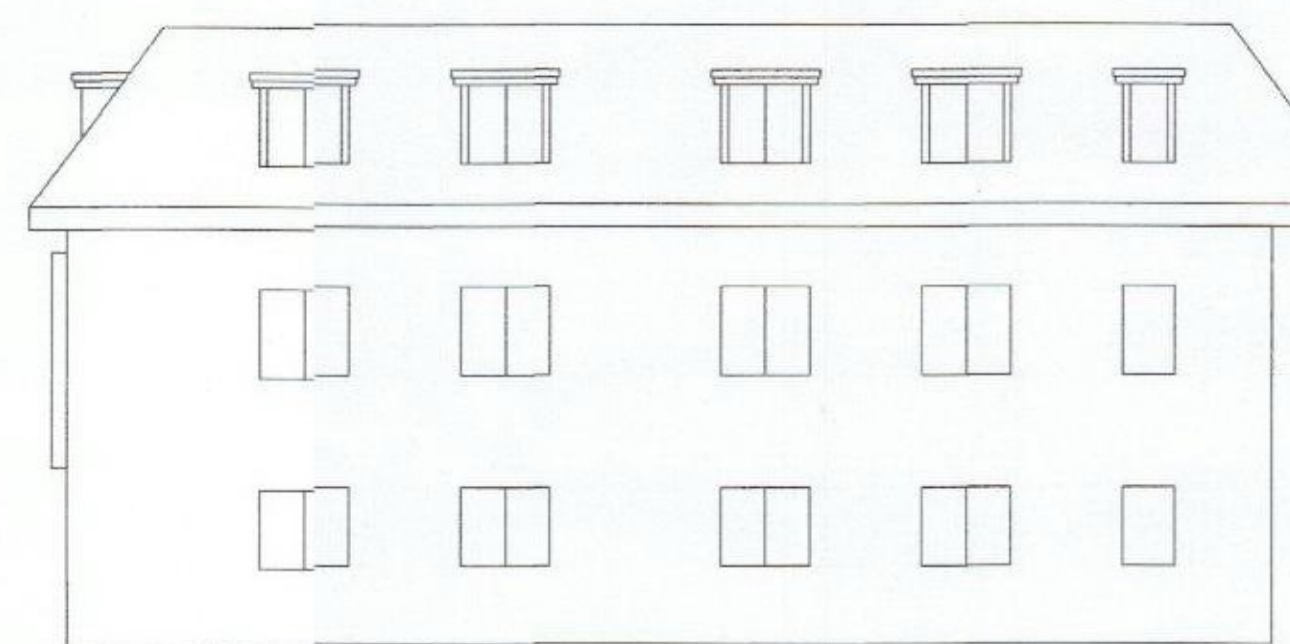


APPENDIX A: Proposed Redevelopment Plans

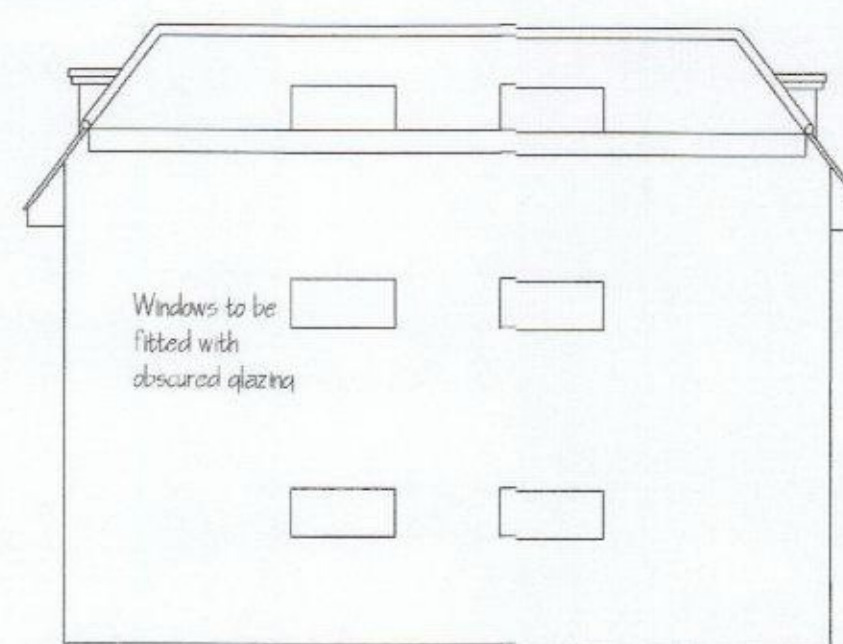




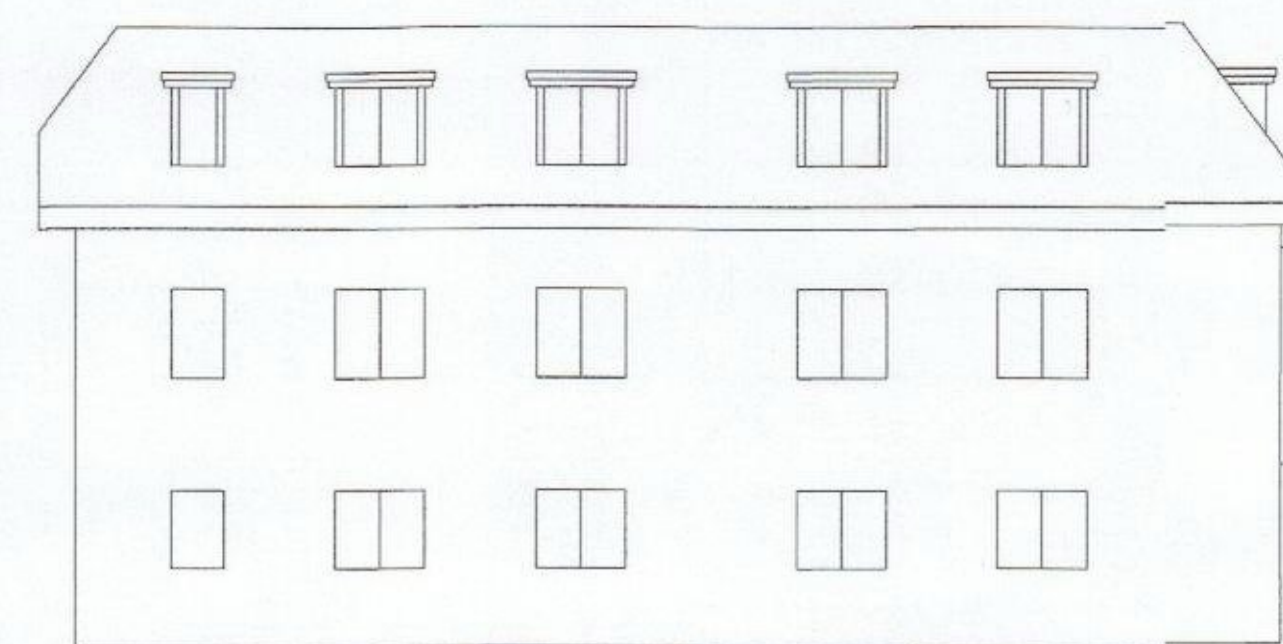
Proposed Front Elevation



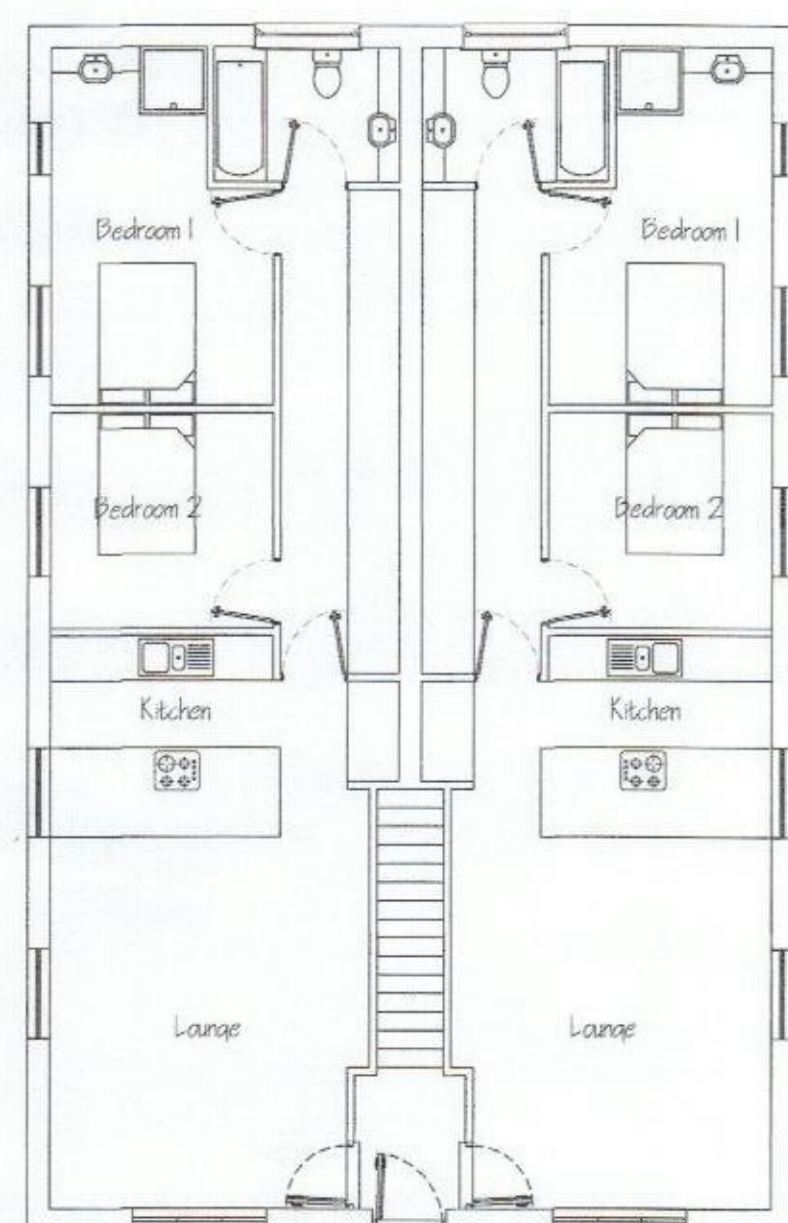
