

CPR – REBUILT TO LAST



Interstate-44 in Oklahoma City, OK Utilizes Concrete Pavement Restoration

>>> DIAMOND GRINDING AND DOWEL BAR RETROFIT

INTERSTATE I-44 between I-40 and I-35 in Oklahoma City has approximately 125,000-135,000 vehicles travelling each day and connects three of Oklahoma's largest cities. The significant road repair project began in 2004 and was divided up into five segments, completed over a span of five years.

A physical survey conducted before work began revealed severe panel damage and faulted pavement on I-44. The road was in desperate need of repair as the transverse joint faulting was in the 1/4-inch to 3/8-inch range with isolated 1/2-inch to 5/8-inch faults and variable 1/4-inch to 3/4-inch faulting at the longitudinal joints.

Due to the high level of traffic and poor road conditions, a fast-track yet long-term solution was needed. Dowel bar retrofit (DBR), diamond grinding, joint sealing, selective panel replacement and base repair were used on the project for all lanes in both directions. According to Tom Hubbard, P.E., Resident Engineer, Oklahoma Department of Transportation (ODOT), DBR and diamond grinding projects are extremely effective in extending pavement service lives.

The five construction phases are as follows:

- In 2004, from the junction of SH-74 extending east to the Burlington Northern

Santa Fe Railroad, just west of I-235.

- In 2005, from just west of Western Ave., extending east to Lincoln Blvd.
- In 2007, beginning at Lincoln Blvd., extending east to I-35.
- In 2008, beginning at the Oklahoma River, extending north to the Burlington Northern Santa Fe Bridge.
- In 2009, repair of four lanes, eastbound and westbound beginning at the Burlington Northern Santa Fe Bridge to the Junction of SH-74.

“The original pavement, built in 1976, has served the public well over the years and with the improvements made to the roadway through this project, we may see another decade or two of service. The concrete pavement preservation techniques used in this project do more than just cover the problem for a few years. Combined with the long life of the original pavement, the work performed by the contractor will give the taxpayers a great value for their money,” said Brent Burwell, Executive Director of the Oklahoma/Arkansas Chapter of the American Concrete Pavement Association.

The total cost of all five projects was \$11.3 million. The result for taxpayers is a smooth road that is expected to last 15 years.

TEAM MEMBERS

- Oklahoma Department of Transportation, District IV, Edmond Office (Owner)
- Norton Pro Diamond Products (Blade supplier for diamond grinding)