

CCTV Survey Report

Drain Condition
Reporting
Software
PT/430/0918



Prepared For

Site

110 whatley street
bolton



M&D DRAINS LTD
Surveyor: R . Latham
md4drains@outlook.com

Total Defects for Project



Total DRB Grades for Project



110 whatley street - CCTV Survey Report : 17/01/24

Prepared by:

Name : M&D DRAINS LTD
 Contact :
 Location : 351 Moss Bank Way
 Town : Bolton
 Region : Manchester
 Postcode : BL1 3LR
 Email : md4drains@outlook.com
 Web :
 Contact Number :
 Surveyor : R . Latham
 Valid Certification No :

Client Information

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

Site Information

Site Name :
 Contact :
 Location : 110 whatley street
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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/recommendations 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.

Total Defects for Project



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Overview

Section: 1 From: MH1 To: outside MH		Purpose of Inspection: Routine inspection of condition pipe is brocken at 1m and has a hole in at 2.4m line needs digging and repairing to resolve the issues	DRB Grade: C Pipe Size: 150 Material: Vitrified Clay (i.e. all clayware) Use: Combined
MH	Cover Benching Channel		
Section: 2 From: MH1 To: old road gulley		Purpose of Inspection: Routine inspection of condition line is no longer in use	DRB Grade: B Pipe Size: 150 Material: Vitrified Clay (i.e. all clayware) Use: Combined
MH	Cover Benching Channel		
Section: 3 From: MH2 To: house		Purpose of Inspection: Routine inspection of condition line has a medium displaced joint that is causing the line to hold foul waste and water line needs digging and repairing to sort the issues	DRB Grade: B Pipe Size: 150 Material: Vitrified Clay (i.e. all clayware) Use: Combined
MH	Cover Benching Channel		
Section: 4 From: MH2 To: MH3		Purpose of Inspection: Routine inspection of condition line has a large crack in line needs patch liner or digging and repairing	DRB Grade: A Pipe Size: 150 Material: Vitrified Clay (i.e. all clayware) Use: Combined
MH	Cover Benching Channel		

Total Defects for Project



Total DRB Grades for Project



Site: 110 whatley street, bolton

Section 1

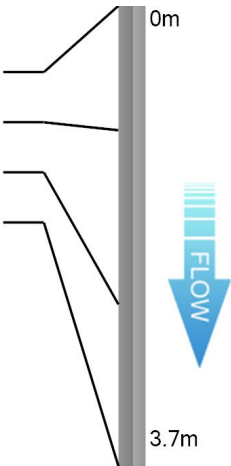
Client: Andrea walsh	Location (Street Name): 110 whatley street	City/Town/Village bolton	Cust Job Ref.	Surveyors Name: RL	Date: 17/01/2024
Start Node Ref: Start Node Depth: Start Node Coordinate:	MH1 1.10	Finish Node Ref: Finish Node Depth: Finish Node Coordinate:	outside MH 0.00	Direction: Use: Material:	D C VC Height/Dia: 150 Shape: C Cleaned N
Node Type	Cover Condition	Benching Condition	Channel Condition	Node Condition Remarks	
MH					

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A	N				N	03.7	

Position Code Description

00.00m MH Start node type, manhole
01.00m BJ Broken pipe 12-12 at joint
02.40m H Hole in drain/sewer 06-06
03.70m MHF Finish node type, manhole

CD Pic Video Ref
0_0 0:00:00
0_1 0:00:00
0_2 0:00:00
0_99 0:00:00



Total Defects for section

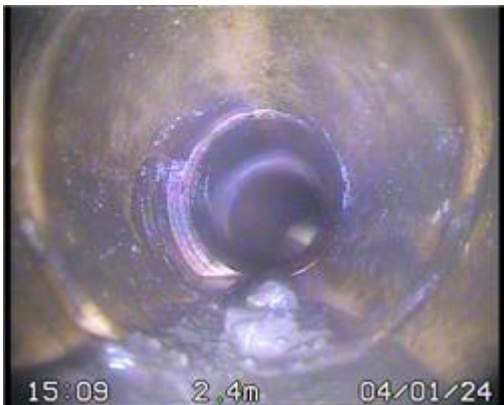


DRB Grade for Section



Descriptive Report with Remarks and Observation Images

Section 1

Pos	Video Ref	Code	Description	Image
00.00m	0:00:00	MH	Start node type, manhole	Image Provided - Ref: 0_0 
01.00m	0:00:00	BJ	Broken pipe from 12 o'clock to 12 o'clock at joint - Severity 4	Image Provided - Ref: 0_1 
02.40m	0:00:00	H	Hole in drain/sewer from 06 o'clock to 06 o'clock - Severity 4	Image Provided - Ref: 0_2 
03.70m	0:00:00	MHF	Finish node type, manhole	

