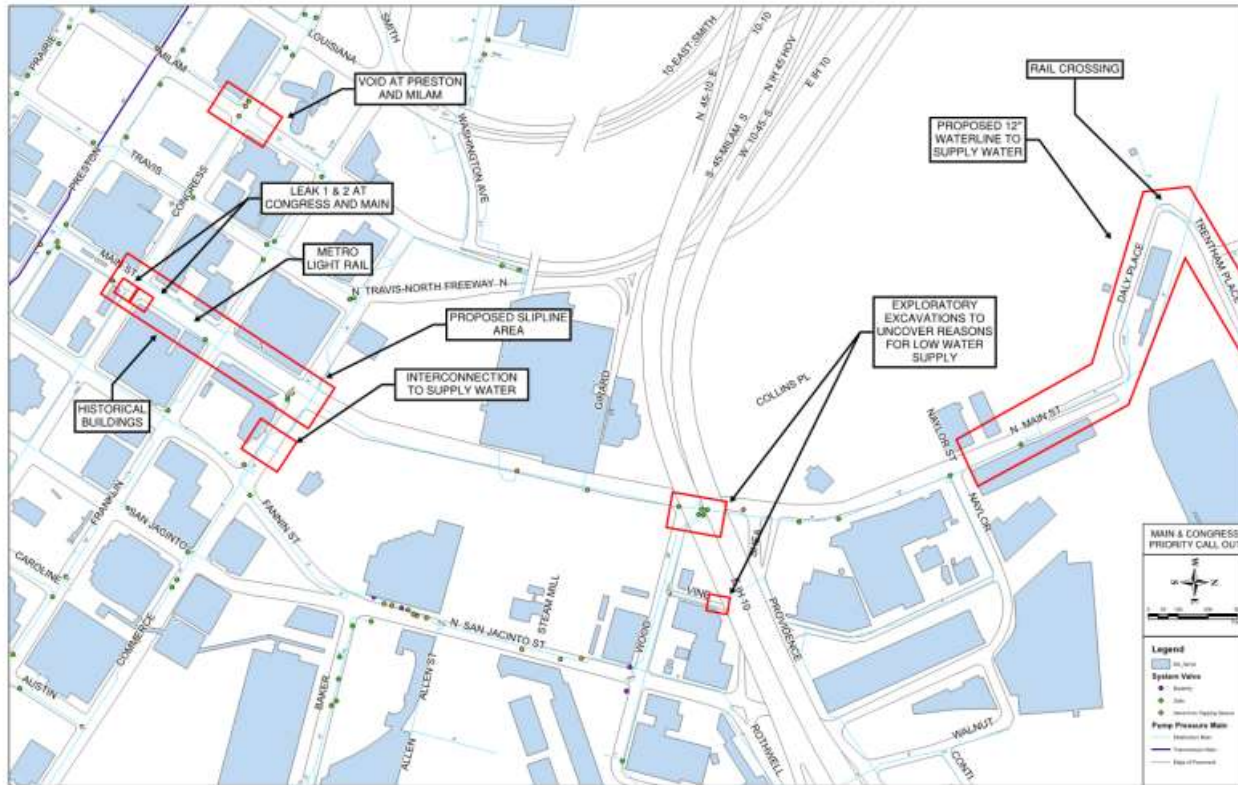
