Drainage Report

Prepared For

Warren McNab
60 Lister Street
Moldgreen
Huddersfield
HD5 8BB

Site

Warren McNab
60 Lister Street
Moldgreen
Huddersfield
HD5 8BB



RAPID REPAIR DRAIN CARE LTD

Surveyor:

info@rapidrepairdraincare.com

Total Defects for Project

1	0	23	4	0

Total DRB Grades for Project

0	3	3

4549 McNab - CCTV Survey Report : 24/05/23

Name :	RAPID REPAIR DRAIN CARE LTD
Contact :	Simon Keenlyside
Location :	1 Brinsmead Court
Town :	Rothwell Leeds
Region :	West Yorkshire
Postcode :	LS26 0WL
Email :	info@rapidrepairdraincare.com
Contact Number :	
Surveyor :	
Valid Certification No :	

Client Information

Name :	Warren McNab
Contact :	
Location :	60 Lister Street
Town :	Moldgreen
Region :	Huddersfield
Postcode :	HD5 8BB
Tel :	
Mobile :	
Email :	
Fax :	

Site Information

Name :	Warren McNab
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Location :	60 Lister Street
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Total Defects for Project

1	0	23	4	0

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0	3	3

Report interpretation.

Overview:

Each section of the drainage system is allocated a score indicating areas that require attention. These areas are detailed in the Overview section on the following page and also at the bottom right of the first few pages. We use colour coding as an indicator of severity. Additional information concerning rehabilitation options/recomendations is included in the Overview page, which can also be used as an, "at a glance" indication of system condition. More in depth information for each section, Including images can be found later in the report. Grade indicators are as follows:

Grade A: Drain is serviceable no recommendations required

Grade B: There is an issue that might require remedial works

Grade C: There is a defect that requires remedial works, the drain is not serviceable.

Observations:

Each section of drainage reported on (manhole to manhole for example), contains detailed information about that drain and any observations made concerning condition are detailed below the header section. The observations are colour coded and given a severity score, with more significant defects being given a higher score, using a scale from 1 to 5 as detailed below:

Severity 1 to 2: These defects may require remedial monitoring

Severity 3: These defects probably require some form of remedial works

Severity 4 to 5: Defects that will require remedial repair or replacement

General:

The information provided is relevant at the time of survey. The coding system in this report is based on the Manual of Sewer Condition Classification, 5th edition (MSCC5) domestic codes (BS EN 13508-1:2003). This is the official standard for the water industry.

The severity system is based on significant experience in general practice and the 1 -5 grades represent the severity of individual defects: 5 representing a more serious defect.

Please feel free to contact us for further explanation or pricing for remedial works required.

Overview

Section: 1 **From: SVP1** **To: MH1** **OC**	This section is private and needs repairs	**DRB Grade: C** **Pipe Size: 100** **Material: Cast Iron** **Use: Foul**
Section: 2 **From: MH1** **To: BOUNDARY** **MH**	This section is a shared Yorkshire Water asset at the rear and is 2.5m from the property	**DRB Grade: B** **Pipe Size: 150** **Material: Vitrified Clay (i.e. all clayware)** **Use: Combined**
Section: 3 **From: MH1** **To: MAIN** **MH**	This section is a shared Yorkshire Water asset	**DRB Grade: B** **Pipe Size: 150** **Material: Vitrified Clay (i.e. all clayware)** **Use: Combined**
Section: 4 **From: RDP1** **To: SOAKAWAY** **OC**	This section is private and goes to a soakaway 3.2m from the front of the property.	**DRB Grade: B** **Pipe Size: 100** **Material: Vitrified Clay (i.e. all clayware)** **Use: Surface Water**
Section: 5 **From: MH1** **To: GULLY 2** **MH**	This section is private and needs repairs	**DRB Grade: C** **Pipe Size: 100** **Material: Vitrified Clay (i.e. all clayware)** **Use: Surface Water**
Section: 6 **From: GULLY1** **To: MAIN** **GY**	This section is a shared Yorkshire Water asset and needs repairs	**DRB Grade: C** **Pipe Size: 100** **Material: Vitrified Clay (i.e. all clayware)** **Use: Combined**

Total Defects for Project

1 | 0 | 23 | 4 | 0

Total DRB Grades for Project

0 | 3 | 3

Site: 60 LISTER STREET, HUDDERSFIELD

Section 1

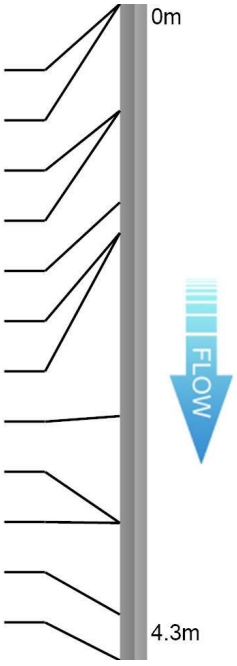
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
WARREN McNAB	60 LISTER STREET	HUDDERSFIELD	4549	SIMON	24/05/2023

