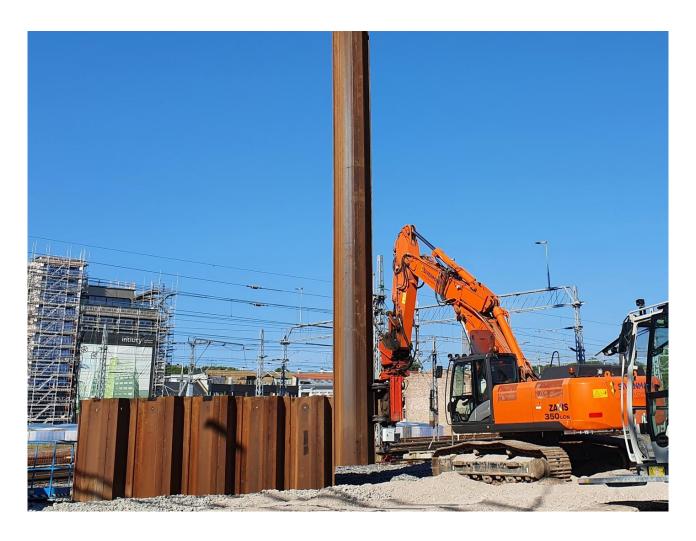


# Oslo S (Summer Shutdown 2021)

Oslo, Norway

- Installation of sheet piles in close proximity to live railway traffic.
- Execution of almost 3,500m of jet grouting columns (column diameters up to 2.2m).
- For supporting structures, 323,9mm micropiles were installed near existing overhead power lines.



# The project

In summer 2021, Keller resumed works in Oslo Central Station as a part of the Folloline Project. In order to allow for safe excavation works, Keller executed a range of geotechnical products to protect the existing railway structures. Part of the works had to be executed from the existing tunnel with the limited headroom of 5.5m.

## The challenge

- Tight time schedule to finish within the set shutdown period.
- Sheet piling works to be performed close to tracks and overhead line.
- Working simultaneously with different geotechnical products.
- Part of jet grouting works were performed in a tunnel with less than 5.5m headroom.

### The solution

- Keller managed to complete the works before the deadline. Day and night shifts were implemented in order to meet the schedule requirements.
- To mitigate any potential delay with latent ground conditions, Movax and Vibro hammer were utilized to drive the sheet piles into the ground.

### **Project facts**

### Owner(s)

Bane NOR

#### **Keller business unit(s)**

Keller Geoteknikk AS Keller Grundbau Keller Grundläggning

#### Main contractor(s)

HAB Construction AS

#### **Engineer(s)**

Project Manager - Gard Mogen email: gard@hab.no

#### **Solutions**

**Excavation support** 

#### **Markets**

Infrastructure

#### **Techniques**

Sheet piles Jet grouting Micropiles

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