

## SECTION 023313

### UNDERGROUND UTILITY LOCATOR SERVICE

#### PART 1 GENERAL

##### 1.01 REFERENCES

- A. American Society of Civil Engineers, CI/ASCE 38-02, "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data."
- B. American Public Works Association, Uniform Color Code."

##### 1.02 DEFINITIONS

- A. Utility Quality Levels:
  - 1. Level B: Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate horizontal position of subsurface utilities. Quality level B data should be reproducible by surface geophysics at any point of their depiction. This information is surveyed to applicable tolerances defined by the project and reduced onto plan documents.

##### 1.03 DESCRIPTION

- A. Retain an independent utility locator service company to field locate and mark existing underground utilities and service connections. The word "independent" as used above means a person not in the regular employment of the Contractor or having any vested interest in the Contractor's business.
  - 1. Level B locator service shall be performed in all project areas where excavations, regrading of the ground surface, and penetrations of the ground surface are to be performed.
    - a. In heavy metal areas, such as near perimeter fences, ground penetrating radar shall be used to determine the location of underground utilities. The use of equipment that induce a tracing signal along the utility path (such as a Metrotech unit) can cause false readings, shall not be used within five feet of fences.
  - 2. Support and protect all utilities and service connections to remain in place.
  - 3. The locator service shall field locate and mark underground utilities and service connections prior to excavation.
  - 4. The contractor shall be responsible for coordinating the extent of the areas of subsurface investigation required to locate all underground utilities and service connections in the areas of excavation.
  - 5. All costs associated with the repair of underground utilities and service connections hit/damaged during the investigative work shall be the responsibility of the contractor.
  - 6. Utility location services shall be in accordance with the provisions of CIASCE 38-02, "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data."

## 1.04 SUBMITTALS

- A. Quality Control Submittals:
  - 1. Submit detailed experience and qualification information about the underground utility locator service company and the persons that will be performing the Work. Detailed experience and qualification information shall include:
    - a. Minimum of five (5) years experience in field locating, marking and staking out of existing underground utilities and service connections.
      - 1) Qualifying Experience: Project information of 5 similar projects, which the locator service company, had worked on during the past 5 years. Information shall include for each project:
        - a) Name and Address of project.
        - b) Dates worked on project.
        - c) Name and telephone Number of contact person at the project site for which the locator service was performed.
    - b. Description of types of utility locator equipment (investigation equipment) that company will utilize to perform the underground utility investigation.
    - c. Names of persons that the persons that will be performing the Work, including the number of years of experience and training that the persons have in the use of the equipment. Include copy of training certificates for locator equipment proving the person performing the locator service are trained on the equipment being used.
  - 2. Submit Quality Control Submittals within 10 days of contract award.
- B. Investigative Report:
  - 1. Submit detailed written report and scaled drawings of the subsurface investigation, documenting all underground utilities and service connections located and identified.
    - a. All documentation shall be referenced to existing data (horizontal and vertical) previously established.
    - b. Provide three (3) paper copies and one (1) electronic copy of detailed written report and drawings.
  - 2. Submit Investigative Report at least two weeks prior to advancing construction within the scheduled areas of excavation within the project site.

## 1.05 COORDINATION AND SCHEDULING

- A. Coordinate the Work to determine the extent of the areas of subsurface investigation required to locate all underground utilities and service connections in the areas of excavation.
- B. Coordinate the Work with the Director's Representative to minimize utility disruptions and facility operations. Provide a schedule for the Work required to the Director's Representative for approval. Upon approval of the schedule, notify

the Director's Representative a minimum of three (3) working days prior to performing the Work.

- C. Within the areas of excavation, all underground utilities and service connections shall be field located and their locations marked at least two (2) weeks prior to the performance of the required excavation work.

## **PART 2 PRODUCTS (Not Used)**

## **PART 3 EXECUTION**

### **3.01 WORK AREAS AND PERFORMANCE**

- A. If any underground utilities and service connections are hit or damaged during the Work, immediately inform the Director's Representative for directions on how to proceed.
- B. The utility locator service investigative work, field location and marking of underground utilities and service connections and submission of the investigative report must be completed before any excavation work can begin.
  - 1. Contractor shall maintain markings throughout the contract duration or until a time when directed (in writing) by the Director's Representative that maintaining of the markings are no longer required.
- C. Provide subsurface investigation information, detailed written report and drawings of the subsurface investigation, documenting all underground utilities and service connections located and identified, prior to the performance of the required excavation work.
- D. If during the Level B investigations, unknown underground utilities are discovered, the Director's Representative shall be notified as soon as possible or before the close of that business day.
- E. Field Marking of underground utilities shall follow the American Public Works Association (APWA) uniform color code:
  - White: Proposed Excavation.
  - Pink: Temporary Survey Markings.
  - Red: Electric power lines, cables, conduit and lighting cables.
  - Yellow: Gas, oil, steam, petroleum and gaseous material.
  - Orange: Communications, alarm, signal lines, cables or conduit.
  - Blue: Potable water.
  - Purple: Reclaimed water, irrigation and slurry lines.
  - Green: Sewer and drain lines.

**END OF SECTION**