MICHIGAN

DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

FOR

**STRUCTURAL STEEL, EXPANSION JOINT REPAIR**

BRG:CWC 1 of 1 APPR:SCK:MJF:08-29-23

**a. Description.** This work consists of miscellaneous repairs to the existing armored bridge deck expansion joints as shown on the plans, including 1.) repair of deteriorated or broken existing anchor straps, 2.) repair of cracked, broken or significantly corroded segments of the armor angles, 3.) disconnection and reattachment of existing armor angle seats and anchor straps coincident with repair areas. Section loss exceeding 20 percent of nominal angle thickness is to be assumed significant corrosion, as approved by the Engineer. Complete structural steel, expansion joint repair work in accordance with the requirements in section 707 of the Standard Specifications for Construction, including supplemental specifications, and this special provision.

**b. Materials.** Furnish all materials used in accordance with section 707 of the Standard Specifications for Construction. New steel is to be *ASTM A36/A36M* or *A709/A709M* *Grade 36* or higher and is to be the same cross section as the existing. Minimum yield strength must be 36 ksi.

**c. Construction.** Ensure all construction methods are in accordance with requirements in section 707 of the Standard Specifications for Construction. Ensure all elements of the armor angle that are to be replaced with new steel are in accordance with an approved field verified shop drawings, and included in the price.

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

**Pay Item Pay Item**

Structural Steel, Expansion Joint, Armor Angle Repr Foot

Structural Steel, Expansion Joint, Anchor Strap Repr Each

1. **Structural Steel, Expansion Joint, Armor Angle Repr** will be paid based on length of the finished replacement segment of armor angle installed as measured parallel to centerline of the joint. The cost of removing portions of the existing armor angle and surrounding concrete, cleaning the adjacent existing armor angle to remain, and fabricating and installing the repair segment will be included in the price. The cost of disconnecting from, and reconnecting to, existing armor angle seats and anchor straps coincidental with the repair area will also be included in the price.

2. **Structural Steel, Expansion Joint, Anchor Strap Repr** will be paid based on each anchor strap repaired. The cost of cleaning the adjacent existing anchor strap and armor angle to remain and fabricating and installing the replacement anchor strap will be included in the price.