

# **QUARTERLY RESEARCH REPORT**

**Quarter Ending: January 31, 2006**

Pooled Funds Study No.: TPF-5(113)

Project Title: Load Rating of Reinforced Concrete Bridges by Load Tests

Research Agency: Drexel University Intelligent Infrastructure Institute

## **SUMMARY OF PROGRESS FOR THIS QUARTER:**

1. Tested concrete and rebar samples removed from the two bridges and determined concrete compressive strengths and rebar yield strengths
2. Installed instrumentation on the two bridges and conducted the controlled load tests using two trucks supplied by the WVDOT.
3. Located rebar size and spacing for the superstructures of the two bridges.
4. Completed preliminary analysis of the measurement data acquired during the load tests.
5. Updated preliminary load ratings using material test results and more detailed field documentation of the rebar locations.

## **PROPOSED WORK FOR NEW QUARTER:**

1. Continue load test data processing and analysis.
2. Develop load ratings for the bridges based on the load test results.
3. Conduct validation experiments in laboratory for wireless data acquisition system hardware.

## **IMPLEMENTATION:**

NA

## **PROBLEMS AND RECOMMENDED SOLUTIONS:**

1. Wireless data acquisition system delivery has been delayed. Delivery of the system is expected to occur in the next quarter.

## **EQUIPMENT PURCHASED:**

NA

**CONTACTS AND MEETINGS:**

1. Present preliminary results from load test data analysis and load ratings to FHWA personnel at the NDE Validation Center (TFHRC).