

MINNESOTA FORUM ON TRENCHLESS TECHNOLOGY

Bloomington Public Works, PW Training Room, 1700 W. 98th Street, Bloomington, MN 55431

Host: Eric Wharton, City of Bloomington

Thursday, May 4, 2017

8:30 A.M. – 4:00 P.M.

FORUM SPONSOR:



AGENDA

- 8:30** Coffee and check-in.
8:30 **EXHIBITION OPENS**
- 9:15 – 9:20** WELCOME AND INTRODUCTIONS
- TECHNICAL PRESENTATIONS**
- 9:20 – 10:00** #1 Moving Inspections from the Underground to the Palm of Your Hand – Spatial Data Collection Technologies & Case Studies ... David Patterson, CH2M
- 10:00– 10:40** #2 Guided Boring ... Justin Akkerman, Akkerman
- 10:40 – 10:50** **BREAK**
- 10:50 – 11:30** #3 Rehabilitation and Installation of Pressure Pipelines... Dan Christensen, UGSI/Aegion
- 11:30 – 12:10** #4 Manhole Rehabilitation – Considerations for Good Decision Making... Bob Merton, Spectrashield Liner Systems
- 12:10 – 12:40** **LUNCH**
- 12:40 – 1:20** #5 Sealing the Collection System: With a Focus on Main-to-Lateral Rehabilitation... Pete Dannenberg, LMK Technologies
- 1:20 – 2:00** #6 Fold and Form PVC Liners for Culvert Rehabilitation... David Ohayon, IPEX USA LLC
- 2:00– 2:10** **BREAK**
- 2:10 – 2:50** #7 Jacking and Tunnel Applications... Vince Paparozzi, Hobas Pipe USA
- “MUNICIPAL PARTICIPANTS ONLY” SESSION**
- 2:50 – ?** Discussion and Information Sharing
- 4:00** **EXHIBITION CLOSES**
- 400** **Adjourn**

Technical Presentations

- Title:** #1 Moving Inspections from the Underground to the Palm of Your Hand – Spatial Data Collection Technologies & Case Studies
- Presenter:** David Patterson, CH2M
- Duration:** 30 min + 5 min Q/A
- Abstract:** Over the last few years smartphones and tablets have become ubiquitous part of daily life but utilizing their full potential in the utility industry has been a challenge. This presentation will include several use cases where smart devices have been configured to use GIS to collect and manage spatial data from asset inspections (i.e. manholes, sewers, etc.) using standard GIS tools. The goal of the presentation is to show how engineering and utility departments can use these tools to improve workflows, efficiently manage assets, and bridge the IT & GIS department language barrier.
- Title:** #2 Guided Boring Application Variety
- Presenter:** Justin Akkerman, Akkerman
- Duration:** 30 min + 5 min Q/A
- Abstract:** Guided boring is a cost effective solution to achieve accurate and extended trenchless gravity flow utility installations for 4-48-inch outside diameter pipe and larger with select increasing tooling, in a full range of geology within a small site footprint. This trenchless method for utility pipeline construction not only provides the ability to accurately and expediently install infrastructure below the complex landscape of buried utilities, it also minimizes surface disruption and therefore the social impacts of municipal utility construction. The most recent and notable guided boring innovation is rock drilling in soft rock conditions. This presentation will address standard guided boring installations, but also guided auger boring, and several unique solutions along with case studies.
- Title:** #3 Rehabilitation and Installation of Pressure Pipelines
- Presenter:** Dan Christensen, UGSI/Aegion
- Duration:** 30 min + 5 min Q/A
- Abstract:** This presentation will present selected technologies for rehabilitation and installation of pressure pipelines, including potable water CIPP, HDPE sliplinig, externally bonded Fiber Reinforced Polymer (FRP) systems and fusible PVC pipe. Case studies will be presented on Fusible PVC pipe applications for both trenchless (horizontal directional drill, slip lining, pipe bursting and jack and bore) and open cut installations.
- Title:** #4 Manhole Rehabilitation – Considerations for Good Decision Making
- Presenter:** Bob Merton, Spectrashield Liner Systems
- Duration:** 30 min + Q/A
- Abstract:** This presentation will briefly discuss things to consider for developing a comprehensive Manhole Rehabilitation Program. Topics include Condition Assessment, Products for Manhole Rehab and Life Cycle Costs.

