

Install Rectangular Rapid Flashing Beacon (RRFB)



Rectangular Rapid Flashing Beacons (RRFBs) are user-activated amber LED lights that flash in a rectangular pattern to alert drivers to the presence of pedestrians at unsignalized crossings.

Implementation Strategy

How and Where to Apply

- RRFBs are ideal for mid-block crossings or uncontrolled intersections with moderate to high pedestrian activity.
- Install at marked crosswalks with visibility or yielding concerns; not suitable for low pedestrian volumes, signalized intersections, or unmarked crossings.
- According to FHWA guidelines, they must comply with MUTCD interim approval and can be paired with high-visibility crosswalk markings and signage.

Use in a Safe System Approach

RRFBs strengthen the Safe Roads and Safe Road Users elements of the Safe System Approach by increasing driver awareness and encouraging yielding. By providing clear, timely cues, they help prevent pedestrian crashes and support the principle that deaths and serious injuries are unacceptable.

Key Stakeholders

State DOTs, MPOs, advocacy groups, engineering consultants community associations, active road users.

Proactive Implementation

Agencies can identify high-risk pedestrian crossings using crash data, speed profiles, and land use factors (e.g., near schools, transit stops, or retail areas). RRFBs can be deployed systemically as a proactive low-cost pedestrian safety enhancement, especially in urban corridors or where traditional signals are not warranted.

Countermeasure Overview

Objective: Reduce Pedestrian Exposure to Vehicular Traffic.

Strategy: Install or Upgrade Traffic and Pedestrian Signals.

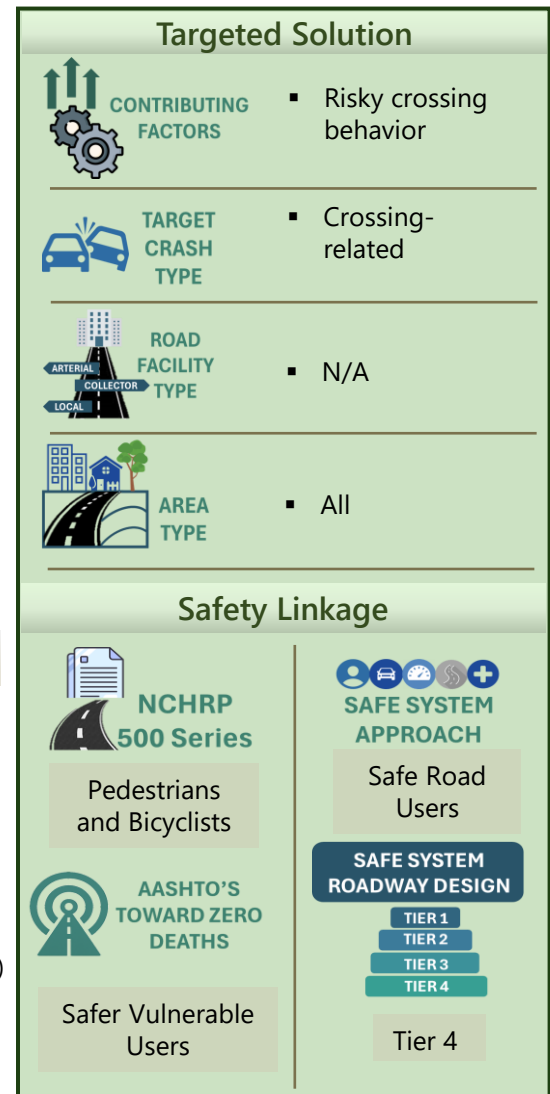
Selected Related Countermeasures

- CM1 Install Pedestrian Hybrid Beacons
- CM2 Add pedestrian refuge islands
- CM3 Advance yield lines and signage

Cost: \$\$\$ (Moderate to High)

Service Life: 10 years

Benefit-Cost Ratio: 6.5:1



73%

Reduces vehicle–pedestrian crashes and A, B, C severities across all area types ([CMF ID:11169](#))

70%

Reduces vehicle–pedestrian crashes and K, A, B, C severities across all area types ([CMF ID:1168](#))

Resources

- [MUTCD Chapter 3B: Pavement and Curb Markings](#)
- [Unsignalized Intersection Improvement Guide](#)
- [FHWA Safety Evaluation of STOP AHEAD Pavement Markings](#)



Rapid Flashing Beacon. Source: VHB.

