TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Date: _____4-13-2019_____

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.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)* TPF-5(021)	**Transportation Pooled Fund Program - Report Period:** ☒Quarter 1 (January 1 – March 31) ☐Quarter 2 (April 1 – June 30) ☐Quarter 3 (July 1 – September 30) ☐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: The technical director was contacted by the Upper Great Plains Transportation Institute at North Dakota State University about providing a Perpetual Pavements webinar over their distance learning system and a shorter presentation ND Asphalt Conference. Negotiations are underway.

Communication: Information requests are processed as they arrive; about 20-25 per month are received. Minutes and presentations from the last Multi-Regional Training and Certification Group (M-TRAC) meeting were posted and NCSC staff is exploring ways to facilitate asking questions and sharing responses for the group. Published reports have now been downloaded from the Joint Transportation Research Program website over 11,660 times.

Third Party Lab and Testing Services: Work continued on proficiency testing and maintenance of AMRL accreditation records. Efforts continued to establish lab usage fees for this type of testing.

Research:

The final report on *Tack Coat Installation Performance Guidelines* was published early in the quarter. Some results of this research were incorporated in an invited presentation given at the TRB Annual Meeting.

The final report for *Development of a Friction Performance Test for Compacted Asphalt Mixtures* was published this quarter. Changes to Indiana Test Method (ITM) 221 have been implemented based on this research. Full implementation of this new test requires more information, so an implementation project including shadow testing has been proposed, but not yet funded. A paper on this project was presented at the Association of Asphalt Paving Technologists meeting in March and will be published in the 2019 AAPT Journal.

Testing was completed for *Investigation of Delta T_c for Implementation in Indiana* and the draft final report preparation began.

Work on *Real Life Experiences with Major Pavement Types* continued. A literature review to identify possible analysis techniques, data elements needed for life cycle cost analysis and other background information continued. A study advisory committee meeting was held 8/31/18, at which time a preliminary list of projects to evaluate was developed. A survey is being prepared to solicit information from a variety of people in the districts (construction, maintenance, asset management).

The final report on an NCHRP Synthesis study on asphalt pavement lift thicknesses is still in the publication process.

A meeting was held with industry representatives to discuss the final report on a project to develop a test method to determine the amount of fiber in crack sealant and the need for additional work. A proposal will be submitted next quarter.

A proposal was submitted to the Nevada DOT for a study entitled *Developing Lower Modulus Polymer Resin Binder Systems Specifications for High Friction Surface Treatments (HFST) on Asphalt Pavements in Nevada*.

Technology Transfer: The Technical Director and Jusang Lee gave a presentation based on the spray paver results from the Tack Coat study at the 2019 TRB meeting. She also presented a summary of the development of low temperature binder tests and specifications under SHRP. She participated in panel discussions on Women in Engineering at the World of Asphalt in February and AASHTO re:source Technical Exchange in March. She delivered the MAPA Distinguished Lecture in Rolla in January, reaching out to students at the Missouri University of Science and Technology. The technical director chaired a web meeting of the FHWA/TRB Long Term Infrastructure Committee's Pavement Expert Task Group. She also participated in a conference call to initiate harmonization of ASTM and AASHTO asphalt standards.

Anticipated work next quarter:

Training: Training will be developed and provided as requested.

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

Third Party Lab and Testing Services: Work will continue on maintaining the AMRL accreditation and third party testing as requested. Lab usage fees will be established.

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

Technology Transfer: Presentations will be given in North Dakota and Minnesota as planned. Additional opportunities for tech transfer will be pursued as they become available.

Significant Results:

Readership reports for the published research reports show that they have been downloaded over 11,660 times.

Changes have been made to INDOT Specifications and test methods based on research results.

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).

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. INDOT is constructing another trial of so-called Superpave5 based on a completed project and is pursuing reinstating an asphalt warranty program based on results of another. Changes to the specifications and Indiana test methods have been adopted based on recent research.