

Manhole Record Card



		Address/ Project.	Horndean Road Emsworth Havant PO10 7XN		
Manhole No.	SW01	Surveyor	MB	Date	30-06-2023
Type.		Cover Shape	Cover Duty		
Storm Water		Square	Medium		
Cover Size		Shaft Size	Chamber Size		
685 x 685mm		550 x 550mm	1500 dia		
Access			Material/ Construction		
Step Irons			Brick/Concrete		



Eastings (X)	474231.203	Northings (Y)	107204.495	Level (Z)	10.96
Pipe	Size (dia)	Material		Invert/Depth	Upstream Ref
A	600	RC (Reinforced Concrete)		1.86d	SW02
B					
C					
D					
E					
F					
					Downstream Ref
X	600	RC (Reinforced Concrete)		1.89d	Outfall
Y					

Manhole Record Card



		Address/ Project.	Horndean Road Emsworth Havant PO10 7XN		
Manhole No.	SW02	Surveyor	MB	Date	30-06-2023
Type.		Cover Shape	Cover Duty		
Storm Water		Square	Heavy		
Cover Size		Shaft Size	Chamber Size		
585 x 585mm		550 x 550mm	1500 dia		
Access			Material/ Construction		
Step Irons			Brick/Concrete		

9 Brick Courses,
1.75d to Benching Level,
0.94d Soffit Level.

MH-Entry required for offset pipe

Eastings (X)	474250.738	Northings (Y)	107310.852	Level (Z)	11.89
Pipe	Size (dia)	Material		Invert/Depth	Upstream Ref
A	300	RC (Reinforced Concrete)		1.58d	MH-OSA
B	600	RC (Reinforced Concrete)		2.27d	SW03 (Buried)
C					
D					
E					
F					
					Downstream Ref
X	600	RC (Reinforced Concrete)		2.25d	SW01
Y					

Manhole Record Card



		Address/ Project.	Horndean Road Emsworth Havant PO10 7XN		
Manhole No.	SW04	Surveyor	MB	Date	30-06-2023
Type.		Cover Shape		Cover Duty	
Storm Water		Rectangle		Medium	
Cover Size		Shaft Size		Chamber Size	
680 x 525mm		600 x 450mm		750 x 460mm	
Access			Material/ Construction		
			Brick concrete		



Eastings (X)	474002.206	Northings (Y)	107706.994	Level (Z)	23.29
Pipe	Size (dia)	Material		Invert/Depth	Upstream Ref
A	225	VC (Vitrified Clay)		1.16d	MH-OSA
B	150	PE (Polyethylene)		0.53d	Gully
C	300	PE (Polyethylene)		1.00d	Inlet-Headwall
D					
E					
F					
					Downstream Ref
X	225	VC (Vitrified Clay)		1.17d	SW05
Y					

Manhole Record Card



		Address/ Project.	Horndean Road Emsworth Havant PO10 7XN		
Manhole No.	SW05	Surveyor	MB	Date	30-06-2023
Type.		Cover Shape	Cover Duty		
Storm Water		Rectangle	Medium		
Cover Size		Shaft Size	Chamber Size		
680 x 530mm		600 x 450mm	750 x 450mm		
Access			Material/ Construction		
			Brick/concrete		

9 brick course, benching level 0.85d
Traffic Management Required for CCTV.

Eastings (X)	474041.208	Northings (Y)	107650.061	Level (Z)	21.06
Pipe	Size (dia)	Material		Invert/Depth	Upstream Ref
A	150	VC (Vitrified Clay)		0.52d	MH-Highways
B	225	VC (Vitrified Clay)		1.02d	SW04
C					
D					
E					
F					
					Downstream Ref
X	225	VC (Vitrified Clay)		1.03d	SW06
Y					

Manhole Record Card



		Address/ Project.		Horndean Road Emsworth Havant PO10 7XN	
Manhole No.	SW06	Surveyor	MB	Date	30-06-2023
Type.		Cover Shape		Cover Duty	
Storm Water		Rectangle		Medium	
Cover Size		Shaft Size		Chamber Size	
710 x 510mm		600 x 450mm		700 x 500mm	
Access			Material/ Construction		



Eastings (X)	474072.123	Northings (Y)	107606.401	Level (Z)	19.56
Pipe	Size (dia)	Material		Invert/Depth	Upstream Ref
A	225	VC (Vitrified Clay)		1.04d	SW05
B	100	VC (Vitrified Clay)		0.77d	Blocked
C					
D					
E					
F					
					Downstream Ref
X	300	PE (Polyethylene)		1.06d	SW07
Y					

Manhole Record Card



		Address/ Project.		Hordean Road Emsworth Havant PO10 7XN	
Manhole No.	SW07	Surveyor	MB	Date	30-06-2023
Type.		Cover Shape		Cover Duty	
Storm Water		Rectangle		Medium	
Cover Size		Shaft Size		Chamber Size	
640 x 490mm		600 x 450mm		610 x 450mm	
Access			Material/ Construction		
			Brick/concrete		



Eastings (X)	474095.017	Northings (Y)	107573.853	Level (Z)	18.39
Pipe	Size (dia)	Material		Invert/Depth	Upstream Ref
A	150	VC (Vitrified Clay)		0.42d	Gully
B	300	PE (Polyethylene)		0.93d	SW06
C	80	VC (Vitrified Clay)		0.80d	Blocked
D					
E					
F					
					Downstream Ref
X	300	PE (Polyethylene)		0.94d	SW08
Y					

Manhole Record Card



		Address/ Project.		Horndean Road Emsworth Havant PO10 7XN	
Manhole No.	SW08	Surveyor		Date	
Type.		Cover Shape		Cover Duty	
Storm Water		Square		Heavy	
Cover Size		Shaft Size		Chamber Size	
580 x 580mm		550 dia		760 x 450mm	
Access			Material/ Construction		
			Brick		

11 brick course, 1.05d to benching level.
Traffic management Required for CCTV.

Eastings (X)	474132.019	Northings (Y)	107521.734	Level (Z)	16.65
Pipe	Size (dia)	Material		Invert/Depth	Upstream Ref
A	150	VC (Vitrified Clay)		0.62d	MH-Highways
B	300	PE (Polyethylene)		1.21d	SW07
C					
D					
E					
F					
					Downstream Ref
X	300	PE (Polyethylene)		1.23d	SW09
Y					

Manhole Record Card



		Address/Project.		Hordean Road Emsworth Havant PO10 7XN	
Manhole No.	SW09	Surveyor	MB	Date	30-06-2023
Type.		Cover Shape		Cover Duty	
Storm Water		Rectangle		Heavy	
Cover Size		Shaft Size		Chamber Size	
680 x 525mm		600 x 420mm		850 x 450m	
Access			Material/ Construction		
			Brick		



Eastings (X)	474187.050	Northings (Y)	107444.775	Level (Z)	14.05
Pipe	Size (dia)	Material		Invert/Depth	Upstream Ref
A	150	VC (Vitrified Clay)		0.62d	Gully
B	300	PE (Polyethylene)		1.32d	SW08
C	100	VC (Vitrified Clay)		1.22d	Blocked
D					
E					
F					
					Downstream Ref
X	300	PE (Polyethylene)		1.33d	SW10
Y					

1.22 to bench level

Manhole Record Card



		Address/ Project.	Hordean Road Emsworth Havant PO10 7XN		
Manhole No.	SW10	Surveyor	MB	Date	30-06-2023
Type.		Cover Shape	Cover Duty		
Storm Water		Rectangle	Light		
Cover Size		Shaft Size	Chamber Size		
640 x 490mm		600 x 450mm	700 x 450mm		
Access			Material/ Construction		
			Brick		

12 brick courses, 1.05d to benching level.
Traffic Management Required for CCTV.

