



# CMF / CRF Details

**CMF ID: 3351**

**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](#)**



<b>Star Quality Rating:</b>	<a href="#">[View score details]</a>
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## Crash Modification Factor (CMF)

<b>Value:</b>	0.6
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<b>Adjusted Standard Error:</b>	
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<b>Unadjusted Standard Error:</b>	0.17
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## Crash Reduction Factor (CRF)

<b>Value:</b>	40 (This value indicates a <b>decrease</b> in crashes)
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<b>Adjusted Standard Error:</b>	
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**Unadjusted Standard Error:**

17

### 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:**

Urban

**Traffic Volume:**

2338 to 22076 *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

<b>Country:</b>	U.S.A.
<b>Type of Methodology Used:</b>	2
<b>Sample Size Used:</b>	Crashes
<b>Before Sample Size Used:</b>	49 Crashes
<b>After Sample Size Used:</b>	13 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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