



## Wisconsin Highway Research Program (WHRP)

### Responses to Questions for FFY17 and FFY18 Requests for Proposals (RFPs)

#### Administrative Questions

Q: Am I eligible to submit a proposal as I am out of the State. Do you really consider the locations of proposers in your evaluation process?

A: The WHRP RFPs are open to individuals or entities located outside of Wisconsin. The location of the proposer is not part of the scoring criteria. WHRP has had contracts with entities located outside of the state of Wisconsin.

Q: Are RFPs open to research institutes outside the State of Wisconsin?

A: See above.

Q: Can a research team in the US collaborate with an international team brought in as a subcontractor (or other funding mechanism)? Is there a maximum amount of funding that could be budgeted for such a subcontract?

A: It may depend on the country the subcontractor is from. In the past WHRP had a question about a Canadian proposal and was advised that would be allowed because the US has trade agreements with Canada. The subcontractors would need to follow US rules to work on WisDOT contracts. Also, there are certain restrictions on foreign materials incorporated into construction projects, which could affect the subcontractor.

Q: We are planning a joint proposal between two universities. The proposal may include a structure whereby funds are directed to potentially both universities. Is WisDOT willing to contract with both?

A: WisDOT contracts with the primary proposing organization who then invoices WisDOT. Funds to any subcontractors should be handled by the primary entity on the contract.

Q: How is the overhead for out of state institutions determined?

A: The overhead rate is set by the research institution or contractor and must be incorporated in the budget. WisDOT does not set a minimum, maximum or any research overhead rate for out-of-state institutions.

Q: What is a percentage for total indirect costs?

A: The indirect cost percentage (i.e., overhead rate) is set by the research institution or contractor and must be incorporated in the budget. There is an indirect cost percentage of 15 percent that is set solely

by the University of Wisconsin system for agreements with Wisconsin state agencies. WisDOT does not set a minimum, maximum or any research indirect cost percentage for other institutions.

Q: If we use the equipment that we already have or will purchase from other funds, can we indicate this in Research Plan of the proposal? This equipment probably will not count in the budget.

A: Yes, this can be detailed in the proposal.

Q: The proposal preparation guidelines ask to describe any past WHRP efforts of a research team in a proposal. How much will this factor affect the proposal evaluation process? I am little concerned with this statement as I do not have any past WHRP efforts.

A: Not having experience on previous WHRP projects is not a consideration in the proposal scoring.

Q: What is the selection criteria for the proposal? Could you let us know the detailed grading portion on it?

A:

<b>Criteria / explanation</b>	<b>Points available</b>
1. Background / awareness of recent work	15
2. Work plan - understanding of the problem	15
3. Work plan - activities & techniques	30
4. Deliverables & implementation plan	15
5. Qualifications, certifications and experience of research team and facilities	25
<i>Grand total</i>	100

## **Flexible Pavements Technical Oversight Committee (TOC)**

### **(FFY 2017) Investigation of Tack Coat Materials on Tracking Performance**

Q: “Asphalt binder type” is listed as a factor to be considered in the Work Plan. Does it refer to the binder used in the tack coat material or the binder in the overlay HMA mix?

A: The “Asphalt Binder type” refers to the binder in the tack coat material.

Q: Please explain the factor of “type of construction” in Task 2: Work Plan Development.

A: The “type of construction” refers to different type of projects ranging from mill/fill short time frame overnight paving to roadways that are closed to traffic. We would also expect different surfaces such as milled, new HMA, old HMA, Concrete, etc. to be considered in the work plan. The final work plan will be discussed and approved by the technical oversight committee (TOC).

### **(FFY 2018) Investigation of In-Service Pavement Performance**

Q: Please provide a summary description of the data available from the “Spider” van referred to in the RFP.

A: The pavement profiler van provides IRI and rutting for both wheel paths, a faulting measurement, and downward pavement images used for analyzing pavement distress.

Q: Can you provide more information on the WisDOT Spider van? What are its capabilities, and what types of data does it collect?

A: The pavement profiler van collects all the data listed above at highway speeds and at temperatures above 40 degrees. Special requests for collection may be made by the department for various sections of roadway.

Q: What is meant by evaluating the data collected by the Spider van? Does WisDOT want an outside firm to also perform parallel tests to validate the results of the van?

A: The researcher should use the distress data collected by the Spider van to help draw conclusions about the performance of the pavement. The results of the van are not to be validated, only used to evaluate the pavement.

### **(FFY 2018) Enhanced Moisture Sensitivity Study**

Q: Who provides anti-strip? Does WisDOT have specific products they’d like us to use?

