TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Federal Highway Administration (FHWA)

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)*	**Transportation Pooled Fund Program - Report Period:**
TPF-5(178)	☐Quarter 1 (January 1 – March 31) ☑Quarter 2 (April 1 – June 30) ☐Quarter 3 (July 1 – September 30) ☐Quarter 4 (October 1 – December 31) Year: 2014

Project Title:
Implementation of the Asphalt Mixture Performance Tester (AMPT) for Superpave Validation

Name of Project Manager(s):	**Phone Number:**	**E-Mail**
Jeff Withee	202-366-6429	jeff.withee@dot.gov
Lead Agency Project ID:	**Other Project ID (i.e., contract #):**	**Project Start Date:** September 2008
Original Project End Date: September 2011	**Current Project End Date:** December 2015	**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
$3,872,196	$2,910,548	75%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
2%	$80,744	80%

Project Description:

This pooled fund study is open to any highway agency interested in using simple performance tests to aid in material characterization for design and analysis of flexible pavements. The objectives of this pooled fund study are to:

1) Nationally procure the AMPT for highway agencies interested in obtaining and using the AMPT to characterize asphalt mixtures designed using Superpave technology

2) Provide support in training technicians to use the AMPT to perform the proposed standard practices for measuring dynamic modulus, flow number, and flow time of asphalt mixtures compacted using the Superpave Gyratory Compactor (SGC)

3) Advance the nation-wide implementation and use of the AMPT for assessing performance of asphalt mixtures over a wide range of climatic conditions, materials, and structures.

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

- Work on implementation phase activities continued through a cooperative agreement between FHWA and the National Center for Asphalt Technology (NCAT.)
  + Dynamic Modulus and Flow Number Interlaboratory Study: The final report out webinar was held on April 16, 2014.
  + Friction Reducer Study: This evaluation study on the potential for spray silicone to improve the consistency and reduce the effort in fabrication of greased latex friction reducers continued. Initial results were reviewed and the direction for the remaining stages of this study was defined.

- Work on implementation phase activities continued through a cooperative agreement between FHWA and the Asphalt Institute.
  + Specimen Fabrication Ruggedness Study: The mixture conditioning oven temperature variability portion of the work concluded and the specimen fabrication phase is underway.
  + Fatigue Testing Study: A study plan was finalized to evaluate AMPT fatigue testing alongside other fatigue and cracking tests.

- One AMPT was ordered for VA.

Anticipated work next quarter:

- Work on the implementation support activities will continue with the National Center for Asphalt Technology. Details for the next quarter are listed after each activity.
  + Friction Reducer Study: Work will continue on the final stages of the evaluation.

- Work on the implementation support activities will continue with the Asphalt Institute. Details for the next quarter are listed after each activity.
  + Specimen Fabrication Ruggedness Study: Work will continue following the developed study plan.
  + Fatigue Testing Study: Specimen fabrication work began based on the study work plan.

- The AMPT on order for VA is expected to be delivered in August 2014.

Significant Results:

- A total of 57 technicians and engineers from pooled fund participating agencies and 82 overall have been trained on the Asphalt Mixture Performance Tester through NHI Course # 131118.

- Twenty-six (26) AMPTs have been ordered, delivered, and installed for pooled fund participant agencies. In addition, one AMPT has been ordered and one AMPT has been delivered and is pending installation.

- The National Pooled-Fund Workshop on the AMPT brought together over 70 members of the AMPT user community representing state DOTs, consultants, equipment vendors, universities, and FHWA to share best practices and identify future AMPT implementation needs.

- A synthesis report titled "Use of AMPT for Characterizing Asphalt Material Inputs for Pavement ME Design Implementation" was completed to document best practices.

- The AMPT Pooled-Fund Interlaboratory Study was completed and a final report on testing variability and investigation of air void effects is available.

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).

Revised end date to December 2015 to allow for completion of additional AMPT orders by states and implementation activities.

Potential Implementation:

The AMPT evaluates asphalt mixture properties to assess potential performance. Transportation agencies can use the AMPT to: develop inputs for the structural design of flexible pavements, evaluate new asphalt mixtures including warm mix asphalt (WMA), high reclaimed asphalt pavement (RAP) mixes, and recycled asphalt shingles (RAS) mixes, and obtain information helpful in monitoring asphalt mixes and performing quality assurance.