LOAD CALCULATION:

The key is to support on posts and columns.

\[ N_{Ed} = 17150 \text{ KN} \rightarrow \text{Result is taken from the column preliminary calculation.} \]

Dimensions of the column:

- Self weight of the footing:

\[ Q_e = 0.1, \ N_{Ed} = 0.1 \times 17150 = 1715 \text{ KN} \]

- Design strength of subsoil:
  - Gravel: \( f_k = 400 \text{ kPa} \rightarrow \text{table value} \)
  - No extendibility included

\[ \rightarrow \text{PLAN CONCRETE} \]
$$h = a \cdot \log(x) = \left( \frac{b \cdot b_s}{c} \right) \cdot \log(x)$$

$$G = \frac{\kappa a + G_0}{\Delta e} \leq \Delta e$$

$$\Delta e = \frac{\kappa a + G_0}{\Delta e} = \frac{950 + 95}{400} = 3.8181$$

$$a = 4.511$$

$$b = 4.511$$

**Dimensions of the footing pad is too large!**

Because of the subsoil condition, geological condition needs to be assumed.

From the website of Czech Geology Service, was found that original subsoil is mostly composed from **loess**.

From this reason was decided to use **reinforced concrete** with the slab thickness 500 m/ and wall thickness 300 m/.

For the more sophisticated design of the foundations geological survey and engineering geological survey should be done for the purpose of this project is this design satisfied.