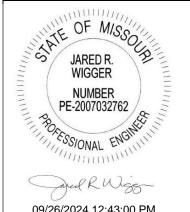
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09/26/2024 12:43:00 PM Jared R. Wigger - Civil MO PE-2007032762

# MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 W. CAPITOL AVE. JEFFERSON CITY, MO 65101 Phone (888) 275-6636

#### CRAWFORD, MURPHY & TILLY, INC.

One Memorial Drive, Suite 500 St. Louis, MO 63102 Certificate of Authority 000631 Consultant Phone: (314) 436-5500

If a seal is present on this sheet, JSP's has been electronically sealed and dated.

JOB NO. JSL0035 Franklin County, MO Date Prepared: 9/26/2024

Only the following items of the Job Special Provisions (Bridge) are authenticated by this seal: All

### A. CONSTRUCTION REQUIREMENTS

- **1.0 Description.** This provision contains general construction requirements for this project.
- **2.0 Construction Requirements.** The plans and the asbestos and lead inspection report for the existing structure(s) are included in the contract in the bridge electronic deliverables zip file 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** Bridge work by contractor forces, including erection, rehabilitation or demolition, shall not be allowed over traffic unless a bridge platform protection system is installed below the work area except for work performed above a deck that is intact. The protection system shall be capable of catching all falling objects such as tools, overhang brackets or materials. Lifting of objects that are heavier than the capacity of the bridge protection system shall not be permitted.
- **2.3** 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 half-sole repair, 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.
- **2.4** The existing slab for the bridge(s) to be redecked was constructed as composite or noncomposite as shown in the table below.

Bridge No.	Type of deck
H03532	Composite

- **2.5** Provisions shall be made to prevent any debris and material from falling onto railroad property. If determined necessary by the engineer, any debris and material that falls below the bridge outside the previously specified limits shall be removed as approved by the engineer at the contractor's expense. Railroad traffic under the bridge shall be maintained in accordance with the contract documents.
- **2.6** 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.
- **2.7** 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.
- **2.8** A washer shall be required under head and nut when any reaming is performed for bolt installation.

**2.9** SSPC-SP2 and SSPC-SP3 surface preparation shall be in accordance with the environmental regulations in Sec 1081 and collection of residue shall be in accordance with Sec 1081 for collection of blast residue. SSPC-SP6, SSPC-SP10 and SSPC-SP11 surface preparation shall be in accordance with the approved blast media and environmental regulations in Sec 1081 and collection of blast residue shall be in accordance with Sec 1081.

## 3.0 Coating Information.

- **3.1 Straps Removal.** Exposed portions of straps for stay-in-place forms shall be removed prior to surface preparation. Straps need not be removed in areas that are not being painted. Flame cutting will not be permitted. The contractor shall exercise care not to damage the existing structure during removal. 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.
- **3.2 Slab Drains and Stay-In-Place Forms.** The stay-in-place forms, slab drains and slab drain brackets shall not be recoated, overcoated or damaged during the painting operation. Any portion of the slab drain bracket that is blast cleaned shall be recoated with System G. Any damage sustained 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.
- **3.3 Existing Bridge Information.** The informational plans may be used by bidders in determining the amount of steel to be cleaned and painted/coated with the full understanding that the State accepts no responsibility for accuracy of the estimated tons of existing steel shown in the table below. The bidder's acceptance and use of the estimate shown below shall be no cause for claim for any final adjustment in the contract unit price for the work involved in repainting. Each bidder is expected to carefully examine the structure(s), investigate the condition of existing paint and prepare their own estimate of quantities involved before submitting a bid. Surface preparation and applying field coatings to the structural steel shall be based on the contract plan quantities. No final measurements will be made.

	Estimated Tons				
Pridge	Coating System			Evicting Boint	Lood
Bridge No.	System G	Calcium Sulfonate	Total	Existing Paint System	Lead Based
H03532	42	0	42	Α	Yes

**3.4 Environmental Contact.** Environmental Section may be contacted at the below address or phone number. The Missouri Department of Health may be contacted at (573) 751-6102.

