



**MISSOURI DEPARTMENT OF TRANSPORTATION  
FORMAL BID GUIDELINES AND DOCUMENTATION  
FOR PURCHASES ABOVE \$25,000.00**

**REQUEST FOR BID  
MODOT CENTRAL DISTRICT**

It is the vendor's responsibility to read and comply with all conditions, specifications, and instructions outlined in this document. This document and any subsequent attachments shall supersede all confirmation forms, receipts, or any other paperwork needed to secure materials, equipment, or services.

TODAY'S DATE:  <b>MAY 22, 2012</b>	<b>BIDS DUE BY (DATE AND TIME):</b> <b>JUNE 14, 2012</b> <b>(1:00 PM CDST)</b>  <b>'SEALED BIDS REQUIRED'</b>	F.O.B. REQUIREMENTS:  <b>FOB DESTINATION</b>
TO BE DELIVERED/COMPLETED NO LATER THAN:  <b>NO LATER THAN</b> <b>AUGUST 15, 2012</b> <i>*SEE BID REQUIREMENTS</i>  PLEASE PROVIDE BEST DELIVERY.	<b>QUOTATION #:</b> <b>CD-12-041B</b>  THIS QUOTATION # SHOULD BE REFERENCED ON ALL MAILING LABELS, ENVELOPES, AND ANY OTHER CORRESPONDENCE.	BUYER NAME:  <b>COREY DUEMMEL</b> <b>SR. PROCUREMENT AGENT</b>  PHONE NUMBER: <b>(573) 526-6956</b> FAX NUMBER: <b>(573) 526-6796</b>
District Mailing Address: <b>MoDOT District 5 Office</b> <b>1511 Missouri Blvd.</b> <b>P.O. Box 718</b> <b>Jefferson City, MO 65102</b>	Delivery Locations:  <b>See Attached Quote/Bid Specifications</b>	

The Missouri Department of Transportation desires to establish pricing for the installation of Guardrail on a bridge, as well as other preparatory work.

*See Enclosed Specifications, Details and Pricing Pages*

**VENDOR NOTES**

All responses to this Request for Bid **MUST** be submitted with this form and all pages **MUST** be returned to the Buyer listed above at the District mailing address as a **SEALED BID**. **No faxes.**

**VENDOR NAME:**



## **BID PROPOSAL**

**The Missouri Department of Transportation (MoDOT) desires to establish pricing for the installation of guardrail on a bridge/box culvert located on Rt. W in Gasconade County.**

### **Project Scope**

MoDOT currently has a one-lane bridge that will be converted into a two-lane (20 feet wide) bridge. MoDOT personnel will be responsible for the preparatory roadwork prior to installation of guardrail. This work will be completed prior to contractor mobilization to site.

The contractor's scope of work will be to 1) remove the existing culvert head/wing walls per plan sheets (Attachment B), 2) attach new bridge guardrail (three-beam) to the exterior face. Additional work will also consist of installing new Type A Crash Worthy End Treatment sections in two quadrants, an SRT-350 Crashworthy End Terminal in the Southeast quadrant and one end section in the Northwest quadrant of the bridge approaches.

### **Location**

MO Rt. W – Gasconade County, MO located just west of Little Bay Road (County Road 238). 0.7 Miles north of Rte. K and 4.9 miles south of Rte. F.

### **Construction Requirements/Specifications**

Bidder (contractor) is responsible for inspecting site locations prior to bidding to determine site conditions. For example, if drilling in rock for some guardrail post placement is required, it will not a direct pay item and it shall be included in the lump sum per line item.

Contractor shall be responsible in ensuring a minimum 20' foot roadway is obtained across the whole bridge/box culvert. The final layout must be approved for acceptance.

All material and work must be constructed in accordance with the 2011 Missouri Standard Specifications for Highway Construction and its latest supplements, as well as, the enclosed drawing/plans as directed by the Project Manager, Preston Kramer (Area Engineer.) Enclosed is also a set of Job Special Provisions to be followed where applicable to the Scope of Work and repair. (See enclosed drawings and plans.)

### **Enclosed**

Attachment A – Drawing  
Attachment B – Standard's Plan Sheets  
Attachment C – Job Special Provisions

The following table is a list of estimated quantities to complete the each project. This list is only an estimate, and the contractor is responsible for final review of the required material to fully complete each project, meeting all requirements.



PAY ITEM	DESCRIPTION	UNIT	QTY
6061010	GUARDRAIL TYPE A WITH 6' ft. POST, 6' ft.– 3" in. SPACING	LIN. FT.	13
6062301A	TRANSITION SECTION, 7.5 POSTS	EA	4
7134000	BRIDGE GUARD RAIL (THRIE BEAM)	LF	61
6063015	TYPE A CRASHWORTHY END TERMINAL (All types)	EACH	3
6069902	END ANCHOR SECTION	EACH	1
2160500	REMOVAL OF BRIDGES	LUMP	1
6181000	MOBILIZATION	LUMP	1
6169902	TRAFFIC CONTROL	LUMP	1

### **Traffic Control**

To be provided by contractor in accordance with MODOT specs and traffic control plan. The contractor shall notify Preston Kramer, Area Engineer (Project Manager at least five working days prior to performing work, Bus. (573) 301-4202. An alternate contact is Corey Duemmel, (573) 526-6956, [corey.duemmel@modot.mo.gov](mailto:corey.duemmel@modot.mo.gov)

### **Unique Site Conditions**

1. Contractor is responsible for having all utilities located prior to work if applicable.
2. Contractor will be responsible for repairing any damage done to surrounding environment (i.e. rutting ground, curbing, etc.).
3. During construction, the Contractor must keep one lane of traffic (minimum 9-foot) open at all times, unless otherwise authorized by the Project Manager.

