

**General Notes:**  
 Drawing to be read in conjunction with the specification and all relevant drawings.  
 Do not scale from this drawing.  
 Contractor to check all dimensions on site. Adjaye Associates to be advised of any discrepancies between this drawing and site conditions immediately.

**By Department Legend**

- Office
- Servicing

**IMPORTANT NOTE:**  
 ALL THE PLANT AND SERVICING AREAS SIZES ARE STILL TO BE DETERMINED, TO BE ADJUSTED TO THE 18 FLOOR VERSION. THIS SHOULD HAVE IMPLICATIONS ON ALL THE PLANT AND SERVICING AREAS AND HEIGHTS, ESPECIALLY ON:  
 - BASEMENT LEVEL  
 - GROUND FLOOR (EASR END)  
 - SECOND FLOOR  
 - EAST ROOF  
 - WEST ROOF

Revision	Date	Description
R7	25/02/20	Design Freeze
R6	17/01/20	Design Freeze
R4	08/11/19	Design Freeze
R3	06/09/19	Revision 3
R2	21/06/19	Revision 2
R1	20/05/19	Revision 1 - 18 Floors
	25/04/19	First Issue

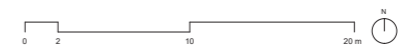
Status: Hondo Enterprises Rev: R7

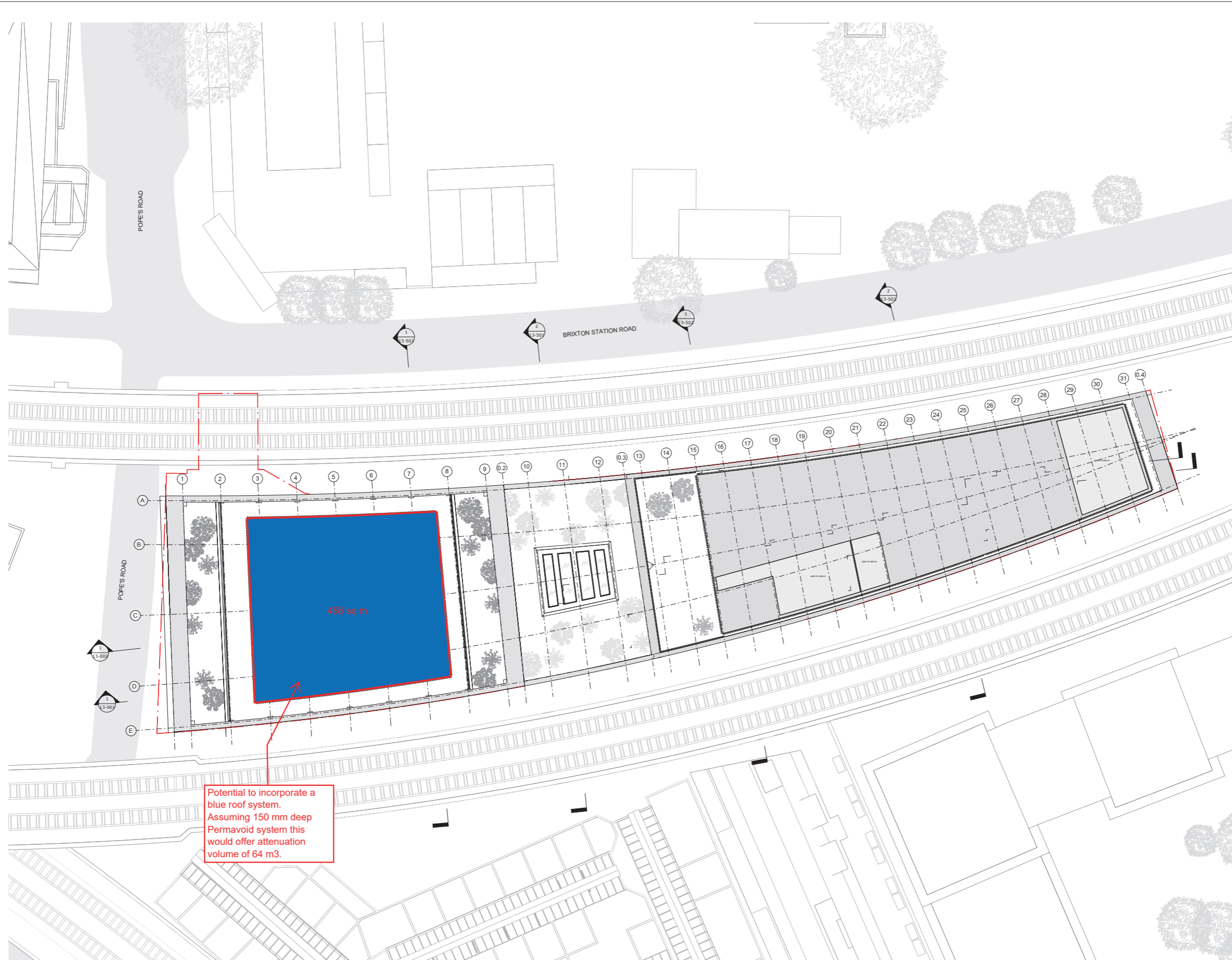
Client: Hondo Enterprises  
 Project: Pope's Road Development