Start Node Ref:	SVP1	Finish Node Ref:	MH1	Direction:	D	Height/Dia:	100
Start Node Depth:	0.00	Finish Node Depth:	0.90	Use:	F	Shape:	C
Start Node Coordinate:		Finish Node Coordinate:		Material:	CI	Cleaned	N

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

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	4.3	THROUGH ASSECC POINT DRILLED INTO SVP

Position	Code	Description	CD	Pic	Video Ref
00.00m	OC	Start node type, other special chamber		0_0	0:00:00
00.00m	WL	Water level 0%		0_1	0:00:00
00.70m	BJ	Broken pipe 06-09 at joint		0_2	0:00:14
00.70m	MCJ	Material of drain/sewer changes at joint		0_3	0:00:16
01.30m	WL	Water level 5%		0_4	0:00:25
01.50m	MCJ	Material of drain/sewer changes at joint		0_5	0:00:34
01.50m	BJ	Broken pipe 10-02 at joint		0_6	0:00:37
02.70m	RJ	Roots at joint		0_7	0:01:18
03.40m	RJ	Roots at joint		0_8	0:01:31
03.40m	FCJ	Fracture circumferential 07-12 at joint		0_9	0:01:35
04.00m	RJ	Roots at joint		0_10	0:01:48
04.30m	BRF	Finish node type, major connection without		0_99	



Total Defects for section

0	0	4	2	0

DRB Grade for Section

C

Descriptive Report with Remarks and Observation Images

Section 1

Pos	Video Ref	Code	Description	Image
00.00m	0:00:00	OC	Start node type, other special chamber SVP1	Image Provided - Ref: 0_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	Image Provided - Ref: 0_1 
00.70m	0:00:14	BJ	Broken pipe from 06 o'clock to 09 o'clock at joint - Severity 4	Image Provided - Ref: 0_2 

Pos	Video Ref	Code	Description	Image
00.70m	0:00:16	MCPVCJ	Material of pipe changes to Polyvinyl Chloride at joint	Image Provided - Ref: 0_3 
01.30m	0:00:25	WL	Water level: 5% Height/Diameter HOLDING	Image Provided - Ref: 0_4 
01.50m	0:00:34	MCVCJ	Material of pipe changes to Vitrified Clay (i.e. all clayware) at joint	Image Provided - Ref: 0_5 
01.50m	0:00:37	BJ	Broken pipe from 10 o'clock to 02 o'clock at joint - Severity 4	Image Provided - Ref: 0_6 

Total Defects for section

0 0 4 2 0

DRB Grade for Section

C

Pos	Video Ref	Code	Description	Image
02.70m	0:01:18	RJ	Roots at joint - Severity 3	Image Provided - Ref: 0_7 
03.40m	0:01:31	RJ	Roots at joint - Severity 3 Band: F	Image Provided - Ref: 0_8 
03.40m	0:01:35	FCJ	Fracture circumferential from 07 o'clock to 12 o'clock at joint - Severity 3	Image Provided - Ref: 0_9 
04.00m	0:01:48	RJ	Roots at joint - Severity 3 Band: F	Image Provided - Ref: 0_10 

Total Defects for section

0 0 4 2 0

DRB Grade for Section

C

Pos	Video Ref	Code	Description	Image
04.30m		BRF	Finish node type, major connection without manhole MAIN	

Site: 60 LISTER STREET, HUDDERSFIELD

Section 2

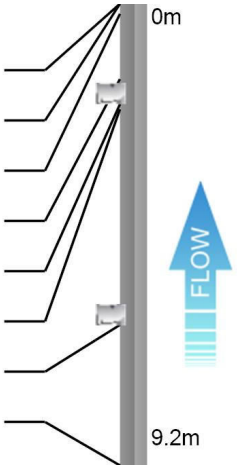
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
WARREN McNAB	60 LISTER STREET	HUDDERSFIELD	4549	SIMON	24/05/2023