### **Prevailing Wage**

The awarded contractor shall be required to comply with the prevailing wages as fixed by the Missouri Department of Labor and Industrial Relations (DOLIR). General Wage Order #55 for GASCONADE COUNTY, as published by the Missouri Department of Labor and Industrial Relations is in effect. If awarded the contract, the Contractor shall be responsible for submitting notarized weekly payroll affidavit documentation included with the project request for payment. The successful vendor must provide a lien waiver from all material suppliers.

Link to DOLIR where all forms can be found.

[http://www.labor.mo.gov/DLS/WageAndHour/PrevailingWage/general\\_wage\\_order.asp](http://www.labor.mo.gov/DLS/WageAndHour/PrevailingWage/general_wage_order.asp)

### **Period of Performance**

Receipt of 'Notice to Proceed' until end of day August 15, 2012. Awarded Contractor shall note that once work is started, project must be completed within two weeks (10 business days), with all work still meeting the August 15<sup>th</sup> deadline.

### **Inspection**

All work will be inspected during construction. A final inspection will be made to determine compliance of standard specifications.



### **Important Bidder Information**

A contractor bidding on a MoDOT highway construction project must have a contractor questionnaire on file with the Commission. Submit completed Contractor Questionnaire with attachments not later than seven (7) days prior to the date and hour of the bid opening. See Sec 102.2 of the Missouri Standard Specifications for Highway Construction, and Rule 7 CSR 10-15.900, "Pre-qualifications to Bid of Certain Contractors". Questionnaire and Contact information are provided on MoDOT's website at <http://www.modot.org/business/BecomeAMoDOTPrimeContractor.htm>.

This bid and its opening is unable to use the resource of the '**Electronic Bid Bond**' that is kept on file with our Design and Construction Division. Please submit an individual bid bond or alternative as indicated in Section **Bid/Proposal Guaranty and Contract Bond**.

The use of 'Electronic Bid Submittal' as offered through the Design and Construction monthly bid lettings is also not in use for this bid submittal. Returned Sealed Bids are required for this bid.

Bidders are encouraged to obtain minority business enterprise (MBE) and women business enterprise (WBE) participation in this work through the use of subcontractors, suppliers, joint ventures, or other arrangements that afford meaningful participation for M/WBEs. Bidders are encouraged to obtain 10% MBE and 5% WBE participation.

### **Bid/Proposal Guaranty and Contract Bond**

- a. Each bid shall be accompanied by a Bid Bond, Certified Check, Cashier's Check or Bank Money Order payable to the Director of Revenue – Credit State Road Fund for an amount equal to Five Percent (5%) of the amount of the BID submitted. This is to act as a guarantee that the bidder, if awarded the contract, will furnish an acceptable performance and payment bond (Contract Bond) or a cashier's check, a bank money order or a certified check made payable to "Director of Revenue--Credit State Road Fund" in an amount equal to One Hundred (100%) of the contract price.
- b. If a BID BOND is used (in lieu of a certified check, cashier's check, or bank money order), it must be in the form provided and executed by the bidder as principal and by a surety company authorized to do business in the State of Missouri as surety. The agent executing the same on behalf of the surety company must attach a current Power of Attorney setting forth his authority to execute the bond involved.
- c. Certified Checks, Cashier's Checks or Bank Money Orders of unsuccessful bidders will be returned as soon as the award is made. The checks or bank money orders of the successful bidder(s) will be retained until the contract is executed and a satisfactory Performance and Payment (Contract Bond) is furnished. Bid Bonds will not be returned except on specific request of the bidder.

Failure to execute the contract and file acceptable performance payment (Contract Bond) or cashier's check, bank money order or certified check within **15 days** after the contract has been mailed to the bidder shall be just cause for the cancellation of the award and the forfeiture of the proposal guaranty. Award may then be made to the next lowest responsible bidder, or the work may be re-advertised and performed under contract or otherwise, as the Commission may decide. No contract shall be considered effective until it has been executed by all parties thereto



**Liquidated Damages:**

In the event the successful Contractor fails to complete the project within the time specified, the Department and the public will sustain damages because of such delay in delivery. The exact extent of which would be difficult to ascertain, and in order to liquidate such damage in advance it is agreed that the **sum of five hundred dollars (\$500.00) per day**, for each assessable calendar day on which the delivery has not been completed, is reasonable and the best estimate which the parties can arrive at as liquidated damages, and it is therefore agreed that said amount will be withheld from payments due the Contractor or otherwise collected from the Contractor as liquidated damages.

**Award/Cancellation**

Award will be made to the lowest total price to complete the project based on the listed specifications.

MoDOT reserves the right to cancel this bid at any time. Failure to comply with the requirements published in this bid may result in the bid being subject to rejection.

**Invoicing and Payment Requirements**

The contractor shall submit an itemized invoice on Company Letterhead along with all payroll documents and affidavits.

The contractor shall be paid in accordance with the firm, fixed prices stated on the pricing page of this document. Other than the payment specified on the pricing page, no additional charges, including fuel surcharges shall be made to the contractor for any reason.

