



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

June 2, 2008

Addendum No. 1

RE: Contract ID: C201852
WBS# 33549.3.1
F.A. # BRZ-1002(9)
Mitchell County (B-4202)
Bridges Over Crabtree Creek and
Approaches on SR-1002

June 17, 2008 Letting

To Whom It May Concern:

Reference is made to the proposal form recently furnished to you on this project.

The following revisions has been made to the Structure Provisions:

Page Nos. 99, 100 and 101 have been revised to correct the Project Special Provision entitled "Construction , Maintenance and Removal of Temporary Structure at Station 19+80.00-L-". Please void Page Nos. 99, 100 and 101 in your proposal and staple the revised Page Nos. 99, 100 and 101 thereto.

Sincerely,

A handwritten signature in black ink, appearing to read "R. A. Garris".

R. A. Garris, PE
Contract Officer

RAG/jag/blr
Attachments

Page 2

Contract ID: C201852

Mitchell County (B-4202)

cc: Mr. W. S. Varnedoe, PE
Mr. E. C. Powell, PE
Mr. J. J. Swain, Jr., PE
Ms. D. M. Barbour, PE
Mr. Art McMillan, PE
Mr. J. V. Barbour, PE
Mr. Greg Perfetti, PE
Mr. Mark Staley (2)
Mr. Robert Memory
Mr. R. E. Davenport, Jr., PE
Ms. Norma Smith
Mr. Ronnie Higgins
Mr. Larry Strickland
Ms. Lori Strickland
Project File (2)

Used high strength bolts, nuts and washers are permitted only in already bolted-up connections of used diaphragm and girder systems that are proposed for reuse. The use of used bolts is limited to secondary member connections such as diaphragms and is subject to approval.

Have all timber and lumber inspected by the Materials and Tests Unit or their authorized representative before shipping it to the project. The use of ungraded timber and lumber is not permitted. Use material conforming to grading rules of SPIB, NELMA or other nationally recognized specification.

The lump sum price bid for "Construction, Maintenance and Removal of Temporary Structure at Station _____" will be full compensation for the above work including all materials, equipment, tools, labor and incidentals necessary to complete the work.

CONSTRUCTION, MAINTENANCE AND REMOVAL
OF TEMPORARY STRUCTURE AT STATION 19+80.00 -L-

(10-24-06)

Construct, maintain and afterwards remove a temporary structure in accordance with the applicable parts of the Standard Specifications and this Special Provision, (structure only; the approaches are not a part of this pay item). Provide a temporary structure with a minimum overall length of 60 feet (meters). Center the length of the structure about Station 20+05.00 -DET B-. Detour with the alignment, grade, and skew as indicated on the Roadway plans. If the skew is not 90°, lengthening the structure to accommodate a 90° skew is permitted. Provide a temporary structure with a minimum clear roadway width of 22 feet (meters) and an underclearance elevation no less than elevation 2931.

Design the temporary structure for HS25 (MS22.5) live load in accordance with the current edition of the AASHTO Standard Specifications for Highway Bridges. The design of temporary structures need not satisfy the seismic design criteria of AASHTO Division I-A "Seismic Design", Section 3. As a minimum, design the bridge rails for the AASHTO LRFD Test Level 2 (TL-2) crash test criteria, except when the plans state that a Test Level 3 (TL-3) bridge rail is required. The design criteria are defined in the current edition of the AASHTO LRFD Bridge Design Specifications. In addition, design structural elements to which the bridge rail is attached, or elements which may receive loads transmitted through the rail, to distribute and/or withstand these loads.

Attach the bridge rails in a way that permits the bridge approach railing system to transition from the guardrail system and attach to the rigid railing system on the temporary bridge.

Provide a timber floor of laminated construction on the temporary structure. Place a sufficiently thick bottom layer of lumber normal to the centerline of roadway and a top layer of 2" x 8" (50 mm x 200mm) lumber on a 45° skew with the centerline of roadway. Lumber wider than 8" (200mm) is permitted if approved. For the bottom layer, use lumber that is dressed on all four sides to ensure a uniform width and thickness. For the top layer, use lumber dressed only on one

side to ensure a uniform thickness. Place the lumber so that the crown of the lumber is the rough side and is “facing up” in order to receive a tack coat. Apply sand seal to the timber floor after the top layer of lumber is completed. When preservative treatment is specified, follow AWPA Standards for the applicable use.

For Sand Seal, apply a liquid asphalt material and one or more applications of fine aggregate on the surface of wooden deck detour bridges. Use materials meeting the requirements of Division 10 of the Standard Specifications shown below:

- Asphalt, Grade CRS-2 or CRS-1 Articles 1020-6, 1020-7
- Aggregate, #1S..... Article 1005-3

Clean and dry the surface of the bridges before applying treatment. Apply asphalt emulsion at a rate of 0.15 - 0.20 gal/yd² (0.7 - 0.9 liters/m²) followed by a uniform coverage of sand at a rate of 10 – 15 lbs/yd² (5.4 - 8.1 kg/m²). Roll the seal with a pneumatic-tired roller. Allow the seal to cure for a minimum of 24 hours before opening to traffic. Maintain the sand seal in an acceptable condition during the life of the detour, making additional applications as necessary.

If the timbers in the bottom layer of lumber are at least 8 inches (200mm) thick, an asphalt wearing surface of at least 3 inches (75 mm) in thickness is permitted in lieu of the sand seal and top layer of lumber. Bolt the timbers together horizontally in minimum 4 foot (1.2m) mats. Prior to the assembly of the mats, have the Materials and Tests Unit, or their authorized representative, inspect the timber on all four sides. Place the face of timbers in contact with girder flanges so that they are even and positively bear on all girder flanges. If necessary, provide shimming to ensure positive bearing. Minor variations are permissible in the evenness of the top surface of timbers that is in contact with the asphalt. Secure the timber floor to the girder flanges at regular intervals.

Other floor systems are permitted if approved.

If timber piles are used, use piles that are new and conform to ASTM D25. Rough-peeled or clean-peeled untreated timber piles are permitted.

Submit design calculations to the Engineer that, as a minimum, include stress calculations for the following structural components: railings, rail post, rail post connections, timber floor, main girders or floor beam system, bent cap, pile bearing, pile as a structural member and longitudinal and lateral stability of pile bents if necessary. For stream crossings, determine the pile stability assuming a scour depth equal to 250% of the pile diameter or width below the existing bed elevation. The Engineer may require a more detailed analysis of scour depth for pile bents containing more than a single row of piles.

Include material specifications for all new and used materials, including commercial grades and species of timber and lumber, in the detail drawings of the structure. In addition, show the location and a detailed sketch of the used materials indicating condition of the material, the location and geometry of existing but unused holes, attachments left over from previous use and any other irregularities in the material.

Indicate the condition of the used materials in the design calculations. Provide access to any used materials for inspection prior to assembly.

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FALSEWORK AND FORMWORK

(7-18-06)

1.0 DESCRIPTION

Use this Special Provision as a guide to develop temporary works submittals required by the Standard Specifications or other provisions; no additional submittals are required herein. Such temporary works include, but are not limited to, falsework and formwork.