Drawing Title: GA L9 NINTH & ELEVENTH FLOOR  
 Drawing No.: PRD-11-080

Scale: 1 : 200 @ A1 Drawn By: MZ, SC, PK, CF  
 Date: 25/02/20 Checked By: MZ

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Potential to incorporate a blue roof system. Assuming 150 mm deep Permavoid system this would offer attenuation volume of 64 m3.

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	25/04/19	First Issue
Revision	Date	Description

Status: Hondo Enterprises Rev: R7

Client: Hondo Enterprises

Project: Pope's Road Development

Drawing Title: GA L21 ROOF PLAN

Drawing No.: PRD-11-140

Scale: 1 : 200 @ A1 Drawn By: MZ, SC, PK, CF  
 Date: 25/02/20 Checked By: MZ

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# Appendix 2

Drainage Proforma





1. Project & Site Details	Project / Site Name (including sub-catchment / stage / phase where appropriate)	Pope's Road, Brixton
	Address & post code	18-24a, Pope's Road, Brixton SW9 8JH
	OS Grid ref. (Easting, Northing)	E 531720
		N 175470
	LPA reference (if applicable)	
	Brief description of proposed work	Demolition of the existing structures that occupy the site and the construction of a new 20 storey building utilised primarily for office use with market/retail at ground level and the construction of a 2 level basement below.
	Total site Area	2,470 m <sup>2</sup>
	Total existing impervious area	2,470 m <sup>2</sup>
	Total proposed impervious area	2,470 m <sup>2</sup>
	Is the site in a surface water flood risk catchment (ref. local Surface Water Management Plan)?	The site is located in CDA "Group_033" identified as being at the risk of SW flooding. See FRA report by AKT II.
	Existing drainage connection type and location	Subject to a CCTV survey.
	Designer Name	Aleksandar Aleksandrov
	Designer Position	Design Engineer
Designer Company	AKT II	

2. Proposed Discharge Arrangements	2a. Infiltration Feasibility		
	Superficial geology classification	Taplow Gravel Formation (TPGR)	
	Bedrock geology classification	London Clay	
	Site infiltration rate	N/A	m/s
	Depth to groundwater level	TBC	m below ground level
	Is infiltration feasible?	No	
	2b. Drainage Hierarchy		
		<i>Feasible (Y/N)</i>	<i>Proposed (Y/N)</i>
	1 store rainwater for later use	Y	TBC
	2 use infiltration techniques, such as porous surfaces in non-clay areas	N	N
	3 attenuate rainwater in ponds or open water features for gradual release	N	N
	4 attenuate rainwater by storing in tanks or sealed water features for gradual release	Y	Y
	5 discharge rainwater direct to a watercourse	N	N
	6 discharge rainwater to a surface water sewer/drain	N	N
	7 discharge rainwater to the combined sewer.	Y	Y
	2c. Proposed Discharge Details		
	Proposed discharge location	To be confirmed, subject to a CCTV survey	
Has the owner/regulator of the discharge location been consulted?	Discharge Strategy is to be confirmed with Thames Water via a Pre-planning Enquiry.		



