

Project

Project Description: WinCan Import in Miraculix Standard

Project Date: 07/10/2018

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		07/10/2018

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Project Information

Project Name

Project Number

Project Date

07/10/2018

Client

Street: 9 Nassington Road

Town or City: London

Post Code: NW3 2TX

Contractor

Company: JSD Solutions 24/7 Ltd

Street: International House

Town or City: 24 Holborn Viaduct, London

Post Code: EC1A 2BN

Phone: 0207 125 0295

Project Information

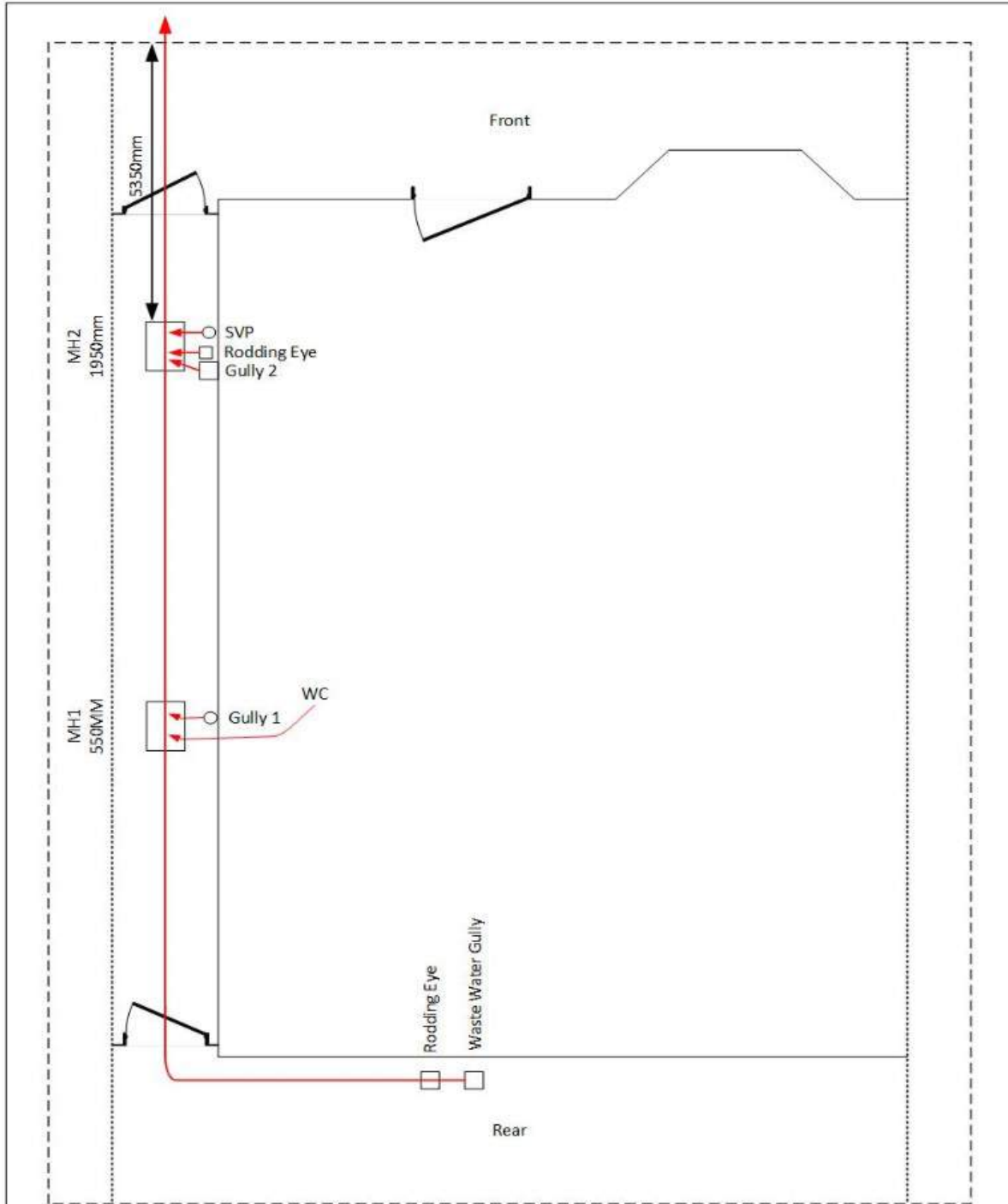
Project Name

Project Number

Project Date

07/10/2018

Project Drawing



Date of Survey: 28/09/2018	<p>Key</p> <ul style="list-style-type: none"> MH - Manhole SVP - Soil Vent Pipe RWG - Rain Water Gully SWG - Surface Water Gully 	<p>Key</p> <ul style="list-style-type: none"> — Foul — Rain/ Surface Water — Combined Boundary
Not to scale		

Project Pictures

Project Name

Project Number

Project Date
07/10/2018



FRONT OF PROPERTY



REAR OF THE PROPERTY



RIGHT HAND SIDE OF THE PROPERTY OVERVIEW



MH01 OVERVIEW



MH01



MH02 OVERVIEW

Project Pictures

Project Name

Project Number

Project Date
07/10/2018



MH02



WWG AT END OF THE LINE

Section Inspection - 28/09/2018 - REAR WWGX

Section 1	Inspection 1	Date 28/09/18	Time 8:11	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned N	PLR REAR WWGX
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village: Road: Location: Surface Type:	London 9 Nassington Road	Inspection Direction: Inspected Length: Total Length: Joint Length:	Upstream 7.18 m 7.18 m 0.00 m	Upstream Node: Upstream Pipe Depth: Downstream Node: Downstream Pipe Depth:	REAR WWG 0.000 m MH01 550.000 m
Use: Type of Pipe: Year Constructed: Flow Control: Inspection Purpose:	Combined Gravity drain/sewer 1900 No flow control Sample survey to determine asset condition of a sewer system	Pipe Shape: Dia/Height: Pipe Material: Lining Type:	Circular 100 mm Vitrified clay pipe Lining Material:		
Comments: Recommendations:	Damage identified in pipe which requires repair Install 5m of 100mm flexible liner				

Scale: 1:63	Position [m]	Code	Observation	MPEG	Photo	Grade																																																																													
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>Depth: 550.00 m MH01</p> <p style="text-align: center;">REAR WWG Depth: 0.00 m</p> </div> <table border="1" style="margin-left: 10px; border-collapse: collapse;"> <tr> <td style="text-align: right;">0.00</td> <td>MH</td> <td>Start node type, manhole, reference number: MH01</td> <td>00:00:04</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">0.00</td> <td>WL</td> <td>Water level, 0 % of the vertical