

## SITE INVESTIGATION FACTUAL REPORT

Report No: 169984  
Client: Cunningham Lindsey - Maidstone  
Site: 99 Greencroft Gardens, London  
  
Client Ref: 7498207-  
Date of Visit: 11/01/2014



**Home Emergency Response - Subsidence Investigation - Drainage Services – Crack & Level Monitoring – Property Video Surveys**

Unit E2 First Floor Suite, Boundary Court  
Willow Farm Business Park, Castle Donington  
Leicestershire, DE74 2NN

☎ 0843 2272362  
✉ enquiries@cet-uk.com  
🌐 www.cet-uk.com

CET is the trading name of CET Structures Ltd  
Registered in England No. 02527130

# Investigation Layout Plan

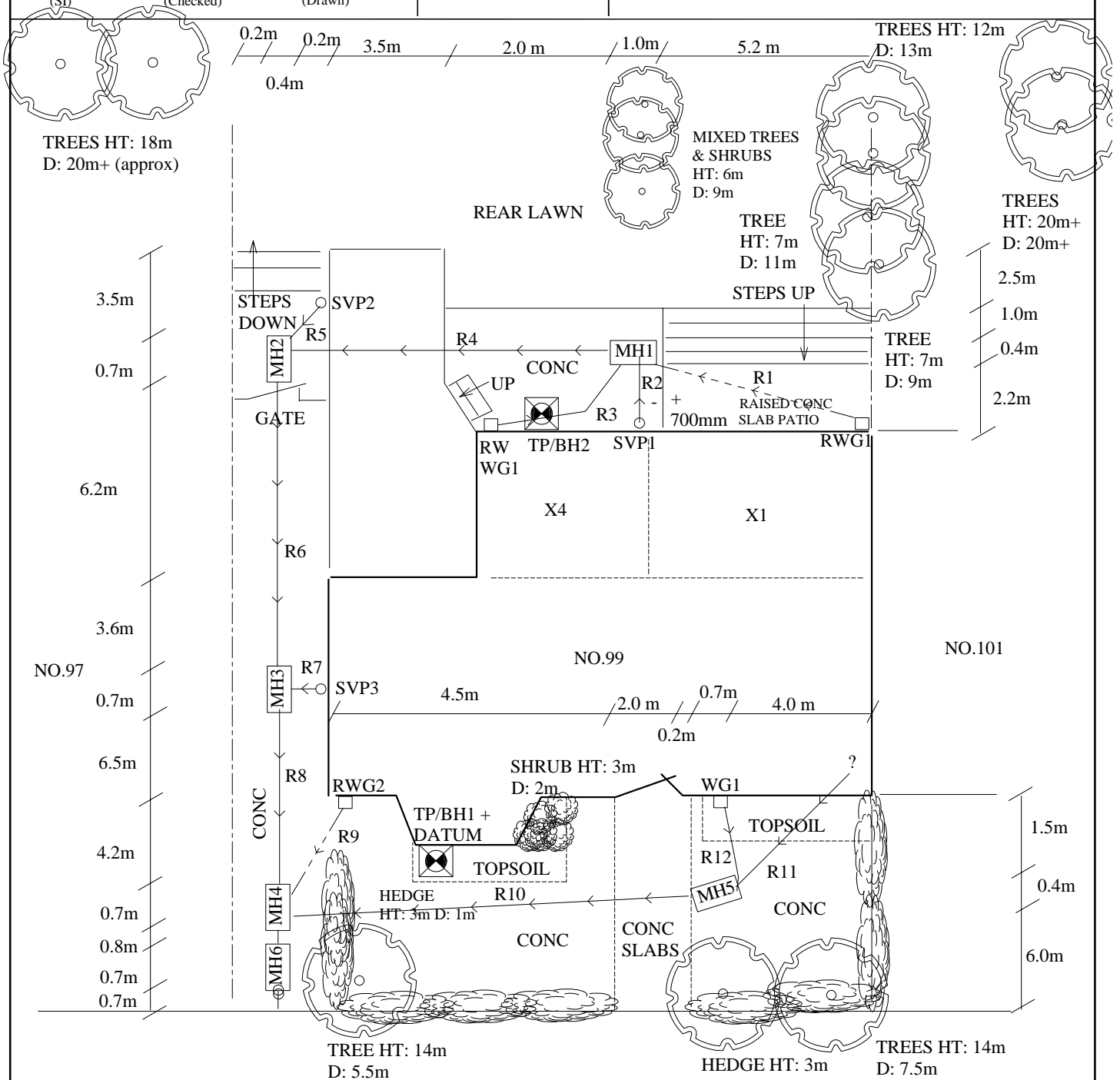
Sheet: 1 of 1  
Job No: 169984E  
Date: 11/01/2014

Site: 99 Greencroft Gardens, NW6 3PG

Work carried out for: Cunningham Lindsey

MD (SI) SE (Checked) AR (Drawn)

Weather: DRY



ON SITE TREE IDENTIFICATION FOR GUIDANCE ONLY. NOT AUTHENTICATED.

Remarks:

Parking - road.  
Water supply - outside tap.  
Site access - good.  
Power - internal.

Key:

Combined Gully	RWWG	Surface Water Drain	
Manhole	MH	Foul Water Drain	
Rain Water Pipe	RWP	Tree / Bush	
Rain Water Gully	RWG	(approx. ht in m)	
Soil Vent Pipe	SVP	Trial Pit	
Waste Gully	WG	Borehole	
Waste Pipe	WP		

Scale: N.T.S.



# Trial Pit No: 2

Sheet: 1 of 1  
 Job No: 169984E  
 Date: 11/01/14

Site: 99 Greencroft Gardens, NW6

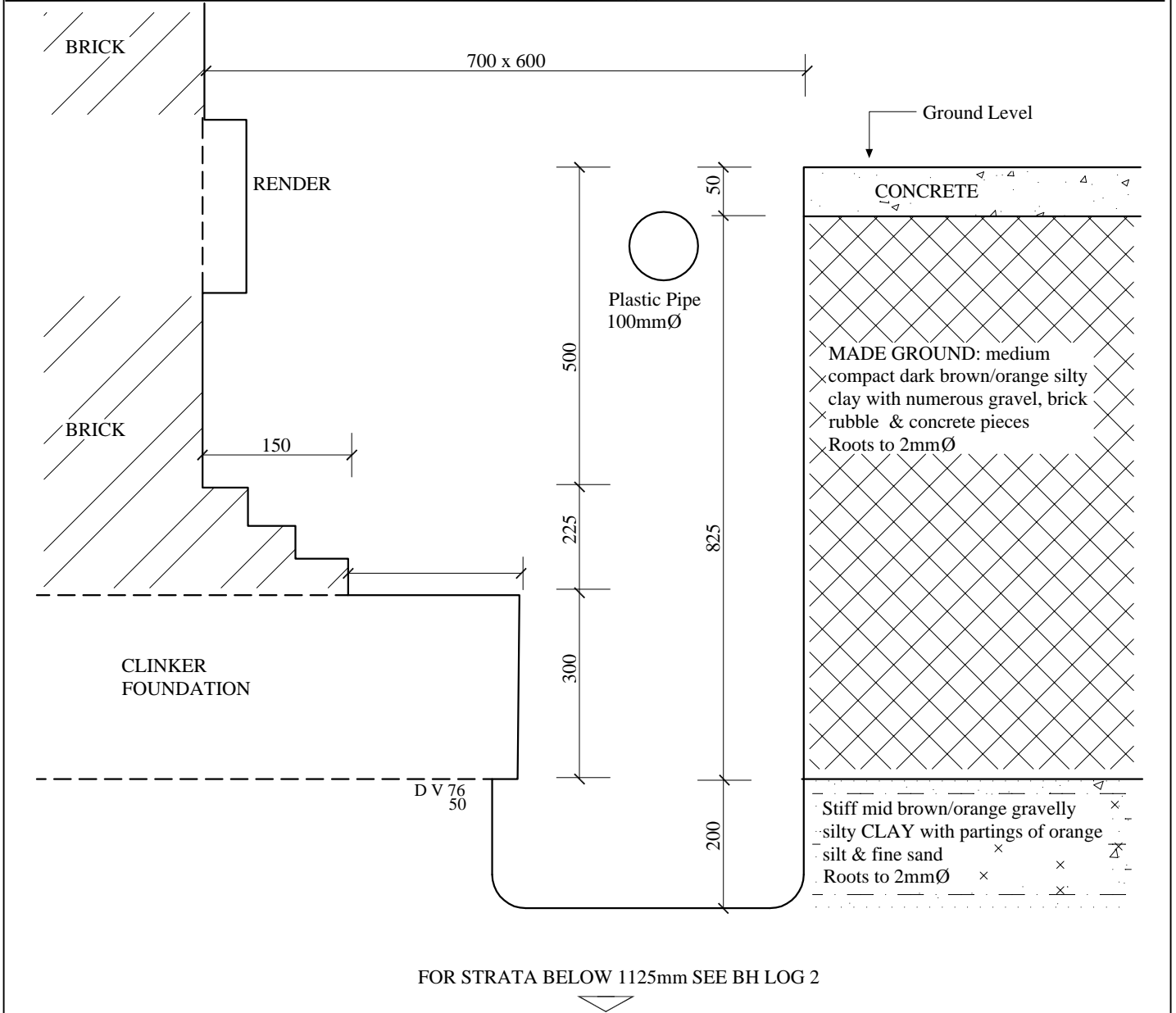
Excavation Method: Hand Tools

Drawn by: NR

Work carried out for: Cunningham Lindsey

Weather: Dry

Ground Level mOD:



Remarks: All measurements in millimetres.

Key:

D	Small disturbed sample	J	Jar sample
B	Bulk disturbed sample	V	Pilcon Vane (kPa)
W	Water sample	M	Mackintosh probe
TDTD	Too dense to drive		

Logged: SP

Checked: SE

Approved:

Scale: N.T.S.

Borehole No: 1		Sheet: 1 of 1			Site: 99 Greencroft Gardens, NW6				
& DATUM		Job No: 169984E							
Boring Method: CFA		Date: 11/01/2014							
Diameter: 100mm		Coordinates:		Ground Level mOD:		Work Carried out for: Cunningham Lindsey			
Depth (m)	Description of Strata	Thick-ness (m)	Legend	Sample	Test Type	Result	Depth (m)	Field Records/Comments	Depth to water (m)
1.50	As Trial Pit 1	1.50						Roots to 1mm diameter to 3.0m	
1.70	Firm mid brown/orange, gravelly silty CLAY with partings of orange silt & fine sand	0.20	—o —x —o						
2.50	Stiff mid brown/orange grey veined silty CLAY with partings of orange silt & fine sand	0.80	—x — — — x— — —	D	V	110 112	2.00		
3.00			—x — — — x— — —	D	V	130+ 130+	3.00	No roots observed below 3.0m	
3.50	Stiff as above with occasional crystals	3.50	— — — — x. — —	D			3.50		
4.00			—x — — — — —	D	V	130+ 130+	4.00		
4.50			— — — — — —	D			4.50		
5.00			x. — — — — —	D	V	130+ 130+	5.00		
6.00	BH ends at 6.0m		—x — — — — —						
Remarks: BH dry & open on completion Datum installed at 6.0m no samples taken or insitu strength tests carried out below 5.0m					Key: T.D.T.D. Too Dense to Drive D Small disturbed sample J Jar sample B Bulk disturbed sample V Pilcon Vane (kPa) W Water sample M Mackintosh Probe				
Logged: SP	Checked: SE	Drawn by: NR	Scale: NTS		Weather: Dry				

Borehole No: 2		Sheet: 1 of 1			Site: 99 Greencroft Gardens, NW6									
Boring Method: Hand Auger		Job No: 169984E								Date: 11/01/2014				
Diameter: 80mm	Coordinates:		Ground Level mOD:							Work Carried out for: Cunningham Lindsey				
Depth (m)	Description of Strata	Thick-ness (m)	Legend	Sample	Test Type	Test Result	Depth (m)	Field Records/Comments	Depth to water (m)					
1.125	As Trial Pit 2	1.125						Roots to 1mm diameter to 2.2m						
1.50	Stiff mid brown/orange, gravelly silty CLAY with partings of orange silt & fine sand	0.375	—o —x —o	D	V	90 80	1.50							
2.00	Stiff mid brown/orange, grey veined silty CLAY with partings of orange silt & fine sand with occasional fine gravel & crystals	0.50	—x — —	D	V	100 100	2.00	No roots observed below 2.2m						
			—x — —	D	V	130+ 130+	2.50							
	Stiff mid brown/orange, grey veined silty CLAY with partings of orange silt & fine sand & occasional crystal	3.00	— —x — —	D	V	130+ 130+	3.00							
			—x — —	D	V	130+ 130+	3.50							
			— — —	D	V	130+ 130+	4.00							
			x. — —	D	V	130+ 130+	4.50							
5.00	BH ends at 5.0m		—x — —	D	V	130+ 130+	5.00							
Remarks: BH dry & open on completion					Key: T.D.T.D. Too Dense to Drive D Small disturbed sample J Jar sample B Bulk disturbed sample V Pilcon Vane (kPa) W Water sample M Mackintosh Probe									
Logged: SP	Checked: SE	Drawn by NR			Scale: NTS		Weather: Dry							

Our Ref : 169984

# Laboratory Testing Results

Date Sampled: 11/01/2014

Location : 99, Greencroft Gardens, MW6

Date Received : 13/01/2014

Work carried out for: Cunningham Lindsey - Maidstone

Date Tested : 13/01/2014

Date of Report : 22/01/2014

Sample Ref		Type	Moisture Content (%) [1]	Soil Fraction > 0.425mm (%) [2]	Liquid Limit (%) [3]	Plastic Limit (%) [4]	Plasticity Index (%) [5]	Liquidity Index [5]	Modified Plasticity Index (%) [6]	Soil Class [7]	Filter Paper Contact Time (h) [8]	Soil Sample Suction (kPa)	In situ Shear Vane Strength (kPa) [9]	Organic Content (%) [10]	pH Value [11]	Sulphate Content (g/l)		Class [14]
TP/BH No	Depth (m)															SO <sub>3</sub> [12]	SO <sub>4</sub> [13]	
1	1.30(U/S)	D	25	18	64	28	36	-0.10	29	CH	168	40						
	2.0	D	28	<5	70	25	45	0.05	45	CV	168	222	111					
	2.5	D	27	<5														
	3.0	D	29	<5	70	24	46	0.10	46	CV	168	162	> 130					
	3.5	D	30	<5														
	4.0	D	32	<5							168	162	> 130					
	4.5	D	30	<5														
	5.0	D	31	<5							168	174	> 130					

**Test Methods / Notes**

- [1] BS 1377 : Part 2 : 1990, Test No 3.2
- [2] Estimated if <5%, otherwise measured
- [3] BS 1377 : Part 2 : 1990, Test No 4.4
- [4] BS 1377 : Part 2 : 1990, Test No 5.3
- [5] BS 1377 : Part 2 : 1990, Test No 5.4
- [6] BRE Digest 240 : 1993
- [7] BS 5930 : 1981 : Figure 31 - Plasticity Chart for the classification of fine soils
- [8] In-house method S9a adapted from BRE IP 4/93

[9] Values of shear strength were determined in situ by CET using

a Pilcon hand vane or Geonor vane (GV).

[10] BS 1377 : Part 3 : 1990, Test No 4

[11] BS 1377 : Part 2 : 1990, Test No 9

[12] BS 1377 : Part 3 : 1990, Test No 5.6

[13] SO<sub>4</sub> = 1.2 x SO<sub>3</sub>

[14] BRE Special Digest One (Concrete in Aggressive Ground) August 2005

Note that if the SO<sub>4</sub> content falls into the DS-4 or DS-5 class, it would be prudent to consider the sample as falling into the DS-4m or DS-5m class respectively unless water soluble magnesium testing is undertaken to prove otherwise

**Key**

- D Disturbed sample ( small )
- B Disturbed sample ( bulk )
- U Undisturbed sample
- W Groundwater sample
- ENP Essentially Non-Plastic by inspection
- U/S Underside of Foundation

Our Ref : 169984

# Laboratory Testing Results

Date Sampled : 11/01/2014

Location : 99, Greencroft Gardens, MW6

Date Received : 13/01/2014

Work carried out for: Cunningham Lindsey - Maidstone

Date Tested : 13/01/2014

out for:

Date of Report : 22/01/2014

Sample Ref.		Type	Moisture Content (%) [11]	Soil Fraction > 0.425mm (%) [2]	Liquid Limit (%) [3]	Plastic Limit (%) [4]	Plasticity Index (%) [5]	Liquidity Index [5]	Modified Plasticity Index (%) [6]	Soil Class [7]	Filter Paper Contact Time (h) [8]	Soil Sample Suction (kPa)	In situ Shear Vane Strength (kPa) [9]	Organic Content (%) [10]	pH Value [11]	Sulphate Content (g/l)		Class [14]
TP/BH No.	Depth (m)															SO <sub>3</sub> [12]	SO <sub>4</sub> [13]	
2	0.93(U/S)	D	23	32	74	26	48	-0.05	32	CV	168	76	78					
	1.5	D	27	26	68	27	42	0.00	31	CH	168	36	85					
	2.0	D	29	<5									100					
	2.5	D	29	<5	66	25	40	0.10	40	CH	168	132	> 130					
	3.0	D	33	<5									> 130					
	3.5	D	33	<5	76	29	47	0.09	47	CV	168	124	> 130					
	4.0	D	32	<5									> 130					
	4.5	D	32	<5							168	165	> 130					
	5.0	D	31	<5							168	225	> 130					

**Test Methods / Notes**

- [1] BS 1377 : Part 2 : 1990, Test No 3.2
- [2] Estimated if <5%, otherwise measured
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- [8] In-house method S9a adapted from BRE IP 4/93

[9] Values of shear strength were determined in situ by CET using

a Pilcon hand vane or Geonor vane (GV).

[10] BS 1377 : Part 3 : 1990, Test No 4

[11] BS 1377 : Part 2 : 1990, Test No 9

[12] BS 1377 : Part 3 : 1990, Test No 5.6

[13] SO<sub>4</sub> = 1.2 x SO<sub>3</sub>

[14] BRE Special Digest One (Concrete in Aggressive Ground) August 2005

Note that if the SO<sub>4</sub> content falls into the DS-4 or DS-5 class, it would be prudent to consider the sample as falling into the DS-4m or DS-5m class respectively unless water soluble magnesium testing is undertaken to prove otherwise

