Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Number** **BH1**

Excavation Method	**Dimensions**	**Ground Level (mOD)**	**Client**	**Job Number**
Drive-in Window Sampler			Mr Nadav Kander & Ms Nicola Verity	J13359
	Location	**Dates** 03/12/2013	**Engineer** Fluid Structures	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.40	D1				(1.00)	Made Ground (dark brown clayey silt with gravel, roots, rootlets, fine brick, chalk, coal and glass fragments)			
1.20	D2				1.00 (1.20)	Firm orange-brown mottled bluish grey silty CLAY with fine to coarse angular to rounded gravel			
2.30	D3				2.20	fine rootlets to 2.0 m Firm fissured brown silty CLAY with partings of bluish grey silt, fine claystones and decayed roots			
3.30	D4								
4.30	D5				(3.80)				
5.30	D6								
					6.00	Complete at 6.00m			

Remarks
Groundwatyer not encountered.
Groundwater monitoring standpipe installed in borehole to 6.0 m.
Groundwater monitoring visit on 10/12/13 recorded the standpipe to be dry.
Groundwater monitoring visit on 6/01/14 recorded the standpipe to be dry.

Scale (approx)	**Logged By**
1:50	ML

Figure No.
J13359.BH1

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Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Number** **BH2**

Excavation Method	**Dimensions**	**Ground Level (mOD)**	**Client**	**Job Number**
Drive-in Window Sampler			Mr Nadav Kander & Ms Nicola Verity	J13359
	Location	**Dates** 03/12/2013	**Engineer** Fluid Structures	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.40	D1				(1.00)	Made Ground (brown becoming dark grey clayey slightly organic silt with gravel, brick and fine coal fragments)			
1.10	D2				1.00 (1.00)	Orange-brown clayey silty fine to medium subrounded to angular GRAVEL			
2.10	D3				2.00	Firm fissured brown silty CLAY with partings of bluish grey and brown silt, partings of orange-brown fine sand and selenite crystals			
3.10	D4								
4.10	D5				(4.00)	fine shells below 4.0 m			
5.10	D6								
6.00	D7				6.00	Complete at 6.00m			

Remarks
Groundwater not encountered.
Groundwater monitoring standpipe installed in borehole to a depth of 6.0 m.
Groundwater monitoring visit on 10/12/13 recorded the standpipe to be dry.
Groundwater monitoring visit on 06/01/14 recorded the standpipe to be dry.

Scale (approx)	**Logged By**
1:50	ML

Figure No.
J13359.BH2

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Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Number** **BH3**

Excavation Method	**Dimensions**	**Ground Level (mOD)**	**Client**	**Job Number**
Drive-in Window Sampler			Mr Nadav Kander & Ms Nicola Verity	J13359
	Location	**Dates** 03/12/2013	**Engineer** Fluid Structures	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.40	D1				(1.00)	Made Ground (brown mottled grey clayey silt with gravel, brick, coal and pottery fragments)			
					1.00				
1.20	D2				(0.70)	Firm brownish grey silty CLAY with occasional medium rounded gravel			
					1.70				
1.80	D3					Firm fissured brown silty CLAY with partings of bluish grey silt, occasional pockets of orange-brown fine sand and selenite crystals			
2.80	D4								
3.80	D5				(4.30)				
						fine shells below 4.0 m.			
4.80	D6								
5.80	D7								
					6.00				
						Complete at 6.00m			

Remarks
Groundwater not encountered.
Groundwater monitoring standpipe installed in borehole to a depth of 6.0 m.
Groundwater monitoring visit on 10/12/13 recorded the standpipe to be dry.
Groundwater monitoring visit on 06/01/14 recorded the standpipe to be dry.

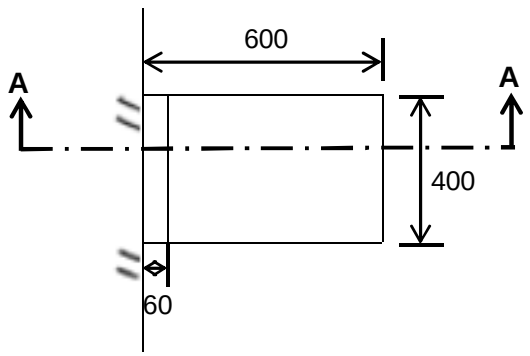
Scale (approx)	**Logged By**
1:50	ML

Figure No.
J13359.BH3

Produced by the GEOtechnical DAtabase SYstem (GEODASY) (C) all rights reserved

GEA Geotechnical & Environmental Associates Tyttenhanger House Coursers Road St Albans Herts AL4 0PG			**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 1
Excavation Method Manual	**Dimensions** 600 x 400 x 550	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 1 / 2

Plan: -



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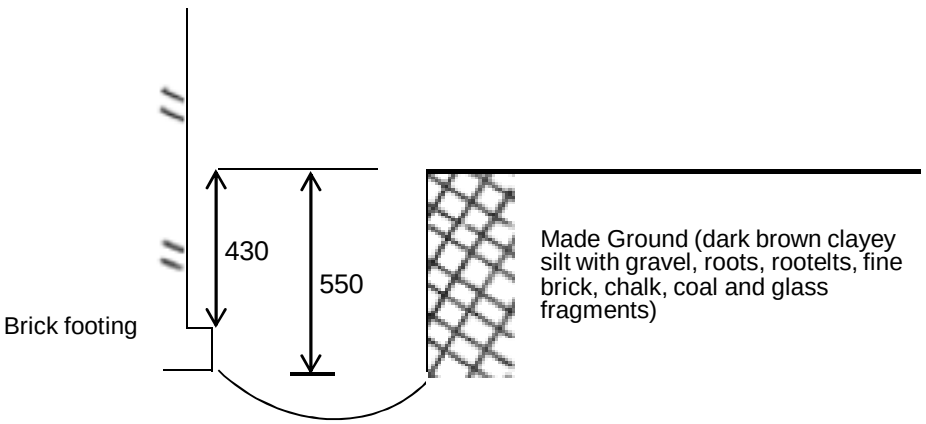


Remarks:		Scale:
All dimensions in millimetres	Sample: 0.4 m	1:20
Sides of trial pit remained stable during excavation		Logged by:
Groundwater: Not encountered		ML

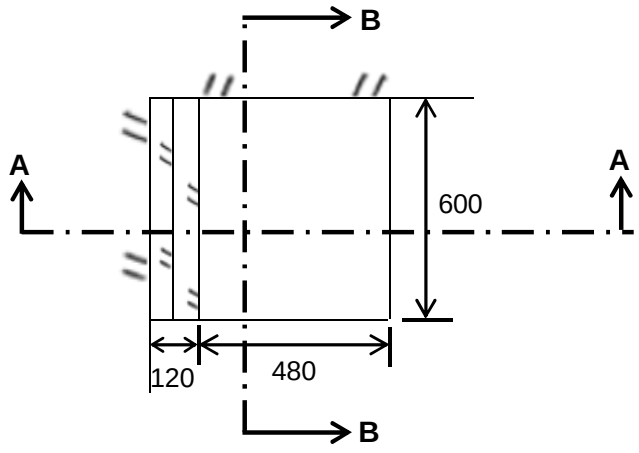
GEA Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans Herts AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** **1**

Excavation Method **Manual**	**Dimensions** 600 x 400 x 550	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 2 / 2

Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Sample: 0.4 m	Scale: 1:20 Logged by: ML

GEA Geotechnical & Environmental Associates Tyttenhanger House Coursers Road St Albans Herts AL4 0PG			**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 2
Excavation Method Manual	**Dimensions** 600 x 600 x 650	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 1 / 2

