MICHIGAN

DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

FOR

**ORNAMENTAL FENCING**

BRG:MD 1 of 2 APPR:REL:DMG:11-16-23

**a. Description.** This work consists of furnishing, fabricating, coating, and erecting the ornamental fencing on the proposed steel barrier as shown on the plans, as specified herein, and in accordance with the standard specifications. The intent of this special provision is to furnish and install a fence that matches the existing fence.

**b. Materials.**

1. Steel. Furnish steel in accordance with sections 707, 906, and 908 of the Standard Specifications for Construction. Use hollow structural sections (HSS) in accordance with subsection 908.09.B.

2. High Strength Bolts and Anchor Bolts. Furnish high strength bolts, nuts, and washers in accordance with section 906 of the Standard Specifications for Construction. Furnish anchor bolts in accordance with section 908 of the Standard Specifications for Construction.

3. Hardware. Furnish hardware in accordance with subsection 908.09.C of the Standard Specifications for Construction and as stated herein. Furnish all hardware and accessories required to properly and completely execute the installation for this project, including, but not limited to hangers, bolts, nuts, washers, anchors, and similar items, whether specifically mentioned herein or not.

4. Coating. Use a coating system in accordance with sections 716 and 915 of the Standard Specifications for Construction.

5. Coating for High Strength Bolts, Anchor Bolts and Hardware. Use a coating system for the bolts, anchor bolts, and related hardware in accordance with section 716 of the Standard Specifications for Construction.

**c. Submittals**. Submit shop drawings in Adobe PDF to the Engineer for review and approval prior to the start of fabrication. The Engineer will have 14 days to perform each review and multiple review cycles may be necessary. The approval of all shop drawings is a prerequisite to railing fabrication, installation and acceptance.

**d. Fabrication**. Fabricator must possess and provide evidence of a current *AISC Bridge and Highway Metal Components* certification. Ensure the fabrication work is conducted in accordance with *AWS D1.1 Structural Welding Code–Steel*.

After fabrication, clean steel in accordance with subsection 716.03.A of the Standard Specifications for Construction. Galvanize fence panels and other steel components in accordance with 716.03.B.4 of the Standard Specifications for Construction.

After galvanization, apply the tie coat for galvanized surfaces as recommended by the coating manufacturer. Shop clean and coat the railing with an epoxy and urethane coating system. Use a black colored urethane meeting color number 17038 of *Federal Standard 595C*.

Coat exposed portions of hardware with an epoxy and urethane coating system. Use a black colored urethane meeting color number 17038 of *Federal Standard 595C.*

Do not store galvanized material outdoors and protect from moisture exposure.

Repair damage to the galvanization and the coating in accordance with subsection 716.03.E of the Standard Specifications for Construction at no additional cost to the contract.

**e. Construction**. Construct railing sections in accordance with subsection 711.03 of the Standard Specifications for Construction and as shown on the plans. Field verify locations and dimensions prior to beginning fabrication.

Protect components and assemblies from damage in accordance with the manufacturer’s recommendations. Repair damaged components to the satisfaction of the Engineer. If satisfactory repairs cannot be made, replace damaged components. Repairing or replacing damaged components will be at no additional cost to the contract.

**f. 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**

Ornamental Fencing Foot

**Ornamental Fencing** will be determined by the length of the steel bridge railing on which the ornamental fencing is erected. Payment includes all other appurtenances for fabricating, furnishing and installing **Ornamental Fencing** complete and in place as described herein and includes furnishing and installing posts, rails, pickets, braces and hardware.