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## **QTS Environmental Report No: 15-35897**

**Site Reference:** 76 Fleet Road

**Project / Job Ref:** CGL5839

**Order No:** 5202

**Sample Receipt Date:** 28/09/2015

**Sample Scheduled Date:** 28/09/2015

**Report Issue Number:** 1

**Reporting Date:** 02/10/2015

**Authorised by:**

Russell Jarvis  
Director

**On behalf of QTS Environmental Ltd**

A handwritten signature in black ink, appearing to read 'R Jarvis', positioned next to the name and title of the authorized person.

**Authorised by:**

Kevin Old  
Director

**On behalf of QTS Environmental Ltd**

A handwritten signature in black ink, appearing to read 'K Old', positioned next to the name and title of the authorized person.



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Soil Analysis Certificate						
QTS Environmental Report No: 15-35897	Date Sampled	15/09/15	15/09/15	15/09/15	15/09/15	15/09/15
Chelmer Site Investigation Laboratories Ltd	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: 76 Fleet Road	TP / BH No	66594	66595	66597	66598	66600
Project / Job Ref: CGL5839	Additional Refs	BH1	BH1	BH1	BH2	BH2
Order No: 5202	Depth (m)	1.00	2.00	3.50	2.00	4.50
Reporting Date: 02/10/2015	QTSE Sample No	169283	169284	169285	169286	169287

Determinand	Unit	RL	Accreditation					
pH	pH Units	N/a	MCERTS	7.7	7.9	8.0	7.8	7.6
Total Sulphate as SO <sub>4</sub>	mg/kg	< 200	NONE	11240	2268	1051	983	12150
Total Sulphate as SO <sub>4</sub>	%	< 0.02	NONE	1.12	0.23	0.11	0.10	1.22
W/S Sulphate as SO <sub>4</sub> (2:1)	mg/l	< 10	MCERTS	1580	1140	656	283	2630
W/S Sulphate as SO <sub>4</sub> (2:1)	g/l	< 0.01	MCERTS	1.58	1.14	0.66	0.28	2.63
Total Sulphur	%	< 0.02	NONE	0.39	0.10	0.04	0.07	0.63
Ammonium as NH <sub>4</sub>	mg/kg	< 0.5	NONE	12	6.1	9	25.4	9.2
Ammonium as NH <sub>4</sub>	mg/l	< 0.05	NONE	1.20	0.61	0.90	2.54	0.92
W/S Chloride (2:1)	mg/kg	< 1	MCERTS	263	60	33	15	44
W/S Chloride (2:1)	mg/l	< 0.5	MCERTS	132	30.1	16.4	7.3	22
Water Soluble Nitrate (2:1) as NO <sub>3</sub>	mg/kg	< 3	MCERTS	1320	173	24	7	< 3
Water Soluble Nitrate (2:1) as NO <sub>3</sub>	mg/l	< 1.5	MCERTS	660	86.4	12.2	3.5	< 1.5
W/S Magnesium	mg/l	< 0.1	NONE	27	17	29	9.2	130

Analytical results are expressed on a dry weight basis where samples are dried at less than 30°C

Analysis carried out on the dried sample is corrected for the stone content

Subcontracted analysis <sup>(S)</sup>



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Soil Analysis Certificate						
QTS Environmental Report No: 15-35897	Date Sampled	15/09/15				
Chelmer Site Investigation Laboratories Ltd	Time Sampled	None Supplied				
Site Reference: 76 Fleet Road	TP / BH No	66602				
Project / Job Ref: CGL5839	Additional Refs	BH2				
Order No: 5202	Depth (m)	8.00				
Reporting Date: 02/10/2015	QTSE Sample No	169288				

Determinand	Unit	RL	Accreditation				
pH	pH Units	N/a	MCERTS	7.8			
Total Sulphate as SO <sub>4</sub>	mg/kg	< 200	NONE	3037			
Total Sulphate as SO <sub>4</sub>	%	< 0.02	NONE	0.30			
W/S Sulphate as SO <sub>4</sub> (2:1)	mg/l	< 10	MCERTS	1410			
W/S Sulphate as SO <sub>4</sub> (2:1)	g/l	< 0.01	MCERTS	1.41			
Total Sulphur	%	< 0.02	NONE	0.34			
Ammonium as NH <sub>4</sub>	mg/kg	< 0.5	NONE	16.1			
Ammonium as NH <sub>4</sub>	mg/l	< 0.05	NONE	1.61			
W/S Chloride (2:1)	mg/kg	< 1	MCERTS	42			
W/S Chloride (2:1)	mg/l	< 0.5	MCERTS	21			
Water Soluble Nitrate (2:1) as NO <sub>3</sub>	mg/kg	< 3	MCERTS	< 3			
Water Soluble Nitrate (2:1) as NO <sub>3</sub>	mg/l	< 1.5	MCERTS	< 1.5			
W/S Magnesium	mg/l	< 0.1	NONE	63			

Analytical results are expressed on a dry weight basis where samples are dried at less than 30°C  
Analysis carried out on the dried sample is corrected for the stone content  
Subcontracted analysis <sup>(S)</sup>



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Soil Analysis Certificate - Sample Descriptions	
QTS Environmental Report No: 15-35897	
Chelmer Site Investigation Laboratories Ltd	
Site Reference: 76 Fleet Road	
Project / Job Ref: CGL5839	
Order No: 5202	
Reporting Date: 02/10/2015	

QTSE Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
\$ 169283	66594	BH1	1.00	8.7	Brown gravelly sand with rubble
\$ 169284	66595	BH1	2.00	4.7	Brown gravelly clay with stones
\$ 169285	66597	BH1	3.50	20.6	Brown clay
\$ 169286	66598	BH2	2.00	22.8	Grey clay
\$ 169287	66600	BH2	4.50	20.6	Brown clay with crystalline material
\$ 169288	66602	BH2	8.00	19.5	Brown clay with crystalline material

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample <sup>I/S</sup>

Unsuitable Sample <sup>U/S</sup>

\$ samples exceeded recommended holding times



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<b>Soil Analysis Certificate - Methodology &amp; Miscellaneous Information</b>
<b>QTS Environmental Report No: 15-35897</b>
<b>Chelmer Site Investigation Laboratories Ltd</b>
<b>Site Reference: 76 Fleet Road</b>
<b>Project / Job Ref: CGL5839</b>
<b>Order No: 5202</b>
<b>Reporting Date: 02/10/2015</b>

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 – C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

**D Dried**  
**AR As Received**





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Where our involvement consists exclusively of testing samples, the results and comments (if provided) relate only to the samples tested.

Any samples that are deemed to be subject to deviation will be recorded as such within the test summary.



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## **QTS Environmental Report No: 15-37876**

**Site Reference:** 76 Fleet Road, London, NW3

**Project / Job Ref:** CGL5839-C

**Order No:** 5552

**Sample Receipt Date:** 19/11/2015

**Sample Scheduled Date:** 19/11/2015

**Report Issue Number:** 1

**Reporting Date:** 23/11/2015

**Authorised by:**

Russell Jarvis  
Director

**On behalf of QTS Environmental Ltd**

A handwritten signature in black ink, appearing to read 'R Jarvis'.

**Authorised by:**

Kevin Old  
Director

**On behalf of QTS Environmental Ltd**

A handwritten signature in black ink, appearing to read 'K Old'.



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Soil Analysis Certificate						
QTS Environmental Report No: 15-37876	Date Sampled	13/11/15	13/11/15	13/11/15		
Chelmer Site Investigation Laboratories Ltd	Time Sampled	None Supplied	None Supplied	None Supplied		
Site Reference: 76 Fleet Road, London, NW3	TP / BH No	67835	67836	37837		
Project / Job Ref: CGL5839-C	Additional Refs	BH1	BH2	BH2		
Order No: 5552	Depth (m)	1.50	1.00	1.50		
Reporting Date: 23/11/2015	QTSE Sample No	178629	178630	178631		

Determinand	Unit	RL	Accreditation					
pH	pH Units	N/a	MCERTS	6.6	6.8	6.9		
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2		
Total Sulphate as SO <sub>4</sub>	mg/kg	< 200	NONE	8437	1723	1400		
Total Sulphate as SO <sub>4</sub>	%	< 0.02	NONE	0.84	0.17	0.14		
W/S Sulphate as SO <sub>4</sub> (2:1)	mg/l	< 10	MCERTS	1500	560	543		
W/S Sulphate as SO <sub>4</sub> (2:1)	g/l	< 0.01	MCERTS	1.50	0.56	0.54		
Elemental Sulphur	mg/kg	< 10	NONE	< 10	32	38		
Sulphide	mg/kg	< 5	NONE	< 5	53	48		
Arsenic (As)	mg/kg	< 2	MCERTS	13	14	14		
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2		
Chromium (Cr)	mg/kg	< 2	MCERTS	45	32	31		
Copper (Cu)	mg/kg	< 4	MCERTS	13	26	25		
Lead (Pb)	mg/kg	< 3	MCERTS	2160	167	116		
Mercury (Hg)	mg/kg	< 1	NONE	< 1	< 1	< 1		
Nickel (Ni)	mg/kg	< 3	MCERTS	15	22	21		
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3	< 3		
Zinc (Zn)	mg/kg	< 3	MCERTS	57	68	69		
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	< 2		

