

While the ramp configuration is similar to a traditional diamond interchange, traffic on the cross route moves to the left side of the roadway for the segment between signalized ramp intersections. By moving traffic to the left, left-turning vehicles can enter from the ramp to the major roadway without the need for a left-turn signal phase at the signalized ramp intersections. In addition, a DDI reduces conflict points of a traditional diamond interchange from 30 to 18 based on fewer crossing points. (See Table 2-8). This includes merge and diverge points on the major road, not at the ramp terminals.\*

This reduction in conflict points should represent significant improvement in safety.

Some of the situations where a DDI may be suitable are listed as follows:

- Heavy left turns from ramps onto major roadway
- Moderate or unbalanced through volumes on the crossroad approaches
- Moderate to very heavy left-turn volumes from the major roadway off-ramps
- Limited bridge deck width
- Expected remaining life of the bridge should be evaluated when considering the DDI design when the project involves converting an existing diamond interchange to a DDI without widening the existing bridges.

<b>TYPE</b>	<b>Diamond</b>	<b>SPUI</b>	<b>DDI</b>
Diverging	10	8	8
Merging	10	8	8
Crossing	10	8	2
<b>Total</b>	<b>30</b>	<b>24</b>	<b>18</b>

**TABLE 2-8 CONFLICT POINTS**

\* Added 7/14