

7 ST JOHNS WOOD PARK, CAMDEN

APPENDIX DOCUMENT

APPENDIX DOCUMENT

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APPENDIX 1.0

STRUCTURAL ENGINEER STATEMENT



◆ **DAVID SMITH ASSOCIATES** ◆ Consulting Structural & Civil Engineers ◆
◆ London ◆ Northampton ◆ Cirencester ◆ Birmingham ◆
www.dsagroup.co.uk

Rigby & Rigby
Bridgeway House
Bridgeway
Stratford Upon Avon
CV37 6YX

frankie.levey@rigbyandrigby.com

F A O: Frankie Levey

22nd September 2020

BC/19/36871/HJ

Dear Frankie,

RE 7 ST JOHNS WOOD PARK, CAMDEN

Thank you for your request for us to carry out a Brief Visual Structural inspection of the above property.

It is a condition of this report that we have not inspected all parts of the structure that are covered, unexposed or inaccessible and we are therefore unable to report that such parts of the property are free from defect.

The boundary wall to 7 St Johns Wood Park adjacent to boundary road is indicating signs of significant movement. The wall is not aligned and is out of its middle third of the centre of gravity causing it to move towards Boundary Road. The movement is a direct result of subsidence to the wall and movement due to the possible localised root growth. The corner of the wall between Boundary Road and St Johns Wood Park has cracked causing further instability. The electrical boxes are providing some passive support which is not their intended purpose. This is generally not acceptable. It was also noted that there has been cracking within the front porch entrance of the property which is also likely caused by the trees influence on the ground.

VAT Registration No.: 670 8636 12

Eur Ing **David Smith** BSc(Hons), CEng, MICE, MIStructE, CMAPS, MFPWS, FCABE, ACI Arb,
Hitesh Jethwa BScEng(Hons), I.Eng, AMIStructE **Steven Ainge** BEng(Hons), IEng, AMIStructE
Richard Jones HNC, MICE, Eng.Tech, **Thomas Garrod** B.Eng.(Hons),
Ben Mason BSc (Hons), **Nigel Ascough** BEng (Hons), CEng, MICE, MIStructE.



London
16 Upper Woburn Place
London
WC1H 0AF
0203 741 8042
london@dsagroup.co.uk

Northampton
8 Duncan Close
Moulton Park
Northampton, NN3 6WL
01604 782620
northampton@dsagroup.co.uk

Cirencester
Waterloo House
The Waterloo
Cirencester, GL7 2PY
01285 657328
cirencester@dsagroup.co.uk

Birmingham
Central Boulevard,
Blythe Valley Business Park
Solihull, B90 8AG.
01564 711008
birmingham@dsagroup.co.uk



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The cause of the subsidence is be due to the tree and root related movements which is located in front of the property at roadside. The tree is located approximately 1m from the boundary wall and approximately 12m away from the front porch entrance. The nature and maturity of the tree are indicative to the subsidence along the boundary wall as the tree is a mature hight and of good fettle. As the tree has matured, its need for moisture has increased leading to the cohesive clay soils to reduce in volume and thus cause the subsidence noted.

Minor settlement of the bearing stratum can occur due to the presence of clay sub soils and trees. Trees as they grow to maturity take moisture from the subsoils reducing the volume of the soils beneath the foundation. If foundations are not constructed to a sufficient depth to avoid this volume change the wall will settle locally as the soils volume reduces.

Due the impact of the ground movement the tree has had on the surrounding structure we would recommend that the tree is removed in its entirety. Repairs/rebuilding work to the wall and porch can then be made. Without the removal of the tree such repairs could not be made. In addition to this as the tree continues to draw moisture further damage to the property may occur over time.

We trust the above is satisfactory for your immediate requirements. However, should you require any further information, please do not hesitate to contact the above office.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Breijesh Chavda', written in a cursive style.

BREIJESH CHAVDA
David Smith Associates

APPENDIX 2.0

ASSOCIATED DAMAGES COSTS

PROJECT NUMBER: 187
PROJECT TITLE: 7 ST JOHNS WOOD PARK, LONDON

Cost implications

Company Quote		Description of Service	Total Cost
Direct Damage to 7 St Johns Wood Park			
Boundary Wall Structural Engineer Fees	DSA	Structural enginners fee to assess the stuctural stability of the boundary wall and recommendations for structral support strategy	£950.00
Boundary Wall careful removal of existing	R&R	Based on £45/sq.m & total of 81.99 sq.m	£3,689.55
Boundary Wall protection to pavement/walkways and re-routing	R&R		£75.00
Boundary Wall rebuilding to match existing	R&R	Based on £325/sq.m & total of 81.99 sq.m	£26,646.75
Relaying/replair of the driveway	R&R	Based on £130/sq.m & total of 140 sq.m	£18,200.00
CCTV Drainage Survey	Direct Drains	Recommended to be carried out every 5 years	£475.00
Repairs to drains	R&R	Based on work carried out at the property in close proximity to tree trunk	£8,000.00
Tree hazard / risk / management			
Arboricultural Consultant fees to submit an application for works to a protected tree	Barton-Hyett	Recommended to be carried out every 5 years	£150.00
Pruning of canopy/works to tree	Parsons Tree Care	Recommended to be carried out every 5 years	£2,150.00
Potential insurance claims			
Other Potential Costs			
Coucil pavement			n/a
Council road			n/a
Public drains/services/utilities			n/a
TOTAL (EX VAT)			£60,336.30
VAT			£12,067.26
TOTAL (INC VAT)			£72,403.56

APPENDIX 3.0

DRAINAGE REPORT



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7 ST JOHN'S WOOD PARK	S/R 2335	23/12/2019

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Project Information

Project Name	Project Number	Project Date
7 ST JOHN'S WOOD PARK	S/R 2335	23/12/2019

Client

Company: RIGBY & RIGBY
Description: CCTV UNDER GROUND DRAINAGE
Contact: ROBERT REES
Street: 80 BROOK STREET
Town or City: MAYFAIR LONDON
Post Code: W1K 5EG
Phone: 020 3418 0446
Email: robert.rees@rigbyandrigby.com

Site

Company: RIGBY & RIGBY
Description: CCTV UNDER GROUND DRAINAGE
Street: 7 ST JOHN'S WOOD PARK
Town or City: CAMDEN
County: LONDON
Post Code: NW8 6QS

Contractor

Company: DIRECT DRAIN SERVICES
Contact: STEPHEN MOSS
Street: UNIT 9 WATERWAYS BUSINESS CENTRE
Town or City: ENFIELD LOCK
County: MIDDLESEX
Post Code: EN3 6JJ
Phone: 01992 765444
Email: info@directdrainservices.co.uk