dimension</td> <td>00:00:07</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">0.15</td> <td>FC</td> <td>Fracture, circumferential from 12 o'clock to 12 o'clock</td> <td>00:00:22</td> <td></td> <td></td> <td style="text-align: center;">3 / 2</td> </tr> <tr> <td style="text-align: right;">1.41</td> <td>FC</td> <td>Fracture, circumferential from 12 o'clock to 12 o'clock</td> <td>00:00:33</td> <td></td> <td></td> <td style="text-align: center;">3 / 2</td> </tr> <tr> <td style="text-align: right;">3.50</td> <td>CC</td> <td>Crack, circumferential from 7 o'clock to 11 o'clock</td> <td>00:00:49</td> <td></td> <td></td> <td style="text-align: center;">2 / 2</td> </tr> <tr> <td style="text-align: right;">4.07</td> <td>FC</td> <td>Fracture, circumferential from 1 o'clock to 5 o'clock</td> <td>00:00:55</td> <td></td> <td></td> <td style="text-align: center;">3 / 2</td> </tr> <tr> <td style="text-align: right;">4.07</td> <td>LL</td> <td>Line deviates left</td> <td>00:00:55</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">4.08</td> <td>FC</td> <td>Fracture, circumferential from 1 o'clock to 5 o'clock</td> <td>00:00:55</td> <td></td> <td></td> <td style="text-align: center;">3 / 2</td> </tr> <tr> <td style="text-align: right;">5.02</td> <td>FC</td> <td>Fracture, circumferential from 8 o'clock to 2 o'clock</td> <td>00:01:00</td> <td></td> <td></td> <td style="text-align: center;">3 / 2</td> </tr> <tr> <td style="text-align: right;">6.95</td> <td>CN</td> <td>Connection other than junction at 12 o'clock, diameter: 100mm</td> <td>00:01:23</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">7.18</td> <td>GYF</td> <td>Finish node type, gully, reference number: REAR WWG</td> <td>00:01:34</td> <td></td> <td></td> <td></td> </tr> </table> </div>							0.00	MH	Start node type, manhole, reference number: MH01	00:00:04				0.00	WL	Water level, 0 % of the vertical dimension	00:00:07				0.15	FC	Fracture, circumferential from 12 o'clock to 12 o'clock	00:00:22			3 / 2	1.41	FC	Fracture, circumferential from 12 o'clock to 12 o'clock	00:00:33			3 / 2	3.50	CC	Crack, circumferential from 7 o'clock to 11 o'clock	00:00:49			2 / 2	4.07	FC	Fracture, circumferential from 1 o'clock to 5 o'clock	00:00:55			3 / 2	4.07	LL	Line deviates left	00:00:55				4.08	FC	Fracture, circumferential from 1 o'clock to 5 o'clock	00:00:55			3 / 2	5.02	FC	Fracture, circumferential from 8 o'clock to 2 o'clock	00:01:00			3 / 2	6.95	CN	Connection other than junction at 12 o'clock, diameter: 100mm	00:01:23				7.18	GYF	Finish node type, gully, reference number: REAR WWG	00:01:34			
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Structural Defects					Construction Features				
Service & Operational Observations					Miscellaneous Features				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
6	80.0	29.2	210.0	3.0	6	2.0	0.8	6.0	2.0

