

## **CMF / CRF Details**

CMF ID: 3399

Install edgeline rumble strips on roadways with a shoulder width less than 5 feet

**Description:** 

Prior Condition: Roadway with no rumble strips and a shoulder width less than 5 feet

**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:** 

| View score details

Crash Modification Factor (CMF)	
Value:	0.96
Adjusted Standard Error:	
Unadjusted Standard Error:	0.1554

Crash Reduction Factor (CRF)	
Value:	4 (This value indicates a <b>decrease</b> in crashes)

Adjusted Standard Error:	
Unadjusted Standard Error:	15.54

Applicability	
Crash Type:	Run off road
Crash Severity:	K (fatal),A (serious injury),B (minor injury),C (possible injury)
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	Divided by Median
Speed Limit:	
Area Type:	Rural
Traffic Volume:	4956 to 31692 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, MO, PA
Country:	U.S.A.
Type of Methodology Used:	7
Sample Size Used:	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 (see p. 50).

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