Scoring Summary

Project Name
7 ST JOHN'S WOOD PARK

Project Number
S/R 2335

Project Date
23/12/2019

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
1		4	Hole in drain or sewer at 1 o'clock
4		4	Deformed sewer or drain, 10%
6		4	Fractures, multiple from 12 o'clock to 12 o'clock
8		3	Multiple defects

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		4	Joint displaced, large
4		4	Multiple defects
6		4	Multiple defects
11		3	Multiple defects
12		3	Roots, mass at joint, 10% cross-sectional area loss
13		5	Settled deposits, fine, 100% cross-sectional area loss
14		3	Settled deposits, fine, 5% cross-sectional area loss, finish

Abandoned Surveys

Section	PLR	Description
10		Survey abandoned
11		Survey abandoned
13		Survey abandoned
14		Survey abandoned

Information

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



Section Inspection - 23/12/2019

Section 1	Inspection 1	Date 23/12/19	Time 8:49	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Camden	Inspection Direction:	Upstream	Upstream Node:	GULLY
Road:	St John'S Wood Park	Inspected Length:	2.04 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	2.04 m	Downstream Node:	CWMH 01
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m	0.00	MH	Start node type, manhole, reference number: CWMH 01	00:00:00		
CWMH 01	0.00	WL	Water level, 0% of the vertical dimension	00:00:13		
	0.01	S01	LR Line deviates right, start	00:00:13		
	0.38	F01	LR Line deviates right, finish	00:00:20		
	0.97	FCJ	Fracture, circumferential at joint from 12 o'clock to 12 o'clock	00:00:22	1	3 / 2
	1.53	H	Hole in drain or sewer at 1 o'clock	00:00:25	2	4
	1.60	JDL	Joint displaced, large	00:00:26	3	1 / 4
	2.04	GYF	Finish node type, gully, reference number: GULLY: GULLY TRAP REACHED	00:00:35	4	
GULLY						
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
3	80.0	59.8	122.0	4.0	2	5.0	2.9	6.0	4.0

Section Pictures - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Upstream		S/R 2335	



1, 00:00:22, 0.97 m

Fracture, circumferential at joint from 12 o'clock to 12 o'clock



2, 00:00:25, 1.53 m

Hole in drain or sewer at 1 o'clock



3, 00:00:26, 1.60 m

Joint displaced, large



4, 00:00:35, 2.04 m

Finish node type, gully, reference number: GULLY, GULLY TRAP REACHED



Section Inspection - 23/12/2019

Section 2	Inspection 2	Date 23/12/19	Time 9:01	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Camden	Inspection Direction:	Upstream	Upstream Node:	GULLY
Road:	St John'S Wood Park	Inspected Length:	0.57 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	0.57 m	Downstream Node:	CWMH 01
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m	0.00	MH	Start node type, manhole, reference number: CWMH 01	00:00:00		
	0.00	WL	Water level, 0% of the vertical dimension	00:00:15		
	0.01	S01	FLJ Fracture, longitudinal at joint at 10 o'clock, start	00:00:15	1	
	0.16	F01	FLJ Fracture, longitudinal at joint at 10 o'clock, finish	00:00:20		
	0.57	GYF	Finish node type, gully, reference number: GULLY: GULLY TRAP REACHED	00:00:29	2	
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	0.0	0	0.0	0.0	0.0	0.0

Section Pictures - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
2	Upstream		S/R 2335	



0.06m 13:31:22 13-DEC-2019

1, 00:00:15, 0.01 m
Fracture, longitudinal at joint at 10 o'clock, start



0.57m 13:31:41 13-DEC-2019

2, 00:00:29, 0.57 m
Finish node type, gully, reference number: GULLY, GULLY
TRAP REACHED



Section Inspection - 23/12/2019

Section 3	Inspection 3	Date 23/12/19	Time 9:05	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Camden	Inspection Direction:	Upstream	Upstream Node:	CAPPED OFF
Road:	St John'S Wood Park	Inspected Length:	4.37 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	4.37 m	Downstream Node:	CWMH 01
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Polyvinyl chloride		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50 Position [m] Code Observation MPEG Photo Grade

Depth: m
CWMH 01



0.00

MH

Start node type, manhole, reference number: CWMH 01

00:00:00

0.00

WL

Water level, 0% of the vertical dimension

00:00:02

0.30

S01

LR

Line deviates right, start

00:00:00

1

0.67

F01

LR

Line deviates right, finish

00:00:16

0.95

S02

LL

Line deviates left, start

00:00:17

2

1.86

F02

LL

Line deviates left, finish

00:00:22

3.64

S03

LU

Line deviates up, start

00:00:31

3

4.13

F03

LU

Line deviates up, finish

00:00:33

4.37

BRF

Finish node type, major connection without manhole, reference number: CAPPED OFF

00:00:45

4

CAPPED OFF

Depth: m

Construction Features

Structural Defects

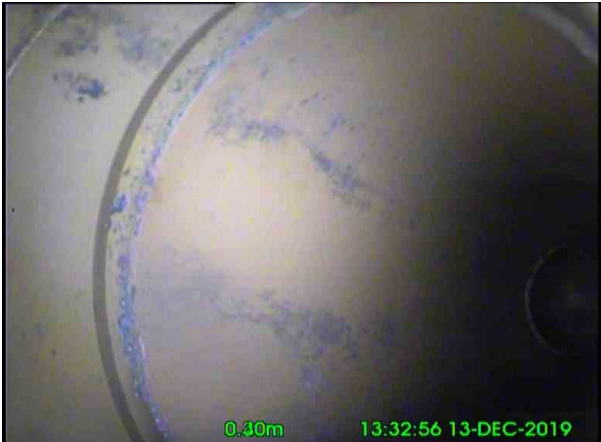
Miscellaneous Features

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 - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
3	Upstream		S/R 2335	



1, 00:00:00, 0.30 m
Line deviates right, start



2, 00:00:17, 0.95 m
Line deviates left, start



3, 00:00:31, 3.64 m
Line deviates up, start



4, 00:00:45, 4.37 m
Finish node type, major connection without manhole, reference
number: CAPPED OFF



Section Inspection - 23/12/2019

Section 4	Inspection 4	Date 23/12/19	Time 9:12	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Camden	Inspection Direction:	Downstream	Upstream Node:	CWMH 01
Road:	St John'S Wood Park	Inspected Length:	9.70 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	9.70 m	Downstream Node:	CWMH 02
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

Comments:
Recommendations:

