

## 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>  <b>TPF-5(345) Pavement Surface Properties Consortium – A Research Program at the Virginia Smart Road Phase II</b>		<b>Transportation Pooled Fund Program - Report Period:</b> <input checked="" type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input 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;"><b>Pavement Surface Properties Consortium: A Research Program</b></p>			
<b>Name of Project Manager(s):</b> Kevin Kenneth McGhee		<b>Phone Number:</b> (434) 293-1956	<b>E-Mail</b> <a href="mailto:Kevin.McGhee@VDOT.Virginia.gov">Kevin.McGhee@VDOT.Virginia.gov</a>
<b>Lead Agency Project ID:</b> 82650		<b>Other Project ID (i.e., contract #):</b>	<b>Project Start Date:</b> 5/19/2016
<b>Original Project End Date:</b> 2/28/2022		<b>Current Project End Date:</b> 2/28/2022	<b>Number of Extensions:</b> --

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
\$418,500*	\$43,077	10%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$6,705 (2%)	\$6,705	10%

\* Committed; the actual contracted budget is \$159,981

**Project Description:**

Through a regional pooled fund, this program of research focuses on optimizing pavement surface texture characteristics. Phase I of the program demonstrated that a collaborative research program provided an accessible and efficient way for highway agencies and other organizations to conduct research on pavement surface properties. This second phase focuses on addressing some of the emerging challenges in the evaluation of pavement surface properties and the changes needed to best support the next generation of pavement and asset management systems, including support for MAP21-related initiatives. The program includes the following main broad activities: (1) equipment rodeos, (2) technology transfer, and (3) research on emerging topics.

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

- Participated in the 96<sup>th</sup> Annual Meeting of the Transportation Research Board, January 8-12, 2017 in Washington, D.C.
  - Edgar de León Izeppi provided an update on the Task Group III Texture Measurement and Use report at the AFD90 Standing Committee on Surface Properties – Vehicle Interaction during the TRB Annual Meeting.
  - Edgar de León Izeppi and Kevin McGhee presented a poster recognizing AASHTO Region II High-Value Research – *Continuous Friction Measurement as a Tool for Improving Crash Rate Prediction: Pilot Study*.
  - Gerardo Flintsch made an invited presentation at the ISAP TC on Constitutive Modelling 2017 Yearly Meeting.
- Started the organization of the 11<sup>th</sup> Annual Surface Properties Rodeo to be held in Blacksburg on June 6-10, 2017 at the Smart Road.
- Finalized the draft report summarizing the results of the 10<sup>th</sup> Annual Surface Properties Rodeo and distribute it for review. The research team will summarize the processing of the friction and the profile data collected in May 2016 in Blacksburg
- Prepared a proposal to re-focus the consortium on developing and deploying asset management approaches and tools that help improve the safety of our road networks by reducing the number of crashes and related fatalities.

**Anticipated work next quarter:**

- Host the 11<sup>th</sup> Annual Surface Properties Rodeo at the Smart Road.
- Host the Annual TAC Meeting in Blacksburg, VA.

**Significant Results:**

- The final version of the paper “Pavement friction management–artificial neural network approach,” by Najafi, S., Flintsch, G.W, Khaleghian, S. was published online by *International Journal of Pavement Engineering*.

**Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might 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:**