Underground Utility Strikes Safety Talk

Underground utility strikes are a dangerous and costly event. Almost all line strikes are expensive and many of incidents that damage gas or electric lines can be extremely dangerous to everyone in the area. According to the Common Ground Alliance (CGA), over the past 20 years utility hits have resulted in $1.7 billion in property damage, 1,906 injuries, and 421 deaths.

Damage Incident Reporting Tool Report 2015 (source: Common Ground Alliance)

The Common Ground Alliance publishes a report every year called the Damage Incident Reporting Tool Report or DIRT for short. This report is put together from information different stakeholders in the utility and construction industries submit concerning utility line strikes and damage. The 2015 report analyzes 278,861 utility damage events across Canada and the U.S. Some quick statistics from the data gathered in the report:

- Texas by far had the most damage incidents at 45,624, Georgia followed with 20,544, and Illinois was third at 18,529 incidents.
- Contractors/ developers were the excavators responsible for the majority of damage incidents.
- Telecommunications was the #1 type of facility damaged followed by natural gas.
- The equipment responsible for the most damage incidents was a backhoe/ trencher followed by hand tools.
- The top three damage root causes were excavation practice not sufficient (45%), notification not made (31%), and locating practices not sufficient (18%).

Excavation Best Practices to Avoid Utility Line Strikes

- **Always call 811** to have lines properly marked two to three days prior to digging, even at home. 811 notifies utility owners of your plans to dig and allows them to have someone come out and mark any utilities in that area. After utility locators have come out and you have confirmed all affected utility owners have responded to your request you are able to dig.
- Do not dig with machinery or pointed tools within the “tolerance zone” around marked utilities. Each state has requirements for excavating within a tolerance zone which is comprised of the width of the facility plus 18’’ on either side of the outside edge of the underground facility on a horizontal plane. Some states may require a larger tolerance zone. Use “soft digging techniques” such as hand digging with blunt edged tools or vacuum excavation.
- Stop excavation and call 811 again if unmarked utilities are discovered or utilities are not found where they are marked.
- When working in a facility or on private property that has a lot of lines installed by a private company the lines most likely will not be part of the 811 system. Use other methods such as ground penetrating radar, private locators, as-built drawings, and individuals with experience with the facility to locate potential lines before excavating.

Summary

SAFETY

AMERICAN SUBCONTRACTORS ASSOCIATION
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There are many hazards to be considered when excavating, underground utilities being one of the major hazards. Having a proactive well-thought out approach prior to digging is important in order to avoid underground utility strikes. Procedures need to be in place for when issues arise during excavation or a utility line is damaged. There are many other hazards and best practices not mentioned here. *Discuss company specific items and **visit CGA** or **Call811.com** for more information.*