Sam Page County Executive



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August 14, 2019

## ADDENDUM NO. 1

Notice to All Persons and Firms Proposing to Submit a Bid or Furnish Materials for Allen Road Bridge No. 329 St. Louis County Project No. CR-1274 Federal Project No. STP-4900(634)

The following revision is made to the Bid Proposal:

<u>No. 1</u>

The contract book provision **700.10.6 Temporary Bridge** has been revised to clarify the required design loading and the acceptable wearing surface options. <u>Provision 700.10.6 in the contract bid</u> **proposal is to be deleted and replaced with the version on the following pages.** 

## ATTENTION BIDDERS: THE ADDENDUM ACKNOWLEDGEMENT IN THE BID DOCUMENTS MUST BE COMPLETED AND SUBMITTED WITH ALL BID PROPOSALS.

Joseph Kulessa, P.E. Division Manager, Design

JWK:jlh

Attachment: JSP 700.10.6 Temporary Bridge

## 700.10.6 TEMPORARY BRIDGE

**Description:** Work under this item shall consist of the design, construction, inspection, maintenance and removal of a temporary bridge, consisting of a superstructure and substructure, as shown on the plans, as directed by the Engineer and in accordance with these specifications.

The work to construct, maintain and remove the approaches to the temporary bridge is not included under this item and shall be paid for separately under the applicable roadway items.

**Materials:** The Contractor may use timber, steel, concrete or any other material or combination of materials that are in sound condition, capable of safely carrying the specified loads, and meet the approval of the Engineer.

**Construction Methods:** The Contractor shall prepare and submit working drawings and design computations for the temporary bridge for review in accordance with Section 105.2 in the Standard Specifications for Road and Bridge Construction prior to construction.

The design and construction of the temporary bridge superstructure and substructure components, shall conform to the requirements of 2012 – AASHTO LRFD Bridge Design Specifications (6<sup>th</sup> Edition) and 2013 Interim Revisions, amended as follows, unless otherwise noted on the plans:

- Design Loads: The temporary bridge shall be designed to support an HL 93 live load, including impact, for the applicable AASHTO Load Combination Groups.
- Allowable Stresses and Loads: Appropriate reductions in allowable stresses and loads shall be used in design when other than new or undamaged materials are used in the construction of the temporary bridge.
- Alignment: The horizontal and vertical alignment of the temporary bridge shall be as shown on the plans.
- Clearances: Any minimum vertical and horizontal clearances for the temporary bridge shall be as shown on the plans.
- Roadway Width: The minimum roadway width (the sum of the lane and shoulder widths) on the bridge shall be as shown on the plans.
- Railings and Curbs: Railings and curbs, conforming to the requirements of the AASHTO Standard Specifications for Highway Bridges, shall be provided along the edges of temporary bridge for protection of vehicular and pedestrian and bicycle traffic.

The vehicular railing shall be continuous with the approach railing.

- Sidewalks: Sidewalks are required only when shown on the plans. The sidewalk width and curb height shall be as shown on the plans.
- Wearing Surface: Skid resistance of the temporary bridge wearing surface shall match or exceed the approach pavement wearing surface. If requested by the Engineer, the Contractor

shall provide for the surface to be tested for proper skid resistance prior to use as a temporary bridge. Acceptable wearing surfaces include, but are not limited to:

- Epoxy Wearing Surface
- Asphalt (applied on top of the epoxy and would require subsequent removal.) No additional payment would be made for asphalt removal; it shall be considered incidental to the cost of Pay Item No. 718-10.00 "Temporary Bridge."
- Other Surface treatment, as approved by the Engineer

The top of the wearing surface shall permit snow removal with snow plowing equipment.

Deck Joints: Deck joints shall be installed flush with the top of the wearing surface between adjacent spans to provide continuous surface.

- Substructures: The substructure, abutments and piers, shall be designed to support the superstructure and retain the approaches. The maximum number of piers shall be as shown on the plans.
  - It is expected that the temporary bridge will rest on two supports, temporary bents, one at each end of the temporary bridge. The plans include details for one such alternate: an open round column bent founded on rock sockets.
  - At the Contractor's option an alternate proposed design for the temporary bent may be submitted. The proposed alternate may be founded on deep or shallow foundations.
  - Any alternative design must be equivalent in all respects to the design and details furnished by the County and is subject to the approval by the Engineer.
  - Alternate temporary bents proposed by the Contractor shall prepare the design and furnish working drawings to the Engineer for approval.
  - The design shall provide the clearances, alignment, load capacity, settlement, and other design parameters specified or approved.
  - The design shall conform to the 2012 AASHTO LRFD Standard Specifications for Highway Bridges (6<sup>th</sup> Edition) with 2013 Interims.
  - The working drawings and design calculations for any alternate design must be signed by a Registered Professional Engineer in the State of Missouri.

Prior to construction, the Contractor shall submit working drawings and design computations for the temporary bridge superstructure and substructure components, to the Engineer for review in accordance with Section 105.2 in the Standard Specifications for Road and Bridge Construction.

Working drawings shall be submitted on 11" x 17" (279 mm x 432 mm) (Ledger/Tabloid) sheets with an appropriate border and title block. Design computations, procedures and other supporting data shall be submitted on 8  $\frac{1}{2}$ " x 11" (216 mm x 279 mm) (Letter) sheets.

The working drawings and design computations shall be sealed by a Professional Engineer, licensed in the State of Missouri, who shall also be available for consultation in interpreting his computations and drawings, and in the resolution of any problems which may occur during the performance of the work. Please note that each working drawing must be sealed.

The design computations shall include inventory and operating live load ratings for the temporary bridge. The rating computations, including a summary form and supporting computations, shall be packaged separately. The rating analysis shall be performed using the Load Factor Design Method described in the AASHTO Manual for Condition Evaluation of Bridges.

The Contractor shall verify that the quality of the materials and workmanship employed in the construction of the bridge are consistent with that assumed in the design.

Prior to opening the temporary bridge to traffic, the Contractor shall perform an initial inspection of the bridge. After opening the temporary bridge to traffic, the Contractor shall perform routine inspections of the bridge at 3-month intervals. The initial and subsequent inspections shall be performed and documented by qualified personnel in accordance with the current Department's bridge inspection requirements. All forms and supporting documents shall be forwarded to the Department's Bridge Design Section.

After opening the temporary bridge to traffic, the Contractor shall maintain the bridge by repairing or replacing any portion or component of the bridge that has become worn or damaged as determined by the Engineer. The Contractor shall keep the structure in a suitable condition for the use of traffic at all times until the permanent construction is completed and open to traffic.

Upon completion and opening to traffic of the permanent construction, the Contractor shall remove and dispose of the temporary bridge, regrade and restore the area to its original or planned condition, as shown on the plans or as directed by the Engineer.

**Method of Measurement:** Measurement of Temporary Bridge, along the centerline of bridge, will be made to the nearest foot.

**Basis of Payment:** The accepted quantity of Temporary Bridge will be paid for at the contract unit price for "Temporary Bridge", and will be considered as full compensation for all materials, equipment, tools and labor, incidental to the design, construction, inspection, maintenance and removal of the temporary bridge and restoration of the temporary bridge site.