Proposed Side Elevation



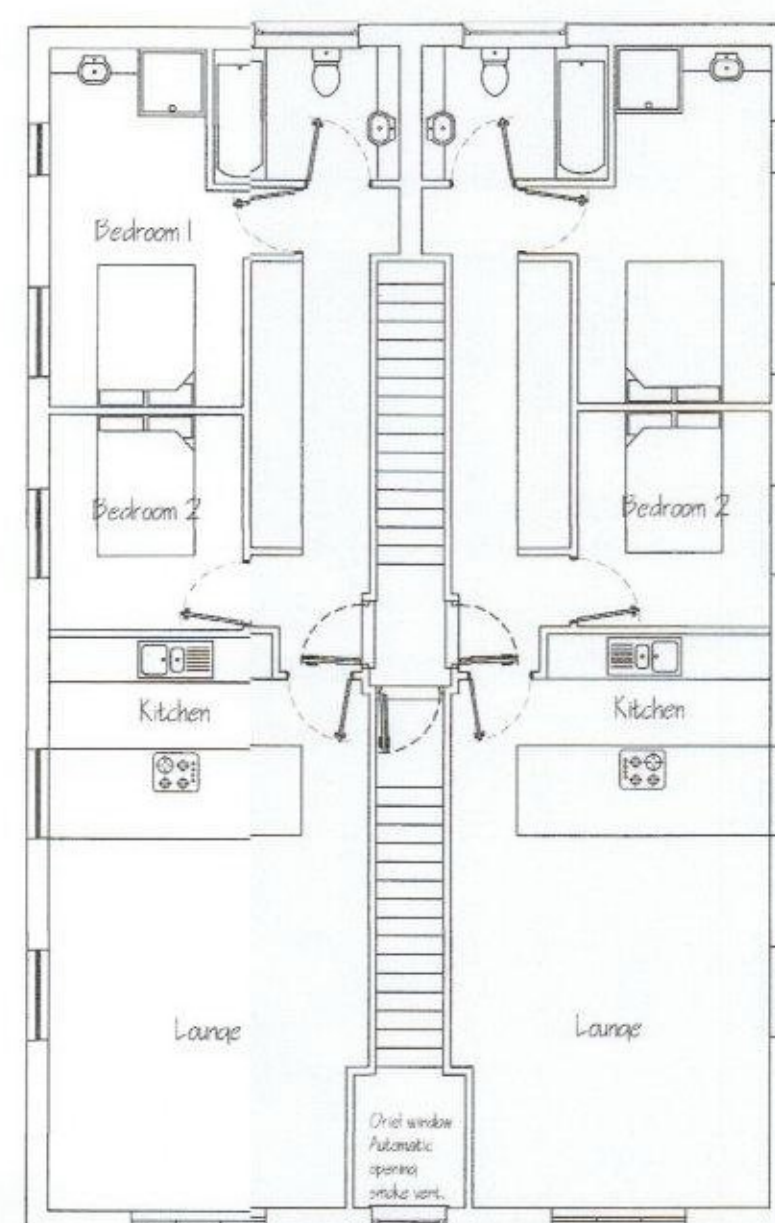
Proposed Rear Elevation



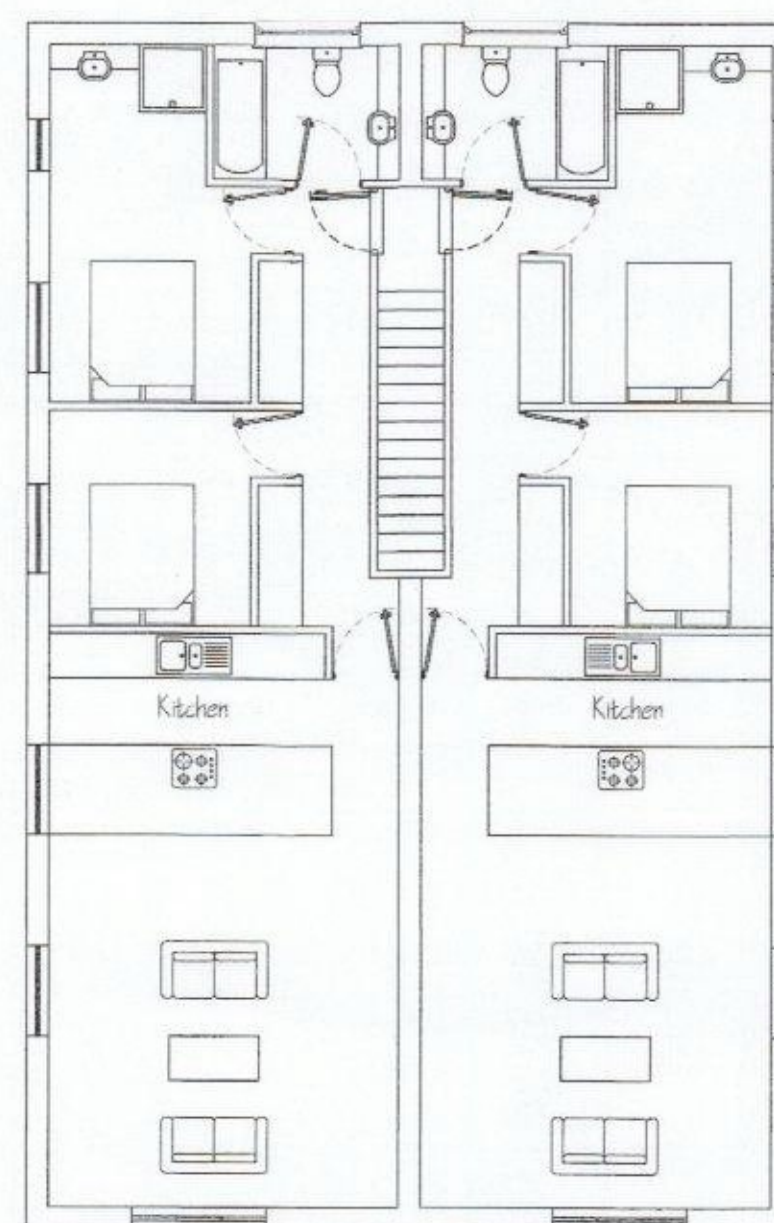
Proposed Side Elevation



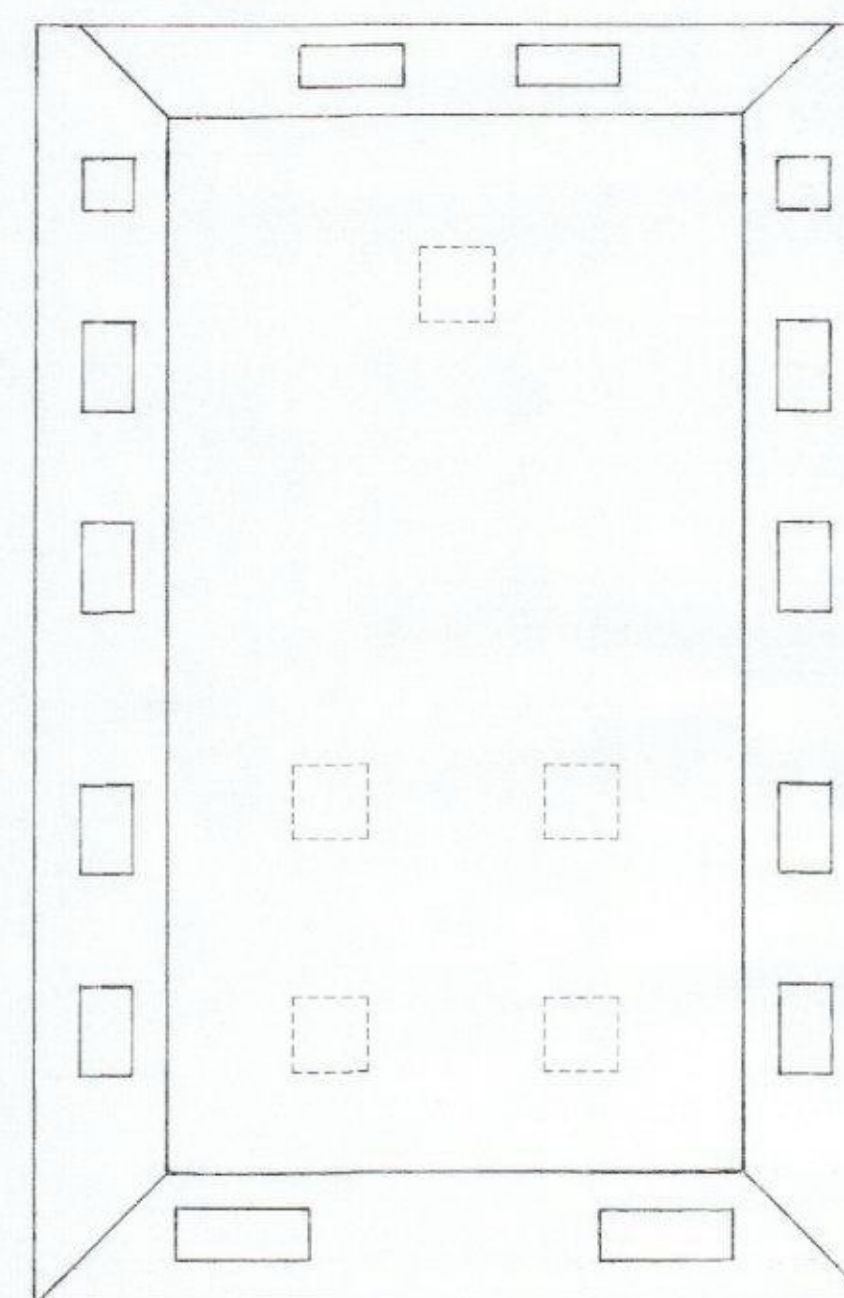