Payment will be made only after the Project Coordinator completes the final inspection

**Contacts**

If you have any questions regarding project scope requirements, please call:  
Corey Duemmel at (573) 526-6956.



### **ADDITIONAL NOTES**

All awarded bidders **MUST**:

1. Be in compliance with House Bill 600, Section 34.040.6 RSMo, which states MoDOT is precluded from contracting with a vendor or its affiliate who makes sales at retail of tangible personal property or for the purpose of storage, use or consumption in this state but fails to collect and properly pay the tax as provided in RSMo 144, their number is (573) 751-9268.
2. Be in good standing with the Secretary of State's office prior to issuance of 'Notice to Proceed.' Their phone number is (573) 751-4936.
3. Pursuant to 285.530 RSMo, the bidder must affirm its enrollment and participation in a federal work authorization program with respect to the employees proposed to work in connection with the services requested herein by

Submitting a completed, notarized copy of AFFIDAVIT OF WORK AUTHORIZATION, and

Proving documentation affirming the bidder's enrollment and participation in a federal work authorization program (see below) with respect to the employees proposed to work in connection with the services request herein.

E-verify is an example of a federal work authorization program. Acceptable enrollment and participation documentation consists of completed copy of the E-Verify Memorandum of Understanding (MOU). For vendors that are not already enrolled and participating in a federal work authorization program. E-Verify is available at [http://www.dhs.gov/xprevprot/programs/gc\\_1185221678150.shtm](http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm)

If it cannot be determined that a vendor is compliant with the above, it shall be the vendors responsibility to provide the documentation within a reasonable amount of time in relation to the needs within the bid.

Awarded Vendor may be required to fill out a Vendor Registration Form if vendor has not conducted business with the State of Missouri within the last five (5) years, in order to allow the Missouri Department of Transportation to pay invoice.

#### **Insurance**

Contractor must carry the Liability Insurance as listed in the 2011 Missouri Standard Specifications for Highway Construction and its latest supplements.



**PRICING/ENDORSEMENT PAGE**

**Pricing/Award**

Award will be made to the lowest total price to complete the projects based on the listed specifications.

Proposed Bidders price for the ‘Guardrail Installation’ as specified in the Project Scope, including both direct and indirect pay items to complete the project is:

**TOTAL BID PRICE**                    \$ \_\_\_\_\_

**\*\*NOTE\*\***

**Bidder must submit breakdown of pricing per each type of pay item as listed in each table above.**

*It is the sole responsibility of the bidder to check for any addendum during the time this project is out for bid and to ensure their bid price reflects any addendum.\*\**

**SEALED BIDS TO BE MAILED TO:**

Missouri Department of Transportation  
Central District General Services/Procurement  
1511 Missouri Blvd. (or)  
P.O. Box 718  
Jefferson City, MO 65102

Clearly Marked: **Bid Request CD-12-041B Guardrail Installation Gasconade County**

Firm: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

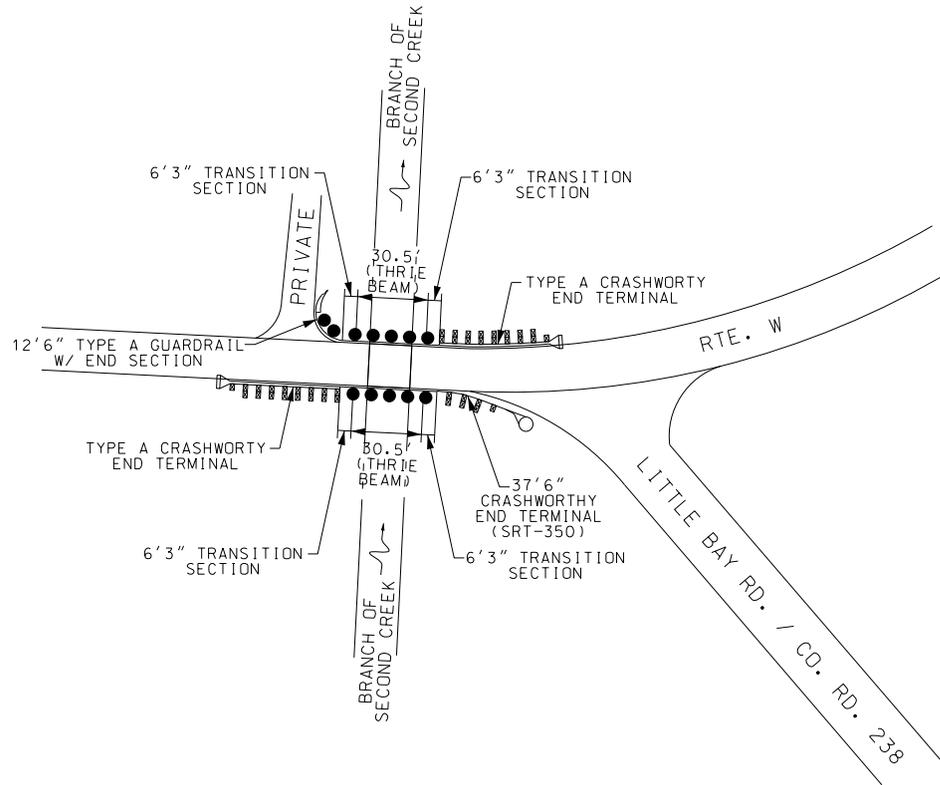
Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Email: \_\_\_\_\_