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C  
Analysis carried out on the dried sample is corrected for the stone content  
Subcontracted analysis <sup>(S)</sup>





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Soil Analysis Certificate - Speciated PAHs						
QTS Environmental Report No: 15-37876	Date Sampled	13/11/15	13/11/15	13/11/15		
Chelmer Site Investigation Laboratories Ltd	Time Sampled	None Supplied	None Supplied	None Supplied		
Site Reference: 76 Fleet Road, London, NW3	TP / BH No	67835	67836	37837		
Project / Job Ref: CGL5839-C	Additional Refs	BH1	BH2	BH2		
Order No: 5552	Depth (m)	1.50	1.00	1.50		
Reporting Date: 23/11/2015	QTSE Sample No	178629	178630	178631		

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	< 1.6		

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Soil Analysis Certificate - TPH CWG Banded						
QTS Environmental Report No: 15-37876	Date Sampled	13/11/15	13/11/15	13/11/15		
Chelmer Site Investigation Laboratories Ltd	Time Sampled	None Supplied	None Supplied	None Supplied		
Site Reference: 76 Fleet Road, London, NW3	TP / BH No	67835	67836	37837		
Project / Job Ref: CGL5839-C	Additional Refs	BH1	BH2	BH2		
Order No: 5552	Depth (m)	1.50	1.00	1.50		
Reporting Date: 23/11/2015	QTSE Sample No	178629	178630	178631		

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01		
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05		
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3	< 3	< 3		
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	< 3		
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10	< 10	< 10		
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	< 21	< 21		
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01		
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05		
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	< 3		
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10	< 10	< 10		
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21	< 21	< 21		
Total >C5 - C35	mg/kg	< 42	NONE	< 42	< 42	< 42		

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



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Soil Analysis Certificate - BTEX / MTBE						
QTS Environmental Report No: 15-37876	Date Sampled	13/11/15	13/11/15	13/11/15		
Chelmer Site Investigation Laboratories Ltd	Time Sampled	None Supplied	None Supplied	None Supplied		
Site Reference: 76 Fleet Road, London, NW3	TP / BH No	67835	67836	37837		
Project / Job Ref: CGL5839-C	Additional Refs	BH1	BH2	BH2		
Order No: 5552	Depth (m)	1.50	1.00	1.50		
Reporting Date: 23/11/2015	QTSE Sample No	178629	178630	178631		

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2		
Toluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5		
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2		
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2		
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2		
MTBE	ug/kg	< 5	MCERTS	< 5	< 5	< 5		

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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/3															
QTS Environmental Report No: 15-37876		Date Sampled		13/11/15		Landfill Waste Acceptance Criteria Limits									
Chelmer Site Investigation Laboratories Ltd		Time Sampled		None Supplied											
Site Reference: 76 Fleet Road, London, NW3		TP / BH No		67835											
Project / Job Ref: CGL5839-C		Additional Refs		BH1											
Order No: 5552		Depth (m)		1.50											
Reporting Date: 23/11/2015		QTSE Sample No		178629											
Determinand		Unit		MDL											
TOC <sup>MU</sup>		%		< 0.1		0.3									
Loss on Ignition		%		< 0.01		1.40									
BTEX <sup>MU</sup>		mg/kg		< 0.05		< 0.05									
Sum of PCBs		mg/kg		< 0.1		< 0.1									
Mineral Oil <sup>MU</sup>		mg/kg		< 10		< 10									
Total PAH <sup>MU</sup>		mg/kg		< 1.7		< 1.7									
pH <sup>MU</sup>		pH Units		N/a		6.6									
Acid Neutralisation Capacity		mol/kg (+/-)		< 1		< 1									
Eluate Analysis				2:1 mg/l		8:1 mg/l		Cumulative 10:1 mg/kg		Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)					
Arsenic <sup>U</sup>				< 0.01		< 0.01		< 0.2		0.5		2		25	
Barium <sup>U</sup>				0.16		0.04		0.6		20		100		300	
Cadmium <sup>U</sup>				< 0.0005		< 0.0005		< 0.02		0.04		1		5	
Chromium <sup>U</sup>				< 0.005		< 0.005		< 0.20		0.5		10		70	
Copper <sup>U</sup>				0.01		< 0.01		< 0.5		2		50		100	
Mercury <sup>U</sup>				< 0.005		< 0.005		< 0.01		0.01		0.2		2	
Molybdenum <sup>U</sup>				0.020		0.012		0.1		0.5		10		30	
Nickel <sup>U</sup>				0.009		< 0.007		< 0.2		0.4		10		40	
Lead <sup>U</sup>				0.033		0.012		< 0.2		0.5		10		50	
Antimony <sup>U</sup>				0.007		< 0.005		< 0.06		0.06		0.7		5	
Selenium <sup>U</sup>				0.024		< 0.005		< 0.1		0.1		0.5		7	
Zinc <sup>U</sup>				0.011		< 0.005		< 0.2		4		50		200	
Chloride <sup>U</sup>				61		5		120		800		15000		25000	
Fluoride <sup>U</sup>				< 0.5		< 0.5		< 1		10		150		500	
Sulphate <sup>U</sup>				1351		138		2976		1000		20000		50000	
TDS				1270		241		3771		4000		60000		100000	
Phenol Index				0.02		< 0.01		< 0.5		1		-		-	
DOC				34.5		6.3		100		500		800		1000	
Leach Test Information															
Sample Mass (kg)				0.18											
Dry Matter (%)				95.3											
Moisture (%)				5											
Stage 1															
Volume Eluate L2 (litres)				0.34											
Filtered Eluate VE1 (litres)				0.23											
Results are expressed on a dry weight basis, after correction for moisture content where applicable															
Stated limits are for guidance only and QTS Environmental cannot be held responsible for any discrepancies with current legislation															
M Denotes MCERTS accredited test															
U Denotes ISO17025 accredited test															



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Waste Acceptance Criteria Analytical Certificate - BS EN 12457/3									
QTS Environmental Report No: 15-37876		Date Sampled		13/11/15		Landfill Waste Acceptance Criteria Limits			
Chelmer Site Investigation Laboratories Ltd		Time Sampled		None Supplied					
Site Reference: 76 Fleet Road, London, NW3		TP / BH No		37838					
Project / Job Ref: CGL5839-C		Additional Refs		BH2					
Order No: 5552		Depth (m)		2.00					
Reporting Date: 23/11/2015		QTSE Sample No		178632					
Determinand	Unit	MDL							
TOC <sup>MU</sup>	%	< 0.1		1.3					
Loss on Ignition	%	< 0.01		3.30					
BTEX <sup>MU</sup>	mg/kg	< 0.05		< 0.05					
Sum of PCBs	mg/kg	< 0.1		< 0.1					
Mineral Oil <sup>MU</sup>	mg/kg	< 10		< 10					
Total PAH <sup>MU</sup>	mg/kg	< 1.7		< 1.7					
pH <sup>MU</sup>	pH Units	N/a		7.0					
Acid Neutralisation Capacity	mol/kg (+/-)	< 1		< 1					
Eluate Analysis				2:1 mg/l	8:1 mg/l		Cumulative 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)	
Arsenic <sup>U</sup>		< 0.01	< 0.01		< 0.2	0.5	2	25	
Barium <sup>U</sup>		0.19	0.07		0.7	20	100	300	
Cadmium <sup>U</sup>		< 0.0005	< 0.0005		< 0.02	0.04	1	5	
Chromium <sup>U</sup>		< 0.005	< 0.005		< 0.20	0.5	10	70	
Copper <sup>U</sup>		< 0.01	< 0.01		< 0.5	2	50	100	
Mercury <sup>U</sup>		< 0.005	< 0.005		< 0.01	0.01	0.2	2	
Molybdenum <sup>U</sup>		0.008	0.005		< 0.1	0.5	10	30	
Nickel <sup>U</sup>		< 0.007	< 0.007		< 0.2	0.4	10	40	
Lead <sup>U</sup>		< 0.005	< 0.005		< 0.2	0.5	10	50	
Antimony <sup>U</sup>		< 0.005	< 0.005		< 0.06	0.06	0.7	5	
Selenium <sup>U</sup>		< 0.005	< 0.005		< 0.1	0.1	0.5	7	
Zinc <sup>U</sup>		0.019	< 0.005		< 0.2	4	50	200	
Chloride <sup>U</sup>		6	1		16	800	15000	25000	
Fluoride <sup>U</sup>		< 0.5	< 0.5		< 1	10	150	500	
Sulphate <sup>U</sup>		706	129		1735	1000	20000	50000	
TDS		714	200		2399	4000	60000	100000	
Phenol Index		< 0.01	< 0.01		< 0.5	1	-	-	
DOC		15.7	3.7		46.5	500	800	1000	
Leach Test Information									
Sample Mass (kg)				0.22					
Dry Matter (%)				80.4					
Moisture (%)				24.4					
Stage 1									
Volume Eluate L2 (litres)				0.31					
Filtered Eluate VE1 (litres)				0.14					
Results are expressed on a dry weight basis, after correction for moisture content where applicable Stated limits are for guidance only and QTS Environmental cannot be held responsible for any discrepancies with current legislation M Denotes MCERTS accredited test U Denotes ISO17025 accredited test									



