



“The site logistics and processes were the biggest challenge – it was unconventional and technical – but we worked with the EPRO team to ensure the tunnel was fully protected.”

Kyle Tower,  
General Manager,  
J’s Waterproofing

## Over 1M Square Feet of EPRO Products Installed in Canadian Light Rail Tunnels

Public transportation is a key to successful urban planning, enabling people to travel around a city, out to the suburbs and beyond. Light rail and subway networks often take years to come to fruition and require many key variables to make them a success. In larger cities, above ground space is not often available for newer lines, so tunnels must be dug and constructed. It is also paramount that anything below ground is properly waterproofed and protected to ensure safety and use for decades to come.

EPRO has been involved in many Canadian tunnel projects in major cities. Our products, expertise, and exemplary customer service enabled us to successfully install more than 1 million square feet of product over the years. Work in Canada includes:

### Ray and Evergreen Lines, Vancouver, BC

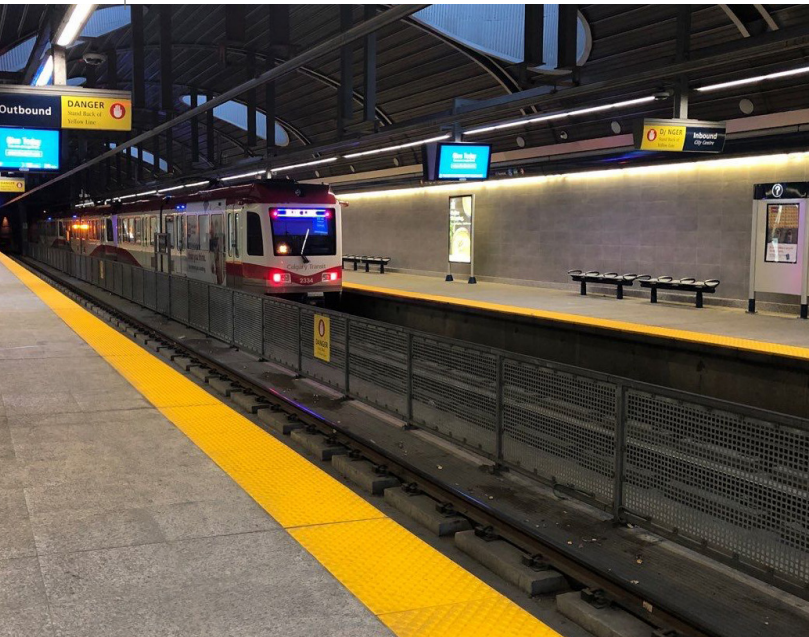
Between 2006 and 2009, EPRO were involved with the creation of 12 stations, and approaches and tunnels as part of Vancouver’s rapid transit expansion. The massive undertaking was a large buildout of the city’s light rail system and expansion in preparation for the 2010 Olympics. Portions of the downtown corridor were already in existence across metro Vancouver, and the light rail was to be extended out to the airport and up near Whistler to allow tourists and athletes better access the games.

A total of 1.2 million square feet of e.performance was placed across the tunnel network in blindside applications as well as for under slab protection against hydrostatic pressure and contamination.



**Project Size:** Over 1M square feet  
**Application:** Waterproofing and vapor intrusion

Finished tunnel at Westbrook Station.



Installation of e.proformance under tunnel foundation of Calgary LRT.



“This was an extremely specific and detail-oriented job – not to mention it was a huge, high-profile project,” says Kyle Tower, General Manager, J’s Waterproofing. “The site logistics and processes were the biggest challenge – it was unconventional and technical – but we worked with the EPRO team to ensure the tunnel was fully protected.”

### **Calgary LRT, Calgary, AB**

Canadian winter weather is notoriously cold and challenging, but the EPRO team were able to successfully complete installation of product in January 2012 at Calgary light rail stations including Sunalta, 45th St, 69th St, and Westbrook. Approximately 580,000 square feet of e.proformance under slab and wall waterproofing systems was applied across 1.2 km of cut and cover tunnel sections. Product was also used for blindside waterproofing and under slab protection against hydrostatic pressure and contamination.

“These challenging winter conditions required critical thinking and a few tweaks to make sure that the product was warm enough to cure,” said Jason Whitfield, General Manager Kanas, Corporation. “The EPRO team came up with the right solution to keep the project moving forward despite the cold and help us keep everything on schedule.”

As part of the LRT project, SOV Construction, Inc. worked with EPRO on protecting the train depot against radon gas vapors which were present at the site. Radon is a naturally occurring gas but must be contained upon detection.

“The presence of radon is quite common across Alberta and British Columbia,” explains Sorin Vrapciu, President, SOV Construction, Inc. “We specified the EPRO’s e.shield spray and bentonite 205 for the radon at this site, and product installation was quick and easy.”

### **CN Highfield Tunnel, Calgary, AB**

EPRO’s most recent Calgary tunnel project involved an extension of the light rail system to include a new tunnel at the end of the line. The tunnel was created at a former industrial site and was entirely new construction. Approximately 55,000 square feet of e.protect + was applied on all four sides of the tunnel - under slab, below grade vertical, and roof slab waterproofing - and e.stop was applied at the cold joints.