



Administrative Report

H.12., File #19-0301

Council Action Date: 10/1/2019

To: MAYOR AND CITY COUNCIL
From: TED SEMAAN, PUBLIC WORKS DIRECTOR

TITLE

APPROVE THE INSTALLATION OF ALL-WAY STOP CONTROLS, INCLUDING APPROPRIATE SIGNAGE AND PAVEMENT MARKINGS, AT THE INTERSECTION OF RINDGE LANE AND MATHEWS AVENUE.

EXECUTIVE SUMMARY

In response to a petition submitted by residents on October 15, 2018, staff performed an analysis of an all-way stop request at the intersection of Rindge Lane and Mathews Avenue. Staff presented the findings to the Public Works Commission on August 26, 2019 and asked the Commission to evaluate the request to install all-way stop controls. After considering the analysis, the Commission unanimously recommended that the City Council approve the installation of the stop controls at the proposed intersection, as well as associated signage and pavement markings. Additionally, the Commission recommended the installation of "KEEP CLEAR" pavement markings at the adjacent driveway that accesses the CVS Pharmacy and Grocery Outlet.

The Commission agenda report, its diagrams and attachments and the draft meeting minutes from August 26, 2019 are included in Attachment 1. The additional Commission recommendation for "KEEP CLEAR" pavement markings is illustrated in Attachment 2.

BACKGROUND

Staff received a resident petition on October 15, 2018 requesting all-way stop controls at the intersection of Rindge Lane and Mathews Avenue. Due to construction of the new commercial center adjacent to the subject intersection, staff postponed studying the intersection until after construction was complete in order to accurately assess intersection operations. Prior to construction activities, local residents relayed their concerns to staff regarding the current intersection design and the various conflicts it causes for pedestrians and vehicles. Staff proceeded to collect data, perform field observations, obtain measurements, and gather vehicle speeds, turning movements, and pedestrian counts.

Rindge Lane is classified as a major collector roadway on the current California Road System Functional Classification System map (CRS map 13V42). Due to its classification, the California Vehicle Code requires that an Engineering and Traffic Survey (E&T Survey) be conducted to establish a legal speed limit that can be enforced by radar or other electronic means. The current E&T Survey supports the posted speed limit of 25 mph along the roadway segment. Rindge Lane

runs north-south and stopping is prohibited on both sides of the street. It is approximately 28 feet wide with one travel lane in each direction and is separated by a dashed yellow centerline. There are all-way stop controls approximately 300 feet to the north of the subject intersection at Nelson Avenue and a signalized intersection approximately 300 feet to the south at Artesia Boulevard.

Mathews Avenue is classified as a local street on the current CRS map 13V42 and has a 25 mph residential prima facie speed limit. It runs west-east and is one-way in the eastbound direction. It is stop controlled at the subject intersection and has no crosswalks. It is approximately 28 feet wide with one eastbound-only travel lane and parallel parking allowed on both the north and sides of the street. There are eastbound one-way stop controls approximately 600 feet to the west of the subject intersection at Blossom Lane and all-way stop controls approximately 800 feet to the east at Vail Avenue.

Fronting development in the vicinity of the intersection is predominantly single and multi-family residential. Several commercial sites including recently-opened CVS Pharmacy and Grocery Outlet are located directly south of the subject intersection on Artesia Boulevard. A driveway that accesses these businesses is located approximately 35 feet south of the subject intersection. There are sidewalk, curb and gutter improvements on all legs.

Vehicle turning movements along with pedestrian counts were obtained at this intersection during the AM peak period (7-9 a.m.) and PM peak period (4-6 p.m.) on August 14, 2019. Vehicle speed data was also obtained at the intersection on August 12, 2019. The data revealed the following:

- AM Peak Hour vehicle volume on Rindge Lane was 548 vehicles per hour
- PM Peak Hour vehicle volume on Rindge Lane was 507 vehicles per hour
- AM Peak Hour vehicle volume on Mathews Avenue was 68 vehicles per hour
- PM Peak Hour vehicle volume on Mathews Avenue was 82 vehicles per hour
- 15 pedestrians crossed Rindge Lane during the AM peak hour period
- 9 pedestrians crossed Rindge Lane during the PM peak hour period
- The 85th percentile speed of traffic on Rindge Lane at Mathews Avenue was 28 mph, average speed was 25 mph, and the highest recorded speed was 36 mph

A review of the available SWITRS accident data at this intersection during the previous three-year period, ending 7/22/2019, revealed the following accidents:

- January 22, 2016 - Broadside Accident (Vehicle-Vehicle)
- May 12, 2017 - Broadside Accident (Vehicle-Bicyclist)
- May 22, 2019 - Hit Pedestrian (Vehicle-Pedestrian)

All reported accidents may be correctable by all-way stop controls.

For the legal speed limit of 25 mph on Rindge Lane, the minimum stopping sight distance per Table

201.1 of the California Highway Design Manual is 150 feet. Field measurements revealed that visibility for the east approach of Mathews Avenue looking both north and south onto Rindge Lane exceeds the minimum stopping sight distance. However, minor tree trimming improvements on the northeast corner of the intersection and the addition of approximately 10' red curb on the southeast corner of the intersection could enhance sight visibility.

Based on the data collected, the California Manual on Traffic Control Devices (CA MUTCD) design guidance warrants were not satisfied and do not support all-way stop control installation. However, additional criteria allowed for consideration in the CA MUTCD appears applicable to justify all-way stop controls at this intersection. The additional criteria states that all-way stop controls may be warranted at "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".

Field observations revealed that a significant number of southbound vehicles on Rindge Lane form a long queue at the signalized intersection at Artesia Boulevard specifically during the PM peak period. Queued vehicles were observed from Artesia Boulevard to Nelson Avenue blocking the subject intersection and a commercial driveway that accesses the CVS Pharmacy and Grocery Outlet site. During this condition, eastbound vehicles on Mathews Avenue seemed to experience diminished sight visibility with respect to northbound vehicles on Rindge Lane. Traffic counts also revealed a moderate number of pedestrians crossing Rindge Lane during peak periods, creating the potential for pedestrian and motorist conflicts.

After hearing the presentation from staff and public testimony from local residents, the Public Works Commission voted unanimously (6-0, Commissioner Brown absent), in favor of recommending to City Council for final approval the installation of all-way stop controls at the intersection of Rindge Lane and Mathews Avenue and installing "keep clear" pavement markings at the adjacent commercial driveway.

COORDINATION

Public Works staff prepared the report and coordinated with the Public Works Commission.

FISCAL IMPACT

Funding for the installation of the proposed stop signs, signage and pavement markings is available in the Public Works Department FY 2019-20 Operating Budget.

APPROVED BY:

Joe Hoefgen, City Manager

ATTACHMENTS

Public Works Commission Meeting 8-26-19 Administrative Report and Draft Minutes
"KEEP CLEAR" Pavement Marking Exhibit