



CMF / CRF Details

CMF ID: 10439

Conversion of intersection into high-speed roundabout

Description: Conversion of intersection into high-speed roundabout

Prior Condition: Minor Road Stop-Controlled Intersections

Category: Intersection geometry

Study: [Evaluation of Roundabouts on High-Speed Roadways, Bagley, D.L., 2020](#)

Star Quality Rating:

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

Crash Modification Factor (CMF)

Value: 0.57

Adjusted Standard Error:

Unadjusted Standard Error: 0.11

Crash Reduction Factor (CRF)

Value: 43 (This value indicates a **decrease** in crashes)

Adjusted Standard Error:

Unadjusted Standard Error: 11

Applicability

| | |
|----------------------------|-----------|
| Crash Type: | All |
| Crash Severity: | All |
| Roadway Types: | All |
| Number of Lanes: | |
| Road Division Type: | |
| Speed Limit: | 35-55 MPH |
| Area Type: | All |
| Traffic Volume: | |
| Time of Day: | All |

If countermeasure is intersection-based

| | |
|-----------------------------------|---|
| Intersection Type: | Roadway/roadway (not interchange related) |
| Intersection Geometry: | 4-leg |
| Traffic Control: | Roundabout |
| Major Road Traffic Volume: | |
| Minor Road Traffic Volume: | |

Development Details

| | |
|----------------------------------|--------------|
| Date Range of Data Used: | 1999 to 2019 |
| Municipality: | |
| State: | NC |
| Country: | |
| Type of Methodology Used: | 2 |
| Sample Size Used: | |

Other Details

Included in Highway Safety Manual?

No

Date Added to Clearinghouse:

Jun-01-2020

Comments:

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.

This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center

The information contained in the Crash Modification Factors (CMF) Clearinghouse is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in the CMF Clearinghouse. The information contained in the CMF Clearinghouse does not constitute a standard, specification, or regulation, nor is it a substitute for sound engineering judgment.