



Administrative Report

J.1., File # PWC23-6267

Meeting Date: 6/26/2023

To: PUBLIC WORKS AND SUSTAINABILITY COMMISSION

From: DEPARTMENT OF PUBLIC WORKS

TITLE

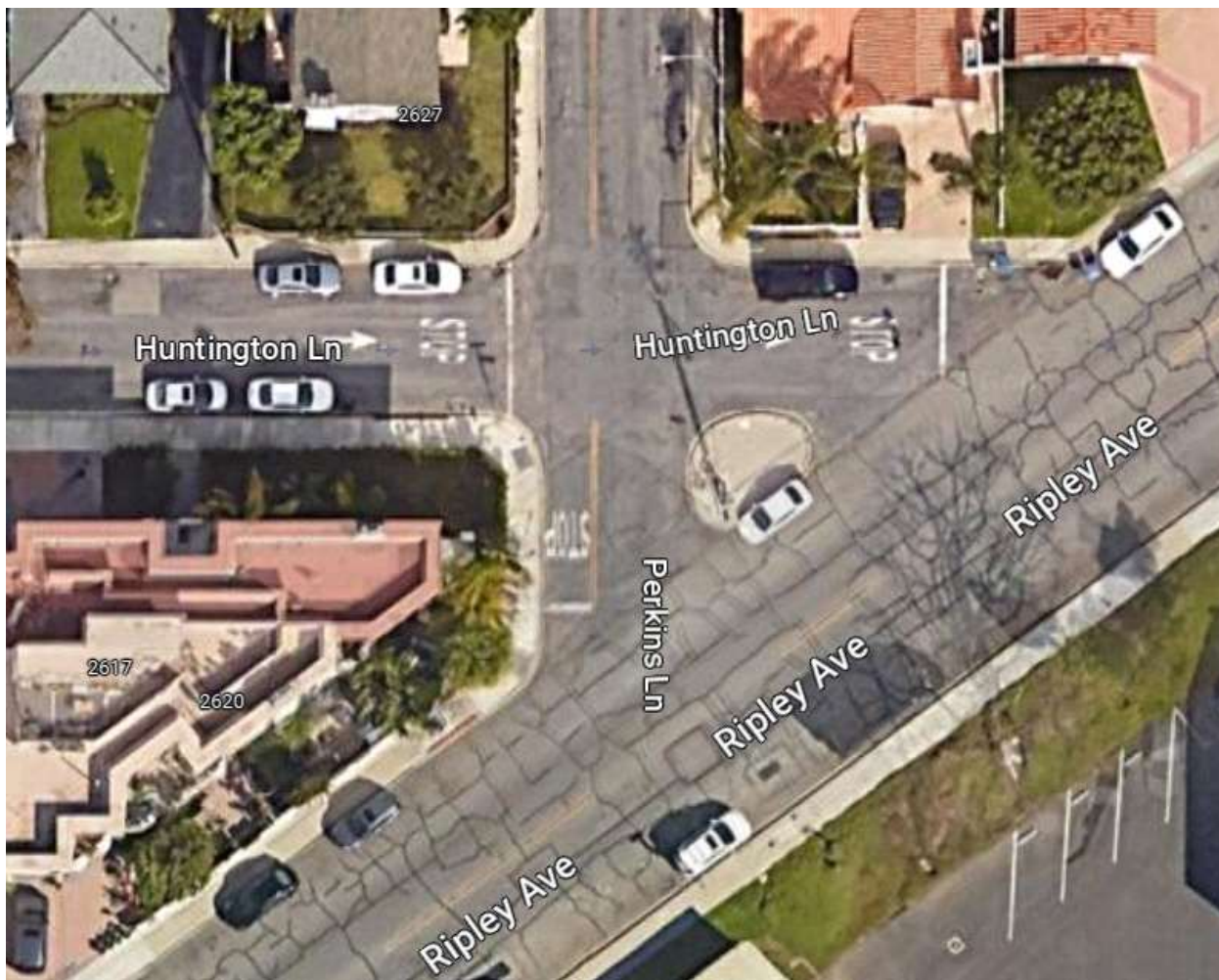
DISCUSSION AND POSSIBLE ACTION REGARDING PROCEEDING WITH AN ALL WAY STOP INSTALLATION AT THE INTERSECTION OF PERKINS LANE AND RIPLEY AVENUE

SUMMARY

In response to a resident request, which was forwarded by the District 4 Council Member staff is bringing forward a recommendation for all-way stop ("AWS") controls at the intersection of Ripley Avenue and Perkins Lane. The resident reported that there is a significant sight line limitation for vehicles stopped on Huntington Lane at the intersection with Perkins Lane, which is a very short block north of the Ripley / Perkins intersection. The City's Traffic Engineer performed a site analysis and confirms a significant obstruction to sight lines exists, and that the operation of both intersections could be made safer with the installation of stop controls on Ripley Avenue at Perkins Lane. Therefore, staff recommends the installation of an AWS at Ripley Avenue and Perkins Lane.

