AMERICA'S AGING INFRASTRUCTURE & THE OPPORTUNITIES IT PRESENTS CONTRACTORS

America's aging infrastructure is facing a crisis, especially when it comes to water. Across the country, deteriorating water and wastewater systems are failing and impacting communities large and small.

The United States scored poorly in several categories of the **2017 Infrastructure Report Card** done by the American Society of Civil Engineers (ASCE). Drinking water and wastewater received grades of D and D+, respectively.

Highlighted in the drinking water report was the fact that many pipes currently in use were laid in the early to mid-20th century. Those pipes have an expected lifespan of 75-100 years, meaning they are either past due for replacement or will be soon.

The effects are already being felt. In America, there are an estimated 240,000 water main breaks per year. According to the **American Water Works Association**, $1 trillion will be needed to maintain and expand drinking water service to meet demands over the next 25 years.

In the wastewater sector, the 800,000 miles of public sewers and 500,000 miles of private lateral sewers that connect private property to public sewer lines are susceptible to problems including failures, blockages and overflows. There are anywhere from 23,000 to 75,000 sanitary sewer overflows each year, according to **EPA** estimates.

Additionally, the EPA estimates that $271 billion will be needed for wastewater infrastructure in the U.S. over the next 25 years.

WATER & WASTEWATER OPPORTUNITIES FOR CONTRACTORS

The state of America's water and wastewater infrastructure is a cause for concern for municipalities. More than likely, they are actively looking into ways to address pipeline issues or will be soon. This presents contractors with the opportunity to secure more business by providing municipalities with effective and long-lasting solutions to their problems.

In order to take advantage of the opportunities out there, contractors must ask:

- What kind of solutions are municipalities considering?
- Is my business currently able to provide these solutions?
- If not, how do I properly equip my business?
- Will I get a positive return on my investment?

This article touches upon each of these questions and provides insight into how to go about answering them. You'll learn about the pipeline rehabilitation options available to municipalities and the types of equipment/materials needed to rehab water and sewer systems. We'll also provide the details of a couple of rehabilitation projects being done by contractors for municipalities so you can get an idea of the impact it's had on businesses like yours.

As a high-level overview, this article is not intended to answer every question you may have. Rather, the goal is to provide some thought-starting topics as you weigh the pros and cons of pursuing business opportunities with municipalities.

PROVIDING SOLUTIONS TO WATER & WASTEWATER INFRASTRUCTURE ISSUES

Regardless of the rehabilitation process chosen by the municipality, the first thing they'll likely need is a camera scope of the lines and other structures to identify potential issues. From there, they'll choose from two rehab options:

- Traditional excavation and replacement — Digging trenches to expose the damaged pipelines or other buried structures so that they can be repaired or replaced.
- Cured-in-place piping (CIPP) — A no-dig solution that involves accessing the damaged pipe from a single access point and installing a liner inside the existing pipe to create a pipe within a pipe.
- Spray-applied liners (SAPL) – A no-dig solution that involves accessing a damaged structure like a manhole from a single access point and installing a liner inside the existing structure.

Contractors who perform traditional excavation and replacement need heavy equipment to dig the trenches, repair or replace the pipe and restore the ground surface.

The necessary equipment for trenchless repair isn't as heavy-duty since it's a less disruptive process. In many cases, the work can be completed by small crews with just a trailer and the installation supplies.

Trenchless technology has surged in popularity in recent years because it is a quicker and more cost-effective solution. If you're new to it, don't worry. There are plenty of resources out there to ease the transition of adding it to your service offerings. Companies like AP/M Permaform **assist contractors** by not only supplying the necessary equipment and installation supplies but also providing training, phone and on-site technical assistance and sales and marketing support.

EXAMPLES OF INFRASTRUCTURE IMPROVEMENT PROJECTS

Here is a quick summary of two infrastructure rehabilitation projects completed by contractors for municipalities.

Chicago, Illinois

In 2006, Chicago began a project to rehabilitate thousands of its nearly 100-year-old brick-and-mortar manholes annually. The goal of the $60 million+ project was to prevent failures due to infiltration and erosion caused by heavy rainfall events, as well as microbiologically induced corrosion (MIC).

Benchmark Construction, the winning bidder of all contracts to date, uses **AP/M Permaform's SpinCaster™** to centrifugally compact mortar against the cleaned interior manhole to support and strengthen them from the inside. A two-person crew is used on each rig, and the system allows them to move quickly and fully line several manholes per day.

Vinnie DiVarco, superintendent for Benchmark Construction, said in 2012, "We take great pride in our work for the city. My crews are well trained and they know how to apply the PermaCast lining system since they have done thousands over the past six years."

To read the full recap, **click here**.

Kansas City, Missouri

Kansas City has implemented an ongoing, aggressive infiltration and inflow (I&I) and sanitary sewer system outflow reduction program. The 25-year, $4.5 billion initiative was developed to address the manholes in the city, which total more than 66,000, mostly brick and very old.

Ace Pipe Cleaning has been utilizing AP/M Permaform solutions to rehab the manholes. Crews apply up to 50 vertical feet of concrete lining per day, with up to three crews working at a time.

Over the last two years, the company has rehabbed nearly 1,500 manholes — about 15,000 vertical feet of rehabbed structures. The city has been pleased with the quality of work, which has proceeded on schedule and within budget.

READY TO SEIZE OPPORTUNITIES? ACT NOW!

If municipalities in your area facing problems with aging underground infrastructure, there's money to be made. Explore your options and position your company to win bids before one of your competitors does.