

## TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Ohio Department of Transportation

**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>  <p style="text-align: center;">TPF-5(356)</p>	<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> Structural Design Methodology for Spray Applied Pipe Liners in Gravity Storm Water Conveyance Conduits		
<b>Name of Project Manager(s):</b> Jeffrey Syar	<b>Phone Number:</b> 614-275-1373	<b>E-Mail:</b> jeffrey.syar@dot.ohio.gov
<b>Lead Agency Project ID:</b> SJN: 135417	<b>Other Project ID (i.e., contract #):</b> PID: 103453	<b>Project Start Date:</b>
<b>Original Project End Date:</b>	<b>Current Project End Date:</b>	<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
\$450,000.00	\$0.00	0%

**Quarterly** Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$0.00	\$0.00	0%

**Project Description:**

Spray applied pipe liners is a trenchless technology that provides a method to structurally rehabilitate concrete and metal gravity storm water conveyance conduits with minimal impact to the travelling public. The liner consists of a cementitious or resin based material that is applied in an existing host storm water conveyance conduit via a centrifugal remote applicator or by manual application. Sufficient soil support and stabilization of the host conduit is required prior to placement of the spray applied liner. The liner will provide the structural load carrying capacity without the requirement to adhere to the host conduit. No single structural design methodology for a spray applied pipe liner currently exists. Vendors either apply design equations outlined in ASTM F1216, which are for Cured In Place Pipe (CIPP), or they use a variety of design approaches and conservatively select the maximum pipe liner material thickness.

Several DOT's have implemented structural spray applied pipe liners despite the lack of a national design standard or with the understanding that they will be designed according to CIPP design equations.

**Objectives:**

- Recommend a design methodology for both cementitious and resin based spray applied pipe liners for structural rehabilitation of gravity storm water conveyance conduits.
- Recommend a laboratory test method to verify the proposed structural design for conduits that have been rehabilitated using the spray applied pipe liner technology.
- Recommend an accelerated laboratory methodology to determine the liner material durability.
- Recommend laboratory material testing for both cementitious and resin based materials.

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

RFP issued on February 2017.

6 states committed funding – Florida, Minnesota, New York, North Carolina, Ohio and Pennsylvania

The amount of funds needed increased based on the draft proposals, and the states have increased their commitments by \$50,000.00 each. Now each state is committing \$75,000.00.

Proposals were reviewed with the technical team.

**Anticipated Work Next Quarter:**

Issue a contract for the project

**Significant Results:**

**Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).**

The amount needed increased based on the draft proposals, and the states have increased their commitments.

**Potential Implementation:**

