Traffic Safety Impact Assessment
Summary of Initial Finding
STH 88 (STH 35 – STH 37)
Buffalo County, WI
June 13, 2012

AECOM completed initial phases of a Traffic Safety Impact Assessment (TSIA) for STH 88 between STH 35 and STH 35 in Buffalo County for the Wisconsin Department of Transportation (WisDOT) Northwest Region.

The assessment was initiated in response to a potential increase in truck volumes on STH 88 from proposed, new non-metallic mine operations in the area. The objective of this assessment was to inventory geometric and operational roadway attributes critical to safe and efficient vehicular operations on STH 88.

Preliminary results of that assessment are as follows:

CRASHES AND CRASH RATE

Due to the extremely low historical traffic volumes on STH 88, overall crash rate is a less reliable indicator of route safety since very small changes in crash numbers can significantly change crash rates.

From January, 2007 to December, 2011 a total of 52 reported crashes were identified on the 29.8 miles of STH 88 between STH 35 and STH 37. The crash rate is 2.34 against a statewide average of 1.17 for similar roadways.

However:

- 11 crashes or 21% of all crashes occurred within a 1.4 mile segment centered around Laehn Ridge Road.
- 10 crashes or 19% of all crashes occurred within the urban area of Gilmanton itself.
- These two segments accounted for 40% of the crashes but only 10% of total miles.
- Thus the significant majority of STH 88 operates within a reasonable range of the expected statewide crash rate for this type of roadway.
- 41 of 52, or 80% of crashes were single vehicle crashes.

Likewise:

- It does indicate that Laehn Ridge Road area does have a noticeably high crash rate and deserves additional analysis.

GEOMETERIC AND OPERATIONAL FEATURES

- Truck Sweep Paths On Horizontal Curves
  - Twenty (20) curves were found to have lane departure concerns upon initial analysis. 60% of those occurred within less than a one mile segment in the Hopi Road to Laehn Ridge Road area.
    Additional analysis is required to further define significance of departure value and mitigation strategies.
- Curve Advisory Speed
  - Fifty (50) curves have identified possible advisory speed changes. A great number of these identified increasing the currently posted advisory speed.
- Intersection Sight Distance
  - Of the forty-seven (47) public road intersections, seven (7) locations have warrants for intersection warning sign. Three (3) of those are south of STH 121 and were:
    - Schoepps Valley Road @ 7.3 second vs 7.5 desired.
    - Blank Hill Road @ 5.5 seconds vs 7.5 desired.
    - Balk Road @ 6.5 seconds vs 7.5 desired.

    Further analysis is required to determine this from a truck rather than standard vehicle eye height perspective.
- Stopping Sight Distance at Current School Bus Stops
  - Bus stop warning signs are warranted at nine (9) locations. Of these, seven (7) are south of STH 121. Minimum distance is 610 feet and current distances ranged from 330 feet to 580 feet.
- Other Spot Specific Items Noted
  - Northbound grade approaching Hopi Road and southbound grade approaching Laehn Ridge meet MUTCD criteria for adding hill warning signs and supplemental plaques.

- No additional intersection warning signs are warranted for the cemetery entrance on STH 121 just east of STH 88.
- No additional intersection warning signs are warranted for the park entrance on STH 88 just north of STH 121.
- Parking restrictions should be considered within the Village of Gilmanton to enhance sight at CTH B intersection.
- While current no passing zone at Gilmanton elementary school meets minimum standards, it is advised to extend the no passing zone in this area.