





Any discrepancies should be referred to the Engineer prior to work being put in hand

Waterman Infrastructure & Environment Limited
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GENERAL NOISES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEER, ARCHITECT'S OR OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
2. ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE BY THE CONTRACTOR PRIOR TO PREPARING ANY WORKING DRAWINGS OR COMMENCING ON SITE.
3. THE CONTRACTOR MUST ENSURE AND WILL BE HELD RESPONSIBLE FOR THE OVERALL STABILITY OF THE BUILDING/STRUCTURE/EXCAVATION AT ALL STAGES OF THE WORK.
4. ALL WORK BY THE CONTRACTOR MUST BE CARRIED OUT IN SUCH A MANNER THAT ALL REQUIREMENTS UNDER THE HEALTH AND SAFETY AT WORK ACT ARE SATISFIED.
5. ALL WORK IS TO BE CARRIED OUT IN COMPLIANCE WITH THE REQUIREMENTS OF THE RELEVANT STATUTORY AUTHORITIES AND REGULATIONS.

	bh301	CABLE PERCUSSIVE BOREHOLE LOCATION
	ip601	TRIAL PIT LOCATIONS
	cc302	CONCRETE CORE LOCATIONS
	ssc303	SWALE SEDIMENT CONTAMINATION LOCATIONS

A02	02/06/22	MASTERPLAN UPDATED TO LMR REV 03
A01	03/11/21	6 LOCATIONS ADDED
Rev	Date	Description

GRAVEN HILL, BICESTER

LAND TRANSFER AREA
HOME ZONE 3
G/L LOCATION PLAN
SHEET 3 OF 5



Graven Hill Village Development Company Limited



5th Floor, 1 Cornwall Street, Birmingham B3 2D>
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PRELIMINARY

Designed by	TB	Checked by	PE	Project No	WIE11386
Drawn by	TB	Date	03.11.21	Computer File No	
Scales @ A1					
work to figured dimensions only					

WIE 1386-125-87-100 - cl location

Revised			
Publisher	Zone	Category	Number
WIE	HZ3	87	102
A0			



Appendix B

Exploratory Hole Records

- **Home Zones 3 Logs**



BOREHOLE RECORD - Cable Percussion

Draft

Project	GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer	WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED	Borehole Project No	BH303 PC207899
Client	GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates	458128.9 E 220820.4 N	Ground Level	66.68 m OD

Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
0.10- 0.60	B					MADE GROUND: Firm brown slightly sandy gravelly clay with a low cobble content of angular to subangular brick and limestone. Gravel is angular to subangular fine to coarse brick limestone.	G.L.		66.68
0.30	ES		PID=<0.1						
0.30									
0.50	D		PID=<0.1						
0.50	ES								
0.50									
1.00	D		PID=<0.1			MADE GROUND: Soft brown mottled grey slightly sandy slightly gravelly clay. Gravel is angular to subrounded fine to coarse brick and limestone.	0.80		65.88
1.00	ES								
1.00			PID=<0.1						
1.20- 1.90	B	1.20 (DRY)			S1				
1.20- 1.65	D								
1.90- 2.50	B					Firm light brown mottled grey slightly sandy slightly gravelly CLAY with rare shell fragments (up to 5mm in size). Gravel is angular to subangular fine to medium limestone.	1.90		64.78
2.00	ES		PID=<0.1		S10				
2.00									
2.20	D								
2.50- 2.95	D	1.20 (DRY)							
3.00	ES		PID=<0.1						
3.00									
3.10- 3.60	B					Stiff dark brown mottled grey sandy CLAY with occasional pockets (up to 25mm in size) of orangish brown sandy clay, occasional pockets (up to 30mm in size) of decomposed organic material and an organic odour.	3.10		63.58
3.30	D			36					
3.60- 4.05	UT19	1.20 (DRY)	87	35			3.60		63.08
4.00- 4.70	B					Stiff dark grey CLAY with many shell fragments (up to 40mm in size).			
4.05- 4.20	D								
4.50	D					At 4.50m, with occasional pockets (up to 20mm in size) of orangish brown sandy clay.			
4.70- 5.15	D	1.20 (DRY)			S21				
5.50	D								
6.00- 6.45	UT37	1.20 (DRY)	141	26					
6.45- 6.60	D								
7.10	D								
7.50- 7.95	D	1.20 (DRY)			S22				
8.00- 9.00	B					Stiff grey slightly sandy CLAY with many shell fragments (up to 35mm in size).	7.60		59.08
8.50	D					At 8.50m, with are pockets (up to 20mm in size) of orangish brown sandy clay.			
9.00- 9.45	UT41	1.20 (DRY)							
9.45- 9.60	D								
10.00-10.36	D	1.20 (DRY)			S50/210				























Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	MR/SS	G.I.			06/08/20	08:00						None encountered during boring.
10.36	0.15	Cable Percussion	MR/SS	10.36	1.20	DRY	06/08/20	18:00						

Remarks  Inspection pit hand excavated to 1.20m depth and no services were found. ES sample = 2 x vial, 1 x plastic jar and 2 amber jar Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected. Water was added to assist boring between 1.20 and 10.00 m. A 50mm standpipe was installed to 6.00m with a geowrapped slotted section from 1.50m to 6.00m with upright lockable protective cover. Backfill details from base of hole: bentonite up to 6.00m, gravel filter up to 1.50m, bentonite up to 0.30m, concrete up to ground level.												Logged by	MM
Symbols and abbreviations are explained on the accompanying key sheet. All dimensions are in metres.												Figure	1 of 2 11/11/2020
Logged in accordance with BS5930:2015													

BOREHOLE RECORD - Cable Percussion

Draft

Project	GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer	WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED	Borehole Project No	BH304 PC207899
Client	GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates	458143.7 E 220732.4 N	Ground Level	66.14 m OD

