



CMF / CRF Details

CMF ID: 6850

Install centerline and shoulder rumble strips

Description: Milled or rolled rumble strips.

Prior Condition: No rumble strips in PA and MO. Existing shoulder rumble strips in KY (CL rumble strips as retrofits)

Category: Roadway

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

Star Quality Rating:



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

Crash Modification Factor (CMF)

Value:

0.8

Adjusted Standard Error:

Unadjusted Standard Error:

0.025

Crash Reduction Factor (CRF)

Value:

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

Adjusted Standard Error:

Unadjusted Standard Error:	2.5
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Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	2
Road Division Type:	Undivided
Speed Limit:	
Area Type:	Rural
Traffic Volume:	154 to 25796 <i>Annual Average Daily Traffic (AADT)</i>
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:	KY, MO, PA

Country:	USA
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Nov-01-2015
Comments:	CMF for total crashes (all types and all severity levels) for 2-lane rural roads excludes intersection-related and animal crashes.

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