CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 5415

Crash modification factor for 12 ft travel lane, with a total shoulder of X ft

Description: The base condition is a 12 ft travel lane, with a total shoulder width of X ft, including paved and unpaved shoulder width

Prior Condition: 12 ft lane width and 6 ft shoulder width

Category: Roadway

Study: *Safety Effects of Cross Section Design on Urban and Suburban Roads*, Le and Porter, 2012

Star Quality Rating:	★★★☆☆ [View score details]

Crash Modification Factor (CMF)	
Value:	$CMF = 1.427 * e^{-0.0593 * totshld}$
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor (CRF)

Value:	$CRF = 100 * \left(1 - \left(1.427 * e^{-0.0593 * totshld}\right)\right)$
Adjusted Standard Error:	
Unadjusted Standard Error:	

Applicability

Crash Type:	All
Crash Severity:	K (fatal),A (serious injury),B (minor injury),C (possible injury)
Roadway Types:	Not specified
Number of Lanes:	
Road Division Type:	All
Speed Limit:	
Area Type:	Urban and suburban
Traffic Volume:	1183 to 47067 *Annual Average Daily Traffic (AADT)*
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:	2007 to 2009
Municipality:	
State:	IL
Country:	USA
Type of Methodology Used:	7
Sample Size Used:	2004 Crashes

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Jan-09-2014
Comments:	The function includes an interaction between lane width and shoulder width

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