



CITY COUNCIL AGENDA REPORT

MEETING DATE: JANUARY 20, 2009

ITEM NUMBER: _____

SUBJECT: REVIEW OF STOP SIGN REQUESTS

DATE: JANUARY 13, 2009

FROM: DEPARTMENT OF PUBLIC SERVICES – TRANSPORTATION SERVICES DIVISION

PRESENTATION BY: RAJA SETHURAMAN, MANAGER, TRANSPORTATION SERVICES

**FOR FURTHER INFORMATION CONTACT: RAJA SETHURAMAN, MANAGER,
TRANSPORTATION SERVICES (714) 754-5032**

RECOMMENDATION:

Direct staff for appropriate action regarding the intersections of 21st Street/Elden Avenue, Broadway/Westminster Avenue, Monrovia Avenue/Arbor Street, and 20th Street/Fullerton Avenue.

BACKGROUND:

Transportation Services Division staff has reviewed records relating to requests for multi-way stop signs. Over the past two years, there have been requests for stop signs at three locations. These intersections include:

- 21st Street/Elden Avenue
- Broadway/Westminster Avenue
- Monrovia Avenue/Arbor Street

Council Member Monahan requested the inclusion of the following additional location for consideration of stop signs:

- 20th Street/Fullerton Avenue

ANALYSIS:

In response to resident requests for multi-way stop controls to enhance traffic safety at intersections, Transportation Services Division staff routinely conducts detailed traffic analyses to determine if prevailing traffic conditions meet minimum state warrants for the installation of stop signs.

The installation of stop signs is determined in accordance with criteria established by the Manual on Uniform Traffic Control Devices (MUTCD) and the California Department of Transportation (Caltrans). The purpose of stop signs is to eliminate conflicts at intersections where assignment of right-of-way is necessary to prevent accidents. The installation of stop signs is not recommended for the purpose of reducing vehicle speeds. The decision to install stop signs is based upon the results of a standardized traffic warrant analysis conducted and weighed against existing roadway conditions. When properly placed, stop signs can provide increased safety where frequent vehicle conflicts are evident. Installation of stop signs at locations where traffic conditions do not meet the minimum state standards may, in fact, result in potential safety hazards.

The stop warrant analysis (**Attachment 1**) includes a review of traffic accident history, traffic volume, the prevailing speed of vehicles and field observations. Where traffic conditions are found to exceed the minimum thresholds, staff recommends the installation of stop signs as a necessary measure to ensure traffic safety. Where traffic conditions fall below the minimum thresholds, staff does not support the installation of stop signs.

The following is a summary of the analysis conducted for stop-sign requests at the subject locations.

21st Street/Elden Avenue:

In December 2007, Transportation Services Division responded to a request for installation of three-way stop signs at the intersection of 21st Street/Elden Avenue due to excessive speeds on 21st Street. **Attachment 2** shows the location and photographs of 21st Street/Elden Avenue intersection. The location is within a residential environment, not near any school, has minimal pedestrian activity crossing 20th Street, and the existing red curb provides good visibility.

Following an investigation of traffic conditions, staff found that there were no reported traffic accidents at the intersection for the twelve-month period prior to December 2007. The posted speed limit on 21st Street is 25 miles per hour. A speed survey conducted in December 2007 on 21st Street shows the 85th percentile speed is 32.9 miles per hour. The Average Daily Traffic (ADT) on 21st Street is 2,650 vehicles per day. The ADT on Elden Avenue is 655 vehicles per day.

Stop sign warrants were not met based on accident history, minimum volumes, and other considerations. Staff recommended and implemented pavement legends on 21st Street indicating the posted speed limit.

Broadway/Westminster Avenue:

Transportation Services Division has reviewed this location for possible installation of four-way stop signs on several occasions during the past few years due to frequent resident concerns for the speed of traffic on Broadway. The most recent review was conducted in March 2007. **Attachment 3** shows the location and photographs of the Broadway/Westminster intersection. The location is within a residential environment, not near to any school, has minimal pedestrian activity crossing Broadway, and the existing red curb provides good visibility. Bicycle lanes on Broadway provide linkage to bicycle lanes on Santa Ana Avenue.

