



## CMF / CRF Details

**CMF ID: 3397**

**Install edgeline rumble strips**

**Description:**

**Prior Condition:** *No Prior Condition(s)*

**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:** 0.57

**Adjusted Standard Error:**

**Unadjusted Standard Error:** 0.2066

### Crash Reduction Factor (CRF)

**Value:** 43 (This value indicates a **decrease** in crashes)

**Adjusted Standard Error:**

**Unadjusted Standard Error:** 20.66

### 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:** 2

**Road Division Type:** Undivided

**Speed Limit:**

**Area Type:** Rural

**Traffic Volume:** 180 to 10386 *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 2005

**Municipality:**

**State:** MN

<b>Country:</b>	U.S.A.
<b>Type of Methodology Used:</b>	Regression cross-section
<b>Sample Size Used:</b>	Crashes

<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	No
<b>Date Added to Clearinghouse:</b>	Mar-21-2011
<b>Comments:</b>	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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This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center

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