



Progress Report 2003-3

Jim Grove, Center for PCC Pavement Technology

TPF-5(066) Material and Construction Optimization for Prevention of Premature Pavement Distress in PCC Pavements

Purpose of Project: To develop optimal mix design and test methods for monitoring Key performance parameters and conduct demonstration tests in participating states.
<http://www.ctre.iastate.edu/pccpoolfund/>

Progress Report:

- Project is on schedule Yes
- Project is within budget Yes
- Significant changes in project description No

Problems (current or anticipated): No significant problems encountered.

- State visits were not begun until the end of the quarter because the information was not received as early as anticipated and scheduling difficulties. This is not critical to the schedule and will not affect project progress.
- An Iowa field demo project was divided among several projects due to types and locations of available ongoing construction projects. The goal of evaluating test procedures will still be accomplished.

Products and tangible results this quarter (reports/articles written, oral reports/interviews given):

- The data collect form has been returned by nine states, listing 23 projects. One state has no projects to report. Six states have yet to complete the form.
- Test procedures continue to be evaluated in the lab. A number of the tests were evaluated in the field as a part of the demo project in Iowa.
- Field demo evaluation of various tests has begun on a number of Iowa projects.
- The first state visit was conducted in South Dakota.
- A draft of the Administrative Procedures was prepared and is being reviewed by the Executive Committee. The Procedures will be discussed and approved at the TAC meeting in October.
- An RFP was drafted that will contract for a technical editor for the Practices Manual that will compile the field data collection, state research information, and the suite of tests into a useable reference document.

Interaction with Technical Monitor and/or Project Advisory Committee (brief recount of meetings):

- Conference calls with the Executive Committee were held on July 10, August 19, and September 17.

Brief summary of this quarter's research:

- The data collect forms have been returned by nine states, listing 23 projects. They have been reviewed in anticipation of the state visits. One state has no projects to report. Six states have yet to complete the form.
- Test evaluation of the tests listed in the preliminary matrix of tests for various concrete performance characteristics are continuing.

- A trip was made to Turner-Fairbanks to meet with Leif Wathne, FHWA, and to review and evaluate the surplus FHWA semi trailer that possibly could be used as a mobile concrete laboratory to support the demonstration project fieldwork. It was determined that it was not suitable to be retrofitted as a lab.
- Tom and Jim went to Featherlite in Cresco, Iowa on September 5 and discussed the purchase of a new, fifth wheel trailer that would be custom built as a lab.
- On September 24, Leif Wathne, FHWA and Greg Barger, Ash Grove Cement, met at the PCC lab with Center personnel to outline the design and equipment needs for a lab trailer.
- An RFP has been drafted that will contract for a technical editor for the Practices Manual that will compile the field data collection, state research information, and the suite of tests into a useable reference document.

Expected activities for next quarter:

- Approval and completion of the Administrative Procedures Manual for conduct of the project.
- Complete the survey of problem projects information from the remaining participating state.
- Continue evaluation of tests and procedures.
- Complete visits to states to gather problem project information as identified on the survey, local test procedures and input for project development.
- Complete the field demonstration project evaluation on Iowa projects.
- A subcontract will be executed to develop a Practices Manual.
- Finish budgeting for each task.
- Conduct the next TAC meeting, to be held on October 14.
- Complete evaluation of the lab trailer specifications and order the trailer.
- Identify and begin ordering test equipment needed for the lab trailer.

Work Progress by Task:

Task #	Task Description	Expected Completion Date	% of Task Completed
1	Data Collection Survey of past projects which experienced problems Compile local state testing practice	December 2003	15%
2	Test Development Develop suite of tests to measure concrete properties Define test procedures	2006	45%
3	Demonstration projects Demonstrate test procedures on participating state projects Development of protocol for sampling and testing Field verification of laboratory testing and solutions	2006	5%
4	Technology transfer Develop initial standards/guidelines (“Best Practices”) for testing Demonstrate tests and procedures Conduct technology transfer	2007	5%