



Karlovo Namesti (CZ) Shaft & Tunnel Sheet Waterproofing

Country	Czech Republic
Type	Metro Station
Client	Dopravni podnik mesta Praha (Transport company of the Prague city)
Main Contractor	Hochtief CZ a.s., Energie a.s.
Execution of the work	Renesco a.s.
Designer	Metroprojekt Praha a.s.
Construction Period	2020

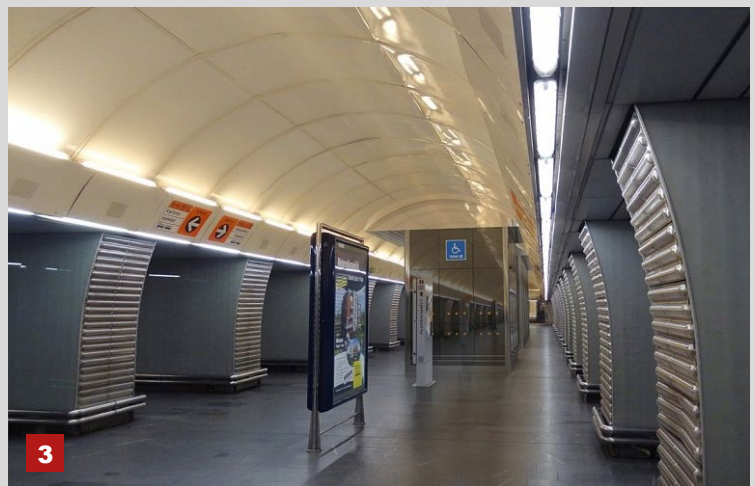
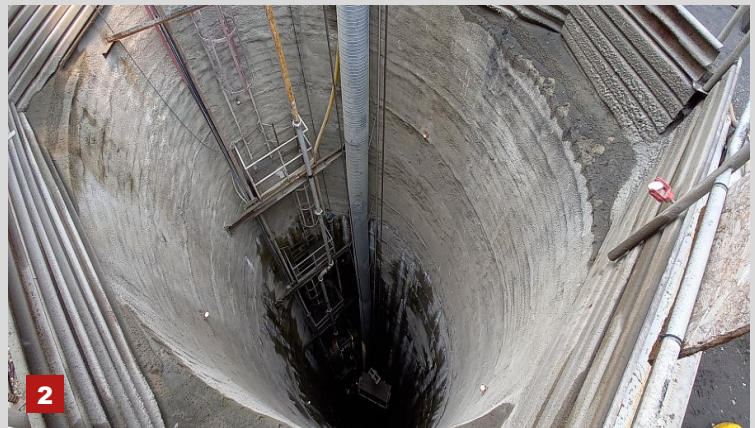
Project Description

The construction of barrier-free access to the Karlovo náměstí metro station is situated in the built-up area of Nové Město in Václavská Street and in the area of the intersection of Trojanova - Václavská streets in the Prague 2 district. Karlovo náměstí metro station is located about 35m below the ground. It is an embossed three-aisle station of the pillar type with an axial distance of 21m from the tracks. Accessibility is designed using a cascade of two pairs of passenger elevators, the first from the street level to the angled underground transfer corridor, located just above the station and the other pair of elevators from the transfer corridor to the platform approximately to the center of the station.

Scope of Service

Installation of a loose-laid PVC-P based waterproofing system acc. to ZTV-ING (German standard), full-round (360°) with an adhesive tape/strip termination at the existing pre-cast-concrete segment opening including all necessary pre-treatments, installation of a back-up grouting system and all grouting/ injection works. Some technical details are:

- PVC-P 3.1mm sheet waterproofing
- 800g/sqm polypropylene (PP) geotextile
- 2'000g/sqm polypropylene (PP) protection geotextile
- 600mm/ 6 ribs PVC-P water barriers
- 3mm PVC-P protection sheet membrane/ full surface.
- All relevant pre-treatment works, like water stoppings, cleanings, pre-injections, joint treatments
- Application of an adhesive tape/ strip termination system with epoxy resin
- Installation of an injection/ grouting system as back-up waterproofing
- Installation of hydrophilic waterstops
- Installation of a contact grouting system



1. Waterproofing of connection tunnel from street level elevator shaft to train platform level elevator shaft
2. Shaft construction
3. Metro Station, underground