3a. Discharge Rates & Required Storage				
	Greenfield (GF) runoff rate (l/s)	Existing discharge rate (l/s)	Required storage for GF rate (m <sup>3</sup> )	Proposed discharge rate (l/s)
Qbar				
1 in 1	0.75	21.6	20	5
1 in 30	2.23	53	60	5
1 in 100	2.85	68.6	90	5
1 in 100 + CC			140	5
Climate change allowance used		40%		
3b. Principal Method of Flow Control		TBC		
3c. Proposed SuDS Measures				
	Catchment area (m <sup>2</sup> )	Plan area (m <sup>2</sup> )	Storage vol. (m <sup>3</sup> )	
Rainwater harvesting	TBC		TBC	
Infiltration systems	0		0	
Green roofs	0	0	0	
Blue roofs	TBC	TBC	TBC	
Filter strips	0	0	0	
Filter drains	0	0	0	
Bioretention / tree pits	0	0	0	
Pervious pavements	0	0	0	
Swales	0	0	0	
Basins/ponds	0	0	0	
Attenuation tanks	2,470		140	
<b>Total</b>	<b>2470</b>	<b>0</b>	<b>140</b>	

4a. Discharge & Drainage Strategy		Page/section of drainage report
Infiltration feasibility (2a) – geotechnical factual and interpretive reports, including infiltration results		See Section 4.3 & Appendix 3.
Drainage hierarchy (2b)		Section 4.3, refer to disposal method.
Proposed discharge details (2c) – utility plans, correspondence / approval from owner/regulator of discharge location		To be provided
Discharge rates & storage (3a) – detailed hydrologic and hydraulic calculations		Section 4.3
Proposed SuDS measures & specifications (3b)		Section 4.3
4b. Other Supporting Details		Page/section of drainage report
Detailed Development Layout		refer to architect
Detailed drainage design drawings, including exceedance flow routes		Detailed drainage drawings to be developed.
Detailed landscaping plans		Not available at this time.
Maintenance strategy		To be developed.
Demonstration of how the proposed SuDS measures improve:		Section 4.3
a) water quality of the runoff?		Section 4.3
b) biodiversity?		Section 4.3
c) amenity?		Section 4.3

# Appendix 3

Desk Study Extract



# 5 Ground Conditions

The following information is intended to highlight the relevant ground conditions that are likely to be encountered at the proposed development site. This information has been accrued from limited recorded and publicly available sources, such as the British Geological Society (BGS). It is recommended that site specific investigations should be undertaken at the earliest opportunity to verify these conditions and reduce risks associated with any uncertainty of information.

## 5.1 Published Geology

Geological maps from the BGS indicate the superficial strata to be made up of Taplow Gravel Formation (TPGR) which is likely made up of a combination of sand and gravel, the exact composition and extent will need to be confirmed as part of the future site investigation. The superficial strata is underlain by a layer of London Clay which forms the bedrock geology.



Figure 5.1 BGS map showing superficial geology

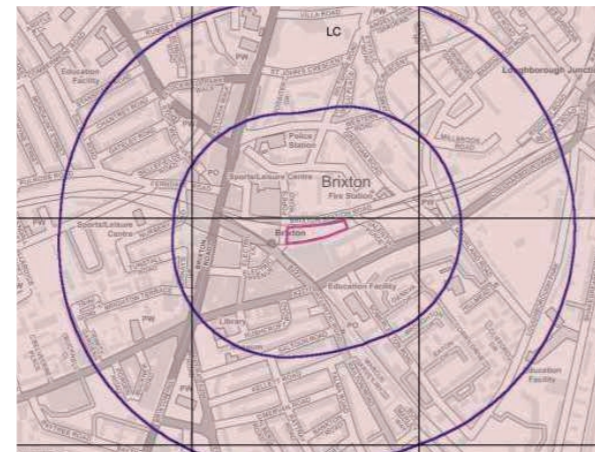


Figure 5.2 BGS map showing bedrock geology

Superficial Geology				
Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
[Orange]	TPGR	Taplow Gravel Formation	Sand and Gravel	Wolstonian - Chokierian
[Light Orange]	TPGR	Taplow Gravel Formation	Gravel	Wolstonian - Chokierian