Eastings (X)	474213.586	Northings (Y)	107406.580	Level (Z)	13.36
Pipe	Size (dia)	Material		Invert/Depth	Upstream Ref
A	300	VC (Vitrified Clay)		1.26d	SW09
B					
C					
D					
E					
F					
					Downstream Ref
X	300	VC (Vitrified Clay)		1.27d	SW11
Y					

Manhole Record Card



		Address/ Project.	Hordean Road Emsworth Havant PO10 7XN		
Manhole No.	SW11	Surveyor	MB	Date	30-06-2023
Type.		Cover Shape	Cover Duty		
Storm Water		Rectangle	Light		
Cover Size		Shaft Size	Chamber Size		
700 x 510mm		600 x 460mm	700 x490mm		
Access			Material/ Construction		
			Brick		



Eastings (X)	474228.450	Northings (Y)	107385.061	Level (Z)	12.96
Pipe	Size (dia)	Material		Invert/Depth	Upstream Ref
A	100	VC (Vitrified Clay)		0.57d	Gully
B	300	VC (Vitrified Clay)		1.19d	SW10
C					
D					
E					
F					
					Downstream Ref
X	300	VC (Vitrified Clay)		1.22d	SW12
Y					

Manhole Record Card



		Address/ Project.		Horndean Road Emsworth Havant PO10 7XN	
Manhole No.	SW12	Surveyor	MB	Date	30-06-2023
Type.		Cover Shape		Cover Duty	
Storm Water		Rectangle		Medium	
Cover Size		Shaft Size		Chamber Size	
680 x 530mm		600 x 450mm		615 x 520mm	
Access			Material/ Construction		
			Brick/concrete		



Eastings (X)	474246.560	Northings (Y)	107359.720	Level (Z)	12.80
Pipe	Size (dia)	Material		Invert/Depth	Upstream Ref
A	300	VC (Vitrified Clay)		0.95d	SW11
B					
C					
D					
E					
F					
					Downstream Ref
X	300	VC (Vitrified Clay)		0.96d	SW13
Y					

Manhole Record Card



		Address/ Project.		Hordean Road Emsworth Havant PO10 7XN	
Manhole No.	SW13	Surveyor	MB	Date	30-06-2023
Type.		Cover Shape		Cover Duty	
Storm Water		Circular		Medium	
Cover Size		Shaft Size		Chamber Size	
580 dia		500 dia		600 x 350mm	
Access			Material/ Construction		
			Brick		



Eastings (X)	474272.584	Northings (Y)	107323.383	Level (Z)	11.72
Pipe	Size (dia)	Material		Invert/Depth	Upstream Ref
A	300	VC (Vitrified Clay)		0.68d	SW12
B					
C					
D					
E					
F					
					Downstream Ref
X	300	VC (Vitrified Clay)		0.69d	MH-OSA
Y					

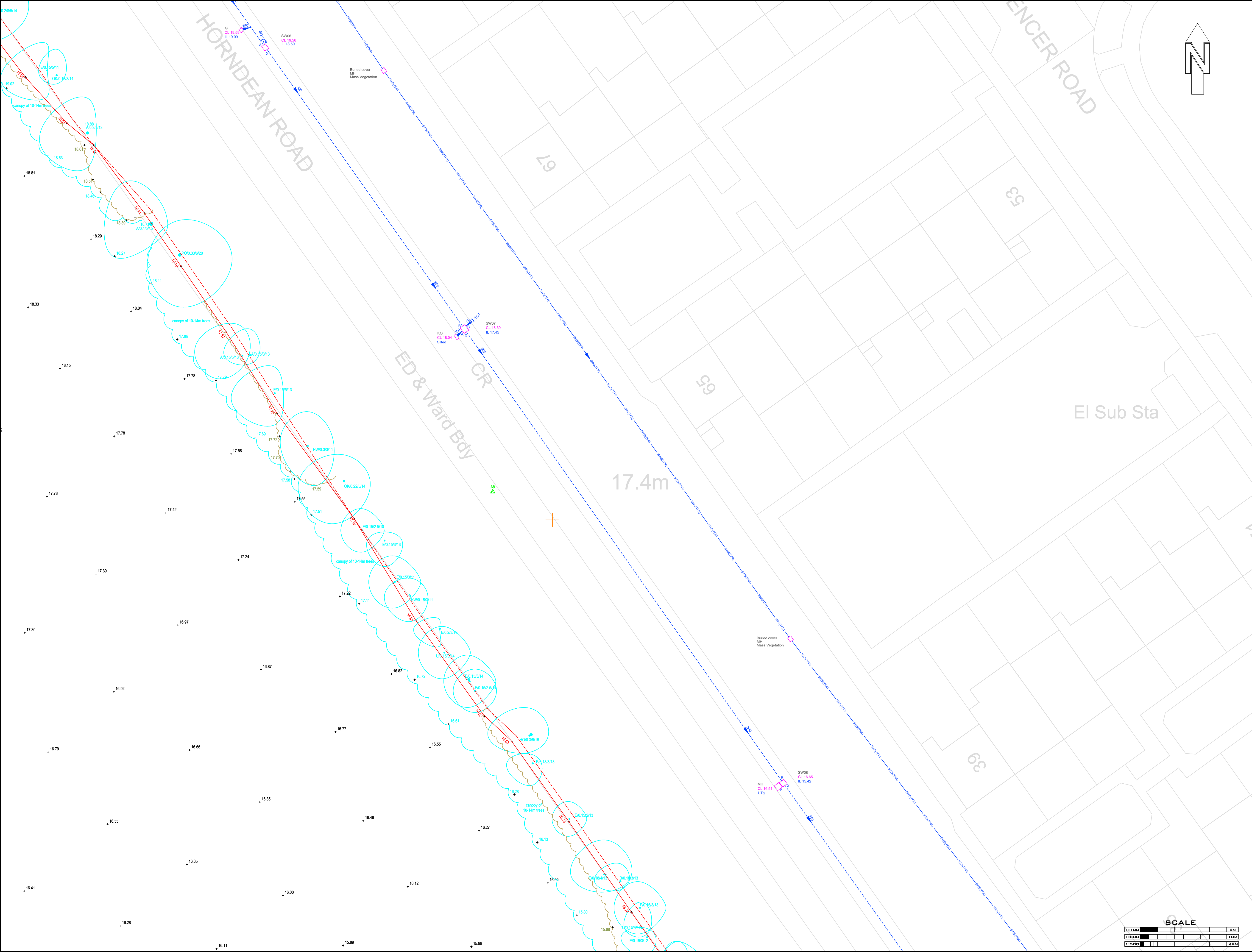
Manhole Record Card



		Address/ Project.		Hordean Road Emsworth Havant PO10 7XN	
Manhole No.	SW14	Surveyor	MB	Date	30-06-2023
Type.		Cover Shape		Cover Duty	
Storm Water		Square		Heavy	
Cover Size		Shaft Size		Chamber Size	
585 x 585mm		500 dia		1200 approx	
Access			Material/ Construction		
Step Irons			Concrete		



Eastings (X)	474034.813	Northings (Y)	107679.627	Level (Z)	21.36
Pipe	Size (dia)	Material		Invert/Depth	Upstream Ref
A	225	VC (Vitrified Clay)		1.83d	MH-OSA
B					
C					
D					
E					
F					
					Downstream Ref
X	225	VC (Vitrified Clay)		1.84d	MH-Buried
Y					



THE NAME IN SURVEYS

SHEET LAYOUT

LEGEND

ABBREVIATIONS

UTILITY NOTES

REV

DATE

DESCRIPTION

GPR ASSOCIATION

CHARTERED ICES

THE SURVEY

SVS

CLIENT:

BLOOR HOMES

SITE LOCATION:

HORNDEAN ROAD
EMSWORTH
HAVANT

DRAWING TITLE:

DRAINAGE & CCTV SURVEY

SURVEYED BY:

MB/TR/VM

DRAWN BY:

VM

APPROVED BY:

FL

DRAWING NO:

0623-BH-16113

SURVEY DATE:

30-06-2023

SCALE:

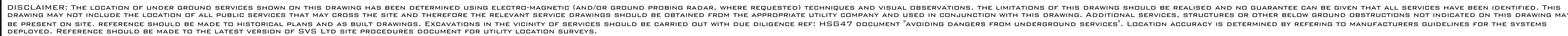
1:200 @A1

SHEET NO:

3 OF 7

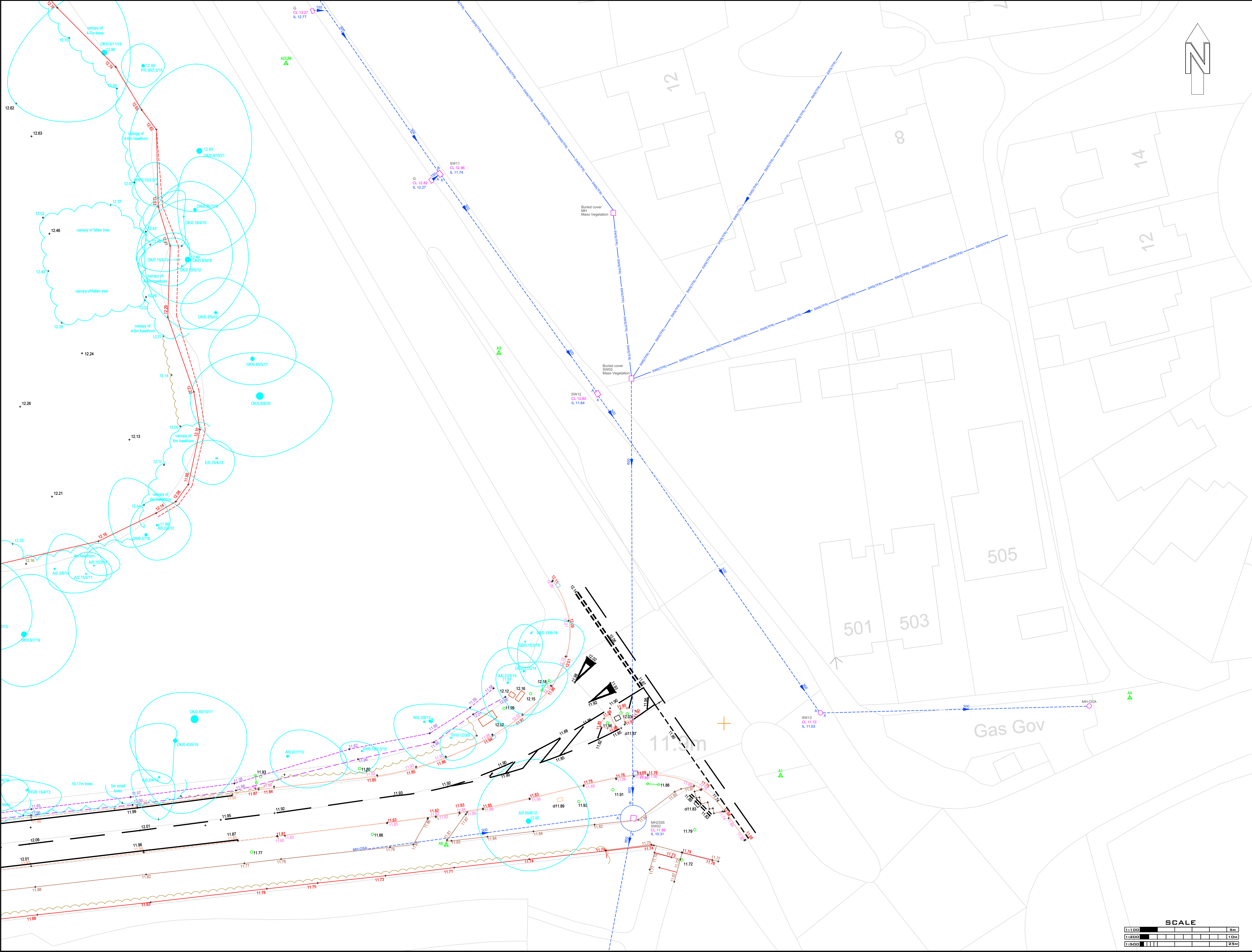
REV:

