Geo Technical Report

Drainage Report

Client Name: Smithers Purslow

Risk Address:
27 High Street,
Barford
CV35 8BU

Circumstances:
Following your request, we attended site to undertake a site investigation comprising of a CCTV survey of the drainage system and trial hole / boreholes.

Description of property:
Detached Property

Area of Concern Location:
To the right hand side of the property (Single story extension to rear of garage)

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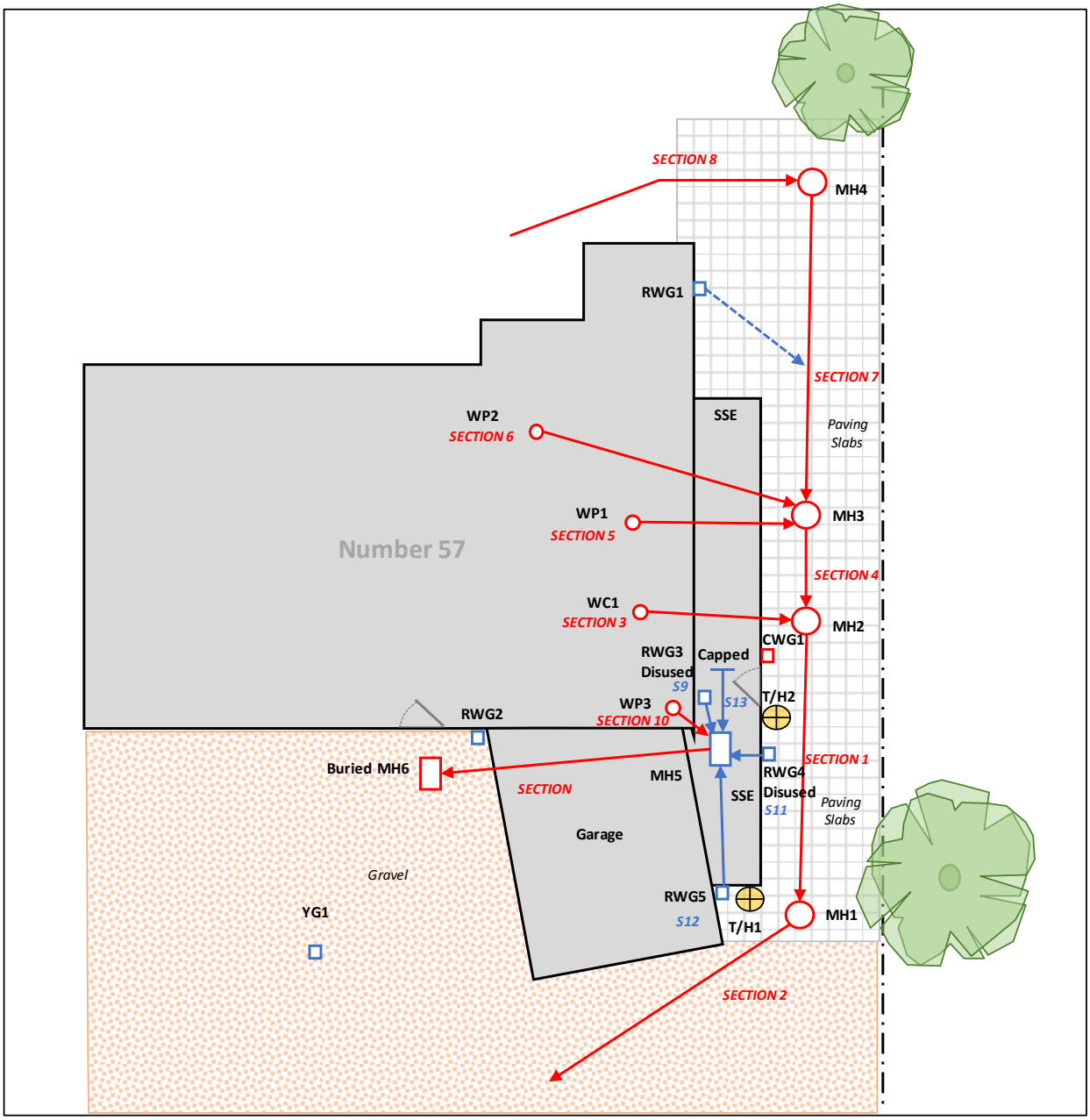
Consul Road, Rugby
CV21 1PB

Site Plan



KEY

- Building
- Greenhouse
- Shed
- WC
- Water-Butt
- Soakaway
- Trial Hole / Borehole
- Road Gully
- ACO Channel
- Wall
- Foul Water Gully (FWG)
- Combined Water Gully (CWG)
- Rain Water Gully (RWG)
- Foul Manhole
- Storm Manhole
- Soil & Vent Pipe (SVP)
- Rainwater Pipe (RWP)
- Syphon / Buchan Trap
- Foul Drain
- Foul Drain (Unsurveyed)
- Storm Drain
- Storm Drain (Unsurveyed)
- Rodding Eye
- Concealed / Buried Manhole
- Septic Tank
- Water Supply
- ISV / ESV / Tap
- Boundary
- Area of Concern
- Proposed Build Area
- Red Tarmac
- Crazy Paving
- Gravel / Stone
- Tree
- Shrubs
- Bush
- Block Paving
- Pond
- Grass
- Paving Slabs
- Concrete
- Flower Bed / Soil

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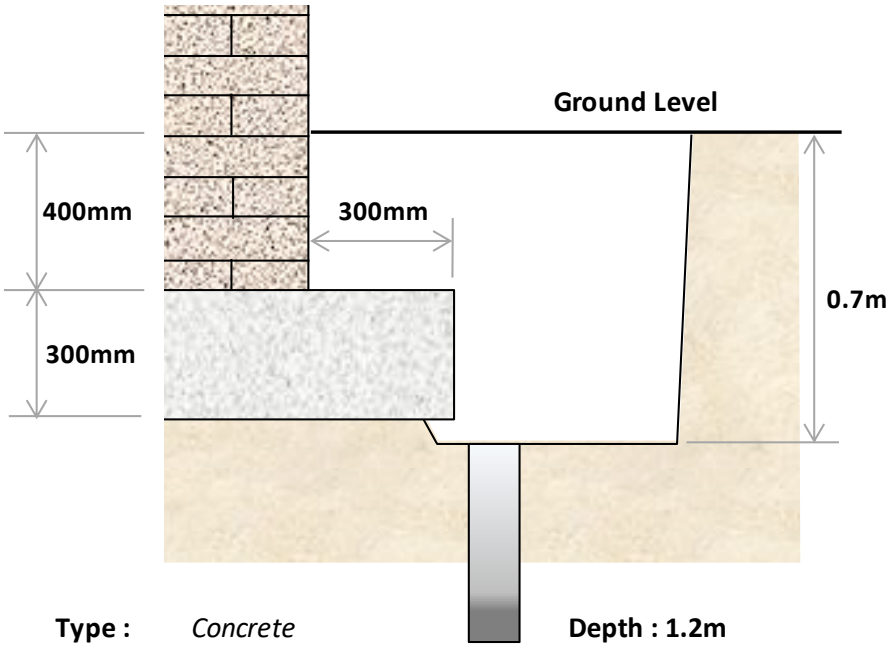
Consul Road, Rugby
CV21 1PB

Trail and Borehole Logs

Foundation Profile

Location:	See site plan			T/H Number:	1
Weather:	Damp	Surface:	Paving Slabs		

Cross Section Drawing



Type : *Concrete*
Underpin : *No*
Depth : 1.2m

Roots Depth Found
None

Root Diameter
N/a

Water Hit Depth
None

Reason for Termination
Dessicated Soil

Notes
BH temrinated at 1.2m due to desiccated soils

Depth	Soil Discription	Insitu Testing	
Ground Level			
0.70	Firm, Very Dry, Brown, Slightly Gravelly, Sandy CLAY	SV	56
1.20	Borehole Terminated		

Unit 5D, West Midlands Trading Estate
Consul Road, Rugby
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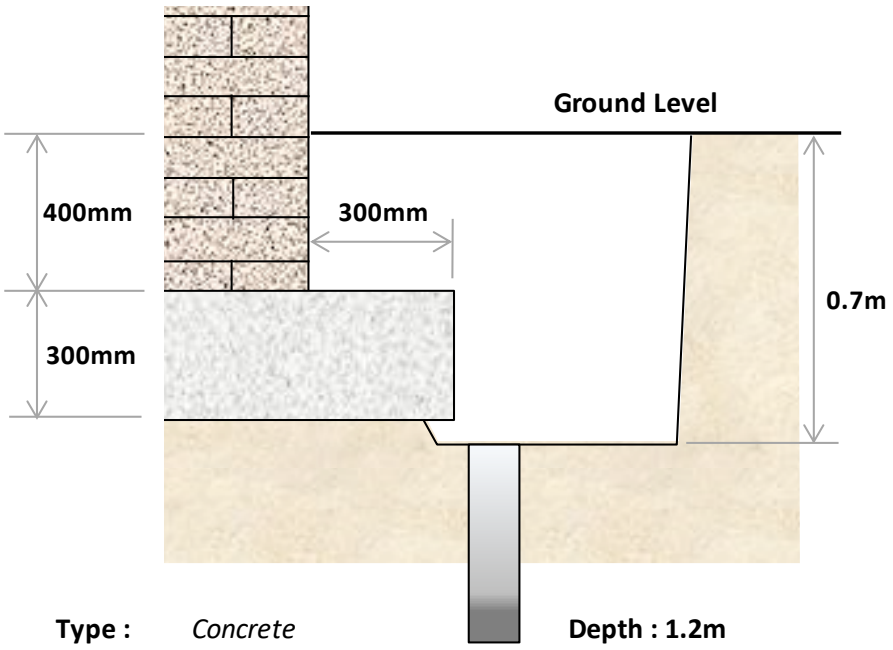
Trail and Borehole Logs

