

Install Centerline and Shoulder Rumble Strips



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"

Use in a Safe System Approach

Centerline rumble strips support the SSA by providing tactile and audible warnings to drifting drivers, enabling early corrective action and reducing head-on and run-off-road crashes on undivided highways.

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.

Countermeasure Overview

Objective: Keep vehicles from encroaching on the roadside

Strategy: Install shoulder rumble strips.

Targeted Solution



CONTRIBUTING FACTORS

- Reduced visibility
- Driver inattention/distraction



TARGET CRASH TYPE

- Run-off road
- Head-on



ROAD FACILITY TYPE

- Principle Arterial



AREA TYPE

- Rural

Safety Linkage



NCHRP 500 Series

Head-On Collisions

SAFE SYSTEM APPROACH

Safe Roads

SAFE SYSTEM ROADWAY DESIGN

TIER 1

TIER 2

TIER 3

TIER 4

Tier 4



AASHTO'S TOWARD ZERO DEATHS

Safer Infrastructure

Selected Related Countermeasures

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

Cost : Low

Service Life: 10 years

Benefit-Cost Ratio: 28:2:1

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

Safety Benefits

52%

Reduces head-on crashes of all severities on rural, undivided two-lane roads.¹

26%

Reduces run-off-road crashes of all severities on rural areas.²

¹CMF ID: 6940

²CMF ID: 6852

Resources

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

