

Drainage Report



Prepared For

**Bury Council
Town Hall
Bury
Lancashire
BL9 0EJ**

Site

**Bury Council
1 - 5 The Elms, Elms Close
Whitefield
Greater Manchester
M45 8XS**



ACRO DRAINS & BUILDING SERVICES

Surveyor: Dean Buckley

info@acrodrains.co.uk

07799001410

Total Defects for Project



Total DRB Grades for Project



The Elms - CCTV Survey Report : 31/08/22

Name : ACRO DRAINS & BUILDING SERVICES
 Contact : Dean Buckley
 Location : 89 Green Lane
 Town : Oldham
 Region : Lancashire
 Postcode : OL8 3BB
 Email : info@acrodrains.co.uk
 Contact Number : 07799001410
 Surveyor : Dean Buckley
 Valid Certification No :

Client Information

Name : Bury Council
 Contact : Peter Masters-Hall
 Location : Town Hall
 Town : Bury
 Region : Lancashire
 Postcode : BL9 0EJ
 Tel :
 Mobile :
 Email :
 Fax :

Site Information

Name : Bury Council
 Contact : Peter Masters-Hall
 Location : 1 - 5 The Elms, Elms Close
 Town : Whitefield
 Region : Greater Manchester
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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



Total DRB Grades for Project



Overview

Section: 1 From: MH01 To: MH02	United Utilities	DRB Grade: B Pipe Size: 150 Material: Vitrified Clay (i.e. all clayware) Use: Combined
Section: 2 From: MH01 To: SA	United Utilities Junction incoming on line from neighbouring bungalows Survey abandoned at 90 degree bend and line reduces to 100mm Unable to pass and push further - No access step irons to MH01	DRB Grade: B Pipe Size: 150 Material: Vitrified Clay (i.e. all clayware) Use: Combined
Section: 3 From: MH01 To: SA - Silt	Unable to pass 3.0m - Appears dry and redundant Full of Roots & Silt	DRB Grade: B Pipe Size: 150 Material: Vitrified Clay (i.e. all clayware) Use: Combined
Section: 4 From: MH02 To: Off boundary	United Utilities	DRB Grade: A Pipe Size: 150 Material: Vitrified Clay (i.e. all clayware) Use: Combined
Section: 5 From: MH02 To: GY Redundant	Section appears dry and redundant Area has been probed and no gully located - Presumed buried under tarmac Junction @ 2.4m - Unidentified	DRB Grade: B Pipe Size: 150 Material: Vitrified Clay (i.e. all clayware) Use: Combined
Section: 6 From: MH02 To: Off boundary	United Utilities	DRB Grade: B Pipe Size: 150 Material: Vitrified Clay (i.e. all clayware) Use: Combined

Total Defects for Project



Total DRB Grades for Project



Site: 1 - 5 The Elms, Elms Close, Whitefield

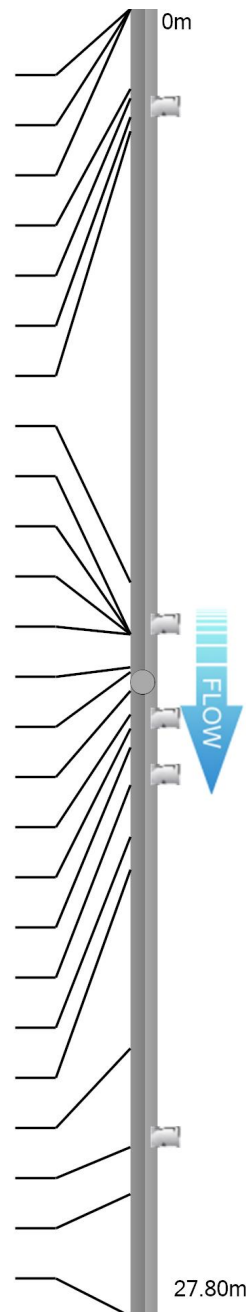
Section 1

Client: Bury Council	Location (Street Name): 1 - 5 The Elms, Elms Close	City/Town/Village Whitefield	Cust Job Ref. AD2952	Surveyors Name: Dean Buckley	Date: 31/08/2022
Start Node Ref: MH01	Start Node Depth: 1.95	Finish Node Ref: MH02	Finish Node Depth: 2.10	Direction: D	Height/Dia: 150
Start Node Coordinate:	Finish Node Coordinate:	Use: C	Material: VC	Shape: C	Cleaned N

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH	Good ✓	Poor ✗	Poor ✗	Root ingress to MH

