

1	Sources.....	2
2	Overview of geological and hydrogeological situation	2
3	Geotechnical properties of rocks (ČSN 73 1000).....	2
4	Geological evaluation for engineers	2

1 SOURCES

- Geologická mapa ČR, <http://www.geology.cz/>

2 OVERVIEW OF GEOLOGICAL AND HYDROGEOLOGICAL SITUATION

The pre-quaternary base in the area of interest is formed by loess and loess loams.

The listed rocks come out to the surface of the area, where they are eroded up to decomposed.

The quaternary cover is formed by sandy loam with fragments.

The level of ground water is tied to a rift system in greater depth.

3 GEOTECHNICAL PROPERTIES OF ROCKS (ČSN 73 1000)

Loess is a clay soil, which belongs to the class F6.

Volume mass	$\gamma = 21,00 \text{ kN/m}^3$
Angle of internal friction	$\varphi_{ef} = 19,00^\circ$
Soil coherence	$c_{ef} = 30,00 \text{ kPa}$
Poisson's number	$\nu = 0,40$
Edometric modulus	$E_{oef} = 21,50 \text{ MPa}$
Saturated volume mass	$\gamma_{sat} = 22,00 \text{ kN/m}^3$
Angle of distribution	$\beta = 10,00^\circ$

4 GEOLOGICAL EVALUATION FOR ENGINEERS

The subsoil of the three-storey dormitory, up to the depth 10 m, is formed by loess and loess loams.

Due to low bearing capacity of the subsoil and difficult foundation conditions, the assessed building will be founded on drilled piles. Their preliminary dimensions are calculated in specialized software and the report is attached.