H FRASER CONSULTING
CONTAMINATED LAND AND HYDROGEOLOGY

# 35 Greville Road
# Basement Impact Assessment: Groundwater




Prepared for: Croft Structural Engineers
Clock Shop Mews,
Rear of 60 Saxon Rd,
SE25 5EH

Date: 24/02/2016
Status: Final
Reference: 30092R1

Prepared by: H Fraser Consulting Ltd

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## CONTENTS



## FIGURES



## TABLES



## APPENDICES

# 1. INTRODUCTION

Croft Structural Engineers Ltd (Croft SE) has instructed H Fraser Consulting Ltd (HFCL) to provide the hydrogeological aspects of a Basement Impact Assessment at the following property:

35 Greville Road, London, NW6 5JB.

The site is in the London Borough of Camden.

## 1.1 Objective

The objective of this report is to provide the hydrogeological aspects of a Basement Impact Assessment to support a planning application for construction of a basement at 35 Greville Road.

## 1.2 Scope of works

The following works have been undertaken:

- Desk study
- Screening assessment with regards to groundwater
- Scoping assessment to identify potential impacts
- Impact assessment with regard to groundwater attributes
- Reporting

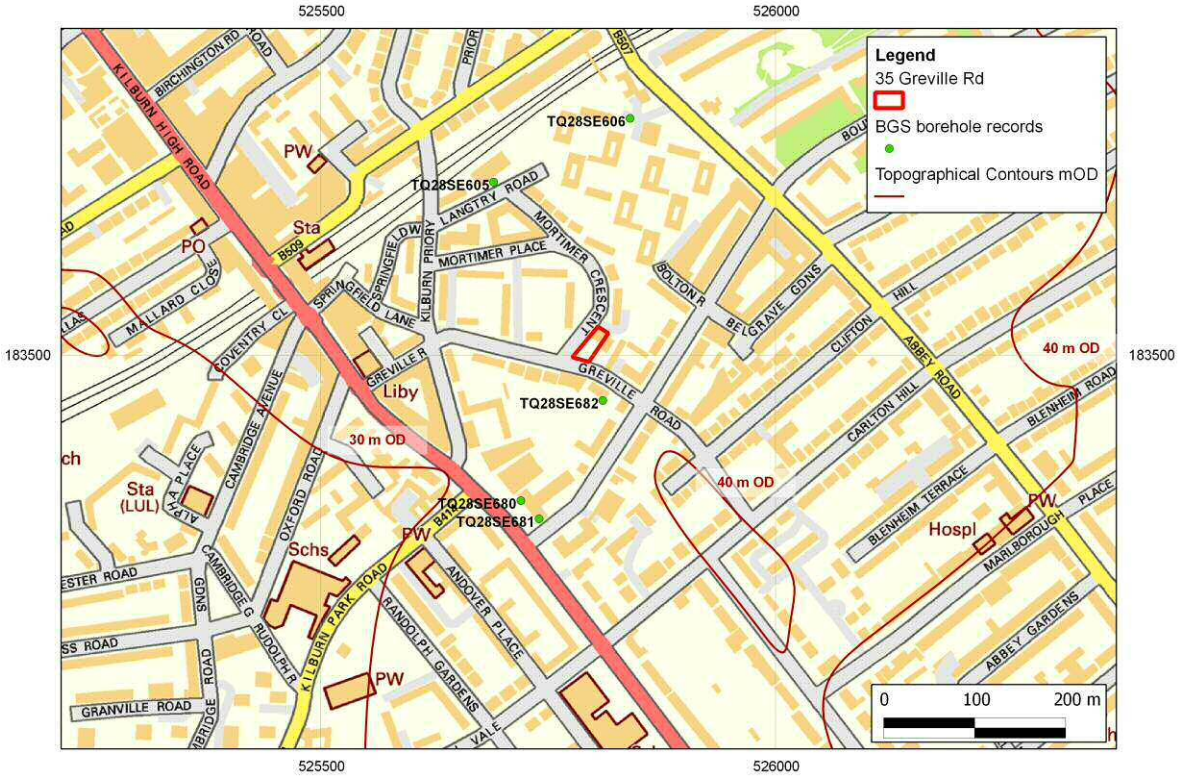
The work has been undertaken in accordance with the requirements of London Borough of Camden's (LBC) Planning Guidance CPG4 'Basements and Lightwells' (referred to as CPG4) and Arup's 'Geological Hydrogeological and Hydrological Study, Guidance for Subterranean Development' (Arup, 2012, referred to throughout this report as the GHHS).

This assessment is limited to an assessment of the hydrogeological aspects of the proposed development and does not purport to make any comment on surface water flooding, hydrology, contamination or pollution, engineering, land stability, design or construction issues.

The work has been undertaken by Hannah Fraser, Director of HFCL, who is a Chartered Geologist with 19 years' experience as a hydrogeologist and consultant.

# 2 BACKGROUND INFORMATION

Background information has been derived from a Groundsure report for the site (Appendix A); geological information has been derived from on-line BGS sources (Geology of Britain Viewer, GeoIndex, Lexicon); on-line mapping and aerial photography have been derived from Streetmap and GoogleEarth. Table 2.1 presents relevant background information for the site. The site location is shown in Figure 2.1.




## Figure 2.1 Site location

Contains Ordnance Survey data © Crown copyright and database right 2016

## Table 2.1 Background information

| | |
|---|---|
| **Address** | 35 Greville Road, London, NW6 5JB. |
| **NGR** | 525804 183520 |
| **Description** | The site comprises a detached four storey brick built residential house with lower and upper ground floors. The front of the site, bordering Mortimer's Crescent, is dominated by a single storey double garage with the property to the rear. The lower ground floor extends beyond the main footprint of the house to the southwest, and the roof of the lower ground floor forms a terrace at ground level. The lower ground floor opens on to a second lowered terrace area, with steps up to a grassed garden area at ground level.<br><br>The total area of the house and garden is estimated at approximately 800 $m^2$, with the house and surrounding terrace/hardstanding taking an |

| | |
|---|---|
| | area of approximately 325 $m^2$.<br><br>Across the wider area, topography falls from Hampstead Heath in the northeast, to the south and west. The site lies between the 40 m OD and 30 m OD contours, however there is a small hill approximately 150 m southeast at 41 m OD, and the very local topography will be influenced by this. The site elevation is estimated as 35 m OD ± 3 m. Local topography is shown on Figure 2.1. |
| **Proposed development** | The proposed development is to construct a basement below the entire footprint of the existing house, to a depth of 4.80 m below ground level (bgl). The basement is proposed to extend below the garden area, with an area of approximately 23 $m^2$ extending beyond the footprint of the existing house and terrace area. A cross section of the proposed development indicates that there will be at least 2 m of soil above the basement where it extends below the garden, apart from where a rooflight structure extends upwards to the surface. Plans and sections for the proposed basement are presented in Appendix B. |
| **Planning history** | A search of the on-line planning records on www.camden.gov.uk reveals a number of relevant planning records, which are summarised in Table 2.2. It is noted that the adjacent property, 37 Greville Road, obtained permission to excavate a lower ground floor level to -3.15 m, with the footprint of the development mirroring the footprint of the existing property. |
| **Geology** | Geological mapping[1] shows the area to be underlain by London Clay. The London Clay is extensive across the area; the overlying Claygate member and Bagshot Formation outcrop to form the elevated area of Hampstead Heath, with the closest outcrop of the Claygate member approximately 2 km northeast.<br><br>The London Clay mainly comprises bioturbated or poorly laminated, blue-grey or grey-brown, slightly calcareous, silty to very silty clay, clayey silt and sometimes silt, with some layers of sandy clay. It commonly contains thin courses of carbonate concretions ('cementstone nodules') and disseminated pyrite. It also includes a few thin beds of shells and fine sand partings or pockets of sand, which commonly increase towards the base and towards the top of the formation. At the base, and at some other levels, thin beds of black rounded flint gravel occur in places. Glauconite is present in some of the sands and in some clay beds, and white mica occurs at some levels[2]<br><br>There are no superficial deposits mapped at the site, the closest outcrop of superficial deposits is approximately 2.5 km m to the southeast.[3]<br><br>Table 2.3 presents geological data from selected BGS borehole records[4], and Figure 2.1 shows the location of the boreholes. The local borehole records confirm the presence of Made Ground underlain by London Clay.<br><br>A site investigation was undertaken by Ground and Water Limited on 3 July 2015 and comprised the drilling of one borehole to a depth 6.00 m |

[1] http://mapapps.bgs.ac.uk/geologyofbritain/home.html
[2] http://www.bgs.ac.uk/lexicon/lexicon.cfm?pub=LC
[3] http://mapapps.bgs.ac.uk/geologyofbritain/home.html
[4] http://mapapps2.bgs.ac.uk/geoindex/home.html

| | |
|---|---|
| | bgl and one heavy dynamic probe. A piezometer was installed in the borehole. The investigation confirmed that the site is underlain by Made Ground and London Clay. Site investigation data are provided in Table 2.4 |
| **Aquifer status** | The London Clay is classified by the Environment Agency as unproductive strata (rock layers with low permeability and negligible significance for water supply or river base flow). The site is not within a source protection zone of a public water supply.<br><br>All 5 of the BGS borehole logs summarised in Table 2.3 recorded that the borehole was dry during drilling, however 2 of the boreholes also recorded that groundwater rose in the boreholes overnight to between 28 m OD and 29 m OD.<br><br>Groundwater was not observed during recent drilling on site, however groundwater was observed at 0.83 m bgl on 4 August 2015 and at 0.94 m bgl on 10 August 2015 (Ground and Water, 2015). |
| **Watercourses** | A Groundsure report[5] for the site states that there are no rivers or surface water features within 500 m and 250 m of the site respectively.<br><br>There are no surface water abstractions within 1.5 km of the site.[6]<br><br>The old course of the River Kilburn lies approximately 100 m northwest of the site. It is not known whether this river is now culverted or diverted, but there are no indications that there is a water feature present on current mapping or aerial photography. |
| **Spring lines** | There are no springs shown on OS mapping, and no known local geological features that might give rise to springs. |
| **Wells** | There are no groundwater abstraction licences within 1.5 km of the site, and no source protection zones within 500 m of the site.[7] BGS Well records do not include any wells within 500 m of the site; the closest is approximately 900 m east southeast, and abstracts groundwater from the Chalk underlying the London Clay. |
| **Groundwater flooding** | British Geological Survey Groundwater flood risk mapping reports there to be no groundwater flooding susceptible areas within 50 m of the site, and the area is not considered prone to groundwater flooding, based on rock type.[8] |

[5] Groundsure report GS-2340478
[6] Groundsure report GS-2340478
[7] Groundsure report GS-2340478
[8] Groundsure report GS-2340478

