

**ITEM 568.98—25     STEEL BRIDGE BARRIER SYSTEM**

**1.     DESCRIPTION:**

- 1.01    This work shall consist of fabricating, furnishing, and installing a Steel Bridge Barrier System as shown on the Contract Plans and in accordance with this specification.
- 1.02    Upon contract award, the Contractor shall notify the Thruway Authority of, the type of steel bridge barrier system to be used, and the name and address of the Fabricator of all the barrier components. This notification shall list specific shop or shops in which the barrier will be fabricated.

**2.     MATERIALS:**

- 2.01    The following steel bridge barrier systems all meet the requirements of this specification:

MDS Bridge Railing (Federal Acceptance Letter B-165)  
Trinity Highway Products, LLC  
1170 N. State Street  
Girard, OH 44420  
[REDACTED]

ESB Bridge Rail (Federal Acceptance Letter B-154)  
Perini Corporation  
1022 Lower South Street  
Peekskill, New York 10566  
[REDACTED]

Sistema Bridge Barrier (Federal Acceptance Letter B-123)  
Barrier Safety Systems  
Mill Haven, Grange, Knockbridge  
Dundalk, Co. Louth, Ireland  
[REDACTED]

- 2.02    Materials shall meet the requirements of the New York State Standard Specifications dated May 1, 2008, Subsections:

Concrete Grouting Material	701-05
Steel Bridge and Culvert Railing	710-23
Stainless Steel Connecting Products	715-16
Galvanized Coatings and Repair Methods	719-01

- 2.03    **Design of Permanent Transition Details:** The manufacturer of the steel bridge barrier system shall be responsible for detailing all necessary permanent transition details, if not included in the plans. Shop drawings shall be supplied to the Authority for approval.

**3.     CONSTRUCTION DETAILS:**

- 3.01    The manufacturer of the barrier shall meet with the Thruway Authority or its designated representative two (2) weeks prior to manufacture. The Contractor shall submit a written schedule of when work will begin. The Contractor shall also provide the Thruway Authority or designated representatives with access to the manufacturing site for the purpose of quality assurance with the Contract Documents and

**3.     CONSTRUCTION DETAILS:** (cont'd)

approved Shop Drawings. All pieces manufactured shall meet the quality standards set forth in the **New York State Department of Transportation Standard Specifications dated May 1, 2008, and the 2008 New York State Steel Construction Manual and the approved Shop Drawings.**

- 3.02 Failure to adhere to the approved shop drawings, approved material(s), and other specifications requirements shall be cause for rejection. No piece(s) shall be shipped prior to their acceptance by the Thruway Authority or its designated representative in writing (four (4) copies shall be provided). Each piece will be identified by shipping and assembly marks as indicated on the shop drawings. Each piece(s) will be delivered to the job site with a copy of a letter of acceptance; any piece(s) delivered without a letter of acceptance will be deemed rejected, and no adjustment shall be made for any costs resulting from the rejection of any manufactured piece(s). Nor with the Contractor be compensated for any piece(s) found not to be in compliance with the Contract Specifications, approved materials and/or approved Shop Drawings.
- 3.03 **Inspection of Barrier:** Immediately prior to the erection, the barrier shall be inspected for damage. Significant bends, kinks, or gouge(s) in the barrier or railing not specifically called for in the Contract Documents shall constitute cause for rejection. Straightening of such bends, kinks, or repair of gouge(s) shall not be allowed.
- 3.04 **Inspection of Galvanizing.** Damage to the galvanizing of the barrier shall be cause for rejection except for the following conditions:
- A. If the damage area is not required to be repaired under the provision of Section 710-23, of the New York State Standard Specifications.
  - B. If the total damaged area of a single piece is 6 in<sup>2</sup> or less. Total damage area is exclusive of the damaged area as described under Section 568-3.01B1.
- 3.05 **Field Welding:** Field welding shall not be permitted unless noted in the Contract Documents.
- 3.06 **Erection:** All barrier shall be erected in accordance with the approved Shop Drawings.
- 3.07 **Positioning Barrier:** Barrier shall be erected so the barrier/rails are parallel to each other and structural slab.
- 3.08 **Positioning Post:** Post shall be vertical.
- 3.09 **Base Plates:** Base plates shall be parallel to the grade.
- 3.10 **Anchor Studs:** After the anchor stud nuts have been tightened in a manner satisfactory to the Engineer, the studs shall be flame cut 1 in. above the nut. The first thread of the stud above the nut shall be damaged. The cut end of the anchor stud shall be coated in conformance with the requirements of §719-01, Galvanized Coating and Repair Methods.
- 3.11 **Setting Anchor Bolts:** Anchor bolts shall be set as shown on the plans unless changes are permitted by the Thruway Authority. Anchor bolts shall be cast in the superstructure concrete, templates or other suitable means, in order to keep the bolts in the proper alignment at the proper embedment.

**3.      CONSTRUCTION DETAILS:** (cont'd)

- 3.12    **Transportation:** The Contractor will notify the Authority two (2) weeks prior to shipment of any piece(s). The Contractor shall be responsible for securing at his expense all necessary permits required to transport all components. Prior to release of the manufactured piece(s) the Contractor and the Thruway Authority or designated representative shall inspect and document that all piece(s) are in good condition and free of damage and the Contractor shall certify such in writing to the Authority or designated representative.

Upon arrival at the job site and prior to the off-loading of any piece(s), the Contractor along with Thruway Authority or its designated representative, shall again inspect piece(s) and certify in writing that all piece(s) are in good condition; no piece(s) shall be off-loaded until the certification is complete and the letter of acceptance has been presented to the Contractor from the Thruway Authority or designated representative. Any piece(s) damaged shall be documented in writing and rejected. The Thruway Authority shall have no liability and no adjustment shall be made for any time related costs resulting from rejection of any manufactured piece(s). Nor shall the Contractor be compensated for any piece(s) that have been documented, damaged, or found not to be in adherence with either the Contract Specifications, approved materials, and/or Shop Drawings.

**4.      METHOD OF MEASUREMENT:**

- 4.01    The quantity to be paid for shall be the number of linear feet, measured along the centerline of the barrier, installed between the limits indicated on the Contract Plans.

**5.      BASIS OF PAYMENT:**

- 5.01    The unit price bid shall include the cost of furnishing all labor, materials, and equipment necessary to complete the work. All shims, splices with their hardware, railing anchor studs with nuts, washers, and anchor plates when specified shall be included in the bid price, unless otherwise indicated in the plans. No payments shall be made for barrier pieces which are replacements for those piece(s) that have been rejected.