



**OREGON DEPARTMENT OF TRANSPORTATION**

Research Unit  
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Salem, OR 97301

**SPR Quarterly Progress Report**  
January 1, 2009 through March 31, 2009

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Date April 2, 2009

**TO:** Technical Advisory Committee Members:  
Rene Renteria, Oregon Department of Transportation  
Norris Shippen, Oregon Department of Transportation  
Jim Huddleston, Asphalt Paving Association of Oregon  
Anthony Boesen, Federal Highway Administration

**FROM:** Norris Shippen, Research Coordinator; phone: (503) 986-3538

**1. Project**

Mechanistic Pavement Design Instrumentation  
SPR # 672

**2. Key Dates**

Start Date for ODOT:  
Completion Date for ODOT:

**3. Principal Investigator**

Todd Scholz  
School of Civil and Construction Engineering  
100 Merryfield  
Oregon State University  
Corvallis, OR 97331

**4. Progress**

- Doug Meeuwssen (grad student) will be graduating in June; therefore he has been continuously training Tom Hammer (research faculty) to take over data collection duties.
- Development of a lab-based training station (to simulate field measurements) has been initiated.
- Data was collected at both I-5 and Redmond sites as indicated in the following table:

Location	Date	Strain	WIM
Dever-Conner	13-Mar-09	Yes	Yes
Dever-Conner	20-Feb-09	Yes	Yes
Dever-Conner	9-Jan-09	Yes	Yes

Redmond	1-Apr-09	Yes	Yes
Redmond	Did not collect data in March		
Redmond	27-Feb-09	Yes	Yes
Redmond	16-Jan-09	Yes	Yes

- Lateral truck displacement algorithm outputs were verified using photographs.
- The data acquisition system conversion from the IoTech software to solely Labview was completed. This included a simplified user interface for both data acquisition and post processing.

**5. Problems**

- Nothing significant.

**6. Work Planned for Next Quarter**

- FWD testing at the Redmond site.
- Data reduction and analysis of the FWD test results from the Redmond site.
- Continued WIM/strain data collection at the I-5 and Redmond sites on a monthly basis.
- Data reduction and analysis of the WIM/strain data.

**7. Finances**

SPR Project Summary

VENDOR	FY'08	FY'09	FY'10	FY11	TOTALS
ORIGINAL BUDGET					\$ -
REVISED BUDGET	\$ -	\$ 32,500	\$ 44,281		\$ 76,781
EXPENDITURES - VENDOR	\$ -	\$ 15,883	\$ -	\$ -	\$ 15,883
BALANCE	\$ -	\$ 16,617	\$ 44,281	\$ -	\$ 60,898

ODOT	FY'08	FY'09	FY'10	FY11	TOTALS
ORIGINAL BUDGET	\$ 87,500	\$ 87,500			\$ 175,000
REVISED BUDGET	\$ 2,205	\$ 11,000	\$ 2,500		\$ 15,705
EXPENDITURES - ODOT	\$ 2,205	\$ 10,672	\$ -	\$ -	\$ 12,877
BALANCE	\$ -	\$ 328	\$ 2,500	\$ -	\$ 2,828

PROJECT	FY'08	FY'09	FY'10	FY11	TOTALS
ORIGINAL BUDGET	\$ 87,500	\$ 87,500	\$ -	\$ -	\$ 175,000
REVISED BUDGET	\$ 2,205	\$ 43,500	\$ 46,781	\$ -	\$ 92,486
EXPENDITURES - PROJECT	\$ 2,205	\$ 26,555	\$ -		\$ 28,760
BALANCE	\$ -	\$ 16,945	\$ 46,781	\$ -	\$ 63,726