

VOLUME 14  
ISSUE 1  
2023

# Excavation SAFETY

MAGAZINE™

PRE-EXCAVATION  
SAFETY CHECKLIST  
SEE PAGE 31

## INTERNATIONAL UTILITY LOCATE RODEO

**PLUS:**

- // NUCA STAR Program
- // Fiber Optic Installation
- // First Amendment Audit
- // Certification vs. Competency







**MAXIMIZE PRODUCTIVITY.**

**MAXIMIZE PERFORMANCE.**

**MAXIMIZE PAYLOAD.**

## **SAFE DIGGING MADE EASY**

TRUVAC FLXX™ is the flexible vac truck for hydro and air excavation built to dig simple, dig safe, and dig smart. Manufactured by Vactor® Mfg., LLC, with a variety of training, service, and support options available.

**TRUVAC.COM**



**LEARN  
MORE  
TODAY**





# OUR MISSION IS PROTECTING AMERICA'S CRITICAL INFRASTRUCTURE

# USIC★

The nation relies on the communication, gas and electric power, water and sewer services transmitted across more than 20 million miles of underground infrastructure.

At USIC, our mission is protecting this critical infrastructure in service to our valued customers and the communities in which we work and live.

As the leader in damage prevention, it is a mission we carry out every day with an unmatched commitment to safety, quality, and efficiency.

Contact us at 317.575.7800 or visit [USICLLC.com](http://USICLLC.com) to learn more.





**Pennsylvania 811 invites you to join us for the highly anticipated safety conferences that will happen at 5 locations across Pennsylvania in 2023**

The 2023 Conferences will showcase safe digging procedures and safety practices by demonstrations and educational sessions presented by your damage prevention Liaisons and Key Stakeholders members. The conference will allow you to bring your entire team from office staff to fields workers. We have various accredited educational sessions and opportunities to increase your One Call knowledge. We guarantee there will be a beneficial session for any member of your team. You will also acquire 2 DEP credits by simply attending the complete conference.

Do you think you are the best utility Locator in PA? The Global Locate Masters will take place during each 2023 Safety Day. The competition features a UTTO Virtual Locate Simulator that provides a realistic, locate scenario where it replicates the unique challenges found in the field. This creates an opportunity for fair competition with equal standards across competitors. Prizes are awarded for first, second and third place!

Throughout the conference you will have opportunities to visit our indoor and outdoor vendor marketplace. Visiting these vendors can allow you to gain insight to various industry related topics and heavy operating equipment so you are prepared for the years ahead.



At the end of the conference, we will have dynamic keynote speaker by the name of Jack Jackson. With his resounding voice and stature as a former letterman on his university football team, William “Jack” Jackson has a commanding presence at the front of a room. He is a gifted and motivational presenter, often the top-rated speaker in group sessions. Jack’s career has included working in production, operations and safety at Johnson Controls for 19 years, followed by seeing Avanzar Interior Technologies, on the Toyota of Texas campus, through the safety phase of new construction. In addition to developing a safety program, he also developed a conditioning program to prepare team members to become industrial athletes. Coach Jack worked with two semi-professional football teams for 6 years and was named NAFL defensive coordinator of the year. Jack used his experience to develop a safety concept that teaches participants of his courses that “safety is always first.”



Following his amazing safety message will be a mouthwatering lunch that will leave you satisfied after a busy day of education and entertainment. We hope you will be able to attend what we consider the safety Show of Shows! For more information visit [www.pa1call.org/safetyday](http://www.pa1call.org/safetyday)

*Written by: Ryan Parrish, Damage Prevention Liaison, Pennsylvania One Call System, Inc.*

## **Identifying and Preventing Cross Bores in Pennsylvania**

Thanks to trenchless technology, underground utility line installation and replacement has become easier and more convenient. Trenchless excavation, which is a type of boring excavation, is specifically addressed in the Underground Utility Line Protection Law, or Pennsylvania Act 287, as amended. One specific type of trenchless excavation is horizontal directional drilling, or HDD. HDD is the use of horizontal boring devices that can be guided between a launch point and reception point beneath the earth’s surface. Smaller applications of HDD can include the installation of telecommunications cables, while larger operations are capable of installing pipelines up to 48 inches in diameter. However, these methods of excavation also come with their own set of unique damage prevention obligations, specifically in order to prevent cross bores.



A cross bore is defined as the intersection of an existing underground utility or underground structure by a second utility installed using trenchless technology. This results in an intersection of the utilities, compromising the integrity of either or both utility or underground structure. Unless the HDD Consortium’s Horizontal Directional Drilling Good Practices Guidelines are followed, a drilling crew could

bore through an existing facility and not even realize it. When it comes to new construction, drilling operators need to adhere to these Good Practices and PA Act 287 in order to safely install new pipeline. Since HDD is a type of excavation, the first step that all drilling operators must do is place an excavation notification to Pennsylvania 811. By doing so, existing underground facilities in that excavation area will



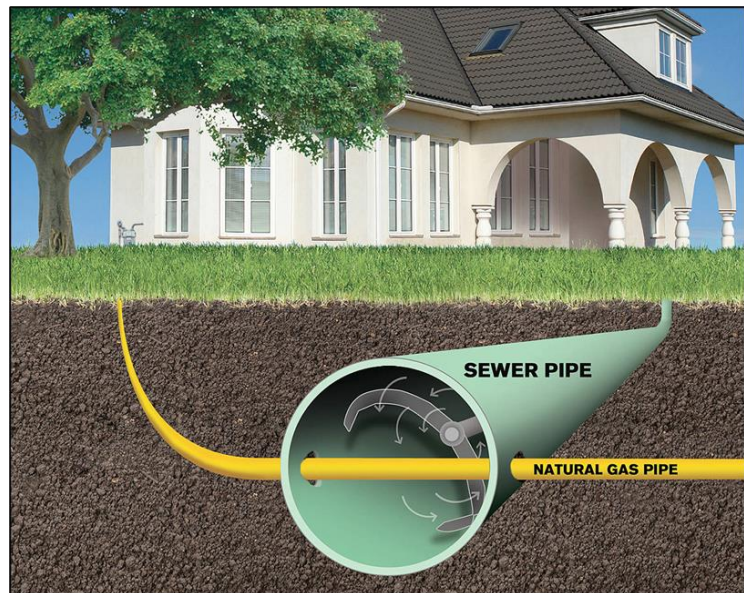
be located by the facility owners. Special attention should be given to any facilities, especially sewer lines, that may run perpendicular to the expected bore path.

Once drilling work is underway, prudent digging techniques must be utilized just as with traditional methods of excavation. In the case of HDD, one of the most effective prudent techniques is to daylight the existing facility by digging a “window” at the utility crossing, according to the Good Practices. This window will allow the spotter of the drill path to observe the drill passing the existing facility and can alert the drill operator of any issues that may arise at the intersection of drill and facility. Applying some type of protection or shielding to the facility may also be required in order to prevent damage. This degree of care should be taken during the pullback phase of the drilling operation as well.

Another precautionary and planning measure that should be observed when performing HDD work is having the project planned and designed by a professional engineer. Since HDD projects can produce unique challenges to new facility installation, an engineer, utilizing the appropriate levels of the Subsurface Utility Engineering (SUE) process, will be able to accurately design the project to avoid damage and minimize interference with existing underground facilities. The SUE data will also inform the excavator of specific utility information that can’t be obtained through locating alone. Throughout the design process, the design information, SUE details, and design notifications must be completed and documented in Pennsylvania 811’s Coordinate PA application.

Following the design stage and prior to starting the HDD work, the excavator should also submit a Complex Project meeting notification to Pennsylvania 811 no less than 10 business days from the start of excavation. This is accomplished through Coordinate PA as well. During this meeting with other project stakeholders, the excavator should be discussing the entire scope of the project, come to an agreement with facility owners on the locate schedule, and take detailed notes on what is discussed. By hosting a Complex Project meeting and having these critical conversations, the excavator can be more confident they are beginning their project as prepared and as safely as possible.

Unfortunately, even with the appropriate levels of planning and preparation, cross bores can still occur. Existing, or legacy, cross bores could have occurred by a drilling contractor who either didn’t know or didn’t heed the best practices and prudent techniques required for such a job. No matter the cause, a cross bore will eventually be discovered, possibly by a homeowner reporting a slow or clogged sewer to their plumber. In order to safely detect and remedy a cross bore, either the homeowner or the plumber needs to place a Potential Cross Bore, or Call Before You Clear, emergency notification with Pennsylvania 811



before any clearing takes place. This type of notification will alert facility owners of a potential cross bore situation, and provide them the opportunity to locate and mark their facilities. This will help determine if an intersection of another facility and the sewer line may have occurred. If that is the case, then excavation can begin to verify the position of those facilities without the need for another dig notification. Plumbers or anyone who would attempt to clear a clogged sewer should always assume an obstruction is a cross bore and place a Potential Cross Bore notification before commencing any clearing.



In order to keep Pennsylvania's infrastructure and residents safe, the appropriate best practices and PA Act 287 must be followed to minimize the potential of cross bores. Furthermore, PA Act 287 also provides a mechanism for identifying a possible legacy cross bore through the Potential Cross Bore emergency notification. For assistance on utilizing Coordinate PA for effective project planning of all types, for both designers and excavators, please contact your local Pennsylvania 811 Damage Prevention Liaison.

*Written by: Brandon Dujmic, Damage Prevention Liaison, Pennsylvania One Call System, Inc.*

## The Renotify Process and the Update Ticket

Some 811 tools the excavator may not know about are the renotify process and the update ticket.

Let's talk about both.

### Renotify Process

An excavator placed their One Call ticket. They waited for the marks to be placed. They arrived at the work site, on their lawful start date, ready to excavate.

But what happens when they initially arrive on site and notice unmarked or incorrectly marked facilities? What are they to do?

In this situation, the excavator wants to use the Renotify process. A Renotify is a re-transmit of an existing ticket to advise one or more facility owners of locate-related issues. "RENOTIFY" will be in the header section and is delivered only to facilities owner members requested by the caller.

A Renotify can only occur if the original ticket is routine and the scope of the work site has not changed. Otherwise, a new ticket will be placed.

### How it works

The excavator arrives at their work site to discover there is clear evidence of facilities which are unmarked or have been incorrectly marked. To comply with PA Act 287, the excavator needs to call 8-1-1 and request to renotify the facility owner of the line. The ticket re-transmits only to the requested facility owner. The original serial number will not change. However, the version number will increase with each renotify. ORIGINAL Serial Number-- [20230660717]-[000] RENOTIFY Serial Number-- [20230660717]-[001]

Facility Owners are required to respond to the Renotify both through the One Call System and by making contact with the excavator. The type and timing of contact is determined by qualifying questions asked by the CSR to the excavator upon calling in the Renotify. This is known as the **Direct Contact Rule**.

When the excavator calls 8-1-1, the Customer Service Representative will ask them four questions. The direct contact rule comes into effect with the following:

1. Is the crew onsite? The answer must be **YES**.
2. Is this your initial arrival to the site? The answer must be **YES**.
3. Has excavation started? The answer must be **NO**.
4. Is the site unmarked or incorrectly marked? The answer must be **YES**.



The facility owner will receive a renotify ticket (with the direct contact rule) if the above conditions were met. The ticket will then contain the following statement:

Direct contact with excavator required within two hours [YES]

The facility owner will receive a renotify ticket (without the direct contact rule) if the above conditions were NOT met. The ticket will contain the statement:

Direct contact with excavator required within two hours [NO]

If the Renotify ticket contains Direct contact with excavator required within two hours [YES], the facility owner must make direct contact with the excavator within two hours by telephone, show up on site, Facetime, Teams or other electronic means. The facility owner then documents their response to the One Call System. The communication between the facility owner and the excavator is documented, and the excavator can begin work.

If the facility owner does not make direct contact or respond to the One Call System, the excavator can begin scheduled work after **three** hours. The excavator must exercise due care and use prudent techniques in their work. They are also required to file an alleged violation report with the Public Utility Commission against the facility owner.

The excavator should not begin or continue to dig until the facility owner makes contact or the three hours has passed.

### Update Tickets

A common misconception is that a routine ticket is required to be updated every 10 business days.

Not true.

An update is only required if the work was not started within the original lawful start dates; the equipment was moved away from the worksite for more than two business days; or the markings at the worksite no longer clearly indicate the location of underground facilities. If these situations occur, the excavator needs to request facilities be marked again with an update ticket.

A new three business day notice is required for all update tickets.

“UPDATE” is listed in the header section of the ticket and is delivered to all facilities owner members. A new serial number is assigned. The remarks section of the ticket contains the serial number of the ticket being updated.

A frequent problem with update tickets is they often occur as a result of poor project planning. An excavator needs to make sure they are ready to place a routine notification within the timeframe the work is set to begin. By placing tickets before the work is actually ready to commence, the excavator runs the risk of needing marks to be refreshed, causing the facility owner to waste resources and money.

Renotify and Update tickets exist to enhance the communication process through the One Call System. Understanding the appropriate uses of each ticket type is important for all stakeholders. Please reach out to your local liaison with any questions regarding ticket types and their uses. [www.pa1call.org/liasons](http://www.pa1call.org/liasons).

*Erika Dominick is a damage prevention liaison with Pennsylvania 811.*

# **Check out one of Pennsylvania 811's programs this spring!**

Are you an excavator looking to learn about your responsibilities under PA Act 287?

Maybe you are a facility owner or locator who wants to earn 3 PA DEP wastewater credits or a designer who wants to become familiar with subsurface utility engineering requirements or the alleged violation reporting process?

Pennsylvania 811's spring program schedule is out! These three programs – along with many other webinars on Pennsylvania 811 applications and stakeholder responsibilities – are a great opportunity to gain knowledge on safe digging practice and how to stay in compliance with PA Act 287.

Our excavator program offers attendees a breakfast to start the day, with the class starting at 8 a.m. and wrapping up at 10 a.m.

Our locator program explains the definitions and terminology used in the PA Act 287, as amended, a description of a correct notification, an explanation of marking underground lines with the American Public Works Association (APWA) color code standards, and an illustration of how to respond through the Karl Automated Response to Locates (KARL) system. The event includes an informative presentation by Eastcom Associates on locating equipment and best practices. A complimentary lunch is served at the conclusion of the program.

The designer program is a one-hour program, which explains the designer's obligations under the PA Act 287, including SUE requirements. A complimentary lunch will be served starting at 11:30 a.m., with the program starting at 12 p.m.

Pennsylvania 811 also offers compliance trainings for project owners, designers, facility owners and excavators. These classes are for those that were instructed by the Public Utility Commission (PUC) to take PUC certified training. They can also be taken by anyone looking to check their knowledge of PA Act 287. This online training covers responsibilities of the stakeholder under PA Act 287. The training session has a PUC compliance exam for attendees. To take the exam you must have a damage prevention committee (DPC) case number and be using a computer. These trainings must be taken via computer and cannot be completed via cell phone or tablet, such as an iPad. The exam is proctored and scored by Pennsylvania 811, and the results are provided to the attendee immediately after taking the exam. This course is equal to 2 PDH for professional engineering training. These trainings are held once a month.

Pennsylvania 811's entire event schedule can be found at [www.pa1call.org/events](http://www.pa1call.org/events). Register for one today!

*Erika Dominick is a damage prevention liaison with Pennsylvania 811.*





# COORDINATE PA IS THE NEXT GENERATION OF **UTILITY COORDINATION**

Coordinate PA is a web application developed by Pennsylvania One Call System to support public works, utility project planning and utility coordination within the Commonwealth of Pennsylvania. Users utilize a spatial, map-based system to view underground utility and public works projects, identifying opportunities for coordination and collaboration when projects overlap in space and time.

