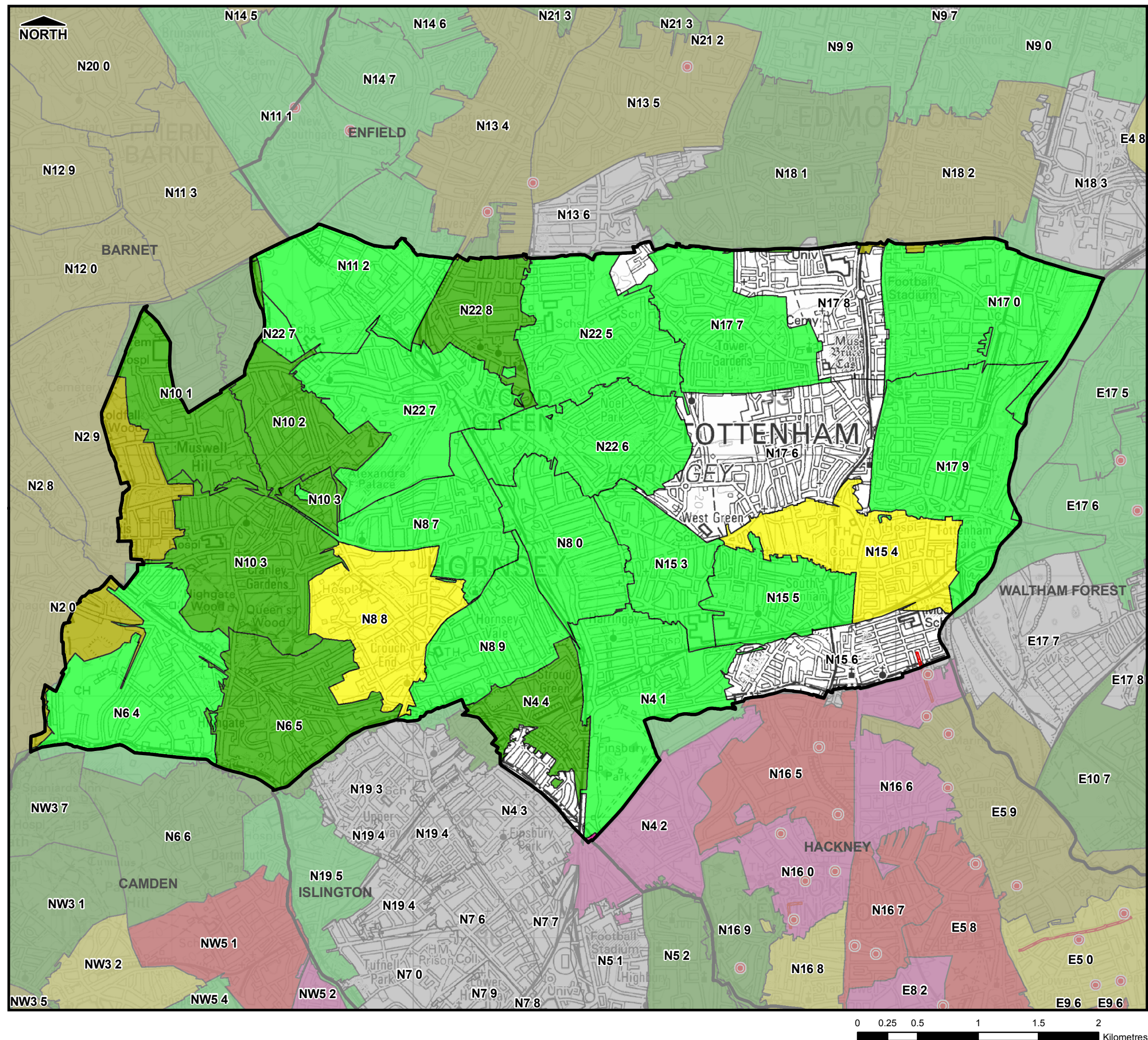


Filepath: L:\Environment\ZNET\CS046913_Drain\London_Tier2\Group4\ARC\mxds\PFRA\GP4_Haringey_FigA-4_SewerIncidents.mxd



THIS DRAWING MAY BE USED ONLY FOR
THE PURPOSE INTENDED

Legend

- Borough Administrative Boundary
- Sewer Flooding Incidents
- Sewer Flood Outline
- No. of Sewer Flood Records
 - None
 - 1 - 5
 - 6 - 10
 - 11 - 20
 - 21 - 50
 - 51 - 100
 - 101+

Notes

- Sewer flood records relate to internal and external flooding of properties
- Data supplied by Thames Water Ltd and is correct as at June 2010

London Borough of Haringey



Preliminary Flood Risk Assessment

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Scale at A3	Date	Drawn by	Approved by
1:32,000	07/04/2011	S.TURNBULL	S.IP

Summary Map of Past Floods - Sewer Incidents

Consultants
CAPITA SYMONDS Capita Symonds
Level Seven,
52 Grosvenor Gardens,
Belgravia,
London
SW1W 0AU

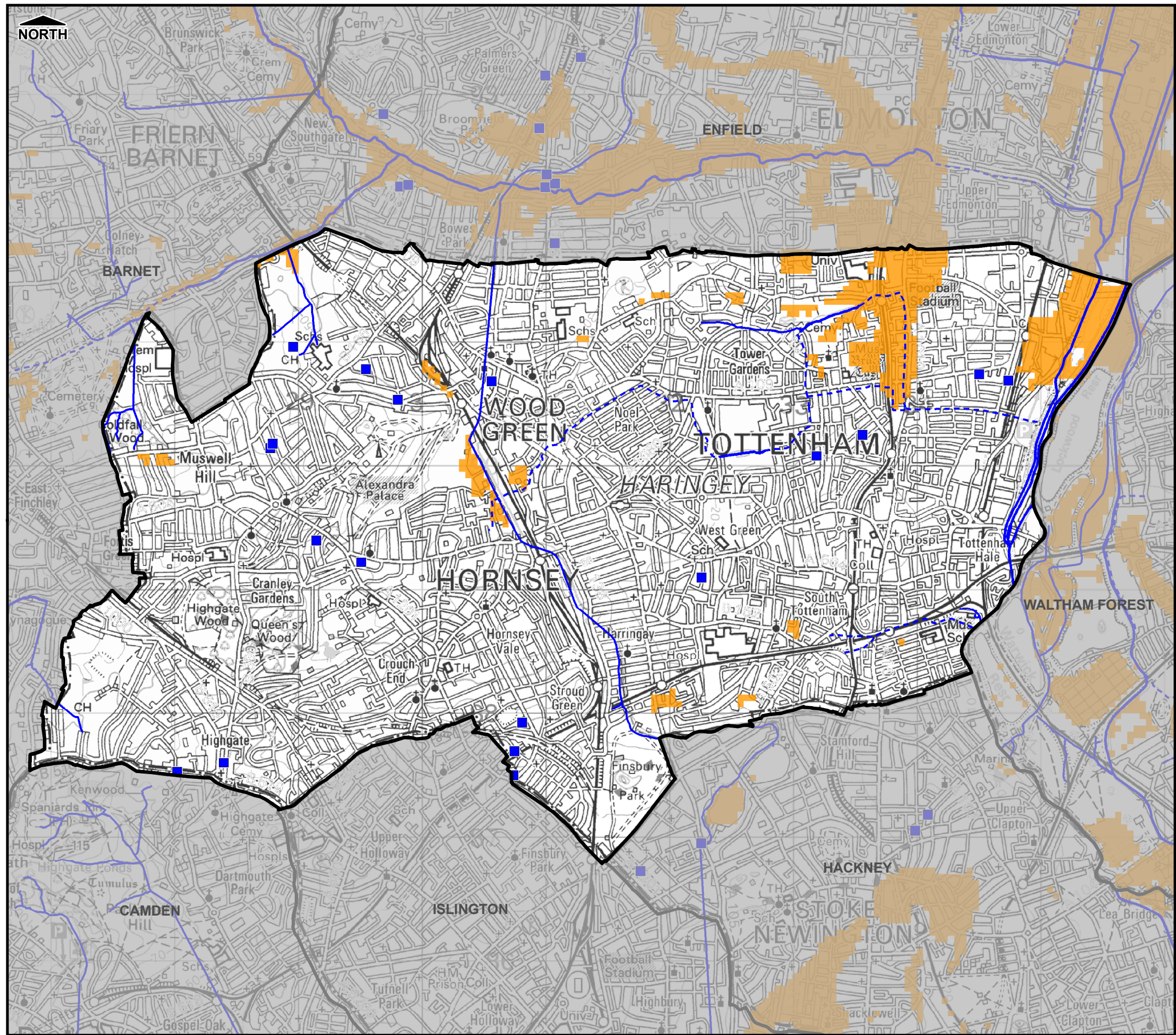
Drain London Programme Board Members



GREATERLONDONAUTHORITY

FIGURE A-4

Filepath: L:\Environment\ZNET\CS046913_DrainLondon_Tier2Group4\ARC\mxds\PFRA\GP4_Haringey_FigA-5_PotentialElevatedGWMMap.mxd



