



**CCTV REPORT FOR: PENBRYN
GREEN STREET
HOXNE
EYE
IP21 5AX**

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ROOT IDENTIFICATION
LIMITATION OF REPORT

Site Visit: 24-May-23
Report Date: 20-Jun-23

The Drainage Repair Company Ltd | Office 6 | Unit 14/4 Station Road | Coleshill | Birmingham | B46 1HT

Telephone: 01530 272 349 **Email:** info@thedrainagerepaircompany.com

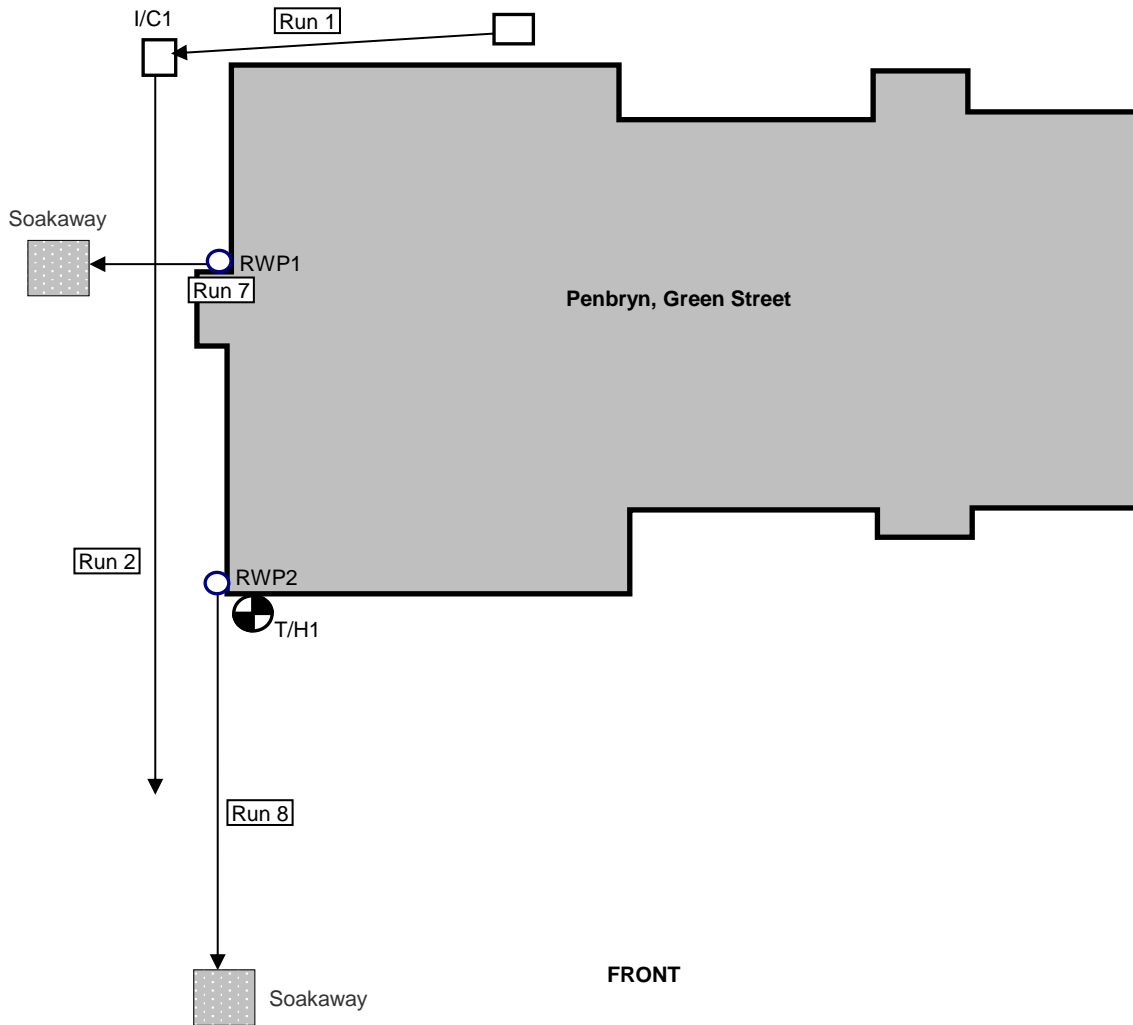
Registered in England & Wales Number: 08570351 | Registered Office: Bourne House, 475 Godstone Road, Whyteleafe, Surrey, CR3 0BL

www.thedrainagerepaircompany.com

Site Crew: DJ

Date: 24-May-23














Left hand side of property



(This plan is not to be scaled and is provided to illustrate general layout only)

General Comments:

