

## **INFINITY Zieleniec**

Zieleniec

The aparthotel, with an area of about 40 thousand square meters, will consist of three blocks, situated in terraces on the slope of one of the slopes in the center of Zieleniec. The building was designed by architects in such a way as to perfectly fit into the mountain landscape and surrounding nature.



### **The project**

Commissioning and operation of a force monitoring system in the anchorage of the emerging protection of a deep excavation, made in the technology of anchored palisade CFA in piping. The height of the monitored palisade was approximately 13 m.

## The challenge

Measurement of forces acting in soil nails anchoring a CFA piling as part of protection of a deep excavation. The measurements had to be taken in order to verify the design assumptions and risk assessment related to the construction of such a high palisade in difficult geological conditions. Due to the installation of a force meter at a height of about 12 m it was necessary to use a remote reading of the recorded data.

## The solution

The force gauges for measuring the force on the soil nails were installed in two stages - at the first level of the soil nails and after excavation to the appropriate depth at the second level of the nails. The engineers responsible for securing the deep excavation had access to current measurement data on an ongoing basis, which enabled safe execution of the target excavation.

## Project facts

### Owner(s)

INFINITY Zieleniec

### Keller business unit(s)

GEO-Instruments Polska

### Main contractor(s)

Czarna Góra Apartamenty

### Engineer(s)

Jerzy Pieronkiewicz - Dyrektor Techniczny

### Services

Automated monitoring  
Deep foundations testing

### Markets

Buildings

### Technologies

Wireless sensors