MoDOT - Design Division - Environmental Section P.O. Box 270

105 W. Capitol Ave., Jefferson City, MO 65102

Telephone: (573) 526-4778

**3.5 Approved Smelter and Hazardous Waste Treatment, Storage and Disposal Facility.** The following is the approved smelter and hazardous waste treatment, storage and disposal facility:

Doe Run Company - Resource Recycling Division - Buick Facility Highway KK Boss, MO 65440

Telephone: (573) 626-4813

- **4.0 Method of Measurement.** No measurement will be made.
- **5.0 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. <u>DEFLECTION AND HAUNCHING</u>

- **1.0 Description.** The contractor shall determine haunching based on field measurements, existing bridge plans and/or adjusted dead load deflections based on the difference between the new and existing dead load weights. A spreadsheet showing adjusted girder or beam deflections due to the weight of the new deck and barriers is included in the contract in the bridge electronic deliverables zip file.
- **2.0 Construction Requirements.** In order to properly form the haunches for the new deck, the contractor shall survey top of deck elevations above each girder or beam including centerline of roadway and along each girder or beam line (top or bottom flange) prior to deck removal followed by surveying elevations of the girders or beams (top or bottom flange) after deck removal.
- **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.

## C. CONCRETE CRACK FILLER

- **1.0 Description.** This work shall consist of preparing and treating the concrete approach slab cracks with a high molecular weight methacrylate (HMWM) or methyl methacrylate (MMA) crack filler material. This type of surface treatment shall be in accordance with this job special provision, the standard specifications and the manufacturer's recommendations. The objective of this treatment is to seal all concrete approach slab cracks in order to preserve and extend the life span of the approach slab.
- **2.0 Materials.** The low viscosity concrete approach slab crack filler shall be a high molecular weight methacrylate (HMWM) or methyl methacrylate (MMA) system in accordance with Sec 1053 and shall be on MoDOT's qualified product list.

#### 3.0 Construction Requirements.

**3.1 Equipment.** Application equipment shall be as recommended by the manufacturer. The spray equipment, tanks, hoses, brooms, rollers, coaters, squeegees, etc. shall be thoroughly clean, dry, and free of foreign matter, oil residue and water prior to application of the treatment.

- **3.2 Cleaning, Surface Preparation and Sealing.** Surfaces which are to be treated shall meet the approved product's requirements for surface condition. The contractor shall furnish the engineer with written instructions for the surface preparation requirements, and a representative of the manufacturer shall be present to ensure that the surface conditions meet the manufacturer's requirements.
- **3.2.1** At a minimum, the surface shall be thoroughly cleaned to remove dust, dirt, oil, wax, curing components, efflorescence, laitance, coatings and other foreign materials. The manufacturer or manufacturer's representative shall approve the use of chemicals and other cleaning compounds to facilitate the removal of these foreign materials before use. The treatment shall be applied within 48 hours following surface preparation.
- **3.2.2** Cleaning equipment shall be fitted with suitable traps, filters, drip pans and other devices to prevent oil and other foreign material from being deposited on the surface.
- **3.2.3** The approach slab shall be water blasted to clean out cracks and allowed to dry prior to sealing.
- **3.2.4** Before starting sealing operations, all cracks shall be blown out with dry high-pressure air.
- **3.2.5** The contractor shall prevent sealer material from leaking through the approach slab or construction joints. The contractor shall take measures to treat these areas to prevent loss of material intended to seal the approach slab.
- **3.2.6** The contractor shall follow the manufacturer's recommendations for a method and material resistant to effects of the approach slab sealer to prevent leakage of approach slab sealer through the approach slab.
- **3.3 Application.** After leakage prevention measures are completed, a flood application shall be performed on the entire approach slab surface to fill all cracks. Flood application and broadcast aggregate shall be placed in accordance with the manufacturer's application rates.
- **3.4 Opening to Traffic.** Traffic shall be allowed on the approach slab only after the treated area is visibly dry. Dried coating shall not leave residue on glass, painted metal or automobiles.
- **4.0 Method of Measurement.** Measurement will be made to the nearest square yard measured longitudinally from end of bridge approach slab to end of bridge approach slab and transversely from roadway face of curb to roadway face of curb. Additional areas to be sealed will be identified on the plans. No deduction will be made for gaps to avoid raised pavement markers, manholes or other obstructions. Final measurement will not be made except for authorized changes during construction or where appreciable errors are found in the contract quantity. The revision or correction will be computed and added to or deducted from the contract quantity.
- **5.0 Basis of Payment.** Payment for the above described work, including all material, equipment, labor and any other incidental work necessary to complete this item, will be considered completely covered by the contract unit price for Concrete Crack Filler.

