



CMF / CRF Details

CMF ID: 5317

Install centerline and shoulder rumble strips

Description: Milled or rolled rumble strips.

Prior Condition: No Rumble Strips

Category: Roadway

Study: [*Performance Analysis of Centerline and Shoulder Rumble Strips Installed in Combination in Washington State, D. Olson, M. Sujka, and B. Manchas, 2013*](#)

Star Quality Rating:



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

Crash Modification Factor (CMF)

Value: 0.463

Adjusted Standard Error:

Unadjusted Standard Error: 0.233

Crash Reduction Factor (CRF)

Value: 53.7 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error: 23.3

Applicability

Crash Type: Run off road

Crash Severity: K (fatal),A (serious injury)

Roadway Types: Not specified

Number of Lanes: 2

Road Division Type:

Speed Limit:

Area Type: Rural

Traffic Volume:

Time of Day: Not specified

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: 2002 to 2010

Municipality:

State: WA

Country:	
Type of Methodology Used:	3
Sample Size Used:	
Before Sample Size Used:	19
After Sample Size Used:	5

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Dec-02-2013
Comments:	Exposure presented as VMTBefore MVMT = 1,341.7After MVMT = 765.96Crash type is fatal and injury run off the road right

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