Proposed Ground Floor Plan



Proposed First Floor Plan

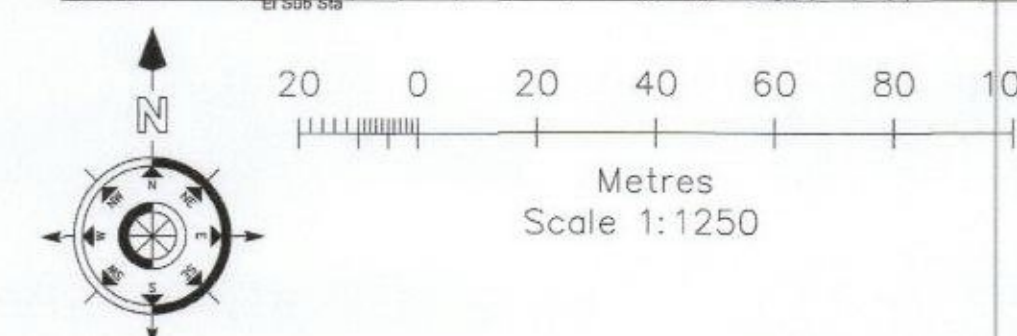
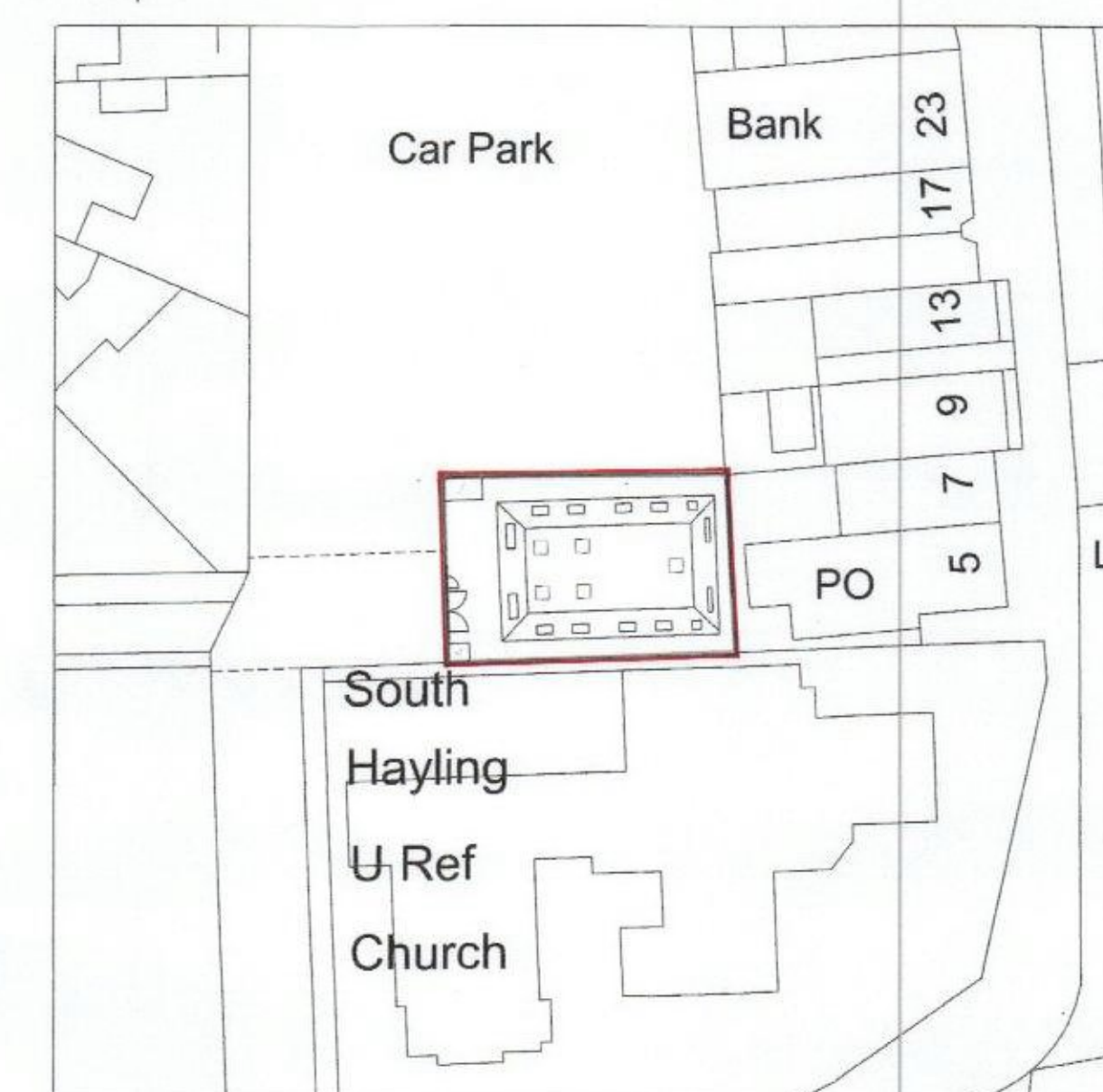
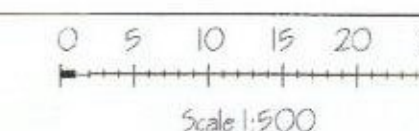


Proposed Second Floor Plan



Proposed Roof Plan

All external materials to be used in the proposed development shall match those of the existing property and as described within the planning application forms. Unless otherwise agreed in writing by Local Authority Planning Department.



