

Virginia Transportation Research Council  
Contract/Grant Progress Report

**Project No:** TPF-5(229)      **Starting Date:** 9/1/10      **Target Completion Date:** 8/31/13  
**Project Title:** Characterization of Drainage Layer Properties for MEPDG  
**Performing Agency:** Virginia Tech  
**Principal Investigator(s):** Linbing Wang  
**Date of This Report:** 4/30/11      **Next Report Due Date:** 07/31/11

**Project Description:**

The objectives of this pooled fund study are to develop methods for characterizing the elastic modulus and strength of pavement drainage layers for the Mechanistic-Empirical Pavement Design Guide (MEPDG), to perform analysis of the stability and failure of the drainage layer in the pavement structure, and to develop specifications for required minimum porosity for effective drainage.

**Research Activities Pursued This Period:**

- \* Performed a thorough literature review on resilient modulus of high porosity materials
- \* Identified the current practice on how the drainage layer is considered in the pavement structural design
- \* Prepared laboratory equipment and trained personnel for resilient modulus testing
- \* Selected drainage-layer materials according to participating states needs

**Problems Encountered:**

None.

**Activities Planned for Next Period:**

- \* Acquire adequate materials from participating states
- \* Conduct resilient modulus tests of the selected materials

**Budget Status:**

Current FY Project Budget: \$270,000		Project Budget Lifetime: \$270,000
Current FY Expenditures: \$15,250.0	as of 4/1/2011	Expenditures LTD: \$30,000
Percent Expended this FY: 5.9 %	(Date)	Percent Expended LTD: 11.0%

**Timetable:** Project is (check):

On Schedule   
 Behind Schedule \*  (explain above)  
 Ahead of Schedule

Preparer's Signature:

*LB Wang*

Date: 4/30/11