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Missouri Department of Transportation
Patrick K. McKenna, Director

1.888.ASK MODOT (275.6636)

August 30, 2019

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 **TR202010** entitled, “**Missouri Systemic Countermeasures to Improve Pedestrian Safety**”. 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 by **October 10, 2019 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 Administrative Engineer



Our mission is to provide a world-class transportation system that is safe, innovative, reliable and dedicated to a prosperous Missouri.

www.modot.org

Background

Pedestrian safety on and around Missouri's travelways is of the utmost importance to MoDOT and our county, city and other local partners. Improving awareness in the driving public and visibility for pedestrians at uncontrolled crossings is not a one-size-fits-all approach, and many variables contribute to making one or more safety measures more ideal than another proven option when addressing pedestrian crossings.

MoDOT's Highway Safety Plan for 2019 reported a general trend of pedestrian fatalities in the state as increasing 3% per year and averaging over 80 fatalities per year, while the Strategic Highway Safety Plan reported more than 250 serious injuries per year. FHWA's Proven Safety Countermeasures for pedestrians and bicycles generally estimate a 60% reduction in crashes involving pedestrians and a potential 15% reduction in fatalities, depending on the implemented countermeasure.

Those countermeasures range from adjusting pedestrian/vehicle signal timing, utilizing high-visibility crosswalk markings, installing raised crosswalks, adding medians or pedestrian crossing islands, installing pedestrian hybrid beacons, and road diets, just to name a few. The cost to construct against the realized benefit for pedestrians can sometimes be lost in the fray of choosing what seems to be the most appropriate countermeasure for a given crossing location.

In order to truly realize a reduction in fatalities and injuries, the effort must be addressed not only by MoDOT, but also by county, city and other local roadway owners, where more than 25% of the fatalities occur. Ensuring that approaches to choosing appropriate countermeasures are easily discernible and applicable to conditions more common on Missouri roadways is a priority. This project will focus on providing an easy to use tool for local and state selection of better pedestrian safety countermeasures. Long-term measures of success would be implementation of more and better pedestrian improvements, followed by annual decreases in pedestrian related crashes and pedestrian fatalities.

Objectives

The objectives of this project are as follows:

- Analyze pedestrian-involved crash data in Missouri for situational trends.
- Maintain consistency in approved products (countermeasures) and application across various jurisdictions.
- Evaluate countermeasures to determine potential lives saved, serious injuries reduced, and benefit-cost ratio, based on a particular set of roadway criteria.
- Develop a pedestrian crash countermeasures decision table based on Missouri road and traffic data, to be used by various jurisdictions.

Project Requirements

Task 1: Project Management

The contractor will facilitate a kickoff meeting with MoDOT to review the work plan, scope, and schedule; and establish a protocol for regular ongoing communication and coordination with the team. This proposal will serve as the draft work plan, to be discussed in the kickoff meeting.

Upon comments received during the meeting and/or in writing, the contractor will incorporate those comments into a final work plan.

A Technical Advisory Committee (TAC) will be created prior to the kick-off meeting. The TAC will be involved in finalizing a list of countermeasures to include in the evaluation portion of the project, and will be present for quarterly status meetings.

The contractor will conduct a quarterly status meeting to review progress for the previous period and anticipated work for the next period. Contractor will also develop minutes for the kickoff meeting and each of the quarterly status meetings.

Task 2: Literature Review

The contractor will perform a literature review of current proven pedestrian crash countermeasures, emerging trends in systemic pedestrian treatments, and evaluations of deployed pedestrian crash countermeasures.

The Contractor will highlight any potential treatments that appear to be viable, cost-effective, and deployable across all Missouri jurisdictions (state, county, local/city).

Task 3: Generate List of Approved Countermeasures

In collaboration with the TAC, the contractor will create a list of approved products (countermeasures) for evaluation during this project. The project will likely include most of the pedestrian safety improvements that are included FHWA's Proven Safety Countermeasures for pedestrians and bicyclists. Those countermeasures identified in Task 2 will also be considered for inclusion.

The list of approved countermeasures should include those that have a proven track record of addressing common types of pedestrian safety issues in Missouri and applicable in most roadway crossing scenarios.

Task 4: Data Evaluations and Distinguish Thresholds

The contractor will evaluate for and distinguish data thresholds for countermeasure deployment.

