

May 1, 2024

Dear Research Partner:

The Missouri Highways and Transportation Commission requests proposals from qualified organizations—namely private consultants, universities, and research organizations—to furnish professional services as described in the following request for proposal to be coordinated by the Research Unit of the Construction and Materials Division.

Please submit a proposal for project **TR202413** entitled, “**Silane Bridge Deck Ratings.**” Your submittal must include a work plan, the proposed project team and its background, and any related projects now active or recently completed by your firm. The project team must be led by a licensed professional engineer in the state of Missouri and the final report must be sealed, in accordance with the provisions of Chapter 327 RSMo.

The selection committee will use Qualification Based Selection. A “not to exceed” budget amount is included in the RFP to assist with the required scope, but budgets are not to be included with the proposal submissions, and will not be presented to the selection committee.

Please submit all proposals to [MoDOTResearchRFP@modot.mo.gov](mailto:MoDOTResearchRFP@modot.mo.gov) by **June 16, 2024 10:00 AM (CST)**. More information about project contracting in general can be found at <https://www.modot.org/information-researchers> under RFP documents.

Sincerely,



Jen Harper  
Research Director



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## Background

Missouri Department of Transportation (MoDOT) has one of the largest highway systems in the nation and maintains over 10,000 bridges within this system. MoDOT had used linseed oil to seal bridge decks for more than 30 years and in the last 10-15 years have moved to a silane-based sealer. Laboratory testing has confirmed the benefits of silanes, but the department does not know the longevity of the treatments. The treatments started out with treating new bridge decks prior to putting into service, retreated 2-3 years later after typical deck cracking occurs, and then every 7-10 years. This program started based off silane research for 40% and 60% silanes, but MoDOT has only used 100% silane. MoDOT is wanting to determine what the application frequency should be when using 100% silane.

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## Objectives

The project objective is to determine if the silane treatments have prolonged the condition by slowing the deterioration of MoDOT's bridge decks along with quantifying the benefits of silane sealers and determine if only a single treatment is sufficient or if multiple treatments at predetermined intervals provide additional benefit. MoDOT is also interested in determining how wide a crack can be and still effectively protect the deck using silane before another type of treatment is necessary. Are there benefits to resealing the deck after any cracking takes place?

Different parts of the state have different weather patterns, deicing chemical types and frequency, aggregate properties, routine maintenance schedules, traffic, etc. the research team should propose what variables should be considered when developing an application frequency.

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## Project Requirements

### Task 1: Project Management

The Research Team will facilitate a kick-off meeting with MoDOT to review the work plan, scope, and schedule; and establish a protocol for regular ongoing (at a minimum monthly) communications and coordination with the team. The Research Team will schedule and conduct quarterly project status meetings to review progress for the previous period and anticipated work for the next period. The Research Team will also develop minutes for the kick-off meeting and any other status meetings that may be held during the project.

The finalized work plan will detail implementation of the following tasks as well as the resources and schedule to carry them out.

## **Task 2: Literature Search**

The Research Team will perform a literature search for current and past research related to bridge deck sealers, including quantifying the benefits of using silane sealers.

The literature review should look at what factors affect the length of protection when treating bridge decks with 100% silane sealers.

## **Task 3: Develop Research Plan**

In the Research Plan, the researcher must outline their proposed method of research to fulfill the objectives listed above. Any data requirements must be spelled out as well as any testing plans that would be needed to provide MoDOT with a bridge deck sealing plan.

## **Task 4: Implementation Plan**

The Research Team will develop a sealing implementation plan from information gathered in Tasks 2 and 3. The implementation plan must be submitted to MoDOT and approved by the TAC.

## **Task 5: Draft Report and Research Summary**

The Research Team will develop and submit a draft report with an implementation plan and a draft research summary for MoDOT's review.

## **Task 6: Final Report, Research Summary and Presentation**

The Research Team will submit a final report with an implementation plan and research summary of the research and data collected along with a final presentation.

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## **Project Deliverables**

For templates and forms for reports and plans, visit <https://www.modot.org/information-researchers>.

## **Email Communications**

E-mail and phone communications between the Principal Investigator(s) and MoDOT contacts as necessary are required to provide ongoing updates of progress throughout the project.

## **Data Management Plan**

The plan is a formal document that describes the data that is acquired, created, or produced during the project, specifies who owns it and who can access it as well as information on how it will be described, managed, analyzed, stored, shared, and preserved during and after the project is over. Please refer to templates on the [website](#).