Start Node Ref:	MH1	Finish Node Ref:	BOUNDARY	Direction:	U	Height/Dia:	150
Start Node Depth:	0.90	Finish Node Depth:	0.60	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		1_0	0:00:00
00.00m	WL	Water level 0%		1_1	0:00:00
00.20m	RJ	Roots at joint		1_2	0:00:10
01.50m	RJ	Roots at joint		1_3	0:00:24
02.00m	JN	Junction 02 : 100mm Diameter		1_4	0:00:33
02.10m	RJ	Roots at joint		1_5	0:00:40
06.40m	JN	Junction 02 : 100mm Diameter		1_6	0:01:34
09.20m	SA	Survey abandoned		1_99	



Total Defects for section

0	0	3	0	0

DRB Grade for Section

B

Descriptive Report with Remarks and Observation Images

Section 2

Pos	Video Ref	Code	Description	Image
00.00m	0:00:00	MH	Start node type, manhole MH1	Image Provided - Ref: 1_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	Image Provided - Ref: 1_1 
00.20m	0:00:10	RJ	Roots at joint - Severity 3 Band: F	Image Provided - Ref: 1_2 

Pos	Video Ref	Code	Description	Image
01.50m	0:00:24	RJ	Roots at joint - Severity 3	Image Provided - Ref: 1_3 
02.00m	0:00:33	JN	Junction at 02 o'clock: 100mm Diameter FROM SVP1	Image Provided - Ref: 1_4 
02.10m	0:00:40	RJ	Roots at joint - Severity 3	Image Provided - Ref: 1_5 
06.40m	0:01:34	JN	Junction at 02 o'clock: 100mm Diameter FROM GULLY 1	Image Provided - Ref: 1_6 

Total Defects for section

0	0	3	0	0

DRB Grade for Section

B

Pos	Video Ref	Code	Description	Image
09.20m		SA	Survey abandoned PASSED BOUNDARY	

Site: 60 LISTER STREET, HUDDERSFIELD

Section 3

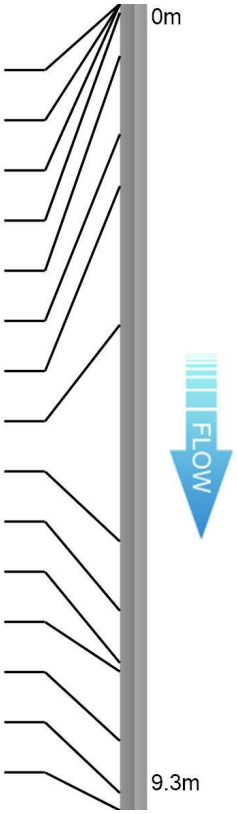
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
WARREN McNAB	60 LISTER STREET	HUDDERSFIELD	4549	SIMON	24/05/2023

Start Node Ref:	MH1	Finish Node Ref:	MAIN	Direction:	D	Height/Dia:	150
Start Node Depth:	0.90	Finish Node Depth:	1.30	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	9.3	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		2_0	0:00:00
00.00m	WL	Water level 0%		2_1	0:00:00
00.00m	CCJ	Crack, circumferential 07-02 at joint		2_2	0:00:00
00.10m	RJ	Roots at joint		2_3	0:00:11
00.60m	RJ	Roots at joint		2_4	0:00:21
01.50m	R	Roots		2_5	0:00:33
02.10m	REM	General remark		2_6	0:00:39
03.70m	RJ	Roots at joint		2_7	0:01:02
06.20m	FLJ	Fracture longitudinal 09 at joint		2_8	0:01:30
07.00m	JDMJ	Joint displaced medium at joint		2_9	0:01:47
07.60m	RJ	Roots at joint		2_10	0:01:55
07.70m	RJ	Roots at joint		2_11	0:02:01
08.50m	RJ	Roots at joint		2_12	0:02:10
09.10m	DEEJ	Attached deposits, encrustation 03-04 5% at joint		2_13	0:02:23
09.30m	BRF	Finish node type, major connection without		2_99	



Total Defects for section

1	0	10	0	0

DRB Grade for Section

B

Descriptive Report with Remarks and Observation Images

Section 3

Pos	Video Ref	Code	Description	Image
00.00m	0:00:00	MH	Start node type, manhole MH1	Image Provided - Ref: 2_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	Image Provided - Ref: 2_1 
00.00m	0:00:00	CCJ	Crack, circumferential from 07 o'clock to 02 o'clock at joint - Severity 1	Image Provided - Ref: 2_2 

Pos	Video Ref	Code	Description	Image
00.10m	0:00:11	RJ	Roots at joint - Severity 3 Band: F	Image Provided - Ref: 2_3 
00.60m	0:00:21	RJ	Roots at joint - Severity 3	Image Provided - Ref: 2_4 
01.50m	0:00:33	R	Roots - Severity 3	Image Provided - Ref: 2_5 
02.10m	0:00:39	REM	General remark	Image Provided - Ref: 2_6 