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED

Legend

- Borough Administrative Boundary

Main River

Ordinary Watercourse

Groundwater Flood Incident (EA Records)

Increased Potential for Elevated Groundwater in Permeable Superficial Deposits
- Culverted Watercourse (Main River)

Groundwater Flood Incident (Other Records)

Consolidated Aquifers

Notes

- The increased Potential for Elevated Groundwater map shows those areas within the London Boroughs where there is an increased potential for groundwater to rise sufficiently to interact with the ground surface or be within 2 m of the ground surface. Such groundwater rise could lead to the following consequences:
 - flooding of basements of buildings below ground level;
 - flooding of buried services or other assets below ground level;
 - inundation of farmland, roads, commercial, residential and amenity areas;
 - flooding of ground floors of buildings above ground level; and
 - overflowing of sewers and drains.
- Incident records shown are generally unconfirmed and may include issues such as water main bursts or non-groundwater related problems.
- Areas not shown to have increased potential for elevated groundwater should be considered to have a low potential for elevated groundwater – Lack of information does not imply 'no potential' of elevated groundwater in that area.
- Includes groundwater flood mapping provided by JBA Consulting Copyright © Jeremy Benn Associates Limited 2008 - 2011, partially derived from data supplied by the Environment Agency

London Borough of Haringey



Preliminary Flood Risk Assessment

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Scale at A3	Date	Drawn by	Approved by
1:32,000	07/04/2011	S.TURNBULL	S.IP

Increased Potential for Elevated Groundwater Map

Consultants

CAPITA SYMONDS

Flood Risk Management

Scot Wilson

Capita Symonds
Level Seven,
52 Grosvenor Gardens,
Belgravia,
London
SW1W 0AU

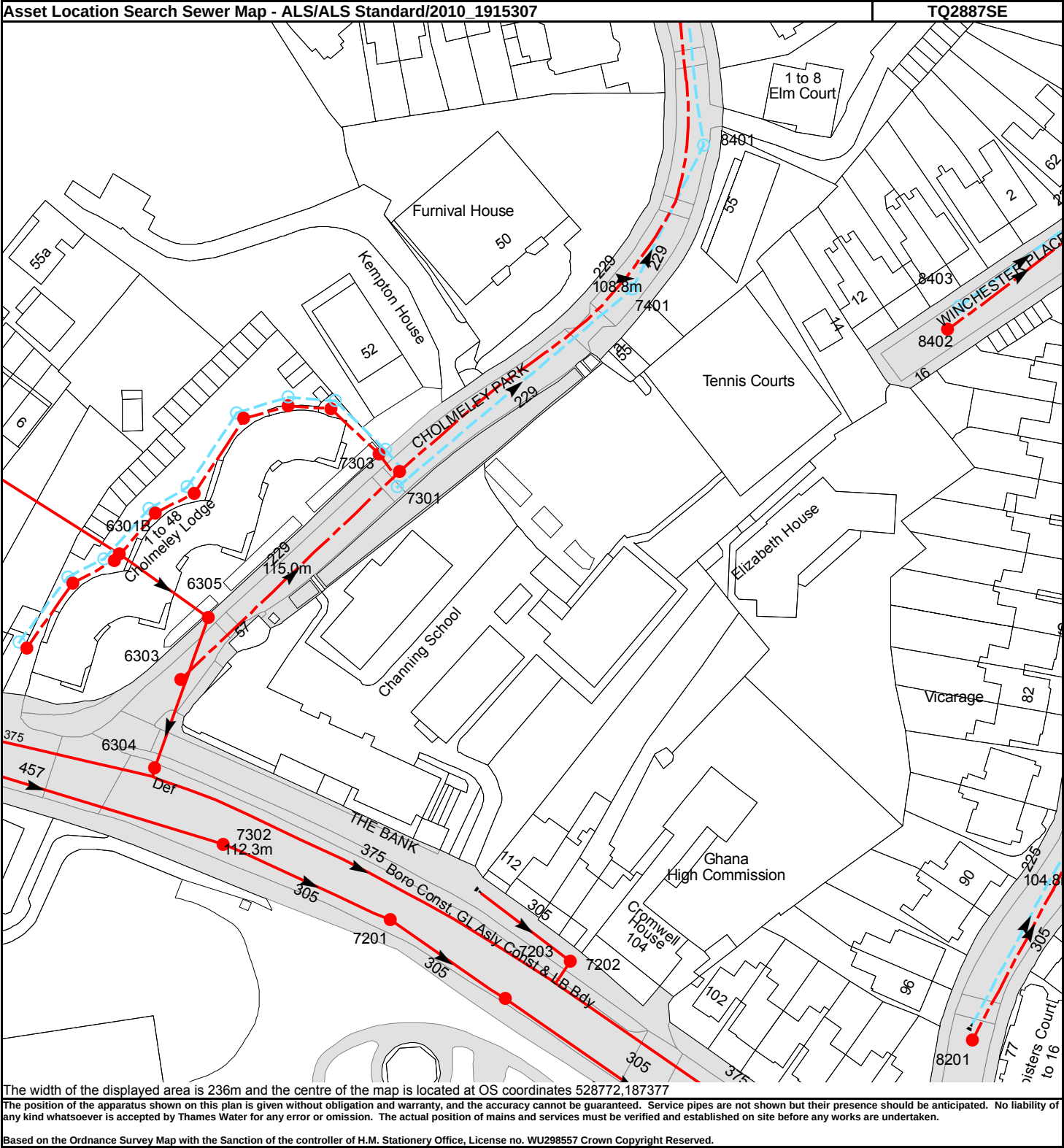
Drain London Programme Board Members



FIGURE A-5

Appendix E

Thames Water Asset Maps



NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
8401	104.69	102.63
742R	n/a	n/a
742V	n/a	n/a
742T	n/a	n/a
742S	n/a	n/a
73YZ	n/a	n/a
73YX	n/a	n/a
7201	109.71	107.73
7301	114.05	112.14
7303	113.99	112.01
7203	107.57	105.89
7202	108.54	105.64
8201	102.37	99.5
63YT	n/a	n/a
63YZ	n/a	n/a
63YS	n/a	n/a
63YY	n/a	n/a
63YR	n/a	n/a
63YX	n/a	n/a
6301B	117.16	111.61
63YQ	n/a	n/a
6304	113.74	110.64
63YW	n/a	n/a
6303	114.96	113.77
63YP	n/a	n/a
63YV	n/a	n/a
6305	115.11	111.25
7302	112.39	109.98
742P	n/a	n/a
742Q	n/a	n/a
8402	102.84	100
8403	n/a	n/a
7401	108.02	106.29

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.



ALS Sewer Map Key

Public Sewer Types (Operated & Maintained by Thames Water)

	Foul: A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
	Surface Water: A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
	Combined: A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
	Trunk Surface Water
	Trunk Foul
	Storm Relief
	Trunk Combined
	Vent Pipe
	Bio-solids (Sludge)
	Proposed Thames Surface Water Sewer
	Proposed Thames Water Foul Sewer
	Gallery
	Foul Rising Main
	Surface Water Rising Main
	Combined Rising Main
	Sludge Rising Main
	Proposed Thames Water Rising Main
	Vacuum

Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plans are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
- 5) 'na' or '0' on a manhole level indicates that data is unavailable.

Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

	Air Valve
	Dam Chase
	Fitting
	Meter
	Vent Column

Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

	Control Valve
	Drop Pipe
	Ancillary
	Weir

End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol, Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

	Outfall
	Undefined End
	Inlet

Other Symbols

Symbols used on maps which do not fall under other general categories

	Public/Private Pumping Station
	Change of characteristic indicator (C.O.C.I.)
	Invert Level
	Summit

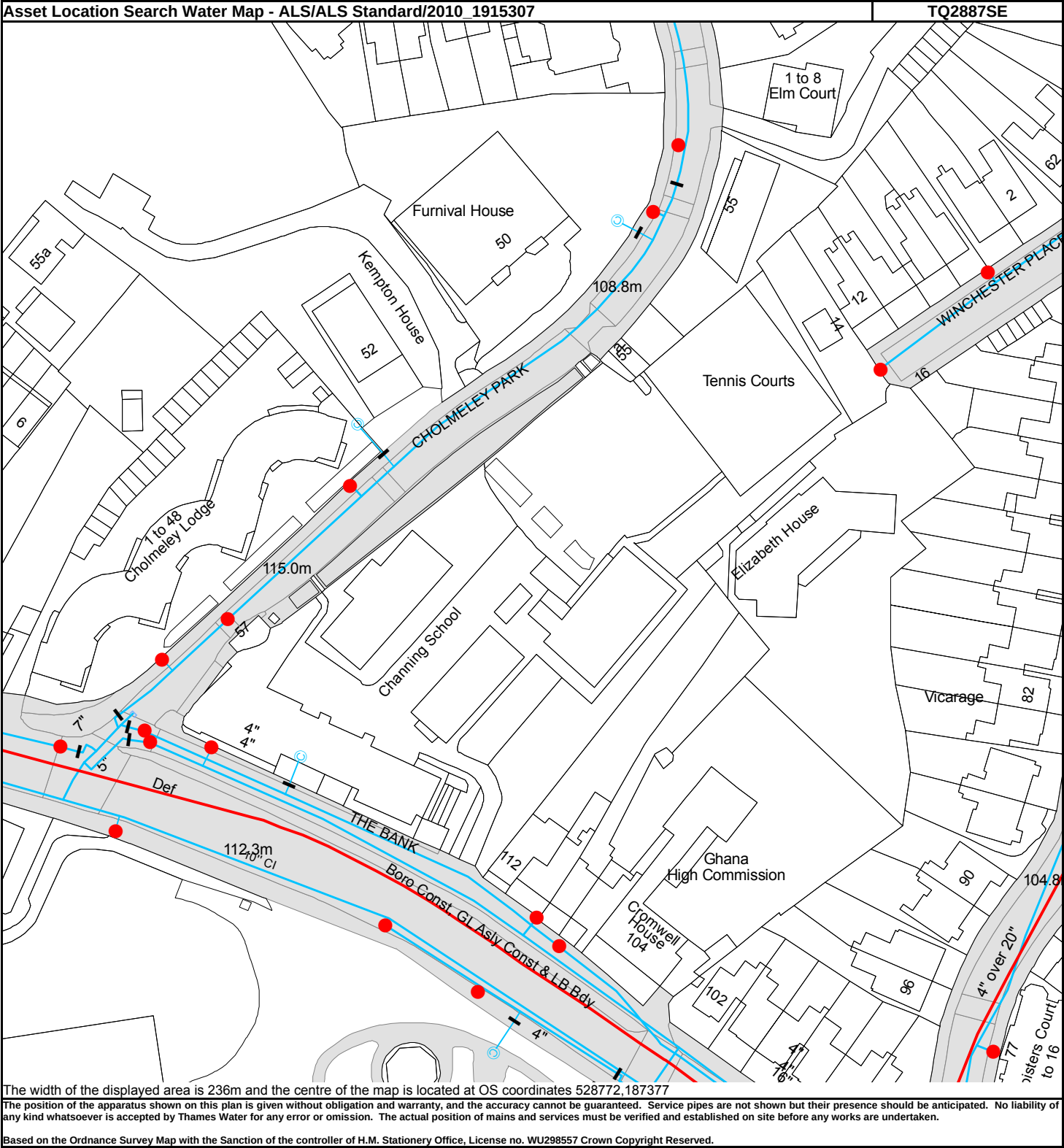
Areas

Lines denoting areas of underground surveys, etc.

	Agreement
	Operational Site
	Chamber
	Tunnel
	Conduit Bridge

Other Sewer Types (Not Operated or Maintained by Thames Water)

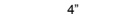
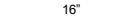
	Foul Sewer		Surface Water Sewer
	Combined Sewer		Gully
	Culverted Watercourse		Proposed
			Abandoned Sewer





ALS Water Map Key

Water Pipes (Operated & Maintained by Thames Water)

	Distribution Main: The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.
	Trunk Main: A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.
	Supply Main: A supply main indicates that the water main is used as a supply for a single property or group of properties.
	Fire Main: Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
	Metered Pipe: A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.
	Transmission Tunnel: A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.
	Proposed Main: A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Valves

	General Purpose Valve
	Air Valve
	Pressure Control Valve
	Customer Valve

Hydrants

	Single Hydrant
---	----------------

Meters

	Meter
---	-------

End Items

Symbol indicating what happens at the end of a water main.

	Blank Flange
	Capped End
	Emptying Pit
	Undefined End
	Manifold
	Customer Supply
	Fire Supply

Operational Sites

	Booster Station
	Other
	Other (Proposed)
	Pumping Station
	Service Reservoir
	Shaft Inspection
	Treatment Works
	Unknown
	Water Tower

Other Symbols

	Data Logger
---	-------------

Other Water Pipes (Not Operated or Maintained by Thames Water)

	Other Water Company Main: Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.
	Private Main: Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

Appendix F

CCTV Survey

Tower Surveys Associates Ltd

Channing School for Girls – Senior School
CCTV Condition Report

Project Ref: TSA-23-2537 Channing School for Girls CCTV
Report_303_Issue01

James Hulme – Tower Surveys Associates Ltd
20/10/2023

James Hulme – Tower Surveys Associates Ltd
20/10/2023

 Tower Surveys Associates Chartered Surveyors Geomatics - Land, Utilities, Engineering & Building		Tower Surveys Associates 18-20 The Ropewalk, Nottingham james.hulme@towersurveysassociates.biz	
Project Information			
Project Name TSA-23-2537 Channing School for Girls CCTV Report_303_Issue01		Project Number TSA-23-2537	Project Date 18/10/2023
Client			
Company:	Channing House Incorporated		
Site			
Company:	Channing School for Girls - Senior School		
Contact:	Mel Blase		
Street:	The Bank		
Town or City:	London		
Post Code:	N6 5HF		
Email:	mblase@channing.co.uk		
Contractor			
Company:	Tower Surveys Associates		
Contact:	James Hulme		
Department:	CCTV Department		
Street:	18-20 The Ropewalk		
Town or City:	Nottingham		
County:	Nottinghamshire		
Post Code:	NG1 5DT		
Mobile:	07786 650 005		
Email:	james.hulme@towersurveysassociates.biz		
		 Tower Surveys Associates Chartered Surveyors Geomatics - Land, Utilities, Engineering & Building	

Scoring Summary		
Project Name	Project Number	Project Date
TSA-23-2537 Channing School for Girls CCTV Report_303_Issue01	TSA-23-2537	18/10/2023

Structural Defects			
Grade 3: Best practice suggests consideration should be given to repairs in the medium term.			
Grade 4: Best practice suggests consideration should be given to repairs to avoid a potential collapse.			
Grade 5: Best practice suggests that this pipe is at risk of collapse at any time. Urgent consideration should be given to repairs to avoid total failure.			
Section	PLR	Grade	Description
19	Gully	3	Cracks, multiple at joint from 8 o'clock to 2 o'clock
45	MH20 X	3	Fracture, circumferential from 12 o'clock to 12 o'clock
46	RE	3	Fracture, circumferential from 9 o'clock to 11 o'clock
51	MH23 X	4	Broken pipe from 11 o'clock to 1 o'clock
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
1	MH1 X	3	Multiple defects
13	Downpipe	4	Settled deposits, hard or compacted, 20% cross-sectional area loss
15	Vent Pipe	4	Joint displaced, large
20	MH7 X	3	Settled deposits, coarse, 10% cross-sectional area loss, finish
21	Capped	3	Settled deposits, fine, 20% cross-sectional area loss, finish
22	MH8 X	4	Multiple defects
23	Unknown	5	Settled deposits, coarse, 95% cross-sectional area loss
24	RE?	2	Crack, circumferential from 3 o'clock to 9 o'clock
26	Gully	4	Settled deposits, coarse, 25% cross-sectional area loss
32	MH14 X	4	Settled deposits, hard or compacted at joint, 20% cross-sectional area loss
35	RWP	3	Multiple defects
37	MH16	3	Multiple defects
39	RWP	3	Joint displaced, medium
46	RE	4	Multiple defects
47	MH21 X	3	Joint displaced, medium
49	MH20	4	Joint displaced, large
50	MH22 X	5	Roots, mass, 20% cross-sectional area loss, start
51	MH23 X	4	Joint displaced, large
53	RWP	3	Joint displaced, medium
57	MH26 X	3	Multiple defects
59	MH27 X	3	Settled deposits, fine, 10% cross-sectional area loss, finish
64	MH29 X	3	Settled deposits, fine, 10% cross-sectional area loss, finish

