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Goodman Logistics Tottenham Unit Trust
Electricity Substation
Tottenham Commercial Park
Flood Risk Assessment

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EXECUTIVE SUMMARY

This report demonstrates that the proposed development is at an acceptable level of flood risk, subject to the recommended flood mitigation strategies being implemented.

The site is located entirely within Flood Zone 2 of the River Lee system; however, the Flood Zone extents are based upon a historical flood event from 1947, and since this event, catchment conditions have significantly changed. The EA have provided the latest hydraulic modelling data of the River Lee, and the modelled flood extents identify that the site is located outside of the 1 in 1000-year floodplain, as well as the future climate change floodplain, and so there is a low risk of flooding from fluvial sources.

The Environment Agency's (EA's) Surface Water Spatial Planning dataset identifies that the majority of the site is located outside of the areas at risk of surface water flooding under both present-day and climate change scenarios. A small portion of the north-western site boundary is affected by surface water flooding in a 1 in 1000-year event; however, it is considered that this is associated with ponding within an existing topographical depression along the highway of Leeside Road, which the site is raised above, as such, this is not considered to pose a significant flood risk to the development. Safe access and egress are considered to be provided by Leeside Road despite this, and therefore, surface water flooding does not pose a flood risk to the development.

The site and wider commercial park are served by private drainage infrastructure, which will help to manage surface water flood risk to the site. If this were to be exceeded, the resulting flood water would be conveyed away from the site, as demonstrated in the EA's Surface Water Spatial Planning dataset.

A review of flood data published by the EA and provided within the local Strategic Flood Risk Assessment has identified that the following potential sources of flooding do not pose a risk to the site or the proposed development: the sea, canals, groundwater and reservoirs and large waterbodies.

This report sets out recommended measures that will increase the development's resilience to flood risk, and which will help manage any residual risks.

In compliance with the requirements of the National Planning Policy Framework, and subject to the mitigation measures proposed, the development could proceed without being subject to significant flood risk. Moreover, the development is proposed on existing impermeable and positively drained land, so there will be no significant change in the runoff regime from the site and no adverse impacts on downstream flood risk.

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GLOSSARY & NOTATION

Abbreviation / Notation	Definition
AEP	Annual Exceedance Probability. The probability (%) of a flood event occurring in any year
AOD	Above Ordnance Datum
BGS	British Geological Survey
Catchment	The land area that drains (normally naturally) to a given point on a river, drainage system or body of water
CC	Climate Change
EA	Environment Agency
Floodplain	Any area of land over which water flows or is stored during a flood event
FFL	Finished Floor Level
FRA	Flood Risk Assessment
Hydraulic Model	A mathematical numerical (generally computer based) model of a water/sewer/storm system which is used to analyse the system's hydraulic behaviour
LiDAR	Light Detection and Ranging aerial survey data
LLFA	Lead Local Flood Authority
LPA	Local Planning Authority
m AOD	metres Above Ordnance Datum
m bgl	metres below ground level
Main River	A statutory type of watercourse in England and Wales, usually larger watercourses and rivers. The EA can carry out maintenance, improvement or construction work on main rivers to manage flood risk as part of its duties and powers
NPPF	National Planning Policy Framework
Ordinary Watercourse	A river, stream, ditch, drain, dyke, culvert/pipe (other than a public sewer) and passage through which water flows and which does not form part of a main river
OS	Ordnance Survey
PFRA	Preliminary Flood Risk Assessment. An assessment of floods that have taken place in the past and floods that could take place in the future. It generally considers flooding from surface water runoff, groundwater and ordinary watercourses, and is prepared by the LLFAs
PPG	Planning Practice Guidance. Specifically, the Flood Risk and Coastal Change category

Abbreviation / Notation	Definition
Return period	A statistical term defining the probability of occurrence of a flood event. A 1 in 30-year flood is one likely to be equalled or exceeded on average only once in a 30-year period: a flood with a 3.33% AEP
SFRA	Strategic Flood Risk Assessment. A study carried out by one or more local planning authorities to assess the risk of flooding from all sources, now and in the future within a defined area
Section 19 Flood Investigation Reports	Under their duties under the Flood and Water Management Act 2010, LLFAs have a duty to publish reports of investigations of flood incidents. A section 19 flood investigation report is a public statement of the circumstances of a historical flood event and what parties have a role in managing the risks. The investigation does not always give an in-depth analysis of the flood risk or mechanisms, but it can provide a valuable record of past events
UOW	Unnamed Ordinary Watercourse. An ordinary watercourse that has no name published on OS maps or within the SFRA

1. INTRODUCTION

1.1 This FRA has been prepared on behalf of Goodman Logistics Tottenham Unit Trust to support a planning application for a new electricity substation within Tottenham Commercial Park, in north London.

1.2 The level of detail included is commensurate and subject to the nature of the proposals at the planning stage of the design process.

Sources of Data

1.3 The following sources of data have been reviewed in the preparation of this FRA:

i. Topographical Survey undertaken by Greenhatch Group in January 2024, reference: 49755_T - **Appendix 1**
ii. Proposed Site Plan by UMC Architects, reference: 21682-UMC-0100-SI-DR-A-0202 - **Appendix 2**
iii. OS maps
iv. EA Flood Risk Assessments: Climate Change Allowances[1]
v. EA Flood Map for Planning: Flood Zones[2]
vi. EA Flood Map for Planning: Surface Water Spatial Planning Extents[3]
vii. EA Flood Map for Planning: Surface Water Spatial Planning Depths[4]
viii. EA River Lee Hydraulic Model 2014 Data
ix. EA LiDAR Data (Composite 1m DTM 2022)
x. Haringey Council Level 1 SFRA[5] and Haringey Council Level 2 SFRA[6]
xi. Haringey Council PFRA[7] and Addendum[8]
xii. Haringey Council LFRMS[9]
xiii. SWMP for London Borough of Haringey[10]
xiv. Haringey Local Plan - Strategic Policies - 2013 - 2026[11]
xv. Haringey Draft Local Plan[12]
xvi. Haringey Council Local Plan: Development Management DPD[13]
xvii. The London Plan[14]
xviii. BGS Geology Maps

[1] Environment Agency, Flood risk assessments: climate change allowances: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances. Last Accessed October 2026.
[2] Flood Map for Planning - Flood Zones. Environment Agency, Last Accessed October 2026.
[3] Flood Map for Planning – Surface Water Spatial Planning Extents – Climate Change. Environment Agency, Last Accessed October 2026.
[4] Flood Map for Planning – Surface Water Spatial Planning Depths – Climate Change. Environment Agency, Last Accessed October 2026.
[5] Haringey Council Level 1 Strategic Flood Risk Assessment. Metis Consultants Ltd, April 2022.
[6] Haringey Council Level 2 Strategic Flood Risk Assessment. JBA Consulting, February 2015.
[7] Preliminary Flood Risk Assessment for London Borough of Haringey. Capita Symonds Scott Wilson, May 2011.
[8] Preliminary Flood Risk Assessment for London Borough of Haringey Addendum. Haringey Council, December 2017.
[9] Haringey Council Local Flood Risk Management Strategy. Haringey Council, February 2025.
[10] Surface Water Management Plan for London Borough of Haringey. Capita Symonds, August 2011.
[11] Haringey's Local Plan - Strategic Policies - 2013 - 2026. Haringey Council, July 2017.
[12] Haringey Council Draft Local Plan. Haringey Council, October 2025.
[13] Haringey Council Local Plan: Development Management DPD. Haringey Council, July 2017.
[14] The London Plan. Greater London Authority, March 2021.

xix. BGS Susceptibility to Groundwater Flooding Data

xx. Thames Water Sewer Records - **Appendix 3**

xxi. Existing Site Drainage Plan - **Appendix 4**

The Existing Site

1.4 The site is located in the north-eastern corner of the Tottenham area in London. The site is bound by Leeside Road to the north, commercial properties to the east, and by the wider Tottenham Commercial Park to the south and west. The Lee Valley Railway Line passes to the west of the site. Access to the site is via Leeside Road. The location of the site is illustrated in **Figure 1.1**.

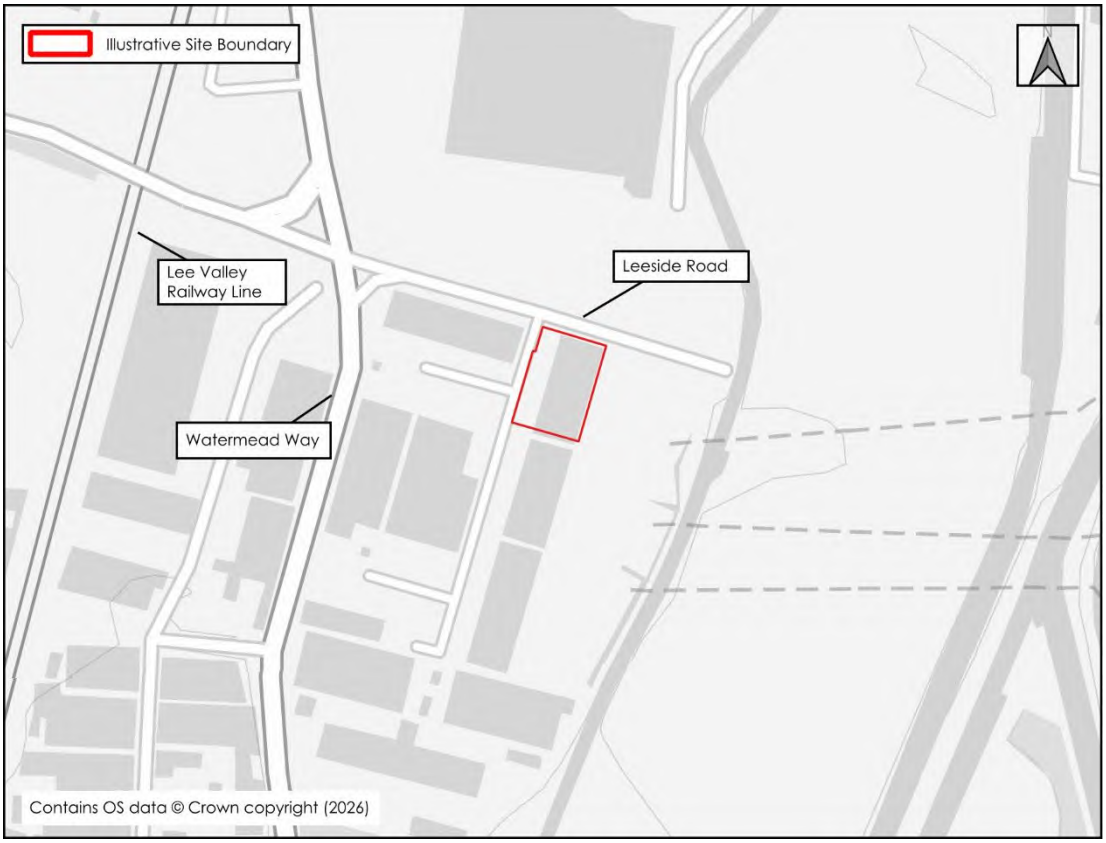

Figure 1.1: Site Location

1.5 The site is currently brownfield, comprising a block of three commercial units. The existing site condition is illustrated in **Figure 1.2**.

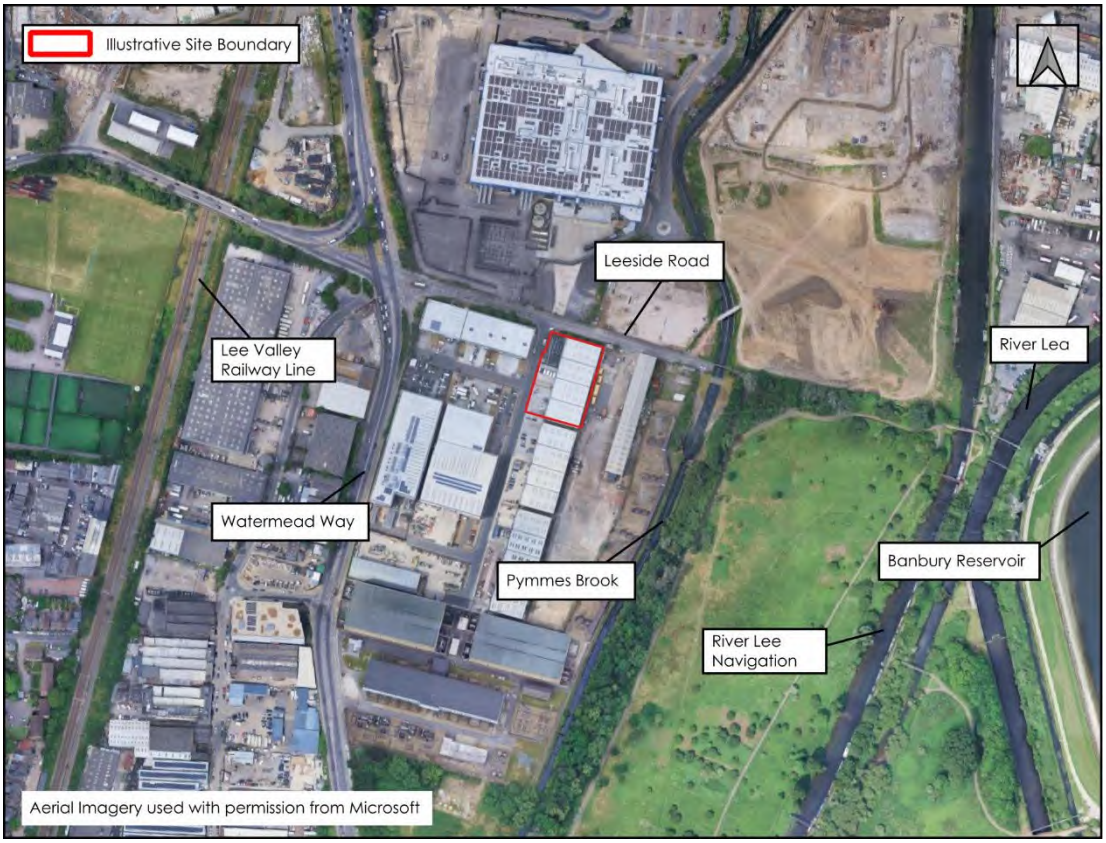

Figure 1.2: Aerial Imagery Showing Existing Site Condition

1.6 There are no watercourses located within the site. The closest EA Main River is Pymmes Brook, which is located approximately 95m east of the site at its closest point. Approximately 230m beyond Pymmes Brook, the River Lee Navigation and River Lea are located. There are also several ordinary watercourses shown in OS mapping to the east and south-east of the site. The closest ordinary watercourse, to the south-east, is approximately 370m from the site boundary. The closest reservoir is Banbury reservoir which is located approximately 400m east of the site. The local watercourse network surrounding the site is illustrated in **Figure 1.3**.

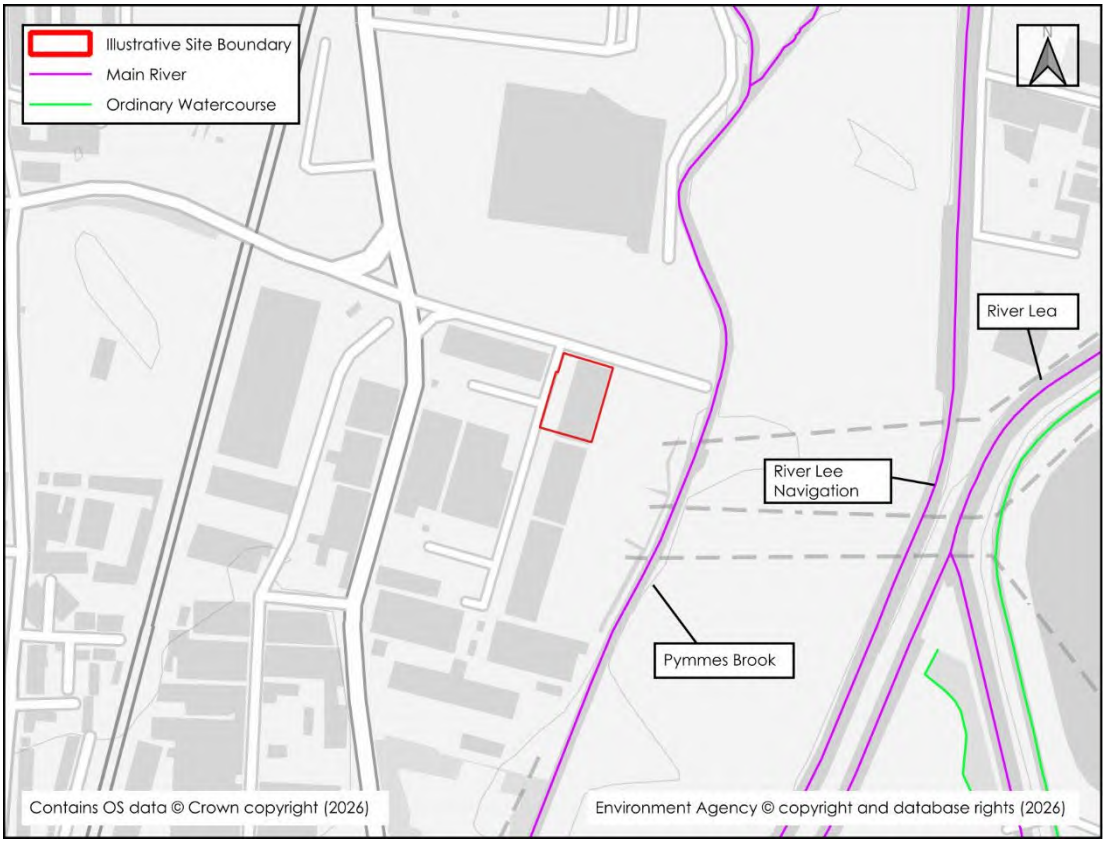

Figure 1.3: Local Watercourse Network

1.7 A topographical survey of the site is included as **Appendix 1**. The site is generally flat, although levels to the west of the existing building fall in a westerly direction towards the access road. External levels range from approximately 10.7m AOD adjacent to the building to approximately 10.0m AOD in the north-west of the site. The current internal floor level is surveyed at 10.75m AOD. The general topography of the site and wider area from EA LiDAR data is illustrated within **Figure 1.4**.

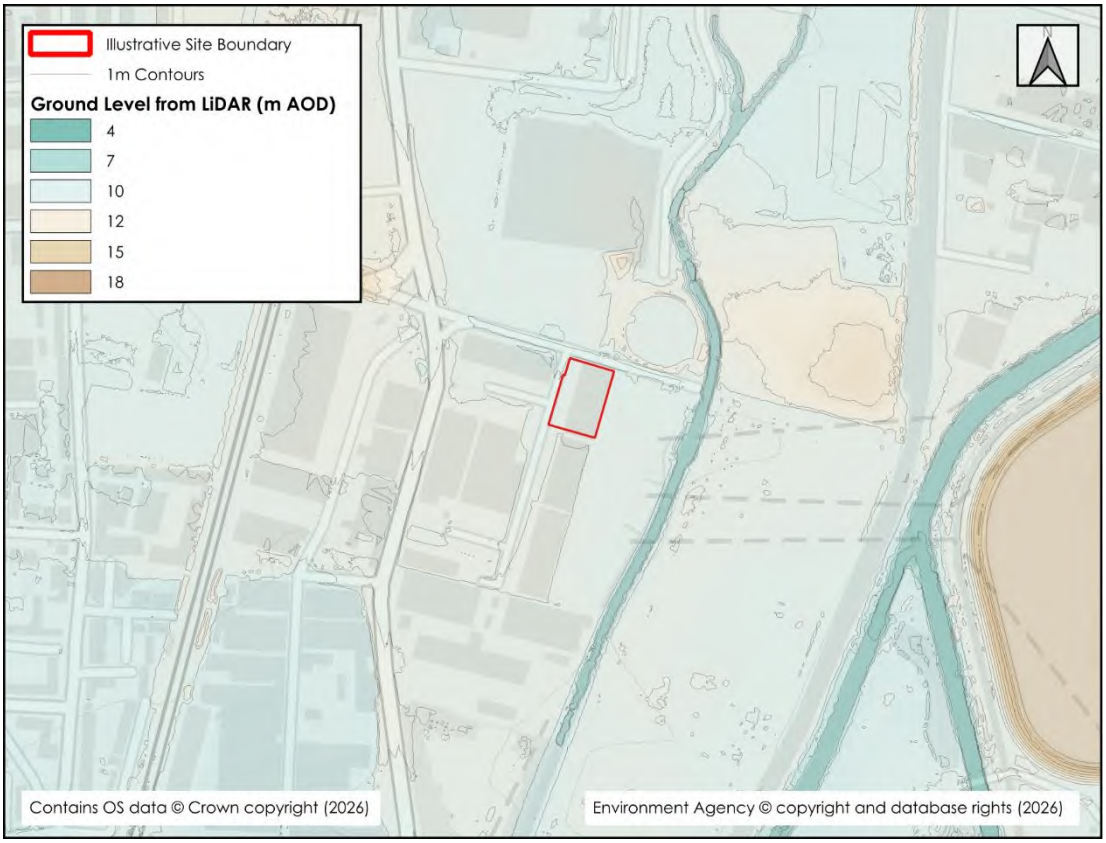

Figure 1.4: Generalised Topography (from EA 2022 1m resolution LiDAR DTM)

The Proposed Scheme

1.8 The proposed scheme comprises an application for a new electricity substation within Tottenham Commercial Park, replacing the existing commercial units. Access will be provided from the existing access off Leeside Road. A Proposed Site Plan is available as **Appendix 2**.

Site Summary

Table 1.1: Site Summary

Site Name	Electricity Substation
Location	Tottenham Commercial Park
Easting & Northing	535350, 191510
Application Site Area (ha)	0.36
Development Type	Electricity Substation
Flood Zone Classification	Flood Zone 2
NPPF Vulnerability	Essential Infrastructure
Anticipated Development Lifetime*	75 years
Lead Local Flood Authority	Haringey Council
Sewer Operator	Thames Water

**In accordance with PPG Flood Risk and Coastal Change Paragraph 006*

2. FLOOD RISK PLANNING POLICY & GUIDANCE

National Planning Policy Framework

2.1 The NPPF[15] sets out the Government's national policies on different aspects of land use planning in England in relation to flood risk.

2.2 The NPPF states that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk. When considering flood risk, the NPPF requires development to account for future climate change.

2.3 The NPPF identifies that development should only be allowed in areas at risk of flooding where it can be demonstrated that:

- within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;
- the development will be safe throughout its lifetime taking account of the vulnerability of its users;
- any residual risk can be safely managed, and safe access and escape routes are included where appropriate, as part of an agreed emergency plan;
- the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment; and
- it can be demonstrated that flood risk will not be increased elsewhere.

2.4 The NPPF identifies that Sustainable Drainage Systems should be incorporated in new development to manage surface water runoff, and where possible facilitate improvements in water quality, biodiversity and amenity.

2.5 Additionally, development should not enclose existing watercourses, unless there are compelling reasons to do so; and existing culverts should be removed where possible.

Planning Practice Guidance – Flood Risk and Coastal Change

2.6 The NPPF is accompanied by the PPG category entitled "Flood Risk and Coastal Change"[16]. This sets out the vulnerability to flooding of different land uses. It encourages development to be located in areas of lower flood risk where possible and stresses the importance of preventing increases in flood risk off site to the wider catchment area.

2.7 Flood risk is identified as a combination of the probability and the potential consequences of flooding:

Flood Risk = Probability x Consequences

[15] Revised National Planning Policy Framework, Ministry of Housing, Communities & Local Government, 2026
[16] Planning Practice Guidance: https://www.gov.uk/guidance/flood-risk-and-coastal-change, amended 2025

2.8 The probability is the chance of a flood occurring expressed as a return period or AEP, and the consequences are the potential impacts of the flood (for example, damage to buildings or risk to people's safety).

2.9 The PPG identifies the potential sources of flood risk as rivers and the sea, direct rainfall on the ground surface resulting in surface water runoff, rising groundwater, overwhelmed sewers and drainage systems, reservoirs, canals and lakes, and other artificial sources.

2.10 The PPG requires development to be designed to include flood risk management and resilience against the "design flood" for its lifetime. The PPG also states that all potential sources of flooding should be considered when preparing an FRA.

2.11 The PPG defines the "design flood" that new development should consider in its design, which is an event of a given probability generally defined as:

- river flooding likely to occur with a 1% AEP (a 1 in 100 chance each year); or
- tidal flooding likely to occur with a 0.5% AEP (1 in 200 chance each year); or
- surface water flooding likely to occur with a 1% AEP (a 1 in 100 chance each year),

plus, an appropriate allowance for climate change.

2.12 The NPPF and the PPG include a series of tables that define Flood Zones (Annex F, Table 1 of the NPPF), the flood risk vulnerability classification of development land uses (Annex F, Table 2 of the NPPF) and 'compatibility' of development within the defined Flood Zones (Annex F, Table 3 of the NPPF).

2.13 This FRA is written in accordance with the NPPF and the associated PPG.

Flood Zone Classification

2.14 With particular reference to planning and development, and specifically the risk of flooding from rivers and the sea ignoring the presence of flood defences, the Flood Map for Planning identifies Flood Zones in accordance with Annex F of the NPPF. Further details on the Flood Zone classifications are outlined in **Table 2.1**.

