MICHIGAN

DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

FOR

**ORNAMENTAL ALUMINUM FENCE**

BRG:MGB 1 of 3 APPR:NAP:DMG:10-25-21

**a. Description.** This work consists of furnishing, manufacturing, and installing an ornamental aluminum fence at the locations shown on the plans. Complete all work in accordance with the standard specifications, except as modified herein.

Furnish fence from one of the following manufacturers or approved equal:

Ultra Aluminum Mfg., Inc. Ameristar Fence Products

2124 Grand Commerce Drive 1555 North Mingo Road

Howell, MI 48855 Tulsa, OK 74116

(800) 656-4420 (800) 321-8724

[www.ultrafence.com](http://www.ultrafence.com) [www.ameristarfence.com](http://www.ameristarfence.com)

Ensure the furnished fence and all components are from one manufacturer.

**b. Materials.** Ensure aluminum material for fence framework (i.e., tubular pickets, rails, and posts) is in accordance with *ASTM B221*. Ensure the aluminum extrusions for posts and rails (outer channels) are Alloy and Temper Designation 6005-T5. Ensure the aluminum extrusions for pickets and rail inner slide channels are Alloy and Temper Designation 6063-T5.

Ensure aluminum material for fence base plates is in accordance with *ASTM B209/B209M*. Ensure the aluminum plate for base plates are Alloy and Temper Designation 5052-H32.

Elastomeric sheet. Use elastomeric bound fabric pad in accordance with subsection 914.12 of the Standard Specifications for Construction.

Anchor bolts. Use stainless steel anchor bolts and washers in accordance with *ASTM A320/A320M*, *Grade L7*. Ensure nuts are self-locking nylon insert type in accordance with *ASTM A194/A194M*, *Grade 7*.

Hardware. Furnish stainless steel bolts, washers, nuts, and screws for assembly and installation of the fence panels in accordance with the manufacturer’s recommendations.

Ensure the furnished fence and all components are from one manufacturer and are designed to carry 0.015 kips per square foot (ksf) wind load acting normal to the entire surface of the fence. This wind load need not be applied simultaneously with live load.

The various fence components must meet the following dimensions listed below:

|  |  |
| --- | --- |
| Components | Dimension or Feature |
|  |  |
| Aluminum Base Plates | as shown on the plans |
|  |  |
| Spacing Between Pickets | 4 inches maximum |
|  |  |
| Post Spacing | 72 inches on center |
|  |  |
| Height of Fencing | 48, 60, 72 inches, or as shown on the plans |
|  |  |
| Color (Federal Standard 595, color # 17038) | Gloss Black |
|  |  |
| Finish | Powder Coated |
|  |  |

**c. Construction.** Construct the ornamental aluminum fence in accordance with subsection 808.03 of the Standard Specifications for Construction, as specified herein and as shown on the plans.

Field verify the location of all fence components and dimensions prior to fabrication to ensure proper fit up.

Assemble and install fence components in accordance with the manufacturer’s recommendations.

Install the fence at locations shown on the plans. Ensure fence posts, both end and line, are shop welded to the base plates. Install adhesive anchor bolts in accordance with section 712 of the Standard Specifications for Construction. Ensure the adhesive anchor bolts for fencing base plates will not interfere with existing reinforcement and are accurately positioned in accordance with the plans and firmly held by means of a template. Paint the bolt heads to match the finish of the fence.

Install expansion sleeves at the locations shown on the plans.

Shop weld aluminum in accordance with *AWS D1.2* and as specified in the contract. Field welding is prohibited.

Repair any painted surface that has been damaged during shipping or assembly in accordance with the manufacturer’s recommendations.

Submit working drawings to the Engineer for review and approval, not less than 14 calendar days prior to fabrication.

Provide manufacturer’s limited lifetime warranty that the ornamental railing system is free from defects in material and workmanship including cracking, peeling and chipping.

**d. Measurement and Payment.** The completed work, as described, will be measured and paid for at the contract unit price using the following pay item:

**Pay Item Pay Unit**

Fence, Ornamental Alum, \_\_ inch Foot

**Fence, Ornamental Alum, \_\_ inch** will be measured along the centerline of the fence. The price includes all appurtenances for furnishing, fabricating, and installing the **Fence, Ornamental Alum, \_\_ inch** complete and in place including aluminum base plates, adhesive anchored bolts, expansion sleeves, bolts, nuts, washers, elastomeric pads and all hardware required for erection.