CCTV Inspection Report



Old Library
Queens Square
Wrexham
LL11 1AT

31/07/2024

Job Number: 1015752

Metro Rod Deeside

Unit 27, Drome Road, Deeside Industrial Park, Flintshire, CH5 2NY
Tel: 01244 288 809

Project Information

Metro Rod (Deeside)
Unit 27, Drome Road,
Deeside Industrial Park
Flintshire
CH5 2NY

Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**

Client Details:

Lawray Architects

Site Details:

Old Library
Queens Square
Wrexham
LL11 1AT

Contractor Details:

Metro Rod (Deeside)
Unit 27, Drome Road,
Deeside Industrial Park
Flintshire
CH5 2NY

Office Contact Number: 01244 288 809

Purpose of Survey:

Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**

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Deeside Industrial Park
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Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**

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Metro Rod (Deeside)
Unit 27, Drome Road,
Deeside Industrial Park
Flintshire
CH5 2NY

Main Sections

Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**

No.	US MH	DS MH	Date	Road	Material	m
1	MH.3	MH.4	31/07/2024	Old Library Queens Square Wrexham LL11 1AT	Vitrified clay	3.77
2	MH.2	MH.3	31/07/2024	Old Library Queens Square Wrexham LL11 1AT	Vitrified clay	2.34
3	MH.1	MH.2	31/07/2024	Old Library Queens Square Wrexham LL11 1AT	Vitrified clay	1.92
4	MH.4	MH.5	31/07/2024	Old Library Queens Square Wrexham LL11 1AT	Vitrified clay	4.97
5	BR.C	MH.6	31/07/2024	Old Library Queens Square Wrexham LL11 1AT	Vitrified clay	2.53
6	BR.A	MH.6	31/07/2024	Old Library Queens Square Wrexham LL11 1AT	Vitrified clay	0.96
7	BR.B	MH.6	31/07/2024	Old Library Queens Square Wrexham LL11 1AT	Vitrified clay	1.26
8	MH.5	MH.6	31/07/2024	Old Library Queens Square Wrexham LL11 1AT	Vitrified clay	17.57
9	MH.6	MH.7	01/08/2024	Old Library Queens Square Wrexham LL11 1AT	Vitrified clay	18.96
10	BURIED MH	MH.5	01/08/2024	Old Library Queens Square Wrexham LL11 1AT	Vitrified clay	17.19

Pipe size: 150 = 66.72m
Pipe size: 100 = 6.49m

All sections = 73.21m

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Metro Rod (Deeside)
Unit 27, Drome Road,
Deeside Industrial Park
Flintshire
CH5 2NY

Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
Jordan Jones	**1015752**	**MH.3**	**31/07/2024**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**X7F9YPJUOO**	**1**

Road **Old Library Queens Square Wrexham LL11 1AT**
Place
Location

Ground Surface **Block Paving**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **150mm**
Material **Vitrified clay**
Duty **Foul**

Start MH **MH.4**
End MH **MH.3**
Total length **3.77 metres**

Scale **1:0.20**
Direction **Upstream**

Start Node Ref:MH.4 | I/L :mm | Depth: 860mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH.4	10082187	Comment / 0
0.00	WL	Water level 5% height/diameter	10082188	Comment / 0
1.05	WL	Water level 10% height/diameter	10123549	Comment / 0
3.77	MHF	Finish node type, manhole, reference MH.3	10082193	Comment / 0

End Node Ref:MH.3 | I/L :mm

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Metro Rod (Deeside)
Unit 27, Drome Road,
Deeside Industrial Park
Flintshire
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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
Jordan Jones	**1015752**	**MH.2 X**	**31/07/2024**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**X7F9YPJUOO**	**2**

Road **Old Library Queens Square Wrexham LL11 1AT**
Place
Location

Ground Surface **Block Paving**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **150mm**
Material **Vitrified clay**
Duty **Foul**