Section Pictures - 28/09/2018 - REAR WWGX

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Upstream	REAR WWGX	01	



, 00:00:04, 0.00 m
 Start node type, manhole, reference number: MH01



, 00:00:22, 0.15 m
 Fracture, circumferential from 12 o'clock to 12 o'clock



, 00:00:33, 1.41 m
 Fracture, circumferential from 12 o'clock to 12 o'clock



, 00:00:49, 3.50 m
 Crack, circumferential from 7 o'clock to 11 o'clock

Section Pictures - 28/09/2018 - REAR WWGX

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Upstream	REAR WWGX	01	



, 00:00:55, 4.07 m
 Fracture, circumferential from 1 o'clock to 5 o'clock



, 00:01:00, 5.02 m
 Fracture, circumferential from 8 o'clock to 2 o'clock



, 00:01:34, 7.18 m
 Finish node type, gully, reference number: REAR WWG

Section Inspection - 28/09/2018 - WCX

Section 2	Inspection 2	Date 28/09/18	Time 8:14	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned N	PLR WCX
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

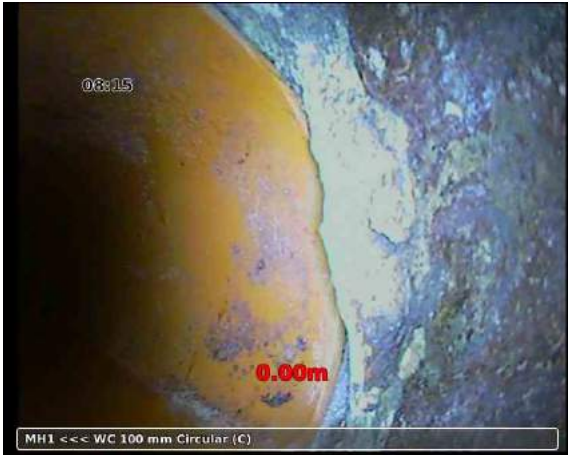
Town or Village:	London	Inspection Direction:	Upstream	Upstream Node:	WC
Road:	9 Nassington Road	Inspected Length:	1.98 m	Upstream Pipe Depth:	0.000 m
Location:		Total Length:	1.98 m	Downstream Node:	MH1
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	550.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Year Constructed:	1900	Pipe Material:	Polyvinyl chloride		
Flow Control:	No flow control	Lining Type:			
Inspection Purpose:	Sample survey to determine asset condition of a sewer system	Lining Material:			
Comments:	No damage found and pipeline was in a free flowing serviceable condition				
Recommendations:	None				