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Soil Analysis Certificate - Sample Descriptions	
QTS Environmental Report No: 15-37876	
Chelmer Site Investigation Laboratories Ltd	
Site Reference: 76 Fleet Road, London, NW3	
Project / Job Ref: CGL5839-C	
Order No: 5552	
Reporting Date: 23/11/2015	

QTSE Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
178629	67835	BH1	1.50	4.7	Grey sandy clay with concrete and stones
178630	67836	BH2	1.00	24	Brown sandy loam
178631	37837	BH2	1.50	23.8	Brown sandy loam
178632	37838	BH2	2.00	19.6	Brown sandy loam

Moisture content is part of procedure E003 & is not an accredited test  
Insufficient Sample <sup>I/S</sup>  
Unsuitable Sample <sup>U/S</sup>





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Soil Analysis Certificate - Methodology & Miscellaneous Information				
QTS Environmental Report No: 15-37876				
Chelmer Site Investigation Laboratories Ltd				
Site Reference: 76 Fleet Road, London, NW3				
Project / Job Ref: CGL5839-C				
Order No: 5552				
Reporting Date: 23/11/2015				

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 – C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content: determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

**D Dried**  
**AR As Received**



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## **QTS Environmental Report No: 15-37936**

**Site Reference:** 76 Fleet Road, London, NW3

**Project / Job Ref:** CGL5839-C

**Order No:** 5552

**Sample Receipt Date:** 19/11/2015

**Sample Scheduled Date:** 20/11/2015

**Report Issue Number:** 1

**Reporting Date:** 24/11/2015

**Authorised by:**

Russell Jarvis  
Director

**On behalf of QTS Environmental Ltd**

A handwritten signature in black ink, appearing to read 'R Jarvis'.

**Authorised by:**

Kevin Old  
Director

**On behalf of QTS Environmental Ltd**

A handwritten signature in black ink, appearing to read 'K Old'.



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Soil Analysis Certificate						
QTS Environmental Report No: 15-37936	Date Sampled	13/11/15				
Chelmer Site Investigation Laboratories Ltd	Time Sampled	None Supplied				
Site Reference: 76 Fleet Road, London, NW3	TP / BH No	67683				
Project / Job Ref: CGL5839-C	Additional Refs	BH2				
Order No: 5552	Depth (m)	2.50				
Reporting Date: 24/11/2015	QTSE Sample No	178886				

Determinand	Unit	RL	Accreditation				
pH	pH Units	N/a	MCERTS	8.5			
Total Cyanide	mg/kg	< 2	NONE	< 2			
Total Sulphate as SO <sub>4</sub>	mg/kg	< 200	NONE	1644			
Total Sulphate as SO <sub>4</sub>	%	< 0.02	NONE	0.16			
W/S Sulphate as SO <sub>4</sub> (2:1)	mg/l	< 10	MCERTS	495			
W/S Sulphate as SO <sub>4</sub> (2:1)	g/l	< 0.01	MCERTS	0.50			
Elemental Sulphur	mg/kg	< 10	NONE	< 10			
Sulphide	mg/kg	< 5	NONE	< 5			
Arsenic (As)	mg/kg	< 2	MCERTS	14			
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2			
Chromium (Cr)	mg/kg	< 2	MCERTS	47			
Copper (Cu)	mg/kg	< 4	MCERTS	23			
Lead (Pb)	mg/kg	< 3	MCERTS	48			
Mercury (Hg)	mg/kg	< 1	NONE	< 1			
Nickel (Ni)	mg/kg	< 3	MCERTS	33			
Selenium (Se)	mg/kg	< 3	NONE	< 3			
Zinc (Zn)	mg/kg	< 3	MCERTS	76			
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C  
Analysis carried out on the dried sample is corrected for the stone content  
Subcontracted analysis <sup>(S)</sup>



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Soil Analysis Certificate - Speciated PAHs						
QTS Environmental Report No: 15-37936		Date Sampled	13/11/15			
Chelmer Site Investigation Laboratories Ltd		Time Sampled	None Supplied			
Site Reference: 76 Fleet Road, London, NW3		TP / BH No	67683			
Project / Job Ref: CGL5839-C		Additional Refs	BH2			
Order No: 5552		Depth (m)	2.50			
Reporting Date: 24/11/2015		QTSE Sample No	178886			

Determinand	Unit	RL	Accreditation				
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1			
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1			
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1			
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1			
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1			
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1			
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1			
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1			
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1			
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



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Soil Analysis Certificate - TPH CWG Banded						
QTS Environmental Report No: 15-37936	Date Sampled	13/11/15				
Chelmer Site Investigation Laboratories Ltd	Time Sampled	None Supplied				
Site Reference: 76 Fleet Road, London, NW3	TP / BH No	67683				
Project / Job Ref: CGL5839-C	Additional Refs	BH2				
Order No: 5552	Depth (m)	2.50				
Reporting Date: 24/11/2015	QTSE Sample No	178886				

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01				
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05				
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2				
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2				
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3				
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3				
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10				
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21				
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01				
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05				
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2				
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2				
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2				
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3				
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10				
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21				
Total >C5 - C35	mg/kg	< 42	NONE	< 42				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C





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Soil Analysis Certificate - BTEX / MTBE						
QTS Environmental Report No: 15-37936	Date Sampled	13/11/15				
Chelmer Site Investigation Laboratories Ltd	Time Sampled	None Supplied				
Site Reference: 76 Fleet Road, London, NW3	TP / BH No	67683				
Project / Job Ref: CGL5839-C	Additional Refs	BH2				
Order No: 5552	Depth (m)	2.50				
Reporting Date: 24/11/2015	QTSE Sample No	178886				

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2				
Toluene	ug/kg	< 5	MCERTS	< 5				
Ethylbenzene	ug/kg	< 2	MCERTS	< 2				
p & m-xylene	ug/kg	< 2	MCERTS	< 2				
o-xylene	ug/kg	< 2	MCERTS	< 2				
MTBE	ug/kg	< 5	MCERTS	< 5				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C





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Soil Analysis Certificate - Sample Descriptions	
QTS Environmental Report No: 15-37936	
Chelmer Site Investigation Laboratories Ltd	
Site Reference: 76 Fleet Road, London, NW3	
Project / Job Ref: CGL5839-C	
Order No: 5552	
Reporting Date: 24/11/2015	

QTSE Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
178886	67683	BH2	2.50	21.1	Brown clay with stones

Moisture content is part of procedure E003 & is not an accredited test  
Insufficient Sample <sup>I/S</sup>  
Unsuitable Sample <sup>U/S</sup>



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Soil Analysis Certificate - Methodology & Miscellaneous Information	
QTS Environmental Report No: 15-37936	
Chelmer Site Investigation Laboratories Ltd	
Site Reference: 76 Fleet Road, London, NW3	
Project / Job Ref: CGL5839-C	
Order No: 5552	
Reporting Date: 24/11/2015	

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 – C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content: determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

**D Dried**  
**AR As Received**

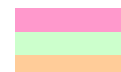
## Contamination Test Results on Soil Samples