Sampling			Properties			Strata			Scale 1:50							
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD							
0.20	ES					TOPSOIL.**	G.L.		66.14							
0.20							0.10		66.04							
0.50- 1.00	B		PID=<0.1			Soft orangish brown mottled greyish brown slightly sandy CLAY with occasional pockets (up to 20mm in size) of soft dark grey clay.	0.50		65.64							
0.50	D															
0.50	ES		PID=<0.1			Firm orangish brown slightly sandy slightly gravelly CLAY. Gravel is angular to subangular fine to medium limestone.										
1.00	ES		PID=<0.1													
1.00																
1.20- 1.65	D	1.20 (DRY)			S8	Firm brown mottled grey slightly sandy CLAY. Below 1.60m, with occasional shell fragments (up to 3mm in size).	1.20		64.94							
1.50	ES		PID=<0.1													
1.50																
1.60	D															
2.30- 2.75	UT29	1.50 (DRY)	86	25		Below 2.30m, becoming stiff.										
2.80	D															
3.50- 3.95	D	1.50 (DRY)			S16											
4.20- 4.70	B					Stiff grey CLAY with many shell fragments (up to 15mm in size) and occasional pockets (up to 2mm in size) of grey silt.	3.80		62.34							
4.20	D															
4.70- 5.15	UT45	1.50 (DRY)														
5.20	D															
6.00- 6.45	D	1.50 (DRY)			S22											
						End of Borehole	6.45		59.69							
Boring						Progress				Groundwater						
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater		
1.20	0.15	Inspection Pit	KR/JT	G.L.	1.50	DRY	06/08/20	08:00						None encountered during boring.		
6.45		Cable Percussion	KR/JT	6.45			06/08/20	18:00								
Remarks  Inspection pit hand excavated to 1.20m depth and no services were found. ES sample = 2 x vial, 1 x plastic jar and 2 amber jar Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected. ** Drillers description. Backfill details from base of hole: bentonite up to ground level.															Logged by MM	
Symbols and abbreviations are explained on the accompanying key sheet.															Figure 1 of 1	
All dimensions are in metres.															11/11/2020	
Logged in accordance with BS5930:2015																

BOREHOLE RECORD - Cable Percussion

Draft

Project	GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer	WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED	Borehole Project No	BH308 PC207899
Client	GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates	458439.8 E 220755.6 N	Ground Level	72.36 m OD

Sampling			Properties			Strata		Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD	
0.10 0.10 0.20- 1.00 0.20 0.20 0.50	ES B ES D		PID=<0.1 PID=<0.1			TOPSOIL: Firm dark brown slightly sandy slightly gravelly clay with many rootlets. Gravel is angular to subangular fine to coarse sandstone. Firm dark brown slightly sandy CLAY.	G.I. 0.15		72.36 72.21	
1.20 1.20- 1.65	ES UT10	1.20 (DRY)	52	31			1.60		70.76	
1.20 1.60- 2.40 1.65- 1.80 2.00	B D D		PID=<0.1			Firm to stiff brown and grey slightly sandy CLAY with occasional pockets (up to 2mm in size) of brown silt.				
2.40- 2.55	D	1.20 (DRY)			S50/75	Between 2.50-2.70m, driller notes the presence of a sandstone boulder.				
3.30 3.50- 4.50 3.50- 3.95	D B UT13	1.20 (DRY)	84	32		Stiff dark brownish grey slightly sandy slightly gravelly CLAY with occasional shell fragments (up to 20mm in size) and occasional pockets (up to 2mm in size) of brown silt. Gravel is angular to subangular fine to coarse mudstone.	3.10		69.26	
3.95- 4.10 4.00	D D									
4.50- 4.95	D	1.20 (DRY)			S20					
5.20- 6.00 5.50	B D					Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 30mm in size).	5.20		67.16	
6.00- 6.45	UT37	1.20 (DRY)								
6.45- 6.60	D						6.60		65.76	
						End of Borehole				

Boring				Progress					Groundwater						
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater	
1.20 6.60	0.15	Inspection Pit Cable Percussion	MR/SS MR/SS	G.I. 6.60	1.20	DRY	23/07/20 23/07/20	08:00 18:00						None encountered during boring.	

Remarks	<p>Inspection pit hand excavated to 1.20m depth and no services were found.</p> <p>ES sample = 2x vial, 1 x plastic jar and 2amber jar</p> <p>Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.</p> <p>Water was added to assist boring between 1.20 and 6.00 m.</p> <p>Backfill details from base of hole: bentonite up to ground level.</p>	<p>Logged by SI</p> <p>Figure 1 of 1 11/11/2020</p> <p></p>
<p>Symbols and abbreviations are explained on the accompanying key sheet.</p> <p>All dimensions are in metres.</p> <p>Logged in accordance with BS5930:2015</p>		

Draft

Project GRAVEN HILL, BICESTER, LAND TRANSFER
AREA 2 (LTA2)

Engineer **WATERMAN INFRASTRUCTURE &
ENVIRONMENT LIMITED**

Borehole	BH309
Project No	PC207899


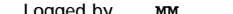
Client GRAVEN HILL VILLAGE DEVELOPMENT
COMPANY LIMITED

