

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(437)	Transportation Pooled Fund Program - Report Period: Quarter 1 (January 1 – March 31, 2021) X Quarter 2 (April 1 – June 30, 2021) Quarter 3 (July 1 – September 30, 2021) Quarter 4 (October 1 – December 31, 2021)	
Project Title: Technology Transfer Concrete Consortium (TTCC) TPF-5(437)		
Project Manager: Khyle Clute	Phone: 239-1471	E-mail: khyle.Clute@dot.iowa.gov
Project Investigator: Steve Tritsch	Phone: 294-3781	E-mail: stritsch@iastate.edu
Lead Agency Project ID:	Other Project ID (i.e., contract #): Addendum 732	Project Start Date: 2/5/20
Original Project End Date:	Contract End Date: 2/5/22	Number of Extensions: Incremental funding, PFS

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
\$412,000	\$194,451.05	NA

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$24,071.05	N/A	N/A

Project Description:

Increasingly, state departments of transportation (DOTs) are challenged to design and build longer life concrete 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 materials and construction optimization 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 concrete pavement research initiatives. The purpose of this pooled fund project is to identify, support, facilitate and fund concrete research and technology transfer initiatives.

The goal of the TTCC is to:

- Identify needed research projects
- Develop pooled fund initiatives
- Provide a forum for technology exchange between participants
- Develop and fund technology transfer materials
- Provide on-going communication of research needs faced by state agencies to the FHWA, industry, and CP Tech Center

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

- Spring 2021 NC² meeting was held virtually on April 13-15, 2021

The Spring 2021 three-day virtual meeting of the National Concrete Consortium (NC2), was held in April with a record number (577) of registrants; 474 viewers logged-in from 43 states and 8 countries outside the US (211 state personnel, 28 academics, 42 FHWA, 174 industry, and 19 international). Each morning session lasted approximately three hours. Current NC2 Chair, Dan Miller, the Cement and Concrete Engineer from the Ohio DOT, moderated the three sessions. More questions were asked than could be answered in the allotted time, so presenters were asked to follow up with responses that are available on the website, along with the session recordings, technical presentation handouts, and agenda <https://cptechcenter.org/national-concrete-consortium/>. The three sessions covered 12 topics with multiple speakers for some topics presented by representatives from three state agencies, one from FHWA, six from academia, and eight from the industry sector.

Day 1 Meeting presentations: 381 attendees + speakers. 21 questions and comments

- **General Session:**
 - State Report Summary on Fast Setting Patching Materials
- **Performance:**
 - Pavement ME Upgrade
 - Pavement Resilience

Day 2 Meeting presentations: 383 attendees + speakers. 43 questions and comments

- **Materials:**
 - Reclaimed/Harvested Fly Ash
 - Nano-Silica in Concrete
 - Portland Limestone Cement
 - Maintaining Smoothness
 - Fast Setting Patching Materials

Day 3 Meeting presentations: 345 attendees + speakers. 11 questions and comments

- **Testing:**
 - In Situ Loading of Concrete Overlays on Fabric and Asphalt
 - Load Transfer Test Results and Proposed Dowel Specification Changes
- **Quality Control for Paving:**
 - Overview
 - A Tool for Agency and Industry
 - Contractor Perspective

Anticipated work next quarter:

- E-news and MAP Brief will be published during the next quarter.
- Executive committee meeting will be scheduled for discussion regarding the Fall 2021 meeting
- Fall NC² meeting will be in conjunction with the International Society of Concrete Pavements virtual meeting
- Begin planning for Spring 2022 at the Embassy Suites in Nashville.

Significant Results:

See <http://www.cptechcenter.org/ncc/TTCC-NCCMeetings.cfm>

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). N/A

There are 34 TTCC TPF 5(437) TAC member states. Representative attendance varies by meeting.

State & # of Reps		State & # of Reps		State & # of Reps		State & # of Reps		State & # of Reps	
Alabama	2	California	3	Colorado	1	Florida	2	Georgia	4
Idaho	2	Illinois	2	Indiana	4	Iowa	2	Kansas	4
Kentucky	2	Massachusetts	2	Michigan	2	Minnesota	2	Missouri	1
Montana	2	Nebraska	2	Nevada	2	New York	2	North Carolina	2
North Dakota	1	Ohio	2	Oklahoma	2	Oregon	1	Pennsylvania	1
South Carolina	2	South Dakota	2	Tennessee	2	Texas	1	Utah	1
Washington	1	West Virginia	1	Wisconsin	1	Wyoming	1		