TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Date: _____7-9-2015_____

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: No training was planned for this quarter. Training will be developed and provided to participating states and other groups upon 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 6700 times.

Third Party Lab and Testing Services: Work continued on proficiency testing and maintenance of AMRL accreditation Records; the next lab inspection will be later this summer. DFT testing for the Indiana Local Technical Assistance Program was conducted this quarter.

Research: Work continued on the project entitled *Optimizing Laboratory Mixture Design as it Relates to Field Compaction in Order to Improve Hot-Mix Asphalt Durability*, including testing of materials from a field test section. The second field project was not constructed as early as anticipated, so samples were not available when planned; the samples were not available until mid- to late December. In addition, the AMPT machine was being used for three different projects before it malfunctioned and needed repair. Therefore, the work is slightly behind the original schedule and a short extension was requested and approved this quarter. The technical director has been invited to Kansas to report on this research in December.

The PI was one of three presenters in a TRB webinar on NCHRP Synthesis 44-04 on *Pavement Patching Practices*.

Work continued on a study for INDOT entitled *Analysis of the MSCR Asphalt Binder Test and Specifications for Use in Indiana*. A total of 13 binders had been tested and previously collected data from Indiana DOT had been analyzed. Mixture samples have been fabricated and tested using five binders. Two additional binders have been requested from Missouri based on recommendations from the Study Advisory Committee. Their shipment has been delayed because of the supplier's blender being broken. As soon as the binders are received, binder and mixture tests will be performed. The AMPT problems noted above also resulted in a delay in testing for this project.

Work continued on *Performance of Warranted Asphalt Pavements* is underway. Existing INDOT data has been collected from the central office and analysis is underway. At this point, it appears predictions from earlier research projects indicating that warranted pavements would last longer and perform better than conventional pavements seems to be holding true.

A new project entitled *Tack Coat Installation Performance Guidelines* was initiated on January 1, 2015. A masters student been recruited to begin working on the project in June. She has been preparing the literature review and review of other states' specifications that will guide development of the experimental design this quarter.

Technology Transfer: Planning is underway for the next meeting North Central Asphalt User Producer Group and NCSC Steering Committee in 2016. The NCSC staff is attempting to line up speakers and schedule the first web meeting for state and industry members and other interested representatives to discuss issues of regional concern. The technical director participated in meetings of the Long Term Pavement Performance Expert Task Group and Committee an ASTM. She also gave a presentation at an ASCE conference summarizing the results of an INDOT-sponsored research effort That led to development of an Indiana Test Method that is used as a screening test to evaluate local aggregate materials for use in asphalt surface courses. The INDOT Office of Materials Management has indicated that this research has opened the market for 140 local aggregate sources that previously could not be used on medium and high traffic roads.

Anticipated work next quarter:

Training: No training is currently planned.

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

Third Party Lab and Testing Services: Third party testing will be performed as needed and as described above. Work will continue on maintaining the AMRL accreditation.

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 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. Regional web meetings will be hosted to facilitate the exchange of information and concerns between states and industry in the region.

Significant Results:

Readership reports for the published research reports show that they have been downloaded over 6700 times.

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

Field testing of a pilot test section of aggregate screened using the test protocol developed in the study *Maximizing the Use of Local Aggregates* proved successful and confirmed the applicability of the screening test method. This has reportedly opened the market to 140 local aggregate sources that previously could not be used for medium and high traffic roadways.

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).

No major new problems this quarter. There is a delay in obtaining more binder for the MSCR study, but it is not expected To be of long duration, so should be recoverable.

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.