



TRANSPORTATION & CIRCULATION COMMISSION AGENDA

MEETING DATE: AUGUST 6, 2019

TO: TRANSPORTATION & CIRCULATION COMMISSION

FROM: ENGINEERING DEPARTMENT

SUBJECT: W. CHAPMAN AVENUE NEIGHBORHOOD SAFETY
ENHANCEMENT STUDY

SUMMARY

Consider a staff recommendation to install additional safety enhancement measures at various locations within the W. Chapman Avenue Neighborhood.

RECOMMENDATION

Approve and recommend to Council that the following safety enhancement measures be approved as recommended in Table 1 of this letter.

DISCUSSION

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

Chapman Avenue is a 36-foot wide east/west residential collector street with one lane of traffic in each direction with curb, gutter & sidewalk. Chapman Avenue is an existing Class III posted Bike Route between Euclid Street and Basque Avenue and a proposed Class III Bike Route between Basque Avenue and its westerly terminus. The average daily traffic volume ranges from 3,298 vehicles between Gregory Avenue and Basque Avenue; and 3,763 vehicles between Basque Avenue and Euclid Street, in a 24-hour period. The prima facie speed limit on Chapman Avenue is 25-miles per hour. Parking is allowed on both sides of the street with the exception of several segments of street where Early Morning Parking between 2:00am and 5:00am is prohibited, see Exhibit "A" (Attachment 1). Both sides of W. Chapman Avenue are primarily R-1 single-family residential with the exception of a segment immediately west of Euclid Street designated as commercial; and a three parcel twelve unit multi-family housing on the south side of the street between Jacaranda Place and Martha Place.

In addressing the concern staff conducted a speed study on four segments of W. Chapman Avenue; Jacaranda Place to Martha Place, Martha Place to Basque Avenue, Basque Avenue to Orchard Avenue, and Orchard Avenue to Euclid Street, shown in Speed Survey Exhibit (Attachment 2).

Results of the study were as follow:

<u>Segment</u>	<u>85th Percentile Speed</u>	<u>% 10mph over limit</u>
Jacaranda Place to Martha Place <ul style="list-style-type: none">• Westbound• Eastbound	31mph 31mph	4% 7%
Martha Place to Basque Avenue <ul style="list-style-type: none">• Westbound• Eastbound	32mph 33mph	4% 6%
Basque Avenue to Orchard Avenue <ul style="list-style-type: none">• Westbound• Eastbound	35mph 33mph	17% 7%
Orchard Avenue to Euclid Street <ul style="list-style-type: none">• Westbound• Eastbound	31mph 34mph	4% 13%

Based on the results, it appears that speeds on average are typical of a residential collector street with the exception of two of the eight segments. In those cases, the eighty-fifth percentile speeds were elevated; however, actual speed did not exceed 10-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. 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 W. Chapman Avenue neighborhood; 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 on the Vicinity Map (Attachment 3), to see if additional STOP control was warranted.

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; and...
- 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; and...
- 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 judgement, staff recommends that additional STOP control be installed 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 4) and listed below:

1. Julie Avenue at Gregory Avenue
2. Odel Avenue 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. Norton 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 & 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, shown in Exhibit "B" (Attachment 5):

1. Eastbound & Westbound Chapman Avenue at Orchard Avenue
2. Eastbound & Westbound Chapman Avenue at Adlena Drive
3. All four directions at Amerige Avenue & Orchard Avenue

In addition, staff intends to implement the following safety enhancements listed in Table 2.

Table 2

A. Install Red Type N Reflective Diamond Markers at the terminus of the following streets as required in the Manual on Uniform Traffic Control Devices (MUTCD), shown in Exhibit "C" (Attachment 6):

1. Westbound Chapman 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 W8-2 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) and shown in Exhibit "D" (Attachment 7):

C. In addition to two existing 25mph speed limit signs on westbound Chapman Avenue at both Michael Avenue and Marie Avenue, staff intends to install additional 25mph speed limit signs at the following locations to reinforce the prima facie speed limit, shown in Exhibit "E" (Attachment 8):

1. Westbound Chapman Avenue between Basque Avenue & King Place
2. Westbound Chapman Avenue between Diana Place & Delphine Place
3. Eastbound Chapman Avenue between Wanda Drive & Adlena Drive


4. Eastbound Chapman Avenue between Orchard Avenue & Russell Avenue

D. Remove the existing "No Outlet" sign at the following locations in conflict with MUTCD guidelines, shown in Exhibit "F" (Attachment 9):

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 between Adlena Drive and the north/south alley, shown in Exhibit "G" (Attachment 10), should be re-designated as a eastbound one-way alley. 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 & pedestrians or thru traffic & vehicles backing out of the marked parking spaces, will be minimized.

