

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.

Transportation Pooled Fund Program Project # TPF-5(233)	Transportation Pooled Fund Program - Report Period: Quarter 1 (January 1 – March 31, 2014) Quarter 2 (April 1 – June 30, 2014) X Quarter 3 (July 1 – September 30, 2014) Quarter 4 (October 1 – December 31, 2014)	
Project Title: Technology Transfer Intelligent Compaction Consortium (TTICC)		
Project Manager: Steve Megivern	Phone: 239-1936	E-mail: stephen.megivern@iowa.dot.gov
Project Investigator: David White Pavana Vennapusa	Phone: 294-1463 294-2395	E-mail: djwhite@iastate.edu pavanv@iastate.edu
Lead Agency Project ID: RT 0347	Other Project ID (i.e., contract #): Addendum 385	Project Start Date: 8/6/10
Original Project End Date: 3/15/14	Current Project End Date: 06/30/2015	Number of Extensions: 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
\$349,000	\$252,111.54	ongoing

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
23,073.46		

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 face-to-face meeting was held on September 3-4 in Harrisburg, PA. Penn DOT hosted the meeting. The meeting agenda is attached. The original plan to visit a project site did not materialize due to field project schedules. First meeting day involved updates from participating states and discussions among the team regarding state experiences. Second day involved reviewing and re-prioritizing the IC research and implementation needs (see attached Table 1) and developing action items. The meeting was attended by agency representatives from GA, PA, VA, KY, CA, PA, WI, IA, OH, MO, VT, and FHWA, industry representatives from Groff Tractor and Equipment, Hamm/Writgen America, AB Consultants, and SITECH Allegheny, and project team members from CEER/ISU.
- 3 new IC Case Histories have been developed: (1) Indiana SR25, West Lafayette, (2) Minnesota TH60, Bigelow, and (3) Florida Hwy 9, Jacksonville. Draft versions of these case histories are posted on CEER-TTICC webpage (<http://www.ceer.iastate.edu/tticc>).
- Worked on outlining content for a 2-minute version of the IC101 video animation.

Anticipated work next quarter:

- Workshop report highlighting key outcomes from the meeting.
- Updates to TTICC web page.
- 3 new IC Case Histories.
- Planning for 2015 meeting (tentatively August in KY)

Significant Results:

- Face-to-face meeting
- 3 new case histories.
- Updates to webpage.
- Outline of 2-minute version of the IC101 video animation.

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).

TAC committee:

Technology Transfer Intelligent Compaction Consortium TPF 5(233)			
Representing	Name	Organization	Email
Iowa State Univ	David White	ISU	djwhite@iastate.edu
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	Lisa Tarson	PennDOT	ltarson@pa.gov
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	Jed Peters	WiDOT	jed.peters@dot.wi.gov
FHWA	Fred Faridazar	FHWA	fred.faridazar@fhwa.dot.gov
	Max Grogg	FHWA-Iowa	max.grogg@dot.gov

TAC meeting held September 3-4, 2014 – Harrisburg, Pennsylvania

Attendees:

Name		Organization
Alfred	Casteel	Georgia DOT
Daniel	Clark	Pennsylvania DOT
Edward	Hoppe	Virginia DOT
David	Hunsucker	University of Kentucky
James	Lee	Caltrans
Sheri	Little	Pennsylvania DOT
Kevin	McLain	Missouri DOT
Antonio	Nieves	FHWA
Ian	Rish	Georgia DOT
Adam	Ross	Kentucky Transportation Cabinet
Judith	Ryan	Wisconsin DOT
Melissa	Serio	Iowa DOT
Stephen	Slomski	Ohio DOT
William	Stone	Missouri DOT
Pavana	Vennapusa	CEER-ISU
David	White	CEER-ISU
Guests		
Bill	Ahearn	Vermont DOT
Tim	Kowalski	Hamm/Wirtgen America
Kirk	McClelland	AB Consultants
Todd	Pollock	SITECH Allegheny

AGENDA: Technology Transfer Intelligent Compaction Consortium: Addendum 385 TPF-5(233)

September 3-4, 2014 – Harrisburg, Pennsylvania

Wednesday, September 3, 2014

- 8:00 am Shuttle picks up participants at Crowne Plaza entrance and transports to PennDOT
- 8:15 am Coffee and continental breakfast available
- 8:30 am Introductions
- 9:00 am TTICC update by CEER (tech transfer, video, upcoming IC opportunities)
- 9:30 am State DOT IC implementation updates (CA, GA, IA, KY, MO, OH, PA, VA, WI, VT, & FHWA)
- 10:00 am ***Morning break***
- 10:15 am State DOT IC implementation updates (continued)
- 11:00 am PennDOT IC experience and showcase project
- 12:00 pm ***Lunch***
- 1:00 pm Working breakout sessions to identify and discuss:
- Overall grading and HMA compaction and QC/QA problems, challenges, opportunities
 - Re-prioritize/add/delete IC/CCC technology research/implementation needs
 - Training needs for contractors and agency personnel
 - Review for HMA, aggregate bases, and soils specifications (Mn/DOT, FHWA, SHRP2 R02)
 - TTICC goals for 2015
- 3:00 pm ***Afternoon break***
- 3:15 pm Working breakout discussions (continued)
- 4:30 pm Wrap up and transport participants back to Crowne Plaza
- 6:00 pm ***Working dinner*** - TTICC business meeting at the Crowne Plaza - Pennsylvania DE Room
- TTICC budget review
 - Identify demonstration projects
 - Availability for Geotechnical Mobile Lab for projects/training
- 8:00 pm Adjourn for the day

