mageba

Wekiva River Bridge (USA)

Project description

The Wekiva River is a 16-mile-long (25.7 km) river in Central Florida, north of Orlando. It begins in Apopka and later joins the St. Johns River, the longest river in the state in Debary.

The bridge was built using a technique known as “top-down construction” to minimize impacts to the Wekiva River.

Floating turbidity barrier and sediment monitoring devices were used to help to protect the river during the works. The project team was also coordinating closely with environmental agencies and advocates.

The bridges replaced the old SR 46 bridge, using slight arches, stone relief and other aesthetic designs intended to make them more visually appealing to river users.

Costing $39 million, it may be the most contemplated bridge project ever in Central Florida.

mageba scope

A total number of 6 TENSA®FINGER RSFD 11 cantilever finger expansion joints were used in the project to accommodate longitudinal movements as per design drawings.

12 pieces of barrier cover plates and 2 pieces of sidewalk cover plates were also supplied along with the joints.

The robust steel edge profiles of the finger joints have strong anchor loops for concreting them to the main structure, which results in excellent fatigue resistance.

All fabrication was done at mageba’s AISC certified plant in the USA.

Highlights & Facts

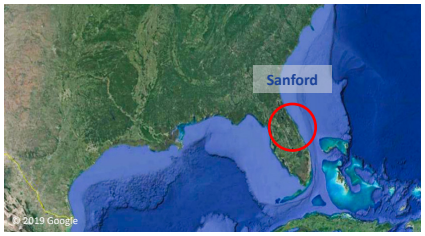
mageba Products:

Type:	TENSA®FINGER RSFD 11 cantilever finger joints
Feature:	Barrier cover plates and Sidewalk cover plates
Installation:	2018

Structure:

City:	Sanford, FL
Country:	United States
Main span:	360 ft (110 m)
Length:	2,068 ft (630 m)
Owner:	FDOT
Contractor:	Superior Construction

Location of the Wekiva River Bridge in Florida



Assembly of finger joints in the factory

One of the TENSA®FINGER RSFD 11 joints ready for shipping

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