

July 2021

INVESTING IN OUR FUTURE

This month's Infrastructure update will focus on improvements being made to the water distribution system, wastewater collection system and the George T. Lohmeyer Wastewater Treatment Plant.





Pipe Bursting (The existing pipe is expanded, and the new pipe is then pulled through the existing pipe.)

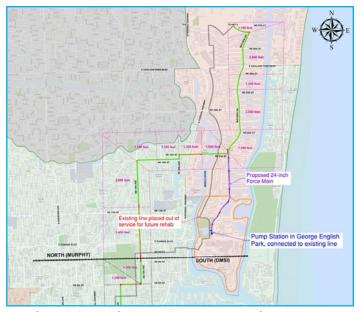
New HDPE Pipe Ready for Install



The Community Investment Plan (CIP) includes funding to replace aged water mains throughout the City. One of the most recently completed projects is the Bermuda Riviera Small Water Main Improvements. This investment provided for the replacement of 23,600 linear feet of cast iron water main with High Density PolyethyleneA (HDPE) water main, new control valves and fire hydrants. The new pipe offers improved flow performance, is resistant to environmental deterioration from the high-water table and reduces water discoloration. Additionally, horizontal directional drilling and pipe bursting were utilized during construction to minimize the impact to the neighborhood.

24-Inch Diameter Force Main along Bayview Drive

Resiliency and reliability are driving the City's infrastructure improvements. As work on the installation of seven miles of 54-inch and 42-inch diameter sewer force mains nears completion, the department's focus will shift to other force main projects that further improve system redundancy. One such project is the installation of nearly 1 mile of 24-inch diameter force main, along Bay View Drive from the George English Park pump station to NE 21st Street, where it will join the newly installed force main. This project provides the ability to take a portion of the older force main out of service so it can be rehabilitated and creates additional redundancy in the force main network. Construction of this new force main is expected to commence by mid-August 2021 and be completed by the end of 2021.



Map of 24-inch diameter force main along Bay View Drive from the George English Park pump station to NE 21st Street.



GTL PCCP pipe condition before CFRP Liner installation



GTL PCCP pipe condition after CFRP Liner installation

George T. Lohmeyer Wastewater Treatment Plant Rehabilitation of PCCP Pipe

The George T. Lohmeyer (GTL) Regional Wastewater Treatment Facility treats an average of 38.5 million gallons of wastewater per day. In order to ensure reliable service, the City continually reinvests in this regional facility. Throughout the facility, pipes of various size and material are used to move wastewater through a number of treatment processes. One type of pipe used in the facility is pre-stressed concrete pipe (PCCP), which can deteriorate over time due to the aggressive nature of wastewater. Recently, the City completed a \$3.7 million project to rehabilitate 620 linear feet of aging PCCP pipe by adding a Carbon Fiber Reinforced Polymer (CFRP) liner. This liner provides a corrosion resistant barrier and structural reinforcement to the pipes, which range in diameter from 42-inches to 66-inches. This project also included the replacement of nearly 1,000 linear feet of smaller diameter piping and repaving of some internal service roadways.

Rio Vista Tarpon River Subaqueous Redundant Force Main

Staff in the Public Works Department recently installed 2,400 linear feet of new 54 inch diameter and 36 inch diameter High Density Polyethylene (HDPE) force main in the Rio Vista neighborhood along SE 9th Avenue from SE 7th Street to SE 12th Street, and from the intersection of SE 12th Street and SE 9th Avenue east to SE 10th Avenue. This investment of \$4.9 million will provide additional redundancy, improved reliability, durability and longevity to the force main. A key component of this project included a new subaqueous pipe under the Tarpon River.

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