Total Defects for section



DRB Grade for Section



Site: 110 whatley street, bolton

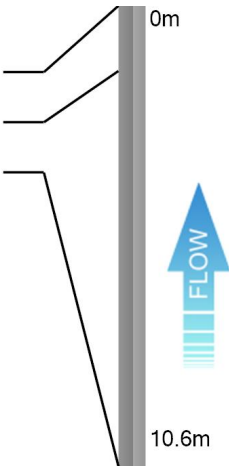
Section 2

Client: Andrea walsh	Location (Street Name): 110 whatley street	City/Town/Village bolton	Cust Job Ref.	Surveyors Name: RL	Date: 17/01/2024		
Start Node Ref: Start Node Depth: Start Node Coordinate:	MH1 1.10	Finish Node Ref: Finish Node Depth: Finish Node Coordinate:	old road gully 0.00	Direction: Use: Material:	U C VC Height/Dia: 150 Shape: C Cleaned N		
Node Type	Cover Condition	Benching Condition	Channel Condition	Node Condition Remarks			
MH							
Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A	N				N	10.6	

Position Code Description

00.00m MH Start node type, manhole
01.50m DERJ Settled deposits coarse 40% at joint
10.60m GYF Finish node type Gully

CD Pic Video Ref
1_0 0:00:00
1_1 0:00:00
1_99 0:00:00



Total Defects for section



DRB Grade for Section



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	Image Provided - Ref: 1_0 
01.50m	0:00:00	DERJ	Settled deposits coarse: 40% Cross sectional area loss at joint - Severity 3	Image Provided - Ref: 1_1 
10.60m	0:00:00	GYF	Finish node type Gully	

Total Defects for section



DRB Grade for Section



Site: 110 whatley street, bolton

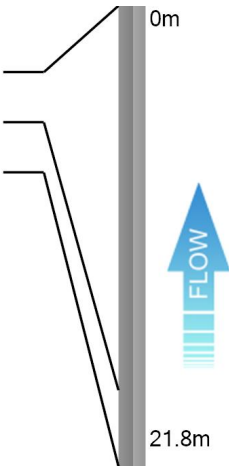
Section 3

Client: Andrea walsh	Location (Street Name): 110 whatley street	City/Town/Village bolton	Cust Job Ref.	Surveyors Name: RL	Date: 17/01/2024		
Start Node Ref: Start Node Depth: Start Node Coordinate:	MH2 2.00	Finish Node Ref: Finish Node Depth: Finish Node Coordinate:	house 0.00	Direction: Use: Material:	U C VC Height/Dia: 150 Shape: C Cleaned N		
Node Type	Cover Condition	Benching Condition	Channel Condition	Node Condition Remarks			
MH							
Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A	N				N	21.8	

Position Code Description

00.00m MH Start node type, manhole
18.20m JDM Joint displaced medium
21.80m SA Survey abandoned

CD Pic Video Ref
2_0 0:00:00
2_1 0:00:00
2_99 0:00:00



Total Defects for section

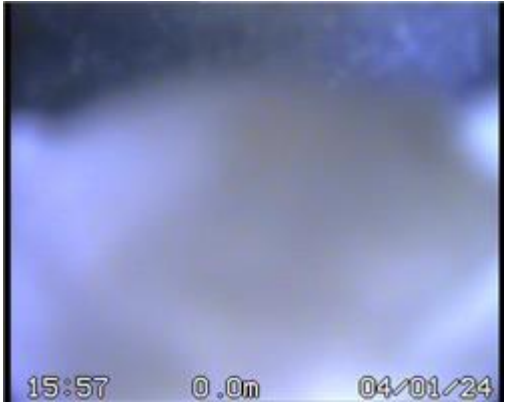
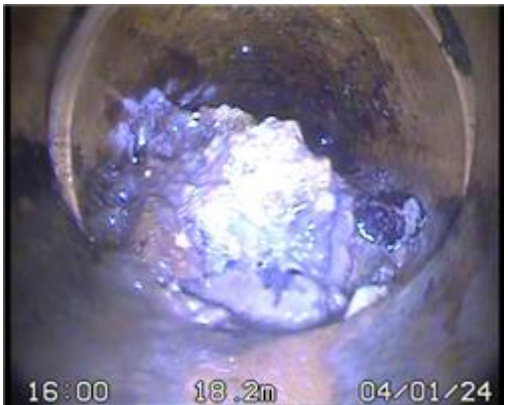