Total Defects for section

1 0 10 0 0

DRB Grade for Section

B

Pos	Video Ref	Code	Description	Image
03.70m	0:01:02	RJ	Roots at joint - Severity 3	Image Provided - Ref: 2_7 
06.20m	0:01:30	FLJ	Fracture longitudinal at 09 o'clock at joint - Severity 3	Image Provided - Ref: 2_8 
07.00m	0:01:47	JDMJ	Joint displaced medium at joint - Severity 3	Image Provided - Ref: 2_9 
07.60m	0:01:55	RJ	Roots at joint - Severity 3	Image Provided - Ref: 2_10 

Total Defects for section

1 0 10 0 0

DRB Grade for Section

B

Pos	Video Ref	Code	Description	Image
07.70m	0:02:01	RJ	Roots at joint - Severity 3	Image Provided - Ref: 2_11 
08.50m	0:02:10	RJ	Roots at joint - Severity 3	Image Provided - Ref: 2_12 
09.10m	0:02:23	DEEJ	Attached deposits, encrustation from 03 o'clock to 04 o'clock: 5% Cross sectional area loss at joint - Severity 3	Image Provided - Ref: 2_13 
09.30m		BRF	Finish node type, major connection without manhole MAIN	

Site: 60 LISTER STREET, HUDDERSFIELD

Section 4

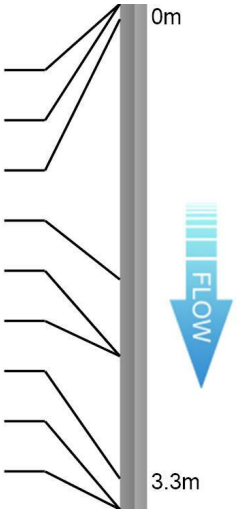
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
WARREN McNAB	60 LISTER STREET	HUDDERSFIELD	4549	SIMON	24/05/2023

Start Node Ref:	RDP1	Finish Node Ref:	SOAKAWAY	Direction:	D	Height/Dia:	100
Start Node Depth:	0.25	Finish Node Depth:	0.10	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
OC				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	3.3	

Position	Code	Description	CD	Pic	Video Ref
00.00m	OC	Start node type, other special chamber		3_0	0:00:00
00.00m	WL	Water level 0%		3_1	0:00:00
00.10m	MCJ	Material of drain/sewer changes at joint		3_2	0:00:08
01.80m	DES	Settled deposits fine 25%		3_3	0:00:27
02.30m	MCJ	Material of drain/sewer changes at joint		3_4	0:00:36
02.30m	RJ	Roots at joint		3_5	0:00:39
03.10m	WL	Water level 50%		3_6	0:00:55
03.30m	CU	Loss of vision		3_7	0:01:02
03.30m	SKF	Finish node type, soakaway		3_99	



Total Defects for section

0	0	2	0	0

DRB Grade for Section

B

Descriptive Report with Remarks and Observation Images

Section 4

Pos	Video Ref	Code	Description	Image
00.00m	0:00:00	OC	Start node type, other special chamber RAIN DOWN PIPE OUTFALL	Image Provided - Ref: 3_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	Image Provided - Ref: 3_1 
00.10m	0:00:08	MCPVCJ	Material of pipe changes to Polyvinyl Chloride at joint	Image Provided - Ref: 3_2 

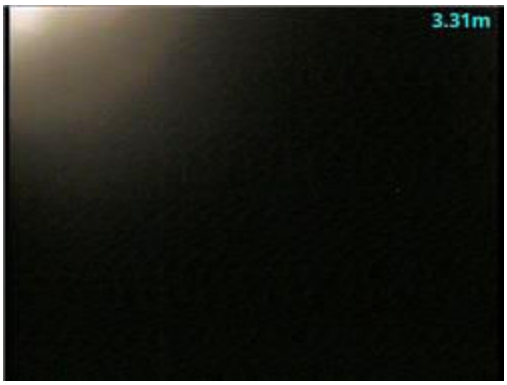
Pos	Video Ref	Code	Description	Image
01.80m	0:00:27	DES	Settled deposits fine: 25% Cross sectional area loss - Severity 3	Image Provided - Ref: 3_3 
02.30m	0:00:36	MCJ	Material of pipe changes to at joint	Image Provided - Ref: 3_4 
02.30m	0:00:39	RJ	Roots at joint - Severity 3 Band: F	Image Provided - Ref: 3_5 
03.10m	0:00:55	WL	Water level: 50% Height/Diameter HOLDING	Image Provided - Ref: 3_6 