ATTACHMENT A

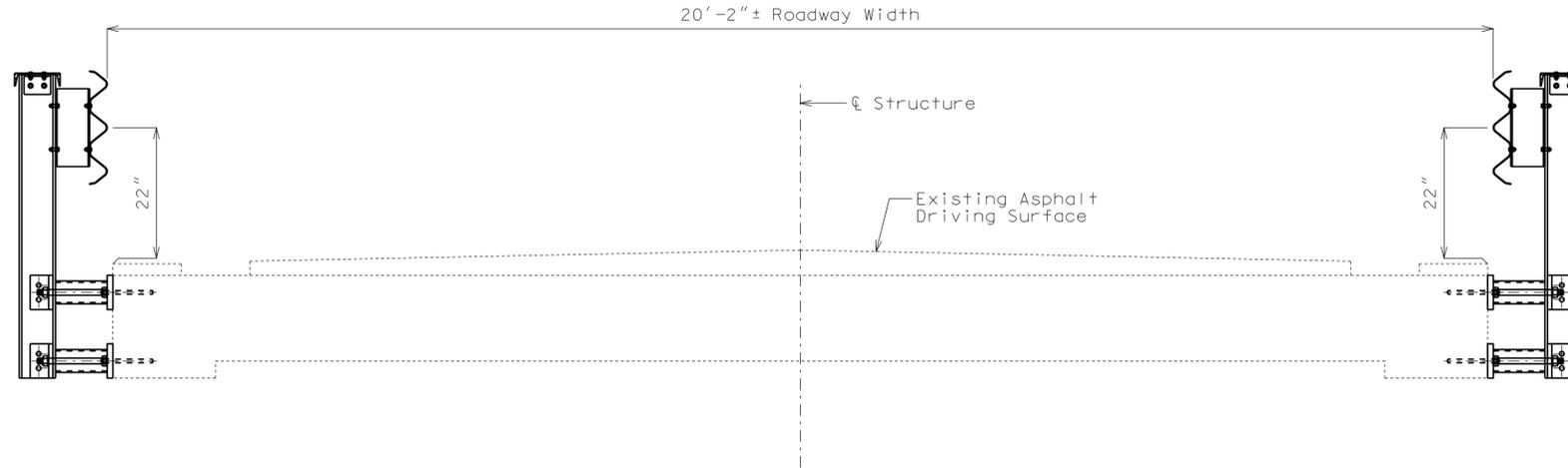
- 61' THRIE BEAM
- (4) TRANSITION SECTIONS
- (2) END SECTIONS
- 12.5' TYPE A GUARDRAIL
- (3) TYPE A CRASHWORTHY END TERMINALS



NOT TO SCALE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION  
U.I.P. and Rehab. Existing (20') Concrete Box Culvert

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."



SECTION THRU SLAB

General Notes:

Design Specifications:

2002 - AASHTO 17th Edition  
Load Factor Design  
Bridge Deck Rating = 7

Traffic Control:

Traffic over structure to be maintained during construction.  
Traffic control will be provided by Regional Bridge Maintenance.

Miscellaneous:

"Sec" refers to the sections in the standard and supplemental specifications unless specified otherwise.

Outline of old work is indicated by light dashed lines. Heavy lines indicate new work.

Contractor shall verify all dimensions in field before ordering new material.

The area exposed by the removal of concrete shall be coated with an approved qualified special mortar in accordance with Sec 704.



TYPICAL PART SECTION THRU BOX CULVERT TOP SLAB SHOWING AREA OF CONCRETE CURB REMOVAL

\* Limits for coat of an approved qualified special mortar.

Estimated Quantities		
Item		Total
Curb Removal	linear foot	44
Bridge Guardrail (Three Beam)	linear foot	36

