



CMF / CRF Details

CMF ID: 7209

Increase median shoulder width

Description: Increase median shoulder width

Prior Condition: Median shoulder with unspecified width

Category: Shoulder treatments

Study: [NCHRP Report 794: Median Cross-Section Design for Rural Divided Highways, Graham et al., 2014](#)

Star Quality Rating:



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

Crash Modification Factor (CMF)

Value: 0.819

Adjusted Standard Error:

Unadjusted Standard Error: 0.047

Crash Reduction Factor (CRF)

Value: 18.14 (*This value indicates a **decrease** in crashes*)

Adjusted Standard Error:

Unadjusted Standard Error: 4.73

Applicability

Crash Type: Other

Crash Severity: All

Roadway Types: Principal Arterial Other Freeways and Expressways

Number of Lanes: 4

Road Division Type: Divided by Median

Speed Limit:

Area Type: Rural

Traffic Volume:

Time of Day: All

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: 2000 to 2007

Municipality:

State: CA, MO, NC, OH, PA, WA

Country:	USA
Type of Methodology Used:	Regression cross-section
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Nov-01-2015
Comments:	This CMF applies to a one foot increase in median shoulder width for hit-barrier crashes on four-lane freeways with a rigid barrier.

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