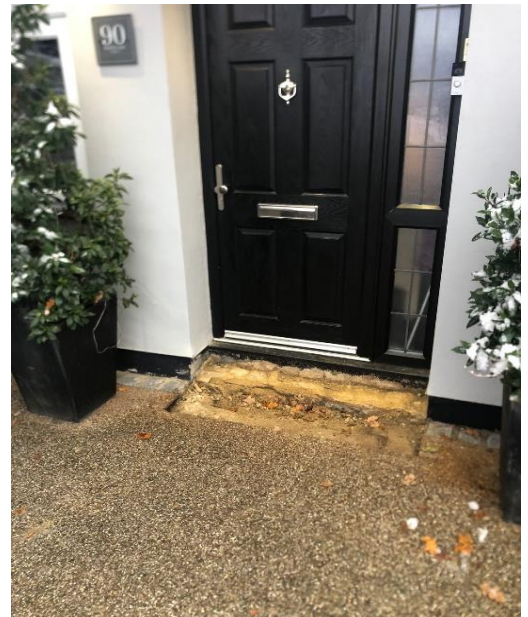


**CCTV REPORT FOR: 90 HAYES LANE  
BECKENHAM  
KENT  
BR3 6SP**

**CONTENTS:** SITE LAYOUT  
CCTV SURVEY DETAILS  
FOUNDATION RECORD  
INVESTIGATION SUMMARY  
RECOMMENDATIONS  
QUOTATION  
PHOTOGRAPHS  
LABORATORY TESTING RESULTS  
ROOT IDENTIFICATION  
LIMITATION OF REPORT



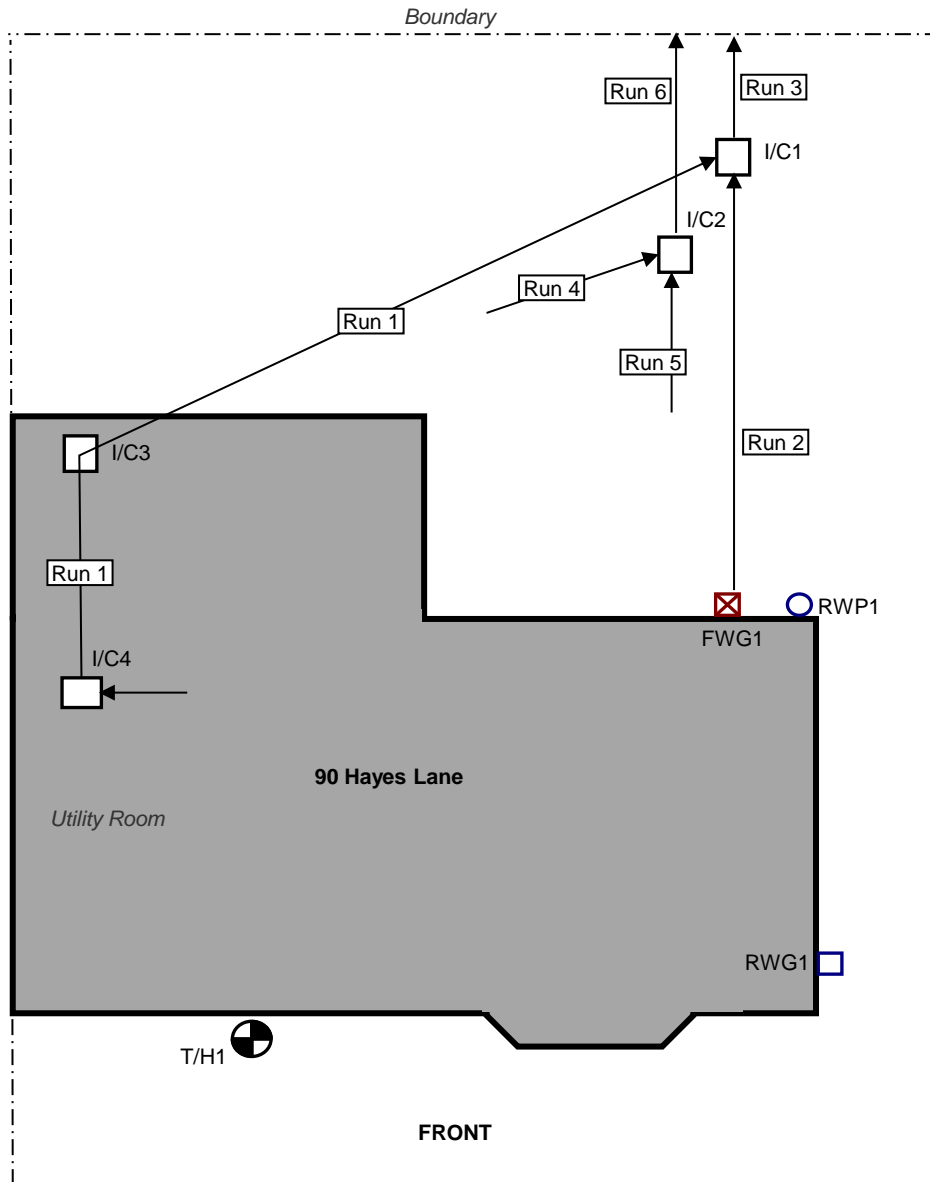
**Client:** 360GlobalNet  
Regus House  
Herald Way  
Pegasus Business Park  
Castle Donington  
DE74 2TZ