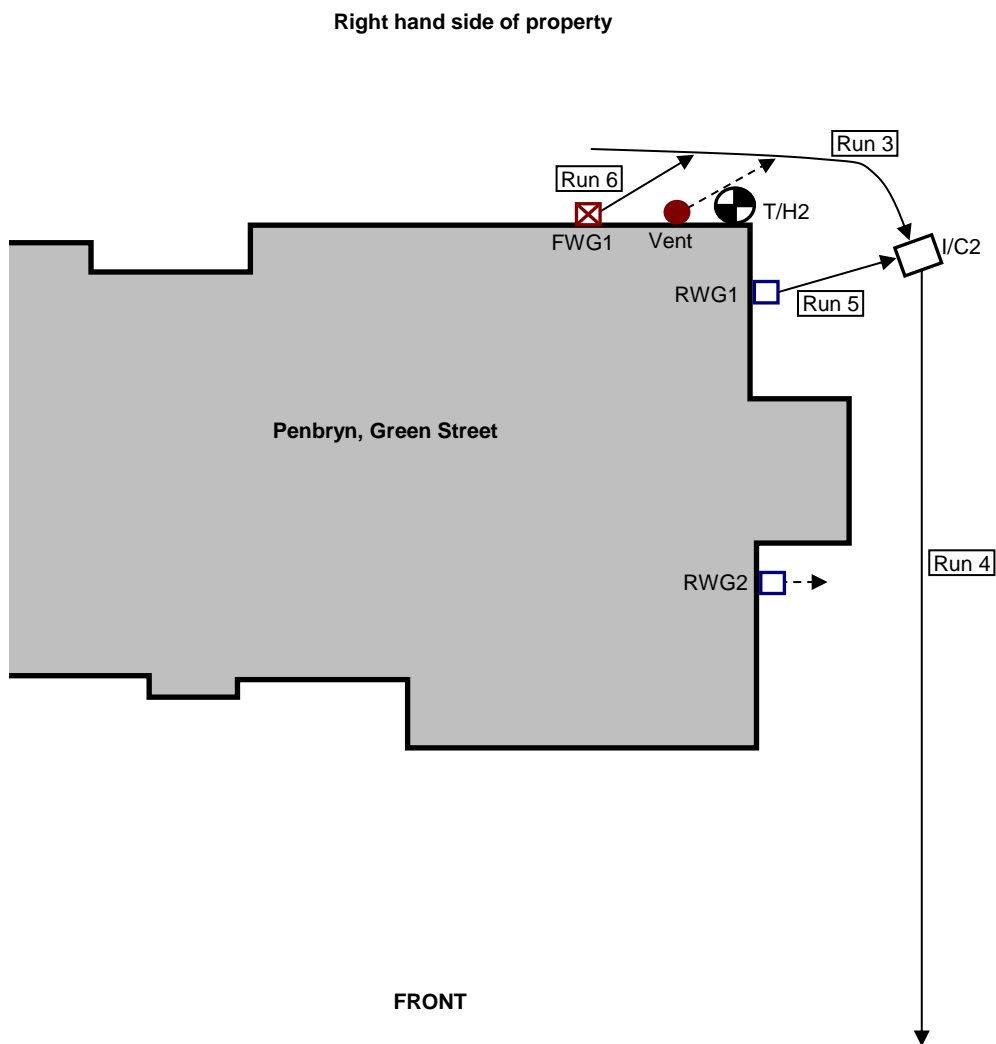
Note: Runs shown in red have been adopted by the local water authority.

Key:	 = Storm Gully	 = Storm Pipe	 = Foul Gully	 = W/C or Soil Pipe	 = Inspection Chamber
	 = Rodding Eye	 = Surveyed pipe indicating flow	 = Unsurveyed pipe		
	 = Exploratory Hole (hand dug pit and/or hand auger)	 = Boundary line			
	 = Hedges & Shrubs	 = Trees & bushes	 = Area of damage		

Address: **PENBRYN, GREEN STREET, HOXNE, EYE, IP21 5AX**

Site Crew: DJ

Date: 24-May-23



(This plan is not to be scaled and is provided to illustrate general layout only)

General Comments:

Note: Runs shown in red have been adopted by the local water authority.

- Key:**
- = Storm Gully
 - = Storm Pipe
 - = Foul Gully
 - = W/C or Soil Pipe
 - = Inspection Chamber
 - = Rodding Eye
 - = Surveyed pipe indicating flow
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 - + = Exploratory Hole (hand dug pit and/or hand auger)
 - = Boundary line
 - = Hedges & Shrubs
 - = Trees & bushes
 - = Area of damage

Address: **PENBRYN, GREEN STREET, HOXNE, EYE, IP21 5AX**



Drainage
Repair Company
CCTV SURVEY DETAILS

Site Crew: DJ Date: 24-May-23

RUN: 1 Pipe Dia. (mm): 100 System: Foul Water Made of: Pitch Fibre
From: I/C1 Inv (m): 0.30 Upstream To: Unknown Inv (m): -

Metres	Faults / Defects	Remarks
0.00		At I/C1
3.00	No Visible Defects	Past area of concern
		End of survey

RUN: 2 Pipe Dia. (mm): 100 System: Foul Water Made of: Glazed Clay
From: I/C1 Inv (m): 0.30 Downstream To: Unknown Inv (m): -

Metres	Faults / Defects	Remarks
0.00		At I/C1
0.50		Material changes to pitch fibre
12.50	Deformed Pipe 50%	Unable to proceed
		End of survey

RUN: 3 Pipe Dia. (mm): 100 System: Foul Water Made of: Glazed Clay
From: I/C2 Inv (m): 0.70 Upstream To: Unknown Inv (m): -