---

### **Coordinate PA Benefits:**

- Define projects using a web application  
(No special software required!) Store project data and records in a secure repository
  - Gather and disseminate information to a broader range of stakeholders beyond project planners and public works officials
  - Coordinate and collaborate on projects outside your scope of responsibility, saving money and improving service for all parties
  - Request meetings and upload documents associated with a complex project
-

# Contents

SPRING 2023 // VOLUME 14 // NUMBER 1

**On The Cover:** The 2022 International Utility Locate Rodeo was Organized and Operated by the Missouri Common Ground Alliance. Locators Competed in the Electric, Gas, Telecom and Water Divisions.

## SPOTLIGHT

Electric & Telecommunications



### 14 | Is there a Standard for Fiber Optic Installation?

It's a Good Time to Emphasize Today's Standards to Increase Work Safety, Expedite Rollouts, Ensure Reliability, and Enhance the Durability and Longevity of Newly Installed Networks.



### 16 | Fiber Builds with Damage Prevention as a High Priority

Strategic Partnership between the Utilities, Locating Groups, Contractors and 811 Centers are Key to Achieving Maximum Damage Prevention.



### 18 | Creating Operational Efficiencies

Grafton Technologies and Norfield Team Up to Enable the Locate Teams to Work More Efficiently, Improve the Internal Process and Keep Customers Happy.

## FEATURES

**22** / "Nothing from Nothing Leaves Nothing." Steps for Overcoming a First Amendment Audit in the Field.

**25** / Minnesota Pilot Program Update: Communities across the State are using Cutting-Edge GPS Locating Technology.

**26** / NUCA STAR Program Shines Brightly for our Industry's Safe Jobsites. The New Safety, Training, Awareness and Recognition (STAR) Program Evaluates, Updates and Recognizes Member Company's Safety Program and Practices.

**28** / The Legend of Bad Digger Bob. Don't Be Like Bob... Follow the Rules, State Laws, Instructions and Safe Digging Practices!

**29** / Attending an Industry Conference? Tips for Getting the most out of Attending Conferences.

## STAKEHOLDER PERSPECTIVES

**30** / Locator Certification – An Australian Success Story.

**31** / Pre-Excavation Safety Checklist Before EVERY Excavation.

**32** / The Canadian Association of Pipeline and Utility Locating Contractors (CAPULC).

## DEPARTMENTS

**8** / Ask the DP Pro

**10** / Damage Prevention Hero

**33** / Public Awareness

**38** / Calendar of Events

**40** / Readership Survey

**42** / Association Spotlight: CAWIC

## COLUMNS

**5** / From the Publisher  
• *Scott Landes*

**9** / Leading People  
• *Monica Wofford*

Supporting Global Excavation Safety





**PUBLISHER**

Scott Landes  
Scott@IR-SavingLives.com

**VP COMMUNICATIONS**

Karin Strub  
Karin@IR-SavingLives.com

**AD SALES**

Vicki Husome  
Vicki@IR-SavingLives.com

**CREATIVE DIRECTOR**

Brett Link  
Brett@MyHappyPlaceDesignStudio.com

**PUBLISHING CONSULTANT**

Dick Hendricks  
jdhendricks@comcast.net

**CONTRIBUTING AUTHORS**

Jamie Andersen  
Robert Baylor  
Doug Beck  
Susan Bohl  
Luana Buratynski  
Barbara Cederberg  
Andy Hamilton  
David Heldenbrand  
George Kemp  
Lis McKnight  
April Mitchell  
Jerry Morla  
Robert Row  
Jim Willis  
Monica Wofford  
Mark Woodward

Published Four Times a Year by  
Infrastructure Resources, LLC  
3800 American Boulevard West, Suite 1500  
Bloomington MN 55437  
Phone: 866-279-7755  
Fax: 952-703-7022

**ExcavationSafetyMagazine.com**

Excavation Safety Magazine  
is a Trademark of Infrastructure  
Resources, LLC. All rights reserved.  
Reproduction in whole or part  
without written permission of  
the publisher is prohibited.

The 811 Logo is a registered trademark  
of the Common Ground Alliance.

The Click Before You Dig.com logo  
is a registered trademark of Utility  
Safety Partners.

Saving Lives through Education®  
is a registered trademark of  
Infrastructure Resources.

## FROM THE PUBLISHER



BY SCOTT LANDES

# GOOD Locators & Listening To All Stakeholders

**A**t Infrastructure Resources (IR) we have always believed locating and locate technicians are a critical part of damage prevention and excavation safety. We have turned our support for the locating industry into many initiatives and actions, but we are always looking for new ways to reinforce the importance of locating and giving all stakeholders a platform for discussion. I am reaching out to see if you have any ideas on ways we can continue supporting the locating community through our various platforms: *Excavation Safety Magazine* (rebranded from *dp-PRO Magazine* starting with this issue), Excavation Safety Conference (founded in 2004), our annual *Excavation Safety Guide*, or the Excavation Safety Alliance (ESA). Our ESA virtual Town Halls have been extremely popular, and we would welcome topics that might help deal with locate-related issues.

## Our Current Locate-related Initiatives and Support

**Locator Safety & Appreciation Week (LSAW):** Created by IR in 2014.

- The last week of April
- Free tools at [LocatorSafety.com](http://LocatorSafety.com)

**Global Locate Masters:** Created in 2021 in partnership with UTTO.

Showcases the skills locate technicians must have while providing training.

- The annual championship held at the Global Excavation Safety Conference raises the visibility of locating.
- [GlobalLocateMasters.com](http://GlobalLocateMasters.com)

**Global Locate Summit:** 10-plus years at Global ESC addressing key issues in the locate industry.

[GlobalExcavationSafetyConference.com/Summits](http://GlobalExcavationSafetyConference.com/Summits)

**Global GRP Congress (Virtual):** Created as a partnership with Bigman Geospatial in 2020.

Electromagnetic locating is what most people have in mind when they think of locating, but GPR often plays a key role in locating the most difficult facilities. The Global GPR Congress attracts attendees and speakers from around the world.

- The 2023 dates are May 16 - 17 and you can register for free at [GPRCongress.com](http://GPRCongress.com).

**Locate Demo (EM & GPR):** This is a hands-on event held on Thursday at the Global Excavation Safety Conference.

- Bob Nighswonger, a master locate trainer, leads the demo and answers questions.
- Manufacturers who are exhibiting at the Global ESC can participate and answer questions.
- The event allows non-locate technicians to see what it is really like to locate buried utilities.

**Locate Workshops (EM and GPR):** These are held annually at the Global Excavation Safety Conference.

- They are 1/2 day to full day workshops that get into much more detail than a 45-minute conference session.

**Locate Technology Roundtable:** New at Global ESC in 2023.

- An expert panel will discuss advances in locate technology and where they feel technology is headed.
- We will have a virtual Excavation Safety Alliance Town Hall on the same subject in April 2023.

From The Publisher continued on page 8

..... **CHAMPION** .....



North American Telecommunications Damage Prevention Council

The NTDPC is a non-competitive forum dedicated to promoting the awareness and protection of tele-communications facilities and the use of One Call notification systems. Our goal is to prevent damage to the aerial & buried facilities that form the tele-communications infrastructure.



KorTerra is the leading provider of damage prevention software, protecting billions of dollars in underground infrastructure. For over 30 years, KorTerra has helped mitigate risk and ensured personnel safety by providing secure platforms for processing 811 locate tickets, tracking damages, and more.



Alberta One-Call, Alberta Common Ground Alliance & the Joint Utility Safety Team have united under one name: Utility Safety Partners; Alberta's trusted resource for utility safety, education & awareness to prevent contact with overhead and underground energy & utility assets. #Click-BeforeYouDig.



Pennsylvania One Call System Inc. is a non-profit service company dedicated to minimizing utility service interruptions, reducing on-the-job injuries and deaths, promoting a higher level of public safety and protecting the environment, available 24 hours per day, every day of the year.



As the country's first state-wide notification center, MISS DIG 811 has helped keep Michigan safe for over 50 years. Looking forward, we will continue to reach our communities by utilizing advancing technologies, grassroots efforts, and consistent engagement to decrease damages across the state.



MetroNet is the nation's largest, independently-owned, 100 percent fiber-optic provider of internet, television, and telephone services. MetroNet started in 2005 with one fiber-optic network in Greencastle, Indiana, and has since grown to serving and constructing networks in more than 120 communities across Indiana, Illinois, Iowa, Kentucky, Michigan, Minnesota, Ohio, Florida, North Carolina, Virginia, Texas, Wisconsin, and Missouri.



Our mission is to lead Indiana in promoting safety and preventing damage to underground facilities by providing excellent coordination and notification services at a reasonable cost.



**LEADER**



**ADVOCATE**



# Become a SPONSOR!

Showcase your commitment to damage prevention and excavation safety, as well as your support for *Excavation Safety Magazine*, at the level that best meets your organizational needs and budget. Each level of sponsorship offers valuable benefits that place your organization at the center of the conversation.

Contact Brenda for more information.  
Email: [Brenda@IR-SavingLives.com](mailto:Brenda@IR-SavingLives.com)  
Cell: 507-461-0001

# Q What is the “Danger Zone” when a Gas Line is Fractured?

**A BY**  
David Heldenbrand,  
Bison Engineering, Inc.

**DATA HAS BEEN COLLECTED** that shows that a Danger Zone exists after a gas line has been fractured. While it is challenging to determine the severity of a fractured gas line leak before the leak is located, data has shown that very few fires or explosions occur past a 50-foot radius from a significant gas leak.

This information can be highly beneficial to operators, construction workers, HDD crews, fire departments, and any other first responders. Buildings or structures within this radius are more likely to be subjected to a fire or explosion than buildings located farther away. Safety and evacuation decisions can be prioritized quickly and confidently with this information.



There are a number of factors that have been theorized to cause a building to explode from a gas leak, but examination of the data from hundreds of NTSB reports and other studies have shown that fires and explosions, even from a major leak, more than 50 feet from a building are rare. Obviously, the closer the leak is to a building, the more likely the building is to be affected. Structures closer than 50 feet are more likely to be affected, but buildings farther than 50 feet are less likely to be affected.

Bison Engineering, Inc. has studied these issues for more than 30 years. Many people have theorized numerous issues and causes, but little data has actually been sorted and compared until now. Damage prevention to all underground utilities is very important, but serious consequences

can result when a gas line is impacted. Reducing risk exposure to people and structures is of utmost importance. Collecting and utilizing the correct information is critical.

It is interesting to note that distribution pipeline pressure and the distance from the leak to the affected structure is relatively independent of the initial pipeline pressure within the range of distribution line pressures. It is also interesting that data that has been collected also shows that relating soil type and the distance from a leak to a structure fire or explosion is, similarly, not proportional.

The furthest recorded distance from a gas line damaged by a contractor to an explosion is 240 feet. In that case, all the utilities were laid in the same ditch and were backfilled with fractured shale all the way to the foundation of the houses. The explosion occurred an hour after the gas line was damaged. Most incidents do not involve new backfill or loose backfill, however. Most incidents involve fully compacted, non-select backfill.

It has also been documented that natural gas explosions and fires occur both uphill and downhill from pipeline damage from a significant leak. There are numerous examples of gas from fractured gas lines causing fires and explosions where the gas is coming from a source uphill from the explosion. **ESM**

*You can learn more about Bison Engineering’s research by visiting [www.bisonengineering.com](http://www.bisonengineering.com).*

From The Publisher continued from page 5

### **Excavation Safety Magazine** (formerly *dp-PRO*)

Editorial content consistently promoting locating and the importance of the locate industry.

- Past articles can be found at [ExcavationSafetyMagazine.com](http://ExcavationSafetyMagazine.com).

While locators play a vital role in damage prevention, one of our primary goals is to bring all stakeholders together and give them a voice so ideas and issues can be shared. A few ways IR accomplishes this include:

### **Virtual Excavation Safety Alliance Town Halls**

- These are free to attend and focus on important topics in the industry like late locates, Women in Damage Prevention, Cross Bores, etc.
- Register for upcoming Town Halls or view previous Town Halls at [ExcavationSafetyAlliance.com/townhall](http://ExcavationSafetyAlliance.com/townhall).

### **Providing free stakeholder meeting space at the Global Excavation**

**Safety Conference.** Some groups hold member-only meetings at the Global ESC to combine their meeting with the chance to attend the Conference, and others have meetings open to anyone interested.

Groups meeting at our event in 2023:

- CAMO (Coastal & Marine Operators)
- CDMCS (Council for Dredging and Marine Construction Safety)
- FNCA (Facility Notification Center Association)
- LWDP (Leading Women of Damage Prevention)
- NTDPC (North American Telecommunications Damage Prevention Council)
- Pipeline Safety Task Force
- Safety Day hosted by NUCA and NUCA of Florida

Our mission at IR is “Saving Lives through Education.” Our team welcomes any ideas you have on how we can better serve the industry and all stakeholder groups. **ESM**



# Actionable Insights From the Industry's Most Experienced and Trusted.

Prevent damage to critical network infrastructure and protect assets 24/7 with Irth Solutions.

Protecting millions of miles of network infrastructure requires proactive solutions. That's what you get from Irth Solutions, a trusted partner to 17 of the top 20 largest electric, energy, gas, utility, telecom and fiber companies in the U.S. and Canada.

From damage prevention and risk management to asset protection and more, our solutions are continually designed to meet your needs. We combine our industry expertise with technological know-how and machine learning to create solutions that help you build operational efficiency, improve resiliency and reliability, and promote safety. Irth Solutions makes it easier for you to effectively monitor, manage and prevent damage to your critical network infrastructure.



## Configurability

Configure your excavator and one call center positive responses based upon risks to your infrastructure. Easily set up excavator email notifications through our HTML message templates.



## Integration with Every One Call Center

Nobody on Earth has our experience handling one call tickets. Irth Solutions offers an accurate and proven integration with every one call center in North America so there's never any missing data on your ticket.



## Visibility

Our platform improves operational visibility because it brings critical information to your internal teams. Automatically create internal and external notifications based upon multiple criteria.



## Flexible Reporting

Use collected data to create your own numeric reports. Identify trends and report on field activities from internal users and external contract locators.



## Complete Damage Prevention Suite

We partner with the best and largest damage prevention experts in the industry to provide a full featured suite of solutions and offerings. From the critical hub of 811 ticket management, we support many damage prevention activities including damage investigations, locate audits, monitoring/standby visits, field meets and more.



## Unparalleled Insight into Risk

Data collected during damage prevention activities such as locate audits and field meets is used in our platform to give unparalleled visibility into risk. Incorporate other external data sets into your risk profile to ensure that all risk factors are properly accounted for.



## Scalability

Our customers trust us to process 53 million one call tickets per year. Our platform scales to your needs whether you process 150 or 12 million tickets annually.



## Reliability

With a rolling year average of 99.95% uptime and availability, you can count on us to be there for your damage prevention efforts.

Learn More Today

Visit [www.irthsolutions.com](http://www.irthsolutions.com) | Call 614.784.8000





# Jim Hayes

## An Influential Leader in the Fiber Optics Industry

JIM HAYES, AND HIS WIFE KAREN, BEGAN THEIR CAREER IN FIBER OPTICS IN 1980, WITH THE CREATION OF THE WORLD'S FIRST FIBER OPTIC TEST EQUIPMENT COMPANY TITLED, APPROPRIATELY, THE FIBER OPTIC TEST EQUIPMENT COMPANY (FOTEC). HE WAS RECRUITED BY BELL LABS IN THE 1980S TO BUILD TEST EQUIPMENT FOR AT&T. JIM DECLINED THE OFFER AND INSTEAD CREATED SHORT TRAINING COURSES IN FIBER OPTICS ACROSS THE U.S. AND AROUND THE WORLD.

In 1992, it was suggested the training courses become a full-week conference, and the first "Fiber U" conference was held in Nashville in 1993.

During the 1995 Fiber U, the instructors discussed the need for a vendor-independent certification organization for fiber optic technicians... and the Fiber Optic Association (FOA) was born. Jim Hayes was one of those co-founders and has been involved in the organization ever since, serving as President for most of his tenure. Jim's role has been to create strategy for FOA, coordinate the development of reference materials (online and printed), develop training curriculum, and to participate in standards activities (TIA, NECA, ISO/IEC, etc.).

