Tennessee County Highway Departments receive gas tax revenue to maintain their roads. However, some roads connecting to the Tennessee Department of Transportation (TDOT) maintained road system, qualify for TDOT’s State Aid Program. The county’s highway superintendent can access a separate pool of money offered by the state to do major upgrades or improvements beyond the normal maintenance or repairs on that road. The added benefit of being a State Aid Road right now is the 98/2% match granted by the state.

This means while the counties have to pay 100% up front, TDOT will reimburse 98% of the total cost under contract. Many counties have 500+ miles of roads thus draining their gas tax revenues quickly; so, the State Aid Program has proven most helpful in alleviating some of the local county’s financial burden.

Rhea County recently took advantage of the State Aid Program when it decided to do a total rebuild of Shut In Gap Road, west of Spring City, Tennessee. As a heavily used road connecting Bledsoe County to Rhea County, Shut In Gap Road is a major commuter road for many residents in both counties. The 7-mile long road had many potholes, worn chip seal that was being held together with sections of leveler compound and a mile-long section of loose gravel. The newly-elected Rhea County Highway Superintendent Glen Varner knew he had a problematic road on his hands. He worked diligently to repair some of the worst sections with more leveler compound but the expensive application was not going to be a good long-term fix. Shut In Gap Road is a typical Tennessee Cumberland Plateau road. It snakes up the side of the mountain with some of the steepest sections being 5-6% grade. If the grade was not enough of an obstacle, its hairpin ’S’ curves would make this road difficult to fix no matter the application. "It wasn’t too long ago a loaded dump truck lost control and went right off the side at one of the sharpest curves," said Varner. With that kind of traffic and dangerous curves, tearing out sections of the road was not the best option. Varner looked to Full-Depth Reclamation with Cement (FDR) to solve his problem. After a visit to see FDR at Bledsoe County’s Pitts Gap Road, Varner made arrangements through his State Aid department to use the same application on Shut In Gap Road.

The Shut In Gap Road project was awarded to RoadWorx, Inc. Construction began on August 6, 2018 and was completed on September 7, 2018. The mix design, developed by GEO Services, was 4% cement at 8” deep. This 7-mile, 83,306 square yard, road is currently the longest FDR road a Tennessee county has completed to date. The only two other longer FDR roads were built by the Federal Highway Administration and the Tennessee State Parks.

Rhea County’s Highway Department Office Administrator, Deborah Walker, receives every complaint that comes in on Rhea County’s roads, and Shut In Gap Road was in no short supply of complaints. "We received calls of thanks and appreciation, but now that the road is fixed, we are getting calls about getting the law up there to ticket the speeders," said Walker. A road that was once riddled with potholes and “wash-board” ripples is now in good shape with a chip seal surface, but the speed limit remains at 30-mph. FDR with Cement provides an economical solution for failing roads, from dirt and gravel roads to chip seal and asphalt roads.

If you would like to find out more about how FDR with Cement may help you with your failing roads, please contact the Southeast Cement Promotion Association so our team may help you find a durable, sustainable and cost-effective solution that is right for your project.

By:
Jessie Anna Boone
Pavement Applications Director - Tennessee Southeast Cement Promotion Association