Metres	Faults / Defects	Remarks
0.00		At I/C2
0.90		Pipe bends left
1.90		Junction at 9 o'clock
2.80		Junction at 9 o'clock
5.00	No Visible Defects	Past area of concern
		End of survey

RUN: 4 Pipe Dia. (mm): 100 System: Foul & Storm Water Made of: Glazed Clay
From: I/C2 Inv (m): 0.70 Downstream To: Unknown Inv (m): -

Metres	Faults / Defects	Remarks
0.00		At I/C2
0.40	Displaced Joint Medium	
4.60	Displaced Joint Medium	
5.80	Root Ingress 10%	
11.00		Past area of concern
		End of survey

*Defects shown in **RED** relate to runs adopted by the Local Water Authority*

Address: **PENBRYN, GREEN STREET, HOXNE, EYE, IP21 5AX**



Drainage
Repair Company
CCTV SURVEY DETAILS

Site Crew: DJ Date: 24-May-23

RUN: 5 Pipe Dia. (mm): 100 System: Storm Water Made of: Plastic
From: I/C2 Inv (m): 0.70 Upstream To: RWG1 Inv (m): -

Metres	Faults / Defects	Remarks
0.00		At I/C2
1.60	No Visible Defects	At RWG1
		End of survey

RUN: 6 Pipe Dia. (mm): 100 System: Foul Water Made of: Plastic
From: FWG1 Inv (m): - Downstream To: Run 3 Inv (m): -

Metres	Faults / Defects	Remarks
0.00		At FWG1
0.80	No Visible Defects	At Run 3
		End of survey

RUN: 7 Pipe Dia. (mm): 100 System: Storm Water Made of: Glazed Clay
From: RWP1 Inv (m): - Downstream To: Soakaway Inv (m): -

Metres	Faults / Defects	Remarks
0.00		At RWP1
0.80	Displaced Joint Medium	
2.20		At Soakaway
		End of survey

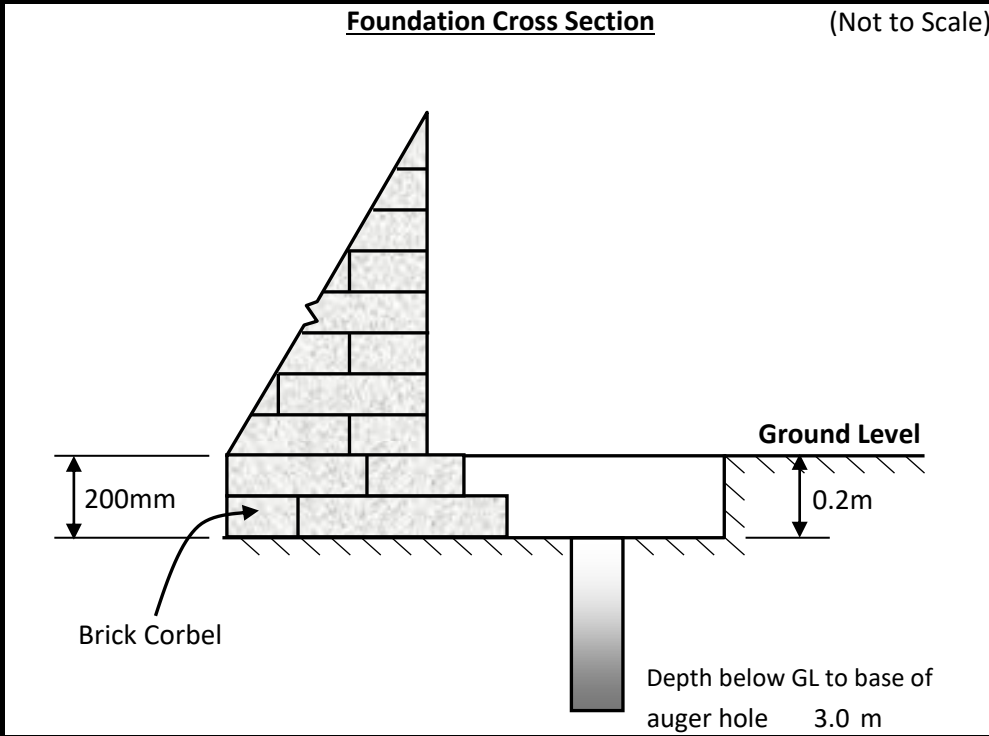
RUN: 8 Pipe Dia. (mm): 100 System: Storm Water Made of: Glazed Clay
From: RWP2 Inv (m): - Downstream To: Soakaway Inv (m): -

Metres	Faults / Defects	Remarks
0.00		At RWP2
0.80	Displaced Joint Medium	
2.40	Displaced Joint Medium	
5.00		At Soakaway
		End of survey