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
	0.00	MH	Start node type, manhole, reference number: MH1	00:00:04		
	0.00	WL	Water level, 0 % of the vertical dimension	00:00:08		
	0.42	LL	Line deviates left	00:00:23		
	0.91	LL	Line deviates left	00:00:26		
	1.06	GP	General photograph taken at this point	00:00:27		
	1.44	LU	Line deviates up	00:00:30		
	1.98	BRF	Finish node type, major connection without manhole, reference number: WC	00:00:45		

Structural Defects					Construction Features				
Service & Operational Observations					Miscellaneous Features				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Pictures - 28/09/2018 - WCX

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
2	Upstream	WCX	01	



, 00:00:04, 0.00 m
 Start node type, manhole, reference number: MH1



, 00:00:27, 1.06 m
 General photograph taken at this point

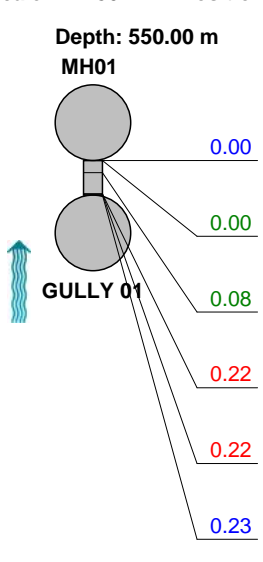


, 00:00:45, 1.98 m
 Finish node type, major connection without manhole,
 reference number: WC

Section Inspection - 28/09/2018 - GULLY 01X

Section 3	Inspection 3	Date 28/09/18	Time 8:20	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned N	PLR GULLY 01X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village: London	Inspection Direction: Upstream	Upstream Node: GULLY 01
Road: 9 Nassington Road	Inspected Length: 0.23 m	Upstream Pipe Depth: 0.000 m
Location:	Total Length: 0.23 m	Downstream Node: MH01
Surface Type:	Joint Length: 0.00 m	Downstream Pipe Depth: 550.000 m
Use: Combined	Pipe Shape: Circular	
Type of Pipe: Gravity drain/sewer	Dia/Height: 100 mm	
Year Constructed: 1900	Pipe Material: Vitrified clay pipe	
Flow Control: No flow control	Lining Type:	
Inspection Purpose: Sample survey to determine asset condition of a sewer system	Lining Material:	
Comments: Open and displaced joint identified which requires repair		
Recommendations: To install a 100mm flexible resin patch liner		

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade																																				
<div style="display: flex; align-items: center;">  <table style="margin-left: 20px;"> <tr> <td style="text-align: right;">0.00</td> <td style="text-align: left;">MH</td> <td style="text-align: left;">Start node type, manhole</td> <td style="text-align: right;">00:00:03</td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">0.00</td> <td style="text-align: left;">WL</td> <td style="text-align: left;">Water level, 0 % of the vertical dimension</td> <td style="text-align: right;">00:00:06</td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">0.08</td> <td style="text-align: left;">LU</td> <td style="text-align: left;">Line deviates up</td> <td style="text-align: right;">00:00:23</td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">0.22</td> <td style="text-align: left;">OJM</td> <td style="text-align: left;">Open joint, medium</td> <td style="text-align: right;">00:00:27</td> <td></td> <td style="text-align: right;">1</td> </tr> <tr> <td style="text-align: right;">0.22</td> <td style="text-align: left;">JDM</td> <td style="text-align: left;">Joint displaced, medium</td> <td style="text-align: right;">00:00:27</td> <td></td> <td style="text-align: right;">1 / 3</td> </tr> <tr> <td style="text-align: right;">0.23</td> <td style="text-align: left;">GYF</td> <td style="text-align: left;">Finish node type, gully, reference number: 01</td> <td style="text-align: right;">00:00:32</td> <td></td> <td></td> </tr> </table> </div>							0.00	MH	Start node type, manhole	00:00:03			0.00	WL	Water level, 0 % of the vertical dimension	00:00:06			0.08	LU	Line deviates up	00:00:23			0.22	OJM	Open joint, medium	00:00:27		1	0.22	JDM	Joint displaced, medium	00:00:27		1 / 3	0.23	GYF	Finish node type, gully, reference number: 01	00:00:32		
0.00	MH	Start node type, manhole	00:00:03																																							
0.00	WL	Water level, 0 % of the vertical dimension	00:00:06																																							
0.08	LU	Line deviates up	00:00:23																																							
0.22	OJM	Open joint, medium	00:00:27		1																																					
0.22	JDM	Joint displaced, medium	00:00:27		1 / 3																																					
0.23	GYF	Finish node type, gully, reference number: 01	00:00:32																																							

