## TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): <u>IOWA DOT</u>			
INSTRUCTIONS:  Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.			
Transportation Pooled Fund Program Project # TPF-5(169)		Transportation Pooled Fund Program - Report Period: Quarter 1 (January 1 – March 31)	
			June 30, 2012) September 30, 2012) 4 – December 31, 2012)
Project Title: Field Monitoring of Curved Girder Bridges with Integral Abutments			
Project Manager: Ahmad Abu-Hawash	Phone: E-mail: 515-239-1393 ahmad.abu-hawash@dot.iowa.gov		
Project Investigator: Brent Phares	Phone: E-mail: 515-294-5879 bphares@iastate.edu		
Lead Agency Project ID: RT 281	Other Project ID (i.e., contract #): Addendum 323		Project Start Date: 6/01/08
Original Project End Date: 5/31/13	Current Project End Date: 5/31/13		Number of Extensions:
Project schedule status:  X On schedule □ On revised schedule □ Ahead of schedule □ Behind schedule  Overall Project Statistics:			
Total Project Budget	Total Cost to Date for Project		Total Percentage of Work
\$325,000.00	\$227,065.83		70%
Quarterly Project Statistics:			
Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter		Percentage of Work Completed This Quarter
\$11,912.58			2%

## **Project Description:**

- Group 1 Information Collection
  - Form TAC
  - o Survey of available technologies
  - o Review of available engineering literature
  - Inspect existing curved and chorded curved girder bridges
- Group 2 Collect and Analyze Data on the Performance of Five or More Bridges
  - o Finalize an instrumentation plan
  - o Monitor and analyze behavior of bridges for two thermal cycles
  - Develop and Validate simple analytical models
- Group 3 Develop Project Conclusions and Recommendations
  - o Establish a meeting with TAC
  - o Submit final report

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):

We have finalized the long-term experimental portion of the work. This portion of the final report has been drafted, reviewed, revised, and preliminarily presented to the TAC. Additionally, we have made significant progress on the creation of analytical models. These analytical models will be used to predict the behavior of one bridge to both live load and temperature changes. These results will be compared to field results, analytical results from the designer, and allow us to make comparisons on the relative contribution of live and temperature loads.

## Anticipated work next quarter:

In the next quarter, the prime focus will be on continuing the analytical modeling.

## Significant Results:

Circumstance affecting project or budget (Describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope, and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).

No problems have been encountered in this quarter.