SAFETY NEED

Roadway departure crashes account for over 70% of all traffic fatalities in Arkansas. Reducing the frequency of this type of crash is a primary emphasis area in the current Arkansas Strategic Highway Safety Plan (SHSP). Low light conditions or heavy rainfall can reduce roadway visibility for drivers, especially older drivers. Based on a recent analysis of fatal and serious injury crashes on the state highway system:

- 32% occur at night
- 15% occur on wet pavement
- 5% occur at night on wet pavement

HISTORY

- ArDOT has been using Raised Pavement Markers (RPMs) to help drivers navigate during low-light visibility on select highways for decades.
- ArDOT started using Federal-aid Safety funding to install RPMs on the Arkansas Primary Highway Network (APHN) in 2018.
- Research has determined that the benefits of installing RPMs outweigh the cost to install them by more than 50 to 1.
- Following the implementation of the successful RPM projects on the APHN, ArDOT started installing them on the entire state highway system annually in 2021.

BENEFITS

- RPMs provide enhanced retroreflectivity, which provides guidance at night and during adverse weather conditions.
- RPMs have been widely applied by highway agencies across the country to improve safety, mobility, and visibility.
- Due to wear and tear, it is expected that RPMs last less than two years after installation. RPMs will be installed annually on centerlines of two-lane highways and centerlines and lane lines of multi-lane highways. On occasion, they may also be installed on edge lines, traffic islands, pavement arrows, exit ramps, construction zones, curves, intersections, etc.
- The implementation of this countermeasure is a great step in achieving ArDOT’s mission to provide safe transportation solutions and moving Toward Zero Deaths.
- RPMs are cost-effective to install. Based on the latest average prices, it costs about $220 to install RPMs on one mile of a two-lane highway.
- The cost to install RPMs on the entire state highway system annually is less than the Federal Highway Administration’s estimate for the societal cost of one fatal crash.