

6.0 ARTICLES

ARTICLE NO. 1

RESPECTING THE MARKS – THE VITAL THIRD STEP IN DAMAGE PREVENTION

Requesting a locate is only the very beginning when it comes to effective damage prevention. Even when a locate has been secured and utilities are accurately marked, damages can result from a lack of awareness around interpreting and respecting ground markings. As such, truly safe digging involves a three step process – call or click before you dig, wait for the locate and lastly, respect the marks. When one of these steps is missed, the results can be disastrous.

Running on instinct

In Ontario, a contractor was excavating along the west bound lane of a major corridor, when a force main was damaged, creating an emergency situation. A damage investigation ensued and it was discovered that prior to excavation, the utility had been accurately located, the work area had been marked, and the marks were valid. Furthermore, the markings and locate report correctly reflected the data contained within the utility records.

So what went wrong? The contractor had dug down 4-5 feet and when nothing was detected, continued to drill under the assumption that the force main was positioned at a depth that would not conflict with the excavation. Unfortunately, this assumption was wrong and the excavator did in fact make contact.

It is not uncommon for excavators to request utility depth data because they wish to excavate directly over top of a utility. However, this is never a safe practice: even minor inaccuracies or discrepancies in depth data could create a dangerous situation. Hand digging to one (1) meter on either side of a ground marking is the only safe approach to excavation.

Learning the hard way

In this situation, the contractor relied on assumptions and ignored key principles of respecting the marks. The incident could have been easily avoided if the contractor had taken some vital damage prevention steps. For example, prior to drilling, the contractor should have performed test holes to determine the location of utilities within the project site so that minimum vertical clearances could have been created and a safe path could have been planned for the drill head of the directional drilling machine.

The contractor should have also leveraged hand tools to safely expose the utility prior to commencing the drilling activities. Furthermore, the contractor had the option of contacting a utility locate services company to complete Subsurface Utility Engineering (SUE) Quality Level B (utility locating) and Quality Level A (vacuum excavation) to verify that the utility depicted on the locate report was in fact reflective of city records.

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- Dig around the ground markings and not directly on top of them
- Don't excavate outside of the area covered by the locate request without first obtaining an additional locate
- Carefully hand dig to the depth of excavation within one meter of the locate markings
- Consider ground markings valid for a maximum of one month at which point they should be remarked
- Hydro Vacuum and Pneumatic Excavation methods are safe approaches to excavation when performed by a qualified service provider

A useful guide for learning more about safe excavation practices is *ESA/TSSA Excavation Guidelines in the Vicinity of Gas Lines*. These Guidelines can be accessed from the ORCGA's Dig Safe website: www.digsafe.ca/safety-guidelines/.

