



Technical Guidance

Minimum foundation depths in clay soil

Question

In clay soils where there is no influence from trees or shrubs and the final ground level is to be raised, what is the minimum foundation depth, and from where should it be measured?

Considerations

- Foundations should not bear onto clay soil, if they are affected by seasonal desiccation, which could result in movement. Seasonal desiccation can cause movement to a depth of 1.0m in high, 0.9m in medium and 0.75m in low volume change potential soils [NHBC Standards clause 4.4 - D8 (a) and S5].

Answer

Minimum depths for foundations on clay soils area as follows:

Volume change Potential	Minimum depth (m)
High	1.0
Medium	0.9
Low	0.75

The depth should be measured from:

- the original ground level where seasonal desiccation of the soil is either unknown or is known to be present
- the raised ground level where it is shown by recent tests that the original ground is not desiccated, providing that the foundations are on a good bearing and do not bear onto any fill or topsoil.