REPAIRS TO BRIDGE: ROUTE W  
OVER UNNAMED CREEK

STATE ROAD RTE. K TO RTE. F

ABOUT 0.7 MILES EAST OF RTE. K

STD. 606.23

STD. 617.10

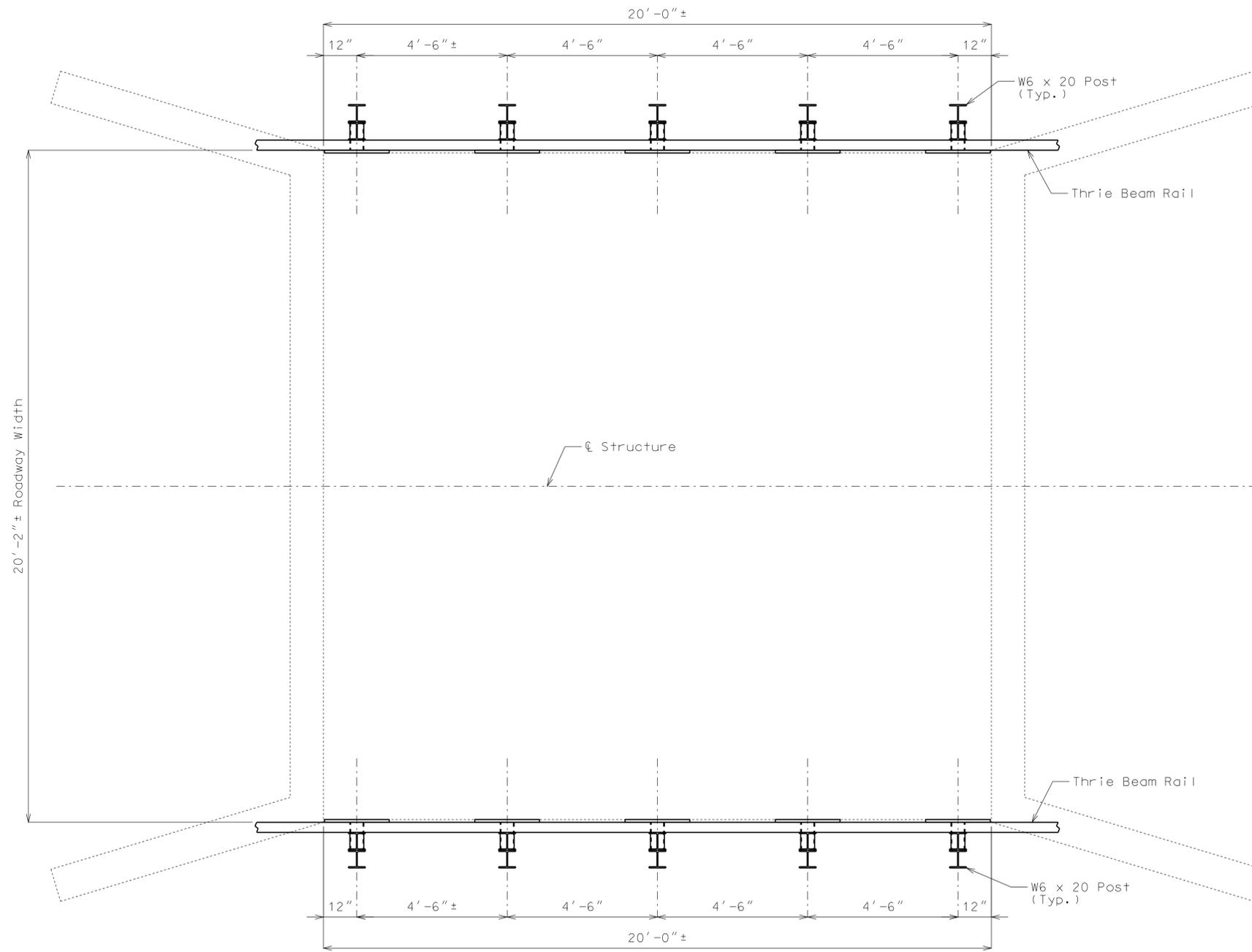
DESCRIPTION

DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



PLAN OF SLAB SHOWING POST SPACING

Note:  
Work this sheet with Sheets No. 3 & 4.

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED

5/1/2012

ROUTE STATE

W MO

DISTRICT SHEET NO.

BR 2

COUNTY

GASCONADE

JOB NO.

\*

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

W01771

DESCRIPTION

DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)





# ATTACHMENT C

Culvert W01771  
Route W  
Gasconade County

JOB SPECIAL PROVISIONS (Culvert)

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- A. Construction Requirements
- B. Rapid Set Concrete Patching Material – Horizontal Repairs

 <p>STATE OF MISSOURI WILLIAM J. DUNN NUMBER PE-2006019647 PROFESSIONAL ENGINEER</p> <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	<p><b>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</b> 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65101 Phone (888) 275-6636</p>
	<p>If a seal is present on this sheet, JSP's has been electronically sealed and dated.</p>
	<p>JOB NO. J9S2254 Bollinger County, MO Date Prepared: 5/1/2012</p>

# ATTACHMENT C

Culvert W01771  
Route W  
Gasconade County

## JOB SPECIAL PROVISIONS (Culvert)

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### A. CONSTRUCTION REQUIREMENTS

**1.0 Description.** This provision contains general construction requirements for this project.

**2.0 Construction Requirements.** Plans for the existing structure(s) are included in the contract with the bridge plans for informational purposes only.

**2.1** In order to assure the least traffic interference, the work shall be scheduled so that a lane closure is for the absolute minimum amount of time required to complete the work. A lane 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.

**2.2** Qualified special mortar shall be a qualified rapid set concrete patching material in accordance with Sec 704. A qualified rapid set concrete patching material will not be permitted for repairing concrete deck (half-soling), deck repair with void tube replacement, full depth repair, modified deck repair and substructure repair (formed) unless a note on the bridge plans specifies that a qualified special mortar may be used.

**2.3** Provisions shall be made to prevent any debris and materials from falling into the stream. Any debris and materials that falls below the bridge outside the limits mentioned previously and if determined necessary by the engineer, the debris shall be removed as approved by the engineer at the contractor's expense.

**2.4** Any damage sustained to the remaining structure as a result of the contractor's operations shall be repaired or the material replaced as approved by the engineer at the contractor's expense.

**2.5** Provisions shall be made to prevent damage to any existing utilities. Any damage sustained to the utilities as a result of the contractor's operations shall be the responsibility of the contractor. All costs of repair and disruption of service shall be as determined by the utility owners and as approved by the engineer.

**3.0 Method of Measurement.** No measurement will be made.

**4.0 Basis of Payment.** Payment for the above described work will be considered completely covered by the contract unit price for other items included in the contract.