Scale: 1:85	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m CWMH 01	0.00	MH	Start node type, manhole, reference number: CWMH 01	00:00:00		
	0.00	WL	Water level, 0% of the vertical dimension	00:00:08		
	0.01	MCEP	Pipe material changes to epoxy at this point: LINER STARTS	00:00:00	1	
	0.01	S01	DER Settled deposits, coarse, 5% cross-sectional area loss, start: STONES	00:00:10	2	
	0.93	F01	DER Settled deposits, coarse, 5% cross-sectional area loss, finish: STONES	00:00:15		3
	2.67	S02	DER Settled deposits, coarse, 5% cross-sectional area loss, start: STONES	00:00:24	3	
	4.84	F02	DER Settled deposits, coarse, 5% cross-sectional area loss, finish: STONES	00:00:35		3
	7.98	MCVC	Pipe material changes to vitrified clay at this point: LINER ENDS	00:00:46	4	
	8.28	S03	DER Settled deposits, coarse, 5% cross-sectional area loss, start: STONES	00:00:48		
	8.64	RTJ	Roots, tap at joint	00:00:50	5	4
	9.24	RFJ	Roots, fine at joint	00:00:52	6	2
	9.24	RTJ	Roots, tap at joint	00:00:52		4
	9.24	D	Deformed sewer or drain, 10%	00:00:52	7	4 / 3
	9.64	F03	DER Settled deposits, coarse, 5% cross-sectional area loss, finish: STONES	00:00:54		3
Depth: m CWMH 02	9.70	MHF	Finish node type, manhole, reference number: CWMH 02	00:01:01	8	

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
1	80.0	8.3	80.0	4.0	7	10.0	2.6	25.0	4.0

Section Pictures - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
4	Downstream		S/R 2335	



0.00m 13:34:59 13-DEC-2019

1, 00:00:00, 0.01 m

Pipe material changes to epoxy at this point, LINER STARTS



0.00m 13:35:00 13-DEC-2019

2, 00:00:10, 0.01 m

Settled deposits, coarse, 5% cross-sectional area loss, start, STONES



2.67m 13:35:13 13-DEC-2019

3, 00:00:24, 2.67 m

Settled deposits, coarse, 5% cross-sectional area loss, start, STONES



7.98m 13:35:36 13-DEC-2019

4, 00:00:46, 7.98 m

Pipe material changes to vitrified clay at this point, LINER ENDS

Section Pictures - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
4	Downstream		S/R 2335	



5, 00:00:50, 8.64 m
Roots, tap at joint



6, 00:00:52, 9.24 m
Roots, fine at joint



7, 00:00:52, 9.24 m
Deformed sewer or drain, 10%



8, 00:01:01, 9.70 m
Finish node type, manhole, reference number: CWMH 02



Section Inspection - 23/12/2019

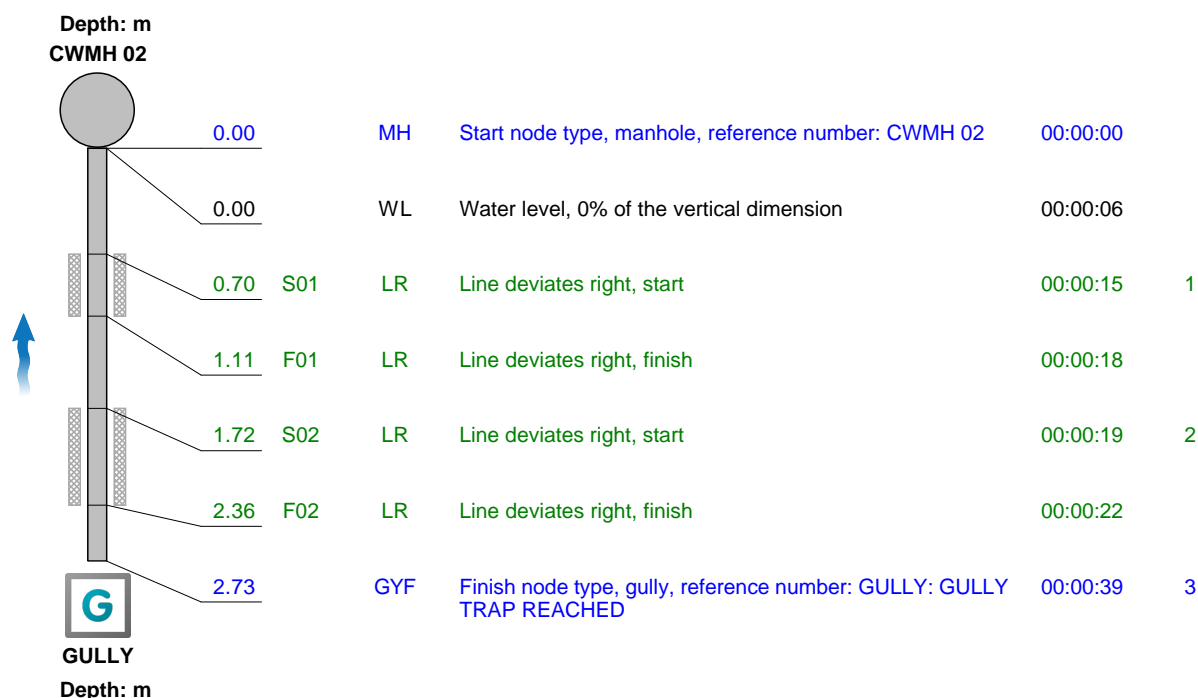
Section 5	Inspection 5	Date 23/12/19	Time 9:24	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Camden	Inspection Direction:	Upstream	Upstream Node:	GULLY
Road:	St John'S Wood Park	Inspected Length:	2.73 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	2.73 m	Downstream Node:	CWMH 02
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50 Position [m] Code Observation MPEG Photo Grade



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 - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
5	Upstream		S/R 2335	



1, 00:00:15, 0.70 m
Line deviates right, start



2, 00:00:19, 1.72 m
Line deviates right, start



3, 00:00:39, 2.73 m
Finish node type, gully, reference number: GULLY, GULLY
TRAP REACHED



Section Inspection - 23/12/2019

Section 6	Inspection 6	Date 23/12/19	Time 9:29	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Camden	Inspection Direction:	Downstream	Upstream Node:	CWMH 02
Road:	St John'S Wood Park	Inspected Length:	4.93 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	4.93 m	Downstream Node:	CWMH 03
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

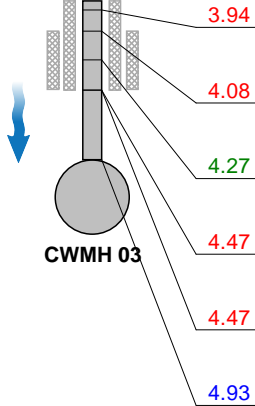
Comments:

Recommendations:

