



STATE OF DELAWARE  
DEPARTMENT OF TRANSPORTATION  
PO BOX 778  
DOVER, DELAWARE 19903

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GOVERNOR

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**VIA WEBSITE POSTING**

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November 20, 2015

Contract No. T200811301  
Federal Aid Project NH-2015 (20)  
US 301, MARYLAND STATE LINE TO LEVELS ROAD  
New Castle County

Ladies and Gentlemen:

Correction to Addendum No. 1:

1. The Bid Proposal Cover, revised, to be substituted for the same page in the Proposal.
2. Incorrect page numbers 297, 298, 299 & 306, were inadvertently used in paragraph 3 of Addendum No. 1. The correct page numbers are 294, 295, 296 & 303, and are attached.

Please note the revision listed above and submit your bid based upon this information.

Sincerely,

*signature on file*

James H. Hoagland  
Contract Services Administrator

:jhh  
Enclosure



STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION

BID PROPOSAL

for

CONTRACT T200811301.01

FEDERAL AID PROJECT NO. NH-2015 (20)

US 301, MARYLAND STATE LINE TO LEVELS ROAD

NEW CASTLE COUNTY

ADVERTISEMENT DATE: November 10, 2015

COMPLETION TIME: 850 Calendar Days

SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION  
DELAWARE DEPARTMENT OF TRANSPORTATION  
AUGUST 2001

Bids will be received in the Bidder's Room at the Delaware Department of Transportation's Administration Building, 800 Bay Road, Dover, Delaware until 2:00 P.M. local time **December 22, 2015**

~~749516 – REINFORCED CONCRETE SIGN FOUNDATION, W-6~~  
~~749517 – REINFORCED CONCRETE SIGN FOUNDATION, W-8~~  
~~749518 – REINFORCED CONCRETE SIGN FOUNDATION, W-10~~  
~~749519 – REINFORCED CONCRETE SIGN FOUNDATION, W-12~~  
~~749520 – REINFORCED CONCRETE SIGN FOUNDATION, W-14~~  
749581 - REINFORCED CONCRETE SIGN FOUNDATION, W-18

**Description:**

— This work consists of furnishing all material and installing sign foundations.

**Materials:**

— Bar Reinforcement shall conform to the requirements of Subsection 603.02 of the Standard Specifications.

— Portland Cement Concrete shall be Class B and shall conform to the requirements of Section 812 of the Standard Specifications.

— Anchors shall be fabricated from 304 Stainless Steel for the threaded ferrule portion, and 1058 steel rod and coil for cage portion of anchor.

— Nuts, Bolts and Cap Screws shall meet AASHTO M 164 (m 164M). All nuts, bolts and cap screws shall be within a hardness range of Rockwell C23 to C31 prior to hot dip galvanizing per AASHTO M232/M 232M.

**Construction Methods:**

— The bases shall conform to the dimensions and details as indicated on the Plans.

— Excavation for the foundation may not exceed the dimension of the foundation by more than 1 foot (300 mm) in any one direction. If a form is used in the excavation more than 18 inches (460 mm) below the ground surface, it is necessary that the excavation be filled and tamped on all sides in layers not to exceed 6 inches (150 mm).

— The excavated material shall be disposed of and the area shall be properly graded. After grading, the area shall be returned to its original condition around the supports with mulching, seeding or other landscaping as necessary or as directed by the Engineer.

— Anchor bolts shall be set to template for alignment and elevation and shall be secured in position to prevent displacement while concrete is being placed. The steel reinforcement and conduit elbows shall have been placed and secured before the placing of concrete.

**Method of Measurement:**

— The quantity of sign foundations will be measured as the number of foundations for the specified size of beam constructed in accordance with these specifications, complete in place, and accepted.