### B. RAPID SET CONCRETE PATCHING MATERIAL – HORIZONTAL REPAIRS

**1.0 Description.** This specification covers cementitious concrete, polymer-modified concrete and polymer concrete that are suitable for repairing concrete surfaces on bridges or roadways, particularly under fast setting or special conditions. The repairs would involve horizontal applications. The work shall consist of removing, furnishing, preparing, and placing materials at locations as shown on the plans or as directed by the engineer.

**2.0 Material.** All materials shall be in accordance with MoDOT specifications and as noted herein.

**2.1 Aggregate For Extending Commercial Mixture.** Coarse and fine aggregates shall be in accordance with Sec 1005, except the requirements for gradation and percent passing the No. 200 sieve shall not apply. Coarse aggregate meeting Gradation E requirements shall be used

# ATTACHMENT C

Culvert W01771  
Route W  
Gasconade County

## JOB SPECIAL PROVISIONS (Culvert)

for repairs greater than one inch (25 mm) in depth. Fine aggregate will be allowed for repairs less than one inch (25 mm). Aggregate specified, bagged, labeled and furnished by the rapid set concrete patching material manufacturer may also be used for mortar extension.

**2.2 Material Applications.** The contractor shall select and use the product most suitable for the work and field conditions in accordance with these specifications.

**2.3 Curing.** Rapid set concrete patching material shall be cured until the minimum compressive strength 3200 psi is attained using standard curing specifications, unless otherwise specified by the manufacturer.

### **2.4 Qualification and Project Acceptance.**

**2.4.1 Inspection.** All materials shall be subject to inspection and sampling by MoDOT at the source of manufacture, intermediate shipping terminal or destination. MoDOT will be allowed free access to all facilities and records as required to conduct inspection and sampling.

**2.4.2 Qualification.** Prior to use, rapid set concrete patching material shall be qualified. In order to become qualified, a material shall have completed testing through AASHTO's National Transportation Product Evaluation Program (NTPEP). The manufacturer shall contact the AASHTO/NTPEP coordinator to obtain the testing location for the rapid setting concrete patching material.

**2.4.2.1 Requested Information.** The manufacturer shall submit with samples of the materials, a written request to Construction and Materials with the following information:

- (a) Brand name of the product.
- (b) Certification that the material meets this specification.
- (c) NTPEP test results showing compliance with this special provision.
- (d) Specific mixing, handling and curing instructions.
- (e) Application type (i.e., bridge or roadway).

**2.4.2.2 Qualified List.** Upon approval by the engineer, the brand name and manufacturer will be placed on a qualified list of rapid set concrete patching materials. The listing of qualified materials is available from Construction and Materials or on MoDOT's web site. New certified test results and samples shall be submitted any time the manufacturing process or the material formulation is changed. The material will be subject to removal from the qualified list if there is evidence of unsatisfactory performance or a change in manufacturing process or formulation, or when random sampling and testing of material offered for use indicates nonconformity with any of the requirements herein specified.

**2.4.3 Provisional Approval.** Provisional approval may be granted provided the following requirements have been met:

- (a) New Products Evaluation Form
- (b) Certified test results from an independent laboratory showing compliance with this special provision.

JOB SPECIAL PROVISIONS (Culvert)

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- (c) Documentation prepared by MoDOT covering two years of field performance on MoDOT's system. MoDOT will need to approve the location of the test site. Documentation will contain the placement date, field observations (semi annual), description of field performance and photographs of in-place material.
- (d) During placement the manufacturer's representative shall be present on the project to provide technical expertise.

**2.4.3.1 Disqualification.** If during the two year observation period the repair area(s) fails provisional approval will not be granted. Repair area(s) experiencing any cracking, debonding or spalling will be considered a failure.

**2.4.3.2 Length of Provisional Approval.** Provisional approval will be granted for three years or until NTPEP testing is completed.

**2.5 Certification.** The contractor shall supply a manufacturer's certification to the engineer for each lot of material furnished. The certification shall include the name of the manufacturer, a manufacturer certification statement that the material supplied is the same as that qualified and listing the date of qualification.

**2.6 Acceptance.** Acceptance of the material will be based on the use of a qualified or provisionally approved material, the manufacturer's certification that the material supplied is the same as that approved and upon the results of such tests as may be performed by the engineer.

**3.0 Mixture.** Unless otherwise specified, rapid set concrete patching material shall be approved commercial mixtures meeting Sections 3.1 – 3.1.3 or deck repair cementitious mortar meeting Section 3.2. Rapid set concrete patching materials shall be specifically designed for the application needed.

**3.1 Commercial Mixtures.** Rapid set concrete patching material in its sacked form and mixtures when properly prepared in accordance with the manufacturer's specifications, shall meet the minimum test requirements given in Table 1. Mixtures may be supplied, as required, as a patching mortar or as a patching mortar with aggregate extension. If the material is to be supplied with extender aggregate, this shall also pass the required tests in Table 1 using the maximum allowed amount of extender aggregate.

**3.1.1 Mixture Requirements.** Rapid set concrete patching material shall be single packaged dry mix requiring the addition of water or other liquid component just prior to mixing. The material shall be capable of ½ inch (13 mm) to full depth repair and require no bonding agent. The material shall not contain soluble chlorides as an ingredient of manufacture. The material shall be placed in accordance to the manufacturer's recommendations.

