

**SUMMARY OF SPR PROJECT STATUS**  
**October 1, 2008 through December 31, 2008**

| PROJECT NO. | RESEARCH CONTACT/PI | PROJECT TITLE                    | *DATE PROMISED  | **DATE EXPECTED | STATUS   | COMMENTS        |   |
|-------------|---------------------|----------------------------------|---|-----------------|----------|-----------------|---|
| 1.          | SPR-317             | Soltesz/<br>Bullard              | Intermittent Application of Cathodic Protection   | 9/30/02         | 9/30/09  | Behind Schedule | Field computer installed.   |
| 2.          | SPR-345             | Soltesz/<br>Bullard              | Effectiveness of Cathodic Protection  | 6/30/04         | 6/30/09  | Behind Schedule | PI continues to promise new dates for the final report.   |
| 3.          | SPR-353             | Mabey/<br>Snyder                 | Monitor Bioengineering Stabilization Projects   | 6/30/07         | 4/30/09  | Behind Schedule | Final report has been received from the USGS. The USGS and ODOT reports will be integrated and sent to the TAC. |
| 4.          | SPR-613             | Mabey/<br>Wirfs                  | Culvert Condition Assessment and Database Development   | 6/30/07         | 6/15/09  | Behind Schedule | The final report is still in preparation  |
| 5.          | SPR-622             | Soltesz/<br>Scholz               | Abrasion-Resistant Concrete   | 6/30/09         | 12/31/09 | On Schedule     | 2 <sup>nd</sup> phase lab tests proceeding.   |
| 6.          | SPR-631             | Joerger/Dixon                    | Effective Design Treatments for Transitioning from Rural Areas to Urban Areas on State Highways                   | 9/30/07         | 8/31/08  | Complete        | Finished  |
| 7.          | SPR-632             | Shippen/<br>Scholz               | Investigating Premature Pavement Failure Due to Moisture  | 4/30/08         | 4/30/09  | Behind Schedule | Draft Final Report has been reviewed by the TAC. Comments are being incorporated by the PI                      |
| 8.          | SPR-633             | Soltesz/<br>Lovejoy/<br>Higgins/ | Acoustic Emissions Testing for Reinforced Concrete Bridges  | 3/31/08         | 9/30/08  | Complete        | Finished  |
| 9.          | SPR-636             | Soltesz/<br>Higgins              | Repair Methods for Reinforced Concrete Bridges with Diagonal Cracks   | 6/30/08         | 12/31/08 | Behind Schedule | Report being written  |
| 10.         | SPR-637             | Mabey/<br>Risley                 | Low-flow Stream Analysis  | 12/31/07        | 8/31/08  | Complete        | Finished  |
| 11.         | SPR-638             | Mabey/<br>Jackson                | Wildlife Movement Study   | 6/30/10         | 6/30/10  | On Schedule     | Data collection continues   |
| 12.         | SPR-642             | Shippen/<br>Scholz               | Mechanistic Pavement Design Parameters  | 4/30/08         | 5/30/09  | Behind Schedule | Final report in progress  |
| 13.         | SPR-645             | Ross/<br>Bertini/<br>Monsere     | Using Archived ITS Data to Measure the Operational Benefits of a System-wide Adaptive Ramp Metering System        | 9/30/2007       | 12/30/08 | Complete        | Final report has been published.  |
| 14.         | SPR-646             | Joerger/Sillars                  | Alternatives to Liquidated Damages for Ensuring Project Performance and Adherence to Completion Dates             | 6/30/08         | 1/31/09  | Behind Schedule | Final report being edited at ODOT.  |
| 15.         | SPR-650             | Shippen/<br>Sillars              | Statistical Analysis of QC / QA Data on Construction Projects   | 9/30/08         | 5/30/09  | Behind Schedule | Work continues on analysis of current and proposed systems. Final report in progress.                           |
| 16.         | SPR-651             | Ross/<br>Monsere/<br>Dixon       | Evaluating the Effectiveness of the Safety Investment Program (SIP) Policies for Oregon                           | 9/30/08         | 3/31//09 | Behind Schedule | Final TAC meeting March.  |
| 17.         | SPR-652             | Soltesz/<br>Higgins              | Environmental Durability of Fiber Reinforced Composite Repairs for Diagonally Cracked Reinforced Concrete Bridges | 12/31/08        | 3/31/09  | On Schedule     | Environmental exposure continuing.  |
| 18.         | SPR-653             | Soltesz/<br>Koretsky/<br>Westall | Determining Localized Anode Condition to Maintain Effective Corrosion Protection                                  | 3/31/09         | 8/31/09  | Behind Schedule | Second potential detection technology is being investigated.  |
| 19.         | SPR-654             | Mabey                            | Waterway Enhancement Construction Methods   | 5/30/09         | 12/30/09 | Behind Schedule | Work Order extension is being processed   |
| 20.         | SPR 657             | Ross/Strathman                   | Evaluation of the Oregon DMV At-Risk Driver Program   | 12/31/08        | 12/31/08 | On Schedule     | Final report will be published in January   |
| 21.         | SPR 658             | Ross/Dixon                       | Identify and Address Institutional  | 1/31/09         | 3/31/09  | Behind          | Co-PI resigned prior to   |

