



**COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET**
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Matthew G. Bevin
Governor

Greg Thomas
Secretary

December 7, 2016

CALL NO. 101
CONTRACT ID NO. 161060
ADDENDUM # 2

Subject: Clark County, NHPP 0061 (063)
Letting December 9, 2016

(1) Revised - Special Note - Pages 164-167 of 282

Proposal revisions are available at <http://transportation.ky.gov/Construction-Procurement/>.

If you have any questions, please contact us at 502-564-3500.

Sincerely,

A handwritten signature in cursive script that reads "Rachel Mills".

Rachel Mills, P.E.
Director
Division of Construction Procurement

RM:ks
Enclosures



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SPECIAL NOTE FOR BEARING REPLACEMENT

I. DESCRIPTION

Perform all work in accordance with the Kentucky Transportation Cabinet, Department of Highway's 2012 Standard Specifications for Road and Bridge Construction and applicable Supplemental Specifications, the Standard Drawings, this Note, and Plans. Section references are to the Standard Specifications.

This work consists of the following:

- (1) Furnish all labor, materials, tools, and equipment.
- (2) Jack and temporarily support the girders at the specified locations.
- (3) Remove existing bearing assembly as specified in this note and in accordance with the plans.
- (4) Install new bearing assembly as specified in this note and in accordance with the plans.
- (5) Maintain and control traffic and post bridge for reduced live load during girder jacking operations.
- (6) Any other work specified as part of this contract.

II. MATERIALS

- A. Structural Steel.** Use AASHTO M270 (ASTM A709) Grade 50 steel, which meets the Charpy V-notch toughness requirements specified in the plans.
- B. Weld Material.** See Section 813.10. All welds shall be E70XX.
- C. Elastomeric Bearing Pad.** See Section 822. Pads shall be low temperature Grade 3 with durometer hardness of 50 or 60 and shall be subjected to the load testing requirements corresponding to Design Method B.
- D. Paint.** Match the color of the existing paint. All paint supplied must be contained in the current List of Approved Materials. See Section 821.

III. CONSTRUCTION

- A. Existing Dimensions.** The Contractor shall verify all dimensions, including thickness of parts, with field measurements prior to ordering materials or fabricating steel.
- B. Shop Plans.** Shop plans will only be required for the temporary support system. The Contractor is responsible for obtaining field measurements and supplying the properly sized materials to complete the work.
- C. Jacking Plan.** The Contractor must submit a jacking plan, temporary support system calculations, and shop drawings for approval prior to starting work. The design must be stamped by a professional engineer licensed in the State of Kentucky. The girders shall be shall be lifted a distance no more than that required to snugly fit the new bearing assembly in place plus $\frac{1}{4}$ ". To prevent deck cracking, jack all girders concurrently and limit differential movement between stringer lines to $\frac{1}{8}$ ". For each girder the total estimated design loads to be supported are:

Dead Load	50 kip
<u>Live Load</u>	<u>90 kip</u>
Total	140 kip

The Contractor's jacking system shall be designed to support a minimum of 200% of these loads. Before jacking operations begin, temporary stiffener angles for the stringer webs must be installed above the jack locations, as shown in the plans. No holes shall be drilled in the flanges of existing bridge for installation of the jacking frame. Any holes drilled in the webs of the girders for temporary bracing connections shall have bolts installed in the holes after the connection is removed. Jacking and supporting the steel stringer ends is incidental to the contract unit price for "Bearing Replacement".

