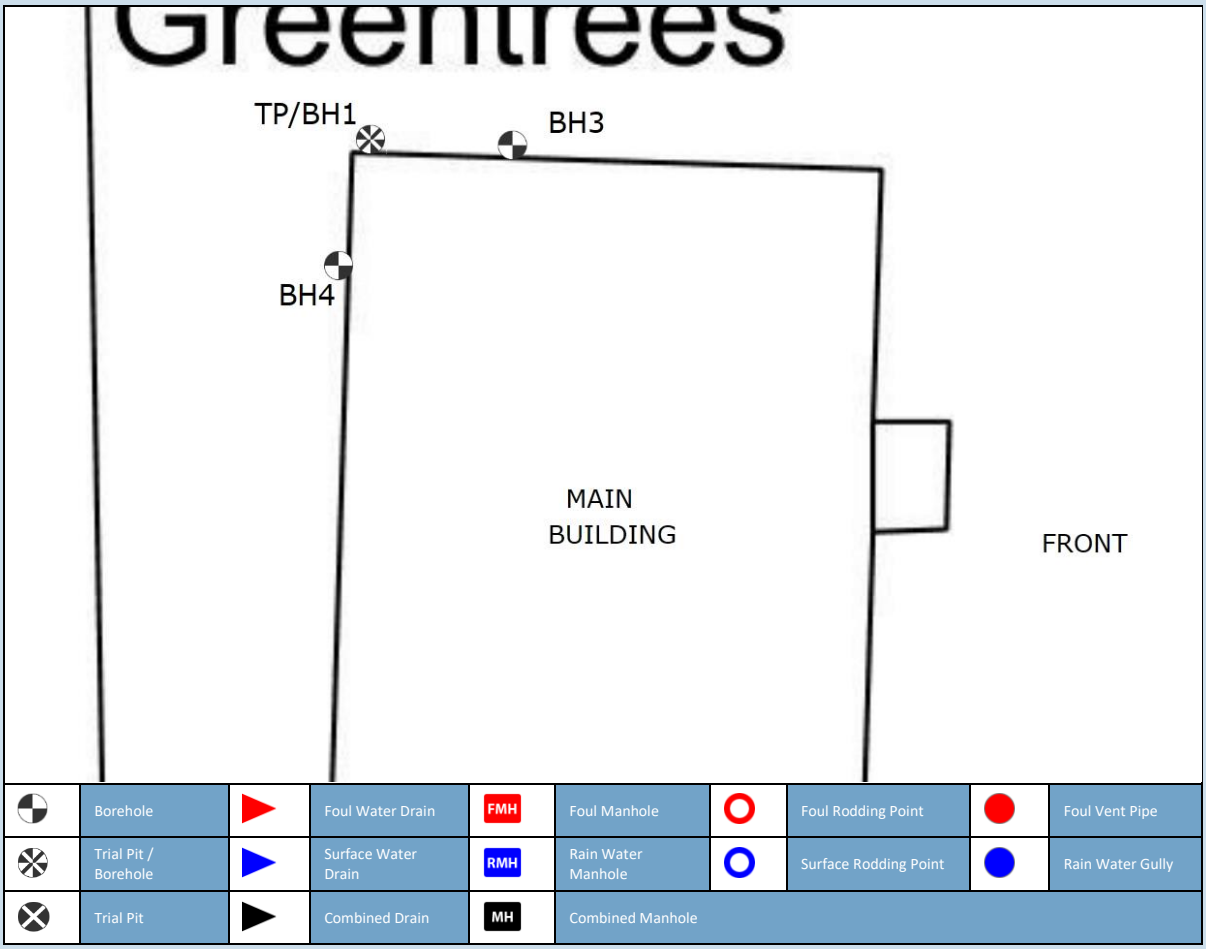
GEOTECHNICAL

for Subsidence Management Services

Greentrees, Prospect Lane, Birkenshaw, Bradford, BD11 2EL

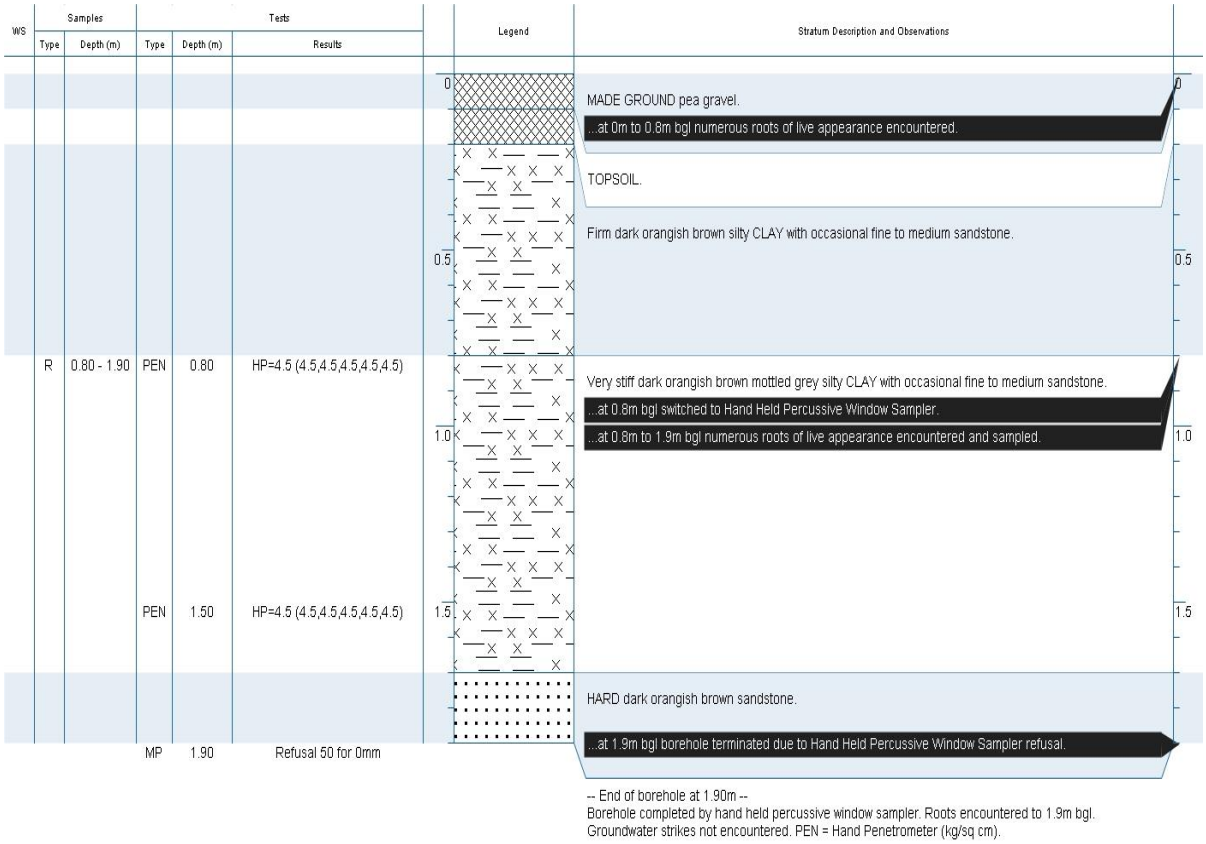
Client:	Subsidence Management Services
Client Contact:	Stephen Rutherford
Client Ref:	IFS-AXA-SUB-22-0104686
Policy Holder:	Mr Robert Benyon
Report Date:	24 October 2023
Our Ref:	C68730G33460

