*INCLUDE SECTION 645 ON PROJECTS WHERE THERE ARE UNDERGROUND UTILITIES PRESENT OR IF THERE IS THE POSSIBILITY OF ENCOUNTERING THEM*

*REMOVE ITALICS AND PARENTHESES FROM INSERT FIELDS*

$$645.00A

Add the following after Section 637:

**Section 645. — LOCATING UTILITIES**

Revised 26 May 2016

*INCLUDE CLAUSES $$645.01A, $$645.02A, $$645.03A, $$645.04A, $$645.05A, $$645.06A, $$645.07A, $$645.08A, AND $$645.09A*

$$645.01A

**Description**

**645.01** This work consists of locating and marking existing utilities.

$$645.02A

**Material**

**645.02** Replace excavated materials with equivalent materials that meet the applicable requirements of this specification.

$$645.03A

**Construction Requirements**

**645.03 General.** Contact *(insert name of local locator service)* at *(insert phone number),* or online at *(insert web address),* at least 48 hours before any excavation to have the utilities marked in the field. If *(insert name of local locator service)* does not perform this service at the project site, contact and ensure that a commercial utility location service marks underground utilities in the field before any excavation begins. Notify the CO 48 hours before any excavation.

Exercise special care and extreme caution in order to protect and avoid damage to any utility company facilities. Existing utilities have been generally located and shown on the plans as they are believed to exist. The Government assumes no responsibility for the accuracy of locations shown in the plans. Locate and ensure the safety of all existing utilities. Coordinate the repair of damage caused by construction with the utility owners. Pay costs associated with these repairs. See Subsection 107.02 for additional requirements.

Locate by test pit any utility that may be in conflict with the proposed work. If a conflict appears to exist, then notify the CO in writing immediately and provide information on the location and elevation of the utility so that the CO can adjust the proposed work.

Restore the test pit area to its original condition.

$$645.04A

**645.04 Locating Utility.** Use geophysical prospective techniques, including electromagnetic, sonic, or other energy field devices to establish alignment of utilities where applicable. When necessary, thread a metal rod through non-metallic utility pipes to locate them. Where neither method is feasible, locate the utility by perpendicular trench or test pits.

$$645.05A

**645.05 Excavation.** Excavate carefully to the assume depth using hand tools as needed to avoid disturbing utilities. When excavating within roadway pavements where traffic is being maintained, excavate by air-vacuum methods or equivalent, keeping the area of disturbance to a minimum. Uncover the utility sufficiently to make accurate measurements.

$$645.06A

**645.06 Record.** Describe the utility found (size, material, function), determine the elevation of the top of utility, and prepare a field sketch of the pit. Indicate the date and the station and offset of the utility, noting whether the baseline or the centerline of proposed facility is being referenced. Submit one copy to the CO within 24 hours.

$$645.07A

**645.07 Marking.** Mark the utility location by flags or paint. Maintain the markings, including repainting faded or damaged markings, for the duration of the project, or until the CO determines that the markings are no longer needed.

$$645.08A

**645.08 Restoration.** Backfill using the excavated material or an approved equal. Thoroughly compact backfill material using appropriate compaction methods, approved by the CO. Restore aggregate courses and asphalt concrete pavement using approved materials and thicknesses, and appropriate compaction methods. For Portland cement concrete pavements, use a fast setting concrete.

$$645.09A

**645.09 Acceptance.** Locating utilities will be evaluated under Subsection 106.02.

*INCLUDE THE FOLLOWING IF LOCATING UTILITIES IS SUBSIDIARY TO THE PROJECT WORK AND NO 645 PAY ITEM IS INCLUDED (IF USING THIS CLAUSE, DO NOT INCLUDE CLAUSES $$645.10B, $$645.11A, AND $$645.11B)*

$$645.10A

**Measurement and Payment**

**645.10** Do not measure locating utilities for payment. See Subsection 109.05.

*INCLUDE CLAUSES $$645.10B AND $$645.11A IF A LOCATING UTILITIES PAY ITEM IS INCLUDED IN THE PROJECT (IF USING THESE CLAUSES, DO NOT INCLUDE CLAUSE $$645.10A)*

$$645.10B

**Measurement**

**645.10** Measure the Section 645 items listed in the bid schedule according to Subsection 109.02.

$$645.11A

**Payment**

**645.11** The accepted quantities will be paid at the contract price per unit of measurement for the Section 645 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

*INCLUDE THE FOLLOWING IF THE LPSM PAY ITEM FOR LOCATING UTILITIES IS INCLUDED IN THE PROJECT - SEE INSTRUCTIONS FOR CLAUSE $$645.10B*

$$645.11B

Progress payments for locating utilities by the lump sum will be paid as follows:

**(a)** 50 percent of the pay item amount will be paid after initial marking.

**(b)** An additional 25 percent of the pay item amount will be paid following completion of 50 percent of the original contract amount.

**(c)** Payment of the remaining portion of the pay item amount will be paid when the maintenance of the utility markings is no longer required as determined by the CO.