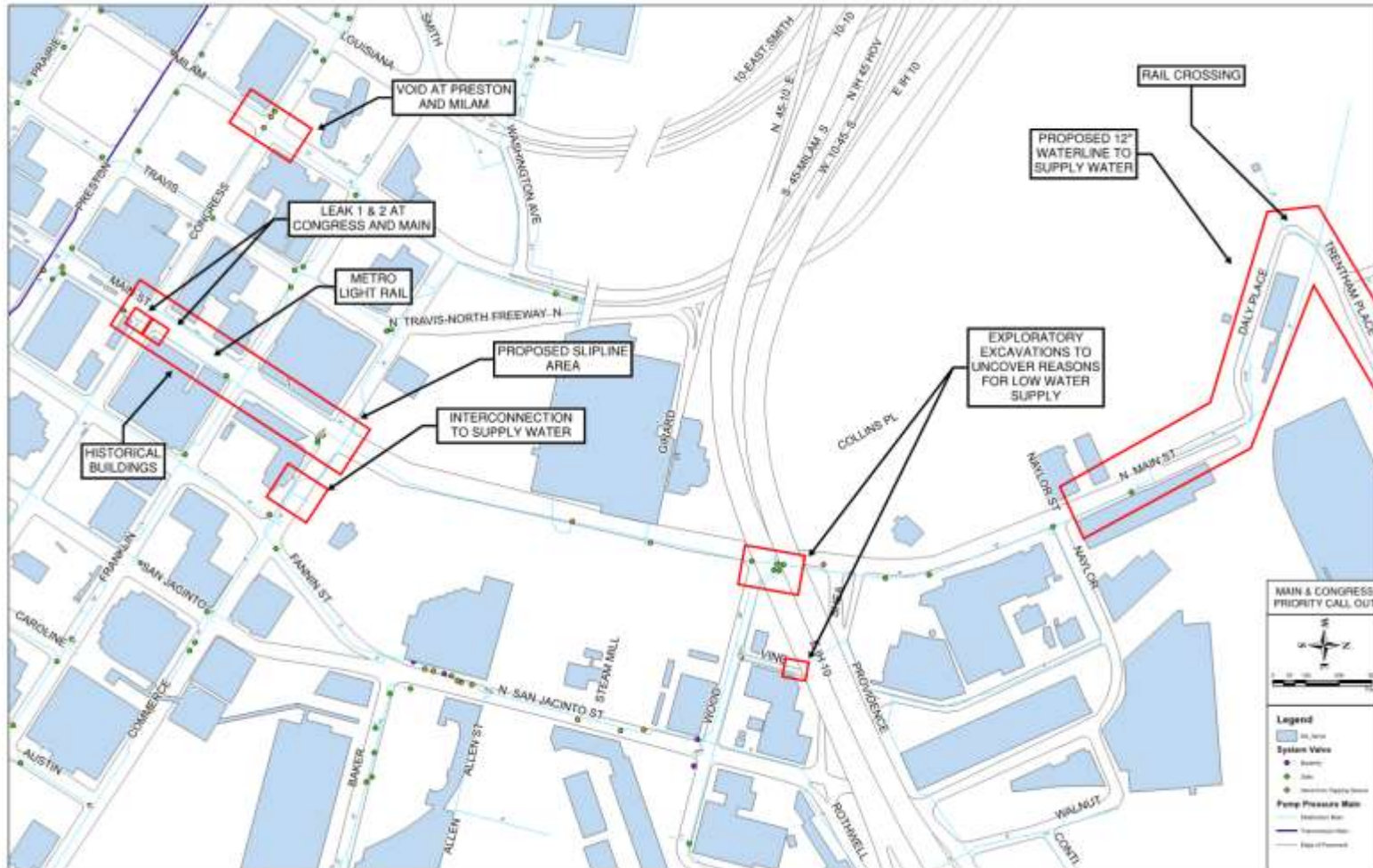