Location: 76 Fleet Road		Date : January 2016				Job No. : 5839		Sheet 1 of 1	
Borehole No.	Units	BH1	BH2	BH2	BH2	ATRISK Contaminated Land Screening Values (SSV) derived using CLEA v1.04 for 6% SOM			
Sample No.		178629	178630	178631	178886				
Depth (m)		1.50	1.00	1.50	2.50				
Material Type		MADE GROUND	MADE GROUND	MADE GROUND	MADE GROUND	Residential with plant uptake	Residential without plant uptake	Allotments	Commercial/Industrial
Aromatic Hydrocarbons (mg/kg)	>C5-C7	< 0.01	< 0.01	< 0.01	< 0.01	0.33	0.988	0.07	95
	>C7-C8	< 0.05	< 0.05	< 0.05	< 0.05	610	2710	120	420000
	>C8-C10	< 2	< 2	< 2	< 2	177	233	64.5	64100
	>C10-C12	< 2	< 2	< 2	< 2	389	1080	86.4	68300
	>C12-C16	< 2	< 2	< 2	< 3	687	2040	160	65600
	>C16-C21	< 3	< 3	< 3	< 3	804	1330	288	28400
	>C21-C35	< 10	< 10	< 10	< 10	1220	1330	1550	28400
Aliphatic Hydrocarbons (mg/kg)	>C5-C6	< 0.01	< 0.01	< 0.01	< 0.01	259	261	5120	>1000000
	>C6-C8	< 0.05	< 0.05	< 0.05	< 0.05	14700	49400	16600	>100000
	>C8-C10	< 2	< 2	< 2	< 2	144	144	2130	170000
	>C10-C12	< 2	< 2	< 2	< 2	4140	4340	8870	171000
	>C12-C16	< 3	< 3	< 3	< 3	5260	5310	15900	171000
	>C16-C21	< 3	< 3	< 3	< 3	88200	146000	462000	>1000000
	>C21-C35	< 10	< 10	< 10	< 10	88200	146000	462000	>1000000
Naphthalene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	8.71	9.22	23.4	22700
Acenaphthylene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-
Acenaphthene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	2130	4770	612	106000
Fluorene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	1930	3100	725	72100
Phenanthrene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	-	-	-	-
Anthracene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	18300	24000	10400	545000
Fluoranthene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	2160	3210	924	72700
Pyrene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	1550	2400	620	54500
Benzo(a)anthracene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	8.54	9.04	15.1	142
Chrysene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	927	1010	1170	14300
Benzo(b)fluoranthene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	9.86	10.3	18.6	144
Benzo(k)fluoranthene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	100	104	227	1440
Benzo(a)pyrene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	0.998	1.04	2.10	14.4
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	9.75	10.3	16.6	144
Dibenz(a,h)anthracene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	1.00	1.03	2.57	14.4
Benzo(ghi)perylene	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	103	104	342	1450
TOTAL PAH	mg/kg	< 1.6	< 1.6	< 1.6	< 1.6				
Cyanide (Free)	mg/kg	< 2	< 2	< 2	<2	34	34	34	34
pH	unit	6.6	6.8	6.9	8.5	-	-	-	-
Copper (Total)	mg/kg	13	26	25	23	4020	8370	1110	109000
Lead (Total)	mg/kg	2160	167	116	48	200	310	80	2330
Zinc (Total)	mg/kg	57	68	69	76	17200	46800	3990	>1000000
LQM/CIEH Generic Assessment Criteria									
Chromium (Total)	mg/kg	45	32	31	47	3000	3000	34600	30400
CLEA Soil Guideline Values (SGV)									
Arsenic (Total)	mg/kg	13	14	14	14	32	35	43	640
Cadmium (Total)	mg/kg	< 0.2	< 0.2	< 0.2	<0.2	10	83.6	1.8	230
Mercury (Total)	mg/kg	< 1	< 1	< 1	<1	170	238	80	3600
Nickel (Total)	mg/kg	15	22	21	33	130	130	230	1800
Phenols (Total)	mg/kg	< 2	< 2	< 2	<2	420	519	280	3200
Selenium (Total)	mg/kg	< 3	< 3	< 3	<3	350	595	120	13000
Total Sulphate as SO4	mg/kg	8437	1723	1400	1644	-	-	-	-
Total Sulphate as SO4	%	0.84	0.17	0.14	0.16	-	-	-	-
W/S Sulphate as SO4 (2:1)	mg/l	1500	560	543	495	-	-	-	-
W/S Sulphate as SO4 (2:1)	g/l	1.5	0.56	0.54	0.50	-	-	-	-
Elemental Sulphur	mg/kg	< 10	32	38	< 10	-	-	-	-
Sulphide	ma/ka	< 5	53	48	< 5	-	-	-	-

### Key

PAH - Polyaromatic Hydrocarbons  
TPH - Total Petroleum Hydrocarbons  
- Not determined

Result exceeds ATRISK screening value  
Result exceeds EQS/CIEH generic assessment criteria  
Result exceeds CLEA Soil Guideline Value (SGV)

