**TRANSPORTATION POOLED FUND PROGRAM**

**QUARTERLY PROGRESS REPORT**

Date: \_\_\_\_\_\_April 29, 2016\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lead Agency (FHWA or State DOT): \_\_\_\_\_\_Washington State 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.*

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| **Transportation Pooled Fund Program Project #***SPR-3(074)* | **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:****State Pavement Technology Consortium (SPTC)** |
| **Name of Project Manager(s):****Lu Saechao** | **Phone Number:****360.705.7260** | **E-Mail**saechal@wsdot.wa.gov |
| **Lead Agency Project ID:** | **Other Project ID (i.e., contract #):****multiple** | **Project Start Date:**1999 |
| **Original Project End Date:** | **Current Project End Date:****7/31/2015** | **Number of Extensions:** |

Project schedule status:

X On schedule □ On revised schedule □ Ahead of schedule Behind schedule

Overall Project Statistics:

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|  **Total Project Budget** |  **Total Cost to Date for Project** |  **Percentage of Work**  **Completed to Date** |
| $844,371.43 | $844K | 100% |

***Quarterly*** Project Statistics:

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|  **Total Project Expenses**  **and Percentage This Quarter** |  **Total Amount of Funds**  **Expended This Quarter** |  **Total Percentage of**  **Time Used to Date** |
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| **Project Description**:Under this project, each state will create funding to allow technical staff and university researchers to participate in a series of project meetings focused on sharing information, identifying critical issues of mutual interest, developing plans for joint research and testing, and educating transportation professionals on the latest developments in the design, construction, reconstruction and maintenance of highway pavements.  |

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| **Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):**This pooled fund is complete and is in the process of being closed. The latest project, HeadLight, is complete and two reports were published.WA-RD 840.1 Project Inspection Using Mobile Technology – Phase 1: An investigation into existing business processes and areas for improvement using mobile technology.WA-RD 840.2 Project Inspection Using Mobile Technology – Phase 2: Assessing the impacts of mobile technology on project inspection.The pilot studies in each state have been completed and the results were outstanding.Some takeaways from the pilot projects:1. Inspectors using the HeadLight Inspection Unit significantly increased their productivity without increasing their work hours. Completing inspection reports, reduced travel time, and searching for information using the HeadLight Inspection Unit provided an average overall time savings of 1.78 hours per day per inspector.
2. Inspectors using the HeadLight Inspection Units collected and shared 2.75 times more inspection information while increasing the composition of valuable inspection information retained by the agencies.
3. Proper software tools on the mobile device are critical to achieve the productivity, quality, and availability benefits of mobile technology. The software integration of key hardware tools within the HeadLight Inspection Unit allowed inspectors to include and integrate a larger variety of observation types into their inspection reports. In particular, there were significant increases in photo, video, and weather observations provided directly in inspection reports, which contributed to more complete project records.
4. The automated inclusion of time and location metadata with every observation within HeadLight provides a complete observation record that can be recalled in the future by location or time.
5. Compared to traditional agency practice where project engineers and management personnel referred to inspection reports as their primary source of inspection documentation, HeadLight improved the timeliness of inspection information availability to project engineers and management by enabling real-time access to inspection information collected throughout the day on each active jobsite.
6. Learning to use mobile technology was not a barrier to adoption. On average, project inspectors were comfortable with using the HeadLight Inspection Unit in 2.7 days.
7. Designing mobile technology features and capabilities specifically for the job functions within project inspection was a critical factor in having successful adoption of mobile technology.
8. Existing tablet use within the agency limited to the traditional process provided negligible productivity, quality, and availability benefits in the field. Without the proper software, tablets were used much like a laptop in the traditional process.
9. Project inspectors using the HeadLight Inspection Units found the system useful as it incorporated specific sets of tools to support inspectors with their daily inspection tasks. 100% of the project inspectors prefer to use the HeadLight Inspection Units over their traditional inspection process.
10. The use of mobile technology in the field posed no significant safety hazards when compared to current practices. No project inspectors involved in the pilot program experienced any safety incidents due to the use of the mobile device.
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| **Anticipated work next quarter**:No additional work is planned under this pooled fund. Coordinating with FHWA to reconcile financial records and close out this pooled fund.  |

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| **Significant Results:**The Headlight application pilots have been very successful. WSDOT will be using the Headlight units in the field for inspection in 2015-2016 (funded by WSDOT Project Engineer Offices). WSDOT will also continue additional research over the next two years. |
| **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).** |

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| **Potential Implementation:** Research conducted has been implemented. |