**Key**

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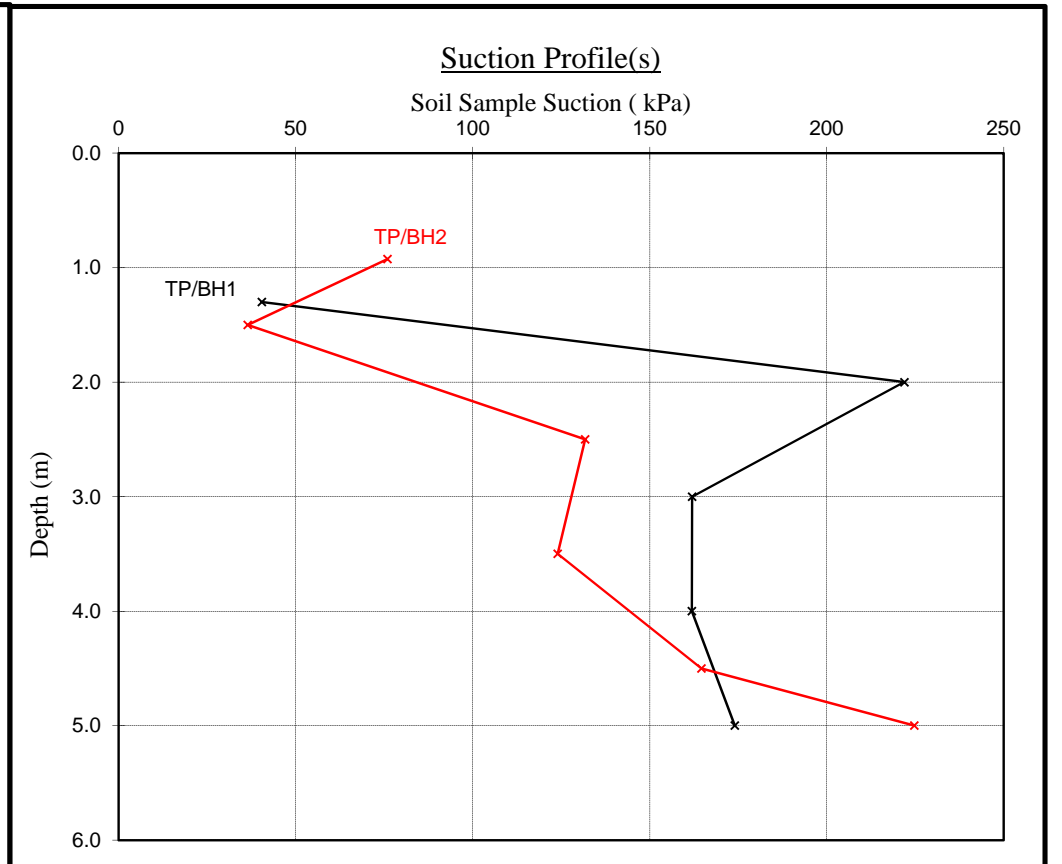
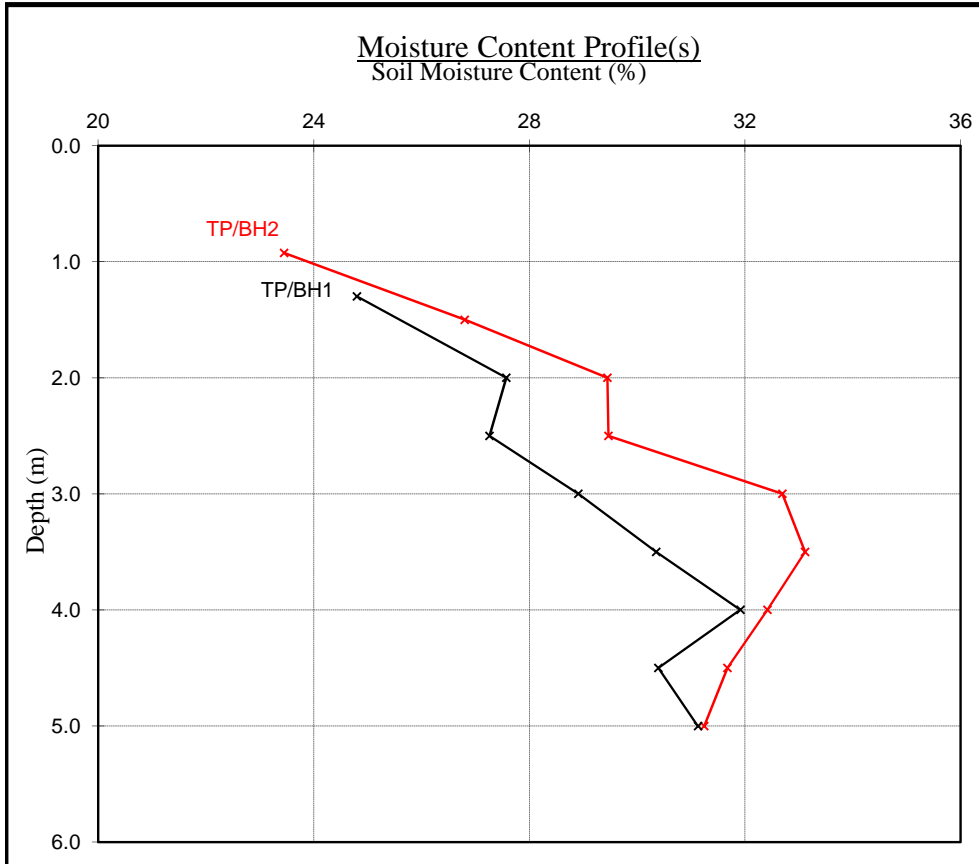


# Moisture Content and Suction Profiles

Our Ref : 169984  
 Location : 99, Greencroft Gardens, MW6  
 Work carried out for: Cunningham Lindsey - Maidstone

Note : Unless specifically noted the profiles have not been related to a site datum.

Date Sampled : 11/01/2014  
 Date Received : 13/01/2014  
 Date Tested : 13/01/2014  
 Date of Report : 22/01/2014



Notes

1. If plotted, 0.4 LL and PL+2 ( after Driscoll, 1983 ) should only be applied to London Clay ( and similarly overconsolidated clays ) at shallow depths.

Note

When shown, the theoretical equilibrium suction profiles are based on conventional assumptions associated with London Clay (and similarly overconsolidated clays) at shallow depths. Note that the sample disturbance component is dependant on the method of sampling and any subsequent recompaction. The above plots show this to be 100kPa which is the value suggested by the BRE on the basis of their limited number of tests on recompacted samples. This may or may not be appropriate in this instance and judgement should be exercised.

