



# CMF / CRF Details

CMF ID: 9022

**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:	
<input type="text" value="4 Stars"/>	<a href="#">[View score details]</a>

Crash Modification Factor (CMF)	
Value:	0.82
Adjusted Standard Error:	
Unadjusted Standard Error:	0.078

Crash Reduction Factor (CRF)	
Value:	18 (This value indicates a <b>decrease</b> in crashes)
Adjusted Standard Error:	
Unadjusted Standard Error:	7.8

**Applicability**

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

***If countermeasure is intersection-based***

<b>Intersection Type:</b>	
<b>Intersection Geometry:</b>	
<b>Traffic Control:</b>	
<b>Major Road Traffic Volume:</b>	
<b>Minor Road Traffic Volume:</b>	

**Development Details**

<b>Date Range of Data Used:</b>	2004 to 2013
<b>Municipality:</b>	
<b>State:</b>	AZ, FL, IL, MA, NY, NC, OR, VA, WI
<b>Country:</b>	USA

<b>Type of Methodology Used:</b>	2
<b>Sample Size Used:</b>	

<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	No
<b>Date Added to Clearinghouse:</b>	Nov-17-2017
<b>Comments:</b>	Study sites were a combination of intersection and mid-block locations.

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