**Insured:** Mrs Caroline Millard  
**Reference:** DLG-SN-22-004722

**Site Visit:** 12-Dec-22  
**Report Date:** 13-Mar-23

Site Crew: TLR

Date: 12-Dec-22



*(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: 90 HAYES LANE, BECKENHAM, KENT, BR3 6SP**



**Drainage**  
Repair Company  
**CCTV SURVEY DETAILS**

Site Crew: TLR Date: 12-Dec-22

<b>RUN: 1</b>	<b>Pipe Dia. (mm):</b> 100	<b>System:</b> Foul Water	<b>Made of:</b> Pitch Fibre
<b>From:</b> I/C1	<b>Inv (m):</b> 0.70	Upstream	<b>To:</b> Survey abandoned <b>Inv (m):</b> -
Metres	Faults / Defects	Remarks	
0.00		IC1	
9.35		Line left	
10.07		IC3	
14.02		IC4	
14.90		Line left	
15.00	Displaced Joint Large		
15.00		Survey abandoned.	
		End of survey	

<b>RUN: 2</b>	<b>Pipe Dia. (mm):</b> 100	<b>System:</b> Foul Water	<b>Made of:</b> Glazed Clay
<b>From:</b> I/C1	<b>Inv (m):</b> 0.70	Upstream	<b>To:</b> FWG1 <b>Inv (m):</b> -
Metres	Faults / Defects	Remarks	
0.00		IC1	
0.10	Displaced Joint Large		
0.10	Root Ingress		
0.10		Material change to liner	
6.10		FWG	
		End of survey	

<b>RUN: 3</b>	<b>Pipe Dia. (mm):</b> 100	<b>System:</b> Foul Water	<b>Made of:</b> Lined Clay
<b>From:</b> I/C1	<b>Inv (m):</b> 0.70	Downstream	<b>To:</b> Boundary <b>Inv (m):</b> -
Metres	Faults / Defects	Remarks	
0.00		IC1	
2.17	No Visible Defects	Boundary	
		End of survey	

<b>RUN: 4</b>	<b>Pipe Dia. (mm):</b> 100	<b>System:</b> Storm Water	<b>Made of:</b> Glazed Clay
<b>From:</b> I/C2	<b>Inv (m):</b> 0.50	Upstream	<b>To:</b> Unknown <b>Inv (m):</b> -
Metres	Faults / Defects	Remarks	
0.00		IC2	
3.54	Displaced Joint Medium		
3.84	Blockage	Unable to proceed	
		End of survey	

