



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	
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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

<i>If countermeasure is intersection-based</i>	
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Intersection Type:	
Intersection Geometry:	
Traffic Control:	
Major Road Traffic Volume:	
Minor Road Traffic Volume:	

Development Details	
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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

This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center

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