



Eliminate Turn Movements Using Design Alterations and Channelization

Application of physical means (e.g., raised islands or flexible posts) to eliminate certain movements at the intersection.



Source: Lee Engineering, LLC

This channelization prevents drivers from turning left from the minor road onto the major road.



Source: VHB

This channelization requires drivers to turn right from the minor approach.



Source: Lee Engineering, LLC

Channelization and delineators restrict drivers turning left from both the major and minor roads.



Targeted Crash Types

- Right-angle
- Opposing left turn
- Rear-end (major road)
- Pedestrian

Problems Addressed

- Excessive intersection conflicts
- Poor operational performance
- Misjudgment of gaps
- Vehicle conflicts with non-motorists

Conditions Addressed

- Crash history related to or observed conflicts involving left-turning vehicles.
- Insufficient gaps in major road traffic for left-turn or through movements from minor road.
- Observed driver confusion with respect to proper vehicle placement and maneuvers.
- Can eliminate a turning movement across a crosswalk and provide pedestrian refuge.

Considerations

- Alternative routes should be available and able to safely accommodate the diverted traffic.
- Stakeholders should be involved during planning stages, especially adjacent businesses or residents who may be affected by the access restriction.
- Consult with elected officials and emergency responders before initiating design work.
- To maximize effectiveness, channelizing devices should be maintained and kept clean and in good condition. Raised islands may be more difficult for snowplows.
- Channelizing islands need to be visible to approaching motorists through the use of signs, pavement markings, and the size of the island. Pedestrian crossings through the islands need to be ADA-compliant.
- Large vehicles (e.g., trucks, buses, and fire trucks) should be considered during planning and design.

Industry Standard

MUTCD

[Section 3H.01: Channelizing Devices](#)

[Chapter 3I. Islands](#)

[Section 2B.18: Movement Prohibition Signs](#)

AASHTO Green Book

Section 9.6.2: Channelization

Section 9.6.3: Islands

Other Resources

[Access Management in the Vicinity of Intersections, FHWA](#)

[Cost Effective Local Road Safety Planning and Implementation, ATSSA](#)

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

Select Examples

[Zion Church Rd. & Warren C. Coleman Blvd., Concord, NC](#)

[W. Foster Ave. & Atherton St., State College, PA](#)

[NC 42 & Verona Dr., Clayton, NC](#)