Structural Defects					Construction Features				
Service & Operational Observations					Miscellaneous Features				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
2	2.0	8.8	2.0	1.0	1	2.0	8.8	2.0	3.0

Section Pictures - 28/09/2018 - GULLY 01X

Section 3	Inspection Direction Upstream	PLR GULLY 01X	Client's Job Ref 01	Contractor's Job Ref
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, 00:00:03, 0.00 m
 Start node type, manhole



, 00:00:27, 0.22 m
 Open joint, medium



, 00:00:32, 0.23 m
 Finish node type, gully, reference number: 01

Section Inspection - 28/09/2018 - MH01X

Section 4	Inspection 4	Date 28/09/18	Time 8:22	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned N	PLR MH01X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	London	Inspection Direction:	Downstream	Upstream Node:	MH01
Road:	9 Nassington Road	Inspected Length:	2.89 m	Upstream Pipe Depth:	550.000 m
Location:		Total Length:	2.93 m	Downstream Node:	MH02
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	1,950.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Year Constructed:	1900	Pipe Material:	Cast iron		
Flow Control:	No flow control	Lining Type:			
Inspection Purpose:	Sample survey to determine asset condition of a sewer system		Lining Material:		
Comments:	Slight build up of debris				
Recommendations:	By use of specialist cutting machinery, remove settled and hardened deposits to restore full flow				

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade																																			
<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>Depth: 550.00 m</p> <p>MH01</p> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">0.04</td> <td style="text-align: center;">MH</td> <td>Start node type, manhole, reference number: MH01</td> <td style="text-align: right;">00:00:18</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">0.04</td> <td style="text-align: center;">WL</td> <td>Water level, 0 % of the vertical dimension</td> <td style="text-align: right;">00:00:21</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">1.60</td> <td style="text-align: center;">DES</td> <td>Settled deposits, fine, 10% cross-sectional area loss</td> <td style="text-align: right;">00:00:39</td> <td></td> <td></td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: right;">2.28</td> <td style="text-align: center;">DES</td> <td>Settled deposits, fine, 5% cross-sectional area loss</td> <td style="text-align: right;">00:00:45</td> <td></td> <td></td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: right;">2.93</td> <td style="text-align: center;">MHF</td> <td>Finish node type, manhole, reference number: MH02</td> <td style="text-align: right;">00:00:57</td> <td></td> <td></td> <td></td> </tr> </table> </div>								0.04	MH	Start node type, manhole, reference number: MH01	00:00:18				0.04	WL	Water level, 0 % of the vertical dimension	00:00:21				1.60	DES	Settled deposits, fine, 10% cross-sectional area loss	00:00:39			3	2.28	DES	Settled deposits, fine, 5% cross-sectional area loss	00:00:45			3	2.93	MHF	Finish node type, manhole, reference number: MH02	00:00:57			
0.04	MH	Start node type, manhole, reference number: MH01	00:00:18																																							
0.04	WL	Water level, 0 % of the vertical dimension	00:00:21																																							
1.60	DES	Settled deposits, fine, 10% cross-sectional area loss	00:00:39			3																																				
2.28	DES	Settled deposits, fine, 5% cross-sectional area loss	00:00:45			3																																				
2.93	MHF	Finish node type, manhole, reference number: MH02	00:00:57																																							
Structural Defects				Construction Features																																						
Service & Operational Observations				Miscellaneous Features																																						