Total Defects for section

0 0 2 0 0

DRB Grade for Section

B

Pos	Video Ref	Code	Description	Image
03.30m	0:01:02	CU	Loss of vision	Image Provided - Ref: 3_7 
03.30m		SKF	Finish node type, soakaway SOAKAWAY	

Site: 60 LISTER STREET, HUDDERSFIELD

Section 5

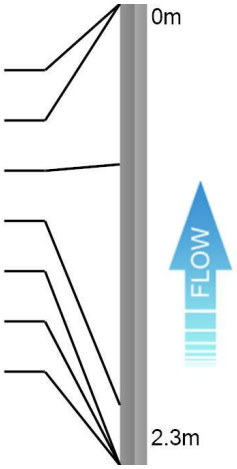
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
WARREN McNAB	60 LISTER STREET	HUDDERSFIELD	4549	SIMON	24/05/2023

Start Node Ref:	MH1	Finish Node Ref:	GULLY 2	Direction:	U	Height/Dia:	100
Start Node Depth:	0.90	Finish Node Depth:	0.30	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	2.3	

Position	Code	Description	CD	Pic	Video Ref
00.00m	MH	Start node type, manhole		4_0	0:00:00
00.00m	WL	Water level 0%		4_1	0:00:00
00.80m	DER	Settled deposits coarse 20%		4_2	0:00:14
02.00m	JDMJ	Joint displaced medium at joint		4_3	0:00:41
02.30m	REM	General remark		4_4	0:00:51
02.30m	H	Hole in drain/sewer 09-03		4_5	0:00:56
02.30m	GYF	Finish node type Gully		4_99	



Total Defects for section

0	0	2	1	0

DRB Grade for Section

C

Descriptive Report with Remarks and Observation Images

Section 5

Pos	Video Ref	Code	Description	Image
00.00m	0:00:00	MH	Start node type, manhole MH1	Image Provided - Ref: 4_0 
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	Image Provided - Ref: 4_1 
00.80m	0:00:14	DER	Settled deposits coarse: 20% Cross sectional area loss - Severity 3	Image Provided - Ref: 4_2 

Pos	Video Ref	Code	Description	Image
02.00m	0:00:41	JDMJ	Joint displaced medium at joint - Severity 3	Image Provided - Ref: 4_3 
02.30m	0:00:51	REM	General remark BROKEN GULLY	Image Provided - Ref: 4_4 
02.30m	0:00:56	H	Hole in drain/sewer from 09 o'clock to 03 o'clock - Severity 4	Image Provided - Ref: 4_5 
02.30m		GYF	Finish node type Gully GULLY 2	

Total Defects for section

0 0 2 1 0

DRB Grade for Section

C

Site: 60 LISTER STREET, HUDDERSFIELD

Section 6

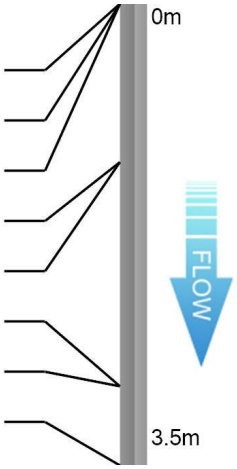
Client:	Location (Street Name):	City/Town/Village	Cust Job Ref.	Surveyors Name:	Date:
WARREN McNAB	60 LISTER STREET	HUDDERSFIELD	4549	SIMON	24/05/2023

Start Node Ref:	GULLY1	Finish Node Ref:	MAIN	Direction:	D	Height/Dia:	100
Start Node Depth:	0.40	Finish Node Depth:	0.60	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
GY				

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	3.5	

Position	Code	Description	CD	Pic	Video Ref
00.00m	GY	Start node type Gully		5_0	0:00:00
00.00m	WL	Water level 30%		5_1	0:00:00
00.00m	REM	General remark		5_2	0:00:12
01.20m	OJMJ	Open joint medium at joint		5_3	0:01:21
01.20m	HJ	Hole in drain/sewer 04-07 at joint		5_4	0:02:08
02.90m	JDMJ	Joint displaced medium at joint		5_5	0:03:12
02.90m	LLHJ	Line of drain/sewer deviates left [half] at joint		5_6	0:03:15
03.50m	BRF	Finish node type, major connection without		5_99	



