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Largest Stone Matrix Asphalt project in USA spans 6 lanes for 8 miles

THE LEVY COMPANY of Portage, Indiana, supplied the steel slag for busy I-94, Bishop Ford Expressway, and its heavy loads



I-94, Bishop Ford Expressway, Chicago

When the Illinois Department of Transportation saw the need for more than repairs on an 8-mile stretch of I-94 in Chicago, it put the job in the hands of Callaghan Asphalt Paving, Inc., using Stone Matrix Asphalt (SMA).

“At the time, this was only the second paving job using SMA in the country,” explained Marty Moravec, then quality control manager at Callaghan Paving.

He added, “Looking for the right mix design to give us a road

surface without rutting and shoving, and low maintenance, is what all parties were after.”

The Illinois Department of Transportation gave the go-ahead to experiment with SMA on a small 2-lane road into a quarry that received nearly 100% truck traffic with heavy loads. If SMA could hold up in that situation, it would be the best solution for major highways with incredibly high truck

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traffic.

Dirk Fuqua, Illinois Department of Transportation (IDOT) Bureau Chief of Materials, commented on the quality of the steel slag mixture, "The quarry road has



Night paving kept rush hour interruptions at a minimum on the Bishop Ford Expressway.

been good now for four years. There are some roads with heavy truck traffic, not using SMA, that show rutting in just a few weeks."

"We have all the proof we need that stone matrix asphalt is the way to go. That's why we used SMA on the Bishop Ford Expressway. Previously we used a slag mixture to create friction, but not until SMA, which gives us stone-on-stone, did anything work so well," Fuqua added.

"Now we get the friction we're looking for and the durability, lessening the need for road repairs," said Fuqua.

Steel slag comprised 85% of the surface asphalt mix used on the Bishop Ford Expressway project.

SMA pavement using steel slag has a projected 30-50% extended pavement life. Its rut-resistant qualities and durability make it more economical to use, since highway crews won't be out there resurfacing the same roads every few years.

According to Jeff Mellen of the Levy Company, supplier of the coarse aggregate for the Bishop Ford Expressway job, two products were utilized for the surface mix: 3/4" chip (17,000 tons of Illinois CM-11) and 1/2" chip (40,000 tons of Illinois CM-13).

All paving was done at night, in an effort to cause as little disruption of traffic flow as possible.

The Illinois Department of Transportation is so convinced of the good results on Bishop Ford Expressway that several other roads are currently being resurfaced with the same steel slag SMA. As Dirk Fuqua stated, "From now on we will resurface with this mix all over the state."

There can be no better endorsement.

This is another Slag Success Story brought to you by the National Slag Association.

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