

Replace TWLTL with Raised Median



A raised median is a physical barrier, typically made of concrete, asphalt, or landscaping, installed in the center of a roadway to separate opposing directions of traffic.

Implementation Strategy

How and Where to Apply

- Raised medians are typically installed on multilane urban or suburban arterials where midblock left-turns, pedestrian activity, or crash frequency is a concern.
- They are most effective on roadways with high volumes, frequent turning movements, or a history of head-on or angle crashes. Raised medians can also serve as pedestrian refuge islands where crosswalks are present.

Use in a Safe System Approach

This treatment aligns with Safe System principles of separation and crash severity reduction by minimizing the chances of head-on and side-impact collisions. Raised medians also improve safe speeds by narrowing perceived roadway width and limiting erratic turning behavior.

Key Stakeholders

State DOTs, local law enforcement agencies

Proactive Implementation

Agencies can implement raised medians proactively through corridor safety studies, access management programs, or systemic risk assessments. Target corridors often include those with high crash rates, uncontrolled left-turn activity, or significant pedestrian crossing volumes.

Countermeasure Overview

Objective: Reduce the severity of the crash

Strategy: Improve design and application of barrier and attenuation systems

Selected Related Countermeasures

- CM1** Install Pedestrian Refuge Islands
- CM2** Restrict Left-Turn Access with Channelization
- CM3** Install Curb Extensions or Bulb-Outs

Cost: \$ (High)

Service Life: 20 years

Benefit-Cost Ratio: 11.2:1

Targeted Solution



CONTRIBUTING FACTORS

- Lack of physical separation
- Risky turning
- Midblock crossing



TARGET CRASH TYPE

- Run-off-road
- Head-on



ROAD FACILITY TYPE

- All



AREA TYPE

- Urban

Safety Linkage



NCHRP 500 Series

Run-off Road

SAFE SYSTEM APPROACH

Safe Roads



AASHTO'S TOWARD ZERO DEATHS

Safer Infrastructure

SAFE SYSTEM ROADWAY DESIGN

TIER 1

TIER 2

TIER 3

TIER 4

Tier 1

Safety Benefits

47%

Reduction in the intersection-related injury crash rate

36%

reduction in fatal and injury crashes

¹ CMF ID: 2518

² CMF ID: 2515

Resources

- FHWA Access Management Manual
- FHWA Roadway Design Guidelines for Multilane Urban Streets
- NCHRP Report 500: Guidance for Implementation of the AASHTO Strategic Highway Safety Plan, Volume 12 – A Guide for Reducing Collisions on Horizontal Curves

Replace TWLTL with raised median Source: [researchgate](https://www.researchgate.net/publication/312111111)