**“His global view of fiber optics and safety continues to advance the message of damage prevention.”**

Asking people who know Jim to describe him, descriptions that came up included: smart, wise, visionary, tenacious and generous. Karin Strub, VP of Communications at Infrastructure Resources describes Jim as a respected pioneer and a leader within the industry.

“Jim has developed several fiber optic textbooks and training programs that have become staples for technicians around the world,” said Jerry Morla, Founder of FiberWizards. “The Fiber Optic Associa-

tion that Jim leads recently passed its 25-year anniversary and has certified more than 90,000 technicians worldwide.”

Jim frequently authors articles for various magazines and publications (including *Excavation Safety Magazine*) on many fiber optic technical and workforce development topics. He also writes a newsletter that highlights advancements made across the world. His global view of fiber optics and safety continues to advance the message of damage prevention.

“Jim promotes adherence to codes and standards for safety fiber installation,” Jerry Morla added. “He leads one of the most influential, non-profit global organizations in fiber optics. Jim develops and shares resources on safe fiber work practices, and constantly promotes calling 811 before doing any excavation work.”



Those who know Jim and have worked with him, indicate they appreciate his mentorship, his willingness to enhance their training, the opportunities he gives them, and the encouragement he provides to help them along their professional development path.

And somewhere along the line, Jim has found time to author 10 books, mostly technical textbooks, except for his last book titled *“Delusional Management,”* a combination of memoir and a critique of management in high tech companies.

Karin Strub, who has worked with Jim on different articles and presentations, said, “Jim Hayes is a true professional who has advanced safety and the damage prevention message throughout the global Fiber Optics industry. He is definitely deserving of the title Damage Prevention Hero.” **ESM**

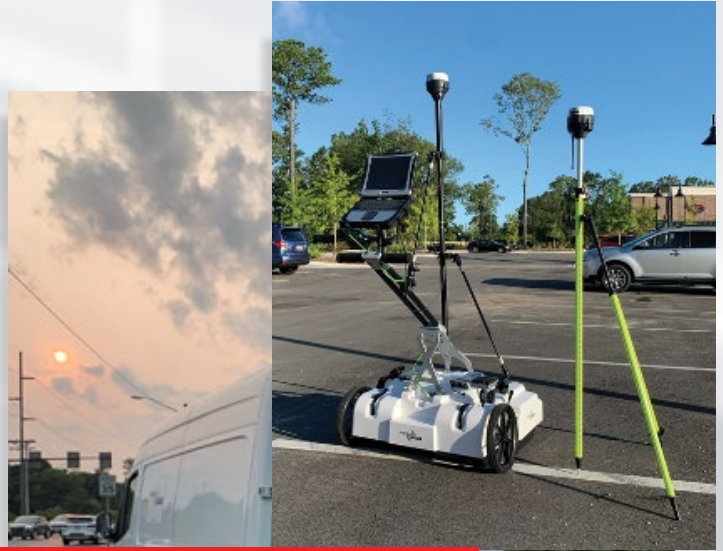


# Raptor 3D GPR Array

*The Utility Mapping Platform that Breaks All Barriers from Speed of Data Acquisition to Deliverable Results*

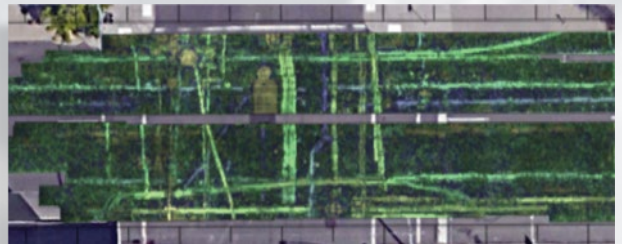
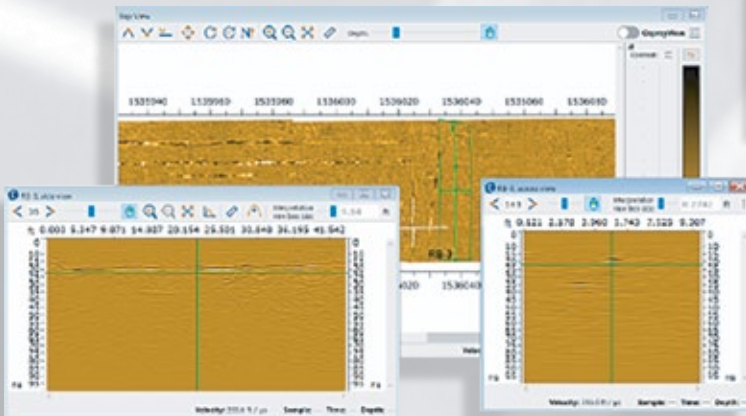
## Raptor 18-Channel and 8-Channel Array Key Features

- 3D Imaging at Posted Speed Limits
- Seamless Integration RTK GPS and Total Station
- Setup in Minutes
- Interchangeable 8-Channel Cart Included with Purchase of 18-Ch system
- Easy Graphical Mapping Nav Display
- **NEW** Talon II Raptor Data Acquisition Software Featuring Updated Customer Driven User Interface Optimized for Windows® touchscreen devices



## Condor 3D GPR Imaging Software

- Unprecedented Ease of Use and Speed
- 3D Results in Minutes
- Developed for All Professional Disciplines
- Seamless Export of Utility and Other Subsurface Targets to CAD/GIS



All systems available in the US are FCC compliant and include a 2-year Warranty. US Authorized Service and Repair Partner Tracer Electronics, LLC, Lebanon, Tennessee  
[www.impulseradargpr.com](http://www.impulseradargpr.com)  
[info@impulseradargpr.com](mailto:info@impulseradargpr.com)  
ImpulseRadar Sweden AB Storgatan 78 SE 939 32 Malå, Sweden | +46 953 100 08  
ImpulseRadar USA, Inc. 4000 Faber Place Drive, Suite 300, Charleston, SC 29405 | 843-412-0206







BY MONICA WOFFORD, CSP

# Are You Sure THAT'S RIGHT?

**I**F a new employee headed out to the job site carrying flags and paint when you knew he was supposed to be locating telecom cables, you'd likely raise an eyebrow and, hopefully, start asking questions. First, were you clear on the job order details? Did he understand what was needed? And was he really just going to mark the surface when what needed to be found was underneath it? Unless safety is a factor, good bosses start with good questions, and in fact, your initial question might be "Are you sure that's right?" It's the same question leaders need to ask before making work, leadership, and development decisions.

In a time when quiet quitting is upon us, a pronounced focus is on diversity, and being productive is less about direction than collaborative efforts, the question of "Are you sure that's right?" is a good conversation starter and also a method for being inclusive. Are you sure that's the right person for the position? Are you sure that person's skills line up with your expectations for performance? And are you sure you've got the right people in the right positions? Such questions used to be had in discussions around having the right people in the right seats on a bus, but what's becoming even more important is the timing of the questions you're asking. Now they need to be addressed before the proverbial bus even pulls up to your office.

Leaders who are hiring, assigning, and developing employees are now tasked with the need for a more prudent and proactive approach. Ask the questions before making the assignment, seeing poor performance, and then having to enact discipline. Ask the questions before your reaction to their action causes you your own discipline, or even your position. And in fact, ask key questions in the following areas so you're more certain that your answer to "Are you sure that's right?", is a resounding yes!

## Hiring

Gone are the days in which a hunch was all that was needed. Even checking references rarely results in information much more helpful. In today's hiring environment, while vacancies still outweigh those willing to work to fill them, the need to thoroughly vet top tier candidates has become even more important. Spend time with the top two or three candidates and ask a lot of questions. Show them the work, maybe even the equipment. Demonstrate something minor and see how quickly they catch on to it. Scour their social media accounts and take a look at the character, the person, and their tendencies.

While personnel laws vary, the at-will employment concept is consistent. Yes, you can fire one who doesn't pass muster, but who's got time to find that out 90 days later? Bringing on a new employee without checking into who they are, what they've done, what their character is, based on

what you can see or uncover, just might save you from a lawsuit, damage control, tarnishing of other great employees, and disgruntled clients.

## Assigning

Unless he or she has prior experience, it's likely you would not send a green team member to use a split box locator for the first time, solo, without some assistance. For equipment knowledge, this decision is easy. For soft skills, it can be a bit trickier. Are you sure that's a good decision to use the less experienced person to handle the complaint hot line? Are you sure that having the technician who's been locating underground utilities since God was a toddler is the best option for giving slow step-by-step instruction to newbies?

When assigning or providing roles and responsibilities, ask yourself if this person has any natural acumen to conduct the task. If the answer is no, your results will suffer. When it's less obvious, explore and conduct cross-training or trial periods. Many won't say they don't know what they're doing or aren't a good fit and instead they'll sit in the job they don't do well and quit. Let them kick the tires on any new assignments.

## Developing

Developing those you lead follows a similar set of rules in that hiring is not a one-and-done effort. Assigning and promoting is not all of the development those you lead need. But as bosses get busy, those same bosses tend to believe that people can go forever without any devotion to their training, skill development, or behavioral needs.

What kind of training do you offer those you work with and lead? Is there a class they can take, a webinar to be seen, or a leadership development program to which they can become a member? Options are there and ignoring their need to grow, be nurtured and developed is not one of them. Ask yourself, are you sure that acting like this is going to get team members to stick around and stay motivated? Are you sure that same action works for your own long-term career satisfaction?

The world and those in it are changing. Employees can appear apathetic, less productive, and at times not very motivated. Don't rely on the old tried and true methods you learned when new to leadership. Keep asking questions. Maybe start with tomorrow's assignments and next week's new hires. Are you sure they're in the right roles and the right hires? **ESM**

*Monica Wofford, CSP is a leadership development specialist, keynote speaker, and executive coach. For more information on her books, training firm or coaching services, call 1-866-382-0121, or go to [www.ContagiousCompanies.com](http://www.ContagiousCompanies.com) or [www.LeadershipDevelopmentCenter.com](http://www.LeadershipDevelopmentCenter.com).*







**MAY 16TH & 17TH || 2023**

# THE **GLOBAL GPR CONGRESS** IS A UNIQUE OPPORTUNITY FOR GPR USERS WORLDWIDE

While topics related to GPR are frequently addressed at industry specific events, there has never been a place where all GPR users can go to learn from each other. Bringing users together from a variety of industries and applications gives participants a pathway for accelerated learning opportunities, and provides an open forum for discussion on user-critical topics.

The 2023 Global GPR Congress is setting the stage to be larger than ever, offering completely free registration. With speakers and perspectives from around the globe, attendees of the two-day event can expect a truly unique educational experience.

## **Catch Up On Previous GPR Congress Events**

Global GPR Congress events from previous years are now available to purchase on demand at [GPRCongress.com](http://GPRCongress.com).



REGISTER NOW AT  
**[GPRCONGRESS.COM](http://GPRCONGRESS.COM)**



Global GPR Congress is produced by Infrastructure Resources in conjunction with Bigman Geophysical

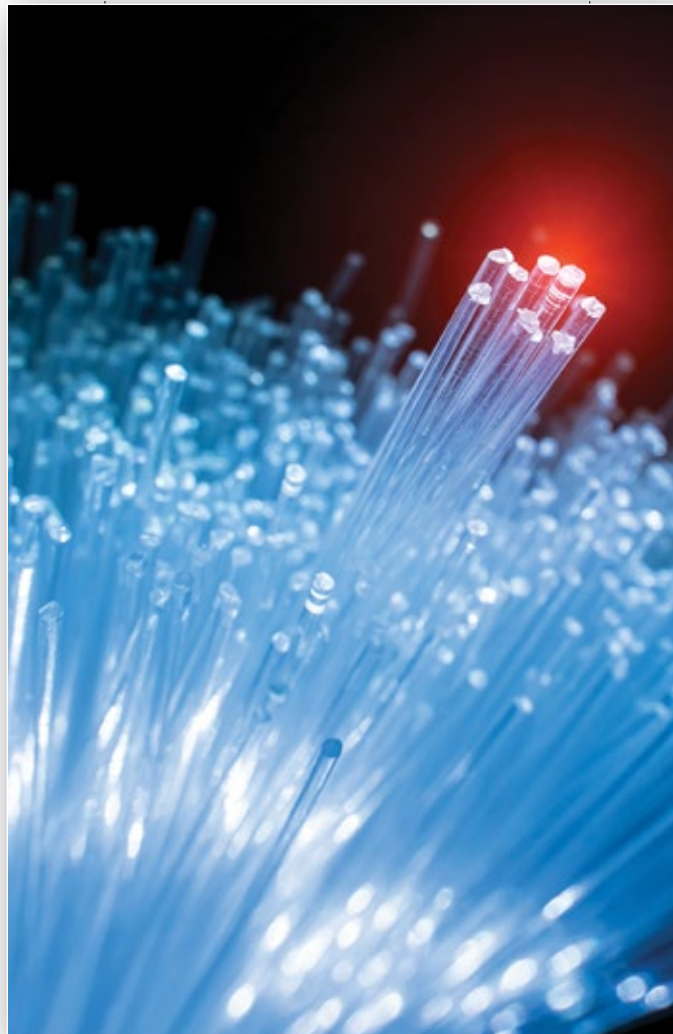


## Is There a Standard for Fiber Optic Installation?

BY JERRY MORLA

With heightened public interest and many newcomers joining national efforts to close the digital divide in America by bringing broadband access through fiber optics to underserved and rural areas in the country, network construction and installation standards are atop of discussion topics among industry professionals. The recently signed Infrastructure Investment and Jobs Act is making \$65 billion dollars available for expanding and upgrading America's telecommunications networks. The goal is to make broadband internet available to as many citizens through various programs like the Broadband Equity, Access, and Deployment (BEAD) program, and it has triggered a boom for the fiber sector and increased demand for contractors, technicians, and professionals for every role in the industry. To support stakeholders looking for knowledge and guidelines related to fiber optic installations, the main question that this article aims to answer is whether there is a standard for fiber optic network installation in existence. The answer might not be that simple, for as there are many aspects to network construction and installation, there are also many codes and standards of equal importance that must be considered and applied specifically for each of these during network deployment and operation.

Effective network deployment implementation requires a broad knowledge of network construction codes, regulations, and standards as well as qualified and experienced people working through highly coordinated efforts. Though there are many well-established companies



with seasoned crews and subject matter experts working in the field, a recent global pandemic and high attrition of senior professionals have taken a toll on the workforce and left companies scrambling for qualified personnel to fill labor gaps and support these initiatives. These dynamics also create an increased need for the dissemination of technical knowledge and skills development, especially as it relates to codes and standards. In this article, we will provide

a general overview of some of the most prominent codes and standards related to fiber optic network deployments and installation.

Let's start by talking about safety. But why talk about safety when this article is supposed to be about network installation standards? Well, if you are familiar with codes and standards, then you know that codes and many standards are developed with public safety as the top concern. Whereas codes are regulations that must be adhered to, standards are guidelines for ensuring a minimum level of performance, interoperability, and overall quality of integrated network systems components. In the area of fiber network construction, standards provide guidelines to ensure that infrastructures are adequate for supporting the operation and longevity of networks, and in the case of network elements, standards exist to ensure interoperability among a variety of components from different suppliers and planning for network performance. Besides public safety, interoperability, and performance, standards are also developed to support faster network rollouts, consistent installation results, plan for quality, and support accident and damage prevention.

In the United States, perhaps the most prominent health and safety regulations organization is the Occupational Safety and Health Administration (OSHA). Although it would be impossible to cover the full scope of OSHA and its standards in a single article, a good starting point relevant to telecommunication construction activities would be OSHA 1910.268, which provides a series



of training requirements for telecom employees, including trenching and excavation, confined spaces, electrical hazards, and various other critical topics for both underground and aerial type network installations. Other OSHA standards highly relevant to telecommunication network installation are 1926.301 and 1926.302, which are related to power tools, and 1926.102 and 1926.54, which are related to laser safety. There are many more OSHA standards to be followed, so to ensure legal compliance and the safety of workers and other people near job sites, conduct due diligence and adhere to any codes and standards applicable to the type of work, environment, and location where the activities will take place.

Another key set of safety regulations and standards of critical impact on Outside Plant (OSP) network design and construction is the National Electrical Safety Code® (NESC®), which is published by the Institute of Electrical and Electronics Engineers (IEEE) and approved by the American National Standards Institute (ANSI). The NESC provides best practices for the design and installation of underground and overhead electrical supply infrastructure and telecommunications distribution systems, as well as substations, and has been adopted in most of the states in the U.S. The NESC guidelines are also commonly used as foundational material for network-building standards around the world. Many of the rules in the NESC provide guidelines related to the location, configuration, and positioning of support infrastructure and network elements including equipment, hardware, and cables, to avoid creating safety hazards or unsafe conditions for workers or the public. For ensuring that OSP telecommunications networks are designed, implemented, operated, and maintained according to the NESC, all related personnel must receive training and be very familiar with the latest revisions of this code.

While the NESC is mostly relevant to electrical and telecommunication supply networks in outside plant environments, for inside plant and premises network design and installation we must look at the National Electric Code® (NEC®), which is published by the National Fire Prevention Association (NFPA). Like the NESC, the NEC has been adopted in most states and has been used as a baseline for many international standards. The NEC provides mandatory guidelines for the installation of electrical equipment and wiring inside premises, including telecommunication

cabling. Some of the most notable areas in the NEC as related to fiber network design and construction are cable jacket materials and flammability ratings, minimum proximities from electrical components, as well as bonding and grounding requirements for fiber cables with metallic elements. Due diligence is imperative for ensuring compliance with regional or location-specific variations of NEC guidelines or any other requirements according to local code laws.

Besides the NEC, another prominent set of standards related to fiber installation is the Telecom Industry Association (TIA) standards, which is also an ANSI standard. Although the ANSI/TIA standard primarily deals with inside plant installations or structured cabling, it covers knowledge areas related to physical infrastructure, pathways and spaces, telecommunication media, link performance, fire safety, and many other areas that deal with installation of network elements in locations like central offices and data centers, as well as network access elements at the customer location whether business or residential, and installation of backbone facilities between buildings in campus environments. As stated above, these standards are to be integrated with any other applicable codes and standards for compliance and performance. Since the TIA body of standards is so rich, new contractors and technicians might err in not looking further into standards and guidelines that are more specifically designed with other applicable network types and environment in mind. For those that are more concerned with underground and overhead OSP installations, you will not want to miss referring to the standards described on the next paragraph.

For this article, the last set of standards we'll discuss is Telcordia SR-1421, also known as the SR-1421 Blue Book - Manual of Construction Procedures. Telcordia SR-1421 addresses knowledge areas related to telecommunication network design and construction focused mainly in underground and overhead OSP networks. Telcordia Technologies was acquired by Ericson in 2011 and original Bellcore standards were developed by Bell companies in the U.S. back in the 80s and have been predominant since then. The SR-1421, SR for Standard Recommendations, provides construction procedures for telecommunication networks to ensure the safety and reliability of the networks. The SR-1421 procedures are commonly

used by top-tiered telecom operators in the U.S. and around the world. The SR-1421 is also aligned with OSHA safety standards and NESC and it is frequently updated to remain harmonized with these. Telcordia SR resources are also aligned with Telcordia GR (General Recommendation) resources which provide standards for manufacturing of network components, as well as performance guidelines for ensuring reliability, safety, and longevity of the networks. The knowledge and recommendations in the SR-1421 can support telecom-oriented stakeholders with project planning, design, make-ready, implementation, and maintenance of networks, so this resource is a must-have for serious players in the telecom construction space, as is often relied upon by top operators for their network projects. The latest version of the SR-1421 includes recent updates to address fiber network deployments to support evolving broadband requirements.

In conclusion, while many companies and professionals involved in fiber optic network constructions are surely well versed in these standards, with the recent surge in demand for network construction and the need to prepare a new generation workforce to fill in gaps in all areas of the network deployment and operation lifecycle, it's definitely a good time to increase emphasis on standards to increase work safety, expedite rollouts, ensure reliability, and enhance the durability and longevity of the new networks installed. It is also imperative to comply with local code laws and regulations, as well as to rely on highly experienced professionals, with broad knowledge in all aspects of network development, to ensure proper integration of technical requirements and standards. Lastly, with a once-in-a-lifetime opportunity to build future-ready fiber optic infrastructure, dissemination and application of standards and best installation practices must be among the top priorities for everyone in the telecommunications ecosystem. **ESM**

*Jerry Morla, MBA, MSL, PMP®, CFOSII, has 25-plus years of experience in telecom and is the founder of Knowledge on Demand LLC. and FiberWizards, providers of expert consulting, project services, and training for telecom organizations globally. He is also a Master Instructor and Director for the Fiber Optic Association. For more information, contact info@fiberwizards.com.*



## Fiber Builds with Damage Prevention as a High Priority

### *A Case Study of Effective Partnerships*

BY GEORGE KEMP

In recent years, fiber builds have become one of the main topics of concern at national, state, and regional damage prevention, UCC, and 811 center meetings. We know fiber builds move

Fiber contractors struggle with getting utility locate requests completed on-time and when they are completed, they face a large percentage of mismarks. Congested rights-of-way and utility easements are also a common concern. Recently, I had the opportunity to present at a large damage prevention summit on "How to Thread the Needle." This presentation deals with safely excavating when the area is extremely congested with other utilities. There are many other concerns as well. The response to each of these concerns has an impact on the other utilities and those who live and work in the intended area of construction. So, what is the answer?


Accomplishing a safe and profitable fiber build with damage prevention as a high priority is almost impossible on your own. The key is partnerships. We need to partner with the other stakeholders and work together to achieve our goal. There are many vital partnerships. The utilities, locating groups, contractors, and 811 centers all need to partner with each other to

achieve maximum damage prevention. Each of these stakeholders also needs to realize the financial benefits they receive when all these stakeholders partner together.

At Metronet, we believe the fiber builder should set the example and reach out to the other stake-

holders with a goal of building a strong partnership with each of them. A key step toward building these partnerships is empathy. Understanding the other stakeholder's point of view goes a long way in finding mutual ground from which both groups can work. I can insist that my point of view is correct and that they must adhere, but at the end of the day that only hurts a potential partnership. There is a reason why the other side is acting or responding a certain way, and it is important for us to find out why and then use that understanding to help find a way forward for all sides.

Potentially, communication may be the most important and strategic foundation of these key partnerships. It is through communication and keeping avenues of communication open that we can learn what the other side is thinking and what they need. Successful project management principles point to the importance of fiber builds continuously forecasting with the other stakeholders where they are going and how fast they will be moving. Preconstruction meetings with all stakeholders, along with weekly and sometimes daily updates with each other, are also important. It is through these types of meetings that a contractor can learn about potential complications, and in doing so can then work out a plan with the other stakeholder so they can avoid a potential slow down and what could have become a damaged utility.

Partnerships are key, and empathy and communication are key to these partnerships. To learn more about the strategic partnerships Metronet has built with other stakeholders to accomplish our fiber builds, please plan to attend my presentation at the Global Excavation Safety Conference in Tampa, FL in February 2023. I am excited to have the opportunity to share with you and to hear your thoughts. 

**“THE KEY IS PARTNERSHIPS. WE NEED TO PARTNER WITH THE OTHER STAKEHOLDERS AND WORK TOGETHER TO ACHIEVE OUR GOAL. THERE ARE MANY VITAL PARTNERSHIPS. THE UTILITIES, LOCATING GROUPS, CONTRACTORS, AND 811 CENTERS ALL NEED TO PARTNER WITH EACH OTHER TO ACHIEVE MAXIMUM DAMAGE PREVENTION. EACH OF THESE STAKEHOLDERS ALSO NEEDS TO REALIZE THE FINANCIAL BENEFITS THEY RECEIVE WHEN ALL THESE STAKEHOLDERS PARTNER TOGETHER.”**

quickly through a geographic area. Fiber utilities are also known to be very competitive with each other. There is a goal to be the first one to plant their flag before others arrive. Most other utilities are not faced with this competitive nature. Most fiber utilities are also known to use a prime contractor to build their infrastructure.



# LOCATOR SAFETY & APPRECIATION WEEK

APRIL 24 - 30, 2023

**Held every year during** the last full week of April, Locator Safety & Appreciation Week celebrates the essential work of utility locators. Locators' diligence and dedication ensure the safety of the public and the protection of our infrastructure.

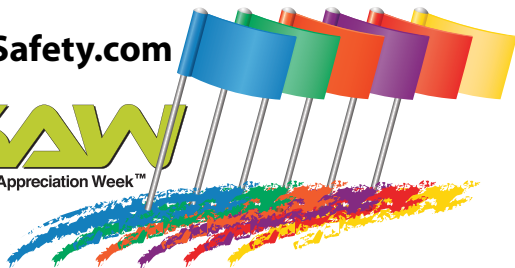
Every year's LSAW celebrations have a theme. In 2023, LSAW will focus on the top issues affecting the utility locating industry today and how they might be resolved. No matter the solutions, it's evident that it's going to take a collaborative effort, so we want to hear from you.

**Visit [LocatorSafety.com](http://LocatorSafety.com) to:**

- > Find and share the 2023 LSAW social media images
- > Share how you plan on celebrating LSAW with your team
- > Submit your ideas about improving utility locating
- > Register for the March ESA Town Hall (see below)

**LocatorSafety.com**

**LSAW**  
Locator Safety & Appreciation Week™



## What are the top issues affecting the utility locating industry and how do we resolve them? An ESA Town Hall!

Join a free discussion on the issues facing the utility locating industry today during the March Excavation Safety Alliance (ESA) Town Hall! ESA Town Halls bring stakeholders from all facets of the excavation safety and damage prevention industry together to share their perspectives and work on collaborative solutions.



**REGISTER TODAY!**





## Grafton Technologies Teams up with Norfield to Create Operational Efficiencies

BY ANDY HAMILTON AND APRIL MITCHELL

Grafton Technologies Inc. has provided broadband, television, and telephone services to the residents of Illinois for over 100 years. Throughout that time, the world of technology has changed dramatically, however, our team at Grafton Technologies Inc. has always remained relevant by adapting to the ever-changing needs of our customers. They want reliable and hi-speed internet service as well as digital TV services with superior picture quality and sound. To satisfy our customers in this age of every-changing technology, we must constantly upgrade and expand our network. To do this, we look at partners in the damage prevention industry to provide the technology we need to optimize these premium services.

### The Challenge

Grafton Technologies Inc. has a complex underground fiber network. To keep the surrounding community safe, utilities and pipes must be identified before more fiber is laid or excavation occurs nearby. Several thousand tickets are processed annually to locate utilities around our facilities in partnership with the state of Illinois 811 contact center JULIE (Joint Utility Locating Information to Excavators). It's imperative that these locates are accurate to protect the infrastructure and maintain service to our customer base. Also important is that our critical facilities have no downtime as excavation takes place near and within our fiber network.

Our previous process of managing tickets sent to us by JULIE was outdated with emails, paper maps and unorganized data and pictures. Our team of locators needed a software system that could provide operational efficiencies, time savings and a web-based and digital experience to bring us into the 21st century.

After being informed by our customer billing software vendor about an add-on that allowed



One-Call ticket management through their software, we decided to explore a ticket management solution. We discovered an almost urgent need to update our process with a technology-based solution. We compiled our list of requirements and set out to find ticket management software vendors.

Our requirements included the following list:

1. Software that is easy for all our team to use
2. Unlimited types of users – admin, internal locators, contract locators

3. Mobile friendly user interface for in-field use
4. Dig site image capture via several methods
5. Accurate GIS mapping and tools
6. Automated assignment rules for locators
7. A variety of notification methods
8. Electronic Positive Response (EPR)
9. Reporting and analytics
10. Offline mode

As we began reviewing solutions from various vendors with our list of requirements, we were able to narrow down the field to those require-

“Key reasons for the smooth implementation included that the archive history migrated over easily and they worked directly with JULIE during the onboarding and migration process. The Grafton team was basically hands off, leaving the implementation to the Norfield team and we were live in just under two weeks.”

ments that mattered the most to our team. Price and/or lack of features removed many vendors from consideration. We eventually chose one software provider that had a great balance of the requirements, fit our budget, and could be implemented in a relatively short time frame.

### The Solution

We chose Norfield’s LOCATOR LOGiX as our new software platform. It’s a web-based locate management system designed specifically for utilities and utility locators to manage utility line locate requests sent by 811 centers. The system offers the functionality we were looking for to manage the extensive number of tickets received by email.

Norfield Development Partners has been around for over 40 years and has a long history in the design and development of damage prevention solutions. Norfield provides the contact center management software and related solutions to seven-member facility notification centers across the country: OHIO811, Colorado 811, Illinois One-Call System JULIE, North Carolina’s NC811, Southern California’s DigAlert, UTAH811 and Virginia 811.

Since Norfield is the current software provider for JULIE, it was ideal for our team to implement this software. Key reasons for the smooth implementation included that the archive history migrated over easily and they worked directly with JULIE during the onboarding and migration process. The Grafton team was basically hands off, leaving the implementation to the Norfield team and we were live in just under two weeks.

The newly launched platform is vendor agnostic and integrates with any state One-Call system in the country. Ticket data is easily parsed from



other systems in the correct format and amalgamates with the software seamlessly. Utility companies and utility locators that operate in multiple states can view, respond, and manage their locate tickets with the required data and format as regulated by each state center.

Grafton Technologies now has an advanced solution that allows us to stay on top of the workload much more efficiently as our footprint continues to grow. The key benefits are that we can work anywhere – on a tablet, smart phone and in real-time in the field with reliable mapping tools. The functionality around the ticketing is highly sophisticated in terms of details, revisions,

grouping, images, alerts, filtering and routing the ticket responses for the day.

### The Result

A key benefit is that the software provides seamless integration with JULIE adhering to local laws and regulations. Because we don’t have to worry about compliance, we are now more focused on delivering telecom services with no downtime to our customers. With this solution, we were able to modernize our location procedures with more automation, mapping, and reporting tools which saves us time and improves our internal processes.

Overall, this solution has enabled our Locate team to work more efficiently throughout their day by using the routing and map view feature within the software to reduce drive time. The offline mode functionality is especially beneficial when the Locate team works in areas of limited mobile data service. Adding notes and information in real-time to relay back to dispatch from the field regarding high priority facilities for our watch and protect program has become an essential part of our new process.

Whether you are an 811 center, utility company or an excavator, the new LOGiX Platform developed by the Norfield engineering team is really focused on two things – safety and how we eliminate those unnecessary infrastructure costs as a result of errors. **ESM**

*Andy Hamilton, OSP Supervisor at Grafton Technologies Inc., has 20 years of experience in telecommunications and damage prevention. He can be reached at [andyh@gtec.net](mailto:andyh@gtec.net). April Mitchell, Chief Marketing Officer at Norfield, is an award-winning author and a marketing executive with experience in B2B, B2C, technology and non-profit organizations. She can be reached at [april@norfielddp.com](mailto:april@norfielddp.com).*



# Celebrating a Year of Conversations!

The Excavation Safety Alliance (ESA) is the place in the industry where solutions to industry problems are developed, with no bias towards any stakeholder group. ESA Town Halls are a virtual, open forum for all stakeholders to discuss concerns and present potential solutions. In 2022, the ESA Town Halls featured panelists from the following organizations representing a wide variety of industry stakeholder groups committed to damage prevention and excavation safety.

