Underground Construction Technology International Conference & Exhibition

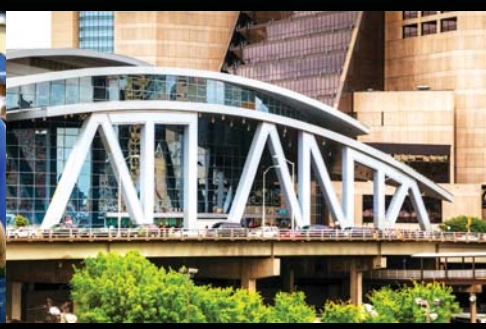
Georgia World Congress Center
Atlanta, GA

Discover UCT 2016 in ATLANTA!

REGISTRATION BROCHURE

Education: Feb. 1-4, Exhibits: Feb. 3-4, 2016



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TT Technologies

INTERPLASTIC CORPORATION

radius TOOLS FOR HDD PROFESSIONALS

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The **Ditch Witch** organization specializes in the design and manufacture of high-quality underground construction equipment. Ditch Witch products are an important part of the history of American industry. The Ditch Witch compact trencher has twice been named "one of the 100 best American-made products in the world" by *Fortune* magazine. The Travel Channel recognized the company's dedication to homegrown products by featuring the Ditch Witch manufacturing facility on its program, "Made in America," hosted by John Ratzenberger. **To learn more, visit Ditch Witch in booth 323**.

HammerHead Trenchless Equipment

HammerHead Trenchless Equipment is a global leader in the design and manufacture of piercing tools, bursting systems, pneumatic hammers and horizontal directional drill tooling. HammerHead products are recognized throughout the industry as the most reliable and productive trenchless tools in the market. **To learn more, visit HammerHead in booth 423.**

J.T. MILLER
DRILL PIPE, DRILL BITS & HDD ACCESSORIES

J.T. Miller Inc. specializes in drill pipe, drill bits and HDD accessories for maxi-rig projects. We offer new and used/premium class drill pipe. We maintain an inventory of high quality TCI and Mill Tooth drill bits, primarily for 8 ½-inch thru 12 ¼-inch pilot holes. Also offered are Gearench tongs and spare parts, as well as tong dies and other items, in stock and ready for delivery. **To learn more, visit J.T. Miller in booth 500.**

TT Technologies

For more than 45 years, **TT Technologies** has been the worldwide leader in trenchless technology. TT Technologies' complete line of trenchless equipment includes piercing tools, guided boring tools, pneumatic, static and lateral pipe bursting systems, pipe ramming tools, bentonite mixing systems, constant-tension winches, directional drills and mini-directional drill rigs. Each year, more trenchless sewer, water, gas and electric rehabilitation and replacement projects are successfully completed with trenchless equipment from TT Technologies than any other. TT Technologies is the leader in trenchless! **To learn more, visit TT Technologies in booth 203.**

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INTERPLASTIC CORPORATION

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- INGAA — Interstate Natural Gas Association of America
- Uni-Bell PVC Pipe Association — Unibell-PVC Pipe Association
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- Pipe Line Contractors Association of Canada
- Water Environment Federation — WEF Collections Systems Committee
- AEM Association of Equipment Manufacturers
- NTA — Northeast Trenchless Association
- NASTT — North American Society For Trenchless Technology
- Plastics Pipe Institute — Plastic Pipe Institute
- NAPCA — National Association Of Pipe Coating Applicators
- AGA — American Gas Association
- HDD — Ohio HDD Association
- American Pipeline Contractors Association — American Pipeline Contractors Association
- BAMI-I — Buried Asset Management Institute - International

WELCOME

Greetings!

The 2016 Underground Construction Technology International Conference & Exhibition (UCT) will be in downtown Atlanta, GA, **Feb. 3-4, 2016, at the Georgia World Congress Center.**

Two technologies (trenchless and open-cut), one show – UCT! This conference is the largest event in the United States focused on the construction and rehabilitation of the underground utility pipe system. There are many trade shows to choose from. However, there is only one show where you get the depth and breadth of subject matter specifically dedicated to underground utility pipe.

Innovation abounds in the technologies used in new construction and rehabilitating underground utility pipe. From trenchless to open-cut, you'll find it at UCT. Meet with like-minded professionals from companies involved in operational, engineering, construction, rehabilitation, maintenance and services. **Attend the business-building educational program**. It incorporates flexible learning for attendees and exhibitors. The UCT primary program qualifies for **Continuing Education Units (CEUs) and Professional Development Hours (PDHs)**, granted by the University of Texas at Arlington. Gain greater perspective from academic partner and association hosted seminars on the days preceding UCT (Feb. 1-2). Many of the partner programs provide industry certification. Learn more about them on the next few pages or online at **uctonline.com**. Like the program, the registration rates are flexible, allowing more of your colleagues to attend at a discounted rate.

The **Municipal Partnership Program** grants complimentary admission for the UCT primary program to municipal public works employees. Email your qualifications (your name, job title, name of municipality and website) to kfrancis@uctonline.com. Not a municipal employee? No problem! Make the most of UCT's **Bring The Company rate**. Bring everyone from the same company who can benefit from the UCT primary program for the low rate of $475. Similar savings are in effect for those who wish to attend for only one day. We recognize the importance of your participation in UCT and we want to ensure that you'll be able to attend.

Be sure to mingle with colleagues and friends during the meet and greet cash bar reception on opening day, Wednesday, Feb. 3, in the exhibit hall. Also, don't forget to grab a light bite and a cocktail at the networking reception co-sponsored by TT Technologies on Thursday, Feb. 4, also held in the exhibit hall.

Complete program and registration information can be found in this brochure. Program updates will be posted at uctonline.com.

If this is your first UCT, welcome. If you are a previous attendee, welcome back. Either way, we look forward to seeing you in Atlanta in February!

Best regards,

Karen E. Francis
Convention Director

TABLE OF CONTENTS

UCT At-A-Glance

Training during UCT serves multiple purposes – you'll earn credit, learn about the latest techniques used in underground construction, catch up with friends and network. From cocktail parties to luncheons to privately hosted parties, networking opportunities await you at UCT. Here's a quick look at what will be going on during "UCT week". For details, visit uctonline.com.

Monday, Feb. 1
- CUIRE Training Schools (8 a.m.)
- NASSCO ITCP (1:30 p.m.)

Tuesday, Feb. 2
- CUIRE Training Schools (8 a.m.)
- Structural Rehabilitation Design for Sewer and Water Pipes (8 a.m.)
- NASSCO PACP & ITCP (8 a.m.)

Wednesday, Feb. 3
- UCT Primary Program (8:30 a.m.)
- MVP Luncheon, Georgia World Congress Center (12 p.m.)
- Exhibit Hall Opening and Meet & Greet Reception (1:30 p.m.)

Thursday, Feb. 4
- UCT Primary Program (8:30 a.m.)
- Exhibit Hall Opens (12 p.m.)
- UCT Networking Reception co-sponsored by TT Technologies (5 p.m.)

"The educational program/training provided face to face interaction with a variety of underground construction professionals from all over the world in a concentrated setting. I found the conference to be very valuable to me as a water utility professional."
Attendee: George Logan, Aquarion Water Company, Bridgeport, CT

Show Hours

Dates	Registration	UCT Education Sessions	Specialty Training	Exhibit Hall
Monday, Feb. 1	CLOSED	NONE	8:00 a.m. – 5:00 p.m.	CLOSED
Tuesday, Feb. 2	7:30 a.m. – 5:00 p.m.	NONE	8:00 a.m. – 5:00 p.m.	CLOSED
Wednesday, Feb. 3	7:30 a.m. – 4:00 p.m.	8:30 a.m. – 12:00 p.m.	NONE	1:30 p.m. – 5:30 p.m.
Thursday, Feb. 4	7:30 a.m. – 11:30 a.m.	8:30 a.m. – 10:00 a.m.	NONE	12:00 p.m. – 6:00 p.m.

SPOTLIGHT

An Interactive Look Back to Stay Current

The RehabZone®, exclusive to the Underground Construction Technology conference, offers attendees a hands-on look at the best of today's trenchless technologies for the rehabilitation of the nation's aging infrastructure.

The walk through, exhibit-within-an-exhibit is where attendees can see methods that were used in North America over the last 200 plus years. Run by industry professionals who volunteer their time to educate the public, the RehabZone offers scheduled guided tours providing insight to the municipal history for young engineers and to introduce new techniques and equipment to experienced engineers, contractors and public works personnel.

Visit a museum-quality display of yesteryear's infrastructure, followed by an array of current and emerging technologies. This can be a self-paced or guided tour; however, it's always educational, interactive and fun! While the 'Zone has been a part of UCT for years, the content and attractions are always evolving.

The RehabZone aims to make your visiting experience more personal and memorable with the **Technology Test Drive**. Leading technology and solution providers will create unique hands-on opportunities enabling visitors to touch, feel and experience the equipment.

Ongoing presentations and demonstrations from leading suppliers lead naturally into the final staging area of **Technology Test Drive**, where visitors put the gloves on and gain first-hand experience.

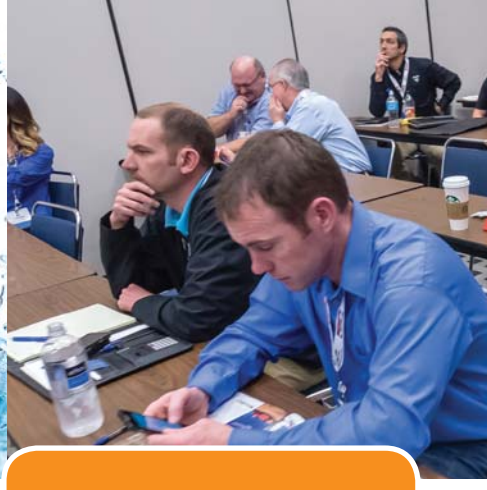
Educational stations in the RehabZone include the NASSCO Pipeline Assessment Certification Program (PACP) and Inspector Training Certification Program (ITCP), closed circuit television (CCTV), bypass pumping, sectional CIPP lining, joint and seal repairs, water main lining, lateral lining, grouting, root control, manhole linings and coatings, emerging technologies and a networking area.

Every visitor receives a valuable and complimentary Technology Guide that provides an introduction to pipeline rehabilitation and, while supplies last, a thank you for visiting gift.

The RehabZone is funded by and open to UCT exhibitors only. To get involved in the RehabZone, contact the 2016 chairman, Guy Leslie, at gleslie@rapidview.com. For details on exhibiting at UCT, contact Karen Francis at kfrancis@uctonline.com.

The RehabZone is presented by NASSCO (National Association of Sewer Service Companies) in partnership with Jon C. Schladweiler and AZ Water Association and in cooperation with the American Society of Civil Engineers' Trenchless Installation of Pipelines and Pipeline Infrastructure Systems technical committee, the Water Environment Federation's Collection System Committee and Underground Construction magazine. It is funded by sponsoring organizations and participating companies. Donations are always welcome for this unique and generic rehabilitation industry event. Sponsorships and the opportunity to perform live demonstrations are open to UCT exhibitors only. For details, visit rehabzone.org.

SPOTLIGHT



Water is the New Blue Crude

WEDNESDAY
3

KEYNOTE SPEAKER
JO ANN MACRINA, PE

Addressing our nation's aging infrastructure and the ever-growing demand for new water systems will be the focus of UCT's premier WaterWorks Conference. During this special two-day track, water piping infrastructure professionals meet to exchange ideas and gain greater insight into current economic conditions and challenges cities and counties encounter across the country.