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m						
CWMH 02	0.00	MH	Start node type, manhole, reference number: CWMH 02	00:00:00		
	0.00	WL	Water level, 0% of the vertical dimension	00:00:12		
	0.14	FLJ	Fracture, longitudinal at joint at 9 o'clock	00:00:12	1	3 / 2
	0.32	RTJ	Roots, tap at joint	00:00:12	2	4
	0.32	FLJ	Fracture, longitudinal at joint at 3 o'clock	00:00:12	3	3 / 2
	1.64	FC	Fracture, circumferential from 9 o'clock to 3 o'clock	00:00:18	4	3 / 2
	2.77	WL	Water level, 5% of the vertical dimension	00:00:23		
	2.77	S01 FLJ	Fracture, longitudinal at joint at 11 o'clock, start	00:00:23	5	
	3.19	S03 FL	Fracture, longitudinal at 5 o'clock, start	00:00:24	6	
	3.19	S02 FL	Fracture, longitudinal at 8 o'clock, start	00:00:25		
	3.40	RFJ	Roots, fine at joint	00:00:25	7	2
	3.62	F02 FL	Fracture, longitudinal at 8 o'clock, finish	00:00:27		3 / 2
	3.71	F03 FL	Fracture, longitudinal at 5 o'clock, finish	00:00:27		3 / 2
	3.82	RT	Roots, tap	00:00:28	8	4
	3.82	FL	Fracture, longitudinal at 3 o'clock	00:00:28		3 / 2

Section Inspection - 23/12/2019

Section	Inspection	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
6	6	23/12/19	9:29	S/R 2335	Rain	Yes	Not Specified
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
STEPHEN MOSS				Push Rod	Not Specified	Private Drain	Not Specified

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		3.94	FM	Fractures, multiple from 12 o'clock to 12 o'clock	00:00:29	9	4 / 2
		4.08	S04	FL	Fracture, longitudinal at 7 o'clock, start	00:00:29	10
		4.27	RTJ	Roots, tap at joint	00:00:30	11	4
		4.47	F01	FLJ	Fracture, longitudinal at joint at 11 o'clock, finish	00:00:29	3 / 2
		4.47	F04	FL	Fracture, longitudinal at 7 o'clock, finish	00:00:31	3 / 2
		4.93	MHF	Finish node type, manhole, reference number: CWMH 03	00:00:37	12	
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
9	280.0	89.2	440.0	4.0	13	9.0	5.3	26.0	4.0

Section Pictures - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
6	Downstream		S/R 2335	



1, 00:00:12, 0.14 m
Fracture, longitudinal at joint at 9 o'clock



2, 00:00:12, 0.32 m
Roots, tap at joint



3, 00:00:12, 0.32 m
Fracture, longitudinal at joint at 3 o'clock



4, 00:00:18, 1.64 m
Fracture, circumferential from 9 o'clock to 3 o'clock

Section Pictures - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
6	Downstream		S/R 2335	



5, 00:00:23, 2.77 m
Fracture, longitudinal at joint at 11 o'clock, start



6, 00:00:24, 3.19 m
Fracture, longitudinal at 5 o'clock, start



7, 00:00:25, 3.40 m
Roots, fine at joint



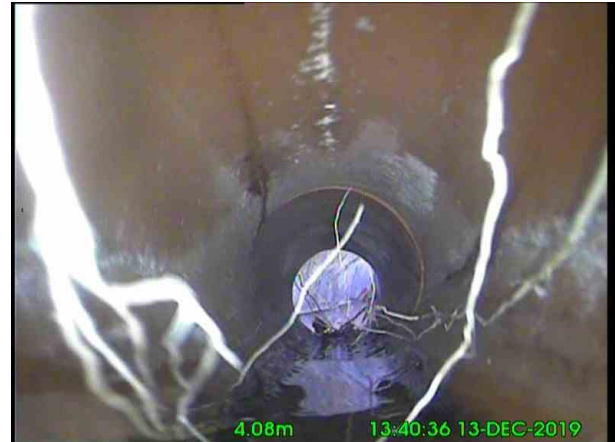
8, 00:00:28, 3.82 m
Roots, tap

Section Pictures - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
6	Downstream		S/R 2335	



9, 00:00:29, 3.94 m
Fractures, multiple from 12 o'clock to 12 o'clock



10, 00:00:29, 4.08 m
Fracture, longitudinal at 7 o'clock, start



11, 00:00:30, 4.27 m
Roots, tap at joint



12, 00:00:37, 4.93 m
Finish node type, manhole, reference number: CWMH 03



Section Inspection - 23/12/2019

Section 7	Inspection 7	Date 23/12/19	Time 9:52	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

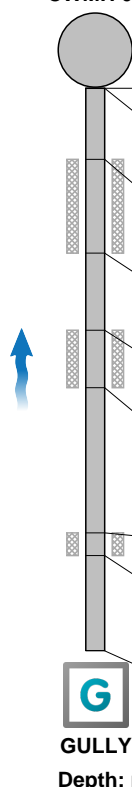
Town or Village:	Camden	Inspection Direction:	Upstream	Upstream Node:	GULLY
Road:	St John'S Wood Park	Inspected Length:	3.72 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	3.72 m	Downstream Node:	CWMH 03
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50 Position [m] Code Observation MPEG Photo Grade

Depth: m
CWMH 03



0.00	MH	Start node type, manhole, reference number: CWMH 03	00:00:00
0.00	WL	Water level, 0% of the vertical dimension	00:00:13
0.47	S01	LL Line deviates left, start	00:00:17
1.09	F01	LL Line deviates left, finish	00:00:19
1.60	S02	LR Line deviates right, start	00:00:22
1.98	F02	LR Line deviates right, finish	00:00:25
2.94	S03	LR Line deviates right, start	00:00:31
3.09	F03	LR Line deviates right, finish	00:00:33
3.72	GYF	Finish node type, gully, reference number: GULLY: GULLY TRAP REACHED	00:00:40

1

2

3

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 - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
7	Upstream		S/R 2335	



1, 00:00:17, 0.47 m
Line deviates left, start



2, 00:00:22, 1.60 m
Line deviates right, start



3, 00:00:40, 3.72 m
Finish node type, gully, reference number: GULLY, GULLY
TRAP REACHED



Section Inspection - 23/12/2019

Section 8	Inspection 8	Date 23/12/19	Time 9:58	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Camden	Inspection Direction:	Downstream	Upstream Node:	CWMH 03
Road:	St John'S Wood Park	Inspected Length:	2.59 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	2.59 m	Downstream Node:	CWMH 04
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
<p>Depth: m CWMH 03</p> <p>0.00</p> <p>0.00</p> <p>0.01</p> <p>1.56</p> <p>2.03</p> <p>2.15</p> <p>2.59</p> <p>CWMH 04 Depth: m</p>						
	0.00	MH	Start node type, manhole, reference number: CWMH 03	00:00:00		
	0.00	WL	Water level, 0% of the vertical dimension	00:00:05		
	0.01	FC	Fracture, circumferential from 7 o'clock to 12 o'clock	00:00:12	1	3 / 2
	1.56	S01	FLJ	Fracture, longitudinal at joint at 12 o'clock, start	00:00:18	2
	2.03	F01	FLJ	Fracture, longitudinal at joint at 12 o'clock, finish	00:00:21	3 / 2
	2.15	FC	Fracture, circumferential from 7 o'clock to 3 o'clock	00:00:22	3	3 / 2
	2.59	MHF	Finish node type, manhole, reference number: CWMH 04	00:00:27	4	