## **Quarterly Reports**

Quarterly reports should be submitted throughout the project on the last day of March, June, September, and December. The quarterly reports are not intended to replace any additional correspondence between the research team and MoDOT needed to keep the project moving. Please refer to the template on the [website](#).

## **Interim Presentation**

An interim presentation shall be scheduled near the mid-point of the project to update MoDOT on the progress and the direction of the project. The purpose of the interim presentation is to evaluate the progress and determine if any mid-project corrections are necessary.

## **Draft Final Report and Research Summary**

These drafts should be final products except for revisions based on MoDOT's review. A final report must include a completed Technical Report Documentation page. Please refer to the **Publication Guidelines** and summary template on the [website](#).

## **Final Report and Final Research Summary**

After MoDOT's review is complete and documents have been edited to MoDOT's satisfaction, final documents should be submitted as a Word documents (unless otherwise instructed). Please refer to the **Publication Guidelines** and summary template on the [website](#).

## **Other Deliverables**

Examples include construction reports, interim reports, annual reports, maps, and brochures. Include descriptions, criteria, and frequency.

## **Final Presentation**

May be required. The Contractor will present the results, recommendations, and implementation ideas to MoDOT and other stakeholders. The Contractor will coordinate location, date, and meeting fees with MoDOT. For stakeholder and agency participants, any travel and lodging fees are to be covered by individual attendees or

their firms. MoDOT and stakeholders will provide feedback to the contractor, especially related to implementation.

### Task-Specific Deliverables

Task	Deliverables
1	Schedule and conduct kickoff meeting. Submit work plan. Kickoff meeting minutes.
2	Present findings from literature search. Provide updated plan if needed based on information learned from the literature search.
3	Research Plan.
4	Provide the developed implementation plan to MoDOT TAC for approval.
5	Draft report, draft research summary.
6	Final report, final research summary.

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## Project Schedule

The following is an estimate of the project timeline or information on key dates within the project, presuming the project starts **July 17, 2024**. Proposals need to include a work plan with a proposed timeline. For a sample of a work plan template, see link below. Changes to our estimated project timeline below will be considered, however, timeline extensions cannot be guaranteed. If the Contractor believes the project and be completed sooner, please include a revised schedule with the proposal. The project timeline will be discussed and finalized during the kickoff meeting.

For report templates and forms, visit <https://www.modot.org/information-researchers>.

**MODOT is asking the research team to create a timeline (below) to perform the tasks listed above and recommend additional tasks needed to achieve MoDOT’s objectives.**

Date	Milestone
	A kickoff meeting with MoDOT will be scheduled to discuss project requirements and deliverables. The dates of key milestones and deliverables will be determined from this meeting.
	The Research Team will present findings from literature search with recommendations of implementation strategy to MoDOT.
	Interim presentation must be done by this date.
	Draft final report, draft summary report, other deliverables are due. The draft documents shall be submitted to MoDOT approximately two months prior to the final report.
	Final report, summary report, presentations, other deliverables are due. The final documents shall be due approximately one month before the end of the contract. This is to allow all billing to be completed prior to the end of the project.
	Final invoice due.
	Contract ends.

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## Special Notes

Project budget is not to exceed **\$200,000**. A budget is not to be included in the proposal but will be required for the contract and must be within this limit. For a sample Budget template, report templates and forms, see <https://www.modot.org/information-researchers>.

All questions, information, data and/or manual requests regarding any aspect of the RFP details or process for submissions should be submitted to [MoDOTResearchRFP@modot.mo.gov](mailto:MoDOTResearchRFP@modot.mo.gov) by the date and time listed in the “RFP Schedule” section of the RFP. This is the only acceptable method for contact regarding the RFP and contacting MoDOT employees via other methods is prohibited. Not adhering to this rule is cause for disqualification of the proposal.