Foundation Profile

Location:	See site plan			T/H Number:	2
Weather:	Damp	Surface:	Paving Slabs		

Cross Section Drawing



Type : *Concrete*
Underpin : *No*
Depth : 1.2m

Roots Depth Found
1.2m

Root Diameter
3mm

Water Hit Depth
None

Reason for Termination
Dessicated Soil

Notes
BH temrinated at 1.2m due to desiccated soils

Depth	Soil Discription	Insitu Testing	
Ground Level			
0.70	Firm, Very Dry, Brown, Slightly Gravelly, Sandy CLAY	SV	59
1.20	End of Borehole		

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH/TH1			0.70	1.20	Reddish brown slightly gravelly sandy CLAY.
BH/TH2			0.70	1.20	Reddish brown slightly gravelly sandy CLAY.

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

27 High Street, Barford, CV35 8BU

Contract No: PSL23/10633

Client Ref:

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m^3 Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
BH/TH1			0.70	1.20	28			55	25	30	97	High Plasticity CH
BH/TH2			0.70	1.20	24			50	24	26	93	High Plasticity CH

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

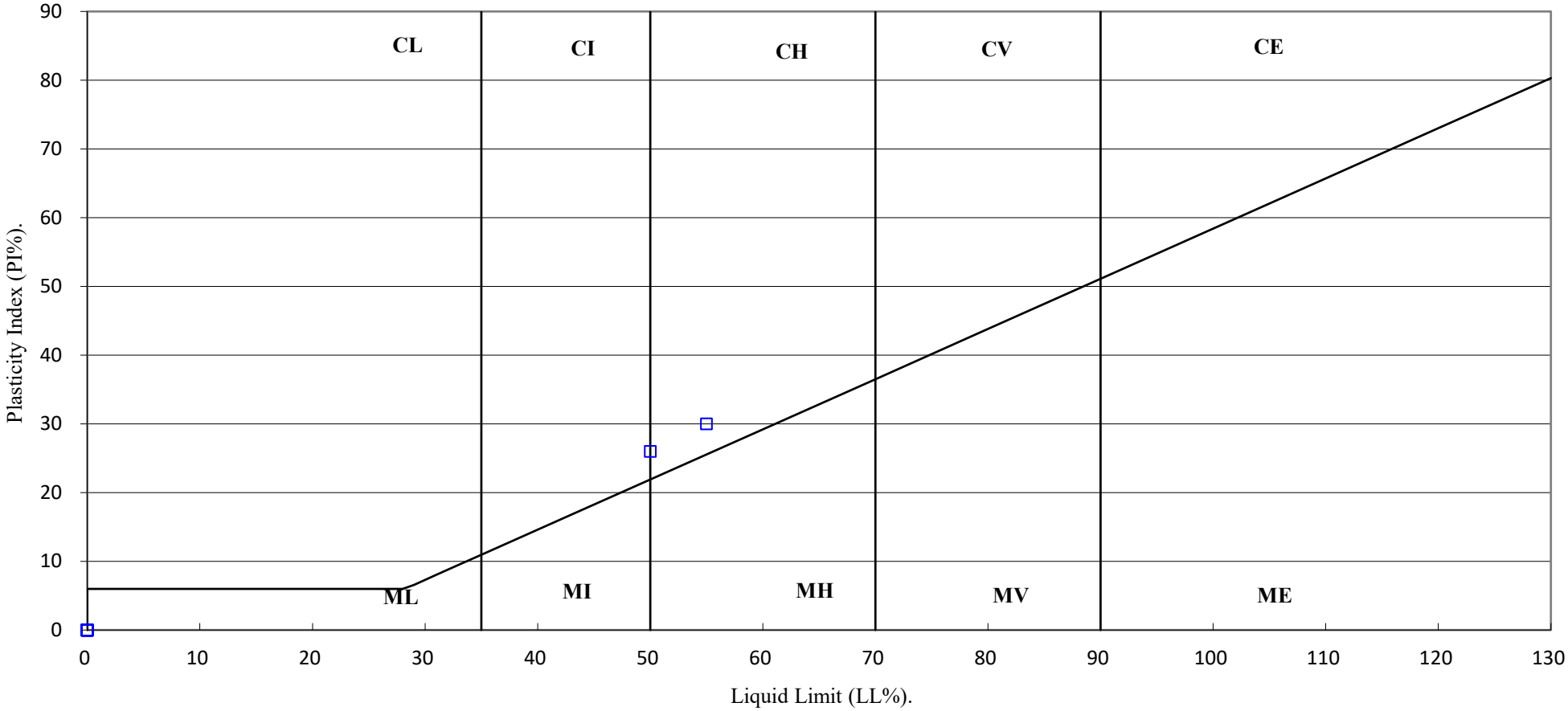
27 High Street, Barford, CV35 8BU

Contract No:

PSL23/10633

Client Ref:

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

27 High Street, Barford, CV35 8BU

Contract No:
PSL23/10633
Client Ref:

Richardson's Botanical Identifications

Root identification
Vegetation surveys
Tree/Building investigations
Plant taxonomy

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

Smart Drain UK
5 Fellows Way
HILLMORTON
Rugby
CV21 4JP

Your ref: -

Our ref: 87/9413

16/01/2024

Dear Sirs

27 High Street, Barford, Warwick CV35 8BV

The samples you sent in relation to the above on 22/12/2023 have been examined. Their structures were referable as follows:

TP/BH2, 0.7-1.2m	
3 no.	Examined root: a conifer - particularly like the family CUPRESSACEAE (cypresses ('macrocarpa', 'Leylandii' etc.), Thuja (Western Red Cedar), Junipers).
3 no.	Examined root: a THIN sample, with NO BARK. Could be 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).
15 no.	Unfortunately all with insufficient cells for identification.

Click here for more information: CUPRESSACEAE POMOIDEAE PRUNUS

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

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

Unit 5D, West Midlands Trading Estate
Consul Road, Rugby
CV21 1PB

Drainage Summary

Drainage Description:
Foul and combined drainage comprised of 100mm uPVC pipework

YG1 on the driveway is blocked but beyond the area of influence.

Manhole Condition:
MH1 is a UPVC chamber and was found to be in a good condition.
MH2 is a UPVC chamber and was found to be in a good condition.
MH3 is a UPVC chamber and was found to be in a good condition.
MH4 is a UPVC chamber and was found to be in a good condition.
MH5 is a Brick Built chamber and was found to be in a good condition.
MH6 is a Brick Built Chamber and is buried below the driveway.

Drainage Sections Shared:
No – All drainage was found to be privately owned.

CCTV Section Overview and recommendations

The CCTV survey was undertaken in general accordance with the Manual of Sewer Classification and the WRc Drain Repair Book.

The following presents a summary of the findings with recommendations to repair and/or return the necessary private drains to a serviceable state, where necessary.

SECTION 9: MH5 Upstream to RWG3 (REDUNDANT)
Pipe Diameter: 100mm
Pipe Material: Clay
Responsibility: Private
CCTV Survey Result: The survey revealed the drain to be redundant
Section Location: Internal
Repair Recommendations:

1. Capped off drain using concrete from within MH5

Cost of Recommendation: £240.00 + Vat (Including Section 11 and section13)

SECTION 10: MH5 Upstream to WP3
Pipe Diameter: 100mm
Pipe Material: Clay
Responsibility: Private
CCTV Survey Result: The survey revealed a crack at 0.23m.
Section Location: Internal
Repair Recommendations:

1. Prepare the drain for lining.
2. Install CIPP liner to seal defect at 0.23m

Cost of Recommendation: £444.00 + Vat

SECTION 11: MH5 Upstream to RWG3
Pipe Diameter: 100mm
Pipe Material: Clay
Responsibility: Private
CCTV Survey Result: The survey revealed roots within the drain and water level. Although water level is present, the drain is suspected to be disused.
Section Location: Internal
Repair Recommendations:

1. Carry out high pressure jetting to remove root mass.
2. Perform further CCTV to confirm if drain is redundant.
3. If found to be redundant including report lateral junction, cap off with concrete within MH5.

Cost of Recommendation: see section9

SECTION 13: MH5 Upstream to Capped end (REDUNDANT)
Pipe Diameter: 100mm
Pipe Material: Clay
Responsibility: Private
CCTV Survey Result: The survey revealed the drain to be redundant .
Section Location: Internal
Repair Recommendations:

3. Capped off drain using concrete from within MH5

Cost of Recommendation: see section9

SECTION 14: MH5 Downstream to Buried MH6
Pipe Diameter: 100mm
Pipe Material: Clay
Responsibility: Private
CCTV Survey Result: The survey joint displacements, root ingress and fractures. There is a junction present at 4.9m which is suspected to be disused.
Section Location: Internal
Repair Recommendations:

1. Prepare the drain for lining including root cutting
2. Confirm lateral junction at 4.9m is redundant.
3. Install upto 10m of drain liner downstream to MH6

Cost of Recommendation: £1,170.00 + Vat

Quotation

Total cost of recommendations: £1,854.00 + Vat

Water Mains Test:
Yes – Tested between ESV and ISV – **PASS**

Unit 5D, West Midlands Trading Estate
Consul Road, Rugby
CV21 1PB

Photos

Drainage Report

Site

27 High Street
Barford
England
CV35 8BU

SMART DRAIN UK

Surveyor: Smart Drain UK

info@smartdrainuk.co.uk

Total Defects for Project

1	0	15	0	0

Total DRB Grades for Project

9	5	0

27 High Street, Barford CV35 8BU - CCTV Survey Report : 19/01/24

Name :	SMART DRAIN UK
Contact :	Unit 5d
Location :	West Midlands Trading Estate
Town :	Consul Road
Region :	Rugby
Postcode :	CV21 1PB
Email :	info@smartdrainuk.co.uk
Contact Number :	
Surveyor :	Smart Drain UK
Valid Certification No :	

Client Information

Name :	
Contact :	
Location :	
Town :	
Region :	
Postcode :	
Tel :	
Mobile :	
Email :	
Fax :	

Site Information

Name :	
Contact :	
Location :	27 High Street
Town :	Barford
Region :	England
Postcode :	CV35 8BU
Tel :	
Mobile :	
Email :	
Fax :	

Total Defects for Project

1	0	15	0	0

Total DRB Grades for Project

9	5	0

Overview

Section: 1 **From: MH1** **To: MH2** **MH**	Grade A	**DRB Grade: A** **Pipe Size: 100** **Material: Polyvinyl Chloride** **Use: Foul**
Section: 2 **From: MH1** **To: DOWNSTREAM** **MH**	Grade A	**DRB Grade: A** **Pipe Size: 100** **Material: Polyvinyl Chloride** **Use: Foul**
Section: 3 **From: MH2** **To: WC1** **MH**	Grade A	**DRB Grade: A** **Pipe Size: 100** **Material: Polyvinyl Chloride** **Use: Foul**
Section: 4 **From: MH2** **To: MH3** **MH**	Grade A	**DRB Grade: A** **Pipe Size: 100** **Material: Polyvinyl Chloride** **Use: Foul**
Section: 5 **From: MH3** **To: WP1** **MH**	Grade A	**DRB Grade: A** **Pipe Size: 100** **Material: Polyvinyl Chloride** **Use: Foul**
Section: 6 **From: MH3** **To: WP2** **MH**	Grade B	**DRB Grade: B** **Pipe Size: 100** **Material: Polyvinyl Chloride** **Use: Foul**

Total Defects for Project

1 0 15 0 0

Total DRB Grades for Project

9 5 0

Section: 7 **From: MH3** **To: MH4** **MH**	Grade A	**DRB Grade: A** **Pipe Size: 100** **Material: Polyvinyl Chloride** **Use: Foul**
Section: 8 **From: MH4** **To: UPSTREAM** **MH**	Grade A	**DRB Grade: A** **Pipe Size: 100** **Material: Polyvinyl Chloride** **Use: Foul**
Section: 9 **From: MH5** **To: RWG3** **MH**	Grade B	**DRB Grade: B** **Pipe Size: 100** **Material: Vitrified Clay (i.e. all clayware)** **Use: Other**
Section: 10 **From: MH5** **To: WP3** **MH**	Grade A	**DRB Grade: A** **Pipe Size: 100** **Material: Vitrified Clay (i.e. all clayware)** **Use: Foul**
Section: 11 **From: MH5** **To: RWG4** **MH**	Grade B	**DRB Grade: B** **Pipe Size: 100** **Material: Vitrified Clay (i.e. all clayware)** **Use: Other**
Section: 12 **From: MH5** **To: RWG5** **MH**	Grade A	**DRB Grade: A** **Pipe Size: 100** **Material: Vitrified Clay (i.e. all clayware)** **Use: Surface Water**
Section: 13 **From: MH5** **To: CAPPED END** **MH**	Grade B	**DRB Grade: B** **Pipe Size: 100** **Material: Vitrified Clay (i.e. all clayware)** **Use: Other**

Total Defects for Project

1 | 0 | 15 | 0 | 0

Total DRB Grades for Project

9 | 5 | 0

Section: 14 **From: MH5** **To: BURIED MH6** **MH**	Grade B	**DRB Grade: B** **Pipe Size: 100** **Material: Vitrified Clay (i.e. all clayware)** **Use: Combined**

Total Defects for Project

Total DRB Grades for Project

Site: 27 High Street, Barford

Section 1

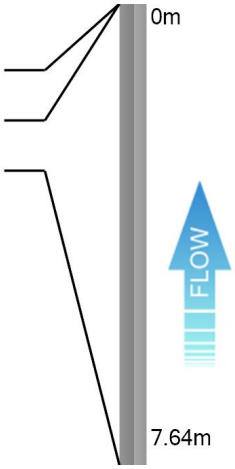
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH1	Finish Node Ref:	MH2	Direction:	U	Height/Dia:	100
Start Node Depth:	1.40	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	PVC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	7.64	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		0_0	
00.00m	WL	Water level 0%			0:00:00
07.64m	MHF	Finish node type, manhole		0_99	



Total Defects for section

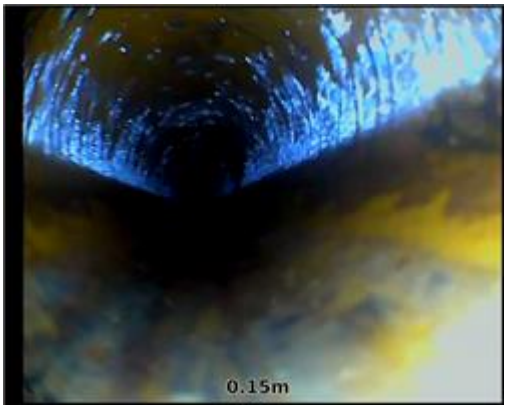
0 0 0 0 0

DRB Grade for Section

A

Descriptive Report with Remarks and Observation Images

Section 1

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH1	Image Provided - Ref: 0_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
07.64m		MHF	Finish node type, manhole MH2	Image Provided - Ref: 0_9999 

Total Defects for section

0	0	0	0	0

DRB Grade for Section

A

Site: 27 High Street, Barford

Section 2

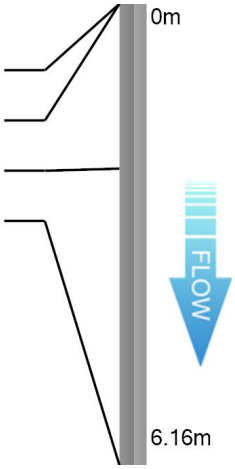
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH1	Finish Node Ref:	DOWNSTREAM	Direction:	D	Height/Dia:	100
Start Node Depth:	1.40	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	PVC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	6.16	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		1_0	
00.00m	WL	Water level 0%			0:00:00
02.20m	LRQ	Line of drain/sewer deviates right [quarter]			0:00:15
06.16m	OFF	Finish node type, outfall		1_99	



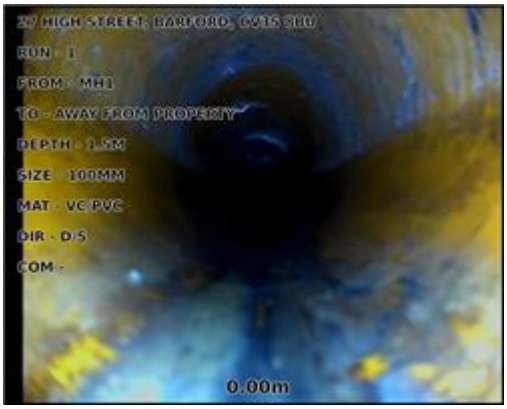
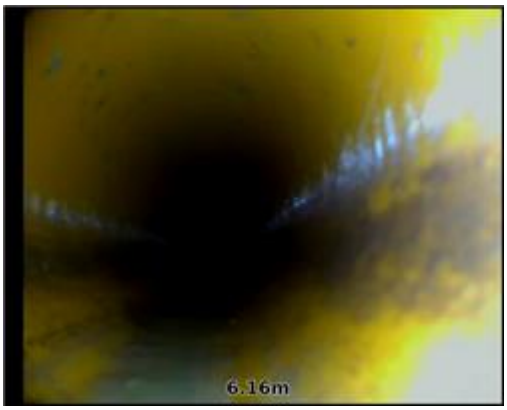
Total Defects for section