## Table 2.2 Selected planning records

| Ref | Address | Description | Desicion | Date |
|---|---|---|---|---|
| 2003/0029/P | 35 Greville Rd | Erection of a new basement floor, ground floor side and rear extension incorporating enlarged garage, 1st floor side extension, and infill extension for valley roof, plus alterations to boundary wall and creation of a new vehicular entrance on Mortimer Crescent frontage, and erection of glazed canopy | Granted | 20-05-2003 |
| 2008/0956/P | 37 Greville Road | Creation of a basement extension with a rear lightwell, erection of a first floor rear extension and external alterations to the rear of the property | Granted | 06-05-2008 |
| 2010/5861/P | 37 Greville Road | Excavation of a basement and associated front lightwell, erection of single storey side extension and two storey rear extension following demolition of existing rear and side extensions, installation of new windows and rooflight and replacement of gate to dwelling house (Class C3) | Granted | 05-11-2010 |
| 2012/6441/L | 37 Greville Road | Details pursuant to condition 2 (samples of external materials) of listed building consent dated 28/03/11 (Ref 2010/5948/L) for excavation of a basement and associated front lightwell, erection of single storey side extension and two storey rear extension following demolition of existing rear and side extensions, installation of new windows and rooflight, replacement of gate and associated internal alterations to residential dwelling (Class C3). | Granted | 06-12-2012 |
| 2013/0987/L | 37 Greville Road | Details pursuant to condition 5(a) (doors and architraves) and 5(b) (windows) of listed building consent (dated 28/03/11 (Ref: 2010/5948/L for the excavation of a basement and associated front lightwell, erection of single storey side extension and two storey rear extension to dwelling (Class C3) | Granted | 06-03-2013 |
| 2013/0904/L | 37 Greville Road | Details pursuant to condition 6 (re-use of existing flagstones), of listed building consent dated 28.3.11 (ref: 2010/5948/L) for the excavation of basement and lightwell, and erection of single storey side extension and two storey rear extension to residential dwelling (Class C3), to allow re-use of existing flagstones to front door and lightwell areas | Granted | 18-04-2013 |

## Table 2.3 BGS borehole records

| Reference | Name | Length (m) | Easting | Northing | Description |
|---|---|---|---|---|---|
| TQ28SE681 | Maida Vale (Greville Place) 2 | 9.14 | 525740 | 183320 | Made ground - brick rubble to 1 m; stiff blue brown silty clay to 8.3 m; very stiff grey silty clay to 9.2 m. Borehole dry. |
| TQ28SE680 | Maida Vale (Greville Place) BH1 | 18.29 | 525720 | 183340 | Made ground - brick rubble to 0.4 m; stiff blue and brown silty clay to 8 m; very stiff grey silty clay to 18.3 m. Water rose overnight to 4.6 m (28.1 m OD). |
| TQ28SE682 | Maida Vale (Greville Place) 3 | 12.19 | 525810 | 183450 | Made Ground to 0.4 m; firm mottled blue and brown silty clay becoming stiff to 5.8 m; claystone to 6.1 m; stiff blue and brown silty clay to 8.9 m; very stiff blue-grey silty clay to 12.2 m. Water rose overnight to 4.6 m (28.7 m OD). |
| TQ28SE605 | Ranelagh Sewer-W Hampstead BH12 | 9.45 | 525690 | 183690 | Subgrade consisting chiefly of broken crockery to 1.6 m; brown clay, some flint and very occasional bricks (Made Ground) to 5.7 m; dark silty clay to 5.1 m; dark discoloured clay to 6.1 m; stiff brown clay to 9.5 m. Boring was dry |
| TQ28SE606 | Ranelagh Sewer-W Hampstead BH13 | 8.53 | 525840 | 183760 | Subgrade consisting chiefly of broken crockery to 0.81 m; brown clay, some flint and very occasional bricks (Made Ground) to 3.4 m; dark discoloured clay to 4.3 m; stiff brown clay to 8.6 m. Boring was dry. |

Geological data from site investigations in July 2015 are presented in Table 2.4 (after Ground & Water, 2015).

**Table 2.4 Site investigation data**

| Strata | Depth Encountered (m bgl) | Thickness (m) |
|---|---|---|
| MADE GROUND - brown to dark brown gravelly very sandy to sandy clay. The sand was fine to medium grained and the gravel was occasional to abundant, fine to medium, sub-angular to sub-rounded flint, brick and tile fragments. | GL | 0.6 |
| LONDON CLAY mid-brown and grey mottled silty clay. Selenite crystals and silt lenses were noted throughout | 0.6 | 6.0 |

No groundwater was encountered in BH1 during drilling, however groundwater was observed at 0.83 m bgl on 4 August 2015 and at 0.94 m bgl on 10 August 2015. The elevation of the groundwater is estimated as 34 m OD ± 3 m.

Local borehole logs (TQ28SE680 and TQ28SE682) record groundwater at between 28 m OD and 29 m OD.

# 3 SCREENING

A screening assessment has been undertaken in accordance with the methodology set out in Section 6.2 and Appendix E2 of the GHHS (Arup, 2012). The results are presented in Table 3.1.

**Table 3.1 Screening assessment**

| Ref | Question | Answer (yes/no/unknown) | Action |
|---|---|---|---|
| Q1a | Is the site located directly above an aquifer? | No | No further action |
| Q1b | Will the proposed basement extend beneath the water table surface? | Yes | Take forward to scoping stage |
| Q2 | Is the site within 100m of a watercourse, well (used/ disused) or potential spring line? | No | No further action |
| Q3 | Is the site within the catchment of the pond chains on Hampstead Heath? | No | No further action |
| Q4 | Will the proposed basement development result in a change in the proportion of hard surface/paved areas? | No | However, part of the basement extends below the garden - take forward to scoping stage |
| Q5 | As part of the drainage, will more surface water (e.g. rainfall and run-off) than at present be discharged to the ground (e.g. via soakaways and/or SUDs) | Unknown | Take forward to scoping stage |
| Q6 | Is the lowest point of the proposed excavation (allowing for any drainage and foundation space under the basement floor) close to or lower than the mean water level in any local pond or spring line? | No | No further action |

# 4 SCOPING

This section of the report summarises the pertinent information as a Conceptual Model, and then describes the matters of concern that need to be considered in the Impact Assessment.

## 4.1 Conceptual model

The proposed development is to construct a basement below an existing lower ground floor level, which will extend below the existing footprint of the house and beyond into the garden at the southwest. The lowest part of the existing lower ground floor is at 1.95 m bgl; the depth of the proposed basement is 4.8 m bgl. The total property area is approximately 800 $m^2$, and the existing house and hardstanding area is approximately 325 $m^2$. The area of the basement which extends beyond the existing building approximately 3 $m^2$. There will be at least 2 m of soil above the basement level in the garden area, apart from where a rooflight structure rises to the surface.

The underlying geology comprises the London Clay. Site investigation data confirm the presence of London Clay (mid brown and grey silty clay with silt lenses noted throughout), below 0.6 m of clayey Made Ground. The London Clay is classified as 'unproductive strata', and has low permeability. Groundwater flow within the London Clay is generally negligible, although some groundwater movement occurs on discrete sand partings or other discontinuities. Local borehole records confirm that groundwater was generally not observed during drilling, but on groundwater did rise in boreholes overnight. Groundwater was not observed during recent drilling at the site, however, groundwater levels were observed at 0.83 and 0.94 m bgl on subsequent monitoring visits. The direction of groundwater flow is not known at the site.

The existing lower ground floor level (which extends to 1. 95 m bgl) and the depth of the neighbouring basement (which extends to 3.15 m bgl) are both below the observed groundwater elevation at the site.

The extension of the basement into the garden area, where there is currently no hardcover, has the potential to change recharge to groundwater. There are three lightwells proposed, however the area of these is not great, and they are very likely to be sited in areas of existing hardstanding due to their proximity to the house.

## 4.2 Matters of concern

Five attributes are considered as potential matters of concern, as discussed below.

1. Groundwater level – groundwater was observed during recent drilling in a borehole at the site, at approximately 1 m bgl. Due to the sparsity of data, this is carried forward for further assessment.
2. Range of seasonal fluctuation in groundwater levels – the range of seasonal fluctuation in groundwater levels is not known, and this is carried forward for further assessment.
3. Spring/stream hydrographs – there is no evidence that local streams or springs are likely to be affected and these are not considered further.
4. Soil moisture – there is the potential for soil moisture content to affect the development, and this is carried forward for further assessment.
5. Water quality – there is no evidence that the development will affect water quality, provided good practice is followed with regard to pollution management. This is not considered further.

# 5 IMPACT ASSESSMENT

The impact assessment has been undertaken by considering groundwater attributes, how these are likely to change under the proposed development and the consequence of any predicted changes. The assessment is qualitative at this stage. The results are presented in Table 5.1.

**Table 5.1 Impact assessment**

| Groundwater Attribute | Predicted Change | Consequence of change and mitigation |
|---|---|---|
| **Groundwater levels** – the basement will extend 3.9 m below the observed groundwater level at the site, and the part of the basement that extends below the garden will be entirely below the water table. | Groundwater was observed at 0.83 m bgl and 0.94 m bgl at the site. The proposed basement will extend below the measured elevation of groundwater at the site, and has the potential to impede groundwater flow, causing groundwater elevations to rise on the upstream side of the structure and be depressed on the downstream side of the structure. During excavation, there is the potential for groundwater inflow to the excavation, which may have implications for ground stability. Dewatering of the excavation may also have implications for ground stability.<br><br>The part of the basement that extends into the garden area will be entirely below the water table.<br><br>As little is known regarding groundwater flow directions, it is difficult to predict how changes in groundwater elevations might affect the existing subterranean structures at both 35 and 37 Greville Road. There is the potential for nuisance to be caused at either property, although it is noted that both of the existing lower ground floor levels are below the observed groundwater elevation.<br><br>The extension of the basement into the garden area has the potential to change recharge to the London Clay. This is mitigated to a great extent by the low permeability of the London Clay, which means that there will be limited recharge to these strata in any case. | Precautions should be taken to ensure that the excavation remains dry during construction.<br><br>The proposed basement structure should be adequately protected against ingress of groundwater, taking into consideration likely high groundwater elevations, the potential for 'backing up' of groundwater elevations around the basement structure, and the location of the water table above the part of the basement that extends into the garden area.<br><br>Construction design should mitigate against nuisance to the neighbouring basement at 37 Greville Road. A pre-commencement condition survey of the neighbouring basement should be undertaken, to establish pre-construction conditions. Given the shallow position of the water table, consideration should be given to providing groundwater drainage pathways around the proposed structure, taking into account the construction of the existing lower ground floor level.<br><br>Design of drainage systems should consider the requirements of sustainable urban drainage, and should take into account any loss of recharge over the garden area above the proposed basement structure. |
| **2. Range of seasonal fluctuation in groundwater levels** – the range of seasonal fluctuation in groundwater levels is not | The range of seasonal groundwater fluctuation is not known. | It is recommended that ongoing monitoring of groundwater levels is undertaken to confirm that seasonally high groundwater elevations are not significantly higher than those measured during recent |

| Groundwater Attribute | Predicted Change | Consequence of change and mitigation |
|---|---|---|
| known | | site investigations. |
| **Soil moisture** – no site data are available for soil moisture | Soil moisture has the potential to permeate the basement structure. Changes to the groundwater table elevation have the potential to change the soil moisture profile, which may have implications for structural stability. Changes in soil moisture have the potential to adversely affect the neighbouring basement. | The proposed basement structure should be adequately protected against permeation of soil moisture. Consideration should be given to provision of groundwater drainage pathways around the proposed structure. Structural design should account for a range of potential soil moisture profiles. |

# 6 CONCLUSIONS

The proposed development is to construct a basement below an existing lower ground floor level, which will extend below the existing footprint of the house and beyond into the garden at the southwest. The lowest part of the existing lower ground floor is at 1.95 m bgl; the depth of the proposed basement is 4.8 m bgl. The total property area is approximately 800 $m^2$, and the existing house and hardstanding area is approximately 325 $m^2$. The area of the basement which extends beyond the existing building approximately 3 $m^2$. There will be at least 2 m of soil above the basement level in the garden area, apart from where a rooflight structure rises to the surface.