DISCLAIMER: THE LOCATION OF UNDER GROUND SERVICES SHOWN ON THIS DRAWING HAS BEEN DETERMINED USING ELECTRO-MAGNETIC (AND/OR GROUND PROBING RADAR, WHERE REQUESTED) TECHNIQUES AND VISUAL OBSERVATIONS. THE LIMITATIONS OF THIS DRAWING SHOULD BE REALISED AND NO GUARANTEE CAN BE GIVEN THAT ALL SERVICES HAVE BEEN IDENTIFIED. THIS DRAWING MAY NOT INCLUDE THE LOCATION OF ALL PUBLIC SERVICES THAT MAY CROSS THE SITE AND THEREFORE THE RELEVANT SERVICE DRAWINGS SHOULD BE OBTAINED FROM THE APPROPRIATE UTILITY COMPANY AND USED IN CONJUNCTION WITH THIS DRAWING. ADDITIONAL SERVICES, STRUCTURES OR OTHER BELOW GROUND OBSTRUCTIONS NOT INDICATED ON THIS DRAWING MAY BE PRESENT ON SITE. REFERENCE SHOULD BE MADE TO HISTORICAL PLANS AND AS BUILT DRAWINGS. EXCAVATIONS IN THE VICINITY OF SERVICES SHOULD BE CARRIED OUT WITH DUE DILIGENCE REF: HSG47 DOCUMENT "AVOIDING DANGERS FROM UNDERGROUND SERVICES". LOCATION ACCURACY IS DETERMINED BY REFERRING TO MANUFACTURERS GUIDELINES FOR THE SYSTEMS DEPLOYED. REFERENCE SHOULD BE MADE TO THE LATEST VERSION OF SVS LTD SITE PROCEDURES DOCUMENT FOR UTILITY LOCATION SURVEYS.



SCALE:	SHEET NO:	REV
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11222	4 OF 7
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THE NAME IN SURVEYS

SHEET LAYOUT



LEGEND

	SURVEY STATION		FOUL DRAINAGE
	LEVEL		COMBINED DRAINAGE
	BUILDING		ELECTRICITY
	GANDY		ELECTRICITY HIGH VOLTAGE
	FENCE		TRAFFIC SIGNALS
	WALL		GAS
	HEDGE		WATER
	KERB		CABLE TELEVISION
	KERB TOP		CLOSE CIRCUIT TELEVISION
	MANHOLE		BRITISH TELECOM
	OFFSET FULL-LINE		COMPRESSED AIR
	VERGE		OIL PIPE
	TREE (SHOWN TO SCALE)		VENTILATION
	TREE CANOPY		FUEL LINE
	FOLIAGE		VAPOUR RECOVERY
	FURNITURE		GAUGE LINE
	GATE		FIBRE OPTICS
	STEP		UNKNOWN
	LINE MARKINGS		OVERHEAD LINE
	OVERHEAD		HISTORICAL BY LAYER
	SPEED HUMP		END OF TRACE
	GULLY RUN		END OF RECORD
	DRAINAGE CHANNEL		DO NOT DRILL / BANDED PIPES
	BANKS		TRENCH SCAR
	CONTOUR MAJOR		CONTOUR MINOR
	STANTION		PUMP ISLAND
	BOREHOLE		WATER
	UNKNOWN		FELLAM
	PRODUCT		CONCRETE

ABBREVIATIONS

A/C	AIR CONDITIONER	GR	OVERHEAD
A/R	ASSUMED ROUTE	GR	OFF SURVEY AREA
AV	AIR VALVE	OSBM	ORIGANAL SURVEY BENCH MARK
BOLL	BOLLARD	PS	PIT LEVEL
BU	BULLHEAD	PR	PIPE RISER
BS	BRUSH BEASON	PSR	POST & RAIL FENCE
BH	BORHOLE	RE	RETAINING WALL
BS	BUS STOP	RE	ROAD SIGN
BTIC	BRITISH TELECOM COVER	RS	ROAD SIGN
CBX	CONTROL BOX	SAP	SAMPLE
CR	CABLE RISER	SAP	SAMPLE
CTV	CATCHMENT	S-C	ROUND CONNECTED
CP	CATCHMENT	SEC	SECURITY FENCE
CCNG	CONCRETE	SL	SOIL PIPE
CL	COVER LEVEL	ST	STOP TAP
D	DEPTH / DEEP	SV	STOP VALVE
D/CHAN	DRAINAGE CHANNEL	SVN	STATION (DATUM POINT)
DR	DOWN PIPE	SV	STOP VALVE
E/C	ELECTRICITY COVER	SV	STOP VALVE
EP	EARTH ROD	SV	STOP VALVE
EP	ELECTRICITY POLE	TEM	TEMPERARY BENCH MARK
EDT	END OF TRACE	TOL	TREE CANOPY LEVEL
F/F	FINISHED FLOOR LEVEL	TOW	TOP OF WALL LEVEL
FIBED	FIRE HYDRANT	TTR	TAKEN FROM RECORDS
FR	FIRE SWITCH	TL	TELEGRAPH POLE
DV	DRAIN VALVE	TP	THIMBER POST & RAIL
G	GULLY	TPR	THIMBER POST & RAIL
G-RUN	GULLY RUN	UTL	UNABLE TO LOCATE
HT	HEDG	UTS	UNABLE TO RAISE
IC	INSPECTION COVER	UTS	UNABLE TO RAISE
IL	INVERT LEVEL	UTT	UNABLE TO TRACE
KD	KERB OUTLET	VR	VAPOUR RECOVERY
LP	LAMP POST	WM	WATER METER
MB	MULTI-ROD	WM	WATER METER
MH	MANHOLE	WFC	WATER FILLED CHAMBER
MHP	METER	WP	WASTE PIPE
MTR	METER	US	UNDERSIDE
HW	MONITORING WELL	W	WATER

UTILITY NOTES

REV	DATE	DESCRIPTION

CLIENT: **BLOOR HOMES**

SITE LOCATION: **HORNEDEAN ROAD
EMSWORTH
HAVANT**

DRAWING TITLE: **DRAINAGE & CCTV SURVEY**

SURVEYED BY: **MB/TR/VM** DRAWN BY: **VM** APPROVED BY: **FL**

DRAWING NO: **0623-BH-16113** SURVEY DATE: **30-06-2023**

SCALE: **1:200 @A1** SHEET NO: **7 OF 7** REV:

DISCLAIMER: THE LOCATION OF UNDER GROUND SERVICES SHOWN ON THIS DRAWING HAS BEEN DETERMINED USING ELECTRO-MAGNETIC (AND/OR GROUND PROBING RADAR, WHERE REQUESTED) TECHNIQUES AND VISUAL OBSERVATIONS. THE LIMITATIONS OF THIS DRAWING SHOULD BE REALISED AND NO GUARANTEE CAN BE GIVEN THAT ALL SERVICES HAVE BEEN IDENTIFIED. THIS DRAWING MAY NOT INCLUDE THE LOCATION OF ALL PUBLIC SERVICES THAT MAY CROSS THE SITE AND THEREFORE THE RELEVANT SERVICE DRAWINGS SHOULD BE OBTAINED FROM THE APPROPRIATE UTILITY COMPANY AND USED IN CONJUNCTION WITH THIS DRAWING. ADDITIONAL SERVICES, STRUCTURES OR OTHER BELOW GROUND OBSTRUCTIONS NOT INDICATED ON THIS DRAWING MAY BE PRESENT ON SITE. REFERENCE SHOULD BE MADE TO HISTORICAL PLANS AND AS BUILT DRAWINGS. EXCAVATIONS IN THE VICINITY OF SERVICES SHOULD BE CARRIED OUT WITH DUE DILIGENCE REF: HSG47 DOCUMENT 'AVOIDING DANGERS FROM UNDERGROUND SERVICES'. LOCATION ACCURACY IS DETERMINED BY REFERRING TO MANUFACTURERS GUIDELINES FOR THE SYSTEMS DEPLOYED. REFERENCE SHOULD BE MADE TO THE LATEST VERSION OF SVS LTD SITE PROCEDURES DOCUMENT FOR UTILITY LOCATION SURVEYS.