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	30.1	

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				0m
00.00m	WL	Water level 5%		0_1	0:00:00	
00.00m	R	S1 Roots	S1	0_2	0:00:00	
01.70m	R	F1 Roots	F1	0_-2	0:00:00	
01.90m	RJ	Roots at joint		0_3	0:00:08	
02.30m	JN	Junction 09 : 100mm Diameter		0_5	0:00:10	
02.60m	RJ	Roots at joint		0_4	0:00:12	
12.20m	DEG	S2 Attached deposits, grease 03-09 5%	S2	0_9	0:00:48	
13.30m	DEG	F2 Attached deposits, grease 03-09 5%	F2	0_-9	0:00:48	
13.30m	JN	Junction 09 : 100mm Diameter		0_6	0:00:56	
13.30m	DEE	Attached deposits, encrustation 9 5%		0_7	0:00:56	
13.30m	R	Roots		0_8	0:00:56	
14.00m	DEG	S3 Attached deposits, grease 12-12 10%	S3	0_12	0:01:04	
14.10m	DEEJ	Attached deposits, encrustation 12-12 20% at		0_10	0:01:04	
14.50m	JN	Junction 12 : 100mm Diameter		0_11	0:01:24	
15.00m	DEG	F3 Attached deposits, grease 12-12 10%	F3	0_-	0:01:04	
15.30m	JN	Junction 09 : 100mm Diameter		0_13	0:01:33	
15.70m	DEG	Attached deposits, grease 09-03 20%		0_14	0:01:35	
16.50m	JN	Junction 09 : 150mm Diameter		0_15	0:01:40	
17.60m	DEG	Attached deposits, grease 10-02 10%		0_17	0:01:44	
18.30m	DEG	Attached deposits, grease 10-02 10%		0_18	0:01:47	
22.10m	RJ	Roots at joint		0_16	0:02:02	
24.20m	JN	Junction 09 : 150mm Diameter		0_19	0:02:12	
25.20m	DEG	Attached deposits, grease 11-01 20%		0_20	0:02:17	
27.80m	DEG	Attached deposits, grease 12 10%		0_21	0:02:28	27.80m



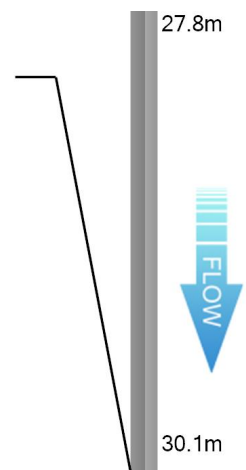
Total Defects for section

DRB Grade for Section



Position	Code	Description
30.10m	MHF	Finish node type, manhole

CD	Pic	Video Ref
	0_99	



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		MH	Start node type, manhole MH01	
00.00m	0:00:00	WL	Water level: 5% Height/Diameter	Image Provided - Ref: 0_1 
00.00m	0:00:00	S1 R	Roots 0m - 1.7m - Severity 3 Fine roots	Image Provided - Ref: 0_2 
01.70m	0:00:00	F1 R	Roots Defect End - Severity 3 Fine roots	
01.90m	0:00:08	RJ	Roots at joint - Severity 3	Image Provided - Ref: 0_3 

Total Defects for section



DRB Grade for Section



Pos	Video Ref	Code	Description	Image
02.30m	0:00:10	JN	Junction at 09 o'clock: 100mm Diameter	Image Provided - Ref: 0_5 
02.60m	0:00:12	RJ	Roots at joint - Severity 3	Image Provided - Ref: 0_4 
12.20m	0:00:48	S2 DEG	Attached deposits, grease 12.2m - 13.3m from 03 o'clock to 09 o'clock: 5% Cross sectional area loss - Severity 3 Fine attached grease deposits	Image Provided - Ref: 0_9 
13.30m	0:00:48	F2 DEG	Attached deposits, grease Defect End from 03 o'clock to 09 o'clock: 5% Cross sectional area loss - Severity 3 Fine attached grease deposits	

Total Defects for section

DRB Grade for Section



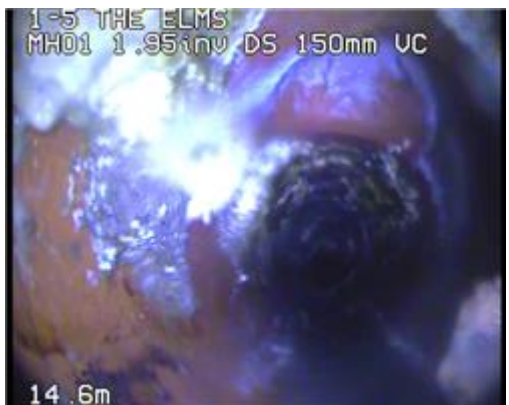
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13.30m	0:00:56	JN	Junction at 09 o'clock: 100mm Diameter	Image Provided - Ref: 0_6 
13.30m	0:00:56	DEE	Attached deposits, encrustation at 09 o'clock: 5% Cross sectional area loss - Severity 3 Ochre encrustations from junction	Image Provided - Ref: 0_7 
13.30m	0:00:56	R	Roots - Severity 3 Fine roots tap down junction	Image Provided - Ref: 0_8 