Start MH **MH.3**
End MH **MH.2**
Total length **2.34 metres**

Scale **1:0.12**
Direction **Upstream**

Start Node Ref:MH.3 | I/L :mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH.3	10082201	Comment / 0
0.00	WL	Water level 5% height/diameter	10082202	Comment / 0
1.34	WL	Water level 0% height/diameter	10123557	Comment / 0
2.34	MHF	Finish node type, manhole, reference MH.2	10082204	Comment / 0

End Node Ref:MH.2 | I/L :mm

Metro Rod (Deeside)
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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
Jordan Jones	**1015752**	**MH.1 X**	**31/07/2024**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**X7F9YPJUOO**	**3**

Road **Old Library Queens Square Wrexham LL11 1AT**
Place
Location

Ground Surface **Block Paving**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **150mm**
Material **Vitrified clay**
Duty **Foul**

Start MH **MH.2**
End MH **MH.1**
Total length **1.92 metres**

Scale **1:0.10**
Direction **Upstream**

Start Node Ref:MH.2 | I/L :mm

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH.2	10082206	Comment / 0
0.00	WL	Water level 0% height/diameter	10082207	Comment / 0
1.92	MHF	Finish node type, manhole, reference MH.1	10082216	Comment / 0



End Node Ref:MH.1 | I/L :mm

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
Jordan Jones	**1015752**	**MH.4**	**31/07/2024**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**2/0**	**X7F9YPJUOO**	**4**

Road **Old Library Queens Square Wrexham LL11 1AT**
Place
Location

Ground Surface **Block Paving**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **150mm**
Material **Vitrified clay**
Duty **Foul**

Start MH **MH.4**
End MH **MH.5**
Total length **4.97 metres**

Scale **1:0.26**
Direction **Downstream**

Start Node Ref:MH.4 | I/L :mm | Depth: 860mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH.4	10082239	Comment / 0
0.00	WL	Water level 0% height/diameter	10082240	Comment / 0
4.62	JN	Junction at 2 o'clock, diameter 100mm	10123571	Comment / 0
4.83	JN	Junction at 2 o'clock, diameter 100mm	10082250	Comment / 0
4.83	RF	Roots fine	10123590	Service / 2
4.85	REM	Drop Shaft	10123578	Comment / 0
4.97	MHF	Finish node type, manhole, reference MH.5	10082251	Comment / 0

End Node Ref:MH.5 | I/L :mm

Metro Rod (Deeside)
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CCTV Inspection Photos

Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**



Roots fine



Drop Shaft

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
Jordan Jones	**1015752**	**BR.C**	**31/07/2024**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**3/2**	**X7F9YPJUOO**	**5**

Road **Old Library Queens Square Wrexham LL11 1AT**
Place
Location

Ground Surface **Block Paving**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Vitrified clay**
Duty **Foul**

