



# *Underground Utility Guidelines*

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## Underground Utility Location Policy

All existing utilities will be located, marked, and visually verified **prior** to starting any operation.

### Utility Locate Services

You must contact Dig Alert prior to starting your excavation. You can initiate a ticket by either utilizing Dig Alert on line, calling 811 or 800-422-4133 to start a ticket.

Legally, you must wait two (2) working days NOT including the date of notification for members to mark their underground facilities. They will mark the lines they own or maintain with stakes, flags, or paint in the appropriate color codes and/or advise you of no conflict. This excludes weekends and holidays. Before calling for a locate the excavation area must be pre-marked with white paint stakes or flags.

If excavation is within 10 ft. of a high priority subsurface installation, the owner and the excavator must meet onsite before excavation.

Traffic signal wires and illumination for intersections **ARE NOT** covered by locate services. It is the Supervisor's responsibility to contact the proper authority to locate the traffic signal wires.

In addition, newly constructed work **IS NOT** covered (i.e., drainage, electrical subcontractor new installations, etc.) and should be located by other means. On private property we need to obtain private locates on any job that requires excavation. The site supervisor is responsible for this work will be contacted to verify what has been constructed and an appropriate as-built requested.

### Utility Color Markings

The following colors and symbols have been adopted by all utilities for marking underground Utilities using paint, chalk, flags or whisksers:

 Proposed Excavation (white)	 Communications (Telephone & Cable TV) (orange)
 Temporary Survey Markings (pink)	 Water (blue)
 Electric Power Lines (red)	 Reclaimed Water (purple)
 Gas, Oil & Steam (yellow)	 Sewer and Storm Drains (green)

**Respect the Marks:** Please work to preserve facility marks for the duration of the job. If any of the markings become difficult to see, you must contact Dig Alert and reference your ticket number to request re-marking by the affected member utilities. It is critical that your excavation site is still outlined in white so that your request can be properly addressed. Your ticket is valid for twenty-eight (28) calendar days from the date of its issuance-not when you first break ground. You must have an active ticket for the duration of your excavation.

## Excavation Utility Permits

An Excavation Utility Permit is required for all operations which penetrate the original ground surface. The site supervisor of each operation is responsible for ensuring that the Excavation Utility Permit and all necessary drawings are available at the operation and in the cab of the excavator. The operator is ultimately responsible and will be held accountable to ensure the operation does not proceed without a valid Excavation Utility permit.

The Excavation Utility Permit has several steps requiring completion. All steps will be completed and legible. The site supervisor will verify that the appropriate Excavation Utility Permit has been properly completed. The following documents will be attached before being distributed to the site supervisor and operator:

- The page of the plans containing the contact numbers for every possible utility in the area.
- A copy of the plan sheets for the work zone that the permit covers. Any utility relocations that have been completed before the start of the operation must be clearly noted on these drawings.
- A copy of the plan sheets for the work zone that the permit covers. Notes and highlights will be made on these drawings to indicate which drainage items (i.e., catch basins, pipe runs, etc.) have been installed.

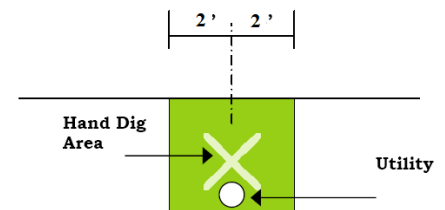
## Potholing

Before excavating operations begin, potholing for the utilities will take place. Potholing is performed to verify the location and depth of the utility lines. Potholing will be done using hand labor or a VAC truck (if available). Equipment can be used in conjunction with hand labor to remove hand-loosened material only.

**NOTE:** Utilities typically identified by locate services have a two-foot safe zone. In other words, the utility should be within a two-foot zone of either side of the markings.

The site supervisor of the job will maintain a minimum clearance of 24 inches between a marked and unexposed underground facility and the cutting edge or point of any power operated excavating or earth moving equipment. If excavation is required within 24 inches horizontally of any marking, the excavation will be performed with extreme care utilizing hand tools or vacuum excavation techniques only.

Utility owners will not guarantee the depth of a utility; therefore, the supervisor will use the same excavation techniques vertically as horizontally, unless a utility owner informs us that we can use a different technique. Then get that in writing prior to proceeding.



## Potholing Procedure

Potholing will be performed to locate the utility. The utility **must** be found prior to the start of excavation operations.