Project Name: Bloor Homes
Project Description: CCTV and Drainage Survey
Project Number: 0623-BH-16113
Project Date: 28/06/2023
Inspection Standard: MSCC5 Sewers & Drainage GB (SRM5 Scoring)



Table of Contents

Project Name
Bloor Homes

Project Number
0623-BH-16113

Project Date
28/06/2023

Project Information	P-1
Scoring Summary	P-2
Section: 1; SW01 > X (SW01X)	1
Section: 2; SW02 > SW01 (SW02X)	4
Section: 3; SW03 > SW02 (SW03X)	6
Section: 4; SW04 > X (SW04X)	8



Project Information

Project Name Bloor Homes	Project Number 0623-BH-16113	Project Date 28/06/2023
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Client

Company: Bloor Homes
Description: CCTV and Drainage Survey
Contact: Adam Rickenbach
Street: Horndean Road
Town or City: Emsworth
County: Havant
Post Code: PO10 7XN
Mobile: 07816252784

Contractor

Company: Site Vision Survey
Contact: Paul cox / Simon Bailey
Street: 19 Warwick street
Town or City: Rugby
Post Code: CV21 3DH
Phone: 01788 575036





Scoring Summary

Project Name
Bloor Homes

Project Number
0623-BH-16113

Project Date
28/06/2023

Structural Defects

Section	PLR	Grade	Description
All inspected pipes are in an acceptable structural condition (< grade 3).			

Service / Operational Condition

- Grade 3: Best practice suggests consideration should be given to maintenance activities in the medium term.
- Grade 4: Best practice suggests consideration should be given to maintenance activity to avoid potential blockages.
- Grade 5: Best practice suggests that this pipe is at a high risk of backing up or causing flooding.

Section	PLR	Grade	Description
2	SW02X	3	Settled deposits, hard or compacted, 5% cross-sectional area loss
4	SW04X	4	Joint displaced, large

Abandoned Surveys

Section	PLR	Description
All inspections complete, none are abandoned.		

Information

These scoring summaries are based on the SRM grading from the WRc.



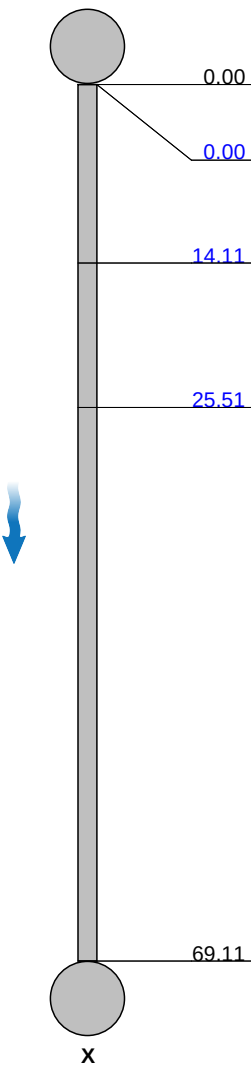
Section Inspection - 28/06/2023 - SW01X

Item No. 1	Insp. No. 1	Date 28/06/23	Time 9:08	Client's Job Ref 0623-BH-16113	Weather No Rain Or Snow	Pre Cleaned No	PLR SW01X
Operator Mark Blake		Vehicle VW CRAFTER		Camera Crawler	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Havant	Inspection Direction:	Downstream	Upstream Node:	SW01
Road:	Kennett Way	Inspected Length:	69.11 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	69.11 m	Downstream Node:	X
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:		Dia/Height:	600 mm		
Flow Control:	No flow control	Material:	Concrete		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:596	Position [m]	Code	Observation	MPEG	Photo	Grade
<p>Depth: m</p> <p>SW01</p>  <p>X</p> <p>Depth: m</p>						
	0.00	MH	Start node, manhole, reference: SW01	00:00:01	SW01X_e ac7cad6-8 2ca-4c64-	
	<u>0.00</u>	WLC	Clear water level, 0% of the vertical dimension	00:00:09	SW01X_d e5c1239-6 78d-47a6-	
	<u>14.11</u>	WL	Water level, 10% of the vertical dimension	00:01:35	SW01X_fb a8b68b-b4 36-4577-8	
	<u>25.51</u>	WL	Water level, 15% of the vertical dimension: Camera underwater.	00:02:13	SW01X_4 5cf72ca-3 758-41b2-	
	<u>69.11</u>	OFF	Finish node, outfall, reference: X: Mass vegetation within outfall causing water level to stay stable, clearance required.	00:05:09	SW01X_9 9269392-c 236-4de1-	

Construction Features

Miscellaneous Features

Structural Defects

Service & Operational Observations

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 - 28/06/2023 - SW01X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Downstream	SW01X	0623-BH-16113	



SW01X_eac7cad6-82ca-4c64-a27b-fb695524fdcd_20230628_090816_977.jpg, 00:00:01, 0.00 m
Start node, manhole, reference: SW01



SW01X_de5c1239-678d-47a6-9818-7cd0189a17e9_20230628_090832_034.jpg, 00:00:09, 0.00 m
Clear water level, 0% of the vertical dimension



SW01X_fba8b68b-b436-4577-8445-55d7af249511_20230628_091003_638.jpg, 00:01:35, 14.11 m
Water level, 10% of the vertical dimension



SW01X_45cf72ca-3758-41b2-bdab-5476b99e4743_20230628_091057_482.jpg, 00:02:13, 25.51 m
Water level, 15% of the vertical dimension, Camera underwater.



Section Pictures - 28/06/2023 - SW01X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Downstream	SW01X	0623-BH-16113	



SW01X_99269392-c236-4de1-b598-653fb216af4f_20230628_091511_909.jpg, 00:05:09, 69.11 m

Finish node, outfall, reference: X, Mass vegetation within outfall causing water level to stay stable, clearance required.



Section Inspection - 28/06/2023 - SW02X

Item No. 2	Insp. No. 1	Date 28/06/23	Time 9:21	Client's Job Ref 0623-BH-16113	Weather No Rain Or Snow	Pre Cleaned No	PLR SW02X
Operator Mark Blake		Vehicle VW CRAFTER		Camera Crawler	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Havant	Inspection Direction:	Upstream	Upstream Node:	SW02
Road:	Kennett Way	Inspected Length:	106.02 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	106.02 m	Downstream Node:	SW01
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:		Dia/Height:	600 mm		
Flow Control:	No flow control	Material:	Concrete		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:914	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m SW01						
0.00	MH	Start node, manhole, reference: SW01	00:00:01	SW02X_c a9b5fb1-3 733-43b7-		
0.00	WLC	Clear water level, 0% of the vertical dimension	00:00:08			
2.98	DEC	Settled deposits, hard or compacted, 5% cross-sectional area loss	00:00:28	SW02X_3f 214bcc-a7 be-46a5-b	3	
13.47	GP	General photograph taken at this point	00:01:07	SW02X_1 1b0ae67-4 55b-44dd-		
106.02	MHF	Finish node, manhole, reference: SW02	00:05:21	SW02X_1 1044567-a e19-4cef-a		
SW02 Depth: m						

Construction Features

Structural Defects

Miscellaneous Features

Service & Operational Observations

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	1	2.0	0.0	2.0	3.0

Section Pictures - 28/06/2023 - SW02X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
2	Upstream	SW02X	0623-BH-16113	



SW02X_ca9b5fb1-3733-43b7-b3af-b8b7884a0209_20230628_092127_673.jpg, 00:00:01, 0.00 m
Start node, manhole, reference: SW01



SW02X_3f214bcc-a7be-46a5-b6e9-504499828465_20230628_092208_139.jpg, 00:00:28, 2.98 m
Settled deposits, hard or compacted, 5% cross-sectional area loss



SW02X_11b0ae67-455b-44dd-81f4-62b310ac079b_20230628_092248_052.jpg, 00:01:07, 13.47 m
General photograph taken at this point



SW02X_11044567-ae19-4cef-a36c-147163cb4393_20230628_092714_874.jpg, 00:05:21, 106.02 m
Finish node, manhole, reference: SW02



