



Progress Report 2004-4 (October-December, 2004)

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

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

- An article entitled “Pooled-Fund Study Targets Premature Distress in Concrete Pavements” appeared in the November issue of FHWA’s Focus magazine that featured this research and the mobile lab.
- An article entitled “Mobile Lab Conducts Concrete Research” appeared in the September-October issue of the Transportation Research Board’s TR News magazine that featured this research and the mobile lab.
- Jim Grove made a presentation at the Iowa Section ASCE Transportation Conference about the research and mobile lab on November 3.
- An article entitled “Pooled-Fund Study Targets Premature Distress in Concrete Pavements” appeared in the November issue of FHWA’s Focus magazine that featured this research and the mobile lab.
- Jim Grove made a presentation at the ACPA Annual meeting about the research and mobile lab at Marco Island, Florida on December 3. The mobile lab was there and tours were conducted.
- Jim Grove made a presentation at the Iowa County Engineer’s Conference about the research and mobile lab on December 8.

Interaction with Technical Monitor and/or Project Advisory Committee:

- A regular monthly teleconference with the executive committee was held on October 13, November 17, and December 8.
- Minutes from the monthly teleconferences are available on the web page.

Brief summary of this quarter’s research:

- The Wisconsin shadow project was conducted October 18-29, 2004
- The North Carolina shadow project was conducted November 8-19, 2004
- A meeting of the Advisory committee for the IMCP manual was held in Kansas City on November 23 to finalize the draft document.
- A meeting of the research team and Jim Thompson was held on December 15. He reviewed the demo project organization and test results and advised the team on planning for next year’s demos.
- A meeting of the research team was held on December 20 to review the demo project organization and test results and plan for next year’s demos.
- The team met and held a conference call with a small group of technical advisers to help evaluate the demo work in 2004 and help plan for 2005. They included Dan DeGraaf, Peter Taylor, Alan Johnson, Todd Hanson, and Kejin Wang.
- At each of the three conference calls this quarter, the Executive Committee discussed ideas for technology transfer of the results of this project. Ideas include a national workshop, state

workshops, training aids, a second visit with the mobile and presentations at national meetings. A plan was drafted and will be finalized next quarter.

Task	Task Description	Expected Completion	% of Task
1	Data Collection Survey of past projects which experienced problems Compile local state testing practice Gather research information	June 2005	90%
2	Test Development Develop suite of tests to measure concrete properties Define test procedures	2006	85%
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	35%
4	Technology transfer Develop initial standards/guidelines (“Best Practices”) for testing Demonstrate tests and procedures Conduct technology transfer	2007	40%