



CITY COUNCIL REPORT

January 30, 2007

TO: Phillip L. Nelson, City Manager

FROM: Brian Murphy, Assistant City Manager/Economic Development Services
Steve Vandette, City Engineer
John Abraham, Deputy City Engineer/Traffic Engineer

SUBJECT: Traffic Concerns at Coolidge and Golfview

Background:

This is in response to concerns expressed to City Council regarding left turns at the intersection of Coolidge and Golfview.

We have been monitoring this intersection for traffic crashes for several years. The intersection is served by a two phase signal at the moment, i.e., there are no left turn arrows for left turn traffic. Our 2000 and 2002 analysis of traffic crashes at the intersection showed that there are no major concerns at the intersection. One of the reasons the signal does not have a left turn arrow is the fact that this is an intersection of a major road with a minor road. Coolidge carries around 48,000 vehicles in a day and Golfview carries around 5000 vehicles in a day. If the intersection had a left turn arrow, Coolidge would experience higher traffic congestion and delays; because through traffic is stopped when left turn arrows are on.

Our analysis of 2004 and 2005 crashes indicate that there have been more occurrences (11 crashes in 2 years) of 'angle' and 'left-turn-head-on' type crashes at the intersection. This may warrant consideration for improvements at the intersection. The following improvements have been considered:

- a. Rebuild the intersection such that the left turn lanes line up. This option would fix the line of sight concerns at the intersection for left turn vehicles. This option was discussed but was not pursued due to high costs.
- b. Rebuild the traffic signal such that a left turn arrow is provided for protected left turn phase (green arrow). This option would cost around \$120,000, since the entire signal will have to be rebuilt to withstand the extra load of the signal heads. This signal will also be reconfigured to a box-span style rather than the existing diagonal span. This would mean that there will be 4 poles on four corners of the intersection and the traffic signal heads will be strung on the far side of intersection making them more visible. (Similar to Coolidge and

Wattles intersection). The signal would be set up such that left turns can be made only on green arrow for maximum safety.

We are preparing an application for the 2008 Federal Local Safety Program funds to cover 80% of the cost of the signal upgrade. This project will compete with other projects in the Southeast Michigan area based on a benefit to cost analysis. The City's share will be 20% if we receive the grant.

Financial Considerations:

- If the project is funded by the 2008 Local Safety Program, federal funds will cover \$96,0000 and the City share will be \$24,000.
- If the project is not funded, and the City wishes to proceed with the traffic signal upgrade, the cost to the City will be \$120,000.
- The reduction in traffic crashes related to left turns (normally more severe) that may be corrected with the improvement is also a cost benefit to the City, considering the economic and societal cost of such crashes.

Legal Considerations:

- There are no major legal considerations associated with this item.

Policy Considerations:

- This project may reduce around four broadside/head on type crashes per year at this intersection, related to left turns. This is consistent with Goal # 1.