

Drainage Investigation Report

For Subsidence Management Services

Client Aviva

Risk Address: 112 Mount View Road, London, N4 4JX

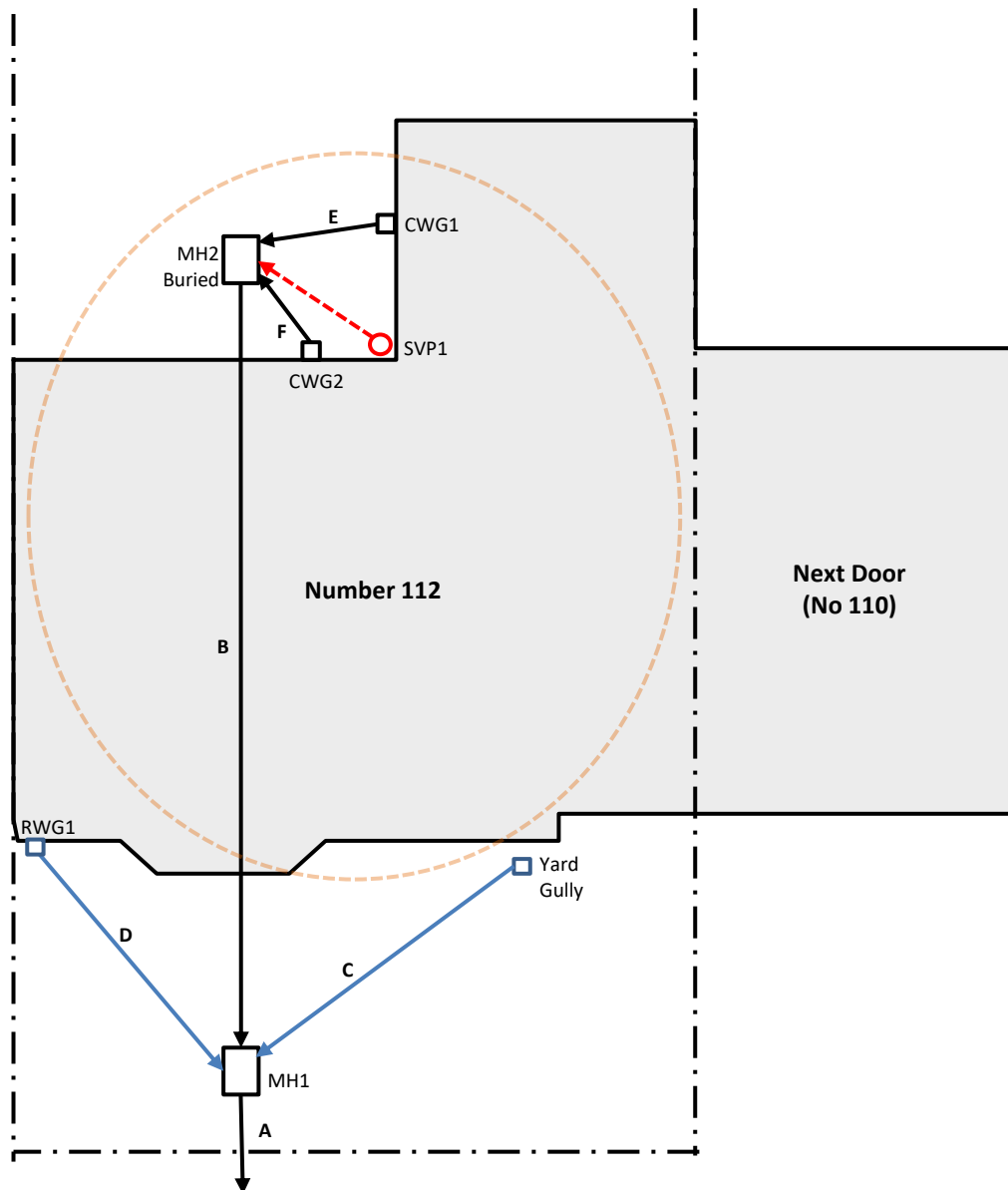
Visit Date: 22/06/2021

Client Reference: IFS-AVI-SUB-20-0089882

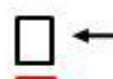
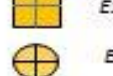
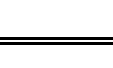
Our Reference: C58449 D19607

Report Date: 28/06/2021

Report Content: Front Page
Site Plan
CCTV Coding
Drain Overview
Quote



Key

	Tree		Building		Combined Drains		Unsurveyed Drains
	Shrubs		Water Supply		Foul Drains		Excavation
	Bushes		Launch Pit		Storm Drains		Area of Concern
	Boundary		Stop Valve		WC		
			Soak-Away		Exploratory Hole		
					Bore Hole		

Notes:

