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16. Abstract This brief summary report documents the main findings from the work done in the last fiscal year. This summary report is composed of three major components: 1) Overlay Tester for crack sealants and associated draft test protocol, 2) repeatability of Overlay Tester for crack sealant, and 3) sensitivity of Overlay Tester for crack sealant. Finally, this report discusses the work recommended by the Pavement Monitoring Committee on October 11, 2006.					
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**PRELIMINARY RESULTS OF REPEATABILITY AND SENSITIVITY
STUDY ON OVERLAY TESTER FOR CRACK SEALANTS**

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There is no invention or discovery conceived or first reduced to practice in the course of or under this contract, including any art, method, process, machine, manufacture, design or composition of matter, or any new useful improvement thereof, or any variety of plant, which is or may be patentable under the patent laws of the United States of America or any foreign country.

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- Jerry Peterson, P. E.
- Ted Moore, P. E.
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PRELIMINARY RESULTS OF REPEATABILITY AND SENSITIVITY STUDY ON OVERLAY TESTER FOR CRACK SEALANTS

Per discussion with the Project Monitoring Committee (PMC) for Project 0-5457 at the Texas Transportation Institute (TTI) office during the Texas Department of Transportation (TxDOT) short course on October 11, 2006, this report summarizes and presents progress in a very brief format. This brief summary report is composed of four major components: 1) Overlay Tester for crack sealant and associated draft test protocol, 2) repeatability of Overlay Tester for crack sealants, 3) sensitivity of Overlay Tester for crack sealants, and 4) further research recommended by the PMC on October 11, 2006. Detailed information is presented below:

1. Overlay Tester for Crack Sealant and Associated Draft Test Protocol

After being authorized by the PMC in February 2006, TTI ordered a new Overlay Tester for evaluating crack sealant performance. In late June 2006, the manufacturer delivered the Overlay Tester machine shown in Figure 1 to TTI. After fixing several software and hardware problems, the Overlay Tester is working well. At the end of this project, this Overlay Tester machine will be delivered to TxDOT. The new features of this new Overlay Tester machine are as follows:

- 1) test temperature: +95 to +23 °F (+35 to -5 °C),
- 2) maximum opening displacement: 0 to 0.5 inch (0 to 12.5 mm), and
- 3) loading time: 0.1 to 3600 sec.