Nationally respected industry experts will share their insight into our nation's critically important water infrastructure. Of special interest this year will be a keynote session delivered by the city of Atlanta's Department of Watershed Management, Commissioner Jo Ann Macrina, PE. The department has responsibility for the city's drinking water and wastewater systems. It is continuing work on the $4 billion Clean Water Atlanta Program, a complete overhaul of the city's water and sewer infrastructure undertaken as part of two federal consent decrees. Work under the first consent decree, governing the combined sewer system, was completed in 2007. Work under the second or "first amended" consent decree was completed in 2014.

Topics will include structural rehabilitation of PCCP with HDPE; real-time monitoring of water utility and construction operations; accessing new resources for brackish groundwater; the status of direct potable water reuse; and much more.

To attend, register for the UCT educational program – the WaterWorks Conference is included with your registration!

Industry to Honor Iseley at MVP Luncheon

Stay tuned for registration details

WEDNESDAY
3

MVP
DR. TOM ISELEY

Show your support for our industry's 2016 Most Valuable Professional (MVP), Dr. Tom Iseley, by reserving a spot at a luncheon to be held in his honor. The banquet will take place on Wednesday, Feb. 3 from 12 to 1:30 p.m. at the Georgia World Congress Center in Atlanta, in conjunction with the annual UCT conference and exhibition.

Each year, the MVP Award is presented to an individual for their outstanding contributions to the underground infrastructure industry. With over 35 years of experience in the planning, design and construction of this industry, Iseley has paved the road for advancement and made vast contributions to both the business and educational facets of the industry.

Iseley holds a Bachelor of Science degree in Civil Engineering, as well as a Master of Business Administration degree from the University of Alabama at Birmingham. He went on to further his education in the field by earning a doctorate in Civil Engineering from Purdue University.

Establishing the Trenchless Technology Center (TTC) at Louisiana Tech University in 1989, Iseley solidified his place as an international leader in the trenchless technology industry. He went on to serve as director and later, director of development, for the center.

Furthering his leadership role in the field, Iseley became the founding director of the North American Society for Trenchless Technology (NASTT) and served as chairman of the National Utility Contractors Association's (NUCA) Trenchless Technology Committee.

The MVP Award sponsors are Underground Construction Technology Association (UCTA) and *Underground Construction* magazine. Registration details will soon be announced at www.uctaonline.org.

New Learning Opportunities @ UCT

Increase your knowledge and build your skills with UCT's exclusive, professional conference. Featuring a benchmark educational program with more than 80 dynamic sessions, you can stay on top of the latest technology, safety and operational issues that are impacting the way you do business.

Led by industry experts, here are just a few of the new sessions packed with the relevant information you need to run a more profitable operation.

Auger Boring/Pipe Jacking/ Pilot Tube/Tunneling
These tried and true construction techniques are sometimes overlooked, yet remain core components of many projects. This session will focus on effective techniques and case histories combined with technological advances.

Lateral Rehabilitation
While force main and gravity sewers usually get the headlines, lateral rehabilitation remains the single greatest challenge for virtually all communities when trying to prevent I&I. This program track will cover a wide range of lateral issues from assessment to replacement.

Pressure Pipe
While lining sewer and water pipes has become routine, using this technology in pressure pipe applications is still a relatively new, yet increasingly popular and practical rehabilitation solution. Learn all about the design, use and inspection of liners in pressure pipe applications.

EDUCATION

UCT EDUCATIONAL TRACKS, Feb. 3 & 4

TUTORIALS: INTRODUCTION TO SEWER & WATER REHAB TECHNOLOGIES
Tailored for both the beginner and the more advanced professional, these always popular tutorials provide information and techniques from the detailed to specific about trenchless techniques used for the rehabilitation of sewer and water systems.

SEWER CONSTRUCTION & REHABILITATION
In these sessions, learn about the new technologies and methods for meeting the increased demands on sewer and water systems. Also, attend a special "how-to" sewer rehabilitation workshop to equip you for starting an I/I reduction program. The information will also provide valuable benchmarks for people who are actually conducting programs.

SEWER CONSTRUCTION/REHAB: EMERGING TECHNOLOGIES
Learn about new technologies and methods for meeting the increased demands on sewer systems.

PIPE BURSTING FUNDAMENTALS: COMPARISONS, SELECTION & DESIGN
Presented by the International Pipe Bursting Association (a division of NASSCO)
With the expansion and ever-increasing practicality of pipe bursting, the decision matrix for choosing this practical rehabilitation option along with proper design and issues impacting the market are important factors to be considered.

WATERWORKS CONFERENCE
Water is the new "blue crude" of the world and efforts to effectively and efficiently install, replace and rehabilitate our underground water distribution and transmission system are becoming increasingly important. Addressing aging infrastructure and the ever-growing demand for new water systems will be the focus of this special two-day program track.

AUGER BORING/PIPE JACKING/ PILOT TUBE/TUNNELING
These tried and true construction techniques are sometimes overlooked yet remain core components of many projects. This session will focus on effective techniques and case histories combined with technological advances.

NASTT TRENCHLESS FORUM
Presented by the North American Society for Trenchless Technology (NASTT)
Learn about trenchless advancements and attend a special forum hosted by the North American Society for Trenchless Technology (NASTT).

UNDERGROUND UTILITIES CONSTRUCTION
In today's modern construction environment, it takes a variety of methods and technologies to manage utility infrastructure work. These applications combine to maximize opportunities and make for effective, timely and safe operations.

HDD: OPERATIONS & PRODUCTIVITY
Interesting and informative case studies will be presented that emphasis how to effectively conduct horizontal directional drilling operations and maximize profitability.

HDD: PRODUCTIVITY & FLUIDS MANAGEMENT
As the HDD market continues to grow, the use of mud and polymers is an essential element in virtually all projects, large and small. The proper use and application of these essential fluids will be covered in detail, including important information that even the most seasoned drillers may be unaware.

PRESSURE PIPE
While lining sewer and water pipes has become routine, using this technology in pressure pipe applications is still a relatively new, yet increasingly popular and practical rehabilitation solution. Learn all about the design, use and inspection of liners in pressure pipe applications.

LATERAL REHABILITATION
While force main and gravity sewers usually get the headlines, lateral rehabilitation remains the single greatest challenge for virtually all communities when trying to prevent I&I. This program track will cover a wide range of lateral issues from assessment to replacement.

Wednesday, Feb. 3

Track I = TUTORIALS: INTRODUCTION TO SEWER & WATER REHAB TECHNOLOGIES

8:30 - 8:55 a.m.
Sliplining of Large Diameter Sewers
Sliplining of deteriorated sanitary sewers can restore or provide non-corrosive, structurally sound, hydraulic capacity improvement and leak-free performance economically and with minimal disruption. Sliplining rehabilitation is possible in nearly all diameters including very large sizes frequently, without bypass pumping or flow diversion required.

9 - 9:25 a.m.
Spray-on Coatings
Speaker: Stewart Nance, VP-Sales/Marketing,Quadex
This session will review the use of sprayed-on cementitious, geopolymer and epoxy coatings. These three coatings will demonstrate their proper usage in a variety of environments. Environmental conditions will include the material needing rehabilitation, the assets current physical condition and the actual conditions existing when upon liner application.

9:30 - 9:55 a.m.
Modern Applications of Injection Grouting
Speaker: Don Rigby, VP Marketing/Education, Avanti
Discussion will focus on the evolution of injection grouting – where we've come from and where we are going. Talking points will also include specifications tailored to site conditions; using a holistic approach to reduce infiltration; choosing the right tool from the grouting tool box; the contractor's role; and how grouting compliments trenchless technology.

10 - 10:25 a.m.
Chemical Root Control: Engineered for Engineers & Asset Management
Speaker: Stuart Tillery, Southeast Regional Manager, Dukes Root Control
Chemical root control (CRC) application in sewer lines can maximize and extend sewer pipe life, which is the key goal of a comprehensive Asset Management Program by eliminating and controlling tree root intrusion. Learn how a CRC program can reduce SSOs, protect pipe from damaging roots, restore pipe capacity, help prevent future I&I, reduce maintenance and prevent costly sewer repairs, rehabilitation and/or replacement for years to come.

EDUCATION

10:30 - 10:55 a.m.
Cured-in-Place-Pipe
Speaker: Denise McClanahan, VP, Layne Inliner
The applications, economics and benefits of CIPP, one of the oldest and most successful rehab techniques will be presented.

11 - 11:25 a.m.
Approach to Successful Manhole Rehabilitation
Speaker: Gerhard "Gerry" Muenchmeyer, PE, NASSCO Master Trainer, Principal, Muenchmeyer Associates
The rehabilitation of manholes can be complicated since a typical structure encompasses seven different components, each of which may require a different rehabilitation approach. This session will evaluate the rehabilitation requirements, select the applicable technology or technologies, define the necessary preparation requirements and provide for a trained inspector on the job site who can observe, inspect, measure, test and document, before, during and after application.

11:30 - 11:55 a.m.
Sectional Lining
Speaker: Larry Kiest, Jr., President, LMK Technologies
This session will cover different types of spot repairs and short liner systems that are available in the marketplace. Also shared will be recommended installation, curing procedures and new advancements in the use and longevity of the technologies.

Track II-A = SEWER CONSTRUCTION & REHABILITATION

8:30 - 8:55 a.m.
Numerical Modeling of Soil/Structure Interaction for TT Piping
Speaker: Nilo Tsung, CE, PE, PhD,
Asst. Prof. of Construction Engineering,
Dept. of Engineering & Technology,
Texas A&M University-Commerce
This study focuses on soil/structure interaction for trenchless technology piping using a two-dimensional finite-element method. The ground conditions in this study include soft cohesive soil, hard cohesive soil, loose granular soil and dense granular soil with various groundwater tables. The soil constitutive relation employed is the Mohr-Coulomb perfect elastoplasticity model with isotropic linear elasticity.

9 - 9:25 a.m.
PennDOT SR 84 Emergency Repair
Speakers: John Ehling, Project Manager,
James D. Morrissey; Hugh Mickel, PE,
VP-Reline Technologies,
Contech Engineered Solutions
In October 2013, the Pennsylvania DOT (PennDOT) led a rehabilitation project involving 8 miles along Interstate 84 in northeastern Pennsylvania. It included the relining of two 72" diameter CMP pipes installed during the original construction. The project's rehab specification for these structures included CIPP and a host of other available reline options identified in a 2005 FHWA report, causing some confusion due to the normal 100-year service life requirement of PennDOT drainage structures under interstates. Representatives from Contech and James D. Morrisey Inc. were able to narrow down the options to those meeting the hydraulic demands and stringent service life requirements contained in the PennDOT design manuals. This presentation will cover the material selection process and the installation methodologies.

9:30 - 9:55 a.m.
Manhole Rehabilitation: Proper Installation Practice & QA Testing
Speaker: Norman "Ed" Kampbell, PE,
Soil-Structure Interaction Systems Specialist,
Rehabilitation Resource Solutions
In a prior whitepaper, "The Practical Design Approach to Coatings and Liners for the Rehabilitation of Cylindrical Shaped Manhole Structures," Kampbell presented the unique information on how the soil-structure interaction system impacts the lateral loading on a cylindrically-shaped vertical shaft. Also discussed was how it deviates from the vertical loading of horizontally oriented buried pipes, and what loads are likely to be borne by the coatings or lining systems used in their renewal. This session goes over the principles presented in the paper including information on how the installation and quality assurance practices must reflect the needs of the lining system.