The soil must be excavated in 6" lifts (approximately) by hand to verify that no utilities are present. Then the equipment can be used to excavate the material in that lift. If utilities are located, then the utilities must be exposed by hand. The proper tools that can be used for handwork are shovels and pry bars (or other tools of this nature). At no time should a pickaxe or other similar tools be used.

Once identified, all utilities will be marked with stakes and ribbon. When offset markings are necessary, the information will be clearly noted on the stake. Make sure all personnel are aware of the location of the utilities in the area.

**DO NOT ASSUME THAT THE UTILITY WILL CONTINUE ON THE SAME LINE AND GRADE.**

If any damage occurs to any line, contact the utility company and the site supervisor immediately.

**Underground Utility Pothole Spacing and Frequency**

The following spacing and frequency requirements will be followed on all projects.

ANY DEVIATION FROM THIS PROCEDURE WILL REQUIRE APPROVAL FROM THE SUPERVISOR.

- Life threatening utilities such as gas and electrical services will be exposed through the entire length of the excavation.
- Gas and electric lines within 25 feet of your work area will be potholed and marked every 25 feet to verify that the line has not changed directions.
- Gas and electric lines outside the 25 feet of the work zone will be potholed at least once on each end of the limits of the excavation to verify Underground Service Alert and the utility plans.

**Communications Lines**

Fiber-optic lines will be potholed every 25 feet within the work area. Telephone/Cable lines will be potholed every 50 feet within the work area.

**Other Utilities**

- Will be potholed every 25 feet for lines less than 8” in diameter.
- Will be potholed every 50 feet for lines 8” through 24" in diameter.
- Will be potholed every 100 feet for lines greater than 24” in diameter?

At least two (2) potholes must be obtained for each utility within the work zone regardless of how small the work area is.

**Utilities in Roadways**

Utilities that are located within the roadway will be potholed.

Street plates will be obtained to cover a pothole when there is live traffic on the roadway.

For roadway work not scheduled to be excavated in the current operation, an asphalt patch will be placed over the pothole. This will be done after all pothole information has been recorded and the pothole has been offset using stakes and ribbon.

Once all potholing has been completed excavation can begin. However, always keep an eye out for unknown utilities.

If during the course of excavation, a utility has been exposed, it is our responsibility to inspect and

support these facilities prior to backfilling. If damage of any kind is discovered, or any suspicion of damage exists, call the site supervisor so documentation can take place. The site supervisor will then notify the utility owner.

### **Operator Awareness and Training**

Training will be performed with all operators and Supervisor. All such personnel must be “**Dig Safe**” trained before working on an excavation operation.

This training is also required for personnel involved in the completion of the Excavation Utility Permit.

**REMINDER:** A competent person must inspect the trench/excavation and protective systems daily before the start of work and through-out the day as conditions change.

#### ***Training Requirements***

<b>Training Type</b>	<b>Required</b>	<b>Recommended</b>	<b>Instructor Qualifications</b>
Underground Utility Avoidance For Supervisors	Superintendents, Foremen and SafetyPros	Project Managers and Project Engineers	Approved by SafetyManager
Underground Utility Awareness	All employees required to work under or near live utilities	None	Underground Utility Avoidance Supervisor

#### ***Records and Record Retention***

<b>Form / Record</b>	<b>Record Location</b>	<b>Retention Period</b>
Utility Avoidance Pre-planning Worksheet	Work Site / Office	Duration of project plus 1 year
Site Utility Map	Work Site / Office	Duration of project plus 1 year
Underground Utility Avoidance Permit	Work Site / Office	Duration of work plus 1 year
Employee Training Records	Job Site /Office	Minimum 5 years

### **Reporting Requirements**

If a utility hit does occur, several reporting steps are required:

- First, and foremost, clear and secure the area if there is potential for further exposure to hazardous environments.
  - Contact the appropriate utility owner to inform them of the damage so they can inspect and repair, if necessary.
- Notify the Safety Manger or designee immediately.
  - Complete the Utility Damage Report and transmit it to our safety manager within 24 hours.

**SECC**  
**INCIDENT / DAMAGE REPORT**

ACCURACY IS HIGHLY IMPORTANT. SWORN TESTIMONY REGARDING THE FACTS GIVEN BELOW MAY BECOME NECESSARY IN THE EVENT OF LEGAL ACTIONS.

**ANSWER ALL QUESTION**

SECC Job #: \_\_\_\_\_ W.O.# \_\_\_\_\_ (2<sup>nd</sup> Job #/W.O.# if applicable \_\_\_\_\_)

Incident date: \_\_\_\_\_ Time: \_\_\_\_\_ am / pm Report date: \_\_\_\_\_

Incident location (address): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Employee/Subcontractor causing damage: \_\_\_\_\_

Address \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

If sub-contractor, Ins. Carrier \_\_\_\_\_ Policy No. \_\_\_\_\_

**PROPERTY / VEHICLE DAMAGE:**

Owner of damaged property, vehicle: \_\_\_\_\_

Contact No. \_\_\_\_\_

Description of damaged property: \_\_\_\_\_

\_\_\_\_\_

Description of damaged vehicle: \_\_\_\_\_

Year	Make	Model	VIN
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**INJURED PEDESTRIAN:**

Name of injured person(s) and contact No.: \_\_\_\_\_

\_\_\_\_\_

Description of INJURY(S): \_\_\_\_\_

\_\_\_\_\_

**UTILITY DAMAGE:**

Type of utility damaged:  Telephone  Electric  Gas  Water  Sewer  CATV  Other

Private Property:  Yes  No

If Yes, was Private Locate accomplished  Yes (Attach Results)  No (Reason: \_\_\_\_\_)

If Yes, what did property owner indicate regarding existing utilities prior to SECC excavating:

Description of damage: \_\_\_\_\_

\_\_\_\_\_

Size and Type of damaged plant: \_\_\_\_\_

Damage done by:  Backhoe  Trencher  Bore  Shovel  Other \_\_\_\_\_

**INVESTIGATION:**

**PROPERTY / VEHICLE DAMAGE / INJURED PEDESTRIAN:**

What Happened? Be Specific:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Photos taken of damage or injury? \_\_\_\_\_ Yes (Attach photos to report) \_\_\_\_\_ No

**UTILITY DAMAGE:**

Was existing cable or utility shown on print? \_\_\_\_\_ Yes \_\_\_\_\_ No

Existing utility identified before starting? \_\_\_\_\_ Yes \_\_\_\_\_ No

Locator required locating and marking? \_\_\_\_\_ Yes \_\_\_\_\_ No

If no, why not? \_\_\_\_\_

One Call Conf. Number: \_\_\_\_\_ Did locator respond? \_\_\_\_\_ Yes \_\_\_\_\_ No

If no, why not? \_\_\_\_\_

Name of Locator \_\_\_\_\_

Did locator locate? \_\_\_\_\_ Yes \_\_\_\_\_ No

Did locator mark facilities? \_\_\_\_\_ Yes \_\_\_\_\_ No

Was location accurate (within 18 inches)? \_\_\_\_\_ Yes \_\_\_\_\_ No

If no, distance from point to damage point. \_\_\_\_\_ Ft. \_\_\_\_\_ Inches

Exact depth of damaged facility: \_\_\_\_\_ Ft. \_\_\_\_\_ Inches

Construction practices specify hand-exposing 2 ft to either side of location point.

Did we hand expose within this distance? \_\_\_\_\_ Yes \_\_\_\_\_ No

If no, why not? \_\_\_\_\_

Our excavation path: \_\_\_\_\_ Angled \_\_\_\_\_ Paralleled \_\_\_\_\_ Crossed Damaged Service

Photos taken of damages? \_\_\_\_\_ Yes \_\_\_\_\_ No

List who repaired, how many people and type of vehicles/equipment: \_\_\_\_\_

**FINDINGS AND CONCLUSIONS**

What was the direct cause of the damage/injury?: \_\_\_\_\_

What other factors contributed? : \_\_\_\_\_

Why did it happen? : \_\_\_\_\_

Were deficiencies in tools, training and/or attitude identified? \_\_\_\_\_

Which practices were violated, if any? : \_\_\_\_\_

**RECOMMENDED ACTION:**

What should be done to prevent this or similar accidents from happening again? : \_\_\_\_\_

By whom? : \_\_\_\_\_

When? : \_\_\_\_\_

Report completed by \_\_\_\_\_ Date: \_\_\_\_\_

Signature \_\_\_\_\_

Yard Manager Reviewed (Print Name) \_\_\_\_\_ Date: \_\_\_\_\_

Signature \_\_\_\_\_