

**PROJECT SPECIAL PROVISIONS****ROADWAY****SCOPE OF WORK:****LOCATION & DESCRIPTION OF BRIDGE**

Bridge No. 25 Beaufort County is located on US 17 at the Tar River in Washington, NC. The project is limited to the movable swing span portion of the bridge. The swing span is pivoted at its midpoint, dividing the span into two equal spans of 94'-6" each. The bridge has a clear roadway width of 52 feet. The roadway floor is an open steel grid except for a portion over the pivot pier which has the grid floor concrete filled. The bridge consists of four main girders, nine roadway stringers, floorbeams, cantilevered sidewalk and sidewalk brackets.

**DESCRIPTION OF WORK**

Work consists of: providing work platform under the structure; the replacement of the open portion of the steel grid floor with new A572, galvanized steel grid floor; replacement of the nine lines of W16x40 stringers under the open section of the grid floor; structural steel repairs to various bridge members as shown on the plans and as directed by the Engineer; modification of the camber of the four main girders to reduce the sag of the girders while the bridge is being opened; and the complete cleaning and painting of the bridge. Work will include all vehicular traffic control and all coordination of work with the US Coast Guard on navigation channel traffic. **The Contractor shall notify the USCG at least 30 days prior to any stage of construction that will reduce navigational clearances or not allow the bridge to be opened.**

All welding shall be performed in accordance with the applicable requirements of the latest editions of the AASHTO/AWS D1.5M/D1.5 AASHTO Standard Specifications for Highway Bridges. Magnetic and ultrasonic testing of welds will be conducted by NCDOT personnel.

The existing paint system on the bridge is red lead primer overcoated with aluminum paint. All work shall be conducted in accordance with all State and Federal regulations pertaining to the removal and handling of materials containing lead based paint.

NCDOT will assist Contractor by operating bridge as needed in the performance of the work. Contractor shall give the Engineer 48 hours notice that the NCDOT's assistance will be required.

NCDOT will be responsible for maintaining the bridge components until the time the Contractor begins work on the individual components, after which time the Contractor will assume responsibility for the components until final acceptance of the work.

All work shall be conducted so as not to damage any bridge components not a part of this project.

**GUARDRAIL ANCHOR UNITS, TYPE 350:**

(4-20-04)

SP8 R65

**Description**

Furnish and install guardrail anchor units in accordance with the details in the plans, the applicable requirements of Section 862 of the *2006 Standard Specifications*, and at locations shown in the plans.

**Materials**

The Contractor may at his option, furnish any one of the guardrail anchor units.

Guardrail anchor unit (ET-2000) as manufactured by:

Trinity Industries, Inc.  
2525 N. Stemmons Freeway  
Dallas, Texas 75207  
Telephone: 800-644-7976

The guardrail anchor unit (SKT 350) as manufactured by:

Road Systems, Inc.  
3616 Old Howard County Airport  
Big Spring, Texas 79720  
Telephone: 915-263-2435

Prior to installation the Contractor shall submit to the Engineer:

(A) FHWA acceptance letter for each guardrail anchor unit certifying it meets the requirements of NCHRP Report 350, Test Level 3, in accordance with Section 106-2 of the *2006 Standard Specifications*.

(B) Certified working drawings and assembling instructions from the manufacturer for each guardrail anchor unit in accordance with Section 105-2 of the *2006 Standard Specifications*.

No modifications shall be made to the guardrail anchor unit without the express written permission from the manufacturer. Perform installation in accordance with the details in the plans, and details and assembling instructions furnished by the manufacturer.

**Construction Methods**

Guardrail end delineation is required on all approach and trailing end sections for both temporary and permanent installations. Guardrail end delineation consists of yellow reflective sheeting applied to the entire end section of the guardrail in accordance with Section 1088-3 of the *2006 Standard Specifications* and is incidental to the cost of the guardrail anchor unit.

**Measurement and Payment**

Measurement and payment will be made in accordance with Articles 862-6 of the *2006 Standard Specifications*.

Payment will be made under:

Pay Item	Pay Unit
Guardrail Anchor Units, Type 350	Each

**PORTLAND CEMENT CONCRETE (Alkali-Silica Reaction):**

2-20-07

SP10 R16

Revise the *2006 Standard Specifications* as follows:

Article 1024-1(A), replace the 2nd paragraph with the following:

Certain combinations of cement and aggregate exhibit an adverse alkali-silica reaction. The alkalinity of any cement, expressed as sodium-oxide equivalent, shall not exceed 1.0 percent. For mix designs that contain non-reactive aggregates and cement with an alkali content less than 0.6%, straight cement or a combination of cement and fly ash, cement and ground granulated blast furnace slag or cement and microsilica may be used. The pozzolan quantity shall not exceed the amount shown in Table 1024-1. For mixes that contain cement with an alkali content between 0.6% and 1.0%, and for mixes that contain a reactive aggregate documented by the Department, regardless of the alkali content of the cement, use a pozzolan in the amount shown in Table 1024-1.

Obtain the list of reactive aggregates documented by the Department at: <http://www.ncdot.org/doh/operations/materials/pdf/quarryasrprob.pdf>

<b>Table 1024-1</b>	
<b>Pozzolans for Use in Portland Cement Concrete</b>	
<i>Pozzolan</i>	<i>Rate</i>
Class F Fly Ash	20% by weight of required cement content, with 1.2 lbs Class F fly ash per lb of cement replaced
Ground Granulated Blast Furnace Slag	35%-50% by weight of required cement content with 1 lb slag per lb of cement replaced
Microsilica	4%-8% by weight of required cement content, with 1 lb microsilica per lb of cement replaced

**GLASS BEADS:**

(7-18-06)

SP10 R35

Revise the *2006 Standard Specifications* as follows:

Page 10-223, 1087-4(C) Gradation & Roundness

Replace the second sentence of the first paragraph with the following:

*All Drop-On and Intermixed Glass Beads shall be tested in accordance with ASTM D1155.*

Delete the last paragraph.

**PAINT SAMPLING AND TESTING:**

(8-15-06)

SP10 R 45

Revise the *2006 Standard Specifications* as follows:

Page 10-190, Article 1080-4, Delete the first paragraph and replace with the following:

All paint will be sampled, either at the point of manufacture or at the point of destination. Inspection and sampling will be performed at the point of manufacture wherever possible. The Contractor shall not begin painting until the analysis of the paint has been performed, and the paint has been accepted.

**CHANGEABLE MESSAGE SIGNS**

(11-21-06)

SP11 R11

Revise the *2006 Standard Specifications* as follows:

Page 11-9, Article 1120-3, Replace the 3rd sentence with the following:

Sign operator will adjust flash rate so that no more than two messages will be displayed and be legible to a driver when approaching the sign at the posted speed.

**PAVEMENT MARKING LINES MEASUREMENT AND PAYMENT:**

(11-21-06)

SP 12 R01

Revise the *2006 Standard Specifications* as follows:

Page 12-14, Subarticle 1205-10, delete the first sentence of the first paragraph and replace with the following:

*Pavement Marking Lines* will be measured and paid for as the actual number of linear feet of pavement marking lines per application that has been satisfactorily placed and accepted by the Engineer.