Total Defects for section



DRB Grade for Section



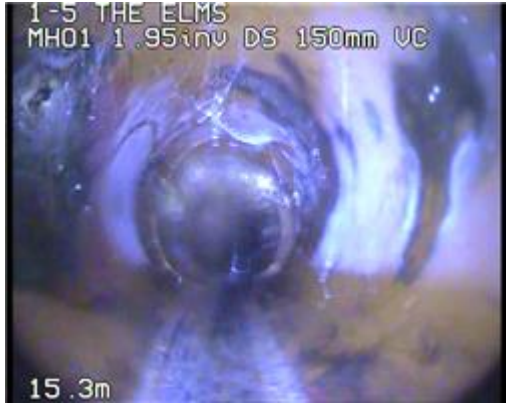
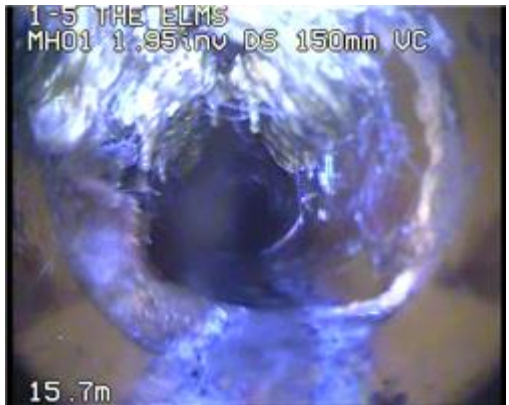
Pos	Video Ref	Code	Description	Image
14.00m	0:01:04	S3 DEG	Attached deposits, grease 14m - 15m from 12 o'clock to 12 o'clock: 10% Cross sectional area loss - Severity 3	Image Provided - Ref: 0_12 
14.10m	0:01:04	DEEJ	Attached deposits, encrustation from 12 o'clock to 12 o'clock: 20% Cross sectional area loss at joint - Severity 3	Image Provided - Ref: 0_10 
14.50m	0:01:24	JN	Junction at 12 o'clock: 100mm Diameter	Image Provided - Ref: 0_11 
15.00m	0:01:04	F3 DEG	Attached deposits, grease Defect End from 12 o'clock to 12 o'clock: 10% Cross sectional area loss - Severity 3	

Total Defects for section



DRB Grade for Section



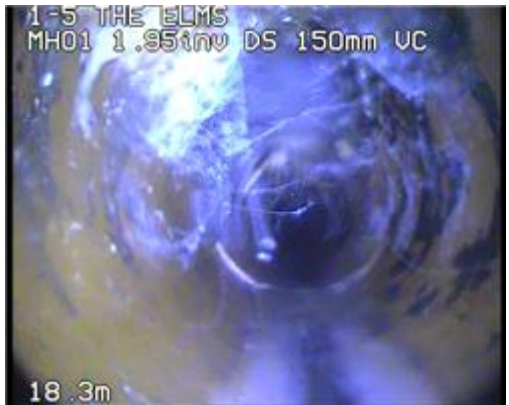
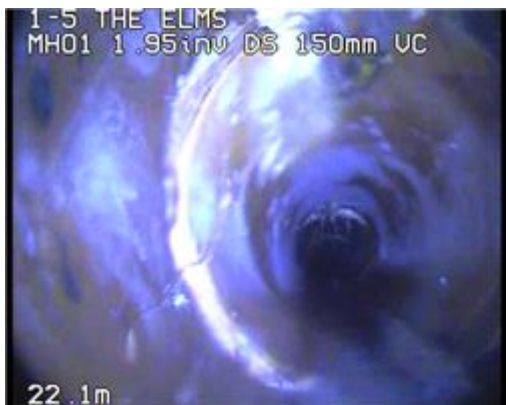
Pos	Video Ref	Code	Description	Image
15.30m	0:01:33	JN	Junction at 09 o'clock: 100mm Diameter	Image Provided - Ref: 0_13 
15.70m	0:01:35	DEG	Attached deposits, grease from 09 o'clock to 03 o'clock: 20% Cross sectional area loss - Severity 3	Image Provided - Ref: 0_14 
16.50m	0:01:40	JN	Junction at 09 o'clock: 150mm Diameter	Image Provided - Ref: 0_15 

Total Defects for section



DRB Grade for Section



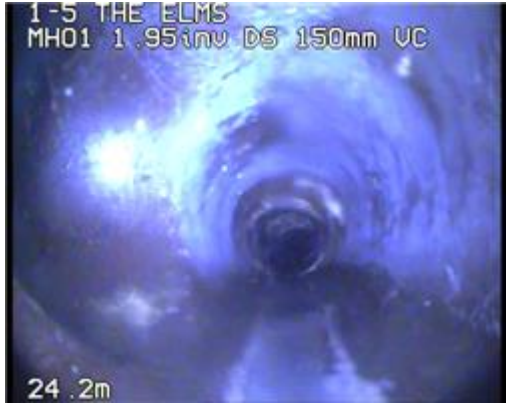
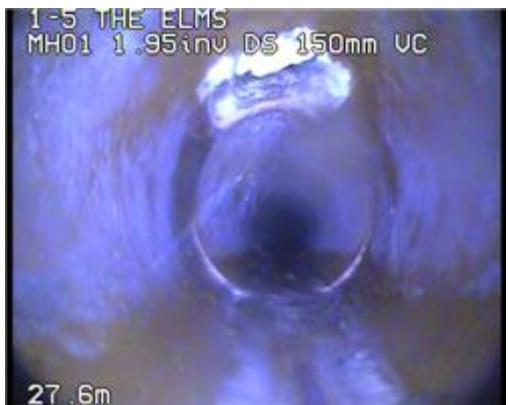
Pos	Video Ref	Code	Description	Image
17.60m	0:01:44	DEG	Attached deposits, grease from 10 o'clock to 02 o'clock: 10% Cross sectional area loss - Severity 3	Image Provided - Ref: 0_17 
18.30m	0:01:47	DEG	Attached deposits, grease from 10 o'clock to 02 o'clock: 10% Cross sectional area loss - Severity 3	Image Provided - Ref: 0_18 
22.10m	0:02:02	RJ	Roots at joint - Severity 3	Image Provided - Ref: 0_16 