Section Inspection - 28/06/2023 - SW03X

Item No. 3	Insp. No. 1	Date 28/06/23	Time 9:53	Client's Job Ref 0623-BH-16113	Weather No Rain Or Snow	Pre Cleaned No	PLR SW03X
Operator Mark Blake		Vehicle VW CRAFTER		Camera Crawler	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	Havant	Inspection Direction:	Upstream	Upstream Node:	SW03
Road:	Kennett Way	Inspected Length:	52.73 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	52.73 m	Downstream Node:	SW02
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:		Dia/Height:	600 mm		
Flow Control:	No flow control	Material:	Concrete		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:455	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m							
SW02							
	0.00	MH	Start node, manhole, reference: SW02	00:00:01	SW03X_4f9b1e0d-d90e-4f0d-b4		
	0.00	WL	Water level, 0% of the vertical dimension	00:00:10	SW03X_a25948b6-4732-4376-		
	52.73	MHF	Finish node, manhole, reference: SW03: Buried unable to locate	00:03:50	SW03X_a412e238-8a50-4a95-		
SW03 Depth: m							

Construction Features

Structural Defects

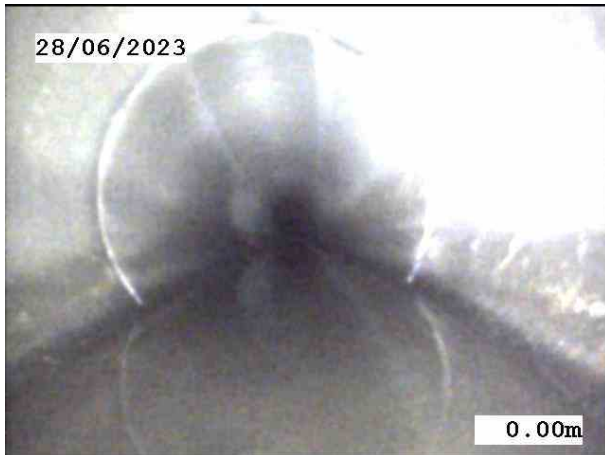
Miscellaneous Features

Service & Operational Observations

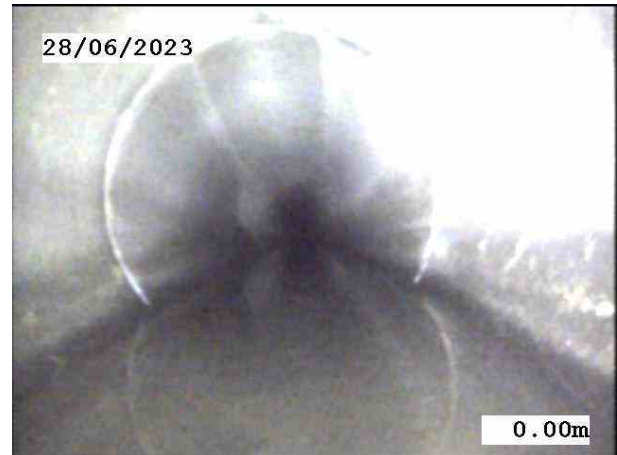
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Pictures - 28/06/2023 - SW03X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
3	Upstream	SW03X	0623-BH-16113	



SW03X_4f9b1e0d-d90e-4f0d-b464-b2c944bd6f18_20230628_095342_746.jpg, 00:00:01, 0.00 m
Start node, manhole, reference: SW02



SW03X_a25948b6-4732-4376-a62c-81eecd499d70_20230628_095400_787.jpg, 00:00:10, 0.00 m
Water level, 0% of the vertical dimension



SW03X_a412e238-8a50-4a95-9ffe-6d634b25808c_20230628_095743_568.jpg, 00:03:50, 52.73 m
Finish node, manhole, reference: SW03, Buried unable to locate



Section Inspection - 28/06/2023 - SW04X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
4	1	28/06/23	10:29	0623-BH-16113	No Rain Or Snow	No	SW04X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Mark Blake		VW CRAFTER		Crawler	Not Specified	Not Specified	Not Specified

Town or Village:	Havant	Inspection Direction:	Downstream	Upstream Node:	SW04
Road:	Kennett Way	Inspected Length:	67.61 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	67.61 m	Downstream Node:	X
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:		Dia/Height:	225 mm		
Flow Control:	No flow control	Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:583	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m SW04							
	0.00	MH	Start node, manhole, reference: SW04	00:00:01	SW04X_6	a7cd6eb-f	
	0.00	WL	Water level, 0% of the vertical dimension	00:00:08	SW04X_8	2962b83-0	
						377-4d84-	
	36.17	MCPE	Pipe material changes to polyethylene at this point	00:02:40	SW04X_1	a7e42ed-a	
	40.35	JDL	Joint displaced, large	00:03:34	SW04X_1	14fe8d6-c	1 / 4
	41.66	MCVC	Pipe material changes to vitrified clay at this point	00:03:54	SW04X_0	48cf9ac-9	
						50e-4cea-	
	67.61	MHF	Finish node, manhole, reference: X: SW05	00:06:15	SW04X_b	087a2c8-f	
						755-4acb-	
X Depth: m							

Construction Features

Miscellaneous Features

Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	2.0	0.0	2.0	1.0	1	5.0	0.0	5.0	4.0

Section Pictures - 28/06/2023 - SW04X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
4	Downstream	SW04X	0623-BH-16113	



SW04X_6a7cd6eb-fe49-4839-b4e5-7ce88a73c9d5_20230628_102910_199.jpg, 00:00:01, 0.00 m
Start node, manhole, reference: SW04



SW04X_82962b83-0377-4d84-93fe-1472a35c3991_20230628_102925_309.jpg, 00:00:08, 0.00 m
Water level, 0% of the vertical dimension



SW04X_1a7e42ed-a6e0-4eac-acbc-5fe197bd6c0f_20230628_103225_288.jpg, 00:02:40, 36.17 m
Pipe material changes to polyethylene at this point



SW04X_114fe8d6-cb27-4c11-bd70-7e086f1c94d1_20230628_103302_372.jpg, 00:03:34, 40.35 m
Joint displaced, large

Section Pictures - 28/06/2023 - SW04X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
4	Downstream	SW04X	0623-BH-16113	



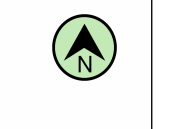
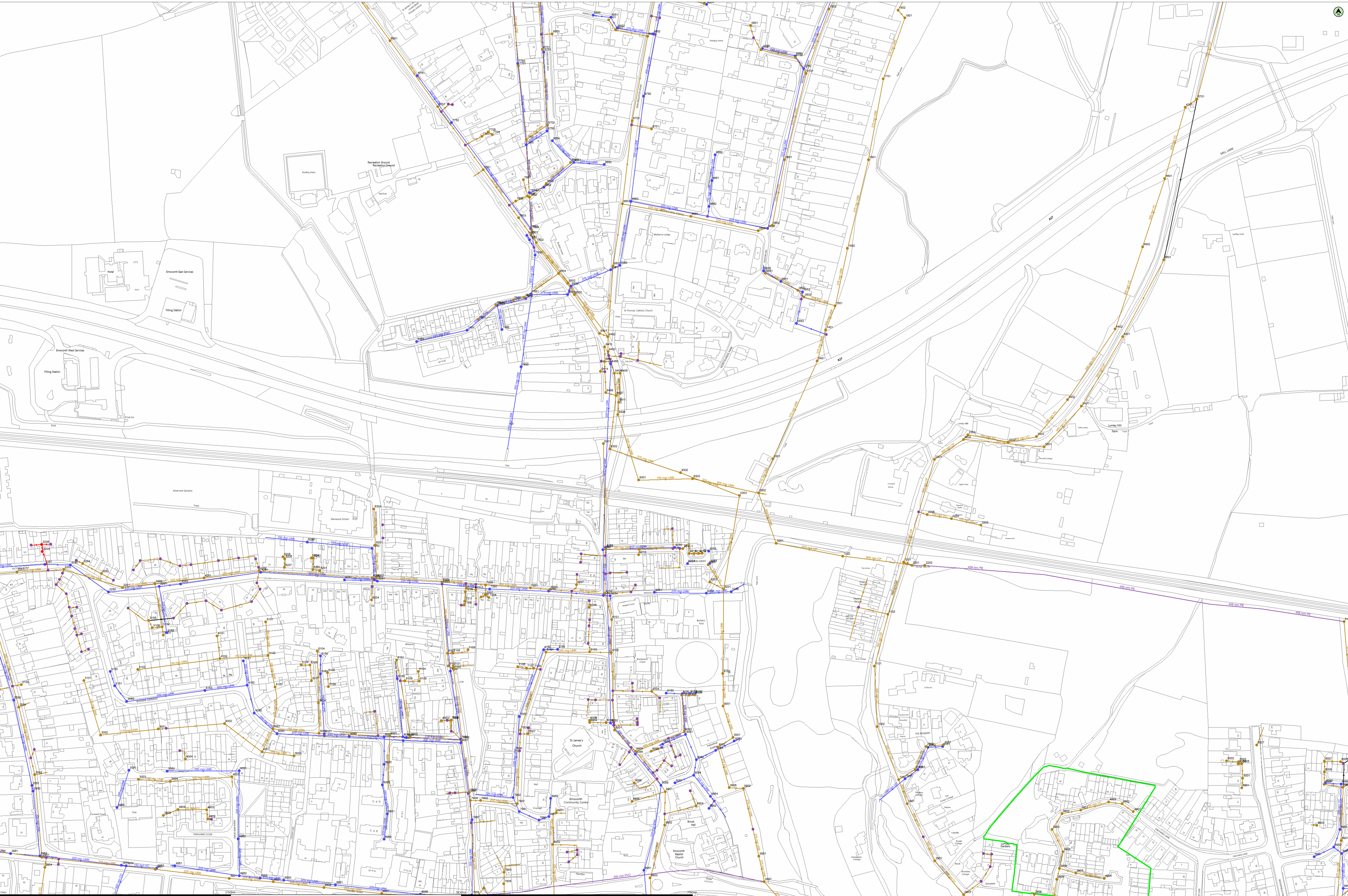
SW04X_048cf9ac-950e-4cea-84f7-15bdcdfc2dcb_20230628_103332_741.jpg, 00:03:54, 41.66 m
Pipe material changes to vitrified clay at this point