National Grid	458363.6	E
Coordinates	220748.9	N

Ground Level 70.38 m OD

Sampling			Properties			Strata		Scale 1:50						
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD					
0.00	B					TOPSOIL: Firm dark brown slightly sandy clay with many rootlets.	G.L.		70.38					
0.00- 0.10	D						0.10		70.28					
0.00- 0.10	ES						0.40		69.98					
0.00- 0.10			PID=<0.1			Firm light brown slightly sandy CLAY with occasional rootlets.								
0.10- 0.40	B													
0.10- 0.20	D													
0.10- 0.20	ES					Soft light orangish brown slightly sandy CLAY.								
0.10- 0.20			PID=<0.1				1.00		69.38					
0.40- 0.60	B					Soft light brown mottled grey slightly sandy CLAY.								
0.50- 0.60	D													
0.50- 0.60	ES						1.50		68.88					
0.50- 0.60			PID=<0.1											
1.00- 1.20	B			27		Firm orangish brown mottled grey slightly sandy CLAY with rare gypsum crystals (up to 2mm in size).								
1.00- 1.10	D													
1.00- 1.10	ES						2.00		68.38					
1.00- 1.10			PID=<0.1											
1.20- 1.65	UT23	1.20 (DRY)	37	42		Stiff dark brownish grey slightly sandy CLAY with rare gypsum crystals (up to 2mm in size).								
1.65- 1.70	D													
2.00- 2.10	D													
2.00- 2.10	ES													
2.00- 2.10			PID=<0.1		S8									
2.10- 2.55	D	1.50 (DRY)												
2.60- 3.00	B													
3.00- 3.10	D													
3.20- 3.65	UT55	1.50 (DRY)	102	29										
3.65- 3.70	D													
4.00- 4.30	B						4.00		66.38					
4.00- 4.10	D					Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 30mm in size) and occasional gypsum crystals (up to 2mm in size).								
4.30- 4.75	D	1.50 (DRY)			S24									
5.00- 5.10	D													
5.30- 5.75	UT70	1.50 (DRY)												
5.75- 5.80	D													
6.00- 6.10	D													
6.80- 7.25	D	1.50 (DRY)			S30	Below 6.80m, becoming very stiff.								
7.30- 7.40	D													
8.30- 8.75	UT100	1.50 (DRY)												
8.75- 8.80	D													
9.30- 9.40	D													
9.50- 9.95	D	1.50 (DRY)			S42									
End of Borehole							10.00		60.38					
Boring			Progress			Groundwater								
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	DC/LC	G.L.			27/07/20	08:00						None encountered during boring.
10.00	0.15	Cable Percussion	DC/LC	10.00	1.50	DRY	27/07/20	18:00						
Remarks														
ACS Inspection pit hand excavated to 1.20m depth and no services were found.														
ES sample = 2 x vial, 1 x plastic jar and 2 amber jar														
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.														
Backfill details from base of hole: bentonite up to ground level.														
Logged by SI														
Figure 1 of 1														
11/11/2020														
geotechnics														

Draft

Remarks	 Inspection pit hand excavated to 1.20m depth and no services were found. ES sample = 2 x vial, 1 x plastic jar and 2 amber jar Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected. Water was added to assist boring between 4.00 and 9.95m. ** Drillers description. Backfill details from base of hole: bentonite up to 0.50m, concrete up to 0.30m, asphalt up to ground level. Logged in accordance with BS5930:2015	Logged by MM Figure 1 of 1 11/11/2020 
Symbols and abbreviations are explained on the accompanying key sheet. All dimensions are in metres.		

BOREHOLE RECORD - Cable Percussion

Draft

Project	GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer	WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED	Borehole Project No	BH312 PC207899
Client	GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates	458329.4 E 220893.4 N	Ground Level	67.71 m OD

Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
0.20- 0.40	B					MADE GROUND: Concrete.	G.L.		67.71
0.30	D						0.20		67.51
0.30	ES					MADE GROUND: Grey slightly clayey slightly sandy gravel. Gravel is angular to subangular fine to coarse granite and rare concrete.	0.40		67.31
0.40- 0.90	B		PID<0.1						
0.50	D					MADE GROUND: Grey and black sandy gravel with a low cobble content of subangular sandstone and concrete. Gravel is angular to subangular fine to coarse brick, concrete and sandstone.	0.90		66.81
0.50	ES		PID<0.1						
1.00	ES		PID<0.1			Firm light orangish brown slightly sandy CLAY with rare gypsum crystals (up to 60mm in size).			
1.20- 1.90	B				S10				
1.20- 1.65	D	1.20 (DRY)		35					
1.50	D								
1.90- 2.50	B					Stiff dark greyish brown slightly sandy CLAY.	1.90		65.81
2.00	ES		PID<0.1						
2.00									
2.30	D								
2.50- 2.95	UT17	1.20 (DRY)							
2.95- 3.10	D								
3.10- 3.50	B					Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 40mm in size).	3.10		64.61
3.30	D				S29				
3.50- 3.95	D	1.20 (DRY)							
4.20	D								
4.50- 4.95	UT59	1.20 (DRY)							
4.95- 5.10	D								
5.50	D								
6.00- 6.45	D	1.20 (DRY)			S28				
						End of Borehole	6.45		61.26


Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	MR/SS	G.I.			24/07/20	08:00	0.80	NIL		20		Seepage.
6.45	0.15	Cable Percussion	MR/SS	6.45	1.20	DRY	24/07/20	18:00						

Remarks	<p>Inspection pit hand excavated to 1.20m depth and no services were found.</p> <p>ES sample = 2 x vial, 1 x plastic jar and 2 amber jar</p> <p>Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.</p> <p>Water was added to assist boring between 1.20 and 6.00 m.</p> <p>At 4.50m, UT shoe damaged during the driving of the sampler.</p> <p>A 50mm standpipe was installed to 6.00m with a geowrapped slotted section from 1.50m to 6.00m with flush lockable protective cover. Backfill details from base of hole: bentonite up</p> <p>Logged in accordance with BS5930:2015</p>	<p>Logged by SI</p> <p>Figure 1 of 2</p> <p>11/11/2020</p> <p>geotechnics</p>
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Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Draft


Remarks  to 6.00m, gravel filter up to 1.50m, bentonite up to 0.30m, concrete up to ground level.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged in accordance with BS5930:2015

Logged by SI
 Figure 2 of 2
 11/11/2020



BOREHOLE RECORD - Cable Percussion

Draft


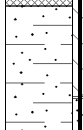
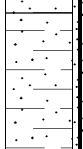
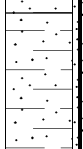
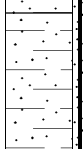
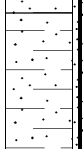
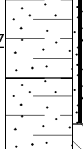





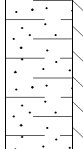


Project	GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer	WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED	Borehole Project No	BH314 PC207899
Client	GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates	458462.9 E 220919.4 N	Ground Level	69.15 m OD

Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
0.10	ES					MADE GROUND: Asphalt.	G.L.		69.15
0.10			PID=<0.1				0.20		68.95
0.20- 0.60	B					MADE GROUND: Light brown sandy clayey gravel with a high cobble content of angular to subangular limestone. Gravel is angular to subangular fine to coarse limestone, sandstone and brick.	0.60		68.55
0.30	D						0.90		68.25
0.30	ES		PID=<0.1						
0.60- 0.90	B					MADE GROUND: Dark grey and black slightly sandy clayey gravel with a low cobble content of subangular fine to coarse brick. Gravel is angular to subangular fine to coarse brick, concrete, sandstone and clinker.			
0.60	D								
0.60	ES		PID=<0.1						
1.00	ES		PID=<0.1						
1.20- 2.40	B					Firm light orangish brown and grey slightly sandy CLAY with occasional pockets (up to 2mm in size) of grey silt and occasional gypsum crystals (up to 63mm in size).			
1.20- 1.65	D	1.20 (DRY)		27	S9				
2.00	D					Below 2.40m, becoming stiff.			
2.00	ES		PID=<0.1						
2.40- 2.85	UT14	1.20 (DRY)	85	24					
2.70- 3.50	B					Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 20mm in size).	2.70		66.45
2.85- 3.00	D								
3.00	D								
3.50- 3.95	D	1.20 (DRY)			S19				
4.00	D								
4.50- 4.95	UT37	1.20 (DRY)	112	21					
4.95- 5.10	D								
5.50	D								
6.00- 6.45	D	1.20 (DRY)			S23				
						End of Borehole	6.45		62.70

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20	0.15	Inspection Pit	MR/SS	G.I.	1.20	DRY	23/07/20	08:00						None encountered during boring.
6.45		Cable Percussion	MR/SS	6.45			23/07/20	18:00						

Remarks	<p>Inspection pit hand excavated to 1.20m depth and no services were found.</p> <p>ES sample = 2 x vial, 1 x plastic jar and 2 amber jar</p> <p>Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.</p> <p>Water was added to assist boring between 1.20 and 6.00 m.</p> <p>Backfill details from base of hole: bentonite up to 0.20m, asphalt up to ground level.</p>	<p>Logged by SI</p> <p>Figure 1 of 1</p> <p>11/11/2020</p> <p>geotechnics</p>
<p>Symbols and abbreviations are explained on the accompanying key sheet.</p> <p>All dimensions are in metres.</p> <p>Logged in accordance with BS5930:2015</p>		

Project	GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer	WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED		Borehole Project No	BH315 PC207899	
Client	GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates	458521.4	E	Ground Level	71.24	m OD
			220824.4	N			

Sampling			Properties			Strata	Scale 1:50											
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD									
0.10- 0.40	B	1.20 (DRY)	PID=<0.1		S13	MADE GROUND: Dark brown slightly sandy slightly gravelly clay with many rootlets. Gravel is angular to subangular fine to coarse brick, concrete and sandstone. Below 0.25m, rootlets rare.	G.L.		71.24									
0.10	D					0.40		70.84										
0.10	ES																	
0.20- 0.40	B		PID=<0.1		S13	Firm light brownish grey slightly sandy CLAY with occasional pockets (up to 2mm in size) of grey silt.	1.30		69.94									
0.40- 1.20	B																	
0.50	D																	
0.50	D		PID=<0.1		S13	Firm dark brown slightly sandy CLAY.	1.30		69.94									
0.50	ES																	
1.20- 1.65	D																	
1.20- 1.65	D		PID=<0.1		S13	Firm dark brown slightly sandy CLAY.	1.30		69.94									
1.30- 2.30	B																	
1.50	ES																	
1.50	D		PID=<0.1		S13	Firm dark brown slightly sandy CLAY.	1.30		69.94									
1.80	D																	
2.30- 2.75		1.20 (DRY)	65	26	S5	Firm dark grey slightly sandy CLAY with rare gypsum crystals (up to 60mm in size) and occasional shell fragments (up to 10mm in size).	2.70		68.54									
2.70- 3.50	B																	
3.00	D																	
3.10- 3.50	B																	
3.30	D	1.20 (DRY)									S20	Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 40mm in size).	4.50		66.74			
3.50	D																	
3.50- 3.95	UT21																	
3.95- 4.10	D	1.20 (DRY)									S20	Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 40mm in size).	4.50		66.74			
4.20	D																	
4.30	D																	
4.50- 4.95	D	1.20 (DRY)									S20	Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 40mm in size).	4.50		66.74			
4.95- 5.10	D																	
5.30	D																	
5.50	D	1.20 (DRY)									S31	Below 5.95m, with occasional gypsum crystals (up to 2mm in size).	7.00					
5.50- 5.95	UT37																	
5.95- 6.10	D																	
6.00- 6.45	D	1.20 (DRY)		S31	Below 5.95m, with occasional gypsum crystals (up to 2mm in size).	7.00												
6.50	D																	
7.00- 7.45	D	1.20 (DRY)			S31	Below 7.0m, becoming very stiff. Shell fragments absent.	8.00											
8.00	D																	
8.50- 8.95	UT49	1.20 (DRY)			S40	Below 8.95m, gypsum crystals absent.	9.00											
8.95- 9.10	D																	
9.00-10.00	B																	
9.50	D	1.20 (DRY)			S40		10.00											
10.00-10.45	D																	

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20 10.45	0.15	Inspection Pit Cable Percussion	MR/SS MR/SS	G.L. 10.45	1.20	DRY	23/07/20 23/07/20	08:00 18:00	2.50	1.20				Seepage.

Remarks	<p>AGS Inspection pit hand excavated to 1.20m depth and no services were found.</p> <p>ES sample = 2 x vial, 1 x plastic jar and 2 amber jar</p> <p>Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.</p> <p>A 50mm standpipe was installed to 3.00m with a geowrapped slotted section from 1.00m to 3.00m with upright lockable protective cover. Backfill details from base of hole: bentonite up to 3.00m, gravel filter up to 1.00m, bentonite up to 0.30m, concrete up to ground level.</p>
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All dimensions are in metres.

