ROAD COMMISSION FOR OAKLAND COUNTY

SPECIAL PROVISION
FOR
PREFORMED TRAFFIC LOOP SYSTEM

a. Description

This work consists of preformed inductive loops designed for installation under pavement unless otherwise directed by the engineer.

This work shall be done in accordance with the plans and sections 820, 918, and 921 of the Standard Specification for Construction except as herein provided.

b. Materials

The loops shall be a minimum of 0.360" and constructed from an abrasion-resistant Polyurethane abrasion-resistant Nylon alloy cover or XLPE.

The encapsulated copper loop wire shall be 16-gauge TFFN or THHN stranded, single conductor wire with PVC insulation and nylon exterior jacket or XLPE or 20-gauge silver coated with Teflon jacket, stranded, single conductor wire. (Military specification Mil-w-16878/4 type E). The loop shall have one continuous wire through the loop head and lead-in to prevent loop malfunctions due to splicing.

All loops shall be tested prior to shipment for resistance to ground (measured in mega ohms), resistance (measured in ohms) and inductance (measured in micro henries).

1. Warranty and Guarantee

   Provide materials with a manufacturer's warranty/guarantee, transferable to the Road Commission for Oakland County, that the supplied materials will be free from all defects in materials and workmanship for two (2) years from the date of final project acceptance. If requested by the Engineer, supply manufacturer's warranty and guarantee documents from the manufacturer and a copy of the invoice showing date of shipment.

2. Acceptance

   Provide General Certification per the MDOT's *Materials Quality Assurance Procedures Manual* to the Engineer that the Preformed Traffic Loop materials meet the requirements specified herein.

   Acceptance of Traffic Loop Sealant per the MDOT's *Materials Source Guide.*

c. Construction

Complete this work in accordance with sections 818 and 820 of the Standard Specifications for Construction, the typical signal construction detail(s), and this special provision.

1. Submittals / Working Drawings

Submit a detailed dimensional drawing of all equipment, material specification list which shows the materials to be used, equipment to be furnished, and assembly/installation method.

2. Samples

If requested by the Engineer, the bidder shall supply a sample of the equipment and material proposed to furnish.

3. Special Tools

No special tools are required to repair, assemble, or install this equipment. However, if such is required, forty (40) complete sets are to be furnished.

4. Tests, Inspection, and Sampling

All equipment is to be tested as necessary and inspected for conformance with the specification before shipment.

Failure of any piece of equipment to meet the requirements of this specification shall be cause for rejection. RCOC shall have the right to pull out and reject any piece of equipment for non-conformance with specifications. The bidder shall replace any rejects at their expense including all handling and transportation charges.

5. Compatibility

The equipment supplied shall be compatible and interchangeable with the equipment commonly in use in the Road Commission for Oakland County's system.

6. Prior Approval

Loop manufacturer and product must be approved by RCOC prior to any loop installations. The use of substitute approved equal materials, parts, and changes in design must have prior approval in writing from the Road Commission for Oakland County.

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(s).

Pay Item	Pay Unit
Traf Loop, Presence (Preformed), RCOC	Each

Traf Loop, Presence (Preformed), RCOC (Ea) will be measured as a unit. The item shall be as indicated on the plans. The unit includes the loop installation at the intersection. The contract unit price each shall be payment in full for furnishing and installing all labor, equipment, materials including making the expansion joints, pavement sawing, installing wires in the saw slots and to the handholes, installing a 3/4 inch minimum flexible conduit (non-metallic and rated for underground use) from the pavement to the handhole, placing caulking in all ends of conduit, placing sealant and the shielded cable from its connection to the loop wire in the handhole within conduit to the traffic signal controller or digital loop detector cabinet and connected within the cabinet to the loop detector. Excavation, granular material backfill, compaction, and disposal of waste excavated material is also included in the item and will not be paid for separately.