

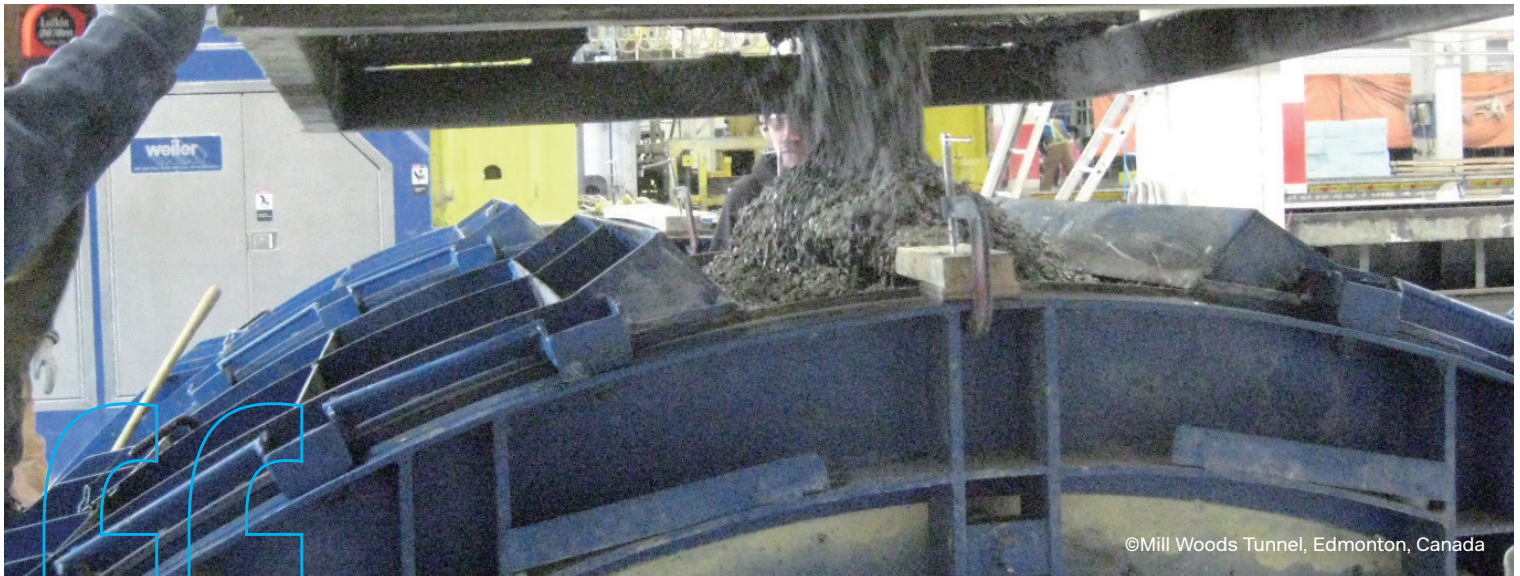
Mill Woods Tunnel, Edmonton, Canada

Project specifications

Project type: Sewer tunnel
Application: Precast segments

Partners

Owner: City of Edmonton
Precaster: Lafarge Precast
Engineer: Cohos Evamy (Dialog)



Mitigating severe flooding in Edmonton's Mill Woods neighborhood, the city oversaw construction of new storm sewer tunnels to improve drainage as well as quality of life for local residents.

The challenge

At the time of construction, the City of Edmonton's Drainage Department owned and operated several TBMs

and segment forms, performing tunneling in-house and supervising precast segment production.

Looking for ways to reduce production costs for the 1,750km-long Mill Woods tunnels, steel fibers had been considered for the reinforcement of the segmental lining. However, there were no case studies to reference for water or stormwater tunnels in Canada.

The solution

Working with the project's consultant, Bekaert developed a steel fiber reinforcement solution and completed all necessary testing in less than three months' time following the bid date.

For the Mill Woods project, the precast segmental tunnel lining is reinforced with Dramix® RC-80/60-BN steel fibres, meeting project specifications and reducing production costs. It's the first water utility tunnel in Canada with a steel fiber reinforced segmental lining.