

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(385) Pavement Structural Evaluation with Traffic Deflection Devices (TSDDs)		Transportation Pooled Fund Program - Report Period: <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)	
Project Title: Pavement Structural Evaluation with Traffic Speed Deflection Devices (TSDDs)			
Name of Project Manager(s): Brian Diefenderfer	Phone Number: (434) 293-1944	E-Mail brian.diefenderfer@vdot.virginia.gov	
Lead Agency Project ID:	Other Project ID (i.e., contract #): 449904 (VT)	Project Start Date: 10/15/2018	
Original Project End Date: 9/30/2021	Current Project End Date: 10/31/2023	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
\$5,997,000*	\$ 3,419,361	57%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$159,681(4%)	\$159,681	57%

* Committed (including 2 transfers from FHWA EFL); the actual contracted budget is \$5,201,677 (VTTI)

Project Description:

The objective of the pooled-fund is to establish a research consortium focused on providing participating agencies the opportunity to test available TSDDs as part of a demonstration project and providing guidelines on how to specify collection and use data collected with TSDDs. Specific tasks within this multi-year program will be developed in cooperation with the consortium participants.

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

- Held the TAC meeting on January 13th 2022 at the Walter E. Convention Center in Washington DC.
- Organized a follow up meeting (to the TAC meeting) to plan for the meeting of TPF members to exchange experience with TSD data analysis. A date for the meeting has been tentatively set for the last week of September 2022.
- Prepared and shared meeting minutes for the two meetings listed above.
- Finalized, *Guideline for Pavement Management Implementation of TSD* and shared the document and received feedback from some of the pooled fund members (GDOT).
- Prepared draft report summarizing the first 6 organized webinar
- Continued analysis of Eastern Federal Lands special project TSD data; this included adding traffic data to the analysis.
- Started support of Wisconsin DOT in the analysis of TSD data on select roads.
- Analyzed data collected at MnRoad regarding the evaluation of joints in a jointed concrete pavement.

Anticipated work next quarter:

- Organize 7th webinar in May (delayed from March).
- Finalize location (in the northern Virginia area) and date of meeting of TPF members to exchange experience with TSD data analysis. This includes contacting possible venues to reserve room space.
- Perform a survey with the pooled fund members to determine the number of participating agencies that have undergoing projects that can be presented during the planned September meeting.
- Plan for a mid-year TAC meeting (virtual) in July or August.
- Distribute final version of *Guideline for Pavement Management Implementation of TSD*
- Plan for the third round of subgroup meetings
- Finalize report summarizing the first 6 organized webinar
- Share for review the document *Guidelines and Specifications for TSDD Data Collection*
- Attend conference in Chicago and present at a workshop/session on the use of TSDD data for pavement management.

Significant Results:

The following papers have been produced:

- Katica, S.W, Flintsch, G.W., and Diefenderfer, B.K. (2022) Ten Years of Traffic Speed Deflectometer Research in the United States: A Review, *Transportation Research Record* (In Print)
- Shrestha, S., Katica, S.W., Flintsch, G.W., and Diefenderfer, B.K. (2022) Implementing Traffic Speed Deflection Measurements for Network Level Pavement Management in Virginia, *Journal of Transportation Engineering, Part B: Pavements*, 148 (2), 04022021.

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: