



# 124 Theobalds Road

1632-LSL-XX-XX-RP-C-FRA

Flood Risk Assessment

June 2024



## DOCUMENT CONTROL

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## 1.0 Introduction

### 1.1 Scope

This Flood Risk Assessment (FRA) report has been prepared by London Structures Lab on behalf of Theobald Investment Ltd ('the Applicant') in support of a full planning application for the refurbishment and extension of the existing commercial building at 124 Theobalds Road, London, WC1X 8RX ("the Site"). It should be read in conjunction with the other planning documents.

### 1.2 Sources of Information

This report has been prepared based on the following set of information:

- Existing Plans and Elevations produced by Orms Architects
- Proposal information produced by Orms Architects
- Utilities records – Thames Water record reference ALS/ALS Standard/2023\_4883763 dated 13 September 2023
- Utilities records – Thames Water Sewer Flooding History Enquiry reference SFH/SFH Standard/2023\_4920783, dated 05 December 2023
- Basement Survey by Digitalinc, drawing No. THR-DIG-22-0B-M2-G-90001 dated October 2023
- Basement plan showing levels of existing footings and drainage (proposed) by Alan Baxter & Associates, drawing No. 787/01/SK268, dated 1990
- CCTV survey undertaken by Clearview Surveys Ltd, Ref 14418, dated 11 December 2023
- Environment Agency (EA) online flood maps at <https://flood-map-for-planning.service.gov.uk/>
- British Geological Survey (BGS) online mapping available at [https://mapapps2.bgs.ac.uk/geoindex/home.html?\\_ga=2.38164836.691028685.1697751276-367169219.1697751276](https://mapapps2.bgs.ac.uk/geoindex/home.html?_ga=2.38164836.691028685.1697751276-367169219.1697751276)
- Magic website mapping available at <https://magic.defra.gov.uk/magicmap.aspx>



- Lead Local Flood Authority (LLFA) information – Strategic Flood Risk Assessment (SFRA), available at <https://www.camden.gov.uk/documents/20142/0/download+%2815%29.pdf/37025249-3da8-4fe1-3075-aa025d3b66de>
- Lead Local Flood Authority (LLFA) information – Surface Water Management Plan, available at [https://www.camden.gov.uk/documents/20142/1458280/SWMP\\_Halcrow\\_Report\\_for\\_Camden.pdf/2a8fbf03-cbd7-e808-3bb4-e75b62756b0a](https://www.camden.gov.uk/documents/20142/1458280/SWMP_Halcrow_Report_for_Camden.pdf/2a8fbf03-cbd7-e808-3bb4-e75b62756b0a)
- Lead Local Flood Authority (LLFA) information – Camden Planning Guidance – Water and Flooding, available at <https://www.camden.gov.uk/documents/20142/4823269/Water+and+Flooding+CP+G+-+March+2019.pdf/c7633c7d-2b93-cb52-ee01-717fa0416e84>
- Lead Local Flood Authority (LLFA) information – Camden Local Plan, available at <https://www.camden.gov.uk/documents/20142/4820180/Local+Plan.pdf/ce6e992a-91f9-3a60-720c-70290fab78a6>
- Lead Local Flood Authority (LLFA) information – Camden’s Local Area Requirements for Planning Applications (2018), available at <https://www.camden.gov.uk/documents/20142/2247044/Local+area+requirements+for+planning+applications+July+2018.pdf/aae40604-02b3-9cec-a7d0-799b86ba1d00>
- Greater London Authority - City of London Local Plan 2021, available at <https://www.london.gov.uk/programmes-strategies/planning/london-plan/new-london-plan/london-plan-2021>
- National Planning Policy guidance on Flood Risk and Coastal Change, UK Government, published 6 March 2014, last updated 25 August 2022, available from <https://www.gov.uk/guidance/flood-risk-and-coastal-change>
- The National Planning Policy Framework (NPPF) : Annex 3, Flood risk vulnerability classification – UK Government, published March 2012, , available at <https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification>



### 1.3 Limitations

This report has been prepared in accordance with the National Planning Policy Framework (NPPF) and Local Planning Policy. The proposed flood management (including ground floor level recommendations) and surface water management strategies are based on the relevant British Standards (BS8533), the standing advice provided by the EA or based on common practice. The findings of this report are based on the information available at the time of production.

The Construction (Design and Management) Regulations 2015 (CDM Regulations) will apply to any future development of this site which involves “construction” work, as defined by the CDM Regulations. As such it is the responsibility of the proposed developer (ultimate client) to fulfil its duties under the CDM Regulations.



## 2.0 Site Setting

### 2.1 Site Description

124 Theobalds Road ('The Site') is located in the London Borough of Camden (LBC) and covers an area of 0.24 hectares. The current building was completed in 1955 and comprises a basement, ground and eight upper floors with a total floorspace of approximately 11,937 m<sup>2</sup>. The Site fronts Theobalds Road to the south and is bounded by Boswell Street to the west and New North Street to the east. The approximate grid reference for the site is 530531E, 181798N. The planning boundary for the proposed works is shown in Figure 2.1.

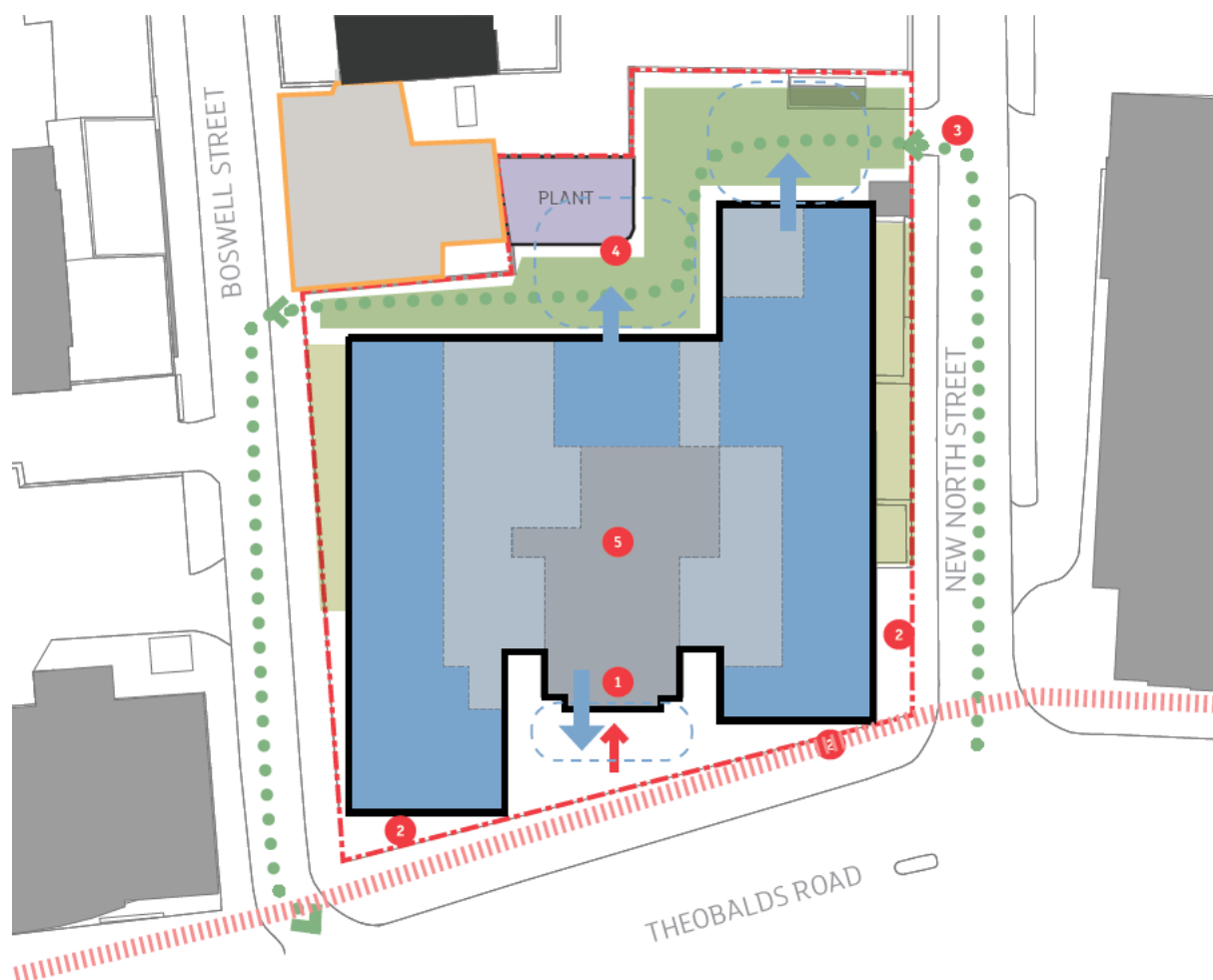


Figure 2.1 – Proposed planning boundary

### 2.2 Proposed Development

The proposed development comprises refurbishment and extension of the existing building to provide additional commercial, business and service use (Class E) including external alterations,



introduction of a rooftop terrace, new hard and soft landscaping, provision of cycle parking, provision of publicly accessible café space, and other associated works.

### 2.3 Topography

The majority of the site is occupied by the existing building footprint, with a paved parking and service yard area to the north of the building. Based on the Thames Water Utilities records, there is a slight fall south to north on the roads adjacent to the building, with a marginal fall in levels west to east. At the time of report production, a topographical survey of the surrounding road levels was not available.

### 2.4 Hydrology

Ordnance Survey (OS) mapping and the EA's web-based mapping indicate that the River Thames is located approximately 1.1 km to the south of the site.

### 2.5 Geology

Based on the information available from BGS online mapping:

- Bedrock geology description - London Clay Formation - Clay and silt. Sedimentary bedrock formed between 56 and 47.8 million years ago during the Palaeogene period.
- Superficial deposits – Lynch Hill Gravel Member - Sand and gravel. Sedimentary superficial deposit formed between 362 and 126 thousand years ago during the Quaternary period.

The nearest borehole records with similar geological profiles to the site available from this website are summarised below:

- TQ38SW210, within the southeast boundary of the site, dated 1951 - indicated uppermost 0.2 m concrete, with rubble fill between 0.2 to 0.8 m, clayey gravel between 0.8 to 1.1 m, compact sandy gravel between 1.1 to 4.1 m, soft sandy clay between 4.1 to 4.3 m, compact sandy gravel between 4.3 to 6.3 m, brown clay between 6.3 to 6.7 m and London clay below to a drilled depth of 12.4 m. The cover level of the borehole was recorded to be 25.3 m AOD, with groundwater level recorded to be 4.3 m below cover level.
- TQ38SW211, approximately 15 m west of the site, dated 1951 – indicated uppermost 0.2 m concrete, with rubble fill between 0.2 to 0.8 m, sandy clay between 0.8 to 1.1 m, sand between 1.1 to 1.7 m, sandy ballast between 1.7 to 4.5 m, brown clay between 4.5 to 4.8 m and London clay below to a drilled depth of 12.3 m. The cover level of the borehole was



recorded to be 25.3 m AOD, with groundwater level recorded to be 3.7 m below cover level.

- TQ38SW3597, approximately 100 m south of the site, dated 1992 – indicated uppermost 2.0 m made ground, with soft yellowish-brown slightly sandy, very silty clay between 2.0 to 2.9 m, with very dense yellowish-brown fine to coarse flint gravel (Thames Terrace Gravel) between 2.9 to 6.4 m, with London Clay between 6.4 to 23.0 m, with Woolwich and Reading Beds – upper mottled clay between 23.0 to 30.7 m, with Woolwich and Reading Beds – laminated sands and silts between 30.7 to 31.58 m and Woolwich and Reading Beds – lower shelly clay and lower mottled clay below to a drilled depth of 32.18 m. Cover level was recorded to be 24.73 m AOD. Slight water seepage was noted at 4 m casing depth.

Soilscape information available from Magic Maps service indicate this area as:

- Freely draining slightly acid loamy soils and clayey soils

At the time of the report production, no detailed site investigation works has taken place.

## 2.6 Hydrogeology

The following hydrogeological information was obtained from the online Magic Maps service.

- Aquifer Destination (Bedrock) – Unproductive
- Aquifer Designation Map (Superficial Drift) – Secondary A
- Groundwater Vulnerability – Low

BGS borehole log reference TQ38SW210 recorded groundwater at 4.3 m below a cover level of 25.3 m AOD (groundwater at 21 m AOD). Borehole log TQ38SW211 recorded groundwater at 3.7 m below a cover level of 25.3 m AOD (groundwater at 21.6 m AOD). Borehole log TQ38SW3597 recorded slight groundwater seepage at 4 m casing depth below a cover level of 24.73 m (groundwater seepage at approximately 20.7 m AOD).



## 2.7 Existing Drainage

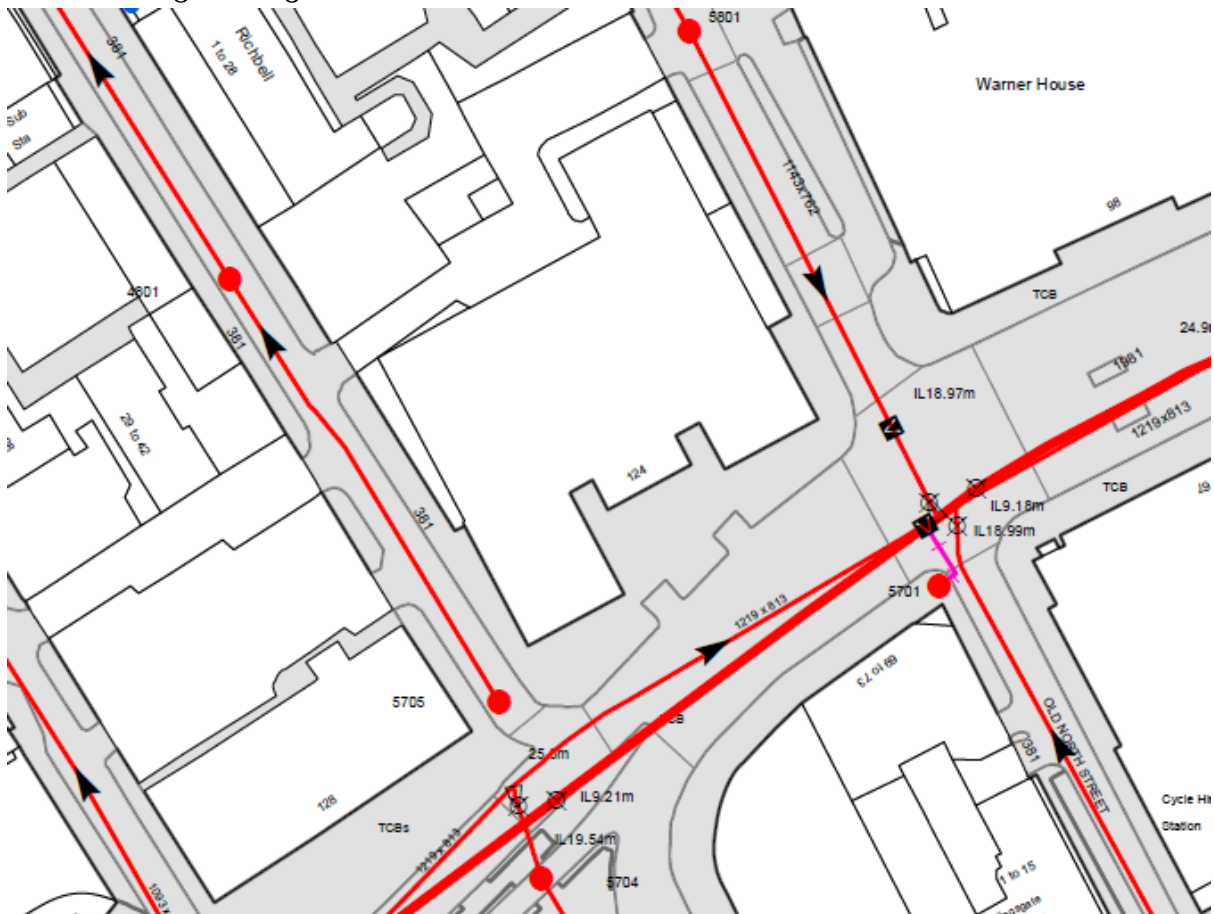


Figure 2.2– Thames Water asset record reference ALS/ALS Standard/2023\_4883763, dated September 2023

Thames Water asset record reference ALS/ALS Standard/2023\_4883763, dated September 2023 indicated a combined sewer and deeper combined trunk sewer running west to east along Theobalds Road. Combined sewers also flank the building to the east and west along New North Street and Boswell Street respectively. The combined sewer in New North Street runs north to south and connects to the combined sewer running along Theobalds Road. The combined sewer in Boswell Street runs south to north away from Theobalds Road.

Manhole access near to the building includes MH5705, located in Boswell Street close to the Junction with Theobalds Road; this MH is located at the end of the combined sewer running south to north along Boswell Street. Further along the same run, MH4801 is located approximately 15 m beyond the northwest corner of the building.

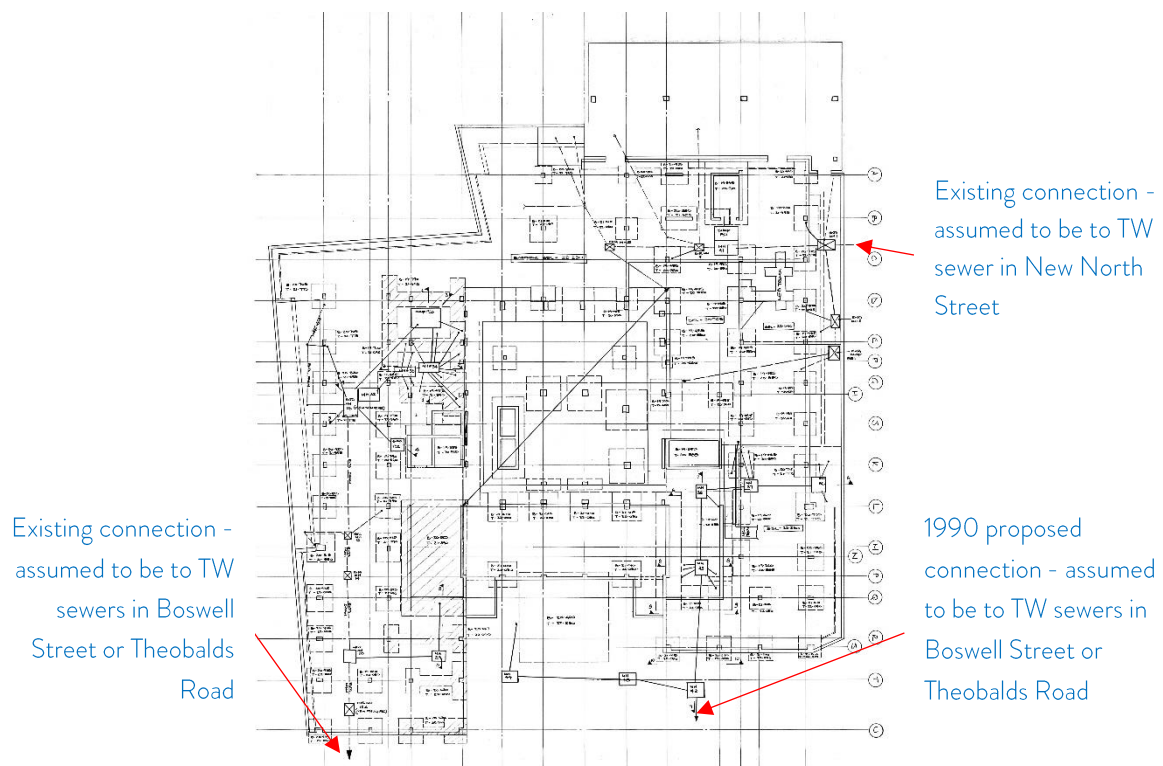
Manhole access near to the building is also indicated on New North Street, with MH5801 located closely adjacent to the service yard entrance.

Thames Water manholes within close proximity to the building are summarised in Table 2.1.

Table 2.1 – Existing Thames Water manholes

Thames Water MH Ref	Location	Cover Level (m AOD)	Invert Level (m AOD)
4801	Boswell Street	24.78	20.24
5705	Boswell Street	25.25	20.5
5801	New North Street	24.86	19.32
5701	Theobalds Road	Not provided	Not provided
5704	Theobalds Road	25.56	19.62

A desk-based review of an existing and proposed basement drainage record drawing produced by Alan Baxter & Associates, dated 1990, indicated an existing manhole within the southwest corner of the building, which was indicated to discharge towards Theobalds Road. Furthermore, a drainage network comprising 3 No. manholes was indicated in front of the building's southern frontage to Theobalds Road, with the outfall indicated towards the southeast corner of the building discharging towards Theobalds Road (the drawing does not indicate this network as existing). In addition, an existing manhole was indicated within the northeast corner of the building, which was indicated to discharge towards New North Street. An extract of the drawing is reproduced in Figure 2.3.





*Figure 2.3 – Existing and proposed basement drainage record, Alan Baxter & Associates dated 1990*

A CCTV survey of the drainage was undertaken by Clearview Survey Limited in December 2023. Although it identified three main networks within the building, broadly similar to the information presented in the Alan Baxter drawing, it did not establish the outfalls for two of the networks. There are up to three pumps serving the building and it is assumed that these will need to be maintained. The breakdown storage associated with these pumps are to be agreed with Building Control as required.



## 3.0 Flood Risk

### 3.1 Criteria

The flood risk elements that need to be considered for any site are defined in BS 8533- 'Assessing and managing flood risk in development Code of practice' (October 2011) as the “Forms of Flooding” which are listed as:

- Flooding from rivers (fluvial flood risk)
- Flooding from the sea (tidal flood risk)
- Flooding from the land/surface water (pluvial flood risk)
- Flooding from groundwater
- Flooding from sewers (sewer and drain exceedance, pumping station failure etc)
- Flooding from reservoirs, canals and other artificial structures

The following section reviews each of these in respect of the subject site.

### 3.2 Fluvial Flood Risk

The latest EA published flood zone map (Figure 3.1) shows that the site lies within Flood Zone 1, i.e. land assessed as having less than 1 in 1,000 annual probability of river or sea flooding.

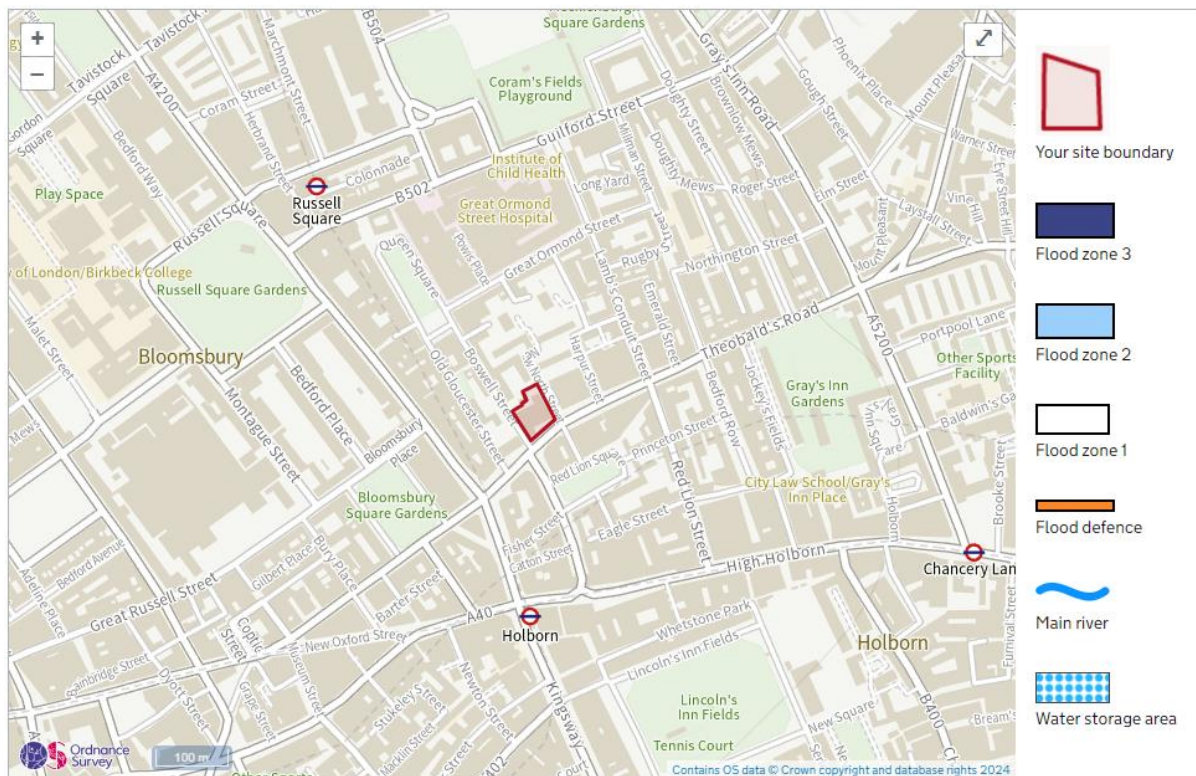


Figure 3.1 – EA mapping for fluvial flood risk



As the site is within Flood Zone 1, there is a low risk of fluvial flooding to the site. Based on the above, the risk of flooding from rivers is considered very low.

### 3.3 Tidal Flood Risk

The site is located inland approximately 1.1 km north of the River Thames and approximately 1 km beyond the EA predicted flood zone for the river Thames. Therefore, there is a low risk of flooding from this source.

### 3.4 Pluvial Flood Risk

Surface water flood risk to the site has been assessed using EA mapping. The maps were produced using 'direct rainfall' modelling. Although they consider local drainage capacity, non-surface water influences such as rivers, seas or groundwater are not considered. The map is based on LIDAR topographic data which is not suitable for site specific assessment and therefore, where available, topographic survey data should be used to provide a more accurate understanding of potential flow paths.

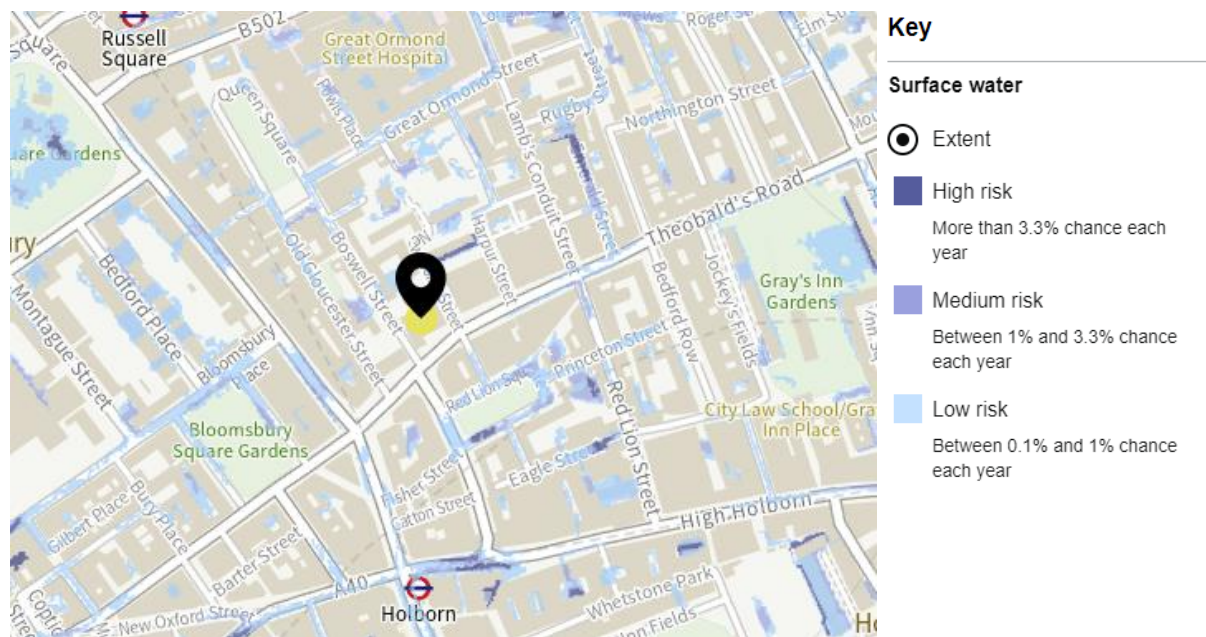


Figure 3.2 – EA mapping for surface water

EA surface water flood mapping indicated a minor patch of localised low-level flooding along New North Street adjacent to the north east corner of the site. A localised patch of low-level surface water flooding was also indicated adjacent to the building property to the north of the site. However, surface water flooding was not indicated within the site boundary.



The site is located within an LBC identified Critical Drainage Area (CDA), on the boundary between Group 3\_003 and Group 3\_005, as indicated on Figure 3i, Appendix A of the SFRA. However, Figure 3vi, Appendix A of the SFRA identifies the site to lie within an area identified to be at a low risk from a 1 in 1000 year flood event.

Based on the EA's mapping, the risk of surface water flooding to the site location is considered to be low.

### 3.5 Groundwater Flood Risk

Appraisal of BGS borehole logs from the closest available records to the site informed that ground water was encountered at 4.3 m below a cover level of 25.3 m AOD (groundwater at 21 m AOD). Other nearby BGS borehole logs with similar geological profiles to the site recorded groundwater encountered between 3.7 to 4.0 m below ground at approximately 21.6 and 20.7 m AOD respectively.

LBC SFRA, Appendix A, Figure 4e Increased susceptibility for Groundwater, indicates the site is located outside of areas identified to be at an increased susceptibility for groundwater. However, Figure 4e does indicated increased susceptibility to areas within approximately 200 m of the site location. Furthermore, 3 No. Environment Agency groundwater flood incidents are recorded within a 600 m radius from the site location.

The Basement survey by Digitalinc recorded a floor level of 20.75 m AOD within the boiler room, which is approximately similar to the historic recorded groundwater levels. Hence, the risk of groundwater flooding is considered high at this stage (albeit that changes to the basement envelope and groundworks are not proposed as part of the building refurbishment).

### 3.6 Sewer/Drainage Flood Risk

Sewer flooding is often caused by excess surface water entering the drainage system when there is insufficient sewer capacity to cope with this excess water, but also due to 'one off' events such as blockages.

Thames Water is the statutory undertaker for the local public sewer network, with the Thames Water asset record indicated a combined sewer and deeper combined trunk sewer running west to east along Theobalds Road, with combined sewers that also flank the building to the east and west along New North Street and Boswell Street respectively.

A sewer flooding history enquiry was made to Thames Water for the building address, reference SFH/SFH Standard/2023\_4920783, dated December 2023, which advised 'The flooding



records held by Thames Water indicate that there have been no incidents of flooding in the requested area as a result of surcharging public sewers’.

Therefore, the risk of sewer flooding to the site is considered to be low.

### 3.7 Reservoirs/Canal Flood Risk

The EA has produced a Reservoir Flood Map that shows that the site is not at risk from reservoir flooding.

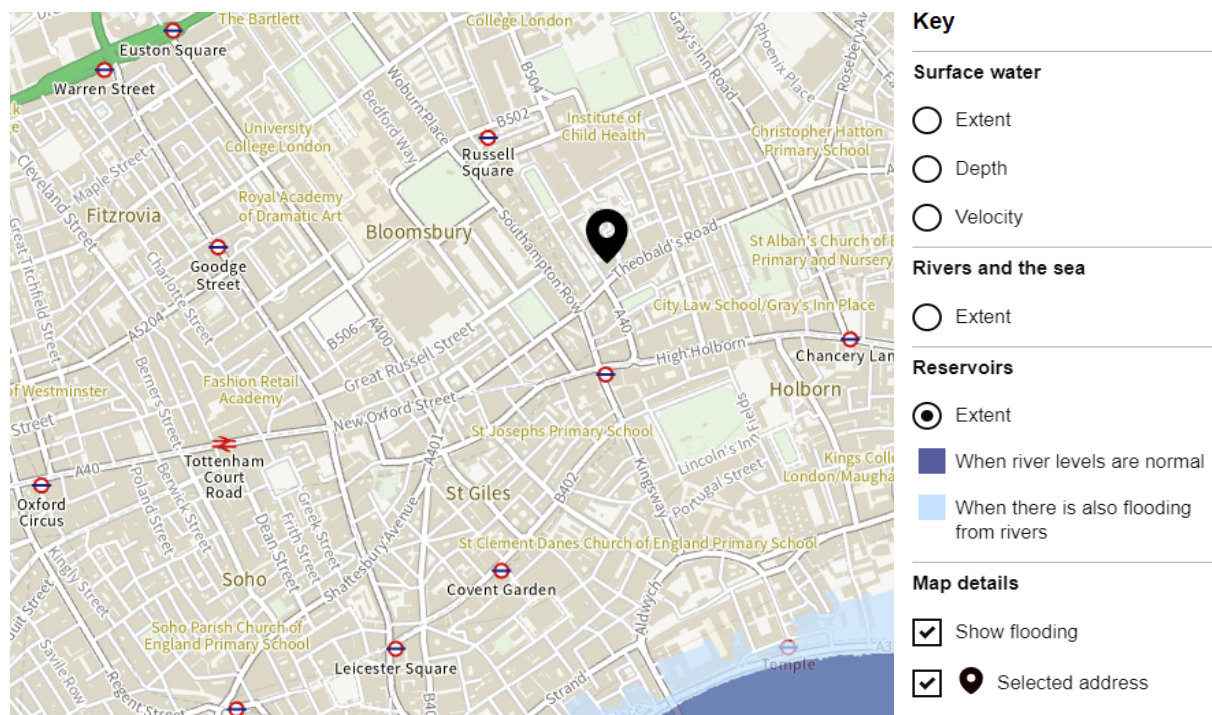


Figure 3.3 – EA reservoir flood risk map

It should also be emphasised that the risk of flooding from reservoir breach is very small since the EA is the enforcement authority for the Reservoirs Act (1975) and all large raised reservoirs are inspected and supervised by reservoir panel engineers.

On this basis, the risk from reservoir flooding to the site is considered to be low.



### 3.8 Summary of Flood Risk

The following table provides a summary of flood risk for the site:

Table 3.1 – Summary of sources of flood risk

Source of Flooding	Risk Level	Source of Data	Comments, Mitigation Requirements
Fluvial	Low	EA mapping	Flood zone 1
Tidal	Low	EA mapping	Inland location
Surface water (Pluvial)	Low	EA mapping	EA surface water flood mapping indicated a minor patch of localised low-level flooding along New North Street adjacent to the north east corner of the site. A localised patch of low-level surface water flooding was also indicated adjacent to the building property to the north of the site. However, surface water flooding was not indicated within the site boundary.
Groundwater	High	BGS mapping	<p>Appraisal of BGS borehole logs from the closest available records to the site informed that ground water was encountered at 4.3 m below a cover level of 25.3 m AOD (groundwater at 21 m AOD). Other nearby BGS borehole logs with similar geological profiles to the site recorded groundwater encountered between 3.7 to 4.0 m below ground at approximately 21.6 and 20.7 m AOD respectively.</p> <p>The Basement survey by Digitalinc recorded a floor level of 20.75 m AOD within the boiler room, which is lower than some of the historic recorded groundwater levels. Hence, the risk of groundwater flooding is considered high at this stage in the absence any further investigations.</p> <p>It is understood that site investigation works are due to take place in the coming months and the groundwater flood risk and any requirements for mitigation will be reviewed when the findings of these investigations become available. It is currently assumed that a</p>



Source of Flooding	Risk Level	Source of Data	Comments, Mitigation Requirements
			waterproofing strategy developed with specialist input will mitigate the risk level to an acceptable level.
Sewers	Low	Thames Water records	The flooding records held by Thames Water indicate that there have been no incidents of flooding in the site area as a result of surcharging public sewers. Therefore, the risk of sewer flooding to the site is considered to be low.
Reservoirs, Canals	Low	EA mapping	Site not affected

Key	Description
	Low/Negligible Risk – No noticeable impact to site and not considered to be a constraint to development.
	Medium Risk – Issue requires consideration but not a significant constraint to development
	High Risk – Major constraint to development requiring active consideration in mitigation proposals



## 4.0 Flood Risk Mitigation

Appropriate flood mitigation measures are to be considered when developing the design for the site.

### 4.1 Overland Flood Flow

Surface water flood maps for the area does not identify any overland flood paths through the site. Surface flows may be generated on site due to drainage capacity exceedance, which can be conveyed into the existing drainage network via surface flows along the hard standing areas.

### 4.2 Finished Floor Levels

As this site is unlikely to be affected by fluvial flooding there is no need to incorporate any freeboard levels into the finished floor levels of the design. Low lying areas that could lead to ponding of surface flows will be avoided by careful design of finished levels. Also, as the development is looking to reuse the existing building at lower levels, there is very limited scope to change existing floor levels.

### 4.3 Flood Compensation

The site is shown to be outside the 1 in 100-year climate change floodplain, so floodplain compensatory measures are not deemed necessary.

### 4.4 Safe Access/Egress

Flood Zone 1 refers to land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%) i.e. lowest risk level. As the site lies outside of the 1 in 1,000-year flood extent, safe access and egress will be available up to this extreme storm event.

### 4.5 Flood Resilient Design

Due to the presently perceived high risk of groundwater flooding for the site, it is necessary to consider the resilient design measures that would mitigate against this risk. The following options and other relevant best practice guidance could be considered when developing the detailed design of the scheme. Some of these measures may already be in use of the existing building arrangement.

- Use of materials with good drying and cleaning properties or sacrificial materials that can easily be replaced post-flood
- Tanking to internal walls
- Locating electrical services, appliances, utility meters and ventilation entry points as high as practicable
- Internal stairs between basement and upper floors
- Waterproofing strategy basement areas



There are sump chambers with pumps that can be utilised in a flood (or leak from the plant equipment) and critical pieces of plant are located on RC upstands to raise them above floor level.

For the existing basement, waterproofing should be inspected and repaired/replaced as required. The same strategy for keeping plant above the slab level should be utilised and where possible, critical equipment should be located at higher levels to reduce the risk from flooding.



## 5.0 Planning Context

### 5.1 Land Use Vulnerability

Table 2 of the National Planning Policy Guidance (PPG) on Flood Risk and Coastal Change, indicates the compatibility of various land uses in each flood zone, dependent on their vulnerability to flooding. Figure 5.1 below is reproduced from the information available at the government website.

**Table 2: Flood risk vulnerability and flood zone ‘incompatibility’**

Flood Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a †	Exception Test required †	X	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	X	X	X	✓ *

Key:

✓ Exception test is not required

X Development should not be permitted

*Figure 5.1 – Table 2 of National Planning Policy Guidance on Flood Risk and Coastal Change*

Annex 3 of the PPG classifies buildings used for ‘professional and other services’ and ‘offices’ as ‘Less vulnerable’. Hence the intended use is appropriate for a site located in Flood Zone 1.



## 5.2 Sequential Test

The Sequential Test aims to direct new development to areas with the lowest probability of flooding. The site has been identified as located within Flood Zone 1. Flood resilient design can be incorporated to the design to address the high risk of groundwater flooding in the area. It is therefore considered to pass the Sequential Test.

## 5.3 Exception Test

In accordance with Table 3 of PPG, there is no requirement to apply the Exception Test for a 'Less vulnerable' development within Flood Zone 1.



## 6.0 Conclusion

This FRA has been undertaken for the proposed development at 124 Theobalds Road, London WC1X 8RX. The site covers approximately 0.24 ha in area and currently contains a 10-storey building with basement. The proposed development comprises refurbishment and extension of the existing building to provide additional commercial, business and service use (Class E) including external alterations and other associated works.

This FRA complies with the NPPF and Planning Practice Guidance and demonstrates that flood risk from all sources has been considered in relation to the proposed development. It is also consistent with the local planning authority requirements with regards to flood risk.

The proposed development site lies in an area designated by the EA as Flood Zone 1, and is outlined to have a chance of fluvial flooding of less than 1 in 1,000 (<0.1 %) in any year. A summary of the flood risk and any associated mitigation measures are summarised in Table 6.1.

*Table 6.1 – Flood risk summary*

Source of Flooding	Risk Level	Mitigation
Fluvial	Low	N/A
Tidal	Low	N/A
Surface water (Pluvial)	Low	N/A
Groundwater	High	Flood resilient design measures and waterproofing strategy for the basement levels.
Sewers	Low	N/A
Reservoirs, Canals	Low	N/A

The surface water drainage design for the site is to be developed in line with the LLFA requirements and applying appropriate mitigation factors. Full details are provided within 'Surface Water Strategy report reference 1632-LSL- XX-XX-RP-C-SWS.

Overall, taking into account the presented information, the development of the site should not be precluded on flood risk grounds.



## Appendix A – Thames Water Asset Records

Atkins Ltd  
Stats Enquiries Team The Hub  
500 Park Avenue  
BRISTOL  
BS32 4RZ

**Search address supplied** Site off Theobalds Road, London  
WC1X 8RX

**Your reference** 210734

**Our reference** ALS/ALS Standard/2023\_4883763

**Search date** 13 September 2023

### Notification of Price Changes

From 1<sup>st</sup> April 2023 Thames water Property Searches will be increasing the prices of its CON29DW, CommercialDW Drainage & Water Enquiries and Asset Location Searches. Historically costs would rise in line with RPI but as this currently sits at 14.2%, we are capping it at 10%.

Customers will be emailed with the new prices by January 1<sup>st</sup> 2023.

Any orders received with a higher payment prior to the 1<sup>st</sup> April 2023 will be non-refundable. For further details on the price increase please visit our website at [www.thameswater-propertysearches.co.uk](http://www.thameswater-propertysearches.co.uk)



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



[searches@thameswater.co.uk](mailto:searches@thameswater.co.uk)  
[www.thameswater-propertysearches.co.uk](http://www.thameswater-propertysearches.co.uk)



0800 009 4540

**Search address supplied:** Site off Theobalds Road, London, WC1X 8RX

Dear Sir / Madam

**An Asset Location Search is recommended when undertaking a site development.** It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This search provides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

### Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0800 009 4540, or use the address below:

Thames Water Utilities Ltd  
Property Searches  
PO Box 3189  
Slough  
SL1 4WW

Email: [searches@thameswater.co.uk](mailto:searches@thameswater.co.uk)

Web: [www.thameswater-propertysearches.co.uk](http://www.thameswater-propertysearches.co.uk)

## Waste Water Services

**Please provide a copy extract from the public sewer map.**

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- 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.

## Clean Water Services

**Please provide a copy extract from the public water main map.**

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies.

For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0800 316 9800. The Customer Centre can also arrange for a full flow and pressure test to be carried out for a fee.



For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- 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.

### **Payment for this Search**

A charge will be added to your suppliers account.

### Further contacts:

#### Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

Developer Services (Waste Water)  
Thames Water  
Clearwater Court  
Vastern Road  
Reading  
RG1 8DB

Tel: 0800 009 3921  
Email: [developer.services@thameswater.co.uk](mailto:developer.services@thameswater.co.uk)

#### Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water)  
Thames Water  
Clearwater Court  
Vastern Road  
Reading  
RG1 8DB

Tel: 0800 009 3921  
Email: [developer.services@thameswater.co.uk](mailto:developer.services@thameswater.co.uk)

# Asset Location Search Sewer Map - ALS/ALS Standard/2023\_4883763

This is a detailed sewer map of a city area, showing streets, buildings, and sewer lines. The map is titled "Asset Location Search Sewer Map - ALS/ALS Standard/2023\_4883763". It features a grid of streets including Queen Square, Great Oxford Street, Bonnington Hotel, Victoria House, University (dashed), and High Holborn. Sewer lines are shown in red, with various manholes and junctions marked. A green hatched area is visible in the lower center, and a purple hatched area is in the lower right. The map includes numerous labels for buildings, streets, and sewer assets.

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 (2020) with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.

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

Manhole Reference	Manhole Cover Level	Manhole Invert Level
7904	22.75	18.08
7905	23.65	19.82
691A	n/a	n/a
6002	22.62	n/a
7004	22.37	18.51
3904	23.98	19.84
49CC	n/a	n/a
49CB	n/a	n/a
49CA	n/a	n/a
49BD	n/a	n/a
49BE	n/a	n/a
49AJ	n/a	n/a
49BC	n/a	n/a
5903	23.09	19.35
5902	22.46	19.54
5905	n/a	n/a
3903	n/a	n/a
3905	24.35	20.49
3001	24.01	20.12
6704	24.63	20.02
6705	24.57	20.23
7702	24.67	17.8
7705	n/a	n/a
771A	n/a	n/a
5701	n/a	n/a
771B	n/a	n/a
6706	24.11	19.81
6801	n/a	n/a
5801	24.86	19.32
6802	n/a	n/a
5803	24.2	19.04
7803	24.04	19.05
6901	24.56	20.21
7902	n/a	n/a
5901	23.67	19.15
791A	n/a	n/a
4804	24.27	19.97
4601	n/a	n/a
48BF	n/a	n/a
4602	n/a	n/a
48BI	n/a	n/a
48BC	n/a	n/a
4603	n/a	n/a
48CC	n/a	n/a
48BA	n/a	n/a
48BG	n/a	n/a
48BH	n/a	n/a
4806	24.42	20.53
48CF	n/a	n/a
48CD	n/a	n/a
48BE	n/a	n/a
4801	24.78	20.24
48CE	n/a	n/a
48AI	n/a	n/a
58BF	n/a	n/a
58AH	n/a	n/a
58BA	n/a	n/a
58BB	n/a	n/a
58BC	n/a	n/a
5705	25.25	20.5
58BD	n/a	n/a
5704	25.56	19.62
5804	n/a	n/a
281B	n/a	n/a
2608	n/a	n/a
2701	n/a	n/a
3605	24.74	20.67
381A	n/a	n/a
3702	24.78	20.22
3901	24.05	n/a
3704	n/a	n/a
3811	n/a	n/a
3812	n/a	n/a
3814	n/a	n/a
3813	n/a	n/a
3604	n/a	n/a
4802	24.03	20.3
46DJ	n/a	n/a
4901	23.93	19.79
4803	24.17	20.76
4805	24.15	19.93
481A	n/a	n/a
4701	25	21.09
48CI	n/a	n/a
5702	n/a	n/a
551D	n/a	n/a
5504	n/a	n/a
5603	24.89	20.42
5533	25.19	n/a
5604	24.89	20.1
5703	24.77	20.5

Manhole Reference	Manhole Cover Level	Manhole Invert Level
6702	24.83	21.52
6502	23.93	19.35
6601	25.09	20.83
6602	n/a	n/a
651B	n/a	n/a
661A	n/a	n/a
6703	24.67	20.7
6604	24.71	n/a
6512	24.12	n/a
7701	n/a	n/a
761A	n/a	n/a
751B	n/a	n/a
751A	n/a	n/a
4504	n/a	n/a
5502	n/a	n/a
5503	n/a	n/a
4503	n/a	n/a
551B	n/a	n/a
4501	n/a	n/a
551C	n/a	n/a
4506	n/a	n/a
4604	n/a	n/a
46DC	n/a	n/a
46EB	n/a	n/a
46EC	n/a	n/a
46DD	n/a	n/a
5602	25.05	n/a
46ED	n/a	n/a
46DE	n/a	n/a
46DF	n/a	n/a
46DG	n/a	n/a
461A	n/a	n/a
461B	n/a	n/a
46DH	n/a	n/a
46DI	n/a	n/a
6511	23.71	n/a
35DD	n/a	n/a
3502	n/a	n/a
4505	n/a	n/a
3503	n/a	n/a
451A	n/a	n/a
3504	25.02	9.36
35DE	n/a	n/a
361A	n/a	n/a
36BC	n/a	n/a
36BD	n/a	n/a
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.		



# Asset Location Search - Sewer Key

## Public Sewer Types (Operated and maintained by Thames Water)

	<b>Foul Sewer:</b> A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
	<b>Surface Water Sewer:</b> A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
	<b>Combined Sewer:</b> A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
	<b>Storm Sewer</b>
	<b>Sludge Sewer</b>
	<b>Foul Trunk Sewer</b>
	<b>Surface Trunk Sewer</b>
	<b>Combined Trunk Sewer</b>
	<b>Foul Rising Main</b>
	<b>Surface Water Rising Main</b>
	<b>Combined Rising Main</b>
	<b>Vacuum</b>
	<b>Thames Water Proposed</b>
	<b>Vent Pipe</b>
	<b>Gallery</b>

## Other Sewer Types (Not operated and maintained by Thames Water)

	<b>Sewer</b>
	<b>Culverted Watercourse</b>
	<b>Proposed</b>
	<b>Decommissioned Sewer</b>
	<b>Content of this drainage network is currently unknown</b>
	<b>Ownership of this drainage network is currently unknown</b>

### Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plan are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate the direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.

## Sewer Fittings

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

	<b>Air Valve</b>
	<b>Meter</b>
	<b>Dam Chase</b>
	<b>Vent</b>
	<b>Fitting</b>

## Operational Controls

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

	<b>Ancillary</b>
	<b>Drop Pipe</b>
	<b>Control Valve</b>
	<b>Weir</b>

## End Items

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

	<b>Inlet</b>
	<b>Outfall</b>
	<b>Undefined End</b>

## Other Symbols

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

	<b>Change of Characteristic Indicator</b>
	<b>Public / Private Pumping Station</b>
	<b>Invert Level</b>
	<b>Summit</b>

## Areas

Lines denoting areas of underground surveys, etc.

	<b>Agreement</b>
	<b>Chamber</b>
	<b>Operational Site</b>

## Ducts or Crossings

	<b>Casement</b>
	<b>Conduit Bridge</b>
	<b>Subway</b>
	<b>Tunnel</b>

Ducts may contain high voltage cables. Please check with Thames Water.

5) 'na' or '0' on a manhole indicates that data is unavailable.

6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimeters. 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, please contact Property Searches on 0800 009 4540.





# Asset Location Search - Water Key

## 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 main indicates that the pipe in question supplies water for a single property or group of properties and that 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.

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')

## Valves

- General Purpose Valve
- Air Valve
- Pressure Control Valve
- Customer Valve

## Hydrants

- Single Hydrant

## Meters

- Meter

## End Items

Symbol indicating what happens at the end of a water main.

- Blank Flange
- Capped End
- Emptying Pit
- Undefined End
- Manifold
- Customer Supply
- Fire Supply

## Operational Sites

- Booster Station
- Other
- Other (Proposed)
- Pumping Station
- Service Reservoir
- Shaft Inspection
- Treatment Works
- Unknown
- Water Tower

## Other Symbols

- Data Logger
- Casement:** Ducts may contain high voltage cables. Please check with Thames Water.

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

- Other Water Company Main:** Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.
- 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 owner of the pipe.

## 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 within 14 days of the 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. 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'.
5. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
6. 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 still not satisfied with the outcome provided, we will refer the matter to a Senior Manager for resolution who will provide you with a response.

If you are still dissatisfied with our final response, and in certain circumstances such as you are buying a residential property or commercial property within certain parameters, The Property Ombudsman will investigate your case and give an independent view. The Ombudsman can award compensation of up to £25,000 to you if he finds that you have suffered actual financial loss and/or aggravation, distress, or inconvenience because of your search not keeping to the Code. Further information can be obtained by visiting [www.tpos.co.uk](http://www.tpos.co.uk) or by sending an email to [admin@tpos.co.uk](mailto:admin@tpos.co.uk).

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 0300 034 2222 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
Please Call <b>0800 009 4540</b> quoting your invoice number starting CBA or ADS	Account number <b>90478703</b> Sort code <b>60-00-01</b> A remittance advice must be sent to: <b>Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW.</b> or email <a href="mailto:ps.billing@thameswater.co.uk">ps.billing@thameswater.co.uk</a>	By calling your bank and quoting: Account number <b>90478703</b> Sort code <b>60-00-01</b> and your invoice number

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

# Sewer Flooding

History Enquiry



Property  
Searches

Chathom Limited

Tring Station

**Search address supplied**

Media Com  
124  
Theobalds Road  
London  
WC1X 8RX

**Your reference**

2023-0034 124 Theobalds Road

**Our reference**

SFH/SFH Standard/2023\_4920783

**Received date**

**5 December 2023**

**Search date**

**5 December 2023**



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



[searches@thameswater.co.uk](mailto:searches@thameswater.co.uk)  
[www.thameswater-propertysearches.co.uk](http://www.thameswater-propertysearches.co.uk)



0800 009 4540

# Sewer Flooding

History Enquiry



Property  
Searches

**Search address supplied:** Media Com,124,Theobalds Road,London,WC1X  
8RX

**This search is recommended to check for any sewer flooding in a specific address or area**

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



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



[searches@thameswater.co.uk](mailto:searches@thameswater.co.uk)  
[www.thameswater-propertysearches.co.uk](http://www.thameswater-propertysearches.co.uk)



0800 009 4540

### History of Sewer Flooding

#### **Is the requested address or area at risk of flooding due to overloaded public sewers?**

The flooding records held by Thames Water indicate that there have been no incidents of flooding in the requested area as a result of surcharging public sewers.

For your guidance:

- 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](http://www.thameswater.co.uk)



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



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[www.thameswater-propertysearches.co.uk](http://www.thameswater-propertysearches.co.uk)



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