The Vancouver City Central Transmission (VCCT) Project is BC Hydro’s most significant investment in central Vancouver’s electrical grid in almost 30 years. It will add needed capacity and improve system reliability. A vital component of the VCCT project is the 1-km transmission line section crossing False Creek inlet and linking the new system upgrades.

The technically challenging nature of the False Creek crossing, within a densely populated, environmentally sensitive and highly utilized park area, demanded innovative design solutions and effective construction management. Golder Associates Ltd. (Golder) provided geotechnical and environmental services throughout the permit application, and design and construction process. The construction contract to complete the False Creek crossing by Horizontal Directional Drilling (HDD) method was awarded to Michels Canada Co. (Michels). Golder managed the technical design aspects and construction contract of the HDD crossing, including Quality Assurance/Quality Control (QA/QC) and environmental auditing.

The construction of the HDD crossing including installation of the conduits was completed on schedule. The successful installation resulted in a savings of approximately $3 million to the overall VCCT project.

This project demonstrates engineering achievement, as it proves the feasibility of completing large diameter bores using the HDD method within dense glacial soils, historically considered as high risk. It also represents the largest scale known application of thermal grouting to accomplish full displacement of drilling fluid within an uncased HDD bore anywhere in the world.