Plan: -



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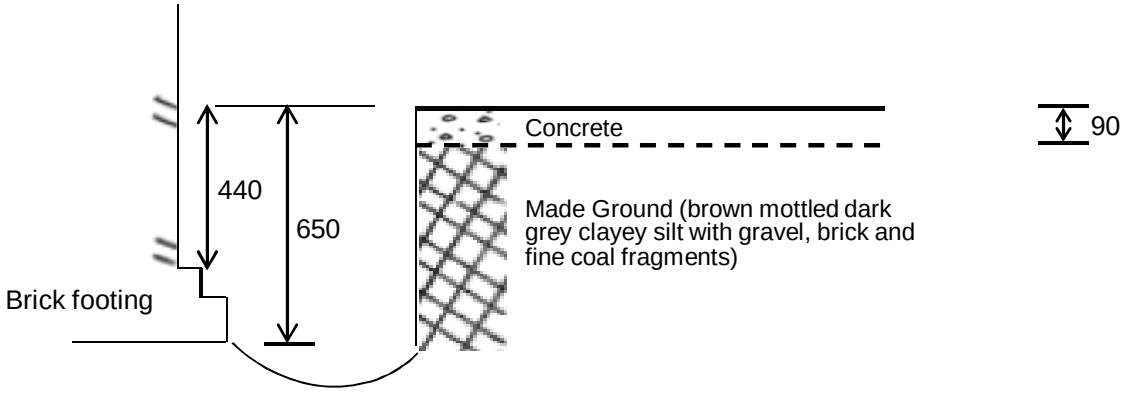
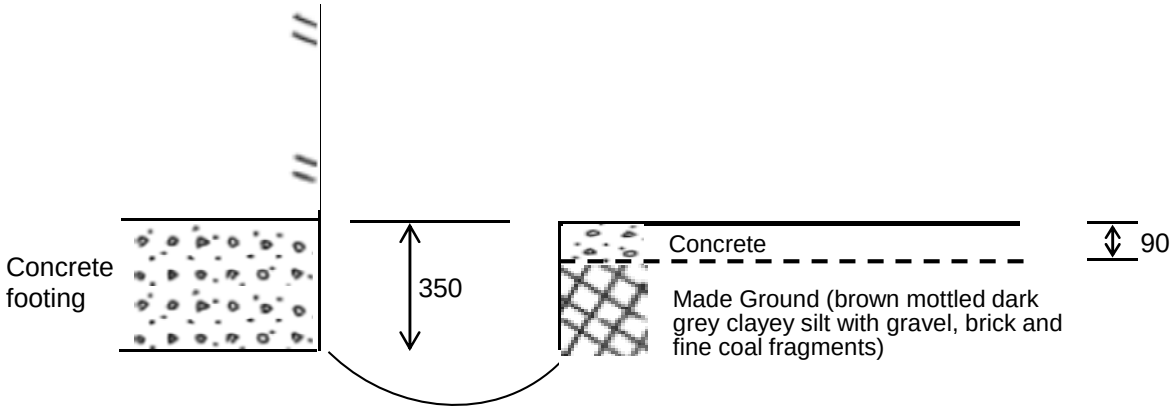


Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Sample: 0.4 m	Scale: 1:20 Logged by: ML

GEA Geotechnical & Environmental Associates Tyttenhanger House Coursers Road St Albans Herts AL4 0PG			**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** **2**
Excavation Method Manual	**Dimensions** 600 x 600 x 650	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Price and Myers	**Sheet** 2 / 2

Section B - B: -

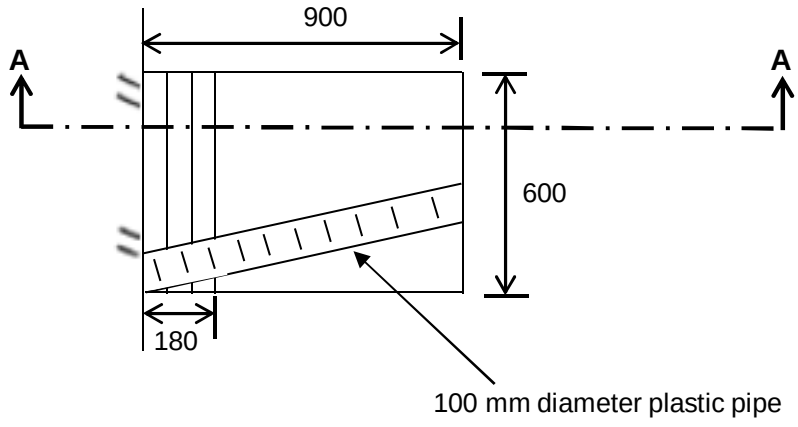


Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Sample: 0.4 m	Scale: 1:20 Logged by: ML

GEA Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans Herts AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 3

Excavation Method Manual	**Dimensions** 800 x 600 x 680	**Ground Level (mOD)** 0.64	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 1 / 2

Plan: -



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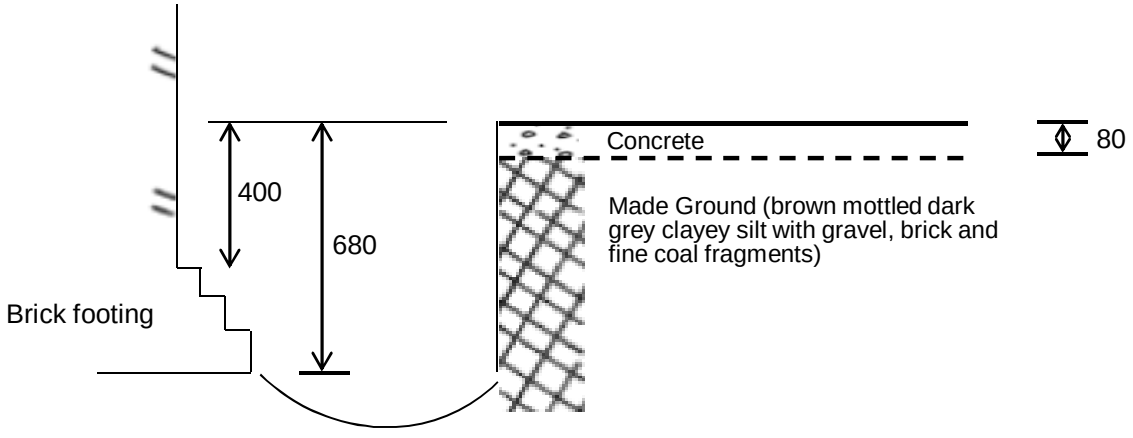


Remarks:	Scale:
All dimensions in millimetres	1:20
Sides of trial pit remained stable during excavation	Logged by:
Groundwater: Not encountered	ML

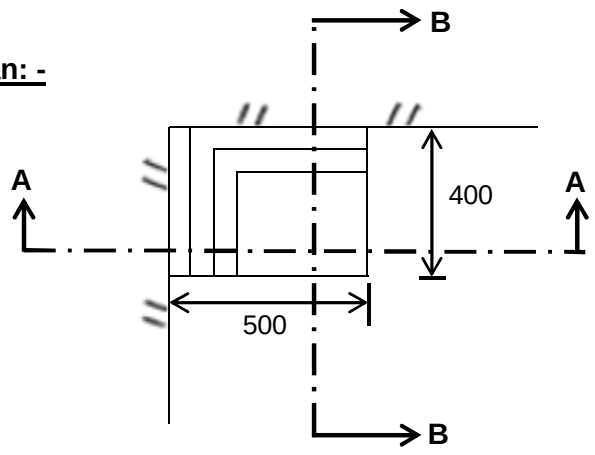
GEA Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans Herts AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** **3**

Excavation Method **Manual**	**Dimensions** 800 x 600 x 680	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 2 / 2

Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Scale: 1:20 Logged by: ML

GEA Geotechnical & Environmental Associates Tyttenhanger House Coursers Road St Albans Herts AL4 0PG			**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 4
Excavation Method Manual	**Dimensions** 500 x 400 x 850	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 1 / 2