Address:

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RUN	Start From :	MH1	Finish at :	Main	Pipe Ø:	100mm
A	Invert Level (m):	2.82	Invert Level (m):	n/a	Material:	Clay
COMBINED	Condition grade:	A	Direction:	Downstream	Responsibility:	Home Owner / LWA
<i>Distance</i>	<i>Code</i>	<i>Hydraulic Test - Not Tested</i>				
0.00	SN	Start Node from MH1				
1.09	REM	Remark - At Boundary Line				
6.88	DC	Dimension of drain changes at this point to 150mmØ				
7.38	FN	Finish Node at Main				
RUN	Start From :	MH1	Finish at :	MH2	Pipe Ø:	150mm
B	Invert Level (m):	2.82	Invert Level (m):	n/a	Material:	Clay
COMBINED	Condition grade:	B	Direction:	Upstream	Responsibility:	Home Owner
<i>Distance</i>	<i>Code</i>	<i>Hydraulic Test - Not Tested</i>				
0.00	SN	Start Node from MH1				
1.10	OJM	Open Joint (medium)				
1.10	FC	Fracture Circumferential				
2.35	OJM	Open Joint (medium)				
4.56	OJM	Open Joint (medium)				
4.56	FC	Fracture Circumferential				
14.02	FN	Finish Node at MH2 (Buried)				
RUN	Start From :	MH1	Finish at :	Yard Gully	Pipe Ø:	100mm
C	Invert Level (m):	2.82	Invert Level (m):	n/a	Material:	Clay
STORM	Condition grade:	C	Direction:	Upstream	Responsibility:	Home Owner
<i>Distance</i>	<i>Code</i>	<i>Hydraulic Test - Not Tested</i>				
0.00	SN	Start Node from MH1				
0.19	JDM	Joint Displaced (Medium)				
0.43	CC	Crack Circumferential				
0.85	CC	Crack Circumferential				
1.06	JDM	Joint Displaced (Medium)				
1.20	CC	Crack Circumferential				
1.56	JDL	Joint Displaced (Large)				
1.98	JDM	Joint Displaced (Medium)				
2.00	CM	Cracks Multiple				
2.55	JDL	Joint Displaced (Large)				
2.55	CM	Cracks Multiple				
2.93	CM	Cracks Multiple				
3.23	CM	Cracks Multiple				
3.30	FC	Fracture Circumferential				
3.46	JDM	Joint Displaced (Medium)				
3.46	CM	Cracks Multiple				
3.95	CC	Crack Circumferential				
4.00	JDM	Joint Displaced (Medium)				
4.00	FN	Finish Node at Yard Gully				

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Following the receipt of your instruction, we attended site to carry out a CCTV survey.

The CCTV survey was undertaken in general accordance with the Manual of Sewer Classification and the WRc Drain Repair Book.

The following presents a summary of the findings with recommendations to repair and/or return the drains to a serviceable state, where necessary.

Drain Run A: MH1 Downstream to Main

Pipe Diameter: 100mm

Responsibility: Home Owner to boundary and Local Water Authority thereafter

Hydraulic Pressure Test: Not Tested

CCTV Survey Result: No structural damage

Recommended Repair: No repairs have been recommended as the drain line was found to be free from defects.

Drain Run B: MH1 Upstream to FMH2

Pipe Diameter: 150mm

Responsibility: Home Owner

Hydraulic Pressure Test: Not Tested

CCTV Survey Result: Structural damage

Recommended Repair:

- 1) To prepare the drain line and insert 5m of structural liner to cover defects (150mm).

Drain Run C: MH1 Upstream to Yard Gully

Pipe Diameter: 100mm

Responsibility: Home Owner

Hydraulic Pressure Test: Not Tested

CCTV Survey Result: Structural damage

Recommended Repair:

- 1) To excavate and replace existing gully including 1m of adjacent pipework.
- 2) To prepare the drain line and insert 4m of structural liner to cover defects.

Drain Run D: MH1 Upstream to RWG1

Pipe Diameter: 100mm

Responsibility: Home Owner

Hydraulic Pressure Test: Not Tested

CCTV Survey Result: Structural damage

Recommended Repair:

- 1) To excavate and replace existing gully including 1m of adjacent pipework.
- 2) To prepare the drain line and insert 5m of structural liner to cover defects.

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Drain Run E: CWG1 Downstream to MH2**Pipe Diameter:** 100mm**Responsibility:** Home Owner**Hydraulic Pressure Test:** Not Tested**CCTV Survey Result:** Structural damage**Recommended Repair:**

- 1) To excavate and replace existing gully including 1m of adjacent pipework.

