



CMF / CRF Details

CMF ID: 10578

Roundabout geometry

Description: Various geometric elements of roundabout

Prior Condition: *No Prior Condition(s)*

Category: Intersection geometry

Study: [*Developing crash modification factors for roundabouts using a cross-sectional method, Al-Marafi et al., 2020*](#)

Star Quality Rating:



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

Crash Modification Factor (CMF)

Value:

$$CMF = e^{-0.052F}$$

Where F is the indicator for fixed object presence on central island (F=1 if fixed object present, =0 otherwise)

Adjusted Standard Error:

Unadjusted Standard Error:

Crash Reduction Factor (CRF)

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

Adjusted Standard Error:

Unadjusted Standard Error:

Applicability

Crash Type: All

Crash Severity: K (fatal),A (serious injury),B (minor injury),C (possible injury)

Roadway Types: Not specified

Number of Lanes:

Road Division Type:

Speed Limit:

Area Type: Not specified

Traffic Volume:

Time of Day:

If countermeasure is intersection-based

Intersection Type: Roadway/roadway (not interchange related)

Intersection Geometry: No values chosen.

Traffic Control: Roundabout

Major Road Traffic Volume: 1288 to 16071 Annual Average Daily Traffic (AADT)

Minor Road Traffic Volume: 1200 to 10002 Annual Average Daily Traffic (AADT)

Development Details

Date Range of Data Used:	2010 to 2015
Municipality:	Toowoomba City
State:	
Country:	Australia
Type of Methodology Used:	7
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Dec-17-2020
Comments:	CMFunction for presence of fixed object on central island

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