Item No.	Units	Description
704-01.63	Sq. Yard	Concrete Crack Filler

## D. <u>NON-DESTRUCTIVE TESTING</u>

**1.0 Description.** This work shall consist of performing non-destructive testing on the welds of all existing top flange cover plates.

#### 2.0 Construction Requirements.

- **2.1** After the concrete deck is removed, the steel that is to remain will be inspected by the engineer. In addition to this inspection, the welds and adjacent base metal at the ends of the top cover plates shall have non-destructive (magnetic particle) testing performed. Non-destructive testing shall be performed by an acceptable testing agency. The contractor shall submit to the engineer and Bridge Division (<a href="Fabrication@modot.mo.gov">Fabrication@modot.mo.gov</a>) the following documentation for each individual performing non-destructive testing (NDT): their certifications, current eye exam and the NDT company written practice, including the Level III individual certification used for written practice. Personnel performing the tests shall be qualified for SNT-TC-1A Level II.
- **2.2** The length of weld to be tested and the base metal, one inch either side of the weld, shall be cleaned of all rust prior to the testing. On cover plates with square ends, the weld shall be tested one inch from each corner along the ends of the cover plate plus 6 inches back along the side from each corner of the plate. On cover plates with tapered ends, the weld shall be tested along the end of the cover plate, along tapered edges and 6 inches back along the cover plate from end of taper.
- 2.3 If fatigue cracks are found, the cracks are expected to be very small and may be located in the base metal at the toe of the welds. Any cracks discovered by testing, regardless of length, shall be marked and reported to the engineer. All repairs shall be made by a certified welder in accordance with Sec 712.6. Any repair work and retesting of the repair work required, as a result of this inspection, will be paid for in accordance with Sec 109. This shall not relieve the contractor from responsibility to repair any damage caused by this work at the contractor's expense. Any delay or inconvenience caused by this inspection requirement will be noncompensable and effect on time of performance non-excusable.
- **3.0 Method of Measurement.** Measurement of non-destructive testing will be to the nearest linear foot. The extent of non-destructive testing may vary from the estimated quantities, but the contract unit price shall prevail regardless of the variation. Final measurements will not be made except for authorized changes during construction, or where appreciable errors are found in the contract quantity. The revision or correction will be computed and added to or deducted from the contract quantity.
- **4.0 Basis of Payment.** Accepted quantities of non-destructive testing will be paid for at the contract unit price. Payment for the above described work, including all material, equipment, labor and any other incidental work necessary to complete this item, will be considered completely covered by the contract unit price for Non-Destructive Testing.

Item No.	Units	Description
712-60.00	Linear Foot	Non-Destructive Testing

## E. <u>BARRIER REPAIR (UNFORMED)</u>

- **1.0 Description.** This work shall consist of repairing all areas of damaged or deteriorated barrier curb, particularly where reinforcement is exposed.
- 2.0 Construction Requirements.
- 2.1 Repairs shall be made with a qualified special mortar.
- **2.2** Removal, surface preparation, placement, and curing shall be in accordance with Sec 704 for Superstructure Repair (Unformed).
- **3.0 Method of Measurement.** Measurement for barrier curb repair will be made per linear foot along gutter line.
- **4.0 Basis of Payment.** Payment for barrier repair including all material, equipment, labor and any other incidental work necessary to complete this item, will be considered completely covered by the contract unit price for Barrier Repair (Unformed).

Item No.	Units	Description
704-99.03	Linear Foot	Barrier Repair (Unformed)

### F. REMOVAL OF EXISTING APPROACH SLAB

- **1.0 Description.** This work consists of the necessary removal of existing bridge approach pavement at End Bent No. 1 and End Bent No. 4, necessary to construct the new bridge approach slab as shown on the plans and as directed by the engineer. Any approach pavement that is removed or damaged and not replaced by the new bridge approach slab shall be repaired or the material replaced as determined by the engineer.
- **2.0 Method of Measurement.** Measurement will be to the nearest square foot and will equal the area of the new bridge approach slab. Removal beyond the end of the new bridge approach slab necessary for the construction of the new sleeper slab will not be added to the contract quantity.
- **3.0 Basis of Payment.** Cost of minimum required removal of existing bridge approach pavement at End Bent No. 1 and End Bent No. 4 necessary to construct the new bridge approach slab will be considered completely covered by the contract unit price for Removal of Existing Approach Slab. Cost of any approach pavement restoration is also included.

Item No.	Units	Description
216-99.04	Sq. Foot	Removal of Existing Approach Slab