Bedrock and Faults				
Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
[Brown]	LC	London Clay Formation	Clay	Eocene - Eocene

Figure 5.3 BGS Geology Key

## 5.2 Encountered Geology

The map below shows the location of historical borehole information available. The closest boreholes, numbered 320 and 321, were respectively carried out in 1989 and 1966.

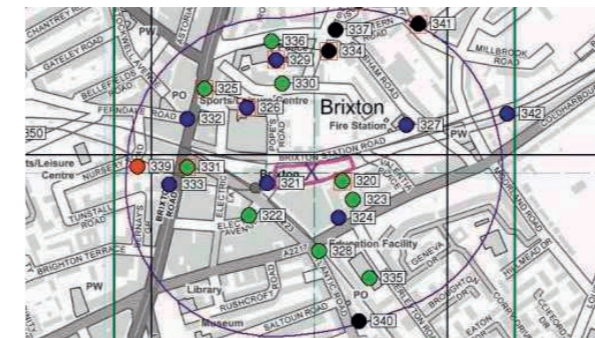


Figure 5.4 Existing borehole location map

### Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m

Figure 5.5 Borehole location map - key

The indicative borehole below has been created from the information from these boreholes combined with internal experience from previous AKT II projects. However due to the age and the fact they were taken in proximity to the site and not within, it is recommended that further investigation is carried out to confirm the anticipated ground strata.

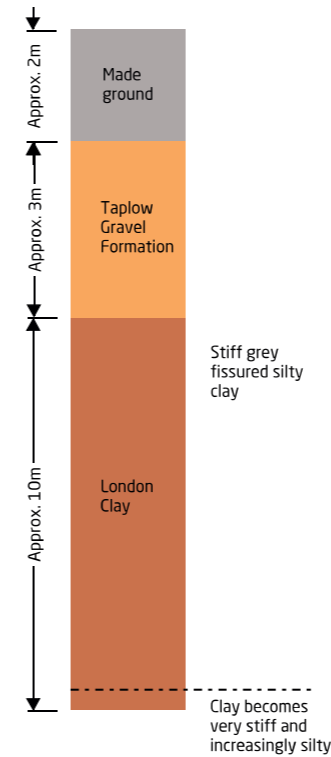


Figure 5.6 Indicative borehole

## 5.3 Hydrogeology

Information from the Environment Agency (EA) on the hydrogeological composition is illustrated below. In summary:

- The groundwater vulnerability is classed a minor aquifer of high permeability;
- The superficial aquifer is designated as a Secondary A aquifer (permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers);
- The bedrock aquifer is designated as an unproductive strata (these are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.)

