



OLD PLUMBING IN HISTORIC BUILDINGS NEEDS MODERN TECHNOLOGY

By Amanda Strouse, ACE DuraFlo

A building's history speaks volumes about its location. Its history is what makes the building and its surroundings special, attracting locals, tourists and tenants alike. But with old buildings comes old infrastructure. And while the walls surely have stories to tell, the infrastructure systems may be hanging on by a thread... or may be unknowingly damaging the building from the inside out.

Historical buildings demand a lot of daily maintenance and cleaning. However, some infrastructure systems can carelessly fall through the cracks. One such example is the plumbing system.

Miles of piping, jig-jagging inside the walls, floors and ceilings, is used to heat and cool the building, save lives in case of a fire, drain water from the roof, provide clean water and take away waste. These pipes have critical functions that are working 24/7, but they may not receive adequate attention until there are visible signs of failure (wet spots, mould, low water pressure, etc.). It's a risk that shouldn't be taken.

Maintenance teams need to routinely assess the plumbing systems for signs of aging or failures – and, better yet, take precautionary steps to greatly reduce the chances of plumbing problems. While recognising an imminent plumbing disaster is important, taking steps to extend the useful life of the plumbing system before issues arise is key.

Plumbing is one of the worst components to neglect, because piping failures are inevitable and occur with increased age. This leaves historical buildings with a severely elevated risk of encountering piping failures. Furthermore, the extent of possible damage, expenses for clean-up and repair, as well as disruption to the building's operations can be devastating. For example, if pipe leaks occur, they can damage the building's original structure, as well as priceless historical items on display, such as furniture and art.

Engineers and maintenance professionals working for historic buildings are faced with a challenge: How can their plumbing systems be repaired, renovated or upgraded while the building remains preserved and undamaged?



Enter modern, non-invasive technology to the rescue.

A perfect example of modern technology being used to keep an historic property intact is a project that was completed at Sulphur Springs Elementary School in Tampa, Florida. The school is almost 100 years old (constructed in 1926) and was experiencing pinhole leaks, discoloured water, reduced water pressure and leaching of heavy metals as a result of its aged potable water system. The Hillsborough School District decided that a re-pipe would cause too much damage to the historic seven-building campus, so it instead chose a non-invasive epoxy coating technology to restore the pipe system.

Florida Pipe-Lining Solutions conducted the work and used the patented ePIPE technology to clean and coat the interior of the school's hot and cold potable system – approximately 1,200 feet of piping. The project was undertaken over the summer, while the school was not in session.

ePIPE works by connecting hoses to different access points and then using a blown-through method of restoration. First, the technicians turned off the school's water supply, then descaled the 1/2 inch through 2 inch pipes by pushing an abrasive material through the interior of the pipes with clean, compressed air. Next, the barrier coating was blown through, then left to cure. The result was a thin, yet strong, smooth, porcelain-like coating that restores the piping system from the inside. Once the coating cured, the potable system was tested and then put back into service.

The ePIPE epoxy coating is a plumbing code-approved barrier coating engineered to reduce corrosion, leaks, discoloured water, scale build-up and also minimising lead and copper leaching into the school's drinking water supply, making the water safe for consumption. ePIPE'S patented process is effective at bringing piping systems into compliance with the EPA's (United States Environmental Protection Agency) guidelines for lead.

As a result of ePIPE's non-invasive method, none of the teachers, school staff or the nearly 800 enrolled students were disrupted and the historical campus was left preserved and intact. Thanks to non-invasive restoration methods, such as epoxy coating technologies, historical buildings can have plumbing systems rehabilitated without causing damage to the treasured properties.

● For more information, visit <http://www.epipeinfo.com>