MAIN AND CONGRESS

Slipline of a 20-inch Waterline in Historic Downtown Houston



SCOPE OF WORK



The Main and Congress repair originally started as an emergency repair and resulted in abandoning the existing 20-inch waterline.

This presentation will focus on the conditions discovered during the (multiple emergency repairs) and the trenchless repair method used to abandon the 20-inch waterline along Main St.

SEPTEMBER 2017

The first leak appears at the southeast corner of Main and Congress St.



JUNE 2018

Second leak appears at the northeast corner of Main and Congress

To prevent damage to buildings, 20-inch water line was isolated and a temporary bypass was installed to supply customers.



Water falling into basement of nearby Hotel



Temporary bypass to Supply Customers

JAILHOUSE BLUES

Due to the waterline along Main being shutdown, the county jail had water pressure issues.

Water problems at jail to be fixed Monday

By Ken Blakinger Updated 2:54 pm CDT, Sunday, July 8, 2018

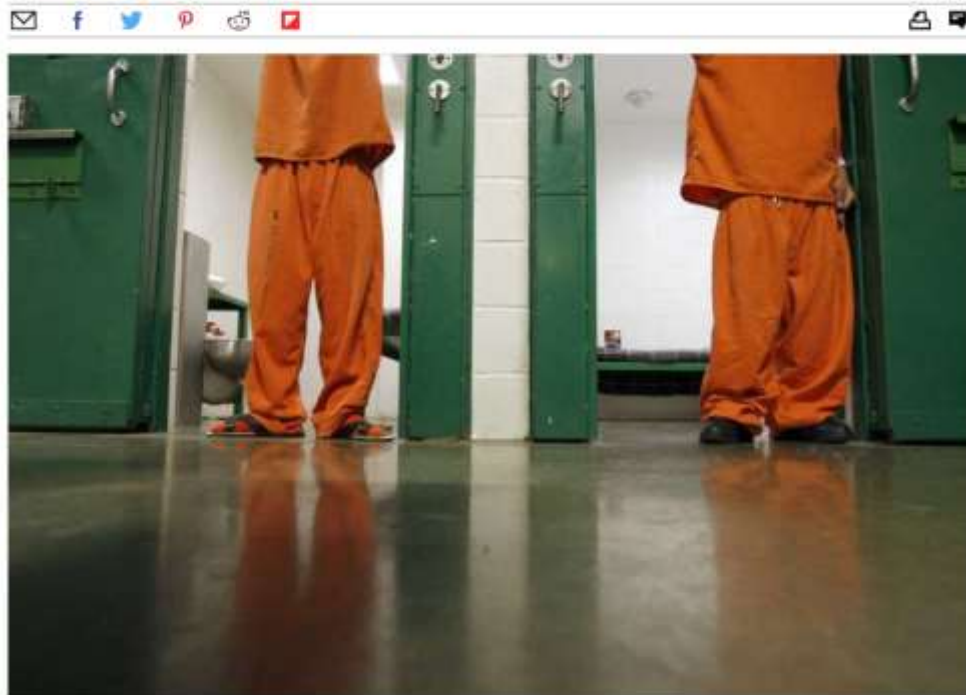


Photo: Johnny Hanson, Houston Chronicle



An additional by pass was required to supply the jail house with sufficient water pressure.

LEAK REPAIRED, FOR NOW



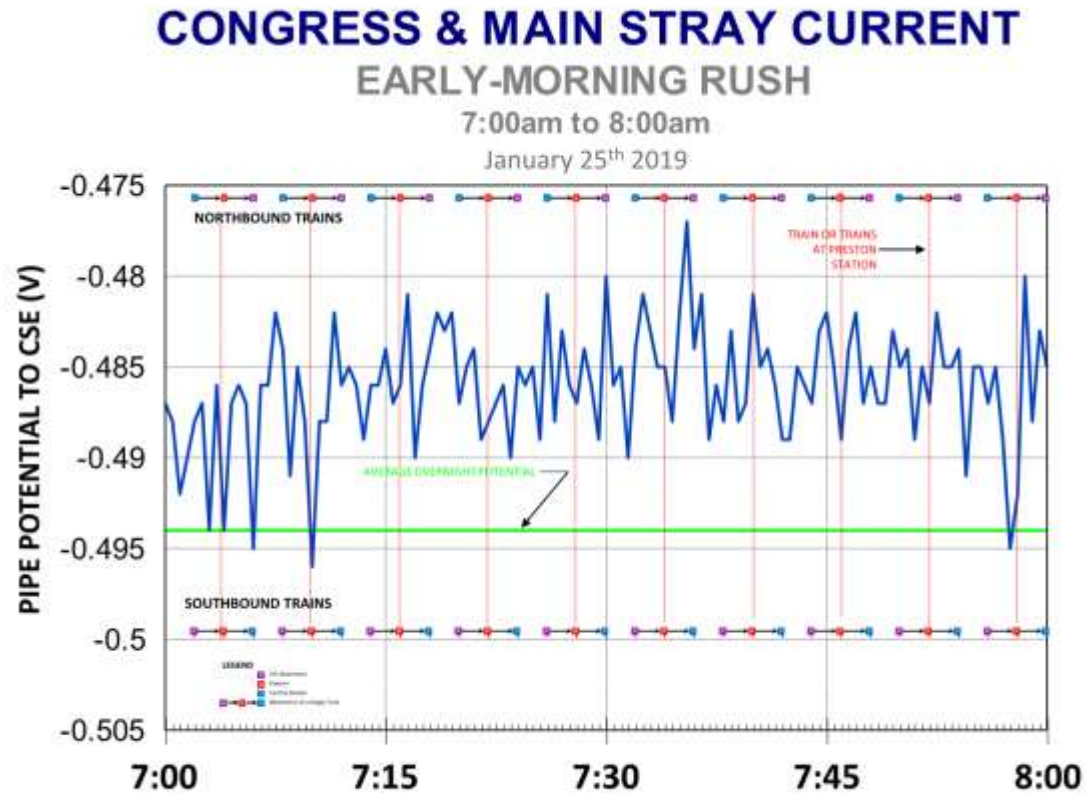
The leak was excavated and repaired. The 20-inch water line was restored to service with a cathodic protection test station installed on the pipeline.