Defects shown in RED relate to runs adopted by the Local Water Authority

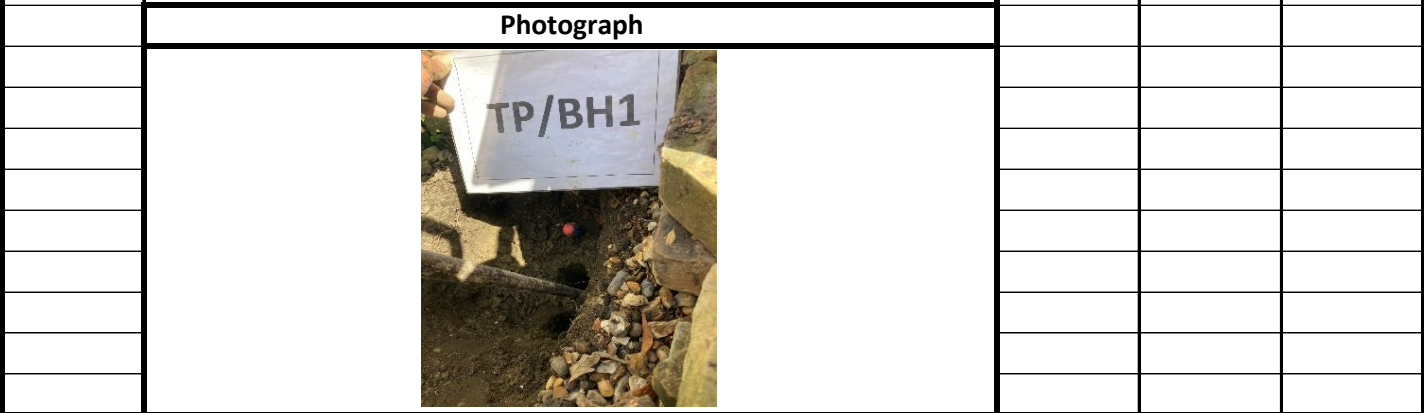
Address: PENBRYN, GREEN STREET, HOXNE, EYE, IP21 5AX

Location: Front left hand corner	T/H No. 1
Ground Surface: Dry	Weather: Dry
	Date: 24-May-23



Roots Depth & Diameter:
From 0.2m
Down to 0.8m
up to 1mm diameter
Water Depth Hit & Rise:
None observed on site
Reason for Termination:
Encountered obstruction
Layer of chalk

Depth (m)	Soil Descriptions <i>(NB: Field crew description only)</i>	Test Type	Depth (m)	
			From	To
G.L.				
0.20	Soft/firm grey/brown slightly sandy CLAY with some medium gravel (inc. chalk)	V(n) 74	0.200	
1.00	Firm/stiff grey/brown CLAY with some medium gravel (inc. chalk)	V(n) 88	1.000	
3.00	End of Borehole	V(n) 96	1.500	
		V(n) 99	2.000	
		V(n) 108	2.500	



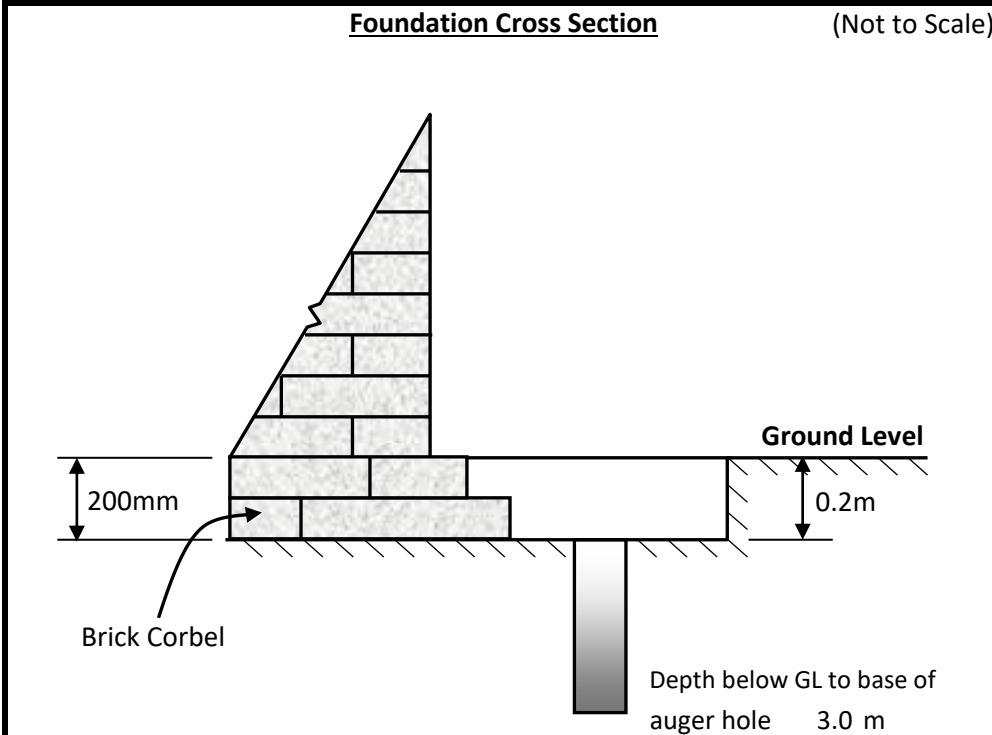
General Comments :