Start MH **MH.6**
End MH **BR.C**
Total length **2.53 metres**

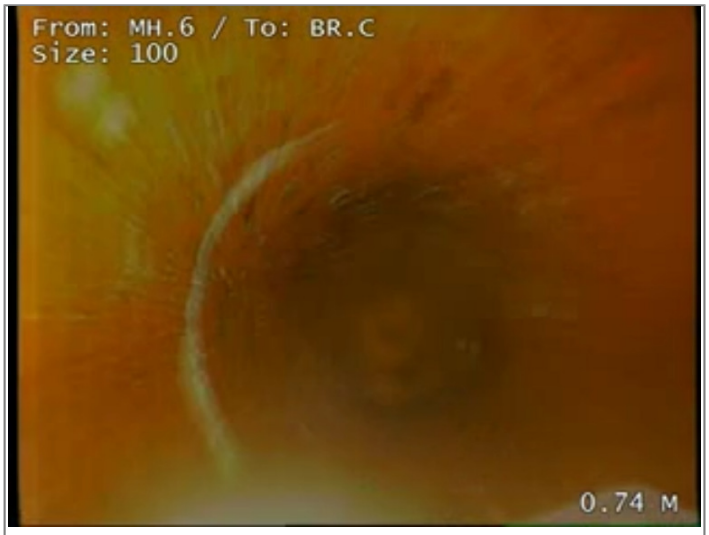
Scale **1:0.13**
Direction **Upstream**

Start Node Ref:MH.6 | I/L :mm | Depth: 3310mm

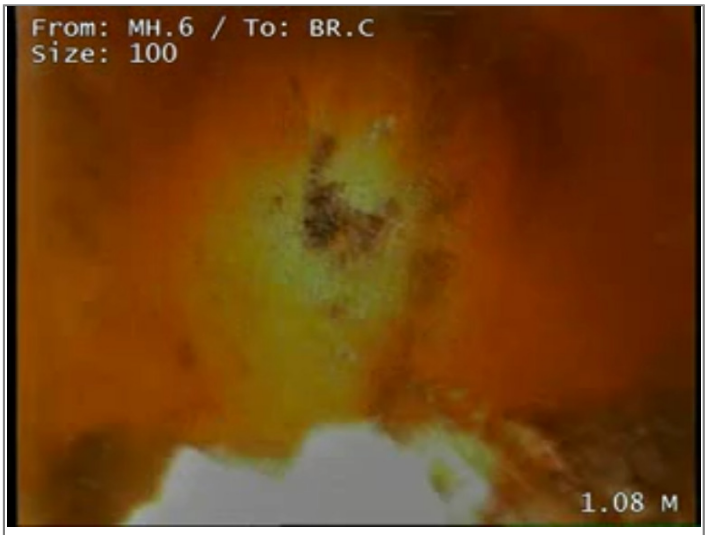
Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH.6	10085904	Comment / 0
0.00	WL	Water level 0% height/diameter	10085905	Comment / 0
0.61	JN	Junction at 12 o'clock, diameter 100mm	10123594	Comment / 0
0.74	CC	Crack circumferential from 8 to 12 o'clock	10123611	Structural / 2
1.05	JN	Junction at 3 o'clock, diameter 100mm	10123598	Comment / 0
1.08	DEX	Other settled deposits 10% cross-sectional area loss	10123603	Service / 3
1.54	LU	Line of drain/sewer deviates up	10123599	Comment / 0
2.53	OCF	Finish node type, other special chamber, reference BR.C	10085912	Comment / 0

End Node Ref:BR.C | I/L :mm

Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**



Crack circumferential from 8 to 12 o'clock



Other settled deposits 10% cross-sectional area loss

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
Jordan Jones	**1015752**	**BR.A**	**31/07/2024**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/0**	**X7F9YPJUOO**	**6**

Road **Old Library Queens Square Wrexham LL11 1AT**
Place
Location

Ground Surface **Block Paving**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Vitrified clay**
Duty **Foul**

Start MH **MH.6**
End MH **BR.A**
Total length **0.96 metres**

Scale **1:0.05**
Direction **Upstream**

Start Node Ref:MH.6 | I/L :mm | Depth: 3310mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH.6	10086063	Comment / 0
0.00	WL	Water level 25% height/diameter	10086065	Comment / 0
0.48	LU	Line of drain/sewer deviates up	10123619	Comment / 0
0.96	OCF	Finish node type, other special chamber, reference BR.A	10086066	Comment / 0

End Node Ref:BR.A | I/L :mm

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
Jordan Jones	**1015752**	**BR.B**	**31/07/2024**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**5/0**	**X7F9YPJUOO**	**7**

Road **Old Library Queens Square Wrexham LL11 1AT**
Place
Location

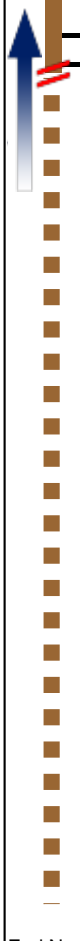
Ground Surface **Block Paving**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **100mm**
Material **Vitrified clay**
Duty **Foul**

