

LC800868 RELOCATE EXISTING WIRELESS TRAFFICWARE DETECTOR (LCDOT)

Effective: May 1, 2020

Revised:

LC801.25

Description: This work shall be completed by an approved Electrical Contractor as directed by the Engineer. The Electrical Contractor shall be responsible for recovering the existing Trafficware PODS wireless detector unit from the pavement, storing the detector unit, and reinstalling the unit in the location shown on the plans or as directed by the Engineer according to the following requirements. If the wireless detector unit is lost or damaged for any reason, including damage during the removal process, it shall be replaced with a new unit at no additional cost to the contract.

Removal: The Contractor shall remove the wireless detector unit from the pavement using the one of the following methods. The Contractor may use alternative methods for removal only with advanced approval from the Lake County Traffic Signal Engineer.

Method 1: The Contractor shall drill out the existing wireless detector unit and sealant using a 5 inch core drill to a depth sufficient to remove the unit from the pavement, but no deeper than 2.75 inches unless directed by the Engineer. The Contractor shall remove any loose sealant and debris from the hole. If this method is utilized, the Contractor shall be responsible for providing all equipment necessary for removal, including the 5 inch drill bit.

Method 2: The Contractor shall utilize a hand chisel and air drill to remove sufficient amount of sealant to allow removal of the detector clamshell housing from the roadway.

After recovering the wireless detector unit from the pavement, the Contractor shall remove sufficient amount of sealant from the outside of the clamshell housing to facilitate removal of the detection unit from the housing. The clamshell shall be discarded and shall not be reused.

Materials: The Contractor shall furnish one installation tool and one sealant package for each wireless detector unit, to be procured through the local Trafficware vendor. The Installation Tool is Trafficware Part Number 3A589-4000. The required epoxy sealant for this item is Fabick M-PP-450 epoxy from Trafficware, Part Number 9000-2000.

The Lake County Division of Transportation (LCDOT) will furnish the Contractor with the manufacturer recommended 4.5 inch drill bit and the sealant applicator "gun" for use during the wireless detector installation.

Any equipment and materials included in the specifications that are not required for the equipment installation shall be placed in their original packaging and returned to the LCDOT Traffic Signal Engineer by appointment, unless otherwise indicated in these

specifications. The equipment furnished by LCDOT for use on the project shall be returned to the LCDOT Traffic Signal Engineer. Any such equipment or materials lost or damaged prior to their return to LCDOT shall be replaced with new equipment or materials at the Contractor's expense.

Installation: The Wireless Sensor shall be installed according to manufacturer's recommendations at the location shown in the plans. Prior to installation, the contractor shall place the unit near the proposed location to re-establish communications and test the performance of the equipment at an above ground location. The test shall be observed and approved by the LCDOT Traffic Signal Engineer.

The Contractor shall drill the roadway pavement using a 4.5 inch outside diameter drill bit capable of drilling a hole 2.75 inches deep. The contractor shall provide a compatible percussion type drill for use during installation. The use of a pavement saw is not allowed. The Wireless Sensor should be installed in a hole drilled 2.75" deep in the pavement utilizing the installation tool. Saw cutting of the pavement is not allowed. If the Contractor saw cuts the pavement, the Engineer shall specify a new location for the installation and the Contractor shall be responsible for patching the pavement according to the Standard Specifications. No additional compensation shall be made for the saw cut or the patching.

If water is used in the drilling application, the hole must be completely dry prior to installation to avoid interaction with the epoxy sealant. If a pilot bit is used to start the drilling process, it must be removed prior to coring the full depth hole. Contractor shall chisel out the bottom of the hole to provide a flat surface for the detector in accordance with manufacturer's recommended installation procedures.

The Wireless Sensor shall be oriented in the direction of traffic according to the product labeling. The Contractor shall record the serial number and associated location of each installed Wireless Sensor and shall allow the Engineer to verify orientation of the sensor prior to applying the epoxy sealant. The installation shall be secured and sealed according to manufacturer's recommendations. The epoxy shall be according to the requirements set forth in this specification.

Sealant Installation: The epoxy sealant shall be installed according to manufacturer's recommendations at the location shown in the plans after the Wireless Detection Unit orientation has been verified by the Engineer. The Contractor shall utilize the dual applicator tool, which will be provided by LCDOT, and apply the epoxy sealant according to the manufacturer's recommendations. One package of sealant is sufficient to seal one Wireless Detector Unit installation.

Basis of Payment: This work shall be paid for at the unit price each for REMOVE AND REINSTALL EXISTING WIRELESS DETECTION UNIT, which shall include all material, equipment, and labor for recovering the existing wireless detector unit, drilling the resurfaced pavement, finishing the hole, furnishing the detector sealant and clamshell housing, installing the wireless detector unit and clamshell housing, and applying the detector sealant. No additional compensation will be made for a drill, compressor,

generator, supplemental drilling equipment, removal tools including air hammer or 5 inch drill bit, or repairing damaged drilling equipment. LCDOT will furnish the manufacturer recommended 4.5 inch drill bit and the epoxy applicator required for installation.