

Install Centerline Rumble Strips on Tangent Sections



Centerline rumble strips on straight sections of undivided highways alert drivers who unintentionally drift due to distraction or drowsiness.

Implementation Strategy

How and Where to Apply

- Install centerline rumble strips on straight, undivided rural highways where there's a higher risk of head-on, sideswipe, or run-off-road crashes due to driver inattention.
- Centerline rumble strips are milled into the pavement during resurfacing or as a retrofit to warn drifting drivers through tactile vibration and audible noise signals.
- The **FHWA** states that this marking can be used "Center line rumble strips are a proven safety countermeasure shown to reduce head-on and opposite-direction sideswipe crashes on two-lane rural roads."

Key Stakeholders

State DOTs, local law enforcement agencies.

Proactive Implementation

Centerline rumble strips should be proactively installed on undivided rural highways with a history or potential for lane departure crashes. Integrating them during resurfacing projects maximizes efficiency and cost-effectiveness. Agencies should prioritize corridors based on crash data and roadway characteristics, ensuring early intervention before severe crashes occur.

Use in a Safe System Approach

Centerline rumble strips support the SSA by enhancing safe roads and safe road users, providing tactile and audible warnings to drivers who drift from their lane, enabling early corrective action and reducing head-on and run-off-road crashes on undivided highways.

Countermeasure Overview

Objective: Keep vehicles from encroaching on the roadside to avoid lane or road departure

Strategy: Install low-cost and effective countermeasure

Selected Related Countermeasures

- CM1** Shoulder Rumble Strips
- CM2** High-Visibility Pavement Markings
- CM3** Enhanced Curve Delineation

Cost: \$ (low)

Service Life: 2-3 years

Benefit-Cost Ratio: 75:1

Targeted Solution



CONTRIBUTING FACTORS

- Reduced visibility
- Driver inattention



TARGET CRASH TYPE

- Single Vehicle
- Sideswipe
- Head-on



ROAD FACILITY TYPE

- Collector
- Local



AREA TYPE

- Rural

Safety Linkage



NCHRP 500 Series

- Head-On Collisions
- Horizontal Curves



AASHTO'S TOWARD ZERO DEATHS

Safer Infrastructure



SAFE SYSTEM APPROACH

Safe Roads

SAFE SYSTEM ROADWAY DESIGN

TIER 1

TIER 2

TIER 3

TIER 4

Tier 4

Safety Benefits

49%

Reduces head-on and sideswipe related crashes on undivided rural roads¹

26%

Reduces frontal and opposite-direction crashes²

¹CMF ID: 3352

²CMF ID: 6852

Resources

- [FHWA Longitudinal Rumble Strips](#)
- [Centerline rumble strips on secondary highways](#)
- [Traffic safety bulletin 20-07: rumble strip guidelines](#)

Install Centerline Rumble Strips Source: [Iohud](#).

