

SUBSURFACE UTILITY ENGINEERING



RETTEW's Subsurface Utility Engineering group provides utility locating services to a variety of clients including upstream and midstream natural gas companies; private and municipal utilities; and industrial, commercial, and institutional clients. We are committed to providing cost-effective and highly responsive services to protect our clients' critical infrastructure. Our subsurface utility engineering specialists are trained to assess risk and locate thousands of utilities each year using cutting edge technology and equipment, while adhering to strict health and safety standards.

RETTEW tailors the degree of utility locating support to the needs of each individual client. Our support includes one-time complex locates at centralized facilities, commercial and industrial sites, short-term pipeline construction projects, and long-term management of 811 "Call Before You Dig" clearance programs for utilities, oilfield assets, and transmission pipelines.

Calling 811 will ONLY provide you with public utility locates. Private utilities will NOT be located through the 811 process. RETTEW provides quality private utility locates.



PRIVATE LOCATES

- ▶ Vacuum Excavation (hydro/air)
- ▶ Interior Locating (walls/foundations)
- ▶ Rooftop Locating
- ▶ Non-Metallic Line Locating
- ▶ Sewer and Storm Laterals
- ▶ Cross Bore Investigations
- ▶ Irrigation Systems
- ▶ Lot Lights
- ▶ Underground Storage Tanks
- ▶ Product Lines
- ▶ Rebar, Post-Tension Cables, Invisible Fencing
- ▶ Water, Electric, and Gas Services Beyond Meter

811 PROGRAM SUPPORT

- ▶ Subsurface Utility Engineering (SUE): Quality Levels A, B, C, and D
- ▶ 811 Ticket Management/Field Response
- ▶ GIS Mapping
- ▶ Damage Investigation
- ▶ As-Built Surveys
- ▶ Emergency Response
- ▶ Utility Locating
- ▶ M Scoping/Ground Penetrating Radar

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ELECTROMAGNETIC (EM) LOCATING

- ▶ EM locating is the most common method of locating underground utilities. The transmitter sends a signal through a metallic line and the receiver tracks the signal.

GROUND PENETRATING RADAR (GPR)

- ▶ GPR is used to scan for any unknown facilities buried in an area of concern. It is also used to find facilities that cannot be located with conventional EM equipment.

LOCATABLE RODDER

- ▶ This equipment is similar to a conventional sewer camera. The rodder is inserted into a non-metallic facility that cannot be traced by EM locating. The EM equipment is then connected to the rodder and traced.

VACUUM EXCAVATION

- ▶ Soft dig excavation methods are used to confirm the location of buried utilities. Air or water under pressure safely loosens and displaces earthen materials. Vacuum excavation is then used to gently remove them.

M SCOPING

- ▶ M Scoping surveys are used to identify metallic utilities and anomalies.

CONCRETE SCANNING

- ▶ Hand-held GPR equipment is used to delineate rebar and utilities within and beneath reinforced concrete.

INTEGRITY ASSESSMENT

- ▶ High resolution robotic and pushrod camera equipment is used to video document existing conditions within subsurface utilities such as water, sanitary sewer, and storm sewer.



Certified Veriforce Evaluators and Trainers in-house

RETTEW