

Bruket Brygge Soil Stabilization

Fredrikstad, Norway

Installation of 389 Lime Cement Columns of Ø600 mm after large settlements occurred due to overloaded sensitive clay.

4.600m of stabilized length executed in 5 days production with an average length of 11.5m.

Soil Stabilization executed between existing sheet piles.



The project

Bruket Brygge is a development project for luxury apartments in Gressvik built directly at the sea side. Asker Entreprenør as the main contractor had to stabilize the water front after some large settlements of the man made filling happened.

The challenge

Soil type: Very soft and sensitive clay at proximity to the sea front where a suitable working platform had to be established in order to ensure safe and stable conditions to execute the works.
Challenging working conditions due to Covid-19, high hygiene measures and good coordination with other ongoing works of the main contractor.

The solution

In order to stabilize the sensitive clay, 23 ribs of Lime Cement Columns of Ø600mm diameter were installed. An execution sequence was developed to ensure a safe work environment for the team. A high binder content of 100kg/m³ was applied to fulfill the requested design parameters. Furthermore FKPS testing of the columns was executed according to the specifications of the project.

Project facts

Owner(s)

Sem & Johnsen

Keller business unit(s)

Keller Geoteknikk AS
Keller Grundläggning AB

Main contractor(s)

Asker Entreprenør AS

Engineer(s)

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Solutions

Slope stabilisation

Markets

Residential

Techniques

Dry soil mixing

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