10 - 10:25 a.m.
A Sink Hole, a 24" Sewer & Its 90' in the Ground
Speaker: Michael App, Sr. Project Manager,
Precision Trenchless
The project will overview the installation of a UV-cured fiberglass CIPP liner into a 24" sewer, 90' underground in an active sinkhole. Included will be the design, installation and overall success of the project. A discussion will follow on the issues faced and overcome with working 90' underground, with only a 36" manhole shaft to access site.

10:30 - 10:55 a.m.
NASSCO's Inspector Training & Certification Program for CIPP Update
Speaker: Lynn Osborn, Technical Director, NASSCO
NASSCO's ITCP for CIPP launched in 2007, with the first training session held in 2008. The intent was to provide engineers and field inspectors the knowledge and tools to be able to inspect and assure the meeting of key quality milestones, required in the contract documents. The program has been successful with nearly 1,700 CIPP inspectors trained by January 2016. However, over the years, there have been suggestions on how to improve the program, and new technologies have entered the market. This presentation will describe the program to date, and how updates to the training course ensure that the program is current with today's CIPP market.

11 - 11:25 a.m.
In-Pipe 2D & 3D Mapping Technologies
Speakers: Pete Monday, Operations Manager and
Adam Slifko, Engineering Manager,
CUES Mapping Services
The presentation will cover project applications of 2D/3D mapping and assessment technologies along with utilization of in-pipe gyroscopic based mapping tools within trenchless utility installations. Additionally information as to data acquisition and how this data is utilized in decision making will also be presented.

11:30 - 11:55 a.m.
Geopolymer Structural Linings
Speaker: Stewart Nance, VP-Sales/Marketing, Quadex
Geopolymers are a novel class of structural lining materials with enhanced corrosion resistance that have facilitated growing acceptance in pipe and manhole rehabilitation applications. What is driving this market shift? Geopolymers look and act like traditional Portland or calcium aluminate cements: Add water, mix and apply. However, geopolymer performance and sustainability are significantly superior, especially in harsh environments where even enhanced calcium aluminate and antimicrobial mortars cannot survive long term. True geopolymers are also sustainable with low carbon footprints and which qualify for LEED credits as they are mostly made from recycled industrial pozzlanic byproducts.

Track II-B = SEWER CONSTRUCTION & REHABILITATION

8:30 - 8:55 a.m.
Take Control of Inflow/Infiltration in Manholes
Speaker: William Goff, National Sales Manager,
Sealing Systems Inc.
Many people are aware of the challenges that inflow and infiltration bring to any utility; however, they may not be fully aware of how easy it is to identify the problems or how to fix them. This session will give the audience a closer look at infiltration identification, methods and products to use for correction and remediation of infiltration and rehabilitation. It will also address proactive efforts and products to reduce or deny infiltration and thus eliminate the need for rehabilitation.

9 - 9:55 a.m.
Asset Management Certification: Establishing a Pathway for Achieving Water Utility Excellence
Speaker: Tom Iseley, PhD, PE, Dist. M. ASCE,
CETF Professor/CE Director,
Trenchless Technology Center, BAMI-I,
Executive Director, Louisiana Tech University
This session will briefly explain how BAMI-I originated in Atlanta's Department of Watershed Management under the leadership and inspiration of Mayor Shirley Franklin and Commissioner Jack Ravan. It will explain how the BAMI-I conducted the EPA grant-CP 83 282901-1, establishing a pathway for Achieving Water Utility Infrastructure Management Excellence, and transformed the lessons learned into an international certification program for water asset managers. The international Certification of Training in Asset Management (CTAM) consists of a structured program of four online courses. Completion of these four courses can lead to certification as an Associate Water Asset Manager (AWAM) through a certification board established by BAMI-I, and serves under the BAMI-I Board of Directors. After four years of experience in areas related to water asset management, individuals may apply for certification as Professional Water Asset Managers (PWAM).

Municipal Partnership Program

Eligible municipal and public works employees receive complimentary registration to the primary UCT program (specialty training not included).

Email your name, job title, name of municipality and web address to kfrancis@uctonline.
A registration access code will be sent to you.

Get your CEUs/PDHs in one place, at one time – at UCT!

EDUCATION

10 - 10:25 a.m.
The Challenges of Constructing a Siphon Beneath the San Antonio River
Speaker: Joseph Cotton, Project Manager, RJN Group
The challenges associated with the construction of a siphon beneath an active, scenic river are numerous. Due to limited space beneath the bridge and channel bottom lining the two bore pits were a massive 45' depth below street grade. Due to the minimal span between bridge's piers, the casing pipes for the proposed triple barrel siphon with air jumper were constructed vertically rather than horizontally. Other challenges included construction with the chosen material, massive water infiltration into the bore pits that affected construction and backfill, and maintenance of pedestrian traffic through the site.

10:30 - 11 a.m.
Three Dimensional Scanning for Repair Planning
Speaker: Harry Price, Sr. Principal Engineer, NTH Consultants
The terminus of the Oakland Macomb Interceptor Drain is the Northeast Sewage Pumping Station (NESPS) in Detroit, MI. High concentrations of hydrogen sulfide released in the NESPS discharge, and the existing concrete has severe MIC. To obtain the data for evaluation and planning repairs, detailed measurements of the chambers and flume were required. The station must remain in operation to support the ongoing interceptor repairs upstream of the pump station. The limited time available because of ongoing operations and constricted access due to existing discharge piping, eliminated obtaining the required measurements manually. This presentation will discuss the planning process, data collection process and an overview of the proposed repair concept.

11 - 11:25 a.m.
Overview of Lateral Market: CIPP Lateral Lining
Speaker: Jacob Trapani, VP, BLD Services
The presentation offers a complete overview of the service lateral rehabilitation technologies available in the market today. In an effort to seek a viable, cost-effective solution to one of the most significant contributors to our failing sewer infrastructure, technology providers have developed several methods to structurally repair and/or seal lateral pipes and their connection to the main sewer. Individual lateral pipes often have multiple bends, diameter changes, shifted joints, cracks, deposits and roots which create considerable challenges to repair or seal. The lateral pipe connection to the sewer main also poses problems due to leaks, cracks and poor alignment. Accessibility of lateral pipe is another issue since one end is located in the sewer main and the other in a building. In some cases, a clean-out exists either in the building or outside of the building. It is critical that the methods developed cope with the existing conditions to provide an effective product and installation methods that can be rehabilitated efficiently.

11:30 - 11:55 a.m.
A Hitchhiker's Guide to the CIPP Galaxy
Speaker: Gary Heusser, Project Engineer, Littlejohn Engineering
Preparation and installation of CIPP is crucial, however one of the more integral parts of the CIPP process is the specification writing and submittal review. This presentation will stress the importance of specifying quality CIPP designs and following through with them during the submittal process. Recent projects will highlight some of the lessons learned, reflecting how conflict resolutions and specifications are continually updated and refined. Topics of conversation will include resin and catalyst composition, curing and cool down duration and temperatures, splicing of liner tubes, liner thickness and testing requirements, hydrophilic end seals, downstream screening and service reinstatements.

Track III-A = PIPE BURSTING FUNDAMENTALS: COMPARISONS, SELECTION & DESIGN

Presented by the International Pipe Bursting Association (a division of NASSCO)

Track Moderator: Matt Werth, Bus. Development Manager, Vortex Infrastructure Products

8:30 - 8:55 a.m.
Design Considerations & Benefits of Pipe Bursting
Speaker: George Mallakis, Regional Manager, TT Technologies
Review the basics of pipe bursting, types, product, classifications, terms, etc.; highlighting the basics and ever-growing scope of pipe bursting and splitting technologies.

9 - 9:25 a.m.
Managing Expectations for Trenchless Rehabilitation & Renewal
Speaker: Matt Timberlake, President, Ted Berry Trenchless Technologies Team
The presentation will discuss the challenges and importance of properly managing expectations of the owner, engineer and contractor when considering the pipe bursting process in complex situations.

9:30 - 9:55 a.m.
Financial Intelligence of Pipe Bursting
Speaker: Mike Woodcock, Portland Utilities Construction
This presentation will discuss the construction costs of pipe bursting and other pipe rehabilitation techniques and highlight the decision points that make the pipe bursting option the most economical. Issues discussed will be the impact of point repairs, asphalt and other surface improvements, easement acquisition costs, and other areas where pipe bursting will be beneficial. Also discussed will be the situations where pipe bursting may not benefit.

10 - 10:25 a.m.
Transferring Risk: Tackling a Challenging Pipe Burst Project
Speakers: Tim Grizzard, PE, Assistant City Manager, City of Carrollton; Ryan Lawler, Owner, 3 Rivers Utility Rehab
The presentation will outline how a contractor and an owner tackled a unique and challenging pipe bursting project with high risk and rewards by transferring the risk back to the owner who eventually saved almost a million dollars for doing so.

10:30 - 11:55 a.m.
Peer Group Round Table Discussion
Panelists: Alan Ambler, City of Casselberry, FL; Mike Woodcock, Portland Utilities Construction; Matt Timberlake, Ted Berry Trenchless Technologies Team; Matt Werth, Midas Companies
The moderators will lead a small peer group round table discussion related to the material presented in the morning session. Questions to be discussed are as follows: What are some of the cost benefits of pipe bursting you see when compared to open cut or CIPP? What is the best way to manage expectations for trenchless rehabilitation and renewal? What are the advantages and disadvantages of transferring risk when tackling unique and challenging projects that would otherwise not be attempted?

Track IV-A = WATERWORKS CONFERENCE

9 - 9:40 a.m.
Keynote Session: Atlanta's Water Commissioner
Speaker: Commissioner Jo Ann Macrina, PE, Atlanta Dept. of Watershed Management

9:40 - 9:55 a.m.
The Evolving Nature of America's Water Issues, Technologies
Speaker: Gary Oradat, President, Oradat & Associates

10 - 10:25 a.m.
Live Pressure Main Condition Assessment Technologies
Speakers: John Matthews, PhD, Program Manager and Jennifer Steffens, PE, Program Manager-CCMWA, Pure Technologies
Condition assessment tools for live pressurized mains are rapidly evolving. Advanced assessment methods provide in-depth analysis of internal and external pipeline conditions useful for specifying rehabilitation, repair, and/or replacement. This presentation examines the benefits and limitations of live pressure main inspection techniques.

10:30 - 10:55 a.m.
PCCP Transmission Main Inspection for Cobb County-Marietta Water Authority
Speaker: Jennifer Steffens, PE, Sr. Project Manager, Pure Technologies
Cobb County-Marietta Water Authority (CCMWA) is the second largest drinking water supplier in Georgia, providing service to nearly 800,000 people through 12 wholesale customers. Since 2012, CCMWA has been

"The educational program/training provided face to face interaction with a variety of underground construction professionals from all over the world in a concentrated setting. I found the conference to be very valuable to me as a water utility professional."

Attendee: George Logan, Aquarion Water Company, Bridgeport, CT

proactively managing the PCCP within their inventory through a comprehensive condition assessment program. This presentation will discuss the various methods utilized by CCMWA to manage their PCCP inventory.