- 3M
- 4Sight Utility Engineers
- American Petroleum Institute (API)
- AXA XL
- Badger Daylighting
- Bigman Geophysical
- Coastal And Marine Operators (CAMO)
- Canada Energy Regulator
- CenterPoint Energy
- Chevron
- Cliff Meidl Enterprises, LLC
- Colorado 811
- ComEd
- Corby Energy Services
- Cottrell Contracting Corporation
- Council for Dredging and Marine Construction Safety (CDMCS)
- ELM Utility Services
- Energy Queensland
- Energy Worldnet, Inc.
- FirstEnergy
- Georgia 811
- Gopher State One Call
- Greiner Construction
- Hall Estill
- INSET
- Iowa State University
- JULIE, Inc.
- KorTerra
- MetroNet, Inc.
- Minger Construction Co., Inc.
- MISS DIG 811
- Mitchell Engineering
- North Carolina 811
- NUCA of Pennsylvania
- NULCA
- Oklahoma One-Call System, Inc. / OKIE 811
- Pipeline Association for Public Awareness (PAPA)
- Ritter Communications
- Ron Peterson Consulting
- Subsurface Utility Engineering, LLC
- Texas 811
- Utility Safety Partners
- Vanguard Utility Partners, Inc.
- WGI, Inc.
- Xcel Energy
- Youngs Excavating, Inc.

ESA Town Halls are changing the way the damage prevention industry shares ideas and collaborates on solutions. Bring your unique perspective to the conversation and help shape the future. ESA Town Halls occur on the second Thursday of every month at 10:30 AM CST, excluding the February ESA Town Hall titled, ESA Town Hall Live: Are we at peak damage prevention the way it is being done? Are there better ways?, taking place at the 2023 Global Excavation Safety Conference in Tampa, Florida on Thursday, February 16th at 11:00 AM EST.



# 94.3%

OF ATTENDEES FIND  
VALUE IN ATTENDING  
ESA TOWN HALLS

“Thank you, this was good stuff and [I] love the collaborative approach!”  
- Donna J. Williams, Pennsylvania One Call System, Inc.

## March: ESA Town Hall Coming Soon!

What are the top issues affecting the utility locating industry and how do we resolve them?

## REGISTER TODAY!



# ESA TOWN HALLS YOU MAY HAVE MISSED IN 2022!

Every past Town Hall video recording is available in-full to all ESA members. Town Halls are also available in podcast form on Apple Podcasts, Spotify, or at [ExcavationSafetyAlliance.com](https://www.ExcavationSafetyAlliance.com) to listen to at your convenience.

## APRIL

Late Locates: Partnering with Notification Centers

## MAY

How can SUE and Accurate Maps Be Used to Reduce Both Damages and Costs?

## JUNE

Are You Prepared for the Infrastructure Bill Impacts on the Damage Prevention Industry?

## JULY

What makes a One Call law fair & effective?

## AUGUST

How can we get more women involved in damage prevention, excavation safety & construction?

## SEPTEMBER

What are the best practices for preventing damage to electric cables above and below ground?

## OCTOBER

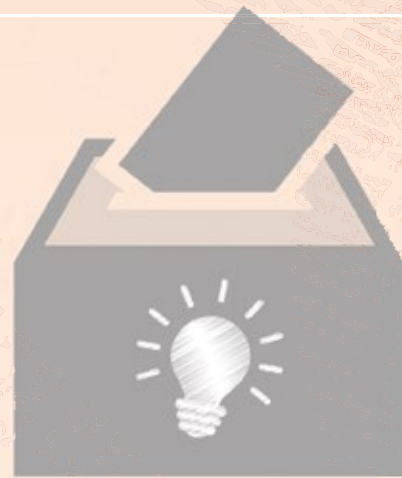
What role can Utility Coordinating Councils play in damage prevention and excavation safety?

## NOVEMBER

What are the most successful ways to investigate a damage and defend yourself?

## DECEMBER

PHMSA and NTSB Recommendations for Tolerance Zones: Does one size fit all?



**WHAT TOPICS DO YOU WANT DISCUSSED IN THE FUTURE? YOU DECIDE!**



“Are any of you guys willing to talk to me about damage prevention until I go to sleep tonight...LOVE this conversation! I really enjoyed listening to you guys!”

- Raymond Sonnier, Atmos Energy





## 1st Amendment

BY JIM WILLIS, CMAS, CHS-V

# Steps for Overcoming a First Amendment Audit in the Field

It's your first locate of the day. The address is a small commercial building on a side street a few blocks from city hall. You doublecheck the address and the locate details; as you step out of the truck, you notice a couple of guys lingering at the corner of the block. They don't look dangerous as much as they look out of place. So, you grab your gear and turn to the task at hand. As you work through the locate process, your focus is on instrument tones and screens. Just as you finish tracing a gas line, you turn around and come face to face with a digital camera. The guy holding the camera is doing his best to look intimidating, with black clothing and an aggressive posture. Startled, you take a half-step back as you ask, "Can I help you?" The guy doesn't respond; he just continues to record as he swings the camera from the truck to the building and back to you.

So, you have a guy with a cell phone camera right in your face, and he's not saying what he's doing or wants and has ignored your questions. He only says, "Don't touch my camera," as you step towards the truck behind him, but he doesn't move or back off. Then you notice another guy is off to the side, recording both of you. As you try to figure out just what's going on, your emotions morph from surprise and apprehension to frustration and anger. And though you're not sure what they're up to, they're obviously trying to capture something on video that involves you. So now you have two choices: stay, and try to complete the job with these two clowns in the way, or leave and finish the job later. And as much as you'd like to smack the smug expression off the guy's face, you decide the best thing to do is to keep quiet, leave, and return after these jerks are gone. So, you pack up your gear and head out. (A smart and insightful move on your part, by the way.) When you return later, they're gone, and you finish the job without incident or interruption. But you're still a little shaken by the encounter and not sure what to make of it. Surprise, you've just been "audited." But how you handled it paid off because you gave them nothing -- nothing to video and nothing to exploit!

Now you, the reader, may be thinking such an incident wouldn't happen. But a similar incident took place over the summer. And whether you work alone in the field or are part of a crew, your work world has changed. Today, almost everyone you encounter has the means to record and upload a video to the internet, and you're on camera more often than you realize.

Among the host of people who video utility workers regularly are people that identify as First Amendment Auditors. Most of us know little or nothing about these auditors, but the chances of facing one increase daily. And as aggravating as an auditor can be to deal with in real-time, the more significant problems come after the fact.

So, who are these auditors, and what is a First Amendment Audit? Unfortunately, the answers

are a little fuzzy. The auditors are a genre of unaligned activists that place themselves in controversial situations hoping to create a recordable confrontation focusing on first amendment rights. They include people from all walks of life and every ethnic, economic, and political persuasion. Their original target was the law enforcement community. Though law enforcement officers remain a primary focus, they now target anyone from the general public to utility workers.

According to the auditor community, an audit is a recorded assessment of how well government officials and others in public settings conduct themselves when faced with someone rigorously pursuing their first amendment rights.

They argue they're social justice warriors on a mission to expose and hold accountable those that abuse the first amendment rights of others. Unfortunately, while their proclaimed goal is to uncover first amendment rights violations, their true motives are often a little more mercenary. Behind all the rhetoric is personal benefit. In reality, most first amendment audits are little more than efforts to profit reputationally, ideologically, or financially from orchestrated conflict.

The typical audit will consist of one or more auditors armed with recording devices. They will make an unannounced visit to a public building, worksite, or outdoor activity, where they'll immediately start recording the people and the location. They will refuse to identify themselves or explain their actions and often resort to aggressive tactics and language to provoke a confrontation. Once they have recorded the encounter, they will upload the video to social media.

**By now, you're wondering – is this legal?** Unfortunately, yes, the law is on their side. If they remain on non-restricted public property, they can record and broadcast images of almost anything or anyone within sight. They base their actions on a 2011 federal court ruling that restricting a person's right to film in public violates their First Amendment rights.

**What are the aftermath impacts?** The wrong response to an audit encounter can be costly. If you overact to the situation or lash out in anger, you won't be considered the victim but the aggressor. And once the encounter is uploaded to the internet, you will likely be harassed and threatened. Audits can be defacto stochastic terrorism. Stochastic terrorism is "the public demonization of a person or group resulting in the incitement of a violent act, which is statistically probably but whose specifics cannot be predicted." There have been numerous incidents of retaliatory violence from ardent audit devotees against those that take action against an auditor. However, auditors are not held legally responsible for acts others commit after watching a video.

Then there will be the inevitable legal issues. If you become physical with the auditor, you will likely be charged with assault and then sued for damages. It's important to understand how willing and ready the members of this group are to file a lawsuit against you and your company. Auditors know that most civil cases are settled out of court to the plaintiff's benefit and use this to their advantage.

**What happens in an audit?** These encounters are planned to take you by surprise. Auditors understand that the element of surprise gives them the initial advantage as you struggle to figure out what is taking place. In field encounters, the auditor will show up unannounced and start recording, often without saying anything. Sometimes they'll become verbally abusive with insulting language meant to illicit a heated reaction and keep you emotionally off balance.

They will typically not respond to questions or identify themselves. They will usually only make demanding statements such as "do not touch me" or "do not touch my camera" if you move toward them. Sometimes they'll make derogatory remarks or statements about you infringing on their inherent rights. And they expect you to call the police. They'll then use the same tactics with the officers, hoping to record a belligerent response. Remember that they're recording everything happening, so be cautious with your responses.

How do you deal with a First Amendment Audit in the field? There are no set procedures for responding when an auditor ambushes you, and yes, it'll be an ambush. Audits are fluid situations with many variables, so step-by-step procedures are ineffective. However, there are some strategic actions that you can take to navigate an encounter successfully.

**1) Recognize what's taking place.** Quickly assess the situation to identify the players, determine their tactics, and decide your best course of action.

- a. Establish a work zone perimeter that will help you recognize approach and identify potential threats.
- b. Once you realize that you're facing an auditor, keep your responses low-key.
- c. Take a moment to contact your office or another ally to let them know what's going on, preferably using a predetermined alert protocol.
- d. Remember, the encounter is staged to capture your response to their presence. Their aim is to record threats, offensive language, or over-the-top reactions from you or your team.
- e. Notify law enforcement at your earliest opportunity, or better yet, consider having your office contact the police be part of your alert protocol.
- f. Once law enforcement arrives, quietly explain what is happening. If the auditors cannot be removed from the scene, ask officers to move them out of your immediate work zone.

**2) Create distance.** Auditors use proximity as a means of intimidation. They like to get as close as possible to their subjects to create tension and amplify frustration, confusion, and apprehension. The more distance between you and the auditor, the better, and the less impact their intimidation techniques will have on you and those that watch their videos.

- a. Use the work zone perimeter you established as a means of creating distance.
- b. Use your vehicle and equipment to add space between you and the auditors. However, try not to make it glaringly apparent that you're trying to create distance. Don't appear to be hiding or trying to escape; this will only add to the drama. Instead, keep your movements subtle and use a methodical, work-related pace.

**3) A tactical retreat may be the best option.** The best way to neutralize an audit may be to leave and return later.

- a. If you decide to pack up and leave, do so without fanfare. Make it appear that you're finished or wrapping up for the day, and quietly gather your equipment and head out.
- b. You do not owe the auditor an explanation of what you are doing or why you're doing it.

- c. Remember, auditors are looking for video-worthy action, and not giving them anything worth posting ruins their plans.

**4) Keep any interaction with an auditor to a minimum.** Remember, videos can be edited to fit the auditor's narrative, so the less said, the better.

- a. Edited videos are hard to refute without solid evidence. Even if you can disprove the video, much of the damage will be irreversible.
- b. Recording the incident yourself may be an option. However, grabbing your cell phone and holding it in the auditor's face will appear petty. If you decide to record the event, do so subtly and matter-of-factly, not as a retaliatory tactic.
- c. Stay as disinterested and as disengaged as possible. Like the lyrics of the old Billy Preston song says, "nothing from nothing leaves nothing," and that's precisely what you want to give the auditor... nothing.

**How can you prepare for a first amendment audit?** Audits differ in style and tactics, and the methods used are as varied as the personalities of the auditors. However, these five steps can help you prepare for an audit.

**1:** Have a realistic understanding and expectation about privacy. In public places, people have the legal right to record others and anything that can be seen from a public place. I know it's infuriating; I don't like it either, but it's a fact, so deal with it.

**2:** Assume you are being videoed whenever you are on the job. You are almost always on camera in commercial locations and at many homes. Let this fact guide the way you do your job.

- Don't take shortcuts, cut corners, or skip safety procedures. Realize that any violation will likely be captured on camera and could come back to haunt you.
- People will record what is going on around them just for the sake of having something to do or something to post on social media.
- Expect any disagreement or confrontation to be recorded.

Assuming that you're being videoed when on the job will take away much of the auditor's ambush advantage. If you continually follow these suggestions, you won't need to worry about what an auditor may have already captured on video before you were ambushed, and you can focus on your proactive response.

**3:** Establish a worksite perimeter. At every jobsite, establish a visible work zone. This will help keep people from closing on you unnoticed and help you to identify potential threats, and will provide a means of creating distance and defusing the intensity of the encounter.

- Establishing a work zone perimeter in a public area provides a legally defensible restricted area.
- A perimeter can be a simple area designated by safety cones (18-inch or higher cones work well).
- A field crew can use vehicles, equipment, cones,



reflective tape, or other identifiable barriers to create a perimeter.

An established perimeter provides greater authority and leverage. It gives you a demarcation point that you can require others to honor as a safety precaution. For example, a video showing an auditor ignoring your request to stay outside the perimeter for safety reasons will expose the auditor as the aggressor and demonstrate their purposeful interference. If asked about specific safety rules, you can simply respond that “due to potential safety hazards, unauthorized personnel must remain outside the work zone.” You’re not required to specify the hazards or elaborate further.

**4:** Develop a company-wide response protocol. Determine the best approach to handling an audit for the way that you work. Don’t try to build a step-by-step procedure, but a fundamental approach for handling an audit.

- Develop a technique to alert others of your situation. Establish a subtle means of notifying the office or others about what is going on. For example, you can use a code word or phrase for radio, phone, or text messages that will not add to the drama the auditors hope to create.
- If possible, have someone else contact law enforcement. Loudly proclaiming that you’re calling the police is something auditors anticipate and look for as another way to add drama. But, of course, this doesn’t preclude you from calling 911 if your safety is in jeopardy.
- Decide if your standard practice should be to disengage immediately and leave the site if possible.
- Develop a few practical methods for setting up a perimeter that can be part of a company-wide standard practice. Put it in writing. A written safety protocol will add validity to your use of a perimeter to keep an auditor at a distance and strengthen your legal defense if challenged in court.

**5:** Sharpen your security skills. Your security skillset should include situational awareness, de-escalation, and incident response skills.

- Situational awareness is key to recognizing and responding to any security threat. Solid awareness skills will help you identify most threats before they can waylay you. And yes, First Amendment Audits are security threats.
- De-escalation skills help you maintain control of your emotions and manage conflict. This skill is critical during a First Amendment Audit.
- Proactive response skills help you regain positive incident control, remain professional, and minimize the risk of an inappropriate response. Remember, auditors are hoping you overreact, so

you remaining professional will be a disappointment.

The best way to gain and sharpen the necessary skills is through training. But be sure that the training meets your specific needs and addresses the unique issues of your industry.


Finally, First Amendment Auditors are known for their boldness and audacity, not their intellect and cleverness. Preplanning and training can provide the tools you need to neutralize the encounter. No matter their stated goals, audits are done for personal gain, and the auditor’s reputation and revenue are tied directly to the number of clicks on their videos. Their success depends on the interest and reaction of viewers. So, the less you interact with an auditor, the less profitable the encounter will be. So remember, “nothing from nothing leaves nothing” and your goal in an audit should be to give them just that! **ESM**

*Jim Willis, CMAS, president of InDev Tactical, is a security expert with more than 40 years of experience working with utilities. Jim has a bachelor’s degree in electrical engineering, and a master’s in international development and security. He is a credentialed homeland security specialist and anti-terrorism expert with expertise in counterterrorism, threat assessments, training, and security operations. Jim has worked with government and private sector clients in over 40 countries. He can be reached at [jim.willis@indevtactical.net](mailto:jim.willis@indevtactical.net).*

**“ 3 out of 4 Excavation Safety Guide readers kept and used the guide for the entire year ”**

Our guide covers safe digging topics from pre-planning to job completion. Includes a comprehensive resource directory field crews will use all year long! An essential tool for ALL ground disturbers.

