

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Date: _____ 10-19-2016 _____

Lead Agency (FHWA or State DOT): _____ Indiana 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 # <i>(i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i> TPF-5(021)	Transportation Pooled Fund Program - Report Period: <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input checked="" type="checkbox"/> Quarter 3 (July 1 – September 30) <input type="checkbox"/> Quarter 4 (October 1 – December 31)	
Project Title: North Central Superpave Center Base Funding		
Name of Project Manager(s): Tommy Nantung	Phone Number: 765/463-2532 x 248	E-Mail: tnantung@indot.in.gov
Lead Agency Project ID: TPF-5(021)	Other Project ID (i.e., contract #):	Project Start Date: October 1, 2002
Original Project End Date:	Current Project End Date:	Number of Extensions:

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	Percentage of Work Completed to Date
Continuing		Continuing

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date

Project Description:

The North Central Superpave Center began on July 1, 1995, as one of five regional centers established to assist the states/provinces and industry in the region with the implementation of the Superpave mix design system for hot mix asphalt. The role of the NCSC has evolved to include all general hot mix asphalt issues as states in the region have adopted Superpave. The Center is administered through the Joint Transportation Research Program at Purdue University and is guided by a Steering Committee consisting of representatives of the agencies and industry in the participating states.

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

Progress will be reported in terms of the major activities planned for this project as established by the Steering Committee.

Training: Training will be developed and provided to participating states and other groups upon request. A previously submitted proposal was revised to develop a comprehensive training program for a laboratory testing firm in response to the firm's request.

Communication: Information requests are processed as they arrive; about 20-25 per month are received. Updates to the website and hosted sites (Multi-Regional Training and Certification Group (M-TRAC) and Combined State Binder Group (CSBG) were also posted. Published reports have now been downloaded from the Joint Transportation Research Program website over 8650 times.

Third Party Lab and Testing Services: Work continued on proficiency testing and maintenance of AMRL accreditation records.

Research: The study *Performance of Warranted Asphalt Pavements* was completed. We are awaiting the final proof of the revised report for publication.

The proof of the final report on *Analysis of the Multiple Stress Creep and Recovery Asphalt Binder Test and Specifications for Use in Indiana* was received from the editor, reviewed and returned in September. The technical summary, cover page and title page will be reviewed and returned to the editor as soon as they are received so that publication can proceed.

Work continued on the study *Tack Coat Installation Performance Guidelines*. Testing of samples fabricated in the lab from plant-produced intermediate and surface mixes is on-going. A section of pavement in Brookston was milled and cored to provide samples for testing in the lab. Concrete cylinders were cast but the diameter is too large for the gyratory compactor, so they are being remade. The graduate student working on the project decided to go with a non-thesis masters option, so a temporary research associate has been hired to assist with completion of the project.

A proposal was funded in mid-September for an industry-supported project to develop a method to determine the fiber content in fiberized crack sealing material. Another previously submitted proposal was revised for an industry group to study trench backfill for concrete and asphalt pavements; funding is pending.

Three proposals were submitted to INDOT. One on *Development of a Friction Performance Test for Compacted Asphalt Mixtures* will start October 1. *Investigation of Delta T_c for Implementation in Indiana* will begin November 1 and *Best Practices for Patching Composite Pavements* should be approved to start in mid-October.

Technology Transfer: The Technical Director was asked to participate in the National Pavement Preservation Conference in October; her presentation on Sustainability Benefits of Pavement Preservation was prepared and submitted in September.

Anticipated work next quarter:

Training: No training is currently planned but a proposal is under review by the sponsor to develop a comprehensive training program for the testing lab mentioned above. This summer, a student from Brazil worked at the NCSC through a program offered by his government; the NCSC staff provided training and exposure to Superpave, research and paving in exchange for free labor. The program and student were very successful and beneficial to both parties.

Communication: Updates to the NCSC and NCAUPG websites will be posted. Information requests will be answered as

received. The third regional forum will be held.

Third Party Lab and Testing Services: Third party testing will be performed as needed. Work will continue on maintaining the AMRL accreditation. The NCSC staff worked with the Civil Engineering Business Office on setting up a recharge center for billing this type of testing.

Research: Work will continue as planned on the research projects. New research needs will be identified and proposals prepared as appropriate.

Technology Transfer: The NCSC staff will attempt to schedule state visits throughout the region to learn of their top issues regarding asphalt mixtures and pavements and to reacquaint DOT staff with the Superpave Center and its resources. Based on the findings, proposals for pooled fund research and/or funding requests will be developed. A third regional forum will be scheduled.

Significant Results:

Readership reports for the published research reports show that they have been downloaded over 8650 times.

An increase in third party testing requests demonstrates the value of AMRL accreditation of the lab and represents an increasing funding source.

Circumstance affecting project or budget. (Please 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).

The departure of our graduate student and diameter of the concrete cores necessitated some changes in the Tack Coat Study but we are attempting to stay on schedule by adding a temporary employee and recasting the concrete cylinders.

Potential Implementation:

Research results are considered individually for possible implementation by the states as they become available. There is great interest across the country in the study on optimizing compaction and on past recycling research, which is leading to numerous speaking engagements, which serve to spread the results to a broader audience. The NCHRP synthesis on Fiber Additives addresses a current need since fibers are again being marketed to states and interest in their use is growing. INDOT is planning to implement the findings of the study on the MSCR test and specification.