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client Mr Mark Simmons

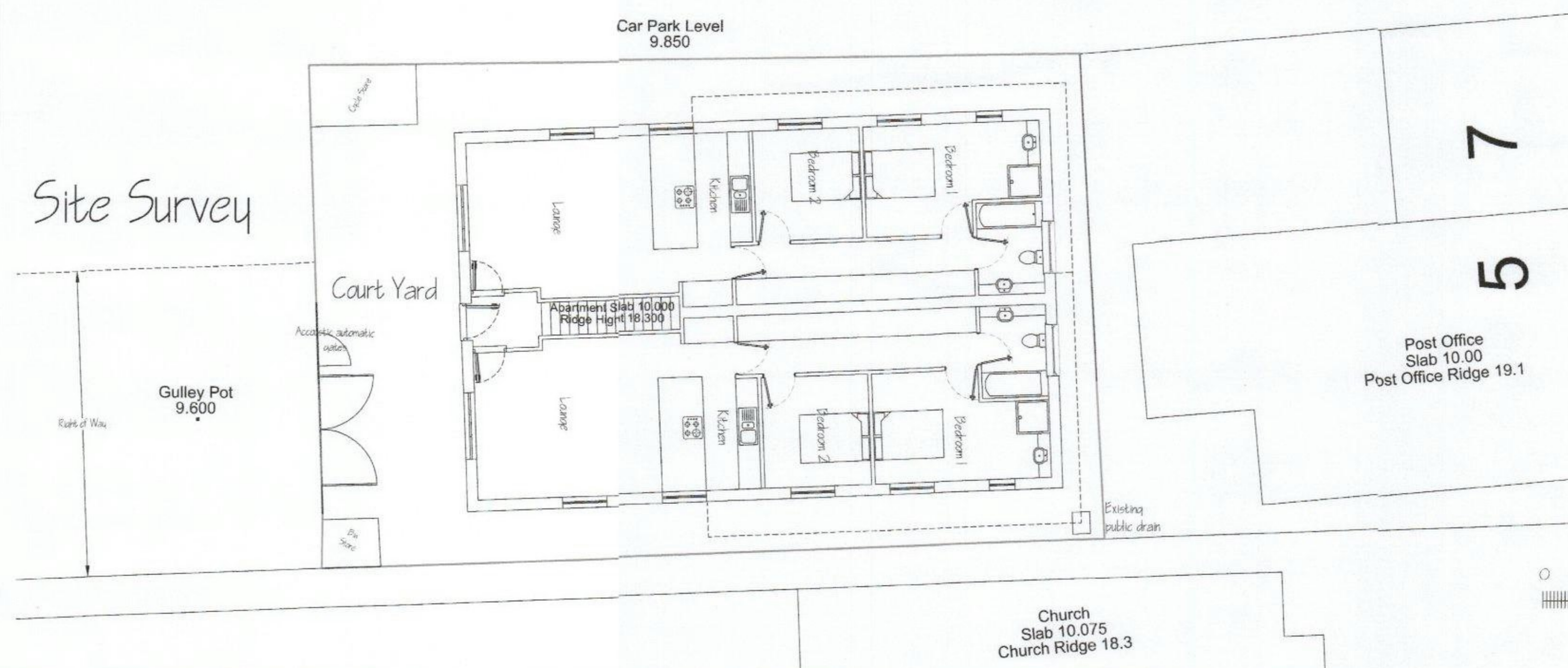
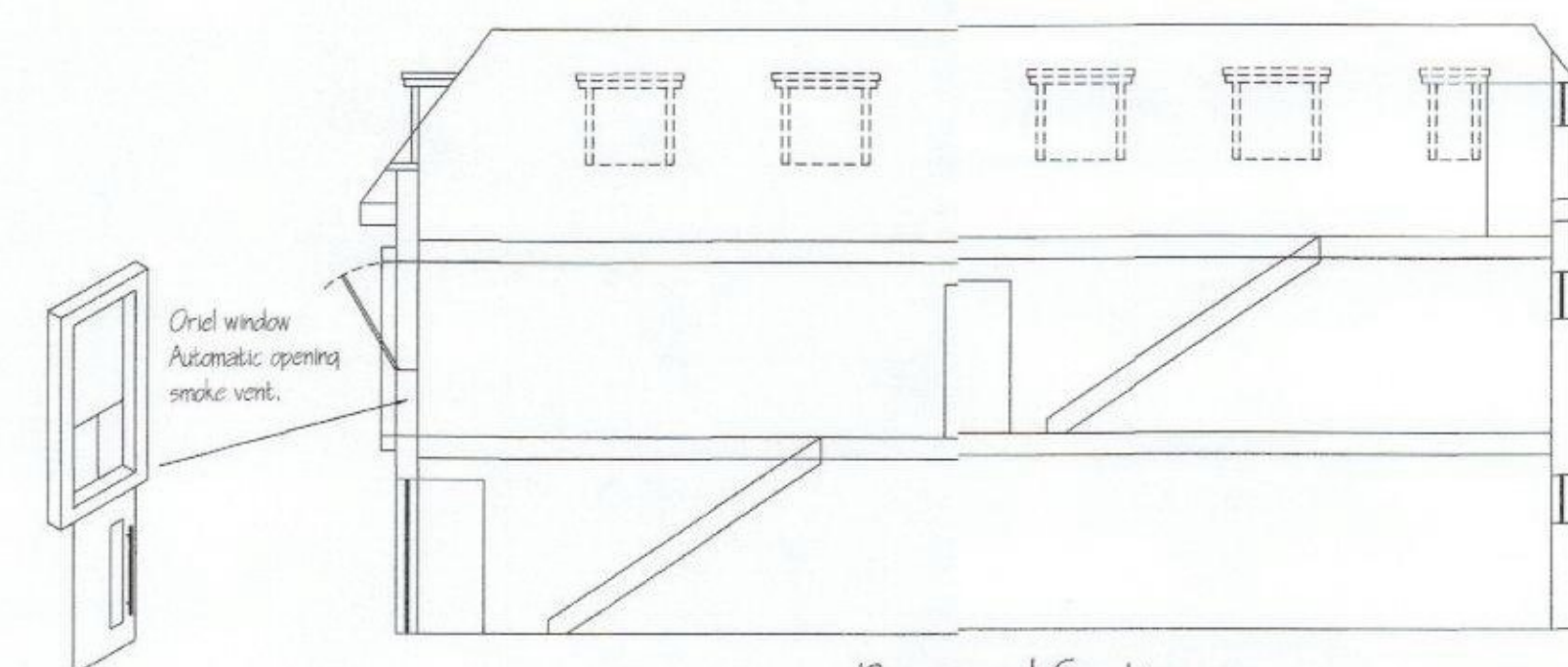
drawing title 6 No 2 Bedrooms Starter Homes.

scheme 3 Elm Grove
HAYLING ISLAND
PO11 9EA

date 14th August 17

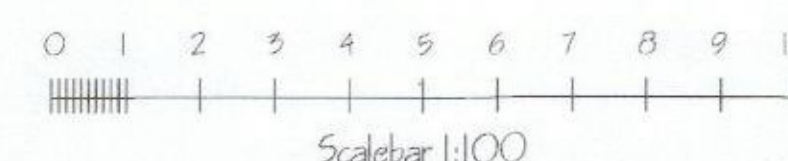
Drawing No. 2 Scale 1:100 drawn by Simon R