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

Address: **90 HAYES LANE, BECKENHAM, KENT, BR3 6SP**

Site Crew: TLR Date: 12-Dec-22

**RUN: 5** Pipe Dia. (mm): 100 System: Storm Water Made of: Lined Clay  
From: I/C2 Inv (m): 0.50 Upstream To: Unknown Inv (m): -

Metres	Faults / Defects	Remarks
0.00		IC2
0.18		Camera under Water
1.08	Blockage	Unable to proceed
		End of survey

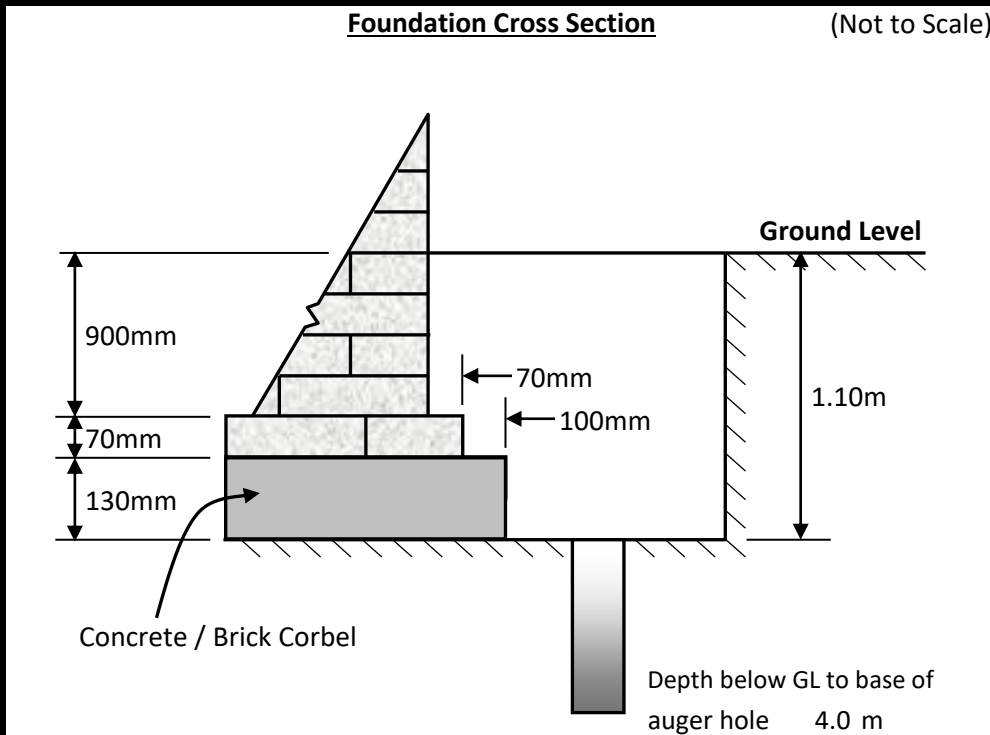
**RUN: 6** Pipe Dia. (mm): 75 System: Storm Water Made of: Lined Clay  
From: I/C2 Inv (m): 0.50 Downstream To: Boundary Inv (m): -

Metres	Faults / Defects	Remarks
0.00		IC2
1.08	Root Ingress	
3.01		Boundary
		End of survey

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

Address: **90 HAYES LANE, BECKENHAM, KENT, BR3 6SP**

Location: <b>Front of house</b>	T/H No. <b>1</b>
Ground Surface: <b>Wet</b>	Weather: <b>Dry</b>
	Date: <b>12-Dec-22</b>



Roots Depth & Diameter:

From 1.1m

Down to 1.5m

up to 1mm diameter

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Water Depth Hit & Rise:

