

Diverging Diamond Interchanges

FACT SHEET



Diverging Diamond Interchanges

A diverging diamond interchange, or DDI, is an innovative design that addresses congestion by allowing vehicles to travel more quickly through busy intersections. DDIs are particularly effective at locations that have a high volume of left-turning traffic. A DDI increases traffic flow by temporarily shifting traffic to the left side of the roadway, allowing through-traffic and left-turning traffic to proceed through the exchange simultaneously. This eliminates the need for left-turn signals. This design increases safety by reducing the number of potential conflict points between cross-traffic and left-turn movements.

Driving in a Diverging Diamond Interchange

While driving through a diverging diamond interchange is different, it is not difficult to understand and navigate once you get used to it. Also, it's proven to have reduced crashes by 50 percent in some areas. A DDI creates a diamond-shaped pattern and temporarily shifts traffic to the left side of the roadway prior to entering the intersection.

How it works:

- Two phase traffic signals are installed at the roadway crossover points.
- Once on the left side of the road, drivers can freely turn left, rather than waiting for oncoming traffic to clear or for a left-turn signal. Or, drivers can continue straight and will switch back to the right side once they've cleared the roadway.
- U-turn lanes are also included in a DDI, making left-turns from the cross-streets safer and more efficient.
- Through-traffic on the frontage road bypasses the intersection via a collector-distributor lane, or intersection bypass lane, allowing drivers to avoid the traffic signal.



Advantages of a Diverging Diamond Interchange

A DDI enhances safety and mobility by reducing potential crash points at intersections and by allowing more cars to move through an intersection. This means a reduction in delays and travel time. Other benefits include:

- Motorists are able to bypass the exchange without stopping at a traffic signal
- Improved travel time because additional "green time" at traffic signals allow more vehicles to pass through the roadway
- Additional sidewalks will increase safety and better accommodate pedestrians and bicyclists
- Relatively low cost improvement

For additional information, please contact TxDOT Austin District Public Information Officer Diann Hodges at (512) 832-7060 or Diann.Hodges@txdot.gov. Watch YouTube video: <https://youtu.be/GnukMEsezJU>