



CMF / CRF Details

CMF ID: 3372

Install centerline rumble strips on horizontal curves

Description:

Prior Condition: No centerline rumble strips

Category: Roadway

Study: [NCHRP Report 641: Guidance for the Design and Application of Shoulder and Centerline Rumble Strips, Torbic et al., 2009](#)

Star Quality Rating:	
4 Stars	[View score details]

Crash Modification Factor (CMF)	
Value:	0.48
Adjusted Standard Error:	
Unadjusted Standard Error:	0.136

Crash Reduction Factor (CRF)	
Value:	52 (This value indicates a decrease in crashes)
Adjusted Standard Error:	
Unadjusted Standard Error:	13.6

Applicability

Crash Type: Head on,Sideswipe

Crash Severity: All

Roadway Types: Not Specified

Number of Lanes: 2

Road Division Type: Undivided

Speed Limit:

Area Type: Rural

Traffic Volume: 1336 to 13240 *Average Daily Traffic (ADT)*

Time of Day: All

If countermeasure is intersection-based

Intersection Type:

Intersection Geometry:

Traffic Control:

Major Road Traffic Volume:

Minor Road Traffic Volume:

Development Details

Date Range of Data Used: 1997 to 2006

Municipality:

State: MN

Country: U.S.A.

Type of Methodology Used: 2

Sample Size Used:	Crashes
Before Sample Size Used:	26 Crashes
After Sample Size Used:	11 Crashes

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Mar-21-2011
Comments:	The authors collected data on thru lanes and speed limits but did not provide those data in the report.

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