The evaluation should allow for the analysis of crash data, approved countermeasures, risk factors, and any other pertinent available information, such that the plan will ultimately allow a user/jurisdiction to choose a pedestrian crossing, identify the features present, and inspect traffic and travelway information available in order to distinguish those countermeasures that provide the highest cost-benefit for the scenario.

A proposed plan for evaluation, or at minimum outlining method and techniques that will be employed in determining data thresholds, must be submitted as part of the proposal.

Task 5: Development of Pedestrian Crash Countermeasure Selection Tool

Using the information and analysis performed in previous tasks, the contractor will develop a table or matrix-type tool to aid local, county, and state jurisdictions in Missouri in the selection of the most appropriate pedestrian crash countermeasures for different roadway and crossing scenarios.

The tool should provide countermeasure selection in a manner similar to Table 1 of FHWA's "Field Guide for Selecting Countermeasures at Uncontrolled Pedestrian Crossing Locations"

(https://safety.fhwa.dot.gov/ped_bike/step/docs/pocket_version.pdf), while addressing the needs of various Missouri jurisdictions with the approved countermeasures.

Task 6: Develop Report, Research Summary and Presentation

The contractor will develop a final report detailing the tasks completed during the project, including any and all findings generated during the project's duration. The contractor will provide a 1-2 page research summary that states the project objectives and includes the countermeasure matrix/table and project conclusions. A presentation for MoDOT staff, summarizing important or significant details of the project, will also be provided.

Project Deliverables

Specify any quarterly, interim, summary or final reports, plus other deliverables such as data files or software as required for this specific project. See examples below. This should be detailed and probably lengthy.

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 on-going 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 template on the [website](#).

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 **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 **Publication Guidelines** and summary template on the [website](#).

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. Kickoff meeting minutes. Draft and final work plans. Quarterly project status meetings.
2	Results of literature review. List of potential pedestrian crash treatments/countermeasures.
3	Generate list of approved pedestrian crash countermeasures with input from MoDOT Technical Advisory Committee (TAC).
5	Pedestrian crash countermeasure selection tool.
6	Final report. Presentation. Final project meeting.

Project Schedule

The following is an estimate of the project timeline or information on key dates within the project, presuming the project starts **November 25, 2019**. 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. The project timeline will be discussed and finalized during the kickoff meeting.

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

Date	Milestone
On or before 12/10/2019	A kick off 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.
12/31/2019	Quarterly report due.
3/31/2020	Quarterly report due.
6/30/2020	Quarterly report due.

Date	Milestone
9/30/2020	Draft final report and draft research summary are due. The draft documents shall be submitted to MoDOT approximately two months prior to the final report.
11/30/2020	Final report, research summary and presentation 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.
12/31/2020	Final invoice due and contract ends.

Special Notes

Project budget is not to exceed **\$80,000**. 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>.

RFP Requirements

- “Contracting Documents” provide further details and links to the required forms. They are available at <https://www.modot.org/information-researchers>.
 - **Organization’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.
 - **Organization’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 8 pages in length with a font size no less than 11 points. This length limit **does not include** the proposal submission form, organization’s project experience, team member experience, organization’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); 4) organization’s project experience; 5) team member experience; and 6) organization’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 offeror will be based on the offeror’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 **offeror risks an automatic 10 point deduction (out of 100 total points)** when points are awarded during the Proposal Evaluation Process.

RFP Schedule

This document constitutes an RFP from qualified organizations to conduct the TR202010 Missouri Systemic Countermeasures to Improve Pedestrian Safety 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 Standard 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
8/30/2019	MoDOT posts RFP to the website at https://www.modot.org/research-requests-proposal .
9/17/2019 4:00 PM (CST)	Written comments or questions must be submitted to Research Administrative Engineer .
9/24/2019	MoDOT will post written responses publicly on the website at https://www.modot.org/research-requests-proposal .
10/10/2019 10:00 AM (CST)	Written proposals must be submitted to Research Administrative Engineer .
10/28/2019	MoDOT will notify submitters about project selection, or if needed about interviews to finalize selection.

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>.

Proposal Submission

Submission Deadline

Proposals must be emailed by **10:00 AM Central Standard Time** according to email time stamp by the submission date in the RFP schedule to the Research Administrative Engineer's attention (Jennifer Harper) at: 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 **12:00 PM (noon) Central Standard Time** on the day of the deadline, please contact us at MoDOTResearchRFP@modot.mo.gov as soon as possible. Your submission should not be considered received until you have received your email confirmation.