

**ITEM 16606.80 M - TRANSITION BRIDGE RAILING OR CONCRETE BARRIER TO BOX BEAM GUIDE RAIL**

**DESCRIPTION**

This work shall consist of the construction of a guide rail transition from bridge railing or concrete barrier to box beam guide rail off a structure, in the manner and at the locations indicated on the Contract Plans.

**MATERIALS**

Unless otherwise specified, all transition elements shall meet the following:

1. All nuts and bolts used for rail splices shall be ASTM A325M Type 3.
2. Rail sections for tangent runs shall be at least 5.5 m in length.
3. All welding shall conform to the requirements of the Steel Construction Manual.
4. Unless rustic railing transition is specified, all transition elements shall meet the requirements of 710 - 21 "BOX BEAM GUIDE RAILING AND MEDIAN BARRIER" and the following:
  - a. Shelf angles shall be ASTM A36M or A588M.
  - b. Splice tubes shall be ASTM A500 grade B, A588M, or A242M.
  - c. Splice plates shall be ASTM A36M, A588M, or A242M.
5. When rustic railing transition is specified, the following shall apply:
  - a. All transition elements shall meet the requirements of subsection 710 - 25 "GUIDE RAIL AND MEDIAN BARRIER SYSTEMS (RUSTIC)" and the following:
    - 1.) Shelf angles shall be ASTM A588M.
    - 2.) Splice tubes shall be ASTM A500 grade B, A588M, or A242M.
    - 3.) Splice plates shall be ASTM A588M, or A242M.
    - 4.) Any rail element in contact with concrete shall be galvanized and painted in accordance with subsection 710 - 23 "STEEL BRIDGE AND CULVERT RAILING."
  - OR b. All transition elements shall meet the requirements specified in 4. (above) and elements exposed to view shall be painted in accordance with subsection 710

Old Date:  
May 18, 1994  
EI-94-35

Date Made Metric:  
February 28, 1996

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**BEAM GUIDE RAIL**

- 23 "STEEL BRIDGE AND CULVERT RAILING."

**CONSTRUCTION DETAILS**

The requirements of subsection 606-3 and the following shall apply.

Any curving of the rails shall be done in the fabrication plant prior to galvanizing.

Any radius less than 10 m shall be made by cutting all 4 sides of the tubes and welding to approximate the specified radius. The number of welds shall be as shown on the plans or approved by the Engineer.

All welds used to splice steel tubes shall be complete penetration groove welds in accordance with the current "New York State Steel Construction Manual."

**METHOD OF MEASUREMENT**

Measurement will be taken as the number of meters measured along the axis of the top rail between the limits shown on the plans.

Under no circumstances will the bottom rail be measured for payment purposes.

**BASIS OF PAYMENT**

The unit price bid per meter shall include the cost of all labor, equipment, and material necessary to complete the work, including all costs necessary to obtain any curvature required.

The price bid shall also include the cost of back-up posts where indicated on the plans and the cost of furnishing and installing the flared segment of the bottom rail, including splices.