

**Full Scale Design Phase Load Testing for Pascagoula River Bridge**

The East Pascagoula River Load Test Project in Pascagoula, MS, was designed to provide information for the design of foundations for a replacement bridge to accommodate heavy automobile and truck traffic. The bridge was to be designed to accommodate relatively high wind loads and to withstand possible impacts from ships. The site had the potential for deep scour, a fact that had to be recognized in the design of the foundations.

Consequently, the load test program was intended to statically and dynamically test the proposed large foundation members. Test piles and shafts were heavily instrumented to provide distributions of static and dynamic loadings, and a special soils investigation was included in the test program. Dynamic measurements were made on ten piles that ranged in size from 24 to 66 inches in diameter. One 24 inch pile and one 30 inch pile were also statically load tested using Osterberg Load Cells. Two 48 inch diameter drilled shafts and two 84 inch diameter drilled shafts were tested, and one of each was also tested using the Osterberg Load Cell. The six 30 inch piles and the two 84 inch drilled shafts formed two pile groups. These groups were equipped with caps and tested in the lateral direction, statically with a jack and dynamically with a 14 MN Statnamic device. Statnamic lateral testing was completed in the longitudinal and transverse directions for both groups. This project provided direct measurements of static and dynamic loadings for large scale foundation members.

Contact: Michael J. Wright  
Organization: Mississippi Department of Transportation  
Geotechnical Branch  
Address: 2567 North West Street, Building B  
City: Jackson  
State/Province: MS  
Postal Code: 39215  
Country: USA  
Phone No: 601-359-1799  
FAX: 601-359-1797  
URL:  
Email: