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| Sponsor | Nominations must be submitted by an AASHTO member DOT willing to help promote the technology | 1. Sponsoring DOT (State): Utah
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| 1. Name and Title: Richard Manser, Statewide Utilities & Railroads Engineer
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| 1. Is the sponsoring State DOT willing to promote this technology to other states by participating on a Lead States Team supported by the AASHTO Innovation Initiative? Yes or No:

**Yes** |
| **Technology Description (10 points)** | The term “technology” may include processes, products, techniques, procedures, and practices. | 4. Name of Technology:**Statewide Master Railroad and Utility Agreements, including Partnering Principles** |
| 1. Please describe the technology.

UDOT has developed statewide master agreements covering project work for individual utilities and railroads. The agreements contain the standard legal requirements and terms and conditions. Each highway project then executes a project agreement that functions as an extension of the statewide agreement. The project agreement contains technical design details, scope of work, cost estimate, project and coordination details. A sample project agreement is included as an exhibit in the master agreement. This approach reduces the amount of work to develop project reimbursement agreements and limits the amount of legal review required by all parties, resulting in faster turn-around. In addition, partnering principles and escalation procedures have been added to the statewide master agreement defining how issues can be resolved in a timely and professional manner. There are typically three levels of review and decision makers with each person authorized to make a final decision.  |
| 6. If appropriate, please attach photographs, diagrams, or other images illustrating the appearance or functionality of the technology. (If electronic, please provide a separate file.) Please list your attachments here.The attachment **(UDOT\_Examples\_Statewide Master Railroad & Utility Agreements.pdf)** contains sample language and graphics illustrating partnering principles and escalation procedures extracted from master agreements, and copies of the following master agreements:UPRR Master Agreement Covering Grade Crossing Safety Improvement ProjectsCenturyLink Statewide Relocation AgreementMetro Water District of Salt Lake & Sandy Cooperation AgreementUtah Transit Authority Partnering Agreement (awaiting signatures) |
| **State of Development** **(30 points)** | Technologies must be successfully deployed in at least one State DOT. The AII selection process will favor technologies that have advanced beyond the research stage, at least to the pilot deployment stage, and preferably into routine use. | 1. Briefly describe the history of its development.

Master agreements have been in use by UDOT since 1999 primarily with major utility companies (e.g. Rocky Mountain Power, Questar Gas). As they have been successfully used on highway projects, UDOT has expanded the use of statewide master agreements with additional companies. There are additional agreements currently under negotiation. |
| 1. For how long and in approximately how many applications has your State DOT used this technology?

Statewide master agreements have been in use for 15 years. Including partnering principles and escalation procedures in master agreements is new. Projects occurring after the master agreements’ dates of execution have taken advantage of the partnering and escalation procedures. |
| 1. What additional development is necessary to enable routine deployment of the technology?

The technology does not require additional development. Each state can deploy the technology with minimal adaptation to incorporate unique state laws and procedures, and DOT-specific organizational structure. The basic approach, including federal legal requirements and partnering/escalation procedures, would not change. |
| 1. Have other organizations used this technology? Yes or No: N/A If so, please list organization names and contacts.

We believe a few states have used master agreements. Not aware of other states incorporating partnering principles and escalation procedures into master agreements. |
| Organization | Name | Phone | E-mail |
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| **Potential Payoff****(30 points)** | Payoff is defined as the combination of broad applicability and significant benefit or advantage over other currently available technologies. | 1. How does the technology meet customer or stakeholder needs in your State DOT or other organizations that have used it?

The technology reduces time in developing and executing project reimbursement agreements with railroad and utility companies. Negotiation of standard terms and conditions occurs once at a statewide level without the pressures of a project schedule. Use of statewide agreements helps the utility owner and railroad coordinators streamline internal reviews and obtaining signatures. Utilities and railroads have consistency with DOT projects statewide, eliminating regional differences. Both parties commit to following partnering principles with project work. If a difficult issue arises, the parties understand how to quickly resolve it. |
| 12. What type and scale of benefits has your DOT realized from using this technology? Include cost savings, safety improvements, transportation efficiency or effectiveness, environmental benefits, or any other advantages over other existing technologies.The agreements are available for use on every project that requires railroad coordination or utility relocations. The benefits are statewide. The biggest ROI comes from projects involving major railroad and utility companies and is primarily due to schedule efficiency and claims avoidance. |
| 1. Please describe the potential extent of implementation in terms of geography, organization type (including other branches of government and private industry) and size, or other relevant factors. How broadly might the technology be deployed?

The technology can be deployed in every state, and with every type of organization/company. UDOT typically does not use these agreements with small companies that we seldom encounter on projects.  |
| **Market Readiness (30 points)** | The AII selection process will favor technologies that can be adopted with a reasonable amount of effort and cost, commensurate with the payoff potential. | 1. What actions would another organization need to take to adopt this technology?

Each state would have to adapt the agreement to incorporate unique state laws and procedures, and DOT-specific organizational structure. The basic approach, including federal legal requirements and partnering/escalation procedures, would not change. The state and each company need to partner at a high (statewide) level to make it happen. Once the agreements are executed, both the state and the company would need to conduct training within their organizations. The content of the agreements would need to be communicated to construction staff, contractors, and other staff. |
| 1. What is the estimated cost, effort, and length of time required to deploy the technology in another organization?

Depending on the responsiveness of the parties (state, RR or utility company) the process can take three months to two years. Cost is minimal and the work is typically accomplished with existing staff. To be successful there needs to be a high level of commitment to completing the agreements within both parties’ organizations. The level of effort depends upon the level of trust and number of issues negotiated. Legal reviews are required at significant milestones. |
| 1. What resources—such as technical specifications, training materials, and user guides—are already available to assist deployment?

SHRP2 has produced national guidance documents for content of RR agreements. We are not aware of sources for guidance on developing and negotiating utility master agreements. Guidance for partnering is available in the industry; however, we believe the technique of incorporating partnering principles and escalation procedures in master agreements is fairly new. UDOT’s agreements are available as examples.  |
| 1. What organizations currently supply and provide technical support for the technology?

SHRP2 has examples of RR agreements. One of the technical committees of the AASHTO Sub-committee for R/W, Utilities, and Outdoor Advertising Control may be interested in compiling examples of master agreements and sharing. |
| 1. Please describe any legal, environmental, social, intellectual property, or other barriers that might affect ease of implementation.

Not aware of any major barriers. |
| ***Submit Completed form to*** | [***http://web.transportation.org/tig\_solicitation/Submit.aspx***](http://transportation1.org/tig_solicitation/Submit.aspx) |