A: It is expected the contractors will provide the anti-strip additives. The list of products to be evaluated should include products currently being used in Wisconsin. Other products the researcher recommends could also be considered. This will be discussed at the time of work plan approval by the technical oversight committee (TOC).

Q: Will aggregates, binder, and mix designs be identified and supplied by WisDOT for the testing?

A: Materials will be identified by the TOC in cooperation with the researcher. The materials will be supplied by contractors with coordination by the department.

Q: Has WisDOT identified projects to be included in this study? If so, will WisDOT provide pavement performance data for these projects?

A: Specific projects have not been selected yet. Project selection will be done with the cooperation of the TOC. Pavement performance data will be provided by the department.

Q: Will WisDOT be providing QC/QA data for the selected projects?

A: The department will provide the QC/QA data.

Q: What are the type of distress that are most commonly associated with moisture induced damage in Wisconsin projects?

A: Distresses associated with moisture damage in Wisconsin include but may not be limited to fatigue cracking, rutting, stripping, and raveling.

Q: Any requirements for laboratory/technician certifications?

A: Technicians should be AGGTEC 1 and HMA IPT at a minimum in an accredited laboratory. For out of state researchers, certifications must be comparable.

## **Rigid Pavements Technical Oversight Committee (TOC)**

### **(FFY 2017) Evaluation of Current WI Mixes Using Performance Engineered Mixture (PEM) Testing Protocols**

Q: Has WisDOT already identified projects to be included in this study?

A: No, but WisDOT will work with researchers to identify projects which will be included in this study.

Q: Is WisDOT able to loan out or rent their SAM or V-Kelly ball test?

A: No, researchers are responsible to rent or purchase SAM or V-Kelly ball tester.

Q: Any requirements for laboratory/technician certifications?

A: Yes, Highway Technician Certification Program (HTCP) certification is required.

### **(FFY 2018) Evaluation of Penetrating Sealers Applied to Saw Cut Faces in Concrete Pavement Joints**

Q: Is WisDOT providing or specifying which sealers are desired?

A: WisDOT has a special provision of concrete pavement using the penetrating sealer. It specifies a silane joint sealant found on the Department Approved Products list for Concrete Protective Surface Treatments. The selected researchers will be able to obtain the detailed list. But researchers are encouraged to include other sealers that are possibly able to apply in Wisconsin in the future.

Q: Where would WisDOT like the literature search to be published prior to moving onto Task 2?

A: Researchers should share the findings from literature search by submitting a report before moving on to Task 2. The literature search does not need to be "published" anywhere.

Q: Should the research team include traffic control provided by WisDOT as a part of the budget?

A: Traffic control is responsible for the researchers and WisDOT does not provide any traffic control. Any cost associated with traffic control should be included in the budget.

Q: Will WisDOT provide materials and mix-designs to recreate the referenced pavements from the I-94 N-S and the I-41 corridors?

A: WisDOT will work with the researcher and provide them with the information of mix designs on each project, but will not provide materials. Researchers should secure the material supply

Q: Any requirements for laboratory/technician certifications?

A: Yes, Highway Technician Certification Program (HTCP) certification is required.

### **(FFY 2018) Non-Cementitious Repair Materials Study**

Q: The RFP notes that the study would involve the "evaluation of currently installed non-cementitious repairs and the process used to identify the repairs as candidates for non-cementitious materials." How

many non-cementitious materials has WisDOT installed that will be evaluated as a part of this study? What is the approximate number of field locations where these materials have been installed? Would field visits be required to each site where these materials have been installed or would WisDOT provide documentation on the site conditions before, during, and after repairs?

A: WisDOT does not have any documentation on the site condition. Researchers are expected to visit at least three locations where non-cementitious material were installed. WisDOT will work with researchers to identify the locations. Examples of locations are (but are not limited to) USH 12 from Fish Hatchery Road to I-39 in Dane County (Fibercrete), I-39 at the STH 73 interchange in Waushara County (Techcrete), and STH 13 south of Wisconsin Rapids in Portage County (Techcrete). The locations are subject to change after discussion with the project oversight committee and the selected researchers.

Q: Does WisDOT envision the evaluation of other non-cementitious repair materials that have not yet been considered for potential use in the future?

A: Yes, researchers are encouraged to include non-cementitious repair materials that can be applied in Wisconsin in the future.

Q: Does WisDOT envision any new field installations of non-cementitious repair materials as a part of this study?

A: No, this project does not include any field installations of non-cementitious repair materials.