BACKGROUND

Staff received an email from the council member from District 4 in May 2023, originally written by a resident in January 2023, bringing to staff's attention the difficulty navigating the intersection of Huntington Lane and Perkins Lane. The concern is due to limited sight lines for vehicles advancing eastbound through the intersection of Huntington Lane and Perkins Lane. The Huntington / Perkins intersection has stop control only on Huntington Lane, which is one way to the east. That intersection lies only about 30 feet north (in the northbound lane) of the Ripley / Perkins intersection, which is stop controlled only on the southbound Perkins approach. An aerial view of the intersection is below (with north to the top of the picture).



The City's Traffic Engineer visited the site in May 2023 and concurred that the reduced visibility for vehicles traveling eastbound through that intersection is impaired and could be improved by the introduction of AWS controls at the Ripley / Perkins intersection. Staff collected and analyzed reported traffic collision data from SWITRS. A review of the available SWITRS crash data at both intersections during the five-year period revealed no correctable collisions between 1/1/2018 and 12/31/2022.

Because this recommendation from staff is based on technical analysis, staff did not direct a survey to residents within 150 feet of the intersection per the City's AWS request policy approved by City Council on May 17, 2022. However, notice to those residents was given regarding this agenda item.

DISCUSSION

Perkins Lane is classified as a local street and has a 25-mph residential prima facie speed limit. Perkins Lane runs north-south. Stopping is prohibited on the west side of the street. It is approximately 28 feet wide with one travel lane in each direction that are separated by a dashed yellow centerline. Perkins is stop controlled approximately 320 feet (one block) to the north of the subject intersection at Grant Avenue and stop controlled approximately 30 feet to the south at Ripley

Avenue.

Ripley Avenue is classified as a local street, has a 30-mph residential prima facie speed limit and runs southwest-northeast with one travel lane in each direction. It is approximately 46 feet wide with parallel parking allowed on both sides of the street. Ripley Avenue is not stop controlled at the subject intersection. There are stop controls approximately 300 feet to the northeast of the subject intersection at Inglewood Avenue and all-way stop controls approximately 770 feet to the southwest at Felton Avenue. There are sidewalk, curb and gutter improvements on all legs.

Fronting development in the vicinity of the intersection is predominantly single family and small multifamily residential. Adams Middle School and the RBUSD School District Office are adjacent to the southerly side of Ripley. Ripley is heavily travelled on school days, especially during drop off and pick up periods.

The California Manual on Uniform Traffic Control Devices (CA MUTCD) provides guidance for the installation of all-way stop controls. It suggests that all-way stop controls should be considered when:

- **Criteria A** - Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.
- **Criteria B** - When there are five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.
- **Criteria C** - Where the vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour. When the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants may be reduced to 70 percent of the above values.
- **Criteria D** - Where no single criterion is satisfied, but where Criteria B and C are all satisfied to 80 percent of the minimum values.

The CA MUTCD also provides other criteria that may be considered, including:

- The need to control left-turn conflicts;
- The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;
- Locations where a road user, after stopping, cannot see conflicting traffic and is not able to

negotiate the intersection unless conflicting cross traffic is also required to stop; and,

- An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where all-way stop control would improve traffic operational characteristics of the intersection.

Staff recommendation for AWS control is based on the “other criteria” listed above, specifically related to reduced visibility for conflicting traffic due the building and landscaping at 2620 Huntington Lane, which abuts Huntington Lane, Perkins Lane and Ripley Avenue. Most of the northbound vehicles on Perkins approaching Huntington have just completed a non-controlled left turn from Ripley and are accelerating northbound without being able to see vehicles entering the intersection from the west. Vehicles stopped on Huntington at Perkins have a difficult time negotiating the through movement across Perkins because they cannot see vehicles beginning their left turning left from Ripley to northbound Perkins. The eastbound vehicles attempting to cross Perkins Lane after their stop can come into conflict with vehicles traveling northbound on Perkins Lane, which are hard to see from the Huntington stop bar and not required to stop at the Huntington Lane intersection.

Ideally, the blocked sight lines would be mitigated by stop control at the intersection where the sight lines are blocked. However, in this case, the Huntington / Perkins intersection is too close to the Perkins / Ripley intersection to recommend stop control for northbound Perkins Lane at Huntington Lane. Therefore, staff recommends stopping vehicles on Ripley prior to the left turn, which creates a more predictable flow of and breaks in traffic for those traveling on Huntington Lane across Perkins Lane.

The benefits of this recommendation appear to outweigh the disadvantages of a new AWS on Ripley from a traffic safety point of view. It is possible that the AWS will create some queueing on Ripley during heavily used periods. However, there is plenty of street length in both directions to accommodate anticipated build up. The AWS may also contribute to lower speeds as the uncontrolled portion of Ripley Ave northeast of Felton would be shortened from about 1,150 feet to about 780 feet.

ALTERNATIVES AVAILABLE

1. Recommend staff advance consideration of AWS control at Perkins Lane and Ripley Avenue to the City Council.
2. Do not support the recommendation from staff.
3. Other actions as determined by the Public Works and Sustainability Commission

COORDINATION

Coordination of the safety evaluation and this report took place within the Public Works Department.

Prepared by:

Andy Winje, City Engineer

Submitted by:

Ted Semaan, Public Works Director

ATTACHMENTS

1. Notification Letter to Residents/Neighbors near Perkins Ln and Ripley Ave