Site Survey



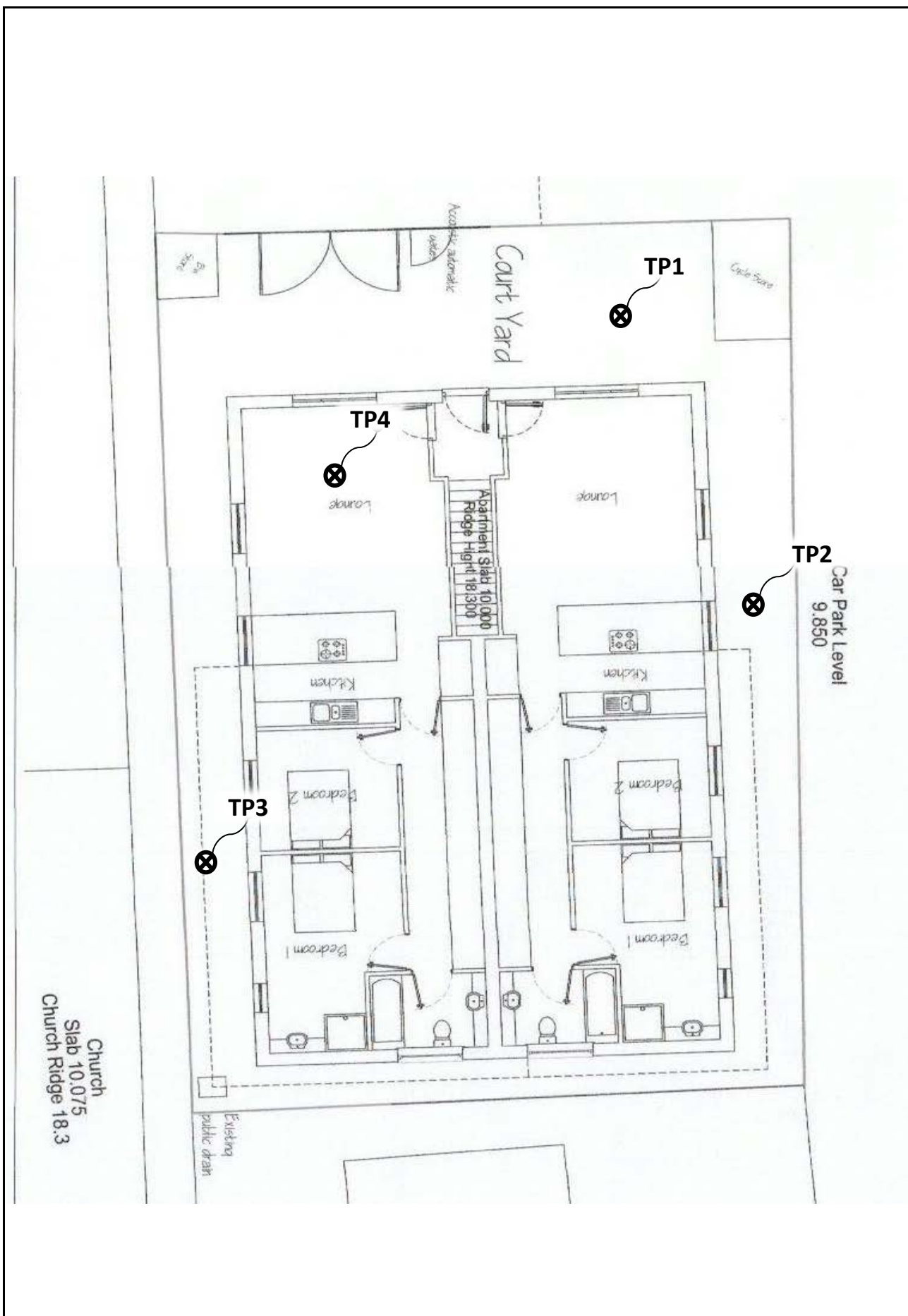
Proposed Section

Whilst every care has been taken in the preparation of this drawing, its sole intention is to provide sufficient information to obtain Planning Permission and Building Regulation Approval. It is the builders responsibility to ensure fit and function and ensure all dimensions are checked and reported back if necessary.



APPENDIX B: Site Investigation Plan





Title: Investigation Location Plan		
	Site Name:	Job No:
	3 Elm Grove, Hayling Island	YE4776

APPENDIX C: Trial Pit Logs



Project Name: 3 Elm Grove.						Client: Mr R Hughes.						Date: 06/06/2018					
Location: Hayling Island, PO11 9EA.						Contractor:											
Project No. : YE4776						Crew Name:						Equipment:					
Location Number TP01			Location Type TP			Level			Logged By MG			Scale 1:25			Page Number Sheet 1 of 1		
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description									
		Depth (m)	Type	Results													
		0.15	ES		0.20			MADEGROUND: Grey gravelly SAND. Sand is fine to medium. Gravel is coarse of concrete, cement and mixed lithology. Orangish brown silty SAND. Sand is fine.									
		0.30	ES														
		0.50	ES														
		0.70	ES														
		1.00	ES		1.00			End of Borehole at 1.000m			1						
															2		
															3		
															4		
															5		
Dimensions				Trench Support and Comment						Pumping Data							
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks						Date	Rate	Remarks					
0.30	0.30		None														
Remarks																	

Trial Pit Log

Project Name: 3 Elm Grove.		Client: Mr R Hughes.		Date: 06/06/2018	
Location: Hayling Island, PO11 9EA.		Contractor:			
Project No. : YE4776		Crew Name:		Equipment:	
Location Number TP02	Location Type TP	Level	Logged By MG	Scale 1:25	Page Number Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.15	ES		0.20			MADEGROUND: Grey gravelly SAND. Sand is fine to medium. Gravel is coarse of concrete, cement and mixed lithology. Potential asbestos containing material noted. Orangish brown very sandy SILT. Sand is fine.	
		0.30	ES						
		0.50	ES						
		0.70	ES						
		1.00	ES		1.00				1
								End of Borehole at 1.000m	
									2
									3
									4
									5

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
0.30	0.30		None				

Remarks							
---------	--	--	--	--	--	--	---

Project Name: 3 Elm Grove.				Client: Mr R Hughes.				Date: 06/06/2018			
Location: Hayling Island, PO11 9EA.				Contractor:							
Project No. : YE4776				Crew Name:				Equipment:			
Location Number TP03		Location Type TP		Level		Logged By MG		Scale 1:25		Page Number Sheet 1 of 1	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		0.15	ES		0.20	1.00		MADEGROUND: Grey gravelly SAND. Sand is fine to medium. Gravel is coarse of concrete and mixed lithology.		1	
		0.30	ES					Orangish brown sandy SILT. Sand is fine. Root noted at 0.5mbgl.			
		0.50	ES								
		0.70	ES								
		1.00	ES								
								End of Borehole at 1.000m		2	
										3	
										4	
										5	
Dimensions				Trench Support and Comment				Pumping Data			
Pit Length 0.30		Pit Width 0.30		Pit Stability	Shoring Used None	Remarks		Date	Rate	Remarks	
Remarks											

