

## State Planning and Research Program Quarterly Report

**PROJECT TITLE:**

TPF-5 (132) Investigation of Low Temperature Cracking in Asphalt Pavements - Phase II (MnROAD Study)

**OBJECTIVES:** The main objective of this study is to validate the laboratory test procedures, models, and pavement design procedures that come out of Phase I of this study. This will be accomplished by monitoring two new test sections at the Minnesota Road Research Facility (MnROAD). Phase I was aimed at developing a fracture mechanics-based specification for a better selection of asphalt binders and mixtures with respect to their resistance to crack formation and propagation. This fracture mechanics approach will also be used to investigate the detrimental effects of aging and moisture on the fracture resistance of asphalt materials.

**PERIOD COVERED:**

October 1, 2007 – December 31, 2007

**PARTICIPATING AGENCIES:**

CT, IA, MN, ND, NY, WI, LRRB

**PROJECT MANAGER:**

Benjamin Worel

**SP&R PROJECT NO:**

TPF-5 (080)

**PROJECT IS:**

Planning  
 Research &  
Development

**LEAD AGENCY:**

Mn/DOT

**PRINCIPAL INVESTIGATOR:**

TBD by TAP

**ANNUAL BUDGET:**

See page #2 for commitments and obligations according to FMIS = \$525,000 total which included the whole WI commitment.

**PROJECT EXPENDITURES TO DATE:**

No cost to the pooled fund to date

**WORK COMPLETED:**

Project was just approved this quarter – no work done in 2007

**SUMMARY OF ACTIVITIES EXPECTED TO BE PERFORMED NEXT QUARTER:**

1. TRB Meeting with possible Universities
2. University of Minnesota, Wisconsin, Illinois, Iowa State will develop a proposal for the TAP
3. 1<sup>st</sup> TAP meeting planned for March 11 at the Maplewood Lab (Maplewood Minnesota) which proposed work plan will be reviewed and a possible contract developed.

**STATUS AND COMPLETION DATES:**

1. Expecting a contract to be developed so contractors can start work during May 2008 depending if the TAP decides to go with the proposed work plan.

**TPF-5(132)**  
**Investigation of Low Temperature Cracking**  
**in Asphalt Pavements - Phase II (MnROAD Study)**  
**Minnesota Lead State**

**Commitments & Contacts**

Currently Funding = \$525, 000 (only \$445,000 committed\*)

\$450,000 contract + \$20,000 State Travel/Meetings + \$50,000 MnROAD Monitoring

Idaho is the only remaining possibility for additional support

	MN	CT	IA	ND	WI	NY	LRRB	
<b>2007</b>	20,000	10,000	0	20,000	20,000	20,000	50,000	
<b>2008</b>	20,000	10,000	5,000	20,000	0*	20,000	0	
<b>2009</b>	20,000	10,000	5,000	20,000	0*	20,000	0	
<b>2010</b>	20,000	10,000	5,000	20,000	0*	20,000	0	
<b>2011</b>	20,000	10,000	5,000	20,000	0*	20,000	0	
<b>2012</b>	0	0	5,000	0	0	0	0	<b>Totals</b>
<b>Total</b>	100,000	50,000	25,000	100,000	100,000	100,000	50,000	<b>\$525,000</b>
<b>Obligated FMIS as of (1/25/08)</b>	0*** 503,947**	10,000	0***	20,000	0***	0***	0***	<b>\$50,000</b>
<b>Technical Contacts</b>	Ben Worel <a href="mailto:Ben.worel@dot.state.mn.us">Ben.worel@dot.state.mn.us</a>	David Kilpatrick <a href="mailto:david.kilpatrick@po.state.ct.us">david.kilpatrick@po.state.ct.us</a>	Carol Culver (need technical lead) <a href="mailto:carol.culver@dot.iowa.gov">carol.culver@dot.iowa.gov</a>	Ron Horner <a href="mailto:rhornet@state.nd.us">rhornet@state.nd.us</a>	Leonard Makowski <a href="mailto:leonard.makowski@dot.state.wi.state">leonard.makowski@dot.state.wi.state</a>	Christopher Euler <a href="mailto:ceuler@dot.state.ny.us">ceuler@dot.state.ny.us</a>	Debra Fick (need technical lead) <a href="mailto:deb.fick@dot.state.mn.us">deb.fick@dot.state.mn.us</a>	

\* Wisconsin only commits one year at a time but is in the study fully funded (need to discuss with WI)

\*\* Minnesota is also using its own extra SPR funding for its construction – only 100,000 is available for research study

\*\*\* Need to work on State Obligations (get money in the fund)