

## ITEM 04568.03 M - ALUMINUM PEDESTRIAN RAIL

**DESCRIPTION.** This work shall consist of furnishing and installing aluminum pedestrian rail where indicated on the contract plans.

**MATERIALS.** Materials shall meet the requirements of the following subsections of 700:

Aluminum Rail	715-04
Aluminum Anodic Protection	719-02
Stainless Steel Bolts, Nuts, Washers and Self Tapping Screws	715-16

**CONSTRUCTION DETAILS.** Fabrication. All railing shall be fabricated in accordance with approved shop drawings prepared and submitted as specified in the New York State Steel Construction Manual.

1. Inspection of Railing. Immediately prior to erection, the railing shall be inspected for damage. Bends or kinks in the railing not specifically called for in the contract documents shall constitute sufficient cause for rejection. Straightening of such bends or kinks will not be allowed.

Bending or curving railing panels or rails, in order to fit alignment requirements in the field shall not be permitted. The Engineer may order some bending or curving to allow for necessary minor adjustments.

2. Inspection of Anodizing. Damage to anodizing of pedestrian rail shall constitute sufficient cause for rejection except for the following conditions:
  - a. If the total damaged area of a complete railing panel is less than two percent of the total surface area, or 100 square cm, whichever is less. A railing panel is defined as the entire rail system between anchor posts.
  - b. If the total damaged area of a single piece (i.e. post or rail) is 40 square cm or less.
3. Field Welding. Field welding will not be permitted unless noted in the contract documents.
4. Positioning Railing. Railing shall be erected so that the rails are parallel to each other and to the top of the concrete curb.
5. Positioning Posts. Posts shall be set truly vertical.
6. Base Plates. Post base plate extrusions shall be perpendicular to the post, unless otherwise noted.
7. Rail Span. The top rails of railings shall span a minimum of three (3) posts.
8. Anchor Studs. After the anchor stud nuts have been tightened in a manner satisfactory to the Engineer, the studs shall be flame cut 25 mm above the nut. The first thread of the stud above the nut shall be damaged.

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9. Concreting Against Aluminum. Where concrete is to be placed against an aluminum surface, the contacting aluminum surface shall be thoroughly coated with 708-04, Zinc Chromate Primer. The primer shall be allowed to dry before the concrete is placed.
10. Inspection. All erection shall be subject to the inspection of the Engineer who shall be given all facilities required for a visual inspection of workmanship and materials.
11. Shop drawings, in accordance with the New York State Steel Construction Manual, for the pedestrian rail shall be submitted to the Engineer for approval.

**METHOD OF MEASUREMENT.** The quantity will be measured as the number of linear meters (as measured along the centerline of the top rail) of pedestrian rail installed.

**BASIS OF PAYMENT.** The unit price bid shall include the cost of furnishing all labor, materials and equipment necessary to complete the work. All splices with their hardware, railing anchor studs with nuts, washers and anchor plates shall be included in the price bid.

No payment will be made for those railing panels or pieces which are replacements for those railing panels or pieces that have been rejected.

Progress payments will be made when the railing is erected in accordance with approved shop drawings as specified in the New York State Steel Construction Manual exclusive of the cutting and peening of studs. Payment will be made at the unit bid price for 90% of the quantity erected. The balance of the quantity will be paid for upon proper completion of the work.