



CMF / CRF Details

CMF ID: 10427

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:



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

Crash Modification Factor (CMF)

Value: 1.02

Adjusted Standard Error:

Unadjusted Standard Error:

Crash Reduction Factor (CRF)

Value: -2 (This value indicates an **increase** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error:

Applicability

Crash Type:

All

Crash Severity:

O (property damage only)

Roadway Types:

Not specified

Number of Lanes:

Road Division Type:

Speed Limit:

Area Type:

Urban

Traffic Volume:

Time of Day:

Not specified

If countermeasure is intersection-based

Intersection Type:

Roadway/roadway (not interchange related)

Intersection Geometry:

Not specified

Traffic Control:

Roundabout

Major Road Traffic Volume:

Minor Road Traffic Volume:

Development Details

Date Range of Data Used:

Municipality:

State:

AZ

Country:	USA
Type of Methodology Used:	3
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Jun-01-2020
Comments:	For single-lane roundabout. Change in accident rate per year. 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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