

Scope of Services to be provided for Subsurface Utility Locating Service Contractor (a.k.a. Seller)

ITEM 1: UTILITY LOCATES – EXCAVATION PERMITS/PENETRATION PERMITS

Seller will provide utility locate services. This service is locating buried underground utility lines using locator equipment and marking the lines above ground with the appropriate color codes. This service also includes locating utility lines and reinforcing steel within concrete structures and other work areas for planned penetrations using locator equipment and marking the lines on the concrete work surface. These lines must be marked within 72 hours of notification to support excavation and penetration activities. Under emergency conditions, these lines must be marked within 2 hours of notification in order to support excavation and penetration activities. If subsurface utilities cannot be identified using locator equipment, Seller will use provided engineering drawings and mark accordingly.

The Seller will utilize any or all of the following equipment on a case by case basis as necessary in order to provide Utility Quality Level A and B location service as defined in ASCE Standard CI/ASCE 38-02 "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data".

- Radio Detection Cable and Pipe Locator RD7100 or RD8100
- A Ground Penetrating Radar (GPR) Cart, preferably manufactured by Geophysical Survey Systems, Inc. (GSSI) equipped with additional antenna(s) for utility detection and mapping (i.e. 270 MHz and/or 400 MHz)
- Concrete Scanning Equipment, preferably manufactured by Geophysical Survey Systems, Inc. (GSSI) equipped with additional antenna(s) (i.e. 1600 MHz and 2000 MHz)
- Metal detector
- Magnetometer
- Locatable Fish Tape or Rodder Reel

Seller shall provide feedback to the requestor of the locating project by completing "Subsurface Investigation Situational Awareness Checklist" to help guard against unknowns and potential pass-through utilities.

Seller shall be responsible for ensuring equipment is in proper working order and calibrated per manufacturer's recommendations.

Seller will note any discrepancies on provided excavation or penetration drawings and submit to Mechanical Utilities. Discrepancy is an error between the drawings and findings in the field; sometimes referred to as 'redline' on drawings. Should an "unknown" utility be found with locate equipment but not found on drawings, the utility shall be marked in a bright color and the permit requester shall be notified. The seller shall remain at ORNL until the requestor is able to review the unknown.









Seller will also provide GPS coordinates when requested, i.e. configuration changes to be incorporated into mapping.

Seller will be given permit packages accompanied with drawings of known utilities. Seller shall always verify information found on drawings. For permit exclusions, Seller will mark area with field equipment. Permit packages will be returned to requestor following locates activities.

Seller will mark underground utilities in accordance with American Public Works Association (APWA) Uniform Color Code for Marking Underground Utilities:

APWA Uniform Color Codes

for temporary marking of underground utilities

	RED – Electric Power Lines, Cables, Conduit, and Lighting Cables
	YELLOW – Gas, Oil, Steam, Petroleum, or Gaseous Material
	ORANGE – Communication, Alarm or Signal Lines, Cables, or Conduit
	BLUE – Potable Water
	GREEN – Sewers and Drain Lines
	WHITE – Proposed Excavation Limits or Route
	PINK – Temporary Survey Markings, Unknown / Unidentified Facilities
	PURPLE – Reclaimed Water, Irrigation, and Slurry Lines

The Seller will have unescorted access to the ORNL site but will not be allowed entry into any area with radiological markings that has the potential for personnel contamination. Any time a utility locate activity necessitates entry into an area marked as "Underground Radioactive Material", a UT-Battelle RadCon technician escort will be required while working inside the area. Only work activities which do not disturb the ground surface will be permitted to be performed in these areas by the Seller.

Seller will submit individual invoices per each excavation or penetration permit and will reference the permit number and charge number on the invoice.

Seller will track its time separately against each permit provided either by permit number or provided work order number.

Seller will copy Tim Cofer (e-mail: cofertj@ornl.gov) and Jessica Langstaff (langstaffjb@ornl.gov) for each invoice.

ITEM 2: TRAINING & CONTINUING EDUCATION

The Seller should complete a locate training class conducted by an instructor/organization specializing in this field. This instruction should cover all facets of locating technology. It is preferred that at least a portion of the training be field training to ensure unknown utilities can be found with given equipment.

The initial training should be comprehensive with additional Continuing Education (CE) training taken by the locate technician on an annual basis. The CE training is necessary due to the fluid nature of technology in this field. Due to the crucial nature of the work performed at ORNL, being on the leading edge of this technology is desirable. The CE training shall be on a frequency and magnitude commensurate with the complexity of the equipment, magnitude of equipment changes, and the individual's level of experience with the particular equipment, but shall not be less than 8 hours/year. Seller shall make recommendations to ORNL staff of advanced technology and equipment upgrades.

Seller shall submit a record copy of training completion records to Tim Cofer (e-mail: cofertj@ornl.gov) and Jessica Langstaff (langstaffjb@ornl.gov) upon completion of required training.