MICHIGAN

DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

FOR

**STORM SEWER, MODIFIED**

DET:ALW 1 of 2 APPR:DMG:NJM:09-02-22

**a. Description.** This work consists of constructing drainage structures and storm sewers with externally sealed joints and backfilled with structural flowable fill at the locations shown on the plans where there is less than 10 feet of horizontal separation (measured from outside wall to outside wall) between the proposed storm sewer and existing Great Lakes Water Authority (GLWA) or Detroit Water and Sewerage Department (DWSD) owned water mains.

**b. Materials.** Use materials meeting the standard specifications and this special provision.

1. Drainage Structures and Storm Sewer Pipe. Furnish materials in accordance with subsections 402.02 and 403.02 of the Standard Specifications for Construction. Furnish Class E sewer pipe.

2. External Drainage Structure and Sewer Pipe Joint Sealing Bands. Furnish joint sealing bands composed of a plastic ﬁlm, reinforced, rubberized, asphalt, mastic coating with steel straps in accordance with *ASTM C877 (Type II)*.

3. Pipe to Drainage Structure Connectors. Furnish resilient, watertight, oil-resistant connectors in accordance with *ASTM C923/C923M*.

4. Backfill. Furnish structural flowable fill in accordance with the Special Provision for Structural Flowable Fill.

**c. Construction.** Construct drainage structures and storm sewer pipe in accordance with subsections 402.03 and 403.03 of the Standard Specifications for Construction except as modified herein, and as shown on the plans.

Install external sealing bands at each horizontal joint in the vertical stack of precast drainage structure sections and at each pipe joint in horizontal sewer runs, and resilient connectors to join inlet and outlet pipes to drainage structures in accordance with the manufacturer's recommendations.

Backfill drainage structure excavations and sewer trenches with flowable fill in accordance with the Special Provision for Structural Flowable Fill.

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

**Pay Item Pay Unit**

Sewer, Cl E, \_\_ inch, Modified Foot

Dr Structure, \_\_ inch dia, Modified Each

1. **Sewer, Cl E, \_\_ inch, Modified** will be measured in place from center of drainage structure to center of drainage structure and includes excavating the trench and disposing of the excavated material; providing and installing sewer pipe; and providing and installing external joint sealing bands. Backfilling the trench with structural flowable fill will be measured and paid for separately.

2. **Dr Structure, \_\_ inch dia, Modified** will be measured in place as a unit regardless of depth and includes excavating for the drainage structure and disposing of the excavated material; providing and installing the drainage structure; providing and installing external joint sealing bands; and providing and installing resilient connectors. Backfilling the excavation with structural flowable fill and drainage structure covers will be measured and paid for separately.