

TABLE OF CONTENTS

- A. Construction Requirements
- B. Structural Steel Requirements
- C. Rivet Removal and Replacement
- D. Rehabilitate Saddle Bearings
- E. Modified Deck Repair
- F. Finger Plate Repair

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	If a seal is present on this sheet, JSP's has been electronically sealed and dated.
	JOB NO. J9P3585 Perry County, MO Date Prepared: 8/15/2019

JOB SPECIAL PROVISIONS (BRIDGE)

A. CONSTRUCTION REQUIREMENTS

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

2.0 Construction Requirements. Plans and shop drawings for the existing structure 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 allowed.

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 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.

2.4 Provisions shall be made to prevent any debris and materials from falling into the stream, lake or onto the roadway and railroad right-of-way. 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. Traffic under the bridge shall be maintained in accordance with the contract documents.

2.5 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.

2.6 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.

2.7 A washer shall be required under head and nut when any reaming is performed for bolt installation.

2.8 SSPC-SP2 and SSPC-SP-3 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-SP-11 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 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 below. The bidder's acceptance and use of the estimate shown below shall be no cause for claim for any final adjustment for the work involved in repainting. Each bidder is expected to carefully examine the structure(s), investigate the condition of existing paint and to prepare their own estimate of quantities involved before submitting a bid. The State estimates there to be approximately 427 tons of steel to be repainted. The existing paint system is a System G done in 1998.

3.2 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.

(a) MoDOT - Design Division - Environmental Section
PO Box 270
105 W Capitol Ave, Jefferson City, MO 65102
Telephone (573) 526-4778

3.3 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 Navigation Requirements.

4.1 All work shall be performed so that the free flow of navigation is not unreasonably interfered with, the navigable depths are not impaired and navigation lighting is visible at all times. Any floating equipment or vessels working in the channel shall display lights and signals as required by the current "Inland Navigation Rules". If scaffolding or nets are suspended below low steel in the navigation span, the US Coast Guard district office shall be advised so that the temporary reductions in clearance for river traffic can be checked for reasonableness and appropriate notices can be published. Positive precautions shall be taken to prevent the accidental dropping spark producing, flame producing, lighted or damaging objects from falling onto barges or vessels passing beneath the bridge. All flame cutting, welding or other similar spark producing operations shall be ceased over the channel when vessels are passing beneath the bridge.

4.2 The contractor shall be responsible for submitting a work plan to the engineer for review. When the engineer is in concurrence with the work plan, the engineer will forward the material to the US Coast Guard district office for approval. The US Coast Guard will require at least 30 days to review the work plan prior to any work beginning. The work plan will be submitted to the District Commander, Western Rivers Operation, Eighth Coast Guard District, Bridge Branch.

5.0 Method of Measurement. No measurement will be made.

6.0 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. STRUCTURAL STEEL REQUIREMENTS

1.0 Description. This provision contains general structural steel requirements for this project.

2.0 Material. All material shall be in accordance with Division 1000, Material Details, and specifically as shown below. The gray epoxy-mastic primer (non-aluminum) shall be compatible with concrete and produce a dry film thickness of no less than 3 mils (75 μ m).

Item	Section
Structural Steel Construction	712
Gray Epoxy-Mastic Primer (non-aluminum)	1045
Structural Steel Fabrication	1080
Coating of Structural Steel	1081

3.0 Construction Requirements.

3.1 Before fabrication of new metalwork, the contractor shall make the necessary measurements in the field to verify dimensions of the existing structure where new members are affected. Any deviation of the dimensions shown on the plans shall be called to the engineer's attention. The contractor shall be responsible for developing all required dimensional adjustments and coordinating the implementation of the dimensional adjustments with all involved fabricators and subcontractors.

3.2 Prior to erection of the new structural steel, the steel that is to remain shall be carefully inspected for irregularities. If such irregularities are found, the irregularities shall be brought to the attention of the engineer.

3.3 Holes in the new diaphragm or cross frame connection plates and angles may be used as a template for drilling the holes in the existing material.

3.4 A minimum edge distance shall be maintained for all field drilled holes. The minimum edge distance for bolts shall be as shown in table below measured from the centerline of holes.