Project Name: 3 Elm Grove.						Client: Mr R Hughes.						Date: 06/06/2018					
Location: Hayling Island, PO11 9EA.						Contractor:											
Project No. : YE4776						Crew Name:						Equipment:					
Location Number TP04			Location Type TP			Level			Logged By MG			Scale 1:25			Page Number Sheet 1 of 1		
Well	Water Strikes	Sample and In Situ Testing				Depth (m)	Level (m)	Legend	Stratum Description								
		Depth (m)	Type	Results													
		0.15	ES		0.20		[Cross-hatch pattern]	MADEGROUND: Greyish brown gravelly SAND. Sand is fine to medium. Gravel is coarse of concrete and mixed lithology. Brown very sandy SILT. Sand is fine to medium.				1					
		0.30	ES														
		0.50	ES														
		0.70	ES														
		1.00	ES		1.00		[X-pattern]	End of Borehole at 1.000m				5					
Dimensions				Trench Support and Comment						Pumping Data							
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks				Date	Rate	Remarks							
0.30	0.30		None														
Remarks																	

APPENDIX D: Site Investigation Photographs



Site: 3 Elm Grove, Hayling Island
Client: MR Hughes
Job Reference: YE4776, Dated: June 2018

A.



B.



C.



D.




Your Environment

A. Trial pit 1

B. Trial pit 1

C. Potential asbestos containing
materials on site

D. Trial pit 1

Site: 3 Elm Grove, Hayling Island
Client: MR Hughes
Job Reference: YE4776, Dated: June 2018

E.



F.



G.



H.



Your Environment

E. Trial pit 2

F. As above

G. As above

H. As above



Your Environment

Site: 3 Elm Grove, Hayling Island
Client: MR Hughes
Job Reference: YE4776, Dated: June 2018

I.



J.



K.



L.



Your Environment

I. Trial pit 3

J. As above

K. As above

L. Trial pit 4



Your Environment

Site: 3 Elm Grove, Hayling Island
Client: MR Hughes
Job Reference: YE4776, Dated: June 2018

M.



N.




Your Environment

M. Trial pit 4

N. Material excavated from trial pit 4

APPENDIX E: Soil Contamination Laboratory Results





Matt Griffiths
Your Environment
Chilgrove Business Centre
Chilgrove Park Road
Chilgrove
Chichester
West Sussex
PO18 9HU

DETS Ltd
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410
russell.jarvis@qtsenvironmental.com

DETS Report No: 18-76358

Site Reference: Elm Grove

Project / Job Ref: YE4776

Order No: None Supplied

Sample Receipt Date: 07/06/2018

Sample Scheduled Date: 07/06/2018

Report Issue Number: 1

Reporting Date: 13/06/2018

Authorised by:

Russell Jarvis
Associate Director of Client Services

Authorised by:

Dave Ashworth
Deputy Quality Manager



DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate						
DETS Report No: 18-76358	Date Sampled	06/06/18	06/06/18	06/06/18	06/06/18	06/06/18
Your Environment	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Elm Grove	TP / BH No	TP1	TP1	TP2	TP2	TP3
Project / Job Ref: YE4776	Additional Refs	MG	NAT	MG	NAT	MG
Order No: None Supplied	Depth (m)	0.15	0.50	0.15	0.70	0.15
Reporting Date: 13/06/2018	QTSE Sample No	338593	338594	338595	338596	338597

Determinand	Unit	RL	Accreditation					
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected		Not Detected		Not Detected
pH	pH Units	N/a	MCERTS	7.8	7.7	7.2	7.5	6.6
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	27	25	16	14	16
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.03	0.02	0.02	0.01	0.02
Organic Matter	%	< 0.1	MCERTS	3.5	1.1	1.9	0.6	2.3
Arsenic (As)	mg/kg	< 2	MCERTS	7	6	5	10	6
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	0.8	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	28	26	19	28	19
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	57	17	12	12	17
Lead (Pb)	mg/kg	< 3	MCERTS	252	26	80	14	85
Mercury (Hg)	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	15	16	12	24	12
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3	< 3	< 3	< 3
Zinc (Zn)	mg/kg	< 3	MCERTS	394	73	68	47	147
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2

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

Soil Analysis Certificate						
DETS Report No: 18-76358	Date Sampled	06/06/18	06/06/18	06/06/18		
Your Environment	Time Sampled	None Supplied	None Supplied	None Supplied		
Site Reference: Elm Grove	TP / BH No	TP3	TP4	TP4		
Project / Job Ref: YE4776	Additional Refs	NAT	MG	NAT		
Order No: None Supplied	Depth (m)	1.00	0.15	0.30		
Reporting Date: 13/06/2018	QTSE Sample No	338598	338599	338600		

Determinand	Unit	RL	Accreditation				
Asbestos Screen ^(S)	N/a	N/a	ISO17025		Not Detected		
pH	pH Units	N/a	MCERTS	7.2	7.0	7.5	
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2	
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	15	12	12	
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.02	0.01	0.01	
Organic Matter	%	< 0.1	MCERTS	0.7	2.1	1.4	
Arsenic (As)	mg/kg	< 2	MCERTS	8	6	5	
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2	
Chromium (Cr)	mg/kg	< 2	MCERTS	25	19	20	
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	
Copper (Cu)	mg/kg	< 4	MCERTS	13	14	9	
Lead (Pb)	mg/kg	< 3	MCERTS	13	61	26	
Mercury (Hg)	mg/kg	< 1	NONE	< 1	< 1	< 1	
Nickel (Ni)	mg/kg	< 3	MCERTS	22	12	11	
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3	< 3	
Zinc (Zn)	mg/kg	< 3	MCERTS	48	88	43	
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
Subcontracted analysis (S)



DETS Ltd
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Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 18-76358	Date Sampled	06/06/18	06/06/18	06/06/18	06/06/18	06/06/18
Your Environment	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Elm Grove	TP / BH No	TP1	TP1	TP2	TP2	TP3
Project / Job Ref: YE4776	Additional Refs	MG	NAT	MG	NAT	MG
Order No: None Supplied	Depth (m)	0.15	0.50	0.15	0.70	0.15
Reporting Date: 13/06/2018	QTSE Sample No	338593	338594	338595	338596	338597

