

Missouri Department of Transportation
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SPECIAL NOTICE TO CONTRACTORS

Opportunity for Alternate Technical Concepts (ATCs) Central District - Job No. J5P0820D, Route 50/63 (Cole County)

June 25, 2014

An information session will be held to discuss the use of alternate technical concepts (ATCs) on the Lafayette interchange project (Job No. J5P0820D) in Cole County. The project bid opening is scheduled for September 19, 2014.

The MoDOT furnished design will contain all the items of work for the traffic control and staging for construction. Through the ATC process, the contractor may propose an alternate design for the maintenance of traffic, including the traffic control items, staging of construction and any drainage, earthwork or temporary pavement associated with the staging.

The informational meeting will discuss the maintenance of traffic plans provided in MoDOT's design and provide the guidelines for the ATC process. The meeting is scheduled for the following date, time and location.

Date: July 1, 2014
Time: 10:00 a.m.
Location: MoDOT
Central District Office
1511 Missouri Blvd
Jefferson City, MO 65101
Muri Conference Room

Preliminary traffic control plans and cross sections will be posted to the MoDOT Plans Room Friday, June 27, 2014. General information on how MoDOT manages alternative technical concepts can be found in Section 147.1 of the Engineering Policy Guide (EPG):

[http://epg.modot.mo.gov/index.php?title=147.1 Alternative Technical Concepts](http://epg.modot.mo.gov/index.php?title=147.1%20Alternative%20Technical%20Concepts)

Attendance is not required but strongly recommended.

If you have any questions or require additional information, please contact:

Michael Dusenberg
MoDOT Project Manager
573-751-7699
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Guidelines and Procedures for ATC Process Lafayette Interchange Projects J5P0820D/J5P3015B

1.0 Description. This project will allow contractors the opportunity to include in their bid proposal, pricing for a pre-approved Alternate Technical Concept (ATC) that differs from the Missouri Department of Transportation (MoDOT) base design proposal. ATCs allow for innovation, project schedule reduction and cost savings to obtain the best value for the project that meets or exceeds the project goals, and which provides a product, which is equal to or better than the concept it replaces.

1.1 The MoDOT furnished design contains all of the items of work for the traffic control and staging for the project to be bid. The contractor may propose an ATC for the maintenance of traffic including the traffic control items, staging of construction and any earthwork, drainage and temporary pavement associated with the staging. If an ATC is pre-approved by MoDOT, the contractor has the option of submitting a bid for the pre-approved ATC proposal or the MoDOT furnished base design. The contractor will only be allowed to submit one bid for this project.

1.2 The project goal for maintenance of traffic is to minimize public impact by keeping regional and local traffic flowing efficiently and safely through the impacted area. Any Maintenance of Traffic ATC shall provide an equivalent or better impact to traffic during construction when compared to the traffic management provided in the MoDOT base plans. The determination of equivalent impacts or acceptable impacts to traffic shall be at the sole discretion of MoDOT and FHWA.

2.0 Project Contact. All submittals and inquiries regarding ATCs for this project should be directed via email to the contact as listed below:

Michael Dusenberg, P.E.
MoDOT - Central District
1511 Missouri Boulevard, P.O. Box 718
Jefferson City, MO 65102
Telephone Number: (573) 751-7699
Fax Number: (573)751-8267
Email: Michael.Dusenberg@modot.mo.gov

3.0 ATC Process Schedule.

June 27, 2014	Preliminary Traffic Control Plans and Cross Sections posted to the MoDOT Plans room.
July 1, 2014	Informational Meeting to explain the ATC process.
July 7, 2014- July 18, 2014	Confidential one-on-one contractor meetings. Conceptual ATCs will be accepted for review.
4 business days after submittal	All Conceptual ATCs approved.
From approval of CATC to August 8, 2014	All Final ATCs will be accepted for review
4 business days after submittal	All Final ATCs approved.
From approval of Final ATC to September 5, 2014	Development of plans to biddable quantities.
September 12, 2014	ATC bid document available to contractor.
September 19, 2014	Bids due.

4.0 ATC Submittal Process. Submittal and evaluation of ATCs will include the following:

4.1 Contractor/MoDOT Confidential One-on-One Meeting. This will consist of one-on-one confidential meetings between the contractor and the ATC review team to discuss/review the contractor’s Conceptual ATC (CATC) proposals. CATCs will require minimal engineering and are intended to allow contractors to present their ideas to the ATC team in a confidential environment prior to investing time and resources into detailed engineering of their concept.