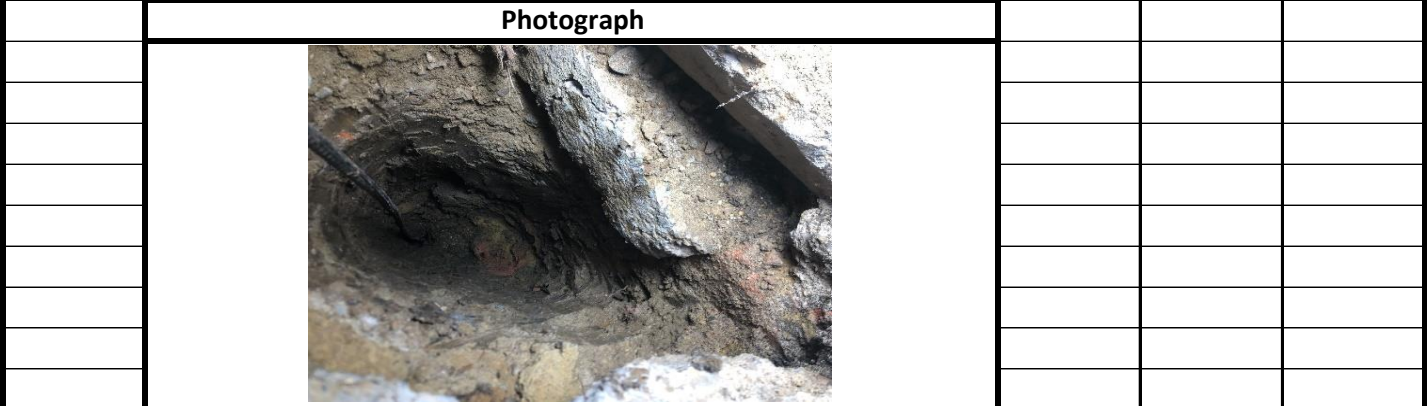
Hit at 1.1m

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Reason for Termination :

Hole at instructed depth

Depth (m)	Soil Descriptions <i>(NB: Field crew description only)</i>	Test Type	Depth (m)	
			From	To
G.L.				
1.10	Soft/firm brown CLAY with rare medium gravel	P.P. 2.5	1.100	
1.50	Firm brown CLAY with rare medium gravel	P.P. 3.0	1.500	
2.00	Soft/firm brown CLAY with rare medium gravel	P.P. 3.0	2.000	
2.50	Firm brown CLAY with rare medium gravel	P.P. 3.5	2.500	
4.00	End of Borehole	P.P. 4.0	3.000	
		P.P. 4.0	3.500	
		P.P. 4.0	4.000	



General Comments :

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

Address: **90 HAYES LANE, BECKENHAM, KENT, BR3 6SP**

**EXECUTIVE SUMMARY**

<b>Brief:</b>	The Drainage Repair Company Ltd were commissioned to undertake a CCTV survey / inspection of the drainage at the property.
<b>Specific Area of Interest:</b>	Accessible drainage at the property.
<b>System Access:</b>	Inspection chambers in rear garden.
<b>Visual Survey:</b>	N/A
<b>Water Pressure Test:</b>	Acoustic testing, Passed.

**SUMMARY OF FINDINGS**

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

Large displaced joint

**Run 2 - Foul - Private:**

Large displaced joint and root ingress

**Run 3 - Foul - Private:**

No visible pipework defects.

**Run 4 - Storm - Private:**

Medium displaced joint and blockage, unable to clear

**Run 5 - Storm - Private:**

Blockage, unable to clear

**Run 6 - Storm - Private:**

Root ingress

**RECOMMENDATIONS**

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

**Run 1:**

To complete a drain trace to locate the point of abandonment of the CCTV survey. Once located complete a survey to determine repairs and enabling needed

**Run 2:**

Remove root ingress and install 1m x 100mm patch liner to cover the defect.

**Run 3:**

No further recommendations required.

**Run 4 & Run 5:**

Complete extensive high pressure water Jetting to remove the debris from both runs upstream.  
Complete a further CCTV survey reporting the findings from site

**Run 6:**

Remove root ingress and install 1m x 100mm patch liner to cover the defect.



