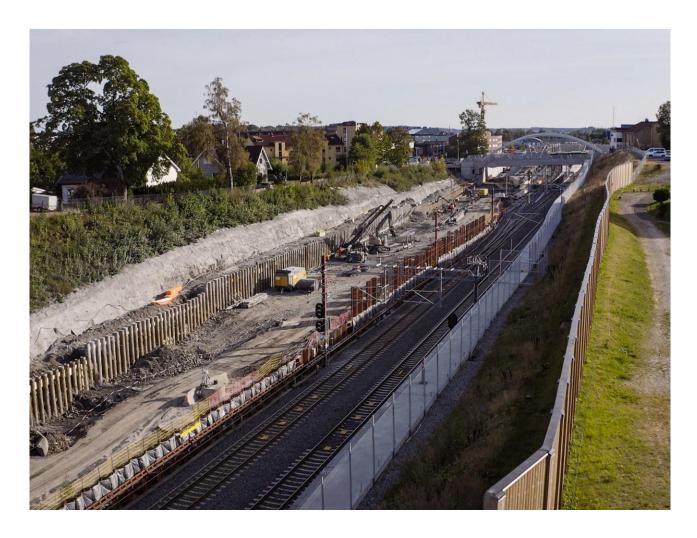


## Follo Line Ski RW SP4-5

Ski, Norway

- Shoring walls consisting of Steel Piles, Ground Anchors and Shotcrete to retain the excavation of up to 7m depth.
- 391 Steel Piles (5950 m), 199 Ground Anchors (5400 m) and 1500 m<sup>2</sup> Shotcrete.
- Ring-Bit system with Pilot bit used for Piles and Double Rotary Head system used for Anchor drilling.



# The project

The Follo Line Ski project is part of the new high-speed railway line between Oslo and Ski. After completion in 2022, Ski will have a modern transport hub with three platforms and a completely renewed station area.

To build the tracks north of the station a permanent retaining wall had to be built.

# The challenge

- Difficult soil conditions including sensitive soft clay, moraine layers, large blocks and bedrock.
- Extraordinary welding detail requirements for piles and anchor beams.
- Complex site logistics and limited working space.
- Presence of fully operational rail tracks along the wall.
- Sequencing works to maximize the production (up to 3 drilling rigs concurrently on site).

### The solution

- Double Rotary Head system to minimize disturbance of surrounding soil.
- Welding plant to prefabricate the pile casings and anchor beams.
- Spare equipment to keep the tight time schedule.

# **Project facts**

### Owner(s)

Bane NOR

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

Keller Geoteknikk AS Keller Grundläggning AB Keller Grundbau GesmBH

#### Main contractor(s)

**OHL Norge** 

#### Engineer(s)

Project Manager - Vidal Alcon email: vidal.alcon@ohla-norge.no

#### **Solutions**

**Excavation support** 

#### **Markets**

Infrastructure

### **Techniques**

Sheet piles Ground anchors Jet grouting

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