

**Missouri Department of Transportation**  
*Patrick K. McKenna, Director*

573.751.2551  
Fax: 573.751.6555  
1.888.ASK MODOT (275.6636)

February 29, 2016

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 TR201613 entitled, “Work Zone Split Traffic Symbol Sign”. 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 deliver all proposals to the Construction and Materials Contract Administrator indicated in the attachment by **April 7, 2016 (revised date)**. More information about project contracting in general can be found at: [www.modot.mo.gov/services/OR/orRFP.htm](http://www.modot.mo.gov/services/OR/orRFP.htm).

Sincerely,

Bill Stone  
Research Administrator



*Our mission is to provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri.*

[www.modot.org](http://www.modot.org)

This document contains information and requirements for only this RFP. A “Standard Requirements” document contains additional needs for all research proposals and contracting. Submitters should review both this document and the Standard Requirements document, available from the Construction and Materials Contract Administrator (identified at the end of this document) or:

[www.modot.org/services/OR/orTemplates.htm](http://www.modot.org/services/OR/orTemplates.htm)

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# TR201613

## Work Zone Split Traffic Symbol Sign

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### Background:

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MoDOT is working on a project in the St. Louis District which will be shifting three lanes, two lanes on one side and one lane on the other side of the work area. Depending on the number of lanes going around the work area, the corresponding MUTCD curve signs should be used. One concern is that with multiple signs the traveling public must catch both signs at the same time to understand how many lanes are available to travel around the work area. If a driver misses one sign due to vehicles blocking their view, they may think they have only one option and may make an aggressive lane shift to get into a “perceived open lane” when in reality they had open lanes if they would have stayed in their original lane.



W1-4



W1-4b

MoDOT would like to propose the following signs to correspond to the shifting of lanes around the work area. The signs provide the traveler enough information to let them know that all lanes are available to shift around the work area. The plans for the project are attached at the end of the RFP.