Q: Has WisDOT conducted any laboratory testing on the materials that have been installed in the field and would the results of these laboratory tests be available to the proposer if selected as the contractor on this study?

A: No, WisDOT has not conducted any laboratory testing on any non-cementitious material.

Q: Can WisDOT provide the performance data or results of non-cementitious repair materials, which have been actually used in Wisconsin.

A: Generally WisDOT has been monitoring surface pavement performance but not particularly for the performance of non-cementitious repair materials. Researchers are responsible for establishing the work plan to evaluate the currently installed non-cementitious repairs.

Q: Does WisDOT expect some fundamental laboratory testing program within the budget specified in the RFP?

A: This project does not require any laboratory testing. But other tests can be considered if researchers can conduct within the allocated research budget.

## **Structures Technical Oversight Committee (TOC)**

### **(FFY 2017) Performance and Policy Related to Aluminum Box Culverts and Pipe Culverts in Wisconsin**

This RFP has been reposted and now includes a WisDOT initial literature search.

Q: Are the performance concerns on the structural aspect of aluminum culverts only? Our preliminary literature review shows that metal culverts can have problems from poor hydraulic design or poor construction (e.g., insufficient back fill or insufficient embedments). Is it right that our proposed research should focus on long-term performance of aluminum culverts alone, including the structural performance and durability? We will also collect policies and design guidelines from other states.

A: The performance concerns are with deterioration of the aluminum in the Wisconsin transportation environment. Whether driven by soil, water, road deicing chemicals or other. We have a policy that restricts the use of aluminum for box culvert structures because of long term deterioration issues. This concern is also shared with other aluminum drainage structures (round, arch).

Q: We understand laboratory tests are not desired. How about accelerated corrosion tests for aluminum alloys used in current Wisconsin culverts and new aluminum alloys currently on the market? We certainly will collect information from the literature first.

A: If limited lab testing of historic and contemporary Aluminum Culvert Alloys is possible within the limits of the budget and time constraints, the researcher can propose this. We did include a field evaluation of in service culverts in the RFP. Our understanding is that Industry may be interested in providing data to researchers on installation of Aluminum drainage structures (type, location, material (alloy) for evaluation of performance.

Q: Chapter 36 of our bridge manual does not allow aluminum box culverts thus providing no guidelines or examples. Is TOC interested in a set of well-established design calculations in WisDOT format and some example as part of this research?

A: The technical oversight committee (TOC) is interested in the information that will provide a basis for a better defined policy on Aluminum box culverts. This policy will be based on contemporary information as it related to performance related to deterioration of aluminum in the Wisconsin Transportation environment. We have not asked for structural design aspects in this RFP.

### **(FFY 2018) Protocols for Concrete Bridge Deck Protections and Treatments**

This RFP has been reposted and now includes a WisDOT initial literature search.

No questions received

### **(FFY 2018) Concrete Placed Underwater – Literature Search & Synthesis**

This RFP has been reposted and now includes a WisDOT initial literature search.

No questions received

## **Geotechnics Technical Oversight Committee (TOC)**

### **(FFY 2017) Mechanically Stabilized Earth (MSE) Wall Backfill Water Infiltration**

Q: For Task 2: laboratory testing program, does WisDOT expect a full or large scale test within the budget specified in the RFP?

A: Full scale, field testing is not required with this project.

Q: For Task 3: data analysis and model, does WisDOT expect only a kind of equations to estimate infiltration and drawdown properties of backfill, or further a completed analytical tool including the model established by EXCEL spread sheet or Visual Basic program?

A: The expectation is that whatever model that is created that in any form it should allow WisDOT to adequately analyze infiltration and drawdown conditions within MSE wall backfill.

Q: With regards to Task 2: Item A on page 3 of RFP: "A. Construct and instrument multiple scale MSE walls..." We assume this means constructing multiple experiments. As opposed to constructing several walls at multiple scales (i.e. full-scale and reduced-scale walls.) Advise if this assumption is not correct.

A: The intent is for the researcher to conduct multiple experiments on a scale MSE wall, not multiple scaled walls.

### **(FFY 2018) Monitoring Lateral Earth Pressure and Movements of Cut Retaining Walls**

Q: For Task 3, can the research team additionally survey using different Lidar installed to a Drone? The results from different sources can be compared to the results from RIEGL VZ-400 Lidar, which has limited accessibility to the construction site.

A: The research team can use additional survey methods of their choice in the research.

Q: Due to the limited selection of cut wall system in the RFP, does WisDOT expect additional parametric study by using a numerical simulation?

A: The use of an additional parametric study using a numerical simulation is not required as part of this project but can be implemented by the researcher.