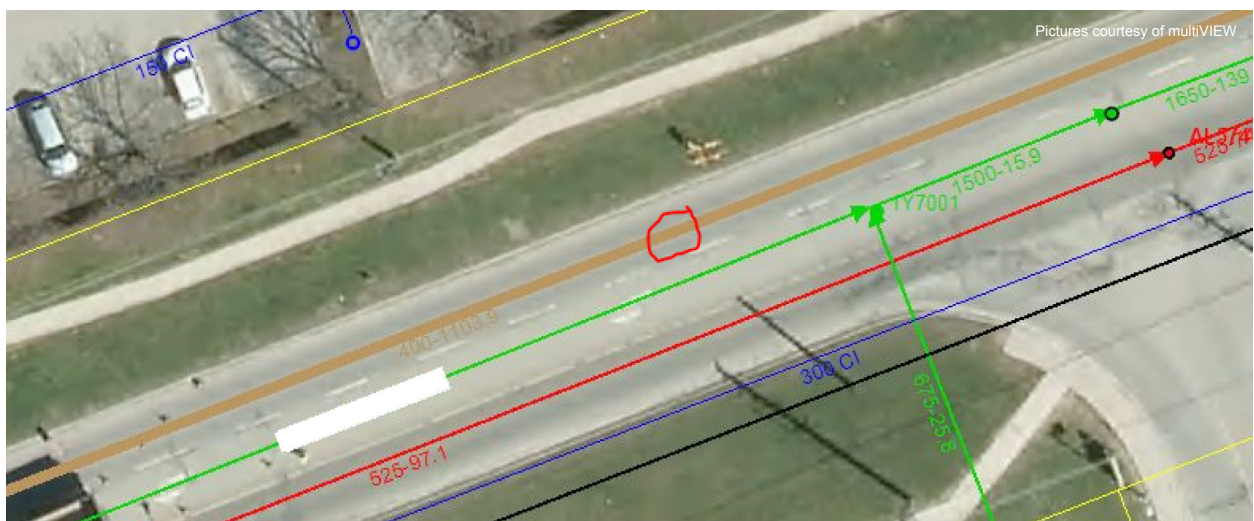
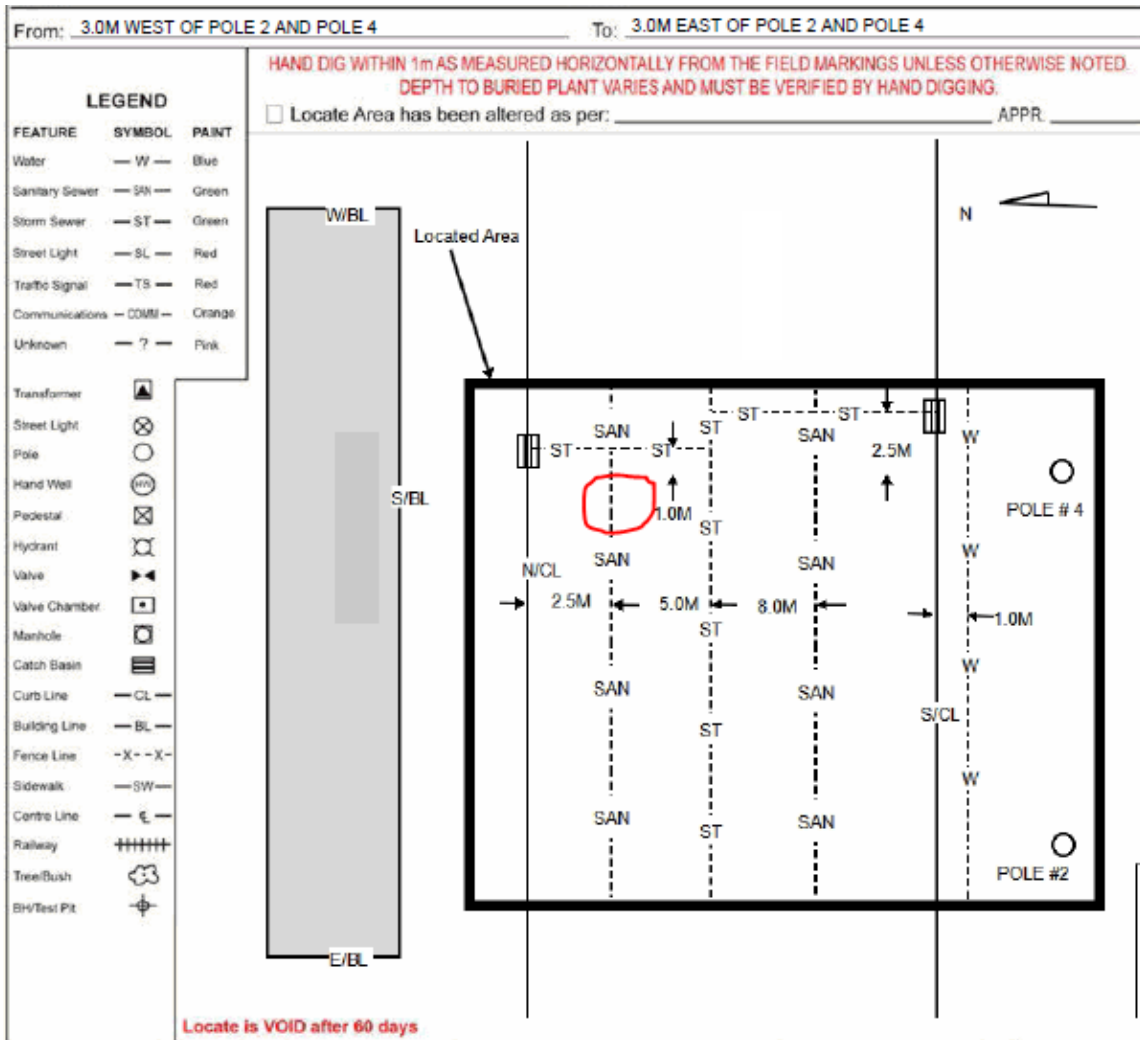


Photo caption: Prior to excavation, the utility had been accurately located and the work area had been marked. The markings and locate report correctly reflected the data contained within the utility records. However, damage occurred as a result of not respecting the marks or utilizing safe excavation practices.