

# Copenhagen International School, Nordhavn District

Construction of a 24,000-square-metre shell structure



**AARSLEFF**

At Nordhavn, the new waterfront city district in Copenhagen, Per Aarsleff A/S's departments Construction and Ground Engineering have been working together on a 24,000-square-metre shell structure for the construction of a new building for Copenhagen International School (CIS). The building was inaugurated in 2017 and can accommodate 1,200 students.

## **In situ concrete and element installation**

We started by installing 950 concrete piles in lengths of 14-17 metres. Then we cast in situ concrete for the building foundations. With the foundations in place, we constructed the ground floor and the first floor with a combination of in situ casting and element installation. Subsequently, we began establishing four towers of between two and six floors. The towers were constructed mainly by element installation.

We used a total of 3,600 cubic metres of concrete and 3,300 concrete elements for the building. In

addition, 1,900 tons of structural steel was used for lattices, columns and beams.

## **Many trades at one location**

In addition to the shell structure, Aarsleff was also involved in the execution of an 8,000-square-metre landscape project surrounding the building. This comprised paving with asphalt and rubber asphalt as well as establishment of playing fields and skate areas. The many different trades on the construction site caused on occasions logistical challenges. This was also the case when we delivered additional work, especially around the time of project handover. For instance, we had to construct an access bridge cast in situ and a landscape project with playing fields, skate ramp etc., while we also had to maintain access to the building for the fitting out work plus allow the storage area to be closed down. Altogether, the project went well – also thanks to good collaboration with the client – and was handed over on time and to the agreed quality and price.



#### Data

- 950 concrete piles of 30 × 30 cm, 14-17 m long
- 3,600 m<sup>3</sup> of concrete
- 3,300 concrete elements
- 1,900 tons of structural steel
- 8,000 m<sup>2</sup> landscape project including asphalt, rubber asphalt, playing fields and skate areas etc.

#### Client

Ejendomsfonden Copenhagen  
International School

#### Contractor

Per Aarsleff A/S

#### Type of contract

Trade contract

#### Consultant/Architect

Niras A/S  
C.F. Møller A/S

#### Construction period

December 2014-December 2016

#### Contract value

DKK 127.8 million

#### Contact

Per Aarsleff A/S  
Construction  
Estimation & Tender  
kalkulation@arsleff.com  
Tel +45 8744 2222

ANLÆG-226-rev.1 05/2018