Soon after repair another leak appeared at a second location along the 20-inch waterline.

STRAY CURRENT

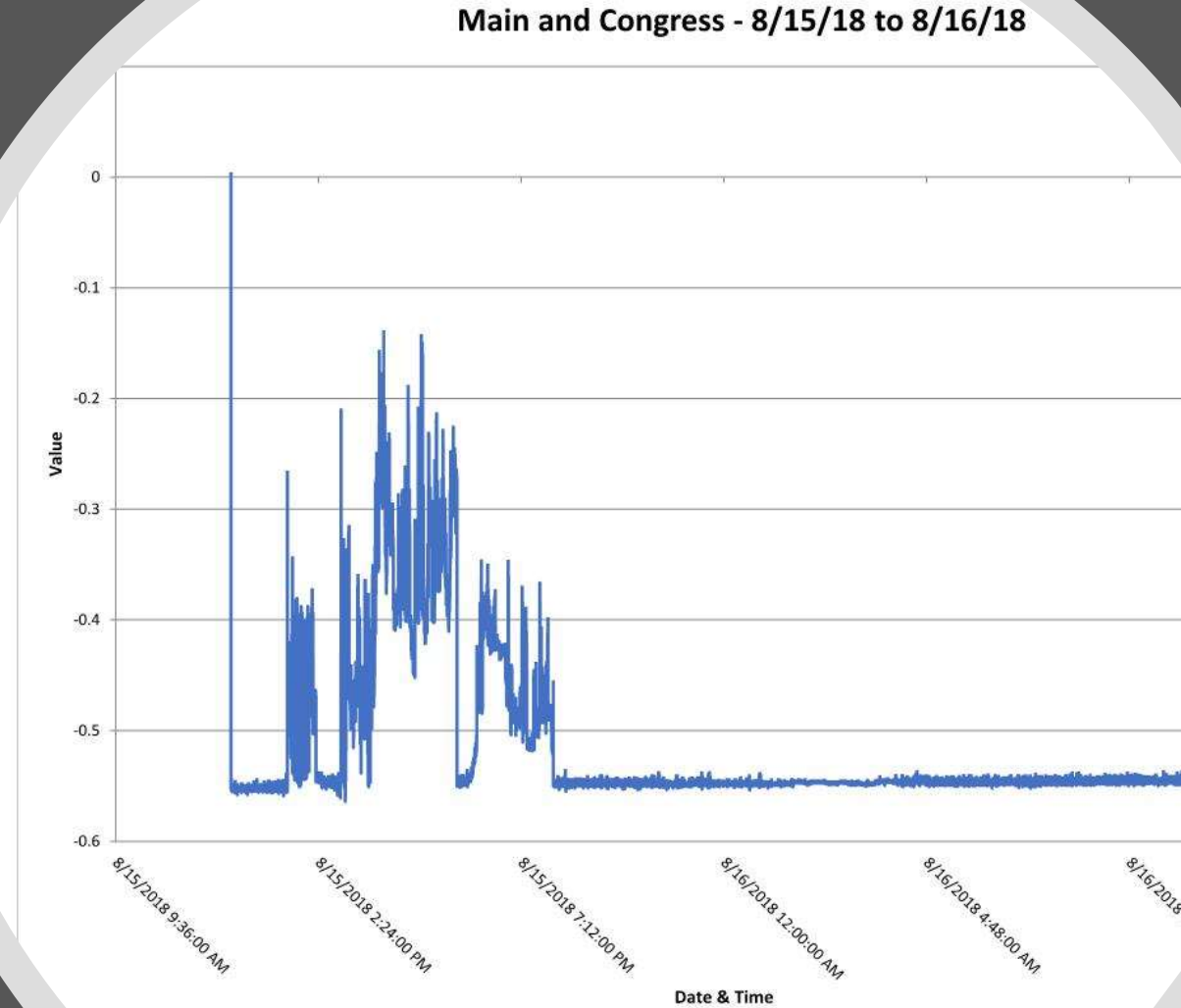
Pipe to Soil potential readings were measured and recorded.



Data showed an electropositive trend in potentials during the hours the rail was in operation

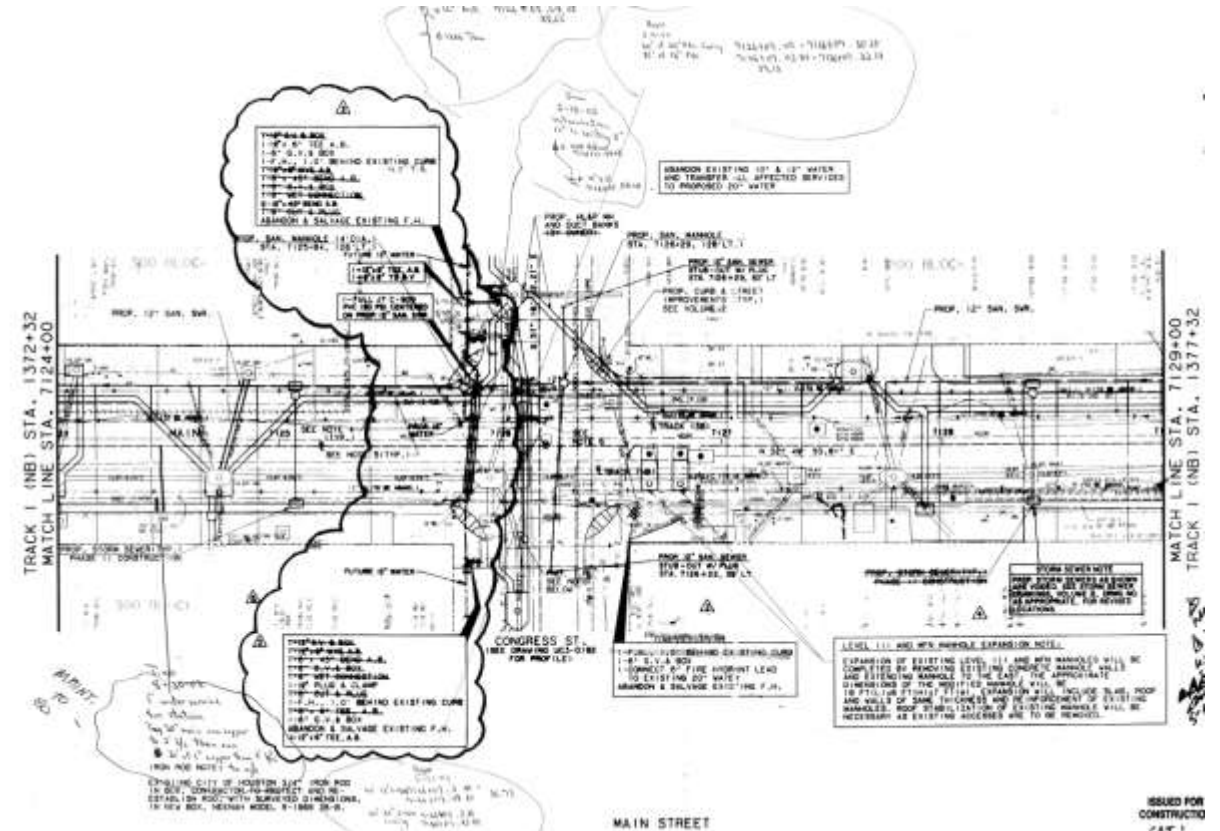
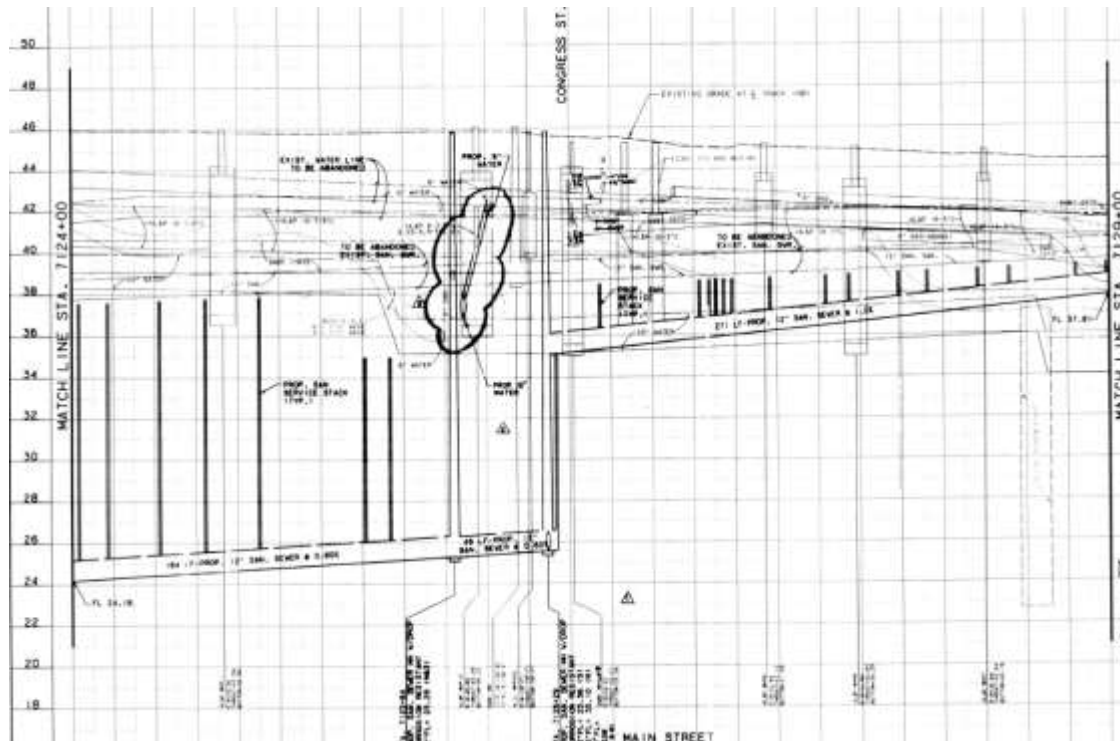
And a current discharge was measured in proximity to the leak location at intervals.