DRB Grade for Section



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	Image Provided - Ref: 2_0 
18.20m	0:00:00	JDM	Joint displaced medium - Severity 3	Image Provided - Ref: 2_1 
21.80m	0:00:00	SA	Survey abandoned AT HOUSE	

Total Defects for section



DRB Grade for Section



Site: 110 whatley street, bolton

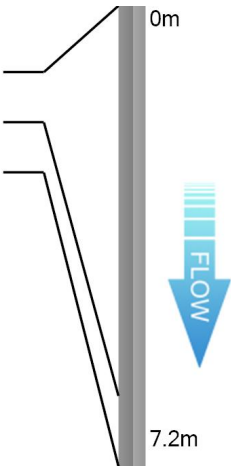
Section 4

Client: Andrea walsh	Location (Street Name): 110 whatley street	City/Town/Village bolton	Cust Job Ref.	Surveyors Name: RL	Date: 17/01/2024		
Start Node Ref: Start Node Depth: Start Node Coordinate:	MH2 2.00	Finish Node Ref: Finish Node Depth: Finish Node Coordinate:	MH3 0.00	Direction: D Use: C Material: VC	Height/Dia: 150 Shape: C Cleaned N		
Node Type	Cover Condition	Benching Condition	Channel Condition	Node Condition Remarks			
MH							
Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A	N				N	07.2	

Position Code Description

00.00m MH Start node type, manhole
06.10m CLJ Crack, longitudinal 12 at joint
07.20m MHF Finish node type, manhole

CD Pic Video Ref
3_0 0:00:00
3_1 0:00:00
3_99 0:00:00



Total Defects for section

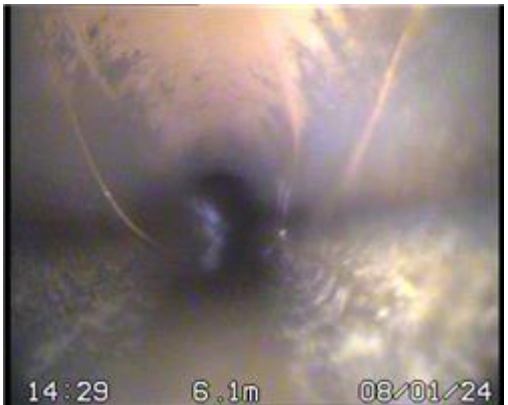


DRB Grade for Section

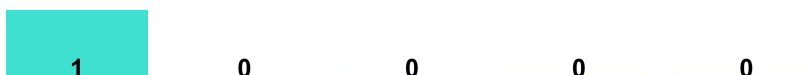


Descriptive Report with Remarks and Observation Images

Section 4

Pos	Video Ref	Code	Description	Image
00.00m	0:00:00	MH	Start node type, manhole	Image Provided - Ref: 3_0 
06.10m	0:00:00	CLJ	Crack, longitudinal at 12 o'clock at joint - Severity 1	Image Provided - Ref: 3_1 
07.20m	0:00:00	MHF	Finish node type, manhole	

