item #1015034A – Grounding and Bonding

Description:

Grounding and Bonding of the span wire when attached to public utility poles shall be performed as shown on the plans or as directed by the Engineer.

The contractor shall perform a 3 point fall-of-potential ground resistance test at each Traffic Signal Controller cabinet foundation and provide corrective action when required.

**MATERIAL:**

* No. 6 Bare Copper Grounding Conductor
* 5/8" X 10’ Ground Rod
* Bronze Grounding Clamp
* Crimp Type Electrical Connector
* Miscellaneous Electrical Tools

**Construction Methods:**

1. Span Wire Grounding and Bonding:

Grounding and bonding of the span wire when attached to public utility poles shall comply with the National Electric Code (NEC), National Electric Safety Code (NESC), Public Utility Regulatory Authority (PURA), and the power company requirements. Install an independent No.6 bare copper ground wire and 5/8”X10’ ground rod for span wire when attached to public utility pole to meet the NESC – RULE 215-C-3 – SPAN WIRES CARRYING LUMINAIRES OR TRAFFIC SIGNALS. When installing ground rod, if rock bottom is encountered, refer to NEC 250.53G for installation requirements.

The following locations listed below in Project ###-### require grounding and bonding of the span wire**.**

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| Location No. | Intersection Description | Town |
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1. Ground Resistance Test Procedure:

Perform 3 point fall-of-potential ground resistance test at each Traffic Signal Controller cabinet foundation in accordance with Standard Sheet TR-1000\_01 and submit the results to the Engineer. When the results of the test are unsatisfactory, provide corrective action as indicated on the Standard Sheet. The Contractor shall prepare a corrective plan and a list of items necessary for the plan. If authorized by the Engineer, this work will be considered “Extra Work” under Article 1.09.04.

Method of Measurement:

The installation of the Ground Rod, Ground Wire and Bonding and testing shall be paid once per site at the contract Lump Sum price.

Basis of Payment: This work shall be paid for at the contract lump sum price for "Grounding and Bonding". This price shall include the installation of No.6 Bare Copper Ground Wire, 5/8”X10’ Ground Rod, miscellaneous electrical tools, all equipment and work incidental thereto.

## Pay Item Pay Unit

Grounding and Bonding L.S.