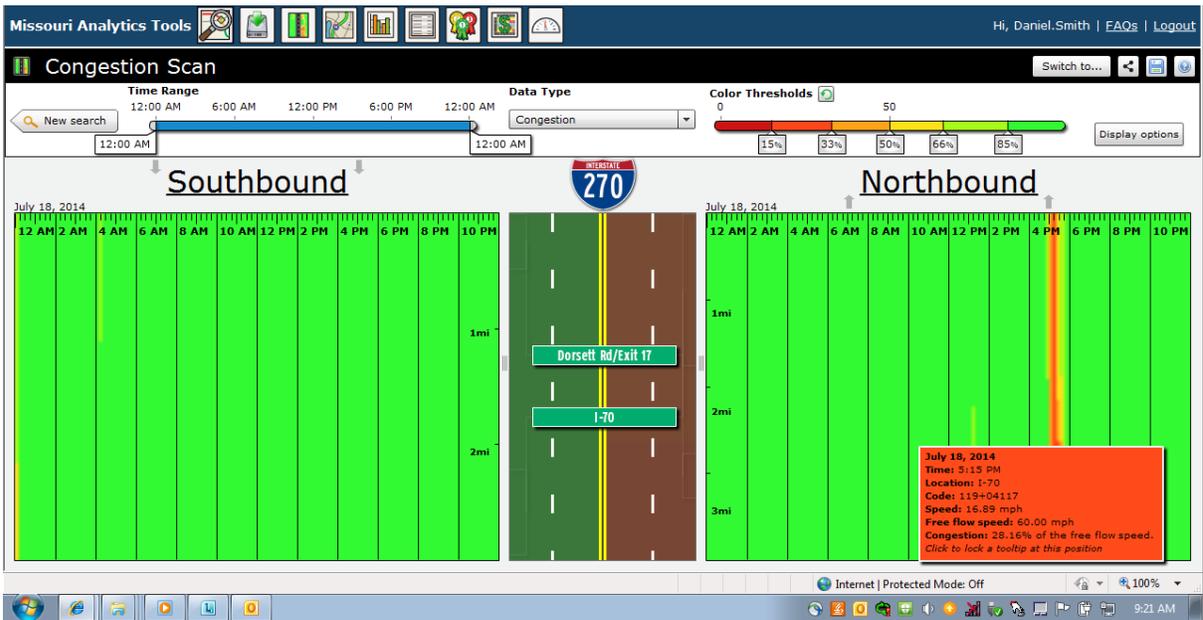
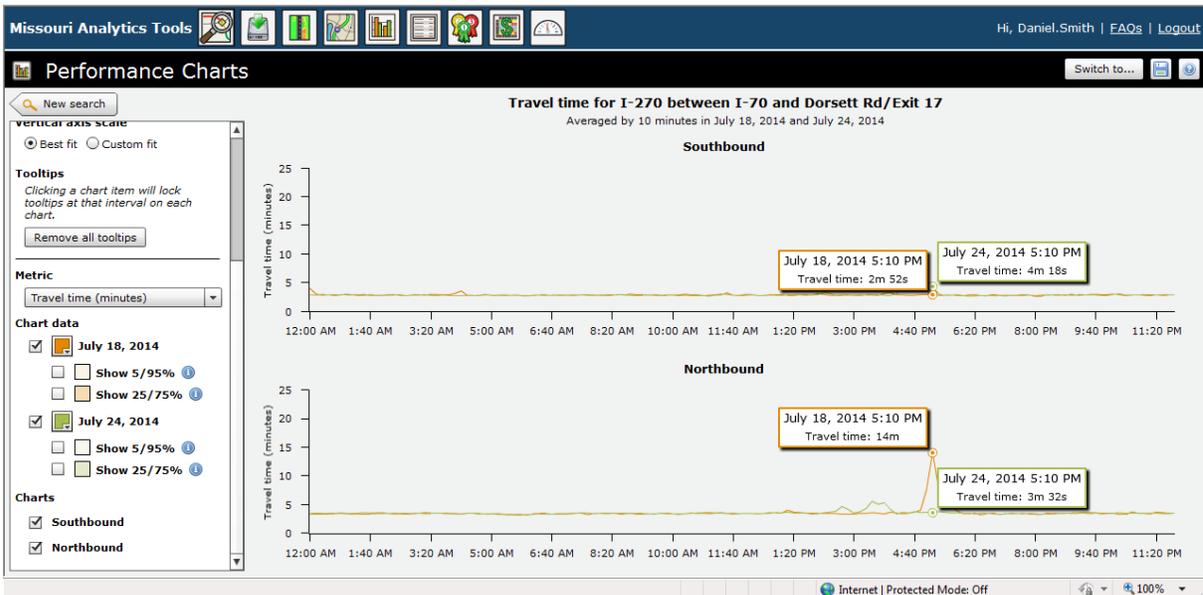
## Objectives:

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The objective of this research project is to study the work zone for project J6I2104, rehabilitation of bridges at the I-70 @ I-170 Interchange, during the summer of 2016 to determine driver acceptance of the new symbol sign. Methods required are:

1. Collect data from the MoDOT “Rate our Work Zones” survey on the project to determine driver perception of the work zone. The survey can be found here: <http://www.modot.org/workzones/Comments.htm>
2. Review any crash reports during the time of the work zone. Crash reports will be provided to the research team by St. Louis District’s Work Zone Management Team. Crash information should be compared to “before” conditions over the previous 12 months.
3. Cameras should be set up in two locations during the work zone. Cameras will be supplied by the research team. Video footage will be reviewed by the research team to view the reaction of the traveling public. Video should also be taken from the driver’s perspective through the work zone.
4. Interviews should be done with workers on the project, both MoDOT and contractor staff, to get their thoughts on the effectiveness of the signs.
5. MoDOT has access to Real Time Data through “HERE” which is displayed through Regional Integrated Transportation Information System (RITIS). With this data the research team will compare the project with historical data and real time data. The project is designed to maintain three lanes throughout the entire project. In theory, the work zone project should not have a significant reduction in capacity and should not have queuing or travel delays greater than normal conditions. The following high volume times should be reviewed; AM peak, PM peak, and Friday traffic.

