

RAISED PAVEMENT MARKERS

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.

<\$5
MILLION

ANNUAL COST TO
INSTALL RPMs ON ALL
STATE HIGHWAYS

RPMs ARE INSTALLED
Every 80 Feet



RPMs IN CONSTRUCTION CONTRACTS

Average prices per RPM have dropped significantly since 2017 due to the larger quantities being installed each year.



ARDOT's Qualified Products List includes the following approved Raised Pavement Markers:



Planning & Research Division
Traffic Safety Section