The underlying geology comprises the London Clay, which is classified as 'unproductive strata', and has low permeability. Groundwater flow within the London Clay is generally negligible, although some groundwater movement occurs on discrete sand partings or other discontinuities. Local borehole records confirm that groundwater was generally not observed during drilling, but groundwater did rise in boreholes overnight. Groundwater was not observed during recent drilling at the site, however, groundwater levels were observed at 0.83 and 0.94 m bgl on subsequent monitoring visits. The direction of groundwater flow is not known at the site.

The proposed basement will extend below the measured elevation of groundwater at the site, and has the potential to impede groundwater flow, causing groundwater elevations to rise on the upstream side of the structure and be depressed on the downstream side of the structure. The part of the basement that extends into the garden area will be entirely below the water table. The proposed basement structure should be adequately protected against ingress of groundwater, taking into consideration likely high groundwater elevations, the potential for 'backing up' of groundwater elevations around the basement structure, and the location of the water table above the part of the basement that extends into the garden area.

During excavation, there is the potential for groundwater inflow to the excavation, which may have implications for ground stability. Dewatering of the excavation may also have implications for ground stability. Precautions should be taken to ensure that the excavation remains dry during construction, and that the structural integrity of the property can be maintained.

There is the potential for rising groundwater levels to cause nuisance at the existing property and at the neighbouring basement at 37 Greville Road. A pre-commencement condition survey of the neighbouring basement should be undertaken, to establish pre-construction conditions. Given the shallow position of the water table, consideration should be given to providing groundwater drainage pathways around the proposed structure, taking into account the construction of the existing lower ground floor level.

The extension of the basement into the garden area has the potential to change recharge to the London Clay. This is mitigated to a great extent by the low permeability of the London Clay, which means that there will be limited recharge to these strata in any case. Design of drainage systems should consider the requirements of sustainable urban drainage, and should take into account any loss of recharge over the garden area above the proposed basement structure.

It is recommended that ongoing monitoring of groundwater levels is undertaken to confirm that seasonally high groundwater elevations are not significantly higher than those measured during recent site investigations.

The proposed basement structure should be adequately protected against permeation of soil moisture, and the structural design should account for a range of potential soil moisture profiles.

# 7 REFERENCES

**Arup, 2012.** Geological Hydrogeological and Hydrological Study, Guidance for subterranean development

**Ground and Water, 2015**. Ground Investigation Report for the Site at 35 Greville Road, Camden, London NW6 5Jb GWPR1303.

**London Borough of Camden** CPG4 'Basements and Lightwells'

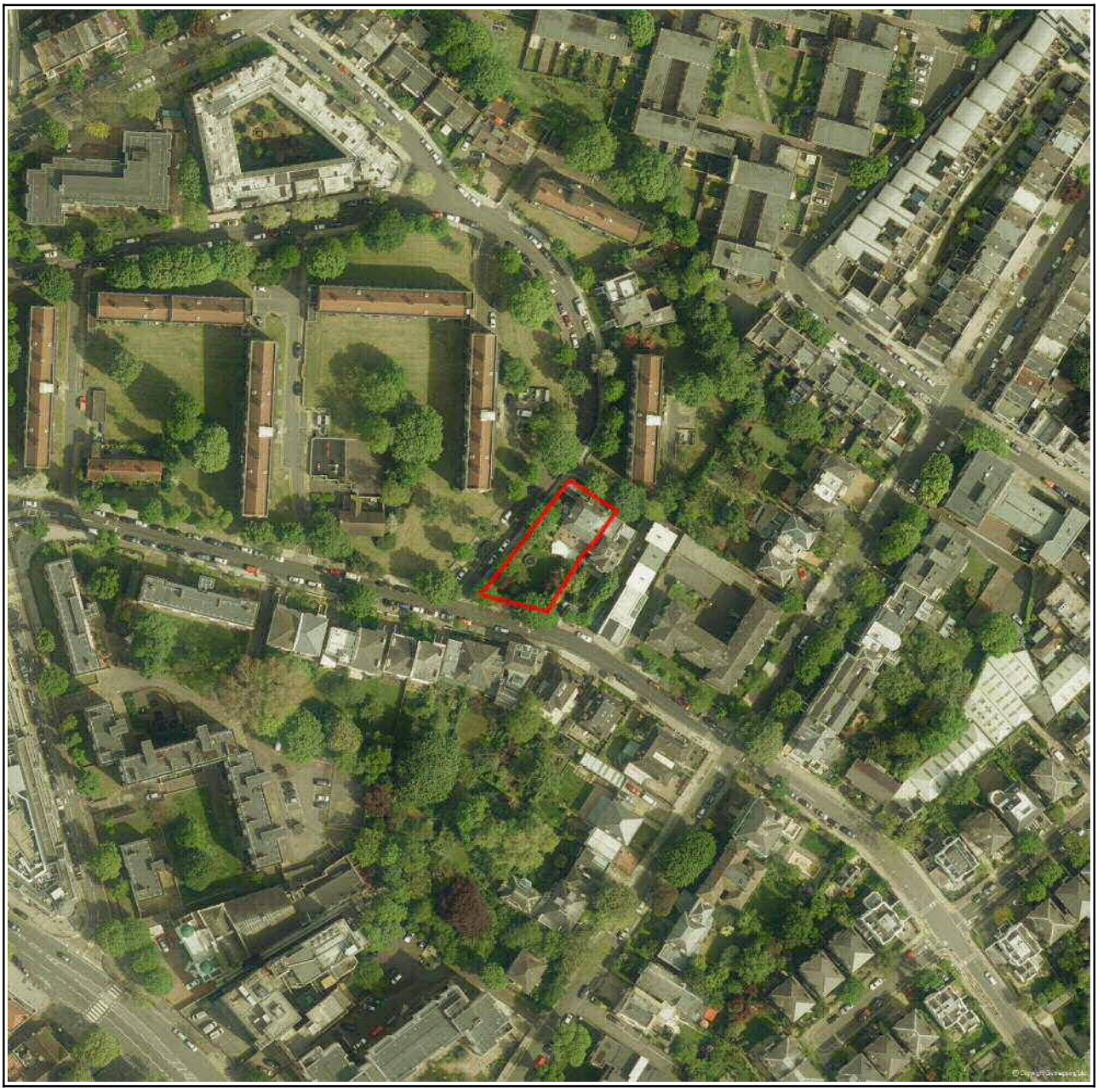
# APPENDIX A

Groundsure report

# Groundsure Enviroinsight

| | |
|---|---|
| **Address:** | **35, GREVILLE ROAD, LONDON, NW6 5JB** |
| **Date:** | **12 Aug 2015** |
| **Reference:** | **GS-2340478** |
| **Client:** | **H Fraser Consulting Ltd** |

NW N NE



W E

SW S SE

| | |
|---|---|
| Aerial Photograph Capture date: | 20-Apr-2013 |
| Grid Reference: | 525804,183520 |
| Site Size: | 0.08ha |

# Contents Page

# Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

| Section 1: Historical Industrial Sites | On-site | 0-50 | 51-250 | 251-500 |
|---|---|---|---|---|
| 1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping | 0 | 0 | 7 | 31 |
| 1.2 Additional Information – Historical Tank Database | 0 | 0 | 10 | 7 |
| 1.3 Additional Information – Historical Energy Features Database | 0 | 0 | 26 | 50 |
| 1.4 Additional Information – Historical Petrol and Fuel Site Database | 0 | 0 | 0 | 0 |
| 1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database | 0 | 0 | 10 | 0 |
| 1.6 Potentially Infilled Land | 0 | 0 | 0 | 2 |

| Section 2: Environmental Permits, Incidents and Registers | On-site | 0-50m | 51-250 | 251-500 |
|---|---|---|---|---|
| 2.1 Industrial Sites Holding Environmental Permits and/or Authorisations | | | | |
| 2.1.1 Records of historic IPC Authorisations | 0 | 0 | 0 | 0 |
| 2.1.2 Records of Part A(1) and IPPC Authorised Activities | 0 | 0 | 0 | 0 |
| 2.1.3 Records of Red List Discharge Consents | 0 | 0 | 0 | 0 |
| 2.1.4 Records of List 1 Dangerous Substances Inventory sites | 0 | 0 | 0 | 0 |
| 2.1.5 Records of List 2 Dangerous Substances Inventory sites | 0 | 0 | 0 | 0 |
| 2.1.6 Records of Part A(2) and Part B Activities and Enforcements | 0 | 0 | 1 | 5 |
| 2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations | 0 | 0 | 0 | 0 |
| 2.1.8 Records of Licensed Discharge Consents | 0 | 0 | 0 | 0 |
| 2.1.9 Records of Water Industry Referrals | 0 | 0 | 0 | 0 |
| 2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site | 0 | 0 | 0 | 0 |
| 2.2 Records of COMAH and NIHHS sites | 0 | 0 | 0 | 0 |
| 2.3 Environment Agency Recorded Pollution Incidents | | | | |
| 2.3.1 National Incidents Recording System, List 2 | 0 | 0 | 0 | 3 |
| 2.3.2 National Incidents Recording System, List 1 | 0 | 0 | 0 | 0 |
| 2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990 | 0 | 0 | 0 | 0 |

Groundsure
LOCATION INTELLIGENCE

| Section 3: Landfill and Other Waste Sites | On-site | 0-50m | 51-250 | 251-500 | 501-1000 | 1000-5000 |
|---|---|---|---|---|---|---|
| 3.1 Landfill Sites | | | | | | |
| 3.1.1 Environment Agency Registered Landfill Sites | 0 | 0 | 0 | 0 | 0 | Not searched |
| 3.1.2 Environment Agency Historic Landfill Sites | 0 | 0 | 0 | 0 | 0 | 1 |
| 3.1.3 BGS/DoE Landfill Site Survey | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.1.4 Records of Landfills in Local Authority and Historical Mapping Records | 0 | 0 | 0 | 0 | 0 | 0 |
| 3.2 Landfill and Other Waste Sites Findings | | | | | | |
| 3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites | 0 | 0 | 0 | 0 | Not searched | Not searched |
| 3.2.2 Environment Agency Licensed Waste Sites | 0 | 0 | 0 | 0 | 0 | 0 |

| Section 4: Current Land Use | On-site | 0-50m | 51-250 | 251-500 |
|---|---|---|---|---|
| 4.1 Current Industrial Sites Data | 0 | 0 | 5 | Not searched |
| 4.2 Records of Petrol and Fuel Sites | 0 | 0 | 0 | 0 |
| 4.3 National Grid Underground Electricity Cables | 0 | 0 | 1 | 0 |
| 4.4 National Grid Gas Transmission Pipelines | 0 | 0 | 0 | 0 |

| Section 5: Geology | |
|---|---|
| 5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site? | No |
| 5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site? | None |
| 5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section. | |

| Section 6: Hydrogeology and Hydrology | 0-500m |
|---|---|
| 6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site? | No |
| 6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site? | Yes |

| | On-site | 0-50m | 51-250 | 251-500 | 501-1000 | 1000-2000 |
|---|---|---|---|---|---|---|
| 6.3 Groundwater Abstraction Licences (within 2000m of the study site) | 0 | 0 | 0 | 0 | 0 | 11 |
| 6.4 Surface Water Abstraction Licences (within 2000m of the study site) | 0 | 0 | 0 | 0 | 0 | 1 |
| 6.5 Potable Water Abstraction Licences (within 2000m of the study site) | 0 | 0 | 0 | 0 | 0 | 5 |
| 6.6 Source Protection Zones (within 500m of the study site) | 0 | 0 | 0 | 0 | Not searched | Not searched |
| 6.7 Source Protection Zones within Confined Aquifer | 0 | 0 | 0 | 0 | Not searched | Not searched |
| 6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site) | 0 | 0 | 0 | 0 | Not searched | Not searched |

| | On-site | 0-50m | 51-250 | 251-500 | 501-1000 | 1000-1500 |
|---|---|---|---|---|---|---|

| Section 6: Hydrogeology and Hydrology | 0-500m | | | | | |
|---|---|---|---|---|---|---|
| 6.9 Is there any Environment Agency information on river quality within 1500m of the study site? | No | No | No | No | No | No |
| 6.10 Detailed River Network entries within 500m of the site | 0 | 0 | 0 | 0 | Not searched | Not searched |
| 6.11 Surface water features within 250m of the study site | No | No | No | Not searched | Not searched | Not searched |

| Section 7: Flooding | |
|---|---|
| 7.1 Are there any Enviroment Agency Zone 2 floodplains within 250m of the study site? | No |
| 7.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site | No |
| 7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site? | Very Low |
| 7.4 Are there any Flood Defences within 250m of the study site? | No |
| 7.5 Are there any areas benefiting from Flood Defences within 250m of the study site? | No |
| 7.6 Are there any areas used for Flood Storage within 250m of the study site? | No |
| 7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site? | Not Prone |
| 7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas? | Not Applicable |

| Section 8: Designated Environmentally Sensitive Sites | On-site | 0-50m | 51-250 | 251-500 | 501-1000 | 1000-2000 |
|---|---|---|---|---|---|---|
| 8.1 Records of Sites of Special Scientific Interest (SSSI) | 0 | 0 | 0 | 0 | 0 | 0 |
| 8.2 Records of National Nature Reserves (NNR) | 0 | 0 | 0 | 0 | 0 | 0 |
| 8.3 Records of Special Areas of Conservation (SAC) | 0 | 0 | 0 | 0 | 0 | 0 |
| 8.4 Records of Special Protection Areas (SPA) | 0 | 0 | 0 | 0 | 0 | 0 |
| 8.5 Records of Ramsar sites | 0 | 0 | 0 | 0 | 0 | 0 |
| 8.6 Records of Ancient Woodlands | 0 | 0 | 0 | 0 | 0 | 0 |
| 8.7 Records of Local Nature Reserves (LNR) | 0 | 0 | 0 | 0 | 0 | 1 |
| 8.8 Records of World Heritage Sites | 0 | 0 | 0 | 0 | 0 | 0 |
| 8.9 Records of Environmentally Sensitive Areas | 0 | 0 | 0 | 0 | 0 | 0 |
| 8.10 Records of Areas of Outstanding Natural Beauty (AONB) | 0 | 0 | 0 | 0 | 0 | 0 |

| Section 8: Designated Environmentally Sensitive Sites | On-site | 0-50m | 51-250 | 251-500 | 501-1000 | 1000-2000 |
|---|---|---|---|---|---|---|
| 8.11 Records of National Parks | 0 | 0 | 0 | 0 | 0 | 0 |
| 8.12 Records of Nitrate Sensitive Areas | 0 | 0 | 0 | 0 | 0 | 0 |
| 8.13 Records of Nitrate Vulnerable Zones | 0 | 0 | 0 | 0 | 0 | 0 |
| 8.14 Records of Green Belt land | 0 | 0 | 0 | 0 | 0 | 0 |

## Section 9: Natural Hazards

| | |
|---|---|
| 9.1 What is the maximum risk of natural ground subsidence? | Moderate |
| 9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site? | Moderate |
| 9.1.2 What is the maximum Landslides hazard rating identified on the study site? | Very Low |
| 9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site? | Negligible |
| 9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site? | Negligible |
| 9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site? | Very Low |
| 9.1.6 What is the maximum Running Sand hazard rating identified on the study site? | Negligible |
| 9.2 Radon | |
| 9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? | The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level. |
| 9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? | No radon protective measures are necessary. |

## Section 10: Mining

| | |
|---|---|
| 10.1 Are there any coal mining areas within 75m of the study site? | No |
| 10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary? | No |
| 10.3 Are there any brine affected areas within 75m of the study site? | No |

# Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

### 1. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

### 2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

### 3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

### 4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

### 5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

### 6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

### 7. Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

### 8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

### 9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

### 10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

### 11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

### Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier “A” on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as “Not Shown”.

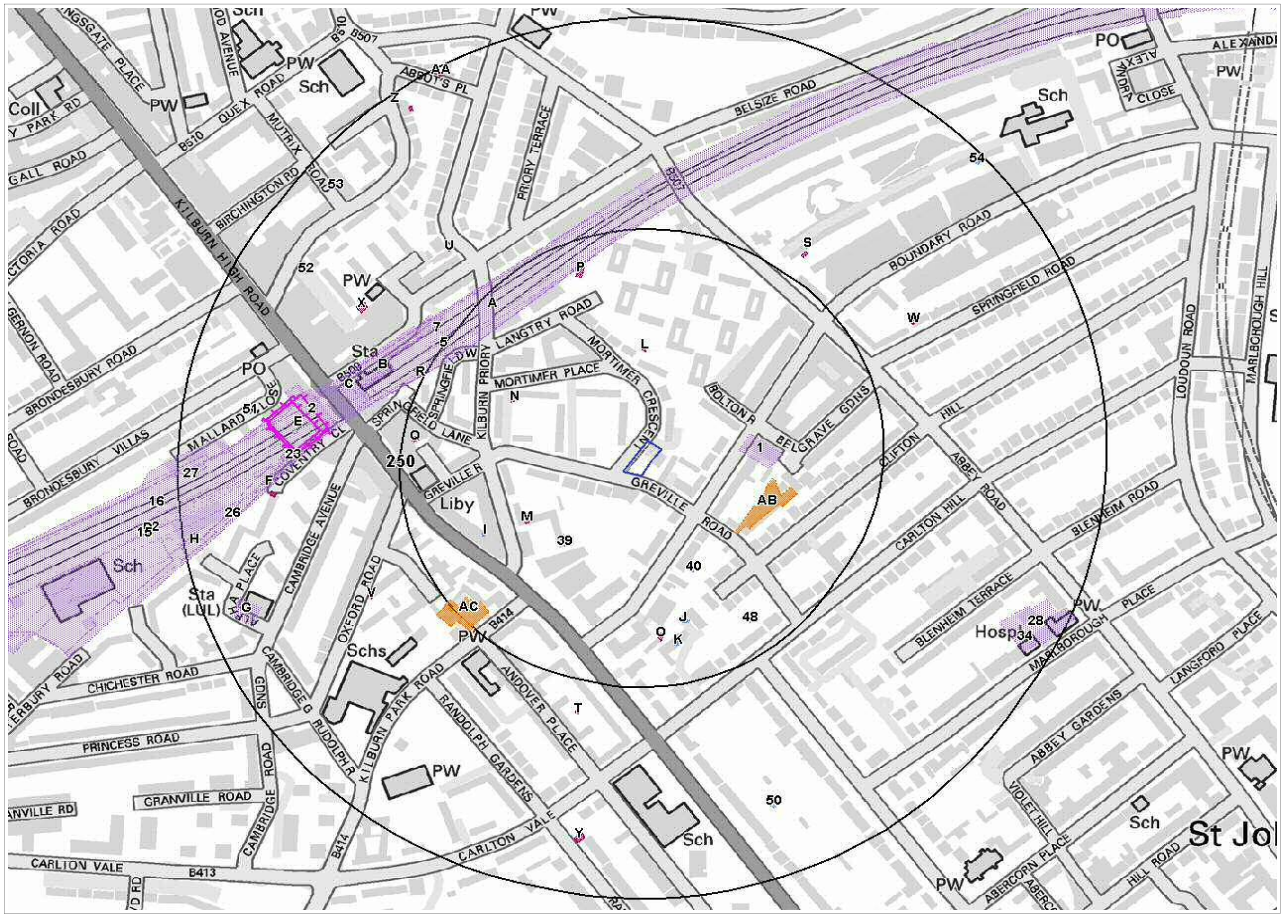
All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

# 1. Historical Land Use

NW N NE

W E

SW S SE






Historical 1:10,000 and 1:10,560 scale mapping

Site Outline

Industrial Land Use

Potentially Infilled Land

250 500 Search Buffers (m)

Historical 1:2,500, 1:1,250 and 1:500 scale mapping

Energy Features

Petrol Stations

Tanks

Garages

# 1. Historical Industrial Sites

## 1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 38

| ID | Distance [m] | Direction | Use | Date |
|---|---|---|---|---|
| 1 | 87 | E | Telephone Exchange | 1948 |
| 2 | 209 | NW | Railway Sidings | 1989 |
| 3A | 209 | NW | Railway Sidings | 1973 |
| 4A | 209 | NW | Railway Sidings | 1968 |
| 5 | 214 | NW | Railway Sidings | 1957 |
| 6 | 220 | NW | Railway Sidings | 1894 |
| 7 | 250 | NW | Railway Station | 1866 |
| 8B | 266 | NW | Railway Station | 1894 |
| 9B | 271 | NW | Railway Station | 1957 |
| 10B | 275 | NW | Railway Station | 1973 |
| 11B | 275 | NW | Railway Station | 1989 |
| 12B | 275 | NW | Railway Station | 1968 |
| 13C | 276 | NW | Railway Station | 1948 |
| 14C | 299 | W | Railway Station | 1920 |
| 15 | 327 | W | Railway Sidings | 1920 |
| 16 | 329 | W | Railway Sidings | 1973 |
| 17D | 329 | W | Railway Sidings | 1894 |
| 18E | 334 | W | Cuttings | 1866 |
| 19D | 337 | W | Railway Sidings | 1968 |
| 20D | 337 | W | Railway Sidings | 1948 |
| 21E | 342 | W | Cuttings | 1948 |
| 22 | 345 | W | Railway Sidings | 1866 |
| 23 | 363 | W | Railway Building | 1920 |
| 24F | 378 | W | Railway Building | 1894 |
| 25F | 384 | W | Railway Buildings | 1920 |
| 26 | 430 | W | Railway Building | 1920 |
| 27 | 430 | W | Coal Depot | 1920 |
| 28 | 432 | SE | Hospital | 1973 |
| 29G | 437 | W | London Transport Station | 1968 |
| 30G | 437 | W | Unspecified Station | 1989 |
| 31G | 437 | W | Unspecified Station | 1948 |
| 32G | 437 | W | London Transport Station | 1957 |
| 33G | 437 | W | London Transport Station | 1973 |
| 34 | 457 | SE | Hospital | 1989 |
| 35H | 463 | W | Coal Depot | 1866 |
| 36H | 474 | W | Railway Building | 1894 |
| 37H | 482 | W | Railway Building | 1920 |

| | | | | |
|---|---|---|---|---|
| 38D | 486 | W | Railway Building | 1968 |

## 1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary: 17

| ID | Distance (m) | Direction | Use | Date |
|---|---|---|---|---|
| 39 | 107 | SW | Unspecified Tank | 1896 |
| 40 | 124 | SE | Unspecified Tank | 1871 |
| 41I | 170 | SW | Unspecified Tank | 1896 |
| 42I | 171 | SW | Unspecified Tank | 1871 |
| 43J | 175 | S | Unspecified Tank | 1896 |
| 44J | 175 | S | Unspecified Tank | 1936 |
| 45J | 177 | S | Unspecified Tank | 1871 |
| 46K | 199 | S | Unspecified Tank | 1936 |
| 47K | 200 | S | Unspecified Tank | 1896 |
| 48 | 209 | SE | Unspecified Tank | 1871 |
| 49S | 288 | NE | Unspecified Tank | 1871 |
| 50 | 413 | S | Unspecified Tank | 1936 |
| 51 | 422 | W | Unspecified Tank | 1871 |
| 52 | 425 | NW | Unspecified Tank | 1871 |
| 53 | 459 | NW | Unspecified Tank | 1994 |
| 54 | 489 | NE | Unspecified Tank | 1871 |
| 55Z | 491 | NW | Unspecified Tank | 1871 |

## 1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary: 76

| ID | Distance (m) | Direction | Use | Date |
|---|---|---|---|---|
| 56L | 105 | N | Electricity Substation | 1968 |
| 57L | 105 | N | Electricity Substation | 1972 |
| 58L | 105 | N | Electricity Substation | 1953 |
| 59L | 105 | N | Electricity Substation | 1955 |
| 60L | 105 | N | Electricity Substation | 1969 |
| 61L | 105 | N | Electricity Substation | 1955 |
| 62L | 106 | N | Electricity Substation | 1991 |
| 63L | 106 | N | Electricity Substation | 1978 |
| 64M | 119 | SW | Electricity Substation | 1953 |

| | | | | |
|---|---|---|---|---|
| 65M | 120 | SW | Electricity Substation | 1955 |
| 66M | 120 | SW | Electricity Substation | 1955 |
| 67N | 146 | NW | Electricity Substation | 1991 |
| 68N | 146 | NW | Electricity Substation | 1978 |
| 69N | 147 | NW | Electricity Substation | 1972 |
| 70O | 187 | S | Electricity Substation | 1955 |
| 71O | 187 | S | Electricity Substation | 1955 |
| 72O | 187 | S | Electricity Substation | 1953 |
| 73O | 187 | S | Electricity Substation | 1974 |
| 74P | 207 | N | Electricity Substation | 1991 |
| 75P | 207 | N | Electricity Substation | 1978 |
| 76P | 207 | N | Electricity Substation | 1972 |
| 77Q | 233 | W | Electricity Substation | 1969 |
| 78Q | 233 | W | Electricity Substation | 1991 |
| 79Q | 233 | W | Electricity Substation | 1978 |
| 80Q | 233 | W | Electricity Substation | 1972 |
| 81Q | 233 | W | Electricity Substation | 1968 |
| 82R | 251 | NW | Electricity Substation | 1969 |
| 83R | 252 | NW | Electricity Substation | 1991 |
| 84R | 252 | NW | Electricity Substation | 1978 |
| 85R | 252 | NW | Electricity Substation | 1968 |
| 86R | 252 | NW | Electricity Substation | 1972 |
| 87S | 277 | NE | Electricity Substation | 1969 |
| 88S | 277 | NE | Electricity Substation | 1955 |
| 89S | 277 | NE | Electricity Substation | 1955 |
| 90S | 277 | NE | Electricity Substation | 1972 |
| 91S | 277 | NE | Electricity Substation | 1968 |
| 92S | 277 | NE | Electricity Substation | 1953 |
| 93T | 285 | S | Electricity Substation | 1953 |
| 94T | 286 | S | Electricity Substation | 1955 |
| 95T | 286 | S | Electricity Substation | 1955 |
| 96U | 315 | NW | Electricity Substation | 1991 |
| 97U | 315 | NW | Electricity Substation | 1978 |
| 98U | 316 | NW | Electricity Substation | 1968 |
| 99U | 316 | NW | Electricity Substation | 1972 |
| 100U | 316 | NW | Electricity Substation | 1969 |
| 101V | 317 | SW | Electricity Substation | 1984 |
| 102V | 317 | SW | Electricity Substation | 1995 |
| 103V | 318 | SW | Electricity Substation | 1991 |
| 104W | 318 | NE | Electricity Substation | 1983 |
| 105W | 318 | NE | Electricity Substation | 1953 |
| 106W | 318 | NE | Electricity Substation | 1955 |
| 107W | 319 | NE | Electricity Substation | 1991 |
| 108X | 346 | NW | Electricity Substation | 1972 |
| 109X | 349 | NW | Electricity Substation | 1953 |
| 110X | 350 | NW | Electricity Substation | 1955 |
| 111X | 350 | NW | Electricity Substation | 1955 |
| 112X | 350 | NW | Electricity Substation | 1994 |

| | | | | |
|---|---|---|---|---|
| 113X | 350 | NW | Electricity Substation | 1991 |
| 114F | 389 | W | Electricity Substation | 1969 |
| 115F | 390 | W | Electricity Substation | 1991 |
| 116F | 390 | W | Electricity Substation | 1968 |
| 117F | 390 | W | Electricity Substation | 1984 |
| 118F | 391 | W | Electricity Substation | 1995 |
| 119Y | 427 | S | Electricity Substation | 1996 |
| 120Y | 429 | S | Electricity Substation | 1991 |
| 121Y | 429 | S | Electricity Substation | 1987 |
| 122Y | 430 | S | Electricity Substation | 1974 |
| 123Z | 471 | NW | Electricity Substation | 1978 |
| 124Z | 471 | NW | Electricity Substation | 1968 |
| 125Z | 471 | NW | Electricity Substation | 1972 |
| 126Z | 471 | NW | Electricity Substation | 1969 |
| 127AA | 490 | NW | Electricity Substation | 1991 |
| 128AA | 490 | NW | Electricity Substation | 1978 |
| 129AA | 490 | NW | Electricity Substation | 1972 |
| 130AA | 490 | NW | Electricity Substation | 1968 |
| 131AA | 491 | NW | Electricity Substation | 1969 |

## 1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary: 0

Database searched and no data found.

## 1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 10

| ID | Distance (m) | Direction | Use | Date |
|---|---|---|---|---|
| 132AB | 124 | SE | Garage | 1955 |
| 133AB | 124 | SE | Garage | 1955 |
| 134AB | 124 | SE | Garage | 1953 |
| 135AC | 222 | SW | Garage | 1915 |
| 136AC | 249 | SW | Garage | 1955 |
| 137AC | 249 | SW | Garage | 1955 |
| 138AC | 249 | SW | Garage | 1969 |
| 139AC | 250 | SW | Garage | 1974 |
| 140AC | 250 | SW | Garage | 1966 |

| | | | | |
|---|---|---|---|---|
| 141AC | 250 | SW | Garage | 1953 |

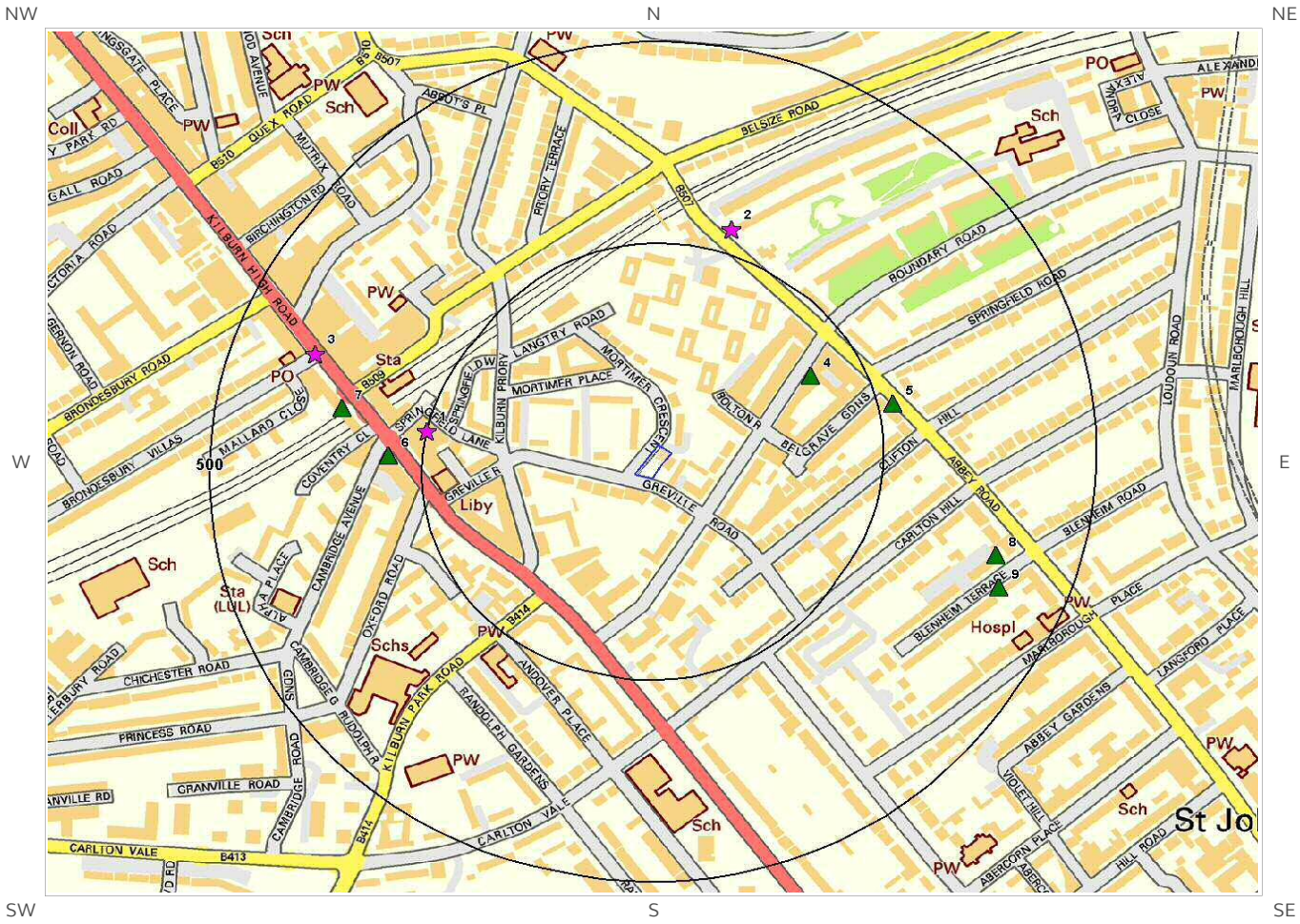
## 1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 2

The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

| ID | Distance(m) | Direction | Use | Date |
|---|---|---|---|---|
| 142E | 334 | W | Cuttings | 1866 |
| 143E | 342 | W | Cuttings | 1948 |

# 2. Environmental Permits, Incidents and Registers Map






- Site Outline
- Search Buffers (m) — 250, 500
- Recorded Pollution Incident
- Dangerous Substances (List 1)
- Dangerous Substances (List 2)
- Water Industry Referrals
- Licenced Discharge Consents
- Red List Discharge Consents
- RAS 3 & 4 Authorisations
- Part A(1) Authorised Processes and Historic IPC Authorisations
- Part A(2) and Part B Authorised Processes
- COMAH / NIHHS Sites
- Sites Determined as Contaminated Land
- Hazardous Substance Consents and Enforcements

# 2. Environmental Permits, Incidents and Registers

## 2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

### 2.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

---

### 2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

0

Database searched and no data found.

