



John James Audubon Bridge

New Roads and St. Francisville, Louisiana

DBA Client: Audubon Bridge Constructors Joint Venture, a joint venture of Flatiron Construction Corporation, Granite Construction, Inc. and Parsons Transportation Group.

DBA Services: DBA performed geotechnical engineering and design of the drilled shaft foundations for the main bridge piers and the high level approach spans. Other services included:

- QA review of the geotechnical reports for the pile supported approach bridges.
- Developing and analyzing the drilled shaft load test program.
- Geotechnical engineering consulting during trial shaft installation.
- Geotechnical engineering consulting during production shaft construction.

Project Highlights: The John James Audubon Bridge project is a new Mississippi River crossing between Pointe Coupee and West Feliciana parishes in south central Louisiana. The project includes 12 miles of roads and 8 bridges – 7 approach structures and the main structure over the river. The river bridge has a 1583-ft cable-stayed main span, 642-ft side spans, and 160-ft transition spans. The cable-stayed span is supported by two reinforced concrete H-type pylons at 515 feet above low water level. Both pylons are located in the Mississippi River. Each pylon has 21 base grouted drilled shafts as its foundation system, spaced 24 ft on centers in a 3x7 arrangement. The shafts are approximately 200 feet deep and subject to 70 feet of scour. Shaft diameter is 8 feet in diameter in the upper permanently cased section and 7.5 feet in diameter in the lower uncased section. Nominal resistance for design was over 6,000 tons per shaft. Shafts supporting the land approach piers were designed for 4,000 tons. Ten O-cell load tests were performed during foundation construction.



Owner:

Louisiana Department of Transportation and Development



Design/Build Team:

Audubon Bridge Constructors



Parsons Transportation Group

PARSONS

Flatiron Construction Corp.



Granite Construction, Inc.