The figures below show the output from the RITIS programs.



## Project Schedule:

The following is an estimate of the project timeline or information on key dates within the project, presuming the project starts May 15, 2016. Proposals need to include a work plan with a proposed timeline. While alternative timelines will be considered, an extension is unlikely. The project timeline will be finalized during the contracting phase.

**Last working day of each quarter:** Quarterly updates on work accomplished during the quarter are due on or before the last working day of any March, June, September, and December during the course of the project.

**On or before June 15, 2016:** A kick off meeting with MoDOT will be scheduled to discuss project requirements and deliverables.

**June 30, 2016:** Finalized work plan and quarterly report due.

**Summer 2016:** Timing of the stage of the project with the new signs will be determined based on the starting date of the contractor and weather. The research team chosen will need to work closely with the contractor and MoDOT's St. Louis District as the project progresses. It is anticipated the signs will be in place for less than 2 weeks.

**September 30, 2016:** Quarterly report due

**November 7, 2016:** Draft Final Report due

**December 15, 2016:** Final Report due

**January 30, 2017:** Final Invoice due

(For report templates and a standard form see:  
[www.modot.org/services/OR/orTemplates.htm](http://www.modot.org/services/OR/orTemplates.htm))

Special Notes:

Project budget is not to exceed \$75,000. A budget is not to be included in the proposal, but will be required for the contract and must be within this limit.

Reporting templates and standard report forms are available from the Construction and Materials Contract Administrator or the web site:  
[www.modot.org/services/OR/orTemplates.htm](http://www.modot.org/services/OR/orTemplates.htm)

#### **RFP Requirements:**

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- Proposals must be no more than 10 pages with a font size no less than 11 points. This length limit does not include forms or resumes attached to the proposal.
- The “Standard Requirements” document provides further details and links to the required forms. It is available from the Construction and Materials Contract Administrator or at: [www.modot.org/services/OR/orTemplates.htm](http://www.modot.org/services/OR/orTemplates.htm)
- Proposals will be evaluated by an agency and stakeholder team with knowledge and backgrounds in relevant areas for this project. Selection of the successful proposer will be based on the proposer'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.

#### **RFP Schedule:**

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

<b>Date:</b>	<b>Action:</b>
February 29, 2016	MoDOT posts RFP to the website: <a href="http://www.modot.mo.gov/services/OR/orRFP.htm">www.modot.mo.gov/services/OR/orRFP.htm</a>
March 14, 2016	Written comments or questions must be submitted to Jen Harper at <a href="mailto:jennifer.harper@modot.mo.gov">jennifer.harper@modot.mo.gov</a> or 573-526-3636.
March 21, 2016	MoDOT will post written responses publicly on the website: <a href="http://www.modot.mo.gov/services/OR/orRFP.htm">www.modot.mo.gov/services/OR/orRFP.htm</a>
April 4, 2016 Revised: April 7	Written proposals must be submitted to Construction and Materials Contract Administrator.
April 20, 2016	MoDOT will notify submitters about project selection, or if needed about interviews to finalize selection.

#### **Contracting Requirements:**

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- 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.
- Standard contracts, forms, attachment templates and additional information are available from the Construction and Materials Contract Administrator or the web site:  
[www.modot.org/services/OR/orTemplates.htm](http://www.modot.org/services/OR/orTemplates.htm)

#### **Contact Information:**

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Proposals must be either hand delivered by close of business; or faxed, emailed, or mailed by midnight (Central Standard Time) according to time stamp or postmark; on the due date indicated below. Please reference the project title since more than one RFP may be due at one time. Electronic proposals are encouraged. They may be faxed or emailed to the Research

Administrator:

[William.Stone@modot.mo.gov](mailto:William.Stone@modot.mo.gov)

Fax: 573-526-4324

Proposal packages suitable for duplicating may be submitted by mail or hand delivery to:

Construction and Materials Research Administrator

Missouri Department of Transportation

1617 Missouri Blvd

PO Box 270

Jefferson City, MO 65109