Plan: -



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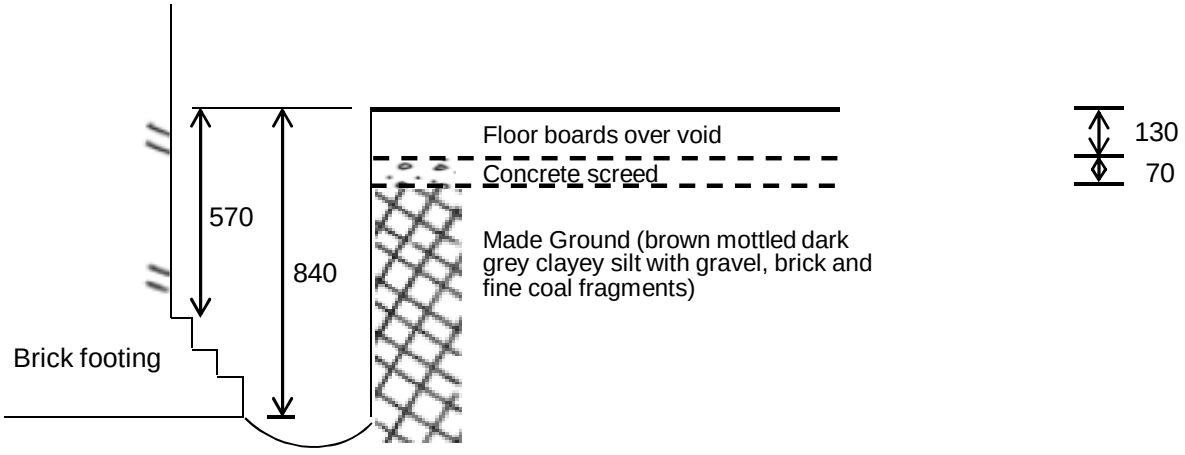
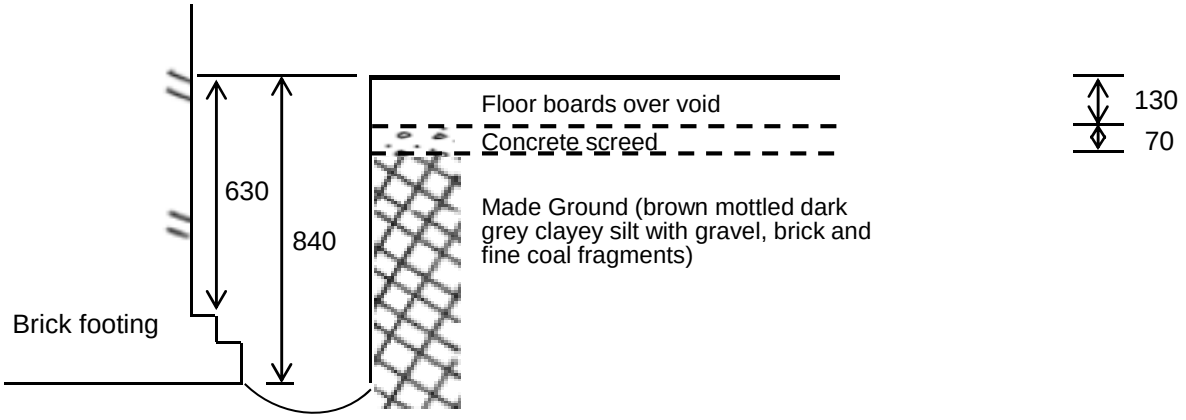


Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Scale: 1:20 Logged by: ML

GEA Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans Herts AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 4

Excavation Method Manual	**Dimensions** 500 x 400 x 850	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 2 / 2

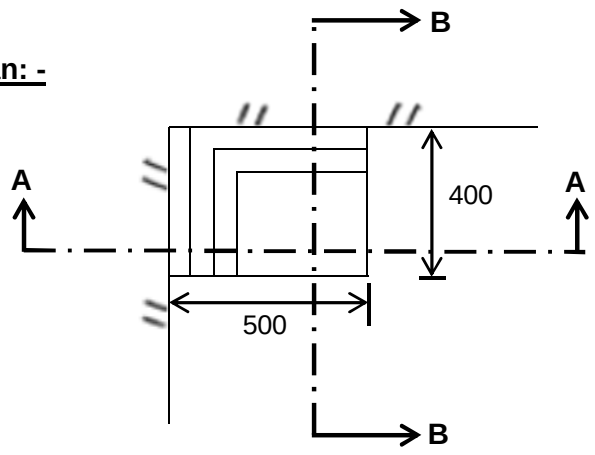
Section B - B: -



Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Scale: 1:20 Logged by: ML

GEA Geotechnical & Environmental Associates Tyttenhanger House Coursers Road St Albans Herts AL4 0PG			**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 4
Excavation Method Manual	**Dimensions** 500 x 400 x 850	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 1 / 2

Plan: -



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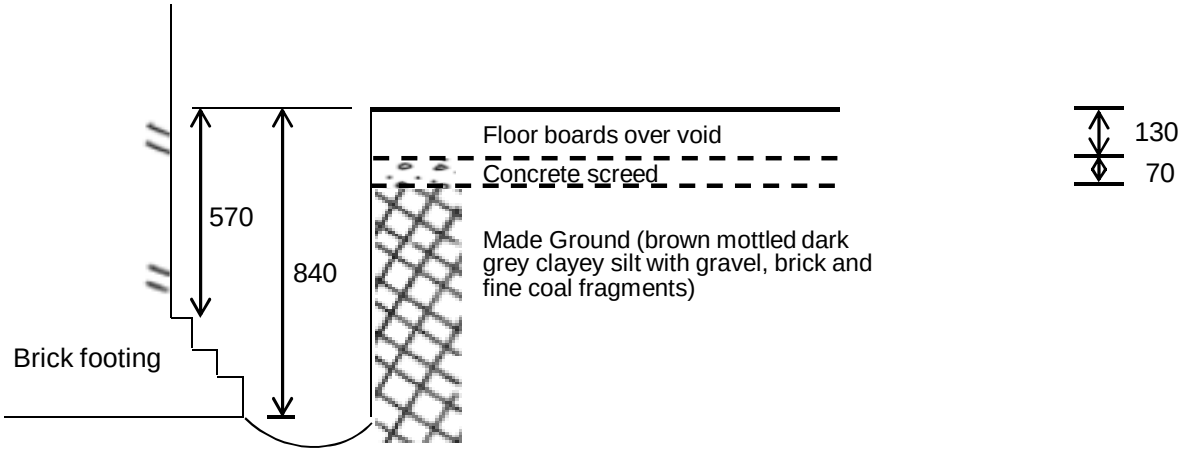
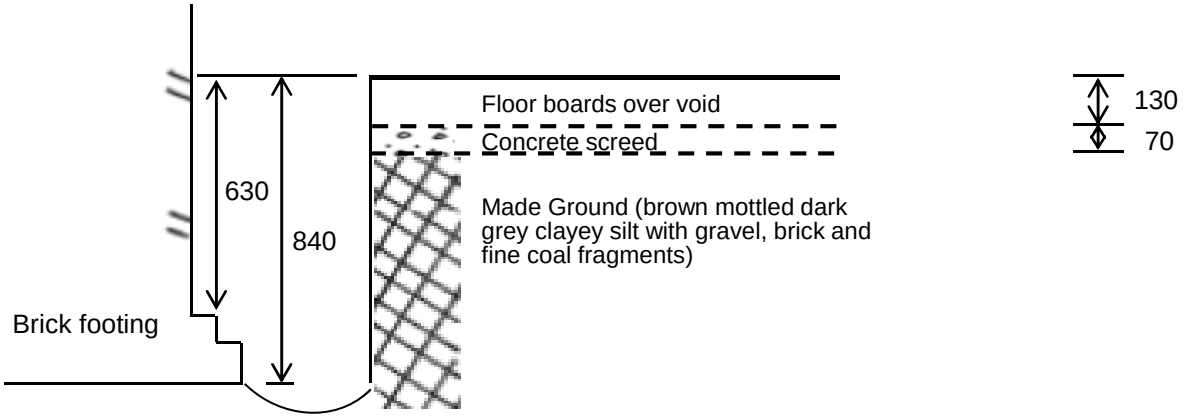


Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Scale: 1:20 Logged by: ML

GEA Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans Herts AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 4

Excavation Method Manual	**Dimensions** 500 x 400 x 850	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 2 / 2

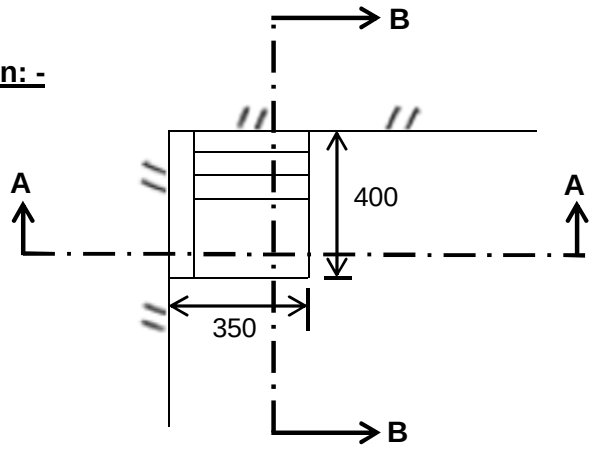
Section B - B: -



Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Scale: 1:20 Logged by: ML

GEA Geotechnical & Environmental Associates Tyttenhanger House Coursers Road St Albans Herts AL4 0PG			**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 5
Excavation Method Manual	**Dimensions** 400 x 350 x 900	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 1 / 2

Plan: -



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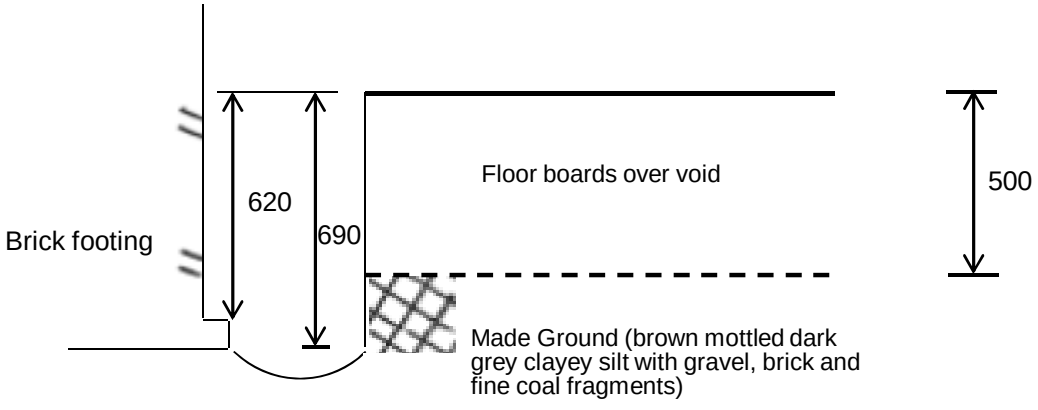
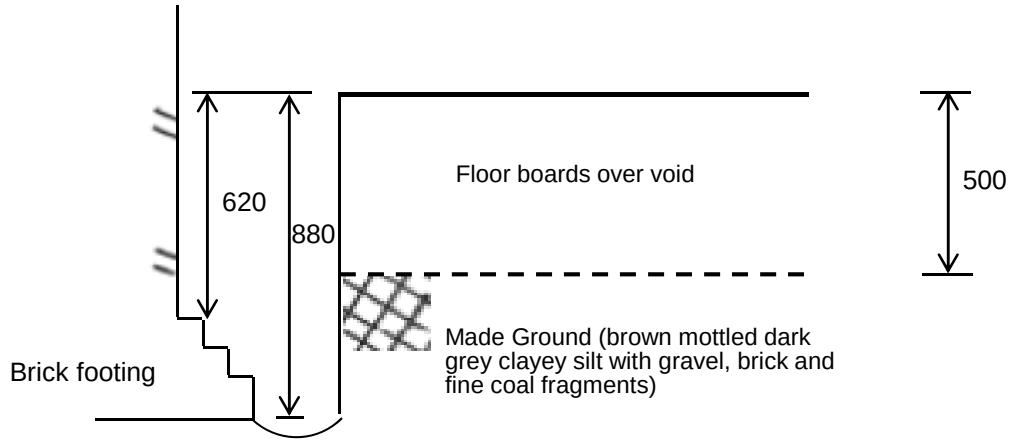


Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Scale: 1:20 Logged by: ML

GEA Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans Herts AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 5

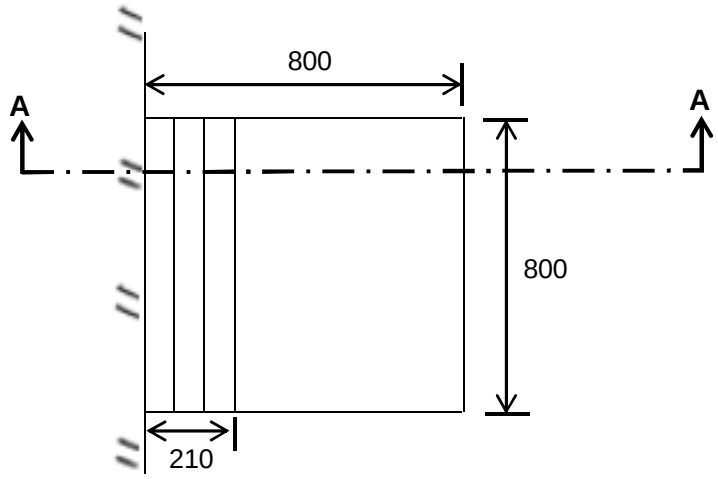
Excavation Method Manual	**Dimensions** 400 x 350 x 900	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 2 / 2



Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Scale: 1:20 Logged by: ML

GEA Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans Herts AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 6
Excavation Method Manual	**Dimensions** 800 x 800 x 970	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 1 / 2

Plan: -



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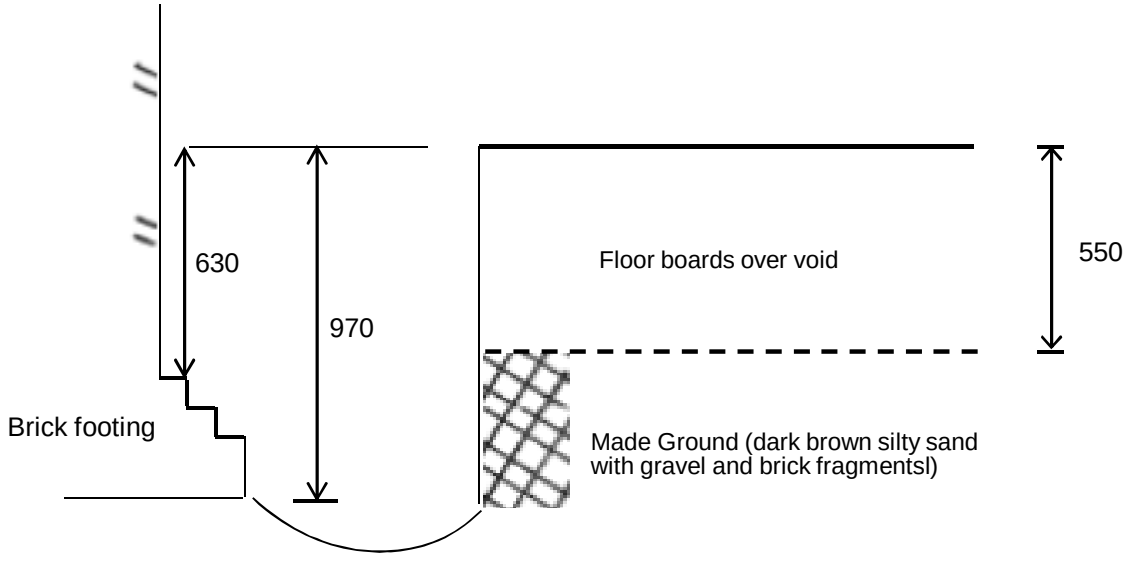