Start MH **MH.6**
End MH **BR.B**
Total length **3 metres**

Scale **1:0.16**
Direction **Upstream**

Start Node Ref:MH.6 | I/L :mm | Depth: 3310mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH.6	10086167	Comment / 0
0.00	WL	Water level 0% height/diameter	10086169	Comment / 0
0.23	LR	Line of drain/sewer deviates right	10123636	Comment / 0
1.20	OBZ	Other obstacles, other from 4 to 8 o'clock 15% cross-sectional area loss	10123652	Service / 5
1.26	SA	Survey abandoned - Remark: UNABLE TO PASS DUE TO BEND	10086196	Comment / 0

End Node Ref:BR.B | I/L :mm

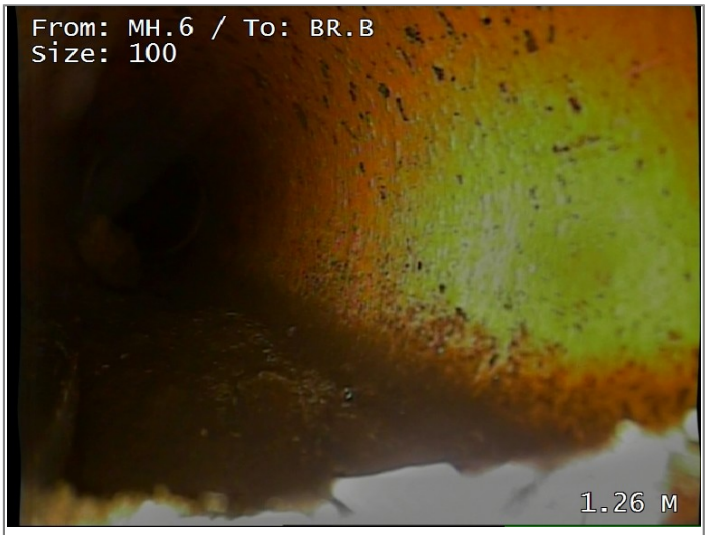
CCTV Inspection Photos

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Unit 27, Drome Road,
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Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**



Other obstacles, other from 4 to 8 o'clock 15% cross-sectional area loss



Survey abandoned - Remark: UNABLE TO PASS DUE TO BEND

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CCTV Inspection Report

Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
Jordan Jones	**1015752**	**MH.5**	**31/07/2024**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/2**	**X7F9YPJUOO**	**8**

Road **Old Library Queens Square Wrexham LL11 1AT**
Place
Location

Ground Surface **Block Paving**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **150mm**
Material **Vitrified clay**
Duty **Foul**

Start MH **MH.6**
End MH **MH.5**
Total length **17.57 metres**

Scale **1:0.92**
Direction **Upstream**

Start Node Ref:MH.6 | I/L :mm | Depth: 3310mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH.6	10086554	Comment / 0
0.00	WL	Water level 0% height/diameter	10086556	Comment / 0
0.10	CC	Crack circumferential from 8 to 10 o'clock	10123686	Structural / 2
0.18	JN	Junction at 12 o'clock, diameter 100mm	10123672	Comment / 0
3.37	CC	Crack circumferential from 10 to 2 o'clock	10123678	Structural / 2
7.89	JN	Junction at 12 o'clock, diameter 100mm	10123683	Comment / 0
17.57	MHF	Finish node type, manhole, reference MH.5	10086688	Comment / 0

End Node Ref:MH.5 | I/L :mm

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CCTV Inspection Photos

Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**



Crack circumferential from 8 to 10 o'clock



Crack circumferential from 10 to 2 o'clock

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Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
Jordan Jones	**1015752**	**MH.6**	**01/08/2024**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/3**	**X7F9YPJUOO**	**9**

Road **Old Library Queens Square Wrexham LL11 1AT**
Place
Location

Ground Surface **Block Paving**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **150mm**
Material **Vitrified clay**
Duty **Foul**