An extensive review of accident history over the prior nine year period revealed two accidents at this intersection (one in 2001 and another in 2005, with 2005 being a fatal accident). The posted speed limit on Broadway is 25 miles per hour. A speed survey conducted in March 2007 on Broadway shows the 85th percentile speed is 35 miles per hour. The ADTs on Broadway and Westminster are 2,660 vehicles per day and 600 vehicles per day, respectively.

Stop-sign warrants were not met based on accident history, minimum volumes, and other considerations. Staff recommended and installed five red curbs on Broadway at intersection approaches to improve visibility.

Monrovia Avenue/Arbor Street:

Transportation Services Division reviewed this location for possible installation of four-way stop signs in August 2008. Concerns expressed by the resident included visibility of traffic on Monrovia Avenue. **Attachment 4** shows the location and pictures of the Monrovia Avenue/Arbor Street intersection. The location is within a residential environment, not near to any school, has minimal pedestrian activity crossing Monrovia Avenue, and the added red curb provides good visibility.

A review of accident records revealed there were no reported traffic accidents at this intersection for the twelve-month period prior to August 2008. The posted speed limit on Monrovia Avenue is 25 miles per hour. A speed survey conducted on Monrovia Avenue in August 2008 shows the 85th percentile speed is 28 miles per hour. The ADTs on Monrovia Avenue and Arbor Street are approximately 1,540 vehicles per day and 870 vehicles per day, respectively.

Stop-sign warrants were not met based on accident history, minimum volumes, and other considerations. Due to the curvature of Monrovia Avenue to the north of Arbor Street, the eastbound direction is limited to right-turn only. Staff has determined that visibility would be improved with the installation of red curbs on Monrovia Avenue both north and south of Arbor Street. The red curbs were installed in August 2008.

20th Street/Fullerton Avenue:

Transportation Services Division recently reviewed this location for possible installation of four-way stop signs. There has been no prior request for four-way stop signs at this intersection. **Attachment 5** shows the location and photographs of the 20th Street/Fullerton Avenue intersection. The location is within a residential environment, not near to any school, has minimal pedestrian activity crossing 20th Street, and the existing red curb provides good visibility.

A check of accident records indicates that there have been no reported traffic accidents at this intersection for the twelve-month period prior to December 2008. The posted speed limit is 25 miles per hour. A speed survey conducted on 20th Street in January 2009 indicates the 85th percentile speed is 35 miles per hour. The ADTs on 20th Street and Fullerton Avenue are 2,720 vehicles per day and 1,470 vehicles per day, respectively.

Stop-sign warrants were not met based on accident history, minimum volumes, and other considerations. Existing red curb is in place on all approaches. Based on current findings, no additional action is recommended.

ALTERNATIVES CONSIDERED:

One alternative is to direct the installation of multi-way stop signs at the subject intersections. However, this action will not be consistent with minimum MUTCD or State requirements for stop sign installation warrants.

FISCAL REVIEW:

Other than material and staff time, estimated at \$3,000 and sixteen hours respectively, no significant fiscal impact to the City will result from the installation of multi-way stop controls at the subject intersections.

LEGAL REVIEW:

No legal review is required on this report. However, installation of “unwarranted” traffic controls may present a certain increased liability for the City.

CONCLUSION:

Following a thorough analysis of traffic conditions, the Transportation Services Division finds that existing traffic conditions at the intersections of 21st Street/Elden Avenue, Broadway/Westminster Avenue, Monrovia Avenue/Arbor Street, and 20th Street/Fullerton Avenue fall well below the minimum state warrant thresholds for multi-way stop signs. Staff, therefore, does not recommend the installation of multi-way stop controls at these intersections.

RAJA SETHURAMAN
Transportation Services Manager

PETER NAGHAVI
Director, Department of Public Services

ATTACHMENTS: 1 [Stop Sign Warrant Analysis Form](#)
 2 [21st Street/Elden Avenue - Location Map & Photos](#)
 3 [Broadway/Westminster Avenue - Location Map & Photos](#)
 4 [Monrovia Avenue/Arbor Street - Location Map & Photos](#)
 5 [20th Street/Fullerton Avenue - Location Map & Photos](#)

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1/13/09

2:30 p.m.