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
3	40.0	46.9	120.0	3.0	3	1.0	1.2	3.0	2.0

Section Pictures - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
8	Downstream		S/R 2335	



1, 00:00:12, 0.01 m
Fracture, circumferential from 7 o'clock to 12 o'clock



2, 00:00:18, 1.56 m
Fracture, longitudinal at joint at 12 o'clock, start



3, 00:00:22, 2.15 m
Fracture, circumferential from 7 o'clock to 3 o'clock



4, 00:00:27, 2.59 m
Finish node type, manhole, reference number: CWMH 04



Section Inspection - 23/12/2019

Section 9	Inspection 9	Date 23/12/19	Time 10:03	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Camden	Inspection Direction:	Downstream	Upstream Node:	CWMH 04
Road:	St John'S Wood Park	Inspected Length:	3.24 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	198.00 m	Downstream Node:	CWMH 05
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:1722 Position [m] Code Observation MPEG Photo Grade

Depth: m
CWMH 04



0.00

MH

Start node type, manhole, reference number: CWMH 04

00:00:00

0.00

WL

Water level, 0% of the vertical dimension

00:00:08

0.01

MCEP

Pipe material changes to epoxy at this point: LINER STARTS

00:00:00

1

1.44

WL

Water level, 10% of the vertical dimension

00:00:22

1.58

WL

Water level, 50% of the vertical dimension

00:00:22

1.70

S01

CUW

Loss of vision, camera under water, start

00:00:22

3.00

F01

CUW

Loss of vision, camera under water, finish

00:00:33

3.23

REM

General remark: BACK DROP

00:00:35

2

3.24

MHF

Finish node type, manhole, reference number: CWMH 05: IN BACK DROP

00:00:42

3

CWMH 05
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 - 23/12/2019

Section 9	Inspection Direction Downstream	PLR	Client's Job Ref S/R 2335	Contractor's Job Ref
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1, 00:00:00, 0.01 m
Pipe material changes to epoxy at this point, LINER STARTS



2, 00:00:35, 3.23 m
General remark, BACK DROP



3, 00:00:42, 3.24 m
Finish node type, manhole, reference number: CWMH 05, IN
BACK DROP



Section Inspection - 23/12/2019

Section 10	Inspection 10	Date 23/12/19	Time 10:19	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Camden	Inspection Direction:	Upstream	Upstream Node:	UNKNOWN
Road:	St John'S Wood Park	Inspected Length:	0.02 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	0.02 m	Downstream Node:	CWMH 06
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50 Position [m] Code Observation MPEG Photo Grade

Depth: m
CWMH 06



0.00

MH

Start node type, manhole, reference number: CWMH 06

00:00:00

0.01

REM

General remark: UNABLE TO CAMERA DUE TO DEPTH

00:00:00

0.02

SA

Survey abandoned: UNABLE TO CCTV

00:00:00

1

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 - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
10	Upstream		S/R 2335	



1, 00:00:00, 0.02 m

Survey abandoned, UNABLE TO CCTV



Section Inspection - 23/12/2019

Section 11	Inspection 11	Date 23/12/19	Time 10:28	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Camden	Inspection Direction:	Upstream	Upstream Node:	UNKNOWN
Road:	St John'S Wood Park	Inspected Length:	6.92 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	6.92 m	Downstream Node:	CWMH 06
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:61	Position [m]	Code	Observation	MPEG	Photo	Grade
	0.00	MH	Start node type, manhole, reference number: CWMH 06	00:00:00		
	0.00	WL	Water level, 0% of the vertical dimension	00:00:00		
	0.00	WL	Water level, 0% of the vertical dimension	00:00:02		
	0.01	WL	Water level, 20% of the vertical dimension	00:00:12		
	1.45	WL	Water level, 10% of the vertical dimension	00:00:19		
	3.04	S01	DES Settled deposits, fine, 5% cross-sectional area loss, start	00:00:27	1	
	3.55	WL	Water level, 5% of the vertical dimension	00:00:29		
	4.27	F01	DES Settled deposits, fine, 5% cross-sectional area loss, finish	00:00:33		3
	4.39	WL	Water level, 5% of the vertical dimension	00:00:33		
	5.52	S02	DES Settled deposits, fine, 5% cross-sectional area loss, start	00:00:37	2	
	6.91	F02	DES Settled deposits, fine, 5% cross-sectional area loss, finish	00:01:00		3
	6.92	SA	Survey abandoned: UNABLE TO PASS DEBRIS	00:01:00	3	

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	2	2.0	1.2	8.0	3.0

Section Pictures - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
11	Upstream		S/R 2335	



1, 00:00:27, 3.04 m
Settled deposits, fine, 5% cross-sectional area loss, start



2, 00:00:37, 5.52 m
Settled deposits, fine, 5% cross-sectional area loss, start



3, 00:01:00, 6.92 m
Survey abandoned, UNABLE TO PASS DEBRIS



Section Inspection - 23/12/2019

Section 12	Inspection 12	Date 23/12/19	Time 10:30	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Camden	Inspection Direction:	Upstream	Upstream Node:	GULLY
Road:	St John'S Wood Park	Inspected Length:	5.16 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	5.16 m	Downstream Node:	CWMH 06
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m CWMH 06 						
	0.00	MH	Start node type, manhole, reference number: CWMH 06	00:00:00		
	0.00	WL	Water level, 0% of the vertical dimension	00:00:08		
	3.08	RMJ	Roots, mass at joint, 10% cross-sectional area loss	00:00:24	1	3
	3.22	MCEP	Pipe material changes to epoxy at this point: LINER STARTS	00:00:26	2	
	3.40	S01 LL	Line deviates left, start	00:00:28		
	3.83	F01 LL	Line deviates left, finish	00:00:30		
	4.09	S02 LXWM	Defective lining, wrinkled (complex) from 12 o'clock to 12 o'clock, start	00:00:32		
	5.11	F02 LXWM	Defective lining, wrinkled (complex) from 12 o'clock to 12 o'clock, finish	00:00:38		
	5.16	MCVC	Pipe material changes to vitrified clay at this point: LINER ENDS	00:00:39		
	5.16	GYF	Finish node type, gully, reference number: GULLY	00:00:44		
Depth: m GULLY						

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	4.0	0.8	4.0	3.0

Section Pictures - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
12	Upstream		S/R 2335	



