Widen Paved Shoulder from 4 ft to 6 ft



Wider paved shoulders on roadways can help reduce run-off road crashes, increase stability for vehicles, and improve maneuvering space for drivers.

Implementation Strategy

How and Where to Apply

- Widen paved shoulders from 4 ft to 6 ft on high-speed, limitedaccess highways, especially along segments with high run-off-road crash frequencies or restricted recovery zones.
- This provides additional recovery space for errant vehicles, improves lateral clearance for disabled vehicles or emergency stops, and offers increased space for maintenance activities.
- Wider shoulders reduce crash rates and enhance operational safety by giving drivers more maneuvering room to recover from drift or distraction.

Use in a Safe System Approach Wider shoulders support SSA by improving road design (Safe Roads) to provide recovery space for drivers who unintentionally leave the travel lane. This helps accommodate human mistakes (Safe Road Users) and

Key Stakeholders State DOTs, Traffic Safety Analysts

Proactive Implementation

Widening shoulders should be integrated during planned resurfacing, reconstruction, or capacity improvement projects on interstates and high-speed arterials. Agencies should prioritize segments with narrow shoulders, high-speed limits, or elevated single-vehicle crash rates. Research emphasized that modest increases in shoulder width provided measurable safety benefits and extended pavement life by reducing edge deterioration.

Countermeasure Overview

Objective: Keep vehicles from encroaching on the roadside

Strategy: Apply shoulder treatments

Targeted Solution



- Reduced visibility
- **Driver** inattention



Run-off Road



Principal Arterial Interstate



ΑII

Safety Linkage



Run-off Road



Safer Infrastructure



Safe Roads

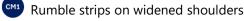
SAFE SYSTEM



Tier 1

Wide Shoulder on Road, Source: Wikipedia.

Selected Related Countermeasures



reduces the severity of ROR crashes.

Guardrail upgrades

High-friction surface treatments

Cost: \$\$ (moderate)

Service Life: 20 years

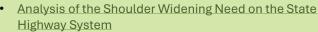
Benefit-Cost Ratio: 1.2:1

afety Benefits

Reduces risk of fixed object, head-on, runoff-road, and sideswipe crashes in rural area¹



Reduces risk of fixed object, head-on, runoff-road, and sideswipe crashes ¹ CMF ID: 6287 in urban area² ² CMF ID: 6290



Potential Safety Effects of Lane Width and Shoulder Width on Two-Lane Rural State Highways in Idaho

