

**CITY OF TEMECULA  
AGENDA REPORT**

**TO:** City Manager/City Council

**FROM:** Patrick Thomas, Director of Public Works/City Engineer

**DATE:** July 11, 2023

**SUBJECT:** Establish All-Way Stop Control at the Intersection of Wolf Creek Drive North and Redwood Road/Alpine Place

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**PREPARED BY:** Anissa Sharp, Management Assistant  
Nick Minicilli, Senior Traffic Engineer

**RECOMMENDATION:** That the City Council adopt a resolution entitled:

RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF TEMECULA, ESTABLISHING AN ALL-WAY STOP CONTROL AT THE INTERSECTION OF WOLF CREEK DRIVE NORTH AND REDWOOD ROAD/ALPINE PLACE AND FINDING THAT THE ACTION IS EXEMPT FROM CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) UNDER SECTION 15301(C) OF THE CEQA GUIDELINES

**BACKGROUND:** In December 2022, City of Temecula staff received a citizen request to consider the feasibility of implementing all way stop controls to address concerns of excessive speeding and unsafe pedestrian conditions at the intersection of Wolf Creek Drive North and Redwood Road/Alpine Place (Exhibit A). The citizen referenced concerns with speeding and unsafe pedestrian crossings at this intersection specifically during pickup and drop-off times for nearby schools as there are no convenient controlled pedestrian crossings nearby. The request for an all way stop and pedestrian controls at the intersection of Wolf Creek Drive North and Redwood Road/Alpine Place would be to provide additional controlled access for students heading to/from Erle Stanley Gardner Middle School and Temecula Luiseno Elementary School. In January 2023, field reviews were performed by staff at this intersection and, based on vehicular and pedestrian activity observed, it was determined that the intersection of Wolf Creek Drive North and Redwood Road/Alpine Place warranted further analysis for stop and pedestrian controls.

Wolf Creek Drive North is a forty-four (44) foot wide residential collector roadway providing access to numerous single-family residences between Wolf Valley Road and Pechanga Parkway. The posted speed limit on Wolf Creek Drive North is 30 MPH and the Average Daily Traffic

(ADT) volume on is approximately 4,990 ADT. Recent speed data collection confirmed an 85<sup>th</sup> percentile speed of 38 MPH for this stretch of Wolf Creek Drive North.

Redwood Road is a fifty-four (54) foot wide residential collector roadway that provides access to Wolf Creek Drive North and Loma Linda Road for numerous single-family residences located within the area. Redwood Road has a speed limit of 30 MPH and carries approximately 1,048 ADT.

Alpine Place is a thirty-six (36) foot wide local residential roadway that provides access to Wolf Creek Drive North for numerous single-family residences located within the neighborhood. Alpine Place has a speed limit of 25 MPH and carries approximately 297 ADT.

In February 2023, staff generated speed and volume data between February 2022 thru April 2022 using Streetlight Data software. Over this three (3) month period, review of prevailing (85<sup>th</sup> percentile) speeds indicates that speeds vary from 36 to 39 miles per hour during peak AM and PM hours on posted 30 MPH segments of Wolf Creek Drive North. The results of the speed data review indicate that most speeding is occurring during peak AM and PM hours.

The collected volume data was used to evaluate entering volumes and prevailing speeds for the intersection of Wolf Creek Drive North and Redwood Road/Alpine Place. In addition to the data collection, a review of intersection characteristics and conditions was performed, which included an evaluation of sight distance, collision history, and completion of a multi-way stop warrant analysis at both intersections.