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	0.46	< 0.1	< 0.1	< 0.1	1.17
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	0.16
Fluoranthene	mg/kg	< 0.1	MCERTS	0.75	< 0.1	0.32	< 0.1	3.05
Pyrene	mg/kg	< 0.1	MCERTS	0.63	< 0.1	0.29	< 0.1	2.41
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	0.34	< 0.1	0.14	< 0.1	1.45
Chrysene	mg/kg	< 0.1	MCERTS	0.40	< 0.1	0.18	< 0.1	2.24
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	0.60	< 0.1	0.26	< 0.1	4.35
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	0.22	< 0.1	< 0.1	< 0.1	1.09
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	0.41	< 0.1	0.18	< 0.1	2.64
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	0.29	< 0.1	< 0.1	< 0.1	2.19
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	0.43
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	0.24	< 0.1	< 0.1	< 0.1	1.85
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	4.3	< 1.6	< 1.6	< 1.6	23

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



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Rose Lane
Lenham Heath
Maidstone
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Tel : 01622 850410



Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 18-76358	Date Sampled	06/06/18	06/06/18	06/06/18		
Your Environment	Time Sampled	None Supplied	None Supplied	None Supplied		
Site Reference: Elm Grove	TP / BH No	TP3	TP4	TP4		
Project / Job Ref: YE4776	Additional Refs	NAT	MG	NAT		
Order No: None Supplied	Depth (m)	1.00	0.15	0.30		
Reporting Date: 13/06/2018	QTSE Sample No	338598	338599	338600		

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	0.15	< 0.1		
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.50	< 0.1		
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	0.48	< 0.1		
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	0.22	< 0.1		
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	0.28	< 0.1		
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.46	< 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	0.27	< 0.1		
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	0.18	< 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	0.17	< 0.1		
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	2.7	< 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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Maidstone
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Tel : 01622 850410



Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 18-76358	Date Sampled	06/06/18	06/06/18	06/06/18	06/06/18	06/06/18
Your Environment	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Elm Grove	TP / BH No	TP1	TP1	TP2	TP2	TP3
Project / Job Ref: YE4776	Additional Refs	MG	NAT	MG	NAT	MG
Order No: None Supplied	Depth (m)	0.15	0.50	0.15	0.70	0.15
Reporting Date: 13/06/2018	QTSE Sample No	338593	338594	338595	338596	338597

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	< 21
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	4	< 3	< 3	< 3	14
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	19	< 10	< 10	< 10	106
Aromatic (C5 - C35)	mg/kg	< 21	NONE	24	< 21	< 21	< 21	120
Total >C5 - C35	mg/kg	< 42	NONE	< 42	< 42	< 42	< 42	120

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



DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410



Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 18-76358	Date Sampled	06/06/18	06/06/18	06/06/18		
Your Environment	Time Sampled	None Supplied	None Supplied	None Supplied		
Site Reference: Elm Grove	TP / BH No	TP3	TP4	TP4		
Project / Job Ref: YE4776	Additional Refs	NAT	MG	NAT		
Order No: None Supplied	Depth (m)	1.00	0.15	0.30		
Reporting Date: 13/06/2018	QTSE Sample No	338598	338599	338600		

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						
DETS Report No: 18-76358	Date Sampled	06/06/18	06/06/18	06/06/18	06/06/18	06/06/18
Your Environment	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Elm Grove	TP / BH No	TP1	TP1	TP2	TP2	TP3
Project / Job Ref: YE4776	Additional Refs	MG	NAT	MG	NAT	MG
Order No: None Supplied	Depth (m)	0.15	0.50	0.15	0.70	0.15
Reporting Date: 13/06/2018	QTSE Sample No	338593	338594	338595	338596	338597

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
MTBE	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 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 - BTEX / MTBE						
DETS Report No: 18-76358	Date Sampled	06/06/18	06/06/18	06/06/18		
Your Environment	Time Sampled	None Supplied	None Supplied	None Supplied		
Site Reference: Elm Grove	TP / BH No	TP3	TP4	TP4		
Project / Job Ref: YE4776	Additional Refs	NAT	MG	NAT		
Order No: None Supplied	Depth (m)	1.00	0.15	0.30		
Reporting Date: 13/06/2018	QTSE Sample No	338598	338599	338600		

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		

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

DETS Report No: 18-76358

Your Environment

Site Reference: Elm Grove

Project / Job Ref: YE4776

Order No: None Supplied

Reporting Date: 13/06/2018

QTSE Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
338593	TP1	MG	0.15	13	Grey clayey sand
338594	TP1	NAT	0.50	13.3	Brown sandy clay
338595	TP2	MG	0.15	14.4	Brown sandy clay
338596	TP2	NAT	0.70	12.6	Brown sandy clay
338597	TP3	MG	0.15	13.1	Brown sandy clay
338598	TP3	NAT	1.00	14.8	Brown sandy clay
338599	TP4	MG	0.15	15.4	Brown sandy clay
338600	TP4	NAT	0.30	14.6	Brown sandy clay

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

Insufficient Sample ^{1/5}

Unsuitable Sample ^{u/s}

Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 18-76358

Your Environment

Site Reference: Elm Grove

Project / Job Ref: YE4776

Order No: None Supplied

Reporting Date: 13/06/2018

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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DETS Report No: 18-76792

Site Reference: Elm Grove

Project / Job Ref: YE4776

Order No: None Supplied

Sample Receipt Date: 07/06/2018

Sample Scheduled Date: 14/06/2018

Report Issue Number: 1

Reporting Date: 15/06/2018

Authorised by:

Russell Jarvis
Associate Director of Client Services

Authorised by:

Dave Ashworth
Deputy Quality Manager



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Bulk Analysis Certificate						
DETS Report No: 18-76792	Date Sampled	06/06/18				
Your Environment	Time Sampled	None Supplied				
Site Reference: Elm Grove	TP / BH No	TP2 (Bulk)				
Project / Job Ref: YE4776	Additional Refs	MG				
Order No: None Supplied	Depth (m)	0.15				
Reporting Date: 15/06/2018	QTSE Sample No	340212				

Determinand	Unit	RL	Accreditation				
Asbestos Type ⁽⁵⁾	PLM Result	N/a	ISO17025	Chrysotile			
Sample Matrix ⁽⁵⁾	Material Type	N/a	NONE	Cement			

The samples have been examined to identify the presence of asbestiform minerals by polarising light microscopy and dispersion staining technique to In-House Procedures QTSE600 Determination of Asbestos in Bulk Materials; Asbestos in Soils/Sediments (fibre screening and identification) that is in accordance with the Health and Safety Executive HSG 248 Appendix 2.

This report refers to samples as received, and QTS Environmental Ltd, takes no responsibility for the accuracy or competence of sampling by others.

The material description shall be regarded as tentative and is not included in our scope of UKAS Accreditation.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

RL: Reporting Limit

Subcontracted analysis ⁽⁵⁾