

Groundwater lowering in the August Schade district near Copenhagen

Pumping wells, observation wells, re-infiltration wells and monitoring wells



AARSLEFF

Per Aarsleff A/S has lowered the groundwater in connection with the execution of a construction pit for a multi-storey building comprising apartments, hotel and grocery stores.

The groundwater lowering included pumping wells, observation wells, monitoring wells and re-infiltration wells together with a 24-hour monitoring of the water level readings. As part of our work, we established an elevated pipeline system across Amagerfælledvej, a relatively busy road that we could not close off. To cause as little disturbance to the traffic as possible, the elevated pipeline system was carried out at night.

Capacity expansion in the process

The scope of the groundwater lowering changed during the project. A capacity of maximum 40 cubic metres per hour was expected from the start of the

project, however that was increased in the process to a maximum capacity of 120 cubic metres per hour. Also, the number of drillings was increased during the project.

From a closed to an open system

At first, we performed the groundwater lowering with a closed system with two sedimentation tanks, but due to a high concentration of ochre in the water, we switched to an open system where the water was oxygenated before re-infiltration.



Data

- 14 pumping wells
- 7 observation wells
- 28 re-infiltration wells
- 3 monitoring wells
- Operation and supervision of wells, including alarm monitoring and emergency power.

Client

Tertris A/S

Type of contract

Subcontract

Consulting engineer

Niras A/S

Construction period

November 2018-September 2019

Contract value

DKK 5 million

Aarsleff Ground Engineering is one of Europe's leading piling contractors, and we undertake a wide variety of piling, drilling and foundation projects in Denmark and abroad. We have offices in Poland, Sweden, Germany and the UK.

We have 35 to 40 different units ranging from fully hydraulic piling and drilling rigs, cranes and vibrators.

Contact

Per Aarsleff A/S
Ground Engineering
info@arsleff.com
Tel +45 8744 2222

28.08.20-R102_UK-rev1