Stone / brick fill as foundation

Key: Mac=Macintosh Probe, V(n)=Natural Shear Vane, P.P. = Pocket Penetrometer

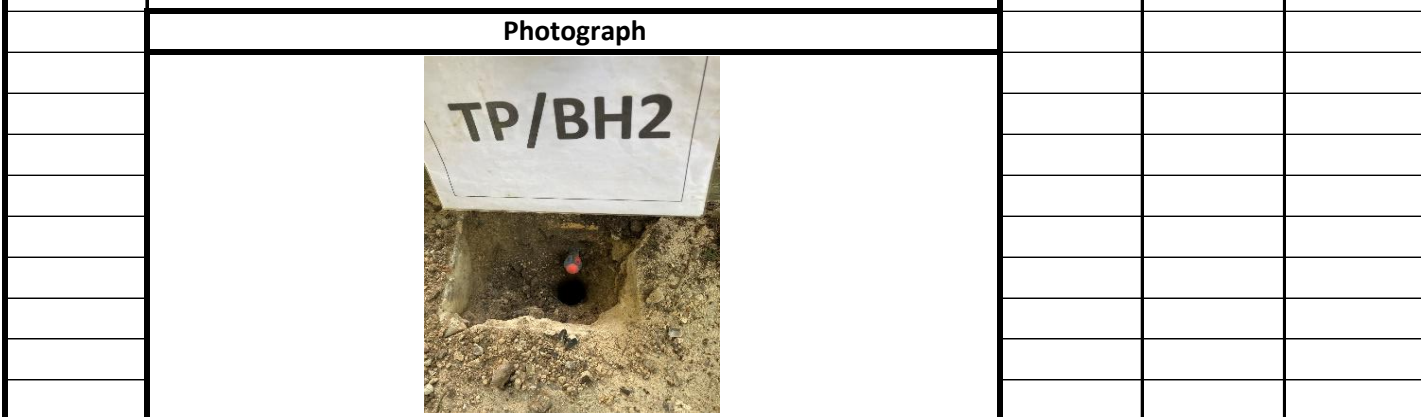
Address: **PENBRYN, GREEN STREET, HOXNE, EYE, IP21 5AX**

Location: Rear right hand corner	T/H No. 2
Ground Surface: Dry	Weather: Dry
	Date: 24-May-23



Roots Depth & Diameter:
From 0.2m
Down to 1.5m
up to 1mm diameter
Water Depth Hit & Rise:
None observed on site
Reason for Termination:
Encountered obstruction
Layer of chalk

Depth (m)	Soil Descriptions <i>(NB: Field crew description only)</i>	Test Type	Depth (m)	
			From	To
G.L.				
0.20	Soft/firm brown slightly sandy CLAY with some medium gravel (inc. brick & chalk)	V(n) 58	0.200	
1.00	Firm/stiff grey/brown slightly sandy CLAY with some medium gravel (inc. chalk)	V(n) 78	1.000	
1.50	Firm/stiff grey/brown CLAY with some medium gravel (inc. brick & chalk)	V(n) 84	1.500	
2.00	Firm/stiff grey/brown CLAY with some medium gravel (inc. chalk)	V(n) 98	2.000	
3.00	End of Borehole	V(n) 105	2.500	



General Comments :

Stone / brick fill as foundation

Key: Mac=Macintosh Probe, V(n)=Natural Shear Vane, P.P. = Pocket Penetrometer

Address: **PENBRYN, GREEN STREET, HOXNE, EYE, IP21 5AX**

EXECUTIVE SUMMARY

Brief:	The Drainage Repair Company Ltd were commissioned to undertake a CCTV survey / inspection of the drainage at the property.
Specific Area of Interest:	Left and right hand side
System Access:	Inspection chambers. FWG and RWG
Visual Survey:	RWG2 fully blocked
Water Pressure Test:	2 main supplies to the property. Both PASS

SUMMARY OF FINDINGS

Defects requiring repair:	Yes
Is any damaged section shared:	No
No. of properties sharing:	N/A
Age of property / system:	Unknown
Cause of damage:	N/A

GENERAL SUMMARY

The results of the CCTV / inspection survey to the underground drainage system at the above address are as follows:

Run 1 - Foul - Private:

No visible pipework defects.

Run 2 - Foul - Private:

Deformed pitch fibre, unable to pass

Run 3 - Foul - Private:

No visible pipework defects.

Run 4 - Combined Foul/Storm - Private:

Displaced joints and root ingress

Run 5 - Storm - Private:

No visible pipework defects.

Run 6 - Foul - Private:

No visible pipework defects.

Run 7 - Storm - Private:

Displaced joint

Run 8 - Storm - Private:

Displaced joints

RWG2:

Gully fully blocked, could not clear

RECOMMENDATIONS

We would recommend returning the system to a watertight condition by repairing the defects as follows:

Run 1:

No recommendations are required.

Run 2:

Trace to 12.5m downstream of chamber. Carry out an isolated excavation at this point and replace up to 1.0m pipework. Carry out high pressure water jetting as required and complete CCTV downstream. Report on end point and condition of pipework.

Run 3:

No recommendations are required.

Run 4:

Carry out high pressure water jetting to prepare pipework for lining. Install a structural liner from I/C2 downstream for 6.0m.

Run 5:

No recommendations are required.

Run 6:

No recommendations are required.

Run 7:

Excavate and replace rest bend to RWP allowing for up to 1.0m of pipework downstream

Run 8:

Excavate and replace rest bend to RWP allowing for up to 1.0m of pipework downstream
Carry out high pressure water jetting to prepare pipework for lining. Install a structural liner from repair downstream to soakaway

RWG2:

Excavate and replace RWG, install up to 3m pipework downstream to divert to Run 4. Install a new junction onto Run 4.

