



Saraland Water and Sewer Service Completes Emergency Repair of Damaged Infrastructure

For immediate release
March 1, 2018

In the Fall of 2017, after a large rain event, a sink hole developed in the right-of-way on the north side of Celeste Road – across from the new Bebo’s Car Wash. Immediately, the Saraland Water and Sewer Service deployed a crew and excavated the area around the sink hole to identify the cause of the problem. Soon after, an 18-inch diameter cast iron gravity sewer collection line was exposed and regrettably, there was a large hole on the top of the pipe (see picture A). It is unknown how long this hole was there, but due to the significant size, it is presumed to be a contributing source of Infiltration/Inflow (I/I), which adversely impacts the capacity of the collection system, normal lift station operations, as well as the effectiveness of the treatment plant operations.

In order to address the extent of the damage, the Saraland Water Board, using the expertise of Carah Hall, PE from McCrory Williams Inc., hired Smith Industrial Service (SIS), a local company who uses innovative technology to assess the condition of underground infrastructure. First, SIS ran a camera through the broken line to visually determine the interior condition of the pipe (see picture B). After additional considerations and further evaluations of the video inspection, it was determined that the pipe segment was conducive for a point repair at the break and complete rehabilitation in-place with minimal disruption, using Cured-in-Place Pipe methods. Cured-in-Place Pipe (CIPP) methods uses trenchless technology to install a high-strength fiberglass resin liner inside an existing host pipe.

EXISTING PIPE CONDITION FROM INITIAL VIDEO



This trenchless technology can rehabilitate aged infrastructure and seal leaky lines without the ground disturbance typically required for the construction of new lines/repair of existing lines. CIPP is extremely cost effective, economical and unobtrusive, as most sewer lines are located under existing roads or in sensitive riparian areas. Therefore, CIPP is an efficient way to extend the useful life of existing infrastructure while decreasing treatment costs due to the elimination of inflow and infiltration.

After the point repair was made and during low flow conditions, the Contractor was able to complete the repair by cleaning the existing pipe and installing a new CIPP liner within the existing pipe (see pictures C and D). The cost of the permanent emergency repair, including the temporary emergency repair and engineering, was approximately \$100,000. The Saraland Water and Sewer Board Members and staff are committed to maintaining and improving its infrastructure in order to secure adequate sewer service and keep down rates for their valued customers.

EMERGENCY SEWER - CELESTE ROAD AT I-65
SARALAND, ALABAMA



EXISTING 18" CAST IRON SEWER PIPE BREAK

