



CMF / CRF Details

CMF ID: 10411

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:



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

Crash Modification Factor (CMF)

Value: 0.75

Adjusted Standard Error:

Unadjusted Standard Error: 0.094

Crash Reduction Factor (CRF)

Value: 25 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error:	9.4
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Applicability

Crash Type:	Run off road
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Crash Severity:	All
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Roadway Types:	Not specified
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Number of Lanes:	2
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Road Division Type:	Undivided
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Speed Limit:	
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Area Type:	Rural
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Traffic Volume:	50 to 8550 <i>Annual Average Daily Traffic (AADT)</i>
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Time of Day:	Not specified
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If countermeasure is intersection-based

Intersection Type:	
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Intersection Geometry:	
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Traffic Control:	
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Major Road Traffic Volume:	
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Minor Road Traffic Volume:	
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Development Details

Date Range of Data Used:	2009 to 2014
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Municipality:	
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State:	KS
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Country:	USA
Type of Methodology Used:	Case-control
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 curved road segments

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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