**QUOTATION**

**Run 1:**

- To complete a drain trace to ascertain the recommendations/enabling for the required repair

Total ex.VAT	<b>£153.73</b>
VAT	<b>£30.75</b>
Total inc.VAT	<b>£184.48</b>

**Run 2:**

- Complete root cutting to prepare the run for lining.
- Install 1m x 100mm patch liner to return the run to a serviceable condition.

Total ex.VAT	<b>£417.50</b>
VAT	<b>£83.50</b>
Total inc.VAT	<b>£501.00</b>

**Run 4 & Run 5:**

- Complete extensive high pressure water Jetting and a further CCTV survey.
- Report the findings from site

Total ex.VAT	<b>£208.42</b>
VAT	<b>£41.68</b>
Total inc.VAT	<b>£250.10</b>

**Run 6:**

- Complete root cutting to prepare the run for lining.
- Install 1m x 100mm patch liner to return the run to a serviceable condition.

Total ex.VAT	<b>£417.50</b>
VAT	<b>£83.50</b>
Total inc.VAT	<b>£501.00</b>

Grand Total - All Works ex.VAT	<b>£1,197.15</b>
VAT	<b>£239.43</b>
Grand Total - All Works inc.VAT	<b>£1,436.58</b>



IC1



IC2



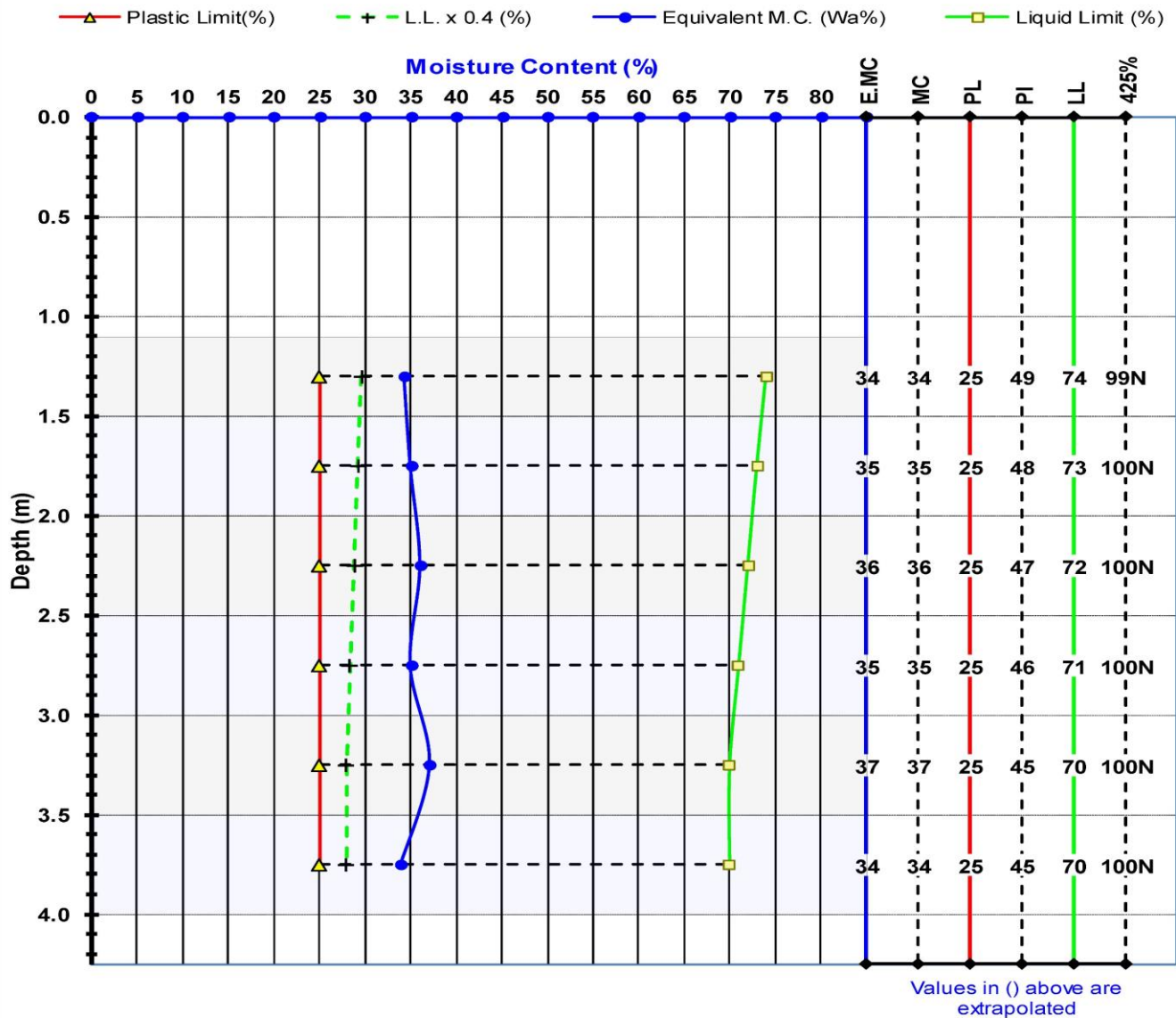
Reinstatement



TH1

## LABORATORY TESTING RESULTS

Depth T (m)	Depth B (m)	1 - Front of house (doorway)	Plasticity (BS 5930)	Volume Change (BRE 240)	
		Brief Soil Description			
1.1	1.5	Soft/firm brown CLAY with rare medium gravel	V. high CV	49%	High
1.5	2	Firm brown CLAY with rare medium gravel	V. high CV	48%	High
2	2.5	Soft/firm brown CLAY with rare medium gravel	V. high CV	47%	High
2.5	3	Firm brown CLAY with rare medium gravel	V. high CV	46%	High
3	3.5	Firm brown CLAY with rare medium gravel	High CH	45%	High
3.5	4	Firm brown CLAY with rare medium gravel	High CH	45%	High



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.

