Missoula District Low-Noise Rumble Strips

Rumble Strips Save Lives

What are Rumble Strips?

Rumble strips are grooves in the pavement that produce a rumbling noise and vibration when a vehicle drives over the strip. Shoulder rumble strips have been utilized on Montana's highways for decades to alert drivers veering off the side of the road. Centerline rumble strips are now being installed along the centerline of undivided highways to continue to improve the safety of Montana's highways.

Centerline rumble strips are designed to prevent roadway departure crashes, particularly head-on and sideswipe crashes that occur when a vehicle crosses the centerline of an undivided highway into the oncoming lane of traffic.

Benefits to Rumble Strips

- Provide immediate and direct feedback to drivers or motorcyclists unintentionally crossing the centerline of undivided highways, giving distracted or drowsy drivers time to correct course.

- Act as a guideline to vehicles and snowplows in winter whiteout conditions and other low-visibility conditions.

- Effective in lowering the number of highway fatalities and serious injuries. In other states where rumble strip projects have been implemented, roadway departure crashes have been reduced as much as 42% and fatal and severe injury crashes as much as 73%.

- Are a low-cost safety measure. Compared to over $1 million per mile of total highway reconstruction cost, centerline rumble strips cost about $5,000 per mile to install.
"Low-Noise" Rumble Strips

Traditional centerline rumble strips have been designed to create noise inside the vehicle, alerting drivers that they are too close to the center of the roadway. They are also loud outside the vehicle, which can be disruptive to residents and businesses close by.

Over the years, the design of centerline rumble strips has improved, and we can now utilize sinusoidal rumble strips – or “low-noise” strips. These rumble strips still cause noise and vibration to alert the driver but are much less audible outside the vehicle. Instead of rectangular shapes, sinusoidal rumble strips are more rounded in shape, decreasing the noise when driven over.

MDT will be using this low-noise design in all of the centerline rumble strip installations for this project.

Driving with Centerline Rumble Strips

Montana drivers should be aware of the following when driving on undivided highways that include centerline rumble strips:

- Passing is allowed in passing zones. Centerline rumble strips are installed in both passing and non-passing zones. They are not meant to deter safe passing by car, truck, or motorcycle.
- Don’t hug the shoulder. This makes bicyclists nervous. Be sure to give bicyclists plenty of shoulder room.
- Centerline rumble strips may seem louder when you drive over them compared to shoulder rumble strips. This is because the vehicle and the driver’s body is right over the strip.

Installation Timeline

Installation of the centerline rumble strips will begin in Missoula County in the spring of 2021 and will be completed this year.

Impacts to the Public

MDT is taking measures to be as efficient as possible and create as little disruption as possible during centerline rumble strip installation. MDT will be contacting folks in the installation areas so that they know when and where installations are happening. During construction, traffic will be slowed but not stopped and routed around the work zones.

Vision Zero

MDT’s Engineering department is tasked with making sure Montana’s roadways are engineered to be as safe as possible. That’s why engineering is one of the four E’s of MDT’s Vision Zero initiative, along with education, enforcement and emergency response. We’re all working together towards zero fatalities and zero serious injuries on our highways.

Alternative accessible formats of this document will be provided on request. Persons who need an alternative format should contact the Office of Civil Rights, Department of Transportation, 2701 Prospect Avenue, PO Box 201001, Helena, MT 59620. Telephone 406-444-5416 or Montana Relay Service at 711.

This document is printed at state expense. Information on the cost of producing this publication may be obtained by contacting the Department of Administration.