- D. Jacking Details.** The schematic of the temporary support system shown in the plans is one feasible alternative for jacking the girders. Final design is the responsibility of the Contractor. Alternative methods may require additional analysis of existing members by the Contractor as deemed necessary by the Engineer during review of the jacking plan.
- E. Maintenance of Traffic.** Maintain and control traffic in accordance with the Standard Specifications and the Special Note for Traffic Control.
- F. Work Sequence.** All work to complete the bearing replacement and girder repair shall be performed prior to the joint replacement and overlay replacement in construction.
- G. Remove Existing Material.** Remove the existing bearing assembly to the limits shown on the drawings for the bearing removal. Remove existing steel by grinding, cutting or other methods approved by the Engineer that do not damage the adjacent structural steel. Use of cutting torches will not be permitted. All cut edges of the stringers to which new steel plates will be welded must be reasonable smooth and true to provide uniform bearing between the welded plates. If the Contractor removes portions of the girder outside the limits shown on the plans, the Contractor will make necessary repairs as approved by the Engineer and at no additional cost to the Department. Dispose of all removed material complete away from the job site. This work is incidental to the contract unit price for "Remove and Replace Girder Bearings".
- H. Field Prepare Existing Surfaces.** Existing areas of the bridge to be welded to or in contact with new steel shall be cleaned of all dirt, rust and foreign matter using hand cleaning methods before installing the new steel. Hand methods for field cleaning shall consist of scraping and wire brushing. No blast cleaning will be allowed on the bridge.
- I. Install Bearing Assembly.** Install girder bearing assemblies as shown on the plans and as directed by the Engineer. Protect the elastomeric pad and vulcanized bonds on the cover plates from heat. The bearing assembly must meet the fabrication, testing, and installation requirements of the AASHTO Standard Specification, Division II, Section 18.

- J. Welding Specifications.** All welding and welding materials shall conform to Joint Specifications ANSI/AASHTO/AWS D1.5M-D1.5-2008 Bridge Welding Code". Modifications and additions as stated on the plans or special note for welding steel bridges shall supersede the ANSI/AASHTO/AWS specification. Nondestructive testing by the contractor (QC) will not be required. Welding procedures shall be submitted to the Engineer and approved prior to the start of fabrication and retrofit. The cost of welding, welding materials, straightening, altering, and burning new or existing steel shall be included in the contract unit price for "Remove and Replace Girder Bearings".
- K. Prohibited Field Welding.** Except as shown on the plans, no welding of any nature shall be performed on the bridge without written consent of the Director, Division of Structural Design, or an authorized representative, and then only in the manner and at the locations designated in the authorization.
- L. Mill Test Reports.** Notarized test reports shall be furnished in triplicate to the Department showing that all the materials used for these repairs conform to the requirements of the Specifications.
- M. Painting.** Clean and paint new and existing steel surfaces in accordance with Section 607.03.23, Section 614, and the Special Notes for "Surface Preparation and Paint Application", "Paint", and "Waste Management". Components to be cleaned and painted include all new structural steel surfaces, including bolts, and all existing steel stringer surfaces within 12" of the work limits for the bearing replacement. All areas of new or existing structural steel on which the paint has been damaged by the Contractor with weld burns or by other means during construction or after final painting shall be wire brushed cleaned and spot painted as directed by the Engineer. Cleaning and painting of all new and existing structural steel will be considered incidental to the contract unit price for "Remove and Replace Girder Bearings".
- N. Damage to the Structure.** The Contractor shall bearing full responsibility and expense for any and all damage to the structure, including truss members, during the repair and retrofit work; even to the removal and replacement of truss members and fallen spans, should the damage result from the Contractor's actions.

IV. MEASUREMENT

- A. BEARING REPLACEMENT.** Measurement will be for each girder bearing that is removed and replaced.

V. PAYMENT

- A. BEARING REPLACEMENT.** Payment at the contract unit price is full compensation for (1) jacking and temporarily supporting the ends of the steel girders, (2) removing and disposing of the existing girder bearings, (3) preparing the interface surfaces for welding and painting, (4) furnishing and installing new bearing assemblies and girder repairs, (5) painting the steel surfaces as specified in this note, and (6) all

other materials, labor, equipment, tools, and incidentals necessary to complete the work as specified by this note.

The Department will consider payment as full compensation for all work required by this note and the detail drawings.