**Get yours at:**  
**[ExcavationSafetyGuide.com](http://ExcavationSafetyGuide.com)**





# MINNESOTA PILOT PROGRAM UPDATE: GPS ENABLED LOCATING SYSTEMS

*Communities across the State are using Cutting-Edge GPS Locating Technology to Improve Accuracy of Underground Utility Maps*

BY BARBARA CEDERBERG, COO GOPHER STATE ONE CALL

The first and ongoing phase of the Minnesota Underground Utility Mapping Project Team (UUMPT) was to introduce two leading GPS underground utility locating systems to communities across Minnesota. The goal of introducing these locating systems was to enable facility operators to map utilities more accurately in a timely manner and to increase awareness of this new capability. The results to date of this pilot project highlight that it has become easier to attain high quality, accurate underground utility maps, and the benefits of doing so should have a significant impact on reducing damages of underground utilities.

Since the publication of the article “Gopher State One Call Launches Statewide Pilot Program” in the fall 2021 issue of *dp-PRO*, this pilot project has continued, and new facility operators are constantly being added to the pipeline of interested parties.

The pilot project participants have embraced this effort of putting new technology into the hands of Minnesota facility operators and contractors. The GPS-enabled locating systems being used are the Vivax-Metrotek vLoc3-Pro RTK locator, supported by UtilityLogic, and the GPS utility mapping solution provided by Subsurface Solutions using the Radiodetection 8100 locator. The project was initiated in August 2020, and the methodology includes a 30-day trial of either system with the support of UtilityLogic or Subsurface Solutions. The support includes training, mapping software and data management capability. Each participant’s experience is reviewed upon completion of their trial.

To date there are more than 20 municipalities, two major facility operators and four contractors who have participated in the program. This project summary is the result of personal interviews with each participant:

## Positives:

- Ability to capture GPS data efficiently while locating without loss of locating productivity (Several of the pilot project testers have found the GPS enabled locators so useful they have arranged to purchase the equipment and put it into permanent use.)
- More accurate locating
- Increased trust in utility maps
- Able to “walk back” to previously GPS located lines and features
- Easy to use; a small learning curve
- Customizable feature descriptions
- Direct link capability via the cloud to facility operator GIS system
- Not much gear to carry around
- Easy to update infrastructure maps with more accurate data
- Simple, stable and affordable locating and mapping options
- Captures features

- Reliable
- Easy to map an entire development
- Eliminates a second trip to the field to capture accurate line and feature data

## Negatives:

- How to differentiate more accurate maps from less accurate maps (Separate map layers based on accuracy level and collection method were used by several pilot project participants to address this concern.)
- Affected by trees and time of day, as is true with all survey equipment

This effort of putting new GPS enabled locating technology into the hands of Minnesota facility operators and contractors has been very successful. GPS-enabled locating mapping systems have been evolving for several years and will continue to improve capabilities. This pilot project highlights that these systems provide highly accurate GPS data, are easy to use in the field by all skill levels of personnel, provide an easy process to update utility maps, and are cost effective. The use of these systems should result in more accurate maps, leading to a reduction in underground damages. In addition, this capability should improve efficiency in design engineering projects by having an increase in accuracy of facility operator maps. **ESM**

*If you have questions about the technology being used in the UUMPT pilot project, contact Joe Rubbelke, Director of UtilityLogic at [sales@utility-logic.com](mailto:sales@utility-logic.com) or Travis Beran, President of Subsurface Solutions at [travis@subsurfacesolutions.com](mailto:travis@subsurfacesolutions.com).*





# NUCA STAR



# Shines Brightly

## For Our Industry's



BY ROBERT BAYLOR,  
NUCA DIRECTOR OF COMMUNICATIONS

Artwork Courtesy of Petticoat-Schmitt Civil Contractors

## Safe Jobsites



**W**ith our members, jobsite safety is paramount. Bluntly put, excavations can injure or kill, so nothing is more important than keeping everyone safe on a worksite.

The National Utility Contractors Association (NUCA) prides itself on its top member benefit: their safety programs offered to members. Safety must be a vital component of every utility construction jobsite and across every employee activity.

Beginning in 2022, NUCA's leadership introduced the NUCA Safety, Training, Awareness, and Recognition (NUCA STAR) program. The NUCA STAR program was developed by the association's Safety Committee to help evaluate, update, and recognize a member company's safety program and practices. Members who volunteer to participate should see lower incident rates and accidents on their jobsites and in their company facilities.

The program allows every company in the American utility construction industry to measure the effectiveness of their safety program and recognize how it could be improved. The NUCA STAR program includes Bronze, Silver, Gold and Platinum categories that allow companies to review their processes and evaluate their safety program's strengths and potential areas of improvements.

The program evaluates a company's safety program in four core areas: Leadership, Records

Management, Culture, and Procedures. Under these areas are subsections scored on a point system meeting specific guidelines that a company must meet for each category.

Leadership is extremely important in a company's safety program. Company executives must also be involved across the company's safety culture and support its programs and goals. The evaluation includes carefully examining the company's existing safety mission statement, safety procedures, safety training and allocated resources, and individual employee safety evaluations and performance reviews.

Culture is measured through analyzing employees' engagement in safety awareness, a company's substance abuse and awareness program, leadership safety meetings, new hire orientations





## “THE PROGRAM ALLOWS EVERY COMPANY IN THE AMERICAN UTILITY CONSTRUCTION INDUSTRY TO MEASURE THE EFFECTIVENESS OF THEIR SAFETY PROGRAM AND RECOGNIZE HOW IT COULD BE IMPROVED.”

and training, and the company’s safety program goals and reviews.

The Procedures category includes questions about a company’s accident and incident investigation process, incident response procedures and policies, safety rules and policies, toolbox talks and employee safety training, inspection processes, personal protective equipment procedures, and vehicle and mobile equipment procedures and policies.

The NUCA STAR program is available year-round for members and non-members to use. Submissions for the program can be made at any time during the year.

Since the program started, several company safety programs have been evaluated. Two have been awarded the top Platinum Level status. One of them is Petticoat-Schmitt Civil Contractors of Jacksonville, Fla. “Congratulations to Petticoat-Schmitt,” said Mike Flowers, NUCA’s director of safety, education, and training. “Their safety program is a shining example of a company that puts an emphasis on jobsite safety. Their leadership’s strong commitment and support ensures that their employees make it home safely when the working day is through.”


Their company leadership found the program to be very helpful for their existing procedures. “Benchmarking ourselves against our NUCA partners and raising awareness for better practices in the industry are qualities that make NUCA’s safety programs great,” remarked Kirk Blomgren, safety VP at Petticoat-Schmitt.

There is no fee to participate in the NUCA STAR program, but members can make a donation to the NUCA Safety Ambassador Club to further the association’s educational and training programs. A detailed outline of the NUCA STAR program is available online ([www.nuca.com/nucaSTAR](http://www.nuca.com/nucaSTAR)), along with the application.

NUCA’s many safety programs also include the annual Trench Safety Stand Down. In the June 2022 event, 23,007 employees participated in a training event held by 345 companies on 1,978

jobsites across the nation. The association’s safety program includes company crew leader training opportunities, as well as an ongoing Train-the-Trainer program for advanced industry safety professionals.

NUCA also has several new safety and training programs coming in 2023 to help the industry keep their employees safe in the trenches. NUCA will put a stronger focus on our Train-the-Trainer program, seeking to host a class in each of the five NUCA regions. The idea behind this expansion is to train as many Competent Person and Confined Space Instructors for the industry. This would allow members more flexibility in training more “boots on the ground” employees.

NUCA also will be offering a Project Management Course in 2023. This will be a four-day course and is designed for more senior leadership personnel. NUCA is also in the early stages of implementing an Apprenticeship Program that will hopefully be available in late 2023 to early 2024. 

*Find out more about NUCA’s safety programs at [nuca.com/safety](http://nuca.com/safety).*

# CELEBRATING 40 YEARS!

FEBRUARY 26 TO 28, 2024  
BANFF SPRINGS HOTEL IN BANFF, ALBERTA



**Utility Safety Partners invites** you to the majestic Banff Springs Hotel nestled in the heart of the Rocky Mountains of stunning Banff, Alberta to celebrate its 40th anniversary delivering damage prevention services! This “Don’t Miss” event of 2024 will explore Alberta’s collaborative damage prevention history as we evolved from Alberta One-Call to Utility Safety Partners – a unified damage prevention, education and training service. We’ll celebrate the visionaries, their hard work and successes; and cast our views forward to the future. The event will also host a series of concurrent safety conference sessions, a tradeshow and entertainment. **Follow #USP2024 for more information coming soon!**

**UTILITYSAFETY.CA**



# THE LEGEND OF BAD DIGGER BOB

BY DOUG BECK

Many years ago, Bob Smith was one of the premier operators of heavy equipment used for excavations. Bob's name was synonymous with quick, efficient and completing jobs ahead of time. Developers would line up for his service unknowingly.

You see, Bob's methods of digging were unconventional and lacked any known safe digging practices. He would subvert state laws on 811 requirements, or he would fail to follow instructions from oil and gas companies on how to safely excavate around HVL or high-pressure lines. Encroachment guidelines and letters of no-objections were never executed or followed along with requests to have company personnel onsite during excavations.

Bob got away with it for quite a while, but as with all things good things they must come to an end.

On this day, Bob was working a big site that was his biggest payout if completed ahead of time. So, Bob was working his track hoe at a pace that would have normally been two track hoes at work. The developer was ecstatic with the near completion of the work.

Bob was feverishly working to complete excavating and dreaming of what he was going to do with the huge bonus for completion when an ominous sound was heard from the trench. That sound was one no excavator wants to hear -- metal on metal contact. The sound sent chills through Bob and those chill bumps were the last thing Bob would ever feel. He did have the fleeting thoughts of his wife and kids and how he would no longer have those family meals, family vacations, future children, future grandchildren, and growing old with his wife.

After the fire was contained and extinguished Bob was unrecognizable. He was confirmed deceased by matching DNA found at the jobsite to DNA of his children. A makeshift memorial was set up onsite for Bob and will be a constant reminder of the cost of taking shortcuts when excavating. **ESM**

This is Bob



Don't be like Bob  
Call 811  
Follow laws and  
expectations  
Dig Safe

## FOLLOW THE RULES

- Call 811 and make sure all utilities respond.
- Follow all instructions, meetings and expectations of utility operators.
- Continue to maintain the marks made by the utility operators and when they can't be seen, call for updates.



# TIPS FOR

# getting the Most out of attending a Conference

BY SCOTT LANDES

**STRENGTHENING EXISTING RELATIONSHIPS AND MEETING NEW PEOPLE** you can learn from happen best in face-to-face situations, which is an irreplaceable part of live conferences. This article will provide a quick refresher on how to get the most out of a conference. Conferences can really accelerate your personal growth, but they require a significant investment of both time and money, so allocate time to prepare. For most people, the main business objectives are education, looking at new technology, and networking. Preparation will ensure success.

Preparation does not mean scanning through the app on the flight to the conference to look for some sessions you want to attend. Here are some tips I have learned from nearly 40 years of attending conferences, producing conferences, and exhibiting at conferences.

## Written Goals

- Only choose two or three so you can really create a plan to ensure you achieve them.
- Make sure they are clear goals that you will know definitively that you've achieved them. These can be simple things like: I will learn three new things we can do to reduce damages, or I will meet three specific people, etc.
- If you really want to be sure you achieve your goal, share them with someone else in advance and plan to meet with them again after the conference to review your achievements.

## Plan

- Review the sessions well in advance so you can create your personal schedule to ensure you meet your goals.
- Pick at least one or two sessions or workshops that don't exactly match your business or your responsibility. This allows you to learn something totally new and down the road, it may be helpful. (If you are at the conference to learn about GPR Technology, don't be afraid to attend a session on Educating the Next Generation or Underground Damage Claims, etc.)
- Stay flexible. Even though you plan your days, something might come up that you weren't anticipating. A session you didn't have on your schedule, a really good discussion you are having in the halls, or a great one-on-one learning experience you are having with a vendor.

## Don't Skip Sessions

- It can be tempting to extend lunch, etc., but hopefully there is at least one session in each time slot that applies to you. For me, if I can get one good takeaway from a speaker, I am happy. Sometimes a speaker just gets me refocused on something I may have known but let slip to the back burner.

## Take Good Notes

- I try to focus my notes on action items I feel I can implement soon, or sometime in the near future.
- Take your notes so that you could summarize what you learned and pass it on to someone else on your team. If you provide a good summary to others when you return my guess is that you will have a better chance of being authorized to attend more conferences.

## Network Proactively

- Stay in touch with people you meet and use your contacts as sounding boards and for input/ideas throughout the year. (These new contacts can become your own personal "board" to bounce ideas off during the year.)
- At meals, in sessions, and at networking events do not sit with people from your company (at

least not from your location). Sit next to people you do not know, and you may be surprised by the connections you will make.

- Do not pass on the "fun" networking events. Don't think "I am here on my company's dime to learn, not have fun." Conferences can be long, tiring days. You need to relax and have fun... and it's the best way to meet new people in the industry (Social Night, Welcome Receptions, Golf Outing, etc.)

## Tag Team

- If you attend a conference with others from your company, consider planning in advance who will attend which sessions so when appropriate you are all learning different things.
- Some teams meet for 10-15 minutes in the morning and/or the afternoon to compare notes and share ideas.

## Get to know the App

- Apps are great because they all have planning tools built in and they are real time, so if a speaker cancels or a room changes the app will likely have the current info.

## Spend Time on the Exhibit Floor

- Learning about new technology/services face-to-face in a booth is invaluable. Professionals staffing these booths are generally extremely focused trying to solve problems and improve efficiencies.
- Visit with companies you know but be sure to look for new ideas and companies you are not familiar with. Stop at those booths to make new connections.

I strongly recommend turning all your notes on sessions and new contacts into a written summary. This summary can contain all your action items and takeaways, as well as tips on what you might do differently if you attend the conference again. If you really want to increase your chances of attending future conferences, provide this summary to your supervisor. **ESM**

Check out a free recording of my orientation session for our 2023 Global Excavation Safety Conference at [www.ExcavationSafetyAlliance.com](http://www.ExcavationSafetyAlliance.com).



## Locator Certification – an Australian Success Story

BY ROBERT ROW

In Australia, the Certified Locator program has been running successfully since 2015. The national program was established following concerns from utility owners about the inconsistency of locating skills and expertise, the damage occurring to their assets, and the risk this posed to workers and the public. They wanted something in place to distinguish professional locators from the various “DIY” or self-authorized locating operators and minimum standards established that supported best practices.

To ensure an appropriate solution met key needs, a cross-industry working party was established.

The collaboration and cooperation between Australia’s notification center (Before You Dig Australia), NULCA, major utility owners, and representatives from the construction and training industries resulted in the creation of Australia’s Certified Locator program.

Today, the Certified Locator program is managed by DBYD Certification Ltd (DCL), whose mission is to have “Every Locator a Certified Locator.” DCL oversees the certification of underground facility locators and ensures they have the required skills and experience to identify critical buried facilities. Furthermore, when ground disturbers use a Certified Locator, they know that locator has been through a rigorous assessment and has the expertise to complete all types of location work to accepted industry standards.



**CERTIFIED  
LOCATOR**  
[www.dbydlocator.com](http://www.dbydlocator.com)

The assessment includes competent use of equipment, workplace safety knowledge and compliance, locating theory, proper locating, marking, and verification procedures. As of 2022, there are close to 900 certified locators in Australia.

