



CMF / CRF Details

CMF ID: 6974

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: 0.702

Adjusted Standard Error:

Unadjusted Standard Error: 0.045

Crash Reduction Factor (CRF)

Value: 29.8 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error: 4.5

Applicability

Crash Type: Run off road

Crash Severity: All

Roadway Types: Not specified

Number of Lanes: 2

Road Division Type: Undivided

Speed Limit:

Area Type: Rural

Traffic Volume: 3200 to 26118 *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: 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 run-off-road crashes for 2 lane, rural roads with AADT \geq 3200 excludes intersection-related and animal crashes.

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

The information contained in the Crash Modification Factors (CMF) Clearinghouse is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in the CMF Clearinghouse. The information contained in the CMF Clearinghouse does not constitute a standard, specification, or regulation, nor is it a substitute for sound engineering judgment.