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	2	2.0	1.4	4.0	3.0

Section Pictures - 28/09/2018 - MH01X

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
4	Downstream	MH01X	01	



, 00:00:18, 0.04 m
Start node type, manhole, reference number: MH01



, 00:00:39, 1.60 m
Settled deposits, fine, 10% cross-sectional area loss



, 00:00:45, 2.28 m
Settled deposits, fine, 5% cross-sectional area loss



, 00:00:57, 2.93 m
Finish node type, manhole, reference number: MH02

Section Inspection - 28/09/2018 - SVP X

Section 5	Inspection 5	Date 28/09/18	Time 8:29	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned N	PLR SVP X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	London	Inspection Direction:	Upstream	Upstream Node:	SVP
Road:	9 Nassington Road	Inspected Length:	1.75 m	Upstream Pipe Depth:	0.000 m
Location:		Total Length:	1.75 m	Downstream Node:	MH02
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	1,950.000 m
Use:	Combined	Pipe Shape:	Circular	Dia/Height:	100 mm
Type of Pipe:	Gravity drain/sewer	Pipe Material:	Vitrified clay pipe	Lining Type:	
Year Constructed:	1900	Lining Material:			
Flow Control:	No flow control				
Inspection Purpose:	Sample survey to determine asset condition of a sewer system				
Comments:	Crack identified but currently deemed as serviceable				
Recommendations:	Carryout CCTV survey in 12 to 18 months time to assess pipe condition				

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
	0.00	MH	Start node type, manhole, reference number: MH02	00:00:05		
	0.00	WL	Water level, 0 % of the vertical dimension	00:00:09		
	0.34	CC	Crack, circumferential from 7 o'clock to 11 o'clock	00:00:25		2 / 2
	1.03	GP	General photograph taken at this point	00:00:40		
	1.33	LD	Line deviates down	00:00:47		
	1.56	LU	Line deviates up	00:00:52		
	1.75	BRF	Finish node type, major connection without manhole	00:01:06		

Structural Defects					Construction Features				
Service & Operational Observations					Miscellaneous Features				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	10.0	5.7	10.0	2.0	1	1.0	0.6	1.0	2.0

Section Pictures - 28/09/2018 - SVP X

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
5	Upstream	SVP X	01	



, 00:00:05, 0.00 m
Start node type, manhole, reference number: MH02



, 00:00:25, 0.34 m
Crack, circumferential from 7 o'clock to 11 o'clock



, 00:00:40, 1.03 m
General photograph taken at this point



, 00:01:06, 1.75 m
Finish node type, major connection without manhole

Section Inspection - 28/09/2018 - GULLY 02X

Section 6	Inspection 6	Date 28/09/18	Time 8:35	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned N	PLR GULLY 02X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	London	Inspection Direction:	Upstream	Upstream Node:	GULLY 02
Road:	9 Nassington Road	Inspected Length:	0.34 m	Upstream Pipe Depth:	0.000 m
Location:		Total Length:	0.49 m	Downstream Node:	MH02
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	1,950.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Year Constructed:	1900	Pipe Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:			
Inspection Purpose:	Sample survey to determine asset condition of a sewer system		Lining Material:		
Comments:	Survey abandoned as camera unable to push round bend. Fracture identified				
Recommendations:	To break into gully and complete survey and install a 100mm flexible patch liner				

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		Depth: 1950.00 m					
		MH02					
		0.15	GP	General photograph taken at this point	00:00:11		
		0.38	FC	Fracture, circumferential from 6 o'clock to 8 o'clock	00:00:17		3 / 2
		0.49	SA	Survey abandoned: UNABLE TO PUSH UP	00:00:29		
		Depth: 0.00 m					