Our Ref : 169984

# Moisture Content and Shear Strength Profiles

Date Sampled : 11/01/2014

Location : 99, Greencroft Gardens, MW6

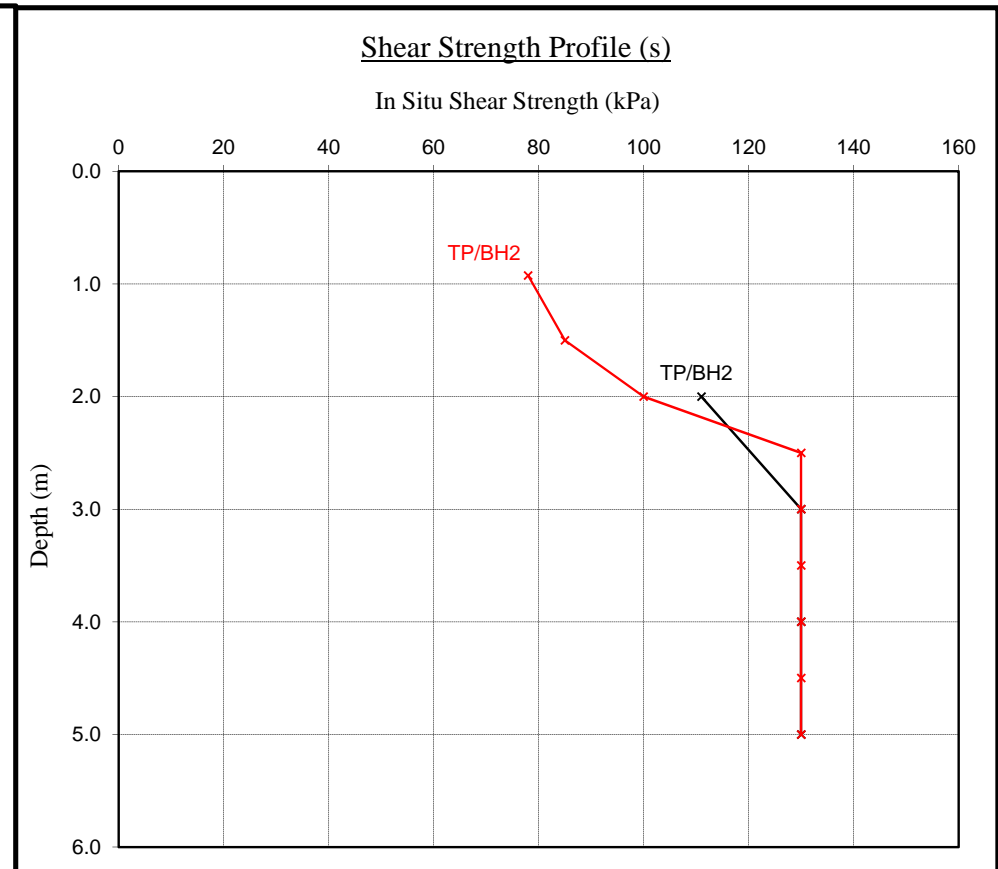
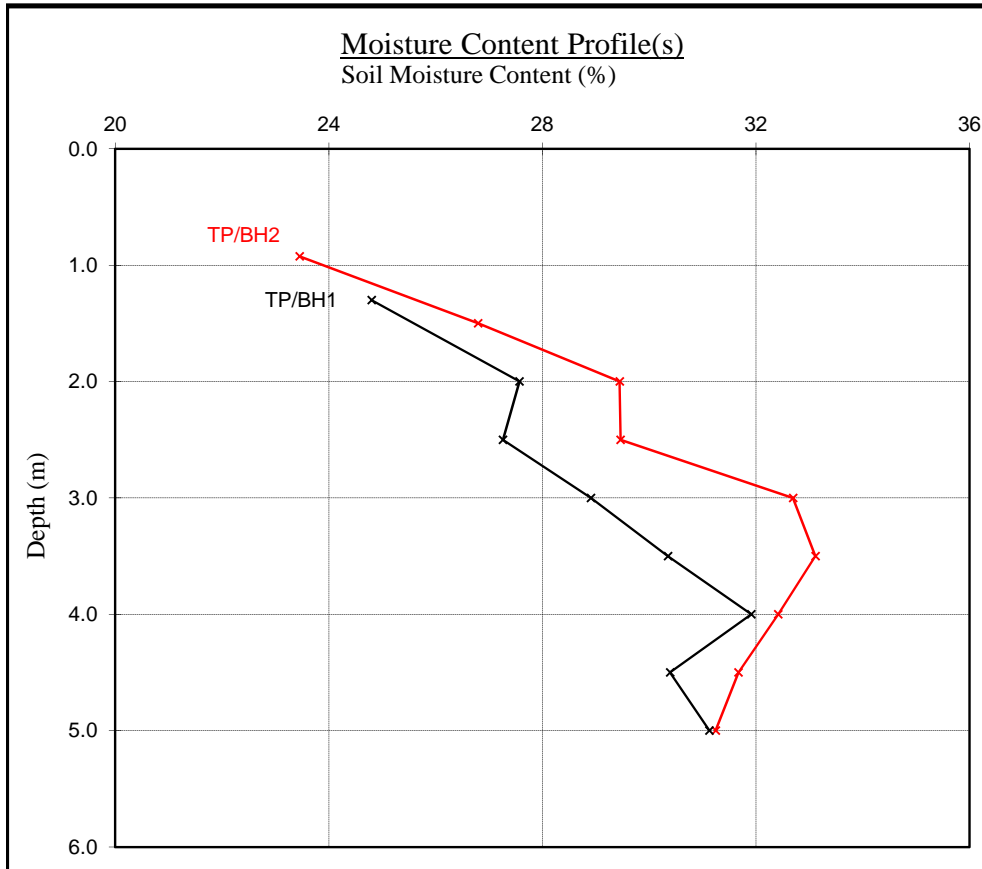
Date Received : 13/01/2014

Work carried out for: Cunningham Lindsey - Maidstone

Note : Unless specifically noted the profiles have not been related to a site datum.

Date Tested : 13/01/2014

Date of Report : 22/01/2014



Notes

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Note

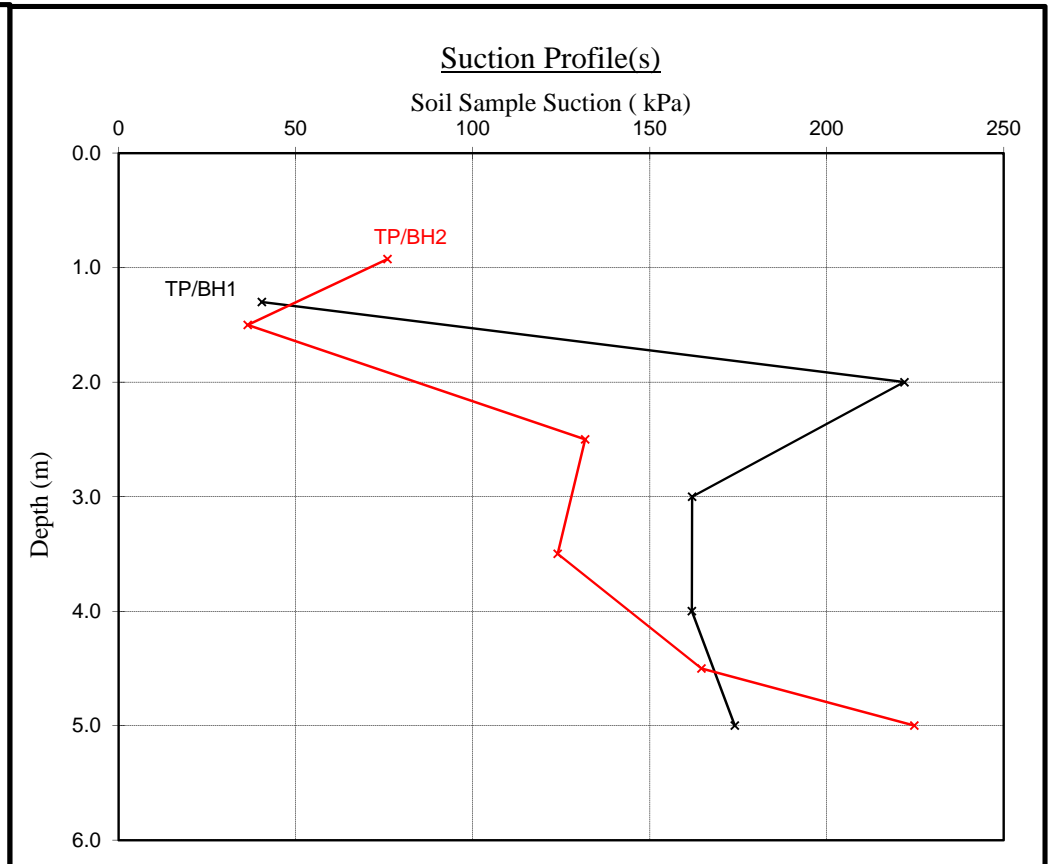
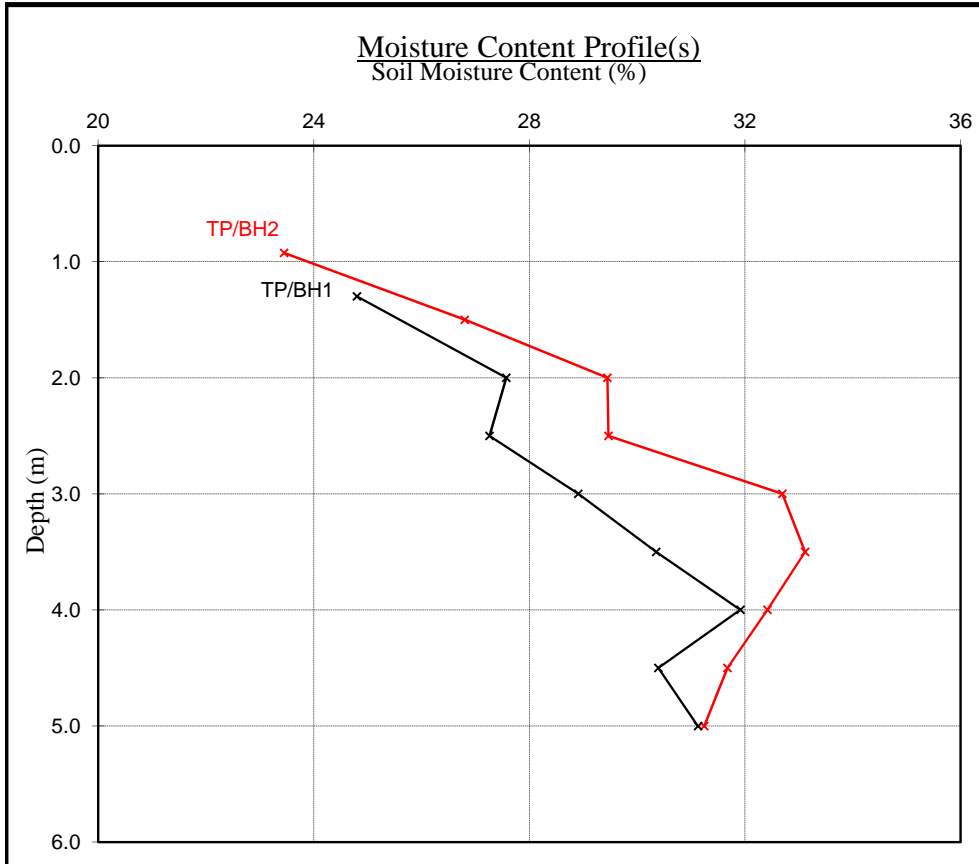
Unless otherwise stated, values of Shear Strength were determined in situ by CET using a Pilcon Hand Vane the calibration of which is limited to a maximum reading of 130 kPa.

