

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.

Transportation Pooled Fund Program Project # <i>(i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i> TPF-5(463) Pavement Surface Properties Consortium: Phase III - Managing the Pavement Properties for Improved Safety	Transportation Pooled Fund Program - Report Period: <input 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 checked="" type="checkbox"/> Quarter 4 (October 1 – December 31)	
Project Title: <div style="text-align: center;">Pavement Surface Properties Consortium Phase III</div>		
Name of Project Manager(s): Harikrishnan Nair	Phone Number: (434) 293-1948	E-Mail harikrishnan.nair@VDOT.Virginia.gov
Lead Agency Project ID: 82650	Other Project ID (i.e., contract #): 467191 (VT)	Project Start Date: 1/01/2021
Original Project End Date: 9/30/2026	Current Project End Date: 9/30/2026	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
\$1,840,000*	\$500,815	28%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$114,601 (6.4%)	\$114,601	28%

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

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 continuing 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.):

- CSRI continued the processing and analysis of the data collected during the 2023 Rodeo in ICART in Illinois.
- CSRI completed the analysis of first phase of data collection in Arkansas (approximately 800 miles) and prepared a presentation of the preliminary results for the DOT staff.
- CSRI leadership has delivered several presentations at various events as part of the consortium outreach activities, including:
 - ✓ Edgar de León Izeppi participated in the *Facts & Friction: Pavement Friction Management Workshop*, organized by the Maryland SHA as the leading agency in their office in Baltimore on Thursday October 6, 2023. He delivered the presentation "Pavement Friction Management US Perspective". Several members (2) of the pooled fund participated remotely to deliver a presentation about their experiences with CPFM. This event had more than 35 in-person attendees and more than 100+ on-line participants.
 - ✓ Gerardo Flintsch and Edgar de León Izeppi participated in the E-RPUG meeting held in Athens, Greece on October 24-27, 2023. Gerardo made the presentation "Collecting network-level pavement structural capacity and blurring the line between network and project-level pavement asset management". Edgar made the presentation "Update on Cycle Path Research in the US" and provided updates on various efforts of the consortium and other CSRI initiatives.
 - ✓ Edgar de León Izeppi from CSRI was invited to Marco Island, Florida by the International Grinding and Grooving Association for their annual meeting held on Tuesday December 12, 2023. He made the presentation "Using Continuous Pavement Friction Measurements (CPFM) to reduce Roadway Crashes in the US" and participated in several discussions highlighting the benefits that increased macrotexture has on friction. Grooving pavement surfaces increases macrotexture on pavements.
- CSRI contributed the 2024 annual Meeting of the Transportation Research Board.
 - ✓ The workshop related to CPFM that CSRI co-organized has been accepted and will take place on Sunday January 7, 2024, in Washington DC from 9am to 12pm. This workshop will have the participation of several members (4) from the Pooled Fund and the collaboration of several TRB standing committees: AKP50, ACS20, and AKP10.
 - ✓ A presentation on the advances made in 2023 by CSRI with the consortium will be made in the TRB AKP50 Committee Meeting in the Safety and Environmental Group V report.
 - ✓ The following papers were accepted for the 2024 Annual TRB Meeting:
 - "Using the Estimated Available Friction at the Posted Speed as a Pavement Safety Performance Measure on Freeways, Monday," 8-9:45am, poster session 2048.
 - "Estimating Potential Crash Reduction for Friction Enhancement Treatments," Monday 10:15-12pm, poster session 2096.
 - "Predicting Crash Reduction with Crash Modification Factors for Friction and Macrotexture," Wednesday, 8-9:45am, lectern session 4003.

Anticipated work next quarter:

- CSRI staff will continue processing the Rodeo data to present to the TAC group and all other participants next year.
- The FHWA SCRIM will be used for the Arkansas DOT project to continue the data collection. CSRI will start to plan the second phase of the measurements that will start in May 2024.
- Schedule an online meeting with the pooled fund members to finalize the arrangements for an in-person TAC meeting during the RPUG 2024 conference to be held in April 29-May 2, 2024, in Saint Augustine, Florida. The pooled fund is also contemplating the possibility of attending in person the TRB Roadside Safety Conference to be held in Orlando, Florida on June 23-26, 2024.

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: