Analytical Report Number: 22-83806
Project / Site name: Homebase, Richmond

Lab Sample Number				2422973	2422974	2422975	2422976	2422977
Sample Reference				BH1	BH2	BH3	WSA	WSB
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.60	0.50	0.50
Date Sampled				06/09/2022	06/09/2022	06/09/2022	06/09/2022	06/09/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Chloroethane	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
Benzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Toluene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Styrene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Tribromomethane	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-

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Lab Sample Number				2422973	2422974	2422975	2422976	2422977
Sample Reference				BH1	BH2	BH3	WSA	WSB
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.60	0.50	0.50
Date Sampled				06/09/2022	06/09/2022	06/09/2022	06/09/2022	06/09/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-

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Project / Site name: Homebase, Richmond

Lab Sample Number				2422973	2422974	2422975	2422976	2422977
Sample Reference				BH1	BH2	BH3	WSA	WSB
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.60	0.50	0.50
Date Sampled				06/09/2022	06/09/2022	06/09/2022	06/09/2022	06/09/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	-	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	0.25	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	0.21	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	-	0.3	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	-	0.23	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	0.8	-	-	2.7	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	0.52	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	1.3	-	-	5.7	-
Pyrene	mg/kg	0.05	MCERTS	1.2	-	-	5.1	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.68	-	-	3.5	-
Chrysene	mg/kg	0.05	MCERTS	0.72	-	-	3.3	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.57	-	-	4.1	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.41	-	-	1.8	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.58	-	-	3.8	-

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Lab Sample Number				2422973	2422974	2422975	2422976	2422977
Sample Reference				BH1	BH2	BH3	WSA	WSB
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.60	0.50	0.50
Date Sampled				06/09/2022	06/09/2022	06/09/2022	06/09/2022	06/09/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.26	-	-	1.7	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	0.56	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.34	-	-	2.1	-

U/S = Unsuitable Sample I/S = Insufficient Sample

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Project / Site name: Homebase, Richmond

Lab Sample Number				2422978	2422979	2422980	2422981	2422982
Sample Reference				WSB	WSC	WSD	WSD	WSE
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.80	1.00	0.60
Date Sampled				06/09/2022	06/09/2022	06/09/2022	06/09/2022	06/09/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	5.8	6.2	5	4.3	5.1
Total mass of sample received	kg	0.001	NONE	0.4	0.4	0.4	0.4	0.4
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile- Loose Fibres	-	-	-	Chrysotile- Loose Fibres
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Not-detected	Not-detected	Not-detected	Detected
Asbestos Analyst ID	N/A	N/A	N/A	DSO	DSO	DSO	DSO	DSO
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.43	0.37	-	0.6	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.98	0.41	-	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.95	0.44	-	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	5.6	3	-	1.5	0.22
Anthracene	mg/kg	0.05	MCERTS	0.87	0.51	-	0.21	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	4.9	3.1	-	2.2	0.66
Pyrene	mg/kg	0.05	MCERTS	3.9	2.6	-	1.9	0.9
Benzo(a)anthracene	mg/kg	0.05	MCERTS	2.1	1.6	-	1.4	0.5
Chrysene	mg/kg	0.05	MCERTS	1.4	1.4	-	1.1	0.6
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.9	1.7	-	1.5	0.58
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.67	0.58	-	0.55	0.39
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.6	1.5	-	1.2	0.48
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.73	0.62	-	0.59	0.28
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.92	0.88	-	0.74	0.37
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	26.9	18.7	-	13.3	4.98
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	17	19	24	13
Barium (aqua regia extractable)	mg/kg	1	MCERTS	150	330	51	99	63
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.64	0.83	0.66	0.73	0.47
Boron (water soluble)	mg/kg	0.2	MCERTS	2.1	2.1	0.5	1.6	2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	23	27	18	19
Copper (aqua regia extractable)	mg/kg	1	MCERTS	49	82	27	56	26
Lead (aqua regia extractable)	mg/kg	1	MCERTS	100	200	74	720	170
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	0.6	1.1	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	13	19	21	23	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	29	32	45	34	26
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	130	140	81	130	54

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Lab Sample Number				2422978	2422979	2422980	2422981	2422982
Sample Reference				WSB	WSC	WSD	WSD	WSE
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.80	1.00	0.60
Date Sampled				06/09/2022	06/09/2022	06/09/2022	06/09/2022	06/09/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	10	7	< 2.0	< 2.0	26
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	31	22	< 8.0	< 8.0	83
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	91	53	< 8.0	< 8.0	190
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	MCERTS	130	83	< 10	< 10	300
TPH-CWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	8.8	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	19	8.3	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	37	23	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	70	54	< 10	15	< 10
TPH-CWG - Aromatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	MCERTS	140	85	< 10	23	< 10

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Lab Sample Number				2422978	2422979	2422980	2422981	2422982
Sample Reference				WSB	WSC	WSD	WSD	WSE
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.80	1.00	0.60
Date Sampled				06/09/2022	06/09/2022	06/09/2022	06/09/2022	06/09/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Chloroethane	µg/kg	1	NONE	-	-	< 1.0	-	-
Bromomethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Vinyl Chloride	µg/kg	1	NONE	-	-	< 1.0	-	-
Trichlorofluoromethane	µg/kg	1	NONE	-	-	< 1.0	-	-
1,1-Dichloroethene	µg/kg	1	NONE	-	-	< 1.0	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Trichloromethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	< 1.0	-	-
Benzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Trichloroethene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Dibromomethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Bromodichloromethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Toluene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Tetrachloroethene	µg/kg	1	NONE	-	-	< 1.0	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
Chlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
p & m-Xylene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Styrene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Tribromomethane	µg/kg	1	NONE	-	-	< 1.0	-	-
o-Xylene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Isopropylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Bromobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-

Analytical Report Number: 22-83806
Project / Site name: Homebase, Richmond

Lab Sample Number				2422978	2422979	2422980	2422981	2422982
Sample Reference				WSB	WSC	WSD	WSD	WSE
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.80	1.00	0.60
Date Sampled				06/09/2022	06/09/2022	06/09/2022	06/09/2022	06/09/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	< 1.0	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	< 1.0	-	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	< 1.0	-	-

Analytical Report Number: 22-83806
Project / Site name: Homebase, Richmond

Lab Sample Number				2422978	2422979	2422980	2422981	2422982
Sample Reference				WSB	WSC	WSD	WSD	WSE
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.80	1.00	0.60
Date Sampled				06/09/2022	06/09/2022	06/09/2022	06/09/2022	06/09/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	< 0.1	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	< 0.1	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	< 0.3	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	0.23	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	0.53	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	0.48	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	< 0.3	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	0.35	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	0.29	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.42	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.17	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	0.38	-	-

Analytical Report Number: 22-83806
Project / Site name: Homebase, Richmond

Lab Sample Number				2422978	2422979	2422980	2422981	2422982
Sample Reference				WSB	WSC	WSD	WSD	WSE
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.80	0.80	1.00	0.60
Date Sampled				06/09/2022	06/09/2022	06/09/2022	06/09/2022	06/09/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	0.21	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	0.26	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 22-83806
Project / Site name: Homebase, Richmond

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2422973	BH1	None Supplied	1	Brown clay and sand with gravel.
2422974	BH2	None Supplied	0.8	Brown clay and sand with gravel and vegetation.
2422975	BH3	None Supplied	0.6	Brown clay and sand with gravel.
2422976	WSA	None Supplied	0.5	Brown clay and sand with gravel and rubble.
2422977	WSB	None Supplied	0.5	Brown sand with gravel and rubble.
2422978	WSB	None Supplied	1	Brown loam and sand with gravel.
2422979	WSC	None Supplied	0.8	Brown loam and sand with gravel.
2422980	WSD	None Supplied	0.8	Brown loam and sand with gravel and vegetation.
2422981	WSD	None Supplied	1	Brown sandy loam with gravel and vegetation.
2422982	WSE	None Supplied	0.6	Brown sandy loam with gravel.

Analytical Report Number : 22-83806
Project / Site name: Homebase, Richmond

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Analytical Report Number : 22-83806
Project / Site name: Homebase, Richmond

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

APPENDIX E

FIGURES

Homebase, 84 Manor Road,
Richmond Upon Thames,
TW9 1YB

Site Plan

Scale: unknown

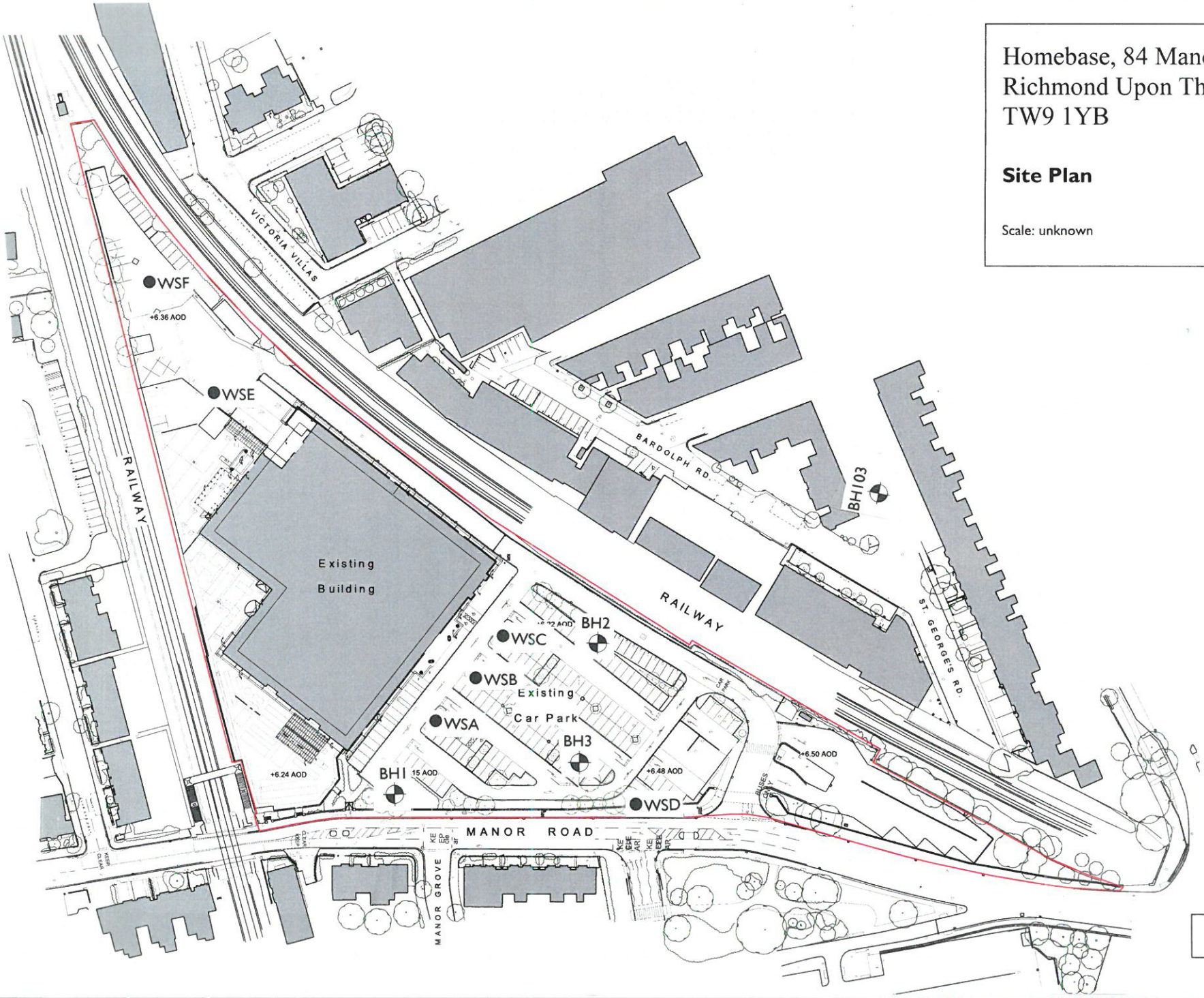


Figure 1

Homebase, 84 Manor Road,
Richmond Upon Thames,
TW9 1YB

Proposed Layout

Scale: unknown

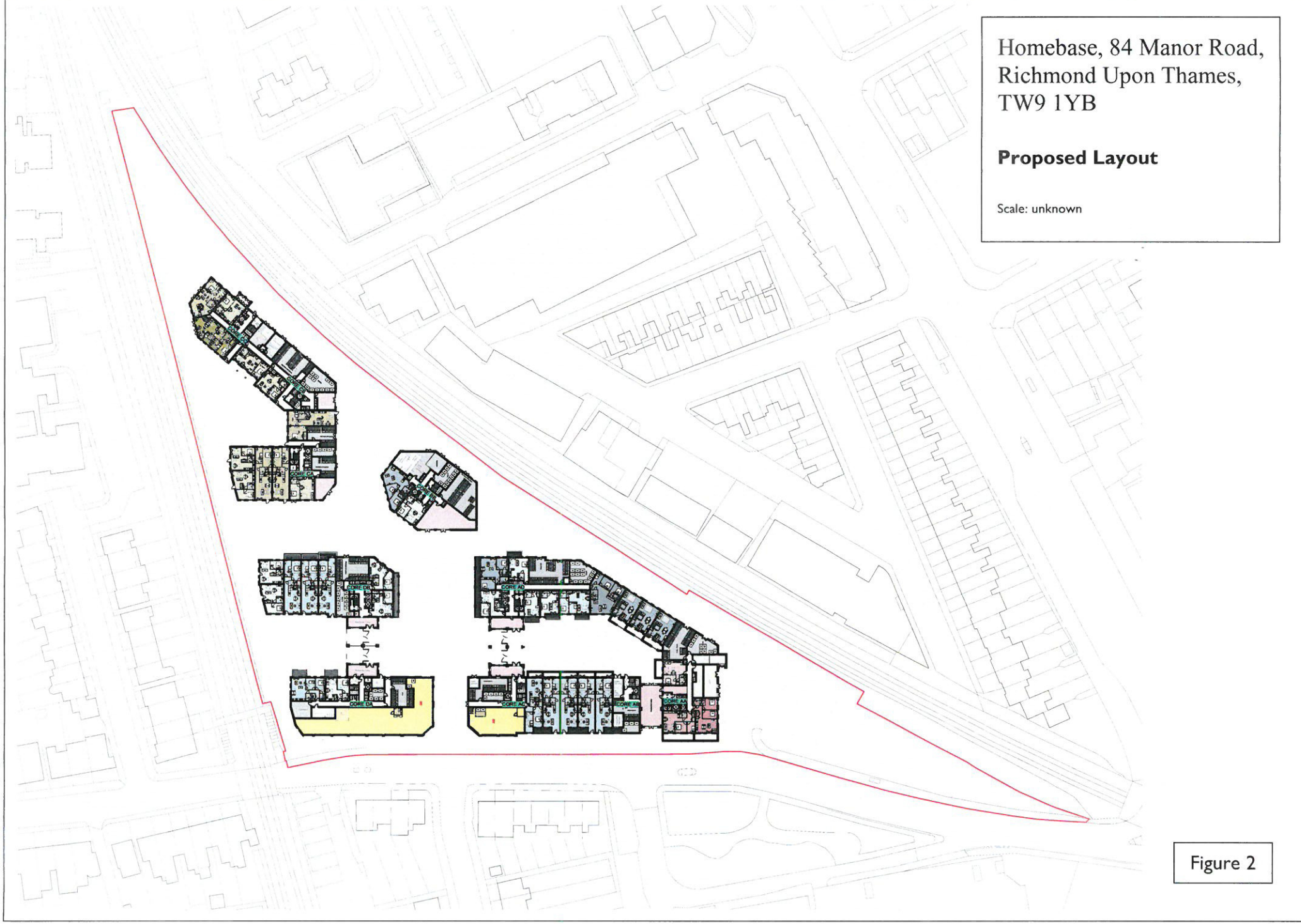
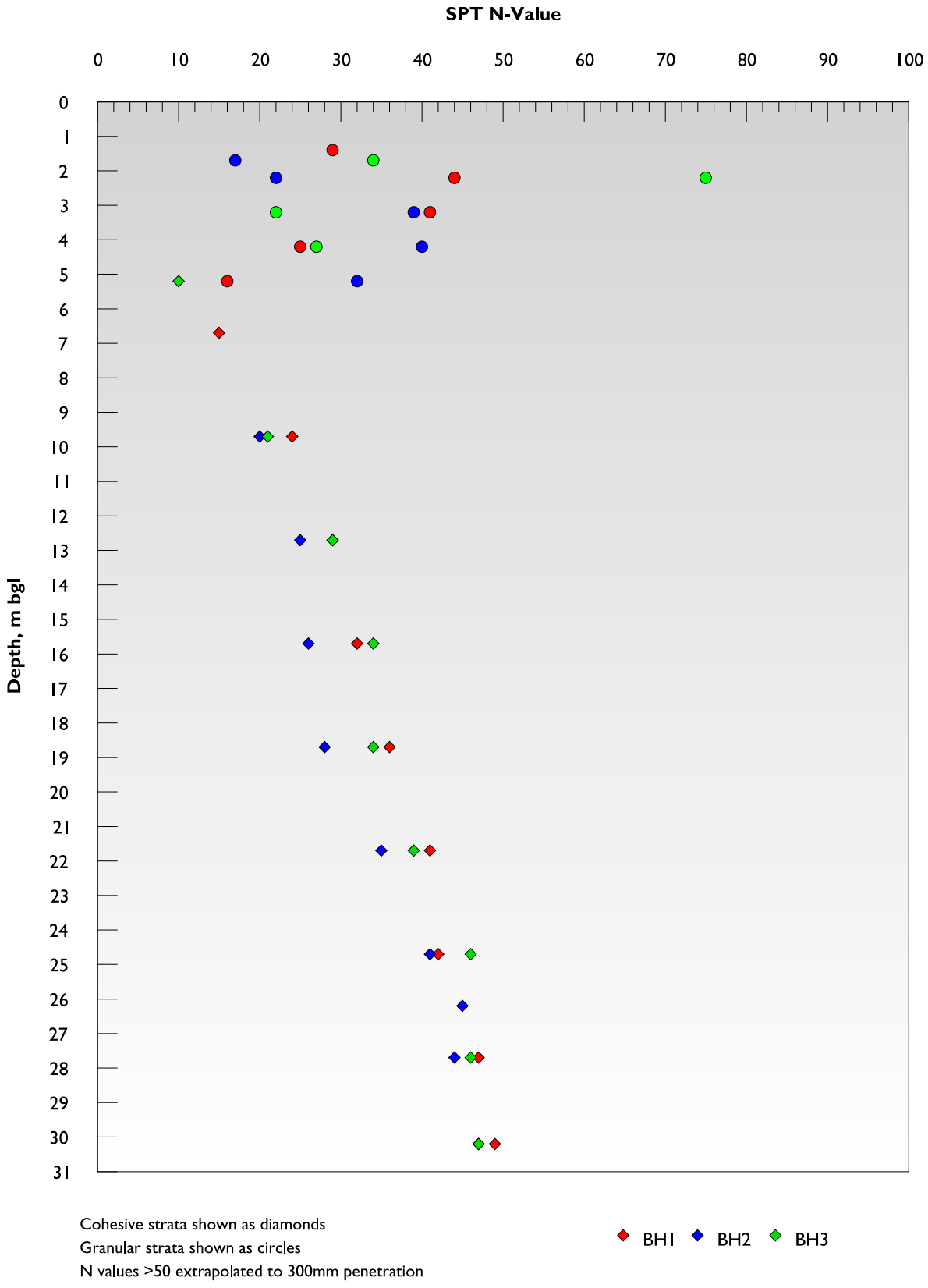


Figure 2

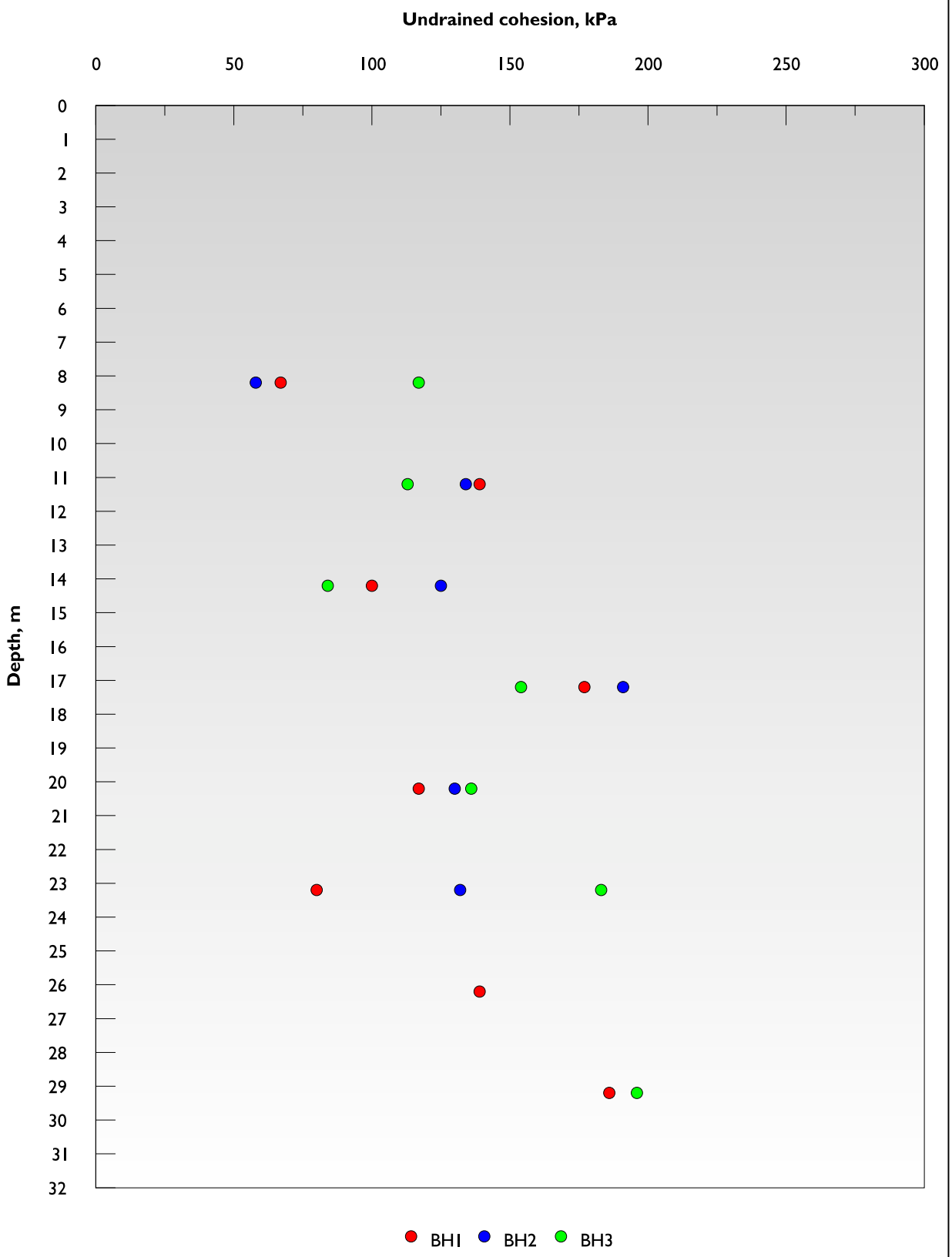
SPT PROFILE
HOMEBASE, 84 MANOR ROAD, RICHMOND



MANHIRE ASSOCIATES
GEO-ENVIRONMENTAL LIMITED

Figure 3

SHEAR STRENGTH PROFILE
HOMEBASE, 84 MANOR ROAD, RICHMOND



APPENDIX D – Thames Water Sewer Records

Asset Location Search Sewer Map - ALS/ALS Standard/2018_3818642

TQ1875SE

The width of the displayed area is 500m and the centre of the map is located at OS coordinates 518750,175250

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

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

Manhole Reference	Manhole Cover Level	Manhole Invert Level
90YQ	n/a	n/a
91QS	n/a	n/a
91SP	n/a	n/a
91QZ	n/a	n/a
93RT	n/a	n/a
93YZ	n/a	n/a
93ZT	n/a	n/a
92ZQ	n/a	n/a
93GY	n/a	n/a
93FZ	n/a	n/a
92EV	n/a	n/a
92PV	n/a	n/a
92PW	n/a	n/a
92PX	n/a	n/a
92PY	n/a	n/a
92RS	n/a	n/a
92PZ	n/a	n/a
9210	7.62	6.45
92AA	n/a	n/a
9305	n/a	n/a
9206	7.8	3.86
9306	7.68	6.33
9012	12.07	7.88
9011	11.61	8.09
9002	12.05	8.99
9001	11.58	8.1
90XT	n/a	n/a
90TR	n/a	n/a
90ZW	n/a	n/a
90YS	n/a	n/a
n/a	n/a	n/a
90YR	n/a	n/a
90TZ	n/a	n/a
91XV	n/a	n/a
90ZT	n/a	n/a
91VT	n/a	n/a
91WX	n/a	n/a
90ZY	n/a	n/a
91ZL	n/a	n/a
91VS	n/a	n/a
91XT	n/a	n/a
90VQ	n/a	n/a
9104	9.95	7.31
9013	10.38	8.72
91ZR	n/a	n/a
90YP	n/a	n/a
91SQ	n/a	n/a
90WT	n/a	n/a
90WV	n/a	n/a
91RV	n/a	n/a
90WW	n/a	n/a
91SV	n/a	n/a
91ST	n/a	n/a
91RY	n/a	n/a
91SS	n/a	n/a
91RX	n/a	n/a
8301	6.98	5.31
931A	n/a	n/a
9301	7.4	3.79
93SW	n/a	n/a
93XY	n/a	n/a
93YR	n/a	n/a
93RR	n/a	n/a
9307	7.25	n/a
93IW	n/a	n/a
93XS	n/a	n/a
93WZ	n/a	n/a
93XZ	n/a	n/a
93AB	n/a	n/a
93TY	n/a	n/a
93XP	n/a	n/a
93VW	n/a	n/a
93YP	n/a	n/a
9308	n/a	n/a
9304	7.34	3.71
93XQ	n/a	n/a
93TZ	n/a	n/a
93VP	n/a	n/a
93TP	n/a	n/a
93TR	n/a	n/a
81WX	n/a	n/a
8104	8.59	6.27
81ZX	n/a	n/a
91VY	n/a	n/a
91WZ	n/a	n/a
91SZ	n/a	n/a
91TX	n/a	n/a
9101	8.82	7.07
9105	8.77	6.72
92WS	n/a	n/a
92WY	n/a	n/a

Manhole Reference	Manhole Cover Level	Manhole Invert Level
91ZT	n/a	n/a
92WT	n/a	n/a
92XQ	n/a	n/a
91ZY	n/a	n/a
91ZP	n/a	n/a
91ZN	n/a	n/a
91ZW	n/a	n/a
91YY	n/a	n/a
91PS	n/a	n/a
9309	7.25	5.5
9407	6.58	5.23
9408	6.75	5.17
9401	6.65	1.26
9402	6.5	4.15
941A	n/a	n/a
941B	n/a	n/a
941C	n/a	n/a
901C	n/a	n/a
901A	n/a	n/a
901B	n/a	n/a
90WX	n/a	n/a
911E	n/a	n/a
911A	n/a	n/a
911D	n/a	n/a
911F	n/a	n/a
911B	n/a	n/a
91PW	n/a	n/a
911G	n/a	n/a
911C	n/a	n/a
9207	8.19	6.23
9202	8.11	6.9
92VZ	n/a	n/a
92VY	n/a	n/a
92VT	n/a	n/a
92VV	n/a	n/a
921A	n/a	n/a
92SY	n/a	n/a
92TQ	n/a	n/a
92SX	n/a	n/a
9208	7.63	5.59
83ZY	n/a	n/a
83ZQ	n/a	n/a
8302	6.98	6.13
83ZT	n/a	n/a
83ZR	n/a	n/a
92ZS	n/a	n/a
93ZY	n/a	n/a
9201	7.65	4.2
92ZR	n/a	n/a
9209	7.61	6.79
93ST	n/a	n/a
93ZW	n/a	n/a
93SY	n/a	n/a
92TP	n/a	n/a
93ZV	n/a	n/a
93SX	n/a	n/a
801A	n/a	n/a
7102	8.1	5.94
7101	8.06	6.31
8207	7.26	4.06
8201	7.33	4.33
8205	7.35	5.09
81ZP	n/a	n/a
81XW	n/a	n/a
81ZV	n/a	n/a
81XX	n/a	n/a
8202	7.81	5.73
8206	7.92	5.95
8101	8.18	6.12
81XS	n/a	n/a
8102	8.38	6.69
81XT	n/a	n/a
8103	8.4	6.27
83ZW	n/a	n/a
8203	n/a	n/a
81XP	n/a	n/a
81XQ	n/a	n/a
8204	7.37	5.41
83ZX	n/a	n/a
82ZT	n/a	n/a
82ZQ	n/a	n/a
81ZR	n/a	n/a
81WY	n/a	n/a
81ZS	n/a	n/a
7303	6.33	5.06
7306	6.32	5.05
7304	6.34	5.12
7305	6.32	5.14
8402	6.16	4.54
8401	6.19	4.82
73ZS	n/a	n/a
73ZQ	n/a	n/a
721D	n/a	n/a

Manhole Reference	Manhole Cover Level	Manhole Invert Level
73YZ	n/a	n/a
731E	n/a	n/a
731B	n/a	n/a
7301	6.57	4.66
731G	n/a	n/a
7309	7.97	4.49
731D	n/a	n/a
7302	7.21	4.81
7312	6.76	4.49
731A	n/a	n/a
731F	n/a	n/a
731C	n/a	n/a
7308	6.81	5.23
7307	6.86	5.28
721A	n/a	n/a
7313	6.78	4.55
721C	n/a	n/a
7203	7	5.51
7310	6.25	5
7204	6.91	4.72
7205	7.05	4.74
7202	7.11	4.54
73ZY	n/a	n/a
7311	6.26	4.79
60ZT	n/a	n/a
6101	8.29	5.62
7103	8.41	6.79
7008	10.51	n/a
7001	10.5	6.01
71YW	n/a	n/a
71YV	n/a	n/a
71YS	n/a	n/a
70ZX	n/a	n/a
7009	10.69	8.29
7002	12.35	10.89
70ZR	n/a	n/a
70YY	n/a	n/a
70YX	n/a	n/a
70ZP	n/a	n/a
70XX	n/a	n/a
70YW	n/a	n/a
70YQ	n/a	n/a
7010	10.61	8.25
7006	10.55	7.05
71ZQ	n/a	n/a
7005	11.32	10.06
8105	9.01	6.71
8002	10.6	8.11
8001	10.53	7.38
62ZX	n/a	n/a
62ZS	n/a	n/a
62ZQ	n/a	n/a
621B	n/a	n/a
6104	7.42	5.69
621D	n/a	n/a
6205	n/a	n/a
621C	n/a	n/a
7201	7.11	4.12
7208	7.17	5.04
7206	7.19	4.18
71ZY	n/a	n/a
71ZX	n/a	n/a
71ZV	n/a	n/a
71ZT	n/a	n/a
7207	7.62	5.66
71ZS	n/a	n/a
64ZX	n/a	n/a
6402	6.3	5.98
6407	6.44	3.95
641E	n/a	n/a
641D	n/a	n/a
64ZW	n/a	n/a
6404	6.34	4.16
6411	6.41	4.28
6405	6.46	4.41
741A	n/a	n/a
741D	n/a	n/a
741B	n/a	n/a
741E	n/a	n/a
7413	6.35	4.24
7412	6.3	4.39
7403	6.3	4.55
7402	6.25	4.75
74ZX	n/a	n/a
7409	6.32	4.57
7408	6.19	4.59
7401	6.18	4.83
74ZW	n/a	n/a
7411	6.52	4.48
7410	6.49	4.53
5301	6.94	4.35
6301	6.9	4.77
6302	6.87	5.04

Manhole Reference	Manhole Cover Level	Manhole Invert Level
6303	6.9	4.48
6304	6.85	4.84
63ZT	n/a	n/a
63YY	n/a	n/a
64WP	n/a	n/a
63YZ	n/a	n/a
64VZ	n/a	n/a
6305	6.96	5.44
63ZP	n/a	n/a
63ZQ	n/a	n/a
63ZR	n/a	n/a
62ZV	n/a	n/a
6412	n/a	n/a
6306	6.73	5.53
6308	n/a	n/a
641F	n/a	n/a
6307	n/a	n/a
63ZW	n/a	n/a
63ZX	n/a	n/a
62YP	n/a	n/a
621A	n/a	n/a
63ZY	n/a	n/a
63ZV	n/a	n/a
631A	n/a	n/a
61ZV	n/a	n/a
611A	n/a	n/a
611B	n/a	n/a
621H	n/a	n/a
52YV	n/a	n/a
62XZ	n/a	n/a
62XX	n/a	n/a
62XW	n/a	n/a
6204	7.06	5.53
6202	7.01	5.19
6203	7.19	5.26
6201	7.09	4.95
62YZ	n/a	n/a
621F	n/a	n/a
621G	n/a	n/a
621E	n/a	n/a
501E	n/a	n/a
50XY	n/a	n/a
50YS	n/a	n/a
5011	n/a	n/a
60ZY	n/a	n/a
501D	n/a	n/a
60ZW	n/a	n/a
50YP	n/a	n/a
5003	10.32	7.93
6014	10.31	8.48
5013	12.92	10.65
6015	10.24	8.31
6011	10.03	6.45
50XP	n/a	n/a
6010	10.15	6.49
6001	10	5.98
501C	n/a	n/a
501A	n/a	n/a
501B	n/a	n/a
51ZR	n/a	n/a
51YY	n/a	n/a
51YX	n/a	n/a
51ZQ	n/a	n/a
6103	8.74	6.16
61ZP	n/a	n/a
6102	8.41	6.97
51WV	n/a	n/a
50ZR	n/a	n/a
50ZW	n/a	n/a
5004	12.81	11.72
5014	12.82	10.69
5012	n/a	n/a
5010	n/a	n/a
5009	12.8	11.73
5008	12.77	11.49
6012	12.95	10.65
6013	12.27	10.34
60ZS	n/a	n/a
6003	11.8	8.93
531B	n/a	n/a
541B	n/a	n/a
53ZY	n/a	n/a
5425	6.57	3.675

Asset Location Search Sewer Map - ALS/ALS Standard/2018_3818642

TQ1975NW

The width of the displayed area is 500m and the centre of the map is located at OS coordinates 519250,175750

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

Manhole Reference	Manhole Cover Level	Manhole Invert Level
4705	6.05	4.6
4711	5.98	3.8
48ZY	n/a	n/a
4905	6.12	4.77
4901	6.16	5.37
4803	6.22	5.28
4902	6.14	5.12
491D	n/a	n/a
481E	n/a	n/a
491B	n/a	n/a
481F	n/a	n/a
491C	n/a	n/a
491A	n/a	n/a
4807	6.13	5.16
4802	6.11	5.02
4805	6.19	4.67
4804	6.33	4.73
4801	6.33	5.37
4903	6.12	4.83
4904	6.11	4.46
3703	6.1	5.26
3708	6.28	2.93
3704	6.41	3.08
3706	6.11	4.9
37ZX	n/a	n/a
47ZX	n/a	n/a
47ZV	n/a	n/a
4703	6	4.38
47YZ	n/a	n/a
4708	6.02	4.18
4701	n/a	-4.66
47YY	n/a	n/a
47YX	n/a	n/a
4707	5.77	n/a
4706	5.95	3.86
2506	6.38	5.16
2514	6.41	2.59
3501	6.37	3.84
35YQ	n/a	n/a
35YX	n/a	n/a
35YR	n/a	n/a
35YY	n/a	n/a
35YZ	n/a	n/a
35YS	n/a	n/a
35ZP	n/a	n/a
35YT	n/a	n/a
35ZQ	n/a	n/a
35ZY	n/a	n/a
35YP	n/a	n/a
35XZ	n/a	n/a
35ZX	n/a	n/a
35XY	n/a	n/a
35ZW	n/a	n/a
35ZV	n/a	n/a
35ZT	n/a	n/a
35XX	n/a	n/a
35XW	n/a	n/a
2516	n/a	n/a
2511	6.26	4.43
0507	n/a	5.09
2515	n/a	n/a
2512	6.31	4.34
0508	n/a	5.04
39WP	n/a	n/a
0901A	6.45	4.59
39VX	n/a	n/a
39YX	n/a	n/a
39ZS	n/a	n/a
39YR	n/a	n/a
391A	n/a	n/a
39YZ	n/a	n/a
39YV	n/a	n/a
39XP	n/a	n/a
39YT	n/a	n/a
39XV	n/a	n/a
39WQ	n/a	n/a
39ZQ	n/a	n/a
39XR	n/a	n/a
39ZP	n/a	n/a
39XS	n/a	n/a
39WS	n/a	n/a
3801	6.27	5.33
3806	6.22	4.88
481A	n/a	n/a
481D	n/a	n/a
4806	6.2	4.98
481C	n/a	n/a
481B	n/a	n/a
0805	6.37	3.53
0903	6.28	4.76

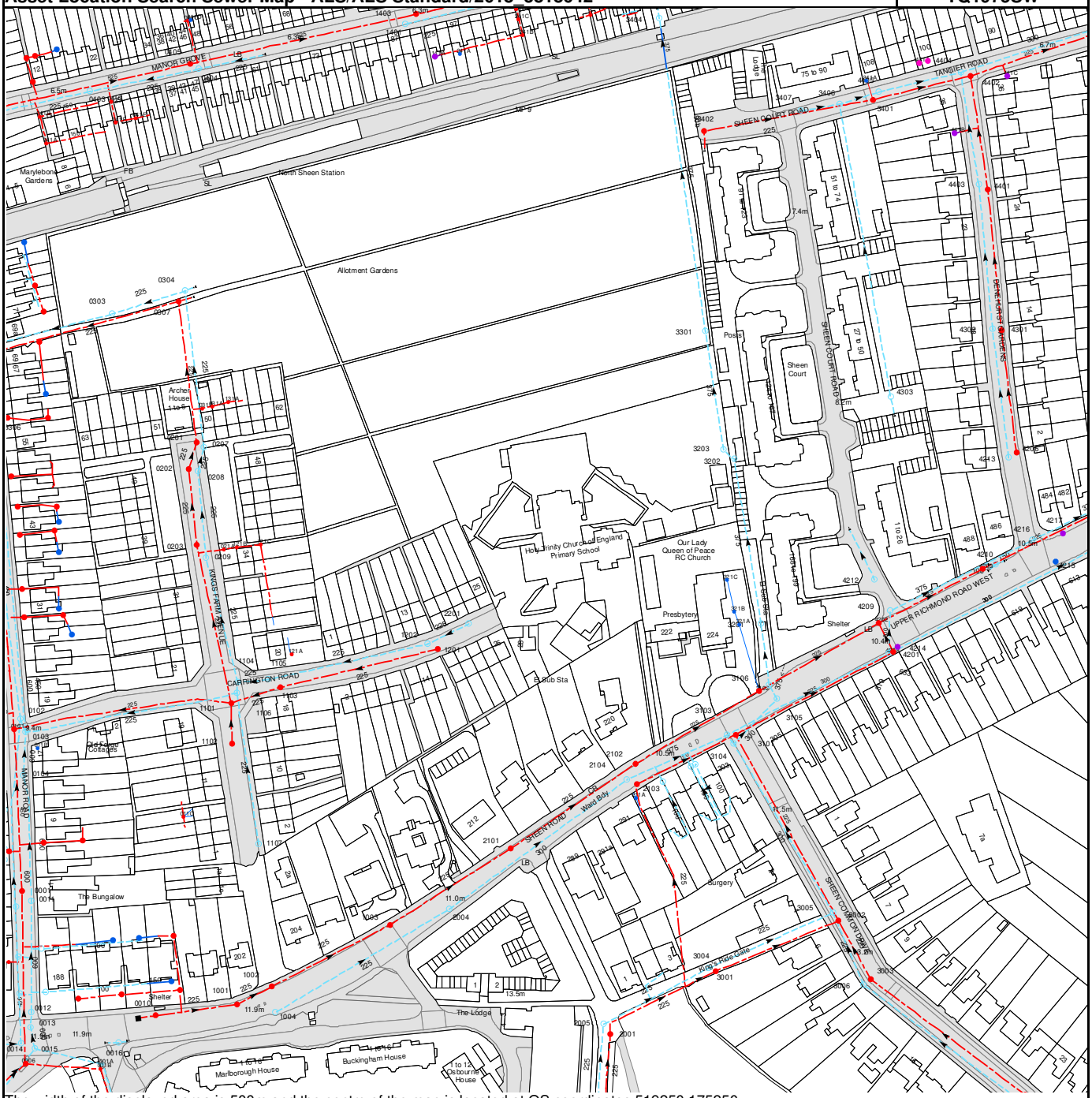
Manhole Reference	Manhole Cover Level	Manhole Invert Level
0902	6.33	4.8
0906	6.35	3.61
08ZY	n/a	n/a
08WV	n/a	n/a
0907	6.41	3.72
09ZY	n/a	n/a
09ZW	n/a	n/a
08ZW	n/a	n/a
18WP	n/a	n/a
191D	n/a	n/a
18VW	n/a	n/a
191C	n/a	n/a
18VR	n/a	n/a
19ZX	n/a	n/a
18QX	n/a	n/a
18TY	n/a	n/a
19ZR	n/a	n/a
18RY	n/a	n/a
18YV	n/a	n/a
19WZ	n/a	n/a
19ZY	n/a	n/a
18TW	n/a	n/a
18VT	n/a	n/a
191G	n/a	n/a
1806	6.36	4.05
18WV	n/a	n/a
18WX	n/a	n/a
18ZP	n/a	n/a
181A	n/a	n/a
18YY	n/a	n/a
18ZS	n/a	n/a
18ZR	n/a	n/a
1803	6.33	4.65
1801	n/a	-5.11
1805	6.36	3.83
1804	6.33	4.96
19YS	n/a	n/a
19YQ	n/a	n/a
1906	6.4	3.97
19YP	n/a	n/a
19XT	n/a	n/a
19XS	n/a	n/a
19WX	n/a	n/a
19ZV	n/a	n/a
19VV	n/a	n/a
19VT	n/a	n/a
19VW	n/a	n/a
191F	n/a	n/a
191E	n/a	n/a
19VX	n/a	n/a
1904	6.88	4.85
1901	n/a	-5.16
1903	6.72	5.39
2801	6.23	5.26
28YY	n/a	n/a
28QS	n/a	n/a
38XY	n/a	n/a
38XW	n/a	n/a
38YQ	n/a	n/a
38XQ	n/a	n/a
38XS	n/a	n/a
38ZV	n/a	n/a
38YS	n/a	n/a
381A	n/a	n/a
38ZP	n/a	n/a
38ZY	n/a	n/a
3902	6.38	5.11
3901	6.42	4.67
3803	6.49	5.4
3807	6.47	4.51
39YQ	n/a	n/a
3802	6.48	4.86
3804	6.46	4.83
3805	6.35	4.95
391B	n/a	n/a
39WZ	n/a	n/a
39XY	n/a	n/a
39VT	n/a	n/a
39WW	n/a	n/a
38VV	n/a	n/a
19VZ	n/a	n/a
28ZX	n/a	n/a
28SW	n/a	n/a
29ZX	n/a	n/a
29SS	n/a	n/a
28SV	n/a	n/a
28ZW	n/a	n/a
29ZW	n/a	n/a
28TQ	n/a	n/a
28ZR	n/a	n/a
29ZS	n/a	n/a
29ZV	n/a	n/a
2805	6.34	4.51

Manhole Reference	Manhole Cover Level	Manhole Invert Level
2804	6.32	5.16
2809	6.35	4.19
291A	n/a	n/a
2810	6.29	4.28
281B	n/a	n/a
2901	6.58	5.47
2902	6.65	5.07
2803	6.38	4.34
2802	6.33	5.23
28XZ	n/a	n/a
2807	6.33	4.96
28YP	n/a	n/a
28YW	n/a	n/a
28QR	n/a	n/a
17WZ	n/a	n/a
17WP	n/a	n/a
17XP	n/a	n/a
17VS	n/a	n/a
07ZX	n/a	n/a
07ZP	n/a	n/a
07ZW	n/a	n/a
07YZ	n/a	n/a
0706	6.89	3.18
17VV	n/a	n/a
17WX	n/a	n/a
07ZS	n/a	n/a
07ZY	n/a	n/a
18RV	n/a	n/a
081E	n/a	n/a
08YP	n/a	n/a
18SR	n/a	n/a
08ZQ	n/a	n/a
18SQ	n/a	n/a
18RR	n/a	n/a
08ZS	n/a	n/a
08YW	n/a	n/a
081B	n/a	n/a
0801	6.52	5.51
08YV	n/a	n/a
18RW	n/a	n/a
0804	6.52	3.37
08ZT	n/a	n/a
1703	6.62	4.51
18RQ	n/a	n/a
18SP	n/a	n/a
1802	6.36	5.24
1701	n/a	-5.05
1807	6.37	4.23
18PS	n/a	n/a
18CX	n/a	n/a
17SW	n/a	n/a
17RS	n/a	n/a
17QQ	n/a	n/a
17SS	n/a	n/a
18PT	n/a	n/a
18BZ	n/a	n/a
18PR	n/a	n/a
18DS	n/a	n/a
17XZ	n/a	n/a
17YP	n/a	n/a
17ZV	n/a	n/a
17YR	n/a	n/a
17XX	n/a	n/a
17XV	n/a	n/a
18YQ	n/a	n/a
18XZ	n/a	n/a
18XY	n/a	n/a
18YP	n/a	n/a
18XV	n/a	n/a
0807	6.78	n/a
0802	6.41	5.07
0806	6.65	3.4
08WQ	n/a	n/a
081D	n/a	n/a
08VZ	n/a	n/a
071A	n/a	n/a
0705	7.14	3.1
0702	7.15	5.72
3707	6.12	5.21
371A	n/a	n/a
37YT	n/a	n/a
37ZV	n/a	n/a
37ZW	n/a	n/a
37ZT	n/a	n/a
37ZQ	n/a	n/a
27TZ	n/a	n/a
37YV	n/a	n/a
37YY	n/a	n/a
37YZ	n/a	n/a
37YQ	n/a	n/a
37YX	n/a	n/a
38VQ	n/a	n/a
38WW	n/a	n/a

Manhole Reference	Manhole Cover Level	Manhole Invert Level
38WZ	n/a	n/a
38WY	n/a	n/a
3808	6.25	4.88
38VZ	n/a	n/a
28RP	n/a	n/a
38WT	n/a	n/a
38WR	n/a	n/a
38WS	n/a	n/a
28QX	n/a	n/a
28TZ	n/a	n/a
28QV	n/a	n/a
38ZW	n/a	n/a
38ZQ	n/a	n/a
18XS	n/a	n/a
18XR	n/a	n/a
18XW	n/a	n/a
17ZY	n/a	n/a
28TY	n/a	n/a
28WQ	n/a	n/a
2702	6.52	5.45
28WS	n/a	n/a
28WZ	n/a	n/a
28TX	n/a	n/a
28WP	n/a	n/a
2806	6.39	5.27
2811	6.44	4.43
27WW	n/a	n/a
27XW	n/a	n/a
27XY	n/a	n/a
27XQ	n/a	n/a
27VW	n/a	n/a
27WR	n/a	n/a
27WP	n/a	n/a
281A	n/a	n/a
27VQ	n/a	n/a
2703	6.28	4.07
2808	6.35	4.42
28QZ	n/a	n/a
28PZ	n/a	n/a
27TX	n/a	n/a
3705	6.01	3.14
3602	5.84	3.53
3601	5.81	3.37
361C	n/a	n/a
3709	6.12	4.65
361D	n/a	n/a
361B	n/a	n/a
461I	n/a	n/a
4704	6.11	4.76
4709	6.13	4.75
461H	n/a	n/a
461J	n/a	n/a
4601	5.69	3.93
4602	5.69	3.45
461L	n/a	n/a
461K	n/a	n/a
461B	n/a	n/a
461C	n/a	n/a
4710	6.07	4.45
2608	6.07	2.36
2605	6.08	4.51
361A	n/a	n/a
2602	6.27	4.06
2606	6.2	4.43
261A	n/a	n/a
261B	n/a	n/a
2603	6.39	3.84
2607	6.42	2.79
2604	6.43	3.61
2601	n/a	-4.42
3701	n/a	-4.54
2707	n/a	n/a
2704	n/a	n/a
2701	n/a	n/a
27WY	n/a	n/a
27XS	n/a	n/a
2705	n/a	n/a
27WZ	n/a	n/a
27XT	n/a	n/a
27WT	n/a	n/a
27VT	n/a	n/a
27VZ	n/a	n/a
27VS	n/a	n/a
27VY	n/a	n/a

Asset Location Search Sewer Map - ALS/ALS Standard/2018_3818642

TQ1975SW



The width of the displayed area is 500m and the centre of the map is located at OS coordinates 519250,175250

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

Manhole Reference	Manhole Cover Level	Manhole Invert Level
3005	12.69	9.59
3002	12.7	9.4
3006	13.66	11.73
3003	13.63	11.09
3106	10.44	7.55
3105	10.35	7.82
4212	9.74	7.91
4202	10.35	8.04
4208	10.46	8.53
4209	10.35	7.57
4303	n/a	n/a
4201	10.47	8.11
4214	n/a	n/a
4203	10.36	7.94
4210	10.25	8.91
4213	8.2	6.43
4206	8.14	6.56
4216	n/a	n/a
4215	n/a	n/a
4217	n/a	n/a
3404	n/a	n/a
3402	6.57	5.35
3301	n/a	n/a
3203	n/a	n/a
3202	n/a	n/a
0010	11.99	8.94
00YS	n/a	n/a
00XT	n/a	n/a
00XS	n/a	n/a
011C	n/a	n/a
1001	12.01	8.44
1107	n/a	n/a
1002	11.76	8.81
1004	12.14	11.15
1003	9.51	8.95
2004	10.89	9.51
2101	10.72	8.43
2005	12.94	10.22
2001	12.98	10.16
2104	10.34	8.95
211A	n/a	n/a
2103	10.53	9.36
31LL	n/a	n/a
3004	11.09	9.9
3001	11.85	9.82
02ZP	n/a	n/a
0208	7.76	6.19
0202	7.79	5.83
0207	7.66	6.15
0201	7.66	5.69
031B	n/a	n/a
031A	n/a	n/a
131A	n/a	n/a
0303	7.2	5.91
0307	7.22	4.17
0304	7.24	5.92
0403	6.38	5.47
0404	6.39	5.55
0405	6.38	3.24
141A	n/a	n/a
241A	n/a	n/a
241B	n/a	n/a
1401	6.26	5.49
041C	n/a	n/a
041D	n/a	n/a
241C	n/a	n/a
2401	n/a	n/a
1403	6.31	2.91
241D	n/a	n/a
02YV	n/a	n/a
02XZ	n/a	n/a
02XR	n/a	n/a
02XT	n/a	n/a
0203	8.18	5.95
0209	8.26	6.37
021A	n/a	n/a
1101	8.76	6.55
1102	9.11	7.17
121B	n/a	n/a
1106	8.73	7.22
1104	8.73	6.63
121C	n/a	n/a
1105	8.62	6.83
1103	8.56	6.79
121A	n/a	n/a
1202	8.36	7.05
1201	8.34	7.04
2201	8.44	7.17
2102	8.57	8.27
31ME	n/a	n/a

Manhole Reference	Manhole Cover Level	Manhole Invert Level
31ML	n/a	n/a
321C	n/a	n/a
3103	10.43	9.23
3104	10.51	9.24
321B	n/a	n/a
3101	10.44	8.69
321A	n/a	n/a
3102	10.37	8.09
3201	n/a	n/a
01ZY	n/a	n/a
00ZY	n/a	n/a
00ZP	n/a	n/a
00ZW	n/a	n/a
00ZT	n/a	n/a
0014	12.07	7.86
0001	10.68	7.2
0006	12.05	7.89
0013	11.91	10.16
0011	10.6	9.25
0012	11.76	10.1
0015	12.04	10.61
00YV	n/a	n/a
01YV	n/a	n/a
00YQ	n/a	n/a
00XQ	n/a	n/a
01YW	n/a	n/a
001B	n/a	n/a
001A	n/a	n/a
00XZ	n/a	n/a
0016	12.07	10.52
00XP	n/a	n/a
00XW	n/a	n/a
03YP	n/a	n/a
02ZT	n/a	n/a
02YW	n/a	n/a
02YR	n/a	n/a
02XW	n/a	n/a
03YX	n/a	n/a
03YR	n/a	n/a
02YS	n/a	n/a
02YY	n/a	n/a
03YV	n/a	n/a
03ZV	n/a	n/a
03ZW	n/a	n/a
0101	9.3	5.94
0102	9.21	7
0104	9.96	7.26
02XQ	n/a	n/a
0103	9.22	7.57
011B	n/a	n/a
041G	n/a	n/a
041F	n/a	n/a
041E	n/a	n/a
4301	7.06	5.48
4302	7.28	5.86
4401	6.77	5.15
4403	6.79	5.75
441B	n/a	n/a
3407	6.95	5.81
3406	6.82	5.68
3401	6.84	5.01
4405	6.82	5.68
341A	n/a	n/a
441C	n/a	n/a
4402	6.76	4.83
4404	6.78	5.48
441A	n/a	n/a
4406	n/a	n/a
03ZY	n/a	n/a
041A	n/a	n/a
041B	n/a	n/a
04ZT	n/a	n/a
04ZV	n/a	n/a
04ZW	n/a	n/a
04ZY	n/a	n/a

Asset Location Search Sewer Map - ALS/ALS Standard/2018_3818642

TQ1875NE

The width of the displayed area is 500m and the centre of the map is located at OS coordinates 518750,175750

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

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

Manhole Reference	Manhole Cover Level	Manhole Invert Level
881C	n/a	n/a
881A	n/a	n/a
8801	6.71	5.05
8806	6.66	5.13
8807	6.57	4.89
981F	n/a	n/a
97ZX	n/a	n/a
9704	6.52	5.33
981B	n/a	n/a
9703	n/a	n/a
9709	n/a	n/a
97YX	n/a	n/a
97YV	n/a	n/a
981C	n/a	n/a
97YY	n/a	n/a
981A	n/a	n/a
981M	n/a	n/a
97YZ	n/a	n/a
9706	n/a	n/a
9705	n/a	n/a
9802	6.66	5.26
9501	6.02	4.95
9610	n/a	n/a
9607	6.03	4.81
96ZS	n/a	n/a
96ZW	n/a	n/a
96ZY	n/a	n/a
9608	8.22	3.2
96ZV	n/a	n/a
96ZT	n/a	n/a
96ZP	n/a	n/a
96ZQ	n/a	n/a
9609	10.29	2.77
9606	9.45	7.31
9601	n/a	-4.18
9605	9.74	9.04
9604	10.77	9.73
97XV	n/a	n/a
9701	6.03	5.37
97XW	n/a	n/a
97XT	n/a	n/a
9708	n/a	n/a
97XX	n/a	n/a
9707	n/a	n/a
97XZ	n/a	n/a
9702	n/a	n/a
85YP	n/a	n/a
8506	6.49	4.77
85XY	n/a	n/a
851B	n/a	n/a
851A	n/a	n/a
851D	n/a	n/a
851C	n/a	n/a
8507	6.41	4.81
8511	6.47	4.47
9506	n/a	n/a
9503	6.52	3.7
9504	6.09	5.1
0505	6.58	5.11
9502	6.58	5.12
8502	6.38	5.16
85ZX	n/a	n/a
85YY	n/a	n/a
85ZW	n/a	n/a
8504	6.44	5
8512	6.48	4.89
8513	6.54	4.66
851E	n/a	n/a
9505	n/a	n/a
651C	n/a	n/a
651E	n/a	n/a
6509	6.68	2.65
6504	6.65	4
7503	6.8	4.84
6902	6.59	5.3
7904	6.44	4.38
8901	6.88	5.89
88ZX	n/a	n/a
89ZX	n/a	n/a
891A	n/a	n/a
891B	n/a	n/a
981J	n/a	n/a
991E	n/a	n/a
9902	6.66	4.73
981G	n/a	n/a
9903	6.63	5.26
9801	6.97	5.52
9803	6.96	3.38
991D	n/a	n/a
991C	n/a	n/a

Manhole Reference	Manhole Cover Level	Manhole Invert Level
981K	n/a	n/a
771A	n/a	n/a
771B	n/a	n/a
671A	n/a	n/a
6701	5.91	4.81
6808	5.96	4.28
681A	n/a	n/a
781B	n/a	n/a
781A	n/a	n/a
781C	n/a	n/a
6809	5.74	4.04
6805	5.68	4.62
6807	5.99	4.39
6806	5.95	4.48
6804	n/a	n/a
6802	6.05	4.5
6810	5.94	3.04
6811	n/a	n/a
5802	6.32	2.84
6803	n/a	n/a
6801	6.5	4.52
681C	n/a	n/a
681B	n/a	n/a
6906	6.62	3.09
6901	6.58	4.75
6905	6.7	3.29
6903	6.64	5.26
6904	6.68	5.46
7706	6.24	5.04
7702A	6.26	3.95
771D	n/a	n/a
771C	n/a	n/a
7804	n/a	n/a
7801	6.29	4.59
8802	6.57	4.98
7803	6.23	3.39
8805	6.65	5.46
8804	6.73	5.46
78XX	n/a	n/a
881B	n/a	n/a
8803	6.75	5.2
78YS	n/a	n/a
78YR	n/a	n/a
78YX	n/a	n/a
7805	7.02	4.42
7903	7.02	4.78
79WX	n/a	n/a
79WW	n/a	n/a
79WZ	n/a	n/a
79XV	n/a	n/a
79XT	n/a	n/a
79XZ	n/a	n/a
79YV	n/a	n/a
79YT	n/a	n/a
8902	6.7	3.77
7905	6.65	3.96
7902	6.65	4.95
7901	6.44	5.01
57TX	n/a	n/a
57VQ	n/a	n/a
57TY	n/a	n/a
57TT	n/a	n/a
57VR	n/a	n/a
57TW	n/a	n/a
57VZ	n/a	n/a
57WS	n/a	n/a
57TZ	n/a	n/a
57VP	n/a	n/a
57VT	n/a	n/a
57VX	n/a	n/a
57WY	n/a	n/a
57XR	n/a	n/a
5701	6.35	4.54
5704	6.33	2.65
57WW	n/a	n/a
57WQ	n/a	n/a
57VW	n/a	n/a
5702	6.44	5.09
571B	n/a	n/a
57WV	n/a	n/a
57XP	n/a	n/a
571C	n/a	n/a
571A	n/a	n/a
5703	6.52	5.06
5801	6.27	4.34
76RX	n/a	n/a
77WQ	n/a	n/a
6707	6.59	4.96
77WR	n/a	n/a
77VZ	n/a	n/a
6703	6.61	4.68
6709	6.58	4.59
67WZ	n/a	n/a

Manhole Reference	Manhole Cover Level	Manhole Invert Level
67XS	n/a	n/a
67WS	n/a	n/a
67XV	n/a	n/a
67XQ	n/a	n/a
67YX	n/a	n/a
77XQ	n/a	n/a
77WX	n/a	n/a
67YV	n/a	n/a
77XR	n/a	n/a
77WY	n/a	n/a
57XZ	n/a	n/a
6704	6.5	4.82
57XX	n/a	n/a
57YP	n/a	n/a
6705	6.51	4.59
6702	6.31	5.16
67ZP	n/a	n/a
671C	n/a	n/a
671B	n/a	n/a
66SV	n/a	n/a
66XR	n/a	n/a
66ZT	n/a	n/a
66SQ	n/a	n/a
66ZW	n/a	n/a
66XP	n/a	n/a
76ZS	n/a	n/a
76VT	n/a	n/a
761A	n/a	n/a
76TS	n/a	n/a
76SV	n/a	n/a
76SP	n/a	n/a
76VP	n/a	n/a
76TX	n/a	n/a
76TZ	n/a	n/a
76VQ	n/a	n/a
76VS	n/a	n/a
76YP	n/a	n/a
76TP	n/a	n/a
76ZY	n/a	n/a
76YZ	n/a	n/a
76ZT	n/a	n/a
76YW	n/a	n/a
76ZW	n/a	n/a
76XW	n/a	n/a
76ZV	n/a	n/a
76YX	n/a	n/a
56VR	n/a	n/a
56YZ	n/a	n/a
56ZQ	n/a	n/a
56WX	n/a	n/a
56YX	n/a	n/a
56WW	n/a	n/a
56WV	n/a	n/a
5603	6.81	4.16
561A	n/a	n/a
561B	n/a	n/a
5602	6.81	3.96
5601	6.83	5.2
5604	n/a	n/a
561D	n/a	n/a
56YV	n/a	n/a
56YW	n/a	n/a
56YT	n/a	n/a
56ZV	n/a	n/a
56ZT	n/a	n/a
561C	n/a	n/a
56ZY	n/a	n/a
56YQ	n/a	n/a
56ZS	n/a	n/a
56YR	n/a	n/a
56ZX	n/a	n/a
66RR	n/a	n/a
66VX	n/a	n/a
66WQ	n/a	n/a
66ZY	n/a	n/a
66VZ	n/a	n/a
6601	6.8	4.94
6606	6.76	3.66
66VW	n/a	n/a
66VQ	n/a	n/a
66YY	n/a	n/a
66YZ	n/a	n/a
66YP	n/a	n/a
66SZ	n/a	n/a
66TQ	n/a	n/a
6602	6.64	5.1
66ZQ	n/a	n/a
6502	6.82	4.58
6604	6.83	3.32
66YS	n/a	n/a
66SX	n/a	n/a
66SS	n/a	n/a
66XQ	n/a	n/a

Manhole Reference	Manhole Cover Level	Manhole Invert Level
66YQ	n/a	n/a
66XV	n/a	n/a
66RX	n/a	n/a
66XS	n/a	n/a
66RW	n/a	n/a
66ZX	n/a	n/a
661A	n/a	n/a
851F	n/a	n/a
8615	6.54	4.48
8613	6.67	3.16
8601	n/a	-4.02
861D	n/a	n/a
86XZ	n/a	n/a
8611	n/a	n/a
8610	n/a	n/a
8603	6.42	5.36
8609	6.63	4.37
86ZS	n/a	n/a
86ZT	n/a	n/a
86ZV	n/a	n/a
8605	6.36	4.61
8604	6.02	4.27
86ZP	n/a	n/a
86ZY	n/a	n/a
861C	n/a	n/a
861A	n/a	n/a
8607	6.21	4.96
861B	n/a	n/a
871A	n/a	n/a
8703	6.04	3.96
8702	n/a	n/a
8701	6.07	4.32
87ZW	n/a	n/a
87ZS	n/a	n/a
87ZV	n/a	n/a
87ZT	n/a	n/a
87ZQ	n/a	n/a
76YS	n/a	n/a
76WP	n/a	n/a
76ZR	n/a	n/a
7701B	6.31	4.98
76XQ	n/a	n/a
76WS	n/a	n/a
76WY	n/a	n/a
76WW	n/a	n/a
76XP	n/a	n/a
7703	6.29	3.88
76WT	n/a	n/a
76WZ	n/a	n/a
77YR	n/a	n/a
77YV	n/a	n/a
75ZV	n/a	n/a
77YY	n/a	n/a
77ZQ	n/a	n/a
7704	6.37	3.77
77YS	n/a	n/a
77YW	n/a	n/a
77ZT	n/a	n/a
77ZX	n/a	n/a
77ZR	n/a	n/a
77ZY	n/a	n/a
8606	6.3	4.87
8608	6.3	3.61
8602	6.68	5.27
7518	6.69	4.41
7505	6.74	4.06
7504	6.58	5.06
7516	6.82	2.8
6508	6.78	2.84
75XW	n/a	n/a
65YQ	n/a	n/a
65XX	n/a	n/a
7506	6.9	4.01
651B	n/a	n/a
7507	6.83	4.05
7515	6.77	2.93
65XZ	n/a	n/a
7508	6.76	4.08
65XT	n/a	n/a
651A	n/a	n/a
65VW	n/a	n/a
7513	6.82	4.33
7510	6.69	5.08
751A	n/a	n/a

ALS Sewer Map Key

Public Sewer Types (Operated & Maintained by Thames Water)

Foul: A sewer designed to convey waste water from domestic and industrial sources to a treatment works.

Surface Water: A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.

Combined: A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.

- Trunk Surface Water
- Trunk Foul
- Storm Relief
- Trunk Combined
- Vent Pipe
- Bio-solids (Sludge)
- Proposed Thames Surface Water Sewer
- Proposed Thames Water Foul Sewer
- Gallery
- Foul Rising Main
- Surface Water Rising Main
- Combined Rising Main
- Sludge Rising Main
- Proposed Thames Water Rising Main
- Vacuum

Sewer Fittings

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

- Air Valve
- Dam Chase
- Fitting
- Meter
- Vent Column

Operational Controls

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

- Control Valve
- Drop Pipe
- Ancillary
- Weir

End Items

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

- Outfall
- Undefined End
- Inlet

Other Symbols

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

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

Areas

Lines denoting areas of underground surveys, etc.

- Agreement
- Operational Site
- Chamber
- Tunnel
- Conduit Bridge

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

- Foul Sewer
- Surface Water Sewer
- Combined Sewer
- Gulley
- Culverted Watercourse
- Proposed
- Abandoned Sewer

Notes:

1) All levels associated with the plans are to Ordnance Datum Newlyn.
2) All measurements on the plans are metric.
3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.
4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
5) 'na' or '0' on a manhole level indicates that data is unavailable.
6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in milimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology present on the plan, please contact a member of Property Insight on 0845 070 9148.

Mr Adam Prais
Fairhurst
135 Park Street
London
SE1 9EA

Wastewater pre-planning
Our ref DS6056467

11 Jan. 19

Pre-planning enquiry: Confirmation of sufficient capacity

Dear Mr Prais

Thank you for providing information on your development **at Homebase, Manor Road, Richmond, TW9 1YB.**

Construction of 384 residential units and 475m2 of commercial premises. Foul water discharging by gravity into existing connection at MH9401.

Foul Water

From the information you have provided, we can confirm that the existing foul sewer network does have sufficient capacity to accommodate the proposed foul water discharge from the proposed development.

Surface Water

Please note that discharging surface water to the public sewer network should only be considered after all other methods of disposal have been investigated and proven to not be viable. In accordance with the Building Act 2000 Clause H3.3, positive connection to a public sewer will only be consented when it can be demonstrated that the hierarchy of disposal methods have been examined and proven to be impracticable. The disposal hierarchy being: 1st Soakaways; 2nd Watercourses; 3rd Sewers.

Only when it can be proven that soakage into the ground or a connection into the adjacent watercourse is not possible would we consider a restricted discharge into the public surface water sewer network.

We would encourage techniques such as green roofs and/or permeable paving that restricts surface water discharge from your site.

When redeveloping an existing site, policy 5.13 of the London Plan and Policy 3.4 of the Supplementary Planning Guidance (Sustainable Design And Construction) states that every attempt should be made to use flow attenuation and SUDS/storage to reduce the surface water discharge from the site as much as possible.

If they are consulted as part of any planning application, Thames Water Planning team would ask to see why it is not practicable to attenuate the flows to Greenfield run-off rates i.e.

5l/s/hectare of the total site area or if the site is less than hectare in size then the flows should be reduced by 95% of existing flows. Should the policy above be followed, we would envisage no capacity concerns with regards to surface water for this site.

Please note that the Local Planning authority may comment on surface water discharge under the planning process.

This confirmation is valid for 12 months or for the life of any planning approval that this information is used to support, to a maximum of three years.

You'll need to keep us informed of any changes to your design – for example, an increase in the number or density of homes. Such changes could mean there is no longer sufficient capacity.

What happens next?

Please make sure you submit your connection application, giving us at least 21 days' notice of the date you wish to make your new connection/s.

If you've any further questions, please contact me on 0203 577 8082.

