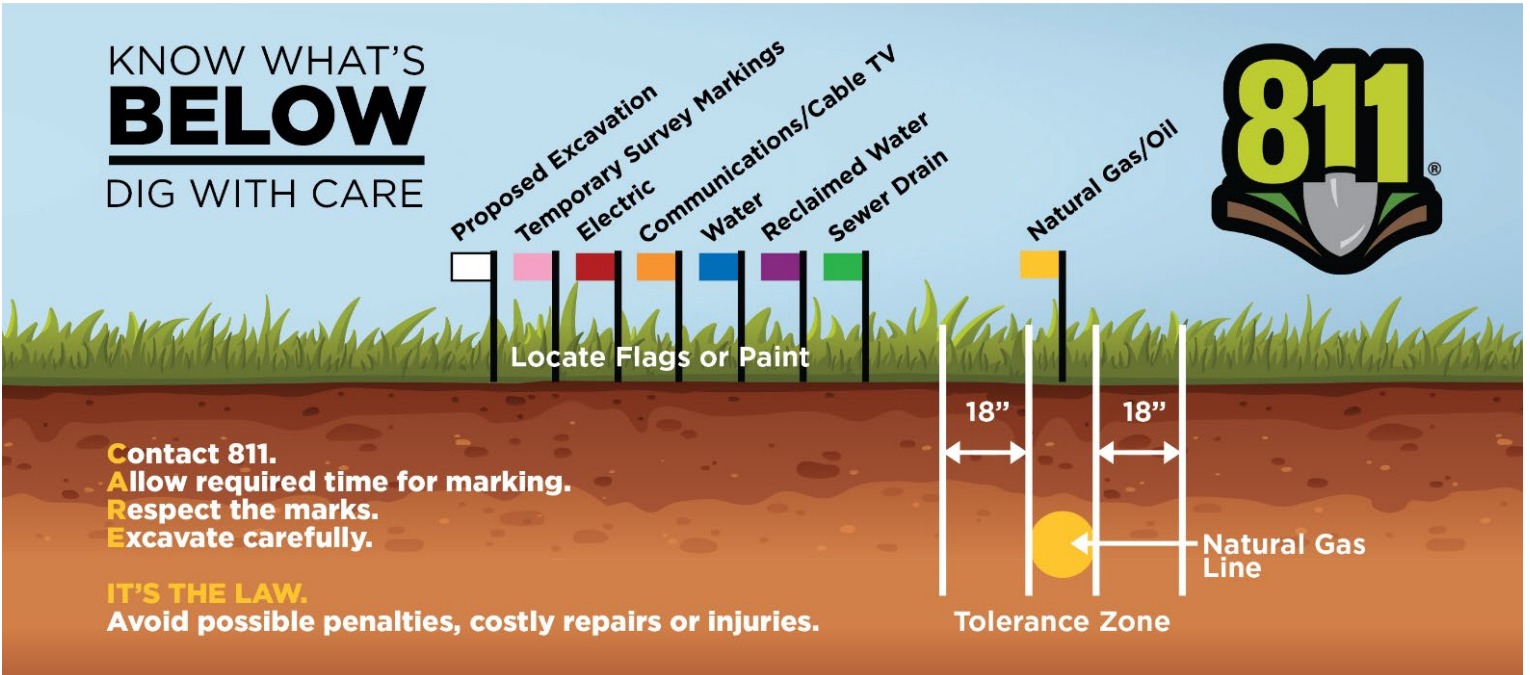




**EXCAVATOR DAMAGE PREVENTION
DIGGING SAFELY AROUND UNDERGROUND UTILITIES**

Columbia Gas assists excavators in safe dig practices and the identification of natural gas pipelines in the Columbia Gas service territory. Utility damages cost utility owners and contractors billions of dollars in repairs and service disruptions every year. They also put workers who come in contact with buried utilities and the public at risk of injury or death. Excavators have a legal and professional obligation to partner with utilities to protect public safety. Contacting 811 before digging is the law and helps to avoid possible penalties, costly repairs, and injuries.



STEPS FOR SAFE EXCAVATION: REMEMBER TO START WITH A PLAN AND DIG WITH CARE

CONTACT 811

By law, anyone planning to excavate is **required to contact Ohio 811 at least two business days before work begins**. Always call Ohio 811 at 811 or visit Ohio811.org to have underground utility lines marked so that you can dig safely. You'll be asked to provide an accurate address and details of your project. Ohio 811 will notify and arrange for Columbia Gas and other 811 member utilities to locate and mark the approximate location of their underground utility lines, at no cost to property owners digging on their own property.

ALLOW REQUIRED TIME FOR MARKING

To be safe, you need to wait the required time (two business days) for Columbia Gas and other utility locators to have an opportunity to visit your property before you dig. If utility lines are in your project area, locators will mark them with either flags or a special spray paint.

RESPECT THE MARKS

Once you've contacted 811 and had the approximate location of underground utility lines marked, state law requires that you "respect the marks" by hand digging or using other nonmechanical means within the tolerance zone. **In Ohio, the tolerance zone is defined as the width of the utility line plus 18 inches on each side.**

EXCAVATE CAREFULLY

- Locating procedures do not verify depth of main. Never assume pipeline location or depth.
- Do not use power digging equipment within the tolerance zone.
- Acceptable methods of excavation within a tolerance zone include, but are not limited to, hand digging, pot holing and vacuum excavation.
- Take all reasonable actions to properly protect, support, and backfill underground utility lines.

DESIGN TICKETS Subsurface engineering is a key part of damage prevention on any project. For large projects, we recommend utilizing the Design Process as indicated in Ohio Revised Code 3781.27.