|     |         |                          |   |           |           |                   |   |
|-----|---------|--------------------------|---|-----------|-----------|-------------------|---|
|     |         |                          | Barriers Delaying Incident Clearance  |           |           | Schedule          | completing his principal task;PI doing the work.  |
| 22. | SPR 660 | Joerger/Dixon            | Safety and Field Operations of High Speed Signalized Intersections                          | 7/31/09   | 10/31/09  | On Schedule       | Work Order Issued 2/11/08   |
| 23. | SPR 661 | Soltesz/Higgins          | Flexural Steel Anchorage Performance at Diagonal Crack Locations                            | 12/31/09  | 3/31/10   | On Schedule       | Lab testing proceeding.   |
| 24. | SPR 662 | Pietz/McMullen           | Multi-Modal Investment Criteria & Freight's Economic Importance                             | 6/30/2010 | 9/30/2010 | On Schedule       | Literature review is in progress.   |
| 25. | SPR 663 | Mabey/Nason              | Copper Toxicity and ESA Listed Salmon   | 12/30/09  | 12/30/09  | On Schedule       | Work is progressing on schedule.  |
| 26. | SPR 664 | Pietz/McMullen/Monsere   | Freight Performance Measures: Approach Analysis   | 5/31/09   | 8/31/09   | Behind Schedule   | Literature review is in progress.   |
| 27. | SPR 665 | Joerger/Dixon            | Access Management Best Practices Manual   | 6/30/09   | 9/30/09   | On Schedule       | Work order issued 5/27/08.  |
| 28. | SPR 666 | Shippen/Scholz           | Density Verification for Hot Mixed Asphalt Concrete Pavement                                | 1/15/09   | 9/30/09   | On Schedule       | Contract was extended to allow another construction season for additional data collection.  |
| 29. | SPR 667 | Joerger/Monsere          | Assessment of Statewide Intersection Safety Performance                                     | 8/31/09   | 11/30/09  | On Schedule       | Work order issued 5/2/08.   |
| 30. | SPR 668 | Lazarus/Casavant/Jessup  | Fuel Factors  | 7/09      | 9/30/09   | Behind Schedule   | Task 1,2 complete with deliverables. Significant progress made on task 3. A delay will be associated to complete task 3, in lieu of getting TAC together for decision. Next TAC Dec 17 <sup>th</sup> and April 2009 |
| 31. | SPR 669 | Lazarus/Gambatese        | Work Zone Design and Operations Enhancements  | 6/30/09   | 9/30/09   | On Schedule       | Excellent work and progress. Next TAC in March 2009.  |
| 32. | SPR 670 | Lazarus/Kim              | Fleet Condition Model Review  | 9/30/08   | 3/31/09   | On Schedule       | Extension approved. Task #3 and #4 – all but complete. Final steps with Fleet being done. Final TAC meeting on March 16, 2009. To work out hand-off and product acceptance.   |
| 33. | SPR 671 | Pietz/Brody/Margerum     | Oregon's ACTs, Collaboration, and Improved Planning   | 1/31/09   | 4/30/09   | On Schedule       | Work was completed in December. A final report will be published in January   |
| 34. | SPR 672 | Shippen/Scholz           | Mechanistic Pavement Design Instrumentation   | 11/30/09  | 2/28/10   | On Schedule       | Data collection is in progress.   |
| 35. | SPR 680 | Shippen/Muench           | Oregon Open-Graded Wearing Course UpDate  | 6/30/10   | 6/30/10   | On Schedule       | Contract with University of Washington is complete. Literature review is in progress.   |
| 36. | SPR 681 | Ross/Van Schalkwyk/Dixon | Evaluation of Wet Weather Retroreflectivity of Pavement Markings                            | 9/30/10   |           | Behind schedule   | Literature review is in progress.   |
| 37. | SPR 682 | Soltesz                  | Replacing Thermal Sprayed Zinc Anodes   | 6/30/10   | 9/30/10   | On Schedule       | Lab experiments designed.   |
| 38. | SPR 683 | Soltesz                  | Calibration of LRFD Resistance Factor for the Wave Equation Analysis Program                | 9/30/10   | 12/31/10  | On Schedule       | Database updating proceeding.   |
| 39. | SPR 684 | Joerger                  | Calibrating the Future HSM Predictive Methods for Oregon                                    |           |           | Under Development | Contract start delayed by investigator overload. Expected start date 5/09   |
| 40. | SPR 685 | Ross/Dixon               | Safety Evaluation of Curve Warning Advisory Speed Signs                                     | 12/31/09  |           | On Schedule       | Literature review is in progress.   |
| 41. | SPR 686 | Mabey                    | Health Risk Exposure To Naturally Occurring Hazardous Minerals During Construction Activity | 8/31/10   | 8/31/10   | On Schedule       | The Interagency Agreement is complete   |

|     |         |                     |   |  |  |                   |                                   |
|-----|---------|---------------------|---|--|--|-------------------|-----------------------------------|
| 42. | SPR 687 | Pietz/<br>Strathman | Financing Mechanisms for Capital Improvements: Interchanges |  |  | On Schedule       | Literature review is in progress. |
| 43. | SPR 688 | Ross/<br>Strathman  | Improving Commercial Vehicle Safety in Oregon               |  |  | Under Development | Literature review is in progress. |
| 44. | SPR 689 | Mabey               | Re-Use of Asphalt Grindings and Concrete Demolition Debris  |  |  | Under Development |                                   |

**SPR PROJECT STATUS SUMMARY**

|                                      | Jan 1-Mar 31 2007 | Apr 1-Jun 30 2007 | Jul 1 -Sep 30 2007 | Oct 1-Dec 31 2007 | Jan 1- Mar 31 2008 | Apr 1 -Jun 30 2008 | Jul 1 – Sep 30 2008 | Oct 1 – Dec 31 2008 |
|--------------------------------------|-------------------|-------------------|--------------------|-------------------|--------------------|--------------------|---------------------|---------------------|
| Complete                             | 2                 | 3                 | 0                  | 0                 | 4                  | 8                  | 3                   | 4                   |
| On Schedule                          | 21                | 19                | 23                 | 25                | 17                 | 21                 | 21                  | 21                  |
| Under Development                    | 4                 | 4                 | 13                 | 8                 | 6                  | 0                  | 6                   | 3                   |
| Behind Schedule                      | 5                 | 7                 | 6                  | 9                 | 15                 | 13                 | 14                  | 16                  |
| Cancelled                            | 0                 | 1                 | 1                  | 1                 | 1                  | 1                  | 0                   | 0                   |
| Total                                | 32                | 33                | 42                 | 42                | 42                 | 42                 | 44                  | 44                  |
| On Time Percent*                     | 84.4%             | 78.8%             | 85.7%              | 78.6%             | 64.3%              | 69%                | 68%                 | 63.6%               |
| Reports Completed Since Last Quarter | 1                 | 1                 | 0                  | 0                 | 4                  | 4                  | 3                   | 1                   |

\*On time percent is sum of Complete, On schedule and Under Development, as a percentage of total.

**SPR REPORTS FINALED SINCE LAST QUARTER:**

| PROJECT NO. | RESEARCH CONTACT | PROJECT TITLE  |
|-------------|------------------|--|
| SPR 645     | June Ross        | Using Archived ITS Data to Measure the Operational Benefits of a System-wide Adaptive Ramp Metering System |
|             |                  |  |
|             |                  |  |
|             |                  |  |

**OTHER REPORTS FINALED SINCE LAST QUARTER**

| REPORT NO. | RESEARCH CONTACT | PROJECT TITLE  |
|------------|------------------|--|
| RS 121     | Steve Soltesz    | Evaluation of Bent Caps in Reinforced Concrete Deck Girder Bridges |
|            |                  |  |

**REPORTS WHICH MAY BE FINALED 2nd QUARTER FY09:**

| PROJECT NO. | RESEARCH CONTACT | PROJECT TITLE  |
|-------------|------------------|--|
| SPR 353     | Matthew Mabey    | Monitor Bioengineering Stabilization Projects  |
| SPR 613     | Matthew Mabey    | Culvert Condition Assessment and Database Development  |
| SPR 632     | Norris Shippen   | Investigating Premature Pavement Failure Due to Moisture   |
| SPR 642     | Norris Shippen   | Mechanistic Pavement Design Parameters   |
| SPR 645     | June Ross        | Using Archived ITS Data to Measure the Operational Benefits of a System-wide Adaptive Ramp Metering System |
| SPR 646     | Mark Joerger     | Alternatives to Liquidated Damages for Ensuring Project Performance and Adherence to Completion Dates      |
| SPR 657     | June Ross        | At-Risk Driver Evaluation  |
| SPR 671     | Amanda Pietz     | Oregon’s ACTs, Collaboration, and Improved Planning  |

**RESEARCH NOTES COMPLETED SINCE LAST QUARTER**

| PROJECT NO. | RESEARCH CONTACT | PROJECT TITLE  |
|-------------|------------------|--|
| RSN 09-03   | Mark Joerger     | Roadway Design Treatments for Rural to Urban Transitions |
|             |                  |  |

\*Date Promised is initially when you think the project will be finished—usually 90 days after the end date on the contract. (This gives time for the final report to be written, edited, and published.)

\*\*Date Expected is when you predict that the project will be completed.