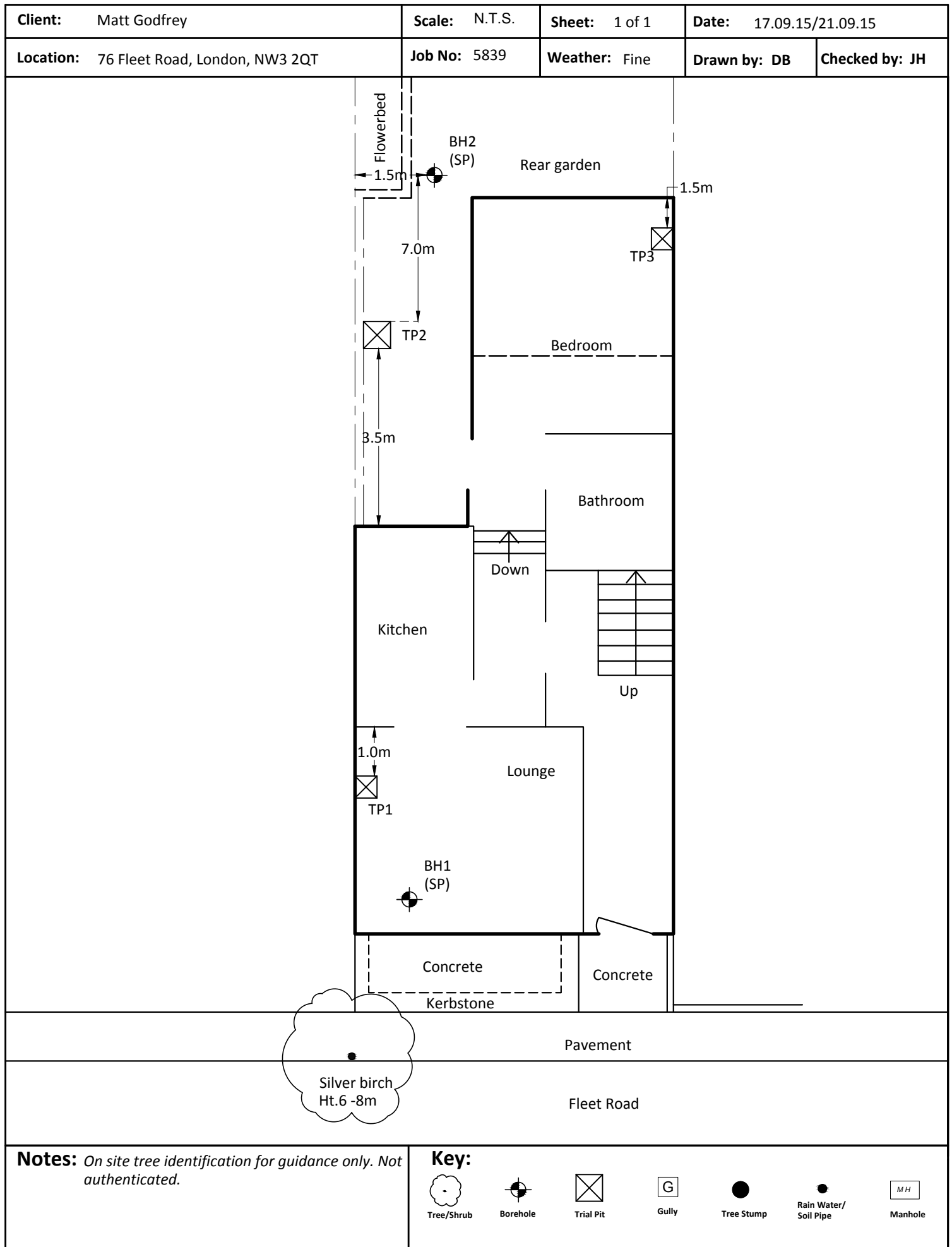


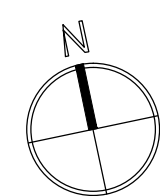
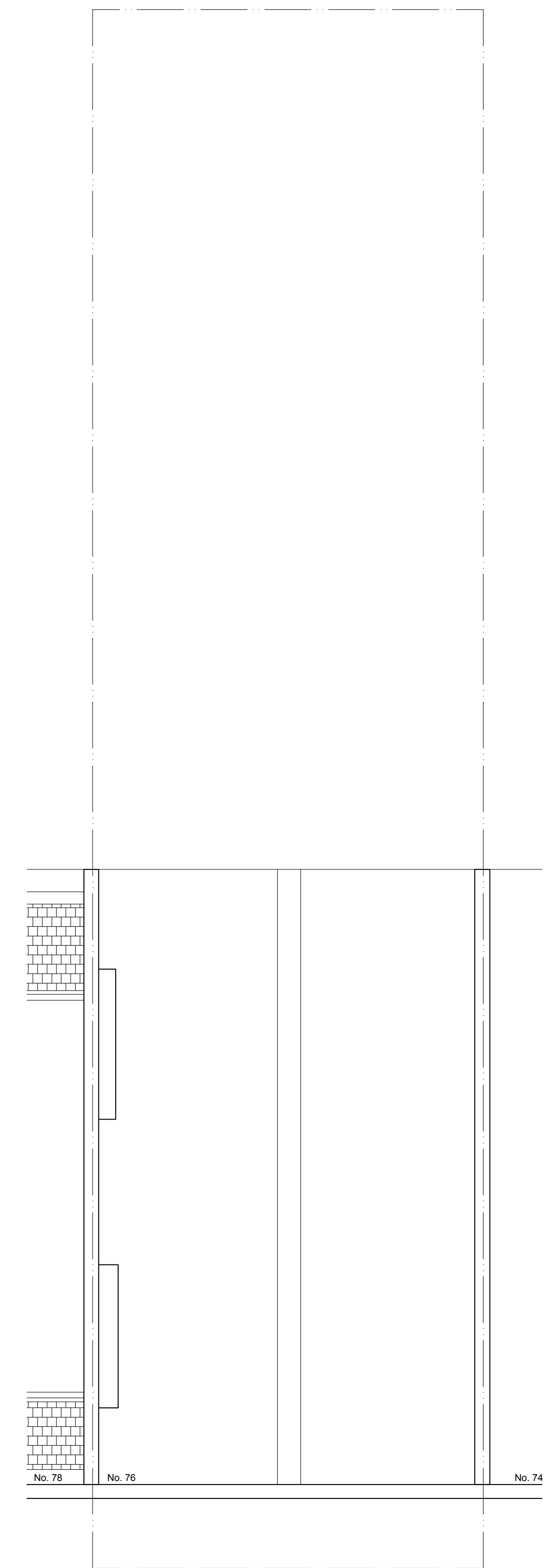
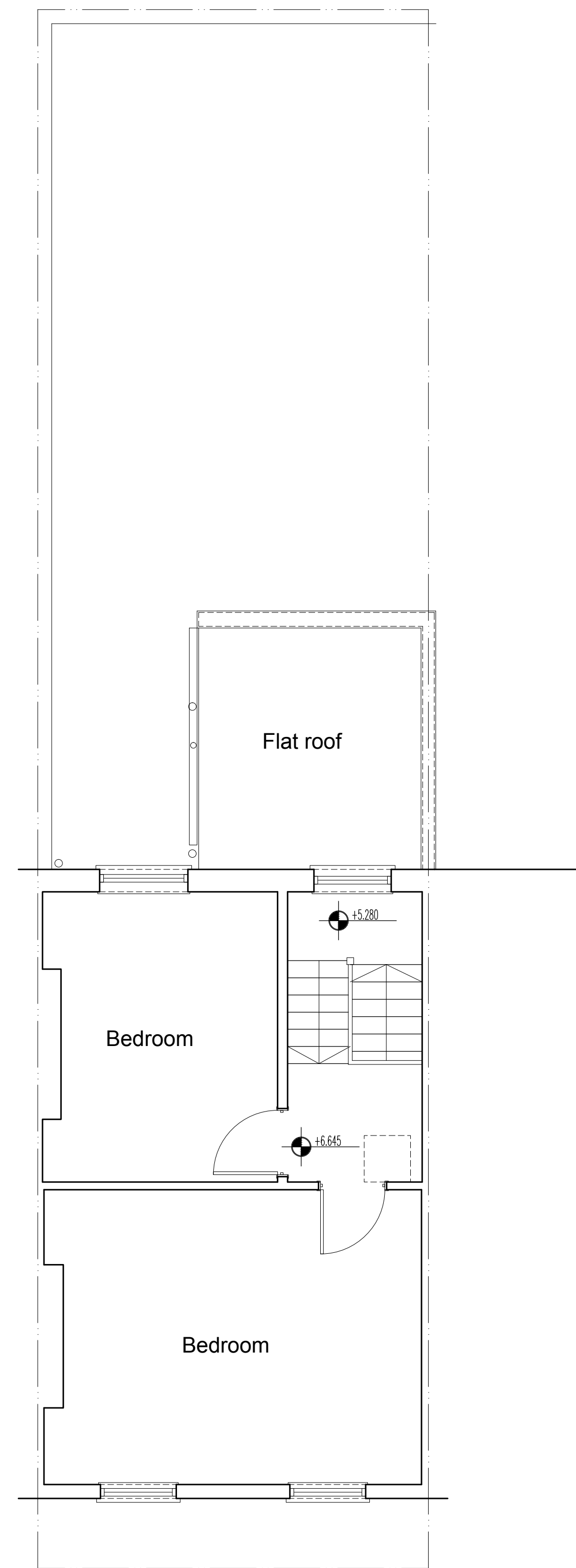
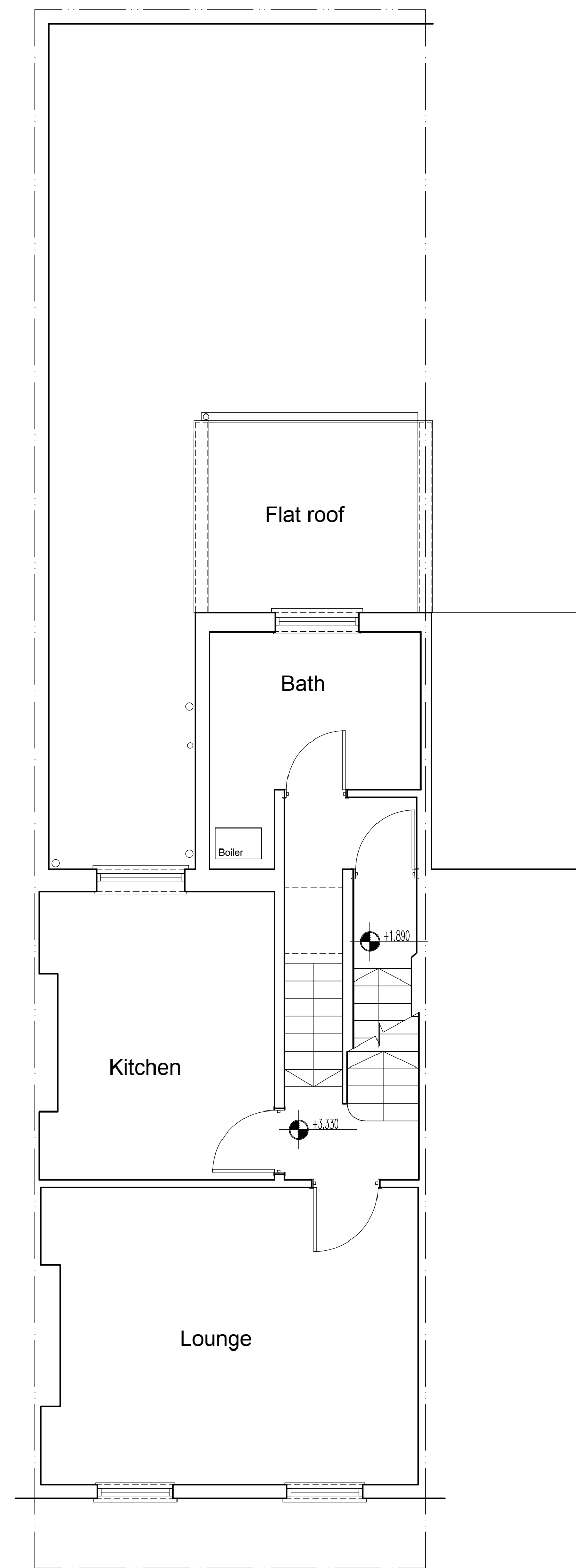
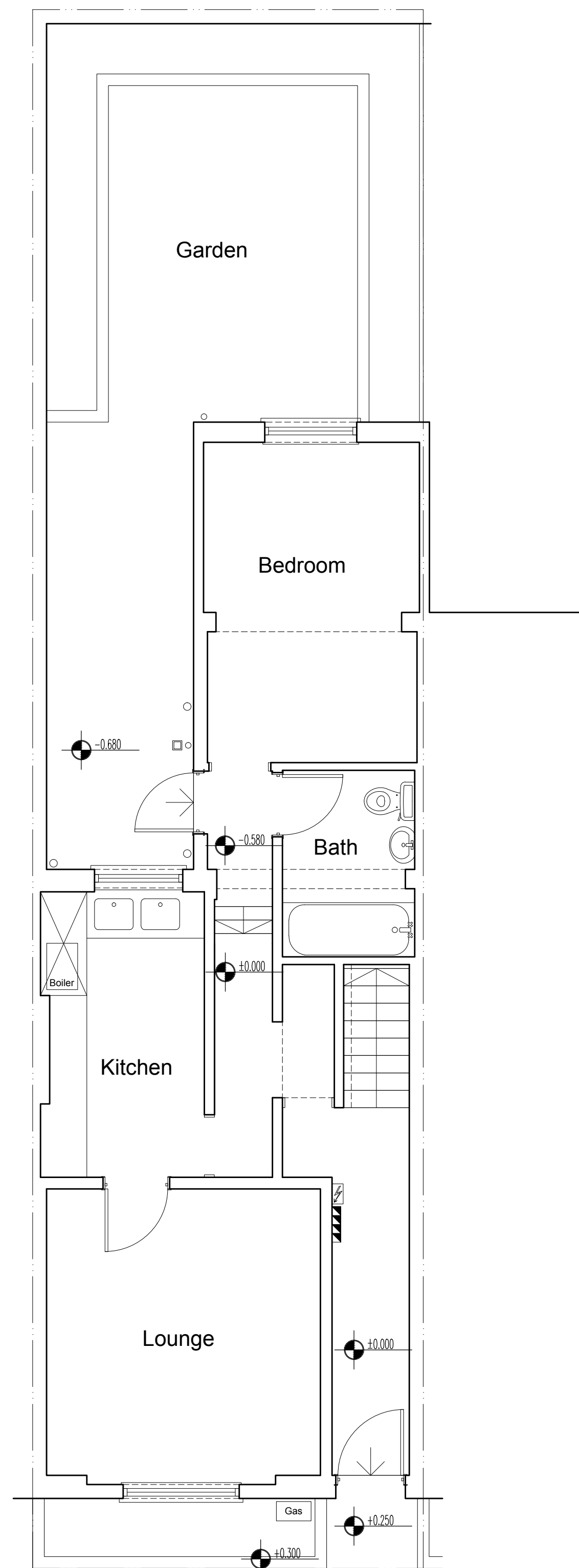
## Groundwater/Ground Gas Monitoring Results Sheet

Site Ref: 5839

Site Name: 76 Fleet Road, London.

