



CMF / CRF Details

CMF ID: 8334

Install an additional lane

Description: Use reducing lane and shoulder width to install additional lanes for urban freeway

Prior Condition: Freeway with fewer lanes

Category: Roadway

Study: [Operational and Safety Trade-offs: Reducing Freeway Lane and Shoulder Width to Permit an Additional Lane, Dixon et al., 2016](#)

Star Quality Rating:



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

Crash Modification Factor (CMF)

Value: 0.76

Adjusted Standard Error:

Unadjusted Standard Error: 0.092

Crash Reduction Factor (CRF)

Value: 24 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error:	9.2
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Applicability

Crash Type:	All
Crash Severity:	K (fatal),A (serious injury),B (minor injury),C (possible injury)
Roadway Types:	Principal Arterial Other Freeways and Expressways
Number of Lanes:	2-5
Road Division Type:	Divided by Median
Speed Limit:	>50
Area Type:	Urban
Traffic Volume:	200 to 281450 <i>Average Daily Traffic (ADT)</i>
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:	2010 to 2013
Municipality:	Dallas, Houston, San Antonio
State:	TX

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

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Jan-17-2017
Comments:	CMF applies to adding one additional lane with 11 ft average lane width

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