# Moisture Content and Suction Profiles

Our Ref : 169984  
 Location : 99, Greencroft Gardens, MW6  
 Work carried out for: Cunningham Lindsey - Maidstone

Note : Unless specifically noted the profiles have not been related to a site datum.

Date Sampled : 11/01/2014  
 Date Received : 13/01/2014  
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Note

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*Certificate of Analysis*

The following work was commissioned by CET on behalf of their client. Root samples were obtained in sealed packets from the above site with no reference given as to the types of tree or shrub from which they may have originated.

The results were as follows -

<u>Trial pit/ Borehole number</u>	<u>Root diameter (mm)</u>	<u>Tree, shrub or climber from which root originates</u>	<u>Result of starch test</u>
TP1 (USF)	1 mm	Tilia spp. 2 roots	Positive
BH1 (to 3m)	<1 mm	Tilia spp. *	Negative
TP2 (USF)	1.5 mm	Platanus spp. 2 roots	Positive
BH2 (to 2.2m)	<1 mm	probably Populus spp. but possibly Salix spp. ** 3 roots	Negative

\* Plus 1 other too decayed for identification.

\*\* All in a state of decay.

Tilia spp. are limes.

Platanus spp. include London plane and Oriental plane.

Populus spp. are poplars and aspen; Salix spp. are willows.



MDM

**Address for correspondence:** EPSL , Intec, Parc Menai, Bangor, Gwynedd, North Wales, LL57 4FG

**Telephone:** 01248 672 652

**e-mail:** lab@marishalthompson.co.uk

**Head of Laboratory Services :** *MD Mitchell B.Sc. (Hons), M.Phil.*

**Plant Anatomist :** *Dr G S Turner B.Sc. (Hons), M.Sc., Ph.D*

**Consultant:** *Dr M P Denne B.Sc. (Hons), M.Sc., Ph.D*

Registered in England. No 295427, Registered Office: 6G Greensfield Court, Alnwick, Northumberland, NE66 2DE

To: Cunningham Lindsey - Maidstone  
4 North Court  
South Park Business Village  
Armstrong Road  
Kent  
ME15 6JZ

Our Ref: **169984**  
Your Ref: **7498207**  
Date: **13-Jan-14**

Ftiao: Yiu-Shan Wong

<b>ESTIMATE</b>
-----------------

Site:- **99 Greencroft Gardens, London**

Item		Amount
	No recommendations required to the private drainage surveyed.	

**Notes**

Repairs to shared runs and off boundary pipe-work may be the responsibility of the water authority.	Total	£0.00
-----------------------------------------------------------------------------------------------------	-------	-------

**Condition Grade**

A - Structurally sound with no leakage evident.	plus VAT @20%	£0.00
B - Cracks and fractures observed.		
C - Structurally unsound	<b>Total + VAT</b>	<b>£0.00</b>

Quotation is binding only if accepted within 28 days from date of issue and is subject to our Standard Terms and Conditions  
The price qualification notes, stated on the drainage solutions schedule of rates, apply to this quotation.  
CET Structures Ltd undertakes to return to site free of charge to carry out remedial work to the drainage repairs set out above for a period of 2 months from the date of this invoice. The company standard charge rates will apply to the visit should the work requested be unrelated to the said repairs.

# Underground Drainage Report

Sheet: 1 of 5

Site: 99 Greencroft Gardens, London

Job No: 169984

Work carried out for: Cunningham Lindsey - Maidstone

Date: 11-Jan-14

## MANHOLE DETAILS

Manhole	Depth to Invert	Condition
MH1	350mm	As built
MH2	775mm	As built
MH3	1000mm	As built
MH4	1250mm	As built
MH5	850mm	As built
MH6	3200mm	Poor

## CCTV Survey:-

### 1. Drainage Run:

From manhole 1 run 1 to rain water gully 1 - 100mm clay surface water - Upstream ( not shared)

Metres:	Code:	Observations:	Surface Material/ Condition:
0.0		Start	Raised concrete slab patio
0.1	MC	Lined	
4.4	FH	Reached RWG1	

### 2. Drainage Run:

From manhole 1 run 2 to soil vent pipe 1 - 100mm plastic foul water - Upstream ( not shared)

Metres:	Code:	Observations:	Surface Material/ Condition:
0.0		Start	Concrete
1.9	LU		
2.1	FH	Reached SVP	

## Water Test Grade:

0 - Unable to fill	2 - Medium Loss over 2 minutes
1 - Heavy Loss	3 - Slow Loss over 5 minutes
	4 - No Loss

# Underground Drainage Report

Sheet: 2 of 5

Site: 99 Greencroft Gardens, London

Job No: 169984

Work carried out for: Cunningham Lindsey - Maidstone

Date: 11-Jan-04

### 3 Drainage Run:

From manhole 1 run 3 to rain water waste gully 1 - 100mm plastic combined - Upstream ( not shared)

Metres:	Code:	Observations:	Surface Material/ Condition:
0.0		Start	Concrete
0.2	LR	Slight	
1.2	LR		
1.8	DE	20%	
2.6	LL		
2.9	FH	Reached RWWG1	