Instilling the value of the program even further was one of Australia’s major telecommunications utility, Telstra, which mandated only operators with Certified Locators can conduct locates on their vast network. This saw DCL enter into a service agreement with Telstra in 2019 to manage the Certified Locating Organization program –

which requires locating companies to register their Certified Locators with DCL and observe certain criteria, such as equipment compliance, contract insurance, safety standards, etc.

The success of this endeavour led Telstra to claim that the “engagement of a certified locator is the most effective way to prevent damage to underground assets.” Since then, several other utilities either mandate or endorse the Certified Locator program.

Another utility who experienced success with the Certified Locator program is a major Australian gas utility that approached DCL for a solution to address work crews failing to adequately identify underground utility assets. A program was developed to provide a Certified Locator for each work crew. The program commenced in 2019, and today that utility has 65 Certified Locators. A recent report to the CEO stated the utility had seen a 40% reduction in utility strikes. In dollar terms, this is close to \$400,000 of savings in direct damage costs with the indirect and societal costs being up to 29 times that amount. When you factor in the direct cost of training each certified locator was less than \$3,000, this is indeed a success story.

In Australia, Before you Dig Australia is the national notification system that acts as the nexus between ground disturbers and the utilities. Their enquiry system notifies utilities in the dig area to distribute plans and utility requirements to each enquiry. Following an arrangement DCL made with Before you Dig Australia in December 2022, all enquiries (known as a “referral”) also include a list of Certified Locating Organizations that service the dig area.

The Certified Locator program still has a long way to go but the seeds of success have been planted and our mission to have every locator become a Certified Locator is well underway. 

**TODAY, THE CERTIFIED LOCATOR PROGRAM IS MANAGED BY DBYD CERTIFICATION LTD (DCL), WHOSE MISSION IS TO HAVE “EVERY LOCATOR A CERTIFIED LOCATOR.”**

In 2019, the program went international with New Zealand’s beforeUdig adopting the program. The following year, it was launched in Canada as the Canadian Certified Locator Program.

To gain certification, locators must pass a comprehensive theory exam and practical field assessment by an independent industry assessor.





# Pre-Excavation Checklist Before **EVERY** Excavation

## IN THE OFFICE

- Review all drawings, plans, engineering blueprints for existing buried facilities
- Proposed excavation area has been marked in white paint and/or flags
- Contact 811 at least 2-3 business days before excavation (check your state One Call laws)
- Locate ticket number is posted at the work location
- Onsite meeting scheduled with all high profile facilities in locate area (gas/oil pipelines, high-voltage cables, fiber optic)

## ONSITE

Complete a pre-excavation walkthrough of the entire jobsite and adjacent areas

### Visual Inspection of Jobsite: Permanent markers:

- Signs or marking posts
  - Pavement markers (stamped nails, pavement decals, A-tags™)
  - Surface markers
- Other surface signage for landscaped areas
- Locate marks
- Consult any maps or field sketches of the location
- Identify all services to buildings such as:
  - Gas meters
  - Farm taps

- Pipeline valves
- Cable pedestals
- Electric cables
- Water valves
- Telephone closures
- Look for evidence of trench lines from previous excavation
- Look for cleared pipeline ROWs
- Talk with the property owner or general contractor to identify potential private facilities that may not be marked:
  - Lighting
  - Outbuildings
  - Pools/Spas
  - Irrigation
  - Sewer laterals
  - Propane tanks
  - Communications lines

### Document of Jobsite:

- Compare actual jobsite to One Call ticket
  - One Call ticket covers the scope of the work
  - One Call ticket "Work to Begin" date is valid
  - All utilities have responded
  - All facilities are marked within the excavation area
- Photograph the jobsite
  - Locate marks and flags from 360° at varying distances for perspective
  - Permanent signage and location relative to the dig area:

- Note location, height, and operator of overhead lines
- Note all required safety signage

- Video and/or sketches where pertinent

## BEFORE YOU DIG

- Review safety information with anyone working the job
- Confirm with facility owner vacuum or hydro excavation is scheduled for all pipelines impacted
- Locations for hand digging within the tolerance zone are noted
- Representatives for all critical facilities are present
- Emergency equipment available when hazardous atmospheres are potentially present
- List of all emergency contact numbers for assets in and adjacent to the dig zone is readily available
- The location and route to the nearest hospital is known by onsite supervisors

This document is provided for informational purposes only and does not constitute professional advice. It is intended to be used as a guide in the development of a checklist specific to your situation and may not be inclusive of all pre-excavation activities required of your situation. Consult your company's appropriate management before implementation. Excavation Safety Guide and Excavation Safety Magazine, its employees and agents accept no liability and disclaim all responsibility for the consequences of acting, or refraining from acting, in reliance on the information contained in this document or for any decision based on it, or for any consequential, special, incidental or punitive damage to any person or entity for any matter relating to the contents of this document.



## Locator Certification vs. Locator Competency

BY JAMIE ANDERSEN, PRESIDENT CAPULC

The topic of Locator Certification versus Locator Competency has been a debated topic for many years and, more recently, a “hot topic” in the Underground Facility Locating Industry. The Canadian Association of Pipeline and Utility Locating Contractors (CAPULC) has had its challenges with past projects in relation to advancing and uniting training initiatives for locators while seeking recognition for their craft in the Industry.

CAPULC’s role was not designed to develop or endorse specific training or recommend one training provider over another. We do recognize that




So, what is CAPULC working on? CAPULC’s mission and objectives are clear: “We provide leadership, promote safety and enhance the value and reputation of the Underground Facility Locating Industry in Canada”.

In 2021, CAPULC set out its objectives for their Education and Standards Committee. Our guidelines were to develop a National Underground Facility Locating and Marking Standard. The intent of this document was

designed to ensure consistent practices across the country while allowing provincial and industry modifications in the future. With the help of a third-party contractor, we collected an inventory of resources available to us from a variety of sources across Canada. Over the ensuing months, we worked tirelessly to meet this initiative and successfully create a National Underground Facility Locating and Marking Standard, soon to be released! The introduction of this document explains that it “represents best practices based on the accumulated experience and consensus among the majority of CAPULC member companies for locating underground infrastructure and related tasks beyond those captured in regulation and current certification” and “establishes a meaningful reference tool to enhance learning for a locator as a complement to the existing industry’s knowledge base and documentation.” Upon further inspections of this document, you will find foundational information on roles and responsibilities, worker and site safety, qualifications and certifications, equipment, facility marking, steps necessary in performing a locate, documentation and so much more!

To ensure we had industry participation, collaboration, and acknowledgement, this document was exposed to Industry through two 30-day feedback releases Canada-wide. With the valuable comments and overwhelming support received, CAPULC is now at a pivotal moment for release of this document as their First Version. We couldn’t be more proud of this accomplishment. However, as important as it is looking back at accomplishments, we are always looking toward the future. We have kept a detailed log for continuous improvement items and will want to address these in future releases. We must also consider our next steps. While training facilitators can deliver theoretical knowledge, what do we do to ensure skills, experience and behaviour requirements are being met? How can we continue to assist training providers in advancing their programs, support locators in closing the loop for competency requirements needed to meet this new Standard, and finally, how do we continue to promote our Association’s mission, objectives and support our members with the growth of the Locating Industry?

We want to thank Infrastructure Resources and the Excavation Safety Alliance for the opportunity to share this information. 

**BY ESTABLISHING THE HIGHEST POSSIBLE STANDARDS FOR THE INDUSTRY, OUR OBJECTIVE IS TO PRESENT A GENERATION OF QUALIFIED, COMPETENT LOCATING TECHNICIANS, TRAINED TO EXCEL IN THEIR FIELD. STANDARDIZATION AND COMPLIANCE TO THE RULES AND REGULATIONS WILL BENEFIT EVERYONE IN THE UNDERGROUND PIPELINE AND UTILITY LOCATING INDUSTRY.**

**TOGETHER WE CAN ENCOURAGE THE LOCATE INDUSTRY AND THE GROUND DISTURBANCE COMMUNITY TO MEET AND EXCEED SAFETY EXPECTATIONS, PERFORM EACH JOB WITH DUE DILIGENCE, AND GOVERN THE APPLICATION OF RULES AND REGULATIONS AS THEY PERTAIN TO THE INDUSTRY.**

some facility owners and training partners in the industry are offering courses created with the intuition to improve facility locator competency. We always encourage our members and others seeking a training program to do their research and explore the course(s) that best meet their current requirements and locations.



# There's a Mouse in the House – Meet “Click”

• SUSAN BOHL, OKIE811 •

**WITH LONG HOLD TIMES** and limited resources in our contact center, we decided to get creative and come up with a campaign that would help drive more people to submit their locate requests online. With this new campaign, we are introducing a new character to the OKIE811 family to help us drive this message. Meet “Click” the mouse. “Click” uses his Looney Toons style to help spread the message about Clicking Before Digging!

Click is a buddy to OKIE D. Critter, our current mascot who currently helps remind people to contact OKIE811 before digging. But Click is a goofy young person who thinks he's helping, when in actuality, he's not following safety protocols. OKIE finds himself chasing after Click and reminding him to “CLICK... Before You Dig!!”

We feel like Click will help us reach children and younger people since he's closer to their demographic and an easier character for them to identify with. Additionally, younger people are more inclined to use their computer, an app, or an iPad when conducting business.

In Click's debut performance, he finds himself hitting an electric line and taking out power to the neighborhood. This is currently airing during college






football and across many local stations. Future episodes of Click's endeavors will show him hitting a water main because he forgot to make sure a locate request was submitted at least three business days before digging. Following that, we plan to show the consequences of Click's lack of care and concern for safety when he takes out a major fiber line and shuts down vital services used by those working from home.

We believe in hitting as many demographics as possible with our safety message. Educating young people helps them grow up to know the process when they plan a digging project. We also believe that young people help hold older people accountable by forewarning them about going online and submitting a locate request. **ESM**



Utility Training Academy (UTA) specializes in damage prevention training programs designed to build and advance the knowledge and skills needed for accurate line locating and excavation safety.

-  **Utility Locator Training**
-  **Pipeline Locator Training**
-  **Excavation Safety Training**

Book your training today!

**UTATRaining.com | (888) 882-8777**

## YOUR DAMAGE PREVENTION TRAINING PARTNER



Damage prevention training courses built to fit your needs.







MISSOURI COMMON GROUND ALLIANCE

INTERNATIONAL

# LOCATE RODEO



1001  
Date 12/9/22

Steve Comacho \$ 2500.00

Twenty Five Hundred and 00/100 Dollars

Locate From Hall MCGA

Authorized Signature

123456789 000123456789 1001



# Flingin' Flags & Sprayin' Paint at the 2022 International Utility Locate Rodeo


• MARK WOODWARD •

**COMPETITION DAY** at the International Utility Locate Rodeo (IULR) featured sunny skies and mild temperatures in Springfield, Missouri, as 75 volunteers from multiple states and industries welcomed 92 competitors from 22 states. Held on December 7 & 8, 2022, this was the second International Utility Locate Rodeo organized and operated by the volunteers of the Missouri Common Ground Alliance (MO CGA).

The MO CGA believes that utility locators are a critical first step to safe excavation, and we are honored to host the event that recognizes utility locating professionals from all over. The purpose of the International Utility Locate Rodeo is to provide an opportunity for locating professionals to show off and have pride in their skills in a fun, rewarding, and competitive environment, with industry recognition and cash and prizes along the way!

A special thank you goes to our sponsors (below), who went above and beyond to make sure the 2022 IULR was a success. Without the support of these companies, the International Utility Locate Rodeo simply would not happen. Please consider supporting our locators and the 2023 IULR!

- Springfield, MO City Utilities ([www.cityutilities.net](http://www.cityutilities.net))
- Missouri811 ([www.mo1call.com](http://www.mo1call.com))
- Subsurface Solutions ([www.subsurfacesolutions.com](http://www.subsurfacesolutions.com))
- Radiodetection ([www.radiodetection.com](http://www.radiodetection.com))
- Vivax / Metrotech ([www.vivax-metrotech.com](http://www.vivax-metrotech.com))
- Liberty Utilities ([www.libertyutilities.com](http://www.libertyutilities.com))
- UtiliSource ([www.utilisource.com](http://www.utilisource.com))
- USIC ([www.usicllc.com](http://www.usicllc.com))
- Marsh & McLennan Agency ([www.marshmclennan.com](http://www.marshmclennan.com))

Mark your calendars for the 2023 IULR, December 6 and 7 in Springfield, MO. The crew is planning an incredible event including free training, memorable evening events, special competitions, and lots of fun! Keep an eye on [www.locaterodeo.net](http://www.locaterodeo.net) for updates. 

*The 2023 IULR will be held in conjunction with the 2023 Damage Prevention and Excavation Safety Summit. See more about the Summit at [www.mocommon-ground.org](http://www.mocommon-ground.org). Questions and inquiries about the Summit or the IULR can be emailed to [mocommonground@gmail.com](mailto:mocommonground@gmail.com) or contact MO CGA President Mark Woodward at [mwoodwar@mem-ins.com](mailto:mwoodwar@mem-ins.com) or 573-289-5990.*

**Congratulations to the 2022 MOCGA International Utility Locate Rodeo Winners!**

**2022 International Utility Locate Rodeo Grand Championship Winner: Steve Camacho – USIC – SCORE 998.5**

<b>Electric Division Wheel 1 Winner</b>	<b>Efrain Nava – Pacific Gas &amp; Electric - SCORE: 999.5</b>
<b>Electric Division Wheel 2 Winner</b>	<b>Nicole Dochterman – City of Columbia, MO - SCORE: 998.5</b>
<b>Electric Division Runner-Up</b>	<b>Mark Willers – Springfield, MO City Utilities – SCORE 1995.5</b>
<b>Electric Division Winner</b>	<b>Efrain Nava – Pacific Gas &amp; Electric – SCORE 1997</b>
<b>Gas Division Wheel 1 Winner</b>	<b>Jermaine Edwards – Pacific Gas &amp; Electric – SCORE 998.5</b>
<b>Gas Division Wheel 2 Winner</b>	<b>Steve Camacho – USIC – SCORE 993</b>
<b>Gas Division Runner-Up</b>	<b>Jermaine Edwards – Pacific Gas &amp; Electric – SCORE 1860.5</b>
<b>Gas Division Winner</b>	<b>Steve Camacho – Pacific Gas &amp; Electric – SCORE 1987.5</b>
<b>Telecom Division Wheel 1 Winner</b>	<b>Camryn Charlton – USIC – SCORE 997</b>
<b>Telecom Division Wheel 2 Winner</b>	<b>Brandon Smith – UtiliSource – SCORE 1000</b>
<b>Telecom Division Runner-Up</b>	<b>George Ross – USIC – SCORE 1986.5</b>
<b>Telecom Division Winner</b>	<b>Nathan Kinney – USIC – SCORE 1992.5</b>
<b>Water Division Wheel 1 Winner</b>	<b>Timmy Watson – City of Columbia, MO – SCORE 995</b>
<b>Water Division Wheel 2 Winner</b>	<b>Toby Graham – Bloodhound – SCORE 997</b>
<b>Water Division Runner-Up</b>	<b>Stephen Keith – City of Columbia, MO – SCORE 1875.5</b>
<b>Water Division Winner</b>	<b>Timmy Watson – City of Columbia, MO – SCORE 1991</b>

## DIRT FACTS CGA

EXCERPTED FROM THE 2021 DIRT ANNUAL REPORT

### Reported Damages – Equipment Type

- **BACKHOE – 76,734**
- **HAND TOOLS – 34,135**
- **BORING/DIRECTIONAL DRILLING – 19,521**
- **TRENCHER/BULLDOZER – 16,514**
- **AUGER/DRILLING – 6,903**
- **VACUUM – 1,348**
- **OTHER – 1,878**

WANT TO KNOW MORE? THIS INFORMATION WAS EXCERPTED FROM THE 2021 DIRT ANNUAL REPORT. ACCESS THE ENTIRE REPORT AT [CGA-DIRT.COM](http://CGA-DIRT.COM).