0 0 0 0 0

DRB Grade for Section

A

Descriptive Report with Remarks and Observation Images — Section 2

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH1	Image Provided - Ref: 1_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
02.20m	0:00:15	LRQ	Line of drain/sewer deviates right [quarter]	
06.16m		OFF	Finish node type, outfall DOWNSTREAM OUT OF AREA	Image Provided - Ref: 1_9999 

Site: 27 High Street, Barford

Section 3

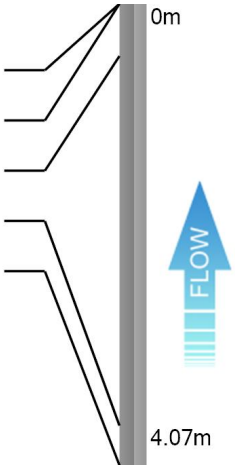
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH2	Finish Node Ref:	WC1	Direction:	U	Height/Dia:	100
Start Node Depth:	1.30	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	PVC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	4.07	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		2_0	
00.00m	WL	Water level 0%			0:00:00
00.46m	LRQ	Line of drain/sewer deviates right [quarter]			0:00:07
03.72m	LUF	Line of drain/sewer deviates up [full]			0:00:25
04.07m	BRF	Finish node type, major connection without		2_99	



Total Defects for section

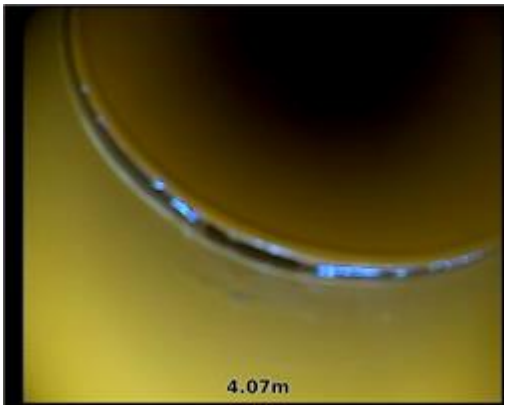
0 0 0 0 0

DRB Grade for Section

A

Descriptive Report with Remarks and Observation Images

Section 3

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH2	Image Provided - Ref: 2_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
00.46m	0:00:07	LRQ	Line of drain/sewer deviates right [quarter]	
03.72m	0:00:25	LUF	Line of drain/sewer deviates up [full]	
04.07m		BRF	Finish node type, major connection without manhole WC1	Image Provided - Ref: 2_9999 

Total Defects for section

0 0 0 0 0

DRB Grade for Section

A

Site: 27 High Street, Barford

Section 4

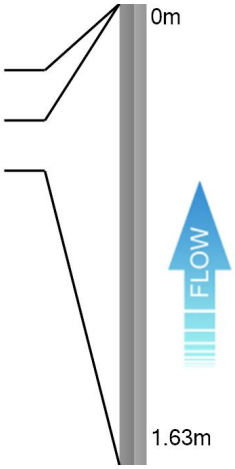
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH2	Finish Node Ref:	MH3	Direction:	U	Height/Dia:	100
Start Node Depth:	1.30	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	PVC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	1.63	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		3_0	
00.00m	WL	Water level 0%			0:00:00
01.63m	MHF	Finish node type, manhole		3_99	



Total Defects for section

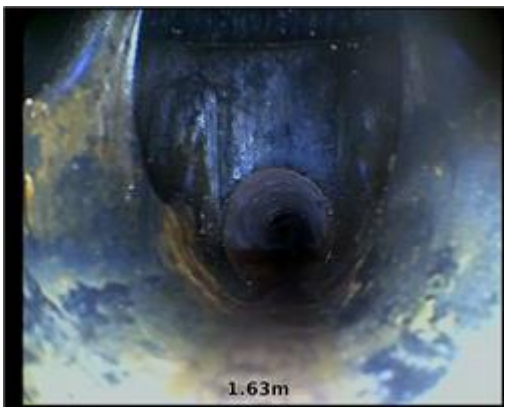
0 0 0 0 0

DRB Grade for Section

A

Descriptive Report with Remarks and Observation Images

Section 4

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH2	Image Provided - Ref: 3_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
01.63m		MHF	Finish node type, manhole MH3	Image Provided - Ref: 3_9999 

Site: 27 High Street, Barford

Section 5

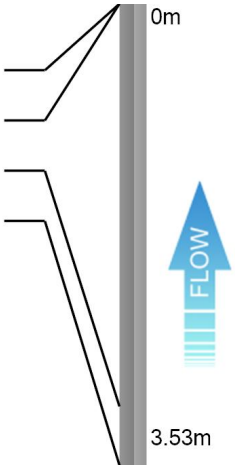
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH3	Finish Node Ref:	WP1	Direction:	U	Height/Dia:	100
Start Node Depth:	1.20	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	PVC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	3.53	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		4_0	
00.00m	WL	Water level 0%			0:00:00
03.08m	LUF	Line of drain/sewer deviates up [full]			0:00:16
03.53m	BRF	Finish node type, major connection without		4_99	



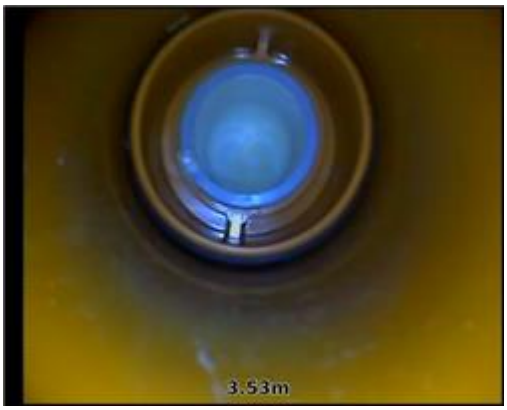
Total Defects for section

0 0 0 0 0

DRB Grade for Section

A

Descriptive Report with Remarks and Observation Images — Section 5

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH3	Image Provided - Ref: 4_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
03.08m	0:00:16	LUF	Line of drain/sewer deviates up [full]	
03.53m		BRF	Finish node type, major connection without manhole WP1	Image Provided - Ref: 4_9999 

Site: 27 High Street, Barford

Section 6

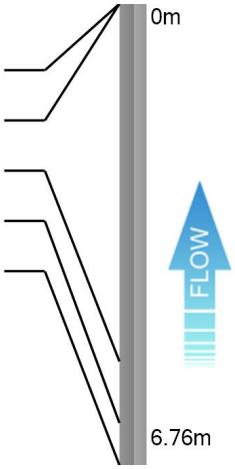
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH3	Finish Node Ref:	WP2	Direction:	U	Height/Dia:	100
Start Node Depth:	1.20	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	PVC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	6.76	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		5_0	
00.00m	WL	Water level 0%			0:00:00
05.24m	DEG	Attached deposits, grease 04-07 10%		5_2	0:00:49
06.14m	LUF	Line of drain/sewer deviates up [full]			0:01:10
06.76m	BRF	Finish node type, major connection without			



Total Defects for section

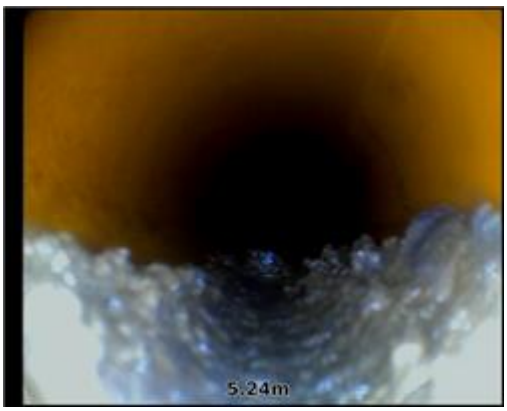
0	0	1	0	0

DRB Grade for Section

B

Descriptive Report with Remarks and Observation Images

Section 6

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH3	Image Provided - Ref: 5_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
05.24m	0:00:49	DEG	Attached deposits, grease from 04 o'clock to 07 o'clock: 10% Cross sectional area loss - Severity 3	Image Provided - Ref: 5_2 
06.14m	0:01:10	LUF	Line of drain/sewer deviates up [full]	
06.76m		BRF	Finish node type, major connection without manhole WP2	

Site: 27 High Street, Barford

Section 7

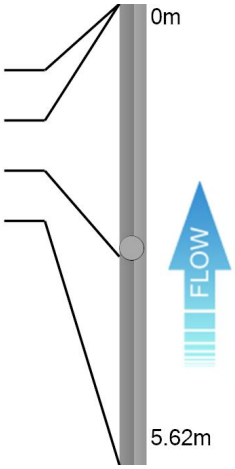
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH3	Finish Node Ref:	MH4	Direction:	U	Height/Dia:	100
Start Node Depth:	1.20	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	PVC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	5.62	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		6_0	
00.00m	WL	Water level 0%			0:00:00
03.08m	JN	Junction 12 : 100mm Diameter		6_2	0:00:15
05.62m	MHF	Finish node type, manhole		6_99	



