



# 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](#)**

<b>Star Quality Rating:</b>	
<input type="text" value="5 Stars"/>	<a href="#">[View score details]</a>

<b>Crash Modification Factor (CMF)</b>	
<b>Value:</b>	0.87
<b>Adjusted Standard Error:</b>	
<b>Unadjusted Standard Error:</b>	0.02

<b>Crash Reduction Factor (CRF)</b>	
<b>Value:</b>	13 (This value indicates a <b>decrease</b> in crashes)
<b>Adjusted Standard Error:</b>	
<b>Unadjusted Standard Error:</b>	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:**

2

<b>Sample Size Used:</b>	
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<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	No
<b>Date Added to Clearinghouse:</b>	Mar-11-2019
<b>Comments:</b>	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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