11 - 11:55 a.m.
Carbon Fiber Transmission Main Repairs: Getting it Right
Speakers: Ian Lancaster, Area Manager-Eastern USA & Caribbean, Insituform Technologies; Bob Card, PE, Chief Pipe Engineer, Lockwood, Andrews & Newnam

Over the past 10 years, rehabilitating large diameter water and wastewater pipelines (>36") with carbon fiber reinforced polymers (CFRP) has increased dramatically. Though these types of laminates previously used successfully for decades on military and commercial aircraft, the application of CFRP in pipelines is a new frontier. This session will address recent findings from an ongoing five-year water main rehabilitation program with the Miami Dade Water & Sewer Department. Also shared will be changes made to specifications, quality control, testing, and inspection protocol to ensure that the engineering design life is exceeded.

Track V = NASTT TRENCHLESS FORUM

10:30 - 11:55 a.m.
Trenchless in Atlanta
Presented by the North American Society for Trenchless Technology (NASTT)

Track VI-A = HDD: OPERATIONS & PRODUCTIVITY

9 - 9:25 a.m.
Reducing Costs & Risks in HDD with an Innovative Tooling Generation
Speaker: Tobias Gerhardt, Project Manager-R&D, Herrenknecht AG

It is well known that one of the major challenges in HDD is to find a way to transport cuttings from the bit or reamer through a long horizontal section by using the borehole as a pressure line. The existing problems with remaining cuttings left in the borehole lead to large overcut dimensions to avoid pipes being stuck during pullback. Excessive pumping of mud can lead to frac-outs when the fluid pressure is greater than the maximum allowable borehole pressure. This presentation shows a solution that could solve these problems, reducing cost and risk during HDD operations.

9:30 - 9:55 a.m.
Fused PVC Conduits & Casings for High Voltage Cables
Speaker: Tom Marti, VP-Engineering/Technology, Underground Solutions Inc.

High voltage cables constructed in ever-increasing numbers improve reliability and security of the U.S. electrical grid. This session discusses the use of fused PVC in long lengths installed by HDD and slip lining as a growing method for the trenchless installation of high voltage cables. Completed projects measure in excess of 5,000' in length. Case studies of recent

installations will illustrate the applicability of the material, electrical properties and techniques.

10 - 10:25 a.m.
HDD Technology Advancements Focused on Mitigating Environmental & Carbon Footprints
Speaker: Seth Matthesen, Sr. Product Manager-HDD, Ditch Witch; MasTec

HDD projects rely on productivity. On today's jobsites however, water and disposal of drilling fluids has become an added cost and environmental concern. In this session, learn about the latest HDD technologies such as HDD recycling systems and telematics; improving water conservation; operational efficiency; and helping mitigate risk.

Track VI-B = HDD: PRODUCTIVITY & FLUID MANAGEMENT

8:30 - 8:55 a.m.
Tricone Pilot Bit Dull Grading
Speakers: Bruce Beatty, Project Manager and Juan Ibarra, Product Specialist-Shaft/HDD/Tunneling, Atlas Copco

This presentation will focus on Rotary Tricone Bit safety, maintenance and troubleshooting.

9 - 9:55 a.m.
The Next Level of HDD Drilling Fluid Systems
Moderator/Speaker: Richard Levings, Director-Product Management, American Augers
Speaker: Ben Clark, Derrick Corporation

Due to environmental pressures, costs for HDD drilling fluid has increased along with the effort it takes to pump, contain, reuse or dispose. This has elevated fluid processing systems to an entirely new level. These systems are now utilizing components more similar to what you might see in the oil and gas industry. The results are reducing fluid and disposal costs as well as reducing fresh water consumed, and creating a more environmentally friendly product. This session assembles several industry experts to share the latest developments in fluid handling systems for HDD applications. It will include both a presentation of facts and a question/answer period to discuss these new ideas. Also discussed will be a financial analysis to show how this could change the way contractors see drilling fluid in the HDD industry.

10 - 11:25 a.m.
Controlling Downhole Pressure
Speaker: Frank Canon, Sr. Account Rep., Baroid

The diversification of small rigs combined with the increased use of mid to large rigs has brought a new dynamic to the use of mud and specially formulated drilling fluids. This course will detail the use of mud/fluids in today's complicated drilling environment including how to minimize downhole pressures and buoyancy.

Track VII = AUGER BORING/PIPE JACKING/ PILOT TUBE/TUNNELING

8:30 - 8:55 a.m.
Pipe Jacking Design Solutions in Iowa
Speakers: Patrick Minger, Owner, Minger Construction; Robin Lorenzen, Sales Engineer, Akkerman

The I-29 Interceptor Floyd River Siphon and Connection to Floyd Lift Station project joins a dual-siphon system in the Floyd River to new and existing sanitary sewer lines around I-29 and surrounding areas in Woodbury County, IA. The project is owned by the Iowa DOT and contributes to the I-29 improvement effort to enhance its southern corridor near the Missouri River. This presentation describes the planning and execution of the installation of 3,632' of 12" to 72" ID VCP, RCP and steel casing pipe with TBM and pilot tube guided boring systems in contaminated soils, low blow counts, and a multitude of above ground obstacles and sub-surface utilities. Ingenuity accounted for several design solutions, resulting in a successful completion and notable savings for the owner.

EDUCATION

9 - 9:25 a.m.
Novel Boring Machine for a Line & Grade Sensitive Trenchless Crossing in Oregon
Speaker: Kenny Clever, Sales Manager, The Robbins Company
The trenchless industry has long needed a solution for small diameter utility crossings in hard rock where line and grade are critical. This presentation will document the successful bore of a prototype machine for a project in Bend, OR. The machine, known as the Remote Controlled Small Boring Unit (SBU-RC), excavated a 320' long crossing below several sets of railroad tracks.

9:30 - 9:55 a.m.
Guided Boring Using Pilot Tubes: Variations of the Method & Case Studies
Speaker: Jeff Boschert, PE, National Clay Pipe Institute
Guided boring utilizing pilot tubes, known as the Pilot Tube Method (PTM), has steadily grown in both capabilities and popularity for accurate gravity sewer main installation. Initial applications had a range of 4" to 12" diameters with drive lengths up to 250'. The technology has now grown to install pipes up to 48" outside diameter with common drive lengths ranging from 350' to 400'. This session will explain the variations of this guided boring method in detail (two pass, three pass, powered head methods and non-displaceable ground tooling), as well as briefly discuss recent completed projects in a case study manner.

10 - 10:25 a.m.
Encapsulated Oil Additive Application in Earth Pressure Balanced Tunneling
Speakers: Ehsan Alavi, PhD, JayDee Contractors; Cliff Baratta, Sr. Associate-Product Marketing, Solazyme Inc.
This session compares the results using the encapsulated oil additive to traditional soil conditioning measures. Under challenging conditions, an EPB machine tunneling included muck compacted within cutterhead openings, creating blockage for excavated material to enter the cutterhead chamber. Additionally, a low advance rate and frequent maintenance stops significantly slowed down production. A novel, algae-based encapsulated oil was used to lubricate the cutters and clean out the compacted muck. The advance rate and muck consistency improved within a few feet of use. Much dry material, representing the plugged muck from the cutterhead openings, was found at the screw discharge.

Thursday, Feb. 4

Track II-C = SEWER CONSTRUCTION & REHABILITATION

8:30 - 11:55 a.m.
Rehabilitation Strategy Seminar
Speakers: George Kurz, PE, DEE, Consulting Engineer, Sewer Capacity Management; Pat Stevens, PE, VP-Engineering, ADS Environmental Services
This seminar will include four key elements of discussion:
- A 10-Step Plan for a Municipal I/I Reduction and Sewer Rehabilitation Program
- "If I had this to do over..." Twelve Steps to Successfully Measure Effectiveness of Sewer Rehabilitation
- Nashville & Brentwood: Removing 4.1 Billion Gallons of I/I
- Service Laterals as a Critical Part of the Rehab Program

A new statewide study of I/I in Tennessee municipal collection systems showed an average of 46% I/I in collection systems and that two-thirds of the systems had more than 50% I/I. These systems likely are representative of many collection systems in the southeastern U.S. This level of leakage should provide a powerful incentive for municipalities to measure the condition of their sewers and develop a strategy for corrective action.

This seminar uses the results from work in small and large municipal systems to teach a strategy for conducting a successful sewer rehabilitation program for SSO and I/I reduction. The strategy resembles extensive before-after flow measurements for 30 project areas, which included 110 miles of sewer lining, and manhole and service lateral rehabilitation on all lined sewers. The strategy proved the value of the System Approach for aggressive rehabilitation of deteriorated sewers targeted in priority basins rather than a ind-and-fix approach for scattered individual pipe defects. Municipal sewer O&M savings generally resulted in a payback period of about 10 years for project construction costs. A logical and intuitive 10-step strategy stands as the formula to approach.

Before-after flow monitoring, and rehabilitation of sewer service laterals were critical for successful programs. The presentations will identify pitfalls for flow/rainfall monitoring and explain the analysis of monitoring data in general terms applied to improve the results regardless of the brand of equipment. Sewer service laterals are significant sources of a pilot study, and I/I will be explained which isolated and measured the I/I contribution from service laterals.

Track II-D = SEWER CONSTRUCTION & REHABILITATION

8:30 - 8:55 a.m.
Acrylate Grout Systems: Their Characteristics & the Role of Reactants & Field Conditions on Their Performance
Speaker: Shiva Sunder, Research Manager, Prime Resins
Understanding the characteristics of chemical grout is imperative before choosing the best option for a civil engineering problem. Acrylate grouts are a relatively new class of grouts that are used for solving geotechnical and structural issues such as stabilizing soil and sealing underground pipe leaks. Typically, acrylate, acrylic or acrylamide grouts are two-component grout systems that undergo a free-radical polymerization reaction to form a solid gel-like structure. The grout properties are mainly affected by the type and quantity of the reactants, and the field conditions of the project site. This presentation throws light on the role of those two factors. A project profile will illustrate the science at work in a real-world application.

9 - 9:25 a.m.
Lateral Connection Seals – The Next Generation
Speaker: Stewart Nance, Project Manager-Cements & Epoxy, Quadex/InterfitUSA
Why line entire laterals when sealing service connections eliminates the majority of private source infiltration and annular space in lined mains without involving homeowners? Latest generation full main wrap (360o) CIP structural service connections eliminate inflow, infiltration and root intrusion and thus significantly reduces a municipality's operating costs. Technologies are available to permanently seal and structurally rehabilitate the lateral connection and the first lateral joint with access only needed from the sewer main. This session will discuss the issues and technologies considered when choosing a lateral sealing technology.

9:30 - 9:55 a.m.
Relining 120" Culvert under a Live Railroad
Speaker: Don Herbert, Director of Rail, Contech Engineered Solutions
A 120" culvert running directly under an Alabama Golf Coast Railroad track owned by Genesse & Wyoming Inc. was failing due to age and poor installation methods used. G&W needed a solution that would allow the railroad above to remain in operation while construction took place. In this session, relining of the host pipe under a live railroad while factoring multiple hydraulic and structural design considerations including a deflection of more than 30 degrees near the outlet, will be shared.

10 - 10:55 a.m.
Smart Pipeline Infrastructure Network for Energy and Water (SPINE)
Speaker: Sunil Sinha, PhD, Prof.-Civil and Envir. Engr.; Director-Sustainable Water Infrastructure Management (SWIM) Center, Virginia Tech University
The United States is critically dependent upon more than five million miles of pipeline infrastructure systems to transport water, natural gas, oil and nuclear facility coolant and waste. Pipelines provide the lifeblood to society by transporting energy, water, waste and other critical services; yet, the pipeline infrastructure in North America is inadequately prepared to support a grow-

ing economy dependent on sustainable growth, public health and community resilience. This session focuses on transforming the nation's capability to plan, design, install, monitor, control, retrofit and asset manage energy and water pipeline infrastructure systems to be both resilient and sustainable.

