



# CMF / CRF Details

CMF ID: 2911

Install a pedestrian hybrid beacon (PHB or HAWK)

**Description:**

**Prior Condition:** Minor-road stop-controlled intersection

**Category:** Pedestrians

**Study:** [Safety Effectiveness of the HAWK Pedestrian Crossing Treatment, Fitzpatrick, K., and Park, E.S., 2010](#)

Star Quality Rating:	
8 Stars	<a href="#">[View score details]</a>

Crash Modification Factor (CMF)	
Value:	0.712
Adjusted Standard Error:	
Unadjusted Standard Error:	0.065

Crash Reduction Factor (CRF)	
Value:	29 (This value indicates a <b>decrease</b> in crashes)
Adjusted Standard Error:	
Unadjusted Standard Error:	6.5

## Applicability

<b>Crash Type:</b>	All
<b>Crash Severity:</b>	All
<b>Roadway Types:</b>	Not Specified
<b>Number of Lanes:</b>	4 to 6
<b>Road Division Type:</b>	All
<b>Speed Limit:</b>	30 to 40 mph
<b>Area Type:</b>	Urban and suburban
<b>Traffic Volume:</b>	
<b>Time of Day:</b>	All

### *If countermeasure is intersection-based*

<b>Intersection Type:</b>	Roadway/roadway (not interchange related)
<b>Intersection Geometry:</b>	3-leg,4-leg
<b>Traffic Control:</b>	Other
<b>Major Road Traffic Volume:</b>	
<b>Minor Road Traffic Volume:</b>	

## Development Details

<b>Date Range of Data Used:</b>	2002 to 2008
<b>Municipality:</b>	Tucson
<b>State:</b>	AZ
<b>Country:</b>	
<b>Type of Methodology Used:</b>	2

<b>Sample Size Used:</b>	
<b>Before Sample Size Used:</b>	63
<b>After Sample Size Used:</b>	55

<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	No
<b>Date Added to Clearinghouse:</b>	Mar-21-2011
<b>Comments:</b>	The authors of this study also experimented with producing additional CMFs from an alternate dataset of crashes (based on a different definition of relation to intersection). Since this did not add new knowledge to this topic, these CMFs were not included in the Clearinghouse. The CMFs reported in the Clearinghouse reflect the final CMFs noted in the report summary and abstract. The number of crashes in the after period were not reported in this study, however, they have been recorded as 300 to give 10 points as a benefit of doubt for one or more of the following: (1) number of miles/sites in the reference/treatment group, (2) number of crashes in the references/treatment group, (3) reporting AADTs for the aggregate dataset but not for the disaggregate dataset used for CMF development.

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