Start MH **MH.7**
End MH **MH.6**
Total length **18.96 metres**

Scale **1:1.00**
Direction **Upstream**

Start Node Ref:MH.7 | I/L :mm | Depth: 3640mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH.7	10090019	Comment / 0
0.00	WL	Water level 0% height/diameter	10090020	Comment / 0
1.11	JN	Junction at 1 o'clock, diameter 100mm	10123746	Comment / 0
2.02	CC	Crack circumferential from 4 to 8 o'clock	10123750	Structural / 2
12.22	JN	Junction at 2 o'clock, diameter 100mm	10123775	Comment / 0
12.98	CN	Connection other than junction at 1 o'clock, diameter 100mm	10123782	Comment / 0
15.00	CM	Cracks multiple from 12 to 12 o'clock	10123803	Structural / 3
15.48	JN	Junction at 2 o'clock, diameter 100mm	10123791	Comment / 0
18.70	REM	Rat Gate	10123828	Comment / 0
18.96	MHF	Finish node type, manhole, reference MH.6	10090051	Comment / 0

End Node Ref:MH.6 | I/L :mm | Depth: 3310mm

Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**01/08/2024**



Crack circumferential from 4 to 8 o'clock



Cracks multiple from 12 to 12 o'clock



Rat Gate

Metro Rod (Deeside)
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CCTV Inspection Report

Surveyed by (Operator)	Job Number	Pipe Length Reference(PLR)	Date	Pre Cleaned
Jordan Jones	**1015752**	**BURIED MH**	**01/08/2024**	**Not Cleaned**
Weather	Customer Present	Service Grade/Structural Grade	Base Unit	Section Number
1 - Dry		**0/2**	**X7F9YPJUOO**	**10**

Road **Old Library Queens Square Wrexham LL11 1AT**
Place
Location

Ground Surface **Block Paving**
Code List **Drain and Sewer Codes (5th Edition)**
Location Details

Shape/Size **150mm**
Material **Vitrified clay**
Duty **Foul**

Start MH **MH.5**
End MH **BURIED MH**
Total length **17.19 metres**

Scale **1:0.90**
Direction **Upstream**

Start Node Ref:MH.5 | I/L :mm | Depth: 2680mm



Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH.5	10092614	Comment / 0
0.00	WL	Water level 0% height/diameter	10092615	Comment / 0
9.03	CN	Connection other than junction at 12 o'clock, diameter 150mm	10123921	Comment / 0
9.05	CL	Crack longitudinal at 10 o'clock	10123965	Structural / 2
14.97	CN	Connection other than junction at 2 o'clock, diameter 100mm	10123931	Comment / 0
17.19	MHF	Finish node type, manhole, reference BURIED MH	10092622	Comment / 0

End Node Ref:BURIED MH | I/L :mm

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CCTV Inspection Photos

Job Number	Surveyed by (Operator)	Base Unit	Date
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Crack longitudinal at 10 o'clock

Metro Rod (Deeside)
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Structural Defects (SRM 4)

Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**

No.	PLR	Dir.	Use	Shape/Size	Date	Mat.	Total Length	Inspection Length	Cat.	Peak Score	Grade	Mean Score	Total Score
1	MH.3	U	F	150	31/07/2024	Vitrified clay	3.77 metres	3.77		0	1	0	0
2	MH.2 X	U	F	150	31/07/2024	Vitrified clay	2.34 metres	2.34		0	1	0	0
3	MH.1 X	U	F	150	31/07/2024	Vitrified clay	1.92 metres	1.92		0	1	0	0
4	MH.4	D	F	150	31/07/2024	Vitrified clay	4.97 metres	4.97		0	1	0	0
5	BR.C	U	F	100	31/07/2024	Vitrified clay	2.53 metres	2.53		10	2	3.95	10
6	BR.A	U	F	100	31/07/2024	Vitrified clay	0.96 metres	0.96		0	1	0	0
7	BR.B	U	F	100	31/07/2024	Vitrified clay	3 metres	1.26		0	1	0	0
8	MH.5	U	F	150	31/07/2024	Vitrified clay	17.57 metres	17.57		10	2	1.14	20
9	MH.6	U	F	150	01/08/2024	Vitrified clay	18.96 metres	18.96		40	3	2.64	50
10	BURIED MH	U	F	150	01/08/2024	Vitrified clay	17.19 metres	17.19		10	2	0.58	10

