

This topic is “practice ready.” Yes No

UHPC Bridge Deck Overlays

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Abstract

Since 2004, the state of Iowa has taken the lead in research and applications of ultra-high performance concrete (UHPC) for highway structures. Working with FHWA, Iowa State University, Wapello County, and Buchanan County, the Iowa Department of Transportation has used UHPC in a number of research projects throughout Iowa. This work has included the use of UHPC in the construction of seven new structures which included using UHPC in bulb-t beams, FHWA PI girders, waffle slab, and field cast joints.

As a continuation of this work with UHPC, the Iowa Department of Transportation worked with Buchanan County in the spring of 2016, to construct the first in the nation UHPC bridge deck overlay. To continue the development of UHPC overlays, Iowa DOT has a project planned to use the UHPC overlay material on a primary highway bridge in Kossuth County. This project is scheduled to be completed in the fall 2017. This presentation will cover Iowa’s experience with UHPC deck overlays including last year’s project as well as the project planned for this fall.

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