Yours sincerely

Artur Jaroma

Thames Water

APPENDIX E – Hydraulic Calculations

hrwallingford

Greenfield runoff
estimation for s

Calculated by:	GRANT MCCANN
Site name:	Manor Road
Site location:	Richmond

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013) , the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Site Details

Latitude:	51.46537
Longitude:	0.28922°
Reference:	11434004
Date:	Jun 08 2023 13:

Runoff estimation approach

IH124

Site characteristics

Total site area (ha):	1.08

Methodology

Q_{BAR} estimation method:	Calculate from SPR and SAAR
SPR estimation method:	Calculate from SOIL type

Soil characteristics

	Default	Edited
SOIL type:	2	2
HOST class:	N/A	N/A
SPR/SPRHOST:	0.3	0.3

Hydrological characteristics

	Default	Edited
SAAR (mm):	599	599
Hydrological region:	6	6
Growth curve factor 1 year:	0.85	0.85
Growth curve factor 30 years:	2.3	2.3
Growth curve factor 100 years:	3.19	3.19
Growth curve factor 200 years:	3.74	3.74

Notes

(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

	Default	Edited
Q_{BAR} (l/s):	1.64	1.64
1 in 1 year (l/s):	1.39	1.39
1 in 30 years (l/s):	3.77	3.77
1 in 100 year (l/s):	5.23	5.23
1 in 200 years (l/s):	6.13	6.13

Summary of Results for 100 year Return Period (+40%)

Storm Duration (mins)	Maximum Control (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
15 Summer	25.2	25.2	5.2823	0.6823	262.7	O K
30 Summer	25.2	25.2	5.4493	0.8493	326.9	O K
60 Summer	25.2	25.2	5.5638	0.9638	371.1	O K
120 Summer	25.2	25.2	5.5663	0.9663	372.0	O K
180 Summer	25.2	25.2	5.5123	0.9123	351.3	O K
240 Summer	25.2	25.2	5.4648	0.8648	332.9	O K
360 Summer	25.2	25.2	5.3793	0.7793	300.0	O K
480 Summer	25.2	25.2	5.3008	0.7008	269.8	O K
600 Summer	25.2	25.2	5.2253	0.6253	240.8	O K
720 Summer	25.2	25.2	5.1532	0.5532	212.9	O K
960 Summer	25.2	25.2	5.0212	0.4212	162.2	O K
1440 Summer	25.2	25.2	4.8137	0.2137	82.3	O K
2160 Summer	25.2	25.2	4.6393	0.0392	15.1	O K
2880 Summer	23.2	23.2	4.6000	0.0000	0.0	O K
4320 Summer	16.6	16.6	4.6000	0.0000	0.0	O K
5760 Summer	13.1	13.1	4.6000	0.0000	0.0	O K
7200 Summer	10.9	10.9	4.6000	0.0000	0.0	O K
8640 Summer	9.3	9.3	4.6000	0.0000	0.0	O K
10080 Summer	8.2	8.2	4.6000	0.0000	0.0	O K
15 Winter	25.2	25.2	5.3738	0.7738	298.0	O K
30 Winter	25.2	25.2	5.5693	0.9693	373.3	O K
60 Winter	25.2	25.2	5.7133	1.1133	428.6	O K
120 Winter	25.2	25.2	5.7543	1.1543	444.5	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	102.31	18
30 Summer	66.33	33
60 Summer	40.93	62
120 Summer	24.40	120
180 Summer	17.80	148
240 Summer	14.16	178
360 Summer	10.21	244
480 Summer	8.10	312
600 Summer	6.77	380
720 Summer	5.84	444
960 Summer	4.62	570
1440 Summer	3.32	808
2160 Summer	2.38	1128
2880 Summer	1.88	0
4320 Summer	1.35	0
5760 Summer	1.06	0
7200 Summer	0.88	0
8640 Summer	0.76	0
10080 Summer	0.67	0
15 Winter	102.31	18
30 Winter	66.33	32
60 Winter	40.93	60
120 Winter	24.40	118

Summary of Results for 100 year Return Period (+40%)

Storm Duration (mins)	Maximum Control (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
180 Winter	25.2	25.2	5.6933	1.0933	420.9	O K
240 Winter	25.2	25.2	5.6228	1.0228	393.8	O K
360 Winter	25.2	25.2	5.5038	0.9038	348.0	O K
480 Winter	25.2	25.2	5.3858	0.7858	302.5	O K
600 Winter	25.2	25.2	5.2698	0.6698	257.9	O K
720 Winter	25.2	25.2	5.1597	0.5597	215.6	O K
960 Winter	25.2	25.2	4.9627	0.3627	139.7	O K
1440 Winter	25.2	25.2	4.6798	0.0798	30.7	O K
2160 Winter	21.3	21.3	4.6000	0.0000	0.0	O K
2880 Winter	16.8	16.8	4.6000	0.0000	0.0	O K
4320 Winter	12.0	12.0	4.6000	0.0000	0.0	O K
5760 Winter	9.5	9.5	4.6000	0.0000	0.0	O K
7200 Winter	7.9	7.9	4.6000	0.0000	0.0	O K
8640 Winter	6.8	6.8	4.6000	0.0000	0.0	O K
10080 Winter	5.9	5.9	4.6000	0.0000	0.0	O K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
180 Winter	17.80	170
240 Winter	14.16	192
360 Winter	10.21	266
480 Winter	8.10	340
600 Winter	6.77	410
720 Winter	5.84	478
960 Winter	4.62	606
1440 Winter	3.32	820
2160 Winter	2.38	0
2880 Winter	1.88	0
4320 Winter	1.35	0
5760 Winter	1.06	0
7200 Winter	0.88	0
8640 Winter	0.76	0
10080 Winter	0.67	0

Rainfall Details

Region	ENG+WAL	Shortest Storm (mins)	15
Return Period (years)	100	Longest Storm (mins)	10080
M5-60 (mm)	20.200	Summer Storms	Yes
Ratio-R	0.430	Winter Storms	Yes
Cv (Summer)	0.750	Climate Change %	+40
Cv (Winter)	0.840		

Time / Area Diagram

Total Area (ha) = 1.080

Time from:	(mins) to:	Area (ha)
0	4	1.080

Tank/Pond Details

Invert Level (m) 4.600 Ground Level (m) 6.100

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.00	385.0	2.40	385.0	4.80	385.0	7.20	385.0	9.60	385.0
0.40	385.0	2.80	385.0	5.20	385.0	7.60	385.0	10.00	385.0
0.80	385.0	3.20	385.0	5.60	385.0	8.00	385.0		
1.20	385.0	3.60	385.0	6.00	385.0	8.40	385.0		
1.60	385.0	4.00	385.0	6.40	385.0	8.80	385.0		
2.00	385.0	4.40	385.0	6.80	385.0	9.20	385.0		

Pump Outflow Control

Invert Level of Control 3.500

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.10	0.0	0.80	25.2	2.00	25.2	4.00	25.2	7.00	25.2
0.20	0.0	1.00	25.2	2.20	25.2	4.50	25.2	7.50	25.2
0.30	0.0	1.20	25.2	2.40	25.2	5.00	25.2	8.00	25.2
0.40	0.0	1.40	25.2	2.60	25.2	5.50	25.2	8.50	25.2
0.50	25.2	1.60	25.2	3.00	25.2	6.00	25.2	9.00	25.2
0.60	25.2	1.80	25.2	3.50	25.2	6.50	25.2	9.50	25.2

LONDON BOROUGH OF RICHMOND UPON THAMES

GREATERLONDONAUTHORITY

LoDEG

1. Project & Site Details

Project / Site Name (including sub-catchment / stage / phase where appropriate)	Homebase, 84 Manor Road, North Sheen
Address & post code	Homebase 84 Manor Road, Richmond, TW9 1YB
OS Grid ref. (Easting, Northing)	E 518890
	N 175430
LPA reference (if applicable)	19/0510/FUL
Brief description of proposed work	Demolition of the current retail units and the development of 4 No. residential buildings. Building A is a part 3, part 4, part 7 and 8 storey building, Building B is an 11 storey building, Building C is a part 8 and 10 storey building and Building D is
Total site Area	18420 m^2
Total existing impervious area	18420 m^2
Total proposed impervious area	10800 m^2
Is the site in a surface water flood risk catchment (ref. local Surface Water Management Plan)?	
Existing drainage connection type and location	Existing Soakaways
Designer Name	Grant McCann
Designer Position	Civil Engineer
Designer Company	Manhire Associates Ltd.

2. Proposed Discharge Arrangements

2a. Infiltration Feasibility

Superficial geology classification	Kempton Park Gravel Member
Bedrock geology classification	London Clay Formation
Site infiltration rate	m/s
Depth to groundwater level	2.32 m below ground level
Is infiltration feasible?	No

2b. Drainage Hierarchy

	Feasible (Y/N)	*Proposed (Y/N)*
1 store rainwater for later use	N	N
2 use infiltration techniques, such as porous surfaces in non-clay areas	N	N
3 attenuate rainwater in ponds or open water features for gradual release	N	N
4 attenuate rainwater by storing in tanks or sealed water features for gradual release	Y	Y
5 discharge rainwater direct to a watercourse	N	N
6 discharge rainwater to a surface water sewer/drain	Y	Y
7 discharge rainwater to the combined sewer.	N	N

2c. Proposed Discharge Details

Proposed discharge location	Public Surface Water Sewer on Manor Road
Has the owner/regulator of the discharge location been consulted?	Yes

3. Drainage Strategy

3a. Discharge Rates & Required Storage

	Greenfield (GF) runoff rate (l/s)	*Existing discharge rate (l/s)*	*Required storage for GF rate (m^3)*	*Proposed discharge rate (l/s)*
Qbar	1.64			
1 in 1	1.39	162	927	25.2
1 in 30	3.77	398	733	25.2
1 in 100	5.32	519	674	25.2
1 in 100 + CC				25.2
Climate change allowance used		40%		
3b. Principal Method of Flow Control		Pump		

3c. Proposed SuDS Measures

	Catchment area (m^2)	*Plan area (m^2)*	*Storage vol. (m^3)*
Rainwater harvesting	0		0
Infiltration systems	0		0
Green roofs	4265	4265	0
Blue roofs	0	0	0
Filter strips	0	0	0
Filter drains	0	0	0
Bioretention / tree pits	0	0	0
Pervious pavements	189	189	56
Swales	0	0	0
Basins/ponds	0	0	0
Attenuation tanks	10800		455
Total	**15254**	**4454**	**511**

4. Supporting Information

4a. Discharge & Drainage Strategy	*Page/section of drainage report*
Infiltration feasibility (2a) – geotechnical factual and interpretive reports, including infiltration results	Section 2.1 to 2.3
Drainage hierarchy (2b)	Section 2.8
Proposed discharge details (2c) – utility plans, correspondence / approval from owner/regulator of discharge location	Appendix D & F
Discharge rates & storage (3a) – detailed hydrologic and hydraulic calculations	Section 3 & Appendix E
Proposed SuDS measures & specifications (3b)	Section 3
4b. Other Supporting Details	*Page/section of drainage report*
Detailed Development Layout	Appendix G
Detailed drainage design drawings, including exceedance flow routes	Appendix F
Detailed landscaping plans	Appendix G
Maintenance strategy	Section 4
Demonstration of how the proposed SuDS measures improve:	
a) water quality of the runoff?	
b) biodiversity?	
c) amenity?	

APPENDIX F – Drainage Strategy