

Surface Water Drainage Design Notes

Ground conditions here comprise Topsoil over Made Ground over Head Deposits of clay, silt, sand and gravel over London Clay. The Made Ground was encountered at 75 to 150mm below ground level with the Head Deposits at 200 to 450mm below ground level and comprising very variable material but predominantly soft silty clays with some sand, grit and gravel becoming stiffer with less gravel at depth.

Although dry initially, groundwater seeped through the Made Ground into two of the three test pits and remained perched above the stiffer clay layers, which extend and blend into the London Clay.

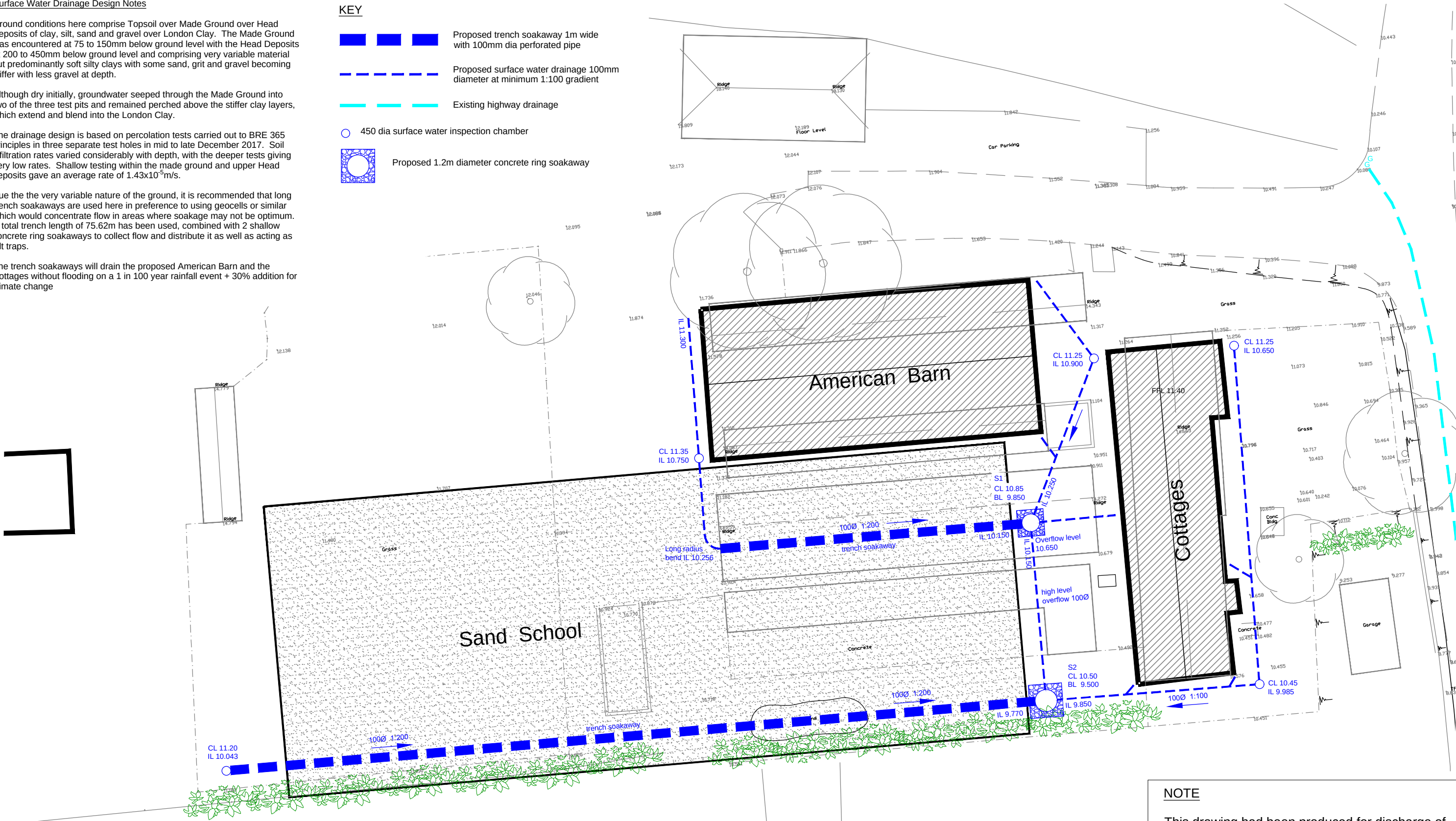
The drainage design is based on percolation tests carried out to BRE 365 principles in three separate test holes in mid to late December 2017. Soil infiltration rates varied considerably with depth, with the deeper tests giving very low rates. Shallow testing within the made ground and upper Head deposits gave an average rate of 1.43×10^{-5} m/s.

Due the the very variable nature of the ground, it is recommended that long trench soakaways are used here in preference to using geocells or similar which would concentrate flow in areas where soakage may not be optimum. A total trench length of 75.62m has been used, combined with 2 shallow concrete ring soakaways to collect flow and distribute it as well as acting as silt traps.

The trench soakaways will drain the proposed American Barn and the Cottages without flooding on a 1 in 100 year rainfall event + 30% addition for climate change

KEY

- Proposed trench soakaway 1m wide with 100mm dia perforated pipe
- Proposed surface water drainage 100mm diameter at minimum 1:100 gradient
- Existing highway drainage
- 450 dia surface water inspection chamber
- Proposed 1.2m diameter concrete ring soakaway



NOTE

This drawing had been produced for discharge of planning conditions only. All levels and details to be checked for Building Regulations approval and construction purposes

A	IC moved out of sand school	PC	RTFC	6.4.18	
-	Original	PC	RTFC	19.2.18	
Rev.	Description	App.	Chk.	Dm.	Date

Project	Herons Farm Dappers Lane Angmering
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Client	Mr and Mrs Ayling
Drawing Title	Surface Water Drainage

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Scale 1:250	At original A3
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