



CMF / CRF Details

CMF ID: 5230

Conversion of intersection into high-speed roundabout

Description: Conversion of intersection into high-speed roundabout

Prior Condition: The intersection was operating under no control, yield, TWSC, AWSC, or signal control

Category: Intersection geometry

Study: [Evaluation of Roundabout Safety, Qin et al., 2013](#)

Star Quality Rating:	
<input type="checkbox"/> Stars	[View score details]

Crash Modification Factor (CMF)	
Value:	0.506
Adjusted Standard Error:	
Unadjusted Standard Error:	0.158

Crash Reduction Factor (CRF)	
Value:	49.38 (This value indicates a decrease in crashes)
Adjusted Standard Error:	
Unadjusted Standard Error:	15.8

Applicability

Crash Type:	All
Crash Severity:	K (fatal),A (serious injury),B (minor injury),C (possible injury)
Roadway Types:	Not specified
Number of Lanes:	2,4
Road Division Type:	All
Speed Limit:	
Area Type:	All
Traffic Volume:	
Time of Day:	All

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	3-leg,4-leg
Traffic Control:	Other
Major Road Traffic Volume:	4100 (total entering) to 48100 (total entering) Annual Average Daily Traffic (AADT)
Minor Road Traffic Volume:	

Development Details

Date Range of Data Used:	1994 to 2010
Municipality:	Statewide
State:	WI
Country:	USA
Type of Methodology Used:	2

Sample Size Used:	Crashes
Before Sample Size Used:	30 Crashes
After Sample Size Used:	15 Crashes

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Aug-01-2013
Comments:	- Study included three-year before and after crash data for each site.- In this case, the reported before-crashes represent the "expected crashes" after treatment.- "Traffic Control" includes intersections with yield control, two-way stop-control, all-way stop-control, and signal control.- Reported traffic volume is total entering volume.

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