1, 00:00:24, 3.08 m
Roots, mass at joint, 10% cross-sectional area loss



2, 00:00:26, 3.22 m
Pipe material changes to epoxy at this point, LINER STARTS



Section Inspection - 23/12/2019

Section 13	Inspection 13	Date 23/12/19	Time 10:33	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Camden	Inspection Direction:	Downstream	Upstream Node:	CWMH 06
Road:	St John'S Wood Park	Inspected Length:	10.95 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	10.95 m	Downstream Node:	CWMH 05
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Polyvinyl chloride		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:96	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m CWMH 06	0.00	MH	Start node type, manhole, reference number: CWMH 06	00:00:00		
	0.00	WL	Water level, 0% of the vertical dimension	00:00:16		
	0.51	WL	Water level, 5% of the vertical dimension	00:00:16		
	0.75	JN	Junction at 10 o'clock, diameter: 100mm	00:00:18	1	
	2.11	MCXI	Pipe material changes to an unidentified type of plastic at this point: BLACK PVC	00:00:26	2	
	8.16	S01 RF	Roots, fine, start	00:01:01	3	
	10.63	MCVC	Pipe material changes to vitrified clay at this point	00:01:21	4	
	10.91	JN	Junction at 9 o'clock, diameter: 100mm	00:01:23	5	
	10.92	DES	Settled deposits, fine, 100% cross-sectional area loss: SILT	00:01:23	6	5
	10.92	F01 RF	Roots, fine, finish	00:01:23		2
	10.95	SA	Survey abandoned: UNABLE TO PASS DEBRIS	00:00:00	7	

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	2	11.0	1.2	13.0	5.0

Section Pictures - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
13	Downstream		S/R 2335	



1, 00:00:18, 0.75 m
Junction at 10 o'clock, diameter: 100mm



2, 00:00:26, 2.11 m
Pipe material changes to an unidentified type of plastic at this point, BLACK PVC



3, 00:01:01, 8.16 m
Roots, fine, start



4, 00:01:21, 10.63 m
Pipe material changes to vitrified clay at this point

Section Pictures - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
13	Downstream		S/R 2335	



5, 00:01:23, 10.91 m
Junction at 9 o'clock, diameter: 100mm



6, 00:01:23, 10.92 m
Settled deposits, fine, 100% cross-sectional area loss, SILT



7, 00:00:00, 10.95 m
Survey abandoned, UNABLE TO PASS DEBRIS



Section Inspection - 23/12/2019

Section 14	Inspection 14	Date 23/12/19	Time 10:37	Client's Job Ref S/R 2335	Weather Rain	Pre Cleaned Yes	PLR Not Specified
Operator STEPHEN MOSS		Vehicle		Camera Push Rod	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Camden	Inspection Direction:	Upstream	Upstream Node:	WC
Road:	St John'S Wood Park	Inspected Length:	2.96 m	Upstream Pipe Depth:	
Location:	Property with buildings	Total Length:	2.96 m	Downstream Node:	CWMH 06
Surface Type:		Joint Length:	0.00 m	Downstream Pipe Depth:	
Use:	Combined	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm	Width:	100 mm
Year Constructed:		Material:	Vitrified clay pipe		
Flow Control:	No flow control	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection of condition	Lining Material:	No Lining		

Comments:
Recommendations:

Scale: 1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m CWMH 06	0.00	MH	Start node type, manhole, reference number: CWMH 06	00:00:00		
	0.00	WL	Water level, 0% of the vertical dimension	00:00:05		
	0.01	MCEP	Pipe material changes to epoxy at this point: LINER STARTS	00:00:05	1	
	0.08	S01	LXWM Defective lining, wrinkled (complex) from 9 o'clock to 3 o'clock, start	00:00:13	2	
	0.08	S02	LL Line deviates left, start	00:00:13	3	
	1.17	F02	LL Line deviates left, finish	00:00:23		
	1.17	S03	DES Settled deposits, fine, 5% cross-sectional area loss, start	00:00:23	4	
	1.87	S04	LR Line deviates right, start	00:00:26	5	
	2.95	F04	LR Line deviates right, finish	00:01:10		
	2.95	F03	DES Settled deposits, fine, 5% cross-sectional area loss, finish	00:01:10		3
	2.95	F01	LXWM Defective lining, wrinkled (complex) from 9 o'clock to 3 o'clock, finish	00:01:10		
	2.96	SA	Survey abandoned: UNABLE TO PASS DAMAGE LINER	00:01:10	6	

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	1.4	4.0	3.0

Section Pictures - 23/12/2019

Section	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
14	Upstream		S/R 2335	



1, 00:00:05, 0.01 m

Pipe material changes to epoxy at this point, LINER STARTS



2, 00:00:13, 0.08 m

Defective lining, wrinkled (complex) from 9 o'clock to 3 o'clock, start



3, 00:00:13, 0.08 m

Line deviates left, start



4, 00:00:23, 1.17 m

Settled deposits, fine, 5% cross-sectional area loss, start

Section Pictures - 23/12/2019

Section 14	Inspection Direction Upstream	PLR	Client's Job Ref S/R 2335	Contractor's Job Ref
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5, 00:00:26, 1.87 m
Line deviates right, start



6, 00:01:10, 2.96 m
Survey abandoned, UNABLE TO PASS DAMAGE LINER

APPENDIX 4.0

PREVIOUS SUBSIDENCE REPORT

Certificate of Structural Adequacy

Issued to Mr & Mrs Dubiner in respect of work carried out at:

7 St Johns Wood Park

London

NW8 6QS

Date of Issue: 22 August 2014

Terms of Appointment:

We were instructed by Axa Insurance to investigate and report on subsidence damage to the above property, recommend mitigation (as necessary) and to arrange repairs under the terms of the buildings insurance policy.

We have only examined the part of the building relating to this particular episode of foundation movement. We have not extended our inspection to other parts of the structure and cannot comment on their adequacy or otherwise. Our report should not be used in the same way as a pre-purchase survey.

1. Area of damage to the property:

The areas affected by the subsidence were to the front garden, driveway and porch.

2. Cause of damage to the property:

This is to certify that, as required by our Terms of Appointment, we have appraised the property as regards to the above damage which in our professional opinion has been caused by subsidence due to root-induced clay shrinkage.

3. Mitigation Measures:

Mitigation action included removal of the insured's vegetation. There was also vegetation implicated belonging to the Local authority and they have been placed on notice for future damage.

This was taken on our professional advice to remove or minimise the cause of damage identified under Section 2 above.

The property was monitored by us following the removal of the insured's vegetation and stability was achieved.

4. Superstructure repairs/redecoration:

Repair work has been undertaken to the property. The works consisted generally of crack repairs all as detailed on the schedule of works.

The work was undertaken by Harcross Specialist Contractors in August 2014.

Chartered Loss Adjusters

A purchaser may seek continued cover from the current insurer, which is often possible subject to satisfactory completion of a Proposal Form.