Thursday, September 4, 2014

- 7:45 am Shuttle picks up participants at Crowne Plaza Hotel and transports to PennDOT
- 8:00 am Coffee and continental breakfast available
- 8:15 am Working session to discuss IC spec development for HMA, aggregate bases, and soils
- 10:00 am ***Morning break***
- 10:15 am Working session (continued)
- 11:00 am Summary and direction forward
- 11:30 am Wrap up

TABLE 1. Re-Prioritized IC/CCC Technology Research/Implementation Needs

Description (*# of votes)	2014 ranking	2012/2013 ranking
Data Management and Analysis (*31)	1	1
Education Program/Certification Program (*18)	2	7
Intelligent Compaction and In-Situ Correlations (*17)	3	3
Sustainability/Return of Investment (*15) [Description updated in 2014]	4	13
Intelligent Compaction Specifications/Guidance (*14)	5	2
Understanding Impact of Non-Uniformity of Performance (*13)	6	4
In-Situ Testing Advancements and New Mechanistic Based QC/QA (*12)	7	10
Standardization of Roller Sensor Calibration Protocols (*8)	8	6
Understanding Roller Measurement Influence Depth (*8)	9	8
Intelligent Compaction Technology Advancements and Innovations (*6)	10	11
Intelligent Compaction Research Database (*6)	10	12
Project Scale Demonstration and Case Histories (*4)	12	9
Standardization of Roller Outputs and Format Files (*0)	13	5



PowerPoint Presentation Overview

2nd Workshop for Technology Transfer for Intelligent Compaction Consortium

Pennsylvania Department of Transportation
Harrisburg, PA

IOWA STATE UNIVERSITY **CEER**

Technology Transfer for Intelligent Compaction Consortium (TTICC) 3rd Workshop Meeting

CEER Update – IC101 Video
www.ceer.iastate.edu/tticc

CEER

Technology Transfer for Intelligent Compaction Consortium (TTICC) 3rd Workshop Meeting

CEER Update – IC101 Video Viewing Statistics

<https://www.youtube.com/watch?v=2iG2611Tg>

CEER YouTube Channel
Date Published: 1/31/2014
Statistics as of 8/20/14
Number of Views: 1,562
Minutes Watched: 8,152
No. of Countries: 70

CEER

Technology Transfer for Intelligent Compaction Consortium (TTICC) 3rd Workshop Meeting

CEER Update – GeoCongress 2014 Paper

CEER



CEER Update – Webpage, and T2 Briefs

www.ceer.iastate.edu/tticc



CEER Update – Webpage, and T2 Briefs

www.ceer.iastate.edu/tticc

Technology Transfer for Intelligent Compaction Consortium (TTICC) T2 Briefs
List of Technical Transfer (T2) Briefs
Approved for 13 technical transfer sessions

NO.	PROJECT TITLE	STATUS	PI	SPONSOR	DATE
1	IC for HMA	Completed	Dr. J. Kim	ICCC	2003
2	IC for HMA	Completed	Dr. J. Kim	ICCC	2004
3	IC for HMA	Completed	Dr. J. Kim	ICCC	2005
4	IC for HMA	Completed	Dr. J. Kim	ICCC	2006
5	IC for HMA	Completed	Dr. J. Kim	ICCC	2007
6	IC for HMA	Completed	Dr. J. Kim	ICCC	2008
7	IC for HMA	Completed	Dr. J. Kim	ICCC	2009
8	IC for HMA	Completed	Dr. J. Kim	ICCC	2010
9	IC for HMA	Completed	Dr. J. Kim	ICCC	2011
10	IC for HMA	Completed	Dr. J. Kim	ICCC	2012
11	IC for HMA	Completed	Dr. J. Kim	ICCC	2013
12	IC for HMA	Completed	Dr. J. Kim	ICCC	2014
13	IC for HMA	Completed	Dr. J. Kim	ICCC	2015



1:00 to 3:00 PM – BREAKOUT SESSIONS

- GOALS are to identify and discuss:
- > Overall grading and HMA compaction and QC/QA problems, challenges, opportunities
 - > Re-prioritize/add/delete IC/ICC technology research/implementation needs
 - See 2nd Workshop Report Executive Summary
 - > Training needs for contractors and agency personnel
 - > Review for HMA, aggregate bases, and soils specifications (Mn/DOT, FHWA, SHRP2 R02)
 - > TTICC goals for 2015



Technology Transfer for Intelligent Compaction Consortium (TTICC) 3rd Workshop Meeting

6:00 to 8:00 PM – WORKING DINNER

- TTICC budget review
- Identify demonstration projects
- Availability for Geotechnical Mobile Lab for projects/
training

