End of repair for Broadway sewer collapse in sight

LOUISVILLE, KY – After rain delayed progress on the repair of a large brick sewer line in Broadway at the intersection with South Preston Street, the project is back on track. Crews estimate that the center driving lanes will be drivable by the end of next week. Work will continue in the curb lanes to repair a couple of stormwater catch basins. The entire intersection will receive a fresh layer of asphalt when all work is complete.

There is no disruption of sewer service during the repair, and access to local businesses is maintained.

Why does heavy rain interfere with sewer line repairs?

The damaged sewer pipe is in MSD’s combined sewer system — which means the pipe holds both wastewater and rainwater. The sewer pipe must be empty for the repair to take place. To do this, MSD establishes a “pump-around,” which is a temporary sewer line on the surface of the roadway to allow wastewater service to continue in the area.

When it rains, combined sewer pipes in the downtown area quickly fill with water. The large sewer pipe that runs under Broadway is no exception. Rainwater creates too much volume for the pump-around to handle, so the sewer line must be allowed to fill and flow as it usually would. Opening the impaired line during rain events prevents overflows from manholes in the area and backups into homes and businesses.

Crews need a stretch of 3-4 dry days to complete the repair to the pipe itself. To date, Louisville has experienced nearly 6 inches of rain in August. The average precipitation for August is 3.33 inches.

Cave-ins are a challenge for MSD employees and contractors, as they stretch resources thin. For information about our Critical Repair and Reinvestment Plan — a 20-year outline for how to answer these needs proactively, visit: [http://louisvillemsd.org/CriticalRepairPlan](http://louisvillemsd.org/CriticalRepairPlan)
BACKGROUND

Broadway at Preston: This three-layer brick sewer installed in 1866, has experienced similar failures in different locations as recently as 2015, 2014 and 2009. On July 22 — after 152 years of service — the bricks that form this pipe began to unravel at a joint where another repair was made in 1989. The small breaks in the joint, together with heavy rain, caused a 10- by 15-feet void, or open space, under the pavement that was 8-feet deep.

These brick sewers that run under our city are connections to a past, which continue to serve us every day. Both the sewer line on Broadway dating to 1866, and the sewer line on East Liberty dating to 1871, represent a time of tremendous growth and change for the city.

By 1860, Louisville’s population had grown to more than 68,000, but the underground sewer system was less than two miles long, dwarfing the needs of residents. In comparison, Louisville MSD now maintains more than 3,300 miles of sewer lines — enough to stretch from California to Maine.

Additionally, the Louisville Water Company began operations, pumping water from the river to the downtown area. Soon there was more water available, and more water that needed to be disposed.

Following the end of the Civil War, the city returned to its pre-war prosperity, as manufacturing expanded, factories were built, and goods were shipped by train. And while the city continued to grow, its wastewater disposal needs also grew, necessitating the building of more sewer lines. The construction of brick sewer lines expanded to meet these needs, such as the three-layer 96-inch sewer pipe underneath Broadway at South Preston, and the 30-inch brick sewer underneath East Liberty Street.

ADDITIONAL INFORMATION

In the past 12 months, MSD has responded to more than 1,100 cave-ins across the community. To view a map of cave-ins during the past year, visit: LouisvilleMSD.org/prevent-collapsing-sewers.

About MSD

The Louisville/Jefferson County Metropolitan Sewer District (MSD) works to achieve and maintain clean, environmentally safe waterways for a healthy and vibrant community. The organization’s more than 630 employees provide wastewater management, drainage and flood protection services across the 376 square miles of Louisville Metro. In addition to operating and maintaining Louisville Metro’s sewer system, floodwall system, water quality treatment centers and flood pumping stations, MSD invests in hundreds of infrastructure improvement projects each year, plants more than 1,000 trees and other vegetation annually to enhance water filtration and reduce runoff, and provides numerous outreach programs to inform and educate the community about protecting our waterways.