

## TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Virginia DOT (VDOT)\_\_\_\_\_.

### 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.*

<b>Transportation Pooled Fund Program Project #</b> <i>i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)</i>  <p style="text-align: center;">TPF-5 (141)</p>		<b>Transportation Pooled Fund Program - Report Period:</b> <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input checked="" type="checkbox"/> Quarter 3 (July 1 – September 30) <input type="checkbox"/> Quarter 4 (October 1 – December 31)	
<b>Project Title:</b> <p style="text-align: center;">Pavement Surface Properties Consortium: A Research Program</p>			
<b>Name of Project Manager(s):</b> Kevin Kenneth McGhee		<b>Phone Number:</b> (434) 293-1956	
<b>Lead Agency Project ID:</b> 82650		<b>Other Project ID (i.e., contract #):</b>	
<b>Original Project End Date:</b> 6/30/2011		<b>Current Project End Date:</b> 6/30/2013	
		<b>E-Mail</b> Kevin.McGhee@VDOT.Virginia.gov	
		<b>Project Start Date:</b> 7/1/2006	
		<b>Number of Extensions:</b> 1	

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
\$ 1,441,614	\$ 1,321,011	92%

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:**

Through a regional pooled fund, this program of research will focus on optimizing pavement surface texture characteristics. The initial focus of the program will be the application of inertial and laser-based equipment for measuring pavement surface properties. The five-year program will involve at least the following:

- Establish equipment comparison and verification facility and host annual equipment roundup
- Evaluate new and existing methods and technologies for measurement of functional highway surface properties
- Conduct specific studies that require measurement of pavement surface properties under controlled traffic or environmental conditions on different surfaces.

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

- Completed the initial processing and analysis of the 2011 Rodeo data, so that the Final Report can be completed this quarter and distributed to all members.
- Attended the Road Profilers Users Group (RPUG) meeting held in Stateline, NV on September 27-29, 2011 and made a presentation about the FHWA Pavement Friction Management Program. A second presentation was made acknowledging the Grinding and Grooving Association for the work on the two Rigid Pavement sections at the Smart Road, with preliminary profiler results from this year's Rodeo on these sections, especially to highlight problems encountered by single-spot profilers on these surfaces.
- Prepared a draft 1-page technical note on tire-pavement friction that was submitted to FHWA for review.
- The Grip Tester Loan Program continues with Grip Tester #2 in the Transportation Laboratory of CALTRANS in Sacramento, California. This unit used by CALTRANS will be brought back to Blacksburg before the end of the year.
- Support work for the organization of the *7th Symposium on Pavement Surface Characteristics (SURF 2012)* included:
  - Flintsch attended the meeting of the PIARC in Mexico City, Mexico on September 26-30 to promote the conference and meet with the Scientific Committee chair and PIARC representatives.
  - The abstracts of the papers have been reviewed and more than 100 authors have been invited to submit paper or presentations.
  - The hotel has been secured and the local organizing committee has 3 monthly meetings to plan the conference logistics.
- Finished the review of the data collected for the seasonal variation and determined that it is not possible to develop a temperature-based model that can more universally apply. A new proposal will be made in this quarter to address this study.
- A paper on "Limits of Agreement Method for Comparing Pavement Friction Measurements," was submitted for the *91<sup>st</sup> Annual Meeting of the Transportation Research Board*, Washington, D.C., in January 2012 and was accepted for presentation and publication. Also presented was a paper co-authored with L. Fuentes "Determination of Pavement Macrotexure Limit for use in the IFI index".
- Submitted a paper on "Assessment of Operational Characteristics of Continuous Friction Measuring Equipment (CFME)," to the *International Journal of Pavement Engineering*.

**Anticipated work next quarter:**

- Continue support of the organization of the 7<sup>th</sup> International Symposium on Pavement Surface Characteristics (SURF 2012).
- Continue managing the Grip Tester Friction Loan Program.
- Review will be made of the papers submitted for the 2011 Annual Meeting of the Transportation Research Board based on the feedback received from the reviewers and the corresponding presentations will be started.
- Present a paper at the International Conference on Managing Pavement Assets (ICMPA 2011), which includes the Grip-Val software presentation in Santiago, Chile Nov, 14-17.
- As a result of the experiments made last year in August for the validation of the GT and HFT units, a paper will be presented in the ASTM Symposium in Tampa on December 5-7 titled “Effects of Water, Speed, and Grade on Continuous Friction Measurement Equipment (CFMEs)” and also participate in the E17 Committee meetings.
- Continue the development of a “Little Book of Friction.”

**Significant Results:**

- The presentation made at the Road Profilers Users Group (RPUG) meeting held in Stateline, NV on September 27-29, 2011 about the FHWA Pavement Friction Management Program was very well received and paved the way for starting the interest of some of the stakeholders in the study that will participate as the first states to implement Pavement Friction Management Programs PFMP as part of this study, particularly North Carolina, Ohio and Texas. The other recommended participant, Florida, will be contacted during the ASTM Symposium meeting in December.

**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 problems were encountered in this quarter.

**Potential Implementation:**