Total Defects for section



DRB Grade for Section



Pos	Video Ref	Code	Description	Image
24.20m	0:02:12	JN	Junction at 09 o'clock: 150mm Diameter	Image Provided - Ref: 0_19 
25.20m	0:02:17	DEG	Attached deposits, grease from 11 o'clock to 01 o'clock: 20% Cross sectional area loss - Severity 3	Image Provided - Ref: 0_20 
27.80m	0:02:28	DEG	Attached deposits, grease at 12 o'clock: 10% Cross sectional area loss - Severity 3	Image Provided - Ref: 0_21 

Total Defects for section



DRB Grade for Section



Pos	Video Ref	Code	Description	Image
30.10m		MHF	Finish node type, manhole MH02	Image Provided - Ref: 0_9999  1-5 THE ELMS MH01 1.95inv DS 150mm UC 30.1m

Total Defects for section



DRB Grade for Section



Site: 1 - 5 The Elms, Elms Close, Whitefield

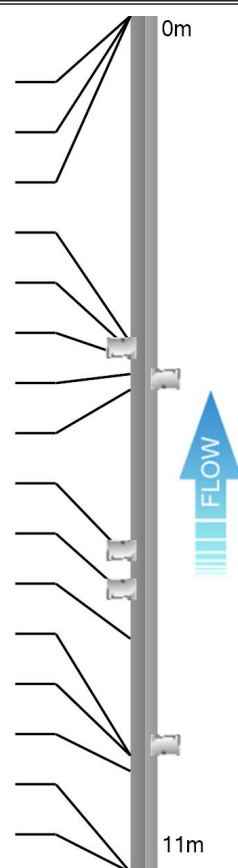
Section 2

Client: Bury Council	Location (Street Name): 1 - 5 The Elms, Elms Close	City/Town/Village Whitefield	Cust Job Ref. AD2952	Surveyors Name: Dean Buckley	Date: 31/08/2022
Start Node Ref: MH01	Finish Node Ref: SA	Direction: U	Height/Dia: 150		
Start Node Depth: 1.95	Finish Node Depth: 2.10	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	Good ✓	Poor ✗	Poor ✗	Root ingress to MH

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	11	

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				
00.00m	WL	Water level 10%		1_1	0:00:00	
00.00m	R	Roots		1_2	0:00:00	
04.20m	LRH	Line of drain/sewer deviates right [half]		1_3	0:00:21	
04.30m	MC	Material of drain/sewer changes		1_4	0:00:26	
04.40m	JN	Junction 03 : 100mm Diameter		1_5	0:00:28	
04.60m	MC	Material of drain/sewer changes		1_6	0:00:30	
04.80m	JN	Junction 09 : 150mm Diameter		1_7	0:00:35	
07.00m	JN	Junction 03 : 100mm Diameter		1_8	0:00:54	
07.50m	JN	Junction 03 : 150mm Diameter		1_9	0:00:58	
08.00m	DES	Settled deposits fine 10%		1_10	0:01:01	
09.50m	JN	Junction 09 : 100mm Diameter		1_11	0:01:13	
09.50m	R	Roots		1_12	0:01:12	
09.70m	LRF	Line of drain/sewer deviates right [full]		1_13	0:01:14	
11.00m	SC	Dimension of drain/sewer changes : 100mm		1_14	0:01:44	
11.00m	SA	Survey abandoned				



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		MH	Start node type, manhole MH01	
00.00m	0:00:00	WL	Water level: 10% Height/Diameter	Image Provided - Ref: 1_1 
00.00m	0:00:00	R	Roots - Severity 3 Fine roots	Image Provided - Ref: 1_2 
04.20m	0:00:21	LRH	Line of drain/sewer deviates right [half]	Image Provided - Ref: 1_3 

Total Defects for section



DRB Grade for Section



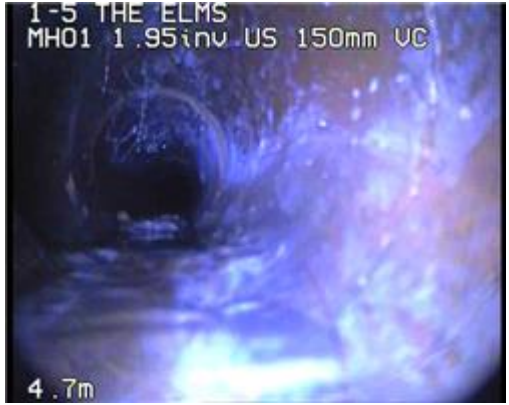
Pos	Video Ref	Code	Description	Image
04.30m	0:00:26	MCPVC	Material of pipe changes to Polyvinyl Chloride	Image Provided - Ref: 1_4 
04.40m	0:00:28	JN	Junction at 03 o'clock: 100mm Diameter	Image Provided - Ref: 1_5 
04.60m	0:00:30	MCVC	Material of pipe changes to Vitrified Clay (i.e. all clayware)	Image Provided - Ref: 1_6 

