TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Mn/DOT

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(215)	**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: Transportation Engineering and Road Research Alliance (TERRA)		
Name of Project Manager(s): Maureen Jensen	**Phone Number:** 651-366-5507	**E-Mail** maureen.jensen@state.mn.us
Lead Agency Project ID: TPF-5(215)	**Other Project ID (i.e., contract #):**	**Project Start Date:** 7/21/2009
Original Project End Date: 7/2014	**Current Project End Date:** 7/2014	**Number of Extensions:** 0

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
$157,500	$113,518	75%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
$25,604	$25,604	75%

Project Description:

TERRA is a consortium of government, industry and academia in a dynamic partnership to advance innovations in road engineering and construction, including issues related to cold climates. TERRA's research program is built on the principle of collaboration to meet research needs, and focuses on transforming the MnROAD facility from a Minnesota resource to a regional, national, and international research center. TERRA's partnering efforts reach beyond Minnesota to include transportation organizations in other states and in Europe.

The main objectives of the TERRA is to:

• Guide future pavement research investments and activities;
• Exchange information, share ideas, and learn research results;
• Develop relationships, and provide a network for expanded collaboration and development of proposals;
• Attract key public, industry, academic and other program partners to contribute resources;
• Expand entrepreneurial use of the capacity and capabilities of the MnROAD facility by pursuing opportunities to serve a broader research community.

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

• New Industry member joined TERRA
• All Subcomittees met and developed draft action plans for 2014
• January E-news distributed.
• Annual Pavement Conference held in February in conjunction with board meeting
• Fact Sheet on porous asphalt and 2012 highlights published.(http://www.terraroadalliance.org/publications/).
• Combined Coordinating and Strategic planning subcommittees met and developed a draft strategic and operational plans that were reviewed at the board meeting.
• • The Member and Partner Engagement Committee met January 10, 2013 and discussed engagement of federal and regional agencies, the strategic and operational planning, and TERRA membership. Notes were prepared and distributed.
• The Research and Implementation Committee met January 31, 2013 and Larry Galehouse gave a presentation on the National Center for Pavement Preservation; the group also discussed the MnDOT State Aid 2013 design build rehab initiative, the project selection process, and communications products. Notes were prepared and distributed.
• The Coordinating Committee met January 9, 2013 and February 6, 2013 and discussed the strategic and operational planning, the draft February board meeting agenda, and TERRA events. Notes were distributed following the meeting.
• The board met February 13, 2013; key agenda items included new member introductions, reviewing the draft report for strategic and operational planning, updates to project selection process, new members' spotlight presentations, and a presentation by Lev Khazanovich and Kyle Hoegh of the University of Minnesota on the topic of "Ultrasonic Tomography Techniques to Investigate Concrete Pavement Non-Destructivity."
• The January 2013 E-News (Vol. 7, No. 1) was distributed on January 31, 2013 (http://www.terraroadalliance.org/news/enews/2013/01/).

Anticipated work next quarter:

- Details of the strategic plan and committee realignments will be completed.
- Board and subcommittee meetings will be held
- Annual Pavement Conference will be held on Feb 14
- Publish an e-news and technical summary
- Establish agenda for DARWIN peer exchange to be held in Wisconsin

Significant Results:

Many of the pooled fund projects are completing and will be implemented over the coming year (low temperature cracking performance test for example)

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).

Potential Implementation:

The TERRA sponsored pooled fund on design of Unbonded concrete overlays will produce a tool for designers, as well as models/guidance that can be incorporated into future versions of DARWIN ME

Several of the MnROAD research projects also have potential or are being implemented:
- Implements of Husbandry: Wisconsin association of nutrient haulers are using different equipment, and some modification to the use of roads in the spring is occurring due to the results of the study.
- Surface characteristic studies for improved performance of asphalt and concrete surfaces
- Thin Whitetopping design tool will be initially released for use this summer

We are planning to develop a research implementation document that highlights all the implementation occurring from these projects.