All recommendations listed in Table 1 & 2 received the support of both the Police Department's Traffic Division and the Parks & Recreation Department.



Mark Miller
City Traffic Engineer

MM/DLangstaff:

c: Commissioners

Lt. Jon Radus, Police Department Traffic Bureau
Parks & Recreation Department

Attachment 1 - Early Morning Parking Map

Attachment 2 - Speed Survey Exhibit

Attachment 3 - Vicinity Map

Attachment 4 - Exhibit "A" Proposed location of "t" intersection stop

Attachment 5 - Exhibit "B" Proposed location of 4-way stop control

Attachment 6 - Exhibit "C" Location of Type N markers to be installed

Attachment 7 - Exhibit "D" Location of W8-2 DIP warning signs to be installed

Attachment 8 - Exhibit "E" Location of speed limit signs to be installed

Attachment 9 - Exhibit "F" Locations of "No Outlet" signs to be removed

Attachment 10 - Exhibit "G" Adlena Park 1-Way Alley Enhancement



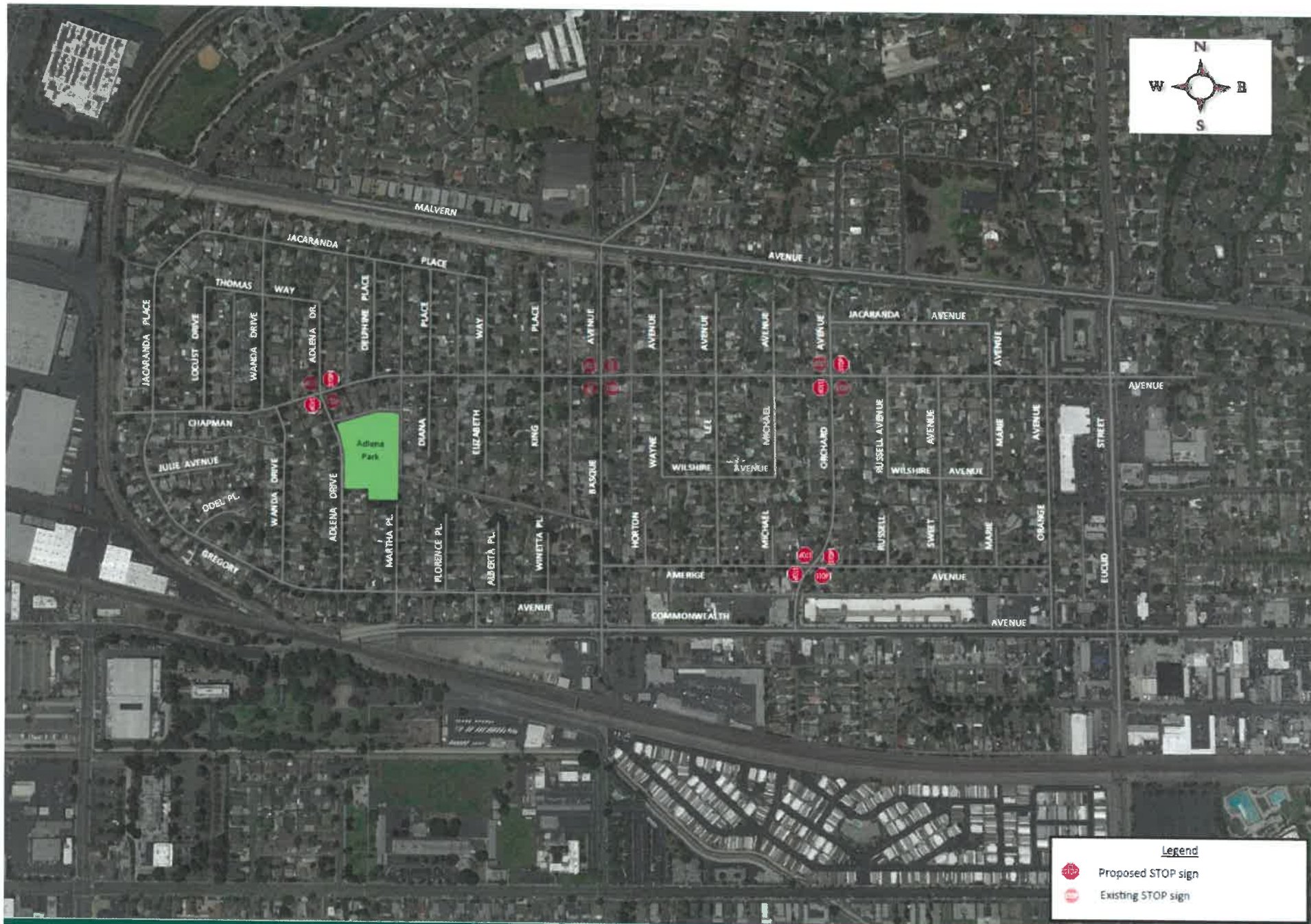
SPEED SURVEY EXHIBIT

(Attachment 2)



