For the extension of the vocational and technical secondary school in Kelheim Implenia Spezialtiefbau GmbH was contracted to perform the foundation engineering works.

In order to secure the existing building two contiguous bored pile walls with a drilling diameter of $d = 64$ cm as well as a single bored pile wall $d = 90$ cm were produced using shotcrete infill. The existing building was secured using a freely cantilevering soldier pile wall. After completion of the lining 85 pieces foundation piles with a length of 15.00 - 20.50 m ($d = 90$ cm) were also produced. In order to provide air conditioning for the new development so-called energy piles were produced. For this the bored piles were additionally equipped with brine-conducting pipe conduits in polyethylene, which are then used as heat exchangers for the supply of heat and cooling to the building.

**Quantities:**
- 390 m contiguous bored pile wall $d = 64$ cm
- 76 m single bored pile wall $d = 90$ cm
- 110 m borings for soldier pile wall
- 45 m² shotcrete
- 100 m² wood lagging
- 99 m temporary stranded anchors
- 1,700 m foundation piles $d = 90$ cm
- approx. 7,500 m geothermal conduits