

North Front Street Sewer Project

Contractor: JJID, Inc.

Contract Value: \$790,195.00

Funding Source: State of Delaware Clean Water State Revolving Fund (CWSRF) -2% for 20 years

Contract Start Date: January 19, 2010

Contract Duration: 180 Days

Project Description:

Project Planning Area

This project is for the removal and replacement of approximately 1,950 linear feet of an existing main interceptor gravity sewer line located along North Front Street in the City of Milford. The existing section of main to be replaced varies in size from 8 to 15 inch and is in excess of 50 years old. Recent television inspection of the main between West Street and the Truitt Avenue Pump Station has determined it to be in poor condition and in need of immediate replacement. The section of main between the Kent County Pump Station and Rehoboth Blvd. is presently unknown but is undersized and inadequate to handle future development anticipated from the eastern and southern portions of the city.

Existing Facilities

The sections of main to be replaced were constructed of terra cotta clay pipe with pipe joints assumed to be every 3 to 5 feet. These sections extend from West Street west to the existing Truitt Avenue Pump Station and from the County's pump station east to the east side of Rehoboth Blvd. The depth of the main varies from 4 to 10 feet deep with a portion of the main below elevation 3.00 feet. Due to its close proximity to the Mispillion River it is believed that a majority of the deeper line segments are below the groundwater table. Also, during periods of heavy rain and/or high tides the river water breaches its banks and floods the lower portions of North Front Street. Due to the numerous pipe joints, the age of the pipe, the high groundwater table and the frequent flooding that occurs on North Front Street it is believed these line segments contribute to the excessive inflow and infiltration presently being experienced by the City.

Need for the Project:

As state above, the North Front Street gravity main is believed to be a contributor to the excessive amount of inflow and infiltration being experienced by the City. Since the City of Milford pays Kent County for each gallon of sewage that is pumped and treated by the County it is important to eliminate as many sources of I&I as feasible. The additional I&I also robs the county of force main and treatment capacity as well as additional operation costs to convey and treat groundwater and surface water. Additionally, with the gravity mains close proximity to the Mispillion River it is believed that exfiltration of sewage may occur during periods of low groundwater levels that could cause seepage of raw sewage into the groundwater and possibly the Mispillion River. Replacement of the main would significantly decrease the potential of groundwater and surface water contamination that may result from the numerous joints and the poor condition of the line segments.