**Basis of Payment:**

— The quantity of sign foundations will be paid for at the contract unit price per each foundation of the type specified. Price and payment will constitute full compensation all materials and sign foundation installation complete in place and for all labor, equipment, tools, and incidentals required to complete the work. Payment will also include returning the area around the sign post to its original conditions by mulch, seeding or other landscaping necessary.

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 10/27/2009

~~749521 - SUPPLY OF BREAKAWAY I-BEAM SIGN POSTS, W-6~~  
~~749522 - SUPPLY OF BREAKAWAY I-BEAM SIGN POSTS, W-8~~  
~~749523 - SUPPLY OF BREAKAWAY I-BEAM SIGN POSTS, W-10~~  
~~749524 - SUPPLY OF BREAKAWAY I-BEAM SIGN POSTS, W-12~~  
~~749525 - SUPPLY OF BREAKAWAY I-BEAM SIGN POSTS, W-14~~  
~~749563 - SUPPLY OF BREAKAWAY I-BEAM SIGN POSTS, W-4~~  
~~749582 - SUPPLY OF BREAKAWAY I-BEAM SIGN POSTS, W-18~~

**Description:**

— This work consists of furnishing all materials for ground mount breakaway type sign posts and breakaway assemblies to the job order site in conformance with the details and notes shown on the Plans, and as directed by the Engineer.

**Materials:**

— Structural Steel shall meet the applicable requirements of Subsection 605.02 of the Standard Specifications and AASHTO M 270/M 270M, GR36 (GR250), GR50 (GR345), or GR50W (GR 345W) as detailed on the plans. Steel posts shall be galvanized in accordance with the requirements of AASHTO M 111/M 111M.

— ~~Breakaway Couplings shall be made from alloy steel which conforms to AISI 4340, 4130 or an equivalent material, and shall have a minimum tensile yield stress of 175,000 psi (1200 MPa). The Rockwell C hardness shall be 26 minimum. The couplings shall have tensile breaking strength ranges as noted below; and shall be of the type as shown on the Plans:~~

— ~~Type A — 17,000 – 21,000 lb (75 – 93 kN)~~  
— ~~Type B — 47,000 – 57,000 lb (209 – 253 kN)~~

— ~~This steel shall conform to the requirements of the current ASTM designation A-370.~~

— ~~The couplings shall be clean, dry and free from any foreign material and shall be primed and coated with a suitable paint which shall be baked or fused with a polyurethane additive. The color of the coating shall be as follows:~~

— ~~Type A — Yellow~~  
— ~~Type B — Red~~

— ~~Chipped areas on the coating surface shall be repaired. All threaded surfaces, after coating, shall be cleaned to all them to function properly.~~

— ~~Brackets shall be made from aluminum alloy 6061 T-6 or an equivalent material. Upper brackets shall incorporate the load concentrating member or bass which shall be made from the following material:~~

— ~~Type A — Aluminum alloy 6061 T-6 or equivalent as part of brackets~~  
— ~~Type B — Stainless steel 416 or equivalent ASTM A582-Rockwell C35-C45~~

— ~~The type of bass shall be as shown on the Plans.~~

— ~~Location holes for the breakaway coupling shall be accurately positioned relative to the load concentrating member in accordance with the Engineer's requirements. All Brackets shall be permanently labeled with bracket number to reflect the hole positioning.~~

~~—Hinge Plates shall be made from alloy steel which conforms to AISI 4340, 4130 or an equivalent material and shall have a minimum tensile yield stress of 90,000 psi (620 MPa). The hinge plates shall have tensile breaking strength ranges as follows:~~

<del>— HH-10</del>	<del>— 11,450 – 13,900 lb (50.9 – 61.8 kN)</del>
<del>— HH-1</del>	<del>— 16,400 – 19,700 lb (72.9 – 87.6 kN)</del>
<del>— HH-2</del>	<del>— 6,700 – 8,100 lb (29.8 – 36.0 kN)</del>

~~—Nuts, Bolts and Cap Screws shall meet AASHTO M 164 (m 164M). All nuts, bolts and cap screws shall be within a hardness range of Rockwell C23 to C31 prior to hot dip galvanizing per AASHTO M232/M 232M.~~

