



## CMF / CRF Details

**CMF ID: 8278**

**Convert diamond interchange to Diverging Diamond Interchange (DDI) or Double Crossover Diamond (DCD)**

**Description: Convert a diamond interchange to a Diverging Diamond Interchange (DDI) or a Double Crossover Diamond (DCD)**

**Prior Condition: Diamond interchange**

**Category: Interchange design**

**Study: [Safety Evaluation of Seven of the Earliest Diverging Diamond Interchanges Installed in the US, Hummer et al., 2016](#)**

**Star Quality Rating:**



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

### Crash Modification Factor (CMF)

**Value:** 0.59

**Adjusted Standard Error:**

**Unadjusted Standard Error:** 0.07

### Crash Reduction Factor (CRF)

**Value:** 41 (This value indicates a **decrease** in crashes)

<b>Adjusted Standard Error:</b>	
<b>Unadjusted Standard Error:</b>	7

### Applicability

<b>Crash Type:</b>	All
<b>Crash Severity:</b>	Fatal,Serious injury,Minor injury
<b>Roadway Types:</b>	Principal Arterial Other Freeways and Expressways
<b>Number of Lanes:</b>	3-6
<b>Road Division Type:</b>	Divided by Median
<b>Speed Limit:</b>	40-45
<b>Area Type:</b>	Suburban
<b>Traffic Volume:</b>	
<b>Time of Day:</b>	All

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

<b>Intersection Type:</b>	
<b>Intersection Geometry:</b>	
<b>Traffic Control:</b>	
<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>	KY, MO, NY, TN
<b>Country:</b>	USA
<b>Type of Methodology Used:</b>	Before/after using comparison group
<b>Sample Size Used:</b>	

<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	No
<b>Date Added to Clearinghouse:</b>	Jan-17-2017
<b>Comments:</b>	The volume here is the crossover volume. CMFs of six interchanges in MO, KY, NY, and TN.

---

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.*