



Agenda Report

Fullerton City Council

MEETING DATE: OCTOBER 1, 2019

TO: CITY COUNCIL / CITY MANAGER

SUBMITTED BY: KENNETH A. DOMER, CITY MANAGER

PREPARED BY: MEG McWADE, PUBLIC WORKS DIRECTOR
DAVID LANGSTAFF, TRAFFIC ENGINEERING ANALYST

SUBJECT: WEST CHAPMAN AVENUE NEIGHBORHOOD - SAFETY
ENHANCEMENT STUDY

SUMMARY

Consideration of a Transportation and Circulation Commission (T&CC) recommendation to install additional stop control and other safety enhancement measures at various locations within the West Chapman Avenue neighborhood.

RECOMMENDATION

1. Adopt Resolution No. 2019-XX.

RESOLUTION NO. 2019-XX – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FULLERTON, CALIFORNIA, AUTHORIZING THE INSTALLATION OF ADDITIONAL STOP CONTROL AT VARIOUS INTERSECTIONS WITHIN THE WEST CHAPMAN AVENUE NEIGHBORHOOD AND THE REDESIGNATION OF AN ALLEY FROM MULTI DIRECTIONAL TRAVEL TO ONE-WAY

2. Authorize the Public Works Director to issue a directive to install additional safety enhancements as recommended in the California Manual on Uniform Traffic Control Devices and outlined in Table 2 of this report.

PRIORITY POLICY STATEMENT

This item matches the following Priority Policy Statement/s:

- Infrastructure and City Assets.

FISCAL IMPACT

Combined cost associated with the installation of all necessary signing and pavement markings is approximately \$5,800, labor and material included.

DISCUSSION

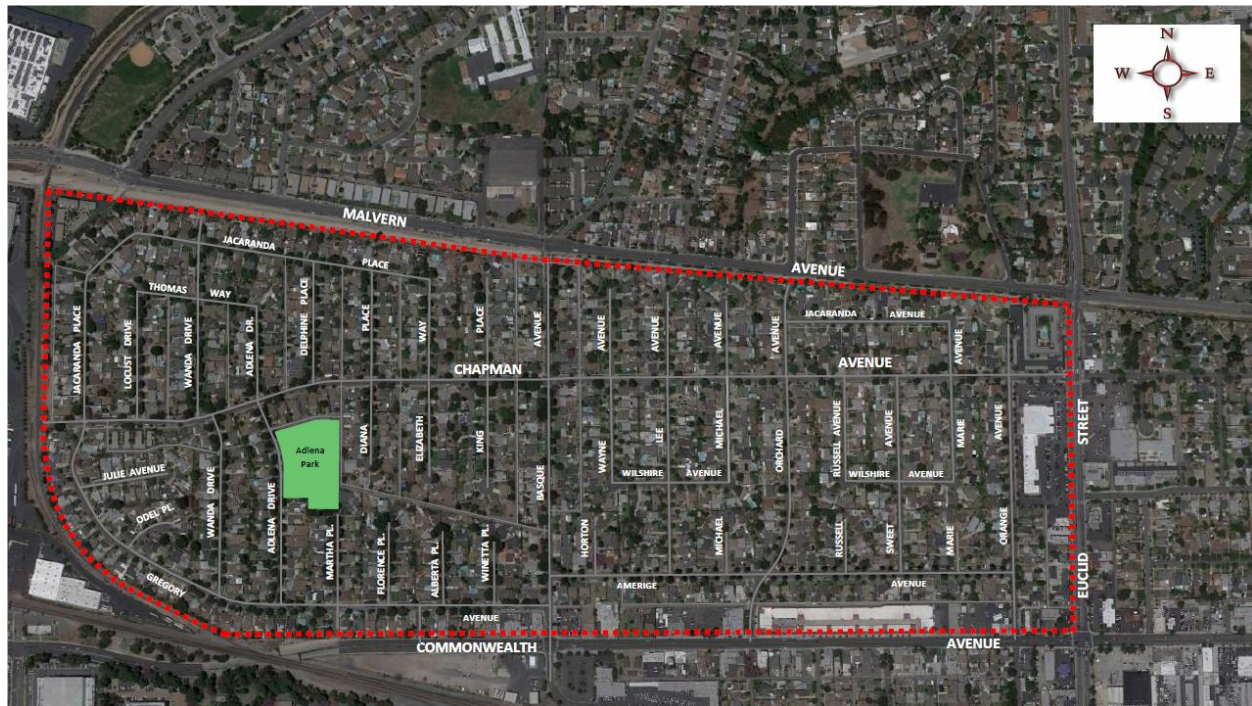
Staff received a letter of concern from a resident pertaining to excessive vehicle speeds on West Chapman Avenue.

