



FUT 4711 Barkarby (S) Water & Frost Protection

Country	Sweden (S)
Type	Metro
Client	SBT Sverige AB/ SL Nya Tunnelbanan AB
Main Contractor	Rosenqvist Entreprenad AB
Execution of the work	Renesco GmbH
Designer	Tyréns, Ramboll, White Arkitekter
Construction Period	2023-2024

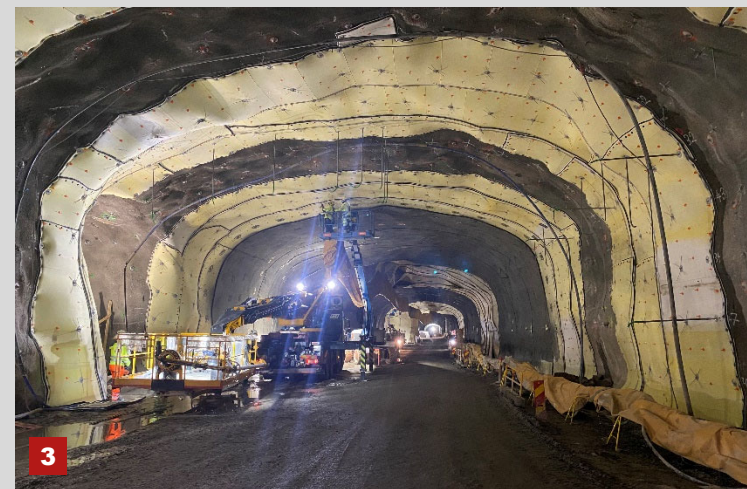
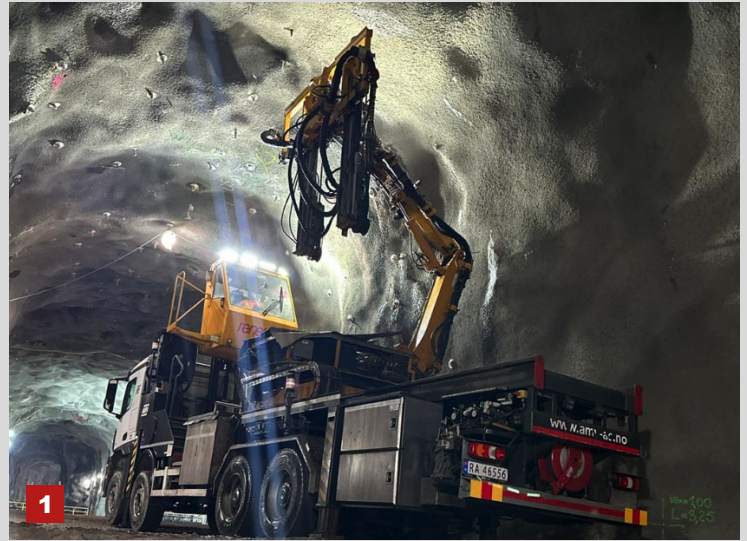
Project Description

The Blue line in northwest Stockholm is extended from Akalla to Barkarby, four kilometers with two stations, Barkarby and Barkarbystaden. The Barkarby metro station is being built at Barkarby commuter train station's northern part of the platform, at the Veddesta bridge. The excavation is undertaken by drill and blast tunneling for a 4.1 km western extension of the Stockholm metro Blue Line from the northern terminus at Akalla to the Järfälla housing development near Barkarby, adding two new stations. The Akalla – Barkarbystaden section will run in two single-track tunnels, while Barkarbystaden – Barkarby will have a double-track bore and a service tunnel. The intermediate station at Barkarbystaden is intended to serve a new city district now being developed on a former airfield site. The Barkarby terminus will be 30 m below ground, providing interchange with suburban rail services.

Scope of Service

Supply & Install of the water & frost protection system with PE-foam for dedicated areas.

- Drilling services for mounting of the tunnel lining system with a full automatized AMV bolting/ drilling-rig, controlled by a Trimble navigation technology to ensure accurate and systematic drilling of the holes, based on BIM.
- Installation of anchor bolts M16 and technical bolts M33 for KL-mast (foundation for train power supply), galvanized/ epoxy coated (HDG). This also goes along with intensive mud balance test for all grouts and pull-out tests for the anchors.
- Installation of the drainage mats based on PE-foam to manage water ingress by providing channels for the water. They also serve as a protective layer and insulation.



1. Drilling operations, full automatized drill rig
2. Front area, installation of the drainage mats/PE-foam
3. Tunnel area, installation of the drainage mats/PE-foam