

Project Spotlight

Annular Underground Pipe Fill - Lexington, MA

Owner: Lexington, MA

Installers: Revoli Construction



Background Information

The United States contains more than two million pipelines, all of which are constantly aging and presenting challenges to local and national infrastructures. Underground pipelines can be difficult and expensive to replace, a challenge that Lexington, Mass. officials faced in 2014 when one of their pipelines showed signs of compromised performance.

Project Details

Nearly 70 cubic yards of pipeline in Lexington was in need of repair or replacement. While pipeline replacement requires extensive time and labor, repair can be equally effective while providing significant cost and labor savings. A common method for repairing aging underground pipeline is to install a new, smaller pipe into the existing pipe, this is the method that the city of Lexington chose for their project.

The team at Revoli Construction installed a new 18" pipe into an existing 20" pipe, filling the annular space between the two pipes with cellular concrete to ensure stability and avoid corrosion and shock damage. Revoli Construction chose to use Aerix's AER-LITE-iX™ cellular concrete for this application. Using a T80 foam generator and a 20 cfm nozzle, Revoli crew members moved the AERLITE-iX™ aerated foam into the mix truck, where it was mixed for approximately two minutes. The cellular concrete was then moved to the pump truck, from where it was pumped directly into the annular space between the underground pipes.



Aerix Added Value

Aerix's AERLITE-iX™ cellular concrete is lightweight and extremely flowable, making it an ideal product for filling and securing this new pipeline. AERLITE-iX™ provided a quick-and-easy installation and cost-effective solution to the city of Lexington, while ensuring the continued safety, security and long-term performance of its underground infrastructure.

