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Understanding Rumble Strips: Improving Safety on Maine Roads

Maine Department of Transportation

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What people are saying about rumble strips in their community

"I have been Road Commissioner in the Town of Woolwich for over 30 years and was supportive of the centerline rumble strip installation on the Woolwich portion of Route 1. Route 1 is a heavily travelled road, especially during the summer months. I firmly believe the strip is very effective as a preventative safety measure, most significantly, in the avoidance of head on collisions. The benefit, in my opinion, far outweighs any inconvenience experienced due to the occasional resulting noise."

~ Jack A. Shaw, Woolwich Road Commissioner

"... the positive impact of rumble strips along U.S. Rt. 1 in Woolwich - A 100% decrease in fatalities over a 5 or 6 year period speaks for itself.

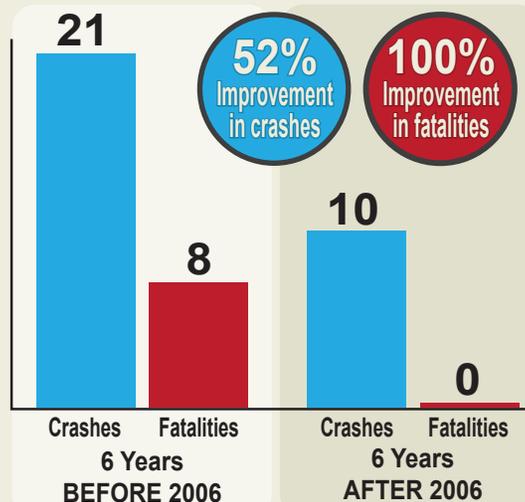
In fact, since I've been Sheriff beginning in January of 2009 we have only had a couple of head-on collisions. On a heavily traveled road, that is considered wide and open, speed will always be a factor. Keeping vehicles in their proper lane is crucial, and that is what rumble strips do.

As for the noise related to the rumble strips, we have not received complaints, and now that they have been there for so many years, residents have become acclimated to them. Besides, the sheer volume of traffic along Rt. 1 creates enough noise that the rumble strips are really not noticed."

~ Sheriff Joel A. Merry
Sagadahoc County Sheriff's Office

If you hear the sound from a rumble strip, you might be hearing a life being saved.

Head-On Crash Comparisons (from Maine's 2- 2006 Rumble Strip Projects)



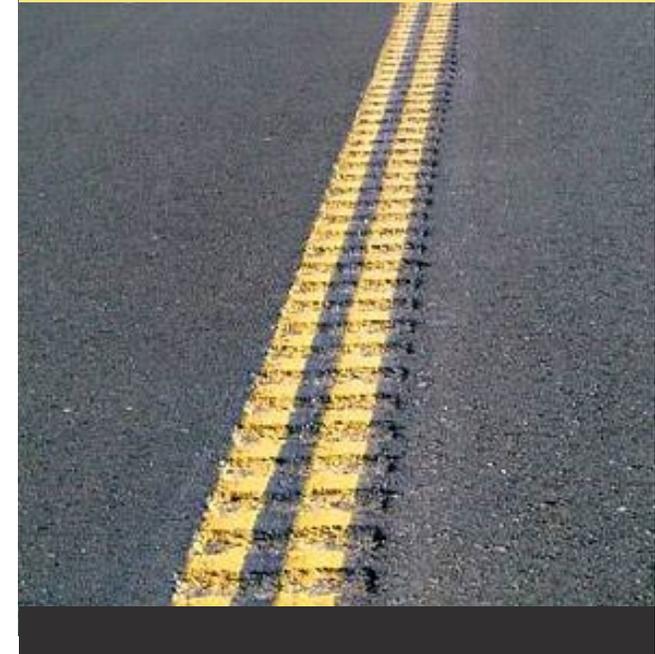
Questions?

Contact MaineDOT Safety Office:
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MaineDOT

Understanding Rumble Strips



Improving Safety on Maine's Roads



MaineDOT

Maine's Leading Crash Issue

About 70 percent of Maine highway fatalities occur when a driver leaves their proper lane of travel and either drives off the road or crosses the centerline of a roadway into oncoming traffic.

70%
Highway
Fatalities

Maine experiences an average of 800 Head-On crashes a year and they are devastating - claiming an average of nearly 40 lives a year.

What causes drivers to drive off the roadway or out of their lane? The leading factors are:

- driver fatigue and drowsiness
- distracted driving
- unsafe speed
- alcohol and drugs

Slippery road surfaces and poor visibility in adverse weather conditions can add to the susceptibility to lane departure.

Although vehicle technologies are being developed to help keep a driver aware of lane discipline, there needs to be other mitigations available to make wayward drivers aware that they are putting themselves and others in danger. The most effective and proven safety step is installation of rumble strips – they are a counter measure for driver error. They are used programmatically in other states. **Use of rumble strips has contributed to a significant reduction of these serious lane departure crashes.**

An Effective Safety Solution

What do rumble strips accomplish? For those drivers who are about to unintentionally drive off the pavement edge or cross the centerline, rumble strips create noise and vibration inside the vehicle through interaction with the vehicle tires. Often this alert is strong enough to get the attention of a distracted or drowsy driver, who can quickly make a corrective steering action to return to the roadway safely.

Rumble strips can also alert drivers to the lane limits when conditions such as rain, fog, or snow reduce driver visibility. Rumble strips retain lane paint markings, thereby providing drivers improved lane identification.

Crashes Reduced

Eleven States and one national study have analyzed the effectiveness of centerline rumbles in reducing crashes. These studies conclude that crossover crashes were reduced 18 to 64 percent, with most studies showing 40 to 60 percent reductions.

Rumble Strip Types

Edge line (or shoulder) rumble strips are placed on the right side of the lane, designed to alert drivers when they have drifted from their lane. Shoulders of adequate width are necessary for this type of rumble strip.



Centerline rumble strips are the most common treatment installed on Maine's two lane roads - designed to alert drivers who may be heading for a potentially deadly head on collision, that endangers them and others on the road.

Maine rumble strip installations will be selectively placed on sections of road that are posted where speed limits are posted at 45 mph or greater. Skips in the rumble strip pattern are provided to facilitate motorcycle lane changes and for bicycle safety.

Maine's first non-interstate rumble strips were installed in 2006. Maine currently has centerline rumble strips installed on portions of five routes throughout the state. Crash reductions, particularly for head-on crashes, have been significant (see graph on back page).