Title: #5 Sealing the Collection System: With a Focus on Main-to-Lateral Rehabilitation
Presenter: Pete Dannenberg, LMK Technologies
Duration: 30 min + Q/A
Abstract: Cities who are trying to reduce costs associated with excessive I&I and/or root intrusion are finding that rehabilitating manholes and lining city owned sewer pipe does not always produce the results they desire because the failing laterals remain an unmitigated source of clear water inflow. The focus of the lunch and learn session is on proper techniques and materials to renew lateral services using CIPP technology with special emphasis on restoring the connection of the lateral to the mainline sewer in accordance with the ASTM F2561. Key Takeaways: (1) If you want to truly maximize I&I reduction you have to seal the system with hydrophilic gasket sealing technology. (2) A permanently sealed connection means service life equals design life. (3) Specification is the key to a successful project; ASTM F2561 is the industry best practice standard.

Title: #6 Fold and Form PVC Liners for Culvert Rehabilitation
Presenter: David Ohayon, IPEX USA LLC
Duration: 30 min + Q/A
Abstract: Fold and Form PVC Liners have been in use for over 25 years, and have become a well accepted method for sewer and culvert rehabilitation. They have especially gained traction as the preferred structural rehabilitation method for culverts and other environmentally sensitive areas, since there is no release of odors or flushing of chemicals (such as Styrene) of any kind during installation. PVC also provides a minimum 50 year service life, resistance to chemicals, abrasion resistance and low friction for improved hydraulic flow. Several case studies will be discussed as part of the presentation

Title: #7 Jacking and Tunnel Applications
Presenter: Vince Paporozzi, Hobas Pipe USA
Duration: 30 min + 5 min Q/A
Abstract: This presentation will cover use of Centrifugally Cast Fiberglass Reinforced Polymer Mortar (CCFRPM) Pipe for jacking and tunneling. It will explain why the use CCFRPM reduces cost of installation compared to traditional Reinforced Concrete Pipe and the value added to the owner due to superior hydraulics, corrosion resistance and zero leakage joints. The consistent smooth, non-permeable OD resulted in a single jack of 1560'-60" in Staten Island, NY in 1990. Case study included.

***** Mini-Exhibition *****

EXHIBITORS

Akkerman develops, manufactures and supports quality pipe jacking and tunneling equipment that accurately installs a variety of underground infrastructure. It partners with contractors to explore project solutions for a wide range of geology, pipe diameters and lengths.



We are committed to making every effort to position our equipment on your next pipe jacking or tunneling project. Akkerman systems are available for purchase, lease-to-purchase, or rent from our rental fleet.

Web site: <http://www.akkerman.com>



SpectraShield Liner Systems provides a patented wastewater rehabilitation system for manholes, lift stations and other wastewater structures. This unique, multi-layered liner system created specifically to protect both new and existing manholes, and large wastewater structures like lift stations, wet wells and other treatment facilities from infiltration and corrosion. With its three branch locations and eight licensed applicators, services are provided to 29 states, Canada, Europe and Australia. SpectraShieldliners has been installed in thousands of structures throughout the United States, the Caribbean, Europe and Australia.

Web site: www.spectrashield.com



IPEX is a leading North American manufacturer of thermoplastic piping systems, with manufacturing, distribution and sales locations across North America. IPEX has been serving the Municipal, Electrical, Industrial, Plumbing & Mechanical and PE Electrofusion sectors for the past 50 years, with highly engineered products and unmatched technical field support. Priding itself on its culture of Innovation, IPEX has added several Trenchless products to its portfolio, including: NovaForm™ PVC Liner, IPEX Fusible™ PVC CIOD Pipe, TerraBrute® CR Restrained Joint PVC Pipe and SceptaCon™ PVC Raceway for Horizontal Directional Drilling.

Web site: www.ipexna.com.



Aegion is a multinational company involved in the protection, rehabilitation, engineering and design of infrastructure projects for a wide range of industries, including oil and gas, water, mining and wastewater. The company engages in engineering, procurement, construction, maintenance, and turnaround services.

Insituform Technologies and Underground Solutions (UGSI) are part of Aegion's infrastructure Solutions platform. Together, these companies provide infrastructure rehabilitation and strengthening solutions for both gravity and pressure pipelines.

Web site: www.Aegion.com



HOBAS is a manufacturer of centrifugally cast fiberglass reinforced (GRP) pipe systems made of unsaturated polyester resin with diameters ranging from 6 inch to 140 inch. HOBAS pipes have been installed by a variety of methods such as open trench, jacking, microtunneling, sliplining and above ground in more than 100 countries all around the world.

Web site: www.hobaspipes.com