In addressing the concern, Staff conducted a speed study on four segments of West Chapman Avenue: Jacaranda Place to Martha Place, Martha Place to Basque Avenue, Basque Avenue to Orchard Avenue and Orchard Avenue to Euclid Street. Results of the study are below:

Segment	85th Percentile Speed	% 10mph over limit
Jacaranda Place to Martha Place Westbound Eastbound	31mph 31mph	4% 7%
Martha Place to Basque Avenue Westbound Eastbound	32mph 33mph	4% 6%
Basque Avenue to Orchard Avenue Westbound Eastbound	35mph 33mph	17% 7%
Orchard Avenue to Euclid Street Westbound Eastbound	31mph 34mph	4% 13%

Based on the results, it appeared that speeds on average are typical of a residential collector street with the exception of two of the eight segments. In those cases, the 85th percentile speeds were elevated. However, actual speed did not exceed ten miles per hour over the prima facie speed limit as a standard threshold. As such, additional traffic calming measures such as speed humps / lumps are not warranted. There is, however, the small minority of drivers who show a disregard for the posted speed limit. Upon installation, information regarding the day and time of said occurrences will be forwarded to the Police Department's Traffic Bureau for consideration of additional enforcement to reeducate drivers forgetful of basic speed laws. This will be followed with the use of the Police Department's Radar Trailer to remind all drivers of their speed. The occasional presence of an officer, coupled with the Radar Speed Trailer, typically results in a residual reduction in overall speeds.

In addition to the aforementioned study, Staff evaluated sight visibility and the accident history at all intersections and streets within the West Chapman Avenue neighborhood to see if additional stop control was warranted. The Chapman Avenue neighborhood is bounded by Malvern Avenue to the north, Euclid Street to the east, Gregory Avenue to the south and Jacaranda Place to the west, as shown below and on the Vicinity Map (Attachment 2).



The primary justification for the installation of STOP signs at an intersection is based on guidelines established in the California Manual of Traffic Control Devices (CAMUTCD). The CAMUTCD states that STOP signs should be installed when specific guidelines are met, where the volumes of traffic on the intersecting roads are equal and in a manner that minimizes the number of vehicles having to stop. STOP signs are not to be used to control vehicle speeds. As such, the following criterion is considered when evaluating the need for additional stop control:

- A collision problem, as indicated by five or more reported collisions in a 12-month period, that is susceptible to correction by 4-way STOP control.
- The minimum vehicular volume entering the intersection from the major street approaches shall average at least 300 vehicles per hour for any eight hours of an average day.
- The minimum combined vehicular, pedestrian and bike volume entering the intersection from the minor street approaches shall average at least 200 units per hour for the same eight hours, with an average delay to the minor street vehicular traffic of at least 30 seconds per vehicle during the highest hour.

Although the minimum guidelines are not satisfied to warrant additional stop control at any specific location, other factors such as professional judgment and / or the need to minimize "potential" conflicts must be considered.

As such, Staff found inconsistencies with existing installations of STOP signs at "T" intersections. Staff also recognized that several intersections would be better served with the addition of 4-way STOP control when assigning right-of-way or improving sight distance. Based on observation and professional engineering

judgment, Staff recommends additional stop control at the following intersections listed in Table 1.