**Comments:**

**PL** = Plastic Limit (%)

**PI** = Plasticity Index (%) =  $LL - PL$

**LL** = Liquid Limit (%)

**LL x 0.4** = 40% of the LL (%)

**NP** = Non Plastic



Root identification  
Vegetation surveys  
Tree/Building investigations  
Plant taxonomy

# Richardson's Botanical Identifications

**The Drainage Repair Company**  
**Suite 15, Leatherline House**  
**71 Narrow Lane**  
**AYLESTONE**  
**Leicester LE2 8NA**

**Dr Ian B K Richardson**  
*BSc, MSc, PhD, MRSB, FLS*  
**James Richardson**  
*BSc (Hons. Biology)*

**Enterprise House**  
**49-51 Whiteknights Road**  
**Reading**  
**RG6 7BB**

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

*Your ref:* **Root ID**

*Our ref:* **85/1607**

15/01/2023

Dear Lisa

**90 Hayes Lane BR3 6SP**

The samples you sent in relation to the above on 14/12/2022 have been examined. Their structures were referable as follows:

TP/BH1, 1.10-1.50m		
5 no.	Examined root: QUERCUS (Oak) or the related CASTANEA (Sweet Chestnut). This was a very IMMATURE sample.	Alive, recently*.
1 no.	Examined root: the family Rosaceae, EITHER the 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)) OR [the related] PRUNUS (Cherries, Plums and Damsons, Almonds, Peaches and Apricots, Blackthorn/Sloe, as well as the shrubby Cherry-laurel and Portugal-laurel). NO BARK; also in POOR condition.	Dead*.
9 no.	Unfortunately all with insufficient cells for identification.	

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

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

Yours sincerely



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](http://www.botanical.net) \*\*

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

Report commissioned by



**Address: 90 HAYES LANE, BECKENHAM, KENT, BR3 6SP**

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.