



## PROJECT PROFILE

# St. Louis Interstate Bridge

### Surface Repairs Completed without Interrupting Major League Baseball

**Job:** St. Louis Interstate Bridge  
**Where:** St. Louis, Missouri  
**When:** 2004  
**Size:** 170 Cubic Yards  
**Owner:** Missouri Department of Transportation  
**Engineer:** Bridge Maintenance, St. Louis District  
**Concrete Contractor:** Millstone Bangert  
**Concrete Supplier:** Modified Concrete  
**Product Used:** Rapid Set® Latex Modified Concrete



Popular Street Bridge, the primary interstate bridge that connects Interstates 70, 64, and 55 across the Mississippi River in downtown St. Louis, was built in the early 1960s. This bridge passes through downtown St. Louis by the Cardinal's baseball stadium, and is near the NFL dome stadium. This bridge supports daily traffic of over 96,000 vehicles. The concrete on the bridge has taken a beating due to the many freeze/thaw cycles each season.

Pat Martens's, Missouri DOT District Bridge Maintenance Engineer, goal was to complete surface repairs in a short time frame without disruptions to major events. The upper surfaces of the



concrete bridges in this region have been covered with asphalt or an epoxy overlay in the past. The chlorides in the concrete have accelerated the deterioration of the concrete. The typical depth of bad concrete is 1-1/2" to 3". To repair this, removal to the upper rebar mat is standard with deeper areas or full depth expected.

Millstone Bangert, the General Contractor was awarded the job with the stipulation that work was not to be conducted on baseball weekends. Modified Concrete, an Indiana specialty concrete producer produced the RSLMC. Hydro-demolition was used for the surface removal, providing an excellent surface for adhesion. Closure time was from 8:00 p.m. Friday to 12:00 p.m. Sunday. Preparation time for the surface took more than 12 hours per lane.

Air content was kept below 2.5% and slump was 9" at discharge. Finishing

consisted of hand work along the edges, bull floating and a tine finish. Burlap was placed directly behind the tine, about 12 to 15 minutes behind the Bidwell finisher. Fogging of the fresh RSLMC and burlap was continuous. Visqueen was placed over the burlap and watered down to prevent it from blowing up off the deck.

CTS Cement monitored the temperature activity, which allowed the Producer to know the amount of retarder needed and the finishers to know the amount of working time available.

MoDOT is very pleased with the results of this project. Using RSLMC resulted in no cracks and provided commuters with a smooth ride.

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