Scoring Summary		
Project Name	Project Number	Project Date
TSA-23-2537 Channing School for Girls CCTV Report_303_Issue01	TSA-23-2537	18/10/2023

Section	PLR	Grade	Description
70	MH32 X	3	Multiple defects
73	MH33 X	3	Attached deposits, fouling at joint from 9 o'clock to 3 o'clock, 5% cross-sectional area loss
74	MH34 X	3	Settled deposits, coarse, 5% cross-sectional area loss
84	MH31 UTL	3	Multiple defects
87	MH41 X	3	Multiple defects
89	MH42 X	3	Multiple defects
93	MH19 UTL	3	Settled deposits, hard or compacted at joint, 5% cross-sectional area loss
97	Unknown	5	Settled deposits, other, 100% cross-sectional area loss
Information			
These scoring summaries are based on the SRM grading from the WRc.			

Tower Surveys Associates

Chartered Surveyors

Geomatics - Land, Utilities, Engineering & Building

Tower Surveys Associates

18-20 The Ropewalk, Nottingham

james.hulme@towersurveysassociates.biz

Section Inspection - 17/10/2023 - MH1 X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
1	1	17/10/23	9:08	TSA-23-2537	No Rain Or Snow	No	MH1 X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:	London	Inspection Direction:	Downstream	Upstream Node:	MH1 X
Road:	The Bank	Inspected Length:	4.62 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	4.62 m	Downstream Node:	MAIN
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50

Position [m]

Code

Observation

MPEG

Photo

Grade

Depth: m

MH1 X

0.00

MH

Start node, manhole, reference: MH1 X

00:00:00

0.00

WL

Water level, 0% of the vertical dimension

0.00

REM

General remark: Winsor trap visible

00:00:01

1

1.30

JN

Junction at 11 o'clock, 100mm dia

00:00:17

2

3.04

DES

Settled deposits, fine, 10% cross-sectional area loss

00:00:30

3

3

3.04

JDM

Joint displaced, medium

00:00:30

4

1 / 3

3.04

LR

Line deviates right

00:00:32

5

3.82

JDM

Joint displaced, medium

00:00:37

6

1 / 3

3.82

LR

Line deviates right

00:00:37

7

4.62

BRF

Finish node, major connection without manhole, reference: Main public sewer reached

00:00:47

8

Main

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
2	1.0	0.4	2.0	1.0	3	4.0	1.3	6.0	3.0

TSA-23-2537 Channing School for Girls CCTV Report_303_Issue01

1

Tower Surveys Associates

Chartered Surveyors

Geomatics - Land, Utilities, Engineering & Building

Tower Surveys Associates

18-20 The Ropewalk, Nottingham

james.hulme@towersurveysassociates.biz

Section Pictures - 17/10/2023 - MH1 X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Downstream	MH1 X	TSA-23-2537	TSA-23-2537



1, 00:00:01, 0.00 m
General remark, Winsor trap visible



2, 00:00:17, 1.30 m
Junction at 11 o'clock, 100mm dia



3, 00:00:30, 3.04 m
Settled deposits, fine, 10% cross-sectional area loss



4, 00:00:30, 3.04 m
Joint displaced, medium

TSA-23-2537 Channing School for Girls CCTV Report_303_Issue01

2

Tower Surveys

Associates

Chartered Surveyors

Geomatics - Land, Utilities, Engineering & Building

Tower Surveys Associates

18-20 The Ropewalk, Nottingham

james.hulme@towersurveysassociates.biz

Section Pictures - 17/10/2023 - MH1 X

Item No. 1	Inspection Direction Downstream	PLR MH1 X	Client's Job Ref TSA-23-2537	Contractor's Job Ref TSA-23-2537
---------------	------------------------------------	--------------	---------------------------------	-------------------------------------



5, 00:00:32, 3.04 m
Line deviates right



6, 00:00:37, 3.82 m
Joint displaced, medium



7, 00:00:37, 3.82 m
Line deviates right



8, 00:00:47, 4.62 m
Finish node, major connection without manhole, reference:
Main public sewer reached

Tower Surveys Associates Chartered Surveyors Geomatics - Land, Utilities, Engineering & Building				Tower Surveys Associates 18-20 The Ropewalk, Nottingham james.hulme@towersurveysassociates.biz					
Section Inspection - 17/10/2023 - Gully									
Item No. 2	Insp. No. 1	Date 17/10/23	Time 9:08	Client's Job Ref TSA-23-2537	Weather No Rain Or Snow	Pre Cleaned No	PLR GULLY		
Operator Dominic White		Vehicle LM21 UHU		Camera Minicam Solopro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified		
Town or Village:		London		Inspection Direction:		Upstream			
Road:		The Bank		Inspected Length:		7.16 m			
Location:		Property or buildings		Total Length:		7.16 m			
Surface Type:				Joint Length:					
Use:		Combined		Pipe Shape:		Circular			
Type of Pipe:		Gravity drain/sewer		Dia/Height:		100 mm			
Flow Control:		No flow control		Pipe Material:		Vitrified clay			
Year Constructed:		Not Specified		Lining Type:		No Lining			
Inspection Purpose:		Routine inspection		Lining Material:		No Lining			
Comments:									
Recommendations:									
Scale:	1:62	Position [m]	Code	Observation	MPEG	Photo	Grade		
Depth: m MH1 B 0.00 MH Start node, manhole, reference: MH1 B 00:00:00 0.00 WL Water level, 0% of the vertical dimension 0.42 GP General photograph taken at this point 00:00:07 1 1.09 DESJ Settled deposits, fine at joint, 10% cross-sectional area loss 00:00:11 2 3 1.09 LL Line deviates left 00:00:11 3 2.28 DESJ Settled deposits, fine at joint, 5% cross-sectional area loss 00:00:20 4 3 3.90 JN Junction at 11 o'clock, 100mm dia 00:00:30 5 4.06 DESJ Settled deposits, fine at joint, 5% cross-sectional area loss 00:00:35 6 3 4.06 CCJ Crack, circumferential at joint from 4 o'clock to 8 o'clock 00:00:35 7 2 / 2 4.79 DESJ Settled deposits, fine at joint, 5% cross-sectional area loss 00:00:39 8 3 5.44 DESJ Settled deposits, fine at joint, 10% cross-sectional area loss 00:00:44 9 3 6.19 S01 DER Settled deposits, coarse, 10% cross-sectional area loss, start 00:00:48 10 3 7.16 C01 DER Settled deposits, coarse, 25% cross-sectional area loss, change 00:00:56 11 7.16 SA Survey abandoned: Unable to pass debris 00:00:56									
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	10.0	1.4	10.0	2.0	7	3.0	1.8	13.0	3.0

Section Pictures - 17/10/2023 - Gully				
Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
2	Upstream	GULLY	TSA-23-2537	TSA-23-2537



1, 00:00:07, 0.42 m
General photograph taken at this point



2, 00:00:11, 1.09 m
Settled deposits, fine at joint, 10% cross-sectional area loss



3, 00:00:11, 1.09 m
Line deviates left



4, 00:00:20, 2.28 m
Settled deposits, fine at joint, 5% cross-sectional area loss

Section Pictures - 17/10/2023 - Gully				
Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
2	Upstream	GULLY	TSA-23-2537	TSA-23-2537



5, 00:00:30, 3.90 m
Junction at 11 o'clock, 100mm dia



6, 00:00:35, 4.06 m
Settled deposits, fine at joint, 5% cross-sectional area loss



7, 00:00:35, 4.06 m
Crack, circumferential at joint from 4 o'clock to 8 o'clock



8, 00:00:39, 4.79 m
Settled deposits, fine at joint, 5% cross-sectional area loss

Section Pictures - 17/10/2023 - MH2 X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
3	Downstream	MH2 X	TSA-23-2537	TSA-23-2537



1, 00:00:07, 0.22 m
General remark, Winser trap visible



2, 00:00:10, 0.83 m
General photograph taken at this point



3, 00:00:32, 6.62 m
General photograph taken at this point



4, 00:00:52, 11.88 m
General photograph taken at this point

Section Pictures - 17/10/2023 - MH2 X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
3	Downstream	MH2 X	TSA-23-2537	TSA-23-2537



5, 00:00:57, 13.54 m
Line deviates left



6, 00:01:07, 14.20 m
Finish node, major connection without manhole, reference:
Main public sewer reached

Tower Surveys

Associates

Chartered Surveyors

Geomatics - Land, Utilities, Engineering & Building

Tower Surveys Associates

18-20 The Ropewalk, Nottingham

james.hulme@towersurveysassociates.biz

Section Inspection - 17/10/2023 - Vent Pipe

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
4	1	17/10/23	9:00	TSA-23-2537	No Rain Or Snow	No	VENT PIPE
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:	London	Inspection Direction:	Upstream	Upstream Node:	VENT PIPE
Road:	The Bank	Inspected Length:	0.31 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	0.31 m	Downstream Node:	MH2 A
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50

Position [m]

Code

Observation

MPEG

Photo

Grade

Depth: m

MH2 A

0.00

0.00

0.00

0.31

Vent Pipe

Depth: m

MH

Start node, manhole, reference: MH2 A

00:00:00

WL

Water level, 0% of the vertical dimension

GP

General photograph taken at this point

00:00:02

1

OCF

Finish node, other special chamber, reference: Vent Pipe: Vent Pipe reached

00:00:13

2

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

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Section Pictures - 17/10/2023 - Vent Pipe

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
4	Upstream	VENT PIPE	TSA-23-2537	TSA-23-2537



1, 00:00:02, 0.00 m
General photograph taken at this point



2, 00:00:13, 0.31 m
Finish node, other special chamber, reference: Vent Pipe, Vent Pipe reached

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Section Inspection - 17/10/2023 - Gully

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
5	1	17/10/23	9:00	TSA-23-2537	No Rain Or Snow	No	GULLY
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:	London	Inspection Direction:	Upstream	Upstream Node:	GULLY
Road:	The Bank	Inspected Length:	0.36 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	0.36 m	Downstream Node:	MH2 B
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50

Position [m]

Code

Observation

MPEG

Photo

Grade

Depth: m

MH2 B

0.00

0.00

0.00

0.36

MH

WL

GP

GYF

Start node, manhole, reference: MH2 B

Water level, 0% of the vertical dimension

General photograph taken at this point

Finish node, gully, reference: Gully reached

00:00:00

00:00:01

00:00:08

1

2

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
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/10/2023 - Gully

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
5	Upstream	GULLY	TSA-23-2537	TSA-23-2537



1, 00:00:01, 0.00 m
General photograph taken at this point



2, 00:00:08, 0.36 m
Finish node, gully, reference: Gully reached

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Section Inspection - 17/10/2023 - Gully

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
6	1	17/10/23	9:00	TSA-23-2537	No Rain Or Snow	No	GULLY
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:	London	Inspection Direction:	Upstream	Upstream Node:	GULLY
Road:	The Bank	Inspected Length:	1.05 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	1.05 m	Downstream Node:	MH2 C
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50

Position [m]

Code

Observation

MPEG

Photo

Grade

Depth: m

MH2 C

0.00

MH

Start node, manhole, reference: MH2 C

00:00:00

0.00

WL

Water level, 0% of the vertical dimension

0.00

LU

Line deviates up

00:00:02

1

0.33

JDM

Joint displaced, medium

00:00:08

2

1 / 3

0.71

LR

Line deviates right

00:00:15

3

1.05

GYF

Finish node, gully, reference: Gully reached

00:00:22

4

Depth: m

Gully

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	1.0	1.0	1.0	1.0	1	2.0	1.9	2.0	3.0

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Section Pictures - 17/10/2023 - Gully

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
6	Upstream	GULLY	TSA-23-2537	TSA-23-2537



1, 00:00:02, 0.00 m
Line deviates up



2, 00:00:08, 0.33 m
Joint displaced, medium



3, 00:00:15, 0.71 m
Line deviates right



4, 00:00:22, 1.05 m
Finish node, gully, reference: Gully reached

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Section Inspection - 17/10/2023 - Gully

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
8	1	17/10/23	9:00	TSA-23-2537	No Rain Or Snow	No	GULLY
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:	London	Inspection Direction:	Upstream	Upstream Node:	GULLY
Road:	The Bank	Inspected Length:	6.21 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	6.21 m	Downstream Node:	MH2 F
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:54

Position [m]

Code

Observation

MPEG

Photo

Grade

Depth: m

MH2 F

0.00

MH

Start node, manhole, reference: MH2 F

00:00:00

0.00

WL

Water level, 0% of the vertical dimension

0.39

GP

General photograph taken at this point

00:00:07

1

0.93

LL

Line deviates left

00:00:12

2

2.29

LR

Line deviates right

00:00:32

3

3.62

GP

General photograph taken at this point

00:00:46

4

4.53

JN

Junction at 9 o'clock, 100mm dia

00:00:53

5

4.86

LR

Line deviates right

00:00:58

6

6.21

GYF

Finish node, gully, reference: Internal gully reached

00:01:07

7

Gully

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
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/10/2023 - Gully

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
8	Upstream	GULLY	TSA-23-2537	TSA-23-2537



1, 00:00:07, 0.39 m
General photograph taken at this point



2, 00:00:12, 0.93 m
Line deviates left



3, 00:00:32, 2.29 m
Line deviates right



4, 00:00:46, 3.62 m
General photograph taken at this point

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Section Pictures - 17/10/2023 - Gully

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
8	Upstream	GULLY	TSA-23-2537	TSA-23-2537



5, 00:00:53, 4.53 m
Junction at 9 o'clock, 100mm dia



6, 00:00:58, 4.86 m
Line deviates right



7, 00:01:07, 6.21 m
Finish node, gully, reference: Internal gully reached

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Section Inspection - 17/10/2023 - Gully

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
9	1	17/10/23	9:00	TSA-23-2537	No Rain Or Snow	No	GULLY
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:

Road:

Location:

Surface Type:

Use:

Type of Pipe:

Flow Control:

Year Constructed:

Inspection Purpose:

London

The Bank

Property or buildings

Surface water

Gravity drain/sewer

No flow control

Not Specified

Routine inspection

Inspection Direction:

Inspected Length:

Total Length:

Joint Length:

Pipe Shape:

Dia/Height:

Pipe Material:

Lining Type:

Lining Material:

Upstream

2.30 m

2.30 m

Circular

100 mm

Vitrified clay

No Lining

No Lining

Upstream Node: GULLY

Upstream Pipe Depth:

Downstream Node: MH2 G

Downstream Pipe Depth:

Comments:

Recommendations:

Scale: 1:50

Position [m]

Code

Observation

MPEG

Photo

Grade

Depth: m

MH2 G

0.00

MH

Start node, manhole, reference: MH2 G

00:00:00

0.00

WL

Water level, 0% of the vertical dimension

0.00

GP

General photograph taken at this point

00:00:01

1

1.68

GP

General photograph taken at this point

00:00:16

2

1.86

DEC

Settled deposits, hard or compacted, 10% cross-sectional area loss

00:00:23

3

3

2.30

GYF

Finish node, gully, reference: Gully reached

00:00:32

4

Gully

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
0	0.0	0.0	0.0	1.0	1	2.0	0.9	2.0	3.0

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Section Pictures - 17/10/2023 - Gully

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
9	Upstream	GULLY	TSA-23-2537	TSA-23-2537



1, 00:00:01, 0.00 m
General photograph taken at this point



2, 00:00:16, 1.68 m
General photograph taken at this point



3, 00:00:23, 1.86 m
Settled deposits, hard or compacted, 10% cross-sectional area loss