Site Plan



SubsNetUK

BH3 Borehole Log

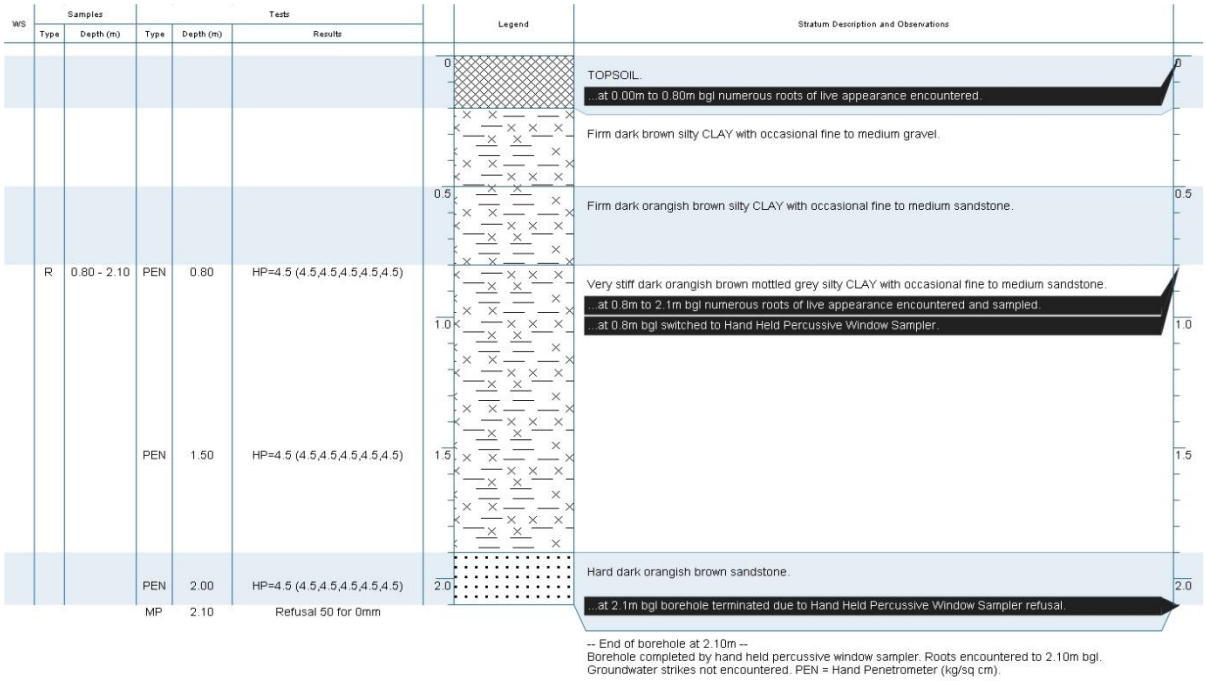


WS	Samples		Tests			Legend	Stratum Description and Observations
	Type	Depth (m)	Type	Depth (m)	Results		
						0	MADE GROUND pea gravel.
							...at 0m to 0.8m bgl numerous roots of live appearance encountered.
							TOPSOIL.
							Firm dark orangish brown silty CLAY with occasional fine to medium sandstone.
						0.5	
	R	0.80 - 1.90	PEN	0.80	HP=4.5 (4.5,4.5,4.5,4.5,4.5)		Very stiff dark orangish brown mottled grey silty CLAY with occasional fine to medium sandstone.
							...at 0.8m bgl switched to Hand Held Percussive Window Sampler.
						1.0	...at 0.8m to 1.9m bgl numerous roots of live appearance encountered and sampled.
			PEN	1.50	HP=4.5 (4.5,4.5,4.5,4.5,4.5)	1.5	
							HARD dark orangish brown sandstone.
			MP	1.90	Refusal 50 for 0mm		...at 1.9m bgl borehole terminated due to Hand Held Percussive Window Sampler refusal.

-- End of borehole at 1.90m --
Borehole completed by hand held percussive window sampler. Roots encountered to 1.9m bgl.
Groundwater strikes not encountered. PEN = Hand Penetrometer (kg/sq cm).

SubsNetUK

BH4 Borehole Log



WS	Samples Type	Samples Depth (m)	Tests Type	Tests Depth (m)	Tests Results	Legend	Stratum Description and Observations
						0	TOPSOIL.
							...at 0.00m to 0.80m bgl numerous roots of live appearance encountered.
							Firm dark brown silty CLAY with occasional fine to medium gravel.
						0.5	Firm dark orangish brown silty CLAY with occasional fine to medium sandstone.
	R	0.80 - 2.10	PEN	0.80	HP=4.5 (4.5,4.5,4.5,4.5,4.5)		Very stiff dark orangish brown mottled grey silty CLAY with occasional fine to medium sandstone.
							...at 0.8m to 2.1m bgl numerous roots of live appearance encountered and sampled.
						1.0	...at 0.8m bgl switched to Hand Held Percussive Window Sampler.
			PEN	1.50	HP=4.5 (4.5,4.5,4.5,4.5,4.5)	1.5	
			PEN	2.00	HP=4.5 (4.5,4.5,4.5,4.5,4.5)	2.0	Hard dark orangish brown sandstone.
			MP	2.10	Refusal 50 for 0mm		...at 2.1m bgl borehole terminated due to Hand Held Percussive Window Sampler refusal.