Total Defects for section



DRB Grade for Section



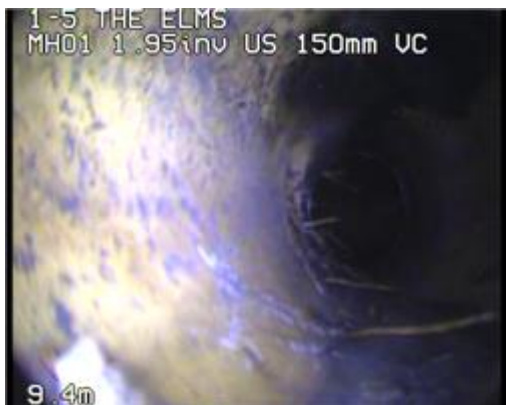
Pos	Video Ref	Code	Description	Image
04.80m	0:00:35	JN	Junction at 09 o'clock: 150mm Diameter Junction coming in from neighbouring bungalow	Image Provided - Ref: 1_7 
07.00m	0:00:54	JN	Junction at 03 o'clock: 100mm Diameter	Image Provided - Ref: 1_8 
07.50m	0:00:58	JN	Junction at 03 o'clock: 150mm Diameter	Image Provided - Ref: 1_9 

Total Defects for section



DRB Grade for Section



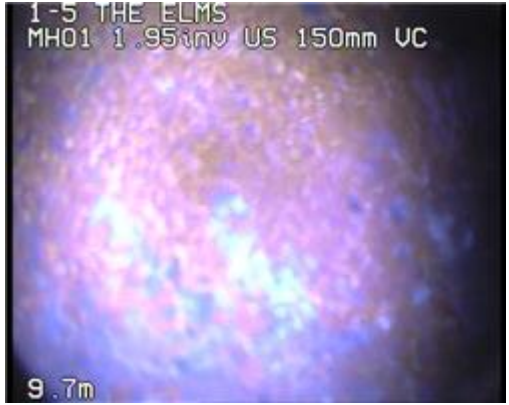
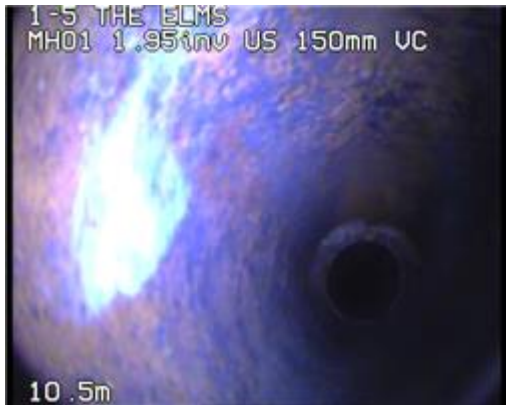
Pos	Video Ref	Code	Description	Image
08.00m	0:01:01	DES	Settled deposits fine: 10% Cross sectional area loss - Severity 3	Image Provided - Ref: 1_10 
09.50m	0:01:13	JN	Junction at 09 o'clock: 100mm Diameter Junction coming in from neighbouring bungalow	Image Provided - Ref: 1_11 
09.50m	0:01:12	R	Roots - Severity 3 Fine roots tap down junction	Image Provided - Ref: 1_12 

Total Defects for section



DRB Grade for Section



Pos	Video Ref	Code	Description	Image
09.70m	0:01:14	LRF	Line of drain/sewer deviates right [full]	Image Provided - Ref: 1_13 
11.00m	0:01:44	SC	Dimension of drain/sewer changes: 100mm Diameter	Image Provided - Ref: 1_14 
11.00m		SA	Survey abandoned SA - Unable to pass	

Total Defects for section



DRB Grade for Section



Site: 1 - 5 The Elms, Elms Close, Whitefield

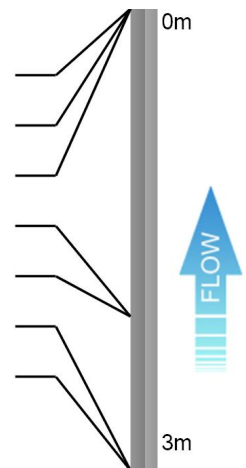
Section 3

Client: Bury Council	Location (Street Name): 1 - 5 The Elms, Elms Close	City/Town/Village Whitefield	Cust Job Ref. AD2952	Surveyors Name: Dean Buckley	Date: 31/08/2022
Start Node Ref: MH01	Finish Node Ref: SA - Silt	Direction: U	Height/Dia: 150		
Start Node Depth: 1.95	Finish Node Depth: 2.10	Use: C	Shape: C		
Start Node Coordinate: C	Finish Node Coordinate:	Material: VC	Cleaned N		

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH	Good ✓	Poor ✗	Poor ✗	Roots ingress to MH

