



# CMF / CRF Details

CMF ID: 3355

Install centerline rumble strips

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:

5 Stars

[\[View score details\]](#)

## Crash Modification Factor (CMF)

Value:

0.63

Adjusted Standard Error:

Unadjusted Standard Error:

0.053

## Crash Reduction Factor (CRF)

Value:

37 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error:

5.3

## 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:** 574 to 20784 *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, PA, WA

**Country:** U.S.A.

**Type of Methodology Used:** 2

<b>Sample Size Used:</b>	Crashes
<b>Before Sample Size Used:</b>	403 Crashes
<b>After Sample Size Used:</b>	154 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.

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