Well	Date	Methane Peak	Methane Steady	Methane GSV	Carbon Dioxide Peak	Carbon Dioxide Steady	Carbon Dioxide GSV	Oxygen	Atmos.	Flow	Response Zone	Depth to Water	CO	H2S
		%v/v	%v/v	l/hr	%v/v	%v/v	l/hr	%v/v	mbar	l/hr	m bgl	m bgl	ppm	ppm
BH1 (House)	26/10/2015	0.0	0.0	0.0000	0.2	0.1	0.0012	21.1	1008	0.6	1.0 - 5.1	3.60	0	0
	04/11/2015	0.0	0.0	0.0000	2.4	0.1	0.0120	20.6	1008	0.5		3.27	0	0
BH2 (Garden)	26/10/2015	0.0	0.0	0.0000	3.8	3.8	0.0228	17.7	1007	0.6	1.0 - 6.0	2.26	0	0
	04/11/2015	0.0	0.0	0.0000	2.8	2.8	0.0168	18.2	1008	0.6		1.45	0	0





#### General Notes

Local authorities (Planning Group or Building Control) might request for additional items / information to be added / revised.

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Contractor to verify all dimensions on site before commencing any work on site or preparing any shop drawings. Figured dimensions to take precedence over scaled dimensions.

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Additional Notes

[illegible]

PROJECT
Extensions and alterations at 76 Fleet Road London NW3 2QT

CLIENT	Mr. Matt Godfrey
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ZONE <b>A</b>	DISCIPLINE <b>ARCHITECTURE</b>	STATUS <b>SURVEY</b>
LEVEL <b>A</b>	DRAWING NUMBER <b>76FR-PP1-01</b>	REVISION
PAPER SIZE	<b>A1 SHEET</b>	
DRAWING TITLE <b>Existing Plans</b>		
SCALE <b>1:50</b>	DATE <b>07/08/2015</b>	DRAWN <b>KM</b>
		CHECKED <b>YS</b>

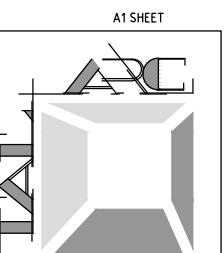
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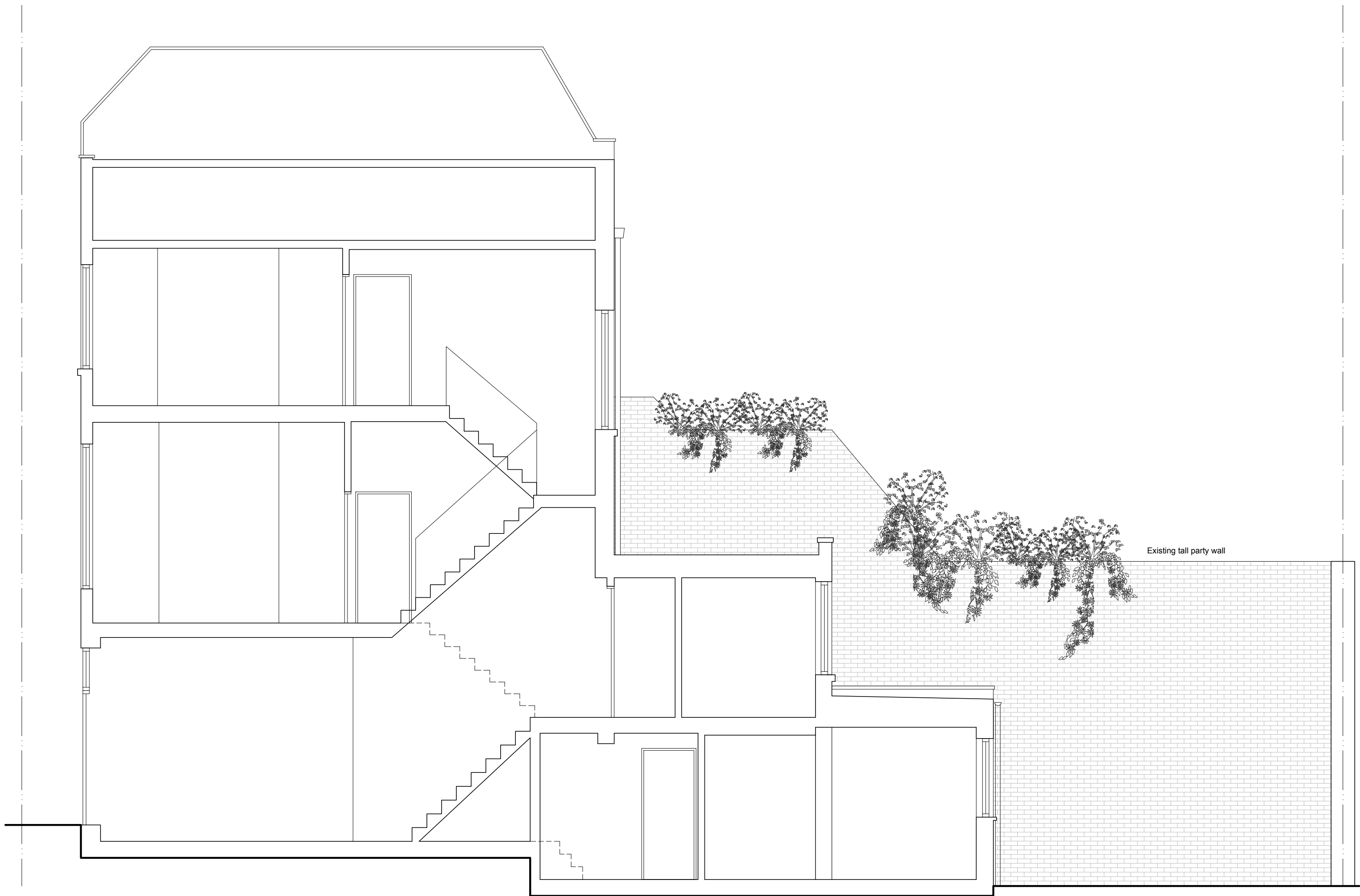
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W. [WWW.TALARC.CO.UK](http://WWW.TALARC.CO.UK)

PROJECT TITLE	76 Fleet Road, NW3
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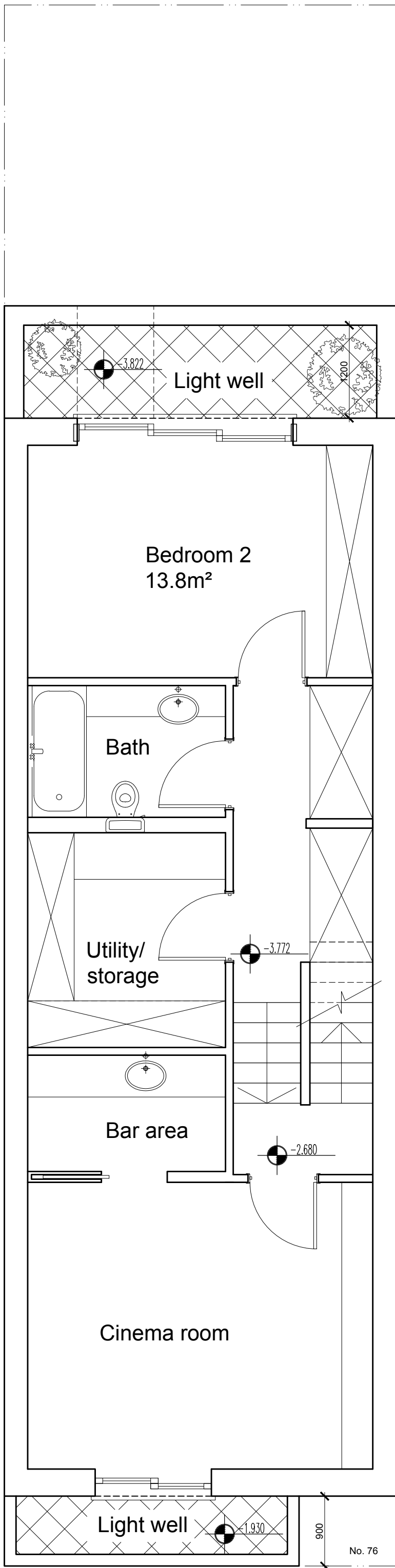