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	3	

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				
00.00m	WL	Water level 0%		2_1	0:00:00	
00.00m	R	S1 Roots	S1	2_2	0:00:00	
02.00m	R	F1 Roots	F1	2_-2	0:00:00	
02.00m	DER	S2 Settled deposits coarse 40%	S2	2_3	0:00:25	
03.00m	DER	F2 Settled deposits coarse 40%	F2	2_-3	0:00:25	
03.00m	SA	Survey abandoned		2_99		



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		MH	Start node type, manhole MH01	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	Image Provided - Ref: 2_1 1-5 THE ELMS MH01 1.95inv US C 150mm UC 0.0m
00.00m	0:00:00	S1 R	Roots 0m - 2m - Severity 3 Fine roots from mature trees	Image Provided - Ref: 2_2 1-5 THE ELMS MH01 1.95inv US C 150mm UC 0.0m
02.00m	0:00:00	F1 R	Roots Defect End - Severity 3 Fine roots from mature trees	
02.00m	0:00:25	S2 DER	Settled deposits coarse 2m - 3m: 40% Cross sectional area loss - Severity 3 Dry coarse debris - Appears redundant	Image Provided - Ref: 2_3 1-5 THE ELMS MH01 1.95inv US C 150mm UC 2.1m
03.00m	0:00:25	F2 DER	Settled deposits coarse Defect End: 40% Cross sectional area loss - Severity 3 Dry coarse debris - Appears redundant	

Total Defects for section

DRB Grade for Section



Pos	Video Ref	Code	Description	Image
03.00m		SA	Survey abandoned SA - Silt	Image Provided - Ref: 2_9999 

Total Defects for section



DRB Grade for Section



Site: 1 - 5 The Elms, Elms Close, Whitefield

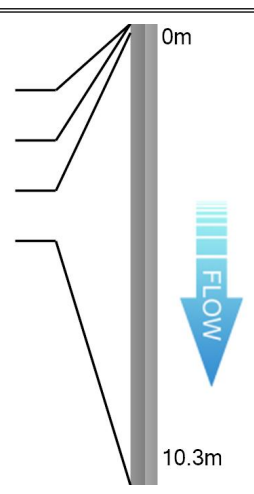
Section 4

Client: Bury Council	Location (Street Name): 1 - 5 The Elms, Elms Close	City/Town/Village Whitefield	Cust Job Ref. AD2952	Surveyors Name: Dean Buckley	Date: 31/08/2022
Start Node Ref: MH02	Finish Node Ref: Off boundary	Direction: D	Height/Dia: 150		
Start Node Depth: 2.10	Finish Node Depth: 2.10	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	Good ✓	Good ✓	Good ✓	Interceptor

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	10.3	

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				
00.00m	WL	Water level 0%		3_1	0:00:00	
00.20m	REM	General remark		3_2	0:00:00	
10.30m	BRF	Finish node type, major connection without		3_99		



Total Defects for section

DRB Grade for Section

0 0 0 0 0



Descriptive Report with Remarks and Observation Images

Section 4

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH02	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	Image Provided - Ref: 3_1 
00.20m	0:00:00	REM	General remark Rear of interceptor outlet	Image Provided - Ref: 3_2 
10.30m		BRF	Finish node type, major connection without manhole Off boundary in Elms Close	Image Provided - Ref: 3_9999 

Total Defects for section

DRB Grade for Section



Site: 1 - 5 The Elms, Elms Close, Whitefield

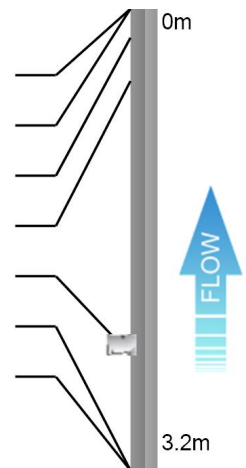
Section 5

Client: Bury Council	Location (Street Name): 1 - 5 The Elms, Elms Close	City/Town/Village Whitefield	Cust Job Ref. AD2952	Surveyors Name: Dean Buckley	Date: 31/08/2022
Start Node Ref: MH02	Finish Node Ref: GY Redundant	Direction: U	Height/Dia: 150		
Start Node Depth: 2.10	Finish Node Depth: 2.10	Use: C	Shape: C		
Start Node Coordinate: Dropshaft	Finish Node Coordinate:	Material: VC	Cleaned N		

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH	Good ✓	Good ✓	Good ✓	Dropshaft

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	3.2	

Position	Code	Description	CD	Pic	Video Ref	
00.00m	MH	Start node type, manhole				
00.00m	WL	Water level 0%		4_1	0:00:00	
00.20m	LLQ	Line of drain/sewer deviates left [quarter]		4_2	0:00:00	
00.50m	DES	S1 Settled deposits fine 10%	S1	4_3	0:00:08	
02.40m	JN	Junction 03 : 150mm Diameter		4_4	0:00:12	
03.20m	DES	F1 Settled deposits fine 10%	F1	4_-3	0:00:08	
03.20m	GYF	Finish node type Gully				