ColumbiaGasOhio.com/Excavators





DIGGING AND EXCAVATION TECHNIQUES

HAND DIGGING

Check the utility depth for yourself. Before you can safely cross or work close to an underground utility, you must first verify its depth. Flags and locator marks tell you the direction the utility is running, but not how deep it is buried. The only way to be sure of utility depth is to carefully expose it by hand and see for yourself.

Proper hand digging tools and techniques protect you and prevent utility line damage:

- Use a blunt nosed shovel to loosen the soil and a regular shovel to remove it. Do not use a pickax or any sharp or pointed digging tools. Do not stab at the soil or stomp on the shovel with both feet.
- Work with a gentle prying action and dig at an angle, so the shovel will slide along the surface of the wire, conduit, or pipe. Another option is to dig to the depth where you expect the utility line to be, but off to the side. Then use a prying motion to break away soil as you approach the utility laterally.

DIRECTIONAL DRILLING

If you plan to use directional drilling, contact 811 **at least two business days before work begins**. Let them know about the equipment you will be using and ask them to space locator marks closer together. This will help you see if the utility's path shifts or turns suddenly.

Dig potholes so that you can safely monitor the drill head. A buried drill head makes it impossible to tell how close you really are to an existing utility. This makes it especially important to manually expose the line and watch as the drill string passes through.

SPOTTERS

Use a spotter to observe the excavation when heavy equipment is used near underground utility lines.

IF YOU EXPOSE, HIT OR TOUCH A NATURAL GAS PIPELINE OR OTHER NATURAL GAS EQUIPMENT, FOLLOW THESE STEPS:



1. STOP
WHAT YOU ARE DOING



2. LEAVE
THE AREA IMMEDIATELY



3. CALL
911 & COLUMBIA GAS
AT 1-800-344-4077
FROM A SAFE LOCATION

Even if it looks minor at the time, a scratch, scrape, gouge, dent or crease to the pipe or coating might cause a safety problem in the future. It's important that we inspect any potential damage, whether or not it's apparent.

USE YOUR SENSES TO DETECT A NATURAL GAS LEAK

LISTEN

FOR A HISSING, BLOWING, WHISTLING OR ROARING SOUND

SMELL

A DISTINCT ODOR LIKE ROTTEN EGGS, SULFUR OR PETROLEUM

LOOK

FOR BLOWING DIRT, BUBBLING WATER OR DEAD VEGETATION



NATURAL GAS SAFETY: PIPELINE IDENTIFICATION & SAFE EXCAVATION PRACTICES



EXAMPLES OF PIPE

POLYETHYLENE PLASTIC PIPE

Plastic pipe used by Columbia Gas is polyethylene (PE). Plastic pipe originally had a print line that indicated the pipe is used for transporting natural gas. GAS USE ONLY, GAS, or FOR GAS ONLY may be printed on the pipe. Print lines can wear away over time. Older plastic is solid black, orange, or pink. Modern plastic gas pipe is yellow or black with yellow stripes. Gas pipe can discolor with exposure to soil. Commonly, pink pipe turns gray.

METALLIC PIPE

Metallic pipe is most often steel, though wrought iron and cast-iron pipe still exist in some Columbia Gas service areas. Steel pipe is usually coated with protective coatings, such as epoxy, plastic, plastic tapes, or tar wrap. The color of the coating varies with manufacturer and coating type. Metallic pipe diameter can be 1/2"-30".

CELANESE
1"-2"
DIAMETER



CHARTER
WL PLASTICS
1/2"-4"
DIAMETER



CHEVRON
PLEXCO
1/2"-8"
DIAMETER



CHEVRON PLEXCO
YELLOW PIPE
1/2"-8"
DIAMETER



CHEVRON PLEXCO
YELLOWSTRIPE HD
1/2"-12"
DIAMETER



DRISCOPLEX 6500
1/2"-10"
DIAMETER



DUPONT/UPON OR
ALDYL-A
1/2"-8"
DIAMETER



DUPONT ALDYL-HD
1/2"-6"
DIAMETER



POLYETHYLENE (PE) PLASTIC PIPE

EXTRON
1/2"-4"
DIAMETER



EXTRON HD
1/2"-1 1/4"
DIAMETER



JM EAGLE
1/2"-2"
DIAMETER



PERFORMANCE PIPE
YELLOWSTRIPE 8300
1/2"-12"
DIAMETER



PHILLIPS DRISCOPIPE
M-7000 & M-8000
1/2"-6"
DIAMETER



POLYPIPE
1/2"-8"
DIAMETER



POLYPIPE HD
1/2"-8"
DIAMETER



YARDLEY
1/2"-1 1/4"
DIAMETER



POLYETHYLENE (PE) PLASTIC PIPE

IMPORTANT

Gas pipe transports natural gas under pressure. While most distribution piping carries gas under 99 PSIG, some transmission piping can reach pressures of 1,480 PSIG. Always treat gas pipe as pressurized, unless a gas company representative confirms otherwise.

PLASTIC PIPE MAY BE INSERTED INTO SLEEVES, CASING OR PIPE MADE OF PLASTIC OR STEEL



SLEEVING MATERIALS

PLASTIC COATING



EPOXY COATING



TAR WRAP COATING



PLASTIC TAPE COATING



STEEL PIPE PROTECTIVE COATINGS

THE INFORMATION PROVIDED HERE MAY NOT BE ALL INCLUSIVE. FOR EXCAVATION DAMAGE PREVENTION PRACTICES AND POSITIVE PIPE IDENTIFICATION, PLEASE CONTACT COLUMBIA GAS AT COLUMBIAGASOHIO.COM/EXCAVATORS.

Columbia Gas[®]
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Form 1100.0.OH (07/2023)