Logged in accordance with BS5930:2015

Figure

1 of 2
11/11/2020

geotechnics


BOREHOLE RECORD - Cable Percussion

Draft

Project	GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer	WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED	Borehole Project No	BH315 PC207899
Client	GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates	458521.4 E 220824.4 N	Ground Level	71.24 m OD

Sampling			Properties			Strata			Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD		
						End of Borehole	10.45		60.79		

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater

Remarks	AGS
<p>Symbols and abbreviations are explained on the accompanying key sheet.</p> <p>All dimensions are in metres.</p> <p>Logged in accordance with BS5930:2015</p>	
Figure	2 of 2 11/11/2020
	

BOREHOLE RECORD - Cable Percussion

Draft

Project	GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer	WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED	Borehole Project No	BH601 PC207899
Client	GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates	458040.0 E 220528.8 N	Ground Level	67.04 m OD

Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
0.20	ES					MADE GROUND: Topsoil**	G.I. 0.10		67.04
0.20						MADE GROUND: Loose brown sandy topsoil**	0.30		66.94
0.50- 1.00	B		PID=<0.1						66.74
0.50	D					MADE GROUND: Greyish brown sandy slightly silty gravel with medium cobble content of subangular to subrounded limestone and brick. Gravel is subangular to subrounded fine to coarse limestone, brick, asphalt and quartzite.			
0.50	ES		PID=<0.1						
1.00	ES		PID=<0.1						
1.00									
1.20- 1.65	D	1.20 (DRY)			S29		1.40		65.64
1.40	D					MADE GROUND: Greyish brown slightly sandy slightly silty gravel with occasional pockets (up to 40mm in size) of greyish brown slightly sandy gravelly clay. Gravel is subangular to subrounded fine to coarse limestone, brick and asphalt.			
1.50	ES		PID=<0.1						
1.50									
2.30- 2.75	D	1.50 (DRY)			S13		2.30		64.74
2.50	ES		PID=<0.1			Firm orangish grey mottled brown slightly sandy slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse limestone and sandstone.			
2.50									
2.80- 3.00	B								
2.80	D								
3.40- 3.85	UT31	1.50 (DRY)	67	28					
3.80	D					Below 3.80m, with occasional pockets (up to 15mm in size) of grey silt.			
4.30	D						4.30		62.74
4.50- 5.00	B					Stiff fissured dark brownish grey slightly sandy CLAY. Fissures are subhorizontal extremely to very closely spaced, smooth and undulating.			
4.50- 4.95	D	1.50 (DRY)			S22	Below 4.50m, with rare gypsum fragments (up to 5mm in size).			
5.50	D								
5.50- 5.95	UT42	1.50 (DRY)							
6.00	D					End of Borehole	6.00		61.04

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	KR/JT	G.I.			12/08/20	08:00						None encountered during boring.
6.00	0.15	Cable Percussion	KR/JT	6.00	1.50	DRY	12/08/20	18:00						

Remarks	<p>Inspection pit hand excavated to 1.20m depth and no services were found.</p> <p>ES sample = 2 x vial, 1 x plastic jar and 2 amber jar</p> <p>Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.</p> <p>** Drillers description.</p> <p>A 50mm standpipe was installed to 6.00m with a geowrapped slotted section from 1.50m to 6.00m with upright lockable protective cover. Backfill details from base of hole: gravel filter up to 1.50m, bentonite up to 0.30m, concrete up to ground level.</p> <p>Logged in accordance with BS5930:2015</p>	<p>Logged by JD</p> <p>Figure 1 of 1</p> <p>11/11/2020</p> <p>geotechnics</p>
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Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Draft

Project	GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer	WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED		Borehole Project No	BH604 PC207899
Client	GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates	458228.3 220622.0	E N	Ground Level	69.23 m OD

[illegible]



BOREHOLE RECORD - Cable Percussion

Draft

Project	GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer	WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED	Borehole Project No	BH605 PC207899
Client	GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates	458162.3 E 220647.5 N	Ground Level	69.23 m OD

Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
0.10- 0.40	B					MADE GROUND: Black slightly sandy slightly gravelly silt with many rootlets and rare pockets (up to 35mm in size) of orangish grey clay. Gravel is subangular to subrounded fine to coarse limestone and brick.	G.L.		69.23
0.20	D								
0.20	ES		PID=<0.1				0.40		68.83
0.50	D								
0.50	ES		PID=<0.1			MADE GROUND: Brown slightly gravelly slightly silty sand with many pockets (up to 30mm in size) of grey mottled reddish brown clay. Gravel is subangular to subrounded fine to coarse limestone and glass.			
1.00	ES		PID=<0.1						
1.20- 1.65	D	1.20 (DRY)			S7		1.20		68.03
1.50	D					Soft to firm light grey mottled orangish brown slightly sandy slightly gravelly CLAY with rare relic root (up to 4mm in size). Gravel is subangular to subrounded fine to coarse limestone.			
1.50	ES		PID=<0.1						
1.70- 2.30	B								
2.30- 2.75	UT28	1.50 (DRY)	80	22					
2.80	D								
3.40- 3.85	D	1.50 (DRY)			S14	Firm fissured dark grey slightly sandy CLAY with rare shell fragments (up to 4mm in size). Fissures are subhorizontal, extremely to very closely spaced smooth and undulating.	3.40		65.83
4.00- 4.50	B								
4.00	D								
4.50- 4.95	UT46	1.50 (DRY)	49	28					
5.20	D								
6.00- 6.45	D	1.50 (DRY)			S28	Below 6.00m, with many gypsum crystals (up to 4mm in size).			
						End of Borehole	6.45		62.78

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	in Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit	KR/JT	G.I.			12/08/20	08:00						None encountered during boring.
6.45	0.15	Cable Percussion	KR/JT	6.45	1.50	DRY	12/08/20	18:00						

Remarks  Inspection pit hand excavated to 1.20m depth and no services were found. ES sample = 2 x vial, 1 x plastic jar and 2 amber jar Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected. A 50mm standpipe was installed to 6.00m with a geowrapped slotted section from 1.50m to 6.00m with upright lockable protective cover. Backfill details from base of hole: gravel filter up to 1.50m, bentonite up to 0.30m, concrete up to ground level.										Logged by JD Figure 1 of 1 11/11/2020 
Symbols and abbreviations are explained on the accompanying key sheet. All dimensions are in metres.										Logged in accordance with BS5930:2015