Total Defects for section

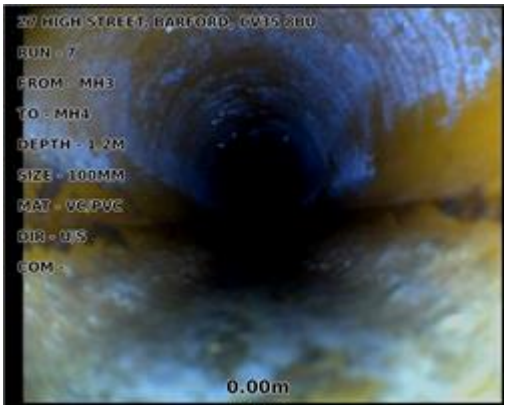
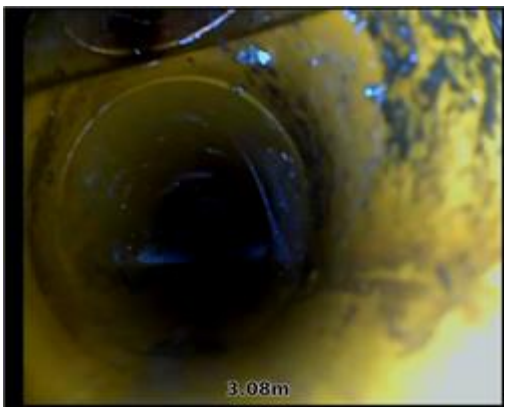
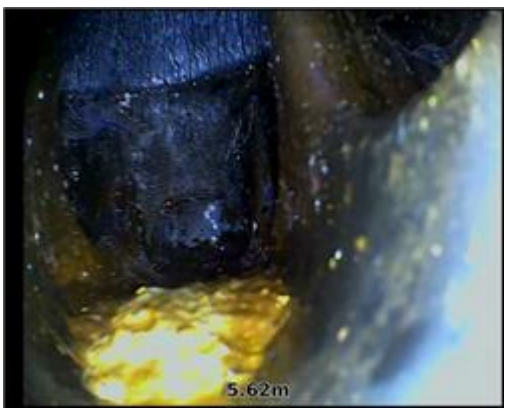
0 0 0 0 0

DRB Grade for Section

A

Descriptive Report with Remarks and Observation Images

Section 7

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH3	Image Provided - Ref: 6_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
03.08m	0:00:15	JN	Junction at 12 o'clock: 100mm Diameter	Image Provided - Ref: 6_2 
05.62m		MHF	Finish node type, manhole MH4	Image Provided - Ref: 6_9999 

Total Defects for section

0 0 0 0 0

DRB Grade for Section

A

Site: 27 High Street, Barford

Section 8

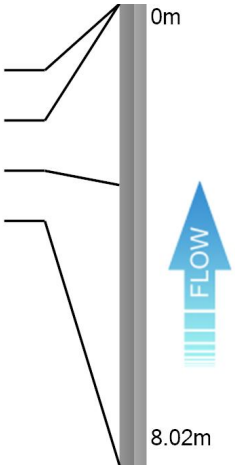
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH4	Finish Node Ref:	UPSTREAM	Direction:	U	Height/Dia:	100
Start Node Depth:	1.10	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	PVC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	8.02	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		7_0	
00.00m	WL	Water level 0%			0:00:00
03.15m	LLQ	Line of drain/sewer deviates left [quarter]			0:00:14
08.02m	OFF	Finish node type, outfall		7_99	



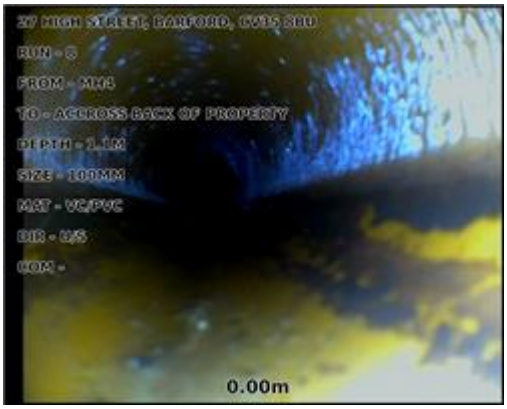
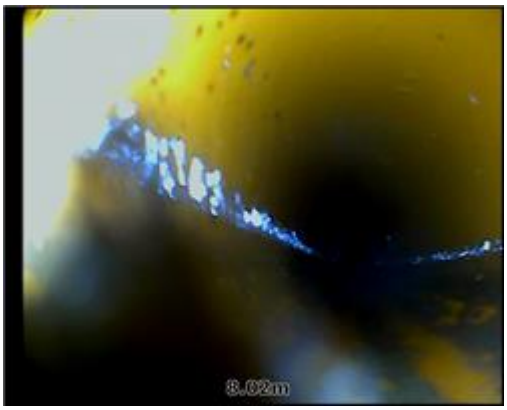
Total Defects for section

0 0 0 0 0

DRB Grade for Section

A

Descriptive Report with Remarks and Observation Images — Section 8

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH4	Image Provided - Ref: 7_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
03.15m	0:00:14	LLQ	Line of drain/sewer deviates left [quarter]	
08.02m		OFF	Finish node type, outfall UPSTREAM OUT OF AREA	Image Provided - Ref: 7_9999 

Site: 27 High Street, Barford

Section 9

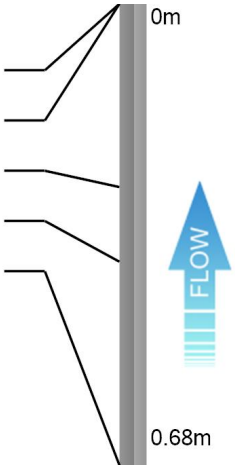
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH5	Finish Node Ref:	RWG3	Direction:	U	Height/Dia:	100
Start Node Depth:	0.30	Finish Node Depth:	0.00	Use:	Z	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	VC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	0.68	REDUNDANT

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		8_0	
00.00m	WL	Water level 0%			0:00:00
00.27m	OJM	Open joint medium		8_2	0:00:04
00.38m	LRQ	Line of drain/sewer deviates right [quarter]			0:00:08
00.68m	GYF	Finish node type Gully		8_99	



Total Defects for section

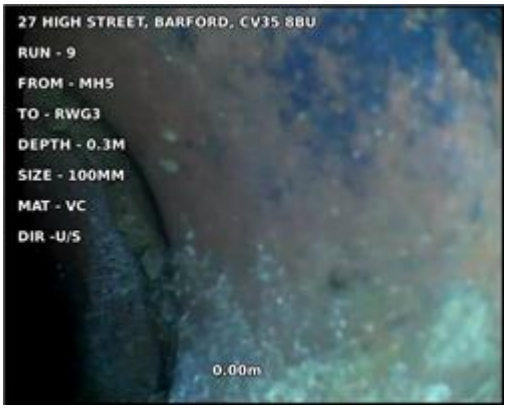
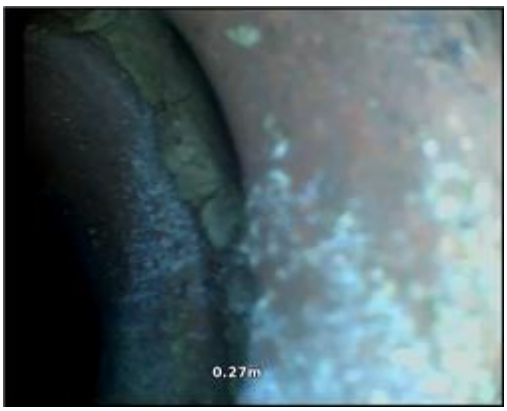
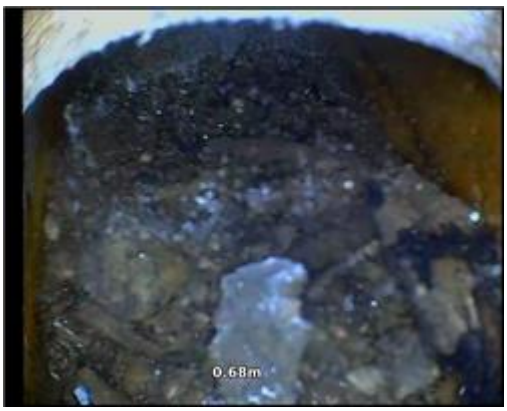
0	0	1	0	0

DRB Grade for Section

B

Descriptive Report with Remarks and Observation Images

Section 9

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH5	Image Provided - Ref: 8_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
00.27m	0:00:04	OJM	Open joint medium - Severity 3	Image Provided - Ref: 8_2 
00.38m	0:00:08	LRQ	Line of drain/sewer deviates right [quarter]	
00.68m		GYF	Finish node type Gully RWG3 DISUSED	Image Provided - Ref: 8_9999 