STRAY CURRENT



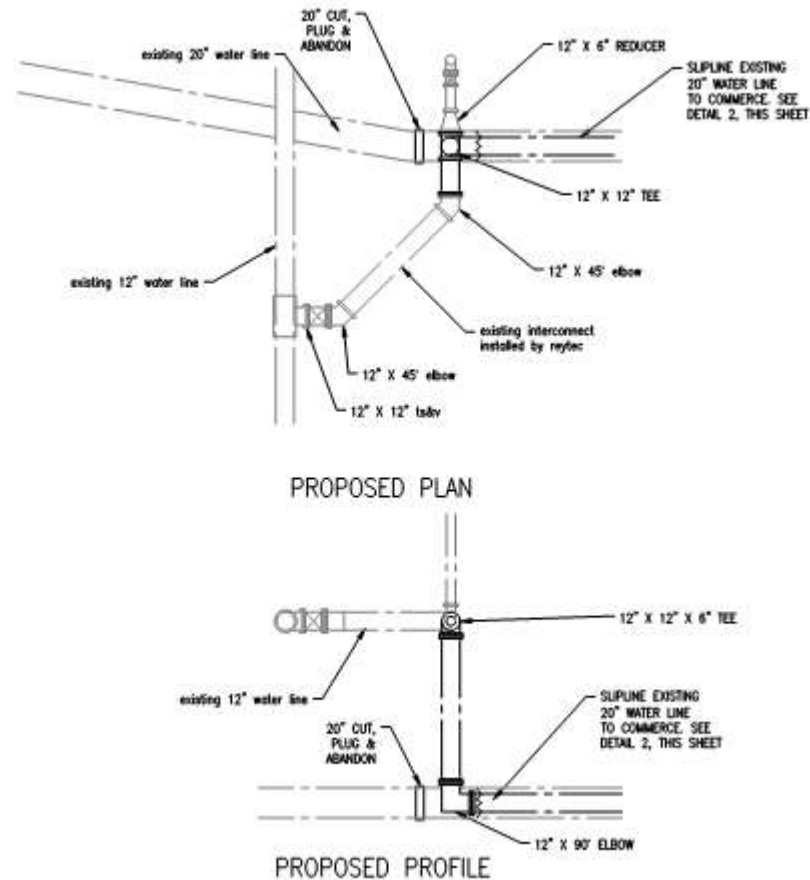
MODERN PROBLEMS REQUIRE MODERN SOLUTIONS

After considerable coordination, Lockwood, Andrews, and Newnam proposed sliplining the existing 20-inch waterline within the congested corridor.



20-INCH WATERLINE TO 12-INCH SLOPLINE

City staff modeled the area and recommended a 12-inch diameter pipe was needed.



At intersections where offsetsets were recorded the proposed slipline was to be tied into existing distribution lines to prevent dead ends.

WHERE WE ARE TODAY



Currently the City has moved the work to an existing contract and the contractor is progressing on the work.

The line should be abandoned and proposed interconnections in place prior to high demand periods this year. This should include sliplining portions of the alignment and two trenchless crossing.

