

Free Web-Based Tool Defines Short-Span Steel Solutions

By Mike Engestrom, Chairman of the Short Span Steel Bridge Alliance and Technical Marketing Director, Nucor-Yamato Steel

Of the 257 locally owned bridges in Buchanan County, Iowa, the Jesup South Bridge is one of the 10 ranked in greatest need of replacement. The reconstruction could have been delayed another decade were it not for one thing—a tool that helps Buchanan County Engineer Brian Keierleber, P.E., design other bridges quickly and cost-effectively. “With the high demands on my time and limited funding, I would not be addressing this project yet without the help of eSPAN140,” Keierleber says.

eSPAN140 is a free, web-based design tool that houses standard designs and details for short-span steel bridges and for buried soil structures up to 140 ft long. It creates customized steel-bridge design solutions, with results defined in less than five minutes. It provides rolled beam, plate girder, corrugated steel pipe and structural plate options.

The program was developed by members of the Short Span Steel Bridge Alliance (SSSBA) with input from the National Association of County Engineers’ Structures Committee and released in June 2012. “The Jesup South Bridge will serve as a demonstration project so that other county engineers can learn from this eSPAN140-designed bridge,” says Daniel Snyder, director of the SSSBA.

With eSPAN140, the user enters information, such as the bridge span length, number of striped traffic lanes, roadway width and the skew angle. The web-based tool then creates a Solutions Book in PDF file format that offers options based on



eSPAN140 tool saves time and money for designing short-span steel bridges. It provides customized steel solutions.

standard designs developed by more than 30 companies and organizations.

Errors and omissions are quickly addressed in the program. For example, Keierleber realized that he needed to change the span length in his design, so he simply edited the information he had entered into eSPAN140. “A significant change like that, which could have resulted in a complete redesign, took just five minutes to input,” he says. ■

View www.espan140.com for more information.