

# New North Zealand Hospital

## Geotechnical investigation



**AARSLEFF**

Aarsleff has carried out geotechnical, hydrogeological and environmental drillings for the preliminary design of a new hospital in North Zealand.

The new hospital will have 20 clinical functions for more than 325,000 citizens who previously belonged to hospitals in Hillerød, Elsinore and Frederikssund, DKK 4.4 billion are allocated for the construction. The hospital will have a floor area of about 118,000 square metres.

### **Execution in several phases**

We have executed a total of 140 geotechnical drillings on the 118,000-square metre area on which the hospital will be constructed. The drillings are 5-30 metres deep, and we used three drilling rigs at the same time for the drilling.

We carried out test pumping in eight monitoring wells during a period of five weeks. The purpose of this was to assess the water flow in connection with the construction work and to determine the longterm effect of groundwater lowering in area.

The investigation was divided into four phases and adjusted to the current requirements. Drillings, CPT-tests and pumping tests were carried out with Aarsleff's own drilling equipment and groundwater lowering equipment.



#### Data

- 140 geotechnical drillings to a depth of 5-30 metres, a total of 1,605 m
- 4 CPT tests at a depth of 15-30 metres
- 8 monitoring wells for pumping test during a period of five weeks.

#### Client

Capital region of Denmark

#### Contractor

Per Aarsleff A/S

#### Type of contract

Main contract

#### Consultant

COWI A/S

#### Construction period

August 2016-April 2018

#### Contract value

DKK 2.5 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.

Our fleet covers hydraulic piling and drilling rig as well as cranes and vibrators.

#### Contact

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