



CMF / CRF Details

CMF ID: 9916

Modify signal phasing (implement a leading pedestrian interval)

Description:

Prior Condition: Signal phasing without leading pedestrian interval

Category: Intersection traffic control

Study: [Safety Evaluation of Protected Left-Turn Phasing and Leading Pedestrian Intervals on Pedestrian Safety, Goughnour et al., 2018](#)

Star Quality Rating:



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

Crash Modification Factor (CMF)

Value: 0.87

Adjusted Standard Error:

Unadjusted Standard Error: 0.02

Crash Reduction Factor (CRF)

Value: 13 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error:

2

Applicability

Crash Type:

All

Crash Severity:

All

Roadway Types:

All

Number of Lanes:

Road Division Type:

Speed Limit:

Area Type:

Urban and suburban

Traffic Volume:

Time of Day:

All

If countermeasure is intersection-based

Intersection Type:

Roadway/roadway (not interchange related)

Intersection Geometry:

Not specified

Traffic Control:

Signalized

Major Road Traffic Volume:

Minor Road Traffic Volume:

Development Details

Date Range of Data Used:

2009 to 2015

Municipality:

Chicago, New York City, Charlotte

State:

IL, NY, NC

Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Mar-11-2019
Comments:	Crash Type = Total Crashes. This CMF is for sites where LPIs were implemented either at all crossings (across major and minor roads) or only for crossings across the minor road (parallel to the major road).

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