4.2 Requirements for Conceptual Alternate Technical Concept Submittal. Requirements for the CATC submittal shall include at a minimum:

- a) Detailed narrative of the CATC being proposed (detailed to at least enough information for MoDOT to estimate cost and time savings).
- b) Estimate of cost savings.
- c) Estimate of time savings.
- d) Impact to the environment, utilities and right of way and any previous permits or approvals.
- e) A description of any previous use or submission of similar technical concepts or value engineering proposals, including dates, job numbers, results, and/or outcome of the ATC/VE if previously submitted, as known by the contractor. This would include ATCs/VEs from any state DOT.

4.3 CATC Review and Approval. MoDOT will review submitted CATCs and respond back to the contractor as soon as possible, but not to exceed 4 business days. Yet, MoDOT reserves the right to take longer depending on resources and evaluation needs of the specific CATC. The contractor will be notified prior to completion of the 4 day time period if more time will be necessary. If a CATC is accepted, MoDOT will provide written approval of the CATC. MoDOT will estimate a cost to develop the CATC into a biddable set of plans and the final re-design

costs after award. **A CATC proposal must produce an estimated net savings after design costs are deducted greater than \$100,000 to be considered for design.** Approval of the CATC to the contractor will include MoDOT's maximum redesign cost and redesign time for the ATC. If a CATC is disallowed, the contractor will be notified as to why.

4.4 Requirements for Final Alternate Technical Concept Submittal. Once a CATC is approved, the contractor may choose to pursue the ATC in more detail and submit it for final approval and inclusion in the bidding documents. The bidder shall submit three copies of the Final ATC with the following information:

- a) Description: Provide a detailed description of the ATC including specifications and conceptual drawings, and a description of where and how the ATC would be used on the Project. ATC submittals shall include enough roadway design details to determine acceptance of the ATC which shall include if applicable, but not limited to: geometrics, profiles, typical sections, and traffic control concepts.
- b) Cost Differences: A detailed statement of the cost differences associated with the implementation of the ATC. Include an itemized list of impacted bid items and quantities supporting the cost differences for the ATC.
- c) Schedule Impact: A discussion of the effect the ATC will have on the contract completion time including design, construction, right of way, utility relocation, and/or permitting issues.
- d) Certification that the ATC meets all applicable federal and state design standards, or conforms to a pre-approved AAS.
- e) Utilities: A discussion of utility (public and private) impacts and potential added costs.
- f) Permits: A discussion of permit changes, additional permits and/or agency approvals that may be required for the ATC.
- g) Right of Way: A discussion of the right of way impacts (both temporary and permanent) for the ATC.
- h) Traffic and Safety Impacts: A discussion of the impacts the ATC will have on maintenance of traffic during construction.
- i) Maintenance: A discussion of the maintenance impacts over the design life of the project.
- j) Inspection: Any additional testing and construction inspection requirements.
- k) Risks: A discussion of added risks to MoDOT and other parties associated with implementing the ATC.
- l) A description of any previous use of the proposal by the bidder, including dates, job numbers, results and/or outcome of the proposal.

4.5 Final ATC Review and Approval. MoDOT will review submitted ATCs and respond back to the contractor as soon as possible, but not to exceed 4 business days. Yet, MoDOT reserves the right to take longer depending on resources and evaluation needs of the specific ATC. The contractor will be notified prior to completion of the 4 day time period if more time will be necessary.

4.5.1 Evaluation of ATCs. ATCs will be evaluated based on compliance to the requirements of these guidelines. ATCs that do not meet these requirements will fail and not be considered for bid. MoDOT and FHWA shall be the sole judges in determining compliance with these requirements. If a CATC is proposed and approved based on the requirements, but does not fulfill these requirements when it is submitted as an ATC, it will not be considered for bid.

- a) The ATC was first evaluated and accepted as a Conceptual ATC (CATC).
- b) The ATC meets or exceeds the minimum requirements and engineering standards listed in these guidelines.
- c) The ATC does not adversely affect the long-term maintenance of the project.
- d) The ATC does not adversely affect the overall completion time and scope of the project.
- e) The ATC is consistent with the overall project goals, which include but are not limited to the following:
 - a. Deliver the project on budget
 - b. Minimize public impact by keeping regional and local traffic flowing efficiently and safely through the impacted area
 - c. Incorporate innovative design including faster/better construction techniques, quality control & inspection
 - d. Coordinate with all partners and the local community resulting in a project that is viewed as successful
- f) The ATC is equal to or better than the original design proposal. The ATC shall not cause a decrease in engineering standards for any safety related items, including but not limited to: reduction in shoulder widths, reduction in lane widths, decrease in design speed, decrease in clear zone, or reduced traffic control performance, etc. To be considered for approval, all safety related elements of the ATC must meet or exceed the MoDOT furnished base design.
- g) Direct or secondary cost and/or delay related to utility conflicts.