**Construction Methods:**

~~—Working Drawings. Working drawings shall be submitted in accordance with subsection 105.04 of the Standard Specifications. Minor variations in details may be permitted; however, any major departure from the design will not be accepted.~~

~~—Fabrications. Loading, transporting, unloading and erection of structural materials shall be done so that the metal will be kept clean and free from injury in handling.~~

~~—Structural materials shall be stored above the ground upon platforms, skid or other supports and shall be kept free from accumulation of dirt, oil, acids or other foreign matter.~~

~~—Structural material which has been deformed shall be straightened before being laid out, punched, drilled or otherwise worked upon in the shop. Sharp kinks or bends will be cause for rejection.~~

~~—When sign support structures are subcontracted, the subcontract shall be in accordance with Subsection 108.01 of the Standard Specifications except that the value of the subcontract will be based on the value of the work for fabrication.~~

~~—Repair Galvanizing. Galvanized areas damaged during shipping or erection shall be repaired by any of the three methods specified under ASTM A780. In all cases, the repair shall achieve the minimum coating thickness specified.~~

~~—Erection. Material shall not be dropped, thrown or dragged over the ground. The Contractor shall supply detailed, written instructions and drawings for the erection of all sign structure components.~~

**Method of Measurement:**

~~—The quantity of supplying ground mount breakaway type sign posts and breakaway assemblies will be measured as linear feet for the length and size of ground mount breakaway sign post furnished as specified and accepted.~~

**Basis of Payment:**

~~—The quantity of supplying ground mount breakaway type sign posts and breakaway assemblies will be paid for at the Contract unit price per linear feet for the length and size of ground mount breakaway sign post specified. Price and payment will constitute full compensation for furnishing hinge plates, breakaway couplings, nuts, bolts and cap screws and all other materials for the sign posts and breakaway assemblies in accordance with the details and notes shown on the Plans, and as directed by the Engineer; and for all labor, equipment, tools and incidentals necessary to complete the work.~~

3/6/08

Contract No. T200811301.01

~~749550 - INSTALLATION OF BREAKAWAY I-BEAM SIGN POSTS~~  
~~749551 - REMOVAL OF BREAKAWAY I-BEAM SIGN POSTS~~

**Description:**

~~———— This work consists of installing or removing breakaway I-beam sign posts and breakaway assemblies on sign bases previously installed or installed under other items in this contract.~~

**Materials:**

~~———— Steel I-beams and all mounting hardware to be used will be paid for under other items of this contract or may be furnished by the Department. The supply of the material will be designated in the job order. All I-beams will be cut to the correct length and marked for the area they are to be installed.~~

**Construction Methods:**

~~———— The I-beams are to be installed in a manner as not to damage the base that the I-beam is to be installed on and care taken to not interfere with overhead utility lines.~~

~~———— When re-installing an existing sign post and breakaway assemblies, removal of broken couplings and bolts in existing I-beams and removal of broken anchor bolts in existing bases shall be considered part of this item.~~

~~———— Where an existing sign has been knocked down, this item will pay for the repair of breakaway couplings and standing up the existing sign. No additional compensation will be made for removal or installation of sign unless a new sign is required.~~

~~———— In the removal of the I-beams, all hardware is to be returned to the Department at the Dover Sign Shop.~~

**Method of Measurement:**

~~———— The quantity of installation or removal of breakaway posts and breakaway assemblies will be measured as the number of breakaway posts and breakaway assemblies installed as specified, complete and in place, or removed and returned to the Department at the Dover Sign Shop.~~

**Basis of Payment:**

~~———— The quantity of installation or removal of breakaway posts and breakaway assemblies will be paid for at the contract unit price per each. Price and payment will constitute full compensations for all labor, equipment, tools, and incidentals required to complete the work.~~

10/26/05