This certificate is a considered professional opinion and is not a warranty or guarantee as regards the works undertaken, and no liability shall attach to us except to the extent that we have failed to exercise reasonable skill, care and diligence in the provision of our services under the Terms of Appointment. This certificate does not in any way increase our liability beyond that agreed under the Terms of Appointment. This certificate is not a certificate of design of construction as defined in *The Building Act 1984* and *The Building (Approved Inspectors, etc) Regulations*.

This certificate is for the sole benefit of the above named Client and may not be relied upon by any other person whatsoever. Transfer of the benefit of this Certificate to any party other than the Client to whom it is addressed will only be permitted with the written permission of the Crawford & Company, for which an administration fee will be charged.

Harpal Gillar

Crawford & Company Adjusters (UK) Ltd

Specialist Property Services – Subsidence Division

Direct Dial: 01923 471 783

Direct Fax: 0121 200 0309

subsidence@crowco.co.uk

Chartered Loss Adjusters

Crawford & Co UK Ltd
QUOTATION:- RN026015-HSC1
Contractor : Harcross Specialist Contractors, Schedule First Created : 16/08/2013
Mr and Mrs Dubiner, 7 St Johns Wood Park, London, NW8 6QS

File Status On Going

CLAIM DETAILS

Reference Number	RN026015-HSC1
Insured	Mr and Mrs Dubiner
Address	7 St Johns Wood Park London NW8 6QS
Postcode	NW8 6QS
Contact Number(s)	07974 923 454
Date & Time of Visit	23/05/2013@09:30am
Prepared By	Chris Sherwin
Contractor Name	Harcross Specialist Contractors Ltd
Insurer Name	Axa

DESCRIPTION OF PROPERTY

Type of Property	Detached
Condition	Average
Age of Property	1910
No. of Storeys	3
No. of Bedrooms	4
Cladding Material	Brick
Roof Type	Hipped
Roof Covering	Tile (Clay)

CAUSE OF DAMAGE

Subsidence - Movement has occurred to the porch structure, block paving and front boundary wall.

RECOMMENDATION

1. Repairs to porch structure.
2. Lift and Relay area of block paving.
3. Take down and rebuild section of Front Boundary wall.

UNINSURED WORKS DECLARATION

None.

HAZARD DECLARATION

1.0 The Insured	
1.1 To remain in residence	yes
1.2 Access required during work	no
1.3 Any specific Health problems to be aware of	no
1.4 Any other Safety requirements/problems	no
2.0 The Premises/Site	
2.1 Adjacent Land Users - Schools, etc.	no

2.2 Existing Services - Underground/Overhead	no
2.3 Stability issues	no
2.4 Shared boundaries/Party walls	no
2.5 Trees/Plants	no
2.6 Proximity to Railway, Road, Public footpath, Water Courses, etc.	no
2.7 Topography	no
2.8 Domestic Animals/Farm Animals/Wildlife	no
2.9 Asbestos products	no
2.10 Fragile Materials	no
2.11 Other	no

3.0 The Works	
3.1 Demolition	no
3.2 Underpinning	no
3.3 Piling Work	no
3.4 Dust, fumes, etc.	no
3.5 Working at Height	no
3.6 Access for plant and equipment	no
3.7 Deliveries/Parking/Skips	no
3.8 Working in confined spaces	no
3.9 Adjacent structures	no
3.10 Excavations	no
3.11 Health hazards	no
3.12 Basements/Cellars	no
3.13 Materials - Storage and Disposal and Handling	no
3.14 Plant and Machinery Risks	no
3.15 Noise	no

4.0 The Design	
4.1 Materials	no
4.2 Future Maintenance	no
4.3 Specific Cleaning requirements	no
4.4 Access difficulties	no
4.5 Specific Site Rules	no
4.6 Ground conditions	no
4.7 Services	no
4.8 Hazardous substances	no

Additional information on hazards identified above No significant hazards noted at the time of our inspection.

DECLARATION

I confirm that there are no significant hazards on this Job yes

CDM

1. Will the Work last Longer than 30 working days?	no
2. Is the Work more than 500 person days?	no
3. Does the work involve any Demolition or High Risk?	no

Section A - Please confirm for Non-Notifiable Projects only

That you will comply with all required conditions of the CDM 2007 Regulations pertaining to non- Notifiable Projects. yes

That Crawford and Company will be notified by you immediately of ALL Accidents, Diseases and Dangerous Occurrences associated with construction works. yes

IN ACCORDANCE WITH THE REQUIREMENTS OF CDM 2007

You will put in place reasonable management arrangements to ensure that the project can be undertaken safely? **yes**

Provide a brief description of your control measures to ensure all operatives are fully aware of site procedure, risk assessment, have all correct tools, access equipment and PPE. **In accordance with our Company Health & Safety Policy / Procedures.**

You have made suitable welfare provision. **yes**
 You will ensure that the work place complies with the requirements of part 4 of the CDM Regs - Duties relating to Health and Safety on construction sites with regard to such as traffic routes, temperature, welfare, lighting etc. **yes**

-	Item	Description	No	Unit	Rate	Total
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GENERAL DEBRIS

1	(W171) Debris Removal, - Small Skip (4m3) for the removal of redundant materials not included for in rates or in General Preliminaries, (see Pricing Guidelines) To include all necessary labour, transport and tipping charges. Debris Removal - NOTE: A skip will not be used as the drive is going to be lifted / relaid. We will remove the debris using our collection vehicle. A skip may cause further distortion to the driveway.	1	Number		
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PORTALOO

1	(W175) Site Welfare, - Allow a PC Sum for Site Welfare costs over and above that included in General Preliminaries. State reasons why and list what additional welfare is to be provided in the Text Box below. Dated digital photo evidence of Additional Welfare in place on site to be provided. (detailed costing to be provided) Sum to be as agreed by the claim handler or adjuster; supplier s invoices to be submitted on request. (Please Insert Sum Value Exclusive of VAT but Inclusive of OHP and Attendance as Quantity) Provisional Sum for Portaloo for duration of works. Sum includes OHP.		Sum		
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EXTERNAL FRONT GARDEN

1	(Custom) Sum for carefully removing coping stone to L.H pier, set aside and relay on completion of works to wall. Custom	1	Sum		
2	(D141) External Wall Structure One Brick, - Take down 220mm thick brick wall to line of fracture, prepare existing horizontal joints for raising, (debris removal not Included) Section of front boundary wall.	2	Sq		
3	(D142) External Wall Structure One Brick, - Clean off existing 220mm thick wall at line of fracture and prepare existing structure to block bond new work. Vertical Joint, (debris removal not included) Foundation level.	3	Metre		
4	(D145) External Wall Structure One Brick, - Lay only facing bricks in cement mortar to form 220mm thick walls. Section of front boundary wall.	2	Sq		
5	(D156) External Wall Structure Pier, - Take down and remove Pier, 215 mm wide x 215 mm, (debris removal not included) Measure height of pier. Item doubled as L.H pier is approximately 450mm x 450mm.	1.5	Metre		