SW04X_b087a2c8-f755-4acb-929d-ddb4a17bd0cd_20230628_103606_940.jpg, 00:06:15, 67.61 m
Finish node, manhole, reference: X, SW05

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
0101	F	0.00	0.00	
0102	F	0.00	0.00	
0202	F	15.93	13.47	
0203	F	15.86	13.55	
0205	F	0.00	0.00	
0206	F	0.00	0.00	
0207	F	0.00	0.00	
0208	F	0.00	0.00	
0209	F	0.00	0.00	
0210	F	0.00	0.00	
0211	F	0.00	0.00	
0301	F	16.26	13.78	
0302	F	17.63	15.73	
0303	F	0.00	0.00	
0304	F	0.00	0.00	
0305	F	0.00	0.00	
0306	F	0.00	0.00	
0307	F	0.00	0.00	
0309	F	0.00	0.00	
0310	F	0.00	0.00	
0311	F	0.00	0.00	
0312	F	0.00	0.00	
0400	F	17.12	15.63	
0401	F	16.88	15.49	
0402	F	16.98	15.38	
0403	F	17.25	15.27	
0500	F	18.50	17.30	
0501	F	18.84	17.69	
0502	F	17.85	16.54	
0503	F	17.59	16.40	
0600	F	20.96	18.86	
0601	F	20.26	17.78	
0601	F	21.29	18.73	
0602	F	18.99	17.63	
0602	F	21.87	19.41	
0603	F	22.03	20.20	
1101	F	0.00	0.00	
1201	F	15.12	0.00	
1201	F	0.00	0.00	
1202	F	15.61	13.27	
1203	F	15.55	12.94	
1204	F	16.23	13.57	
1205	F	0.00	0.00	
1207	F	0.00	0.00	
1209	F	0.00	0.00	
1300	F	16.09	13.94	
1301	F	16.18	13.85	
1302	F	0.00	0.00	
1303	F	0.00	0.00	
1304	F	0.00	0.00	
1305	F	0.00	0.00	
1400	F	16.60	15.06	
1401	F	16.47	14.59	
1401	F	0.00	0.00	
1402	F	16.41	14.41	
1402	F	0.00	0.00	
1403	F	16.04	14.08	
1403	F	0.00	0.00	
1500	F	17.57	16.84	
1501	F	15.59	13.61	
1502	F	17.83	0.00	
1601	F	22.29	20.29	
1601	F	22.81	21.56	
1602	F	19.64	17.45	
1603	F	18.21	16.07	
1604	F	0.00	0.00	
1605	F	0.00	0.00	
1701	F	26.25	25.00	
1701	F	0.00	0.00	
1702	F	0.00	0.00	
1801	F	30.65	28.65	
1802	F	29.30	0.00	
2101	F	0.00	0.00	
2301	F	15.12	0.00	
2301	F	11.56	9.96	
2302	F	0.00	0.00	
2302	F	12.31	11.18	
2303	F	12.41	11.54	
2304	F	0.00	0.00	
2305	F	0.00	0.00	
2306	F	0.00	0.00	
2401	F	16.84	15.47	
2401	F	13.89	11.35	
2402	F	0.00	0.00	
2402	F	15.50	0.00	
2403	F	0.00	0.00	
2404	F	0.00	0.00	
2405	F	0.00	0.00	
2406	F	0.00	0.00	
2501	F	19.52	18.30	
2501	F	17.35	15.24	
2502	F	16.09	13.87	
2601	F	19.05	17.26	
2602	F	0.00	0.00	
2801	F	0.00	0.00	
3201	F	0.00	0.00	
3202	F	10.30	9.11	
3203	F	10.47	9.27	
3204	F	0.00	0.00	
3205	F	0.00	0.00	
3206	F	0.00	0.00	
3207	F	0.00	0.00	
3208	F	0.00	0.00	
3209	F	0.00	0.00	
3210	F	0.00	0.00	
3211	F	0.00	0.00	
3212	F	0.00	0.00	
3213	F	0.00	0.00	
3216	F	0.00	0.00	
3217	F	0.00	0.00	
3218	F	0.00	0.00	
3301	F	11.20	0.00	
3302	F	0.00	0.00	
3302	F	11.27	10.07	
3303	F	11.55	10.33	
3304	F	11.79	10.46	
3305	F	0.00	0.00	
3306	F	0.00	0.00	
3307	F	0.00	0.00	
3308	F	0.00	0.00	
3309	F	0.00	0.00	
3310	F	0.00	0.00	
3312	F	0.00	0.00	
3313	F	0.00	0.00	
3314	F	0.00	0.00	
3315	F	0.00	0.00	
3317	F	0.00	0.00	
3401	F	16.39	14.62	
3401	F	12.26	0.00	
3402	F	12.76	10.94	
3402	F	15.73	14.07	
3403	F	13.52	12.09	
3404	F	13.52	12.36	
3405	F	13.61	10.89	
3406	F	0.00	0.00	
3501	F	16.78	14.11	
3502	F	15.93	13.76	
3503	F	13.81	11.79	
3601	F	18.91	17.19	
3602	F	18.09	15.64	
3603	F	18.57	17.40	
3604	F	0.00	0.00	
3605	F	0.00	0.00	
3901	F	0.00	0.00	
4101	F	0.00	0.00	
4209	F	0.00	0.00	
4211	F	0.00	0.00	
4401	F	0.00	0.00	
4401	F	16.71	14.79	
5001	F	0.00	0.00	
5101	F	0.00	0.00	
5401	F	0.00	0.00	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
5402	F	0.00	0.00	
6001	F	0.00	0.00	
6401	F	16.80	15.78	
6501	F	17.97	16.56	
7601	F	20.08	18.55	
7602	F	23.10	21.61	
7603	F	0.00	0.00	
7701	F	28.24	26.76	
7801	F	32.06	30.56	
8202	F	16.06	0.00	
9203	F	0.00	0.00	
9205	F	0.00	0.00	
9206	F	0.00	0.00	
9300	F	16.70	0.00	
9304	F	17.14	15.27	
9305	F	17.07	15.19	
9306	F	0.00	0.00	
9400	F	17.40	15.16	
9401	F	17.39	15.01	
9402	F	17.57	16.20	
9500	F	0.00	0.00	
9505	F	18.21	16.41	
9601	F	17.81	16.41	
9600	F	21.25	19.27	
9601	F	18.76	17.25	
0252	S	15.95	14.19	
0253	S	16.12	14.65	
0254	S	16.02	14.85	
0350	S	16.25	14.43	
0351	S	16.55	14.58	
0352	S	16.73	0.00	
0353	S	17.65	16.40	
0450	S	17.09	15.54	
0451	S	18.14	15.37	
0452	S	17.20	15.49	
0453	S	17.20	15.36	
0550	S	18.46	16.72	
0551	S	18.83	17.28	
0552	S	17.81	15.95	
0553	S	17.56	15.81	
0650	S	20.91	19.08	
0651	S	21.84	20.30	
0651	S	21.18	18.96	
0652	S	21.88	19.88	
0652	S	18.99	17.12	
0653	S	16.55	0.00	
0653	S	19.29	16.98	
0751	S	22.48	20.56	
0752	S	22.75	20.80	
1252	S	15.53	13.45	
1253	S	15.84	14.36	
1254	S	15.09	0.00	
1255	S	15.16	14.21	
1256	S	15.93	14.20	
1257	S	16.07	14.19	
1350	S	16.07	14.33	
1351	S	15.98	14.52	
1352	S	16.21	14.56	
1353	S	16.31	14.61	
1450	S	16.61	15.32	
1450	S	14.02	12.62	
1451	S	16.47	15.09	
1451	S	14.66	13.46	
1452	S	16.42	14.87	
1452	S	13.78	0.00	
1453	S	16.08	14.80	
1550	S	17.60	16.42	
1551	S	17.75	0.00	
1552	S	16.22	14.19	
1553	S	16.50	15.98	
1650	S	18.21	0.00	
1651	S	20.63	0.00	
1652	S	22.04	20.32	
1750	S	22.89	21.34	
1751	S	23.84	22.09	
1752	S	23.94	22.21	
2250	S	14.76	13.46	
2350	S	12.42	11.40	
2351	S	11.72	10.97	
2352	S	12.20	10.85	
2353	S	12.03	10.71	
2354	S	12.27	10.69	
2355	S	11.43	0.00	
2358	S	0.00	0.00	
2359	S	0.00	0.00	
2450	S	13.22	11.93	
2451	S	12.80	12.07	
2452	S	12.79	11.77	
2453	S	12.73	11.61	
2454	S	12.47	11.32	
2455	S	13.61	11.48	
2456	S	13.06	11.94	
2457	S	13.89	0.00	
2550	S	14.43	0.00	
2551	S	15.67	13.82	
2552	S	16.88	0.00	
2553	S	17.38	15.63	
2554	S	17.18	15.38	
2650	S	18.08	16.46	
2651	S	19.19	17.59	
2652	S	19.02	17.61	
2653	S	21.24	19.52	
2750	S	23.87	23.09	
3251	S	0.00	0.00	
3350	S	11.65	0.00	
3351	S	11.25	0.00	
3352	S	11.60	10.72	
3353	S	11.55	10.90	
3354	S	11.77	10.87	
3355	S	11.77	11.20	
3450	S	13.57	0.00	
3451	S	12.84	11.85	
3452	S	12.64	11.74	
3453	S	12.37	11.48	
3454	S	12.13	0.00	
3455	S	12.67	0.00	
3456	S	12.90	11.44	
3457	S	13.05	11.77	
3550	S	15.56	14.59	
3550	S	17.13	15.70	
3551	S	16.37	15.07	
3552	S	15.95	0.00	
3553	S	16.75	15.11	
3554	S	15.26	14.68	
3650	S	18.54	16.91	
3651	S	18.14	0.00	
3652	S	0.00	0.00	
3950	S	34.84	0.00	
3951	S	32.49	31.22	
4359	S	11.53	10.97	
4360	S	11.68	11.07	
4550	S	14.15	13.07	
4652	S	19.65	18.15	
4654	S	17.67	16.47	
4850	S	27.86	26.32	
9252	S	16.05	0.00	
9253	S	16.32	14.79	
9350	S	16.75	0.00	
9354	S	17.13	16.04	
9450	S	17.68	15.87	
9451	S	17.32	15.91	
9452	S	17.35	15.70	
9453	S	17.21	15.64	
9455	S	17.74	15.20	
9456	S	17.61	15.26	
9550	S	18.18	16.03	
9551	S	17.81	16.22	
9650	S	21.21	19.47	
9651	S	19.13	16.69	
9652	S	18.81	16.43	



Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
2204	C	0.00	0.00	
2205	C	0.00	0.00	
0001	F	4.82	1.73	
0201	F	3.82	0.36	
0301	F	5.22	2.82	
0302	F	4.71	0.00	
0303	F	4.85	2.81	
0401	F	5.70	3.44	
0501	F	7.92	6.15	
0502	F	7.07	5.80	
0503	F	7.00	5.57	
0601	F	8.62	5.99	
0602	F	8.38	5.69	
0603	F	8.41	5.64	
0701	F	9.04	0.00	
0702	F	9.13	7.40	
0703	F	9.24	7.79	
0801	F	0.00	0.00	
0807	F	4.48	0.98	
0801	F	5.12	0.00	
0902	F	4.52	1.42	
0905	F	4.92	1.57	
1001	F	4.13	1.47	
1002	F	4.01	1.61	
1101	F	3.64	1.84	
1102	F	3.77	2.04	
1201	F	4.22	0.00	
1202	F	4.15	0.15	
1401	F	5.57	3.57	
1501	F	5.70	0.00	
1502	F	6.10	3.89	
1501	F	6.39	4.31	
1701	F	6.90	4.74	
1801	F	8.07	5.10	
1802	F	8.33	5.13	
1803	F	9.43	6.44	
1901	F	3.61	1.37	
2001	F	10.03	0.00	
2001	F	6.17	4.65	
2002	F	9.53	7.16	
2002	F	5.66	4.28	
2003	F	4.80	3.64	
2104	F	0.00	0.00	
2201	F	10.39	7.37	
2201	F	7.28	0.00	
2202	F	10.18	0.00	
2202	F	7.89	0.00	
2203	F	0.00	0.00	
2204	F	0.00	0.00	
2205	F	0.00	0.00	
2301	F	4.94	0.00	
2302	F	6.09	4.39	
2303	F	6.53	4.46	
2803	F	0.00	0.00	
2901	F	9.13	0.00	
2901	F	2.56	0.00	
2904	F	0.00	0.00	
3001	F	9.96	0.00	
3002	F	9.91	9.08	
3003	F	9.48	8.13	
3004	F	9.46	7.76	
3101	F	10.34	9.44	
3102	F	9.85	8.84	
3103	F	9.81	8.46	
3104	F	9.80	8.38	
3105	F	10.00	9.08	
3106	F	9.99	8.81	
3201	F	9.88	6.88	
3202	F	9.85	6.66	
3203	F	0.00	0.00	
3204	F	0.00	0.00	
3301	F	9.74	6.64	
3302	F	8.82	4.65	
3303	F	8.86	4.78	
3401	F	9.59	6.75	
3402	F	9.63	4.96	
3806	F	5.14	3.30	
3808	F	0.00	0.00	
3901	F	8.79	5.92	
3901	F	6.70	5.05	
3902	F	0.00	0.00	
3902	F	6.39	3.93	
3903	F	6.15	3.74	
3904	F	5.74	3.53	
3905	F	5.80	4.19	
3906	F	5.40	3.38	
4001	F	9.00	7.71	
4002	F	0.00	0.00	
4003	F	8.91	6.85	
4004	F	0.00	0.00	
4101	F	0.00	0.00	
4102	F	0.00	0.00	
4201	F	9.27	6.33	
4202	F	8.86	0.00	
4401	F	9.51	6.91	
4402	F	9.44	5.33	
4501	F	0.00	0.00	
4502	F	9.16	5.63	
4601	F	9.22	5.68	
4701	F	9.26	6.40	
4901	F	8.15	5.41	
4901	F	7.45	5.91	
4902	F	0.00	0.00	
4902	F	7.31	5.62	
4903	F	0.00	0.00	
4903	F	7.08	5.42	
4904	F	0.00	0.00	
4904	F	6.49	4.86	
5001	F	8.37	0.00	
5001	F	0.00	0.00	
5002	F	7.88	5.55	
5002	F	0.00	0.00	
5003	F	8.53	7.68	
5003	F	0.00	0.00	
5004	F	8.00	6.00	
5004	F	0.00	0.00	
5005	F	0.00	0.00	
5007	F	0.00	0.00	
5101	F	9.04	7.94	
5102	F	8.93	7.65	
5103	F	8.64	7.45	
5104	F	8.31	6.31	
5105	F	0.00	0.00	
5106	F	0.00	0.00	
5107	F	0.00	0.00	
5108	F	0.00	0.00	
5108	F	0.00	0.00	
5201	F	0.00	0.00	
5202	F	0.00	0.00	
5203	F	0.00	0.00	
5204	F	0.00	0.00	
5205	F	0.00	0.00	
5206	F	0.00	0.00	
5207	F	0.00	0.00	
5701	F	9.55	7.35	
5801	F	7.66	5.09	
5802	F	7.10	3.99	
5901	F	0.00	0.00	
6001	F	6.14	0.00	
6002	F	5.40	0.00	
6003	F	0.00	0.00	
6004	F	8.24	6.70	
6006	F	0.00	0.00	
6007	F	0.00	0.00	
6008	F	0.00	0.00	
6101	F	5.83	4.28	
6102	F	3.78	1.48	
6102	F	9.14	5.72	
6103	F	0.00	0.00	
6104	F	0.00	0.00	
6105	F	0.00	0.00	
6106	F	0.00	0.00	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
6201	F	6.91	4.41	
6202	F	6.86	2.92	
6203	F	4.87	0.00	
6204	F	0.00	0.00	
6205	F	0.00	0.00	
6301	F	6.81	5.01	
6701	F	8.83	5.32	
6801	F	5.55	3.81	
6801	F	9.24	5.62	
6901	F	8.47	5.18	
6902	F	8.40	0.00	
6903	F	0.00	0.00	
7001	F	5.93	3.67	
7002	F	4.73	0.00	
7006	F	0.00	0.00	
7007	F	0.00	0.00	
7008	F	0.00	0.00	
7009	F	0.00	0.00	
7101	F	3.57	1.67	
7102	F	3.62	1.42	
7103	F	0.00	0.00	
7105	F	0.00	0.00	
7106	F	0.00	0.00	
7107	F	0.00	0.00	
7108	F	0.00	0.00	
7109	F	0.00	0.00	
7201	F	4.73	0.00	
7205	F	0.00	0.00	
7206	F	0.00	0.00	
7207	F	0.00	0.00	
7208	F	0.00	0.00	
7210	F	0.00	0.00	
7211	F	0.00	0.00	
7212	F	3.94	0.00	
7501	F	6.31	4.65	
7502	F	6.30	0.00	
7503	F	6.65	5.34	
7504	F	6.14	5.18	
7505	F	6.00	5.04	
7506	F	5.90	4.96	
7601	F	7.50	4.90	
7602	F	6.67	0.00	
7603	F	6.42	4.69	
7604	F	6.31	4.73	
7605	F	0.00	0.00	
7606	F	0.00	0.00	
7607	F	0.00	0.00	
7701	F	0.00	0.00	
7702	F	6.63	0.00	
7703	F	0.00	0.00	
7704	F	0.00	0.00	
7705	F	0.00	0.00	
7805	F	0.00	0.00	
7901	F	4.35	2.00	
7902	F	3.09	1.34	
7903	F	0.00	0.00	
7904	F	2.80	1.18	
7905	F	2.79	1.00	
8001	F	8.83	0.00	
8004	F	0.00	0.00	
8005	F	0.00	0.00	
8006	F	0.00	0.00	
8101	F	6.94	4.94	
8102	F	6.99	0.00	
8103	F	7.01	5.87	
