

SAFETY NOTE #2: Digging/Trenching & Underground Service Lines

April 15, 2022

Welcome to SAFETY NOTE #2!

What happened?

Work crews accidentally punctured a hole in a 1" diameter medium density polyethylene propane gas line with earth moving machinery while searching underground for a water main leak. Gas was immediately shut off and repairs made. There were no injuries or ignition of the gas.

Takeaway recommendation:

The Executive Safety Committee strongly recommends:

BEFORE digging – DO YOU NEED to lockout/tagout???? DO YOU HAVE emergency shutoff procedures prepared????

- On-Campus - work only through University of Arizona Facilities Management – contact your Steward Facility Team at so-facilities@list.arizona.edu
- Off-Campus – (FM / PD&C may still need to be involved or noticed – contact so-facilities@list.arizona.edu)
 - Blue Stake/Arizona 811 procedures/best practices for locating and digging around service lines should be reviewed and followed by work crews.
 - Teams should conduct pre-job tailgate meetings to discuss the procedures and underground survey with work teams.
 - **Work must be completed by qualified and briefed personnel only.**
 - Additional procedures for trenching should be researched, if trenching will be required.

Below are some resources:

- [Arizona 811 Blue Stake Inc. Excavation Guide](#) --- SEE attached for the “2-foot rule”!!!
- [Arizona 811 Blue Stake Main Page](#)
- [Arizona 811 Education and Training](#)

And remember, this also goes for the homestead too!! Call Blue Stake! Know where you are digging! Make sure the contractor you hire knows where they are digging! Take your time!

For work at the homestead --- see attached 811 Brochure.

Your partner in safety,

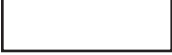







Steward Observatory Executive Safety Committee
(astro-soscexecutive@list.arizona.edu)

Dig this:

- Arizona law defines excavating as “any operation in which earth, rock or other material in the ground is moved, removed or otherwise displaced by means or use of any tools, equipment or explosives and includes, without limitation, grading, trenching, digging, ditching, drilling, auguring, boring, tunneling, scraping, cable or pipe plowing and driving.”
- **Utility depth is not known or guaranteed.** The depth of lines, pipes and cables can change over time. Facilities can be a few inches or several feet below the surface of the earth.
- If you strike an underground utility, stop digging. Call the facility owner/operator directly. Do not attempt to repair damages yourself!
- If you dig up an unknown line, stop working in the immediate area. Call 811 so qualified personnel can be sent to the site to determine if the line is active or abandoned.
- Utility marks are valid for 15 working days. If your project exceeds that timeframe, or if your marks disappear or are destroyed, contact Arizona 811 to have the marks refreshed. Marks must remain “visible and valid” for the duration of your project.
- Never dig outside the boundaries of your ticket or move or destroy locate marks.
- Facility owners and local municipalities mark only what they own and operate up to the point of sale, which is typically the meter. To have privately owned lines marked, you might need to hire a private locating company. Arizona 811 cannot recommend private utility locators; consult the internet or Better Business Bureau to find one.

Know the Code

Utilities are marked in colors based on their type. Locators use the Uniform Color Code for Utility Markings so utilities can always be identified by their specific color, whether they’re marked with paint, flags or whisksers:

	Proposed excavation
	Temporary survey
	Electric power
	Natural gas, oil, liquid fuels
	Communications, fiber optics, cable TV
	Water and slurry lines
	Reclaimed water
	Sanitary sewer systems

Exposing & Protecting Buried Facilities/Careful & Prudent Manner

As required by state law, and for your safety, the exact location of all buried facilities **MUST BE EXPOSED WITH HAND TOOLS IN A CAREFUL AND PRUDENT MANNER** when working within 24” of a marked facility. **Even when digging with hand tools, use caution to prevent injuries and damage to the facility.** The uncovered facility must be supported and protected prior to and during your excavation (see Arizona Revised Statutes 40-360.21 for the definition of “Careful and Prudent”). For assistance in safely exposing, supporting, and protecting a facility, contact the member underground facility owner(s)/operator(s) directly.



Digging for any reason?

You must contact Arizona 811 at least two full working days in advance so underground utilities can be located and marked.

It’s free. It’s easy. It’s the law.