Drain Run F: CWG2 Downstream to MH2**Pipe Diameter:** 100mm**Responsibility:** Home Owner**Hydraulic Pressure Test:** Not Tested**CCTV Survey Result:** Structural damage**Recommended Repair:**

- 1) To excavate and replace existing gully including 1m of adjacent pipework.

SVP1

We were unable to CCTV survey the SVP line as MH2 is buried and the stack pipe is cast iron. Therefore we would recommend replacing the rest bend so that a further CCTV survey can be undertaken:

- 1) To excavate and replace existing Rest bend at base of SVP including 1m of adjacent pipe work.
- 2) To carry out a further look-see CCTV survey and report findings.

NOTE: The re-instatement will be carried out on a like-for-like basis but where concrete or tarmac has been re-instated these surfaces will not match to the existing surface and will be seen as its new material.

Water Main Test	From	To	Result	Notes
	ESV	ISV	PASS	No drop in 10 minutes

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RUN / LOCATION: RUN A

Repair Item	Description	Unit	Rate (£)	Quantity	Amount (£)
UK1133	Van pack HPWJ & CCTV in preparation of lining	nr	£148.44	1.00	£148.44
UK1135	Drain Lining - Initial Set-Up Fee (0-3.0m)	nr	£332.64	1.00	£332.64
UK1155	Drain Lining - 150mm. Install Structural liner into existing 150mm underground drain. 3mm wall thickness.	m	£63.44	2.00	£126.87
Total (Excl VAT)					£607.95

RUN / LOCATION: RUN C

Repair Item	Description	Unit	Rate (£)	Quantity	Amount (£)
UK0595	Gully, 225mm x 225mm. Remove existing and replace with new PVCu item. Bed, surround and backfill .	nr	£146.43	1.00	£146.43
UK0605	Excavate & remove isolated length. Replace in new 110mm PVCu. Bed, surround & backfill. n.e. 1000mm deep.	nr	£131.47	1.00	£131.47
UK0880	Short Radius Bend. Remove existing item and replace with new 110mm PVCu.	nr	£14.89	2.00	£29.78
UK1060	Extra over pipework for surrounding drain run in 100mm thick concrete.	m	£14.40	1.00	£14.40
UK0025	Protection Temporary works to floors, 1000 gauge polythene.	m2	£1.79	2.00	£3.59
UK8120300	Hardcore Filling to excavations over 250 mm average thick.	m	£35.35	1.00	£35.35
UK2050005	Disposal by hand excavated contaminated/saturated material off site.	m3	£45.30	1.00	£45.30
UK1050	Removal, disposal and reinstatement of concrete path / hardstanding n.e 100mm thick.	m2	£54.19	1.00	£54.19
UK1140	Drain Lining - 100mm. Install Structural liner into existing 100mm underground drain. 3mm Wall thickness.	m	£55.52	4.00	£222.06
Total (Excl VAT)					£682.58

RUN / LOCATION: RUN D

Repair Item	Description	Unit	Rate (£)	Quantity	Amount (£)
UK0010	Remove existing UPVC pipework in isolated lengths, refix with new 69mm UPVC pipework (incl. brackets).	nr	£14.25	1.00	£14.25
UK0015	Extra over for bends.	nr	£8.31	1.00	£8.31
UK0595	Gully, 225mm x 225mm. Remove existing and replace with new PVCu item. Bed, surround and backfill .	nr	£146.43	1.00	£146.43
UK0605	Excavate & remove isolated length. Replace in new 110mm PVCu. Bed, surround & backfill. n.e. 1000mm deep.	nr	£131.47	1.00	£131.47
UK0880	Short Radius Bend. Remove existing item and replace with new 110mm PVCu.	nr	£14.89	2.00	£29.78
UK1060	Extra over pipework for surrounding drain run in 100mm thick concrete.	m	£14.40	1.00	£14.40
UK0025	Protection Temporary works to floors, 1000 gauge polythene.	m2	£1.79	2.00	£3.59
UK8120300	Hardcore Filling to excavations over 250 mm average thick.	m	£35.35	1.00	£35.35
UK2050005	Disposal by hand excavated contaminated/saturated material off site.	m3	£45.30	1.00	£45.30
UK1050	Removal, disposal and reinstatement of concrete path / hardstanding n.e 100mm thick.	m2	£54.19	1.00	£54.19
UK1140	Drain Lining - 100mm. Install Structural liner into existing 100mm underground drain. 3mm Wall	m	£55.52	5.00	£277.58
Total (Excl VAT)					£760.65