4.5.2 Approved ATCs. If the proposed ATC is given a “pass” recommendation the concept is considered pre-approved and may be submitted as a bid by the contractor. The contractor shall notify MoDOT in writing within 2 calendar days of approval of the ATC their intent to pursue the ATC. An approved ATC which is comprised of multiple elements must be bid as a whole, selective implementation of less than all the elements will not be accepted.

The contractor will have no claim for additional costs or delays, including development costs, loss of anticipated profits, or increased material or labor costs, if the ATC is rejected.

An approved ATC that is not submitted with the bid will not be considered a pre-approved value engineering change proposal (VECP). The awarded contractor may submit their approved ATC as a VECP, however, the fact that it was approved as an ATC shall have no bearing on potential approval as a VECP, and it will be reviewed independently in accordance with Sec 104.6 of the Missouri Standard Specifications for Highway Construction.

Any approved ATC by other bidders may be considered eligible for submittal as a VECP, only in the event the awarded contractor has an agreement letter from other bidders stating it is permissible to utilize the other bidder's approved concept.

5.0 General Design Specifications – Minimum Requirements. The following are requirements and limits that will be placed on the ATCs for this project.

1. Roadway designs shall be in accordance with any state and all federal requirements, unless otherwise specified elsewhere in these contract documents.
2. ATCs proposing changes in maintenance of traffic should maintain traffic as good as or better than the Commission base design. Closures exceeding that of the base plan will be considered depending upon impacts to the traveling public and local input. The minimum restrictions identified in the base plan are as follows:
 - a) Maintain access to all private entrances and access roads on Lafayette Street, Jackson Street, Chestnut Street and Clark Avenue.
 - b) Maintain 2 lanes of traffic on Route 50 in each direction at all times, except as identified in Stage 2 of the Traffic Control Plan and in section 3.4 in this JSP. In order to ensure minimal traffic interference, the contractor shall schedule lane closures for the absolute minimum amount of time required to complete the work.
 - c) Only one weekend closure from 8 p.m. Friday to 6 a.m. Monday is permitted for the removal of the Jackson Street and Chestnut bridges concurrently.
 - d) One weekend closure of the westbound lanes from 8 p.m. Friday to 6 a.m. Monday is permitted for construction of the pavement tie-ins. One weekend closure of the eastbound lanes from 8 p.m. Friday to 6 a.m. Monday is permitted for construction of the pavement tie-ins.
 - e) In order to ensure minimal traffic interference, the contractor shall schedule lane closures for the absolute minimum amount of time required to complete the work. Lanes shall not be closed until material is available for continuous construction and the contractor is prepared to diligently pursue the work until the closed lane is opened to traffic.
 - f) The Contractor shall notify the engineer at least 48 hours prior to lane closures or shifting traffic onto detours. Specifically, the Contractor shall notify the engineer four weeks prior to closing Route 50-63.

6.0 Confidentiality. All members of the review team (except FHWA) will be required to sign a confidentiality agreement before reviewing any CATC/ATC submittals. A copy of the form to be used for this purpose may be requested. All CATC and ATC submittals are considered confidential and will not be shared with other bidders.

MoDOT expressly reserves the right to adopt any specific CATC or ATC as standard practice for use on other contracts administered by MoDOT, whether the CATC or ATC is accepted or rejected. The CATC or ATC shall not be used by MoDOT until after the award of this project.

An approved ATC is made public only if it is the low bid. Approved ATCs submitted by other than the low bidder are not disclosed.

7.0 Design Requirements. MoDOT will be responsible for all re-design costs, including design of the approved ATC to biddable quantities and the final re-design after award. Prior to bid, the plans will be developed to a degree such that MoDOT and the contractor are satisfied that accurate biddable quantities are established. If the successful low bidder's proposal contains an ATC, their ATC will be developed into a finalized set of plans.

The contractor will be included in review and oversight of developing the ATC re-design plans. If necessary, weekly meetings between the design team and the contractor will be held. All communication between the contractor and design team will be written or in-person with minutes recorded. MoDOT will have final approval of design plan changes.

Subsequent to bid, final re-design will not proceed until the project is awarded and the contract executed. The final re-design will be complete before any construction activities related to the ATC proposal may proceed. MoDOT will not be responsible for any cost associated with project delays due to the redesign and production of plans, specifications and quantities as needed for implementation of the ATC's or any additional construction cost not foreseen prior to the ATC design completion.

8.0 Deliverables. The following deliverables shall be prepared for approved ATCs in accordance to MoDOT's Engineering Policy Guide (EPG) and applicable state laws.

