



CMF / CRF Details

CMF ID: 5172

Convert 6-foot shoulder to 8-foot shoulder

Description: Convert 6-foot shoulder to 8-foot shoulder

Prior Condition: *No Prior Condition(s)*

Category: Shoulder treatments

Study: [Prediction of the Expected Safety Performance of Rural Two-Lane Highways, Harwood et al., 2000](#)

Star Quality Rating:

Crash Modification Factor (CMF)

Value:

$$CMF = 0.98 - 6.875 \times 10^{-5} \times (AADT - 400)$$

Adjusted Standard Error:

Unadjusted Standard Error:

Crash Reduction Factor (CRF)

Value:

*(This value indicates an **increase** in crashes)*

Adjusted Standard Error:

Unadjusted Standard Error:

Applicability

Crash Type:

Head on,Run off road,Sideswipe,Single vehicle

Crash Severity:

All

Roadway Types:

Minor Arterial

Number of Lanes:

2

Road Division Type:

Speed Limit:

Area Type:

Rural

Traffic Volume:

400 to 2000 *Annual Average Daily Traffic (AADT)*

Time of Day:

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:

No state(s) chosen.

Country:

Type of Methodology Used:

Sample Size Used:	
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Other Details	
Included in Highway Safety Manual?	
Date Added to Clearinghouse:	Dec-01-2009
Comments:	HSM 1st Ed, page 13-11

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