**TRANSPORTATION POOLED FUND PROGRAM**

**QUARTERLY PROGRESS REPORT**

Lead Agency (FHWA or State DOT): Alabama 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.*

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| **Transportation Pooled Fund Program Project #***(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)*TPF-5(228) | **Transportation Pooled Fund Program - Report Period:** Quarter 1 (January 1 – March 31) **√**Quarter 2 (April 1 – June 30) 2014Quarter 3 (July 1 – September 30) Quarter 4 (October 1 – December 31) |
| **Project Title:**Superpave Regional Center, Southeastern Region |
| **Name of Project Manager(s):**Don Watson and Randy West | **Phone Number:**(334) 844-7306 | **E-Mail**watsode@auburn.edu |
| **Lead Agency Project ID:**ALDOT Research Project No. 930-763P | **Other Project ID (i.e., contract #):**224574 | **Project Start Date:**April 28, 2010 |
| **Original Project End Date:**September 30, 2012 | **Current Project End Date:**September 30, 2017 | **Number of Extensions:**3 |

Project schedule status:

On schedule √ On revised schedule Ahead of schedule Behind schedule

Overall Project Statistics:

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|  **Total Project Budget** |  **Total Cost to Date for Project** |  **Percentage of Work**  **Completed to Date** |
| $1,303,353  | $805,193 | 65 |

***Quarterly*** Project Statistics:

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|  **Total Project Expenses**  **and Percentage as of This Quarter** |  **Total Amount of Funds**  **Expended This Quarter** |  **Total Percentage of**  **Time Used to Date** |
| $805,193 (62% of budget) | $9,871 | 70 |

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| **Project Description**:The Southeastern Superpave Center has been supported by state agencies through a pooled-fund project that has been largely used to provide training, verify ruggedness of equipment, check equipment calibrations, provide materials research, and aid in keeping agency personnel abreast of changes in asphalt technology. In order to continue the efforts in training, technology transfer, and implementable research, it is essential that the pooled-fund effort be continued. ***NOTE:*** *This pooled-fund project is not limited to states located in the southeast. Agencies throughout the country are invited to participate and take advantage of the research and training opportunities provided by the Southeastern Superpave Center.***OBJECTIVES**Several short-term and long-term objectives of the Southeastern Superpave Center are listed below. Several objectives deal with evaluating recently-developed performance test equipment and conducting research to address materials and tests issues. Objectives of the Center are:1. Conduct training in regard to Superpave binders, mix design, and performance testing. Provide training on special topics as requested by participating agencies at their on-site locations.
2. Perform research, both cooperatively and agency-specific, sponsored by members of the pooled-fund.
3. Perform precision and bias testing for asphalt-related performance test equipment.
4. Conduct noise studies in an effort to develop quieter pavements.
5. Perform forensic evaluations on materials or projects that have experienced premature distress.
6. Prepare research articles of regional and national interest.
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| **Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):****MEPDG CLIMATE DATABASE** The research team coordinated with LTRC to identify three representative pavement sections for use in verifying the climate files. The work for the first phase of this research has been completed, and LTRC has asked that the research be extended to include more information.A subcontract with Iowa State University has been approved and climate data files have been obtained for the extended work. **OGFC STUDY**A study of OGFC performance for several aggregate sources in South Carolina was completed. A few of the sources have marginal to poor performance history and will be compared to a "control" mix source that has provided satisfactory results. The study indicated that all OGFC mixes had low asphalt contents based on high Cantabro stone loss results. Even with a 1.0% increase in asphalt content, one aggregate source still had 35% stone loss. With other aggregate sources, the additional 1.0% asphalt reduced Cantabro loss by almost 50%. In addition to increasing asphalt content, it was recommended that the gradation be modified to improve tensile strength properties.**CRUMB RUBBER STUDY**Follow-up testing was conducted on a test project that was placed in 2013. The project has a portion of the project with crumb rubber modifier (CRM) added to the asphalt cement, and a portion of the project was designed as a control section without the use of CRM. The CRM sections have slightly lower friction values, but both sections have acceptable friction results. Noise comparisons have also been made using the OBSI test method to compare noise at the tire-pavement interface. There is relatively no difference in noise level between the CRM and unmodified sections.**ASPHALT REJUVENATORS**ALDOT is sponsoring research to evaluate the effectiveness of various asphalt rejuvenators/sealers in extending the durability of binders for OGFC applications.**TRAINING**Two training courses (one Binder and one Mix Design) were conducted for Georgia DOT. Two Earthwork/Base Technician training courses were conducted for Puerto Rico in order to continue technician development and certification. **TECHNOLOGY TRANSFER/TECHNICAL MEETINGS** Several agencies used funds this period to pay travel and registration expenses for employees to attend national meetings of technical interest such as AASHTO and ASTM meetings. **Anticipated work next quarter**:The MEPDG climate study for Louisiana DOTD will be continued. Alabama research on the effectiveness and performance of asphalt rejuvenators as a way of possibly improving performance of OGFC mixtures will continue.A revised training agenda for Puerto Rico for the Summer and Fall of 2015 will be developed.A final report of the study for Puerto Rico to evaluate the effect of crumb rubber in asphalt mixtures will be prepared next quarter. GDOT has requested an evaluation of the effects of flat and elongated aggregate properties on SMA performance. This work is expected to begin next quarter. |
| **Significant 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).** |

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| **Potential Implementation:** The climate data being obtained will be useful for Louisiana by providing specific climate data that is more compre- hensive and more accurate than the original data used in the MEPDG development.The crumb rubber research for Puerto Rico is being used to verify the potential benefit of using ground tire rubber in asphalt mixes in order to preserve the environment.The training and certification courses being taught will help ensure qualified technicians familiar with agencyspecifications and test procedures will be involved in the acceptance process.Performance testing of asphalt rejuvenators for OGFC mixtures will be used to improve specifications by evaluating their effectiveness at extending the durability of asphalt binders. |