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Full-Depth Reclamation (FDR) Provides Maintenance Free Solution on Pocahontas Road in Manchester, Tennessee



1 Before reclamation



2 Milling commences



3 Completed Pocahontas Road

Just half way between Chattanooga and Nashville along interstate 24 sits the little town of Manchester. Named after Manchester, England, the town was unheard of until the summer of 2002 when Superfly productions hosted Bonnaroo on a farm just off I-24. Bonnaroo soon became one of the largest music festivals in the United States with 100,000 guests coming from all over the US as well as many other countries. The small town of Manchester is known as “The Farm” to all concert goers.

Coffee County’s Highway Department Director Benton Bartlett was approached about Full-Depth Reclamation (FDR) using cement. As in most counties in Tennessee, funds are very limited.

Bartlett had never heard of FDR and wondered if it would work on Pocahontas Road. After a quick visit to Pocahontas Road, just off Highway 53, it was without question a perfect candidate for FDR. Pocahontas Road lacked any crown whatsoever. Its edges had all but crumbled and failed due to standing water and poor drainage. This created many safety concerns as hydroplaning was a typical occurrence in many sections of this road.

Coffee County hired Collier Engineering to prepare the contract plans to go to State Aid in early April. The contract to do just over 3 miles of FDR using cement was awarded to Road Worx, Inc out of Knoxville, Tennessee. This project was designed, contracted, and finished in just under 7 months.

Road Worx hired GeoServices to perform all testing before and during the project. The 37,265 square yard project was designed at 8 inches with 40 pounds of Portland cement per square yard.

“We had a road in the north part of our county that was getting in rough shape. The best we could tell it had been 40 years since it had been finished with a good layer of hot mix. Over the years, it had seen relatively light traffic until the last few years. Commercial development in the neighboring county had turned this country road into a high use road with an increase in commercial vehicle and passenger car use. A particularly bad winter with a lot of rainfall had left the road with fairly long depressions with alligator cracking; it was showing signs of sub-grade failure. We considered several options including an overlay with new asphalt; hot in place recycling, scrub seal, and micro surfacing; but none of these options would have addressed the sub-grade problem,” said Bartlett. “I firmly believe that the road will last years longer by having the FDR with cement there to help hold it up.”

Pocahontas Road is a highly-traveled road with residents going to and from work. Also the abundance of farm land in the area created high traffic for tractors and combines, grain trucks, and logging trucks.

Needless to say, the high volume of semis and farm equipment could have been an issue, but Road Worx and its team of traffic controllers kept traffic flowing safely. The FDR process started on a Monday and was finished in just 11 days.

“Using FDR on 3 miles of Pocahontas has provided Coffee County with a maintenance free solution for many years to come”, said Road Worx President Barry Wilder. “This project has opened a door for many more successful Full-Depth Reclamation projects to take place in Tennessee”.

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