W. CHAPMAN NEIGHBORHOOD

Vicinity Map (Attachment 3)

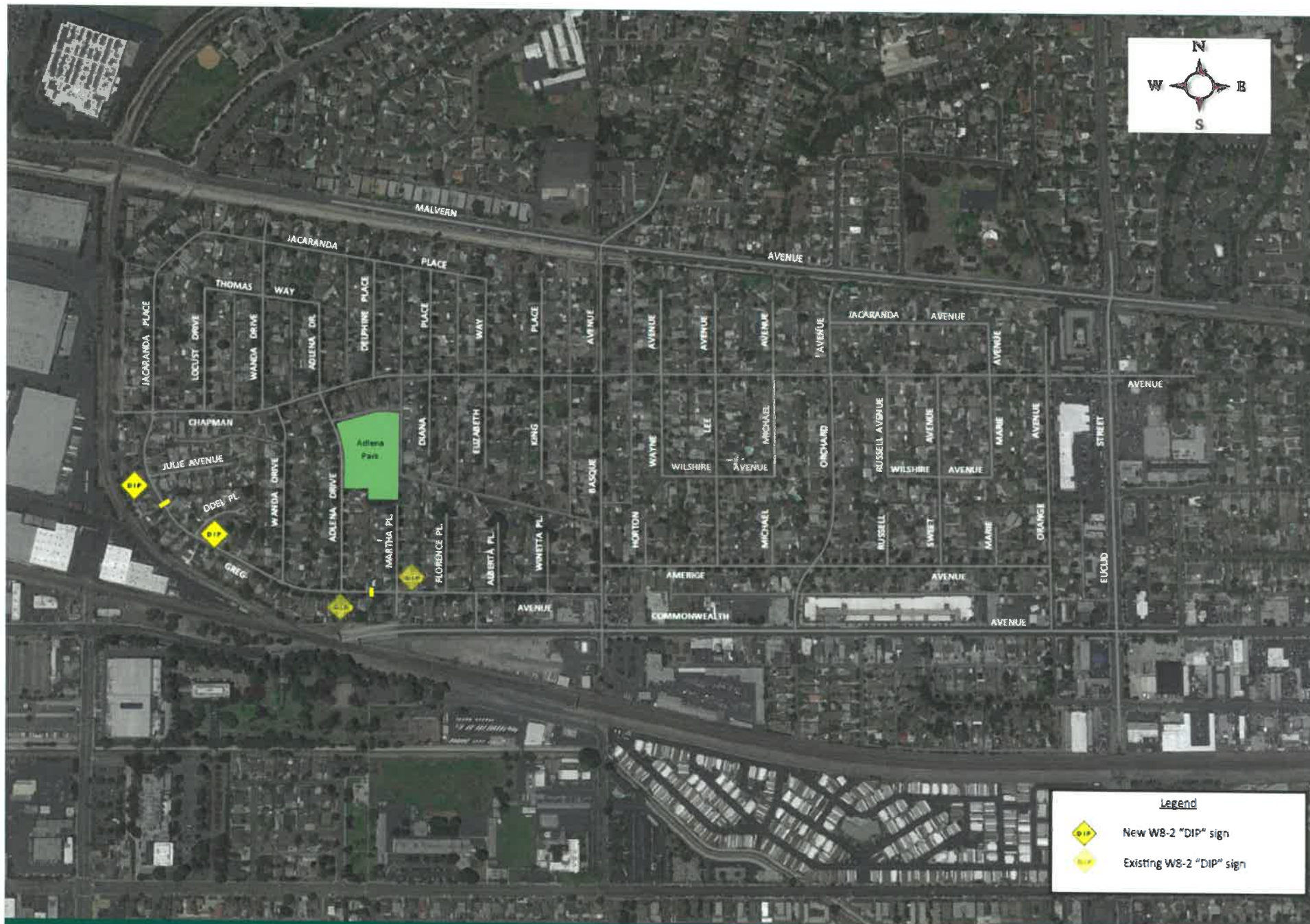


PROPOSED LOCATION for 4-WAY STOP CONTROL

Exhibit "B" (Attachment 5)



