

## 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.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))  <b>TPF-5(463) Pavement Surface Properties Consortium: Phase III - Managing the Pavement Properties for Improved Safety</b>		<b>Transportation Pooled Fund Program - Report Period:</b> <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input checked="" 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 Phase III</b></p>			
<b>Name of Project Manager(s):</b> Harikrishnan Nair	<b>Phone Number:</b> (434) 293-1948	<b>E-Mail</b> <a href="mailto:harikrishnan.nair@VDOT.Virginia.gov">harikrishnan.nair@VDOT.Virginia.gov</a>	
<b>Lead Agency Project ID:</b> 82650	<b>Other Project ID (i.e., contract #):</b> 467191 (VT)	<b>Project Start Date:</b> 1/01/2021	
<b>Original Project End Date:</b> 9/30/2026	<b>Current Project End Date:</b> 9/30/2026	<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
\$1,750,000*	\$739,465	42%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$133,402 (7.6%)	\$133,402	42%

\* Committed; includes direct transfer from Arkansas DOT. The actual contracted budget is \$939,981 (VTI).

## Project Description:

This applied research effort focuses on enhancing the level of service provided by the roadway transportation system by optimizing pavement surface characteristics. Phases I and II included regular verification and validation of the participants' equipment, opportunities for technology transfer, and the accumulation of a significant body of knowledge on the measurement of pavement surface properties and the integration of these measurements into the next generation of pavement asset management systems. The objective this phase is: (1) to continue to support the implementation of asset management approaches and tools that help improve the safety of our road networks by reducing the number of crashes and related fatalities, and (2) to bring pavement design and evaluation experts together with maintenance and safety professionals to maximize the contribution of the pavement community Towards Zero Deaths on US highways.

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

- The FHWA SCRIM was used by the Pavement Friction Management (PFM) and Continuous Pavement Friction Measurement (CPFM) to Intersection Safety Focus States project to make a demonstration of the CPFM equipment in Sarasota, Florida (District 1) where around 150 miles were surveyed in each state. These results will be presented to the DOT after merging the data with crashes and pavement surface mix types, and other relevant information.
- From April 29 to May 2, 21 members representing 11 states from the pooled fund participated in the *2023 Road Profiler's Users Group (RPUG) Conference* in St. Augustine, Florida. During the conference, several presentations were made by CSRI:
  - ✓ On April 29, the pooled fund held the Technical Advisory Committee meeting to discuss several TAC topics and listen to the presentations listed below. The meeting had 84 attendees.
    - Gerardo Flintsch gave a presentation to show the financial details of the pooled fund.
    - Edgar de León Izeppi made a presentation reporting the results of the Pooled Fund Rodeo in ICART in 2023 and the proposals to continue with the certification efforts for friction and macrotexture devices. These results had already been reviewed by the TAC members on an online meeting on April 16, 2024.
    - Several vendors that manufacture macrotexture equipment made small presentations on the equipment they are currently making. Participants included Pathways, SSI, WDM, and Mandli.
    - Bjorn Zachrisson from NIRA made a presentation about the friction data available through their platform.
  - ✓ Edgar de León Izeppi made a presentation, reporting on Evaluating the relationships between different testing systems used on roadways to measure friction and macrotexture on state highway agencies to assess similar friction characteristics (microtexture and macrotexture), which dealt with the results of the Pooled Fund Rodeo results in the ICART in 2023.
  - ✓ Behrokh Bazmara (VTTI student) made a presentation on the Application of Neural Network in Predicting Pavement Macrotexture.
  - ✓ On Wednesday May 1<sup>st</sup>, the Pooled Fund's chair, John Senger made a presentation on the new projects considered at the new ICART test track for Pavement Evaluation Tests.
- From June 22 – 26, 10 members representing 9 states from the pooled fund participated in the *2<sup>nd</sup> International Roadside Safety Conference (TRB)* in Orlando, Florida. During the conference, the pooled fund helped organize several presentations in the two pre-conference workshops that took place on Sunday June 22:
  - ✓ Morning Session: Building on Successes of Managing Pavement Friction to Support Safety Performance and Safer Roads - An International Perspective, with presentations from *France, Italy, The Netherlands, Austria, United Kingdom, and New Zealand*.
  - ✓ Afternoon Session: Safer Roads through Management of Pavement Friction and Safety Performance, with participation from of the following pooled-fund representatives :
    - Continuous Pavement Friction Measurement: A History of US Implementation, Edgar de León Izeppi, VTTI.
    - CPFM and Safety: Network Level Implementation, Mike Vaughn, Kentucky Transportation Cabinet.
    - Illinois and Pavement Friction Management Programs, John Senger, Illinois DOT.
- CSRI continued processing the data collected in Arkansas and collected 800 more miles of data. The rest of the data will be collected later in the year.

**Anticipated work next quarter:**

- Delays due to software issues in the collection of the data have slowed the completion of the installation of the new macrotexture line laser in the FHWA CPM truck. This new tool is expected to begin making measurements in the third quarter of the year after finishing the upgrades necessary in the processing software.
- Schedule an online meeting with the pooled fund members to review the activities that are planned for a Rodeo in 2025. This will also serve to explain the advances to the initiatives being made to the certification efforts for friction and macrotexture that are being investigated by CSRI.

**Significant Results:**

**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).**

**Potential Implementation:**