### 4 Drainage Run:

From manhole 1 run 4 to manhole 2 - 100mm clay combined - Downstream ( not shared)

Metres:	Code:	Observations:	Surface Material/ Condition:
0.0		Start	Concrete
0.1	MC	Cast iron	
2.0			Under house
5.5			Concrete
5.7	FH	Reached MH2	

### 5 Drainage Run:

From manhole 5 run 5 to soil vent pipe 2 - 100mm plastic foul water - Upstream ( not shared)

Metres:	Code:	Observations:	Surface Material/ Condition:
0.0		Start	Concrete
0.1	LU		
0.8	GO	Line levels out	
3.3	LU		
3.5	FH	Reached SVP2	

### Water Test Grade:

- |                    |                                |
|--------------------|--------------------------------|
| 0 - Unable to fill | 2 - Medium Loss over 2 minutes |
| 1 - Heavy Loss     | 3 - Slow Loss over 5 minutes   |
|                    | 4 - No Loss                    |

# Underground Drainage Report

Sheet: 3 of 5

Site: 99 Greencroft Gardens, London

Job No: 169984

Work carried out for: Cunningham Lindsey - Maidstone

Date: 11-Jan-14

## 6 Drainage Run:

From manhole 2 run 6 to manhole 3 - 100mm liner combined - Downstream ( not shared)

Metres:	Code:	Observations:	Surface Material/ Condition:
0.0		Start	Concrete
2.0	WL	10%	
2.8	ESL	From 5 o'clock to 7 o'clock - 10%	
4.0	ESL	From 5 o'clock to 7 o'clock - 10%	
9.7	FH	Reached MH3	

## 7 Drainage Run:

From manhole 3 run 7 to soil vent pipe 3 - 100mm clay foul water - Upstream ( not shared)

Metres:	Code:	Observations:	Surface Material/ Condition:
0.0		Start	Concrete
0.2	LU		
0.6	FH	Reached SVP3	

## 8 Drainage Run:

From manhole 3 run 8 to manhole 4 - 100mm cast iron combined - Downstream ( not shared)

Metres:	Code:	Observations:	Surface Material/ Condition:
0.0		Start	Concrete
8.5	WL	10%	
10.0	DE	10%	
10.4	WL	25%	
11.0	WL	50%	
11.2	CU	Due to interceptor blocked in MH6	
11.8	FH	Reached MH4	

## Water Test Grade:

- |                    |                                |
|--------------------|--------------------------------|
| 0 - Unable to fill | 2 - Medium Loss over 2 minutes |
| 1 - Heavy Loss     | 3 - Slow Loss over 5 minutes   |
|                    | 4 - No Loss                    |



# Underground Drainage Report

Sheet: 4 of 5

Site: 99 Greencroft Gardens, London

Job No: 169984

Work carried out for: Cunningham Lindsey - Maidstone

Date: 11-Jan-14

## 9 Drainage Run:

From manhole 4 run 9 to rain water gully 2 - 100mm clay surface water - Upstream ( not shared)

Metres:	Code:	Observations:	Surface Material/ Condition:
0.0		Start	Concrete
0.4	LU		
0.4	LL		
1.2	GO	Line levels out	
1.5	FH	Unable to push - too many bends	

## 10 Drainage Run:

From manhole 4 run 10 to manhole 5 - 100mm cast iron combined - Upstream ( not shared)

Metres:	Code:	Observations:	Surface Material/ Condition:
0.0		Start	Concrete
0.2			Topsoil
0.3	DE	20%	
1.0	DE	40%	Concrete
5.5	ESH	From 12 o'clock to 12 o'clock - 50%	
5.5	FH	Unable to push	
	GO	Survey completed on run 10	

## 11 Drainage Run:

From manhole 5 run 10 to manhole 4 - 100mm cast iron combined - Downstream ( not shared)

Metres:	Code:	Observations:	Surface Material/ Condition:
0.0		Start	Concrete
0.2			Concrete slabs
2.2			Concrete
6.0			Topsoil
6.2	ESM	30%	
7.0			Concrete
7.8	FH	Reached MH4	

## Water Test Grade:

0 - Unable to fill	2 - Medium Loss over 2 minutes
1 - Heavy Loss	3 - Slow Loss over 5 minutes
	4 - No Loss

# Underground Drainage Report

Sheet: 5 of 5

Site: 99 Greencroft Gardens, London

Job No: 169984

Work carried out for: Cunningham Lindsey - Maidstone

Date: 11-Jan-14

## 12 Drainage Run:

From manhole 5 run 11 to unknown - 100mm plastic foul water - Upstream ( not shared)

Metres:	Code:	Observations:	Surface Material/ Condition:
0.0		Start	Concrete
5.6	LU		
6.1	GO	Line levels out	
6.9	FH	Unable to push	

## 13 Drainage Run:

Break -in - waste gully 1 run 12 to manhole 5 - 100mm plastic foul water - Downstream ( not shared)

Metres:	Code:	Observations:	Surface Material/ Condition:
0.0		Start	Concrete
1.0	LR		
1.5	FH	Reached MH5	

- END OF SURVEY -

*Our assessment of the drainage system is based on our visual inspection and on information collated at the time of the survey. Where assumptions have been made these are based on our experience and do not constitute any form of guarantee, nor do we guarantee that further deterioration will not occur following this survey. CCTV video records will be stored for a period of 3 months from date of inspection and then destroyed.*

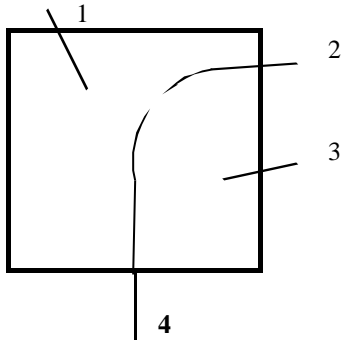
## Water Test Grade:

- |                    |                                |
|--------------------|--------------------------------|
| 0 - Unable to fill | 2 - Medium Loss over 2 minutes |
| 1 - Heavy Loss     | 3 - Slow Loss over 5 minutes   |
|                    | 4 - No Loss                    |

