**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) 2014 **√** Quarter 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** |
| $1,123,353  | $606,610.88 | 58 |

***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** |
| $606,610.88 (54% of budget) | $59,200.88 | 60 |

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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.):****CONTRACT EXTENSION**ALDOT Research personnel worked with FHWA to obtain a three-year time extension for the project. This extension wasvital because there are several on-going activities that would not be finished by the end of FY'14 (Sept 30, 2014). The extension also gives agencies the ability to plan for research needs over a longer period of time instead of limiting studies to a one-year completion date.**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.Progress on the project has been delayed while the PI waits on signed contract from Iowa State University. **OGFC STUDY**A study of OGFC performance for several aggregate sources in South Carolina has begun. A few of the sources have a marginal to poor performance history and will be compared to a "control" mix source that has provided satisfactory results. During this quarter the following work has been done:* Completed gradations and specific gravity on all 11 aggregate stockpiles.
* Prepared and submitted samples from all five aggregate sources for Petrographic microscopic analysis.
* Prepared samples for Flat and Elongated testing.  Testing is pending.
* Prepared a trial blend for each of the five aggregate sources.  Compacted one gyratory set and one set of Gmm for four of the five aggregate sources.
* Ran Gmm on the "control" mix.

**CRUMB RUBBER MIXTURE**A study for Puerto Rico to evaluate the effect of crumb rubber in asphalt mixtures began last Fall. This quarter, Dynamic modulus and Flow Number testing was completed. According to recommended NCHRP criteria, the crumb rubber mixture is suitable for projects with up to 10 million ESAL traffic loading over a 20-year design life.**Flow Number Results – GTR Mix**

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| --- | --- | --- |
| ***Flow Number*** | **Air Voids (%)** | **GTR Mix** |
| Sample #3 | 7.2 | 153 |
| Sample #4 | 7.5 | 94 |
| Sample #5 | 7.0 | 139 |
| Sample #6 | 7.2 | 264 |
|  |
| Average | 7.2 | 163 |
| Acceptable Traffic Level |  | 3 to < 10 Million ESAL |

**TRAINING**Eight technician training and certification courses were taught in Puerto Rico this quarter including Asphalt Level 1, Asphalt Level 2, and Aggregate Technician. A total of 120 technicians and engineers have been trained through this effort this quarter.**TECHNOLOGY TRANSFER/TECHNICAL MEETINGS:** Several agencies used funds this period to pay travel and registration expenses for employees to attend technical meetings such as ASTM, AASHTO, SEAUPG, and national meetings of technical interest. **Anticipated work next quarter**:Work is expected to resume on the LA DOTD project. Hopefully, contract details will be worked out with Iowa State.OGFC work for South Carolina will continue. Testing will also include aggregate breakdown and aggregate polishing with the British Pendulum test. All Gmm testing should be completed and some of the mix performance testing can begin.Alabama research on the effectiveness and performance of asphalt rejuvenators as a way of possibly improving performance of OGFC mixtures will continue.A training agenda for Puerto Rico for calendar year 2015 will be developed, and new courses will be added.A presentation of active projects and financial status of the Southeastern Superpave Center will be presented at theAnnual Superpave Center Management Committee meeting held in conjunction with the Southeastern Asphalt User/Producer Group Meeting in Nashville, Tennessee next month. |
| **Significant Results:**N/A |
| **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:** 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 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 developed and taught will help ensure qualified technicians who are familiar with agency specifications and test procedures will be involved in the asphalt binder and mixture acceptance process.Performance testing on OGFC mixtures will be used to improve specifications for OGFC mixtures by evaluating certain aggregateTypes and their material properties. |