QUOTATION

Run 2:

- Drain trace to 12.5m downstream of chamber
- Excavate and replace up to 1.0m of pipework at this point
- Carry out high pressure water jetting
- Complete CCTV downstream
- Report on condition and end point of pipe
- Backfill excavation
- Reinststate surface
- Remove excavated spoil from site

Run 4:

- Carry out high pressure water jetting
- Install a structural liner from I/C2 for 6m

Run 7:

- Excavate and replace rest bend to RWP allowing for up to 1.0m of pipework downstream
- Backfill excavation
- Reinststate surface
- Remove excavated spoil from site

Run 8:

- Excavate and replace rest bend to RWP allowing for up to 1.0m of pipework downstream
- Carry out high pressure water jetting
- Install a structural liner from excavation to soakaway
- Backfill excavation, reinststate surface, remove spoil from site

QUOTATION - Continued

RWG2:

- Excavate and replace RWG
- Excavate and replace up to 3.0m of pipework downstream
- Install new junction to Run 4
- Divert RWG2 to join run 4
- Backfill excavation
- Reinstate surface
- Remove excavated spoil from site

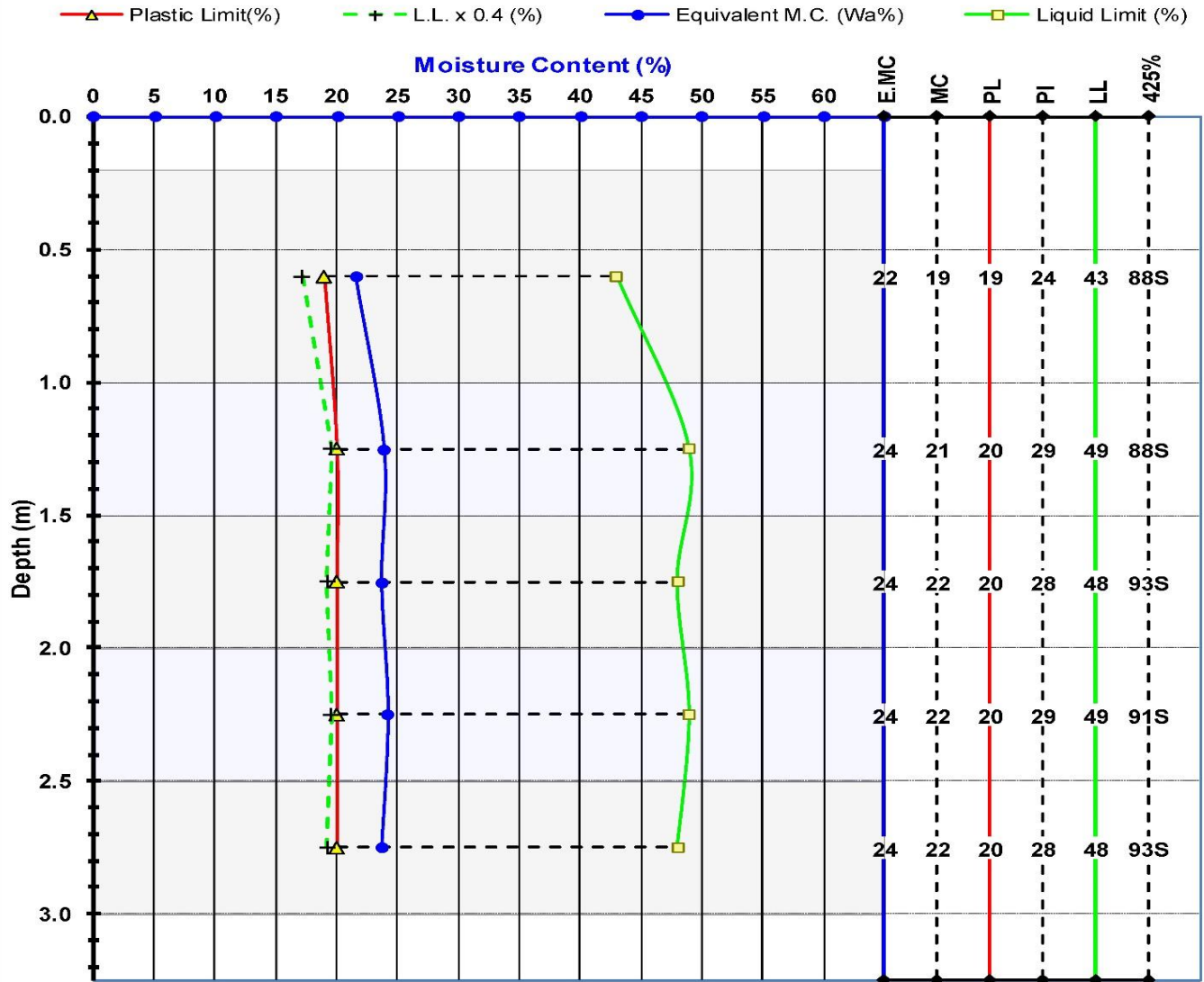






LABORATORY TESTING RESULTS

Depth T (m)	Depth B (m)	1 - Front LHC		Plasticity (BS 5930)	Volume Change (BRE 240)
