

City of Garden Grove

INTER-DEPARTMENT MEMORANDUM

To: Matthew J. Fertal
Dept.: City Manager
Subject: LAMPSON AVENUE/MANLEY STREET
PROPOSED INTERSECTION
IMPROVEMENTS

From: William E. Murray
Dept.: Public Works
Date: August 28, 2012

OBJECTIVE

To obtain City Council approval for staff recommended improvements to the intersection of Lampson Avenue and Manley Street, Garden Grove.

BACKGROUND

At the July 24, 2012, City Council Meeting, staff was directed to evaluate the current operations of the intersection of Lampson Avenue and Manley Street and make recommendations on how the intersection should function. The discussion centered on whether the existing traffic signal should be converted to a 4-way flashing red operation or remain in a standard operating mode.

In the summer of 2010, the City had received a request to convert the traffic signal at Lampson Avenue and Manley Street to a 4-way flashing red operation. This request essentially converts the intersection to 4-way stop. The request was taken to Traffic Commission on September 7, 2010 where the Commission voted to accept staff's recommendation to deny the request. Staff relied upon the Manual on Uniform Traffic Control Devices (MUTCD) and the traffic collision history report in preparation of the recommendation.

DISCUSSION

A twelve (12) year collision history (1/1/2000 - 12/31/2011) shows only six reported accidents. This is a relatively low number considering the amount of traffic traveling through the intersection. Also, recognizing that the contributing factors to the collisions were not signal-related, staff recommends the traffic signal at the intersection of Lampson Avenue and Manley Street remain. Over time, the traffic signal has proven to control right-of-way and enhance safety.

In addition, staff recommends the intersection be upgraded to incorporate the following enhancements:

- TRAFFIC SIGNAL OPERATIONS

The proposed median construction project on Lampson Avenue will install additional traffic signal detection loops. This will provide staff the ability to better adjust signal operations. Upon installation of the signal loops, staff recommends the signal be

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rested on red for eastbound and westbound Lampson Avenue during the hours of 11 p.m. to 5 a.m. when no cars are present. During this time northbound and southbound Manley Street would have the green light. The result of this operation would mean vehicles traveling on Lampson Avenue would be required to stop, triggering the detection, and then be able to proceed through the intersection when the light turns green.

Outside this timeframe, and during peak traffic periods, the signal operations would be reversed and operate in a conventional manner where the green light rests with the more heavily traveled street (Lampson Avenue).

- **SIGNAGE**

The curve radius of Lampson Avenue through the intersection of Manley Street is 1000 feet. Per the Caltrans Highway Design Manual, the radius is acceptable for roadways with design speeds of up to 55 mph. The posted speed of Lampson Avenue is 45 mph. Nevertheless, taking a more conservative approach and utilizing Figure 203.2 of said manual (Comfortable Speed on Horizontal Curves), staff recommends installing 40 mph curve warning signs on eastbound and westbound Lampson Avenue in advance of the roadway curve. Per Figure 203.2, 40 mph is the speed motorists can comfortably negotiate the curve. These signs would be installed within city boundaries.

- **STRIPING**

To further assist motorists negotiating the curve, staff recommends lane line extensions be painted on Lampson Avenue through the intersection. This striping enhancement would meet MUTCD requirements and help ensure drivers stay in their lane as they drive through the intersection.

FINANCIAL IMPACT

There is no impact to the General Fund.

RECOMMENDATION

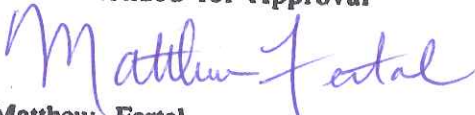
It is recommended that the City Council:

- Approve the staff recommended improvements to the intersection of Lampson Avenue and Manley Street and direct staff to implement them.


WILLIAM E. MURRAY, P.E.
Public Works Director/City Engineer

By: 
Dan Candelaria, P.E., T.E.
City Traffic Engineer

Recommended for Approval


Matthew Fertal
City Manager