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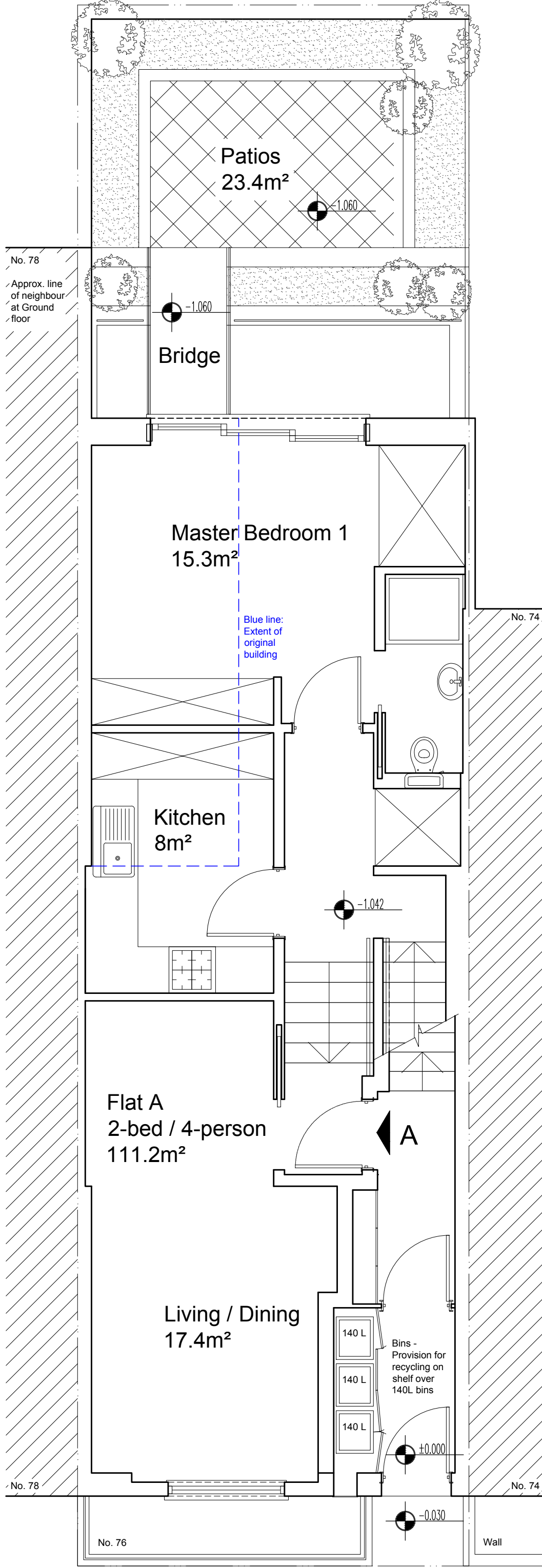


General Notes				Additional Notes				REV DATE INITIAL REVISION				PROJECT Extensions and alterations at 76 Fleet Road London NW3 2QT				ZONE DISCIPLINE STATUS A ARCHITECTURE SURVEY				TAL ARC LTD. ARCHITECTURE   DESIGN  33BA REGENT'S PARK ROAD 2ND FLOOR LONDON N3 2LN, U.K. T. 020 8349 4338 E. INFO@TALARC.CO.UK W. WWW.TALARC.CO.UK							
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				This drawing superseeds all previous issues of the same drawing number with earlier revisions.								CLIENT Mr. Matt Godfrey				SCALE DATE DRAWN CHECKED 1:50 07/08/2015 KM YS				PROJECT TITLE 76 Fleet Road, NW3							
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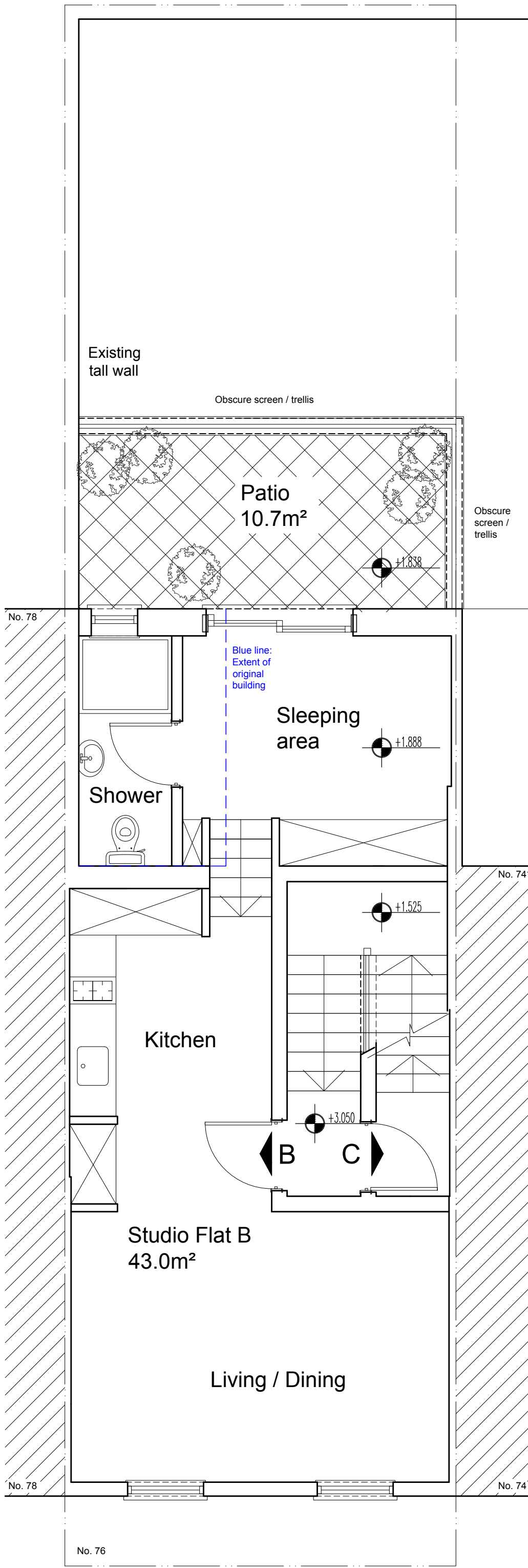




