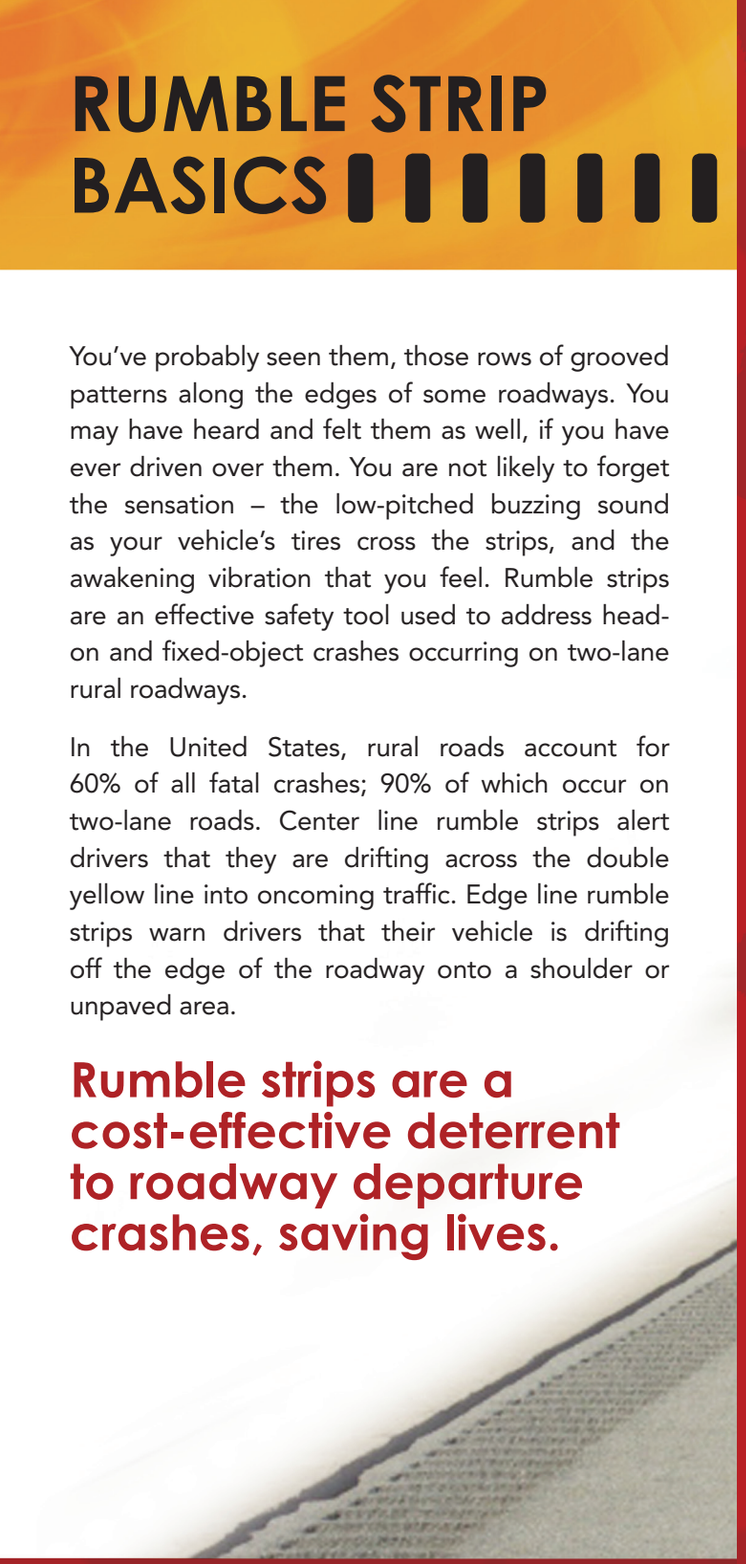
RUMBLE STRIP BASICS

You've probably seen them, those rows of grooved patterns along the edges of some roadways. You may have heard and felt them as well, if you have ever driven over them. You are not likely to forget the sensation – the low-pitched buzzing sound as your vehicle's tires cross the strips, and the awakening vibration that you feel. Rumble strips are an effective safety tool used to address head-on and fixed-object crashes occurring on two-lane rural roadways.

