



## What is a Diverging Diamond Interchange?

A **Diverging Diamond Interchange (DDI)** is based on a standard diamond interchange with a shift in the highway traffic within the interchange to safely and efficiently accommodate high volume, left turn movements. Within the interchange, traffic on the highway briefly crosses over and travels on the left side of the road to allow left turn movements to occur without crossing oncoming traffic or stopping. A DDI has fewer conflict points, reducing the opportunities for crashes.

A DDI will be completed in fall 2021 at the I-39/90 and WIS 81 interchange (Exit 185) near Beloit. This is one of three DDI's constructed as a part of the I-39/90 Expansion. The first was completed in November 2016 at the I-39/90 and WIS 11 (Avalon Road) interchange. The third will be constructed at the I-39/90 and WIS 26 interchange.

WIS 81 has a significant amount of traffic making left turns onto the Interstate. During a typical day, it's projected an average of 7,000 vehicles will merge onto I-39/90 northbound from WIS 81. Due to the high volume of left turns onto the Interstate, a standard diamond interchange design was not as efficient at reducing traffic congestion.

## Questions, comments or concerns?

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*How to drive the WIS 81*

# DIVERGING DIAMOND INTERCHANGE

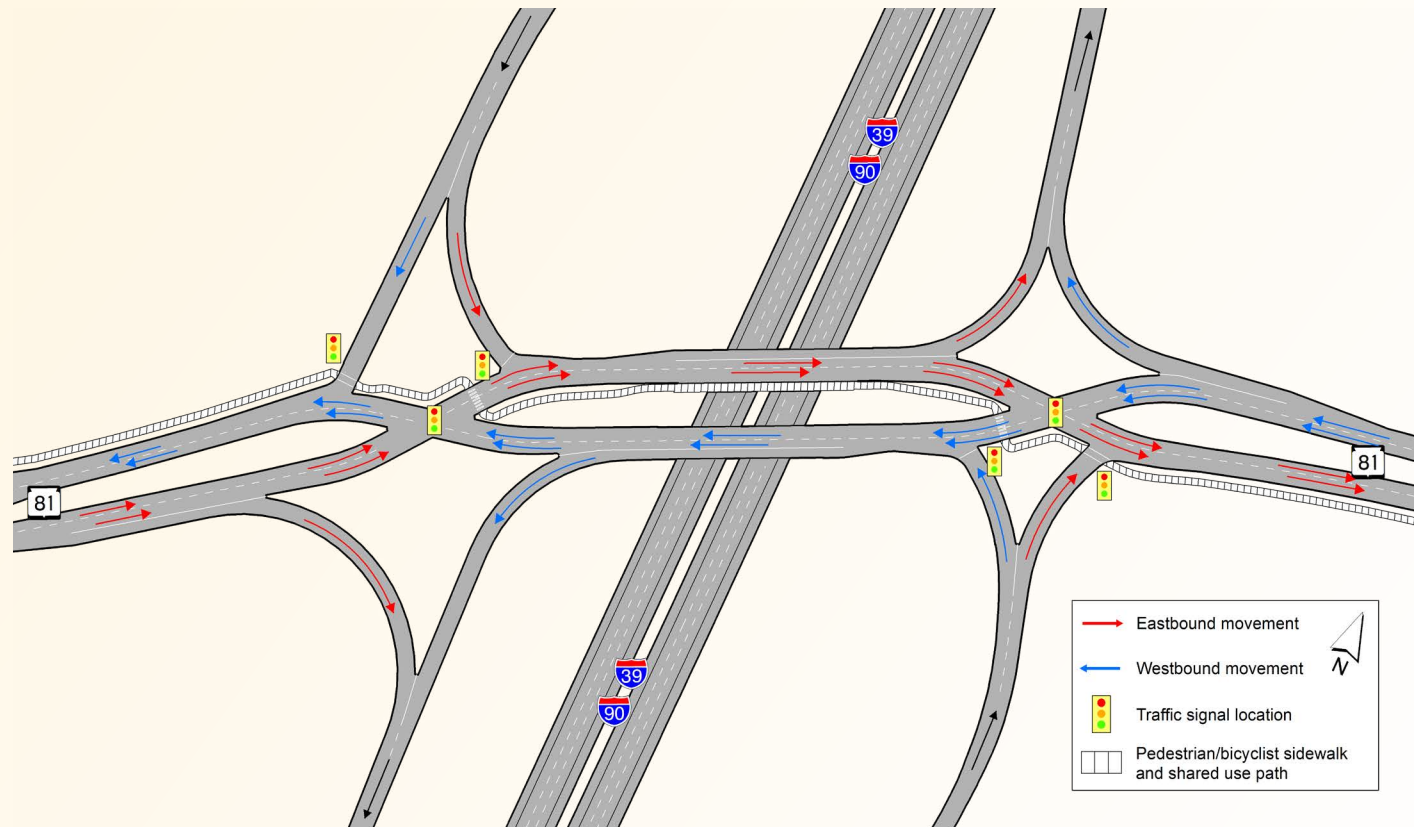


# ADVANTAGES of the DDI

A DDI provides a number of advantages at interchanges where there are a significant amounts of left turn movements. DDI's create free flowing left turn movements by directing traffic to the opposite side of the road within the interchange. This reduces the potential for crashes, often occurring when there is a high volume of left turn movements.

Advantages of a DDI include:

- ◆ **Safety** – Reduces the number of ways vehicles can collide by almost half (14 conflict points compared to 26 for a standard diamond interchange).
- ◆ **Efficiency** – Drivers make free-flow, left turns onto the Interstate.
- ◆ **Easy navigation** – Guides drivers with overhead signs, pavement marking and traffic signals.
- ◆ **Meets the needs of all road users** – Accommodates large trucks, vehicles, pedestrians and bicyclists.



## DRIVING the DDI

- ◆ Following the signs, traffic signals and pavement markings, motorists cross over to the left side of the roadway after the first set of traffic signals.
- ◆ All left turns onto the freeway are free flow, meaning vehicles do not have to stop to access the ramp.
- ◆ Vehicles going straight simply proceed through a second set of traffic signals and cross back to the right side of the road.
- ◆ To view how DDI's operate, please watch the narrated animation video of the I-39/90 and WIS 11 (Avalon Road) interchange at <https://projects.511wi.gov/i-39-90/wis11-avalonroad/>.