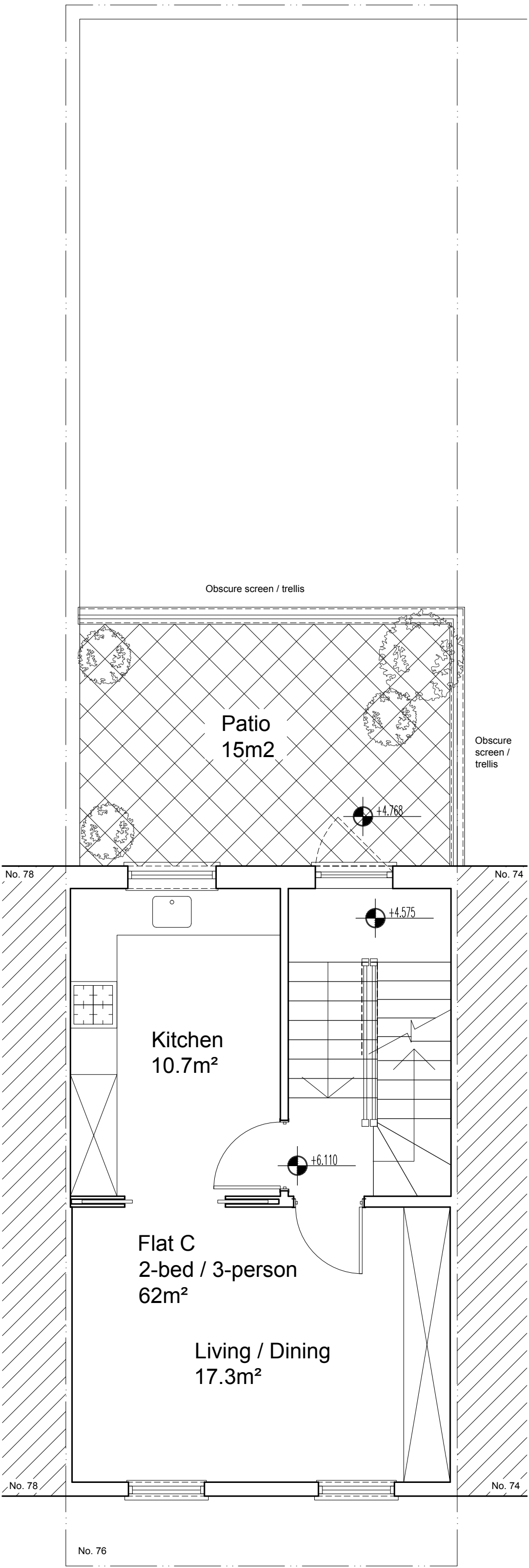
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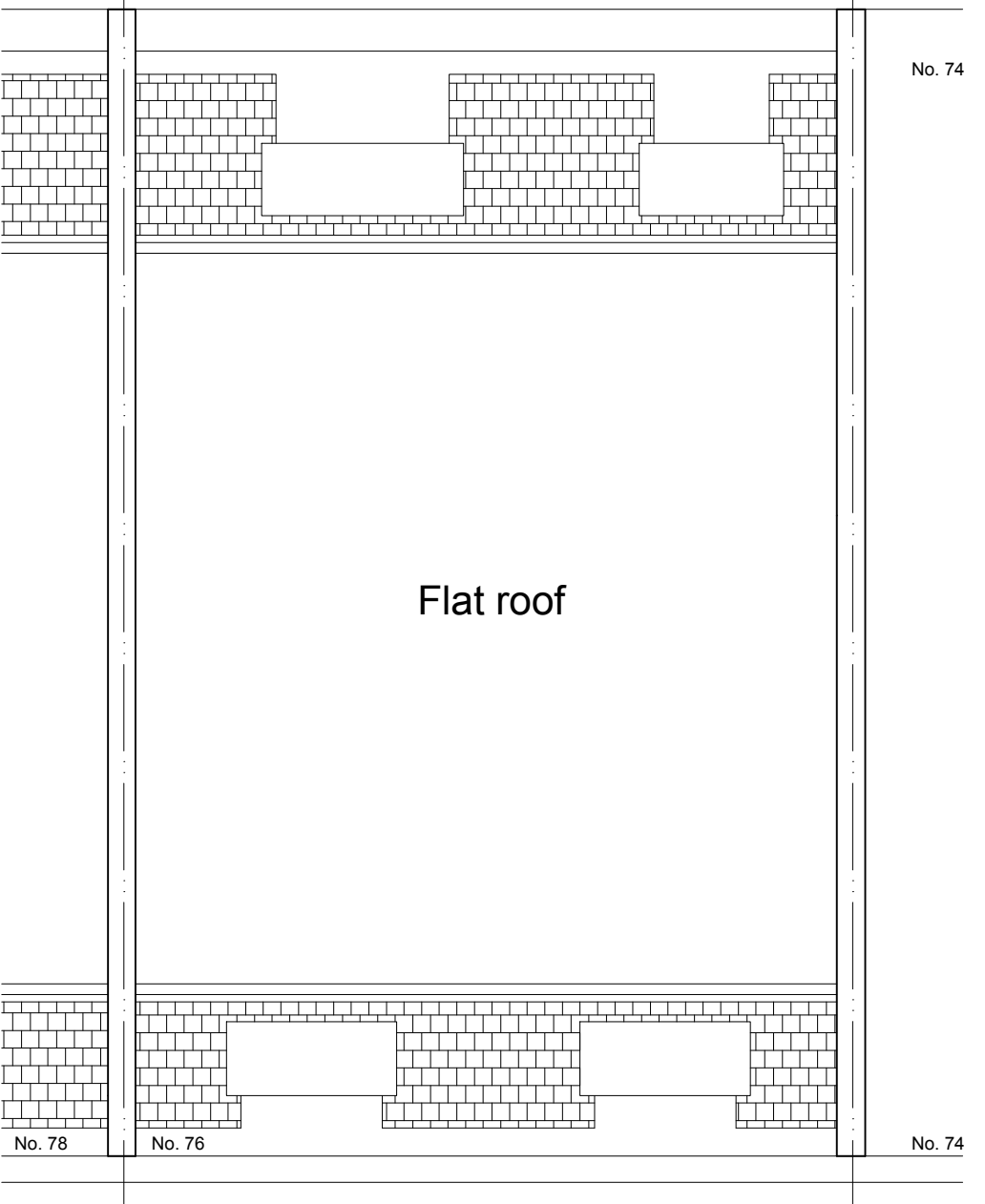
Proposed Ground Floor  
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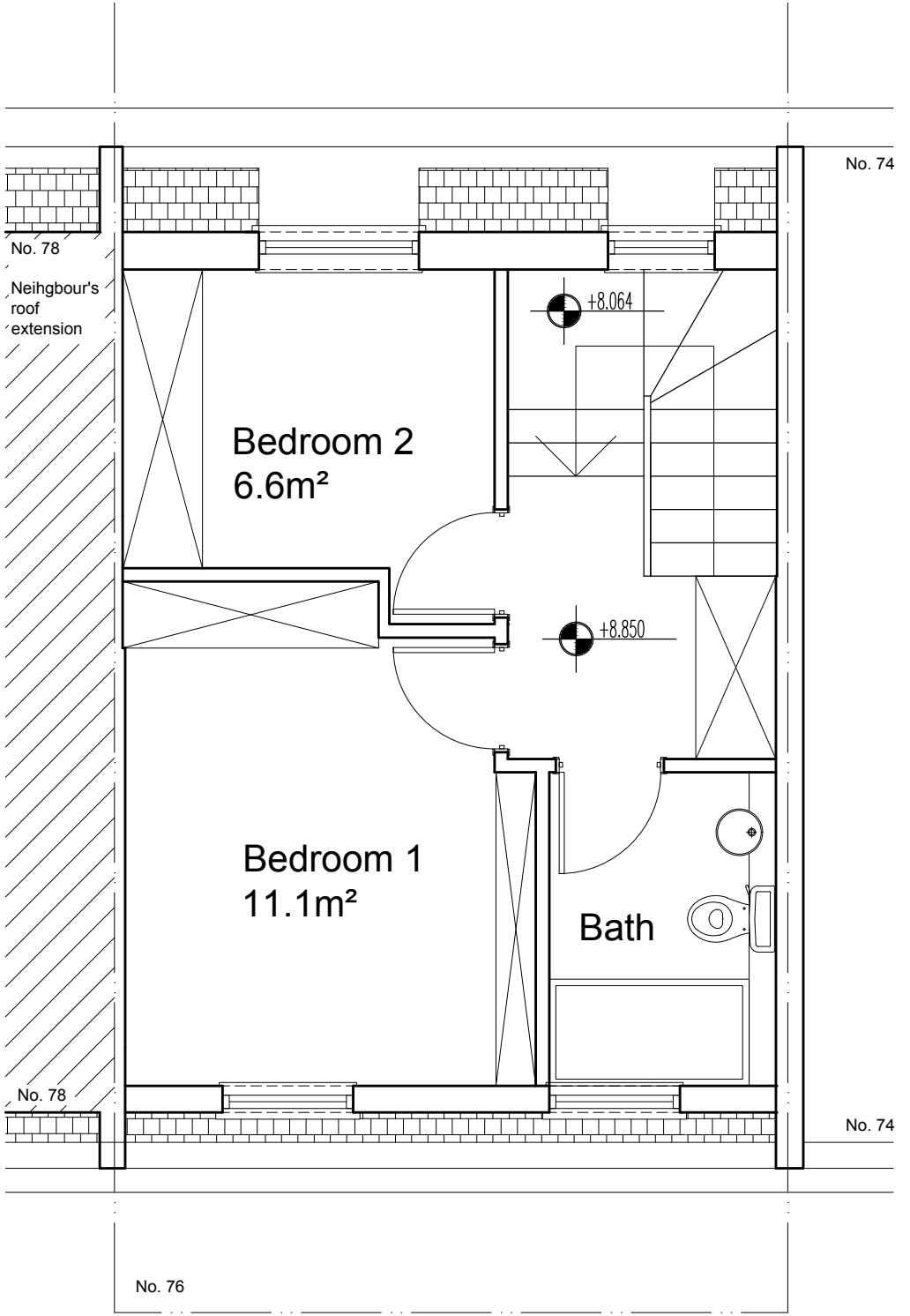
Proposed First Floor  
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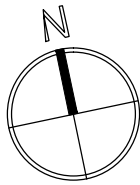
Proposed Second Floor  
Scale 1:50



Proposed Roof Plan  
Scale 1:50



Proposed Loft  
Scale 1:50



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																LEVEL		DRAWING NUMBER		REVISION							
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- Ground and First floor to extend to side only and abut the existing party wall (depicted in dashed line) over 7m in height towards no. 78



An architectural drawing of a building facade. It features a large, square window with a thick frame. To the left of the window is a staircase with a simple railing. Above the window, there is a small, stylized logo consisting of the letters 'A' and 'C' intertwined. The drawing is done in a minimalist, line-art style with some grey shading for the window and staircase.