Total Defects for section

0	0	1	0	0

DRB Grade for Section

B

Site: 27 High Street, Barford

Section 10

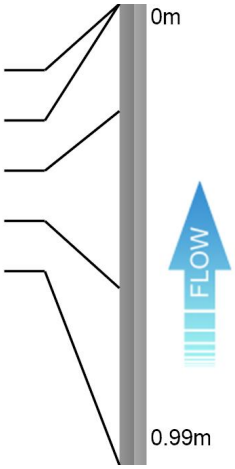
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH5	Finish Node Ref:	WP3	Direction:	U	Height/Dia:	100
Start Node Depth:	0.80	Finish Node Depth:	0.00	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	VC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	0.99	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		9_0	
00.00m	WL	Water level 0%			0:00:00
00.23m	CC	Crack, circumferential 09-02		9_2	0:00:03
00.61m	LUF	Line of drain/sewer deviates up [full]			0:00:07
00.99m	BRF	Finish node type, major connection without		9_99	



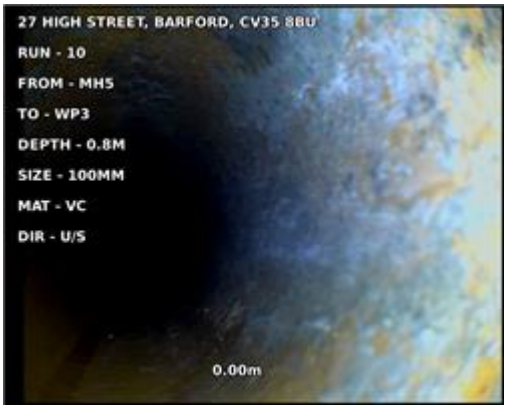
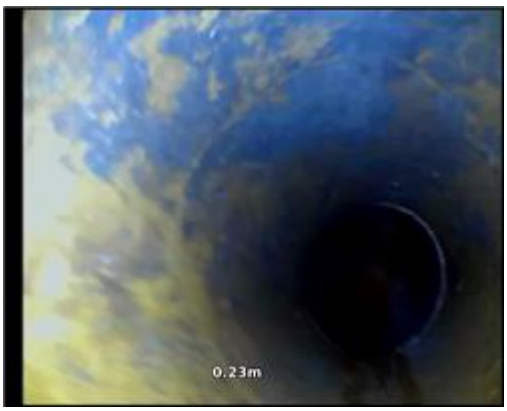
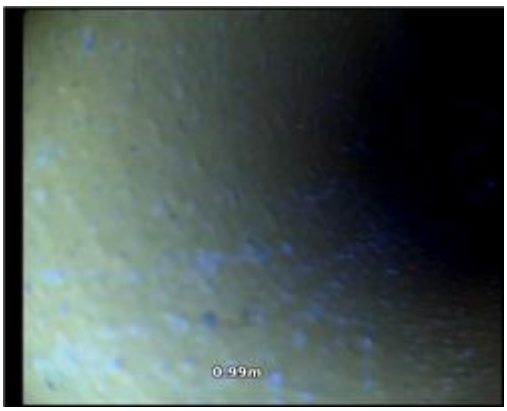
Total Defects for section

1	0	0	0	0

DRB Grade for Section

A

Descriptive Report with Remarks and Observation Images — Section 10

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH5	Image Provided - Ref: 9_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
00.23m	0:00:03	CC	Crack, circumferential from 09 o'clock to 02 o'clock - Severity 1	Image Provided - Ref: 9_2 
00.61m	0:00:07	LUF	Line of drain/sewer deviates up [full]	
00.99m		BRF	Finish node type, major connection without manhole WP3	Image Provided - Ref: 9_9999 

Total Defects for section

1	0	0	0	0

DRB Grade for Section

A

Site: 27 High Street, Barford

Section 11

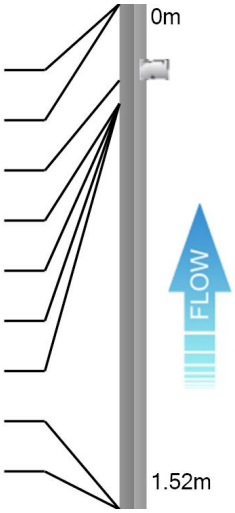
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH5	Finish Node Ref:	RWG4	Direction:	U	Height/Dia:	100
Start Node Depth:	0.50	Finish Node Depth:	0.00	Use:	Z	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	VC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	1.52	REDUNDANT

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		10_0	
00.00m	WL	Water level 0%			0:00:00
00.23m	JN	Junction 09 : 100mm Diameter		10_2	0:00:07
00.30m	WL	Water level 10%		10_3	0:00:10
00.30m	DES	Settled deposits fine 10%			0:00:10
00.30m	RJ	Roots at joint		10_5	0:00:10
00.30m	JDM	Joint displaced medium		10_6	0:00:10
01.52m	R	Roots		10_7	0:00:20
01.52m	SA	Survey abandoned		10_9	



Total Defects for section

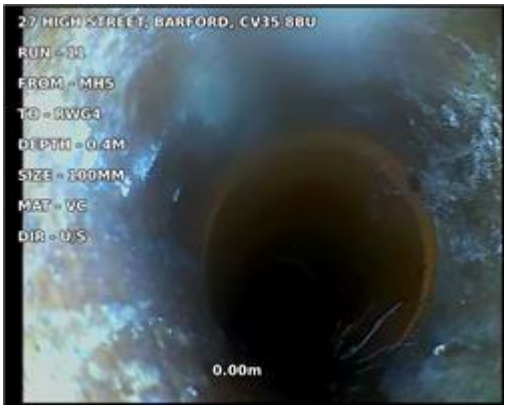
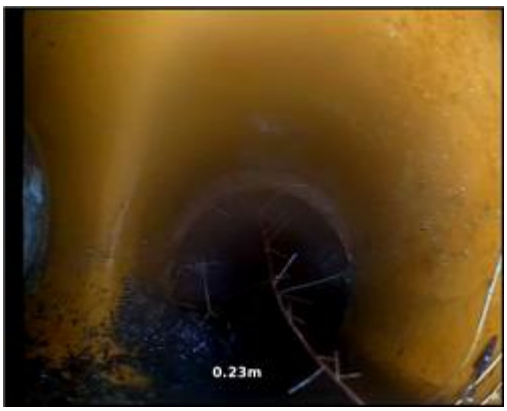
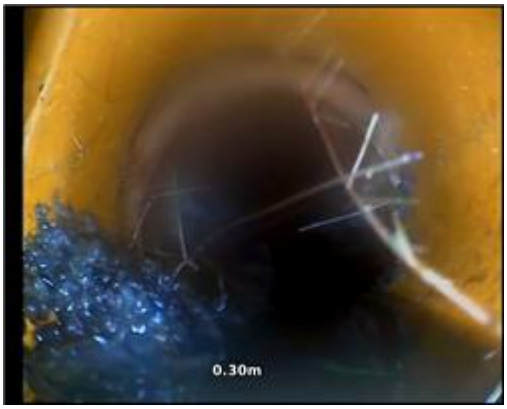
0	0	4	0	0

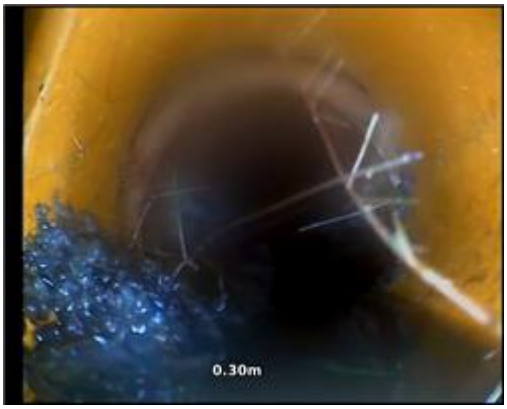
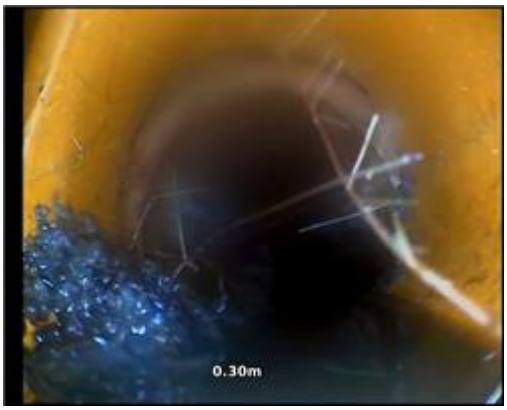
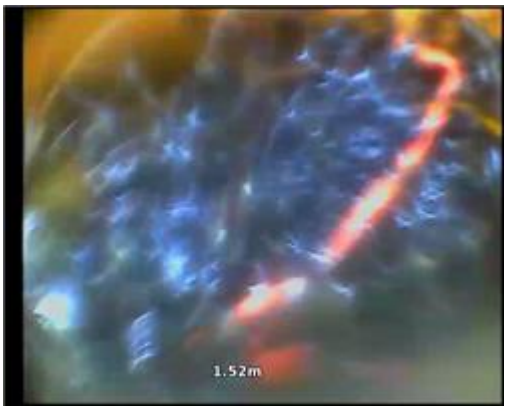
DRB Grade for Section