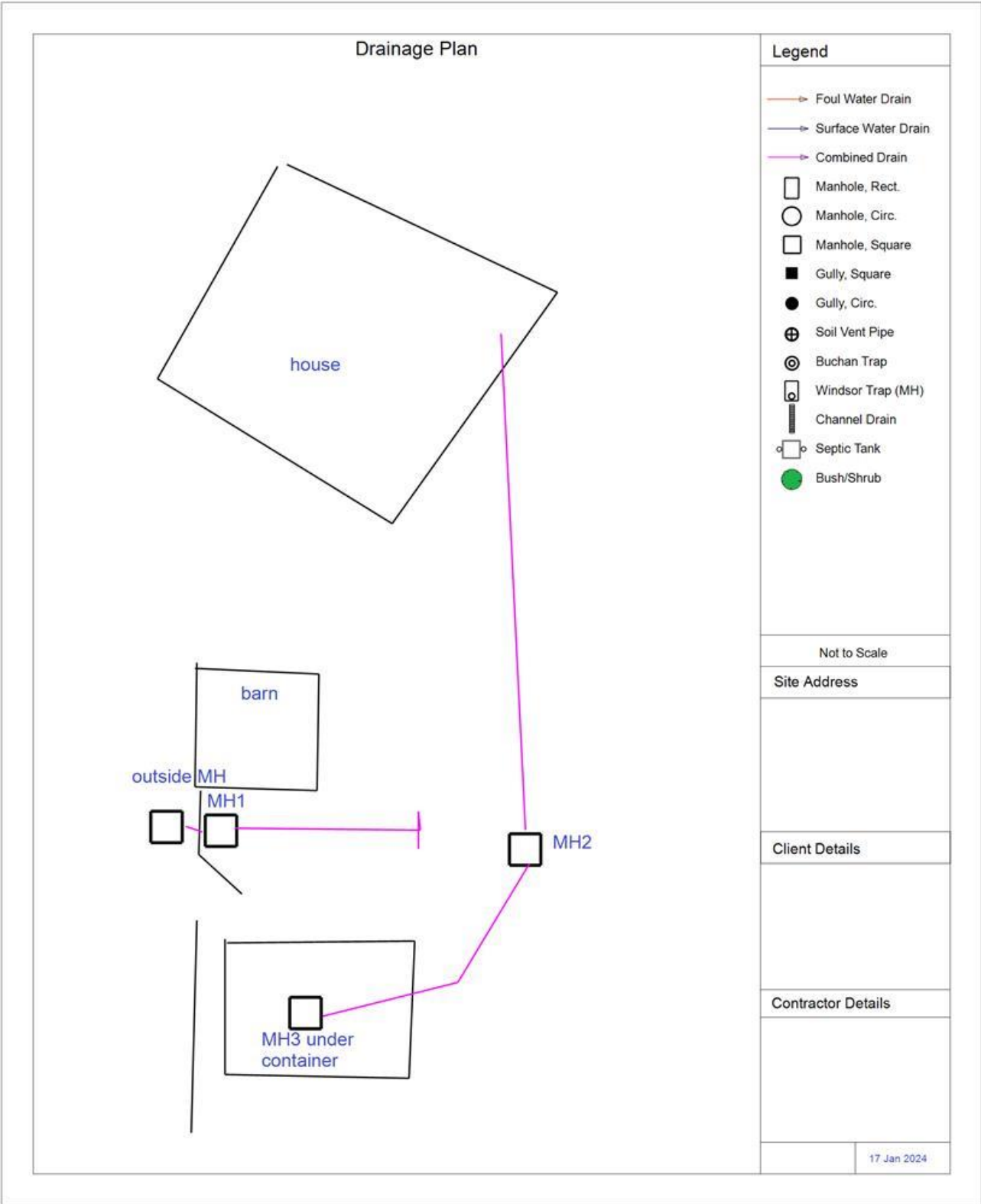
Total Defects for section



DRB Grade for Section



Plan of Site



Total Defects for section



DRB Grade for Section



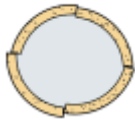
A guide to defects and other observations in drainage systems

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 Effluent
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	Catch Pit	CPF
OC	Other Special Chamber	OCF
OF	Outfall	OFF
OS	Oil Separator	OSF
WR	Winner Trap	WRF
LH	Lamphole	LHF

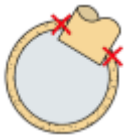
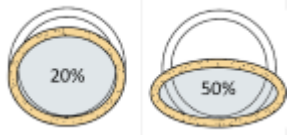
Code	Observation	Description	Attributes	
B	Broken	Pieces pipe have visibly moved	Defined by clock references. Associated with deformity in rigid pipe	
CC CL CM CR	Cracks	Cracks are break lines that are not visibly open	Defined by clock reference position/s. Longitudinal and radiating cracks attract only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

Total Defects for section



DRB Grade for Section



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

DRB Grade for Section

1

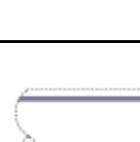
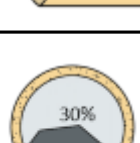
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A

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	

Total Defects for section

DRB Grade for Section

1

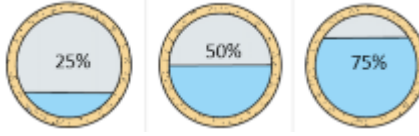
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R	Roots	Evidence of root ingress	Roots will normally infiltrate via bad joints, cracks, fractures, breaks etc	
REM	Remark	General remark	Used for additional information	
S	Surface Damage	This might include corrosion, spalling and chemical attack	Position 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	