Table 2.1: Flood Zone Classifications

Flood Zone	Description
Flood Zone 1 (Low Probability)	Land having less than a 1 in 1000 annual probability of river or sea flooding (<0.1% AEP). All land outside of Flood Zone 2 and 3.
Flood Zone 2 (Medium Probability)	Land having between a 1 in 100 and 1 in 1000 annual probability of river flooding (1% - 0.1% AEP); or between a 1 in 200 and 1 in 1000 annual probability of sea flooding (0.5% - 0.1% AEP).
Flood Zone 3a (High Probability)	Land having a 1 in 100 or greater annual probability of river flooding (>1% AEP); or land having a 1 in 200 or greater annual probability of flooding from the sea (>0.5% AEP). This is represented by "Flood Zone 3" on the Flood Map for Planning.

Flood Zone	Description
Flood Zone 3b (The Functional Floodplain)	Flood Zone 3b (The Functional Floodplain) is defined as land where water must flow or be stored in times of flood. This is not identified or separately distinguished from Zone 3a on the Flood Map for Planning.

2.15 LPAs use the Flood Zones to determine if they must consult the EA on planning applications. They are also used to determine the appropriate climate change allowance to consider and whether development is subject to the exception test.

2.16 The Flood Map for Planning does not identify functional floodplain. LPAs are responsible for producing maps showing the extent of functional floodplain (Flood Zone 3b) as part of a SFRA.

2.17 The site is shown to be located entirely within Flood Zone 2, as shown in **Figure 2.1**.

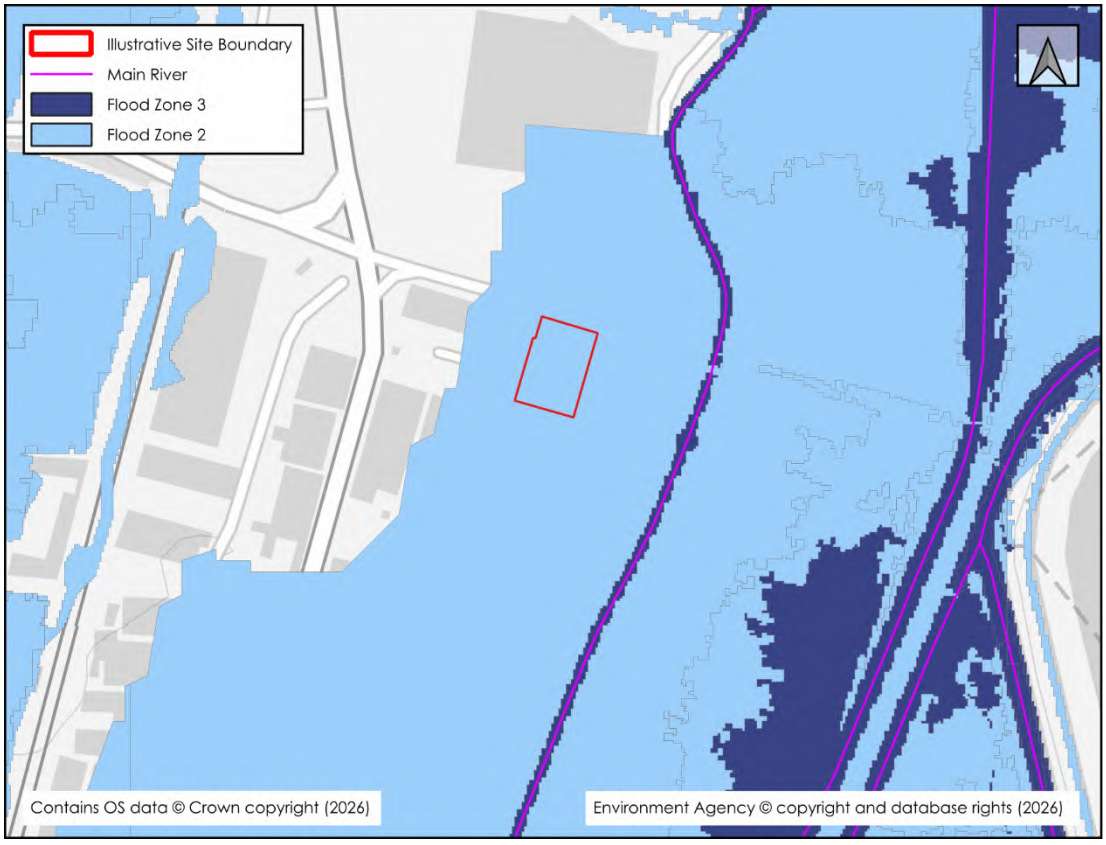

Figure 2.1: Flood Map for Planning

Flood Risk Assessments: Climate Change Allowances

2.18 Predicted future changes in sea levels, peak river flows, and rainfall intensities caused by climate change are provided by the EA online. A range of projections are applied to regionalised 'River Basin Districts', which are further subdivided into Management Catchments, to provide a series of climate change allowances. The appropriate climate change allowances are determined by a number of factors that include the

source of flooding, the current level of risk, the vulnerability of the proposed development, and the lifespan of the development.

2.19 The site falls within the London Management Catchment.

Peak River Flow

2.20 The relevant peak river flow climate change allowances are identified in **Table 2.2**.

Table 2.2: Peak River Flow Allowance for the London Management Catchment

Allowance Category	Total potential change anticipated for the '2020s' (2015 to 2039)	Total potential change anticipated for the '2050s' (2040 to 2069)	Total potential change anticipated for the '2080s' (2070 to 2125)
Upper End	26%	30%	54%
Higher Central	14%	14%	27%
Central	10%	7%	17%

2.21 **Table 2.3** provides a matrix summarising the EA's guidance on determining the appropriate climate change allowance(s) for river flow.

Table 2.3: Application of Appropriate Peak River Flow Climate Change Allowances

Flood Zone	Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
1	Use the central allowance where a location may fall within Flood Zone 2 or 3 in the future.				
2	Use the higher central allowance	Use the central allowance			
3a	Use the higher central allowance	Development should not be permitted	Use the central allowance		
3b	Use the higher central allowance	Development should not be permitted			Use the central allowance
If development is considered appropriate by the LPA when not in accordance with Flood Zone vulnerability categories, then it would be appropriate to use the higher central allowance.					

2.22 The site is located entirely within Flood Zone 2; the proposed development is classified as essential infrastructure and has an anticipated lifespan of at least 75 years. This requires the Higher Central allowance for the '2080s' epoch to be considered.

2.23 Therefore, to ensure the development is designed adequately for its lifetime, an uplift of 27% to river flows will be considered.

Local Plan

Haringey Local Plan

2.24 The Haringey Local Plan comprises four development plan documents (DPD), which were adopted in 2017. The Strategic Policies Development Plan Document[11] sets out a vision and key policies for the future development of the borough until 2026. The plan has been reviewed during the preparation of this report, and the following relevant policy was identified.

2.25 *Policy SP5: Water Management and Flooding* requires that all development should:

- implement measures to prevent, or mitigate as a last resort, local surface water and downstream flooding;
- implement Sustainable Drainage Systems to improve water attenuation, quality, and amenity; and
- Require higher resilience and levels of flood protection for critical infrastructure to ensure protection of essential services such as water and power.

2.26 Haringey Council are currently preparing a new Local Plan, and the Draft Local Plan[12] has been reviewed. The following draft policies of relevance were noted:

2.27 *Draft Policy CR4: Managing and Reducing Flood Risk* requires that:

- Developments must avoid and reduce all forms of flood risk, not increase flood risk elsewhere, and be designed to be safe for a 1% AEP event with appropriate allowance for climate change.
- Developments located in areas at risk of flooding must preserve overland flood and flow routes, ensure no net loss of on-site flood storage, demonstrate that it will be safe throughout its lifetime without increasing flood risk elsewhere, and incorporate flood resilient and flood resistant design measures.

2.28 *Draft Policy CR5: Sustainable Drainage* notes:

- To reduce risk of flooding and control surface water run-off, proposals should restrict surface water runoff rates to greenfield 1 in 100-year rates, including an appropriate allowance for climate change, and manage surface water as close to its source as possible.
- Where SuDS are implemented, they should meet the Council's local standards and guidance, be designed to maximise biodiversity, water quality, local amenity, and recreational value, and be easy to maintain and function effectively over the lifespan of the development.

2.29 Haringey Council's Local Plan includes a Development Management DPD[13] which sets out planning policies to help determine which developments are granted planning permission in Haringey. The Following relevant policies were noted:

2.30 *Policy DM24: Managing and Reducing Flood Risk* requires that:

- All development's finished floor levels are set no lower than 300mm above the 1 in 100 chance in any given year, including an allowance for climate change, flood level.
- Safe access and egress is ensured for future users of the development or an appropriate emergency evacuation plan.

The London Plan

2.31 The London Plan[14] was adopted in 2021 and is the Greater London Authority's statutory spatial development strategy for the city. It sets out a unified economic, environmental, transport, and social framework for development in London over the next 20-25 years. The plan has been reviewed in the preparation of this report, and the following relevant policies were identified.

2.32 *Policy SI 12 Flood Risk Management* states:

- Current and expected flood risk from all sources across London should be managed in a sustainable and cost-effective way.
- Development proposals should ensure that flood risk is minimised and mitigated, and that residual risk is addressed.
- Development proposals adjacent to flood defences will be required to protect the integrity of flood defences and allow access for future maintenance and upgrading.

2.33 *Policy SI 13 Sustainable Drainage* states:

- Development proposals should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible.
- Developments should follow the drainage hierarchy which prioritises green over grey drainage features.

Strategic Flood Risk Assessment

2.34 The Haringey Council Level 1 SFRA[5] has been reviewed in the production of this FRA. The SFRA provides form of fluvial, surface water and groundwater flood risk information related to the area, as well as records of historical flooding. Information from the Level 1 SFRA will be referenced within this report where applicable.

2.35 Haringey Council have also published a Level 2 SFRA[6]; however, the site is not explicitly referenced and so this SFRA will not be considered further in this FRA.

3. HISTORICAL FLOODING INCIDENTS

3.1 A review of the data sources identified in **Section 1** was undertaken to identify any records of historical flooding incidents within the vicinity of the site; these are summarised within **Table 3.1**.

Table 3.1: Summary of Reported Historical Flooding Incidents

Data Source	Commentary
SFRA	The Haringey Level 1 SFRA does not indicate that there has been any historical incidence of flooding at the site or in its immediate vicinity.
PFRA	The Haringey PFRA and PFRA Addendum does not indicate that there have been any historical incidence of flooding at the site or in its immediate vicinity.
LFRMS	The Haringey LFRMS references flooding within the borough in 2021 and 2022; however, no information on the specific locations affected was provided.
SWMP	The SWMP for Haringey Council does not indicate that there has been any historical incidence of flooding at the site or in its immediate vicinity. There are noted to have been recorded incidents on Garman Road / Sedge Road (approximately 300m south-west of the site) and on Watermead Way near Tottenham Marshes to the south; however, no further information was provided. Within the wider postcode area which encompasses the site (N17 0), there was one recorded Thames Water sewer flood record prior to 2010. No further information is provided.
Section 19 Flood Investigation Reports	Haringey Council have published three Section 19 Flood Investigation Reports on their website; however, none of these reference the site.
Internet Search of Local Press Reports	A search for flooding incidents surrounding the site did not reveal any relevant reports.
EA Recorded Flood Outlines	The EA have published a recorded flood outline which covers the entirety of the site, as illustrated in **Figure 3.1**. This is associated with channel capacity exceedance (no raised defences) of the River Lea / the Pymme's Brook in March 1947. No further information is available on this specific flooding event.

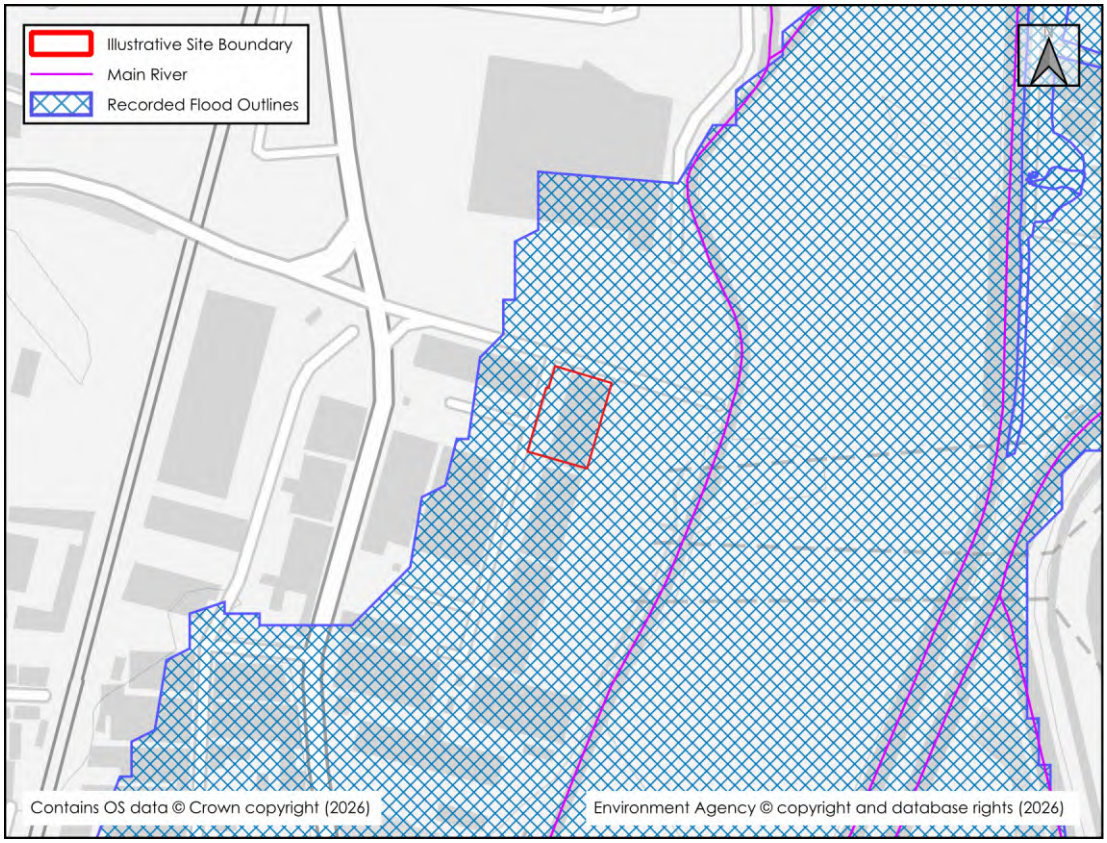

Figure 3.1 EA Recorded Flood Outlines

3.2 It should be noted that a lack of recorded flooding incidents does not necessarily mean the site and local area have never experienced flooding. Flooding incidents may not have been reported or observed.

4. FLOOD RISK FROM RIVERS (FLUVIAL)

4.1 Flooding from watercourses occurs when flows exceed the capacity of the channel or conduits, or where a restrictive hydraulic structure is encountered, which leads to water overtopping the banks into the floodplain.

4.2 As illustrated within **Figure 2.1**, the entirety of the site is located in Flood Zone 2, which is defined as land at a medium probability of flooding from rivers. This Flood Zone is based upon the historical flooding of the River Lee/Pymme's Brook in spring 1947, as seen in **Figure 3.1**. However, the River Lee catchment has changed significantly over time and it is understood that flood defences have been implemented in catchment, such that this Flood Zone classification does not reflect the true flood risk of the site.

4.3 Hydraulic river modelling of the River Lee, including the nearby Pymmes Brook, conducted by the EA in 2014 has been utilised to assess the fluvial flood risk to the site. The modelled floodplain extents under different return period events are presented within **Figure 4.1** with modelled flood levels at the site idenftied in **Table 4.1**.

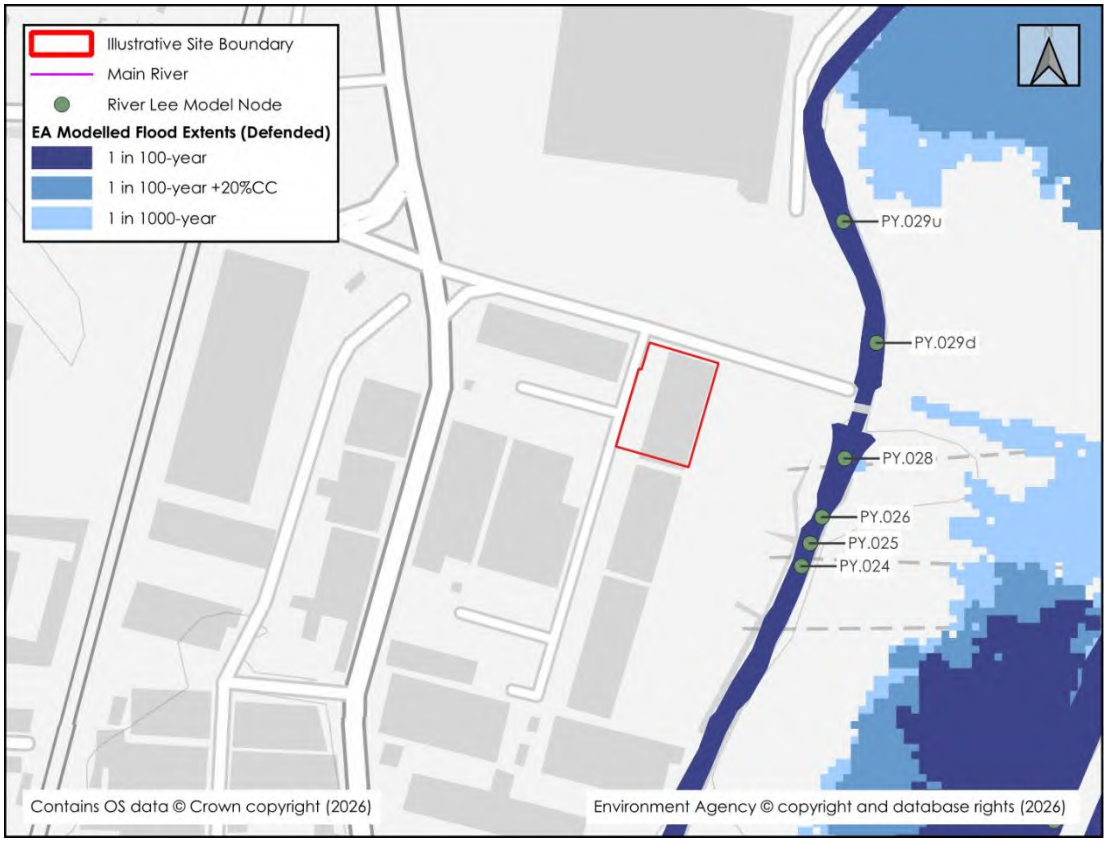

Figure 4.1: EA 2014 River Lee Modelled Defended Flood Outlines

Table 4.1: River Lee Peak Flood Levels

Node	Peak Flood Levels (m AOD)				
	Defended			Undefended	
	100yr	100yr+20%	1000yr	100yr	1000yr
PY0.29d	9.78	10.14	10.22	9.68	10.23
PY.028	9.69	10.08	10.16	9.69	10.16
PY.026	9.62	9.81	9.83	9.62	9.83
PY.025	9.58	9.76	9.78	9.58	9.78
PY.024	9.52	9.73	9.72	9.52	9.71

4.4 The model results show a significant reduction in flood risk compared to the strategic scale Flood Map for Planning. The nearest modelled flood extents are located approximately 80m east of the site. Modelled peak levels adjacent to the site are in the region of 0.5m below the current building's internal floor level.

4.5 It should be noted that the hydraulic modelling provided by the EA only includes a +20% allowance for climate change at the 1 in 100-year event. However, the 1 in 1000-year flood extents provide a more precautionary assessment of increased flows. For example, in the accompanying model report (ref: River Lee 2D Modelling and Mapping Technical Report, Table 23) modelled peak flows at various gauging stations are identified. A comparison of peak flows shows that the 1 in 1000-year flows are between 31% to 75% greater than the 1 in 100-year flows in the River Lee system. This exceeds the 27% climate change allowance required in EA guidance. As noted above, the site is located outside of the modelled 1 in 1000-year flood extents.

Flood Risk

4.6 The site is located outside of the most representative fluvial floodplain associated with Main Rivers both now and in the future; therefore, it can be concluded that the development at a low risk of fluvial flooding from Main Rivers.

Residual Flood Risk & Management

4.7 For added resilience against the risk of flooding, it is recommended that where it is feasible to do so, internal floor levels are maintained at or above the current internal floor level.

4.8 It may be beneficial for site users to sign up to receive EA flood alerts and warnings so that they are aware of potential incidents in the wider area that may affect their travel arrangements.

5. FLOOD RISK FROM SURFACE WATER & MINOR WATERCOURSES

5.1 Surface water flooding can occur during prolonged or intense storm events when the infiltration potential of soils, and/or the capacity of drainage infrastructure is overwhelmed leading to the accumulation of surface water and the generation of overland flow routes.

5.2 The EA's Surface Water Spatial Planning dataset shows the potential probability of flooding which could occur when rainwater does not drain away through the normal drainage systems or soak into the ground but lies on or flows over the ground instead. The data can also be used to identify the indicative floodplain of watercourses which are too small to be included within the Flood Map for Planning Flood Zone data.

5.3 The dataset comprises both extent and depth mapping for flood risk from surface water under present-day and climate change scenarios. The extent dataset shows the total extent of land at risk of flooding from surface water to a defined AEP or chance or flooding each year, whilst the depth datasets show the extent of land at risk of flooding from surface water to a defined depth band for a defined AEP. An extract from the mapping, showing the extents for the climate change scenario, is included as **Figure 5.1**.

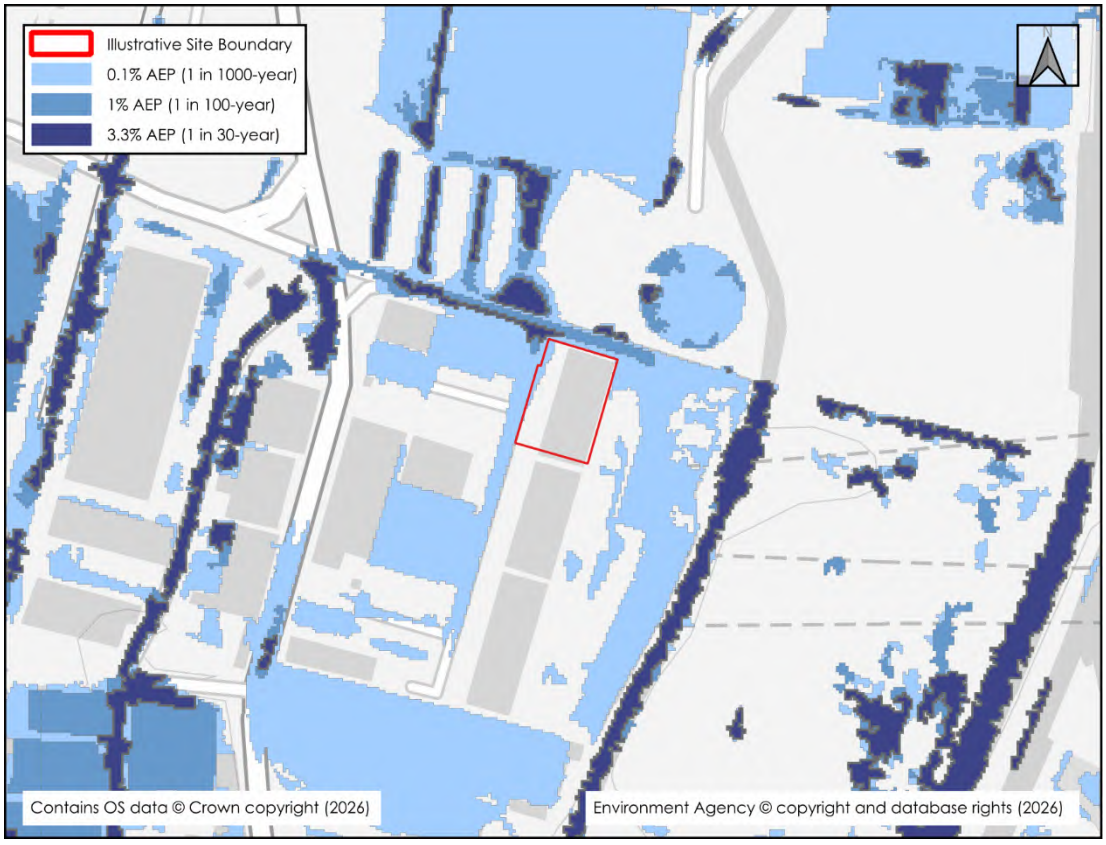

Figure 5.1: EA Surface Water Spatial Planning Extents with Climate Change (Upper End Climate Change Allowances for the '2070s' Epoch)

5.4 The strategic EA mapping indicates that the majority of the site is outside of the areas at risk of surface water flooding under both the present-day and climate change scenarios.

5.5 The north-western boundary of the site is indicated to be affected by surface water flooding in the 1 in 1000-year climate change event. However, this event is in excess of the design flood event, and will be relatively shallow; therefore, it should not pose a significant flood risk to the proposed development.

5.6 The EA Surface Water Spatial Planning dataset identifies the potential for surface water to pond on Leeside Road to the north of the site. This occurs as the highway is topographically below the surrounding ground level. Analysis of the EA data identifies that surface water depths within Leeside Road could be expected to reach up to 300mm in a 1 in 100-year event with consideration to climate change. Based on the maximum expected depths, and ponded nature of the potential flooding (i.e.: slow moving) it is believed that safe access and egress would be achievable via this route.

5.7 It is recommended that, finished floor levels throughout the proposed development should be raised a minimum of 150mm above immediate surrounding ground levels to help mitigate the risk of flooding from localised surface water runoff.

5.8 Ground levels should be profiled to encourage pluvial runoff and overland flows away from the built development and towards the nearest drainage point.

5.9 It is understood that the proposed development will include new on-site drainage infrastructure designed to modern standards to manage the surface water runoff. As the site is already impermeable and positively drained the proposed development will not generate any additional runoff and downstream flood risk will be unaffected.

Flood Risk

5.10 Whilst there is a risk of surface water flooding in the vicinity of the site boundaries, as the site is elevated relative to its immediate surroundings and due to the proposed mitigation measures, the proposed development is considered to be at low risk of flooding from surface water.

Residual Flood Risk & Management

5.11 It is recommended that site users are encouraged to sign up to Met Office severe weather warnings so that they have advance warning of potential incidents in the area that may affect their travel arrangements.

6. FLOOD RISK FROM SEWERS & DRAINAGE SYSTEMS

6.1 Sewer and flooding from drainage systems can occur when the capacity of the infrastructure is exceeded by excessive flows, because of a reduction in capacity due to collapse or blockage, or if the downstream system becomes surcharged. This can lead to the sewers flooding onto the surrounding ground via manholes and gullies, which can generate overland flows.

6.2 Thames Water have provided a plan of their sewer records within the vicinity of the site. This is included as **Appendix 3**. The records do not identify any public sewers within the site.

6.3 There are two public surface water sewers within Leeside Road to the north of the site, with diameters of 600mm and 750mm. These run parallel to each other in an easterly direction, to ultimately outfall to the Pymme's Brook. Manhole depth records north of the site indicate these sewers are located approximately 1.9m bgl.

6.4 There is also a 300mm diameter public foul sewer which runs parallel to the aforementioned surface water sewers in Leeside Road, although this flows in a westerly direction. Should the sewer system be exceeded, any resultant flood water would be expected to be contained within the road network in the first instance and the site is raised above the Leeside Road, such that this is not considered to pose a significant flood risk to the site.

6.5 A site survey of existing drainage, included as **Appendix 4**, identifies the presence of a network of private drainage infrastructure which serves the site. There are foul sewers serving each commercial unit which connect to the main outflow running parallel with the access road. Additionally, there are five surface water manholes located within the site which connect to a separate outflow also flowing along the access road. The majority of these sewers are 150mm diameter, with manholes located regularly along their course. Should this private drainage network be exceeded, any resultant flood water would be conveyed towards the access road and away from the site, in the same manner as surface water runoff, as discussed previously.

Flood Risk

6.6 It can be concluded that the development is at a low risk of flooding from sewers and drainage systems.

Residual Flood Risk

6.7 It is recommended that an operation and maintenance plan is established to ensure that the development's drainage systems are inspected and maintained for their lifetime, and that the drainage is designed with exceedance in mind.

7. FLOOD RISK FROM GROUNDWATER

7.1 Groundwater flooding occurs when the water table rises above ground elevations, or it rises to depths containing basement level development. It is most likely to happen in low lying areas underlain by permeable geology. This is most common on regional scale chalk aquifers, but there may also be a risk on sandstone and limestone aquifers or on thick deposits of sands and gravels underlain by less permeable strata such as that in a river valley. The presence of springs and/or winterbourne streams near to a site are a good indicator that groundwater flooding may be an issue in the area.

7.2 BGS mapping shows the underlying bedrock geology to comprise London Clay Formation (Clay, silt and sand). The EA classifies the bedrock geology as an Unproductive Aquifer. Unproductive Aquifers have a very low permeability and generally exhibit limited groundwater storage and transmission characteristics.

7.3 Information published by the BGS indicates that the site is underlain by superficial deposits of Alluvium (Clay, silt, sand, and gravel). This superficial geology is classified by the EA as a Secondary A Aquifer. Secondary A Aquifers comprise permeable layers capable of supporting local water supplies and, in some cases, contributing to river baseflow. These aquifers are generally formed of permeable drift deposits or fractured rock strata and, whilst less productive than Principal Aquifers, can store and transmit significant quantities of groundwater at a local scale.

7.4 Susceptibility to Groundwater Flooding data, published by the BGS, is illustrated in **Figure 7.1**. There is indicated to be potential for groundwater flooding to occur at the surface within the site and in its immediate vicinity. However, it should be noted that this mapping indicates where groundwater may come close to the surface and so identifies areas susceptible to flooding from groundwater on the basis of geological and hydrological conditions. I.e.: the site's classification is based upon the underlying Alluvium. It is also noted that this susceptibility data should not be used on its own to make planning decisions at any scale and, in particular, should not be used to inform planning decisions at the site scale.

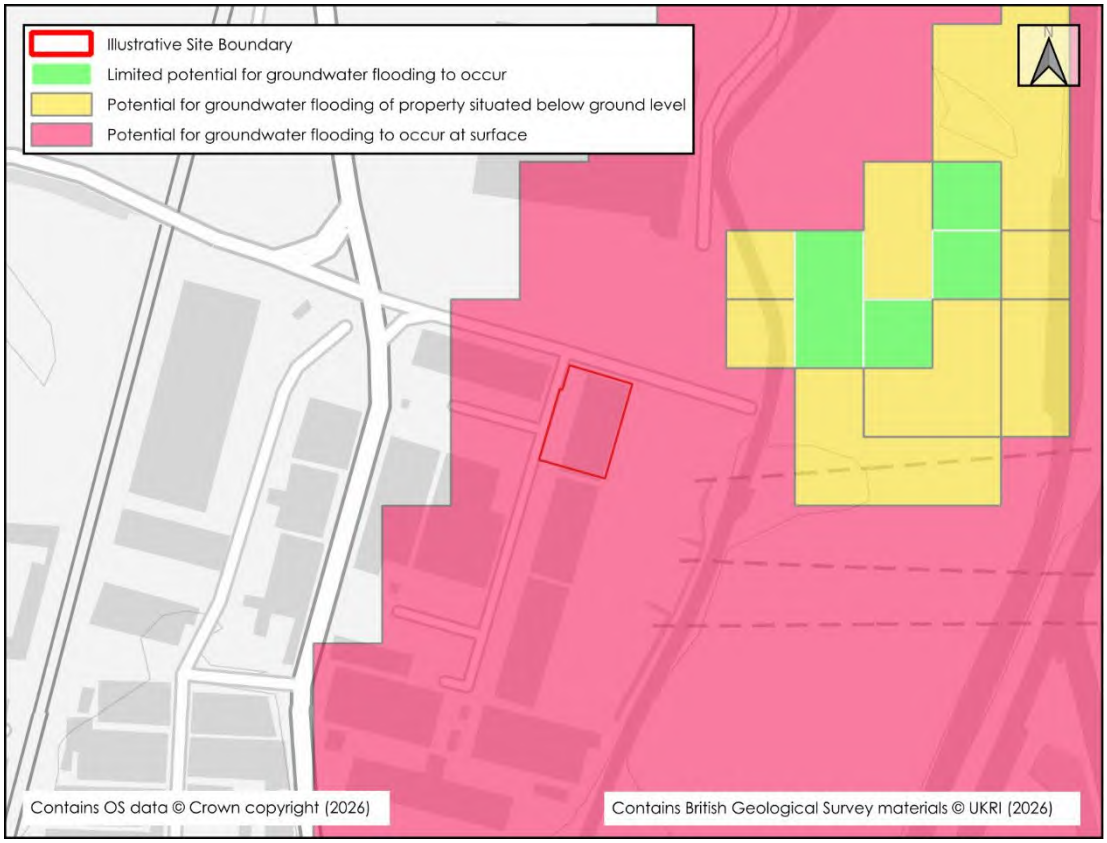

Figure 7.1: BGS Susceptibility to Groundwater Flooding

7.5 The BGS holds historical records of borehole samples across the UK and can provide an indication of possible groundwater levels that could be experienced. There are no BGS borehole logs located within the site boundary; however, several borehole logs are located within a 150m radius of the site are underlain by the same geology and so can be used to indicate conditions at the site. The interrogated record is summarised in **Table 7.1**.

Table 7.1: Summary of Interrogated BGS Borehole Records

Borehole Reference	Date Sampled	Depth of Borehole (m)	Groundwater Strike (m bgl)
TQ39SE841	2003	3.8	3.7
TQ39SE842	2003	4.0	Groundwater not encountered
TQ39SE839	2003	4.0	5.95
TQ39SE838	2003	15.0	3

7.6 In the event of groundwater emergence, it would be expected to occur within the low-lying watercourses and their respective floodplains to the east of the site. As the site is elevated above the nearby watercourses and floodplains, the probability of groundwater exceeding ground levels in the site is considered to be low.

7.7 No below ground development is planned, and as such, no specific flood management or mitigation measures are required in relation to this source of flood risk.

Flood Risk

7.8 Based on the available data, it is concluded that the risk of flooding from groundwater to the development is low.

Residual Flood Risk & Management

7.9 It is recommended that groundwater levels are monitored during the construction phase and that the potential to encounter shallow groundwater levels should be considered during any excavations, as well as within the design of the earthworks, foundations and below ground infrastructure. Should shallow groundwater be encountered, a groundwater specialist should be consulted, and appropriate dewatering techniques should be employed as necessary.

8. RESERVOIRS & LARGE WATERBODIES

8.1 Flooding can occur from large waterbodies or reservoirs if they are impounded above the surrounding ground levels or are used to retain water in times of flood. Although unlikely, reservoirs and large waterbodies could overtop or breach leading to rapid inundation of the downstream floodplain.

8.2 To help identify this risk, reservoir failure flood risk mapping has been prepared and published by the EA. This shows the largest area that might be flooded if a reservoir were to fail and release the water it holds. The map displays a worst case scenario and is only intended as a guide.

8.3 There are two flooding scenarios shown on the reservoir flood maps: a 'dry-day' and a 'wet-day'. The 'dry-day' scenario predicts the flooding that would occur if the dam or reservoir failed when rivers are at normal levels. The 'wet-day' scenario predicts how much worse the flooding might be if a river is already experiencing an extreme flood.

8.4 **Figure 8.1** illustrates that the site is shown to be located within the area at risk of inundation in the event of reservoir failure. The site is shown to be within the potential failure floodplain of nine reservoirs, during both 'dry-day' and 'wet-day' scenarios.

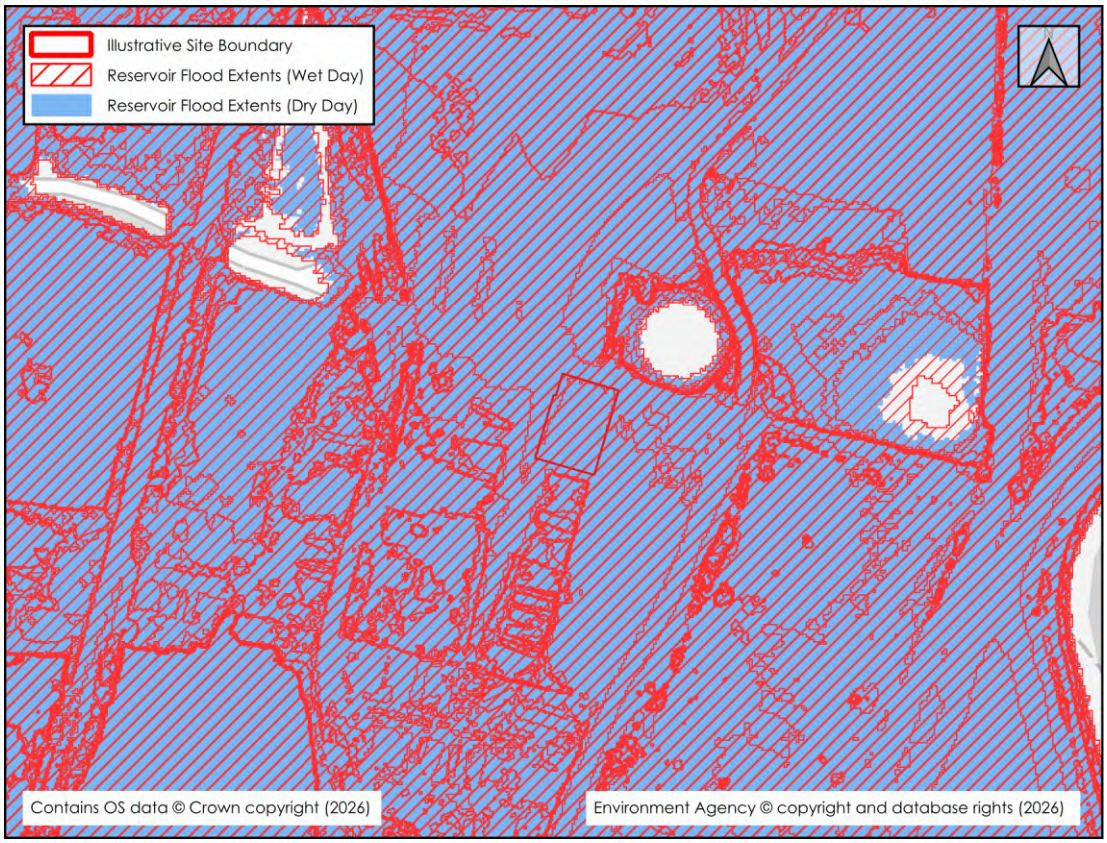

Figure 8.1: EA Reservoir Failure Flood Extents

8.5 The reservoirs are operated and maintained by Thames Water, the EA, and City of London Corporation, who have ultimate responsibility for the safety of their reservoir assets. Their responsibilities include regular safety inspections, any necessary design or

repairs undertaken where required and an annual statement produced on the operation and maintenance regime.

8.6 The nearest large waterbody is the Banbury Reservoir, which is located approximately 400m east of the site.

8.7 Based on the safety legislation in place and the maintenance and repair responsibilities of these operators as the responsible authority, the actual probability of a significant failure is considered to be low.

Flood Risk

8.8 It can be concluded that the risk of flooding from reservoirs and large waterbodies to the development is low.

Residual Flood Risk & Management

8.9 No additional mitigation measures are required to address residual flood risk from this source.

9. OTHER SOURCES OF FLOOD RISK

9.1 The site has been reviewed against data relating to other sources of flood risk, including the sea. The data available in the SFRA and published by the EA identify no flood risk to the site from these sources. Therefore, these have not been considered in any further detail.

9.2 There is a canal within the vicinity of the site, the River Lee Navigation, which is a canalised river located approximately 315m east of the site. The River Lee Navigation largely comprises the River Lea, a natural river, which has been turned into a canal through the deepening and widening of its channel and through control of its water flow. The River Lee Navigation is classified as a Main River by the EA and therefore, flood risk from this source has been considered in **Section 4**.

10. SUMMARY AND RECOMMENDATIONS

10.1 This report demonstrates that the proposed development is at an acceptable level of flood risk. In compliance with the requirements of the NPPF and the PPG, and subject to the mitigation measures proposed, the development could proceed without being subject to significant flood risk. Moreover, the development will not increase flood risk to the wider area subject to suitable management of surface water runoff discharging from the site. A summary of the FRA is presented within **Table 10.1.**

Table 10.1: Flood Risk Assessment Summary

Flood Source	Flood Risk to Development	Embedded Mitigation Measures	Additional Mitigation for the Management of Residual Flood Risk
The Sea	**None**	-	-
Rivers	**Low**	• Where it is feasible to do so, internal floor levels should be maintained at or above the current internal floor level.	• It may be beneficial for site users to sign up to receive EA flood alerts and warnings so that they are aware of potential incidents in the wider area that may affect their travel arrangements.
Surface Water & Minor Watercourses	**Low**	• Finished floor levels throughout the proposed development should be raised a minimum of 150mm above immediate surrounding ground levels to help mitigate the risk of flooding from localised surface water runoff within the development.	• It is recommended that site users are encouraged to sign up to Met Office severe weather warnings so that they have advance warning of potential incidents in the area that may affect access/egress to the development.
Sewers & Drainage Infrastructure	**Low**	• The flood risk management measures to address the surface water flood risk are also applicable to address the flood risk from sewers and drainage systems.	• The recommended measures to help manage the residual risks from surface water are also applicable. • It is recommended that an operation and maintenance plan is established to ensure that the development's drainage systems are inspected and maintained for their lifetime, and that the drainage is designed with exceedance in mind.
Groundwater	**Low**	-	• Groundwater levels are to be monitored during the construction phase and appropriate dewatering implemented where necessary.
Canals	**Low**	-	-
Reservoirs and waterbodies	**Low**	-	-

APPENDICES

Appendix 1: Topographical Survey



N

Station Information:

Station	Easting (m)	Northing (m)	Level (m)
GH1	535186.945	191456.523	11.089
GH2	535206.507	191597.813	10.843
GH3	535329.497	191564.596	9.979
GH4	535308.101	191499.270	10.438
GH5	535280.530	191405.772	10.744
GH6	535267.310	191328.543	10.985
GH7	535224.497	191321.962	11.286
GH8	535153.959	191338.978	10.744
GH30	535462.174	191525.437	10.123
GH40	535252.246	191526.461	10.842

OS Note:

Some services may have been omitted due to parked vehicles. The Ordnance Survey tile is to be used as a guide only.

OS Buildings *Surveyed Buildings*

This survey has been orientated to the Ordnance Survey (O.S) National Grid OSGB36(15) via Global Navigation Satellite Systems (GNSS) and the O.S. Active Network (OS Net).

A true OSGB36 coordinate has been established near to the site centre via a transformation using the OSTN15GB & OSGM15GB transformation models.

The survey has been correlated to this point and a further one or more OSGB36 (15) points established to create a true O.S. bearing for angle orientation.

No scale factor has been applied to the survey therefore the coordinates shown are arbitrary & not true O.S. Coordinates which have a scale factor applied.

Please refer to Survey Station Table to enable establishment of the on-site grid and datum.

Legend:

Buildings, Wall, Kerb line, Line marking, Drop kerb, Centre line, Top of bank, Ridge Level, Eaves Level, Flat Roof Level, Gate

Overhead Cable, Concrete edge, Tarmac edge, Grass verge, Canopy/Overhang, Verge, Bottom of bank, Station and Name, Station Level, Tree / Bush / Sapling, Area of Undergrowth, Woodland

Fence types: SW Interwoven, IRA Iron Railings, WM Wire Mesh, PR Post & Rail, PW Post & Wire, CL Chain Link, WP Wooden Panels, CBS Close Boarded, BP Steel Palisade

CVR	Cover (generic)	DrDuct	Drainage duct
IC	Inspection chamber	Bo	Bollard
Pinv	Pipe invert	Il	Illuminated bollard
Gy	Gully	Bin	Rubbish bin
Bg	Back gully	Vp	Vent pipe
Dp	Down pipe	GI	Ground light
Pipe	Pipe above ground	Lbox	Letter box
MH	Manhole	Stmp	Tree Stump
WL	Water level	Sty	Stile
FL	Flood light	IFL	Internal floor level
Lp	Lamp post	Thk	Threshold level
Tp	Telegraph post	Sp	Sign post
Ep	Electricity post	TH	Trialhole
Tr	Traffic light	BH	Borehole
Bus	Bus stop	ELC	Electric
Sv	Stop valve	BT	British Telecom
St	Stop tap	Cbox	Control box
Er	Earth rod	TT	Tactile
Wm	Water meter	BP	Brink pennd
Gas	Gas valve	CPS	Concrete paving slabs
Av	Air valve	CVR	Cover
ICU	Unidentified inspection	Rwall	Retaining wall
Wo	Wash out	TWL	Top of Wall Level
Re	Rodding eye	TCL	Tree canopy level
BB	Belisha beacon	G	Girth
CTV	Cable tv	MG	Multi girth
Mkr	Marker post	IC	Inspection chamber
Gmkr	Gas marker post	CL	Cover level
So	Soffit	IL	Invert level
Fh	Fire hydrant	UTR	Unable to raise

Rev	Date	Description	Drawn	Q. Rev

greenhatch group

- Topographical Surveys
- Site Engineering
- Utility / CCTV Surveys
- Measured Building Surveys
- 3D Laser Scanning
- Revit & BIM Models

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t. (02072) 241806

CLIENT
Goodman Logistics Developments (UK) Ltd

PROJECT
Tottenham Commercial Park
Leeside Road
London, N17 0QJ

TITLE
Topographical Survey

SCALE	DATE SURVEYED
A0@ 1: 500	22.01.24
DRAWN	QUALITY REF.
MT	GH19810

Level datum	See notes
Grid orientation	See notes
Job number	49755

Drawing No.	Rev.
49755_T	0

Comments
This plan should only be used for its original purpose. Greenhatch Group accepts no responsibility for this plan if supplied to any party other than the original client.

All dimensions should be checked on site prior to design and construction.

Drainage information (where applicable) has been visually inspected from the surface and therefore should be treated as approximate only.

Notes:

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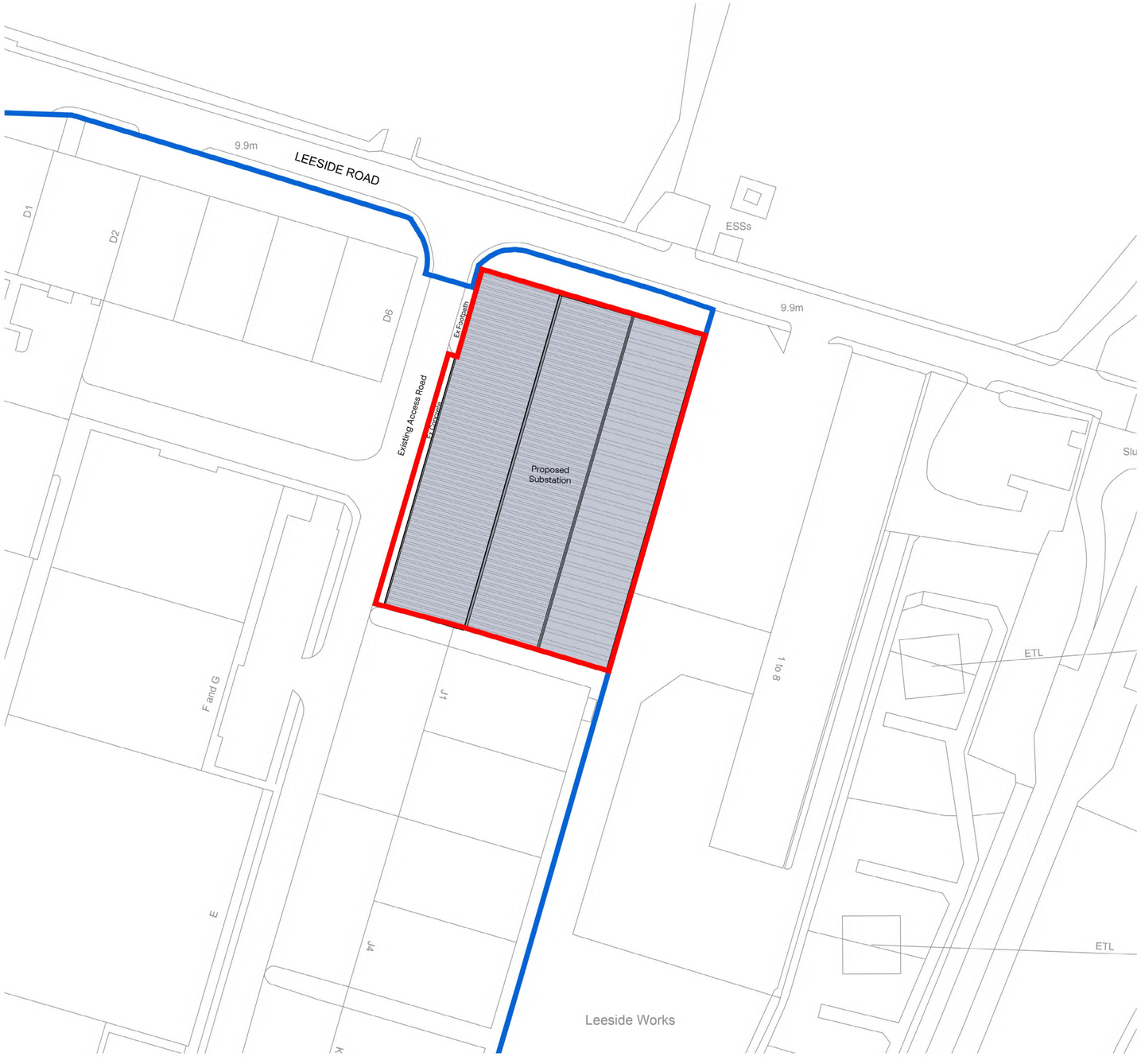
Appendix 2: Proposed Site Plan



Block Plan - Proposed Site Plan Scale 1:500

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General Notes

- This document is to be used for the stated purpose only and should not be used for any other.
- Dimensions are all in millimetres, unless stated otherwise.
- It is the recipients responsibility to print this document to the correct size & scale.
- All relevant drawings and specifications should be read in conjunction with this document.

North

Document Scale(s)

10m SCALE 1:500

Key:

- Development Boundary

PLANNING

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Project Name

Block H, Tottenham Commercial Park

Employer	Project Address
Goodman UK	**Tottenham Commercial Park, Leeside Road, N17 0QJ**

RIBA Workstage	Suitability
3 - Spatial Coordination	**S2 - Information**

Drawn	Checked	Created	Size
MAC	**LF**	**29.07.2026**	**A1**

UMC Project Reference	Scale	LOD	LOI
21682	**1:500**	**3**	**3**

Document Title

Block Plan - Proposed Site Plan

Document Reference

21682 - UMC - 0100 - SI - DR - A - 0202

Revision Note

Floor plan revised to roof plan following comments.

Issue Date	Status	Current Revision
14.08.2026	**Planning**	**P02**

Appendix 3: Thames Water Sewer Records

Asset Location Search

Thames Water Property Searches

BWB Consulting
BWB CONSULTING LTD, FIFTH FLOO
NOTTINGHAM
NG2 3DQ

Search address supplied	Unit D1 Leeside Road Tottenham Commercial Park London N17 0QJ
Your reference	233641 Tottenham Commercial Park
Our reference	ALS/ALS Standard/2026_5398151
Search date	19 October 2026

Keeping you up-to-date

Price Changes from 1 June 2026

With inflation continuing to influence costs, our prices for all searches will increase by around **4.3% from 1 June 2026.** We've based this increase on **Retail Price Index (RPI).**

You can view the new prices here: thameswater.co.uk/property-searches

If you have any questions, our customer experience team is here to help on **0800 009 4540.**

Thames Water Utilities Ltd
Property Searches,
Clearwater Court, Vastern Road, Reading RG1 8DB

property.searches@thameswater.co.uk
thameswater.co.uk/propertysearches

0800 009 4540

Asset Location Search

Property Searches

Search address supplied: Unit D1, Leeside Road, Tottenham Commercial Park, London, N17 0QJ

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 and 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 contact details below:

Thames Water Utilities Ltd
Property Searches
Clearwater Court
Vastern Road
Reading
RG1 8DB

Email: property.searches@thameswater.co.uk
Web: thameswater.co.uk/propertysearches

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. The public sewer map 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.

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. You can do this by emailing customer.feedback@thameswater.co.uk with the email subject header 'Enquiry – TWOSA', along with details of the request.

If you have any questions regarding sewer connections, budget estimates, diversions or building over 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

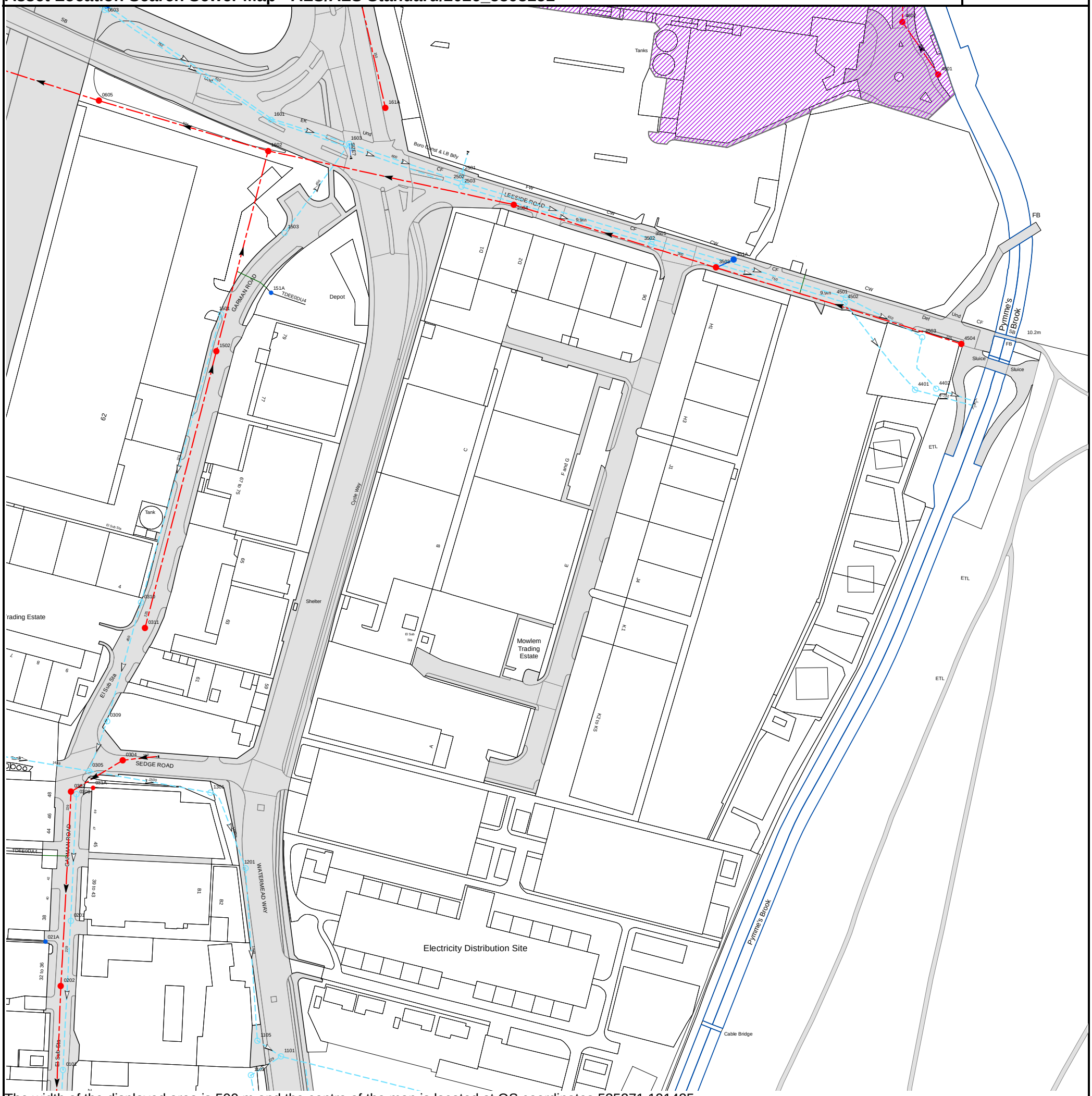
Clean Water queries

Should you require any advice concerning 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

Asset Location Search Sewer Map - ALS/ALS Standard/2026_5398151



The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 535271,191425

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 (2024) with the Sanction of the controller of H.M. Stationery Office, License no. AC0000849556 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
3501	9.87	7.94
4501	9.90	7.78
351A	10.20	8.50
151A	n/a	n/a
2504	9.90	7.01
031A	n/a	n/a
2502	9.97	8.03
4601	10.93	7.74
0201	9.37	8.43
1301	n/a	n/a
1503	11.45	9.89
0605	10.71	6.56
161A	n/a	n/a
4401	10.27	7.76
2501	9.96	8.56
021A	n/a	n/a
0603	10.97	8.21
1102	8.54	7.78
1101	n/a	n/a
4502	9.86	7.79
4602	10.40	7.54
0305	9.26	7.16
1201	8.51	7.08
1601	13.19	8.06
1603	10.96	8.10
2503	9.94	8.03
0308	9.51	8.09
0311	10.75	9.26
4504	10.01	7.99
1105	8.54	7.04
1502	11.43	8.69
1602	11.33	6.60
4503	n/a	n/a
0310	10.88	9.29
1501	11.67	10.07
3503	9.85	7.34
0307	9.50	7.98
0304	n/a	n/a
0101	9.26	8.06
3502	9.83	7.92
0202	9.31	7.84
0602	10.70	8.19
0309	9.70	7.88
4402	n/a	7.74

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

0800 009 4540
property.searches@thameswater.co.uk
thameswater.co.uk/propertysearches

Public Sewer Types

(Operated and 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 (eg. rain water from roofs, driveways and car parks) to rivers or watercourses.

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 Sewer
- Sludge Sewer
- Foul Trunk Sewer
- Surface Trunk Sewer
- Combined Trunk Sewer
- Foul Rising Main
- Surface Water Rising Main
- Combined Rising Main
- Vacuum
- Thames Water Proposed
- Vent Pipe
- Gallery

Other Sewer Types

(Not operated and maintained by Thames Water)

- Sewer
- Culverted Watercourse
- Proposed
- Decommissioned Sewer
- Content of this drainage network is currently unknown
- Ownership of this drainage network is currently unknown

Gulley: These sewers are generally maintained by the relevant highway authority.

Sewer Fittings

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

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

Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer.

- Ancillary
- Drop Pipe
- Control Valve
- Weir

End Items

End symbols appear at the start or end of the sewer pipe. eg. 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.

- Inlet
- Outfall
- Undefined End

Other Symbols

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

- Change of characteristic indicator
- Public/Private Pumping Station
- Invert Level
- Summit

Areas

Lines denoting areas of underground surveys and agreements etc.

- Agreement/Adoption
- Operational Site
- Chamber
- Awaiting Ordnance Survey data

Ducts or Crossings

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

- Casement
- Subway
- Conduit Bridge
- Tunnel

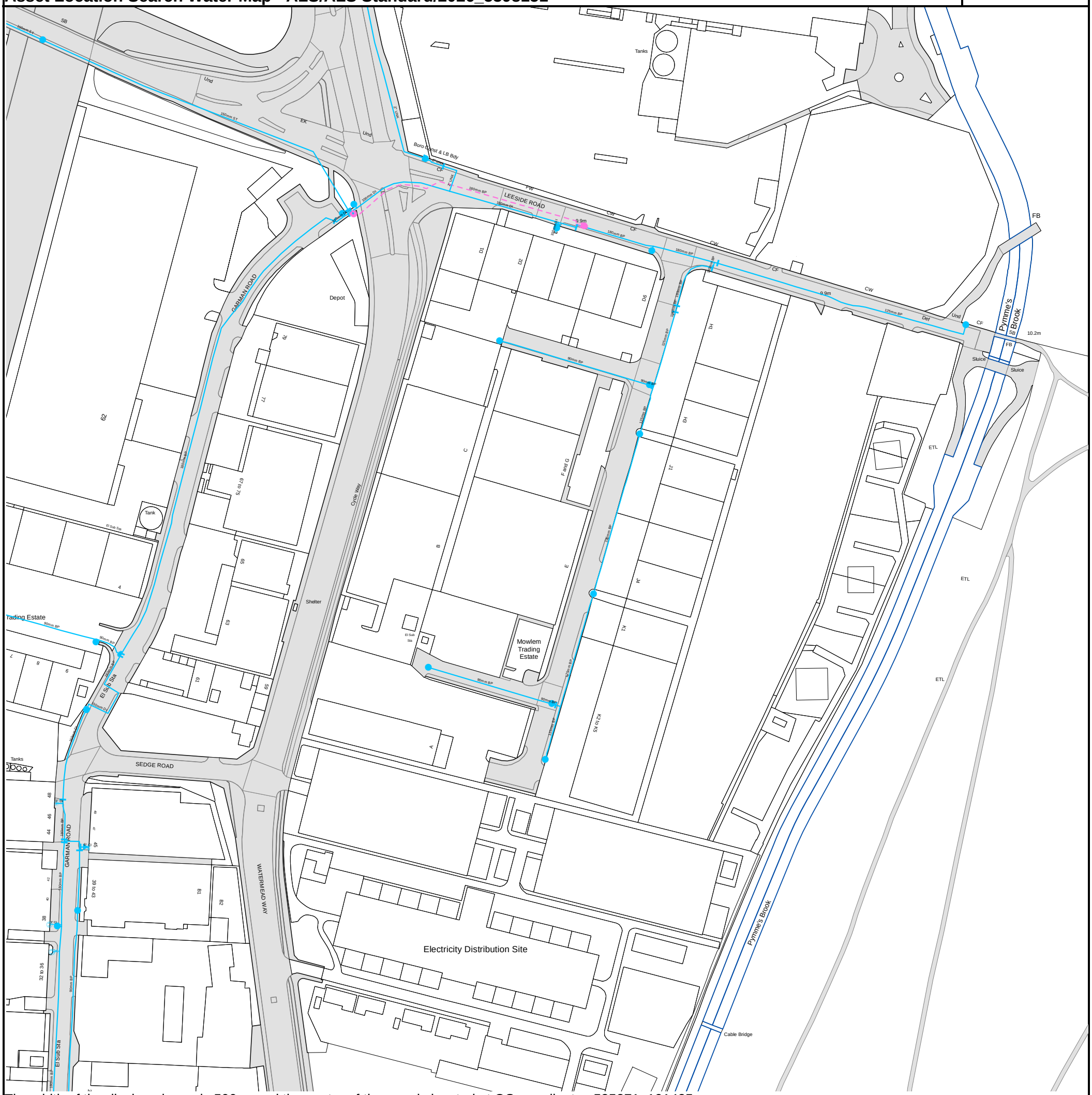
Notes

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.
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.

16129 - 12/25

Asset Location Search Water Map - ALS/ALS Standard/2026_5398151



The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 535271, 191425.

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.

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Asset Location Search
Water Key

0800 009 4540
property.searches@thameswater.co.uk
thameswater.co.uk/propertysearches

Water Pipes
(Operated and maintained by Thames Water)

4" CI — **Distribution Main:** The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.

16" CI — **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.

3" CI — **Supply Main:** A supply main indicates that the water main is used as a supply for a single property or group of properties.

