



# CMF / CRF Details

CMF ID: 3393

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:

3 Stars

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

## Crash Modification Factor (CMF)

**Value:** 1.31

**Adjusted Standard Error:**

**Unadjusted Standard Error:** 0.1079

## Crash Reduction Factor (CRF)

**Value:** -31 (This value indicates an **increase** in crashes)

**Adjusted Standard Error:**

**Unadjusted Standard Error:** 10.79

## 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:** 8267 to 18753 *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:** PA

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

**Type of Methodology Used:** 7

<b>Sample Size Used:</b>	Crashes
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<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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