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Service Defects (SRM 4)

Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**

No.	PLR	Dir.	Use	Shape/Size	Date	Mat.	Total Length	Inspection Length	Cat.	Peak Score	Grade	Mean Score	Total Score
1	MH.3	U	F	150	31/07/2024	Vitrified clay	3.77 metres	3.77		0	1	0	0
2	MH.2 X	U	F	150	31/07/2024	Vitrified clay	2.34 metres	2.34		0	1	0	0
3	MH.1 X	U	F	150	31/07/2024	Vitrified clay	1.92 metres	1.92		0	1	0	0
4	MH.4	D	F	150	31/07/2024	Vitrified clay	4.97 metres	4.97		1	2	0.20	1
5	BR.C	U	F	100	31/07/2024	Vitrified clay	2.53 metres	2.53		2	3	0.79	2
6	BR.A	U	F	100	31/07/2024	Vitrified clay	0.96 metres	0.96		0	1	0	0
7	BR.B	U	F	100	31/07/2024	Vitrified clay	3 metres	1.26		10	5	7.94	10
8	MH.5	U	F	150	31/07/2024	Vitrified clay	17.57 metres	17.57		0	1	0	0
9	MH.6	U	F	150	01/08/2024	Vitrified clay	18.96 metres	18.96		0	1	0	0
10	BURIED MH	U	F	150	01/08/2024	Vitrified clay	17.19 metres	17.19		0	1	0	0

Report Summary

Metro Rod (Deeside)
Unit 27, Drome Road,
Deeside Industrial Park
Flintshire
CH5 2NY

Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**

Job Information

Total Distance Surveyed: **73.21 meters**
Engineer: **Jordan Jones**
Number of Surveys: **10**
Number of Surveys grade 4 or above: **0**

Section 1 Overview (31/07/2024)

Manholes: **MH.4 to MH.3**
Pipe Length: **3.77 metres**
Structural Grade: **0**
Service Grade: **0**
Material: **Vitrified clay**
Pipe Size: **150mm**
Use: **Foul**

Section 2 Overview (31/07/2024)

Manholes: **MH.3 to MH.2**
Pipe Length: **2.34 metres**
Structural Grade: **0**
Service Grade: **0**
Material: **Vitrified clay**
Pipe Size: **150mm**
Use: **Foul**

Section 3 Overview (31/07/2024)

Manholes: **MH.2 to MH.1**
Pipe Length: **1.92 metres**
Structural Grade: **0**
Service Grade: **0**
Material: **Vitrified clay**
Pipe Size: **150mm**
Use: **Foul**

Section 4 Overview (31/07/2024)

Manholes: **MH.4 to MH.5**
Pipe Length: **4.97 metres**
Structural Grade: **0**
Service Grade: **2**
Material: **Vitrified clay**
Pipe Size: **150mm**
Use: **Foul**

Section 5 Overview (31/07/2024)

Manholes: **MH.6 to BR.C**
Pipe Length: **2.53 metres**
Structural Grade: **2**
Service Grade: **3**
Material: **Vitrified clay**
Pipe Size: **100mm**
Use: **Foul**

Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**

Section 6 Overview (31/07/2024)

Manholes: **MH.6 to BR.A**
Pipe Length: **0.96 metres**
Structural Grade: **0**
Service Grade: **0**
Material: **Vitrified clay**
Pipe Size: **100mm**
Use: **Foul**

Section 7 Overview (31/07/2024)

Manholes: **MH.6 to BR.B**
Pipe Length: **3 metres**
Structural Grade: **0**
Service Grade: **5**
Material: **Vitrified clay**
Pipe Size: **100mm**
Use: **Foul**

Section 8 Overview (31/07/2024)

