

Engineering Design - Drainage and Sewerage Issues



Engineering Design Activities

Norfolk Ram Group, LLC (Norfolk) was retained by the New Bedford Housing Authority to provide engineering design services at various locations. In particular, Norfolk performed field survey and field investigation activities for a housing complex located on Caroline Street to determine the probable causes of basement flooding, as well as to obtain the necessary information required to separate existing drainage components which were discharging to the gravity sewer system.

The housing complex was experiencing flooding in several of the lower rental units. During field investigation activities, Norfolk determined that some of the roof collector pipes were discharging into the sanitary sewer system, and that some of the existing gravity sewer components needed to be redesigned. Norfolk designed a drainage design which alleviated the basement flooding and sewer backups, and also provided designs for individual drainage and sewer collection.

Scope of Services

Norfolk performed the following tasks that successfully resolved the drainage and sewerage issues experienced at this site:

- Reviewed and coordinated with New Bedford City Engineers for proper connections to the street; prepared preliminary designs to eliminate on-site flooding and upgrade the sanitary system; and provided cost estimates.
- Prepared engineering plans needed by the architect that included; roof drainage tie-ins for all buildings; storm drainage design for new driveway and parking areas, and design of site utilities for gas, water and sewer.
- Met with housing authority and City DPW to present preliminary plans; met with the City Planning Department to obtain plan approval and prepared final design plans and specifications along with a final cost estimate.
- Norfolk also provided bidding and construction supervision services that included attendance at field meetings, reports and close-out/as-builts plans.