4, 00:00:32, 2.30 m
Finish node, gully, reference: Gully reached

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Section Inspection - 17/10/2023 - Downpipe

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
10	1	17/10/23	9:00	TSA-23-2537	No Rain Or Snow	No	DOWNPIPE
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:

London

Road:

The Bank

Location:

Property or buildings

Surface Type:

Use:

Combined

Type of Pipe:

Gravity drain/sewer

Flow Control:

No flow control

Year Constructed:

Not Specified

Inspection Purpose:

Routine inspection

Inspection Direction:

Upstream

Inspected Length:

0.02 m

Total Length:

0.02 m

Joint Length:

Pipe Shape:

Circular

Dia/Height:

100 mm

Pipe Material:

Vitrified clay

Lining Type:

No Lining

Lining Material:

No Lining

Upstream Node:

DOWNPIPE

Upstream Pipe Depth:

Downstream Node:

MH2 I

Downstream Pipe Depth:

Comments:

Recommendations:

Scale: 1:50

Position [m]

Code

Observation

MPEG

Photo

Grade

Depth: m

MH2 I

0.00

MH

Start node, manhole, reference: MH2 I

00:00:00

0.00

WL

Water level, 0% of the vertical dimension

0.02

GP

General photograph taken at this point

00:00:04

1

0.02

OCF

Finish node, other special chamber, reference: Downpipe: Downpipe reached

00:00:04

2

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
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/10/2023 - Downpipe

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
10	Upstream	DOWNPIPE	TSA-23-2537	TSA-23-2537



1, 00:00:04, 0.02 m
General photograph taken at this point



2, 00:00:04, 0.02 m
Finish node, other special chamber, reference: Downpipe, Downpipe reached

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Section Inspection - 17/10/2023 - MH3 X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
11	1	17/10/23	9:01	TSA-23-2537	No Rain Or Snow	No	MH3 X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:

London

Road:

The Bank

Location:

Property or buildings

Surface Type:

Use:

Combined

Type of Pipe:

Gravity drain/sewer

Flow Control:

No flow control

Year Constructed:

Not Specified

Inspection Purpose:

Routine inspection

Inspection Direction:

Downstream

Inspected Length:

2.05 m

Total Length:

2.05 m

Joint Length:

Upstream Node:

MH3 X

Upstream Pipe Depth:

Downstream Node:

MH4

Downstream Pipe Depth:

Pipe Shape:

Circular

Dia/Height:

100 mm

Pipe Material:

Vitrified clay

Lining Type:

No Lining

Lining Material:

No Lining

Comments:

Recommendations:

Scale:

1:50

Position [m]

Code

Observation

MPEG

Photo

Grade

Depth: m

MH3 X

MH4

Depth: m

0.00

0.00

0.45

1.01

1.54

2.05

MH

WL

LD

REM

GP

MHF

Start node, manhole, reference: MH3 X

Water level, 5% of the vertical dimension

Line deviates down

General remark: Sewer levels out at this point

General photograph taken at this point

Finish node, manhole, reference: MH4 reached

00:00:00

00:00:09

00:00:14

00:00:19

00:00:25

1

2

3

4

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

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Section Pictures - 17/10/2023 - MH3 X

Item No. 11	Inspection Direction Downstream	PLR MH3 X	Client's Job Ref TSA-23-2537	Contractor's Job Ref TSA-23-2537
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1, 00:00:09, 0.45 m
Line deviates down



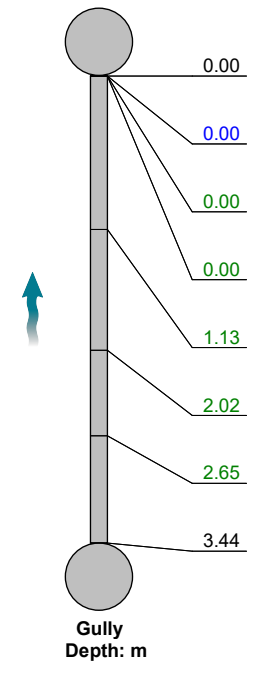
2, 00:00:14, 1.01 m
General remark, Sewer levels out at this point



3, 00:00:19, 1.54 m
General photograph taken at this point



4, 00:00:25, 2.05 m
Finish node, manhole, reference: MH4 reached

Tower Surveys Associates Chartered Surveyors Geomatics - Land, Utilities, Engineering & Building				Tower Surveys Associates 18-20 The Ropewalk, Nottingham james.hulme@towersurveysassociates.biz					
Section Inspection - 17/10/2023 - Gully									
Item No. 12	Insp. No. 1	Date 17/10/23	Time 9:01	Client's Job Ref TSA-23-2537	Weather No Rain Or Snow	Pre Cleaned No	PLR GULLY		
Operator Dominic White		Vehicle LM21 UHU		Camera Minicam Solopro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified		
Town or Village:		London		Inspection Direction:		Upstream			
Road:		The Bank		Inspected Length:		3.44 m			
Location:		Property or buildings		Total Length:		3.44 m			
Surface Type:				Joint Length:					
Use:		Surface water		Pipe Shape:		Circular			
Type of Pipe:		Gravity drain/sewer		Dia/Height:		100 mm			
Flow Control:		No flow control		Pipe Material:		Vitrified clay			
Year Constructed:		Not Specified		Lining Type:		No Lining			
Inspection Purpose:		Routine inspection		Lining Material:		No Lining			
Comments:									
Recommendations:									
Scale:	1:50	Position [m]	Code	Observation		MPEG	Photo	Grade	
Depth: m									
MH3 A									
									
0.00		MH	Start node, manhole, reference: MH3 A			00:00:00			
0.00		WL	Water level, 0% of the vertical dimension						
0.00		LU	Line deviates up			00:00:02	1		
0.00		LL	Line deviates left			00:00:02	2		
1.13		LL	Line deviates left			00:00:13	3		
2.02		LR	Line deviates right			00:00:17	4		
2.65		LL	Line deviates left			00:00:22	5		
3.44		GYF	Finish node, gully, reference: Gully reached			00:00:27	6		
Gully 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
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0



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Section Pictures - 17/10/2023 - Gully

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
12	Upstream	GULLY	TSA-23-2537	TSA-23-2537



1, 00:00:02, 0.00 m
Line deviates up



2, 00:00:02, 0.00 m
Line deviates left



3, 00:00:13, 1.13 m
Line deviates left



4, 00:00:17, 2.02 m
Line deviates right



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Section Pictures - 17/10/2023 - Gully

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
12	Upstream	GULLY	TSA-23-2537	TSA-23-2537



5, 00:00:22, 2.65 m
Line deviates left



6, 00:00:27, 3.44 m
Finish node, gully, reference: Gully reached

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Section Inspection - 17/10/2023 - Downpipe

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
13	1	17/10/23	9:01	TSA-23-2537	No Rain Or Snow	No	DOWNPIPE
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:	London	Inspection Direction:	Upstream	Upstream Node:	DOWNPIPE
Road:	The Bank	Inspected Length:	1.80 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	1.80 m	Downstream Node:	MH3 B
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50

Position [m]

Code

Observation

MPEG

Photo

Grade

Depth: m

MH3 B

0.00

MH

Start node, manhole, reference: MH3 B

00:00:00

0.00

WL

Water level, 5% of the vertical dimension

0.00

LL

Line deviates left

00:00:03

1

0.98

GP

General photograph taken at this point

00:00:11

2

1.80

DEC

Settled deposits, hard or compacted, 20% cross-sectional area loss: At rest bend of downpipe

00:00:22

3

4

Downpipe

1.80

OCF

Finish node, other special chamber, reference: Downpipe: Internal downpipe reached

00:00:22

4

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
0	0.0	0.0	0.0	1.0	1	5.0	2.8	5.0	4.0

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Section Pictures - 17/10/2023 - Downpipe

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
13	Upstream	DOWNPIPE	TSA-23-2537	TSA-23-2537



1, 00:00:03, 0.00 m
Line deviates left



2, 00:00:11, 0.98 m
General photograph taken at this point



3, 00:00:22, 1.80 m
Settled deposits, hard or compacted, 20% cross-sectional area loss, At rest bend of downpipe



