



SafetyEdge_{SM}



Example of SafetyEdge_{SM} after backfill material settles or erodes.

Source: FHWA

SAFETY BENEFIT:

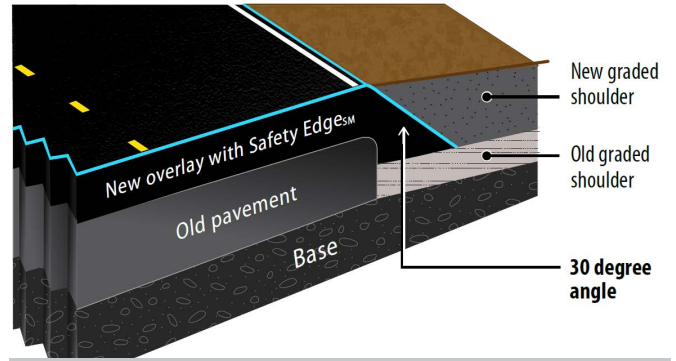
11 %

Reduction in fatal and injury crashes



Source: Safety Effects of the SafetyEdge_{SM}, FHWA-SA-17-044.

SafetyEdge_{SM} technology shapes the edge of the pavement at approximately 30 degrees from the pavement cross slope during the paving process. This systemic safety treatment eliminates the vertical drop-off at the pavement edge, allowing drifting vehicles to return to the pavement safely. It has minimal effect on asphalt pavement project cost with the potential to improve pavement life.



Cross-section view of an overlay with SafetyEdge_{SM}.

Source: FHWA-SA-17-044

Vehicles may leave the roadway for various reasons, ranging from distracted driver errors to low visibility, or to the presence of an animal on the road. Exposed vertical pavement edges can cause vehicles to be unstable and prevent their safe return to the roadway. SafetyEdge_{SM} gives drivers the opportunity to return to the roadway while maintaining control of their vehicles.

For both SafetyEdge_{SM} and traditional edge, agencies should bring the adjacent shoulder or slope flush with the top of the pavement. Since over time the edge may become exposed due to settling, erosion, and tire wear, the gentle slope provided by SafetyEdge_{SM} is preferred versus the traditional vertical pavement edge.

Transportation agencies should develop standards for implementing SafetyEdge_{SM} on all new asphalt paving and resurfacing projects where curbs are not present, while encouraging standard application for concrete pavements.

SafetyEdge_{SM} adds nominal cost to repaving a road.

Rural road crashes involving edge drop-offs are

Calculated benefit-cost ratios typically range between

500-1400



2 to 4 times

more likely to include a fatality than other crashes on similar roads.

Source: Safety Effects of the SafetyEdge_{SM}, FHWA-SA-17-044.

Source: S.L. Hallmark, et al., Safety Impacts of Pavement Edge Drop-offs, (Washington, DC: AAA Foundation for Traffic Safety: 2006), p 93.

→ For more information on this and other FHWA Proven Safety Countermeasures, please visit <https://safety.fhwa.dot.gov/provencountermeasures>.