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
Pressure Control Valve
Network Valve
Customer Valve
Air Valve

Hydrants

Single Hydrant

Meters

Meter

End Items

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

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

Operational Sites

Booster Station
Shaft Inspection
Other
Treatment Works
Pumping Station
Unknown
Service Reservoir
Water Tower

Other Symbols

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

Other Water Pipes
(Not operated and maintained by Thames Water)

Other Water Company Main: Occasionally other water company water pipes may overlap the border of our clean water 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 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.

16129-02 - 01/26

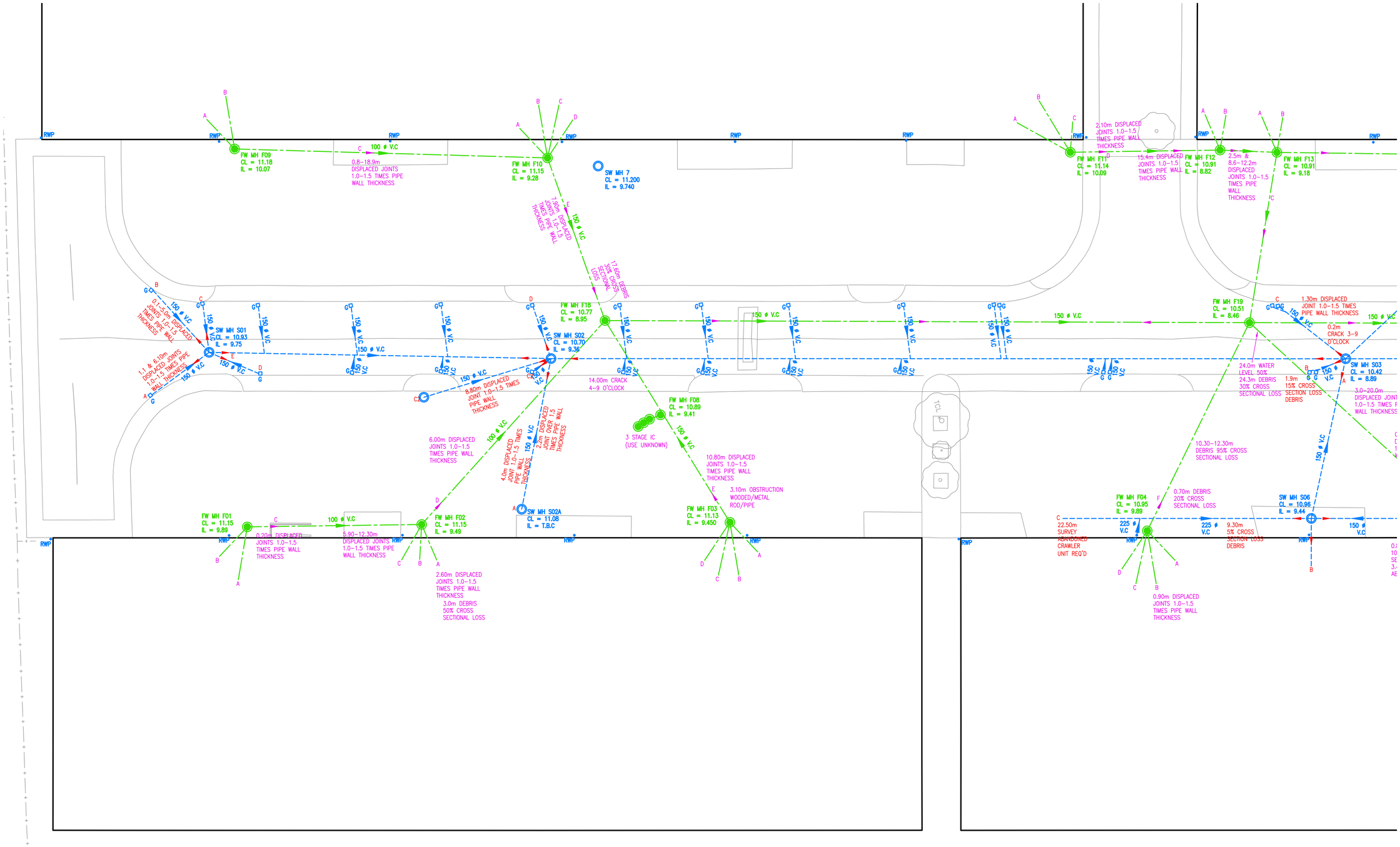
Appendix 4: Existing Site Drainage Plan

EXISTING DRAINAGE KEY

EXISTING SURFACE WATER (PRIVATE U.N.O) (100ø U.N.O)	
DC S — PROPOSED STANDARD DRAINAGE CHANNEL (WITH SUMP INCLUDING SILT TRAP)	
150 ø AT 1/150 — PIPE DIAMETER, FALL AND FLOW DIRECTION INDICATOR	
SW MH 10 — EXISTING SURFACE WATER MANHOLE (WITH CL AND IL) (COVER LEVEL WITH * REFER TO NOTE 4)	
SW PUMP 30 — PROPOSED SURFACE WATER PUMPING CHAMBER (WITH LEVELS)	
RE — RODDING EYE	
INTERCEPTOR — PETROL INTERCEPTOR (WITH LEVELS)	
RWP BIG — RAIN WATER PIPE (SHOWN WITH BACK INLET GULLY WITH INTERNAL FILTER SCREEN)	
G — EXISTING STANDARD ROAD/YARD GULLY	
EXISTING SURFACE WATER TO BE DEMOLISHED	
EXISTING FOUL WATER (PRIVATE U.N.O) (100ø U.N.O)	
150 ø AT 1/150 — PIPE DIAMETER, FALL AND FLOW DIRECTION INDICATOR	
FW MH 10 — EXISTING FOUL WATER MANHOLE (WITH CL AND IL)	
FW PUMP 30 — PROPOSED FOUL WATER PUMPING CHAMBER (WITH LEVELS)	
RE — RODDING EYE	
EXISTING FOUL WATER TO BE DEMOLISHED	

CCTV FINDINGS

0.0m 10% WATER HEIGHT — INDICATES SURFACE WATER CCTV SURVEY RECORDS DIRECTION OF SURVEY DISTANCE TO OBSERVATION RECORD OF OBSERVATION	
13.2–14.9m Camera underwater — INDICATES FOUL WATER CCTV SURVEY RECORDS DIRECTION OF SURVEY DISTANCE TO OBSERVATION RECORD OF OBSERVATION	



NOTES

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE EVOLVE DESIGN STATEMENT.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SERVICES & SPECIALIST MANUFACTURERS DETAILS, DRAWINGS AND SPECIFICATIONS.
3. DO NOT SCALE THIS DRAWING. IF IN DOUBT ASK. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. ALL DIMENSIONS TO EXISTING ELEMENTS ARE TO BE CHECKED AND CONFIRMED ON SITE BY CONTRACTOR.
4. THIS DRAWING HAS BEEN BASED ON THE TOPOGRAPHICAL SURVEY 18162_OGL (13/03/2013) PRODUCED BY GREENHATCH GROUP.
5. CCTV INFORMATION EXTRACTED BY CCTV REPORT PRODUCED BY METROROD DATED 24/05/13 (1062140).

Rev.	Date	Revision	By	Chk
B	20/06/13	CCTV INFORMATION ADDED.	SM	IC
A	28/03/13	ISSUED FOR INFORMATION	SM	IC

INFORMATION

Client
DIAGEO

Project
MOWLEM TRADING ESTATE
TOTTENHAM HALE, N17 0QJ

Drawing Title
EXISTING SITE DRAINAGE PLAN
SHEET 1 OF 2

Drawn by	Checked by	Scale @ A1
SM	IC	1:200

Drawing No. 1718–2/500
Revision B

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GLASGOW
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G1 1LG
T. 0141 553 4721
F. 0141 552 6020

EXISTING DRAINAGE KEY

EXISTING SURFACE WATER (PRIVATE U.N.O) (100ø U.N.O)	
PROPOSED STANDARD DRAINAGE CHANNEL (WITH SUMP INCLUDING SILT TRAP)	
150 ø AT 1/150	PIPE DIAMETER, FALL AND FLOW DIRECTION INDICATOR
SW MH 10	EXISTING SURFACE WATER MANHOLE (WITH CL AND IL) (COVER LEVEL WITH * REFER TO NOTE 4)
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RE	RODDING EYE
	EXISTING FOUL WATER TO BE DEMOLISHED

CCTV FINDINGS

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13.2–14.9m Camera underwater	INDICATES FOUL WATER CCTV SURVEY RECORDS DIRECTION OF SURVEY DISTANCE TO OBSERVATION RECORD OF OBSERVATION

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A	28/03/13	ISSUED FOR INFORMATION	SM	IC

INFORMATION

Client: DIAGEO

Project: MOWLEM TRADING ESTATE, TOTTENHAM HALE, N17 0QJ

Drawing Title: EXISTING SITE DRAINAGE PLAN SHEET 2 OF 2

Drawn by	Checked by	Scale @ A1
SM	IC	1:200

Drawing No. 1718–2/501 — Revision B

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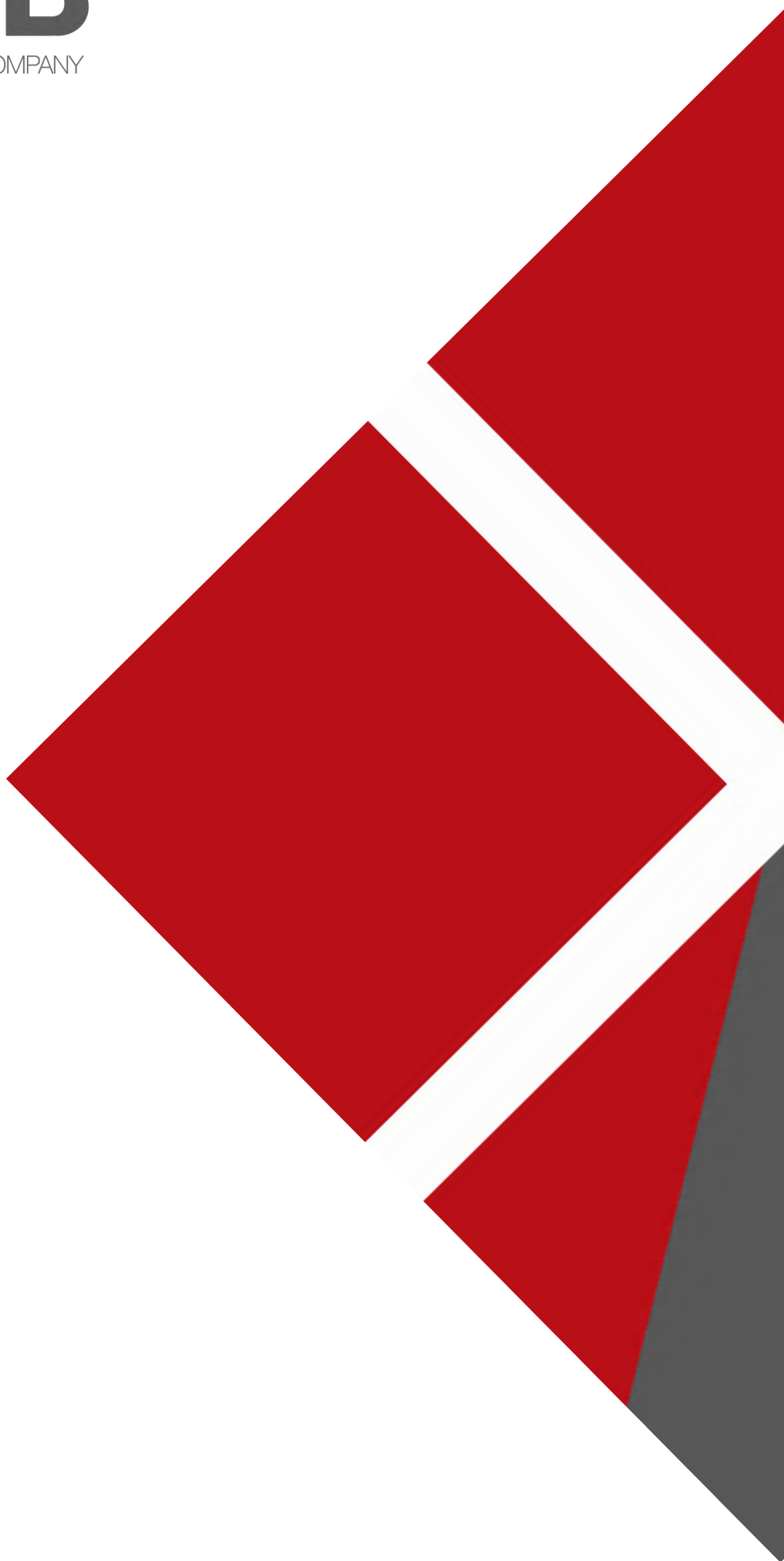

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