**What are innovative intersections?**

Intersection designs where traffic movements are modified to improve safety, reduce delay, and increase efficiency.

Visit www.virginiadot.org/innovativeintersections to learn more.

**Quadrant Roadway (QR)**

**What is a QR?**

- Intersection design with one main intersection and two secondary intersections that are linked by a connector road in any quadrant of the intersection
- Left-turn vehicles from all four legs of the main intersection use the secondary intersections and connector road, instead of the main intersection, to complete left-turn movements
- Secondary intersections are typically signalized, but can also be unsignalized
- When all three intersections are signalized, traffic signals are timed to operate together

**When should a QR be considered?**

- At intersections with heavy through and left-turn traffic volumes on the major and side streets
- At locations with an existing roadway that can be used as the connector roadway
- At intersections with four legs

**What are the benefits of a QR?**

- **Improved safety:** Reduces and spreads out the number of points where vehicles may cross paths
- **Increased efficiency:** Rerouting left turns allows for fewer traffic signal phases at the main intersection, which means less time waiting for through and right-turn vehicles
- **Better synchronization:** Synchronization of three signalized intersections improves corridor travel times on both the major and side streets

*State Route 4 at State Route 4 Bypass/Ross Road, Fairfield, OH*
To make a left turn from this leg, turn left onto the connector roadway then make another left turn.

To make a left turn from this leg, turn right onto the connector roadway, turn left onto the side street, and continue straight.

Pedestrians use marked crosswalks to safely cross the intersection.

To make a left turn from this leg, go straight through the first intersection, then turn left onto the connector roadway, then turn right onto the side street.

To make a left turn from this leg, go straight through the first intersection, then turn right onto the connector roadway, then turn right onto the major street.

Depending on their level of comfort, cyclists may navigate the intersection using vehicle or pedestrian paths.

Note: For simplicity, only left-turn routes are shown. To continue straight and turn right, traffic follows similar routes to a conventional intersection.

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