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.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)* **TPF-5(518) Implementation of Structural Data from Traffic Speed Deflection Devices**	**Transportation Pooled Fund Program - Report Period:** ☐ Quarter 1 (January 1 – March 31) ☐ Quarter 2 (April 1 – June 30) ☑ Quarter 3 (July 1 – September 30) ☐ Quarter 4 (October 1 – December 31)

Project Title:

Implementation of Structural Data from Traffic Speed Deflection Devices

Name of Project Manager(s):	**Phone Number:**	**E-Mail**
Brian Diefenderfer	(434) 293-1944	brian.diefenderfer@vdot.virginia.gov
Lead Agency Project ID:	**Other Project ID (i.e., contract #):**	**Project Start Date:**
	467764 (VT)	2/1/2024
Original Project End Date:	**Current Project End Date:**	**Number of Extensions:**
9/30/2028	9/30/2028	--

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
$7,494,000*	$ 3,167,292	38%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
$ 330,512 (4%)	$ 330,512	38%

* Committed; the actual contracted budget is $4,307,500 (VTTI)

Project Description:

The objectives of this follow-on pooled fund study include continuation of an existing research consortium that focuses on providing participating agencies guidance on how to specify and implement TSDD data within their respective pavement management systems and processes. Specific tasks within this multi-year program will be developed in cooperation with the partner agencies.

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

- Finalized the purchase of the LDV to be used for equipment verification.
- Conducted Phase V of the verification testing of the ARRB TSDDs on August 20-21, 2025 at the Virginia Smart Road (two sections).
- Organized the 4th TSDD Symposium in Alexandria on September 16-17, 2025.
- Finalized the list of routes for repeated testing and shared with ARRB Systems. Data has been collected and delivered.
- Posted and received responses to the Request for Quotations (RFQ) for TSDD data collection over the next year(s) of the pooled fund.
- Continued work on the QA/QC software application and on the verification report.

Anticipated work next quarter:

- Finalize the TSD verification report (Phase I to IV of the work performed).
- Finalize the TSD QA/QC data collection report.
- Evaluate the responses to the RFQ (for TSDD data collection) and present the results to the technical panel. Share technical panel results with pooled fund members and vendors that submitted a response to the RFQ.
- Perform verification of the RoadRunner TSDD at the Virginia Smart Road in early October.
- Review data of repeated testing.
- Prepare for the pooled fund meeting on Thursday January 11, 2026.

Significant Results:

- Three papers have been accepted for presentation at the 2026 TRB Annual Meeting on January 2026:
  - ✓ Urbaez, E., Tong, B., Katicha, S.W., and Flintsch, G. “Validating Pavement Deflection Velocity Response Collected by Non-Contact LDV Sensors Using 3D-Finite Element Model”
  - ✓ Urbaez, E., Katicha, S.W., Flintsch, G., and Diefenderfer “Use of Laser Doppler Vibrometers to Verify Pavement Deflection Velocity Collected by Traffic Speed Deflectometers (TSDs)”
  - ✓ Murekye, A., Amarh, E., Katicha, S.W., Flintsch, G., and Diefenderfer “Network-Level Pavement Structural Monitoring Using Repeated Traffic Speed Deflectometer Surveys”

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: