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**DRAINAGE STRATEGY REPORT
FOR
105 RALEIGH ROAD, LONDON, N8 0JD**

DATE: JUNE 2025

OUR REF: 146/DS

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REPORT DETAILS

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1.0 INTRODUCTION

1.1 TERMS OF REFERENCE

1.1.1 This Surface and Foul Water Drainage Strategy has been prepared by PK Design Consultants in respect of a Planning Application for proposed development of land at 105, RALEIGH ROAD, LONDON, N8 0JD

1.1.2 DEVELOPMENT PROPOSALS

The new application is to comprise 4 residential units with associated access, and landscaping.

1.1.3 This study is based on drawings by PK Design Consultants.

1.1.4 NEED FOR STUDY

The purpose of this valuation is to prove that the development proposal outlined above can be satisfactorily used without affecting flood risk for the neighbourhood and without exposing the development itself at risk of flooding, in accordance with National guidance provided within the National Planning Policy Framework document (NPPF).

1.1.5 A topographical survey of the site (referenced to Ordnance Datum) has been provided to Drainage Designers Ltd & Partners and has been reviewed as part of this assessment.

1.1.6 The following abbreviations are used in this report:

- ☐ AOD – Above Ordnance Datum;
- ☐ BGL – Below Ground Level;
- ☐ EA – Environment Agency;
- ☐ FZM – Flood Zone Map prepared by the EA;
- ☐ NPPF – National Planning Policy Framework;
- ☐ FRA – Flood Risk Assessment
- ☐ SFRA – Strategic Flood Risk Assessment; and
- ☐ SUDS – Sustainable Urban Drainage Systems.

2.0 THE EXISTING SITE

- 2.1** The proposed development site is circa 250m² area of brownfield land located 105, RALEIGH ROAD, LONDON, N8 0JD, outside of the development boundary. The proposed development will consist of 4 units with associated footpath and landscaped areas. The site is generally level, with no significant changes in elevation across its area. Ground levels range from approximately 21.83mAOD in the middle section to around 22.00mAOD along the southern boundary. These elevations do not include the existing buildings finish floor levels (FFLs).

Figure 1 – SITE LOCATION PLAN (Scott & Sampson Architect Dwg 1691.BR.01)



- 2.2** Land use near the site is generally residential along Raleigh Road in London. with green areas of woodland character located to the east of the site. The figure below shows aerial photo of the site and surroundings.

Figure 2 - AERIAL PHOTO (source www.google.pl/maps)



- 2.3** The topographical survey shows that the site is generally flat but ground levels range from approximately 21.83m AOD in the middle section to around 22.00mAOD along the southern boundary
- 2.4** Sewer records provided by Thames Water show the presence of an adopted foul water sewer located at Raleigh Road in London. to the north. It flows in a western direction. There is also public surface water sewer with available capacity at Raleigh Road in London. located south of the development. It flows in a eastern direction.

The summary of existing site location features is presented in the Table 1 below.

Table 1 – Site Summary

Project Name	Raleigh Road in London.
Address	105, RALEIGH ROAD, LONDON, N8 0JD
OS NGR	OSNGR 531425E, 189476N.
Site Area	250m2
Development Type	Residential
EA Development Control Area	London
Local Planning Authority	London

2.5 NEARBY WATER COURSES/ DRAINAGE FEATURES

The nearest watercourse to the development site is the New River, located some 0.4km west of the site. Another river Lee is located some 3km east of the site. Both rivers are unavailable for connection due to need of crossing many 3rd party lands.

2.6 EXISTING DRAINAGE

Sewer records obtained from Thames Water indicate the presence of an adopted foul water sewer running along Raleigh Road to the north of the site, flowing in a westerly direction. Additionally, a public surface water sewer with available capacity is located on Raleigh Road to the south of the development, flowing in an easterly direction. There are existing sewers on site, as there are existing buildings on site with bathrooms and rainwater pipes, so existing pipes must be present.

2.7 EXISTING GROUND CONDITIONS

According to British Geological Survey (BGS) mapping, the site is underlain by London Clay Formation - Clay, silt and sand. Sedimentary bedrock formed between 56 and 47.8 million years ago during the Palaeogene period.

British Geological Survey (BGS) further says Rocks with essentially no groundwater. Predominantly clayey sequence up to 140 m thick confining underlying aquifers. Occasional springs at base have very hard water.

3.0 SURFACE WATER DRAINAGE STRATEGY

- 3.1** Suitable control measures will be essential within the site to mitigate flood risk posed by post development runoff. This will be via surface water discharge limit from site.

3.2 INFILTRATION POTENTIAL

Based on publicly available information (BGS mapping), the underlying soils may not be suitable for infiltration due to clayey soils. Soil contamination is also a possibility due to the character of the site (brownfield). Additionally, proximity of adjacent buildings and tree root protection area exclude use of soak ways. Based on the above the discharge of the post-development surface water runoff to the ground has been discounted at this stage. However, a footpath adjacent to the proposed building is proposed to be permeable surface.

3.3 CALCULATIONS

The proposed development has the area of approximately 0.02 ha. The total impermeable area, which is 180m² which accounts for impermeable surfacing (roofs, patios, footpath). Preliminary calculations show that sufficient storage required to attenuate runoff from the proposed impermeable areas arising from the critical 1:100 year + 40% climate change event can be provided within SUDS feature –attenuation storage crate. Please refer to an Drainage Strategy PK0146/140DS (see Appendix A).

- 3.5** Due to site characteristic is it proposed that surface drainage system will consist of storage SUDS elements and piped system. It is to be noted that existing area of approximately 250m² was impermeable, and now this was reduced to 180m² by introducing permeable pavement and soft landscaping.
- 3.5.** From BGS (as per point 3.2) the rate of permeability of the ground would be low and/or unreliable. Therefore soakaways are precluded in the development as the primary means of surface water disposal/drainage for the site.
- 3.6** Based on surface geology across the site (BGS) it is advised that an alternative comprehensive drainage scheme is developed at detailed design stage to accommodate the discharge of surface water from the proposed impermeable areas.
- 3.7** The development should be drained to the drainage connection to the south at a controlled rate of discharge. The existing runoff regime from the 0.21ha development site area has been evaluated. The Brownfield runoff - rate preexisting rate of discharge for 100year storm was evaluated as per Table 2 below.

Table 2 – Existing and Proposed Discharge Rates

Existing Brownfield rates l/s		Proposed rates l/s		Reduction
1 year	2.1	1 year	1	52%
30 years	9.8	30 years	2.7	72%
100 years	11.7	100 years+30%	3.5	70%

It should be noted that proposed rates in Table 2 above are 52-72% lower than existing ones for relevant storm event. Therefore, although Brownfield runoff - rate preexisting has been reduced more than required by Authorities. It is expected that 3.5 l/s rate would be accepted by Thames Water in case of connection to their network (see Appendix E).

- 3.8** An initial surface water drainage design has been carried out to satisfy a question of the feasibility of the new development. The anticipated attenuation storage balances the surface water runoff from the proposed impermeable development areas back to the brownfield runoff rate with reduction discussed above. It is proposed the surface drainage from the whole site will discharge to the Thames Water sewers, which run along the boundary of the site to the south.
- 3.9** The volume of the storage crates, based on a proposed 180m² - the total impermeable site area at 3.5l/s restriction rate - is circa 2.85m³. Please refer to the surface water calculations in Appendix C.
- 3.10** A preliminary drainage strategy layout comprising the system of pipes, catchpits, manholes and a storage crates is presented in Appendix A. It needs to be taken into account, this is a preliminary solution at outline planning stage and it will be required to re-design it once detailed layout design has been completed.
- 3.11** The private areas design is to be confirmed at the detailed stage, but it is likely that properties on the site would drain into the public sewer to the south of site.

3.12 WATER QUALITY

Introduction of catchpits linear drains, and gullies with sumps will improve the quality of water leaving the site outside extreme storm events. So, this will be beneficial from the treatment train point of view. Part of the site will be permeable surface, so this will provide additional treatment.

3.13 DESIGN EXCEEDANCE

In the event of a blockage of the outfall pipework, which is unlikely although possible at or lower than 3.5 l/s discharge rate (ideally the rate preventing blockage should be set as 5l/s to be consulted with authorities) - an overflow path exists towards the southern boundary drain without affecting any onsite or adjacent properties due to FFLs being higher than original ground levels, and general site topography. If the drainage system capacity is exceeded, further flood water may travel to the linear drains on site boundaries and along easter side of building or if this fails, along the road towards the eastern boundary and then to the existing water body.

MAINTANANCE AND ADOPTION

3.14 It is proposed that the SUDS feature in the scheme will be attenuation storage under the garden at the back of site. The piped system may be offered for adoption separately as well. Adoptable sewers could be designed to Sewerage Sector Guidance or Sewers for Adoption if agreed with Thames Water in this case. However, insufficient easement may cause the system to remain private. The maintenance regime is as described below.

3.15 CELLULAR SOAKAWAY

Cellular soakaway or storage could be considered only in the private areas, as they normally are not adopted by Highways or Water Authority. Soakaways are unsuitable for this development due to no infiltration on site and additionally limited space in the front of and back the buildings, difficult access in the garden areas with limited functionality (head of the run). There is a potential for cover issues with shallow pipes, potential for clash with tree root protection areas, services, etc.

It is to be noted the tanked cellular storage is to be used on site as attenuation feature in the private garden which highly contributes to lowering discharge rates below brownfield rates offering 2.85m³ of storage.

It is also recommended to follow guidelines from CIRIA C753 SuDS Manual 2015. As per Table 21.3 from CIRIA C753 the following inspection and maintenance regime could be used bearing in mind this list is not exhaustive and some actions may not always be necessary.

Table 21.3 Operation and Maintenance Requirements for Attenuation Storage Tanks (source CIRIA C753)

TABLE 21.3 Operation and maintenance requirements for attenuation storage tanks		
Maintenance schedule	Required action	Typical frequency
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action	Monthly for 3 months, then annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter; remove and replace surface infiltration medium as necessary.	Annually
	Remove sediment from pre-treatment structures and/or internal forebays	Annually, or as required
Remedial actions	Repair/rehabilitate inlets, outlet, overflows and vents	As required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually
	Survey inside of tank for sediment build-up and remove if necessary	Every 5 years or as required

3.15.1 It is also recommended to follow relevant manufacturer's guide for maintenance.

3.16 PERMEABLE PAVEMENT MAINTENANCE

The permeable pavement may not require very robust maintenance regime if maintenance for pipework systems as discussed in point 3.17 is properly followed. It is also recommended to follow guidelines from CIRIA C753 SuDS Manual 2015. As per Table 20.15 from CIRIA C753 the following inspection and maintenance regime could be used bearing in mind this list is not exhaustive and some actions may not always be as relevant for permeable pavement.

Table 20.15 Operation and Maintenance Requirements for Attenuation Storage Tanks (source CIRIA C753)

TABLE 20.15 Operation and maintenance requirements for pervious pavements			
	Maintenance schedule	Required action	Typical frequency
	Regular maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturer's recommendations – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment
	Occasional maintenance	Stabilise and mow contributing and adjacent areas	As required
		Removal of weeds or management using glyphosate applied directly into the weeds by an applicator rather than spraying	As required – once per year on less frequently used pavements
	Remedial Actions	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50 mm of the level of the paving	As required
		Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material	As required
		Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
	Monitoring	Initial inspection	Monthly for three months after installation
		Inspect for evidence of poor operation and/or weed growth – if required, take remedial action	Three-monthly, 48 h after large storms in first six months
		Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
		Monitor inspection chambers	Annually

3.9.6.1 It is also recommended to follow relevant manufacturer's guide for maintenance.

3.17 PIPEWORK AND CATCHPITS

Catchpits could be used in the manholes where drainage from private areas could be used. The catchpits within the road are not discussed at this stage, as their use will depend on adoption authority if the developer is willing to offer the scheme for adoption. The debris and silt protection measures will be discussed at detail design stage.

The pipes network will need a robust maintenance regime. The debris and silt are to be removed from the system regularly. It is recommended the whole drainage system will undergo routine inspection (every three months) and is cleaned of silt and debris if found. If the scheme offered for adoption, the maintenance regime by the owning Authority will apply.

3.18 SUMMARY OF SUDS OPTIONS

Summary of SUDS options applicable on site and their maintenance regime is shown in the table 3.

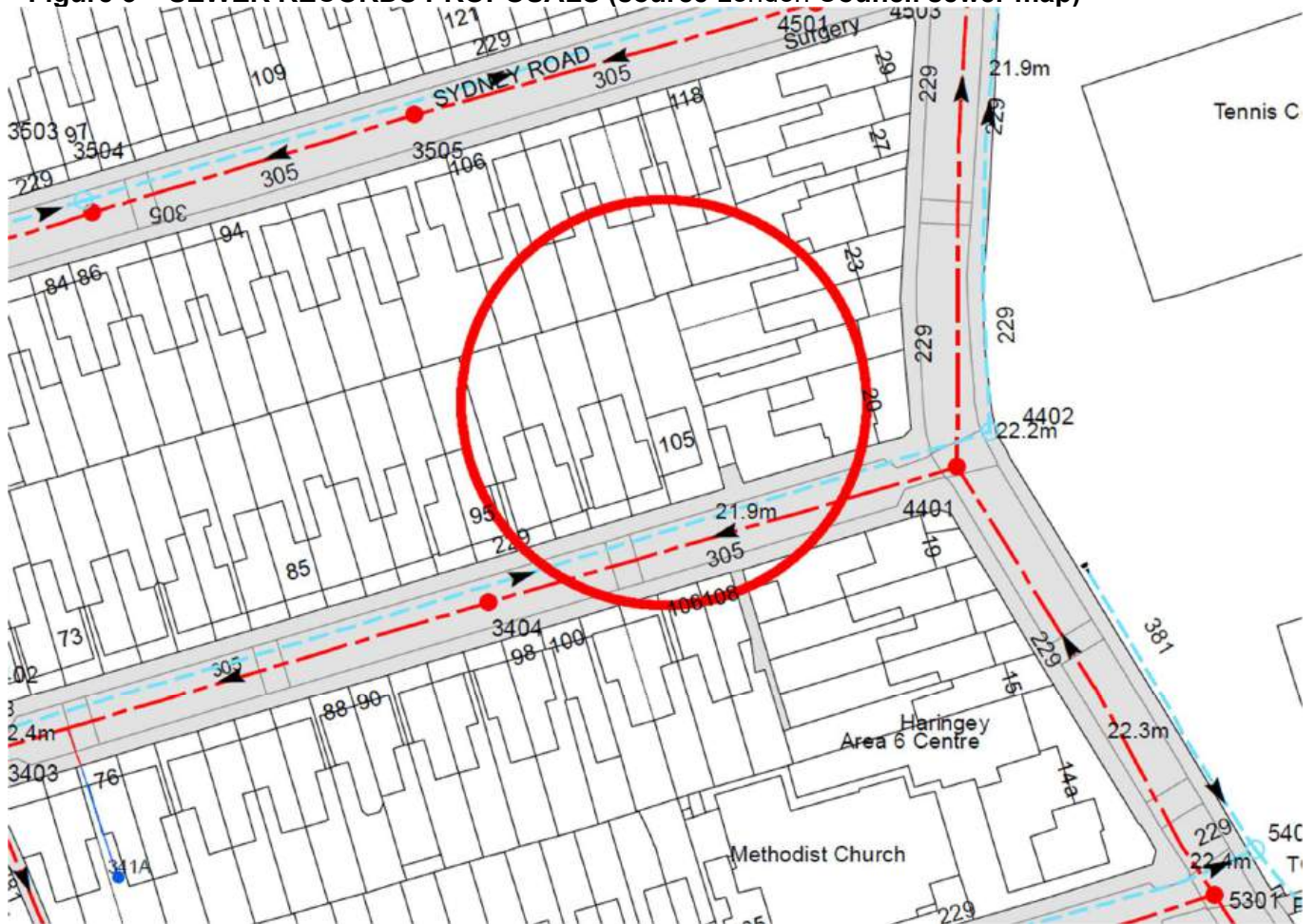
Table 3 – SITE SUMMARY OF SUDS OPTION AND MAINTENANCE REGIME

SUDS Element	Applicability	Maintenance Regime
Cellular Soakaway	x	Not applicable – only tanked cellular storage – some jet-washing may be required every 5 years or if need be.
Permeable pavement	x	Only small area of hardstanding will be permeable – some regular cleaning and monitoring will be sufficient in most cases.
Catchpits& inspection chambers	v	Will require a robust maintenance regime. The debris and silt are to be removed from the system regularly. Routine inspection (every three months) and cleaning of silt and debris if found.

4.0 FOUL DRAINAGE PROPOSAL

- 4.1** Foul water is proposed to discharge to the existing public foul/combined water sewer found within Raleigh Road to the south of site building via a new saddle connection with Invert Level yet to be confirmed. The sewer is shown on Thames Water sewer map – see Appendix E and figure 3 below.

Figure 3 – SEWER RECORDS PROPOSALS (source London Council sewer map)



- 4.2** The proposed site topography allows connection of 150mm diameter pipes at 1 in 150 gradients and 100mm diameter pipes at 1 in 80 gradients. This is in accordance with Building Regulations part H, which requires minimum 5 toilets for 150mm pipes, and the site has 9 dwellings. 100mm diameter pipes at 1 in 80 gradients are normally acceptable for Thames Water in case of adoption, if less than 10 buildings are connected to such a pipe. This is not the case within this site as well. Where less than 5 toilets is connected upstream, 100mm diameter pipes at 1/80 will be used to achieve self-cleansing. The adoption details can be discussed and agreed with Water Authority at further stage if required. However, due to insufficient easements the sewer will most likely remain private.

5.0 SUMMARY

- 5.1** The purpose of this Drainage Strategy was to form description and explanation to the design shown in Drainage Strategy drawing as per Appendix A.
- 5.2** The existing site is mainly brownfield. The proposed development consists of buildings, footways, drives and very small landscaped areas at the back.
- 5.3** The preliminary drainage design has been undertaken for proposed development to check feasibility and satisfy planning criteria formulated within NPPF.
- 5.4** The surface water strategy indicated that soakaways are not feasible. The proposed drainage system will be a mix of piped network, catchpits and crate storage to provide maximum attenuation and filtration, to form efficient treatment train.
- 5.5** The discharge rate for Surface Water has been limited to 3.5 l/s for all events including 100year + 40% Climate Change. Although the pre-existing brownfield rate for 100year event is evaluated as 11.2 l/s for 100yr storm the rates were significantly by 72%.
- 5.6** The Surface Drainage has been also checked for exceedance, and suitable flood pathways have been identified.
- 5.7** The SUDS of various type were discussed, and it was explained why some of the SUDS features are not suitable. Additionally, a maintenance regime has been proposed for the SUDS used on site.
- 5.8** Foul Water network has also been proposed and discussed.
- 5.9** To conclude it has been proven within this Drainage Strategy Report that the design is compliant with the requirements of NPPF and Environmental Agency regulations, and the planning permission should not be refused on this ground.

Signed:  Date: 12/06/2025
Pawel Kukiela
Civil and Structural Engineer MEng

Checked: Date: 12/06/2025
Chris Brown
For and on behalf of CBS Engineering Ltd

Appendix A

LOCATION OF EXISTING SEWERS ARE ASSUMED. THE CONTRACTOR SHALL CONFIRM THE LOCATIONS, LEVELS, DIAMETER AND CONDITION OF THE SEWERS PRIOR TO COMMENCING CONSTRUCTION WORKS ON SITE.

CONTRACTOR TO COMPLETE S106 APPLICATIONS AND OBTAIN APPROVAL PRIOR TO CONSTRUCTION AND CONNECTING TO THE PUBLIC SEWER.

SHRUBS AND VEGETATION PLANTED TO BE CHECKED THAT ROOTS NOT DAMAGE DRAINAGE SYSTEM UNDERNEATH. DUCTILE IRON PIPES MAY BE USED, WHERE COVER NOT SUFFICIENT FOR PIPE CONCRETE PROTECTION

All redundant sewers to be blocked and sealed.

Design subject to change when position of RWPs, SVPs, etc is confirmed. Group of appliances assumed rather single appliances for internal drainage. Cover levels indicative and subject to change as well as the re-design when surfaced levels are finished.

Linear drain to be checked and confirmed with manufacturer

Build over or near sewer agreement to be made with Water Authority or other sewer owner if required

Foundations to be deepened in case of clash with drainage.

Contractor to check for any existing 3rd party sewers crossing the site and all disused sewers are sealed.

Design subject to planning conditions

LOCATION OF EXISTING SEWERS ARE ASSUMED. THE CONTRACTOR SHALL CONFIRM THE LOCATIONS, LEVELS, DIAMETER AND CONDITION OF THE SEWERS PRIOR TO COMMENCING CONSTRUCTION WORKS ON SITE.

CONTRACTOR TO COMPLETE S106 APPLICATIONS AND OBTAIN APPROVAL PRIOR TO CONNECTING TO THE PUBLIC SEWER.

SP3
Pump Chamber with raising main
tbc with pump manufacturer
Discharge to be constant flow at 2l/s
for all storm events up to 100yr+30%cc
CL18.75
Incoming pipe IL17.482
to be confirmed by manufacturer/provider - the size and position of pump station (including rising main and associated chambers) may change following pumping station manufacturer/provider design
location to be agreed with Building Control
maintenance regime as per manufacturer instruction
If invert level or other details are different Engineer to be notified

TANKED STORAGE CRATES
3 X 2 X 0.4M DEEP
TO STORE 2.85M3
INCOMING PIPE IL20.845
BASE LEVEL 20.845
TOP LEVEL 21.245
SURFACE LEVEL22.04
95% VOIDS
Buoyancy protection measures to manufacturer's instruction.
No traffic only allowed.
refer to drawing number PK146-161for detail.

FW MH 1
Suitability of connection of rising main TBC by pump manufacturer/specialist
CL22.08TBC
IL21.511TBC

FP1
Foul pump station with non-return valve and raising main
tbc with pump manufacturer
Discharge rate 2.5l/s TBC
(with assumption receiving MH outfall pipe to have sufficient capacity - otherwise lower discharge rate pump to be used with prior agreement with engineer and manufacturer)
CL18.75
Incoming pipe IL17.353
Base level 16.77 assuming 1.2mØ chamber
24 Hour storage = 0.66m³
(based on 150 l/person/day +10%= 660 l/day for 4 residents - TBC - if number of residents is different - adequate capacity wet-well to be installed)
to be confirmed by manufacturer/provider - the size and position of pump station may change following pumping station manufacturer/provider design
location to be agreed with Building Control
If invert level or other details are different Engineer to be notified

Key:

- Proposed Private Foul Water Sewer
- Proposed Private Surface Water Sewer
- Existing Foul Water Sewer
- Existing Surface Water Sewer
- Yard Gully
- Proposed Soil & Vent Pipe
- Proposed Rain Water Pipe
- Proposed Private Surface Water Manhole
- Proposed Private Surface Water PPIC (Inspection Chamber)
- Proposed Private Surface Water Rodding Eye
- Site Boundary
- Proposed Crate Storage
- Proposed Private Foul Water Manhole
- Proposed Private Foul Water PPIC (Inspection Chamber)
- Linear Drain
- Flow Exceedance routes
- Proposed Permeable Pavement - min 300mm deep permeable subbase and 80mm deep pavement blocks on 50mm sand TBC with Structural Engineer

Notes:

- DO NOT SCALE.
- This drawing should be read in conjunction with all other relevant drawings and details.
- If there is any conflict between the information on this drawing and that indicated on other drawings the Engineer should be informed BEFORE commencement of construction on site.
- It should be understood that all drawings issued are Preliminary and NOT for construction until technical approval has been obtained from the relevant Authority. If the contractor commences site work prior to such approval being given, it is solely at his own risk.
- All dimensions are given in millimetres unless noted otherwise.
- The Risk Assessment and Hazard Identification and information for this project must be reviewed and understood by the contractor BEFORE the commencement of any works on site.
- The Contractor is responsible for checking all tie-ins for line and level with existing prior commencement of any works. If any errors are found The Engineer, should be notified immediately in writing.
- The positions of soil & vent pipes & rainwater pipes etc and level information on this drawing are indicative only. Refer to current Architects Plans' for location(s). The drainage design may require the change after all those locations have been confirmed. All rainwater and soil and vent pipes shall be completed with rodding access.
- The Building Regulations Part H apply to all private drainage to be constructed.
- All private drains/sewers to be 100 mm diameter unless noted otherwise.
- For details of pipes penetrating walls and pipe runs near buildings refer to Building Regulations Part 'H'.
- All workmanship should be in accordance with the most current British Standards.
- The drainage is designed for the permanent case. Should additional loads over & above those designed for may arise during the construction process, the Contractor shall ensure any necessary temporary protection is in place for pipelines, manholes etc. so nothing is damaged as a result of his method of working.
- Pipe gradients shown are indicative only and are not to be used for setting out purposes.
- Internal drainage indicative only. Architects or M&E engineers drawings should be referred to for in-house connections.
- Contractor to liaise with Statutory Undertakers and Services Owners to agree services diversions if necessary.
- Design subject to change when foundation type confirmed.
- Cover levels may need adjustment to suit the surface (if lower than shown Engineer is to be notified).



CBS Engineering

105 Raleigh rd
Layout

Drainage Strategy Layout

Drawing Status

PRELIMINARY

Job No.

PK146

Drawn

PK

Checked

PK

Scale at A1

Date

Issue Date

Revision

Drawing No.

PK146-140

Revision

P0

Appendix B

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	1	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	0.950	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
SP5	0.023	5.00	21.948	450	910.493	-791.958	1.133
SP6			21.747	450	916.351	-812.621	1.000
Ex SW			21.721	450	917.468	-816.289	1.000

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.005	SP5	SP6	21.477	0.600	20.815	20.747	0.068	315.8	100	5.84	29.0
1.006	SP6	Ex SW	3.834	0.600	20.747	20.721	0.026	147.5	100	5.94	28.7

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.005	0.427	3.4	2.3	1.033	0.900	0.023	0.0	61	0.460
1.006	0.631	5.0	2.3	0.900	0.900	0.023	0.0	47	0.616

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.005	21.477	315.8	100	Circular_Default Sewer Type	21.948	20.815	1.033	21.747	20.747	0.900
1.006	3.834	147.5	100	Circular_Default Sewer Type	21.747	20.747	0.900	21.721	20.721	0.900

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.005	SP5	450	Manhole	Adoptable	SP6	450	Manhole	Adoptable
1.006	SP6	450	Manhole	Adoptable	Ex SW	450	Manhole	Adoptable

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	0.950	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	0.950	Additional Storage (m³/ha)	20.0		

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440
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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	0	0	0
100	0	0	0

Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SP5	11	20.876	0.061	2.2	0.0344	0.0000	OK
15 minute summer	SP6	11	20.796	0.049	2.1	0.0078	0.0000	OK
15 minute summer	Ex SW	11	20.767	0.046	2.1	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SP5	1.005	SP6	2.1	0.490	0.639	0.0949	
15 minute summer	SP6	1.006	Ex SW	2.1	0.582	0.429	0.0140	0.9

Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SP5	12	21.611	0.796	11.7	0.4498	0.0000	SURCHARGED
15 minute summer	SP6	12	20.961	0.214	9.8	0.0340	0.0000	SURCHARGED
15 minute summer	Ex SW	12	20.815	0.094	9.8	0.0000	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SP5	1.005	SP6	9.8	1.253	2.921	0.1680	
15 minute summer	SP6	1.006	Ex SW	9.8	1.249	1.973	0.0296	5.1

Results for 100 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SP5	11	21.948	1.133	15.3	0.6401	0.1965	FLOOD
15 minute summer	SP6	12	21.022	0.275	11.7	0.0438	0.0000	SURCHARGED
15 minute summer	Ex SW	11	20.816	0.095	11.7	0.0000	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SP5	1.005	SP6	11.7	1.501	3.498	0.1680	
15 minute summer	SP6	1.006	Ex SW	11.7	1.490	2.352	0.0297	6.4

Appendix C

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	1	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	0.950	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
SP1	0.001	5.00	18.745	450	913.799	-811.653	1.133
SP2	0.005	5.00	18.648	450	906.348	-799.098	1.133
SP3	0.001	5.00	18.745	450	905.106	-794.376	1.263
SP4			21.970	450	907.290	-791.553	1.133
SP5	0.006	5.00	21.948	450	910.493	-791.958	1.133
SP6			21.910	450	916.351	-812.621	1.238
Ex SW			21.854	450	917.468	-816.289	1.208
RE1	0.005	5.00	21.905	150	912.711	-813.840	1.133

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.001	SP1	SP2	14.600	0.600	17.612	17.515	0.097	150.5	150	5.30	30.4
1.002	SP2	SP3	4.883	0.600	17.515	17.482	0.033	148.0	150	5.40	30.1
1.003	SP3	SP4	3.569	0.600	17.482	20.837	-3.355	-1.1	150	5.46	30.0
1.004	SP4	SP5	3.229	0.600	20.837	20.815	0.022	146.8	150	5.52	29.8
1.005	SP5	SP6	21.477	0.600	20.815	20.672	0.143	150.2	150	5.96	28.7
1.006	SP6	Ex SW	3.834	0.600	20.672	20.646	0.026	147.5	150	6.04	28.5
2.000	RE1	SP6	3.839	0.600	20.772	20.747	0.025	153.5	150	5.08	31.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.001	0.817	14.4	0.1	0.983	0.983	0.001	0.0	9	0.228
1.002	0.824	14.6	0.6	0.983	1.113	0.006	0.0	21	0.410
1.003	1.000	17.7	0.7	1.113	0.983	0.007	0.0	150	0.000
1.004	0.827	14.6	0.7	0.983	0.983	0.007	0.0	23	0.426
1.005	0.817	14.4	1.3	0.983	1.088	0.013	0.0	30	0.504
1.006	0.825	14.6	1.8	1.088	1.058	0.018	0.0	35	0.560
2.000	0.808	14.3	0.5	0.983	1.013	0.005	0.0	20	0.381

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.001	14.600	150.5	150	Circular_Default Sewer Type	18.745	17.612	0.983	18.648	17.515	0.983
1.002	4.883	148.0	150	Circular_Default Sewer Type	18.648	17.515	0.983	18.745	17.482	1.113
1.003	3.569	-1.1	150	Circular_Default Sewer Type	18.745	17.482	1.113	21.970	20.837	0.983
1.004	3.229	146.8	150	Circular_Default Sewer Type	21.970	20.837	0.983	21.948	20.815	0.983
1.005	21.477	150.2	150	Circular_Default Sewer Type	21.948	20.815	0.983	21.910	20.672	1.088
1.006	3.834	147.5	150	Circular_Default Sewer Type	21.910	20.672	1.088	21.854	20.646	1.058
2.000	3.839	153.5	150	Circular_Default Sewer Type	21.905	20.772	0.983	21.910	20.747	1.013

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.001	SP1	450	Manhole	Adoptable	SP2	450	Manhole	Adoptable
1.002	SP2	450	Manhole	Adoptable	SP3	450	Manhole	Adoptable
1.003	SP3	450	Manhole	Adoptable	SP4	450	Manhole	Adoptable
1.004	SP4	450	Manhole	Adoptable	SP5	450	Manhole	Adoptable
1.005	SP5	450	Manhole	Adoptable	SP6	450	Manhole	Adoptable
1.006	SP6	450	Manhole	Adoptable	Ex SW	450	Manhole	Adoptable
2.000	RE1	150	Manhole	Adoptable	SP6	450	Manhole	Adoptable

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	0.950	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	0.950	Additional Storage (m³/ha)	20.0		

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440
----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	------

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	0	0	0
100	0	0	0
100	40	0	0

Node SP6 Online Orifice Control

Flap Valve	x	Design Depth (m)	1.160	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)	3.0		
Invert Level (m)	20.672	Diameter (m)	0.050		

Node SP3 Online Pump Control

Flap Valve	✓	Invert Level (m)	17.482	Switch off depth (m)	0.010
Replaces Downstream Link	✓	Switch on depth (m)	0.020		

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.001	2.000	3.354	2.000

Node SP4 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	20.837	Depth (m)	0.400
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	16	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	2.500	Number Required	1
Porosity	0.95	Pit Length (m)	3.000		

Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	SP1	13	17.621	0.009	0.1	0.0016	0.0000	OK
15 minute summer	SP2	11	17.535	0.020	0.6	0.0050	0.0000	OK
30 minute winter	SP3	19	17.503	0.021	0.5	0.0036	0.0000	OK
30 minute summer	SP4	20	20.855	0.018	1.6	0.1328	0.0000	OK
30 minute summer	SP5	20	20.840	0.025	0.9	0.0065	0.0000	OK
30 minute summer	SP6	21	20.740	0.068	1.2	0.0107	0.0000	OK
30 minute summer	Ex SW	21	20.673	0.027	1.0	0.0000	0.0000	OK
15 minute summer	RE1	10	20.791	0.019	0.5	0.0020	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	SP1	1.001	SP2	0.1	0.127	0.007	0.0129	
15 minute summer	SP2	1.002	SP3	0.5	0.512	0.035	0.0057	
30 minute summer	SP3	Pump	SP4	1.6				
30 minute summer	SP4	1.004	SP5	0.5	0.302	0.032	0.0050	
30 minute summer	SP5	1.005	SP6	0.8	0.250	0.058	0.1019	
30 minute summer	SP6	1.006	Ex SW	1.0	0.464	0.071	0.0085	0.9
15 minute summer	RE1	2.000	SP6	0.5	0.362	0.032	0.0048	

Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SP1	11	17.631	0.019	0.5	0.0034	0.0000	OK
15 minute summer	SP2	13	17.620	0.105	3.0	0.0260	0.0000	OK
15 minute summer	SP3	13	17.620	0.138	3.1	0.0241	0.0000	OK
30 minute summer	SP4	25	20.992	0.155	3.4	1.1266	0.0000	SURCHARGED
30 minute winter	SP5	25	20.991	0.176	3.1	0.0467	0.0000	SURCHARGED
30 minute winter	SP6	25	20.988	0.316	3.1	0.0502	0.0000	SURCHARGED
30 minute winter	Ex SW	25	20.690	0.044	2.7	0.0000	0.0000	OK
30 minute winter	RE1	25	20.988	0.216	1.8	0.0229	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SP1	1.001	SP2	0.5	0.156	0.035	0.1032	
15 minute summer	SP2	1.002	SP3	2.6	0.847	0.181	0.0736	
15 minute summer	SP3	Pump	SP4	2.0				
60 minute winter	SP4	1.004	SP5	3.0	0.363	0.204	0.0478	
15 minute summer	SP5	1.005	SP6	3.4	0.310	0.238	0.3781	
30 minute winter	SP6	1.006	Ex SW	2.7	0.604	0.185	0.0172	5.0
15 minute winter	RE1	2.000	SP6	3.1	0.482	0.220	0.0676	

Results for 100 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SP1	13	17.689	0.077	1.8	0.0136	0.0000	OK
15 minute summer	SP2	13	17.692	0.177	3.9	0.0437	0.0000	SURCHARGED
15 minute summer	SP3	13	17.691	0.209	3.7	0.0366	0.0000	SURCHARGED
30 minute winter	SP4	28	21.066	0.229	3.3	1.6710	0.0000	SURCHARGED
30 minute winter	SP5	28	21.066	0.251	3.5	0.0664	0.0000	SURCHARGED
30 minute winter	SP6	28	21.060	0.388	3.3	0.0618	0.0000	SURCHARGED
30 minute winter	Ex SW	28	20.692	0.046	3.0	0.0000	0.0000	OK
30 minute winter	RE1	28	21.061	0.289	2.4	0.0306	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SP1	1.001	SP2	-1.2	0.143	-0.084	0.1945	
15 minute summer	SP2	1.002	SP3	3.0	0.678	0.208	0.0860	
15 minute summer	SP3	Pump	SP4	2.0				
15 minute summer	SP4	1.004	SP5	-2.9	0.290	-0.198	0.0568	
15 minute winter	SP5	1.005	SP6	3.7	0.354	0.259	0.3781	
30 minute winter	SP6	1.006	Ex SW	3.0	0.623	0.208	0.0187	6.6
15 minute winter	RE1	2.000	SP6	3.0	0.458	0.207	0.0676	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	SP1	14	17.868	0.256	2.8	0.0452	0.0000	SURCHARGED
15 minute summer	SP2	14	17.871	0.356	5.2	0.0880	0.0000	SURCHARGED
15 minute summer	SP3	14	17.872	0.390	4.0	0.0682	0.0000	SURCHARGED
30 minute winter	SP4	28	21.185	0.348	4.7	2.5356	0.0000	SURCHARGED
30 minute winter	SP5	28	21.184	0.369	4.0	0.0979	0.0000	SURCHARGED
30 minute winter	SP6	28	21.178	0.506	3.7	0.0805	0.0000	SURCHARGED
30 minute winter	Ex SW	28	20.696	0.050	3.5	0.0000	0.0000	OK
30 minute winter	RE1	28	21.178	0.406	3.3	0.0430	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	SP1	1.001	SP2	-1.9	0.156	-0.132	0.2570	
15 minute summer	SP2	1.002	SP3	3.3	0.720	0.227	0.0860	
15 minute summer	SP3	Pump	SP4	2.0				
15 minute summer	SP4	1.004	SP5	-5.0	-0.411	-0.345	0.0568	
15 minute winter	SP5	1.005	SP6	3.7	0.376	0.256	0.3781	
30 minute winter	SP6	1.006	Ex SW	3.5	0.647	0.241	0.0208	9.3
15 minute summer	RE1	2.000	SP6	3.8	0.482	0.265	0.0676	

Appendix D



TQ38 NW 506

Contract Name		HARINGEY CENTRAL AREA DEVELOPMENT A 105 DIVERSION		Borehole No. B 17		Sheet 1 of 1		
Method of boring		Shell and Auger		Ground level		21.83 m O.D.		
Diameter		200 mm		Start		17.8.79		
				Finish		17.8.79		
						31618952		
Daily progress	Water levels	In-situ tests	Samples	Depth (m)	Reduced level (m O.D.)	Thickness (m)	Description of Strata	Legend
			B	0.65	21.18	0.65	Very stiff mottled brown silty clay with some gravel, some decomposed root fibres and traces of organic material	Made Ground
			U			1.15	Firm mottled brown and grey silty clay with some gravel and pockets of orange-brown sand	
			J					
			U					
			U*B	1.80	20.03			
			U			1.10	Firm to stiff mottled brown and light blue-grey silty clay with some root fibres and traces of selenite crystals (London Clay)	
17/8			J	2.90	18.93			
			U			3.10	Stiff fissured brown silty clay with light blue-grey discolourations and traces of light brown silt partings along fissures and some selenite crystals (London Clay)	
			J					
			U					
17/8				6.00	15.83			
							Bottom of Borehole	
Notes								
No water added for drilling and no groundwater observed.								
Terresearch Limited				Report No. S.29/648		Appendix 1 Sheet 39		



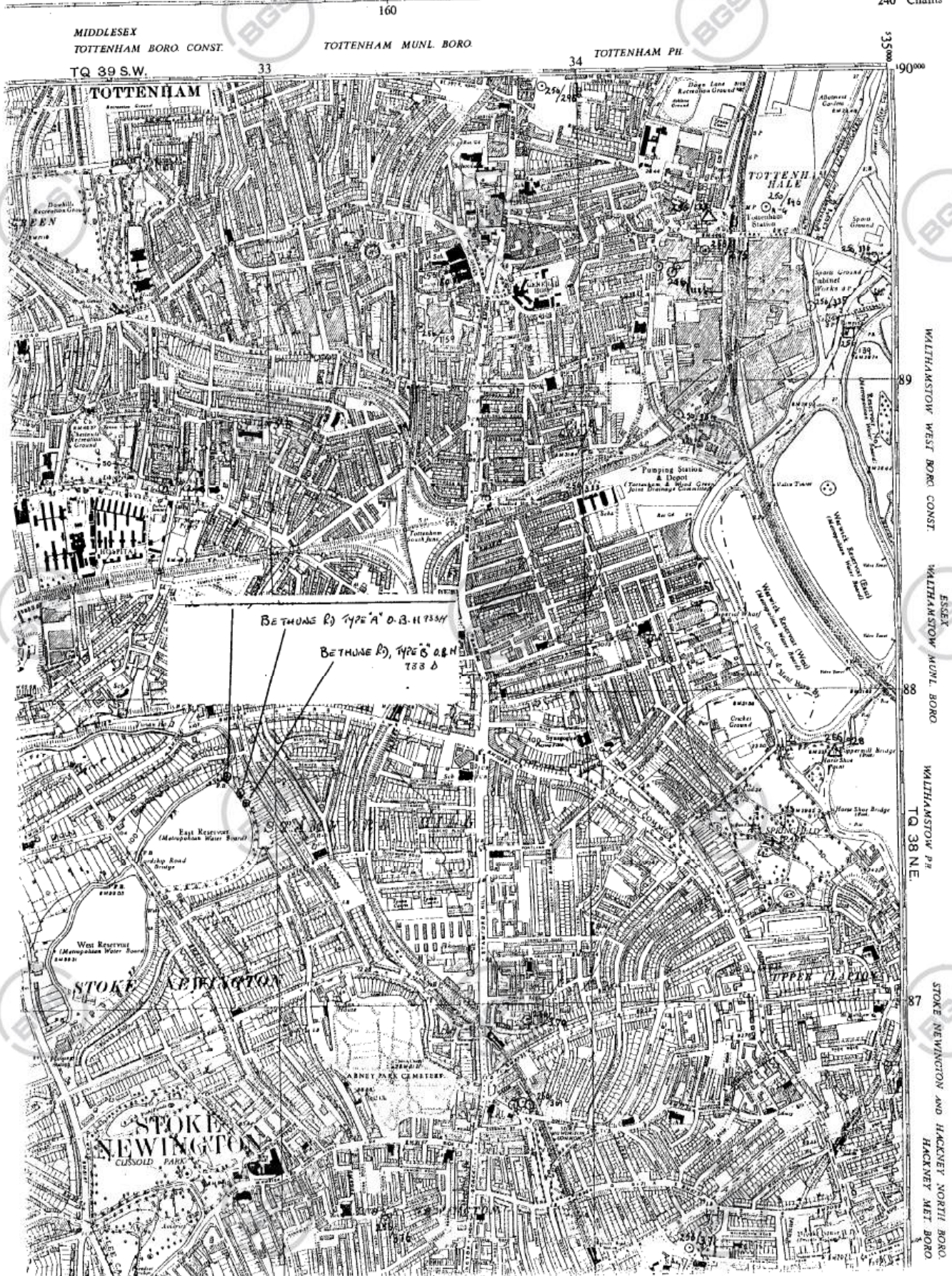
NANCE SURVEY
:10,560 or 6 Inches to 1 Mile
Edition on National Sheet Lines)

1038 NW 501-507

TQ 38/505,2,4

SHEET TQ 38 N
(51/38 N.W.)

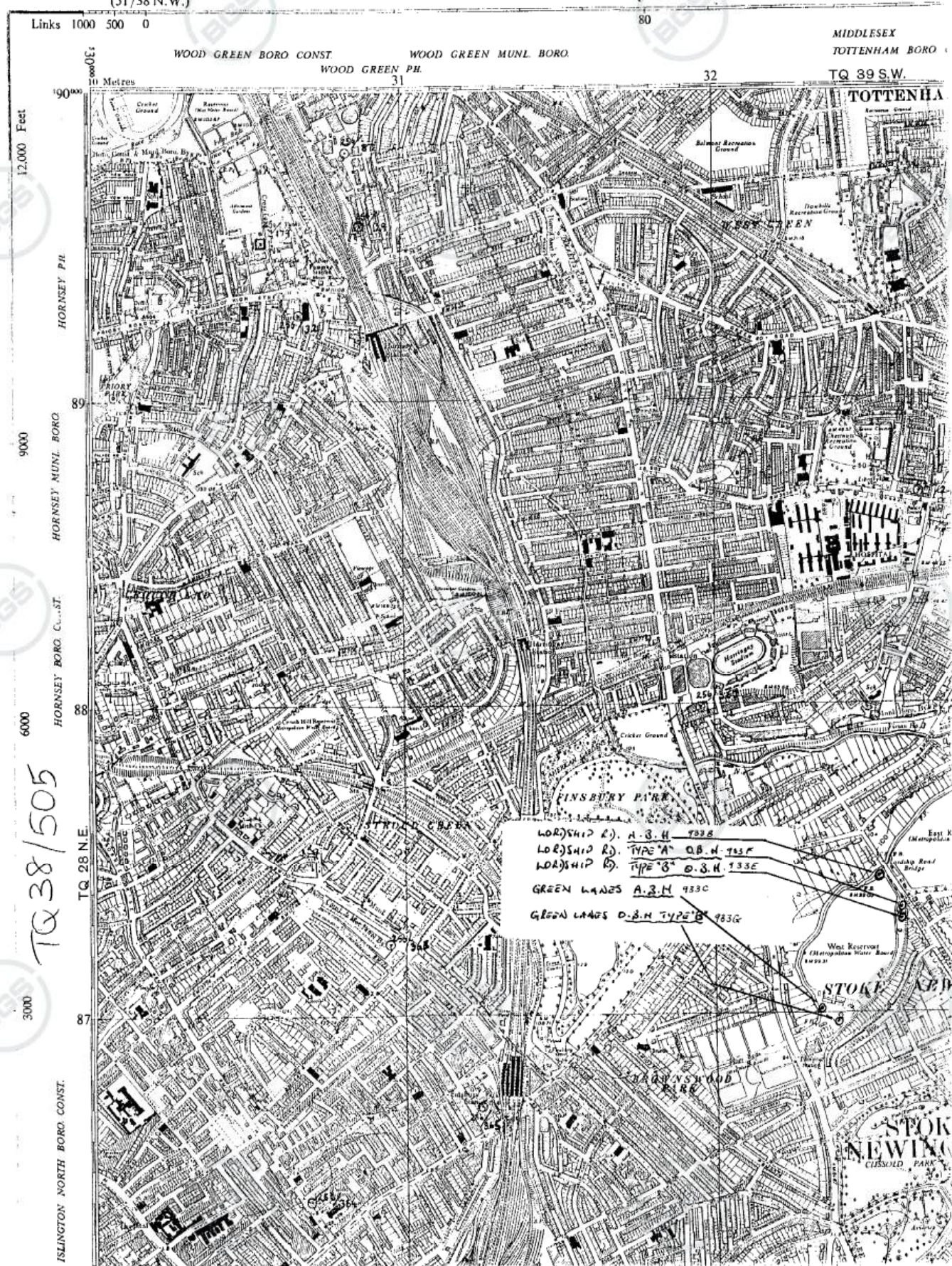
240 Chains



ORDNANCE SU1

SHEET TQ 38 N.W.
(51/38 N.W.)

Scale 1:10,560 or 6 Inches
(Provisional Edition on National



Appendix E

CNC Searches Ltd
31
Cotton Hill
London
BR1 5RT

Search address supplied	Ground Floor, 105, Raleigh Road, London, N8 0JD
Your reference	N8 0JD
Our reference	DWS/DWS Standard/2017_3678292
Received date	27 October 2017
Search date	3 November 2017

Keeping you up-to-date

2017 is the 15th anniversary of the CON29DW. From just two drainage and water related questions in the local authority search, the CON29DW now comprises of 25 standard questions answered in full, from sewerage and water asset information to sewer flooding history and connection information, providing peace of mind and mitigating risk for homebuyers, property owners, and conveyancers alike.

There have been multi-million pound investments in this process by CON29DW producers including Thames Water Property Searches in order to improve product quality and speed of response.



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0845 070 9148

Question	Summary Answer
Maps	
1.1 Where relevant, please include a copy of an extract from the public sewer map.	Map Provided
1.2 Where relevant, please include a copy of an extract from the map of waterworks.	Map Provided
Drainage	
2.1 Does foul water from the property drain to a public sewer?	Connected
2.2 Does surface water from the property drain to a public sewer?	Connected
2.3 Is a surface water drainage charge payable?	Charge Payable
2.4 Does the public sewer map indicate any public sewer, disposal main or lateral drain within the boundaries of the property?	No
2.4.1 Does the public sewer map indicate any public pumping station or any other ancillary apparatus within the boundaries of the property?	No
2.5 Does the public sewer map indicate any public sewer within 30.48 metres(100 feet) of any buildings within the property?	Yes
2.5.1 Does the public sewer map indicate any public pumping station or any other ancillary apparatus within the 50metres of any buildings within the property?	No
2.6 Are any sewers or lateral drains serving, or which are proposed to serve the property, the subject of an existing adoption agreement or an application for such an agreement?	No
2.7 Has a sewerage undertaker approved or been consulted about any plans to erect a building or extension on the property over or in the vicinity of a public sewer, disposal main or drain?	No
2.8 Is the building which is or forms part of the property, at risk of internal flooding due to overloaded public sewers?	Not At Risk
2.9 Please state the distance from the property to the nearest boundary of the nearest sewage treatment works.	5.962 Kilometres
Water	
3.1 Is the property connected to mains water supply?	Connected
3.2 Are there any water mains, resource mains or discharge pipes within the boundaries of the property?	No
3.3 Is any water main or service pipe serving or which is proposed to serve the property, the subject of an existing adoption agreement or an application for such an agreement?	No
3.4 Is the property at risk of receiving low water pressure or flow?	No
3.5 What is the classification of the water supply for the property?	Hard
3.6 Please include details of the location of any water meter serving the property.	See Details
Charging	
4.1.1 Who are the sewerage undertakers for the area?	Thames Water
4.1.2 Who are the water undertakers for the area?	Thames Water
4.2 Who bills the property for sewerage services?	Thames Water
4.3 Who bills the property for water services?	Thames Water
4.4 What is the current basis for charging for sewerage and/or water services at the property?	Metered
4.5 Will the basis for charging for sewerage and water services at the property change as a consequence of a change of occupation?	No

Search address supplied: Ground Floor, 105, Raleigh Road, London, N8 0JD

Any new owner or occupier will need to contact Thames Water on 0800 316 9800 or log onto our website www.thameswater.co.uk and complete our online form to change the water and drainage services bills to their name.

The following records were searched in compiling this report: - the Map of Public Sewers, the Map of Waterworks, Water and Sewer billing records, Adoption of Public Sewer records, Building Over Public Sewer records, the Register of Properties subject to Internal Foul Flooding, the Register of Properties subject to Poor Water Pressure and the Drinking Water Register. Thames Water Utilities Ltd (TWUL), Clearwater Court, Vastern Road, Reading RG1 8DB, holds all of these.

TWUL, trading as Property Searches, are responsible in respect of the following:-

- (i) any negligent or incorrect entry in the records searched;
- (ii) any negligent or incorrect interpretation of the records searched;
- (iii) and any negligent or incorrect recording of that interpretation in the search report
- (iv) compensation payments

Please refer to the attached [Terms & Conditions](#).



Thames Water Property Searches is an Executive member of CoPSO (Council of Property Search Organisations).

Interpretation of CON29DW Drainage and Water Search

Appendix 1 contains definitions of terms and expressions used in this report.

For your guidance:

- Thames Water Property Searches Complaints Procedure:
 - o Thames Water Property Searches offers a robust complaints procedure. Complaints can be made by telephone, in writing, by email (searches@thameswater.co.uk) or through our website (www.thameswater-propertysearches.co.uk)

As a minimum standard Thames Water Property Searches will:

- o endeavour to resolve any contact or complaint at the time of receipt. If this isn't possible, we will advise of timescales;
- o investigate and research the matter in detail to identify the issue raised (in some cases third party consultation will be required);
- o provide a response to the customer within 10 working days of receipt of the complaint;
- o provide compensation, if no response or acknowledgment that we are investigating the case is given within 10 working days of receipt of the complaint;
- o keep you informed of the progress and, depending on the scale of investigation required, update with new timescales as necessary;
- o provide an amended search, free of charge, if required;
- o provide a refund if we find your complaint to be justified; take the necessary action within our power to put things right.

If you want us to liaise with a third party on your behalf, just let us know.

If you are still not satisfied with the outcome provided we will refer the matter to a Senior Manager for resolution who will respond again within 5 working days.

If you remain dissatisfied with our final response you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). Please refer to the final page of the search for further details.

Maps

1.1 – Where relevant, please include a copy of an extract from the public sewer map.

A copy of an extract of the public sewer map is included, showing the public sewers, disposal mains and lateral drains in the vicinity of the property.

For your guidance:

- The Water Industry Act 1991 defines Public Sewers as those which Thames Water have responsibility for. Other assets and rivers, watercourses, ponds, culverts or highway drains may be shown for information purposes only.
- The company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.
- Assets other than public sewers may be shown on the copy extract, for information.

1.2 – Where relevant, please include a copy of an extract from the map of waterworks.

A copy of an extract of the map of waterworks is included, showing water mains, resource mains or discharge pipes in the vicinity of the property.

For your guidance:

- The "water mains" in this context are those, which are vested in and maintainable by the water company under statute.
- Assets other than public water mains may be shown on the plan, for information only.
- Water companies are not responsible for private supply pipes connecting the property to the public water main and do not hold details of these. These may pass through land outside of the control of the seller, or may be shared with adjacent properties. The buyer may wish to investigate whether separate rights or easements are needed for their inspection, repair or renewal.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Drainage

2.1 – Does foul water from the property drain to a public sewer?

Records indicate that foul water from the property drains to a public sewer.

For your guidance:

- Water companies are not responsible for any private drains that connect the property to the public sewerage system and do not hold details of these. The property owner will normally have sole responsibility for private drains serving the property. These may pass through land outside the control of the seller and the buyer may wish to investigate whether separate rights or easements are needed for their inspection, repair or renewal.
- If foul water does not drain to the public sewerage system, the property may have private facilities in the form of a cesspit, septic tank or other type of treatment plant.
- An extract from the public sewer map is enclosed. This will show known public sewers in the vicinity of the property and it should be possible to estimate the likely length and route of any private drains and/or sewers connecting the property to the public sewerage system.

2.2 – Does surface water from the property drain to a public sewer?

Records indicate that surface water from the property drains to a public sewer.

For your guidance:

- Sewerage Undertakers are not responsible for any private drains that connect the property to the public sewerage system, and do not hold details of these.
- The property owner will normally have sole responsibility for private drains serving the property. These private drains may pass through land outside of the control of the seller and the buyer may wish to investigate whether separate rights or easements are needed for their inspection, repair or renewal.
- In some cases, 'Sewerage Undertakers' records do not distinguish between foul and surface water connections to the public sewerage system.
- At the time of privatisation in 1989, Sewerage Undertakers were sold with poorly-kept records of sewerage infrastructure. The records did not always show which properties were connected for surface water drainage purposes. Accordingly, billing records have been used to provide an answer for this element of the drainage and water search.
- Due to the potential inadequacy of 'Sewerage Undertakers' infrastructure records with respect to surface water drainage, it is the customer's responsibility to inform the Sewerage Undertaker that they do not receive the surface water drainage service. If on inspection, the buyer finds that surface water from the property does not drain to a public sewer, then the property may be eligible for a rebate of the surface water drainage charge. For further information, please contact Thames Water on Tel: 0800 316 9800, or refer to the website at www.thameswater.co.uk.
- If surface water from the property does not drain to the public sewerage system, the property may have private facilities in the form of a soakaway or private connection to a watercourse.
- An extract from the public sewer map is enclosed. This will show known public sewers in the vicinity of the property and it should be possible to estimate the likely length and route of any private drains and/or sewers connecting the property to the public sewerage system.

2.3 – Is a surface water drainage charge payable?

Records confirm that a surface water drainage charge is payable for the property and the charge is £24.00 for the current financial year.

For your guidance:

- If surface water from the property drains to a public sewer, then a surface water drainage charge is payable.
- Where a surface water drainage charge is currently included in the property's water and sewerage bill but, on inspection, the buyer finds that surface water from the property does not drain to a public sewer, then the property may be eligible for a rebate of the surface water drainage charge. For further information, please contact Thames Water on Tel: 0800 316 9800 or refer to the website www.thameswater.co.uk.

2.4 – Does the public sewer map indicate any public sewer, disposal main or lateral drain within the boundaries of the property?

The public sewer map indicates that there are no public sewers, disposal mains or lateral drains within the boundaries of the property. However, from the 1st October 2011 there may be lateral drains and/or public sewers which are not recorded on the public sewer map but which may prevent or restrict development of the property.

For your guidance:

- Thames Water has a statutory right of access to carry out work on its assets. Employees of Thames Water or its contractors may, therefore, need to enter the property to carry out work.
- Please note if the property was constructed after 1st July 2011 any sewers and/or lateral drain within the boundary of the property are the responsibility of the householder.
- The approximate boundary of the property has been determined by reference to the Ordnance Survey Record or the map supplied.
- The presence of a public sewer running within the boundary of the property may restrict further development. The company has a statutory right of access to carry out work on its assets, subject to notice. This may result in employees of the company, or its contractors, needing to enter the property to carry out work.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

2.4.1 – Does the public sewer map indicate any public pumping station or any other ancillary apparatus within the boundaries of the property?

The public sewer map included indicates that there is no public pumping station within the boundaries of the property.

For your guidance:

- Private pumping stations installed before 1 July 2011 will be transferred into the ownership of the sewerage undertaker.
- The approximate boundary of the property has been determined by reference to the Ordnance Survey Record or the map supplied.
- The presence of a public Pumping station running within the boundary of the property may restrict further development. The company has a statutory right of access to carry out work on its assets, subject to notice. This may result in employees of the company, or its contractors, needing to enter the property to carry out work.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

2.5 – Does the public sewer map indicate any public sewer within 30.48 metres (100 feet) of any buildings within the property?

The public sewer map included indicates that there is a public sewer within 30.48 metres (100 feet) of a building within the property.

For your guidance:

- From the 1st October 2011 there may be additional lateral drains and/or public sewers which are not recorded on the public sewer map but are also within 30.48 metres (100 feet) of a building within the property.
- The presence of a public sewer within 30.48 metres (100 feet) of the building(s) within the property can result in the local authority requiring a property to be connected to the public sewer.
- The measurement is estimated from the Ordnance Survey record, between the building(s) within the boundary of the property and the nearest public sewer.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

2.5.1 – Does the public sewer map indicate any public pumping station or any other ancillary apparatus within 50 metres of any buildings within the property?

The public sewer map included indicates that there is no public pumping station within 50 metres of any buildings within the property.

For your guidance:

- Private pumping stations installed before 1 July 2011 will be transferred into the ownership of the sewerage undertaker.
- The presence of a public pumping station within 50 metres of the building(s) within the property can result in the local authority requiring a property to be connected to the public sewer.
- The measurement is estimated from the Ordnance Survey record, between the building(s) within the boundary of the property and the nearest public sewer.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

2.6 – Are any sewers or lateral drains serving or which are proposed to serve the property the subject of an existing adoption agreement or an application for such an agreement?

Records confirm that Foul sewers serving the development, of which the property forms part are not the subject of an existing adoption agreement or an application for such an agreement.

The Surface Water sewer(s) and/or Surface Water lateral drain(s) are not the subject of an adoption agreement.

For your guidance:

- Any sewers and/or lateral drains within the boundary of the property are not the subject of an adoption agreement and remain the responsibility of the householder. Adoptable sewers are normally those situated in the public highway.
- This enquiry is of interest to purchasers of new homes who will want to know whether or not the property will be linked to a public sewer.
- Where the property is part of a very recent or ongoing development and the sewers are not the subject of an adoption application, buyers should consult with the developer to ascertain the extent of private drains and sewers for which they will hold maintenance and renewal liabilities.
- Final adoption is subject to the developer complying with the terms of the adoption agreement under Section 104 of the Water Industry Act 1991 and meeting the requirements of 'Sewers for Adoption' 6th Edition.

2.7 – Has a sewerage undertaker approved or been consulted about any plans to erect a building or extension on the property over or in the vicinity of a public sewer, disposal main or drain?

There are no records in relation to any approval or consultation about plans to erect a building or extension on the property over or in the vicinity of a public sewer, disposal main or drain. However, the sewerage undertaker might not be aware of a building or extension on the property over or in the vicinity of a public sewer, disposal main or drain.

For your guidance:

- From the 1st October 2011 most private sewers, disposal mains and lateral drains were transferred into public ownership and the sewerage undertaker may not have been approved or consulted about any plans to erect a building or extension on the property over or in the vicinity of these.
- Buildings or extensions erected over a sewer in contravention of building controls may have to be removed or altered.

2.8 – Is the building which is or forms part of the property at risk of internal flooding due to overloaded public sewers?

The property is not recorded as being at risk of internal flooding due to overloaded public sewers.

From the 1st October 2011 most private sewers, disposal mains and lateral drains were transferred into public ownership. It is therefore possible that a property may be at risk of internal flooding due to an overloaded public sewer which the sewerage undertaker is not aware of. For further information it is recommended that enquiries are made of the vendor.

For your guidance:

- For reporting purposes buildings are restricted to those normally occupied and used for residential, public, commercial, business or industrial purposes.
- A sewer is "overloaded" when the flow from a storm is unable to pass through it due to a permanent problem (e.g. flat gradient, small diameter). Flooding as a result of temporary problems such as blockages, siltation, collapses and equipment or operational failures are excluded.
- "Internal flooding" from public sewers is defined as flooding, which enters a building or passes below a suspended floor. For reporting purposes, buildings are restricted to those normally occupied and used for residential, public, commercial, business or industrial purposes.
- "At Risk" properties are those that the water company is required to include in the Regulatory Register that is presented annually to the Director General of Water Services. These are defined as properties that have suffered, or are likely to suffer, internal flooding from public foul, combined or surface water sewers due to overloading of the sewerage system more frequently than the relevant reference period (either once or twice in ten years) as determined by the Company's reporting procedure.
- Flooding as a result of storm events proven to be exceptional and beyond the reference period of one in ten years are not included on the At Risk Register.
- Properties may be at risk of flooding but not included on the Register where flooding incidents have not been reported to the Company.
- Public Sewers are defined as those for which the Company holds statutory responsibility under the Water Industry Act 1991.
- It should be noted that flooding can occur from private sewers and drains which are not the responsibility of the Company. This report excludes flooding from private sewers and drains and the Company makes no comment upon this matter.
- For further information please contact Thames Water on Tel: 0800 316 9800 or website www.thameswater.co.uk

2.9 – Please state the distance from the property to the nearest boundary of the nearest sewage treatment works.

The nearest sewage treatment works is Deephams STW which is 5.962 kilometres to the north east of the property.

For your guidance:

- The nearest sewage treatment works will not always be the sewage treatment works serving the catchment within which the property is situated.
- The sewerage undertaker's records were inspected to determine the nearest sewage treatment works.
- It should be noted that there may be a private sewage treatment works closer than the one detailed above that has not been identified.
- As a responsible utility operator, Thames Water Utilities seeks to manage the impact of odour from operational sewage works on the surrounding area. This is done in accordance with the Code of Practice on Odour Nuisance from Sewage Treatment Works issued via the Department of Environment, Food and Rural Affairs (DEFRA). This Code recognises that odour from sewage treatment works can have a detrimental impact on the quality of the local environment for those living close to works. However DEFRA also recognises that sewage treatment works provide important services to communities and are essential for maintaining standards in water quality and protecting aquatic based environments. For more information visit www.thameswater.co.uk

Water

3.1 – Is the property connected to mains water supply?

Records indicate that the property is connected to mains water supply.

For your guidance:

- The Company does not keep details of private supplies. The situation should be checked with the current owner of the property.

3.2 – Are there any water mains, resource mains or discharge pipes within the boundaries of the property?

The map of waterworks does not indicate any water mains, resource mains or discharge pipes within the boundaries of the property.

For your guidance:

- The boundary of the property has been determined by reference to the plan supplied. Where a plan was not supplied the Ordnance Survey Record was used. If the Water company mentioned in 4.1.2 is not Thames Water Utilities Ltd the boundary of the property has been determined by the Ordnance Survey.
- The presence of a public water main within the boundary of the property may restrict further development within it. Water companies have a statutory right of access to carry out work on their assets, subject to notice. This may result in employees of the company, or its contractors, needing to enter the property to carry out work.

3.3 – Is any water main or service pipe serving or which is proposed to serve the property the subject of an existing adoption agreement or an application for such an agreement?

Records confirm that water mains or service pipes serving the property are not the subject of an existing adoption agreement or an application for such an agreement.

For your guidance:

- This enquiry is of interest to purchasers of new homes who will want to know whether or not the property will be linked to the mains water supply.

3.4 – Is the property at risk of receiving low water pressure or flow?

Records confirm that the property is not recorded on a register kept by the water undertaker as being at risk of receiving low water pressure or flow.

For your guidance:

- The boundary of the property has been determined by reference to the plan supplied. Where a plan was not supplied the Ordnance Survey Record was used.
- “Low water pressure” means water pressure below the regulatory reference level, which is the minimum pressure when demand on the system is not abnormal.
- Water Companies are required to include in the Regulatory Register that is presented annually to the Director General of Water Services, properties receiving pressure below the reference level, provided that allowable exclusions do not apply (i.e. events which can cause pressure to temporarily fall below the reference level)
- The reference level of service is a flow of 9 litres/minute at a pressure of 10metres / head on the customer's side of the outside stop valve (osv). The reference level of service must be applied on the customer's side of a meter or any other company fittings that are on the customer's side of the main stop tap. The reference level applies to a single property. Where more than one property is served by a common service pipe, the flow assumed in the reference level must be appropriately increased to take account of the total number of properties served. For two properties, a flow of 18 litres/minute at a pressure of 10metres/head on the customers' side of the osv is appropriate. For three or more properties the appropriate flow should be calculated from the standard loadings provided in BS6700 or the Institute of Plumbing handbook.
- **Allowable exclusions** The Company is required to include in the Regulatory Register properties receiving pressure below the reference level, provided that allowable exclusions listed below do not apply.
- **Abnormal demand:** This exclusion is intended to cover abnormal peaks in demand and not the daily, weekly or monthly peaks in demand, which are normally expected. Companies should exclude from the reported figures properties which are affected by low pressure only on those days with the highest peak demands. During the report year companies may exclude, for each property, up to five days of low pressure caused by peak demand.
- **Planned maintenance:** Companies should not report low pressures caused by planned maintenance. It is not intended that companies identify the number of properties affected in each instance. However, companies must maintain sufficiently accurate records to verify that low-pressure incidents that are excluded because of planned maintenance are actually caused by maintenance.
- **One-off incidents:** This exclusion covers a number of causes of low pressure; mains bursts; failures of company equipment (such as pressure reducing valves or booster pumps); firefighting; and action by a third party. However, if problems of this type affect a property frequently, they cannot be classed as one-off events and further investigation will be required before they can be excluded
- **Low-pressure incidents of short duration:** Properties affected by low pressures, which only occur for a short period, and for which there is evidence that incidents of a longer duration would not occur during the course of the year, may be excluded from the reported figures.
- Please contact your water company mentioned in Question 4.1.2 if you require further information on water pressure.

3.5 – What is the classification of the water supply for the property?

The water supplied to the property has an average water Hardness of 106.2mg/l calcium which is defined as Hard by Thames Water.

For your guidance:

- Water hardness can be expressed in various indices for example the hardness settings for dishwashers are commonly expressed in Clark's degrees, but check with the manufacturer as there are also other units. The following table shows the normal ranges of hardness.
- Sample table for information only:

Thames Water Hardness Category	Calcium (mg/l)	Calcium Carbonate (mg/l)	English Clarke degrees	French degrees	General/ German degrees
Soft	0 to 40	0 to 100	0 to 7	0 to 10	0 to 5.6
Medium	41 to 80	101 to 200	8 to 14	11 to 20	5.7 to 11.2
Hard	Over 80	Over 200	Over 14	Over 20	over 11.2

3.6 – Please include details of the location of any water meter serving the property.

Records indicate that the property is served by a water meter, the location of the water meter has not been confirmed.

For your guidance:

- Where a meter does not serve the property and the customer wishes to consider this method of charging, they should contact the water undertakers mentioned in Question 4.1.2.

Charging

4.1.1 – Who is responsible for providing the sewerage services for the property?

Thames Water Utilities Limited, Clearwater Court, Reading, RG1 8DB is the sewerage undertaker for the area.

4.1.2 – Who is responsible for providing the water services for the property?

Thames Water Utilities Limited, Clearwater Court, Reading, RG1 8DB is the water undertaker for the area.

4.2 – Who bills the property for sewerage services?

The property is billed for sewerage services by:

Thames Water Utilities Limited
Clearwater Court
Vastern Road
Reading
Berkshire
RG1 8DB

Tel: 0845 9200 888
Website: www.thameswater.co.uk.

4.3 – Who bills the property for water services?

The property is billed for water services by:

Thames Water Utilities Limited
Clearwater Court
Vastern Road
Reading
Berkshire
RG1 8DB

Tel: 0845 9200 888
Website: www.thameswater.co.uk.

4.4 – What is the current basis for charging for sewerage and/or water services at the property?

The property is charged based on actual volumes of water measured through a water meter ("metered supply").

For your guidance:

- Water and sewerage companies' full charges are set out in their charges schemes which are available from the company free of charge upon request.
- The Water Industry Act 1991 Section 150, The Water Resale Order 2001 provides protection for people who buy their water or sewerage services from a person or company instead of directly from a water or sewerage company. Details are available from the Office of Water Services (OFWAT) website is www.ofwat.gov.uk.
- Where charges are given these are based on the data available at the time of the report.
- The Company may install a meter at the premises where a buyer makes a change of use of the property or where the buyer uses water for:
 - o Watering the garden other than by hand (this includes the use of sprinklers).
 - o Automatically replenishing a pond or swimming pool with a capacity greater than 10,000 litres.
 - o A bath with a capacity in excess of 230 litres.
 - o A reverse osmosis unit.

4.5 – Will the basis for charging for sewerage and water services at the property change as a consequence of a change of occupation?

There will be no change in the current charging arrangements as a consequence of a change of occupation.

For your guidance:

- Water and sewerage companies' full charges are set out in their charges schemes which are available from the company free of charge upon request.
- The Water Industry Act 1991 Section 150, The Water Resale Order 2001 provides protection for people who buy their water or sewerage services from a person or company instead of directly from a water or sewerage company. Details are available from the Office of Water Services (OFWAT) website is www.ofwat.gov.uk.
- It is policy to meter all new water connections. This would result in charges being levied according to the measured tariff.
- The Company may install a meter at the premises where a buyer makes a change of use of the property or where the buyer uses water for:
 - o Watering the garden other than by hand (this includes the use of sprinklers).
 - o Automatically replenishing a pond or swimming pool with a capacity greater than 10,000 litres.
 - o A bath with a capacity in excess of 230 litres.
 - o A reverse osmosis unit.

Payment for this Search

A charge will be added to your suppliers account.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information.

All prices are in accordance with the standard terms of Property Searches; discounts are available, please contact us on 0845 070 9148 to obtain further details.

The map displays a residential area in Haringey, London, with a proposed bus route highlighted by a red dashed line. The route starts at a bus stop near the bottom left, passes through a large red circle, and continues along Sydney Road and Willowhay Road. Key landmarks include the Methodist Church, Haringey Area 6 Centre, and a Tennis Court. The map also shows property boundaries, street names, and bus stop locations. A large red circle is drawn around a specific area on Sydney Road, likely indicating a proposed bus stop or a point of interest. The map includes various labels for streets, buildings, and landmarks, as well as numerical data points and distances.

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.

[Thames Water Utilities Ltd](#), Property Searches, PO Box 3189, Slough SL1 4W, DX 151280 Slough 13
T 0845 070 9148 E searches@thameswater.co.uk I www.thameswater-propertysearches.co.uk



Residential Drainage & Water Search Sewer Key

Public Sewer Pipes (Operated & Maintained by Thames Water)

-  **Foul Sewer:** A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
-  **Surface Water Sewer:** A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers, watercourses or a treatment works.
-  **Combined Sewer:** A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
-  **Trunk Sewer:** A strategic sewer which collects either foul or surface water flow from a number of subsidiary catchments and transfers this flow to a pumping station, river outfall or treatment works.
-  **Storm Overflow Sewer:** A sewer designed to convey excess rainfall to rivers or watercourses so that the flow does not exceed the capacity of normal sewers (which could cause flooding).
-  **Biosolids:** A sewer designed to convey sludge from one treatment works to another.
-  **Vent Pipe:** A section of sewer pipe connected between the top of a sewer and vent column, used to prevent the accumulation of gas in a sewer and thus allowing the system to operate properly.
-  **Rising Main:** A pipe carrying pumped flow under pressure from a low point to a high point on the sewerage network. Line style / colour and direction of fleck indicate sewer purpose and direction of flow within the pipe.
-  **Vacuum:** A foul sewer designed to remove foul sewerage under pressure (vacuum sewers cannot accept direct new connections).
-  **Proposed Foul Sewer**
-  **Proposed Surface Water Sewer**

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

-  **Foul Sewer:** Any foul sewer that is not owned by Thames Water.
-  **Surface Water Sewer:** Any surface water sewer that is not owned by Thames Water.
-  **Combined Sewer:** Any combined sewer that is not owned by Thames Water.
-  **Gulley:** A sewer designed to convey surface water from large roads, motorways, etc. to watercourses or to public surface water sewers. These sewers are generally maintained by the relevant highway authority.
-  **Culverted Watercourse:** A watercourse running through a culvert or pipe which is the responsibility of the property owner or the Environment Agency.
-  **Abandoned Sewer:** A disused sewer. Usually filled with cement mixture or removed from the ground.

Other Symbols

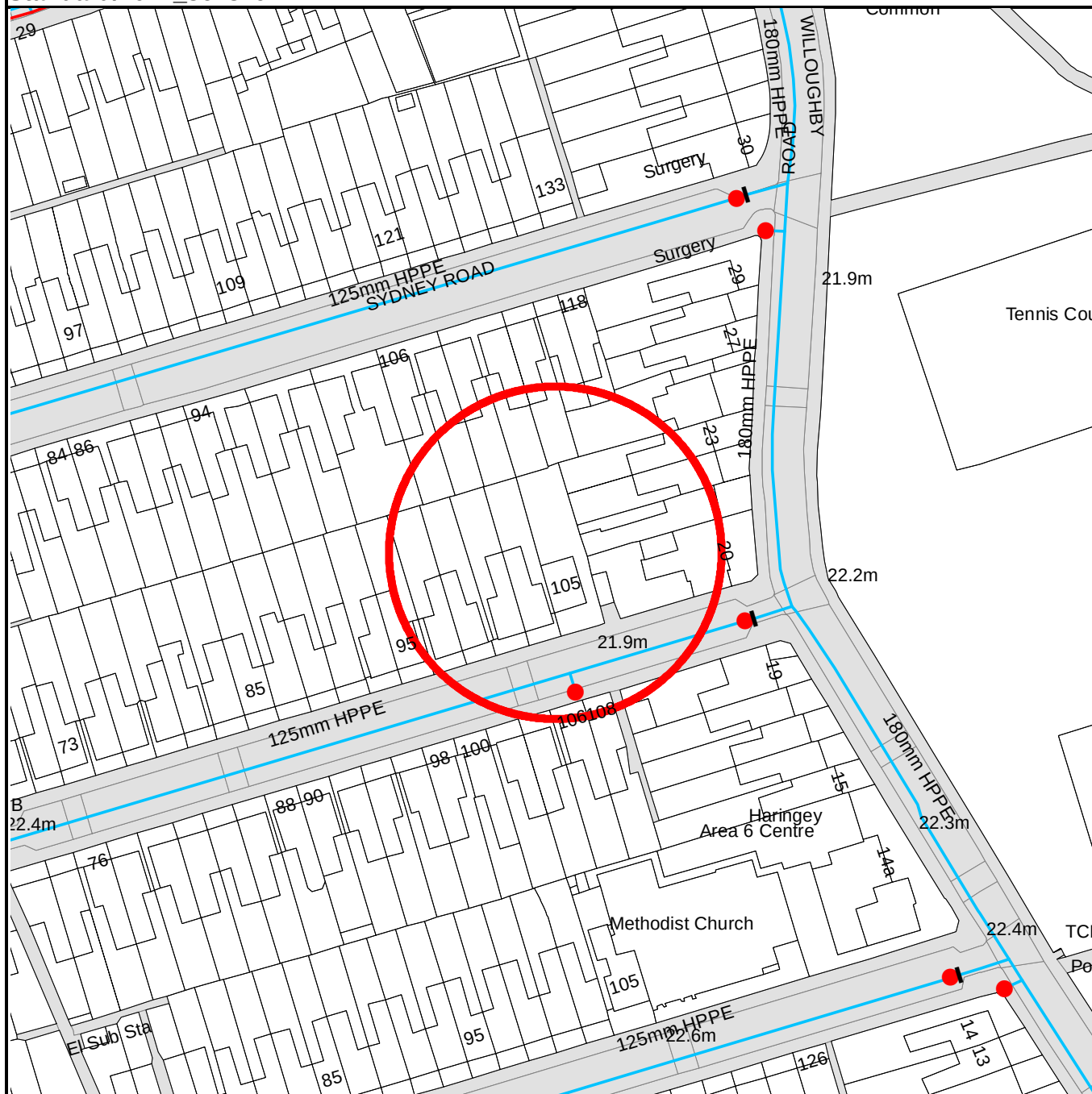
-  **Undefined Ends:** These symbols represent the point at which a pipe continues but no record of its position are currently held by Thames Water. These symbols are rare but may be found on any of the public sewer types.
-  **Public/Private Pumping Station:** Foul or Surface water pumping station.

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 millimetres. 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 Searches on 0845 070 9148.

**Residential CON29DW Drainage & Water Search Water Map-DWS/DWS
Standard/2017_3678292**



The width of the displayed area is 200m

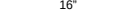
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual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

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.



Residential Drainage & Water Search Water Key

Public Water Pipes (Operated & Maintained by Thames Water)

-  **Distribution Main:** The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.
-  **Trunk Main:** A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.
-  **Supply Main:** A supply main indicates that the water main is used as a supply for a single property or group of properties.
-  **Fire Main:** Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
-  **Metered Pipe:** A metered pipe indicates that the pipe in question supplies water for a single property or group of properties and that the quantity of water passing through the pipe is metered even though there may be no meter symbol shown.
-  **Transmission Tunnel:** A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.
-  **Proposed Main:** A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

Depth of Water Pipes (Normal Cover)

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Pipe fittings and controls (Operated & Maintained by Thames Water)

-  **Hydrant:** A point on a water main which is used by the fire services or operational purposes by Thames Water.
-  **Meter:** Used to measure water flowing through a water main for domestic metering or operational purposes by Thames Water.
-  **General Purpose Valve:** Valves allowing control of water flow or pressure within the system.
-  **Air Valve:** A valve which allows the release of trapped air within a water pipe.

Other Water Pipes (Not Operated or Maintained by Thames Water)

-  **Private Main:** Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and ownership of the pipe.
-  **Other Water Company or Unknown Main:** Occasionally other water company water pipes may overlap the border of our clean water coverage area. The mains are denoted in purple and in most cases have the owner of the pipe displayed along them.

Note:

Most private pipe work and assets i.e. stopcocks, are not shown on our plans (in the past this information had not been recorded).

Appendix 1 - terms and expressions in this report

“the 1991 Act” means the Water Industry Act 1991**(1)**;

“the 2000 Regulations” means the Water Supply (Water Quality) Regulations 2000**(2)**;

“the 2001 Regulations” means the Water Supply (Water Quality) Regulations 2001**(3)**;

“adoption agreement” means an agreement made or to be made under section 51A(1) or 104(1) of the 1991 Act**(4)**;

“bond” means a surety granted by a developer who is a party to an adoption agreement;

“bond waiver” means an agreement with a developer for the provision of a form of financial security as a substitute for a bond;

“calendar year” means the twelve months ending with 31st December;

“discharge pipe” means a pipe from which discharges are made or are to be made under section 165(1) of the 1991 Act;

“disposal main” means (subject to section 219(2) of the 1991 Act) any outfall pipe or other pipe which—

(a) is a pipe for the conveyance of effluent to or from any sewage disposal works, whether of a sewerage undertaker or of any other person; and

(b) is not a public sewer;

“drain” means (subject to section 219(2) of the 1991 Act) a drain used for the drainage of one building or of any buildings or yards appurtenant to buildings within the same curtilage;

“effluent” means any liquid, including particles of matter and other substances in suspension in the liquid;

“financial year” means the twelve months ending with 31st March;

“lateral drain” means—

(a) that part of a drain which runs from the curtilage of a building (or buildings or yards within the same curtilage) to the sewer with which the drain communicates or is to communicate; or

(b) (if different and the context so requires) the part of a drain identified in a declaration of vesting made under section 102 of the 1991 Act or in an agreement made under section 104 of that Act**(5)**;

“licensed water supplier” means a company which is the holder for the time being of a water supply licence under section 17A(1) of the 1991 Act**(6)**;

“maintenance period” means the period so specified in an adoption agreement as a period of time—

(a) from the date of issue of a certificate by a sewerage undertaker to the effect that a developer has built (or substantially built) a private sewer or lateral drain to that undertaker’s satisfaction; and

(b) until the date that private sewer or lateral drain is vested in the sewerage undertaker;

“map of waterworks” means the map made available under section 198(3) of the 1991 Act**(7)** in relation to the information specified in subsection (1A);

“private sewer” means a pipe or pipes which drain foul or surface water, or both, from premises, and are not vested in a sewerage undertaker;

“public sewer” means, subject to section 106(1A) of the 1991 Act**(8)**, a sewer for the time being vested in a sewerage undertaker in its capacity as such, whether vested in that undertaker—

(a) by virtue of a scheme under Schedule 2 to the Water Act 1989**(9)**;

(b) by virtue of a scheme under Schedule 2 to the 1991 Act**(10)**;

(c) under section 179 of the 1991 Act~~(11)~~; or

(d) otherwise;

“public sewer map” means the map made available under section 199(5) of the 1991 Act~~(12)~~;

“resource main” means (subject to section 219(2) of the 1991 Act) any pipe, not being a trunk main, which is or is to be used for the purpose of—

(a) conveying water from one source of supply to another, from a source of supply to a regulating reservoir or from a regulating reservoir to a source of supply; or

(b) giving or taking a supply of water in bulk;

“sewerage services” includes the collection and disposal of foul and surface water and any other services which are required to be provided by a sewerage undertaker for the purpose of carrying out its functions;

“sewerage undertaker” means the company appointed to be the sewerage undertaker under section 6(1) of the 1991 Act for the area in which the property is or will be situated;

“surface water” includes water from roofs and other impermeable surfaces within the curtilage of the property;

“water main” means (subject to section 219(2) of the 1991 Act) any pipe, not being a pipe for the time being vested in a person other than the water undertaker, which is used or to be used by a water undertaker or licensed water supplier for the purpose of making a general supply of water available to customers or potential customers of the undertaker or supplier, as distinct from for the purpose of providing a supply to particular customers;

“water meter” means any apparatus for measuring or showing the volume of water supplied to, or of effluent discharged from any premises;

“water supplier” means the company supplying water in the water supply zone, whether a water undertaker or licensed water supplier;

“water supply zones” in relation to a calendar year means the names and areas designated by a water undertaker within its area of supply that are to be its water supply zones for that year; and

“water undertaker” means the company appointed to be the water undertaker under section 6(1) of the 1991 Act for the area in which the property is or will be situated.

In this report, references to a pipe, including references to a main, a drain or a sewer, shall include references to a tunnel or conduit which serves or is to serve as the pipe in question and to any accessories for the pipe.

(1) 1991 c. 56.

(2) S.I. 2000/3184. These Regulations apply in relation to England.

(3) S.I. 2001/3911. These Regulations apply in relation to Wales.

(4) Section 51A is inserted by section 92(2) of the Water Act 2003 (c. 37). Section 104(1) is amended by section 96(4) of that Act.

(5) To which there are various amendments made by sections 102 and 104 by section 96 of the Water Act 2003.

(6) Inserted by section 56 of and Schedule 4 to the Water Act 2003.

(7) Subsection (1A) is inserted by section 92(5) of the Water Act 2003.

(8) Section 106(1A) is inserted by section 99 of the Water Act 2003.

(9) 1989 c. 15.

(10) To which there are various amendments made by section 101(1) of and Schedule 8 to the Water Act 2003.

(11) To which there are various amendments made by section 101(1) of and Schedule 8 to the Water Act 2003.

(12) Section 199 is amended by section 97(1) and (8) of the Water Act 2003.

CON29DW DRAINAGE & WATER ENQUIRY (DOMESTIC).

TERMS AND CONDITIONS

The Customer the Client and the Purchaser are asked to note these terms, which govern the basis on which this drainage and water report is supplied

Definitions

'The Company' means Thames Water who produces the Report.

'Order' means any request completed by the Customer requesting the Report.

'Report' means the drainage and/or water report prepared by The Company in respect of the Property.

'Property' means the address or location supplied by the Customer in the Order.

'Customer' means the person, company, firm or other legal body placing the Order, either on their own behalf as Client, or, as an agent for a Client.

'Client' means the person, company or body who is the intended recipient of the Report with an actual or potential interest in the Property

"Purchaser" means the actual or potential purchaser of the Property including their mortgage lender.

Agreement

1. The Company agrees to supply the Report to the Customer and the Client subject to these terms. The scope and limitations of the Report are described in paragraph 2 of these terms. Where the Customer is acting as an agent for the Client then the Customer shall be responsible for bringing these terms to the attention of the Client and the Purchaser.

1.1 The Customer the Client and the Purchaser agree that the placing of an Order for a Report and the subsequent provision of a copy of the Report to the Purchaser indicates their acceptance of these terms.

The Report

2. Whilst The Company will use reasonable care and skill in producing the Report, it is provided to the Customer the Client and the Purchaser on the basis that they acknowledge and agree to the following:-

1.2 The information contained in the Report can change on a regular basis so The Company cannot be responsible to the Customer the Client and the Purchaser for any change in the information contained in the Report after the date on which the Report was produced and sent to the Client.

1.3 The Report does not give details about the actual state or condition of the Property nor should it be used or taken to indicate or exclude actual suitability or unsuitability of the Property for any particular purpose, or relied upon for determining saleability or value, or used as a substitute for any physical investigation or inspection. Further advice and information from appropriate experts and professionals should always be obtained.

1.4 The information contained in the Report is based upon the accuracy of the address supplied by the Customer or Client.

1.5 The Report provides information as to the location & connection of existing services and other information in relation to drainage and water enquiries and should not be relied on for any other purpose. The Report may contain opinions or general advice to the Customer the Client and the Purchaser The Company cannot ensure that any such opinion or general advice is accurate, complete or valid and accepts no liability therefore.

1.6 The position and depth of apparatus shown on any maps attached to the Report are approximate, and are furnished as a general guide only, and no warranty as to its correctness is given or implied. The exact positions and depths should be obtained by excavation trial holes and the maps must not be relied on in the event of excavation or other works made in the vicinity of The Company's apparatus.

Liability

3.1 The Company shall not be liable to the Client or the Purchaser for any failure defect or non-performance of its obligations arising from any failure of or defect in any machine, processing system or transmission link or anything beyond The Company's reasonable control or the acts or omissions of any party for whom The Company are not responsible.

3.2 Where a report is requested for an address falling within a geographical area where two different companies separately provide Water and Sewerage Services, then it shall be deemed that liability for the information given by either company will remain with that company in respect of the accuracy of the information supplied. A company supplying information which has been provided to it by another company for the purposes outlined in this agreement will therefore not be liable in any way for the accuracy of that information and will supply that information as agent for the company from which the information was obtained.

3.3 The Report is produced only for use in relation to individual domestic property transactions which require the provision of drainage and water information and cannot be used for commercial development of domestic properties or commercial properties for intended occupation by third parties. When the Report is used for land only transactions the Company's entire liability (except to the extent provided by clause 3.4) in respect of all causes of action arising by reason of or in connection with the Report (whether for breach of contract, negligence or any other tort, under statute or statutory duty or otherwise at all) shall be limited to £5,000.

3.4 The Company shall accept liability for death or personal injury arising from its negligence.

Copyright and Confidentiality

4.1 The Customer the Client and the Purchaser acknowledge that the Report is confidential and is intended for the personal use of the Client and the Purchaser. The copyright and any other intellectual property rights in the Report shall remain the property of The Company. No intellectual or other property rights are transferred or licensed to the Customer the Client or the Purchaser except to the extent expressly provided

4.2 The Customer or Client is entitled to make copies of the Report but may only copy Ordnance Survey mapping or data contained in or attached to the Report, if they have an appropriate licence from the originating source of that mapping or data

4.3 The Customer the Client and the Purchaser agree (in respect of both the original and any copies made) to respect and not to alter any trademark, copyright notice or other property marking which appears on the Report.

4.4 The maps contained in the Report are protected by Crown Copyright and must not be used for any purpose outside the context of the Report.

4.5 The enquiries in the Report are protected by copyright by the Law Society of 113 Chancery Lane, London WC2A 1PL and must not be used for any purpose outside the context of the Report.

4.6 The Customer the Client and the Purchaser agree to indemnify The Company against any losses, costs, claims and damage suffered by The Company as a result of any breach by either of them of the terms of paragraphs 4.1 to 4.4 inclusive.

Payment

5. Unless otherwise stated all prices are inclusive of VAT. The Customer shall pay for the price of the Report specified by The Company, without any set off, deduction or counterclaim. Unless the Customer or Client has an account with The Company for payment for Reports, The Company must receive payments for Reports in full before the Report is produced. For Customers or Clients with accounts, payment terms will be as agreed with The Company.

General

6.1 If any provision of these terms is or becomes invalid or unenforceable, it will be taken to be removed from the rest of these terms to the extent that it is invalid or unenforceable. No other provision of these terms shall be affected.

6.2 These terms shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts.

6.3 Nothing in these terms and conditions shall in any way restrict the Customer the Clients or the Purchasers statutory or any other rights of access to the information contained in the Report.

6.4 These terms and conditions may be enforced by the Customer the Client and the Purchaser.

These Terms & Conditions are available in larger print for those with impaired vision.

Payment Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment 14 days from due date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service, or will be held to be invalid.
4. Thames Water does not accept post-dated cheques-any cheques received will be processed for payment on date of receipt.
5. In case of dispute TWUL's terms and conditions shall apply.
6. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
7. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
8. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 316 9800.

If you are unhappy with our service you can speak to your original goods or customer service provider. If you are not satisfied with the response, your complaint will be reviewed by the Customer Services Director. You can write to her at: Thames Water Utilities Ltd. PO Box 492, Swindon, SN38 8TU.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0121 345 1000 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

Ways to pay your bill

Credit Card	BACS Payment	Telephone Banking	Cheque
Call 0845 070 9148 quoting your invoice number starting CBA or ADS / OSS.	Account number 90478703 Sort code 60-00-01 A remittance advice must be sent to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW. or email ps.billing@thameswater.co.uk	By calling your bank and quoting: Account number 90478703 Sort code 60-00-01 and your invoice number	Made payable to ' Thames Water Utilities Ltd ' Write your Thames Water account number on the back. Send to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW or by DX to 151280 Slough 13

Thames Water Utilities Ltd Registered in England & Wales No. 2366661 Registered Office Clearwater Court, Vastern Rd, Reading, Berks, RG1 8DB.



