

# TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): IOWA DOT

## 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.*

<b>Transportation Pooled Fund Program Project #</b> TPF-5(233)	<b>Transportation Pooled Fund Program - Report Period:</b> Quarter 1 (January 1 – March 31, 2013) X Quarter 2 (April 1 – June 30, 2013) Quarter 3 (July 1 – September 30, 2013) Quarter 4 (October 4 – December 31, 2013)	
<b>Project Title:</b> Technology Transfer Intelligent Compaction Consortium (TTICC)		
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<b>Lead Agency Project ID:</b> RT 0347	<b>Other Project ID (i.e., contract #):</b> Addendum 385	<b>Project Start Date:</b> 8/6/10
<b>Original Project End Date:</b> 3/15/14	<b>Current Project End Date:</b> 06/30/2014	<b>Number of Extensions:</b> Ongoing pooled fund; interim budgets

Project schedule status:

☒ 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 Completed
\$249,000	\$151,432.01	ongoing

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$17,222.42		

**Project Description:**

Increasingly, state departments of transportation (DOTs) are challenged to design and build longer life pavements that result in a higher level of user satisfaction for the public. One of the strategies for achieving longer life pavements is to use innovative technologies and practices. In order to foster new technologies and practices, experts from state DOTs, Federal Highway Administration (FHWA), academia and industry must collaborate to identify and examine new and emerging technologies and systems. The purpose of this pooled fund project is to identify, support, facilitate and fund intelligent compaction research and technology transfer initiatives.

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

- A web-meeting was held with TTICC members with fourteen participants. Meeting minutes are attached.
- Ten Case Histories have been finalized this quarter which have been drafted during the previous quarter and are now posted on the CEER Website. One new draft Case History (MO Hwy 141-Emabnkment, Box Culvert, and MSE Wall Fill-August2010) was developed during this quarter and has been submitted to MoDOT research team for review.
- The video being developed in partnership with Demonstratives, Inc., is nearly complete and contains animations, actual operations, interviews, examples of data and voice with music. The complete script is also nearly complete and will be sent to TAC for their review and comment prior to finalization.
- A loan agreement was developed with CAT during the previous quarter for a prototype roller. During this quarter, the roller has been used on the Central Iowa Expo site as part of an on-going Iowa DOT research project and is currently being used by a contractor on an earthwork embankment construction project in Des Moines, Iowa.

**Anticipated work next quarter:**

- IC101 video completion by the end of the quarter. Script will be sent to TAC before final submission of video.
- 5 additional Case Histories will be completed and posted on CEER Website.
- A roller loan schedule will be established.
- ISU will look into the possibility of getting an HMA roller for loan to the TTICC states.

**Significant Results:**

- Finalizing ten Case History documents and developing one new Case History draft.
- Using the CAT roller on two sites in Iowa and working on schedule to loan for other sites.
- Developing content for the IC 101 video and working on several versions of the video to develop a high-quality 5-min video.

**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).**

None

## **TTICC Web Meeting**

**April 10, 2013**

### **Attendees:**

1. Bill Stone, MoDOT
2. Craig Landefeld, Ohio DOT
3. Daniel Clark, PennDOT
4. David Hunsucker, Kentucky Trasnp Center
5. David White, Iowa DOT
6. Jed Peters
7. Jeff Schmitt
8. Judy Ryan, WisDOT
9. Mark Dunn, Iowa DOT
10. Melissa Serio, Iowa DOT
11. Pavana Vennapusa, Iowa DOT
12. Peggi Knight, Iowa DOT
13. Steve Megivern, Iowa DOT
14. Ian Rish, GA DOT

### **Discussion Items:**

1. QPR link via CEER website
  - a. CEER website contains link to the project page and list of all research products including QPR
2. IC101 Video update (review basic animations)
  - a. Have been working with Demonstratives, Inc.
  - b. All content developed but working on connecting all the pieces
  - c. About 90% done
  - d. Key elements:
    - i. Animations
    - ii. Actual operations
    - iii. Interviews
      1. Onsite
      2. Office
    - iv. Examples of Data
    - v. Voice Over with Music
  - e. Expecting to get the video done by the end of this month
  - f. Example animations
  - g. Q: Where do we stand with the script?
    - i. A – The script is being written around the evidence to support the assertion. Currently, team is working on a document with Demonstratives. Draft video and script will be shared with the group for review and comment.
  - h. Comment: Would like to include link to the video in quarterly newsletter (PennDOT).
3. CAT prototype roller loan agreement and schedule
  - a. Model CS74B smooth drum roller with padfoot shell kit.
  - b. The machine includes machine drive power and compaction meter value vibratory based system (prototype system).
  - c. GPS will sync with RTK-GPS on-site.

- d. Can operate without base-station. Has built in S-Bass. Position accuracy goes down particularly with lift thickness.
- e. Need to pay shipping costs (to your project and back) + fuel costs.
- f. ISU has a equipment loan agreement – defines responsibility and liability.
- g. In order for you to use the machine, have your legal team review this loan agreement and work with CAT legal team OR have the contractor setup an agreement with CAT so the contractor can use the machine.
- h. Daniel Clark, PennDOT: Is double drum roller available?
- i. Bill Stone, MoDOT: We'd like to use on Asphalt with double drum in the near future at least.
- j. GaDOT: Gave contact information of DW to a contractor to use the roller on a grading project in Georgia.
- k. David Hunsucker: We will likely use the equipment. Will be in touch.
- l. WisDOT: We will find more projects for HMA, but we will try projects with Soils/Base.
- m. IaDOT: We will internally discuss to possibly use this machine.
- n. I can enquiry about the HMA roller with CAT at a meeting with Mn/DOT next week.
- 4. Review online VisionLTink example
  - a. Caterpillar and Trimble developed this web app where data is uploaded to internet and display the data.
- 5. Iowa DOT Expo Project Update (T2, Video, summer webcast mtg.)
  - a. Research products Tech Briefs
  - b. Video
  - c. Working with IaDOT on Phase II. Mapping the site with asphalt dual drum roller and then on HMA.
- 6. Case Histories Update
  - a. 10 completed. Posted on CEER Website
  - b. 5 more next quarter.