LOCATION OF TYPE "N" MARKERS to be INSTALLED Exhibit "C" (Attachment 6)



LOCATION OF W8-2 "DIP" SIGNS to be INSTALLED

Exhibit "D" (Attachment 7)



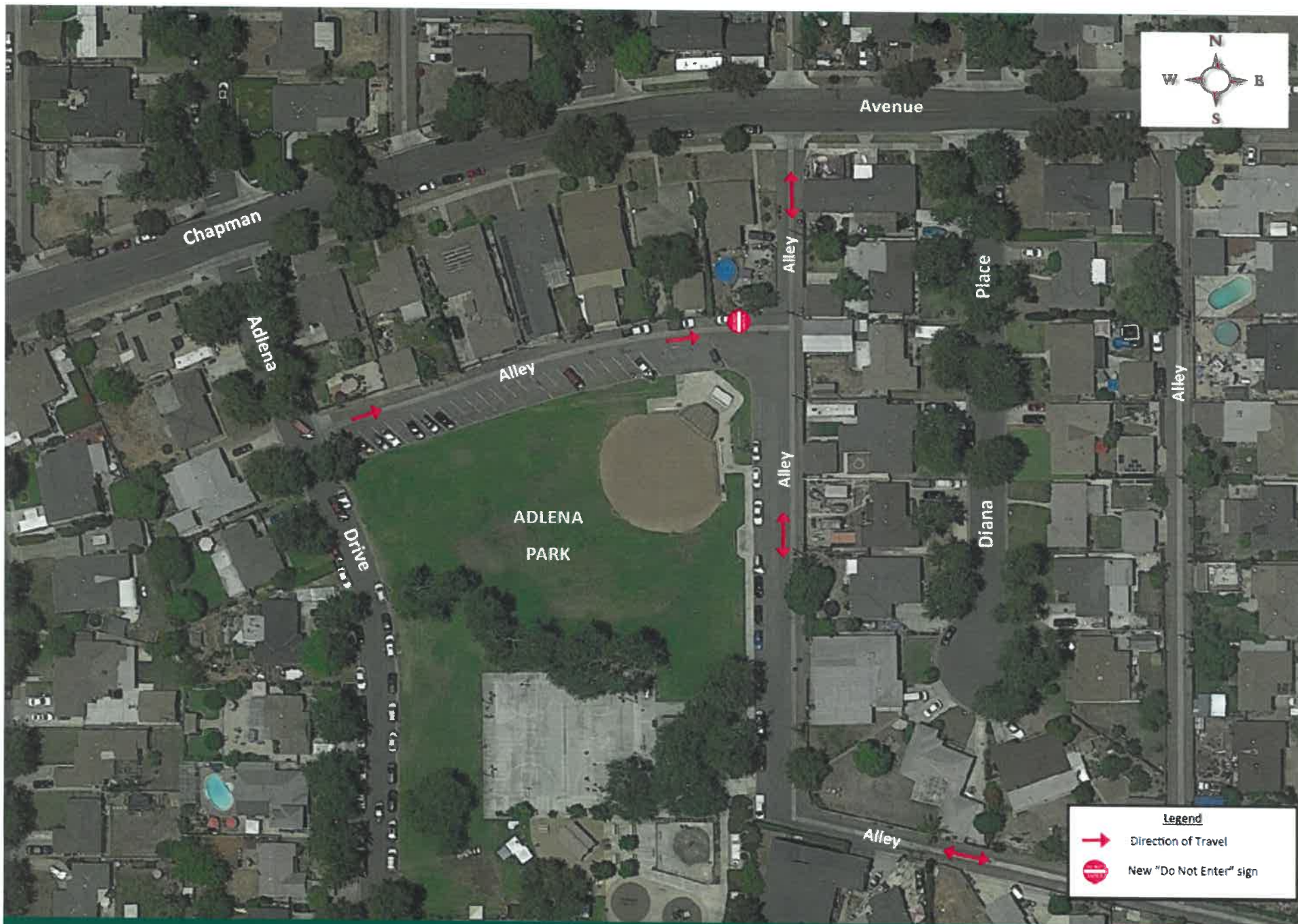
LOCATION of NEW SPEED LIMIT SIGNS & LEGENDS

Exhibit "E" (Attachment 8)



LOCATION of “NO OUTLET” SIGNS to be REMOVED

Exhibit “F” (Attachment 9)



ADLENA PARK SAFETY ENHANCEMENTS

Exhibit "G" (Attachment 10)



W/B Chapman Avenue at Westerly Terminus



N/B Wanda Drive at Northerly Terminus



N/B Orchard Avenue at Northerly Terminus



S/B Martha Place at Southerly Terminus