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RUN / LOCATION: RUN E

Repair Item	Description	Unit	Rate (£)	Quantity	Amount (£)
UK0010	Remove existing UPVC pipework in isolated lengths, refix with new 69mm UPVC pipework (incl. brackets).	nr	£14.25	1.00	£14.25
UK0015	Extra over for bends.	nr	£8.31	1.00	£8.31
UK1120155	32/40mm waste pipes. Remove existing and replace with new PVCu. Fixed to masonry.	m	£9.60	1.00	£9.60
UK1120165	32/40mm waste pipes. Shoes / bends.	nr	£10.81	2.00	£21.61
UK0595	Gully, 225mm x 225mm. Remove existing and replace with new PVCu item. Bed, surround and backfill .	nr	£146.43	1.00	£146.43
UK0605	Excavate & remove isolated length. Replace in new 110mm PVCu. Bed, surround & backfill. n.e. 1000mm deep.	nr	£131.47	1.00	£131.47
UK0880	Short Radius Bend. Remove existing item and replace with new 110mm PVCu.	nr	£14.89	2.00	£29.78
UK1060	Extra over pipework for surrounding drain run in 100mm thick concrete.	m	£14.40	1.00	£14.40
UK0025	Protection Temporary works to floors, 1000 gauge polythene.	m2	£1.79	2.00	£3.59
UK8120300	Hardcore Filling to excavations over 250 mm average thick.	m	£35.35	1.00	£35.35
UK2050005	Disposal by hand excavated contaminated/saturated material off site.	m3	£45.30	1.00	£45.30
UK1045	Removal, set aside and reinstatement of concrete slab paving n.e 100mm thick.	m2	£24.61	1.00	£24.61
Total (Excl VAT)					£484.70

RUN / LOCATION: RUN F

Repair Item	Description	Unit	Rate (£)	Quantity	Amount (£)
UK0010	Remove existing UPVC pipework in isolated lengths, refix with new 69mm UPVC pipework (incl. brackets).	nr	£14.25	1.00	£14.25
UK0015	Extra over for bends.	nr	£8.31	1.00	£8.31
UK1120155	32/40mm waste pipes. Remove existing and replace with new PVCu. Fixed to masonry.	m	£9.60	1.00	£9.60
UK1120165	32/40mm waste pipes. Shoes / bends.	nr	£10.81	2.00	£21.61
UK0595	Gully, 225mm x 225mm. Remove existing and replace with new PVCu item. Bed, surround and backfill .	nr	£146.43	1.00	£146.43
UK0605	Excavate & remove isolated length. Replace in new 110mm PVCu. Bed, surround & backfill. n.e. 1000mm deep.	nr	£131.47	1.00	£131.47
UK0880	Short Radius Bend. Remove existing item and replace with new 110mm PVCu.	nr	£14.89	2.00	£29.78
UK1060	Extra over pipework for surrounding drain run in 100mm thick concrete.	m	£14.40	1.00	£14.40
UK0025	Protection Temporary works to floors, 1000 gauge polythene.	m2	£1.79	2.00	£3.59
UK8120300	Hardcore Filling to excavations over 250 mm average thick.	m	£35.35	1.00	£35.35
UK2050005	Disposal by hand excavated contaminated/saturated material off site.	m3	£45.30	1.00	£45.30
UK1045	Removal, set aside and reinstatement of concrete slab paving n.e 100mm thick.	m2	£24.61	1.00	£24.61
Total (Excl VAT)					£484.70

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RUN / LOCATION: SVP1

Repair Item	Description	Unit	Rate (£)	Quantity	Amount (£)
UK0650	Rest-bend. Remove existing and replace with new PVCu item. Bed, surround and backfill.	nr	£96.02	1.00	£96.02
UK0605	Excavate & remove isolated length. Replace in new 110mm PVCu. Bed, surround & backfill. n.e. 1000mm deep.	nr	£131.47	1.00	£131.47
UK0880	Short Radius Bend. Remove existing item and replace with new 110mm PVCu.	nr	£14.89	2.00	£29.78
UK1060	Extra over pipework for surrounding drain run in 100mm thick concrete.	m	£14.40	1.00	£14.40
UK0025	Protection Temporary works to floors, 1000 gauge polythene.	m2	£1.79	2.00	£3.59
UK8120300	Hardcore Filling to excavations over 250 mm average thick.	m	£35.35	1.00	£35.35
UK2050005	Disposal by hand excavated contaminated/saturated material off site.	m3	£45.30	1.00	£45.30
	CCTV survey of underground drainage & report (where undertaken as part of other drainage works on site)	nr	£165.00	1.00	£165.00
UK1045	Removal, set aside and reinstatement of concrete slab paving n.e 100mm thick.	m2	£24.61	1.00	£24.61
Total (Excl VAT)					£545.52

REPAIR ESTIMATE TOTALS:

Run / Location	Amount (£)
RUN B	£607.95
RUN C	£682.58
RUN D	£760.65
RUN E	£484.70
RUN F	£484.70
SVP1	£545.52
Total (Excl VAT)	£3,566.10

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