Remarks:	Scale:
All dimensions in millimetres	1:20
Sides of trial pit remained stable during excavation	Logged by:
Groundwater: Not encountered	ML

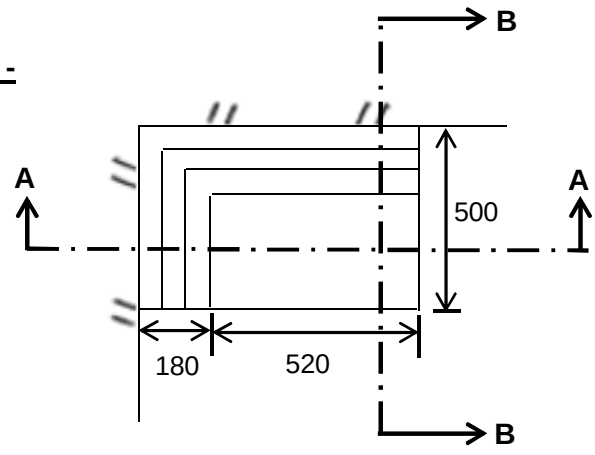
GEA Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans Herts AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** **6**

Excavation Method **Manual**	**Dimensions** 800 x 800 x 970	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 2 / 2

Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Scale: 1:20 Logged by: ML

GEA Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans Herts AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 7
Excavation Method Manual	**Dimensions** 700 x 500 x 1200	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 1 / 2

Plan: -



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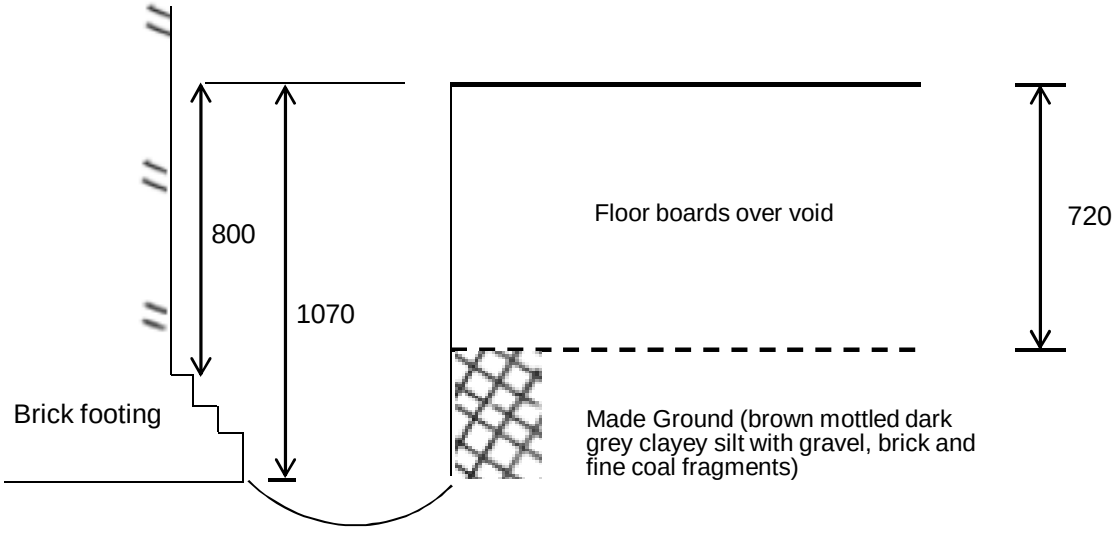
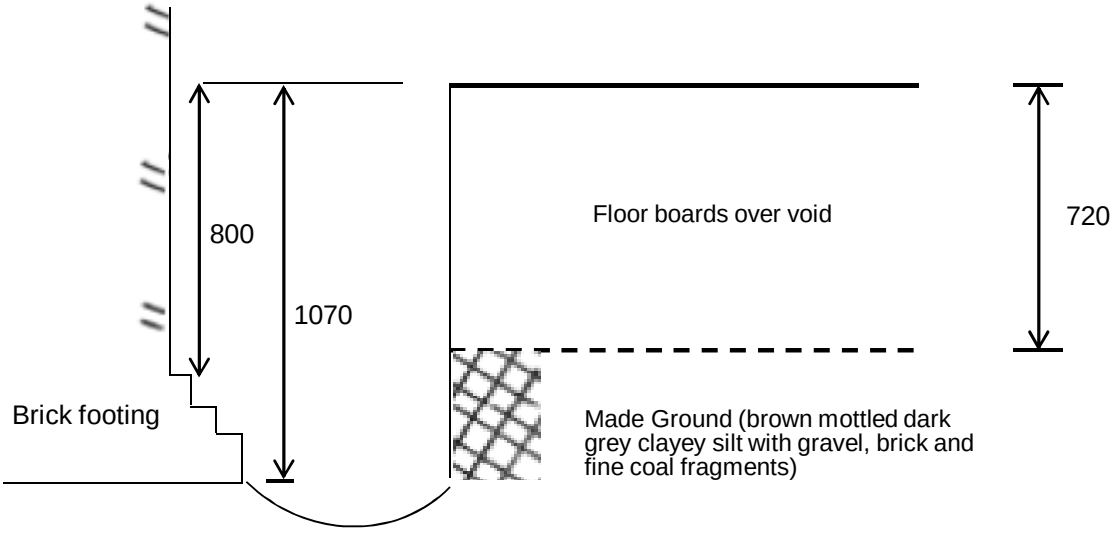


Remarks:	Scale:
All dimensions in millimetres	1:20
Sides of trial pit remained stable during excavation	Logged by:
Groundwater: Not encountered	ML

Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans Herts AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 7

Excavation Method Manual	**Dimensions** 700 x 500 x 1200	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 2 / 2

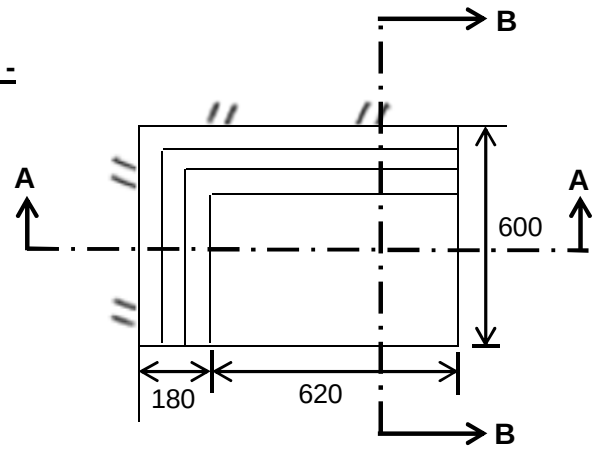
Section B - B: -



Remarks:	Scale:
All dimensions in millimetres	1:20
Sides of trial pit remained stable during excavation	Logged by:
Groundwater: Not Encountered	ML