In the United States, rural roads account for 60% of all fatal crashes; 90% of which occur on two-lane roads. Center line rumble strips alert drivers that they are drifting across the double yellow line into oncoming traffic. Edge line rumble strips warn drivers that their vehicle is drifting off the edge of the roadway onto a shoulder or unpaved area.

Rumble strips are a cost-effective deterrent to roadway departure crashes, saving lives.



For more information about rumble strips in Delaware:

Go to safety.deldot.gov to find additional articles and supplemental info.

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RUMBLE STRIPS

A proven, effective way to improve highway safety and save lives.

RUMBLE STRIPS SAVE LIVES

A roadway departure crash is a non-intersection crash which occurs after a vehicle crosses an edge line or center line or otherwise leaves the roadway. National safety statistics show that roadway departure crashes account for more than half of all fatal crashes.

Because the majority of roadway departure crashes are due to drowsiness or inattention, when a vehicle rolls across rumble strips, the noise and vibration serve as a sort of wake-up alarm, returning the driver's attention back to the road and providing time for corrective steering before a crash occurs.

A National Cooperative Highway Research Program (NCHRP) report has shown that edge line rumble strips provide statistically significant reductions in single-vehicle, run-off-road injury crashes: 10-24% reductions on rural freeways, and 26-46% reductions on two-lane rural roads. Studies of edge line rumble strips in Michigan and New York documented drift-off-road crash reductions of 38-79%.

Benefits of Rumble Strips

- ✔ *Reduce number of head-on collisions*
- ✔ *Low cost to install and maintain*
- ✔ *No noticeable degradation of pavement*
- ✔ *Can be installed on new or existing pavement*
- ✔ *Maintain effectiveness over time*

Noise Impacts

Some concerns have been expressed that the noise generated by vehicles riding over rumble strips will become a disturbance to residents living nearby. The noise of a vehicle riding over rumble strips is comparable to that of a passing dump truck. As long as the majority of drivers are operating their vehicles safely, noise generated by rumble strips should be infrequent and brief in duration.

In addition DelDOT guidelines discourage rumble strip installations near high-density residential areas and encourage use of rumble strips along freeways and rural roads. Breaks are normally provided in locations where the white edge line pavement marking is broken.

Installation of Rumble Strips

Rumble strips are produced by making a series of shallow grooves in the pavement at regular intervals. They are extremely economical to install with little or no ongoing maintenance costs. In addition, their installation has little to no impact on traffic.

Edge line (or shoulder) rumble strips are placed on the shoulder, just outside the lane edge to warn drivers when they are running off the road. Center line rumble strips are placed on the double yellow center line of undivided highways to warn drivers when they are drifting into the oncoming traffic lane.

Shoulder and edge line rumble strips should not be confused with rumble strips that are located within the travel lanes, for example, approaching a toll plaza or stop sign, which are used to warn drivers of a changing condition.

Bicycle Friendly Design

A typical rumble strip is about 16" wide, ½" deep and placed approximately 12" from the edge of the travel lane. However, DelDOT is now using new bicycle-friendly rumble strips by reducing the width to 12" and the depth to ⅜" and placing them just 8" from the edge of the travel lane. In addition, there are 10-foot long breaks in the row of strips every 30 feet. These adjustments allow for greater ease of travel for bicyclists without reducing the effectiveness of the rumble strips.

Rumble Strip Locations

Rumble strips are already being used along portions of I-95, SR 1, US 301, US 13 and US 113 from Milford to the Delaware-Maryland Line. Future installations are planned for I-495 and specific rural roads, such as Route 24.

Rumble strips do not typically interrupt driveway entrances and intersections, because of this they may not be appropriate for all roadways and/or areas. For example, there are far too many driveway entrances along roadways in residential areas to allow rumble strips to be used effectively in those areas.