11 - 11:25 a.m.
Case Study for Advanced Geopolymer Pipe Lining Rehab System
Speakers: Joseph Royer, Development Mgr., Milliken Infrastructure Solutions; Collis Parrish, Bus. Development Mgr., Inland Pipe Rehab
Asset owners and engineers throughout the world are in search of cost-effective and environmentally friendly solutions that serve infrastructure issues. This session will review a geopolymer mortar system used in the U.S. since 2011. It will also highlight a project in McAllen County, TX, to demonstrate the viability, effectiveness and implementation of the technology when used to create a new structural pipe inside of an existing corroded system.

11:30 - 11:55 a.m.
GRP Structural Lining of Large Diameter, Non-circular Sewer Pipes & Interceptors
Speaker: Andy Sherwin, Technical Sales Manager, Channeline International
This presentation offers an overview of renovation materials and techniques offered in the trenchless market as well as a brief description of the design theory behind each, based on WRc Type 1, Type 2 and Type 3 design and the North American equivalents (ASTM F1216, ASTM D3262 and Finite Element Analysis).

Track II-E = SEWER CONSTRUCTION/REHAB: EMERGING TECHNOLOGIES

11 - 11:25 a.m.
Quantitative Pipe Condition Assessment with Pipe Penetrating Radar
Speaker: Csaba Ekes, President, SewerVUE Technology
Pipe penetrating radar (PPR) is the underground in-pipe application of GPR, a non-destructive testing method that can detect defects and cavities within and outside mainline diameter non-metallic pipes. This session presents recent advancement of PPR inspection technology together with selected case studies.

11:30 - 11:55 a.m.
The Future Manhole Ring and Covers FRP/Composites
Speaker: Eric Dupre, Executive Director-Bus. Development, BlueGreen Municipal
The history of current cast-iron manhole covers and the known issues in the U.S. and globally from corrosion, weight, theft, injury/safety risks, I&I and quality will be addressed. Also shared will be the evolution of the manhole cover utilizing the benefits of today's current polymer technologies. Nearly every part of the sewer infrastructure system is now made of some type of PVC, HDPE, fiberglass, epoxy, CIPP and/or a strong durable lightweight non-metallic composite material except for manhole cover units. The presentation also details the current in-ground history, best uses and market direction for this revolutionary product.

Track VII = PRESSURE PIPE

Presented by the Pressure Pipe Committee of NASSCO

Track Co-Moderators: John Schroeder, Associate and Brent Johnson, Project Manager, CDM Smith

8:30 - 8:55 a.m.
Rehabilitation of 12" Ductile Iron Force Main in Palm Beach, FL
Speaker: Andrew Costa, Bus. Development Mgr., Insituform Technologies
The Palm Beach project, consisting of rehabilitation of 4,700' of 12" force main with reinforced CIPP, was a challenge because of expensive beachfront property, tight access, special equipment and night work.

9 - 9:25 a.m.
Water Line Rehabilitation with Swagelining Using Interactive & Fully Structural Design
Speaker: Tom Hayes, President, Haywood Associates
This session discusses the structural renewal of a 39" PCCP water transmission line for the Gulf Coast Water Authority and City of League City, TX.

9:30 - 9:55 a.m.
Products for Pressure Pipe Rehabilitation: Sizes, Pressure Ratings & Applications
Speaker: John Schroeder, Associate, CDM Smith
A brief overview of pressure pipe products will include sizes, pressures, testing and applications.

10 - 10:55 a.m.
CIPP Pressure Pipe Design: Force Mains & Water Lines
Speaker: Norman "Ed" Kampbell, President, Rehabilitation Resource Solutions
General pressure pipe design for CIPP for both sewage force mains and drinking water lines will be shared.

11 - 11:25 a.m.
Condition Assessment Inspection of Large Diameter Transmission Mains
Speaker: Brent Johnson, Project Manager, CDM Smith
This presentation will focus on the planning, execution and costs associated with the inspection of downtown transmission mains. System configurations that create concern for trapping of the inspection tools, and what actions are effective when the inspection tool gets stuck, will also be shared.

11:30 - 11:55 a.m.
Ask the Experts
An expert panel will provide attendees an opportunity to participate in a Q&A session for topics presented in this track.

Track X = LATERAL REHABILITATION

Presented by the Laterals Committee of NASSCO

Track Moderators: Jason Walborn, Business Development, Hoffman Southwest Corp.; Brendan Doyle, Project Manager, BLD Services

8:30 - 9:25 a.m.
NASSCO Lateral Overview Documents
Speaker: Jacob Trapani, VP, BLD Services
An overview of lateral lining, lateral to main connection sealing and associated practices as a general guideline for wastewater facility owners, will be presented.

9:30 - 9:55 a.m.
Lateral Inspection Assessment
Speaker: Jonathan Kunay, Project Manager, CDM Smith
Identifying the different methods and technologies for assessing wastewater lateral piping and connections will be discussed.

10 - 10:25 a.m.
CIPP Lateral Lining
Speaker: Jonathan Kunay, Project Manager, CDM Smith
Review of the cured-in-place-pipe (CIPP) lateral lining processes and systems, along with the effectiveness of each, will be shared.

10:30 - 10:55 a.m.
Stopping Infiltration in Laterals using Injection Grouting
Speaker: Don Rigby, VP Marketing & Education, Avanti
A review of the technology for stopping infiltration in laterals with injection grouts will be provided.

11 - 11:25 a.m.
Lateral Pipe Bursting: Process & Benefits
Speaker: George Mallakis, Regional Manager, TT Technologies
Review the basics of lateral pipe bursting, process, product, classifications, terms and more in this session. Highlights cover the basics and ever-growing scope of lateral pipe bursting technologies.

11:30 - 11:55 a.m.
Ask the Experts
All the speakers will be available as a panel to answer questions from the attendees.

EDUCATION

Track III-B = PIPE BURSTING FUNDAMENTALS: COMPARISONS, SELECTION & DESIGN

Presented by the International Pipe Bursting Association (a division of NASSCO)

Track Moderator: Matt Timberlake, President, Ted Berry Trenchless Technologies Team

8:30 - 8:55 a.m.
Analyzing the Bread & Butter Benefits of Water Main Pipe Bursting
Speaker: Gary Shepherd, Regional Sales Mgr.-Southeast, Underground Solutions
Roanoke Rapids Sanitary District recognized a need in 2012 to replace or rehabilitate their cast iron water distribution mains in and around the downtown district. This presentation will describe the analysis performed to choose pipe bursting, provide material data and instruct about the construction process in case study format.

9 - 9:25 a.m.
Analyzing the Bread & Butter Benefits of Sewer Main Pipe Bursting
Speaker: Mike Rocco, Project Manager, Albuquerque Underground
This presentation will demonstrate the day-in and day-out benefits of pipe bursting sewer mains by spotlighting the Dulce, NM, project.

9:30 - 10:25 a.m.
Using the Mini 400g Static Bursting Rig to Get the Job Done in Tight Spaces
Speaker: Mike Woodcock, Portland Utilities Construction
The Mini 400g Static Bursting Rig is a miniaturized version of TT Technology's standard 400g Static Bursting Rig that allows you to get the job done in tight spaces that would otherwise not be accessible with standard static pipe bursting equipment or winches used in the pneumatic pipe bursting process. This benefit is showcased through a case study of a special emergency project completed for the city of Houston, TX, where access was extremely limited.

10:30 - 10:55 a.m.
Casselberry Asbestos Cement Pipe Bursting Project
Speaker: Edward Ambler, PE, Water Resources Manager, City of Casselberry, FL
The city of Casselberry completed its $10.3 million asbestos cement (AC) pre-chlorinated potable water main pipe bursting project in April of 2014 which replaced approximately 35 miles of AC pipe. This session will present the results of WRF Project #4465 while clearly describing how to burst AC pipelines and meet all existing regulations. A potential path forward through submission of a potential Administrator Approved Alternate to EPA that accepts a streamlined AC pipe bursting process is also presented.

11 - 11:25 a.m.
Lessons Learned from Bursting Existing 20" Ductile Iron Pipe with 20" Fusible PVC
Speakers: Jeffrey Wing, PE LEED AP, Engineer, Kimley Horn; Jeff Greene, PE, Pipe Bursting Subcontractor, KRG Utility
This session will discuss the challenges and solutions for replacing 20" ductile iron pipe with 20" fusible PVC in Wilmington, NC, for the Authority. The use of pipe bursting was the most economical and least invasive project approach due to the amount of traffic, existing utilities (fiber optics) and critical deadline. There were several lessons learned such as the use of line stops, shallow lines (surface heave) and the need to shift some of the pit locations due to conditions of the pipe and constructability issues.

11:30 - 11:55 a.m.
Replacing an Existing Water Main at Arlington National Cemetery by Pipe Bursting
Speaker: Andy Mayer, President, Murphy Pipe Line
This presentation will outline the challenges and solutions for replacing an existing water main at the Arlington National Cemetery.

Track IV-B = WATERWORKS CONFERENCE

8:30 - 8:55 a.m.
Tackling the Non-Revenue Water Issue
What is non-revenue water (NRW)? It is already produced water, yet is lost due to leaks, poor maintenance or theft before it reaches the consumer. Leak detection plays a key role in reducing non-revenue water as it allows utilities to optimize their system performance by surveying distribution mains (and other systems). Utilities can lower repair costs by finding and repairing leaks before a costly main breaks.

9 - 9:25 a.m.
A New Perspective and Process for Pressure Pipe Lining
Speaker: George Bontus, PE, Director-Engineering, Aegion
Pressure pipe rehabilitation using lining methods has evolved over the past decade, with a variety of products entering the market. This presentation provides a description of the development of a new and innovative carbon fiber based lining system, including application of design standards and guidelines that address some of the existing ambiguities. The testing of material and physical properties during product development support the design case and the structural rating. A project case study illustrates some of the new processes and procedures involved in this structural pressure pipe lining system.

9:30 - 9:55 a.m.
Water Main Replacement in an Urban Environment
Speaker: Jonathan Walker, Capital Linear Section Manager, Atlanta Dept. of Watershed Mgt.
The city of Atlanta, like most cities in the U.S., has an aging infrastructure. The water distribution system in some areas is more than 100-years old and requires a continual replacement program in order to meet the needs of the city's growing constituency. This presentation will cover the following: How the city of Atlanta manages it water main replacement program from assessment to actual construction; Criteria for Water Main Replacement – there is no way to replace all water mains at once, so how do you decide which lines to replace and when; and Recent water main replacement projects – projects range from a few hundred feet to 20,000' and from the small neighborhood to downtown Atlanta.

10 - 10:25 a.m.
Steel Slip Lining Rehabilitation of a 90" PCCP
Speakers: Cole Kratochvil, Project Engineer and David Markert, Project Manager, Kiewit Infrastructure West Co.
The project included the rehabilitation of approximately 6,262 LF of 90" PCCP water main. The rehabilitation requires the use of 87" split-can and 84" solid-can steel slip lining that is inserted into the existing host pipe. The split can is expanded and welded longitudinally and around its circumference in a bell and spigot connection. The solid can eliminates the longitudinal weld. The annular space between the host and new liner pipe is grouted, and the new liner is cement mortar lined and cured to create a new pipe.