## Water Authority Sewer Condition Codes

<b>B</b>	Broken pipe at... (or from... to...) o'clock	<b>JN</b>	Junction at...o'clock, diameter...mm
<b>BR</b>	Branch Major	<b>JX</b>	Junction defective at.. o'clock, diameter.. mm
<b>CC</b>	Crack circumferential from... to... o'clock	<b>LC</b>	Lining of sewer changes/starts/finishes at this point
<b>CL</b>	Crack longitudinal @... o'clock	<b>LD</b>	Line of sewer deviates down
<b>CM</b>	Cracks multiple from... to... o'clock	<b>LL</b>	Line of sewer deviates left
<b>CN</b>	Connection at... o'clock, diameter... mm	<b>LN</b>	Line defect at (or from.. to..) o'clock
<b>CNI</b>	Connection at... o'clock, diameter... mm, intrusion... mm	<b>LR</b>	Line of sewer deviates right
<b>CU</b>	Camera under water	<b>LU</b>	Line of sewer deviates up
<b>CX</b>	Connection defective at... o'clock	<b>MB</b>	Missing bricks at.. (or from.. to..) o'clock
<b>CXI</b>	Connection defective at... o'clock, diameter... mm, intrusion... mm	<b>MC</b>	Material of sewer changes at this point
<b>D</b>	Deformed sewer... %	<b>MH</b>	Manhole/node
<b>DB</b>	Displaced bricks at (or from.. to..) o'clock	<b>MM</b>	Mortar missing medium at.. (or from.. to..) o'clock
<b>DC</b>	Dimension of sewer changes at this point	<b>MS</b>	Mortar missing surface at.. (or from.. to..) o'clock
<b>DE</b>	Debris (non silt/grease)... % cross-sectional loss	<b>MT</b>	Mortar missing total at.. (or from.. to..) o'clock
<b>DEG</b>	Debris grease... % cross-sectional area loss	<b>OB</b>	Obstruction... % height/diameter loss
<b>DES</b>	Debris silt... % cross-sectional area loss	<b>OJL</b>	Open joint large
<b>DI</b>	Dropped invert, gap... mm	<b>OJM</b>	Open joint medium
<b>EHI</b>	Encrustation heavy from.. to.. o'clock % cross-sectional area loss (at joint)	<b>PC</b>	Length of pipe forming sewer changes at this point, new length...mm
<b>ELJ</b>	Encrustation light from.. to.. o'clock%	<b>RFJ</b>	Roots fine (at joint)
<b>EMJ</b>	Encrustation medium from.. to.. o'clock %, cross-sectional area loss (at joint)	<b>RMJ</b>	Roots mass... % cross-sectional area loss (at joint)
<b>ESH</b>	Scale heavy... % cross-sectional area loss from... to... o'clock	<b>RTJ</b>	Roots tap (at joint)
<b>ESL</b>	Scale light from... to... o'clock	<b>SA</b>	Survey abandoned
<b>ESM</b>	Scale medium... % cross-sectional area loss from... to... o'clock	<b>SC</b>	Shape of sewer changes at this point
<b>FC</b>	Fracture circumferential from... to... o'clock	<b>SSL</b>	Surface damage, spalling large at (or from.. to..) o'clock
<b>FL</b>	Fracture longitudinal at... o'clock	<b>SSM</b>	Surface damage, spalling medium at (or from.. to..) o'clock
<b>FM</b>	Fractures multiple from... to... o'clock	<b>SSS</b>	Surface damage, spalling slight at (or from.. to..) o'clock
<b>GO</b>	General observation at this point	<b>SWL</b>	Surface damage, wear large at... (or from.. to..) o'clock
<b>GP</b>	General photograph number... taken at this point	<b>SWM</b>	Surface damage, wear medium at... (or from.. to..) o'clock
<b>H</b>	Hole in sewer at... o'clock	<b>SWS</b>	Surface damage, wear slight at.. (or from.. to..) o'clock
<b>IDJ</b>	Infiltration dripper at (or from... to...) o'clock (at joint)	<b>V</b>	Vermin (rats and mice)
<b>IGJ</b>	Infiltration gusher at (or from... to...) o'clock (at joint)	<b>WL</b>	Water level... % height/diameter
<b>IRJ</b>	Infiltration runner at (or from... to...) o'clock (at joint)	<b>X</b>	Sewer collapsed... % cross-sectional area loss
<b>ISJ</b>	Infiltration seeper at (or from... to...) o'clock (at joint)	<b>FH</b>	End of survey
<b>JDM</b>	Joint displaced medium		
<b>JDL</b>	Joint displaced large		

M/H: 1 Depth: 350mm



Chamber Dimension (mm):

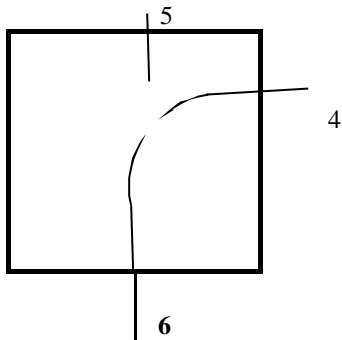
Depths of run if different to invert level:-

Run \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Manhole Condition

As built

M/H: 2 Depth: 775mm



Chamber Dimension (mm):

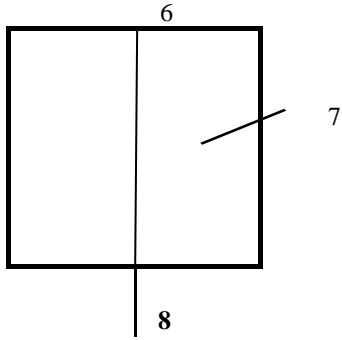
Depths of run if different to invert level:-

Run 5 500mm \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Manhole Condition

As built

M/H: 3 Depth: 1000mm



Chamber Dimension (mm):

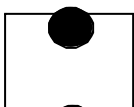
Depths of run if different to invert level:-

Run \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Manhole Condition

As built

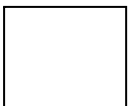
KEY....



Internal Back Drop



External Back Drop



Interceptor

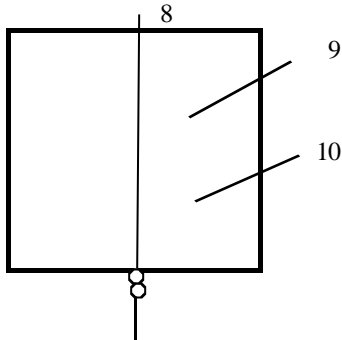
Water Pressure Test Results

From:

To:

Pass / Fail

M/H: 4 Depth: 1250mm



Chamber Dimension (mm):

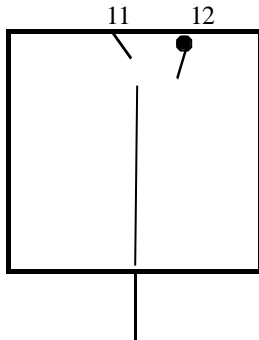
Depths of run if different to invert level:-

Run \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Manhole Condition

As built

M/H: 5 Depth: 850mm



Chamber Dimension (mm):

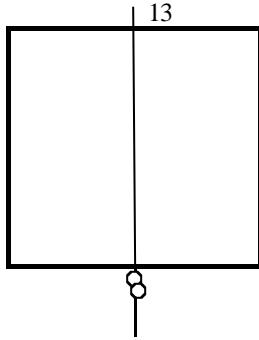
Depths of run if different to invert level:-

Run 11 300mm \_\_\_\_\_  
 12 500mm \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Manhole Condition

As built

M/H: 6 Depth: 3200mm



Chamber Dimension (mm):

Depths of run if different to invert level:-

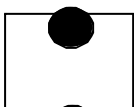
Run \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Manhole Condition

Poor

Blocked at interceptor

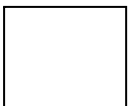
KEY....



Internal Back Drop



External Back Drop



Interceptor

Water Pressure Test Results

From:

To:

Pass / Fail