GEA Geotechnical & Environmental Associates Tyttenhanger House Coursers Road St Albans Herts AL4 0PG			**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 8
Excavation Method Manual	**Dimensions** 800 x 600 x 1100	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 1 / 2

Plan: -



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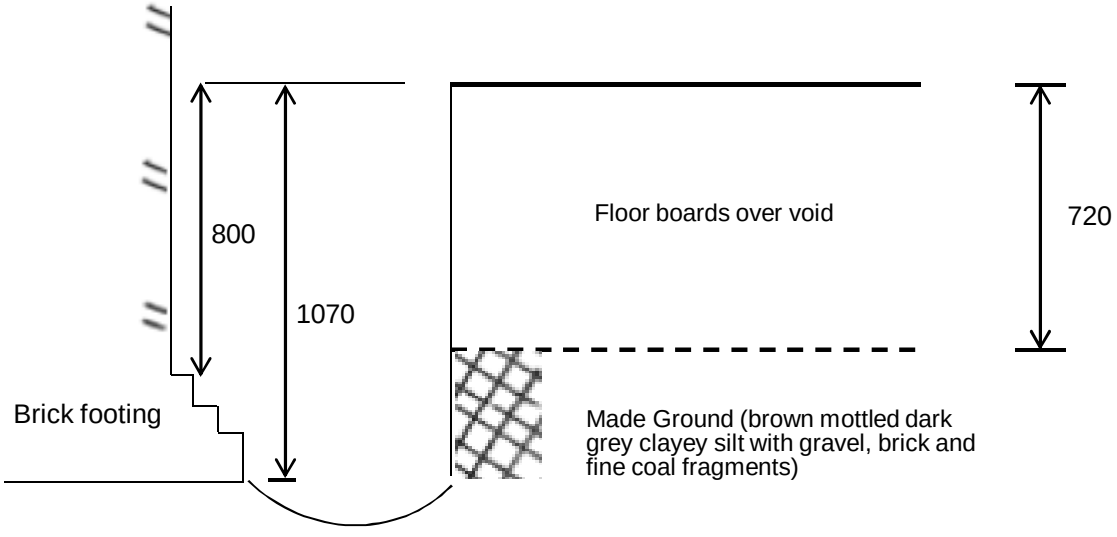
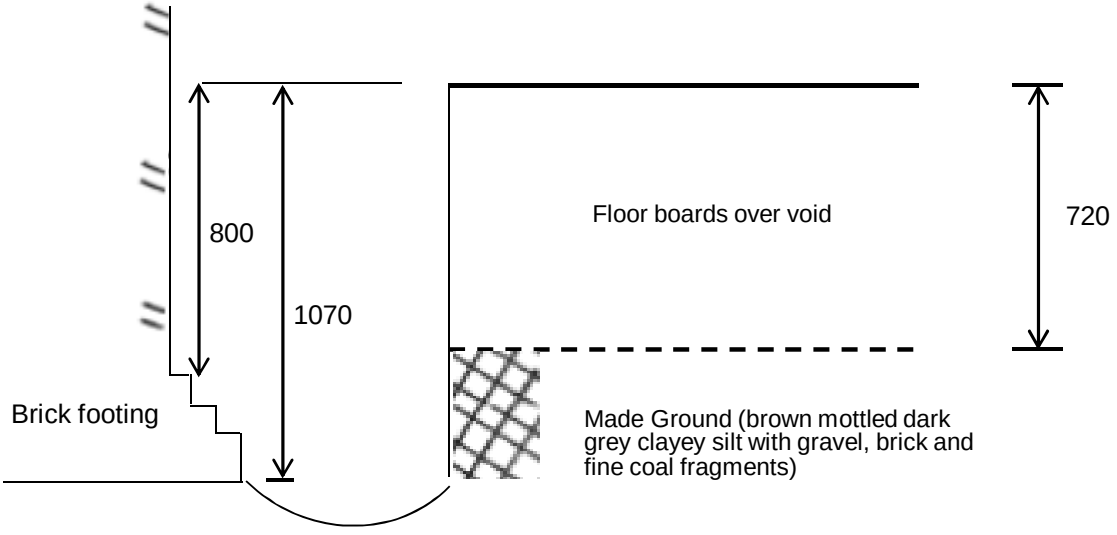


Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Scale: 1:20 Logged by: ML

GEA Geotechnical & Environmental Associates	Tyttenhanger House Coursers Road St Albans Herts AL4 0PG	**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** **8**

Excavation Method **Manual**	**Dimensions** 800 x 600 x 1100	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 2 / 2

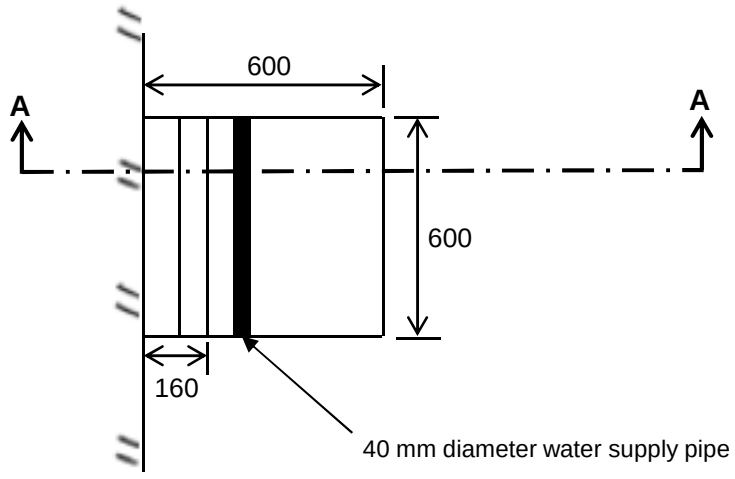
Section B - B: -



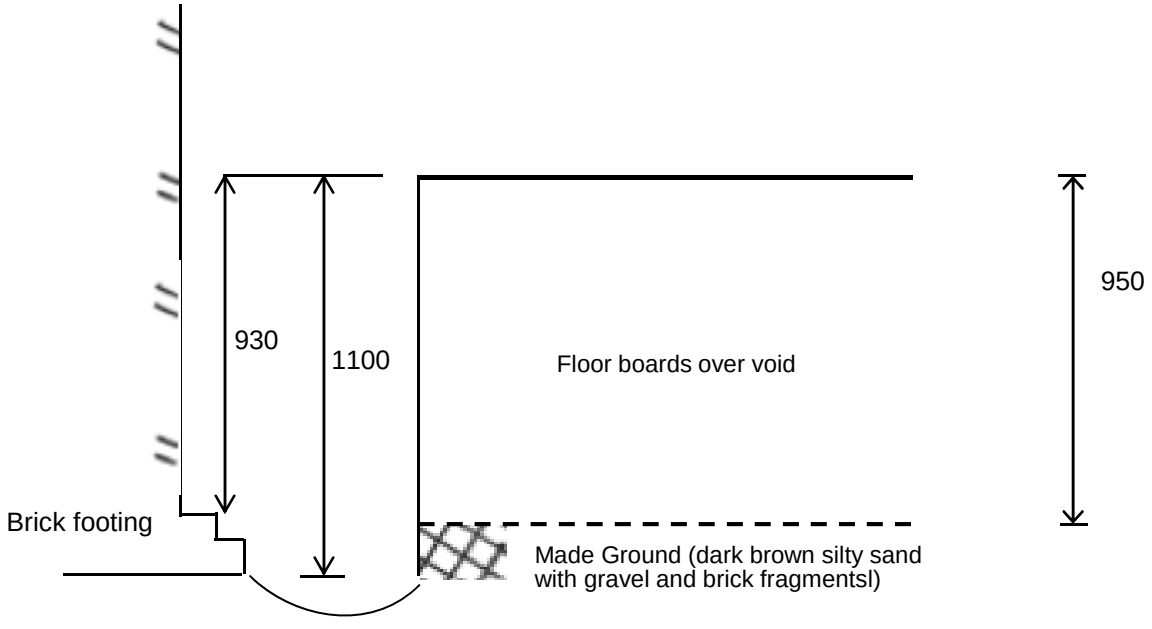
Remarks:	Scale:
All dimensions in millimetres	1:20
Sides of trial pit remained stable during excavation	Logged by:
Groundwater: Not encountered	ML