B

Descriptive Report with Remarks and Observation Images

Section 11

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH5	Image Provided - Ref: 10_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
00.23m	0:00:07	JN	Junction at 09 o'clock: 100mm Diameter	Image Provided - Ref: 10_2 
00.30m	0:00:10	WL	Water level: 10% Height/Diameter	Image Provided - Ref: 10_3 
00.30m	0:00:10	DES	Settled deposits fine: 10% Cross sectional area loss - Severity 3	

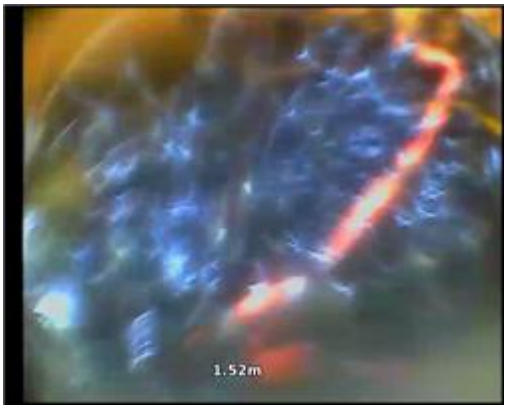
Pos	Video Ref	Code	Description	Image
00.30m	0:00:10	RJ	Roots at joint - Severity 3	Image Provided - Ref: 10_5 
00.30m	0:00:10	JDM	Joint displaced medium - Severity 3	Image Provided - Ref: 10_6 
01.52m	0:00:20	R	Roots - Severity 3	Image Provided - Ref: 10_7 

Total Defects for section

0	0	4	0	0

DRB Grade for Section

B

Pos	Video Ref	Code	Description	Image
01.52m		SA	Survey abandoned CANNOT PASS	Image Provided - Ref: 10_9999 

Site: 27 High Street, Barford

Section 12

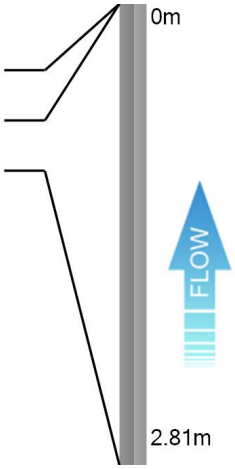
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH5	Finish Node Ref:	RWG5	Direction:	U	Height/Dia:	100
Start Node Depth:	0.40	Finish Node Depth:	0.00	Use:	S	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	VC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	2.81	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		11_0	
00.00m	WL	Water level 0%			0:00:00
02.81m	GYF	Finish node type Gully		11_9	



Total Defects for section

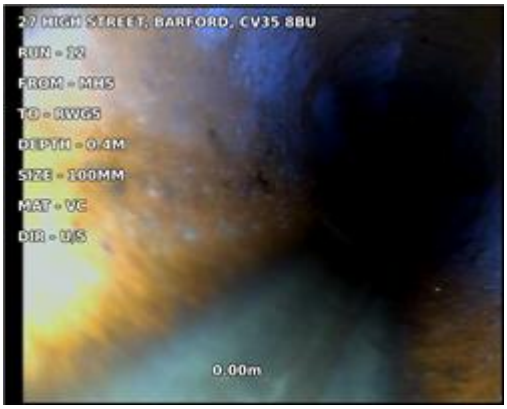
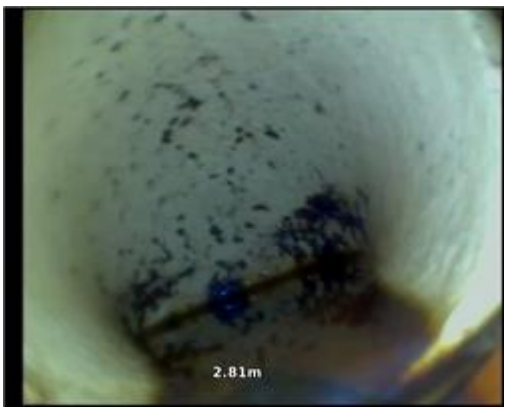
0 0 0 0 0

DRB Grade for Section

A

Descriptive Report with Remarks and Observation Images

Section 12

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH5	Image Provided - Ref: 11_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
02.81m		GYF	Finish node type Gully RWG5	Image Provided - Ref: 11_9999 

Site: 27 High Street, Barford

Section 13

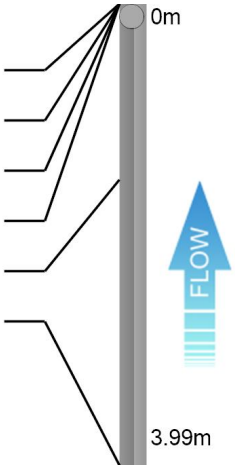
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH5	Finish Node Ref:	CAPPED END	Direction:	U	Height/Dia:	100
Start Node Depth:	0.80	Finish Node Depth:	0.00	Use:	Z	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	VC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	3.99	REDUNDANT

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		12_0	
00.00m	WL	Water level 0%			0:00:00
00.00m	DES	S1 Settled deposits fine 20%	S1	12_2	0:00:00
00.00m	CN	Connection other than junction 12 : 100mm		12_3	0:00:33
01.52m	DES	F1 Settled deposits fine 20%	F1	12_-	0:00:00
03.99m	BRF	Finish node type, major connection without		12_9	



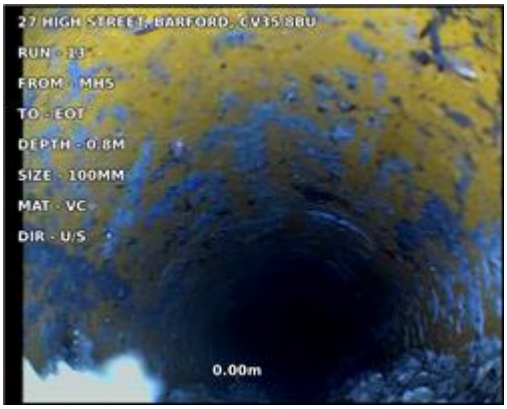
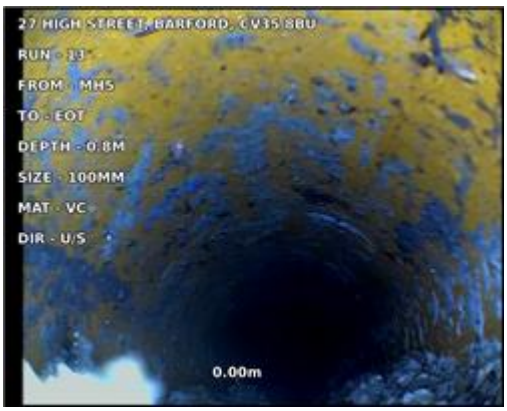
Total Defects for section

0	0	2	0	0

DRB Grade for Section

B

Descriptive Report with Remarks and Observation Images — Section 13

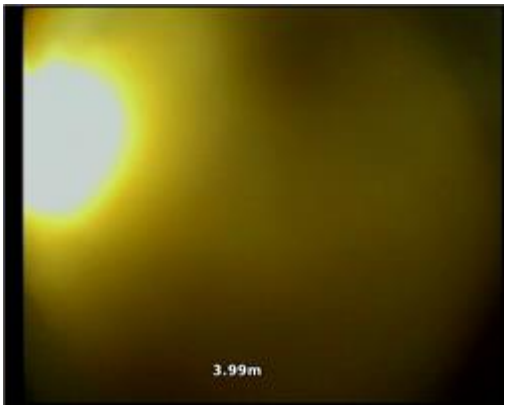
Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH5	Image Provided - Ref: 12_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
00.00m	0:00:00	S1 DES	Settled deposits fine 0m - 1.52m: 20% Cross sectional area loss - Severity 3	Image Provided - Ref: 12_2 
00.00m	0:00:33	CN	Connection other than junction at 12 o'clock: 100mm Diameter REDUNDANT	Image Provided - Ref: 12_3 
01.52m	0:00:00	F1 DES	Settled deposits fine Defect End: 20% Cross sectional area loss - Severity 3	

Total Defects for section

0	0	2	0	0

DRB Grade for Section

B

Pos	Video Ref	Code	Description	Image
03.99m		BRF	Finish node type, major connection without manhole CAPPED END	Image Provided - Ref: 12_9999 

Site: 27 High Street, Barford

Section 14

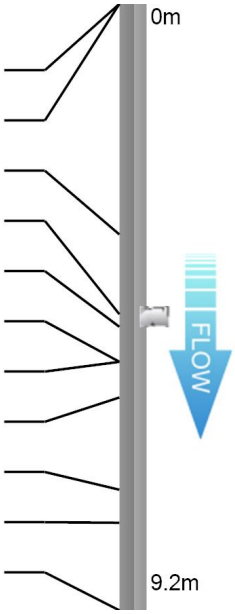
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
	27 High Street	Barford		Smart Drain UK	19/01/2024