10:30 - 11:25 a.m.
KWA Lake Huron Water Supply Intake
Speakers: J. Warren Green, PE, Director of Engineering and Jeremy Nakashima, PE, Sr. Project Manager, Lockwood, Andrews & Newnam
Communities in Genesee County, MI, have been receiving their water supply from the Detroit Water and Sewer Department (DWSD) since the late 1960s. This supply was delivered through a single 72" diameter pipeline. A number of challenges were encountered during the design of a new system, including high groundwater conditions for the tunneling portion of the work; bury depths of over 50', pipeline connections made in "wet" conditions, control of frazil ice, mitigation of aquatic life impacts, zebra mussel control and quality control of pipe installation. Discussion will include lessons learned in addressing these challenges.

11:25 - 11:55 a.m.
Pipe Bursting: Ideal Technique for Replacing AC Water Distribution Pipes
Speaker: Alan Goodman, National Sales Manager, HammerHead Trenchless Equipment
This session will focus on a large-scale AC replacement project out of Georgia. This project was converted from open-cut construction to pipe bursting due to the congestion of utilities surrounding this AC water line.

"...One thing I like about the educational sessions is that they focus on new developments and technology and procedures – real advances, not papers based on a rehashing of old information."
Exhibitor: Frank Canon, Baroid Industrial Drilling Products, Houston, TX

EDUCATION

Track VI-C = HDD: PRODUCTIVITY & FLUID MANAGEMENT

10 - 11:55 a.m.
HDD Emerging Technologies
Speaker: Chad Agnew,
U.S. Sales Manager, INROCK
INROCK's CrossView system is the first electronic data recorder system (EDR) specifically designed for the HDD industry. CrossView consists of a system of software, sensors, computers and networking equipment designed to deliver critical rig information to a variety of users in real-time. Contractors can use CrossView to increase profitability by optimizing rig operations, better plan/bid projects, evaluate tooling and rig component life and facilitating communication from the field.

Speaker: Jon Kuyers, Sr.
Global Product Manager-
Underground, Vermeer
HDD contractors look for ways to streamline and simplify the entire job process – including planning, mapping, producing and invoicing. Vermeer will discuss a new tool to help contractors streamline the process from bid to bill.

Speaker: Riff Wright,
General Manager, Radius HDD Tools
Radius HDD will introduce a new compact reamer design specifically for the evolving fiber installations. The reamer will offer major benefits for fiber contractors working in crowded easements and hard (rocky) conditions.

Speaker: John Bieberdorf,
Senior Product Manager, Subsite Electronics
Subsite Electronics is introducing its TSR Mobile software to download HDD bore information from the Subsite TK series HDD Guidance system directly to mobile telephones and tablets. TSR Mobile software allows drillers to generate an as-built report as soon as the pilot bore is completed.

Speaker: Richard Levings,
Product Development Manager,
American Augers
The DD-110 horizontal directional drill features a 260 HP Cummins Tier 4 final engine that provides the necessary power for 15,000 ft./lbs. of rotary torque as well as the 110,000 lbs. of thrust/pullback muscle. Also, the new M-200D mud system recycler's most predominate feature is the use of a Derrick 503 single shaker. Using a single shaker reduces the system size while providing plenty of screen area for outstanding performance.

Speaker: Dan Sharpe, President, Thunder Products
Thunderstorm III will be for the 250,000 lbs. rigs and down. It is very mobile for its size and can clean 500 to 600 GPM. It will be offered with an optional Pit Pump and trailer. Dry Shaker will be for those wanting to further dry out the cuttings coming off of their mud cleaner. It can be plugged into the same generator on the Thunderstorm units. Stormy is for the small sized drillers using 24X40 and down. It captures the cuttings and can be pulled with a one-ton truck. It is ideal for the fiber jobs where the constant mobilization of vacs and dump fees eat up margins.

Speaker: Seth Matthesen, Sr.
Product Manager, Ditch Witch
JT9 HDD – Compact, horizontal directional drill with a Tier 4 engine provides higher horsepower for telecom contractors needing additional power on tight, underground-installation jobsites.

Speakers: Glenn Halstead,
Managing Director-Global Markets and
Siggi Finnsson, Product Manager,
Digital Controls Inc.
Innovation: Optimization With Wide Band Frequency Transmitters – Interference is present on HDD sites, a new technology allows the user to optimize site-specific frequencies to improve performance and productivity.
Innovation: Viewing the Pilot Bore in Real-Time – The ability of an HDD rig operator to graphically view rod by rod progress in real-time will lead to improved decision making and better pilot bores.

Track VII = UNDERGROUND UTILITIES CONSTRUCTION

8:30 - 9:25 a.m.
Bypass Pumping Workshop
Speakers: Ken Kross, PE,
Engineering Manager and
Ben King, PE, Engineer, Rain for Rent
Bypass pumping is inevitable for a pipe rehabilitation project. It is important to understand the process to ensure optimum resource utilization and avoid mishaps. This workshop covers the common terms and potential issues. It also covers project planning and execution, which includes pre-project planning, system layout, equipment selection and post bypass clean up, case studies from actual projects and safety. Presented by a PE, the attendee can learn how to calculate flows, read pump curve and determine the right type of pump. Relying on a specific vendor to suggest equipment could limit the owner to equipment that is only available in the vendor's fleet; this workshop will cover different types of equipment that are available in the market.

9:30 - 9:55 a.m.
Stop Cutting Corners! Keyhole Coring is the Better Way
Speaker: Marshall Pollock,
President/CEO, Utilicor Technologies
Not only are conventional excavation methods like jackhammers, backhoes or trenchers inherently more dangerous, but the damage that they do to the road system adds a new dimension to the costs of restoration. Keyhole and trenchless methods are faster, safer and more cost effective than conventional methods and have the added potential to save millions of dollars in pavement restoration costs when used for telecom, gas or water pipe installation or renewal.

10 - 10:25 a.m.
Cross Bore Risk Reduction Using Leading Practices
Speaker: Mark Bruce,
President, Cross Bore Safety Association
Risk of injury and damage is minimized when using concepts of the "Leading Practices for Cross Bore Safety." Gas lines installed in sewers during trenchless construction are a recognized major risk, but use of industry-reviewed practices are applicable to all utilities construction. A summary of the key elements of the new practice will be presented.

10:30 - 10:55 a.m.
GIS Technology in the Location and Marking of Buried Utilities
Speaker: Matt Lumbers,
Product Manager and John Bieberdorf,
Product Manager, Subsite Electronics
Several products have been developed for mapping utilities, or adapted to, existing GPS, locating or tracking devices. Not all Global Positioning Systems (GPS) are the same – what's the difference? Methods of GPS data collection and the expected accuracies will be discussed. Case study examples are also included. As a result, the project owner, engineer and contractor will have better knowledge of GIS technology in the location and marking of buried utilities.

11 - 11:25 a.m.
Thermal Grouting of PSE&G Southern & Northern Reinforcement Projects
Speaker: Guy Dickes,
President, Constellation Group
PSE&G (New Jersey) has undertaken major upgrade transmission projects. These include miles of overhead and underground 230kV lines. Whenever these transmission lines cross major roadways or waterways, trenchless construction has been employed (jack and bore, microtunnel and HDD). These trenchless systems have been thermal grouted to improve transmission, cable lifespan and peak demand capability. This presentation will discuss the design and installation of thermal grout.

11:30 - 11:55 a.m.
Pre-Engineered Shoring Systems for Cross-Trench Utility Challenges
Speaker: James McRay,
Director- Marketing/Media,
Efficiency Production
Infrastructure rehabilitation and upgrade by definition requires tricky excavation parameters. There is very little room for error as municipalities and excavation contractors must first locate, identify, mark and properly shore around existing underground utilities. Therein lays the damage prevention challenge. How does a contractor shore an excavation for an infrastructure installation or upgrade when the ground they are working in looks like a bowl of spaghetti of crossing utilities? This session will detail the many pre-engineered shoring system that are specifically designed for contractors and municipalities faced with the challenge of multiple crossing utilities in their excavation projects.

Industry Partners Training Programs

In addition to the UCT primary education program, industry partners host seminars and workshops Monday, Feb. 1 - Tuesday, Feb. 2. Many offer industry certification. These programs will be held at the Westin Peachtree Plaza Hotel. Advance registration is necessary as seating is limited. Take advantage of all of the educational opportunities that UCT has to offer. BONUS – industry partner program registration includes complimentary access to the full UCT conference (education, exhibits and the networking reception). Register today at uctonline.com or complete the form in this brochure. Take a look at the additional course offerings brought to you by the leader in education – UCT!

Specialty Training

CUIRE Training Schools

The Center for Underground Infrastructure Research & Education (CUIRE) is offering half-day certification schools designed specifically for personnel in the underground utilities construction and rehabilitation industry. If you are a public official, engineer, utility company personnel, designers, utility owner/operator or a contractor involved with constructing, renewing and managing utilities, then CUIRE's engineering and inspector training and certification schools are for you. Course instruction will be provided by notable industry experts.

Each school qualifies for CEUs and PDHs through the University of Texas at Arlington. The rate for each half-day school is $195 before Dec. 1, $295 after Dec. 1. For more information regarding these courses, contact CUIRE at (817) 272-9177 or email: cuire@uta.edu. Choose from the following Certification Schools:

MONDAY 1

Monday, Feb. 1
8 a.m. - 12 p.m.

- **Geotechnical School©**
  Geotechnical requirements for both trenchless applications – soft soils and rock investigations methods will be presented, in addition to how ground conditions impact trenchless feasibility and productivity.
- **Pipe School©**
  Applications, advantages and limitations of each type of pipe, such as steel, ductile iron, vitrified clay, PVC, HDPE, fiber-glass, etc., and new developments in pipe materials and jointing systems will be discussed.

1 p.m. - 5 p.m.

- **Mud School for Trenchless Technology**
  Attendees will learn everything they need to know to properly mix and apply drilling fluids for trenchless applications, including spoil removal and lubrication applications.
- **Horizontal Auger Boring School©**
  Learn about the planning, design and construction of conventional pipe jacking, horizontal auger boring and pipe ramming.

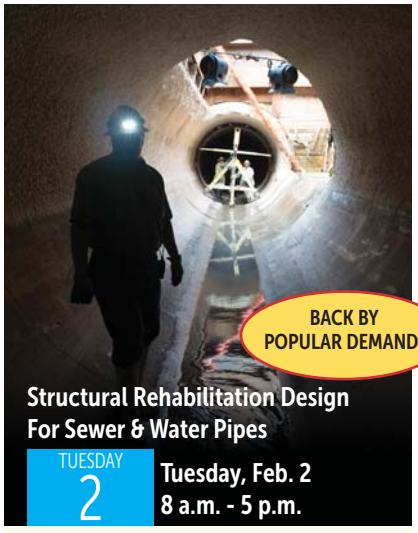
TUESDAY 2

Tuesday, Feb. 2
8 a.m. - 12 p.m.

- **Advanced Horizontal Directional Drilling (HDD) Planning and Design School©**
  This course will cover planning and design of large-, mid- and small-size HDD projects from inception to closeout and delivery. This school includes site conditions, wireline tracking, drilling fluids and case studies.
- **Pipe Lining and Renewal School©**
  Cured-in-place pipe (CIPP) and pipe lining methods will be discussed. Included will be the planning, design, construction, inspection and QA/QC for CIPP.

1 p.m. - 5 p.m.

- **Advanced Horizontal Directional Drilling (HDD) Construction School©:**
- This school covers HDD construction and includes tracking and locating, pipe loads, bore planning, pipe considerations, tracking and locating and case studies.
- **Pilot Tube Microtunneling School©**
  Learn how to plan, design and construct using pilot tube microtunneling. Case studies will be presented.



