



# CMF / CRF Details

CMF ID: 10423

Conversion of intersection to roundabout

**Description:** Conversion of stop- and signal-controlled intersections into roundabouts

**Prior Condition:** *No Prior Condition(s)*

**Category:** Intersection geometry

**Study:** [Effect of traffic roundabouts on accident rate and severity in Arizona, Mamlouk and Souliman, 2019](#)

Star Quality Rating:	
<input type="text" value="2 Stars"/>	<a href="#">[View score details]</a>

Crash Modification Factor (CMF)	
Value:	1.67
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor (CRF)	
Value:	-67 (This value indicates an <b>increase</b> in crashes)
Adjusted Standard Error:	
Unadjusted Standard Error:	

**Applicability**

<b>Crash Type:</b>	All
<b>Crash Severity:</b>	0 (property damage only)
<b>Roadway Types:</b>	Not specified
<b>Number of Lanes:</b>	
<b>Road Division Type:</b>	
<b>Speed Limit:</b>	
<b>Area Type:</b>	Urban
<b>Traffic Volume:</b>	
<b>Time of Day:</b>	Not specified

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

<b>Intersection Type:</b>	Roadway/roadway (not interchange related)
<b>Intersection Geometry:</b>	Not specified
<b>Traffic Control:</b>	Roundabout
<b>Major Road Traffic Volume:</b>	
<b>Minor Road Traffic Volume:</b>	

**Development Details**

<b>Date Range of Data Used:</b>	
<b>Municipality:</b>	
<b>State:</b>	AZ
<b>Country:</b>	USA

<b>Type of Methodology Used:</b>	3
<b>Sample Size Used:</b>	

<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	No
<b>Date Added to Clearinghouse:</b>	Jun-01-2020
<b>Comments:</b>	For double-lane roundabout. Change in accident rate per million vehicles. 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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