---

### 2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

### 2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

---

### 2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

---

## 2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

6

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

| ID | Distance (m) | Direction | NGR | Details | |
|---|---|---|---|---|---|
| 4 | 188 | NE | 525980 183617 | Address: Bromptons of Windsor Street (formerly Dee West Dry Cleaners), 91 Boundary Road, NW8 0RG<br>Process: Dry Cleaning Processes<br>Status: Current Permit<br>Permit Type: Part B | Enforcement: No Enforcement Notified<br>Date of Enforcement: No Enforcement Notified<br>Comment: No Enforcement Notified |
| 5 | 267 | E | 526077 183582 | Address: Perfect Dry Cleaners, 55 Abbey Road, NW8 0AD<br>Process: Dry Cleaning Processes<br>Status: Current Permit<br>Permit Type: Part B | Enforcement: No Enforcement Notified<br>Date of Enforcement: No Enforcement Notified<br>Comment: No Enforcement Notified |
| 6 | 291 | W | 525484 183517 | Address: Perfect Dry Cleaners and Launderette, 59 Kilburn High Road, London, NW6 5SB<br>Process: Dry cleaning<br>Status: Current Permit<br>Permit Type: Part B | Enforcement: No Enforcements Notified<br>Date of Enforcement: No Enforcements Notified<br>Comment: No Enforcements Notified |
| 7 | 353 | W | 525430 183576 | Address: Essis Dry Cleaners, 7 Kilburn High Road, London, NW6 6HT<br>Process: Dry cleaning<br>Status: Current Permit<br>Permit Type: Part B | Enforcement: No Enforcements Notified<br>Date of Enforcement: No Enforcements Notified<br>Comment: No Enforcements Notified |
| 8 | 402 | E | 526198 183394 | Address: Siciliana, 6 Blenheim Terrace, NW8 0EB<br>Process: Dry Cleaning Processes<br>Status: Current Permit<br>Permit Type: Part B | Enforcement: No Enforcement Notified<br>Date of Enforcement: No Enforcement Notified<br>Comment: No Enforcement Notified |
| 9 | 420 | SE | 526202 183354 | Address: Abbey Dry Cleaners, 11 Blenheim Terrace, London, NW8 0EH<br>Process: Dry Cleaning Processes<br>Status: Historical Permit<br>Permit Type: Part B | Enforcement: No Enforcement Notified<br>Date of Enforcement: No Enforcement Notified<br>Comment: No Enforcement Notified |

## 2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

### 2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

0

Database searched and no data found.

### 2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

---

### 2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

---

## 2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site: 0

Database searched and no data found.

---

## 2.3 Environment Agency Recorded Pollution Incidents

### 2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

3

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

| ID | Distance (m) | Direction | NGR | Details | |
|---|---|---|---|---|---|
| 1 | 251 | W | 525529 183550 | Incident Date: 15-Oct-2003<br>Incident Identification: 196261<br>Pollutant: Inert Materials and Wastes<br>Pollutant Description: Other Inert Material or Waste | Water Impact: Category 4 (No Impact)<br>Land Impact: Category 3 (Minor)<br>Air Impact: Category 4 (No Impact) |
| 2 | 280 | N | 525887 183800 | Incident Date: 28-Aug-2003<br>Incident Identification: 185712<br>Pollutant: Inert Materials and Wastes<br>Pollutant Description: Construction and Demolition Materials and Wastes | Water Impact: Category 4 (No Impact)<br>Land Impact: Category 4 (No Impact)<br>Air Impact: Category 4 (No Impact) |

| ID | Distance (m) | Direction | NGR | Details | |
|---|---|---|---|---|---|
| 3 | 405 | W | 525397 183645 | Incident Date: 14-Oct-2001<br>Incident Identification: 36498<br>Pollutant: Contaminated Water<br>Pollutant Description: Firefighting Run-Off | Water Impact: Category 3 (Minor)<br>Land Impact: Category 4 (No Impact)<br>Air Impact: Category 4 (No Impact) |

### 2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

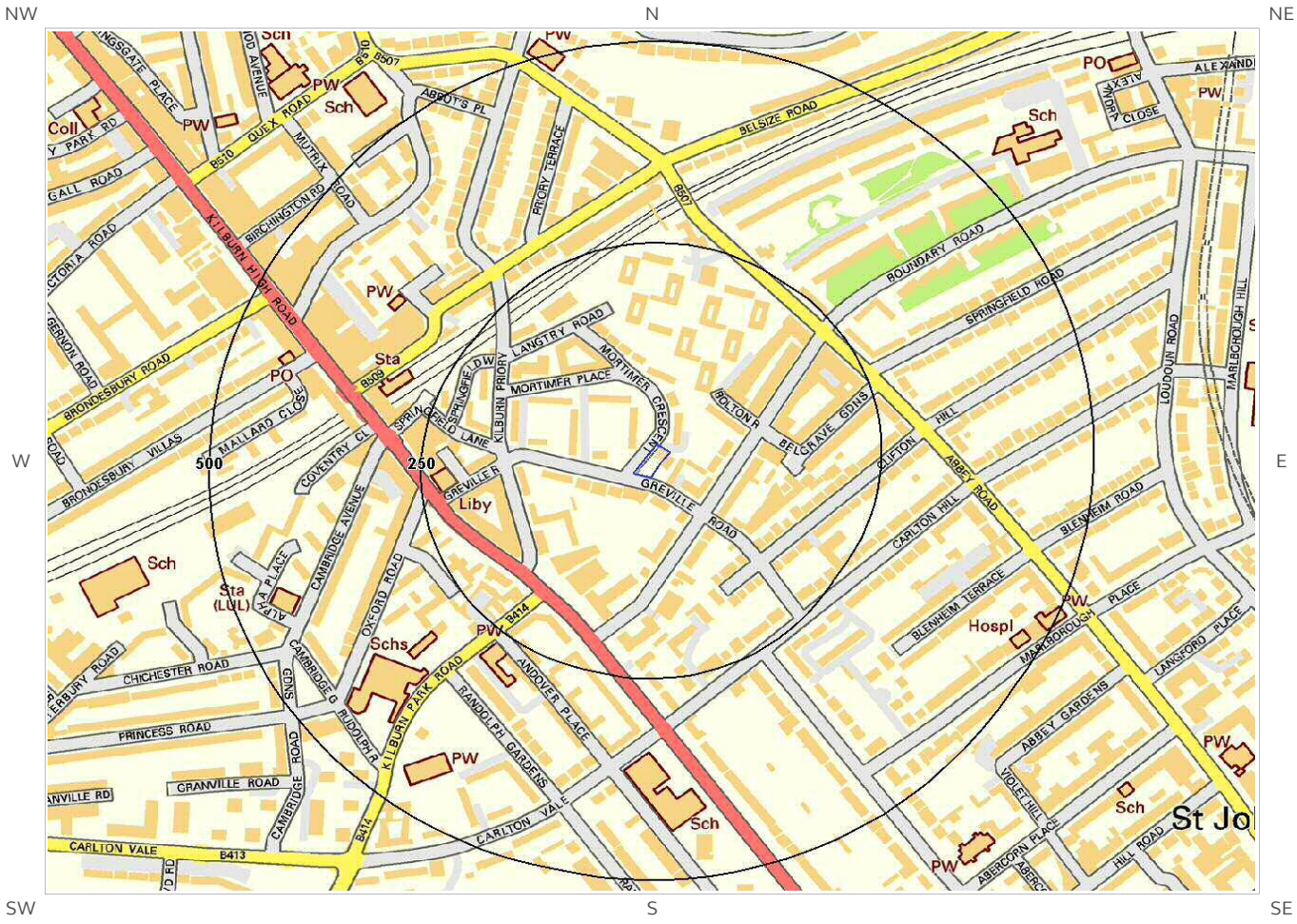
Database searched and no data found.

## 2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site? 0

Database searched and no data found.

# 3. Landfill and Other Waste Sites Map




Mapping sourced from Ordnance Survey



- Site Outline
- 250 / 500 Search Buffers (m)
- E.A. Active Landfill
- E.A. Historic Landfill
- BGS / DoE Survey Landfill
- Historic and Planned Waste Sites
- E.A. Licensed Waste Site
- Local Authority/Historical Mapping Landfill Records

# 3. Landfill and Other Waste Sites

## 3.1 Landfill Sites

### 3.1.1 Records from Environment Agency landfill data within 1000m of the study site:

0

Database searched and no data found.

### 3.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:

1

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

| ID | Distance (m) | Direction | NGR | Details | |
|---|---|---|---|---|---|
| Not shown | 1275 | N | 526000 184800 | Site Address: Canfield Place, London NW6<br>Waste Licence: -<br>Site Reference: DON009<br>Waste Type: -<br>Environmental Permitting Regulations (Waste) Reference: - | Licence Issue:<br>Licence Surrendered:<br>Licence Hold Address: -<br>Operator: -<br>First Recorded: -<br>Last Recorded: - |

### 3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

0

Database searched and no data found.

### 3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

0

Database searched and no data found.

## 3.2 Other Waste Sites

### 3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

0

Database searched and no data found.

---

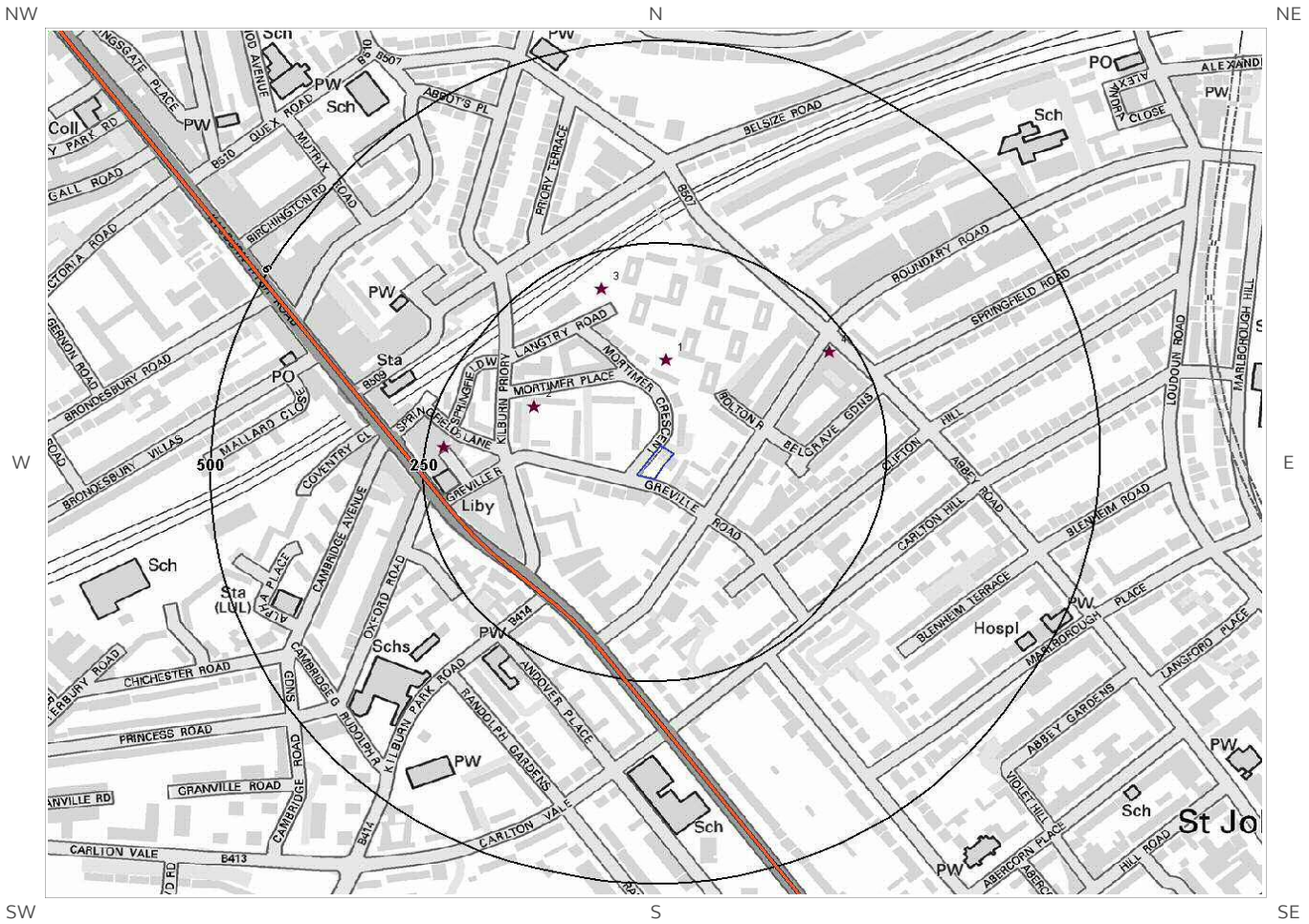
### 3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

0

Database searched and no data found.