# ATTACHMENT C

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Route W  
Gasconade County

## JOB SPECIAL PROVISIONS (Culvert)

<b>Table 1 (English Unit)</b>				
<b>Physical Test Property</b>	<u>Specification</u>	<b>Requirement for cementitious concrete</b>	<b>Requirement for polymer-modified concrete</b>	<b>Requirement for polymer concrete</b>
Bond Strength by Slant Shear <sup>1</sup>	ASTM C882/C928 <sup>3</sup>	min. 1000 psi @ 24hrs. & min. 1500 psi @ 7 days	n/a	min. 1000 psi @ 24hrs. & min. 1500 psi @ 7 days
Linear Coefficient of Thermal Expansion <sup>1, 2</sup> (for bagged mortar only, without extension aggregate)	ASTM C531	n/a	n/a	4 – 8 X 10-6 in/in/deg F
Resistance to Rapid Freezing & Thawing <sup>1</sup>	AASHTO T161 or ASTM C666	80% min. using Procedure B <sup>5</sup> (300 Cycles)	80% min. using Procedure B <sup>5</sup> (300 Cycles)	n/a
Compressive Strength <sup>1</sup>	AASHTO T22 or ASTM C39	3200 psi @ 3 hr & 4000 psi @ 7 days	3200 psi @ 3 hr & 4000 psi @ 7 days	n/a
Rapid Chloride Permeability <sup>1</sup>	AASHTO T277 or ASTM C1202	<u>Bridge Decks</u> 1000 coulombs @ 28 days <u>Roadway</u> 2000 coulombs @ 28 days	<u>Bridge Deck</u> 1000 coulombs @ 28 days <u>Roadway</u> 2000 coulombs @ 28 days	<u>Bridge Deck</u> 1000 coulombs @ 28 days <u>Roadway</u> 2000 coulombs @ 28 days
Length Change <sup>1, 4</sup>	AASHTO T 160 or ASTM C157	In water Storage (+0.15) In air storage (-0.15)	In water storage (+0.15) In air storage (-0.15)	n/a
Color		gray	gray	gray

<sup>1</sup>The commercial mix test values can be located in the AASHTO's National Transportation Product Evaluation Program (NTPEP) reports for Laboratory Evaluations of Rapid Set Concrete Patching Materials. Data for provisionally approved materials is located at the Construction and Materials Division.

<sup>2</sup>Not required for extended mixtures if the mortar passes this requirement.

<sup>3</sup> ASTM C882 shall be performed on non-water based materials. ASTM C928 shall be performed on water-based materials.

<sup>4</sup> As modified by ASTM C928.

<sup>5</sup> Procedure A may be used in lieu of Procedure B

**3.1.2 Construction Requirements.** The manufacturer shall provide with the bagged mixture, specifications for the mixing procedure, amount and kind of liquid to be added, and the amount of aggregate extension allowed, if any. All mixing, handling and curing practices recommended by the manufacturer shall be followed and will be considered a part of these specifications.

**3.1.3 Removal from Qualified List.** All mixtures shall be approved before use. Reoccurring failures of any mixture for any reason will be cause for removal from the qualified list.

**3.2 Deck Repair Concrete.** A qualified rapid set concrete patching material indicated for horizontal use and intended for patching concrete bridge decks may be used when specified on the plans and as approved by the engineer. If this option is selected, the contractor shall provide a trial mix to determine the total cure time needed to achieve a compressive strength of 3200 psi (22 MPa). Compressive specimens shall be prepared in accordance with current MoDOT test methods and cured to simulate actual field conditions. Testing of compressive specimens shall be performed by methods and at facilities acceptable to the engineer. The repaired deck shall not be opened to traffic until at least 4 hours after the last placement of deck repair concrete, the established cure time has elapsed and until such concrete has achieved a compressive strength of 3200 psi (22 MPa). A new trial mix may be required if the engineer determines the field conditions vary substantially from trial mix conditions. The engineer will make field cylinders to verify the 3200 psi (22 MPa) minimum strength.

**4.0 Construction Requirements.**

**4.1 Mixing.** Rapid set concrete patching material shall be mixed and finished according to the manufacturer's recommendation.

**4.2 Preparation of Repair Area.** Deteriorated, damaged or defective concrete as shown on the plans, required by the specifications or as directed by the engineer, shall be removed. All exposed reinforcement shall be thoroughly cleaned as shown on the plans, required by the specifications or as directed by the engineer. Unless otherwise specified by the commercial mixture manufacturer, the existing surface shall be damp and all free water shall be removed prior to placement of the required material.

**4.3 Bonding Agent.** A bonding agent may be used if recommended by the rapid set concrete patching material manufacturer.

**5.0 Method of Measurement.** No measurement will be made for rapid set concrete patching material.

**6.0 Basis of Payment.** Rapid set concrete patching material will be paid for at the contract unit price for other items and will be considered full compensation for all labor, equipment and material to complete the described work.