4, 00:00:22, 1.80 m
Finish node, other special chamber, reference: Downpipe, Internal downpipe reached

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Section Inspection - 17/10/2023 - MH4 X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
14	1	17/10/23	9:01	TSA-23-2537	No Rain Or Snow	No	MH4 X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:	London	Inspection Direction:	Downstream	Upstream Node:	MH4 X
Road:	The Bank	Inspected Length:	11.80 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	11.80 m	Downstream Node:	MAIN
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	225 mm		
Flow Control:	No flow control	Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:103

Position [m]

Code

Observation

MPEG

Photo

Grade

Depth: m

MH4 X

0.00

MH

Start node, manhole, reference: MH4 X

00:00:00

0.00

WL

Water level, 5% of the vertical dimension

0.00

REM

General remark: Winsor trap visible

00:00:01

1

2.34

GP

General photograph taken at this point

00:00:13

2

4.13

LL

Line deviates left

00:01:54

3

4.13

LD

Line deviates down

00:01:54

4

5.38

GP

General photograph taken at this point

00:01:45

5

10.06

LD

Line deviates down

00:01:16

6

11.80

BRF

Finish node, major connection without manhole, reference: Main public sewer reached

00:01:10

7

Main

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
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/10/2023 - MH4 X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
14	Downstream	MH4 X	TSA-23-2537	TSA-23-2537

1, 00:00:01, 0.00 m
General remark, Winsor trap visible

2, 00:00:13, 2.34 m
General photograph taken at this point

3, 00:01:54, 4.13 m
Line deviates left

4, 00:01:54, 4.13 m
Line deviates down

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Section Pictures - 17/10/2023 - MH4 X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
14	Downstream	MH4 X	TSA-23-2537	TSA-23-2537



5, 00:01:45, 5.38 m
General photograph taken at this point



6, 00:01:16, 10.06 m
Line deviates down



7, 00:01:10, 11.80 m
Finish node, major connection without manhole, reference:
Main public sewer reached

Section Inspection - 17/10/2023 - Vent Pipe

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
15	1	17/10/23	9:01	TSA-23-2537	No Rain Or Snow	No	VENT PIPE
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:	London	Inspection Direction:	Upstream	Upstream Node:	VENT PIPE
Road:	The Bank	Inspected Length:	0.08 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	0.08 m	Downstream Node:	MH4 A
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m MH4 A							
		0.00	MH	Start node, manhole, reference: MH4 A	00:00:00		
		0.00	WL	Water level, 0% of the vertical dimension			
		0.08	JDL	Joint displaced, large	00:00:05	1	1 / 4
		0.08	SA	Survey abandoned: Unable to pass displaced joint	00:00:05		

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	25.0	2.0	1.0	1	5.0	62.5	5.0	5.0

Section Pictures - 17/10/2023 - Vent Pipe

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
15	Upstream	VENT PIPE	TSA-23-2537	TSA-23-2537



1, 00:00:05, 0.08 m
Joint displaced, large

Section Inspection - 17/10/2023 - MH9

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
16	1	17/10/23	9:02	TSA-23-2537	No Rain Or Snow	No	MH9
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:	London	Inspection Direction:	Upstream	Upstream Node:	MH9
Road:	The Bank	Inspected Length:	13.89 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	13.89 m	Downstream Node:	MH4 C
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Pipe Material:	Cast iron		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:121	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m							
MH4 C							
		0.00	MH	Start node, manhole, reference: MH4 C	00:00:00		
		0.00	WL	Water level, 10% of the vertical dimension			
		1.37	GP	General photograph taken at this point	00:04:01	1	
		3.10	MCVC	Pipe material changes to vitrified clay at this point	00:03:45	2	
		6.67	GP	General photograph taken at this point	00:03:24	3	
		12.01	MCCI	Pipe material changes to cast iron at this point	00:02:54	4	
		13.89	MHF	Finish node, manhole, reference: MH9 reached	00:02:35	5	
MH9							
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
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Pictures - 17/10/2023 - MH9				
Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
16	Upstream	MH9	TSA-23-2537	TSA-23-2537



1, 00:04:01, 1.37 m
General photograph taken at this point



2, 00:03:45, 3.10 m
Pipe material changes to vitrified clay at this point



3, 00:03:24, 6.67 m
General photograph taken at this point



4, 00:02:54, 12.01 m
Pipe material changes to cast iron at this point

Section Pictures - 17/10/2023 - MH9				
Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
16	Upstream	MH9	TSA-23-2537	TSA-23-2537



5, 00:02:35, 13.89 m
Finish node, manhole, reference: MH9 reached

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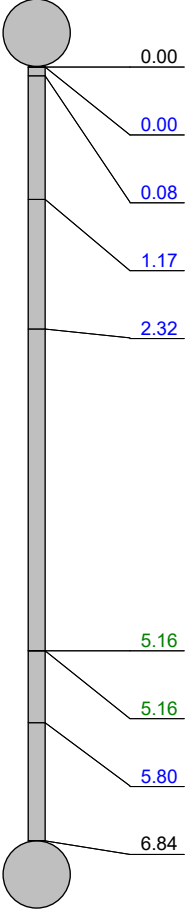
Section Inspection - 17/10/2023 - MH6 X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
17	1	17/10/23	9:02	TSA-23-2537	No Rain Or Snow	No	MH6 X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:	London	Inspection Direction:	Downstream	Upstream Node:	MH6 X
Road:	The Bank	Inspected Length:	6.84 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	6.84 m	Downstream Node:	MAIN
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:60	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m							
MH6 X							
							
	0.00	MH		Start node, manhole, reference: MH6 X	00:00:00		
	0.00	WL		Water level, 5% of the vertical dimension			
	0.08	REM		General remark: Winsor trap visible	00:00:05	1	
	1.17	GP		General photograph taken at this point	00:00:10	2	
	2.32	GP		General photograph taken at this point	00:00:20	3	
	5.16	LL		Line deviates left	00:00:27	4	
	5.16	LD		Line deviates down	00:00:27	5	
	5.80	GP		General photograph taken at this point	00:00:32	6	
	6.84	BRF		Finish node, major connection without manhole, reference: Main public sewer reached	00:00:38	7	
Main							
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
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/10/2023 - MH6 X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
17	Downstream	MH6 X	TSA-23-2537	TSA-23-2537



1, 00:00:05, 0.08 m
General remark, Winsor trap visible



2, 00:00:10, 1.17 m
General photograph taken at this point



3, 00:00:20, 2.32 m
General photograph taken at this point



4, 00:00:27, 5.16 m
Line deviates left

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Section Pictures - 17/10/2023 - MH6 X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
17	Downstream	MH6 X	TSA-23-2537	TSA-23-2537



5, 00:00:27, 5.16 m
Line deviates down



6, 00:00:32, 5.80 m
General photograph taken at this point



7, 00:00:38, 6.84 m
Finish node, major connection without manhole, reference:
Main public sewer reached

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Section Inspection - 17/10/2023 - MH12

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
18	1	17/10/23	9:02	TSA-23-2537	No Rain Or Snow	No	MH12
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:

Road:

Location:

Surface Type:

Use:

Type of Pipe:

Flow Control:

Year Constructed:

Inspection Purpose:

London

The Bank

Property or buildings

Foul

Gravity drain/sewer

No flow control

Not Specified

Routine inspection

Inspection Direction:

Inspected Length:

Total Length:

Joint Length:

Pipe Shape:

Dia/Height:

Pipe Material:

Lining Type:

Lining Material:

Upstream

16.33 m

16.33 m

Circular

100 mm

Polyvinyl chloride

No Lining

No Lining

Upstream Node:

Upstream Pipe Depth:

Downstream Node:

Downstream Pipe Depth:

MH12

MH6 A

Comments:

Recommendations:

Scale: 1:142

Position [m]

Code

Observation

MPEG

Photo

Grade

Depth: m

MH6 A

0.00

MH

Start node, manhole, reference: MH6 A

00:00:00

0.00

WL

Water level, 5% of the vertical dimension

0.06

GP

General photograph taken at this point

00:00:03

1

5.30

GP

General photograph taken at this point

00:00:36

2

10.31

GP

General photograph taken at this point

00:00:59

3

14.77

GP

General photograph taken at this point

00:01:19

4

16.33

MHF

Finish node, manhole, reference: MH12 reached

00:01:29

5

MH12

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
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

