

Memo

To: Mr. Wood

From: Tim Begley TRB

CC:

Date: 5/24/2021

Re: Lowering the speed limit on Sparta Highway from Kroger's to Tennessee Avenue,
Northside Drive SR 462

The existing speed limit in the above-described area is 45 mph. As Director of Engineering, I recommend that the speed limit in this area be lowered to 40 mph with the following being justification:

City staff performed a traffic count at the Holiday Drive and Sparta Highway US 70 SR1 intersection. The traffic counts were forwarded to a traffic Engineer and a Signal Warrant analysis was performed. Much to my surprise, with the existing speed limit of 45 mph, two of the three warrants were met. If the speed limit is changed to 40 mph, the existing traffic counts do not support any of the three warrants.

I also received, verbally from TDOT, the following accident information for the Holiday Drive and Sparta Highway Intersection.

From Jan 1st 2016 to present day there have been recorded 8 total crashes with all occurring during daylight hours and only one accident being near fatal.

5 crashes occurred in the intersection and 3 crashes occurred within 0.06 miles of the intersection.

2 of the crashes were wet weather accidents and 2 of the crashes were distracted drivers (distracted driver accidents are normally removed from analysis).

The accidents were categorized as:

1 rear end impact

1 rear to side impact

4 angle impact

2 side swipe impact

Studies show that if a traffic signal had been in place at the time of these accidents, the 4 angle impacts would typically change to rear end impacts and the rear end impact number could have grown during this five-year span to possibly doubling the total number of accidents just because of how drivers stop when a signal changes to red.

The City could pay for a Safety Analysis of the intersection but it would be my opinion that it would be a waste of money because the counted average daily traffic for three of these years for Sparta Highway averaged more than 11,000 vehicles per day. These counts were taken on a work day which would indicate 14,300,000 work day vehicles in a five-year span with only 8 accidents in that same span.