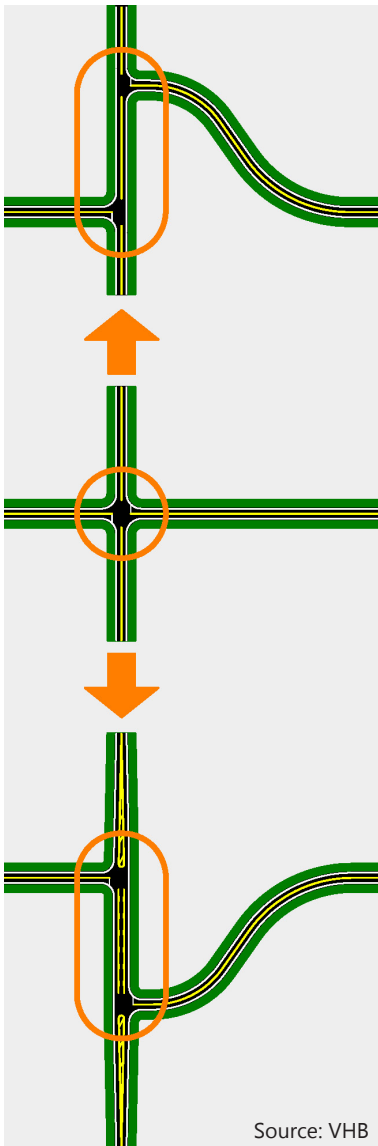




Convert a Four-Legged Intersection to Two T-Intersections

Realignment of one or both minor road approaches such that a four-legged intersection is replaced by two three-legged intersections.



Source: VHB

A single four-legged intersection can be converted to two offset T-intersections by realigning one or both minor road approaches; this can be accomplished to require drivers continuing on the minor road to execute (1) a left-right combination (see top) OR (2) a right-left combination (see bottom).

Targeted Crash Types

- Right-angle
- Opposing left turn

Problems Addressed

- Excessive intersection conflicts
- Poor operational performance
- Misjudgment of gaps

Conditions Addressed

- Crash history or observed conflicts between vehicles on the major road and minor road vehicles making the through movement.
- High-speed angle crashes involving vehicles making through movement on minor road.
- Difficulty among minor road drivers in assessing available gaps in major road traffic.

Considerations

- Right-of-way will likely need to be acquired for each realigned approach.
- Incorporating auxiliary (i.e., left- or right-turn) lanes along the major road into the design can reduce the likelihood of rear-end collisions.
- Operational problems can occur if the two T-intersections are spaced too closely and the left-turns queues along the major street overlap.
- Certain combinations of factors may make the single four-legged intersection preferred over a pair of offset T-intersections.
- Implement appropriate traffic control devices for the new configuration.

Industry Standard

AASHTO Green Book
Section: 9.4.2 Alignment

Select Examples

[US 34 & Oakville Rd. SW, Albany, OR](#)
[NC 131 & NC 41, Bladenboro, NC](#)

Other Resources

[NCHRP Report 500 Volume 5: A Guide for Addressing Unsignalized Intersection Collisions](#)