Structural Defects					Construction Features						
Service & Operational Observations					Miscellaneous Features						
STR No.	Def	STR Peak	STR Mean	STR Total	STR Grade	SER No.	Def	SER Peak	SER Mean	SER Total	SER Grade
1		40.0	81.0	40.0	3.0	1		1.0	2.0	1.0	2.0

Section Pictures - 28/09/2018 - GULLY 02X

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
6	Upstream	GULLY 02X	01	



, 00:00:11, 0.15 m
 General photograph taken at this point



, 00:00:17, 0.38 m
 Fracture, circumferential from 6 o'clock to 8 o'clock



, 00:00:29, 0.49 m
 Survey abandoned, UNABLE TO PUSH UP

Section Inspection - 28/09/2018 - MH02X

Section 7	Inspection 7	Date 28/09/18	Time 8:37	Client's Job Ref 01	Weather No Rain Or Snow	Pre Cleaned N	PLR MH02X
Operator Not Specified		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	London	Inspection Direction:	Downstream	Upstream Node:	MH02
Road:	9 Nassington Road	Inspected Length:	11.74 m	Upstream Pipe Depth:	1,950.000 m
Location:		Total Length:	11.74 m	Downstream Node:	SEWER
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	0.000 m
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Year Constructed:	1900	Pipe Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:			
Inspection Purpose:	Sample survey to determine asset condition of a sewer system		Lining Material:		
Comments:	Root ingress identified and damage noted off the property boundary which is Thames Water asset				
Recommendations:	Root cut and install 100mm liner to short of boundary				

Scale: 1:103	Position [m]	Code	Observation	MPEG	Photo	Grade																																																																																				
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>Depth: 1950.00 m MH02</p> <p style="text-align: center;">SEWER Depth: 0.00 m</p> </div> <table border="1" style="margin-left: 10px; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: right;">0.00</td> <td style="width: 10%;">MH</td> <td style="width: 40%;">Start node type, manhole, reference number: MH02</td> <td style="width: 10%;">00:00:06</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">0.00</td> <td>WL</td> <td>Water level, 0 % of the vertical dimension</td> <td>00:00:09</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">0.19</td> <td>MCPVC</td> <td>Pipe material changes to polyvinyl chloride at this point</td> <td>00:00:17</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">0.49</td> <td>DER</td> <td>Settled deposits, coarse, 15% cross-sectional area loss</td> <td>00:00:18</td> <td></td> <td></td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: right;">2.43</td> <td>WL</td> <td>Water level, 15% of the vertical dimension</td> <td>00:00:33</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">2.66</td> <td>MCVC</td> <td>Pipe material changes to vitrified clay at this point</td> <td>00:00:46</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">3.99</td> <td>RMJ</td> <td>Roots, mass at joint, 5% cross-sectional area loss</td> <td>00:00:58</td> <td></td> <td></td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: right;">4.67</td> <td>RFJ</td> <td>Roots, fine at joint</td> <td>00:01:04</td> <td></td> <td></td> <td style="text-align: center;">2</td> </tr> <tr> <td style="text-align: right;">5.40</td> <td>RFJ</td> <td>Roots, fine at joint</td> <td>00:01:08</td> <td></td> <td></td> <td style="text-align: center;">2</td> </tr> <tr> <td style="text-align: right;">7.79</td> <td>DEE</td> <td>Attached deposits, encrustation from 5 o'clock to 8 o'clock, 20% cross-sectional area loss</td> <td>00:01:26</td> <td></td> <td></td> <td style="text-align: center;">3</td> </tr> <tr> <td style="text-align: right;">11.55</td> <td>B</td> <td>Broken pipe from 10 o'clock to 1 o'clock</td> <td>00:01:54</td> <td></td> <td></td> <td style="text-align: center;">4</td> </tr> <tr> <td style="text-align: right;">11.74</td> <td>BRF</td> <td>Finish node type, major connection without manhole, reference number: SEWER</td> <td>00:02:10</td> <td></td> <td></td> <td></td> </tr> </table> </div>							0.00	MH	Start node type, manhole, reference number: MH02	00:00:06				0.00	WL	Water level, 0 % of the vertical dimension	00:00:09				0.19	MCPVC	Pipe material changes to polyvinyl chloride at this point	00:00:17				0.49	DER	Settled deposits, coarse, 15% cross-sectional area loss	00:00:18			3	2.43	WL	Water level, 15% of the vertical dimension	00:00:33				2.66	MCVC	Pipe material changes to vitrified clay at this point	00:00:46				3.99	RMJ	Roots, mass at joint, 5% cross-sectional area loss	00:00:58			3	4.67	RFJ	Roots, fine at joint	00:01:04			2	5.40	RFJ	Roots, fine at joint	00:01:08			2	7.79	DEE	Attached deposits, encrustation from 5 o'clock to 8 o'clock, 20% cross-sectional area loss	00:01:26			3	11.55	B	Broken pipe from 10 o'clock to 1 o'clock	00:01:54			4	11.74	BRF	Finish node type, major connection without manhole, reference number: SEWER	00:02:10			
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Structural Defects					Construction Features				
Service & Operational Observations					Miscellaneous Features				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	80.0	6.8	80.0	4.0	5	4.0	0.9	10.0	3.0

