



EUCLID CHEMICAL

PROJECT PROFILE

CR44 BRIDGE DECK OVERLAY



PROJECT DATA

Application – Fiber Reinforced Concrete Bridge Deck

Location – Hinckley, OH

Engineer – Ohio Department of Transportation

Contractor – Rietschlin Construction Inc.

Concrete Producer – Osborne Medina Inc.

Volume – 130 yd³ of Concrete

PRODUCTS FEATURED

TUF-STRAND™ SF

Macro-synthetic fibers

SCOPE OF PROJECT

- Reduce reinforcement in exposed overlay pavement
- Increase durability and service life through reduction of cracking



PROJECT SUMMARY

PROBLEM: The Ohio Department of Transportation recently contracted the University of Akron to assist in the development of a high performance, fiber modified concrete mixture to reduce bridge deck cracking through alternative material usage. ODOT's long term goal, through this research project, was to improve serviceability of concrete overlays and develop a performance based specification for future bridge deck construction.

SOLUTION: The project chosen for the demonstration work was located in Hinckley, Ohio on a 3 span continuous structural slab on a two-lane county roadway. Euclid Chemical worked with the University of Akron and Osborne Medina Inc. to deliver a TUF-STRAND SF fiber concrete mixture at a dosage of 10 lbs/yd³ (6 kg/m³) that could be easily placed and finished. The deck construction consisted of a single placement over a dual-mat epoxy coated reinforced structural deck. The exposed concrete wearing surface was textured and two approach slabs were constructed using the same concrete mixture.