Bolt Diameter	Minimum Edge Distance
inch (mm)	inch (mm)
3/4 (19.0)	1-1/4 (32)
7/8 (22.2)	1-1/2 (38)
1 (25.4)	1-3/4 (45)

3.5 The surfaces of existing steel that will become faying surfaces for new connections shall be cleaned according to the manufacturer's recommendation and with a minimum of SSPC-SP-3 surface preparation and coated with one prime coat of Gray Epoxy-Mastic Primer (non-aluminum) in accordance with [Sec 1081](#).

3.6 Exposed girder areas that are not a faying surfaces or not covered by concrete that are scratched, damaged by the contractor or by field welding operations shall be touched up with

JOB SPECIAL PROVISIONS (BRIDGE)

Gray Epoxy-Mastic Primer (non-aluminum) in accordance with [Sec 1081](#). The areas shall receive the coating system as shown on the plans.

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 the structural steel items included in the contract. No payments or adjustments will be made where new members are affected due to any deviation of the dimensions shown on plans or shop drawings.

C. RIVET REMOVAL AND REPLACEMENT

1.0 Description. This work shall consist of the safe removal of rivets in a manner that does not damage surrounding material and replaced with high strength bolts or as directed by the engineer.

2.0 Material. All material shall be in accordance with Division 1000, Material Details, and specifically as follows:

Item	Section
Disposal of Material	202
Structural Steel Construction	712
Structural Steel Fabrication	1080

3.0 Construction Requirements.

3.1 The contractor shall submit to the engineer for approval the proposed method for rivet removal. Rivet removal will not be permitted until the removal method has been approved and demonstrated successfully in the judgment of the engineer. In the event that the engineer determines that rivet removal work is resulting in damage to the existing steel, the contractor shall cease rivet removal operations until a new proposed method has been demonstrated and approved by the engineer.

3.2 Unless otherwise noted, all bolts shall be the same diameter as the rivets being replaced. High strength bolt installation shall be in accordance with [Sec 712](#). All high strength bolts that replace rivets shall have a washer under the head and nut. Rivets shall be replaced one at a time. If the bolts will not fit the existing rivet holes, the holes may be carefully reamed to accommodate the bolts. For field drilling and reaming of the existing holes, no flame drilling will be permitted.

3.3 Rivets on intermediate diaphragms and cross frames that connect girders or stringers under different construction stage slab pours shall have the rivets removed and replaced with high strength bolts installed snug tight and in accordance with [Sec 712](#). The high strength bolts shall be tightened after both adjacent slab pours have been completed.

3.4 Any damage to the existing structure due to contractor's rivet removal and replacement operations or field drilling operations shall be repaired or replaced at the contractor's expense and to the satisfaction of the engineer.

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 the structural steel items included in the contract.

D. REHABILITATE SADDLE BEARINGS

1.0 Description. This work shall consist of raising and supporting the existing stringers as required to inspect, clean, lubricate, and recoat existing saddle bearings at the locations detailed in the bridge plans and to install shim and keeper plates as required and specified on the plans and as directed by the engineer.

2.0 Construction Requirements.

2.1 Raising and Supporting the Stringers.

2.1.1 Before commencing operations, the contractor shall submit to the engineer for review the method and sequence of operation proposed to be used in performing this work. The contractor shall exercise caution when supporting the structural steel and shall raise the stringers the minimum extent necessary to perform this work with a maximum lift of $\frac{1}{4}$ inch. Raising the stringers shall be done in accordance with the roadway traffic control plan, bridge plans and shall be done to prevent any damage to the adjoining steel and concrete deck. The lifting operation shall be done only when authorized, but such authorization shall not relieve the contractor of responsibility for the safety of the operation or for damage to the structure. Any damage caused by the contractor's operations shall be repaired at the contractor's expense as approved by the engineer.

2.1.2 Temporary timber supports (bearing stiffeners) shall be place between stringer flanges at each jacking location.

2.1.3 Raising the stringers need not be done simultaneously but shall be done in accordance with the roadway traffic control plan and bridge plans to prevent damage to the adjoining steel and concrete deck.

2.2 Bearing Inspection and Repair. After the stringers are supported, each existing bearing plate shall be inspected for deterioration. Deteriorated bearing plates shall be replaced as determined by the engineer. When required to remove a bearing plate, removal shall cause no damage to the surrounding existing steel. Prior to removal, all bearing plates shall be match marked for reassembly at ends of each plate by stamping an identification number in the metal with a steel stencil. All existing plates determined to be replaced shall be disposed of by the contractor in accordance with [Sec 202](#).