		Brief Soil Description			
0.2	1	Soft/firm grey/brown slightly sandy CLAY with some medium gravel (inc. chalk)		Intmd. CI	21% Medium
1	1.5	Firm/stiff grey/brown CLAY with some medium gravel (inc. chalk)		Intmd. CI	26% Medium
1.5	2	Firm/stiff grey/brown CLAY with some medium gravel (inc. chalk)		Intmd. CI	26% Medium
2	2.5	Firm/stiff grey/brown CLAY with some medium gravel (inc. chalk)		Intmd. CI	26% Medium
2.5	3	Firm/stiff grey/brown CLAY with some medium gravel (inc. chalk)		Intmd. CI	26% Medium



Values in () above are extrapolated

Opinions and interpretations expressed in the chart above are outside the scope of UKAS accreditation.

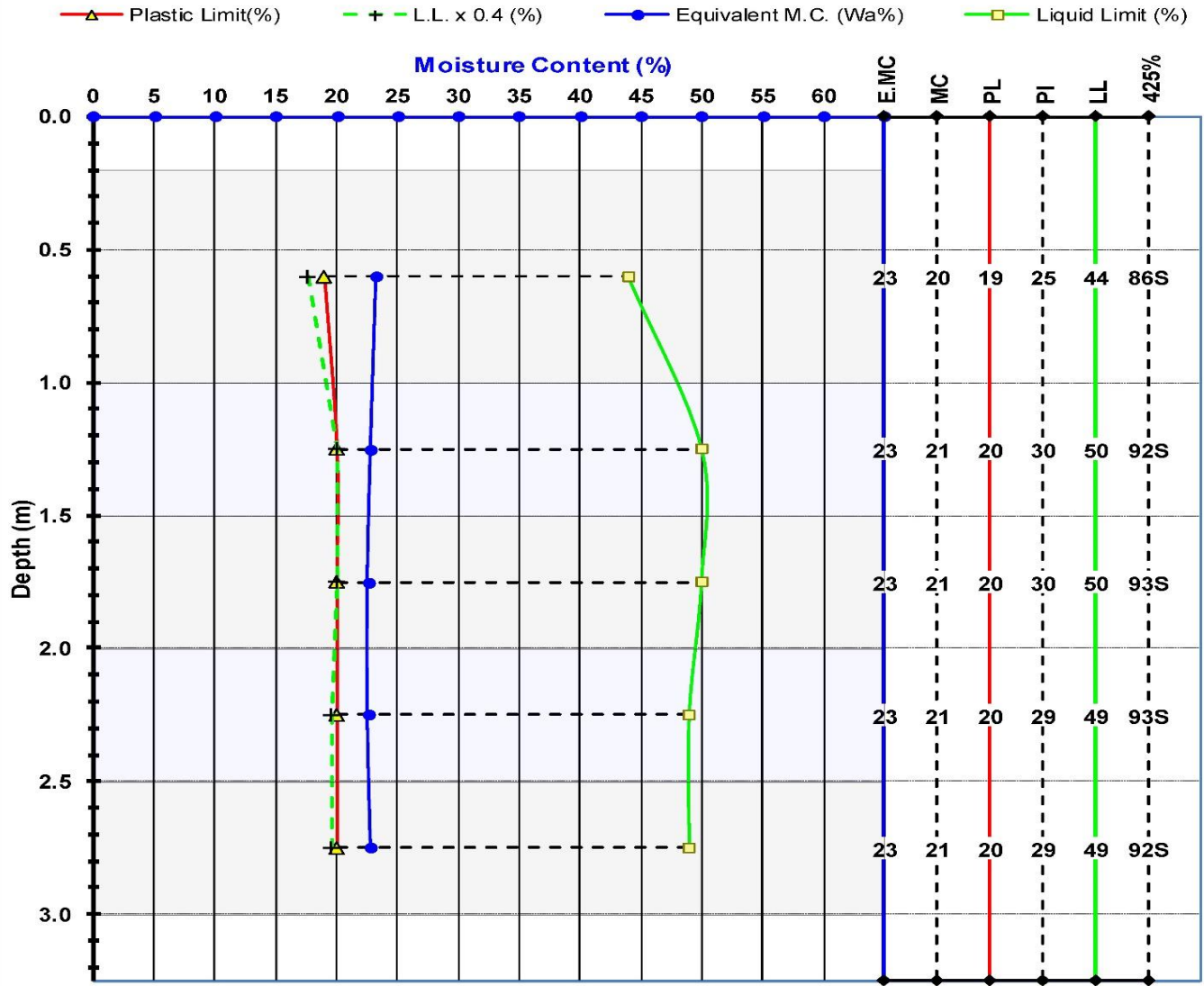
Key:
MC = Natural Moisture Content (%)
E.MC = Equivalent Moisture Content (%) = $MC \times 100 / 425\%$
M.PI = Modified Plasticity Index (%) = $PI \times 425\% / 100$
425% = Material passing the 425µm sieve (%) + (N = Natural or S = Sieved)
Notes: All samples received as Disturbed unless noted below in the comments.
 Samples prepared in accordance to BS1377:Part 1:1990 Section 7 & described in general accordance with BS5930:1999.
 Samples tested in accordance to BS1377:Part 2:1990 Section 3.2, 4.4 & 5.

