilities.

On April 9, 2024, the City Council directed staff to spend time and resources on the following:

- 1. Paint speed limit on the pavement on Vineyards Parkway at locations deemed appropriate by the City traffic engineer.
- 2. Complete re-assessment of a stop sign warrant to determine if any further conditions are met, and install stop signs, if warranted. If not, return to the City Council with a report.
- 3. Reduce landscaping to 24-inches in height, or greater, where needed at the discretion of City staff.



- 4. Continue seeking grants for RRFBs.
- 5. As staff completes the tasks above, factor the existence of parks into work.
- 6. Be proactive on Vineyards amphitheater mitigations or compliance with traffic standards.



Engineering staff has performed a multi-way stop sign warrant analysis (Attachment #2) based on data collected from Tuesday, April 30th, 2024 through Thursday, May 2nd, 2024 at the intersection of Vineyards Parkway and Trilogy Parkway/Solera Street. As requested by the City Council, the volumes take into account Alta Park use. The re-assessment determined that the multi-way stop is not warranted.

To summarize, a multi-way stop is warranted when two of the following three conditions are met for high volume streets (over 4,000 vehicles per day):

1. Traffic Volume: This condition is met when the intersection has an average consecutive 8-hour volume greater than 450 vehicles and a combined sidestreet vehicle and pedestrian volume of 150 for the same 8-hour period.



Findings:

	Actual	Requirement*	Met
Average 8-hour volume measured in vehicles per hour (VPH)	324	> 450	No
Combined vehicle and pedestrian volume from side street average at least 150	76	≥ 150	No

^{* - 85&}lt;sup>th</sup> percentile speed is 36-37mph.

Based on the traffic volume data collected during the study period, this condition is not satisfied.

2. <u>Accident History</u>: To satisfy this condition, the intersection must have four traffic accidents within a 12-month period that would have been prevented by a multi-way stop.

<u>Findings</u>: An accident occurred on October 27, 2023 at the intersection of Vineyards Parkway and Trilogy Parkway/Solera Street. It is in staff's opinion that a multi-way stop would not have prevented the accident; however, it is included in the warrant analysis. With only one accident at this location within a 12-month period, this condition is not met.

3. <u>Visibility</u>: Brentwood follows the policies and procedures set forth by the Caltrans Highway Design Manual ("HDM"). This condition is satisfied when the stopping sight distance on the approaches to a major street is less than the recommended for the given design speed. Stopping sight distance is defined as the distance needed for drivers to see an object on the roadway ahead and bring their vehicles to safe stop.

Per the HDM, stopping sight distance is determined by adding 10 MPH to the posted speed. This equates to a design speed of 45 MPH for Vineyards Parkway, which corresponds to a 360-foot stopping sight distance requirement, per the HDM. As Trilogy Parkway and Solera Street are already stop controlled, this criteria only applies to Vineyards Parkway.

Per the City Council direction, the landscaping contractor has trimmed vegetation to a 24-inch maximum height, which provides visibility greater than the standard of 30-inches. Figures 2 and 3 show the areas where this is applied to ensure maximum visibility. City staff will work closely with the landscaping contractor to ensure landscaping is kept within this threshold. With active



landscaping management, the visibility condition for a stop-sign warrant is not met.

Figure 2: Vineyards Pkwy and Trilogy Pkwy/Solera St Visibility Landscaping



Figure 3: Vineyards Pkwy and Sacred Mountain Ln Visibility Landscaping





In conclusion, none of the three conditions were met for a multi-way stop at either intersection and stop signs on Vineyards Parkway have not been installed. Staff also performed analysis under a Moderate Volume Street (4,000 or less vehicles per day) scenario and it similarly did not satisfy the warrant for a multi-way stop.

<u>Paint speed limit on the pavement on Vineyards Parkway at locations deemed</u> <u>appropriate by the City traffic engineer</u>

Engineering and Public Works staff have coordinated and have painted the speed limit at eight locations along Vineyards Parkway split evenly between northbound and southbound traffic. The locations are shown on the following figure.



Figure 4: 35 MPH street marking locations





Figure 5: 35 MPH marked on Vineyards Parkway

Reduce landscaping 24" in height, or greater, where needed at the discretion of City staff.

The Parks and Recreation Department has been working with Terracare, the City's landscaping contractor, to perform focused landscape trimming along Vineyards Parkway and will ensure that proper sight distances for both motorists and pedestrians are maintained.

The standard requirement for sight-distance is for shrubs to be maintained below 30" above the ground within controlled areas for visibility. At Council's direction, the shrubs within and around the intersections along Vineyards Parkway have been trimmed below 24" and the landscaping contractor has been instructed to maintain this height limit moving forward.

Continue seeking grants for Rectangular Rapid Flashing Beacons (RRFBs).

On August 23, 2024 staff received an award letter from the Metropolitan Traffic Commission (MTC) of a Transportation Development Act (TDA) grant totaling \$100,000. The grant award will provide sufficient funding for the purchase and installation of new RRFB's at Solera Street/Trilogy Parkway and Andalucia/Sacred Mountain intersections.



The enhancements to these intersections include 1) updating and coordinating the existing signage with flashing signs synchronized with the RRFB on Solera St/Trilogy Parkway, as shown on Figure 6; and 2) installing new RRFBs at Andalucia/Sacred Mountain Lane and flashing warning signs to replace the existing signage on Vineyards Parkway, as shown in Figure 7.



Figure 6: Proposed Enhancements at Solera St/Trilogy Pkwy







Be proactive on Vineyards amphitheater mitigations or compliance with traffic standards.

As shared at previous meetings, the amphitheater project is currently going through a Subsequent Environmental Impact Report process, as well as a redesign of the upper parking lot event area. The other applicable traffic control or calming measures to implement along Vineyards Parkway would be a traffic signal. Based on the California Manual for Uniform Traffic Control Devices (CA-MUTCD), a traffic signal is not warranted based on current traffic volumes at the intersections and is further supported by the findings of the all-way stop warrant analysis.

CITY COUNCIL STRATEGIC INITIATIVE

Not Applicable

PREVIOUS ACTION

Previous Action by the City Council is included on Attachment 1.

DATE OF NOTICE

Not Applicable.

ENVIRONMENTAL DETERMINATION

Not Applicable.

ALTERNATIVE OPTION(S)

Alternative options to the staff recommendations:

1. Continue item with direction for staff to return with additional information.

ATTACHMENT(S)

- 1. Previous Action
- 2. Vineyards Parkway Multi-way Stop Sign Warrant Analysis