

## MICROSURFACING GIVES TENNESSEE HIGHWAYS NEW LEASE ON LIFE

Tennessee has claim to some of the best roads in the country, and last year the state launched a program that represents a sea change in the way it protects its substantial infrastructure investment.

The state-maintained highway system of more than 14,000 miles consistently ranks among the top five in the nation.

“We do have some of the smoothest roads in the country,” says Jay Norris, special projects coordinator for the Tennessee Department of Transportation. “But the cost of maintaining this level of quality has been high due to rising construction material prices and DOT’s traditional focus on full-depth pavement reconstruction.”

With Tennessee’s population growth soaring, and the related number of vehicle miles accelerating at an alarming rate, TDOT has been seeking more economical ways to protect and preserve valuable road pavements from the intensifying traffic.

“We had to do something different,” Norris says, “and thanks to budget constraints, we’ve had to get even more bang for our buck.”

### MICROSURFACING, A MACRO-SOLUTION

TDOT’s prior but limited experience with microsurfacing indicated the treatment might be just the ticket for its 12-year pavement management program.

Norris said TDOT had tried several microsurfacing projects in the 1990s, and they’ve performed well over the years, particularly on roads with higher ADT counts. The product is a good fit for Tennessee roads, he added, because when cracks do occur, they typically are top-down, cosmetic surface cracks on otherwise sound pavements.



Microsurfacing is helping Tennessee uphold its reputation for highway quality and save budget dollars in the process.

While TDOT has been trying chip seal and thin-layer hot mix asphalt incrementally on low-traffic roadways, it has embraced microsurfacing for high-ADT roads in a big way. In 2008, it awarded approximately \$12 million worth of contracts to treat some 500 miles. Vance Brothers was among the four bidding specialty contractors and was awarded three of the contracts worth a total of \$2 million.

### THICKNESS AND QUICKNESS

Microsurfacing can be spread in variable thicknesses – for example, to fill wheel ruts and provide leveling – and is designed to accept traffic within an hour of application.

## MICROSURFACING GIVES TENNESSEE HIGHWAYS NEW LEASE ON LIFE [CONT.]

Vance Brothers applied the relatively small aggregate, of which 90 percent passed through a No. 4 sieve, at the approximate rate of 22 pounds per square yard, to produce a microsurface between 3/8- and 1/2-inch thick. Crews finished the three projects in September 2008.

Norris said TDOT would closely monitor microsurfacing performance in the coming years. Based on TDOT's experience in the 1990s and what he's seen from last year's projects, he is optimistic the treatment will help the state maintain its highway quality ranking, and do it for less.

"We're very proud of our road system – our asphalt contractors have done a great job," Norris says. "We expect to do the same amount of microsurfacing next year. It has done just what we asked it to."

This article was compiled from a feature in the Jan. 19 issue of *Dixie Contractor* by Paul Fournier.