Total Defects for section

0	0	2	1	0

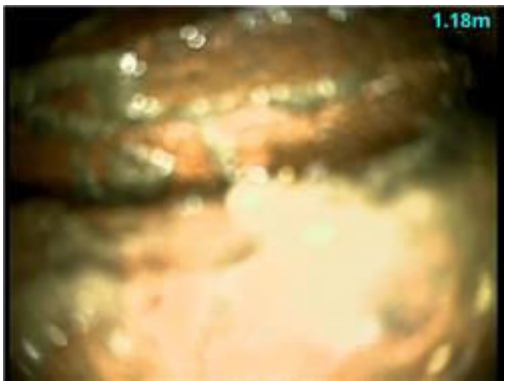
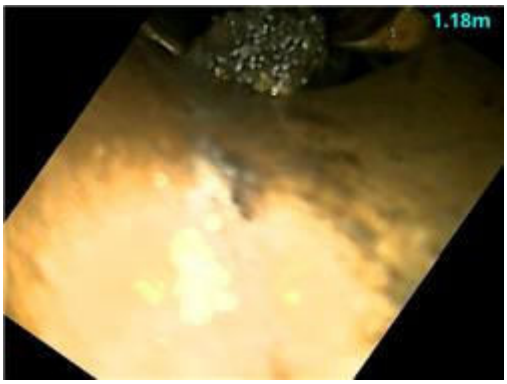
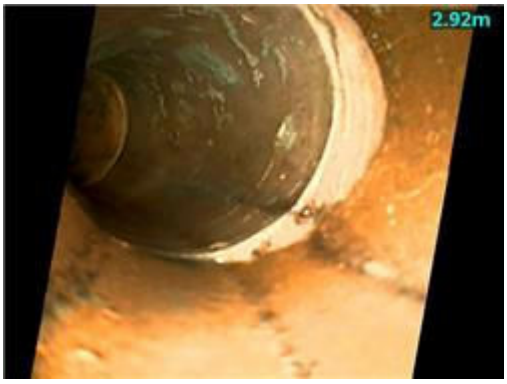
DRB Grade for Section

C

Descriptive Report with Remarks and Observation Images

Section 6

Pos	Video Ref	Code	Description	Image
00.00m	0:00:00	GY	Start node type Gully GULLY1	Image Provided - Ref: 5_0 
00.00m	0:00:00	WL	Water level: 30% Height/Diameter IN TRAP	Image Provided - Ref: 5_1 
00.00m	0:00:12	REM	General remark LARGE VOID NEXT TO GULLY	Image Provided - Ref: 5_2 

Pos	Video Ref	Code	Description	Image
01.20m	0:01:21	OJMJ	Open joint medium at joint - Severity 3	Image Provided - Ref: 5_3 
01.20m	0:02:08	HJ	Hole in drain/sewer from 04 o'clock to 07 o'clock at joint - Severity 4	Image Provided - Ref: 5_4 
02.90m	0:03:12	JDMJ	Joint displaced medium at joint - Severity 3	Image Provided - Ref: 5_5 
02.90m	0:03:15	LLHJ	Line of drain/sewer deviates left [half] at joint	Image Provided - Ref: 5_6 