PL = Plastic Limit (%)
PI = Plasticity Index (%) = $LL - PL$
LL = Liquid Limit (%)
LL x 0.4 = 40% of the LL (%)
NP = Non Plastic

Comments:

LABORATORY TESTING RESULTS

Depth T (m)	Depth B (m)	2 - Rear RHC		Plasticity (BS 5930)	Volume Change (BRE 240)
		Brief Soil Description			
0.2	1	Soft/firm brown slightly sandy CLAY with some medium gravel (inc. brick & chalk)		Intmd. CI	22% Medium
1	1.5	Firm/stiff grey/brown slightly sandy CLAY with some medium gravel (inc. chalk)		Intmd. CI	28% Medium
1.5	2	Firm/stiff grey/brown CLAY with some medium gravel (inc. brick & chalk)		Intmd. CI	28% Medium
2	2.5	Firm/stiff grey/brown CLAY with some medium gravel (inc. chalk)		Intmd. CI	27% Medium
2.5	3	Firm/stiff grey/brown CLAY with some medium gravel (inc. chalk)		Intmd. CI	27% Medium



Values in () above are extrapolated

Opinions and interpretations expressed in the chart above are outside the scope of UKAS accreditation.

Key:
MC = Natural Moisture Content (%)
E.MC = Equivalent Moisture Content (%) = $MC \times 100 / 425\%$
M.PI = Modified Plasticity Index (%) = $PI \times 425\% / 100$
425% = Material passing the 425µm sieve (%) + (N = Natural or S = Sieved)
Notes: All samples received as Disturbed unless noted below in the comments.
 Samples prepared in accordance to BS1377:Part 1:1990 Section 7 & described in general accordance with BS5930:1999.
 Samples tested in accordance to BS1377:Part 2:1990 Section 3.2, 4.4 & 5.

PL = Plastic Limit (%)
PI = Plasticity Index (%) = $LL - PL$
LL = Liquid Limit (%)
LL x 0.4 = 40% of the LL (%)
NP = Non Plastic

Comments:



Root identification
Vegetation surveys
Tree/Building investigations
Plant taxonomy

Richardson's Botanical Identifications

The Drainage Repair Company
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BSc, MSc, PhD, MRSB, FLS
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Reading
RG6 7BB

Tel: (0118) 986 9552 *(Direct line)*
E-mail: richardsons@botanical.net
Web: www.botanical.net

Your ref: **Root ID**

Our ref: **86/9010**

18/06/2023

Dear Sirs

Penbryn, Green Street IP21 5AX

The samples you sent in relation to the above on 31/05/2023 have been examined. Their structures were referable as follows:

TP/BH1, 0.2-0.8m		
3 no.	Examined root: the family Rosaceae, subfamily POMOIDEAE (a group of closely related trees: Malus (Apple), Pyrus (Pear), Crataegus (Hawthorn), Sorbus (Rowan, Whitebeam, Service tree), Mespilus (Medlar), and some shrubs (Pyracantha (Firethorn), Chaenomeles (Japonica), Cydonia (Quince), Amelanchier, Cotoneaster)).	Dead*.
2 no.	Examined root: PRUNUS (Cherries, Plums and Damsons, Almonds, Peaches and Apricots, Blackthorn/Sloe, as well as the shrubby Cherry-laurel and Portugal-laurel).	Alive, recently*.
1 no.	A piece of BARK only, insufficient material for identification.	
1 no.	Microscopic examination showed insufficient cells for recognition.	
TP/BH2, 0.2-1.5m		
3 no.	Examined root: FAGUS (Beech).	Alive, recently*.
2 no.	Examined root: QUERCUS (Oak).	Alive, recently*.
2 no.	Both samples revealed too few cells for microscopic identification.	

Click here for more information: [FAGUS](#) [POMOIDEAE](#) [PRUNUS](#) [QUERCUS](#)

I trust this is of help. Please call us if you have any queries; our Invoice is enclosed.

Yours faithfully



Dr Ian B K Richardson

* Based mainly on the Iodine test for starch. Starch is present in some cells of a living woody root, but is more or less rapidly broken down by soil micro-organisms on death of the root, sometimes before decay is evident. This result need not reflect the state of the parent tree.

** Try out our web site on www.botanical.net **

Identified with no information on vegetation, on or off site.

Report commissioned by



Address: PENBRYN, GREEN STREET, HOXNE, EYE, IP21 5AX

We were commissioned to carry out an inspection of the accessible areas of the drainage to the property, identifying any major defects and recommending any repair works that may be necessary. It should be appreciated that the exact layout of the system cannot be confirmed without the exposure of inaccessible branches and connections etc.

The lack of any significant defects within the main drainage line should not be regarded as a guarantee of water tightness. Defects may be encountered upon exposure of inaccessible branches and gullies etc.

The contents of this report are strictly confined to comments concerning those terms outlined above. It is not a structural survey and must not be construed as such.

The views expressed in this report are based entirely upon a visual examination of the drainage, supported by information obtained from a CCTV inspection / water pressure test.