

City of West Lafayette

Meridian Street Speed Report

Purpose of Study:

The existing posted speed limit along this segment of Meridian Street, between Salisbury Street and Grant Street, has been brought into question by a concerned citizen. The purpose of this study is to determine if a four way stop is needed at the intersection of Meridian Street and Vine Street, or if other speed control measures need to be implemented in this segment of Meridian Street.

Speed Study:

The Engineering Department placed two traffic counters on Meridian Street the week of June 29, 2015. Counters were placed at the stop warning sign in front of the 328 Meridian Street residence and at the telephone pole located at the southeast corner of the intersection of Meridian Street and Vine Street. The result of the speed study is shown in the table below.

Speed Data Table:

Meridian Street	85 th Percentile Speed (MPH)	Average Speed (MPH)
Point A Stop Warning Sign	28	23
Point B Telephone Pole	28	21

85th Percentile Speed is the speed that 85 percent of vehicles do not exceed. The 85th percentile is commonly used by Federal, State, and Local traffic officials to set speed limits. Besides using the 85th Percentile Speed to set the speed limit consideration needs to be taken regarding road design, roadside development, crashes and other factors when determining a speed limit.

Accident Reports:

APC provided a brief summary of the crashes on Meridian Street between Salisbury Street and Grant Street from 2010 to 2014. Based off a review of the Meridian Crash Primary Factors speed alone was not a primary factor.

Observations:

Besides vehicular traffic that use the roadway, joggers and cyclists use the roadway as well. The use of Meridian Street is not limited to neighborhood traffic. Meridian Street between Salisbury Street and Grant Street also acts as a through street in which drivers travel between Grant Street and Salisbury Street for convenience. Increased traffic on Meridian could be caused by the North River Road detour which reroutes traffic along Robinson Street and Salisbury Street. There were still outliers in the data collected showing that some drivers traveled at speeds greater than 15 mph over the speed limit through this section of Meridian Street

Posted Speed Limits: *see page 3 for existing and proposed signage

Meridian Street	Existing Speed Limit (MPH)	Proposed Speed Limit (MPH)
Point A Stop Warning Sign	N/A	25
Point B Telephone Pole	N/A	25

Recommendation: Based on the 85th Percentile speeds and taking into consideration the concerns of residents on Meridian Street, the proposed speed limits are listed in the table above. Please view the attached map for further recommendations.

Existing



Proposed

