

## **ITEM 615.64 10 M – STEEL ACCESS STAIRCASE FOR L.I.R.R. BRIDGE**

### **DESCRIPTION**

Under this item the Contractor shall furnish and install steel access staircases which includes treads, risers, nosings, stringers, railings, support posts, and connections in accordance with the Contract Drawings.

### **MATERIALS**

Structural steel for stair channel stringers, posts, and connection angles and plates shall be ASTM A709M Grade 345W and conform to the requirements of §715-01. Bolts, nuts, and washers shall conform to §715-14.

Paint for stair channel stringers, posts, and connection angles and plates shall conform to Section 572-2. Abrasive material for blast cleaning shall conform to Section 572-2.

Stair treads and risers shall be a stainless steel grid deck with a mesh rectangular design. Material for the grating shall conform to ASTM A240M and ASTM A666, Type 316L stainless steel. Main bars to be 25mm x 5mm spaced at 30mm center to center. Cross bars to be 14mm x 5mm, flush top, and spaced at 100mm center to center. Main bars and crossbars shall be slotted at their intersections so as not to remove excessive material from the load-sustaining members. Main bars to be “dovetail” slotted and have their slots solidly filled by the cross bars. Finish shall be mill finish. Overall dimensions of grid deck work shall be as shown in the plans. Nosings shall either be checker plated or abrasive to provide for a slip resistant surface.

The material for all railing and railing connection plates shall conform to ASTM A240M and ASTM A666, Type 316L stainless steel. All railing shall be standard hollow 32mm diameter pipe.

### **CONSTRUCTION DETAILS**

The stairs shall be preassembled prior to installation during a weekend double track outage. All welding shall be performed by qualified workers and all welds shall be ground smooth. Welding shall conform to the requirements of the New York State Steel Construction Manual. If a weld filler for stainless steel is required, AWS E/ER 316L and 16-8-2 shall be used.

Connections from the steel stair stringers and posts to concrete supports will be made using expansion anchors. Concrete supports are to be paid for under separate items.

All material shall be blast cleaned to provide for a uniform appearance as per §572-3.01. Paint for stair channel stringers, posts, and connection angles and plates shall conform to Section 572-3. The finish coat color shall be dark green (Federal Number #14036).

In plan view, the edge of the stair closest to the track must not be closer to the track than the edge of the through girder to avoid interferences with the L.I.R.R. train envelope. A 50mm clear gap, as indicated on the contract plans, must be left between the top tread of the stair and the end of the through girder.

**ITEM 615.64 10 M – STEEL ACCESS STAIRCASE FOR L.I.R.R. BRIDGE**

The elevation of the top tread shall match the elevation of the top flange at the end of the corresponding through girder and the elevation at the base of the stair shall match the elevation of the supporting concrete landing pad.

**METHOD OF MEASUREMENT**

Measurements will be made for each steel access staircase as indicated on the contract plans.

**BASIS OF PAYMENT**

The unit price bid for each steel access staircase shall include the cost of all labor, materials and equipment necessary to complete the work including making connections to concrete supports.

DISAPPROVED BY EI 12-001