Manholes: **MH.6 to MH.5**
Pipe Length: **17.57 metres**
Structural Grade: **2**
Service Grade: **0**
Material: **Vitrified clay**
Pipe Size: **150mm**
Use: **Foul**

Section 9 Overview (01/08/2024)

Manholes: **MH.7 to MH.6**
Pipe Length: **18.96 metres**
Structural Grade: **3**
Service Grade: **0**
Material: **Vitrified clay**
Pipe Size: **150mm**
Use: **Foul**

Section 10 Overview (01/08/2024)

Manholes: **MH.5 to BURIED MH**
Pipe Length: **17.19 metres**
Structural Grade: **2**
Service Grade: **0**
Material: **Vitrified clay**
Pipe Size: **150mm**
Use: **Foul**

Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**

STRUCTURAL DEFECTS

Grade 3; Best practice suggests consideration to be given to repair in the medium term.
Grade 4; Best practice suggests consideration to be given to repair to avoid potential collapse.
Grade 5; Best practice suggests this pipe is at risk of collapse at any time; urgent consideration should be given to repair to avoid collapse.

Structural Defects

Section	PLR	Grade	Fault Description
9	MH.6	3	Cracks multiple from 12 to 12 o'clock

SERVICE / OPERATIONAL DEFECTS

Grade 3; Best practice suggests consideration to be given to maintenance activities in the medium term.
Grade 4; Best practice suggests consideration to be given to maintenance to avoid potential blockage.
Grade 5; Best practice suggests this pipe is at risk of backing up / causing flooding.

Service Defects

Section	PLR	Grade	Fault Description
5	BR.C	3	Other settled deposits 10% cross-sectional area loss
7	BR.B	5	Other obstacles, other from 4 to 8 o'clock 15% cross-sectional area loss

ABANDONED SURVEYS

Camera no access

Section	PLR	Fault Description
7	BR.B	Survey abandoned - Remark: UNABLE TO PASS DUE TO BEND

INFORMATION

These summaries are based on the SRM grading from the WRC

Defect Grade Descriptions

Metro Rod (Deeside)
Unit 27, Drome Road,
Deeside Industrial Park
Flintshire
CH5 2NY

Job Number	Surveyed by (Operator)	Base Unit	Date
1015752	**Jordan Jones**	**X7F9YPJUOO**	**31/07/2024**

1: Occurences without damage. For example, laterals, joints,etc.

NO DEFECTS WERE DETECTED.

2: Constructional deficiencies or occurences with insignificant influence to tightness, hydraulic or static pressure or pipe: Eg. wide joints, badly torched intakes, minor deformation of plastic pipes, minor erosions etc.

REHABILITATION CAN BE SCHEDULED LONG-TERM.

3: Constructional deficiencies diminishing static, hydraulic and tightness: Eg. untorched intakes, cracks, minor drainage obstructions such as calcite build ups, protruding laterals, minor damages to pipe wall, individual root penetrations, corroded pipe walls etc.

REHABILITATION IS NECESSARY MEDIUM-TERM WITHIN 3 TO 5 YEARS.

4: Constructional damages with insufficent static safety, hydraulic or tightness: Eg. axial/radial pipe bursts, pipe deformations, visually noticeable infiltration/exfiltration, cavities, in pipe-wall, severe protruding, laterals severe root penetrations, severe corrosion of pipe wall etc.

REHABILITATION PROCEDURE IS URGENT AND HAS TO BE COMPLETED WITHIN 1 TO 2 YEARS. NECESSITY FOR EMERGENCY OPERATIONS HAS TO BE EXAMINED.

5: Pipe is already or will shortly be impermeable: Eg. collapsed pipe, deeply rooted pipe or other drainage obstructions. Pipe loses water or danger of backwater in basements etc.

REHABILITATION IS URGENT AND SHORT-TERM. IN ORDER TO PREVENT FURTHER DAMAGE, NECESSARY TEMPORARY SPOT REPAIR HAS TO BE CONDUCTED ON EMERGENCY LEVEL.