2.3 Fabricating and Installing New Structural Steel. New bearing plates if needed and shim and keeper plates as required shall be fabricated and installed in accordance with [Sec 1080](#) and [Sec 712](#) respectively.

2.4 Cleaning, Lubricating and Coating. Bearing plates shall be cleaned in accordance with [Sec 1081](#). After cleaning, contact surfaces between the bearing plates and shim plates shall be given a heavy coat of graphite and oil. After stringers are lowered, the bearings shall receive a final cleaning and coated with System G as detailed in the bridge plans.

3.0 Method of Measurement. Measurement for the above described work will be made per each.

4.0 Basis of Payment. When required, payment for furnishing any new bearing plates will be in accordance with [Sec 109](#). Payment for the above described work, including all shim and keeper plates, equipment, labor and any other incidental work necessary to complete this item, will be considered completely covered by the contract unit price for "Rehabilitate Saddle Bearing".

E. MODIFIED DECK REPAIR

1.0 Description. This work shall consist of shallow concrete deck repairs after the existing asphalt overlay has been removed. The designated areas of the bridge deck shall be repaired with a polymer concrete per Sec 623.40 (Class B-1 concrete or special mortar will not be allowed). All work shall be in accordance with [Sec 704](#) except as herein modified.

2.0 Construction Requirements.

2.1 After the existing asphalt overlay has been removed, the engineer will sound the concrete bridge deck and a boundary perimeter with vertical sides shall be established outside the delaminated and deteriorated concrete bridge deck repair areas by saw cutting or chipping vertically. The modified deck repair areas shall consist of only those locations where loose and spalled concrete is visible and of shallow depth. The maximum depth of repair shall be 1 inch and shall not expose the bridge deck reinforcing steel. The contractor shall use caution to not saw into the existing reinforcing steel of the bridge deck. If the depth of repair exceeds 1 inch or if the deck reinforcing steel is exposed, the remaining area of concrete deck repair will be covered by half-sole and/or full depth concrete repair.

2.2 The maximum depth of modified deck repair shall be 1 inch and the minimum depth shall be 3/8 inch and no reinforcing steel shall be exposed. Repair areas less than 3/8 inch in depth shall be filled monolithically with the new overlay. The polymer concrete shall be mixed, placed and cured in accordance with the manufacturer's recommendations. The material shall be fully cured as determined by the engineer before the new overlay is installed over it.

3.0 Method of Measurement. No duplication of measurement will be made for repairing concrete deck (half-soling), full depth repair or modified deck repair. Areas of modified deck repair will be measured to the nearest square foot. Deck repairs will be measured and paid for in accordance with [Sec 704](#).

4.0 Basis of Payment. Accepted quantities of repairing concrete deck (half-soling), full depth repair or modified deck repair will be paid for at the contract unit price for each of the pay items included in the contract.

F. FINGER PLATE REPAIR

The work under this item consists of removing all connecting bolts, springs and washers for all the finger plate sections at Pier No. 10. Then after inspection of all finger plate sections as directed by the engineer, any broken finger plate sections shall be repaired by cleaning, grinding and welding cracks. All welds on finger plate sections after they are inspected and

JOB SPECIAL PROVISIONS (BRIDGE)

repaired shall be coated and reinstalled with new spring, nuts, bolts and washers comparable to existing as shown on existing plans L-135A.

All welding to be performed shall be in accordance with Sec 712 and these special provisions.

Before welding the new steel to the existing stringers, the areas to be welded shall be thoroughly cleaned of paint, rust, oils and any other foreign substances, Cleaning shall be a SSPC- SP11 finish and to the extent necessary to obtain satisfactory welds.

Protective equipment shall be provided by the contractor during the rehabilitation of the existing steel to prevent possible exposure of the workmen to toxic fumes or dust.

All welding shall be performed by a MoDOT certified welder. E7018 welding electrode or self-shielded welding process from the MoDOT approved electrode list shall be used.

The repaired finger plate sections and supporting hardware shall be coated with inorganic zinc primer as specified for System G to produce a dry film thickness of not less than 5.0 mils.

Payment for the above described work including all materials, equipment, labor and any other incidental work necessary to complete this item will be considered completely covered by the contract lump sum price for Finger Plate Repair.