TECH TIPS FROM NASSCO

Tech Tips by NASSCO is a bi-monthly article on trends, best practices and industry advice from NASSCO's trenchless technology membership professionals.

PIPE BURSTING: PREPARING FOR SUCCESS

By NASSCO member Matt Timberlake, Vice President, Ted Berry Company, Inc.

Pipe bursting is a proven and widely used method for replacing existing pipes without the need to excavate a trench for the length of the existing pipe. Like all forms of construction and utility work, trenchless or not, proper planning can often mean the difference between a successful job and one that is not. Pipe bursting projects can come in a variety of forms, both public (mainline water, sewer, gas, or other) or private, and either from a competitive, publicly-posted bid or a direct negotiation between the owner and a contractor. In either case, meeting the owners' expectations by delivering the end product they expect, on time, on budget, and safely is the desired end result.

A resident watches as an 8" pipe is installed by pneumatic pipe bursting through a historic fence and town park on the coast of Maine. Small steel rods were used as guides to prevent damage to the fence posts.

Pre-planning for a pipe bursting project should include a detailed review of the site, including a visit by the project manager whenever feasible. A visual scan of the site can often make a difference as to what means and methods are selected and what risk management approaches can, and should, be used in the project planning and execution. By viewing the site, one can identify surrounding conditions like mature trees that could be affected by excavating a pipe insertion or receiving pit. In such cases, the pit locations can be modified to limit damage to the root systems. Landscaping, fences, buildings, and other features that oftentimes are not seen in project plans become an integral part of the planning process.

Another critical item to evaluate is the location of other utilities and their proximity to the line to be replaced. These utilities often include water, sewer, drain, gas, electrical, cable, and others that can affect both the feasibility and approach of bursting dependent on their proximity and the ability to accurately locate and expose them. Many times a line in close proximity can simply be located and exposed through a small pothole (often with vacuum excavation) and the burst can then safely progress.

Owners' expectations is another important criterion in pre-planning. It is important to have good communication with them and their representatives regarding the approach and execution of the project prior to starting so they can be fully informed and have any and all questions answered. Sometimes the owner will not truly understand the process and the required steps, and this lack of understanding can create misunderstanding and often unmet expectations.

For example, on a small municipal project, a homeowner—who had been informed that the process would be "No-Dig"—approached a pipe insertion pit and asked, "So if this is trenchless, why are you digging a hole?" After explaining the process and how it works, the homeowner was thrilled that the city had taken this approach, which limited excavation. This case is not rare to trenchless construction and rehabilitation and it is always worth the effort to take the extra time and effort to explain the process and the impacts it will and will not have to stakeholders.

Last but not least, it is critically important to remember why we are at the jobsite. Our methods minimize impact to the community and the public, reduce cost and environmental impacts caused by traditional open cut construction methods, and provide a long service life value for the end users. Take the time to make the community and its residents feel important, limit impacts whenever possible to travelers and homeowners, maintain a clean job site, and smile every once in a while. Goodwill is a commodity that you just might need someday on your jobsite. That smile and wave to a resident leaving their home in the morning may pay dividends later in the day when you may have a pipe crossing their driveway when they return that evening.

Trenchless construction and rehabilitation methods like pipe bursting are proven. As the stewards of the technology, it is our responsibility to promote them through real world applications that show their value and limit the impacts of construction.