



CMF / CRF Details

CMF ID: 10413

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: 0.51

Adjusted Standard Error:

Unadjusted Standard Error: 0.069

Crash Reduction Factor (CRF)

Value: 49 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error:	6.9
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Applicability

Crash Type:	Run off road
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Crash Severity:	K (fatal),A (serious injury),B (minor injury),C (possible injury)
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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:	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 curved road segments

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