Section Pictures - 28/09/2018 - MH02X

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
7	Downstream	MH02X	01	



, 00:00:06, 0.00 m
Start node type, manhole, reference number: MH02



, 00:00:17, 0.19 m
Pipe material changes to polyvinyl chloride at this point



, 00:00:18, 0.49 m
Settled deposits, coarse, 15% cross-sectional area loss



, 00:00:33, 2.43 m
Water level, 15% of the vertical dimension

Section Pictures - 28/09/2018 - MH02X

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
7	Downstream	MH02X	01	



, 00:00:46, 2.66 m
Pipe material changes to vitrified clay at this point



, 00:00:58, 3.99 m
Roots, mass at joint, 5% cross-sectional area loss



, 00:01:04, 4.67 m
Roots, fine at joint



, 00:01:08, 5.40 m
Roots, fine at joint

Section Pictures - 28/09/2018 - MH02X

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
7	Downstream	MH02X	01	



, 00:01:26, 7.79 m
Attached deposits, encrustation from 5 o'clock to 8 o'clock,
20% cross-sectional area loss



, 00:01:54, 11.55 m
Broken pipe from 10 o'clock to 1 o'clock



, 00:02:10, 11.74 m
Finish node type, major connection without manhole,
reference number: SEWER

Report

Dear Sir/Madam

1. DESCRIPTION OF PROPERTY

Semi Detached Residential Property

2. DRAINAGE SYSTEM

This is a foul drainage system accessible by Manhole. The pipework is circular in shape, 100mm and 110mm in diameter and vitrified clay, PVC and cast-iron material. Further specific variations can be found in the report content.

3. SHARED

The sections identified within the property boundary are for the sole use of this property and therefore the responsibility of the site owner to maintain.

The section beyond the property boundary generally are the legal responsibility of the local water company to maintain.

4. CIRCUMSTANCES

- General investigation Works.

5. SUMMARY

The defects are fully noted in the attached report.

6. Quotation and Specification of Repairs

Please see separate quotation.

Yours sincerely

Jamie Snow

Following your notification, we attended site on the 28th September 2018 to carryout a CCTV survey of the drainage system.

Our investigations revealed that the drainage system is not shared with any other property however the pipe work leaves the property boundary at 5.35m downstream of MH2 which the remaining sections are the responsibility of Thames Water to maintain and repair.

We identified damage within the drainage system which is the responsibility of the property which we would recommend to carryout the following works.

To install 5m of 100mm flexible liner from MH1 upstream to Rear WWG

To install a 100mm flexible patch liner from MH1 upstream to Gully1

To remove debris with specialist machinery from MH1 downstream to MH2

To break into Gully2 and complete survey downstream to MH2. We also recommend to install a 100mm flexible patch liner from MH2 upstream to Gully02

To carry out high pressure water jetting with specialist root cutting equipment and line from MH2 downstream to short of boundary.