An evaluation of sight distance was performed at the intersection of Wolf Creek Drive North and Redwood Road/Alpine Place. A minimum unobstructed sight distance of 200 feet is required for the posted 30 mph speed limit on Wolf Creek Drive North. The results of the evaluation are shown in the table below:

| <i>Location</i>                  | <i>Sight Distance</i> | <i>Required Visibility<br/>(Posted 30 MPH)</i> |
|----------------------------------|-----------------------|--|
| <u>Redwood Road (Southbound)</u> |                       |  |
| • Looking East                   | <b>450'</b>           | <b>200'</b>                                    |
| • Looking West                   | <b>420'</b>           | <b>200'</b>                                    |
| <u>Alpine Place (Northbound)</u> |                       |  |
| • Looking East                   | <b>300'</b>           | <b>200'</b>                                    |
| • Looking West                   | <b>265'</b>           | <b>200'</b>                                    |

As shown, the visibility at the intersection of Wolf Creek Drive North and Redwood Road/Alpine Place is more than adequate for the posted speed limit.

A review of the collision history for the three (3) year period from May 1, 2019 to April 30, 2022, indicates there were no (0) reported collisions at the intersection of Wolf Creek Drive North and Redwood Road/Alpine Place.

The Multi-Way Stop Sign Installation Policy for Residential Streets' warrant criteria was used to evaluate the need for multi-way stop signs at the intersection. The warrants allow for the installation of multi-way stop signs when the following conditions are satisfied:

1. Minimum Traffic Volumes
  - a. The total vehicular volume entering the intersection from all approaches is equal to or greater than three hundred (300) vehicles per hour for any eight (8) hours of an average day; and
  - b. The combined vehicular volume and pedestrian volume from the minor street is equal to or greater than one hundred (100) per hour for the same eight (8) hours.
2. Collision History
  - a. Three (3) or more reported collisions within a twelve (12) month period of a type susceptible to correction by a multi-way stop installation. Such accidents include right and left-turn collisions as well as right-angle collisions.
3. Roadway Characteristics
  - a. The traffic volume on the uncontrolled street exceeds two thousand (2,000) vehicles per day,
  - b. The intersection has four (4) legs, with the streets extending 600 feet or more away from the intersection on at least three (3) of the legs.
  - c. The vehicular volumes on both streets are nearly equal to a forty/sixty percent (40/60%) split; and
  - d. Both streets are 44 feet wide or narrower.

Warrants for Minimum Traffic Volumes, Collision History and Roadway Characteristics must be met to justify the installation of a multi-way stop. Other criteria that may be considered when evaluating the need for multi-way stop signs include:

4. Visibility
  - a. The intersections sight distance is less than:
    - 150 feet for 25 MPH
    - 200 feet for 30 MPH
    - 250 feet for 35 MPH
5. The need to control left-turn conflicts.
6. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes such as schools, parks and activity centers.
7. The roadways and intersection appear on a Suggested Route to School plan.

8. There are no traffic signals or all-way stop controls located within 600 feet of the intersection.
9. The installation of multi-way stop signs is compatible with overall traffic circulation needs of the residential area.

The multi-way stop warrant analysis performed found that the required Warrants 1, 2 & 3 were not satisfied and all-way stop controls are not justified at the intersection based on quantitative data.

The Policy does however provide the flexibility to consider the need to control vehicle and pedestrian conflicts near locations that generate high pedestrian volumes such as schools, parks and activity centers. During field reviews, staff noticed elevated amounts of pedestrian traffic based on the intersection being near Erle Stanley Gardner Middle School and Temecula Luiseno Elementary School. Staff observed that many of these school age pedestrians were crossing the uncontrolled without paying close attention to vehicles and their surroundings. Staff observed elevated speeds by motorists on Wolf Creek Drive and witnessed several close calls with distracted pedestrians. Based on the review of the intersection under these criteria, and the fact that it acts as a suggested school route between multiple schools in the area, staff has determined there is justification for all-way stop controls at the intersection of Wolf Creek Drive North and Redwood Road/Alpine Place.

Staff recommends establishing all-way stop controls and striped pedestrian crosswalks at the intersection of Wolf Creek Drive North and Redwood Road/Alpine Place.

**FISCAL IMPACT:** Minor cost associated with the recommended action.

**ATTACHMENTS:**

1. Resolution
2. Exhibit A - Location Map
3. Exhibit B - Multi-Way Stop Warrant Analysis