-- End of borehole at 2.10m --
Borehole completed by hand held percussive window sampler. Roots encountered to 2.10m bgl.
Groundwater strikes not encountered. PEN = Hand Penetrometer (kg/sq cm).

SubsNetuk

Site Observations

GENERAL:
Site Investigation works (BH 3) (BH 4) undertaken on 11 October 2023 during intermittent rain showers.

HEALTH AND SAFETY:
Negative signal obtained in Power, Radio and Genny mode on the Cable Avoidance Tool (CAT) (BH3).
Negative signal obtained in Power, Radio and Genny mode on the Cable Avoidance Tool (CAT) (BH4).

BOREHOLE:
At 0.8m bgl switched to Hand Held Percussive Window Sampler in BH3.
At 1.9m bgl borehole terminated due to Hand Held Percussive Window Sampler refusal in BH3. Hand Held Percussive Window Sampler and Mackintosh Probe refusal at 1.90m bgl due to density within the rock (BH 3). Borehole terminated. No further works undertaken.
At 0.8m bgl switched to Hand Held Percussive Window Sampler in BH4.
At 2.1m bgl borehole terminated due to Hand Held Percussive Window Sampler refusal in BH4. Hand Held Percussive Window Sampler and Mackintosh Probe refusal at 2.10m bgl due to density within the rock (BH 4). Borehole terminated. No further works undertaken.

ROOTS:
At 0m to 0.8m bgl numerous roots of live appearance encountered in BH3.
At 0.8m to 1.9m bgl numerous roots of live appearance encountered and sampled in BH3.
At 0.00m to 0.80m bgl numerous roots of live appearance encountered in BH4.
At 0.8m to 2.1m bgl numerous roots of live appearance encountered and sampled in BH4.

IN SITU TESTING:
Hand Penetrometer (PEN) undertaken at 0.8m bgl (BH 3) within the window sampler and thereafter in the window sampler at maximum 0.5m intervals. Mackintosh Probe (MP) test undertaken at 1.9m bgl (BH 3) within the window sample borehole only with no further Mackintosh Probe (MP) testing undertaken.
Hand Penetrometer (PEN) undertaken at 0.8m bgl (BH 4) within the window sampler and thereafter in the window sampler at maximum 0.5m intervals. Mackintosh Probe (MP) test undertaken at 2.1m bgl (BH 4) within the window sample borehole only with no further Mackintosh Probe (MP) testing undertaken.

WATER STRIKES:
No water strikes (NWS) encountered (BH 3). No water strike/s (NWS) encountered (BH 4). The groundwater observations do not necessarily indicate equilibrium conditions. It should be appreciated that groundwater levels are subject to both seasonal and weather induced variations. Other effects such as construction activities may also change groundwater levels.

ROOT IDENTIFICATION

for Subsidence Management Services

Greentrees, Prospect Lane, Birkenshaw, Bradford, BD11 2EL

Client:	Subsidence Management Services
Client Contact:	Stephen Rutherford
Claim Number:	12572284K
Client Reference:	IFS-AXA-SUB-22-0104686
Policy Holder:	Mr Robert Benyon
Report Date:	16 October 2023
Our Ref:	R55234

Intec
Parc Menai, Bangor,
Gwynedd, North Wales
LL57 4FG
Tel: 01248 672652

Sub Sample	Species Identified		Root Diameter	Starch
BH3:				
0.8-2.1m	*Fagus* spp.	1	2 mm	Moderate
0.8-2.1m	either *Quercus* spp. or *Castanea* spp.	2	2 mm	Moderate
BH4:				
0.8-1.9m	either *Quercus* spp. or *Castanea* spp.	3	1.5 mm	Moderate
0.8-1.9m	broadleaved species, too decayed for positive identification		2 mm	Absent

Comments:

1 - Plus 1 other also identified as *Fagus* spp.
2 - Plus 1 other the same. Both rather juvenile.
3 - Plus 2 others the same. All rather juvenile.

Fagus spp. include common beech and copper beech.
Quercus spp. are oaks. *Castanea* spp. include sweet chestnut.

Signed: R. Shaw

Unless we are otherwise instructed in writing, the above sample material will normally be disposed of 6 years after the date of this report.