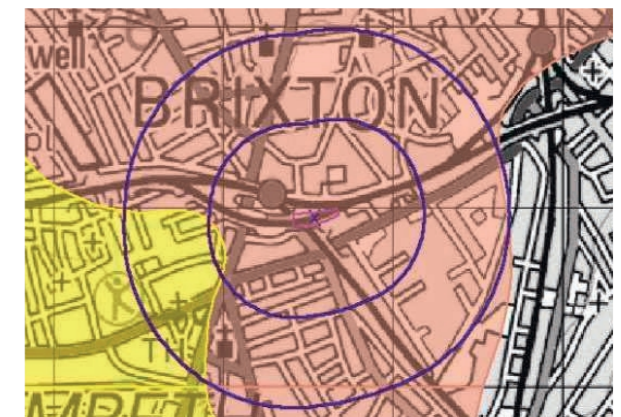


Figure 5.7 Superficial aquifer designation

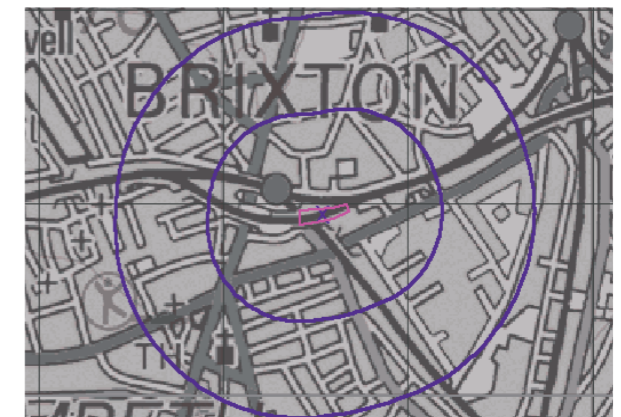


Figure 5.8 Bedrock aquifer designation

### Superficial Aquifer Designation

- Secondary A Aquifer
- Secondary Undifferentiated

### Bedrock Aquifer Designation

- Unproductive Strata

Figure 5.9 Aquifer key



## 5.4 Hydrology & Flood Risk

The nearest surface water feature to the site is the River Thames which is approximately 2.7km in a straight line. Due to this distance the EA does not consider this site in an area of flood risk from Rivers and Sea. This site therefore is classified as 'Flood Zone 1' which signifies land having a less than 1 in 1,000 annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map)

Confirmation required from Lambeth council whether the site sits in an area of critical drainage. If so, a FRA is required.

The following two maps provided by the British Geological Survey (BGS) and the EA indicate that the site could be subject to groundwater flooding under heavy pluvial conditions.

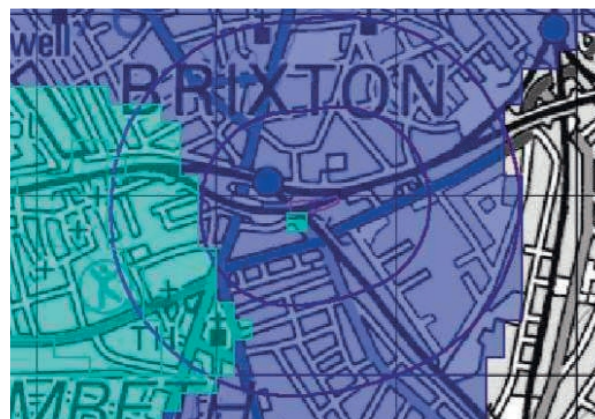


Figure 5.10 BGS groundwater flooding susceptibility

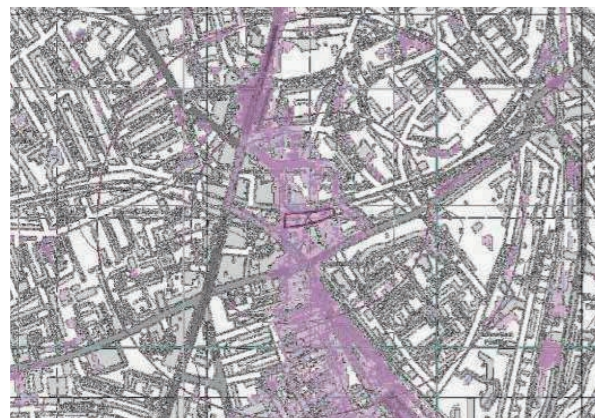


Figure 5.11 EA surface flood map

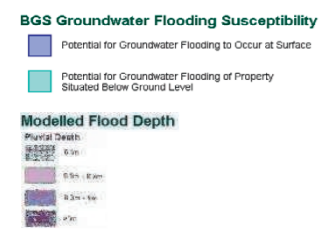


Figure 5.12 BGS & EA map key

## 5.5 Contamination

### 5.5.1 Unexploded ordnance

The Ministry of Defence has recorded the extent of damage to buildings during the raids in the Second World War and the possible locations of Unexploded Ordnance (UXO) in Central London.