8104	F	6.65	0.00	
8105	F	0.00	0.00	
8201	F	7.08	3.04	
8202	F	6.98	0.00	
8203	F	5.91	0.00	
8207	F	0.00	0.00	
8301	F	7.25	3.52	
8302	F	8.13	0.00	
8401	F	7.21	4.04	
8402	F	7.43	0.00	
8403	F	7.46	3.82	
8404	F	8.36	3.83	
8405	F	8.12	1.96	
8406	F	8.08	1.68	
8407	F	0.00	0.00	
8408	F	0.00	0.00	
8409	F	0.00	0.00	
8410	F	0.00	0.00	
8411	F	8.15	1.77	
8414	F	0.00	0.00	
8501	F	7.69	4.61	
8502	F	6.30	4.30	
8503	F	6.42	4.22	
8504	F	6.00	4.87	
8601	F	7.87	6.45	
8602	F	6.80	5.45	
8603	F	8.22	5.18	
8701	F	8.01	5.50	
8702	F	7.75	5.06	
8703	F	8.82	5.74	
8801	F	8.78	7.79	
8802	F	8.87	7.65	
8803	F	0.00	0.00	
8901	F	5.93	4.76	
8902	F	5.50	3.50	
8905	F	0.00	0.00	
9001	F	4.78	1.87	
9002	F	4.95	1.66	
9003	F	6.48	5.24	
9004	F	6.57	0.00	
9005	F	0.00	0.00	
9006	F	0.00	0.00	
9007	F	6.48	5.28	
9008	F	0.00	0.00	
9009	F	0.00	0.00	
9101	F	6.73	5.67	
9103	F	5.47	1.99	
9201	F	4.48	2.30	
9202	F	6.21	4.33	
9206	F	5.20	4.18	
9207	F	5.45	4.07	
9210	F	0.00	0.00	
9211	F	0.00	0.00	
9212	F	0.00	0.00	
9213	F	0.00	0.00	
9214	F	0.00	0.00	
9215	F	0.00	0.00	
9301	F	7.75	1.45	
9302	F	6.68	3.09	
9303	F	6.23	1.13	
9601	F	0.00	0.00	
9701	F	0.00	0.00	
9804	F	0.00	0.00	
9804	F	8.94	0.00	
9805	F	6.51	3.79	
9902	F	6.62	3.70	
9903	F	7.01	3.53	
9904	F	0.00	0.00	
0050	S	4.82	3.21	
0250	S	4.46	4.08	
0550	S	8.02	0.00	
0551	S	7.52	6.60	
0552	S	7.30	6.01	
0553	S	0.00	0.00	
0650	S	8.43	7.34	
0750	S	9.22	8.53	
0751	S	9.13	8.36	
0752	S	9.06	0.00	
1051	S	4.37	3.54	
2050	S	10.07	8.95	
2051	S	8.57	8.51	
2051	S	6.12	5.31	
2052	S	5.71	4.76	
2053	S	4.97	4.20	
2250	S	9.95	8.16	
2251	S	10.14	8.33	
2950	S	9.56	8.50	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
2951	S	9.40	8.59	
2952	S	9.21	0.00	
3050	S	9.65	8.75	
3051	S	9.00	0.00	
3052	S	9.52	8.11	
3150	S	9.77	8.92	
3151	S	9.73	8.85	
3152	S	9.81	8.12	
3250	S	9.74	8.12	
3251	S	9.75	7.74	
3950	S	9.00	0.00	
3951	S	8.72	0.00	
3953	S	8.79	8.16	
3954	S	8.71	7.79	
4050	S	8.58	7.81	
4051	S	8.76	7.35	
4151	S	8.88	8.11	
4152	S	8.82	7.95	
4153	S	9.37	8.44	
4250	S	9.52	7.57	
4251	S	8.64	6.52	
4950	S	8.33	6.73	
4951	S	8.89	0.00	
4952	S	8.05	6.40	
4953	S	7.98	6.03	
5050	S	8.23	7.47	
5051	S	7.78	6.58	
5052	S	7.29	6.11	
5150	S	8.29	7.09	
5151	S	8.06	6.89	
5250	S	8.11	0.00	
5251	S	7.42	6.24	
5850	S	7.48	5.55	
5851	S	7.05	5.12	
6050	S	6.52	5.88	
6050	S	8.28	7.01	
6051	S	6.20	4.47	
6052	S	5.45	3.90	
6052	S	8.38	6.77	
6053	S	5.30	3.77	
6054	S	5.47	4.40	
6055	S	6.58	4.98	
6150	S	5.71	4.71	
6250	S	6.87	5.47	
6251	S	6.96	0.00	
6252	S	6.86	6.26	
6253	S	4.84	1.89	
6451	S	6.72	5.27	
6751	S	9.46	8.68	
6851	S	8.39	6.00	
6856	S	4.09	2.94	
6950	S	6.35	5.25	
6950	S	8.27	6.46	
6951	S	6.51	5.34	
6951	S	8.20	0.00	
6952	S	8.15	6.34	
6954	S	8.24	6.18	
7050	S	3.17	1.62	
7051	S	3.15	0.00	
7052	S	6.06	4.67	
7150	S	3.56	1.82	
7250	S	4.02	3.07	
7450	S	5.30	3.48	
7451	S	6.86	5.05	
7452	S	5.83	5.02	
7550	S	5.74	4.12	
7551	S	5.90	0.00	
7552	S	6.37	5.24	
7553	S	6.34	5.37	
7554	S	6.14	0.00	
7555	S	5.90	4.68	
7651	S	6.83	0.00	
7651	S	6.65	4.86	
7652	S	6.31	0.00	
7750	S	7.14	5.46	
7752	S	8.64	8.06	
7855	S	0.00	0.00	
7950	S	5.66	4.30	
7951	S	4.79	3.62	
7952	S	4.38	2.93	
7954	S	2.84	1.48	
7957	S	0.00	0.00	
8050	S	6.74	5.09	
8150	S	6.79	5.46	
8151	S	6.71	5.96	
8250	S	5.79	4.29	
8251	S	6.98	0.00	
8252	S	7.12	4.59	
8253	S	7.11	5.83	
8254	S	6.89	6.09	
8450	S	7.58	4.83	
8550	S	7.66	4.86	
8551	S	7.60	5.90	
8552	S	6.41	6.27	
8553	S	6.23	0.00	
8650	S	8.18	6.73	
8651	S	7.84	0.00	
8652	S	6.79	5.64	
8653	S	8.13	0.00	
8654	S	7.59	6.44	
8750	S	7.67	0.00	
8751	S	7.94	6.10	
8850	S	8.74	8.09	
8851	S	8.74	8.00	
8852	S	8.94	7.80	
8950	S	6.16	5.10	
8951	S	5.92	4.68	
9050	S	6.20	4.90	
9051	S	5.55	0.00	
9052	S	5.09	0.00	
9053	S	4.91	3.21	
9054	S	5.29	3.48	
9056	S	6.64	4.90	
9057	S	6.19	3.79	
9058	S	6.55	4.83	
9150	S	6.13	4.90	
9151	S	5.45	4.75	
9152	S	0.00	0.00	
9153	S	0.00	0.00	
9250	S	6.38	4.83	
9251	S	6.25	5.02	
9252	S	4.97	4.43	
9253	S	5.47	4.51	
9254	S	5.72	4.77	
9255	S	5.20	0.00	
9650	S	8.53	7.60	
9651	S	8.54	7.46	
9652	S	8.42	7.37	
9750	S	8.88	7.31	
9852	S	8.81	7.27	
9854	S	0.00	0.00	
9951	S	7.26	4.55	
9952	S	0.00	0.00	
9954	S	4.87	0.00	