Start Node Ref:	MH5	Finish Node Ref:	BURIED MH6	Direction:	D	Height/Dia:	100
Start Node Depth:	0.80	Finish Node Depth:	0.00	Use:	C	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	VC	Cleaned	N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	9.2	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		13_0	
00.00m	WL	Water level 0%			0:00:00
03.50m	FC	Fracture circumferential 12-12		13_2	0:00:24
04.71m	JDM	Joint displaced medium		13_3	0:00:38
04.90m	JN	Junction 10 : 100mm Diameter		13_4	0:00:40
05.43m	RJ	Roots at joint		13_5	0:00:43
05.43m	JDM	Joint displaced medium		13_6	0:00:44
05.97m	JDM	Joint displaced medium		13_7	0:00:49
07.37m	RJ	Roots at joint		13_8	0:00:56
07.87m	FCJ	Fracture circumferential 08-01 at joint		13_9	0:00:59
09.20m	MHF	Finish node type, manhole		13_9	



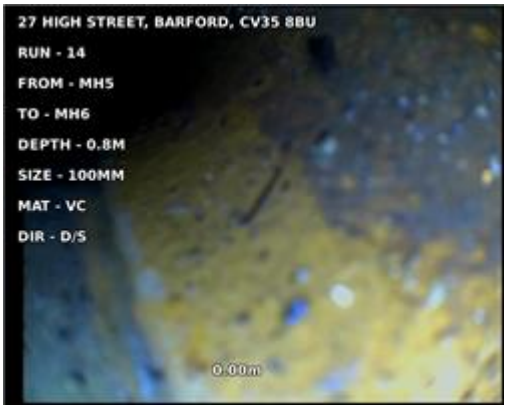
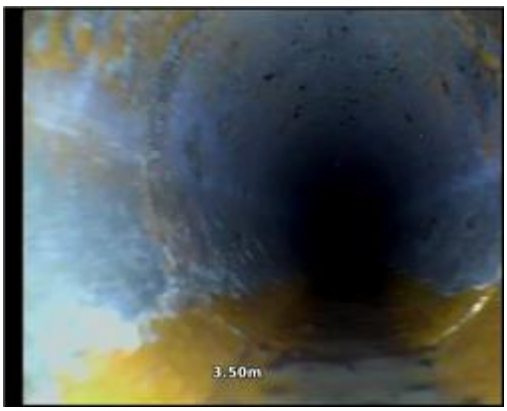
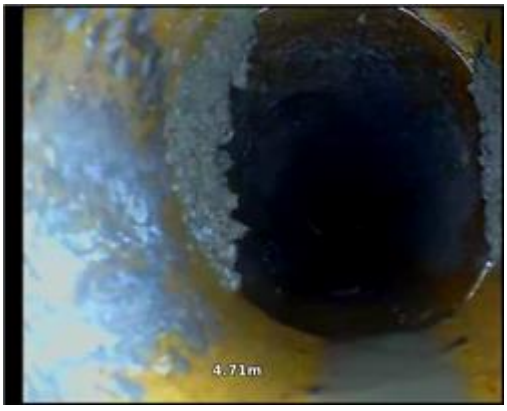
Total Defects for section

0	0	7	0	0

DRB Grade for Section

B

Descriptive Report with Remarks and Observation Images — Section 14

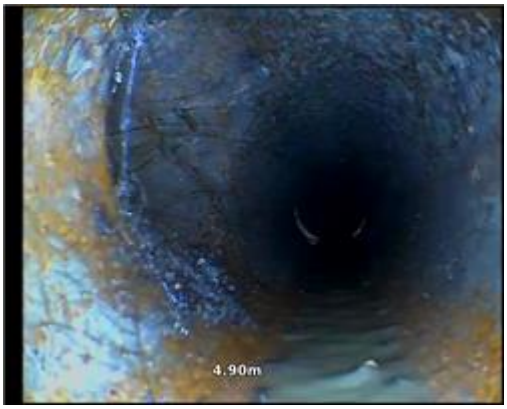
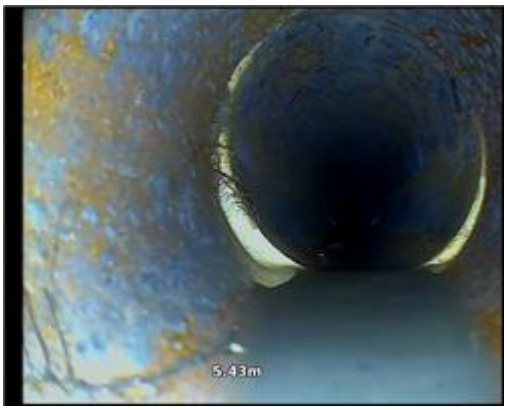
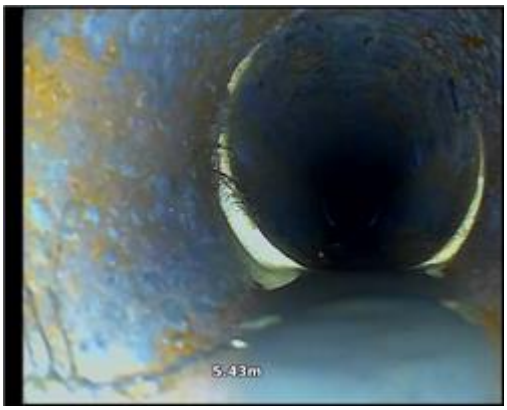
Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH5	Image Provided - Ref: 13_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	
03.50m	0:00:24	FC	Fracture circumferential from 12 o'clock to 12 o'clock - Severity 3	Image Provided - Ref: 13_2 
04.71m	0:00:38	JDM	Joint displaced medium - Severity 3	Image Provided - Ref: 13_3 

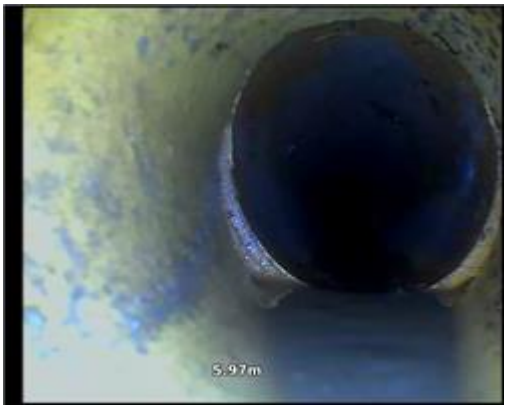
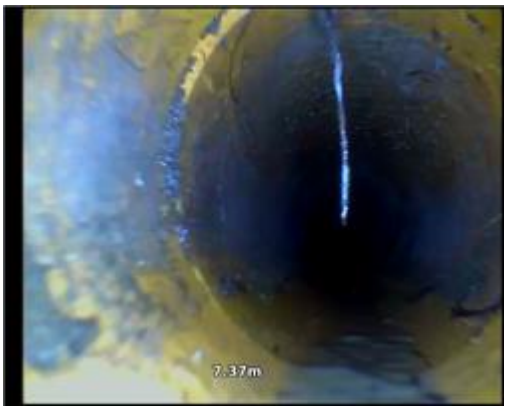
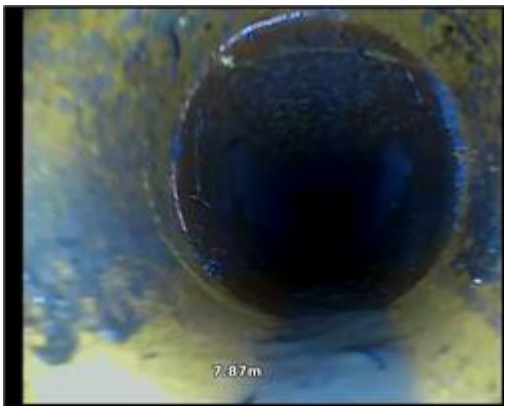
Total Defects for section

0	0	7	0	0

DRB Grade for Section

B

Pos	Video Ref	Code	Description	Image
04.90m	0:00:40	JN	Junction at 10 o'clock: 100mm Diameter	Image Provided - Ref: 13_4 
05.43m	0:00:43	RJ	Roots at joint - Severity 3	Image Provided - Ref: 13_5 
05.43m	0:00:44	JDM	Joint displaced medium - Severity 3	Image Provided - Ref: 13_6 

Pos	Video Ref	Code	Description	Image
05.97m	0:00:49	JDM	Joint displaced medium - Severity 3	Image Provided - Ref: 13_7 
07.37m	0:00:56	RJ	Roots at joint - Severity 3	Image Provided - Ref: 13_8 
07.87m	0:00:59	FCJ	Fracture circumferential from 08 o'clock to 01 o'clock at joint - Severity 3	Image Provided - Ref: 13_9 

Pos	Video Ref	Code	Description	Image
09.20m		MHF	Finish node type, manhole BURIED MH6	Image Provided - Ref: 13_9999