Total Defects for section

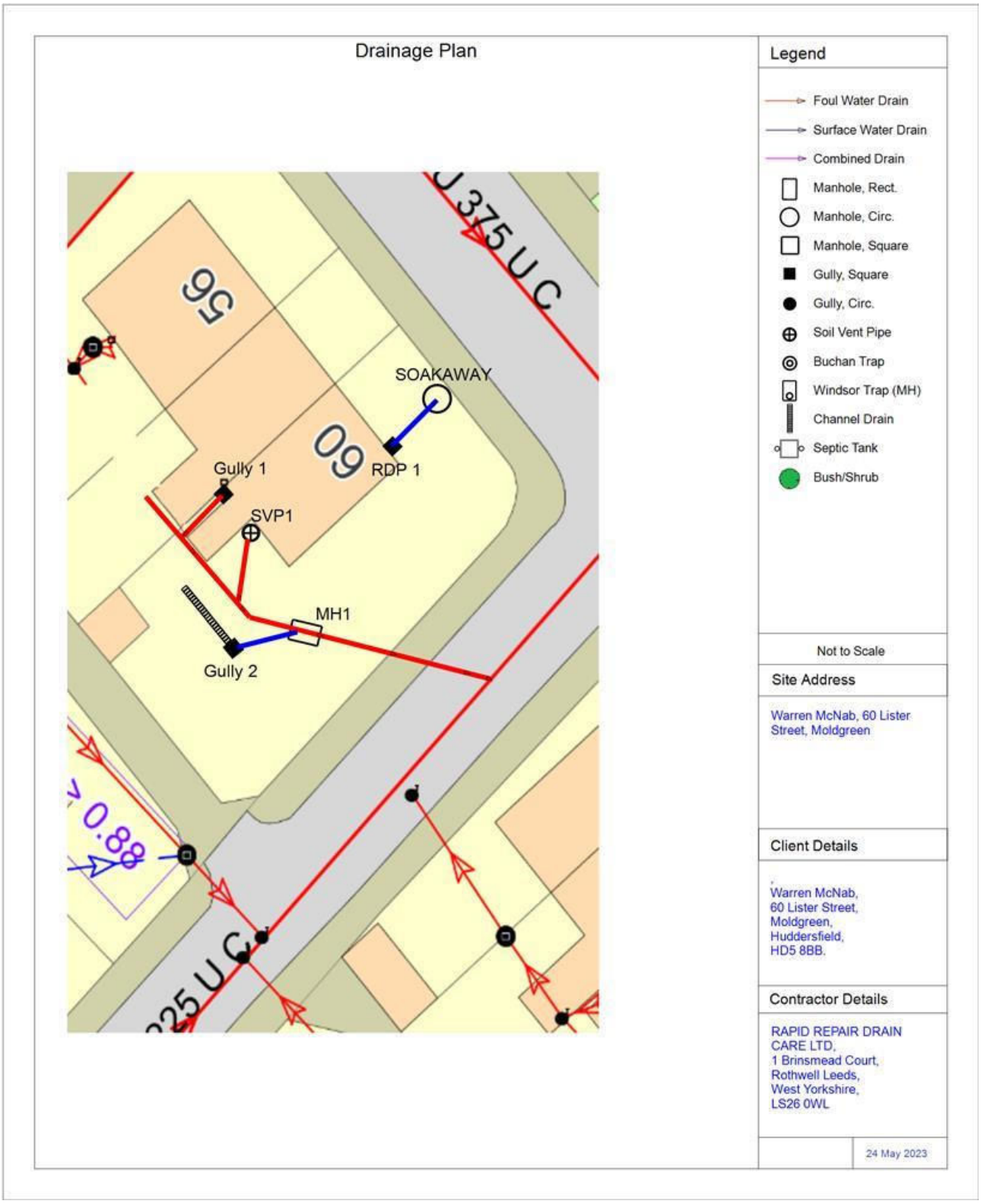
0 0 2 1 0

DRB Grade for Section

C

Pos	Video Ref	Code	Description	Image
03.50m		BRF	Finish node type, major connection without manhole MAIN	

Plan of Site



Total Defects for section

0	0	2	1	0

DRB Grade for Section

C

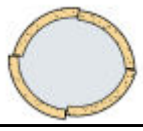
A guide to defects and other observations in drainage systems

More detailed information can be found in the National Standard (BS EN 13508-1:2003) and in the Manual of Sewer Condition Classification (MSCC) 5th Edition, written by the Water Research Centre (WRc).

Use	
Code	**Description**
C	Combined
F	Foul
S	Surface Water
T	Trade Effulent
W	Culverted Watercourse
Z	Other

Common Materials	
Code	**Description**
VC	Vitrified Clay
PVC	Polyvinyl Chloride
CO	Concrete
CI	Cast Iron
PF	Pitch Fibre
PE	Polyethylene
DI	Ductile Iron

Start Node	Description	Finish Node
MH	Manhole	MHF
IC	Inspection Chamber	ICF
GY	Gulley	GYF
RE	Rodding Eye	REF
SK	Soakaway	SKF
BN	Buchan Trap	BNF
BR	Major Connection without Ref	BRF
CP	Cacth Pit	CPF
OC	Other Special Chamber	OCF
OF	Outfall	OFF
OS	Oil Seperator	OSF
WR	Winser Trap	WRF
LH	Lamphole	LHF

Code	Observation	Description	Attributes	
B	Broken	Pieces pipe have visibly moved	Defined by clock references. Associated with deformity in rigid pipe	
CC CL CM CR	Cracks	Cracks are break lines that are not visibly open	Defined by clock reference position/s. Longitudinal and radiating cracks attract only one clock reference	
CN	Connection	Lateral pipe has been connected after original construction	Described by clock reference position and diameter	

