The West Toronto Diamond is located in the Toronto neighbourhood known as The Junction, near Keele Street and Dundas Street West. The project is a rail-to-rail grade separation undertaken by owner Metrolinx to relocate the Canadian National rail tracks below the Canadian Pacific Railway tracks. An unbraced pile wall consisting of large-diameter steel piles connected to one another via P-T interlocks was utilized as both the retaining structure and groundwater cut-off wall for the 1 km long depressed corridor.

During pile installation under an earlier contract, several of the P-T interlocks were deformed, rendering their water-tightness ineffective and/or impossible to construct. Jet grouting of the soils immediately behind the damaged joints was proposed by Metrolinx to satisfy the specified low permeability requirements of $1 \times 10^{-3}$ cm/s for sealing the damaged P-T interlocks indirectly. Geo-Foundations was awarded the remedial jet grouting scope under subcontract to Grascan Construction.

Multiple phases of jet grouting testing were required before appropriate design parameters could be established for meeting the requirements for P-T interlock joint repair. In total, 14 pre-production jet grout test columns constructed over three distinct phases of testing were required before the appropriate combination of construction parameters, mix design, and permeability testing method could adequately demonstrate meeting the stringent permeability requirements. By the conclusion of remedial jet grouting in 2012, over 4700 lineal metres of jet grouting had been constructed.