

# CAAP Quarterly Report

Date of Report: September 10, 2016

Contract Number: DTPH56-13-H-CAAP02

Prepared for: DOT

Project Title: *Scaling and Self-Sensing in Composite Repairs of Corrosion Defects*

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For quarterly period ending: *May. 31, 2016*

## **Business and Activity Section**

### **(a) Generated Commitments**

No changes since the last report.

Supplies	Cost
Grit blasting	78.02
Pump	985.23
Grit blasting	65.00

### **(b) Status Update of Past Quarter Activities**

During the last quarterly period we have

1. Begun large scale testing
2. Continued self-sensing study

#### Large Scale Specimen

We have begun testing the large scale specimen. Due to equipment failures and performance issues, the current cycling rate is significantly slower than expected. We are working with DOT and the project participants to mitigate this issue. The current test duration is expected to be approximately 50 days, assuming no significant technical difficulties.

#### Self-Sensing

Coupon-based testing is continuing to help build an understanding of the change in resistance vs. crack-length. We are preparing to transition to the first full-scale tests and expect them to be started during this quarter.

### **(c) Description of any Problems/Challenges**

As mentioned above, we began cycling the test specimen during last quarter. Unfortunately, the cycle times were approximately 4 times longer than our planning estimates due, primarily, to pump performance.

We have contacted our DOT program officer and the participant companies and are working on contingency plans to complete this test. We expect that the cycling should be complete before the December end date of the program. However, a significant pumping system failure could jeopardize this projection. We are in communication with all stake holders to help define contingency plans and alternatives.

**(d) Planned Activities for the Next Quarter –**

Since we are in the testing phase, our planned activities for the next quarter are similar to those of last quarter (ending May 31).

1. Continue large scale testing.
2. Initiate full-scale self-sensing study