8.1 Pre-Bid Deliverables.

- a) MoDOT will develop a revised Bid Document in coordination with the contractor including plans, bid items and associated quantities and Job Special Provisions unique to the approved ATC proposal.
- b) Upon approval of the CATC, MoDOT will coordinate with the contractor to establish an agreed upon cost estimate for the re-design. The contractor shall include the agreed upon re-design cost in the bid as a separate bid item. The re-design cost will be added to the bid to determine the lowest responsive and responsible bid for the project. The re-design cost will be used only for bid comparison and will not be considered a part of the contract award amount. MoDOT will not be responsible for any additional re-design cost beyond the agreed amount specified in the bid.
- c) If the ATC requires additional right of way, including easements or property rights, MoDOT will provide the contractor a cost estimate of the additional right of way. The contractor shall include the agreed upon right of way cost in their bid as a separate bid

item. The right of way cost will be added to the bid to determine the lowest responsive and responsible bid for the project. The right of way cost will be used only for bid comparison and will not be considered a part of the contract award amount. This estimate will be delivered approximately one week prior to the bid opening.

- d) If the ATC requires adjustment of utilities, the contractor shall coordinate with the applicable Utility Companies to develop an estimated cost for utility relocation. The MoDOT and contractor agreed upon utility cost shall be included in the bid as a separate bid item. The utility cost will be added to the bid to determine the lowest responsive and responsible bid for the project. The utility cost will be used only for bid comparison and will not be considered a part of the contract award amount. MoDOT will not be responsible for any additional utility cost beyond the agreed amount specified in the bid. This estimate will be delivered approximately one week prior to the bid opening.

8.2 Post Award Deliverables.

- a) Final Engineering Plans: A complete set of Roadway plans (if applicable) will be completed by MoDOT for the entire project. The plans will be completed by an agreed upon date established by the contractor and MoDOT.
- b) Right of Way Plans: If the ATC requires additional right of way or easements beyond existing MoDOT property then signed and sealed right of way plans are necessary to begin the acquisition process. The right of way plans will be completed by MoDOT by an agreed upon date established by the contractor and MoDOT.
- c) Utility Plans: If the ATC requires adjustment of utilities, the contractor shall coordinate with the applicable Utility Companies to develop utility relocation plans prior to initiating any work that would affect utilities.
- d) Construction Schedule: The contractor shall submit a Critical Path Method (CPM) schedule incorporating all major design and construction activities. The milestones shall include all witness and hold points, controlling items of work, partial completion dates, final completion dates, bridge closure and opening dates. The schedule is due by an agreed upon date established by the contractor and MoDOT.
- e) Released for Construction Plans: As mutually agreed upon by MoDOT and the contractor, construction plans may be divided into component based packages rather than a complete construction set. For example, Roadway packages may be grading and drainage, pavement and base, and finished roadway. Miscellaneous plans like erosion and traffic control will be included in other packets as necessary for construction.
- f) Location Survey Plat: If the ATC included the purchase of additional right of way or permanent easements, then MoDOT will complete a location survey plat.

9.0 Bidding Requirements. The proposal documents contain all of the proposed work for the project to be bid as designed by MoDOT. Contractors choosing not to participate in the ATC process must bid the base set of plans furnished by MoDOT.

Contractors with pre-approved ATCs will receive a modified electronic bidding software (ebs) file with separate pay items for the pre-approved ATC and other applicable bid items. If the contractor elects to bid the project with pre-approved ATCs, the contractor shall enter the unit prices in the modified bidding document and submit the ATC bid electronically via an ftp site.

10.0 Basis of Payment. A contractor with an awarded ATC low bid will be paid the contract unit price for the items bid in the ATC bid. If the successful contractor's pre-approved ATC is abandoned by the contractor or fails to be constructed for any reason, the contractor is obligated to complete the project utilizing the original design at the awarded cost. A no cost change order will be processed to re-adjust the bid items to the original design quantities.

Any quantity adjustments for an awarded low bid ATC will be done in accordance with of the Missouri Standard Specifications for Highway Construction. No direct payment will be made for any change in quantity of pay items contained in the base design that are indirectly impacted because of utilizing an ATC on the project.

No direct payment will be made for delay of schedule due to the use of an ATC, including but not limited to delay resulting from the design, review, implementation, right of way acquisition or construction of an ATC. Additionally, if the ATC causes conflicts with utilities that were not previously identified in the original ATC submittal, the contractor's sole remedy for the effects of the presence of utilities, delay in their relocation or any other effects they have on delivery of the project shall be a non-compensable, excusable delay as provided in Section 105.7.3 of the Missouri Standard Specifications for Highway Construction. No time delay will be granted for any utility conflicts identified in the original ATC submittal.

11.0 Basis of Award. The contract will be awarded to the lowest responsible bidder. For an approved ATC bid, the contractor will be required to include in the bid any additional right of way, utility or re-design costs associated with the ATC proposal. These costs will be established and agreed upon between the contractor and MoDOT prior to bid. These costs will be added to the bid to determine the lowest responsive and responsible bid for the project. These costs will be used only for bid comparison and will not be considered a part of the contract award amount.