BOREHOLE RECORD - Cable Percussion

Draft

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Borehole Project No BH306 PC207899
Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 458307.8 E 220664.0 N Ground Level 70.78 m OD

Sampling			Properties			Strata	Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD
0.00- 0.20	B					MADE GROUND: Dark brown slightly sandy slightly gravelly clay with many rootlets. Gravel is angular to subangular fine to coarse sandstone.	G.L.		70.78
0.10- 0.20	D						0.20		70.58
0.10- 0.20	ES		PID<0.1				0.50		70.28
0.10- 0.20						MADE GROUND: Firm brownish grey slightly sandy slightly gravelly clay with rare rootlets. Gravel is angular to subangular fine to coarse brick.			
0.20- 0.30	B								
0.20- 0.30	D		PID<0.1			Stiff orangish brown mottled grey slightly sandy CLAY with rare rootlets.			
0.20- 0.30	ES					Below 0.90m, rootlets absent.			
0.20- 0.30			PID<0.1						
0.50- 0.80	B					Soft light orangish brown slightly sandy CLAY.	1.60		69.18
0.50- 0.60	D		PID<0.1						
0.50- 0.60	ES					Firm light brown slightly sandy CLAY with occasional gypsum crystals (up to 20mm in size).	2.00		68.78
0.50- 0.60			PID<0.1						
1.00- 1.10	D								
1.00- 1.10	ES		PID<0.1						
1.00- 1.10									
1.20- 1.65	UT40	1.20 (DRY)							
1.65- 1.70	D								
1.70- 2.00	B								
2.00- 2.10	D		PID<0.1		S10				
2.00- 2.10	ES								
2.00- 2.10									
2.20- 2.65	D	1.50 (DRY)							
2.80- 3.20	B						2.80		67.98
2.80- 2.90	D								
3.20- 3.65	UT60	1.50 (DRY)	70	32		Firm dark brownish grey slightly sandy CLAY with occasional shell fragments (up to 3mm in size) and occasional gypsum crystals (up to 3mm in size).			
3.65- 3.70	D								
3.90- 4.00	D								
4.30- 4.75	D	1.50 (DRY)			S22	Below 4.30m, becoming stiff.			
5.00- 5.50	B								
5.00- 5.10	D						5.00		65.78
5.50- 5.95	UT65	1.50 (DRY)				Stiff dark greenish grey slightly sandy CLAY with occasional shell fragments (up to 40mm in size).			
5.95- 6.00	D						6.00		64.78
						End of Borehole			

Boring				Progress					Groundwater					
Depth	Hole Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Date	Time	Depth Struck	Depth Cased	Rose to	In Mins	Depth Sealed	Remarks on Groundwater
1.20		Inspection Pit		G.L.			28/07/20	08:00						None encountered during boring.
6.00	0.15	Cable Percussion	DC/LC DC/LC	6.00	1.50	DRY	28/07/20	18:00						


Remarks  Inspection pit hand excavated to 1.20m depth and no services were found.
ES sample = 2 x vial, 1 x plastic jar and 2 amber jar
Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.
A 50mm standpipe was installed to 6.00m with a geowrapped slotted section from 1.00m to 6.00m with upright lockable protective cover. Backfill details from base of hole: gravel filter up to 1.00m, bentonite up to 0.30m, concrete up to ground level.

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

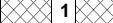
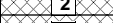

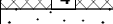
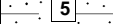
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Logged by SI
Figure 1 of 1
11/11/2020




Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit RC301 Project No PC207899

Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 458320.9 E 220760.6 N Ground Level 69.45 m OD

Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.10	D			MADE GROUND: Asphalt.	G.L.		69.45
0.10	ES				0.20		69.25
0.10			PID=<0.1	MADE GROUND: Yellowish brown mottled light brown sandy gravel with a medium cobble content of angular to subangular limestone and sandstone. Gravel is angular to subangular fine to coarse limestone and sandstone.	0.35		69.10
0.30	B				0.60		68.85
0.30	D				0.75		68.70
0.50	B						
0.50	D						
0.50	ES						
0.50			PID=<0.1	MADE GROUND: Dark grey sandy slightly clayey gravel with cobbles with much angular to subangular slag and granite. Gravel is subangular fine to coarse slag and granite.	1.20		68.25
0.70	B						
0.70	D						
0.70	ES						
0.70			PID=<0.1				
0.80	HV		Av=49kPa	MADE GROUND: Reddish grey gravelly sand. Gravel is angular to subangular fine to coarse brick and slag.			
1.00	B						
1.00	D						
1.00	ES			POSSIBLE MADE GROUND: Firm greenish grey mottled grey slightly sandy CLAY.			
1.00			PID=<0.1	End of Excavation			


Excavation				Groundwater		
Plant	Hand Tools	Width (B)	0.30	Depth Observed	Depth of Pit	Details
Date	23/07/2020	Length (C)	0.30			
Shoring	None.	Date Backfilled	23/07/2020			None encountered during excavation.
Stability	Stable during excavation.					

Remarks  Inspection pit hand excavated to 1.20m depth and no services were found. ES sample = 2 x vial, 1 x plastic jar and 2 amber jar






Symbols and abbreviations are explained on the accompanying key sheet. Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected. Backfill details from base of hole: arisings up to 0.80m, bentonite up to 0.20m, asphalt up to ground level.

