



CMF / CRF Details

CMF ID: 9023

Install pedestrian hybrid beacon (PHB or HAWK) with advanced yield or stop markings and signs

Description: Install a combination of a pedestrian hybrid beacon (PHB) and advanced yield or stop markings and signs

Prior Condition: No PHB or advanced yield or stop markings and signs

Category: Pedestrians

Study: [Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments, Zegeer et al., 2017](#)

Star Quality Rating:



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

Crash Modification Factor (CMF)

Value: 0.876

Adjusted Standard Error:

Unadjusted Standard Error: 0.111

Crash Reduction Factor (CRF)

Value: 12.4 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:	
Unadjusted Standard Error:	11.1

Applicability

Crash Type:	Rear end,Sideswipe
Crash Severity:	All
Roadway Types:	Minor Arterial
Number of Lanes:	2 to 8
Road Division Type:	
Speed Limit:	
Area Type:	Urban and suburban
Traffic Volume:	6634 to 48791 <i>Annual Average Daily Traffic (AADT)</i>
Time of Day:	

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:	2004 to 2013
Municipality:	

State:	AZ, FL, IL, MA, NY, NC, OR, VA, WI
Country:	USA
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:	Nov-17-2017
Comments:	Study sites were a combination of intersection and mid-block locations.

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