



**CITY COUNCIL
COMMUNICATION:**

ITEM _____

**OFFICE OF THE CITY MANAGER
CITY OF DES MOINES, IOWA**

00-433

SYNOPSIS -

AGENDA:

SEPTEMBER 25, 2000

Communication from the City Manager regarding a request for permanent traffic signals at the intersection of East 30th Street and Walnut Street.

SUBJECT:

REQUEST FOR
PERMANENT
TRAFFIC SIGNALS--
EAST 30TH STREET
AND WALNUT
STREET

FISCAL IMPACT -

None.

RECOMMENDATION -

Receive and file.

TYPE:

RESOLUTION
ORDINANCE
RECEIVE/FILE

BACKGROUND -

SUBMITTED BY:

FLOYD BENTZ, P.E.
CITY ENGINEER

At their August 28, 2000 meeting, City Council received a request from Ms. Cindy Minor of the Fairground Neighborhood, asking that the temporary traffic signal that the City installed for the State Fair at East 30th Street and East Walnut Street remain there permanently. Ms. Minor's reason for this request was that the Fairgrounds are used year round and that the signal will help slow down speeding on East 30th Street. By Roll Call Number 00-3604, this item was referred to the City Manager and the Traffic Safety Committee for review and recommendation.

East Walnut Street at East 30th Street is currently controlled by stop signs. East Walnut is a two-lane residential street west of East 30th Street and serves primarily as an access to the Fairgrounds east of East 30th Street. East 30th is a four-lane arterial street. The City installed a temporary span-wire signal at this location during the State Fair to help MTA shuttle buses and the State Fair vendors get onto East 30th Street.

Staff recently completed a study to determine if this location meets

any of the warrants for a permanent traffic signal based on the federal guidelines stipulated in the "Manual on Uniform Traffic Control Devices." The study concluded that this intersection does not meet any of the eleven- (11) warrants for a traffic signal. These warrants are based on the traffic volumes on both the main and cross-streets, delays to traffic on the cross street, and intersection accident history.

The traffic volumes on East Walnut Street are below the minimum values to warrant signals. The highest hourly traffic volume on East Walnut Street was 74 vehicles per hour on the eastbound approach and four vehicles per hour on the westbound approach. The highest traffic volume on East 30th Street was 556 vehicles per hour. These traffic volumes are well below the average volume to warrant signals, which would require 150 vehicles per hour on East Walnut and 600 vehicles per hour on East 30th.

There has been an average of less than one right-angle accident per year over the past five-year period. The accident rate at this intersection is 0.53 Accidents per Million Entering Vehicles (Acc/MEV). An intersection is not considered a "high-accident location" unless the rate is over 2.05 Acc/MEV. The Manual on Uniform Traffic Control Devices indicates that traffic signals are not warranted, or justified, based on accident history if there are less than five right-angle accidents per year. This warrant considers that traffic signals may reduce one type of accident while at the same time increase other types of accidents.

Installing an unwarranted traffic signal will cause unnecessary cumulative delays to traffic on the main street (East 30th Street), disrupt progression of traffic on East 30th Street, and may cause increased traffic accidents of certain types, especially rear-end or left-turn accidents.

The temporary signal that was installed during the State Fair was a "fixed-time" signal, and was not interconnected to the signals at Dean or Grand Avenues. This type of signal operation worked appropriately during the heavy traffic volumes of the State Fair, but would be very inefficient for accommodating traffic flows during the remainder of the year. There is also a good street grid pattern that allows the neighborhood easy alternative access to enter East 30th Street at the existing signals at Grand Avenue or at Dean Avenue.

At their September 19, 2000 meeting, the Traffic Safety Committee approved a recommendation that the installation of a permanent traffic signal at the intersection of East 30th Street and East Walnut Street is not warranted and should not be installed.

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