Total Defects for section

DRB Grade for Section



Descriptive Report with Remarks and Observation Images

Section 5

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH02	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	Image Provided - Ref: 4_1 
00.20m	0:00:00	LLQ	Line of drain/sewer deviates left [quarter]	Image Provided - Ref: 4_2 
00.50m	0:00:08	S1 DES	Settled deposits fine 0.5m - 3.2m: 10% Cross sectional area loss - Severity 3	Image Provided - Ref: 4_3 

Total Defects for section



DRB Grade for Section



Pos	Video Ref	Code	Description	Image
02.40m	0:00:12	JN	Junction at 03 o'clock: 150mm Diameter	Image Provided - Ref: 4_4 
03.20m	0:00:08	F1 DES	Settled deposits fine Defect End: 10% Cross sectional area loss - Severity 3	
03.20m		GYF	Finish node type Gully GY Redundant	

Total Defects for section



DRB Grade for Section



Site: 1 - 5 The Elms, Elms Close, Whitefield

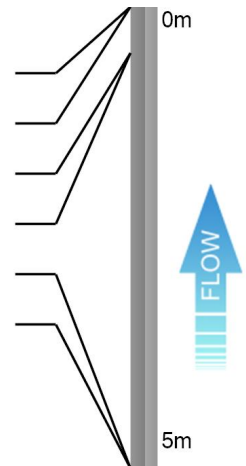
Section 6

Client: Bury Council	Location (Street Name): 1 - 5 The Elms, Elms Close	City/Town/Village Whitefield	Cust Job Ref. AD2952	Surveyors Name: Dean Buckley	Date: 31/08/2022
Start Node Ref: MH02	Finish Node Ref: Off boundary	Direction: U	Height/Dia: 150		
Start Node Depth: 2.10	Finish Node Depth: 2.10	Use: C	Shape: C		
Start Node Coordinate: C	Finish Node Coordinate:	Material: VC	Cleaned N		

Node Type	Cover Condition	Benching Condition	1/2 Channel Condition	Node Condition Remarks
MH	Good ✓	Good ✓	Good ✓	Interceptor

Drain Type	Lining Type	Lining Mat.	Year Const.	Weather	Flow Cont.	Length	General Remarks
A				D	N	5	

Position	Code	Description	CD	Pic	Video Ref		
00.00m	MH	Start node type, manhole					
00.00m	WL	Water level 0%		5_1	0:00:00		
00.50m	DES	S1 Settled deposits fine 5%	S1	5_2	0:00:10		
00.50m	DES	Settled deposits fine 20%		5_3	0:00:29		
05.00m	DES	F1 Settled deposits fine 5%	F1	5_-2	0:00:10		
05.00m	BRF	Finish node type, major connection without		5_99			



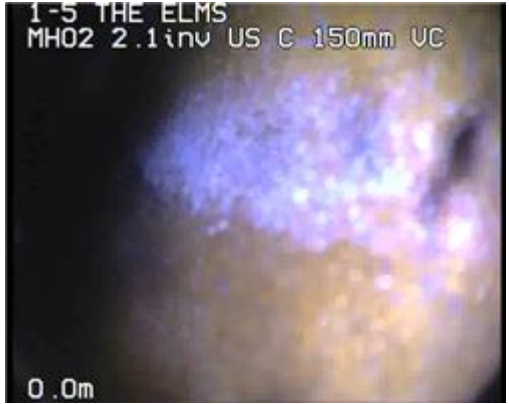
Total Defects for section

DRB Grade for Section



Descriptive Report with Remarks and Observation Images

Section 6

Pos	Video Ref	Code	Description	Image
00.00m		MH	Start node type, manhole MH02	
00.00m	0:00:00	WL	Water level: 0% Height/Diameter	Image Provided - Ref: 5_1 
00.50m	0:00:10	S1 DES	Settled deposits fine 0.5m - 5m: 5% Cross sectional area loss - Severity 3	Image Provided - Ref: 5_2 
00.50m	0:00:29	DES	Settled deposits fine: 20% Cross sectional area loss - Severity 3	Image Provided - Ref: 5_3 
05.00m	0:00:10	F1 DES	Settled deposits fine Defect End: 5% Cross sectional area loss - Severity 3	

Total Defects for section



DRB Grade for Section



Pos	Video Ref	Code	Description	Image
05.00m		BRF	Finish node type, major connection without manhole Off boundary	Image Provided - Ref: 5_9999 