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## RFP Requirements

- “Contracting Documents” provide further details and links to the required forms. They are available at <https://www.modot.org/information-researchers>.
  - **Contractor’s Project Experience:** The proposal must clearly identify the Organization’s experience in offering the services requested in this RFP during the past three (3) years. The description should include a list of the agencies which your organization has served during this time period or currently serves. Please highlight any work you have done with other state agencies or local governments.
  - **Team Member Experience:** Please list all team members (including subcontractors) proposed to work on the project. Attach licenses, certifications and resumes for key personnel.
  - **Contractor’s Client References:** Proposals should indicate the name, title, and telephone number of at least three clients within the past three years.
- Proposals must be no more than **10** pages in length with a font size no less than 11 points. This length limit **does not include** the Proposal Submission Form, Contractor’s Project Experience, Team Member Experience, Contractor’s Client References, and optional cover letter (if included, one page maximum).
- Proposals must be submitted as one combined PDF document. The submission should **only include the required documents** organized in the following order: 1) Proposal Submission Form; 2) Cover Letter (Optional; 1 page maximum); 3) Body of Proposal (including work plan and project schedule); 4) Contractor’s Project Experience; 5) Team Member Experience; and 6) Contractor’s Client References.
- The Offeror must respond to this RFP by submitting all the information required herein for its proposal to be evaluated and considered for award. Failure to submit all the required information shall be deemed sufficient cause for disqualification of a proposal from consideration.
- Proposals will be evaluated by an agency and stakeholder team with knowledge and backgrounds in relevant areas for this project. Selection of the successful Contractor will be based on the Contractor’s demonstrated knowledge in the required areas, the merit of the proposed methods and approach in achieving the desired goals, the experience and qualifications of the team, the plan for ensuring implementation of results, and the adequacy and availability of team members to complete the work in a timely manner.
  - Correct proposal submission is one of the evaluation criteria. If submission instructions in this section are not followed, the Contractor

**risks an automatic 10-point deduction (out of 100 total points)**  
when points are awarded during the Proposal Evaluation Process.

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## RFP Schedule

This document constitutes an RFP from qualified organizations to conduct the **TR202413: Silane Bridge Deck Ratings** study for the MHTC and Missouri Department of Transportation (MoDOT). MHTC reserves the right to reject any and all proposals for any reason whatsoever.

The following RFP Schedule of Events represents MoDOT's best estimate of the schedule that shall be followed. The time of day for the following events shall be between 7:30 am and 4:00 pm, Central Time unless otherwise noted. MoDOT reserves the right at its sole discretion to expand this schedule, as it deems necessary, without any notification except for the deadline date for submitting a proposal. Time is of the essence for responding to the RFP within the submission deadlines.

The following timeline must be met for a proposal to be accepted.

Date	Action
5/1/2024	MoDOT posts RFP to the website at <a href="https://www.modot.org/research-requests-proposal">https://www.modot.org/research-requests-proposal</a> .
5/15/2024 4:00 PM (Central)	Written comments or questions must be submitted to <a href="mailto:MoDOTResearchRFP@modot.mo.gov">MoDOTResearchRFP@modot.mo.gov</a> .  This is the only acceptable method for contact regarding the RFP and contacting MoDOT employees via other methods is prohibited. Not adhering to this rule is cause for disqualification of the proposal. This includes all requests for information, data, and manuals.
5/29/2024	MoDOT will post written responses publicly on the website at <a href="https://www.modot.org/research-requests-proposal">https://www.modot.org/research-requests-proposal</a> .
6/18/2024 10:00 AM (Central)	Written proposals must be submitted to <a href="mailto:MoDOTResearchRFP@modot.mo.gov">MoDOTResearchRFP@modot.mo.gov</a> . Do not consider your proposal submitted until you receive notification of receipt. A notification should be sent by noon of the same day.
7/3/2024	MoDOT will notify submitters about project selection, or if needed about interviews to finalize selection.

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## Contracting Requirements

The successful team will be required to complete additional documentation and enter into a contract such as a "Standard Research Agreement" or "Task Order." Applicants should be aware of these additional needs so contracting can proceed in a timely manner.

As part of the eAgreements process, MoDOT uses an electronic signature tool, DocuSign, for signing agreements electronically. All parties of the agreement must agree to sign electronically in order to utilize the electronic signature option. If your proposal is selected, you will be informed about how to obtain your credentials for electronic signatures (including how to become a MoDOT vendor if you are not already).

Standard contracts, forms, attachment templates and additional information are available from the website at <https://www.modot.org/information-researchers>.

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## Proposal Submission

### Submission Deadline

Proposals must be emailed by **10:00 AM (Central Time)** according to email time stamp by the submission date in the RFP Schedule to the Research Director's attention (Jen Harper) at: [MoDOTResearchRFP@modot.mo.gov](mailto:MoDOTResearchRFP@modot.mo.gov). Please reference the project title since more than one RFP may be due at one time. Electronic proposals are required.

### Submission Confirmation

You will receive an email confirmation after your proposal has been received. If you do not receive such a confirmation by **12 noon (Central Time)** on the day of the deadline, please contact us at [MoDOTResearchRFP@modot.mo.gov](mailto:MoDOTResearchRFP@modot.mo.gov) as soon as possible. Your submission should not be considered received until you have received your email confirmation.