Install a Roundabout

A form of circular intersection in which vehicles travel counterclockwise around a central island and entering traffic must yield to circulating traffic.

**Targeted Crash Types**
- Right-angle
- Opposing left turn

**Problems Addressed**
- Speeding
- Excessive intersection conflicts
- Inappropriate intersection traffic control
- Poor operational performance

**Conditions Addressed**
- Consider as an alternative to signalization.
- High crash frequency or severity, resulting in a need to reduce conflict points at the intersection.
- Congestion related to high numbers of left-turning vehicles.

**Considerations**
- May require additional right-of-way to construct a radius that accommodates a large design vehicle.
- Best at intersections having relatively balanced approach volumes or high numbers of left-turning traffic.
- Incorporating splitter islands and horizontal deflection into the design of the approach legs is key so that traffic entering the circular roadway is naturally encouraged to decrease its speed.
- Consider sight distance for all approaches when designing the aesthetics in the center. Truck aprons are also typically needed to accommodate off-tracking.
- Where dual approach or departure lanes exist, alternate accommodations are sometimes incorporated for visually-impaired pedestrians; these may include signals, PHBs, RRFBs, or raised crosswalks.
- In areas where roundabouts are uncommon, public involvement and education are necessary components for project success.

**Industry Standard**

**MUTCD**
- Sections 2B.43 Roundabout Directional Arrow Signs
- Section 2B.44 Roundabout and Circulation Plaque
- Section 2B.45 Examples of Roundabout Signing
- Chapter 3C. Roundabout Markings
- AASHTO Green Book
- Section 9.3.4: Roundabouts
- Section 9.10: Roundabout Design

**Other Resources**
- NCHRP 672: Roundabouts: An Informational Guide, FHWA
- Innovative Operational Safety Improvements at Unsignalized Intersections, Florida DOT
- NCHRP 500 Volume 5: A Guide for Addressing Unsignalized Intersections
- NCHRP 613: Guidelines for Selection of Speed Reduction Treatments at High-Speed Intersections
- Evaluating the Performance and Safety Effectiveness of Roundabouts, Michigan DOT
- Roundabouts, PEDSAFE

**Select Examples**
- Old Bethlehem Pk. & Station Rd., Quakertown, PA
- VIDEO: Old Bethlehem Pk. & Station Rd., Quakertown, PA
- Ulysses St. & S. Golden Rd., Golden, CO
- E. Kings Hwy. & S. Pierce St., Eden, NC