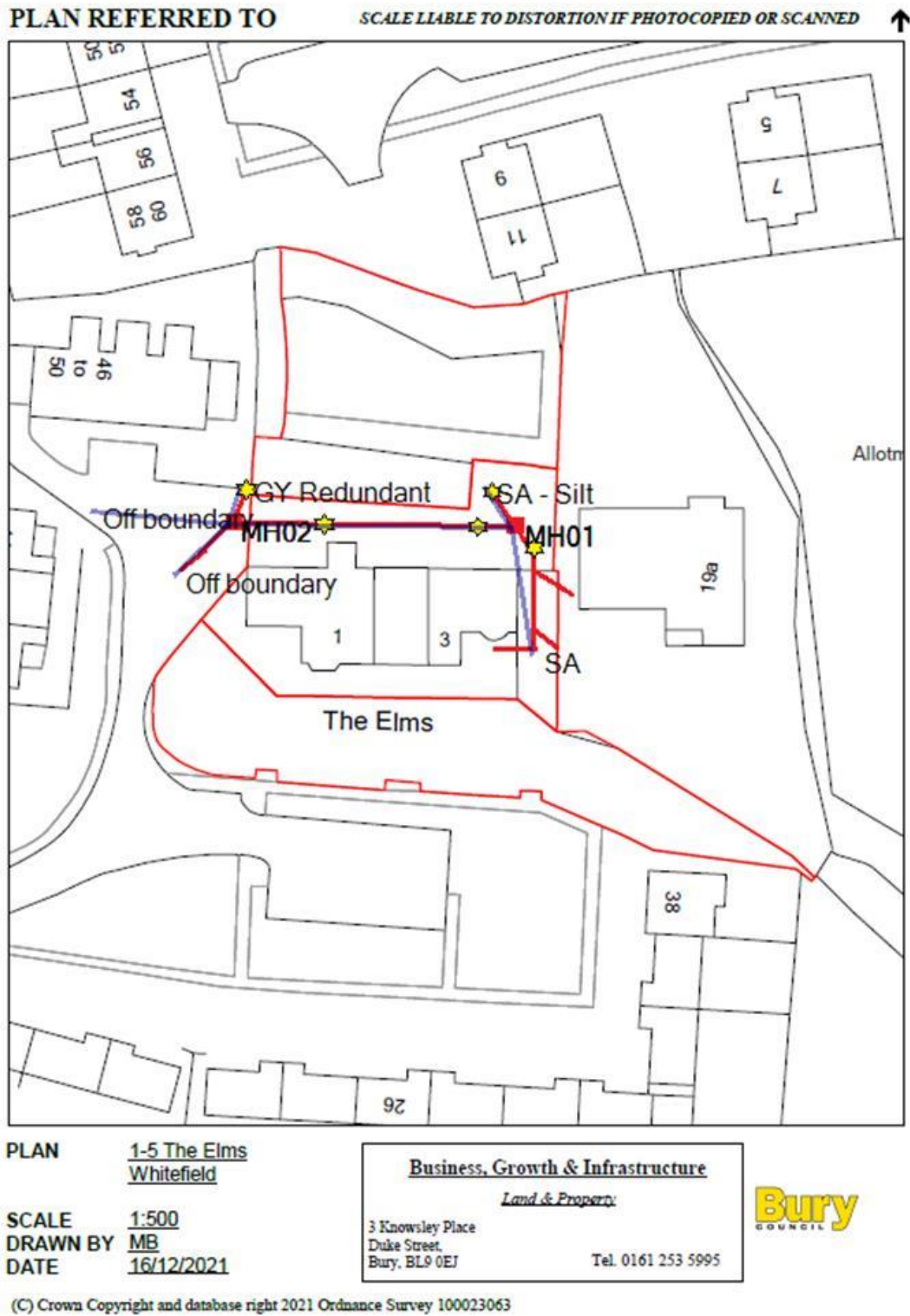
Total Defects for section



DRB Grade for Section



Plan of Site



Total Defects for section

DRB Grade for Section



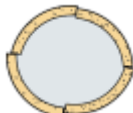
A guide to defects and other observations in drainage systems

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	Major Connection without mh	WRF
LH	Lamphole	LHF

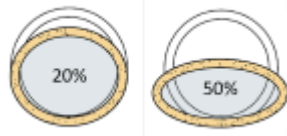
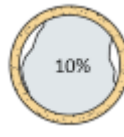
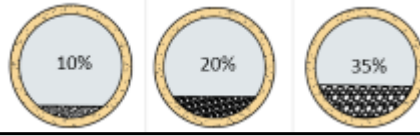
Code	Observation	Description	Attributes	
B	Broken	Pieces pipe have visibly moved	Defined by clock references. Associated with deformity in rigid pipe	
CC CL CM CR	Cracks	Cracks are break lines that are not visibly open	Defined by clock reference position/s. Longitudinal and radiating cracks attract only 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



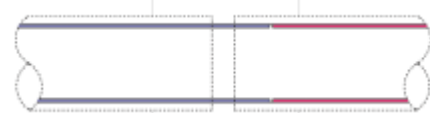
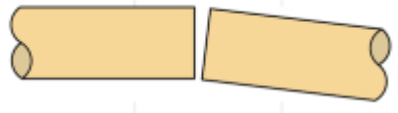
CX(I)	Defective Connection (Intruding)	Defective by intrusion or damage due to factors including: cracks, fractures, obstruction, position etc	Described by clock reference position and diameter (+ % intrusion)	
CU	Loss of Vision	Lens of camera is obscured by debris, water etc. Operator is unable to see 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



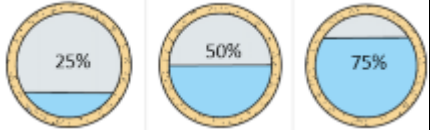
JDM	Joint Displaced Medium	Pipe has moved at joint, perpendicular to axis of pipe	Between 1 and 1.5 times the pipe wall thickness must be visible	
JN	Junction	Lateral pipe was installed at construction	Described by clock reference position and diameter	
JX	Defective Junction	Lateral pipe was installed 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



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	