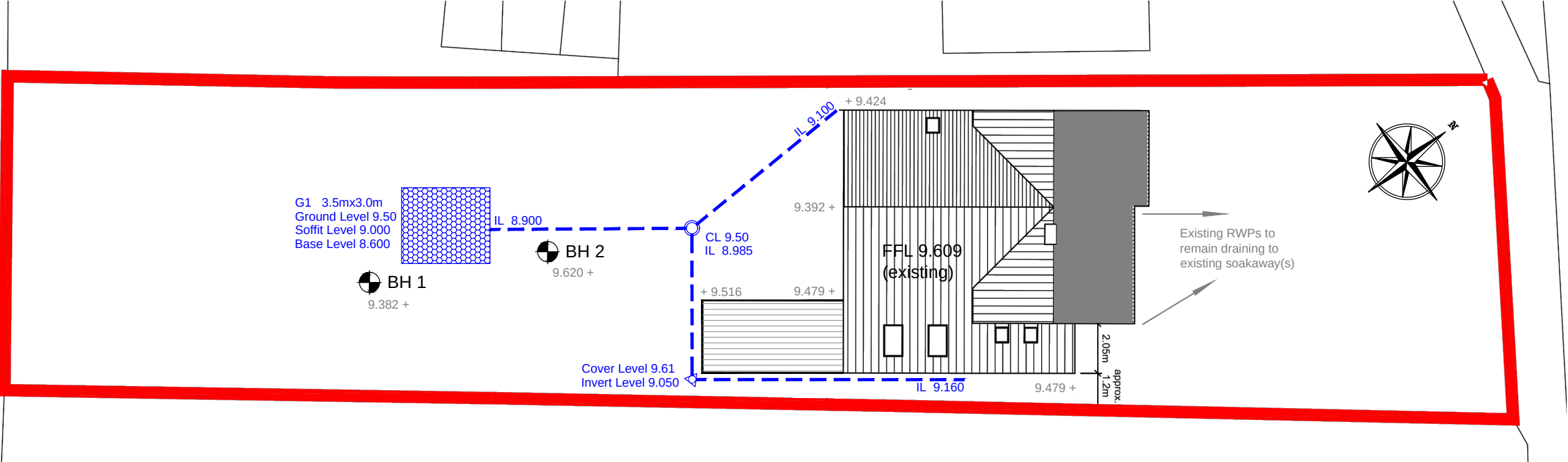




Plan - scale 1:200

Surface Water Drainage Design Notes

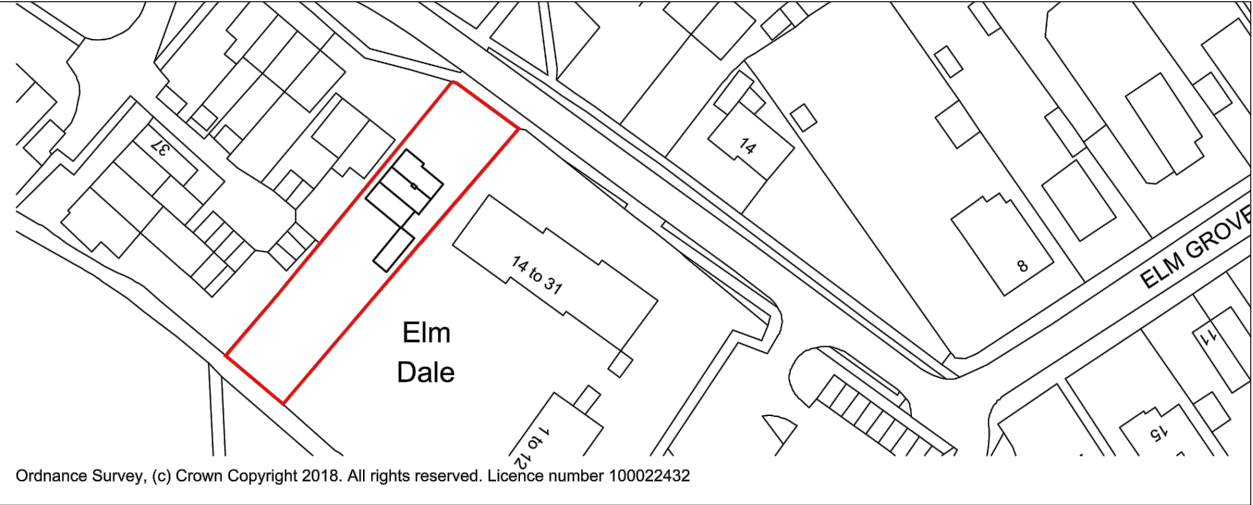
Ground conditions here generally comprise Topsoil over River Terrace Deposits of soft to firm silty sandy clays over London Clay.

In practice we found up to 220mm of topsoil over dry brown clay that became increasingly silty and sandy with some fine grit and gravel at depth. The London Clay was not encountered in test holes that extended to 1.59m below ground level.

