MICHIGAN

DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

FOR

**TRAFFIC SIGNAL FIBER OPTIC TERMINAL ASSEMBLY**

SIG:MH 1 of 1 APPR:EMS:DBP:11-03-23

**a. Description.** This work consists of furnishing and installing a fiber optic terminal assembly (FOTCA) and all requirements for terminating fiber optic cables at a traffic signal cabinet. The purpose of this specification is to describe the minimum acceptable design and operating requirements for this assembly.

**b. Materials.** Ensure the FOTCA is fully compatible and interoperable with MDOT’s signal controller and communications network.

1. Fiber Optic Small Form Pluggable (SFP) Transceiver. Furnish new SFP module, 1 x 1000M single mode, Lucent Connector (LC) connector, 1310 nanometer, 10 kilometer, by Dymec American Industrial (Part #KY-SGSFP-LX10KMD), or an approved equal.

2. Network Switch, Detector Rack Mount. Furnish new Layer 2, managed, high security, traffic Ethernet switch, by Dymec American Industrial (Part #KY-3170XM), or an approved equal.

3. Network Switch, Rack Mount 1U. Furnish new Layer 2, managed, high security, traffic Ethernet switch, by Dymec American Industrial (Part #KY-MSG2404-8C), or an approved equal.

**c. Construction.** Complete this work in accordance with sections 819 and 820 of the Standard Specifications for Construction, as shown on the plans and as directed by the Engineer. Furnish and deliver new Fiber Optic SFP Transceiver, Network Switch, Detector Rack Mount, and Network Switch, Rack Mount 1U, separated in organizer packs.

**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**

TS, Fiber Optic Terminal Assembly Each