



## Award of Excellence Bridgeview Sewer System



### Consultant

AECOM Canada Ltd.

### Owner/Client

City of Surrey

### Category

Municipal

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Surrey's Bridgeview is home to some of the poorest soil conditions in the Lower Mainland. When first developed in 1970, a vacuum sewer system, similar to what you can find on an airplane, was chosen to overcome the challenges of conventional sewer construction. Fast-forward 40 years to 2010, the existing vacuum sewer system is plagued with low reliability; the City has restricted development due to sewer capacity; and operational costs are 20 times higher than Surrey's average sewer servicing cost.

AECOM was challenged to evaluate options for replacement of the vacuum sewer system and design a solution that offered the optimal mix of practicality, potential for phasing and economic viability. In order to minimize costs and the number of pump stations that a conventional sewer system would require, AECOM developed an innovative replacement strategy that combined conventional sewer installation with GPS based trenchless technology in a manner that had never before been used for municipal sewer servicing in British Columbia.

The Bridgeview Pump Station is on a residential lot and architecturally designed to blend in to the existing community. The station was designed to look like a 2-storey home so that all of the electrical, controls and generator equipment could be located on the second storey and above the Fraser River 200-year flood level. The station featured acoustic and odour control equipment to minimize impact on the neighbouring homes.

AECOM's design provides area residents and local businesses with a highly reliable sewer service that saves the City \$1 million annually.