---

# 4. Current Land Use Map






Site Outline

Search Buffers (m) 250 500

Current Industrial Sites

Petrol & Fuel Sites

Electricity Transmission Cables

Gas Transmission Pipelines

# 4. Current Land Uses

## 4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 5

The following records are represented as points on the Current Land Uses map.

| ID | Distance (m) | Direction | Company | NGR | Address | Activity | Category |
|---|---|---|---|---|---|---|---|
| 1 | 106 | N | Electricity Sub Station | 525808 183639 | NW6 | Electrical Features | Infrastructure and Facilities |
| 2 | 148 | NW | Electricity Sub Station | 525653 183582 | NW6 | Electrical Features | Infrastructure and Facilities |
| 3 | 206 | N | Electricity Sub Station | 525732 183727 | NW8 | Electrical Features | Infrastructure and Facilities |
| 4 | 221 | NE | Browns Fireplaces | 525998 183649 | 81, Abbey Road, London, NW8 0AE | Fireplaces and Mantelpieces | Consumer Products |
| 5 | 230 | W | Electricity Sub Station | 525547 183531 | NW6 | Electrical Features | Infrastructure and Facilities |

## 4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 0

Database searched and no data found.

## 4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site: 1

The following Underground Electricity Transmission Cable records are represented as linear features on the Current Land Use map:

| ID | Distance (m) | Direction | Details | |
|---|---|---|---|---|
| 6 | 184 | SW | Cable Set: ELSTREE - ST JOHNS WOOD CABLE SECTION 1<br>Cable Route: ELSTREE - ST JOHNS WOOD<br>Cable Make: ABB 400KV XLPE CABLE AL SHEATH | Cable Type: A/C<br>Operating Voltage (kV): 400<br>Year of installation: 2005<br>Cable in tunnel: Y |

## 4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site: 0

Database searched and no data found.

# 5. Geology

## 5.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

## 5.2 Superficial Ground and Drift Geology

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

## 5.3 Bedrock and Solid Geology

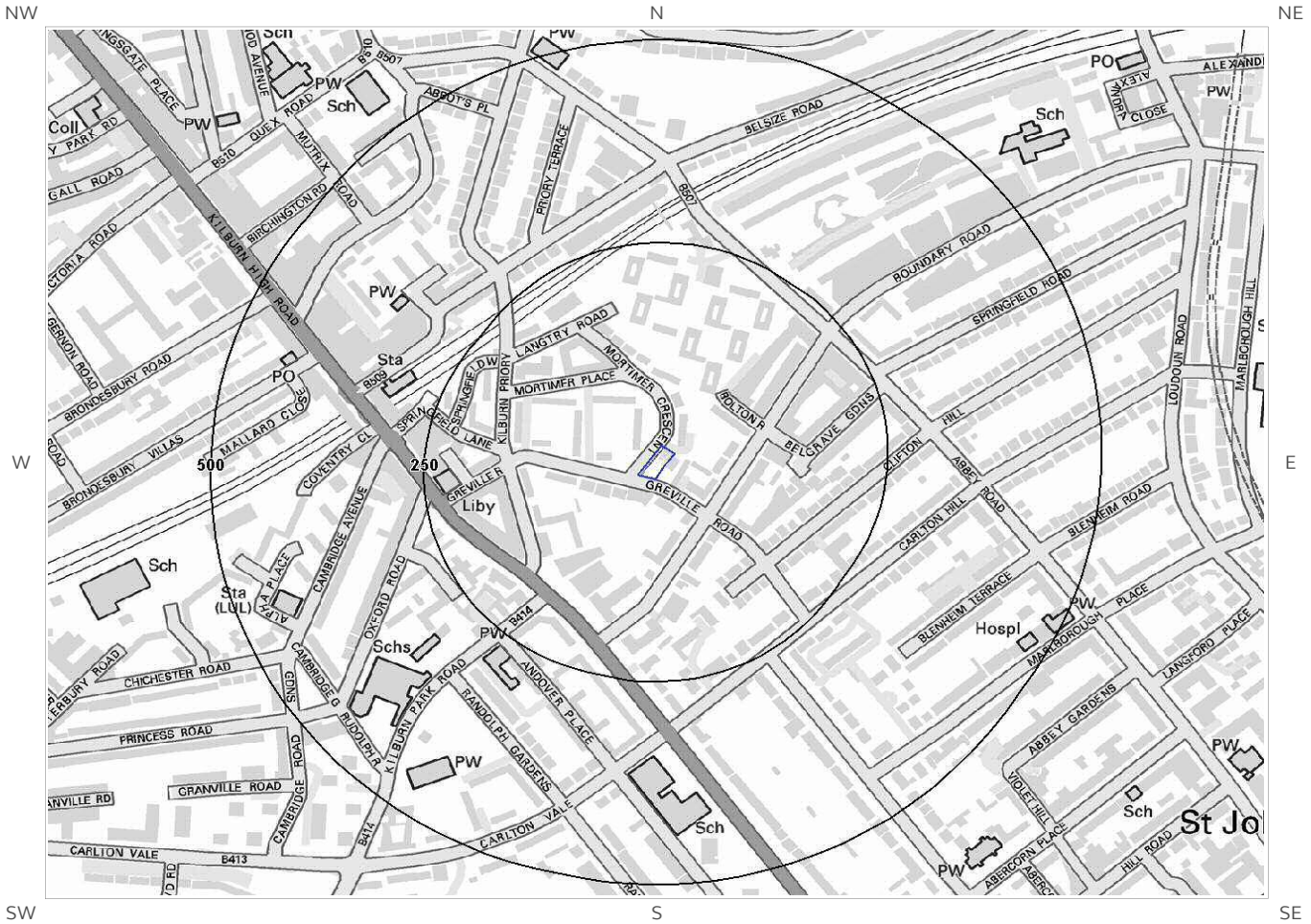
The database has been searched on site, including a 50m buffer.

| Lex Code | Description | Rock Type |
|---|---|---|
| LC-CLSISA | LONDON CLAY FORMATION | CLAY, SILT AND SAND |

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

# 6 Hydrogeology and Hydrology

## 6a. Aquifer Within Superficial Geology






Site Outline

250 — 500 — Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

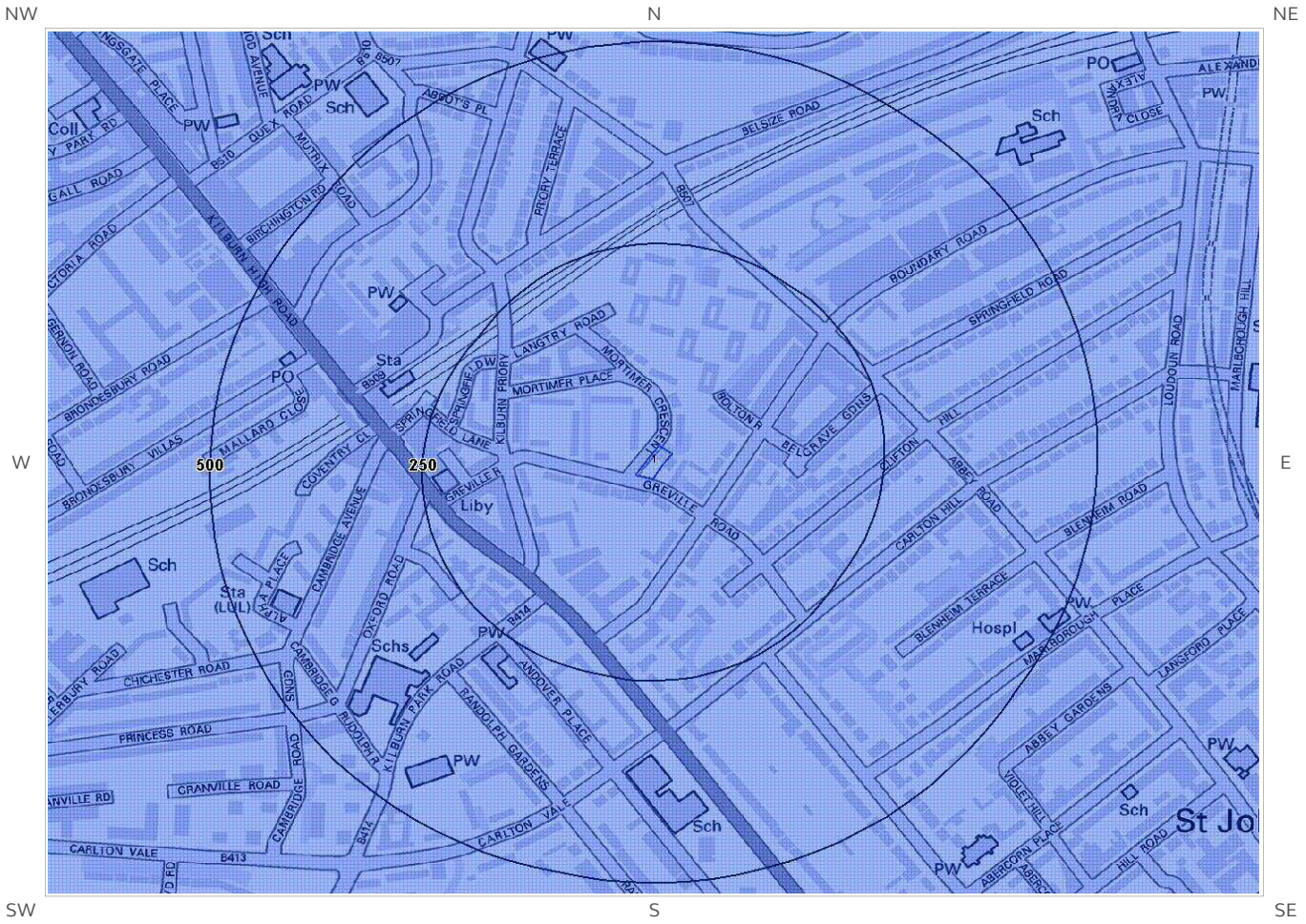
Secondary (B) Aquifer - Lower Permeability Layers

Secondary Aquifer - Undifferentiated Layers

Unproductive

Unknown (lakes and landslip)

# 6b. Aquifer Within Bedrock Geology and Abstraction Licenses




Mapping sourced from Ordnance Survey



Site Outline

250 — 500 — Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

Secondary (B) Aquifer - Lower Permeability Layers

Groundwater Abstraction Licence

Secondary Aquifer - Undifferentiated Layers

Unproductive

Unknown (lakes and landslip)