6	(D176) External Wall Structure Pier, - Lay only facing or engineering bricks to form Pier, 215 x 215 mm. Measure height of pier		
	Item doubled as L.H pier is approximately 450mm x 450mm.	1.5	Metre
7	(D180) External Wall Structure Pier, - Supply facing or engineering bricks. Sum to be as agreed by the claim handler or adjuster; supplier s invoices to be submitted on request. (Please Insert Sum Value Exclusive of VAT but Inclusive of OHP and Attendance as Quantity)		
	Provisional Sum for new bricks to match existing as close as possible. Sum includes OHP.		Sum

DRIVEWAY

1	(X135) Concrete Block Hard standings, - Take up concrete block paving, - 200mm x 100mm x 65mm thick, including all excavations in normal ground with no obstructions. Store on site for reuse or dispose of (Excludes debris disposal) Area of block paving to L.H.S of driveway including area around porch. Provisional Area.	15	Sq
2	(X139) Concrete Block Hard standings, - Lay only reclaimed or new rectangular coloured concrete block paving size 200 x 100 x 65 mm thick (all preparatory work to existing bases, edges or joints to existing surfaces and jointing sand are deemed included) Area of block paving to L.H.S of driveway including area around porch. Provisional Area.	15	Sq

FRONT ELEVATION - PORCH STRUCTURE

1	(Custom) Item for carrying out the following works: 1. Take down roof structure. 2. Remove columns / plinths and column / plinth detailing to both sides of front entrance door. 3. Take up York Stone Paviments. 4. Level existing base. 5. Lay York Stone Paviments 6. Refix columns / plinths and column / plinth detailing to both sides of front entrance door. 7. Refix roof structure. 8. Redecorate all affected surfaces. [Custom]	1	Sum
2	(Custom) Provisional Sum for replacement of unsalvagable materials. [Custom]	1	Sum

NetRate (June 2009)

Variation Sheet 1

	Date of Original Schedule:	14/08/2014	
Ref No:	RN026015-HSC1		
Insured:	Mr and Mrs Dubiner		
Address	7 St Johns Wood Park London		
REF	NETRATE ITEM DESCRIPTION	QNTY	UNIT
D141	External Wall Structure One Brick, - Take down 220mm thick brick wall to line of fracture, prepare existing horizontal joints for raising, (debris removal not Included)	2.20	
D145	External Wall Structure One Brick, - Lay only facing bricks in cement mortar to form 220mm thick walls.	2.20	Sq Metre
D156	External Wall Structure Pier, - Take down and remove Pier, 215 mm wide x 215 mm, (debris removal not included) Measure height of pier.	1.50	Metre
D176	External Wall Structure Pier, - Lay only facing or engineering bricks to form Pier, 215 x 215 mm. Measure height of pier	1.50	Metre
Z108	Daywork Labour, - Brick Gang (1+1)	8.00	Hour
D180	External Wall Structure Pier, - Supply facing or engineering bricks. Sum to be as agreed by the claim handler or adjuster; supplier's invoices to be submitted on request. (Please Insert Sum Value Exclusive of VAT but Inclusive of OHP and Attendance as Quantity)		Sum
X135	Concrete Block Paviers, - Take up concrete block paving, - 200mm x 100mm x 65mm thick, including all excavations in normal ground with no obstructions. Store on site for reuse or dispose of (Excludes debris disposal)	15.00	Sq Metre
X139	Concrete Block Paviers, - Lay only reclaimed or new rectangular coloured concrete block paving size 200 x 100 x 65 mm thick (all preparatory work to existing bases, edges or joints to existing surfaces and jointing sand are deemed included)	15.00	Sq Metre

NetRate (June 2009)

Variation Sheet 2

	Date of Original Schedule:		14/08/2014
Ref No:	RN026015-HSC1		
Insured:	Mr and Mrs Dubiner		
Address	7 St Johns Wood Park London		
REF	NETRATE ITEM DESCRIPTION	QNTY	UNIT
W175	Site Welfare, - Allow a PC Sum for Site Welfare costs over and above that included in General Preliminaries. State reasons why and list what additional welfare is to be provided in the Text Box below. Dated digital photo evidence of Additional Welfare in place on site to be provided. (detailed costing to be provided) Sum to be as agreed by the claim handler or adjuster; supplier's invoices to be submitted on request. (Please Insert Sum Value Exclusive of VAT but Inclusive of OHP and Attendance as Quantity)	OMITTED	Sum
W175	Site Welfare, - Allow a PC Sum for Site Welfare costs over and above that included in General Preliminaries. State reasons why and list what additional welfare is to be provided in the Text Box below. Dated digital photo evidence of Additional Welfare in place on site to be provided. (detailed costing to be provided) Sum to be as agreed by the claim handler or adjuster; supplier's invoices to be submitted on request. (Please Insert Sum Value Exclusive of VAT but Inclusive of OHP and Attendance as Quantity)	ACTUAL SUM	Sum
Custom	Provisional sum for unsalvagable materials	OMITTED	Sum
Custom	Cost to supply new yorkstone	ACTUAL SUM	Sum
D180	External Wall Structure Pier, - Supply facing or engineering bricks. Sum to be as agreed by the claim handler or adjuster; supplier's invoices to be submitted on request. (Please Insert Sum Value Exclusive of VAT but Inclusive of OHP and Attendance as Quantity)	OMITTED	Sum
D180	External Wall Structure Pier, - Supply facing or engineering bricks. Sum to be as agreed by the claim handler or adjuster; supplier's invoices to be submitted on request. (Please Insert Sum Value Exclusive of VAT but Inclusive of OHP and Attendance as Quantity)	ACTUAL SUM	Sum
Z102	This item is required to provide necessary alternation to the driveway corners. This is result of the root penetration	16.00	Hour
Z112	Cost for the additional paving blocks		Sum
Custom) Item for carrying out the following works: 1. Take down roof structure. 2. Remove columns / plinths and column / plinth detailing to both sides of front entrance door. 3. Take up York Stone Paviours. 4. Level existing base. 5. Lay York Stone Paviours 6. Refix columns / plinths and column / plinth detailing to both sides of front entrance door. 7. Refix roof structure. 8. Redecorate all affected surfaces.	OMITTED	Sum
Custom) Item for carrying out the following works: 1. Take down roof structure. 2. Remove columns / plinths and column / plinth detailing to both sides of front entrance door. 3. Take up York Stone Paviours. 4. Level existing base. 5. Lay York Stone Paviours 6. Refix columns / plinths and column / plinth detailing to both sides of front entrance door. 7. Refix roof structure. 8. Redecorate all affected surfaces.	ACTUAL SUM	Sum

RIGBY & RIGBY