Bond Number \_\_\_\_\_

**BID BOND**  
**(Bid CD-11-064B Guardrail Installment Gasconade County)**

**KNOW ALL MEN BY THESE PRESENTS**, that we \_\_\_\_\_

as Principal and \_\_\_\_\_, as Surety are held and firmly bound unto the **STATE OF MISSOURI** (acting by and through the **Missouri Highways and Transportation Commission**) in the penal sum of:

\_\_\_\_\_ **Dollars**  
(\$ \_\_\_\_\_) to be paid to the **State of Missouri or to the Missouri Highways and Transportation Commission**, to be credited to the State Road Fund, the Principal and Surety binding themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated this \_\_\_\_\_

**THE CONDITION OF THIS OBLIGATION** is such that:

**WHEREAS**, the Principal is submitting herewith a bid to the Missouri Highways and Transportation Commission on route(s) \_\_\_\_\_ **MO. Rte W** in \_\_\_\_\_ **GASCONADE** County(ies), \_\_\_\_\_ project(s) **GUARDRAIL INSTALLATION** \_\_\_\_\_ for construction or improvement of State Highway as set out in said bid;

**NOW THEREFORE**, if the Missouri Highways and Transportation Commission shall accept the bid of the Principal and if said Principal shall properly execute and deliver to the Missouri Highways and Transportation Commission the contract, contract bond and evidence of insurance coverage in compliance with the requirements of the bid, the specifications and provisions of section 227.100 RSMo, to the satisfaction of the Highways and Transportation Commission, then this obligation shall be void and of no effect, otherwise to remain in full force and effect.

In the event the said Principal shall, in the judgment of the Missouri Highways and Transportation Commission, fail to comply with any requirement as set forth in the preceding paragraph, then the State of Missouri acting through the Missouri Highways and Transportation Commission shall immediately and forthwith be entitled to recover the full penal sum above set out, together with court costs, attorney's fees and any other expense of recovery.

The Principal and surety hereby certify that the document is the original or verbatim copy of the bid bond form furnished by the Commission, in accordance with Sec. 102.9 of the Missouri Standard Specifications for Highway Construction.

(SEAL) \_\_\_\_\_  
Principal

By \_\_\_\_\_  
Signature

(SEAL) \_\_\_\_\_  
Surety

By \_\_\_\_\_  
Attorney-in-Fact

NOTE: This bond must be executed by the PRINCIPAL and by a CORPORATE SURETY authorized to conduct surety business in the State of Missouri.





# PREFERENCE IN PURCHASING PRODUCTS

DATE: \_\_\_\_\_

The bidders attention is directed to Section 34.076 RsMO 1986 which gives preference to Missouri corporations, firms, and individuals when letting contracts or purchasing products.

Bids/Quotations received will be evaluated on the basis of this legislation.

**All vendors submitting a bid/quotation must furnish ALL information requested below.**

**FOR CORPORATIONS:**

State in which incorporated: \_\_\_\_\_

**FOR OTHERS:**

State of domicile: \_\_\_\_\_

**FOR ALL VENDORS:**

List address of Missouri offices or places of business:

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**THIS SECTION MUST BE COMPLETED AND SIGNED:**

**FIRM NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**CITY:** \_\_\_\_\_ **STATE:** \_\_\_\_\_ **ZIP:** \_\_\_\_\_

**BY (signature required):** \_\_\_\_\_

**Federal Tax I.D. #:** \_\_\_\_\_ **if no Federal Tax I.D. # - list Social Security #:** \_\_\_\_\_

NOTE: For bid/quotation to be considered, the "Preference in Purchasing Products" form must be on file in the General Services (Procurement) Division and must be dated in the current calendar year.

**MISSOURI SERVICE-DISABLED VETERAN BUSINESS PREFERENCE**

By virtue of statutory authority, RSMo 34.074, a preference will be given all contracts for the performance of any job or service to service-disabled veteran business either doing business as Missouri firms, corporations, or individuals; or which maintain Missouri offices or places of business, when the quality of performance promised is equal or better and the price quoted is the same or less or whenever competing bids, in their entirety, are comparable.

Definitions:

**Service-Disabled Veteran** is defined as any individual who is disabled as certified by the appropriate federal agency responsible for the administration of veterans' affairs.

**Service-Disabled Veteran Business** is defined as a business concern:

- a. Not less than fifty-one (51) percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than fifty-one (51) percent of the stock of which is owned by one or more service-disabled veterans; and
- b. The management and daily business operations of which are controlled by one or more service-disabled veterans.

If an offeror meets the definitions of a service-disabled veteran and a service-disabled veteran business as defined in 34.074 RSMo and is either doing business as a Missouri firm, corporation, or individual; or maintains a Missouri office or place of business, the offeror **must** provide the following with the proposal in order to receive the Missouri service-disabled veteran business preference over a non-Missouri service-disabled veteran business when the quality of performance promised is equal or better and the price quoted is the same or less or whenever competing proposals, in their entirety, are comparable:

- a. A copy of a letter from the Department of Veterans Affairs (VA), or a copy of the offeror's discharge paper (DD Form 214, Certificate of Release or Discharge from Active Duty) from the branch of service the offeror was in, stating that the offeror has a service-connected disability rating ranging from 0 to 100% disability; and
- b. A completed copy of this exhibit

(NOTE: For ease of evaluation, please attach copy of the above-referenced letter from the VA or a copy of the offeror's discharge paper to this Exhibit.)

By signing below, I certify that I meet the definitions of a service-disabled veteran and a service-disabled veteran business as defined in 34.074 RSMo and that I am either doing business as a Missouri firm, corporation, or individual; or maintain Missouri offices or places of business at the location(s) listed below.

Veteran Information

Business Information

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Service-Disabled Veteran's Name, (Please Print)

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Service-Disabled Veteran Business Name

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*Service-Disabled Veteran's Signature*

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Missouri Address of Service-Disabled Veteran Business



