



CMF / CRF Details

CMF ID: 4201

Install dynamic signal warning flashers

Description: Dynamic signal warning flashers (DSWF) provide drivers with advance notice of the phase change. Specifically, the DSWF is linked to the signal and flashers are actuated when the signal is about to change from green to yellow.

Prior Condition: Signalized intersection without advance warning flashers.

Category: Intersection traffic control

Study: [Evaluation of Safety Strategies at Signalized Intersections, Srinivasan, et al., 2011](#)

Star Quality Rating:	
<input type="text" value="4 Stars"/>	[View score details]

Crash Modification Factor (CMF)	
Value:	0.82
Adjusted Standard Error:	
Unadjusted Standard Error:	0.083

Crash Reduction Factor (CRF)	
Value:	18 (This value indicates a decrease in crashes)
Adjusted Standard Error:	
Unadjusted Standard Error:	8.3

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:	
Speed Limit:	
Area Type:	All
Traffic Volume:	
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	3-leg,4-leg
Traffic Control:	Signalized
Major Road Traffic Volume:	7500 to 99000 Annual Average Daily Traffic (AADT)
Minor Road Traffic Volume:	40 to 20100 Annual Average Daily Traffic (AADT)

Development Details

Date Range of Data Used:	1994 to 2008
Municipality:	
State:	NV, VA
Country:	USA

Type of Methodology Used:	7
Sample Size Used:	1450

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Dec-06-2012
Comments:	Average major and minor road volumes are computed based on weighted average in NV and VA. AADT applies to all sites.

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