

The Tunnelling Association of Canada (TAC) promotes the use of underground space in support of a growing urban population in key centers of Vancouver, Calgary, Edmonton, Toronto, Ottawa and Montreal and others. Growing needs for transportation and service infrastructure is being met through the use of underground space. In addition, the use of underground space in Canada's expansive mining and hydro electric sectors is also pushing the technologies for developing these spaces to new heights. The bi-annual TAC Conference will be held in Montreal, Quebec, Canada on October 17 to 20, 2012. We look forward to seeing everyone there.

Transportation Tunnels

Transportation tunnelling in Canada is currently undergoing a rapid growth with Metro and Light Rail tunnels being constructed or planned in Vancouver, Toronto, Edmonton, Ottawa and Montreal. This new growth is the result of a rapid growth of population within these urban centers as well as the need to provide alternative forms of transport that is more efficient and environmentally conscious. Work is currently underway on the first phase of tunnels in Toronto (York Spadina Subway Extension) with the second phase in the tendering process (Eglinton Cross Town Light Rail). The tunnels in Vancouver (Evergreen Line) and Ottawa are also currently in the tendering process with tunnelling to start sometime in 2013. Edmonton and Montreal are in the late design stages of new work which should follow closely on the work being done in the other urban centers.

In addition to Metro and Light Rail systems being developed within cities there is also a growing demand for additional capacity to transport raw materials and manufactured goods within the rail system that spans the country in order to get the materials to ports on the east and west coast. The most difficult sections of these upgrades will be the deep hard rock tunnels through the mountains on the west coast. Work on these projects is anticipated to start in the next few years.

Tunnels are also being planned for natural gas and oil pipelines to move oil and gas from the fields in Alberta to new LNG plants on the west coast where it can be exported to markets in Asia Pacific.

Water and Sewer

Infrastructure within Canada's urban centers that provide water and waste removal are in the process of large upgrades due to aging systems and increasing populations in these areas. One of the largest projects currently underway is in York Region north of Toronto which will commence mining in the summer of 2012 is the South East Collector. This will be followed closely by large watermain projects in Peel Region Hanlan Feeder Main (west of Toronto) and the Port Mann Main in Vancouver which will start mining in early 2013. Work also continues on sewer systems in the City of Edmonton and Calgary as these cities add capacity for rapidly growing populations fuelled by the oil and gas industries. Planning is in progress for the Lake Diefenbaker Water Intake, Saskatoon

Hydro Power

Hydro Power in Canada continues to grow with the soon to be completed tunnel at the Sir Adam Beck projects in Niagara Falls which will allow for maintenance of the older tunnels as well as increase in capacity of the two plants. Projects are also being looked at in; Newfoundland and Labrador with the potential addition of 2000 MW on the Lower Churchill project; in Quebec further work is moving forward on the Romaine River project to develop four sites; Ro-1, 2, 3 and 4, Ro-2 site is presently under construction, while Ro-1 and Ro-3 are at the design stage; Waneta Expansion in southern British Columbia; John Hart Project, Vancouver Island is currently at the request for qualifications stage and will include upgrades and replacement of existing power station; and BC Hydro is advancing the Site C clean energy project in Northern BC.

Future of Tunnelling in Canada

The tunnelling industry in Canada is thriving and is expected to continue to do so well into the future. This can be seen by the numbers of large foreign companies that are working in Canada in tunnelling. With the work currently underway tunnelling will be a growing industry for several years and on the heels of this current work future plans are progressing quickly and that will allow tunnelling contractors to keep busy well into the future.