All dimensions are in metres. Logged in accordance with BS5930:2015

Logged by EPS Figure 1 of 1 11/11/2020



Project	GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer	WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED		Borehole Project No	CC301 PC207899
Client	GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates	458197.9 220769.5	E N	Ground Level	66.70 m OD

Sampling			Properties			Strata	Scale 1:50					
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD			
						MADE GROUND: Concrete	G.L.		66.70			
0.25- 0.35	B	1.00 (DRY)	PID=<0.1	27	S5	MADE GROUND: Reddish brown and dark grey sandy clayey gravel with cobbles with much subangular concrete and granite. Gravel is angular to subangular fine to coarse concrete, granite and brick.	0.21		66.49			
0.25- 0.35	D						1.05		66.35			
0.25- 0.35	ES											
0.25- 0.35	ES											
0.35- 0.70	D					MADE GROUND: Soft dark greenish grey mottled black slightly sandy slightly gravelly clay. Gravel is angular fine to medium granite.	1.05		65.65			
0.35- 0.70	D											
0.70- 0.85	D											
0.90- 1.10	D											
1.20- 1.65	D					1.00 (DRY)	PID=<0.1	27	S5	Soft brown mottled grey slightly sandy CLAY with occasional pockets (up to 40mm in size) of orangish brown sandy clay.		

[illegible]

Remarks	<p>Inspection pit hand excavated to 1.20m depth and no services were found.</p> <p>ES sample = 2 x vial, 1 x plastic jar and 2 amber jar</p> <p>Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.</p> <p>Backfill details from base of hole: bentonite up to ground level.</p>
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Logged by **EPS**

Figure 1 of 1
11/11/2020

Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions
are in metres.

Logged in accordance with BS5930:2015



Draft

Project GRAVEN HILL, BICESTER, LAND TRANSFER
AREA 2 (LTA2)

Engineer **WATERMAN INFRASTRUCTURE &
ENVIRONMENT LIMITED**

Borehole	CC302
Project No	PC207899

Client GRAVEN HILL VILLAGE DEVELOPMENT
COMPANY LIMITED












National Grid	458255.7	E
Coordinates	220831.5	N

Ground Level 67.13 m OD









Sampling			Properties			Strata			Scale 1:50		
Depth	Sample Type	Depth Cased & (to Water)	Strength kPa	w %	SPT N	Description	Depth	Legend	Level m OD		
						MADE GROUND: Concrete.	G.L.		67.13		
0.25- 0.40	B						0.25		66.88		
0.25- 0.40	D					MADE GROUND: Black gravelly sand. Gravel is angular to subangular fine to medium ash, clinker, quartzite and granite.	0.40		66.73		
0.25- 0.40	ES		PID=<0.1								
0.25- 0.40											
0.40- 0.90	B					MADE GROUND: Very soft dark grey mottled brown slightly sandy slightly gravelly clay. Gravel is angular to subangular fine to medium clinker, quartzite and granite.	0.90		66.23		
0.40- 0.90	D										
0.40- 0.90	ES		PID=<0.1								
0.40- 0.90											
0.90- 1.20	B					Very soft grey mottled brown slightly sandy CLAY.	1.35		65.78		
0.90- 1.20	D										
0.90- 1.20	ES		PID=<0.1								
0.90- 1.20											
1.20- 1.65	D	NIL (DRY)			S1	Soft grey mottled brown slightly sandy CLAY with occasional pockets (up to 15mm in size) of reddish brown fine to medium sand.	1.95		65.18		
1.30- 2.00	B										
2.00- 2.20	D										
2.00- 2.45	D	2.00 (DRY)			S5	Soft brown mottled grey slightly sandy CLAY with occasional gypsum crystals (up to 20mm in size).					
2.20- 3.00	B										
				</							

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2) Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED Trial Pit TP302 Project No PC207899










Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED National Grid Coordinates 458196.6 E 220740.0 N Ground Level 66.90 m OD

Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
				MADE GROUND: Reinforced concrete.	G.L.		66.90
				MADE GROUND: Firm dark reddish brown slightly sandy clay.	0.20		66.70
0.40	B				0.25		66.65
0.40	ES				0.50		66.40
0.40							
0.50	HV	PID=<0.1	Av=64kPa	MADE GROUND: Black very gravelly silty sand with a medium cobble content of angular to subangular limestone. Gravel is angular to subangular fine to coarse limestone.			
0.60	D						
0.60	ES	PID=<0.1		Firm dark greenish grey mottled orangish brown slightly sandy CLAY.			
0.60							
1.00	B						
1.00	D						
1.00	ES						
1.00	HV	Av=54kPa	PID=<0.1	Below 0.75m, becoming light grey mottled light orangish brown.	1.80		65.10
1.50	D						
1.50	HV	Av=60kPa		Below 1.50m, becoming dark grey.			
2.00	B						
2.00	D						
2.00	ES						
2.00	HV	Av=61kPa	PID=<0.1	Firm dark greyish brown, occasionally mottled dark reddish brown, slightly sandy CLAY with many relict rootlets and many gypsum crystals (up to 4mm in size).			
2.00							
2.50	D						
2.70	HV	Av=82kPa					
3.00	D						

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED	Trial Pit TP303 Project No PC207899
Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates 458258.1 E 220682.5 N	Ground Level 69.42 m OD

Samples and Tests				Strata	Scale 1:50			
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD	
0.05	D			MADE GROUND: Dark brown gravelly slightly silty sand with many rootlets. Gravel is angular to subangular fine to coarse clinker, slag, brick and plastic.	G.L.		69.42	
0.05	ES				0.10			69.32
0.05	B		PID=<0.1					
0.50	B							
0.70	B			MADE GROUND: Brown mottled grey sandy slightly silty gravel a high cobble content of angular to subangular brick and limestone. Gravel is angular to subangular fine to coarse limestone and brick.	0.65		68.77	
0.70	D							
0.70	HV		Av=82kPa					
1.00	B							
1.00	D		mc=34%	Stiff light grey mottled light orangish brown slightly sandy CLAY.				
1.00	ES							
1.00	HV		Av=49kPa					
1.00	D		PID=<0.1					
1.50	D			Below 1.40m, becoming firm.				
1.50	HV		Av=44kPa	Below 1.60m, becoming dark greyish brown.	1.90		67.52	
2.00	B			Firm dark greyish brown mottled light orangish brown slightly sandy CLAY with many relict rootlets, occasional pockets (up to 50mm in size) of orangish brown silty sand and many gypsum crystals (up to 5mm in size).				
2.00	D							
2.00	ES							
2.00	HV		Av=52kPa					
2.00	D		PID=<0.1	Below 2.50m, becoming stiff.				
2.50	D							
2.50	HV		Av=81kPa					
3.00	D							
3.00	HV		Av=87kPa					
3.50	D			Stiff grey slightly sandy CLAY with occasional gypsum crystals (up to 45mm in size) and occasional shell fragments (up to 150mm in size).	3.60		65.82	
3.80	B							
3.80	D							
4.00	HV		Av=99kPa					
4.30	D			End of Excavation	4.50		64.92	
Excavation				Groundwater				
Plant	JCB 3CX	Width (B)	0.60	Depth Observed	Depth of Pit	Details		
Date	24/07/2020	Length (C)	2.90			None encountered during excavation.		
Shoring	None.	Orientation	300 deg					
Stability	Stable during excavation.							
Remarks	ES sample = 2 x vial, 1 x plastic jar and 2 amber jar Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected. Backfill details from base of hole: arisings up to ground level.						Logged by MJ	
Symbols and abbreviations are explained on the accompanying key sheet.							Figure 1 of 1	
All dimensions are in metres.							11/11/2020	
Logged in accordance with BS5930:2015							geotechnics	

