



CMF / CRF Details

CMF ID: 10394

Install centerline and shoulder rumble strips

Description: Milled or rolled rumble strips.

Prior Condition: *No Prior Condition(s)*

Category: Roadway

Study: [Evaluation of the safety effectiveness of lane departure countermeasures on two-lane undivided roadways using crash modification factors, Dissanayake and Galgamuwa, 2019](#)

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

Crash Modification Factor (CMF)	
Value:	0.86
Adjusted Standard Error:	
Unadjusted Standard Error:	0.015

Crash Reduction Factor (CRF)	
Value:	14 (This value indicates a decrease in crashes)
Adjusted Standard Error:	
Unadjusted Standard Error:	1.5

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:	30 to 15900 <i>Annual Average Daily Traffic (AADT)</i>
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:	2009 to 2014
Municipality:	
State:	KS
Country:	USA

Type of Methodology Used:	7
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Jun-01-2020
Comments:	CMF for lane departure crashes on tangent road segments

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