

## 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 (224)	<b>Transportation Pooled Fund Program - Report Period:</b> <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input checked="" type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input type="checkbox"/> Quarter 4 (October 4 – December 31)	
<b>Project Title:</b> Investigation of Deterioration of Joints in Concrete Pavements		
<b>Project Manager:</b> Peter Taylor	<b>Phone:</b> 294-9333	<b>E-mail:</b> ptaylor@iastate.edu
<b>Project Investigator:</b> Peter Taylor	<b>Phone:</b> 294-9333	<b>E-mail:</b> ptaylor@iastate.edu
<b>Lead Agency Project ID:</b> RT 0323	<b>Other Project ID (i.e., contract #):</b> Addendum 361	<b>Project Start Date:</b> 11/01/09
<b>Original Project End Date:</b> 6/30/12	<b>Current Project End Date:</b> 6/30/12	<b>Number of Extensions:</b>

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
165,000	36,642	15%

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
7434		5

**Project Description:**

The objective of this project is to identify the failure mechanisms behind early deterioration occurring in the joints of concrete pavements in various northern states, and to develop strategies to prevent the deterioration of new pavements in the future. Tied to this understanding will be the ability to provide effective guidance on what to do about repairing and/or slowing the distress in existing pavements.

Premature deterioration of concrete at the joints in concrete pavements and parking lots has been reported across the northern states. The distress is first observed as shadowing when microcracking near the joints traps water, later exhibiting as significant loss of material. Not all roadways are distressed, but the problem is common enough to cause some local authorities to reconsider the use of concrete in their pavements. Some meetings have been held at which stakeholders have discussed their observations, but to date there is no consensus on what the underlying causes of the distress are, or how to address them. A number of potential causes have been suggested, however it is not clear whether any or all of them is predominant or even applicable.

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

- Presentations at PCA and ACPA meetings
- Webmeeting held with panel on May 23, 2011
- Field trip to WI conducted in June 2011. 3 locations selected for coring and petrographic analysis
- Modified C666 tests started
- Equipment for field permeability test has been ordered

**Anticipated work next quarter:**

- Continue work on all tasks above
- Develop tech transfer pieces based on current understanding

**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).**