Search Code

IMPORTANT CONSUMER PROTECTION INFORMATION

This search has been produced by Thames Water Property Searches, Clearwater Court, Vastern Road, Reading RG1 8DB, which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.

The Search Code:

- provides protection for homebuyers, sellers, estate agents, conveyancers and mortgage lenders who rely on the information included in property search reports undertaken by subscribers on residential and commercial property within the United Kingdom
- sets out minimum standards which firms compiling and selling search reports have to meet
- promotes the best practise and quality standards within the industry for the benefit of consumers and property professionals
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

The Code's core principles

Firms which subscribe to the Search Code will:

- display the Search Code logo prominently on their search reports
- act with integrity and carry out work with due skill, care and diligence
- at all times maintain adequate and appropriate insurance to protect consumers
- conduct business in an honest, fair and professional manner
- handle complaints speedily and fairly
- ensure that products and services comply with industry registration rules and standards and relevant laws
- monitor their compliance with the Code

Complaints

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award compensation of up to £5,000 to you if he finds that you have suffered actual loss as a result of your search provider failing to keep to the Code.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.

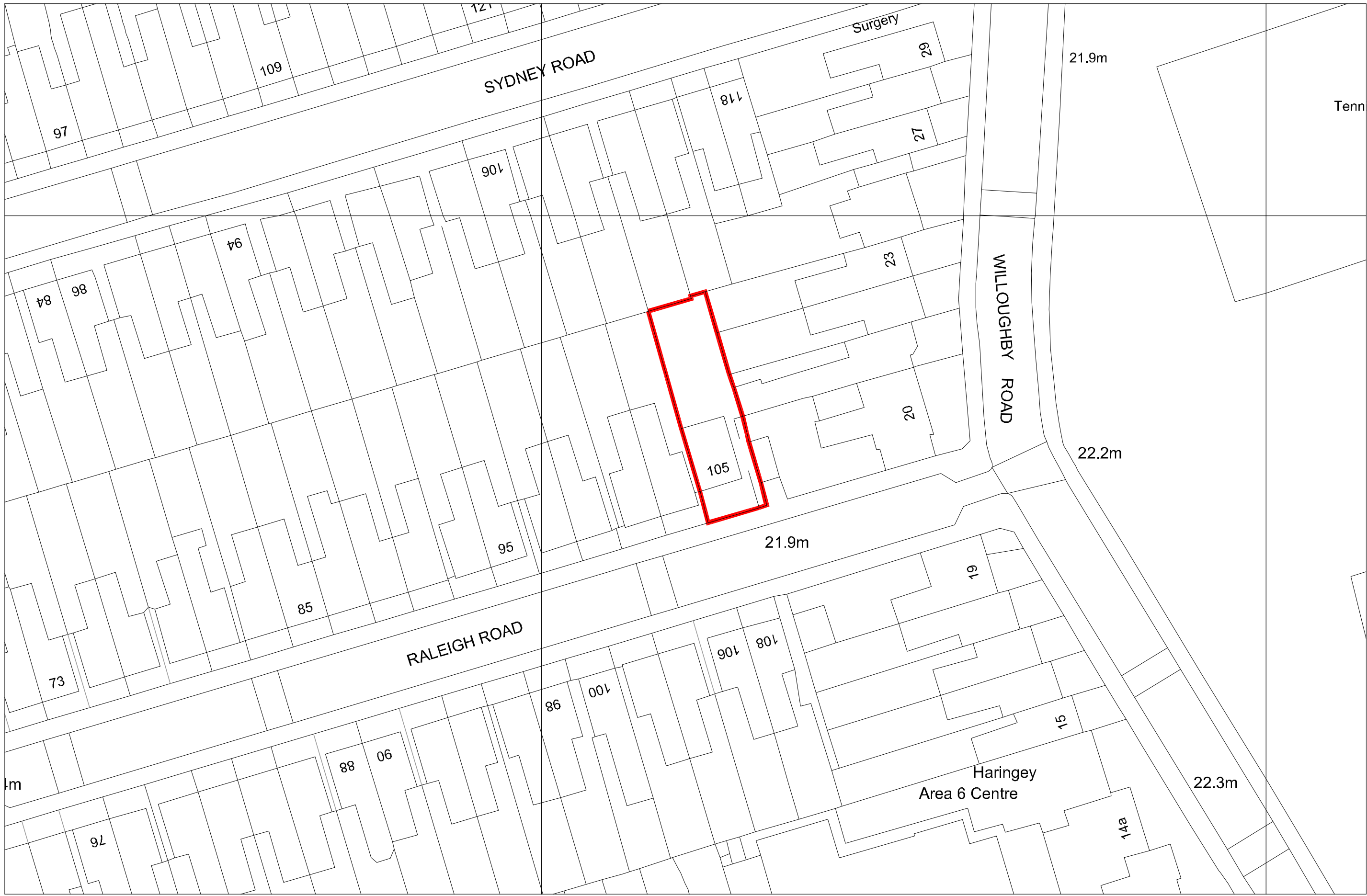
TPOs Contact Details

The Property Ombudsman scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP
Tel: 01722 333306
Fax: 01722 332296
Email: admin@tpos.co.uk

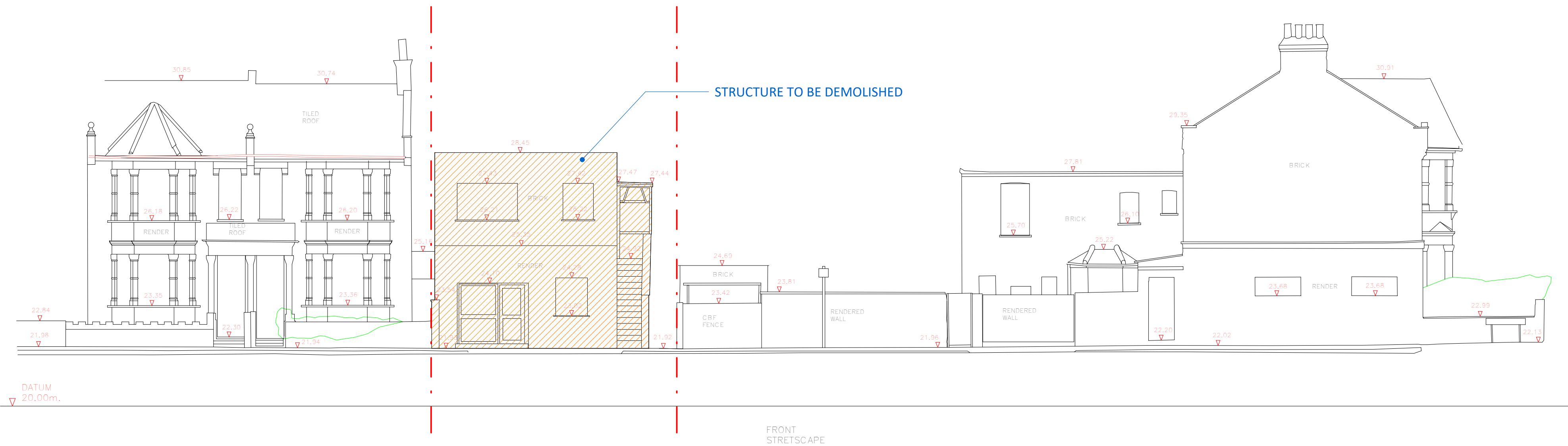
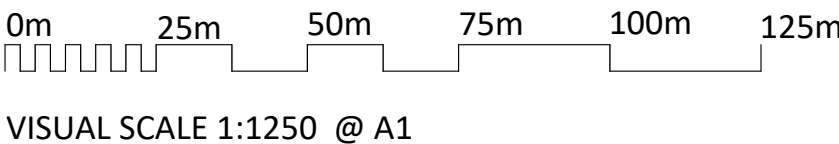
You can get more information about the PCCB from www.propertycodes.org.uk

PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE

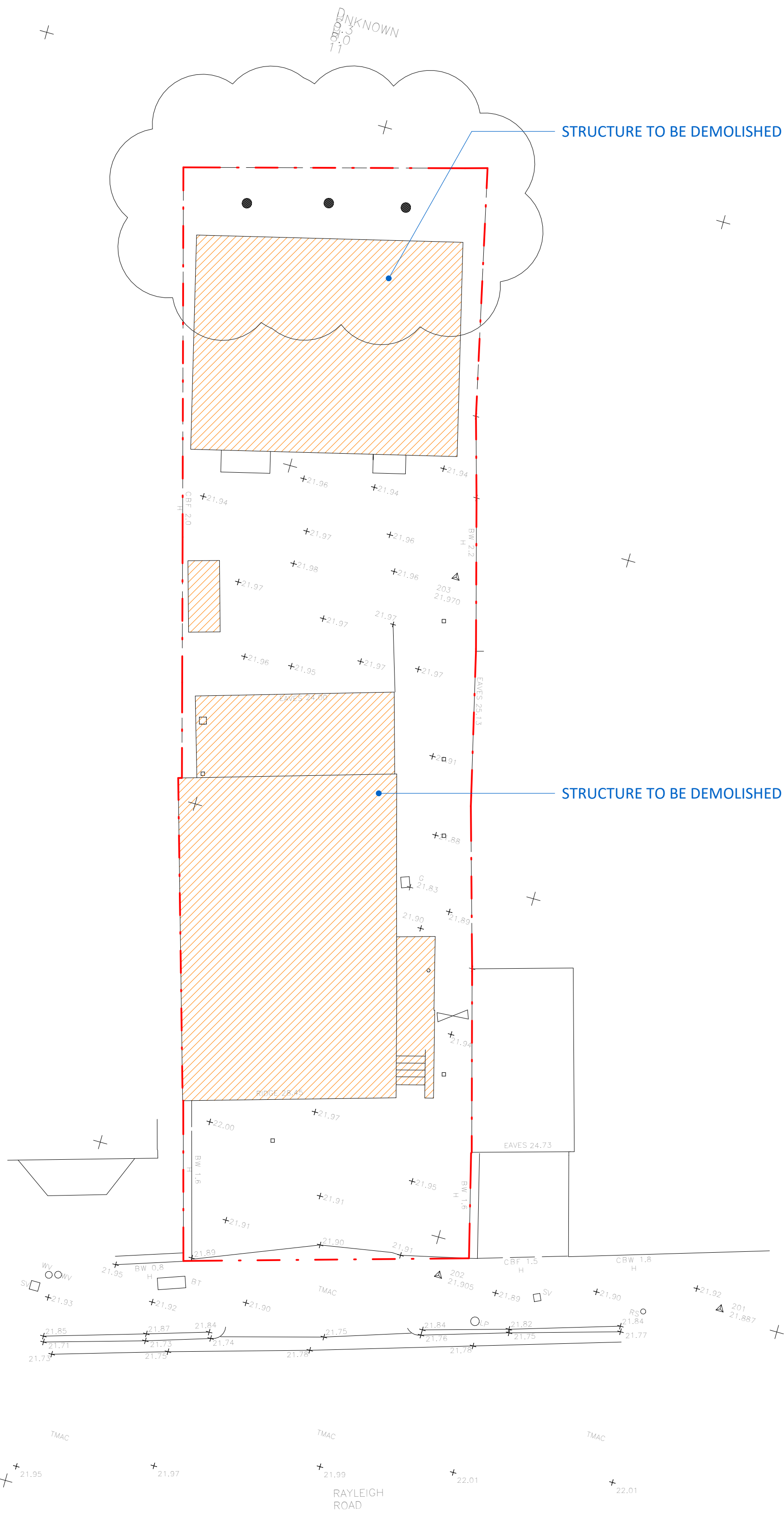
Appendix F



Site Location Plan
1 : 500



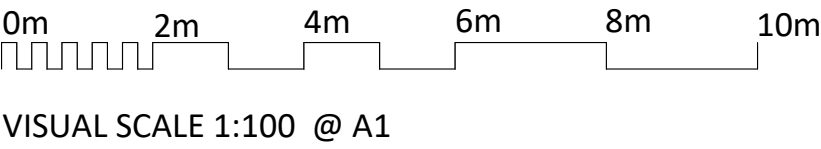
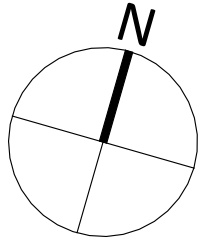
Existing Streetscape
1 : 100



Existing Site Plan
1 : 100

TENDER ISSUE (NOT FOR CONSTRUCTION)

Rev	Date	Drawn	Description
A	30/06/2022	-	Tender issue



Project:	105 Raleigh Road, N8 0JD	Drawn:	MS
Client:	J. Michaelides	Checked:	MS
Title:	Existing Drawings	Date:	02/17/22
Scale @ A1:	As indicated	Status:	TENDER
Dwg No:	1691.BR.01	Revision:	A