Table 1

- A. That STOP signs be installed at the following “t” intersections to control right-of-way, as shown in Exhibit “A” (Attachment 1) and listed below:
1. Julie Avenue at Gregory Avenue
 2. Odel Place at Gregory Avenue
 3. Wanda Drive at Gregory Avenue
 4. Adlena Drive at Gregory Avenue
 5. Martha Place at Gregory Avenue
 6. Florence Place at Gregory Avenue
 7. Alberta Place at Gregory Avenue
 8. Winetta Place at Gregory Avenue
 9. Horton Avenue at Amerige Avenue
 10. Lee Avenue at Amerige Avenue
 11. Michael Avenue at Amerige Avenue
 12. Russell Avenue at Amerige Avenue
 13. Sweet Avenue at Amerige Avenue
 14. Marie Avenue at Amerige Avenue
 15. Amerige Avenue at Orange Avenue
 16. Diana Place at Jacaranda Place
 17. Delphine Place at Jacaranda Place.
- B. That a 4-way STOP control be installed at the following locations in the interest of eliminating potential conflict by better assigning right-of-way, as a result of higher traffic volumes, pedestrian activity and / or sight distance concerns:
1. Eastbound and Westbound Chapman Avenue at Orchard Avenue
 2. Eastbound and Westbound Chapman Avenue at Adlena Drive
 3. All four directions at Amerige Avenue and Orchard Avenue.

In addition, Staff recommended the installation of the following safety enhancements listed in Table 2.

Table 2

- A. Install Red Type N Reflective Markers at the terminus of the following streets as required in the Manual of Uniform Traffic Control Devices (MUTCD) and as shown in Attachment 3 Exhibits “#1” through “#4”:

1. Westbound Chapman Avenue at its westerly terminus
 2. Northbound Wanda Drive at its northerly terminus
 3. Northbound Orchard Avenue at its northerly terminus
 4. Southbound Martha Place at its southerly terminus.
- B. Install WB-2 "DIP" warning signs for both eastbound and westbound Gregory Avenue between Julie Avenue and Odel Place, as required in the Manual on Uniform Traffic Control Devices (MUTCD).
- C. Install additional 25 mph speed limit signs at the following locations to reinforce the prima facie speed limit:
1. Westbound Chapman Avenue between Basque Avenue and King Place
 2. Westbound Chapman Avenue between Diana Place and Delphine Place
 3. Eastbound Chapman Avenue between Wanda Drive and Adlena Drive
 4. Eastbound Chapman Avenue between Orchard Avenue and Russell Avenue.
- D. Remove the existing "No Outlet" sign at the following locations in conflict with MUTCD guidelines:
1. Westbound Chapman Avenue west of Basque Avenue
 2. Northbound Alberta Place north of Commonwealth Avenue.
- E. Lastly, Staff observed driver and pedestrian behavior in the immediate area of Adlena Park and found that the east / west alley north of Adlena Park, between Adlena Drive and the north / south alley, should be re-designated as a one-way alley eastbound. If approved, Staff intends to install directional arrow pavement markings and a "Do Not Enter" sign to facilitate this change. It is Staff's professional opinion that potential conflict between vehicles and pedestrians, or thru traffic and vehicles backing out of the marked parking spaces, will be lessened.

The T&CC approved the aforementioned recommendations at their July 1, 2019 meeting. A copy of the T&CC Staff Report (Attachment 3 with exhibits depicting locations of proposed improvements) is included for City Council's reference. All recommendations listed in Tables 1 and 2 also received the support of the Police Department's Traffic Bureau and the Parks and Recreation Department.

Attachments:

- Attachment 1 – Resolution No. 2019-XX with Exhibits
- Attachment 2 – Vicinity Map
- Attachment 3 – T&CC Staff Report with Exhibits