It is known that many of the bombs that were dropped did not explode on impact and some of these are still present beneath the ground. Bomb detonators do not deteriorate and the explosives do not become inert over time. This presents an inherent health and safety risk as well as the possibility for a source of contamination. The problem can sometimes be exacerbated as some bombs are non ferrous meaning they require more sophisticated and expensive detection techniques.

Although the presence of UXO is not indicated for this site, it can be seen in a few of the surrounding properties. The risk of UXO should be evaluated in the project risk assessment and a specialist consultant should be engaged, if deemed appropriate, in the next stages of design.



Figure 5.13 Bomb damage map



Figure 5.14 Bomb damage map key

### 5.5.2 Soil contamination

Ground contamination maps show that the site is bordered to the south by a site highlighted as potentially contaminated due to past industrial land uses.

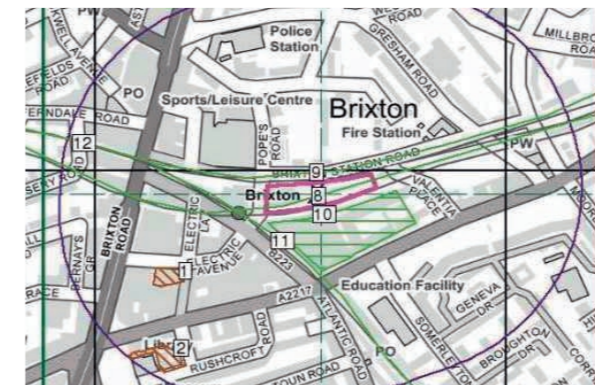


Figure 5.15 Historic land use map

#### Historical Land Use

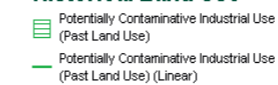


Figure 5.16 Historic land use map key

The following soil chemistry concentration values have been provided by BGS:

- Arsenic - levels measured below 15mg/kg (limit of 32 considered<sup>1</sup>);
- Cadmium - levels measured below 1.8mg/kg;
- Chromium - levels measured between 60-90mg/kg;
- Lead - levels measured between 150-300mg /kg;
- Nickel - levels measured between 15-30mg/kg.

<sup>1</sup> Soil Guideline Values for inorganic arsenic in soil - Science Report SC050021 - Environment Agency

## 5.6 Ground stability

The site is ranked as very low risk for:

- Compressible Ground Stability Hazards;
- Collapsible Ground Stability Hazards;
- Landslide Ground Stability Hazards;
- Ground Dissolution Stability Hazards;
- Potential for Running Sand Ground Stability Hazards.

The site does however fall under moderate risk for

- Potential for Shrinking or Swelling Clay Ground Stability Hazards.

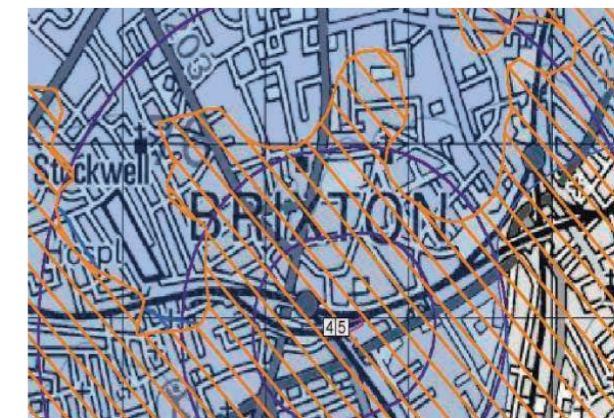
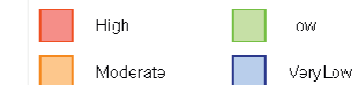


Figure 5.17 Ground stability data

#### Potential for Running Sand Ground Stability Hazards



#### Potential for Shrinking or Swelling Clay Ground Stability Hazards

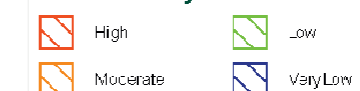


Figure 5.18 Ground stability data key