PROJECT OVERVIEW
Utilities Kingston recognized that as a result of the complexities involved in this project, it would be an ideal candidate for an RFP. They provided very specific requirements on what had to be accomplished and the boundaries within which the project could be completed, and left it up to contractors to propose a solution. Important considerations for contractors included their approach to: CIPP lining, bypass pumping, and working on DND lands (CFB Kingston), as well as their approach to temporary access roads. Three contractors submitted proposals with the project being awarded to LiquiForce Services.

The reinforced concrete trunk sewer that was slated for rehabilitation was approximately 3.4km in length with diameters between 1200mm and 1350mm. It was experiencing moderate to severe H2S corrosion. The pipe started at a 1050mm forcemain and ended at the Ravensview Sewage Treatment Plant, with approximately 1km along City roads, and 2.4km off-road. 75% of the project passed through the CFB Kingston military base.

In order to successfully complete this project, the close coordination of several key stakeholders, including: Utilities Kingston, Robinson Consultants, the Department of National Defense, and LiquiForce Services, was necessary.

The rehabilitation solution included lining from the 1050mm forcemain to the Waste Water Treatment Plant, and the trenchless rehabilitation of 35 manholes. The project team installed access roads and new manholes to solve site-access problems and to avoid long CIPP installations. The CIPP liners were steam cured with thicknesses up to 30mm. Bypass pumping was also a key element of this project. The bypass was operational for 51 days, pumping 1.37B usg at an average rate of 18,624 usgpm.

Client: Utilities Kingston
Construction Cost: $8,989,353
Construction: General Contractor
Construction Dates: 2015 - 2021
Project Features:
- Bypass and Rehabilitate 3,415m x 48-54" RCP pipe
- This pipe was subjected to heavy H2S deterioration
- 75% of the project pass through the CFB Kingston military base
- The project was successfully completed in 7 months