Seepage of groundwater was encountered at the base of the excavations during investigations in late February and early March 2019 and monitoring carried out through to the end of March showed levels rising to a maximum of 910mm below ground level on 4th March 2019.

The drainage design is based on 3No. percolation tests carried out in BH 2 to BRE365 principles in early March 2019. A minimum soil infiltration rate of 6.252×10^{-5} m/s was obtained. A factor of safety of 3.0 has been applied.

A single shallow geocellular soakaway has been designed as detailed in 400mm deep units, which will be suitable to drain new and existing roof areas to the dwelling as shown without flooding on a 1 in 100 year rainfall event + 40% climate change addition.



Location Plan - scale 1:200

KEY

- Proposed storm drainage
100mm Dia at min 1:100
- Proposed silt trap inspection chamber
- 250 dia surface water inspection chamber
- Proposed geocellular soakaway as detailed in 400mm deep geocells
- Existing roof areas to remain draining to existing front soakaway
- Existing and proposed roof areas to be drained to new rear soakaway
- Existing ground levels in metres AOD
- BH # Borehole/test pit locations

Percolation Test Results

BH 1 - Groundwater monitoring point only
BH 2 - Test 1 at 900mm depth 8.640×10^{-5} m/s
BH 2 - Test 2 at 940mm depth 7.660×10^{-5} m/s
BH 2 - Test 3 at 960mm depth 6.252×10^{-5} m/s

Note: Minimum test result used in calculations

NOTE

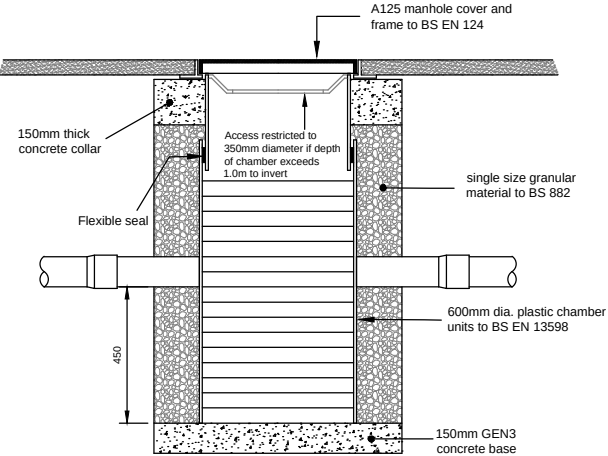
This drawing had been produced for discharge of planning conditions only. All levels and details to be checked for Building Regulations approval and construction purposes

-	Original	RTFC	18.4.19
Rev.	Description	Drn.	Date

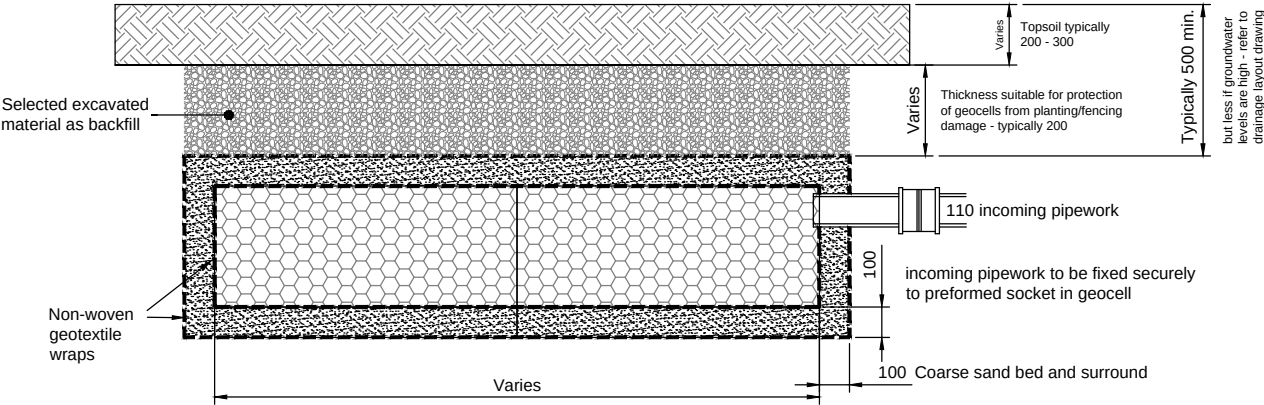
Project
23 Elm Grove South Barnham

Client
Mr & Mrs Hollingworth
Drawing Title
Surface Water Drainage

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Scale As shown		At original A3	
Drawing Number 2025/SK1		Revision -	



Typical Silt Trap Inspection Chamber Detail
(for use in soft landscaped areas and footways)



Typical Geocellular soakaway Unit
(for use in soft landscaped areas)

Note

Geocells located in areas subject to vehicle loading shall be suitable heavy duty units - refer to manufacturer for their recommendations