GEA Geotechnical & Environmental Associates Tyttenhanger House Coursers Road St Albans Herts AL4 0PG			**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** 9
Excavation Method Manual	**Dimensions** 600 x 600 x 1100	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 1 / 2

Plan: -



Section A - A: -



Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Scale: 1:20 Logged by: ML

GEA Geotechnical & Environmental Associates Tyttenhanger House Coursers Road St Albans Herts AL4 0PG			**Site** 29 Prince of Wales Road, London NW5 3LH	**Trial Pit Number** **9**
Excavation Method **Manual**	**Dimensions** 600 x 600 x 1100	**Ground Level (mOD)**	**Client** Mr Nadav kander & Ms Nicola Verity	**Job Number** J13359
	Location	**Dates** 02/12/2013	**Engineer** Fluid Structures	**Sheet** 2 / 2

Remarks: All dimensions in millimetres Sides of trial pit remained stable during excavation Groundwater: Not encountered	Scale: 1:20 Logged by: ML

Project Name:	29 Prince of Wales Road, London NW5 3LH	**Samples Received:**	05/12/2013
		Project Started:	11/12/2013
Client:	GEA	**Testing Started:**	20/12/2013
Project No:	J13359 **Our job/report no:** 15803	**Date Reported:**	23/12/2013

K4 SOILS

Borehole No:	Sample No:	Depth (m)	Description	Moisture content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	Passing 0.425 mm (%)	Remarks
BH1	D2	1.20	Brown slightly gravelly CLAY (gravel is fmc and sub-angular to angular)	27	62	23	39	75	
BH1	D4	3.30	Brown CLAY	32	80	27	53	100	
BH1	D6	5.30	Brown CLAY with blue grey veins and orange brown sandy patches	34	81	29	52	100	
BH2	D3	2.10	Brown CLAY with scattered selenite	27	73	28	45	100	
BH2	D5	4.10	Brown CLAY with scattered selenite	31	76	29	47	100	
BH2	D7	6.00	Brown CLAY with scattered selenite	30	73	27	46	100	
BH3	D2	1.20	Brown and grey slightly gravelly CLAY (gravel is fmc and sub-angular)	31	70	23	47	90	
BH3	D4	2.80	Brown CLAY with scattered selenite	29	75	25	50	100	
BH3	D6	4.80	Brown CLAY	32	78	27	51	100	

UKAS TESTING 2519

Summary of Test Results

BS 1377 : Part 2 : Clause 4.4 : 1990 Determination of the liquid limit by the cone penetrometer method.
BS 1377 : Part 2 : Clause 5 : 1990 Determination of the plastic limit and plasticity index.
BS 1377 : Part 2 : Clause 3.2 : 1990 Determination of the moisture content by the oven-drying method.

Checked and Approved
Initials: K.P
Date: 23/12/2013

Project Name:	29 Prince of Wales Road, London NW5 3LH		K4 SOILS
Client:	GEA	Project no: J13359	
		Our job no: 15803	

Borehole No:	Sample No:	Depth m	Description	pH	Sulphate content (g/l)
BH1	D3	2.30	Dark brown slightly gravelly CLAY with organic brown sandy pockets (gravel is fm and rounded)	7.9	0.21
BH2	D4	3.10	Dark greyish brown slightly mottled blue grey CLAY with scattered selenite	7.9	2.22
BH2	D6	5.10	Dark greyish brown CLAY with scattered selenite	7.9	2.24
BH3	D3	1.80	Dark grey brown CLAY with scattered traces of selenite	8.2	0.74
BH3	D7	5.80	Dark grey brown CLAY with scattered traces of selenite	7.9	1.82

Date 23/12/2013

Summary of Test Results

BS 1377 : Part 3 :Clause 5 : 1990

Determination of sulphate content of soil and ground water : gravimetric method

Checked and Approved

Initials : kp

Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU

GEA
Tyttenhanger House
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FAO Matt Legg

LABORATORY TEST REPORT

Results of analysis of 5 samples
received 10 December 2013

J13359 - 29 Prince of Wales Road, London NW5 3LH

Chemtest
The right chemistry to deliver results

Report Date
17 December 2013

Login Batch No					**246738**				
Chemtest LIMS ID					AJ56170	AJ56171	AJ56172	AJ56173	AJ56174
Sample ID					BH1	BH2	BH3	TP1	TP2
Sample No									
Sampling Date					3/12/2013	3/12/2013	3/12/2013	3/12/2013	3/12/2013
Depth					0.40m	0.40m	0.40m	0.40m	0.40m
Matrix					*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*
SOP↓	Determinand↓	CAS No↓	Units↓	*					
2030	Moisture		%	M	16.4	19.8	23.9	17.7	19.4
	Stones content (>50mm)		%	M	<0.02	<0.02	<0.02	<0.02	<0.02
2040	Soil colour			M	brown	brown	brown	brown	brown
	Soil texture			M	sand	sand	sand	sand	sand
	Other material			M	stones	stones	stones	stones	stones
2010	pH			M	7.6	8.1	7.6	7.9	7.8
2300	Cyanide (total)	57125	mg kg-¹	M	<0.50	<0.50	<0.50	<0.50	<0.50
2325	Sulfide (Easily Liberatable)	18496258	mg kg-¹	M	2.4	7.7	2.2	3.2	2.0
2625	Total Organic Carbon		%	M	5.1	3.8	3.1	6.1	6.0
2220	Chloride (extractable)	16887006	g l-¹	M	0.037	0.014	0.020	0.12	<0.010
2430	Sulfate (total) as SO4		mg kg-¹	M	2800	2100	900	1700	1900
2450	Arsenic	7440382	mg kg-¹	M	26	15	18	24	27
	Cadmium	7440439	mg kg-¹	M	0.19	<0.10	0.14	0.15	0.84
	Chromium	7440473	mg kg-¹	M	26	23	22	20	29
	Copper	7440508	mg kg-¹	M	120	51	61	97	150
	Mercury	7439976	mg kg-¹	M	4.7	1.4	1.4	2.7	8.2
	Nickel	7440020	mg kg-¹	M	29	17	20	20	30
	Lead	7439921	mg kg-¹	M	680	280	1300	540	1600
	Selenium	7782492	mg kg-¹	M	0.78	0.65	0.38	0.72	1.1
	Zinc	7440666	mg kg-¹	M	270	67	96	210	510
2670	TPH >C5-C6		mg kg-¹	U	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	TPH >C6-C7		mg kg-¹	U	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	TPH >C7-C8		mg kg-¹	M	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	TPH >C8-C10		mg kg-¹	M	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

All tests undertaken between 10/12/2013 and 16/12/2013

* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page.

