The use of micropiles as a form of underpinning of existing commercial buildings – development of IKEA hall in Gdańsk

by Marcin Blockus PhD Civ. Eng.
Presentation plan:

- Introduction – general information
- Description of the applied technical solutions
- Execution of the piling works
- Summary
Introduction – general information

- Location of the commercial center
Introduction – general information

- Stages of the investment

- Underground garage
- Additional ceiling
- Strengthening of foundation
Description of the applied technical solutions

- Typical cross section
Description of the applied technical solutions

- Scheme of the micropiles installed in the existing foundation
Description of the applied technical solutions

- Scheme of the construction of independent support of the columns
Description of the applied technical solutions

- Scheme of the construction of independent support of the columns
Description of the applied technical solutions

- Scheme of the construction of independent support of the columns
Execution of the piling works

- Outdoor works
Execution of the piling works

- Outdoor works
Execution of the piling works

- Indoor works
Execution of the piling works

- Indoor works
Summary and conclusions

- Effective and economical technology

- In the analyzed case the injection micropiles were used for:
  - underpinning the existing foundations and constructing the new foundations
  - anchoring the support of the excavation of the underground parking lot

- The use of the micropile foundations was an optimal solution allowing for continuous operation of the shopping center
Thank you for your attention