Structural Rehabilitation Design For Sewer & Water Pipes

TUESDAY 2

Tuesday, Feb. 2
8 a.m. - 5 p.m.

Westin Peachtree
Cost: $300 ($200 each additional attendee from same company)
Includes 8 PDH credits.

Why you should attend:
This workshop will present the essential engineering concepts required to produce valid structural rehabilitation designs for rigid pipes. The design process will be compared to current design methods such as ASTM F1216, AWWA M28 and WRc. The discussion will focus on gravity flow sewer pipes and will be extended to internal pressure pipes as well. The 2016 course will include rehabilitation of Prestressed Concrete Cylinder Pipe (PCCP). Appropriate technical references and computational tools will be identified.

George McAlpine, PhD, will provide instruction. For more information, contact McAlpine at danby@mindspring.com.

TRAINING

Rehabilitation Strategy Seminar

Thursday, Feb. 4, 8:30 - 11:55 a.m.

This seminar covers four key elements of discussion:

A 10-Step Plan for a Municipal I/I Reduction and Sewer Rehabilitation Program

- "If I had this to do over..." Twelve Steps To Successfully Measure Effectiveness of Sewer Rehabilitation
- Nashville & Brentwood – Removing 4.1 Billion Gallons of I/I
- Service Laterals as a Critical Part of the Rehab Program

THURSDAY 4


Kurz


Stevens

A new statewide study of I/I in Tennessee municipal collection systems showed an average of 46 percent I/I in collection systems and that two-thirds of the systems had more than 50% I/I. These systems likely are representative of many collection systems in the southeastern USA. This level of leakage should provide a powerful incentive for municipalities to measure the condition of their sewers and develop a strategy for corrective action.

This seminar uses the results from work in small and large municipal systems to teach a strategy for conducting a successful sewer rehabilitation program for SSO and I/I reduction. The strategy resembles extensive before-after flow measurements for 30 project areas, which included 110 miles of sewer lining, and manhole and service lateral rehabilitation on all lined sewers. The strategy proved the value of the System Approach for aggressive rehabilitation of deteriorated sewers targeted in priority basins rather than a "find-and-fix" approach for scattered individual pipe defects. Municipal sewer O&M savings generally resulted in a payback period of about 10 years for project construction costs. A logical and intuitive 10-step strategy stands as the formula to approach.

Before-after flow monitoring, and rehabilitation of sewer service laterals were critical for successful programs. The presentations will identify pitfalls for flow/rainfall monitoring and explain the analysis of monitoring data in general terms applied to improve the results regardless of the brand of equipment. Sewer service laterals are significant sources of a pilot study, and I/I will be explained which isolated and measured the I/I contribution from service laterals.

This workshop is taught by industry experts George Kurz, P.E., DEE, consulting engineer, and Pat Stevens, P.E., vice president of engineering at ADS Environmental Services.

NASSCO PACP Trainer Course

(Certification & Recertification)

TUESDAY 2

Tuesday, Feb. 2
8 a.m. - 5 p.m.

Certification: $750;
Recertification: $250

Space is limited to 4 attendees!

The National Association of Sewer Service Companies (NASSCO) PACP Trainer Course is designed for current PACP 7.0 trainers who need to be recertified and PACP users who have fulfilled the prerequisites to become trainers. This session will ensure the candidate is able to correctly arrange for, conduct and complete PACP classes, and is knowledgeable in all areas of PACP. Attendees must own and bring a current version of the PACP 7.0 manual to class. Registration for this course is subject to NASSCO approval. Submit your application, resume and letter stating why you would like to be certified or recertified to dawn@nassco.org or fax to (410) 442-7788.

NASSCO Inspector Training & Certification Program for Cured-In-Place Pipe (ITCP-CIPP)

MONDAY 1 | TUESDAY 2

Monday, Feb. 1 - Tuesday, Feb. 2
1 - 5:30 p.m. – Day 1
8 - 5 p.m. – Day 2

Cost: $995 for NASSCO Members;
$1,095 for Non-Members

Space is limited!

NASSCO's Inspector Training and Certification Program (ITCP) is a new standard national training and certification program that provides field construction professionals with comprehensive learning and tools to understand and inspect trenchless pipeline renewal technology. This training is intended for consulting engineers who provide inspection services, municipal engineers who perform inspection on their projects, inspectors who are on site inspecting the project and all who need a comprehensive understanding of the cured-in-place pipeline renewal technology. For more information, contact:
Gerry Muenchmeyer, P.E. at
gerry@muenchmeyerassoc.com.

What You Will Learn:

- Project applicability and technology standards
- When is the best time to install a CIPP liner?
- Technology materials and processes. What affects the 50-year plus design and service life?
  - Resin Quality
  - Resin Quantity
  - Pipeline Preparation
  - CIPP Curing
  - Service reconnection quality
- Identifying, inspecting and documenting all key aspects before, during and after construction. Review of potential defects and proper repair.
- What needs to be included in the specifications, so the contractor delivers a quality product?
- How should the lateral be re-opened?
  - Different methods
  - Opening Size
  - Delivered quality

"It was a very good show this year [2015]. I concentrate on the exhibits; we have to stay up to date and I see what is current and available and what's new."
Attendee: Mike Woodcock, Portland Utilities Construction

EXHIBITING

Expand your market presence
to contractors, gas utilities, municipal sewer and water authorities, pipeline companies and engineering firms.

Network
with a diverse global attendance from across the U.S. and 16 countries worldwide – saving you travel expenses.

Create brand loyalty
by establishing relationships with your current customers and suppliers.

Conduct business at the event designed around your needs. In addition to the real-world education you'll receive, you can network with representatives from companies that manufacture:

- directional drilling rigs;
- liners;
- CCTV systems;
- mud mixing systems;
- pumps and more.

Every aspect from the underground utility industry is represented in the exhibit hall. And, the UCT Networking Reception will be in the exhibit hall on Thursday, making networking even more convenient. Below are the exhibitors that have signed up so far. For details on becoming an exhibitor, contact Karen Francis at kfrancis@uctonline.com or visit the exhibiting page at uctonline.com.




Exhibitors (as of 9/25/15)

ADS, INC., INSERTA TEE 1135
AGRU AMERICA INC 313
AKKERMAN 113
AMERICAN AUGERS / TRENCOR 622
AP/M PERMAFORM 1238
APPLIED FELTS / MAXLINER 1134
ASSOCIATED CONSTRUCTION PUBLICATIONS 744
AVANTI INTERNATIONAL 938
BARBCO INC 97
BAROID INDUSTRIAL DRILLING FLUIDS 317
BJM PUMPS 213
BUCKHORN PUMPS, INC 315
CANADIAN UNDERGROUND INFRASTRUCTURE 642
CARESTREAM NDT 320
CIPP CORPORATION 1031
COBRA TECHNOLOGIES 1033
CONTAINMENT SOLUTIONS INC. 631
CONTECH ENGINEERED SOLUTIONS 518
COPPERHEAD INDUSTRIES LLC 331
CUES 1130
DIGITAL CONTROL INC. 509
DITCH WITCH 323
DOETSCH ENVIRONMENTAL SERVICES 1032
DUKE'S ROOT CONTROL INC 1035
EMAGINEERED SOLUTIONS, INC 351
ENVIROCON SYSTEMS INC. 616
FERRA TEX 835
HAMMERHEAD TRENCHLESS EQUIPMENT 423
HERRENKNECHT TUNNELLING 913
HOBAS PIPE USA INC. 727
HTS PIPE CONSULTANTS INC 623
HYDRA-TECH PUMPS 1026
INFRASTRUCTURE REPAIR SYSTEMS INC. 839
INLINER TECHNOLOGIES 625
INSITUFORM TECHNOLOGIES LLC 407
INTEGRITY FUSION PRODUCTS, INC 414
INTERPLASTIC CORPORATION 808
J.T. MILLER LLC 500
JACK DOHENY COMPANIES 1034
JET-LUBE INC 419
KEMTRON TECHNOLOGIES LLC 401
LMK TECHNOLOGIES 1139
MABEY INC 817
MADEWELL PRODUCTS CORP 909
MCELROY MANUFACTURING 413
MCLAUGHLIN 506
MI SWACO A SCHLUMBERGER CO 512
MINCON INC. 702
MUD TECHNOLOGY INTERNATIONAL 701
NASSCO INC. 1037
NATIONAL LINER LLC 1030
NIGHTSTICK BY BAYCO PRODUCTS, INC. 722
NORTH AMERICAN PROCUREMENT COUNCIL. 842
NRI 550
PERMALOK - A NORTHWEST PIPE COMPANY 917
PIONEER ONE, INC. 711
PIPENOLOGY, LLC 441
PRIME RESINS 731
QUADEX 939
R.S. TECHNICAL SERVICES INC. 934
RADIUS HDD TOOLS 603
RAMVAC VACUUM EXCAVATORS 1003
RAVEN LINING SYSTEMS 231
RELINE AMERICA INC. 93
SAUEREISEN, INC 531
SCORPION OIL TOOLS INC. 99
SEALING SYSTEMS INC. 412
SOURCE ONE ENVIRONMENTAL 830
SPECIFIED FITTINGS LLC 417
SPECTRASHIELD LINER SYSTEMS 935
STANDARD CEMENT MATERIALS INC. 1023
SUBSITE ELECTRONICS 326
SUNBELT 103
TERRE HILL COMPOSITES INC. 1027
THE MONTE VISTA GROUP, LLC 405
THE ROBBINS COMPANY 530
THE STRONG COMPANY 504
THOMPSON PUMP AND MANUFACTURING 836
TRY TEK MACHINE WORKS INC. 723
TT TECHNOLOGIES 203
TUFFROD 709
UNDERGROUND CONSTRUCTION MAGAZINE 753
UNDERGROUND SOLUTIONS INC. 312
UNDERGROUND TOOLS INC. (UTI) 403
UTILICOR TECHNOLOGIES 131
VAC-TRON EQUIPMENT LLC 206
VACUWORX 318
VERMEER 501
VYLON PIPE 641
WORLDWIDE DRILLING RESOURCE INC 730

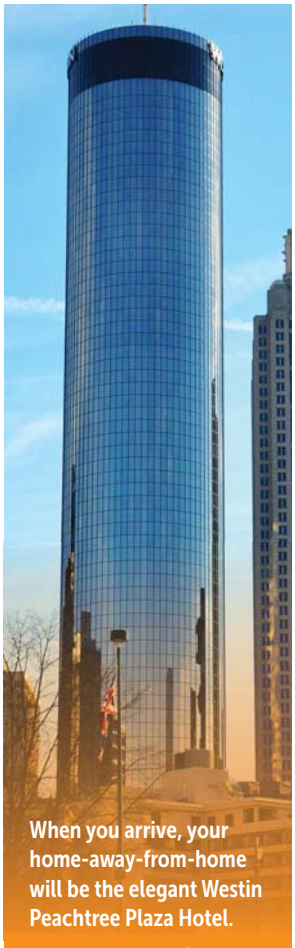
DOWNTOWN

ACTIVITIES

Things to See and Do in Atlanta!

Downtown Atlanta is fast becoming a 24-hour neighborhood filled with things to do – many are within walking distance of the Georgia World Congress Center and the headquarters hotel, the Westin Peachtree Plaza. The **College Football Hall of Fame & Chick-Fil-A Fan Experience** are must-see attractions for any sports fan. Guests are greeted by a huge helmet wall featuring school helmets of every college team in the country. Other attractions located in downtown Atlanta are: **Centennial Olympic Park, World of Coca-Cola and CNN Studio Tours**..