Project	GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer	WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED		Trial Pit Project No	TP304 PC207899
Client	GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates	458278.2	E 220744.0	Ground Level	68.27 m OD

Samples and Tests				Strata					Scale 1:50	
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD			
0.10	ES		PID=<0.1	MADE GROUND: Asphalt.	G.L.		68.27			
0.10					0.20			68.07		
0.50					0.45			67.82		
0.50					0.55			67.72		
0.70	HV		Av=81kPa	MADE GROUND: Black very gravelly silty sand. Gravel is angular to subangular fine to coarse slag, ash and clinker.						
1.00	B		PID=<0.1		Firm grey mottled orangish brown slightly sandy CLAY.					
1.00	D									
1.00	ES									
1.00										
1.50	D		Av=65kPa	Below 1.60m, becoming sandy with many gypsum crystals (up to 4mm in size).						
1.50	HV			Below 1.80m, becoming dark grey.	1.90		66.37			
2.00	B		PID=<0.1	Firm dark greyish brown mottled orangish brown slightly sandy CLAY with many gypsum crystals (up to 15mm in size).						
2.00	D									
2.00	ES									
2.00										
2.50	D		Av=77kPa							
2.50	HV									
3.00	D		Av=81kPa	Stiff grey slightly sandy CLAY with occasional shell fragments (up to 100mm in size)	3.40		64.87			
3.00	HV									
3.50	B									
3.50	D									
3.50	HV		Av=78kPa							
4.00	D									
4.50	D			End of Excavation	4.50		63.77			

Excavation				Ground water		
Plant	JCB 3CX	Width (B)	0.60	Depth Observed	Depth of Pit	Details
Date	23/07/2020	Length (C)	2.50			
Shoring	None.	Orientation	224 deg			
Stability	Stable during excavation.					None encountered during excavation.
Date Backfilled	23/07/2020					

Remarks	AGS	ES sample = 2 x vial, 1 x plastic jar and 2 amber jar	Logged by	MJ
		Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.	Figure	1 of 1
		Backfill details from base of hole: arisings up to ground level.		11/11/2020

























Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.


geotechnics

BS5930:2015

Project GRAVEN HILL, BICESTER, LAND TRANSFER AREA 2 (LTA2)	Engineer WATERMAN INFRASTRUCTURE & ENVIRONMENT LIMITED	Trial Pit TP305 Project No PC207899
Client GRAVEN HILL VILLAGE DEVELOPMENT COMPANY LIMITED	National Grid Coordinates 458264.3 E 220800.2 N	Ground Level 67.55 m OD

Samples and Tests				Strata	Scale 1:50		
Depth	Type	Stratum No	Results	Description	Depth	Legend	Level m OD
0.10	ES		PID=<0.1	MADE GROUND: Concrete.	G.L.		67.55
0.10					0.30		67.25
0.40	D			MADE GROUND: Black gravelly very silty sand. Gravel is angular to subangular fine to coarse brick, clinker, ash, slag and concrete.	0.50		67.05
0.70	B						
0.70	D				0.85		66.70
0.75	HV		Av=77kPa	POSSIBLE MADE GROUND: Soft to firm greenish grey mottled brown slightly sandy CLAY.			
1.00	B		mc=45%				
1.00	D				1.50		66.05
1.00	ES		PID=<0.1	Soft orangish brown mottled grey slightly sandy CLAY with occasional pockets (up to 30mm in size) of orangish brown silty sand.			
1.40	HV		Av=48kPa				
1.60	B						
1.60	D						
1.60	HV		Av=67kPa	Firm dark brown mottled orangish brown slightly sandy CLAY with many gypsum crystals (up to 15mm in size) and occasional pockets (up to 4mm in size) of light grey silt.			
2.00	D				3.30		64.25
2.00	ES		PID=<0.1				
2.00							
2.50	HV		Av=92kPa				
3.00	D						
3.00	HV		Av=65kPa				
3.50	B			Stiff grey slightly sandy CLAY with occasional shell fragments (up to 150mm in size).			
3.50	D						
3.50	HV		Av=93kPa				
4.00	D						
4.50	D				4.50		63.05
				End of Excavation			

Excavation				Groundwater		
Plant	JCB 3CX	Width (B)	0.60	Depth Observed	Depth of Pit	Details
Date	23/07/2020	Length (C)	2.60			
Shoring	None.	Orientation	126 deg			None encountered during excavation.
Stability	Stable during excavation.					
		Date Backfilled	23/07/2020			

Remarks  ES sample = 2 x vial, 1 x plastic jar and 2 amber jar

Radioactive screening at discrete sample depths, using a Thermo Scientific Mini 900E. No activity detected.

Backfill details from base of hole: arisings up to ground level.


Symbols and abbreviations are explained on the accompanying key sheet.

All dimensions are in metres.

Logged by **MJ**

Figure **1 of 1**

11/11/2020



Logged in accordance with BS5930:2015