# NUCA Safety Directors Forum

**THE NUCA SAFETY** / Damage Prevention Conference, held in Denver, offered the opportunity for members involved in safety and damage prevention to hear from experts on a wide variety of topics that impact the industry and allowed networking with others from across the country.

One initiative worth keeping an eye on is the development of the **Trenching and Excavation Safety Taskforce (TEST)**. Supported by many companies and NUCA of Colorado, their mission is to create industry awareness and drive insight into trenching and excavation safety, collaborating without organizational or geographic boundaries in an effort to improve day-to-day safety for field workers. We look forward to Excavation Safety Magazine helping them spread their message in future issues. **DP**



# 480K+ EXCAVATORS

## RECEIVE OUR EXCAVATION SAFETY GUIDE ANNUALLY!

Download a digital version, request free copies and be part of the mission to protect lives and livelihoods.

[pipelineawareness.org](http://pipelineawareness.org)



SCAN ME



Pipeline Association  
for Public Awareness



# Community Partnership Leads to Stronger Safety Message

• LISA MCKNIGHT •

**THE CITY OF LAWRENCEVILLE** Damage Prevention Department is active when it comes to educating our community on pipeline safety, electrical safety, and the importance of “Calling 811 Before you Dig” by partnering with stakeholders in our service area. We meet our community members at festivals and work with our youth through elementary school visits, utilizing Georgia 811’s mascot, Digger Dog. We also promote National Safe Digging Month and 811 Day.

By far, our largest event with the biggest reach is Georgia’s Gwinnett County Fair. Since 2014, we have worked a full 10 days each September to educate our neighbors about safe digging and underground utility damage prevention. This year brought us an unexpected partnership.

Enter Jolie Dellaneve-Brown, a tenacious young entrepreneur who recently graduated from high school utilizing the home school model. Jolie owns Bit’s Print and Press, a custom apparel business focusing on pressing designs onto merchandise like shirts, mugs, hats, mousepads, and more.

Jolie’s mother passed away when she was just seven years old and her grandparents moved into the role of her guardians and parents, giving her support and love through difficult times, as her father was unable to care for her. The foundation established has allowed her to become the strong woman she is today.

Like many recent graduates starting out, Jolie struggled to find her path forward after graduation. College didn’t seem to be a good fit, and she was unsure about a career path that would bring out her passion. Jolie was introduced to sublimation printing through a teacher in high school. One of her projects was creating and printing a design on a shirt. A passion was born and Bit’s Print and Press was created.

I met Jolie at the Gwinnett County Fair, where she had a booth. We happened to get into a conversation regarding the need for reasonably-priced

shirts and other items that could include the City of Lawrenceville logo. Jolie provided us with a sample and we now had a new community partnership that could help us spread the safety message. We ended up ordering long- and short-sleeved shirts as well as license plate frames for our trucks.

You never know when your involvement in the community will lead to more than just spreading the safe digging message. It might lead to something bigger, a new partnership for the betterment of all!



For more information on Bit’s Print and Press, contact: [bitsprintandpress@gmail.com](mailto:bitsprintandpress@gmail.com). [ESM](#)

*Meet Digger Dog at the Global Excavation Safety Conference on Wednesday, February 15 in the session, Educating the Next Generation: Georgia 811’s Digger Dog Program, presented by Maria Copeland and Megan Estes.*





# Calendar of Events

## January 2023

- 10 – 12 Associated Equipment Distributors Summit (Chicago, IL)
- 17 – 19 World of Concrete (Las Vegas, NV)
- Jan. 29 & Feb. 1 APGA Winter Board & Committee Meetings (Washington, DC)

## February 2023

- 1 & 2 SUE Association Forum (Palm Harbor, FL)
- 5 – 8 National Asphalt Pavement Association Annual Meeting (Miami, FL)
- 6 – 10 Pipeline Pigging and Integrity Management (Houston, TX)
- 7 – 9 SGA 2023 Technical Conference (Oklahoma City, OK)
- 7 – 9 Distributech International (San Diego, CA)
- 7 – 9 ORCGA 2023 Conference (Windsor, Ontario, Canada)
- 7 – 9 Underground Construction Technology International Conference & Exhibition (Orlando, FL)
- 7 – 11 75th Annual PLCA Convention (Koloa, HI)
- 14 – 16 **Global Excavation Safety Conference** (Tampa, FL)
- 19 – 22 RTIME – Rural Broadband Association (San Diego, CA)
- 20 – 22 Arkansas Damage Prevention Summit (Little Rock, AR)
- 20 – 25 DCA Convention (Miami, FL)
- 22 – 25 National Demolition Association Annual Convention & Expo (Phoenix, AZ)
- 25 – 27 National Pavement Expo (Charlotte, NC)

## March 2023

- 11 – 13 Land Improvement Contractors of America 2023 Winter Convention (Las Vegas, NV)
- 13 NUCA Annual Meeting (Las Vegas, NV)
- 14 – 18 CONEXPO – CON/AGG (Las Vegas, NV)

## March 2023 - Continued

- 15 – 17 Associated Builders and Contractors 2023 Convention (Kissimmee, FL)
- 19 – 23 NACE Corrosion 2023 (Denver, CO)
- 16 – 19 Equipment World's Contractor of the Year Awards (Las Vegas, NV)
- 23 UCTA Golf Coast Texas Technology Transfer (Houston, TX)
- 28 – 31 WEF / AWWA Utility Management Conference 2023 (Sacramento, CA)
- 29 – 31 Tennessee Damage Prevention Summit (Franklin, TN)


## April 2023 - National Safe Digging Month

- 23 – 29 **LSAW: Locator Safety & Appreciation Week**
- 24 – 28 AGA Operations Conference & Biennial Exhibition / Spring Committee Meetings (Kissimmee, FL)
- 30 – May 4 North American Society for Trenchless Technology 2023 No-Dig Show (Portland, OR)

## May 2023

- 1 – 3 Broadband Communities Summit 2023 (Houston, TX)
- 1 – 4 NASTT No-Dig Show (Portland, OR)

## June 2023

- 5 – 7 Safety 2023 (San Antonio, TX)
- 9 & 10 National Demolition Association Summer 2023 Leadership Forum (Sante Fe, NM)
- 11 – 14 AWWA Annual Conference & Expo (Toronto)
- 19 – 23 Trench Safety Stand Down Week
- 27 – 29 Kentucky Damage Prevention Summit (Lexington, KY) 

You have  
people  
in the field  
everyday.

Why not  
make the **most**  
of their time?

 **geolantis360**

Geolantis allows  
**easy data collection**  
with set work flows,  
ease-of-use and  
device integration.

Geolantis provides  
**added value** to your:

**Planning & Design**  
**Inspections**  
**Damage Prevention**  
**Legal Compliance**

**Request a  
demo today!**

**+1 949 375 4009**  
contactus@pelicancorp.com



Scan here  
to learn more



pelicancorp.com

The **Global Leader** in  
Damage Prevention Solutions.

**PelicanCorp**

**geolantis360**  
geolantis.com



# Excavation SAFETY

MAGAZINE™



## Readership Survey

Here at *Excavation Safety Magazine*, formerly *dp-PRO*, we always strive to provide content that is educational, informational, and topical. We would like to know what makes *Excavation Safety Magazine* your industry resource for damage prevention; and how we can continue to improve.

After completing this survey, snap a pic and email it to [Karin@IR-SavingLives.com](mailto:Karin@IR-SavingLives.com)

1. How many of the last four issues have you read?

- Four
- Three
- Two
- This issue only

2. I prefer to read *Excavation Safety Magazine*

- Print
- Digital
- Both

3. Including you, how many people typically read your copy of *Excavation Safety Magazine*?

- Just me
- 2-3
- 4 or more

4. How would you rate the overall quality of *Excavation Safety Magazine* content?

- Excellent
- Very Good
- Average
- Poor

5. Have you ever implemented change at work based on what you learned in *Excavation Safety Magazine*?

- Yes
- No

6. How frequently do you visit the *Excavation Safety Magazine* website?

- 1-3 times per week
- 1-3 times per month
- Less than once per month
- Never

7. Have you ever responded to or researched a company based on their ad in *Excavation Safety Magazine*?

- Yes
- No

8. My favorite part(s) of *Excavation Safety Magazine* is:

---

---

---

9. I would like to see more articles on:

---

---

---

10. Is there anything else you would like to share?

---

---

---

### CONTACT DETAILS

Name: \_\_\_\_\_

Job Title: \_\_\_\_\_

Company: \_\_\_\_\_

Contact me by: \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

Complete this survey, or any of our industry surveys, online at [ExcavationSafetyMagazine.com/survey](http://ExcavationSafetyMagazine.com/survey).





# We listen. We adapt. We dig in.



“I really enjoyed the webinar, and I was glad to speak. It’s a big topic in our county and I just presented your farm and ranch guide to my county commission stating I’m going to be handing it out during future training and pesticide applicators renewals in the spring.”

*- Extension Agent, Dunn County, NDSU*

Enhance your public awareness efforts with a unique, engaging approach to rural outreach. The Pipeline Ag Safety Alliance works closely with the National Association of County Agricultural Agents to help deliver safe digging education to farmers and ranchers across the nation. Tracking our “educate the educator” approach with annual documentation, we realize there is no one size fits all.

“Thanks for a great presentation last week! It was very good, and as the Farm & Ranch Safety Coordinator for NDSU Extension, I look forward to resources like this to help our Extension staff across the state!”

*-Extension Agent, Steele County, NDSU*

Learn more at [PipelineAgSafetyAlliance.com](https://PipelineAgSafetyAlliance.com)

Let's  
Grow  
Safety Together





# Canadian Association of Women in Construction

**THE CANADIAN ASSOCIATION** of Women in Construction (CAWIC) strives to facilitate the success of women in the Canadian construction industry by uniting their voices, knowledge, and resources through the passion of their members and the women they inspire.

Established in 1982 as the Toronto Chapter of the U.S. based National Association of Women in Construction (NAWIC), CAWIC separated from NAWIC to launch a Canadian independent association for its membership but continues to maintain its affiliation with NAWIC which operates from its head office in Texas. CAWIC was incorporated as a not-for-profit organization on October 13, 2005. Its growing membership base includes women employed in construction and construction-related fields in Canada. Their members are dedicated to the success and promotion of women in the construction industry.



CAWIC is proudly Canadian, and their leadership thrives on community, empowerment, and growth. The organization gives women the opportunity to demonstrate their leadership and hone their skills by participating on committees and through board positions.

A strategic CAWIC goal is to increase employment, awareness, and development for all women during the various stages of their career journey as they are working for, or within, the construction industry. Their belief is that everyone has a responsibility to actively support the training and development of young professionals entering, or considering entering, the construction industry.



Through their membership, they are building a community with confidence, leadership, empowerment, key expertise, profitable growth, and sustainable resources. Their collective voices are designing and influencing their industry. The value of membership in CAWIC is to create extraordinary career opportunities, significant community contributions, and transformational development seminars through the leadership program.

Working in partnership with individuals, foundations, the not-for-profit sector, government, and the private sector to empower girls and women to be agents of economic development, political stability, social change, and inspire them to pursue more careers in construction. **ESM**

*To learn more about CAWIC or how to get involved, visit [CAWIC.ca](http://CAWIC.ca).*



# NEW ORLEANS 2024



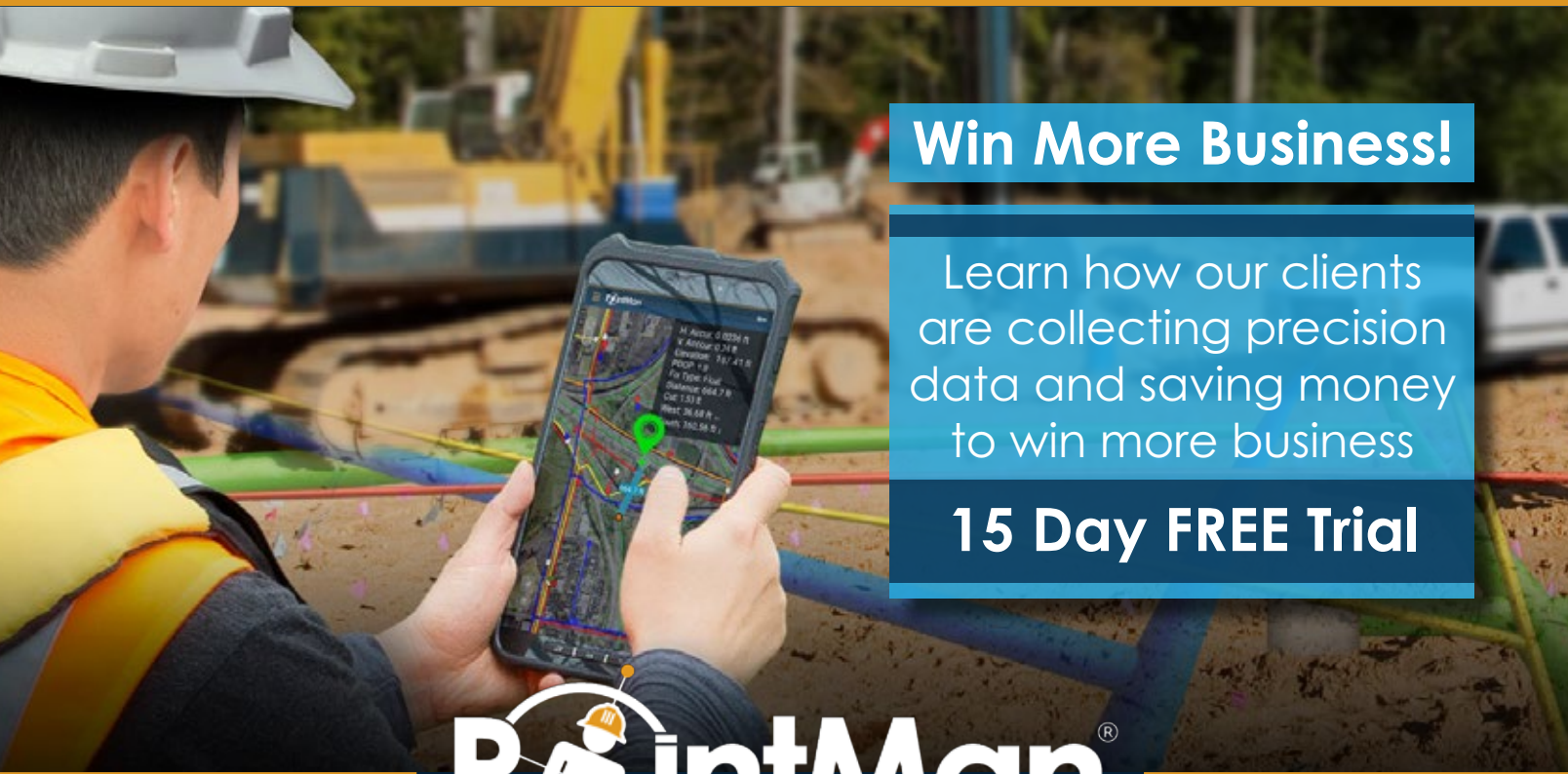
MARCH 19-21, 2024



**INFRASTRUCTURE RESOURCES**

3800 American Boulevard West, Suite 1500  
Bloomington, MN 55437

PRSRTD STD  
US POSTAGE  
PAID  
Infrastructure Resources



**Win More Business!**

Learn how our clients  
are collecting precision  
data and saving money  
to win more business

**15 Day FREE Trial**



## Precision Utility Software

PointMan is a comprehensive cloud and mobile precision data collection and data management solution designed to map and manage both above and below ground infrastructure.

Call to Learn More

**970.360.4065**

[www.pointman.com](http://www.pointman.com)