With more than 300 restaurants in the downtown Atlanta area, there is something for everyone. Restaurants range from fast-casual spots to a more formal affair. There are options at every price point and they showcase a variety of cuisines and cooking styles. **Agatha's** has been entertaining Atlanta with its unique, original and hilarious murder mysteries. **Morton's Steakhouse** in downtown Atlanta has long been a favorite destination of exhibitors and their customers. **McCormick & Schmick** is known for the freshest seafood in Atlanta. The **Sun Dial Restaurant**, Bar & View is Atlanta's only tri-level dining complex featuring a revolving upscale restaurant, a rotating cocktail lounge and an observatory View Level offering a breathtaking **360-degree panorama of the magnificent Atlanta skyline**. An Atlanta tradition, thousands of locals and tourists board the scenic glass elevators each year to climb the hotel's 73 stories to The Sun Dial for its unbeatable views, classic cuisine, and live jazz and relaxing ambiance.

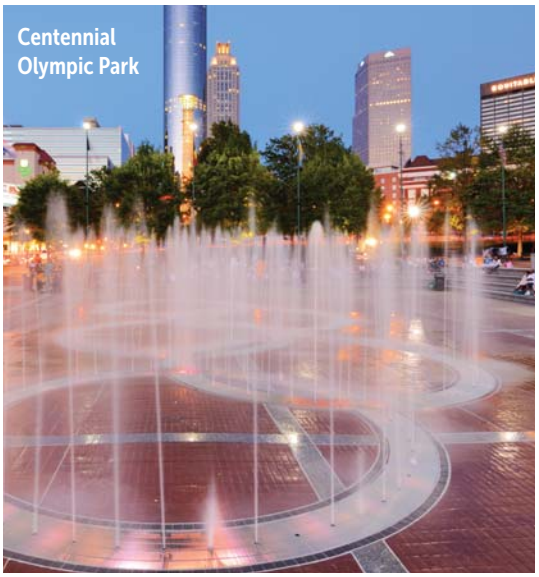


When you arrive, your home-away-from-home will be the elegant Westin Peachtree Plaza Hotel.

Nightly rates are $165 single/double and $185 triple. Rooms are available now, so book early.

Visit the housing page at uctonline.com.

Getting from the airport to downtown Atlanta is easy. Whether you travel via MARTA, shuttle or cab, you're less than 20 minutes away! Daily non-stop flights to and from every major city in the world, make commuting to UCT in Atlanta a breeze.



Centennial Olympic Park

The Georgia Aquarium is home to more animals than any other aquarium.

REGISTRATION

An Investment In Your Future

NEW program rates, designed for organizations that want multiple attendees to benefit from all that UCT has to offer, are in effect.

BRING THE COMPANY

Bring The Company Full Conference Rate

$475

Good for an unlimited number of registrants from the same company on Feb. 3-Feb.4.

Rate increases to $595 on Jan. 14

One-Day Bring The Company Rate

$250

Rate increases to $350 on Jan. 14

One-person full conference rate

$195

Rate increases to $275 on Jan. 14

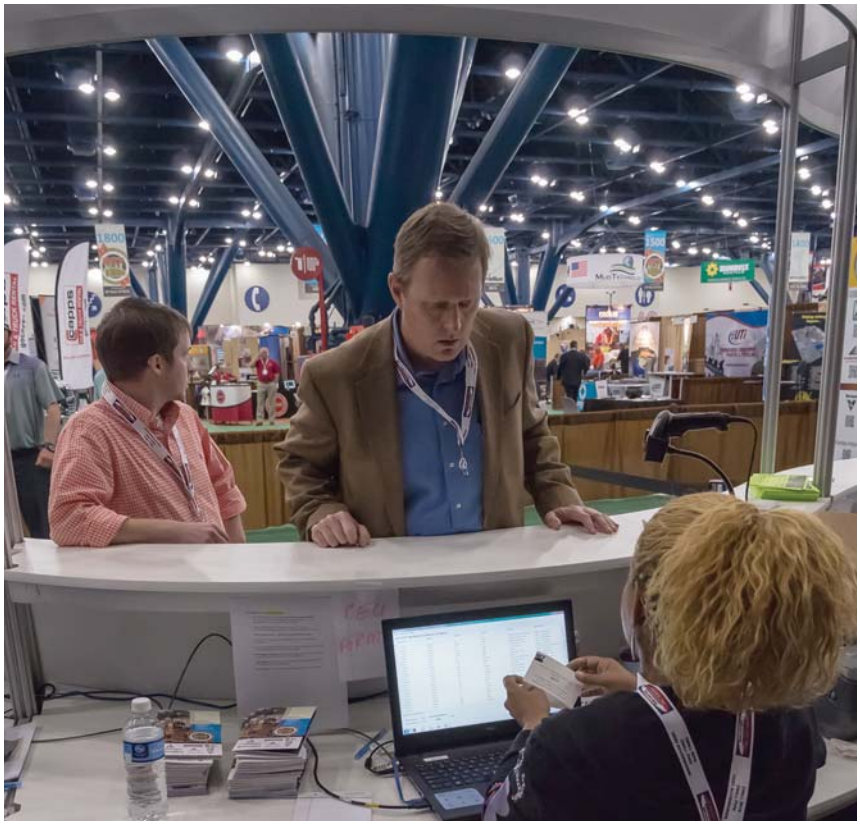
Exhibit Hall Only

$10 per person or

Rate increases to $20 on Jan. 14.

2 ways to register

1. Online at uctonline.com (credit cards only)
2. Mail completed registration form, with check or money order, to UCT, PO Box 941669, Houston, TX 77094-8669



Contact us:

Exhibits or Registration
kfrancis@uctonline.com

UCT Education
rcarpenter@oildom.com

CUIRE Training
cuire@uta.edu

Structural Design for Sewer & Water Pipes
danby@mindspring.com

NASSCO
dawn@nassco.org

Attendee Registration Form

Underground Construction Technology International Conference & Exhibition
February 3-4, 2016, Georgia World Congress Center, Atlanta, GA

APPLY ONLINE!
uctonline.com

Register using this form or online at uctonline.com. One form per registrant. Confirmations and receipts will be emailed.
Questions/Information E-mail: Karen E. Francis at kfrancis@uctonline.com.

Name: _____

Business Title: _____

Company: _____

Address: _____

City: _____ State/Province: _____

Zip/Postal Code: _____ Country: _____

Phone: _____ Fax: _____

E-mail: _____
(required for confirmation)

Is this your first time attending UCT? ☐Y ☐N If No, how many times _____

What is the #1 reason you attend UCT? ☐Continuing Education ☐See Equipment ☐Networking

What is your involvement in company purchasing decisions? ☐Approve ☐Recommend ☐Not involved

Indicate Title Classification (*check one only*):

- ☐ Owner/Pres./Director
- ☐ Vice Pres./Sr. Management
- ☐ Engineer
- ☐ Supervisory Personnel
- ☐ Field Operations
- ☐ Other _____

Indicate Company Type (*check one only*):

Contractor:

- ☐ Gas Distribution
- ☐ HDD
- ☐ Pipeline/Energy
- ☐ Plumbing
- ☐ Sewer/Water
- ☐ Telecom/Electric/Cable

- ☐ **Engineering**
- ☐ **Manufacturer/Supplier**
- ☐ **Public Works** (sewer/water/storm)
- ☐ **Regulator/Government**
- ☐ **Rental Company**
- ☐ **Utility Companies** (electric, energy pipeline, gas distribution, industrial, telecom)

2 REGISTRATION:

Select the course (s) you wish to attend below. If registering for CUIRE, NASSCO or Structural Rehabilitation, do not add UCT.

UCT Primary Program, February 3-4	One Registrant thru Jan. 13	Bring the Company Rate thru Jan. 13	One Registrant After Jan. 14	Bring the Company Rate After Jan. 14	Total
Full Conference & Exhibits	$375	$475	$495	$595	$
One-Day Full Conference & Exhibits (Wednesday)	$195	$250	$275	$350	$
One-Day Full Conference & Exhibits (Thursday)	$195	$250	$275	$350	$
Exhibits Only (good for two days)	$10	N/A	$20	N/A	$
If registering for courses below, do not select UCT, it's complimentary					
CUIRE Training Schools	**Per Registrant thru Dec. 1**	**Per Registrant After Dec. 1**			
Monday, February 1, 8:00-12:00					
Geotechnical School	$195	$295			$
Pipe Applications School	$195	$295			$
Monday, February 1, 1:00-5:00					
Mud School	$195	$295			$
Horizontal Auger Boring School	$195	$295			$
Tuesday, February 2, 8:00-12:00					
Advanced Horizontal Directional Drilling Planning and Design School	$195	$295			$
Pipe Lining and Renewal School	$195	$295			$
Afternoon: 1:00-5:00					
Advanced Horizontal Directional Drilling Construction School	$195	$295			$
Pilot Tube Microtunneling School	$195	$295			$
Structural Rehab Design for Sewer & Water Pipes	**First Reg. from company**	**Each add'l from company**			
Tuesday, February 2, 8:00-5:00	$300	$200			$
NASSCO Training & Certification	**Member**	**Non-Member**			
ITCP-CIPP (1.5 days) Monday, Feb 1, 1:00-5:30 and Tuesday, Feb 2, 8:00-5:00	$995	$1,095			$
Tuesday, February 2, 8:00-5:00					
PACP Trainer Course (certification)	$750	Contact dawn@nassco.org to register for PACP			
PACP Trainer Course (recertification)	$250	Contact dawn@nassco.org to register for PACP			
				Grand Total	$

3 PAYMENT OPTIONS:

Full payment is required.

Today's Date: _____ Total amount due: $ _____

If paying by check, make it payable to UCT and send it with the completed application to:

UCT-Oildom Publishing Company
1160 Dairy Ashford, Suite 610
Houston, Texas 77079

If paying by credit card, complete section below and fax to 1-281-558-7029, or email form to kfrancis@uctonline.com.

Receipts and registration confirmation will be emailed.

☐MasterCard ☐VISA ☐AMEX ☐Discover

Card number: _____

Expiration date: _____ CVV Code: _____

Name on card: _____

Signature: _____

Provide billing address if different from section 1.

Address _____

City, ST, Zip _____

Cancellation Policy: No refunds on exhibit hall fees.
100%* refund on seminars if cancelled in writing by Jan. 8, 2016.
50%* if cancelled in writing by Jan. 18, 2016.
No refunds after COB Jan. 18. Substitutions are allowed.

*$5 admin fee to be deducted from all refunds.

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Unrivaled educational opportunities await you at UCT

WHO SHOULD ATTEND UCT?

Contractors
sewer, water, gas utility, telecommunications, industrial, pipeline, damage prevention and safety

Consulting Engineers
firms serving the underground and industrial markets

Damage Prevention
personnel involved in managing damage prevention and safety issues

Gas/Electric Utilities
officers, managers, construction, maintenance and rehabilitation personnel

Municipalities
public works officials, construction and rehabilitation personnel, senior city staff and elected officials

Pipelines and Energy
officers, managers, construction and maintenance personnel for transmission pipeline construction, rehabilitation, maintenance, marketing and trading

Telecommunications
owning company, operations and construction personnel

Underground Construction Technology
International Conference & Exhibition

Feb. 3-4, 2016

Georgia World Congress Center
Atlanta, GA

Follow us online to find out more about exhibiting and attending UCT

uctonline.com