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Section Pictures - 17/10/2023 - MH12

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
18	Upstream	MH12	TSA-23-2537	TSA-23-2537



1, 00:00:03, 0.06 m
General photograph taken at this point



2, 00:00:36, 5.30 m
General photograph taken at this point



3, 00:00:59, 10.31 m
General photograph taken at this point



4, 00:01:19, 14.77 m
General photograph taken at this point

Section Pictures - 17/10/2023 - MH12

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
18	Upstream	MH12	TSA-23-2537	TSA-23-2537



5, 00:01:29, 16.33 m
Finish node, manhole, reference: MH12 reached

Section Inspection - 17/10/2023 - Gully

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
19	1	17/10/23	9:02	TSA-23-2537	No Rain Or Snow	No	GULLY
Operator Dominic White		Vehicle LM21 UHU		Camera Minicam Solopro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID Not Specified

Town or Village:	London	Inspection Direction:	Upstream	Upstream Node:	GULLY
Road:	The Bank	Inspected Length:	0.54 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	0.54 m	Downstream Node:	MH16 C
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments: Recommendations:
--

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m MH16 C Depth: m						
	0.00	MH	Start node, manhole, reference: MH16 C	00:00:00		
	0.00	WL	Water level, 0% of the vertical dimension			
	0.00	GP	General photograph taken at this point	00:00:01	1	
	0.12	CMJ	Cracks, multiple at joint from 8 o'clock to 2 o'clock	00:00:03	2	3 / 2
	0.54	GYF	Finish node, gully, reference: Gully reached	00:00:09	3	

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	40.0	74.1	40.0	3.0	1	1.0	1.9	1.0	3.0

Section Pictures - 17/10/2023 - Gully

Item No. 19	Inspection Direction Upstream	PLR GULLY	Client's Job Ref TSA-23-2537	Contractor's Job Ref TSA-23-2537
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1, 00:00:01, 0.00 m
General photograph taken at this point



2, 00:00:03, 0.12 m
Cracks, multiple at joint from 8 o'clock to 2 o'clock



3, 00:00:09, 0.54 m
Finish node, gully, reference: Gully reached

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Section Inspection - 17/10/2023 - Capped

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
21	1	17/10/23	9:03	TSA-23-2537	No Rain Or Snow	No	CAPPED
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:	London	Inspection Direction:	Upstream	Upstream Node:	CAPPED
Road:	The Bank	Inspected Length:	7.74 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	7.74 m	Downstream Node:	MH7 B
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Pipe Material:	Pitch fibre		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:68

Position [m]

Code

Observation

MPEG

Photo

Grade

Depth: m

MH7 B

0.00

MH

Start node, manhole, reference: MH7 B

00:00:00

0.00

WL

Water level, 0% of the vertical dimension

0.39

GP

General photograph taken at this point

00:00:06

1

1.99

S01

DES

Settled deposits, fine, 10% cross-sectional area loss, start

00:00:13

2

5.85

C01

DES

Settled deposits, fine, 20% cross-sectional area loss, change

00:00:28

3

7.56

F01

DES

Settled deposits, fine, 20% cross-sectional area loss, finish

00:00:36

3

7.74

OCF

Finish node, other special chamber, reference: Capped: Capped pipe reached

00:00:38

4

Capped 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
0	0.0	0.0	0.0	1.0	1	2.0	1.6	12.0	3.0

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Section Pictures - 17/10/2023 - Capped

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
21	Upstream	CAPPED	TSA-23-2537	TSA-23-2537



1, 00:00:06, 0.39 m
General photograph taken at this point



2, 00:00:13, 1.99 m
Settled deposits, fine, 10% cross-sectional area loss, start



3, 00:00:28, 5.85 m
Settled deposits, fine, 20% cross-sectional area loss, change



4, 00:00:38, 7.74 m
Finish node, other special chamber, reference: Capped, Capped pipe reached

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Section Inspection - 17/10/2023 - MH8 X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
22	1	17/10/23	9:05	TSA-23-2537	No Rain Or Snow	No	MH8 X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Town or Village:	London	Inspection Direction:	Downstream	Upstream Node:	MH8 X
Road:	The Bank	Inspected Length:	15.91 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	15.91 m	Downstream Node:	MAIN
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:					
Recommendations:					

Scale:	1:98	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m							
MH8 X							
	0.00	MH		Start node, manhole, reference: MH8 X	00:00:00		
	0.00	WL		Water level, 5% of the vertical dimension			
	0.00	REM		General remark: Vision limited due to steam	00:10:36		
	0.22	REM		General remark: Winsor trap visible	00:00:05	1	
	1.91	GP		General photograph taken at this point	00:00:10	2	
	3.38	JDL		Joint displaced, large	00:00:51	3	1 / 4
	3.75	LD		Line deviates down	00:01:03	4	
	4.19	RF		Roots, fine	00:02:27	5	2
	5.43	DECJ		Settled deposits, hard or compacted at joint, 5% cross-sectional area loss	00:02:48	6	3
	6.56	JDL		Joint displaced, large	00:05:01	7	1 / 4
	6.56	LL		Line deviates left	00:05:01	8	
	8.64	DESJ		Settled deposits, fine at joint, 5% cross-sectional area loss	00:05:13	9	3
	8.98	DESJ		Settled deposits, fine at joint, 5% cross-sectional area loss	00:05:18	10	3
	9.46	DESJ		Settled deposits, fine at joint, 5% cross-sectional area loss	00:05:30	11	3
	10.30	DESJ		Settled deposits, fine at joint, 5% cross-sectional area loss	00:05:34	12	3

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Tower Surveys

Associates

Chartered Surveyors

Geomatics - Land, Utilities, Engineering & Building

Tower Surveys Associates

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Section Inspection - 17/10/2023 - MH8 X

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
22	1	17/10/23	9:05	TSA-23-2537	No Rain Or Snow	No	MH8 X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Dominic White		LM21 UHU		Minicam Solopro	Not Specified	Not Specified	Not Specified

Scale:	1:98	Position [m]	Code	Observation	MPEG	Photo	Grade
Main Depth: m							
	12.32	DESJ		Settled deposits, fine at joint, 5% cross-sectional area loss	00:09:32	13	3
	15.91	LD		Line deviates down: At entry to main public sewer	00:09:07	14	
	15.91	BRF		Finish node, major connection without manhole, reference: Main public sewer reached	00:09:07	15	

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
2	2.0	0.3	4.0	1.0	9	5.0	1.4	23.0	4.0

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Section Pictures - 17/10/2023 - MH8 X				
Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
22	Downstream	MH8 X	TSA-23-2537	TSA-23-2537



1, 00:00:05, 0.22 m
General remark, Winsor trap visible



2, 00:00:10, 1.91 m
General photograph taken at this point



3, 00:00:51, 3.38 m
Joint displaced, large



4, 00:01:03, 3.75 m
Line deviates down

Section Pictures - 17/10/2023 - MH8 X				
Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
22	Downstream	MH8 X	TSA-23-2537	TSA-23-2537



5, 00:02:27, 4.19 m
Roots, fine



6, 00:02:48, 5.43 m
Settled deposits, hard or compacted at joint, 5% cross-sectional area loss



7, 00:05:01, 6.56 m
Joint displaced, large



8, 00:05:01, 6.56 m
Line deviates left

Section Pictures - 17/10/2023 - MH8 X				
Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
22	Downstream	MH8 X	TSA-23-2537	TSA-23-2537



9, 00:05:13, 8.64 m
Settled deposits, fine at joint, 5% cross-sectional area loss



10, 00:05:18, 8.98 m
Settled deposits, fine at joint, 5% cross-sectional area loss



11, 00:05:30, 9.46 m
Settled deposits, fine at joint, 5% cross-sectional area loss



12, 00:05:34, 10.30 m
Settled deposits, fine at joint, 5% cross-sectional area loss

Section Pictures - 17/10/2023 - MH8 X				
Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
22	Downstream	MH8 X	TSA-23-2537	TSA-23-2537



13, 00:09:32, 12.32 m
Settled deposits, fine at joint, 5% cross-sectional area loss



14, 00:09:07, 15.91 m
Line deviates down, At entry to main public sewer



15, 00:09:07, 15.91 m
Finish node, major connection without manhole, reference:
Main public sewer reached