Total Defects for section

0	0	2	1	0

DRB Grade for Section

C

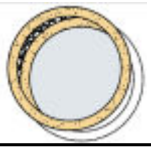
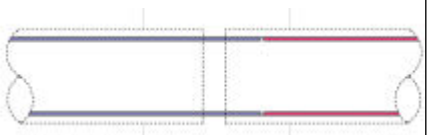
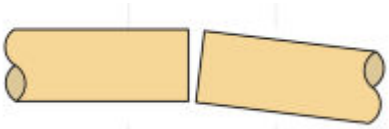
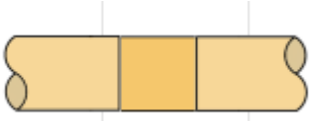
CX(I)	Defective Connection (Intruding)	Defective by intrusion or damage due to factors including: cracks, fractures, obstruction, position etc	Described by clock reference position and diameter (+ % intrusion)	
CU	Loss of Vision	Lens of camera is obscured by debris, water etc. Operator is unable to see drain clearly	'W' can be added if loss of vision is due to water	
D	Deformed	Pipe has lost its structure	Described by percentage loss of height or width. Recorded in 5% increments	
DEE	Deposits Encrustation	Eg. Attached scale deposits evident	Described by clock referenced position and percentage loss of cross-sectional area (5% increments)	
DEG	Deposits Grease	Attached grease deposits evident	Described by clock referenced position and percentage loss of cross-sectional area (5% increments)	
DER DES	Deposits Coarse/Fine	Settled deposits on the invert of the pipe.	Described by percentage loss of height or diameter. Recorded in 5% increments.	
FC FL FM FR	Fractures	Fractures are visibly open. Pieces of pipe have not moved	Defined by clock reference position/s. Longitudinal and radiating fractures attract only one clock reference	
H	Holes	Section of pipe fabric is missing	Defined by clock reference location. Normally two clock references	
I	Infiltration	Water is infiltrating the pipe, normally via a joint but could be via another defect	Can be described in Remarks using terms such as Seeper, Dripper and Runner	
JDL	Joint Displaced Large	Pipe has moved at joint, perpendicular to axis of pipe	More than 1.5 times the pipe wall thickness must be visible	

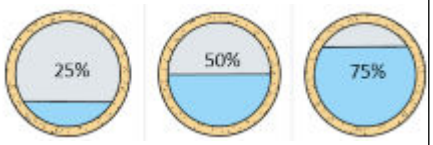
Total Defects for section

0	0	2	1	0

DRB Grade for Section

C

JDM	Joint Displaced Medium	Pipe has moved at joint, perpendicular to axis of pipe	Between 1 and 1.5 times the pipe wall thickness must be visible	
JN	Junction	Lateral pipe was installed at construction	Described by clock reference position and diameter	
JX	Defective Junction	Lateral pipe was installed at construction but is defective in some way	Joint can be defective due to factors including: cracks, fractures, obstruction, position etc	
LD **LU** **LL** **LR**	Line Deviation	LD = Line Down, LU = Line Up, LL = Line Left, LR = Line Right. Not related to CIPP lining.	Additional modifiers are added: Q = Quarter (22.5), H = Half (45), F = Full (90). In degrees.	
LC	Lining Changes	If the drain is lined, the lining material has changed	Position of lining material change	
MC	Material Change	The pipe material has changed	Position of change is noted. Type of material change can be defined	
OB	Obstruction/Obstacle	An obstruction or obstacle is affecting the flow through the pipe	Described in percentage loss of cross-sectional area	
OJL	Open Joint Large	Pipe has moved at joint, along the axis of pipe	More than 1.5 times the pipe wall thickness must be visible	
OJM	Open Joint Medium	Pipe has moved at joint, along the axis of pipe	Between 1 and 1.5 times the pipe wall thickness must be visible	
PC	Pipe Length Changes	Length of individual pipe changes	New length described at this position	

R	Roots	Evidence of root ingress	Roots will normally infiltrate via bad joints, cracks, fractures, breaks etc	
REM	Remark	General remark	Used for additional information	
S	Surface Damage	This might include corrosion, spalling and chemical attack	Position only. Additional information can be added in Remarks	
SA	Survey Abandoned	Used when a survey cannot continue for any reason	The reason for abandoning a survey should be noted in the remarks area	
SC	Shape Changes	Dimension of drain changes	Diameter dimension change recorded. Second dimension is recorded for no circular pipe changes	
SR	Sealing Ring	Sealing ring intrudes into pipe at joint	Described by clock reference position	
V	Vermin	Evidence of Vermin in pipe	Can also be used for evidence within manhole etc	
WL	Water Level	Used to record changes in water level. Always shown at the beginning of every survey, if dry noted as 00.	Described by percentage of height or diameter. Recorded in 5% increments	
XP	Collapsed	Drain is suffering from complete loss of structural integrity. Always followed by SA - Survey Abandoned	Percentage loss of cross-sectional area is recorded. Other related structural defects are not recorded	

Surveyor Certificate

Redacted