

Surface Water Drainage Design Notes

Ground conditions here comprise Topsoil over Head Deposits of clay, silt, sand and gravel over London Clay. The Head Deposits were encountered at 150mm below ground level and comprised soft silty clays that became more compact with depth with increasing fractions of medium to large sub-angular flints.

Groundwater was not encountered in test holes excavated to 2.2m in early May 2018.

Three percolation tests carried out to BRE365 principles in a test hole augered to 1.6m below ground level provided a lowest soil infiltration rate of 3.929×10^{-4} m/s in late May 2018, to which we have applied a factor of safety of 2.5.

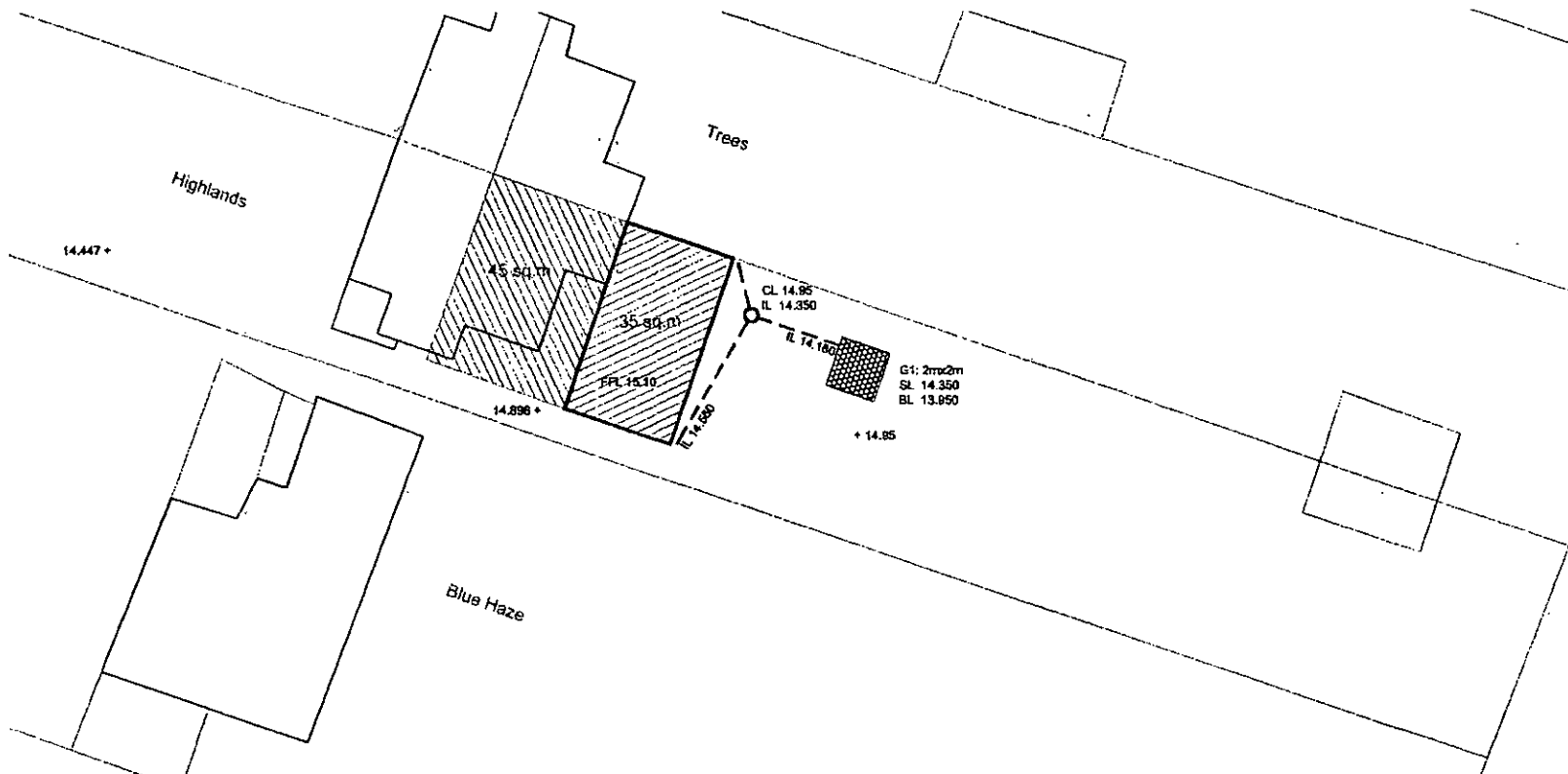
Whilst groundwater would not seem to be an issue here, we have designed a shallow geocellular soakaway to drain this extension, together with approximately half of the existing roof. A single soakaway will be sufficient using 400mm geocellular units with a minimum of 500mm of cover in the rear garden as shown, which will be suitable to drain the development on a rainfall event with a return period of 1 in 100 years with an addition of 40% for climate change

KEY

- Proposed storm drainage
100mm dia at min 1:100
- Proposed silt trap inspection chamber
- ▨ Proposed geocellular soakaway as detailed in 0.4m deep geocells
- ▨ New extension to be drained to geocell G1
- ▨ Existing roof areas to be drained to geocell G1
- +7.87 Existing ground levels in meters AOD
- SL 8.895 Soffit (top) level of geocells
- BL 8.895 Base level of geocells
- IL 8.895 Invert level of surface water drains



Location Plan - scale 1:2500



Plan - scale 1:200

Rev.	Description	Drn.	Date
-	Original	RTFC	21.5.18

Project	Highlands Fontwell Avenue Eastergate
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Client	Kate Edney
Drawing Title	Surface Water Drainage

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