GEA
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Coursers Road
St Albans Herts
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FAO Matt Legg

LABORATORY TEST REPORT

Results of analysis of 5 samples
received 10 December 2013

J13359 - 29 Prince of Wales Road, London NW5 3LH

Chemtest
The right chemistry to deliver results

Report Date
17 December 2013

					246738				
					AJ56170	AJ56171	AJ56172	AJ56173	AJ56174
					BH1	BH2	BH3	TP1	TP2
					3/12/2013	3/12/2013	3/12/2013	3/12/2013	3/12/2013
					0.40m	0.40m	0.40m	0.40m	0.40m
					SOIL	*SOIL*	*SOIL*	*SOIL*	*SOIL*
2670	TPH >C10-C12		mg kg-¹	M	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	TPH >C12-C16		mg kg-¹	M	< 0.1	< 0.1	< 0.1	< 0.1	5.7
	TPH >C16-C21		mg kg-¹	M	6.7	< 0.1	1.8	1.9	21
	TPH >C21-C35		mg kg-¹	M	120	< 0.1	0.30	0.38	42
	Total Petroleum Hydrocarbons		mg kg-¹	U	130	< 10	< 10	< 10	69
2700	Naphthalene	91203	mg kg-¹	M	0.11	< 0.1	< 0.1	0.14	0.33
	Acenaphthylene	208968	mg kg-¹	M	0.2	< 0.1	< 0.1	0.16	0.33
	Acenaphthene	83329	mg kg-¹	M	0.24	< 0.1	< 0.1	0.17	0.51
	Fluorene	86737	mg kg-¹	M	< 0.1	< 0.1	< 0.1	0.17	0.28
	Phenanthrene	85018	mg kg-¹	M	0.85	< 0.1	0.44	0.58	1.8
	Anthracene	120127	mg kg-¹	M	0.31	< 0.1	0.17	0.24	0.54
	Fluoranthene	206440	mg kg-¹	M	1.3	< 0.1	0.69	0.89	3
	Pyrene	129000	mg kg-¹	M	1.1	< 0.1	0.6	0.68	2.5
	Benzo[a]anthracene	56553	mg kg-¹	M	0.76	< 0.1	0.32	0.4	1.9
	Chrysene	218019	mg kg-¹	M	0.97	< 0.1	0.45	0.54	2.4
	Benzo[b]fluoranthene	205992	mg kg-¹	N	1.1	< 0.1	0.57	< 0.1	2.6
	Benzo[k]fluoranthene	207089	mg kg-¹	N	0.61	< 0.1	0.44	0.52	1.8
	Benzo[a]pyrene	50328	mg kg-¹	M	0.81	< 0.1	0.49	0.5	1.9
	Dibenzo[a,h]anthracene	53703	mg kg-¹	M	0.23	< 0.1	0.12	0.1	0.47
	Indeno[1,2,3-cd]pyrene	193395	mg kg-¹	M	0.49	< 0.1	0.3	0.27	1.4
	Benzo[g,h,i]perylene	191242	mg kg-¹	M	0.51	< 0.1	0.83	0.38	1.3
	Total (of 16) PAHs		mg kg-¹	M	9.6	< 2	5.4	5.7	23
2920	Phenols (total)		mg kg-¹	M	<0.3	<0.3	<0.3	0.4	<0.3

All tests undertaken between 10/12/2013 and 16/12/2013

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GEA Geotechnical & Environmental Associates

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Generic Risk-Based Soil Guideline Values

Site	29 Prince of Wales Road, London NW5 3LH
Client	Mr Nadav Kander & Ms Nicola Verity
Engineer	Fluid Structures

Job Number J13359

Sheet 1 / 1

Proposed End Use Residential with plant uptake

Soil pH 8

Soil Organic Matter content % 6.0

Contaminant	Guideline Value mg/kg	Data Source
Metals		
Arsenic	32	SGV
Cadmium	10	SGV
Chromium (III)	3000	LQM/CIEH
Chromium (VI)	4.3	LQM/CIEH
Copper	2,330	LQM/CIEH
Lead	450	withdrawn SGV
Elemental Mercury	1	SGV
Inorganic Mercury	170	SGV
Nickel	130	LQM/CIEH
Selenium	350	SGV
Zinc	3,750	LQM/CIEH
Hydrocarbons		
Benzene	0.33	SGV
Toluene	610	SGV
Ethyl Benzene	350	SGV
Xylene	230	SGV
Aliphatic C5-C6	110	LQM/CIEH
Aliphatic C6-C8	370	LQM/CIEH
Aliphatic C8-C10	110	LQM/CIEH
Aliphatic C10-C12	540	LQM/CIEH
Aliphatic C12-C16	3000	LQM/CIEH
Aliphatic C16-C35	76,000	LQM/CIEH
Aromatic C6-C7	See Benzene	LQM/CIEH
Aromatic C7-C8	See Toluene	LQM/CIEH
Aromatic C8-C10	151	LQM/CIEH
Aromatic C10-C12	346	LQM/CIEH
Aromatic C12-C16	593	LQM/CIEH
Aromatic C16-C21	770	LQM/CIEH
Aromatic C21-C35	1230	LQM/CIEH
PRO (C_5 –C_{10})	1351	Calc
DRO (C_{12} –C_{28})	80,363	Calc
Lube Oil (C_{28} –C_{44})	77,230	Calc
TPH	**1000**	Trigger for speciated testing

Contaminant	Guideline Value mg/kg	Data Source
Anions		
Soluble Sulphate	0.5 g/l	Structures
Sulphide	50	Structures
Chloride	400	Structures
Others		
Organic Carbon (%)	6	Methanogenic potential
Total Cyanide	140	WRAS
Total Mono Phenols	420	SGV
PAH		
Naphthalene	8.70	LQM/CIEH
Acenaphthylene	850	LQM/CIEH
Acenaphthene	1,000	LQM/CIEH
Fluorene	780	LQM/CIEH
Phenanthrene	380	LQM/CIEH
Anthracene	9,200	LQM/CIEH
Fluoranthene	670	LQM/CIEH
Pyrene	1,600	LQM/CIEH
Benzo(a) Anthracene	5.9	LQM/CIEH
Chrysene	9	LQM/CIEH
Benzo(b) Fluoranthene	7.0	LQM/CIEH
Benzo(k) Fluoranthene	10.0	LQM/CIEH
Benzo(a) pyrene	1.00	LQM/CIEH
Indeno(1 2 3 cd) Pyrene	4.2	LQM/CIEH
Dibenzo(a h) Anthracene	0.90	LQM/CIEH
Benzo (g h i) Perylene	47	LQM/CIEH
Total PAH	**6.7**	B(a)P / 0.15
Chlorinated Solvents		
1,1,1 trichloroethane (TCA)	28	LQM/CIEH
tetrachloroethane (PCA)	4.8	LQM/CIEH
tetrachloroethene (PCE)	4.8	LQM/CIEH
trichloroethene (TCE)	0.49	LQM/CIEH
1,2-dichloroethane (DCA)	0.014	LQM/CIEH
vinyl chloride (Chloroethene)	0.00099	LQM/CIEH
tetrachloromethane (Carbon tetra	0.089	LQM/CIEH
trichloromethane (Chloroform)	2.7	LQM/CIEH

Notes

Concentrations measured below the above values may be considered to represent 'uncontaminated conditions' which do not pose a risk to human health. Concentrations measured in excess of these valuesindicate a potential risk, and thus require further, site specific risk assessment.

SGV - Soil Guideline Value, derived from the CLEA model and published by Environment Agency 2009

withdrawn SGV - Former SGV, derived from the CLEA 2000 model and published by DEFRA pending confirmation of new approach to modeling lead

LQM/CIEH - Generic Assessment Criteria for Human Health Risk Assessment 2nd edition (2009)derived using CLEA 1.04 model 2009

Calc - sum of nearest available carbon range specified including BTEX for PRO fraction

B(a)P / 0.15 - GEA experience indicates that Benzo(a) pyrene (one of the most common and most carcenogenic of the PAHs) rarely exceeds 15% of the total PAH concentration, hence this Total PAH threshold is regarded as being conservative

Geotechnical & Environmental Associates

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Site Plan

Site 29 Prince of Wales Road, London NW5 3LH

Client Mr Nadav kander & Ms Nicola Verity

Engineer Fluid Structures

Job Number J13359

Sheet 1 / 1