



# CMF / CRF Details

**CMF ID: 6969**

**Install centerline and shoulder rumble strips**

**Description: Milled or rolled rumble strips.**

**Prior Condition: There are no existing rumble strips**

**Category: Roadway**

**Study: [Safety Evaluation of Centerline Plus Shoulder Rumble Strips, Persaud et al., 2015](#)**

<b>Star Quality Rating:</b>	
<input type="text" value="4 Stars"/>	<a href="#">[View score details]</a>

<b>Crash Modification Factor (CMF)</b>	
<b>Value:</b>	1.019
<b>Adjusted Standard Error:</b>	
<b>Unadjusted Standard Error:</b>	0.063

<b>Crash Reduction Factor (CRF)</b>	
<b>Value:</b>	-1.9 (This value indicates an <b>increase</b> in crashes)
<b>Adjusted Standard Error:</b>	
<b>Unadjusted Standard Error:</b>	6.3

## Applicability

**Crash Type:**

All

**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:**

782 to 25796 Annual Average Daily Traffic (AADT)

**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:**

**Municipality:**

**State:**

PA

**Country:**

USA

**Type of Methodology Used:**

2

<b>Sample Size Used:</b>	
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<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	No
<b>Date Added to Clearinghouse:</b>	Nov-01-2015
<b>Comments:</b>	CMF for fatal & injury crashes excludes intersection-related and animal crashes.

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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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