**Know what’s below.
Call 811 or click Arizona811.com before you dig.**

ARIZONA BLUE STAKE IS NOW ARIZONA 811



About Arizona 811

Arizona 811 was established as “Arizona Blue Stake” in 1974 and changed its name to Arizona 811 in 2014. It is the center you must contact



before excavating in any way, anywhere in Arizona, so underground utilities (also called “facilities”) can be marked. Knowing the location of buried facilities is the simplest

and easiest way to prevent accidental utility strikes, which keeps everyone safe; protects the vital utilities we all rely on every day; and protects the environment. Arizona 811 is a private, non-profit agency. Services are free and available statewide. Learn more at Arizona811.com.

Contacting Arizona 811

Hours of Operation:

6 a.m. to 5 p.m. Monday-Friday.

Closed weekends and state holidays.

To have utilities located before you dig:

- Call **811** from anywhere in Arizona or
- Go to **Arizona811.com** to create a ticket online with E-Stake. **Homeowners/Occupants and contractors working at one residential address can use the quick and easy Single Address Ticket tool online, any time.**

General contact information:

Phone: (602) 659-7500

Email: Customer.Support@Arizona811.com

Web: www.Arizona811.com



ARIZONA BLUE STAKE IS NOW ARIZONA 811

After You Contact Arizona 811

- Unless otherwise specified to you, Arizona 811 will notify the utility owners/operators in the area where you plan to dig. In response, each affected utility owner/operator (including municipal service providers) will send a utility locator to your dig site to mark the location of their underground lines, cables and pipes, or inform you they have no facilities in conflict with the dig site you identified.
- **Utility locators have two (2) full working days to respond.**
- Arizona 811 will provide you with a list of all utility owners/operators who could have facilities buried at your dig site. **Do not begin digging unless all of the utilities listed on your ticket have responded** by putting marks on the ground (such as paint or flags); calling you; emailing you; or posting an online response.
- If you have not received responses from **all** of the utility owners/operators listed on your ticket after two full working days, or if you have questions about the marks, call 811.

Arizona Law

Arizona law (A.R.S. 40-360.21-32) says underground utilities must be marked before any type of excavation by anyone, including professional excavators, homeowners and anyone else whose work disrupts the subsurface of the earth. This law is enforced by the Arizona Corporation Commission (ACC) who can issue citations for civil penalties of up to \$5,000 per violation. You could also be liable for repair and reimbursement costs and possibly face legal action (see reverse side for the legal definition of excavation). For questions regarding enforcement of this law, contact the ACC at 602-262-5601.

Simple On-Line Tools Available 24/7:

Arizona 811 has simple on-line tools available at Arizona811.com for use by various types of excavators to easily create tickets themselves:

Homeowners/Occupants

working on property they own or occupy or hiring somebody else to do the work can easily create a ticket for a single address using the **single address tool**.



Simply type in the address of your property and use simple check boxes to indicate what part of the lot on which you will be digging. If hiring a contractor to do the work, simply add their name and contact information where indicated. Ticket information including which underground facility owners will respond will be emailed.

Professional Contractors

working on somebody else's property can easily create a ticket for a single address using the **single address tool** customized for contractors. Simply type in the



address of the property where you will be working and use simple check boxes to indicate what part of the lot on which you will be digging. If hiring a sub-contractor to do the work, simply add their name and contact information where indicated. Ticket information including which underground facility owners will respond will be emailed.

Campaign Signs

Political candidates and campaigns can use the **Intersection Selection Tool** to identify the intersections at



which signs will be installed using simple check boxes to select the corners. The day prior to the sign installation date indicated, a list of tickets identifying each intersection corner selected and the status of underground facility owner responses will be emailed.



2-Foot Rule

As required by Arizona state law, and for your safety, the exact location of all buried facilities **MUST BE EXPOSED WITH HAND TOOLS** IN A CAREFUL AND PRUDENT MANNER when working within 24" of a marked facility. ***Even when digging with hand tools, use caution to prevent injuries and damage to a facility.*** The uncovered facility must be supported and protected prior to and during your excavation (see Arizona Revised Statutes 40-360.21 for the definition of "Careful and Prudent" - Page 16-18 of this booklet). For assistance in safely exposing, supporting, and protecting a facility, contact the member underground facility owner(s)/operator(s) directly.

**During excavation involving boring equipment additional rules may apply. Ask affected facility owner(s)/ operator(s) for their specific safety requirements.