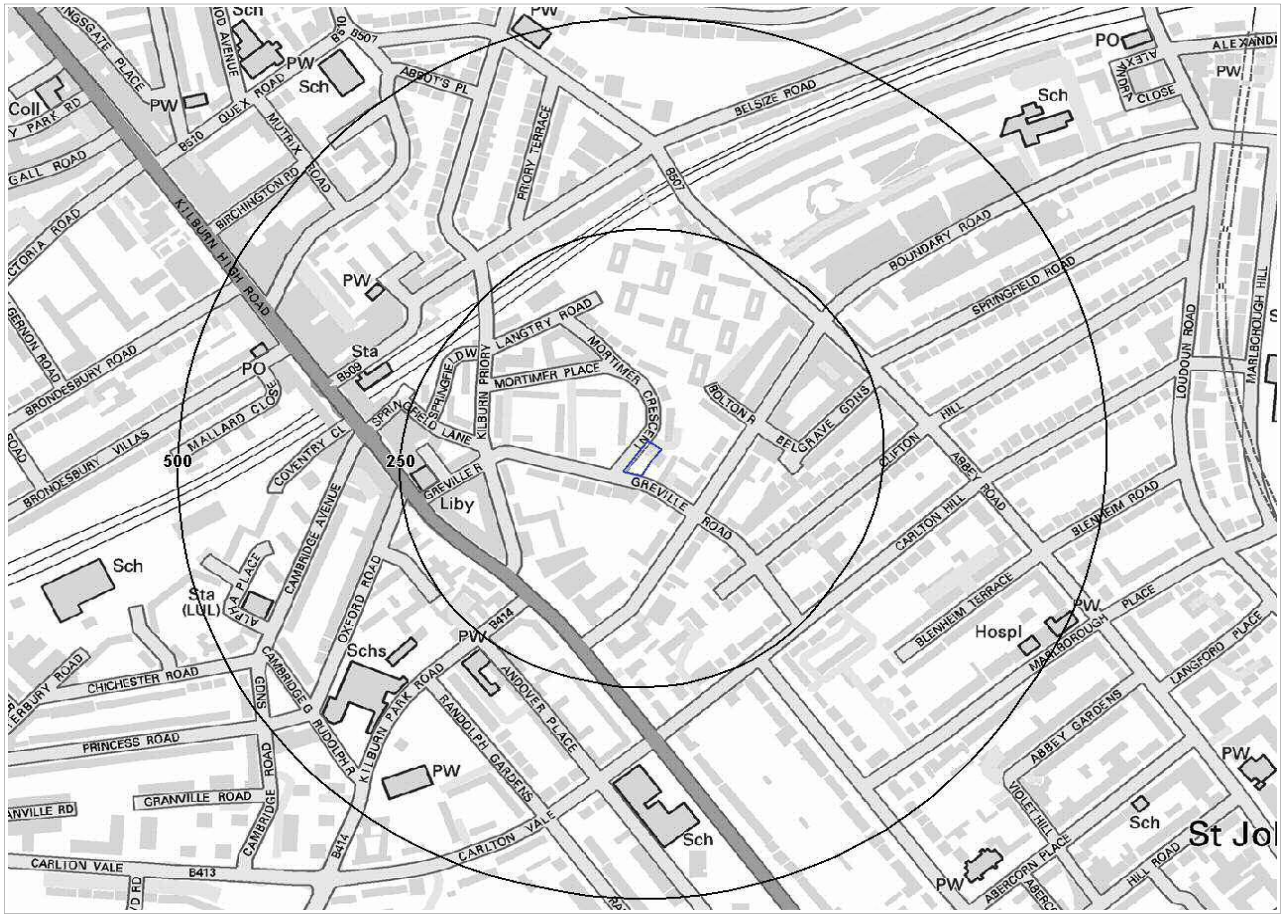
Surface Water Abstraction Licence

# 6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses

NW N NE

W E

SW S SE






Site Outline

250 500 Search Buffers (m)

Source Protection Zone 1 - Inner Catchment

Source Protection Zone 2 - Outer Catchment

Source Protection Zone 3 - Total Catchment

Source Protection Zone 4 - Zone of Special Interest

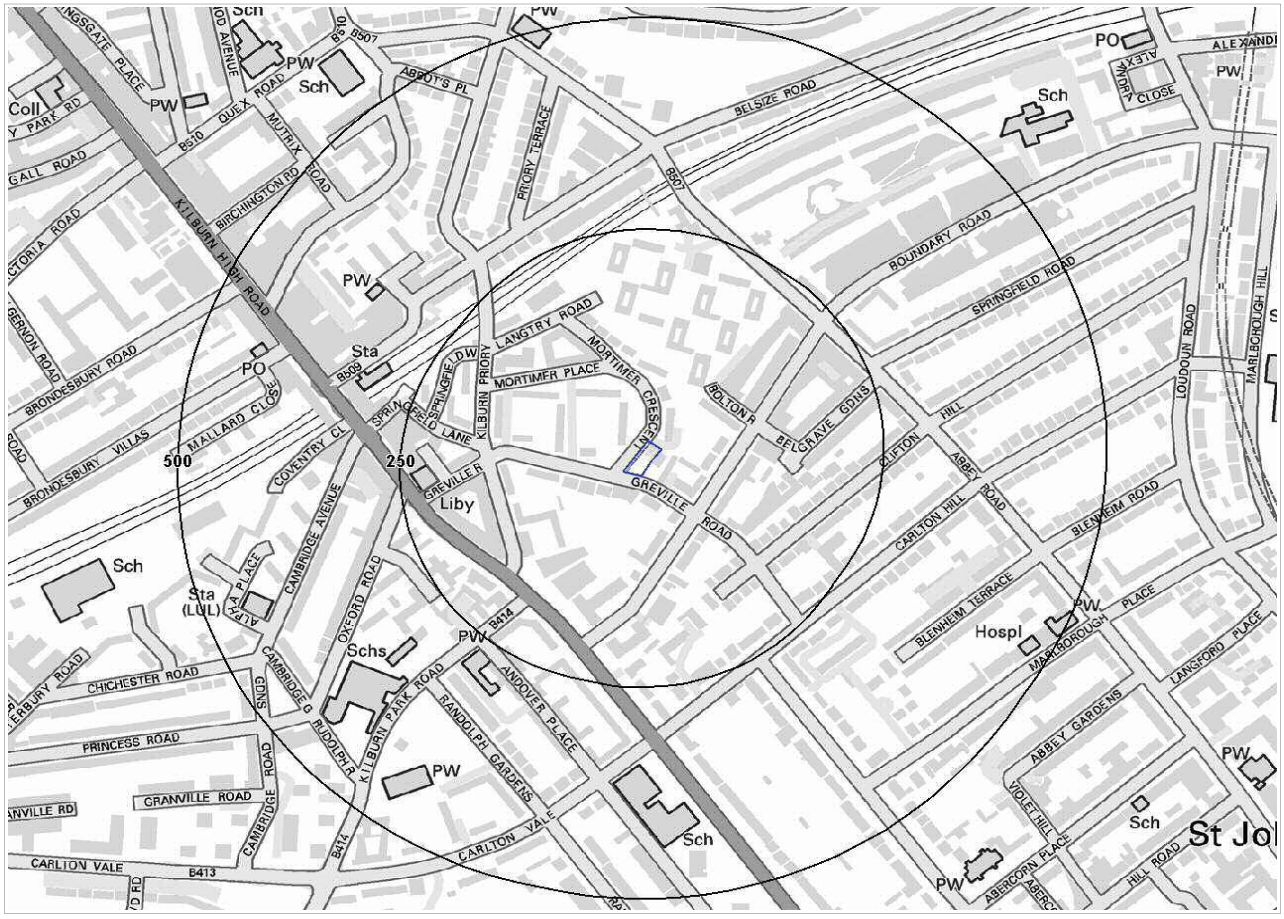
Potable Water Abstraction Licence

# 6d. Hydrogeology – Source Protection Zones within confined aquifer

NW N NE

W E

SW S SE




Mapping sourced from Ordnance Survey



Site Outline

250 Search Buffers (m)
500

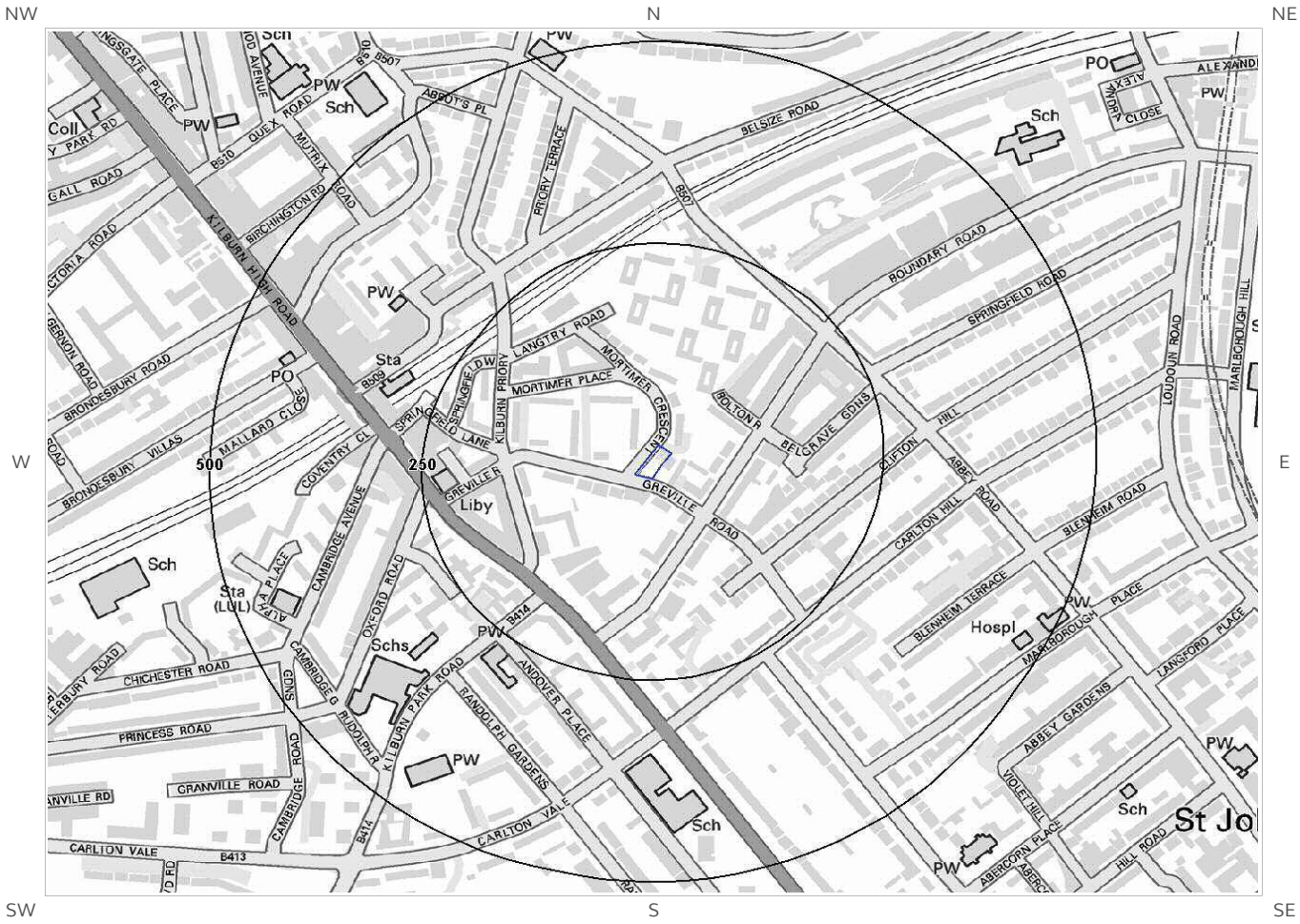
Source Protection Zone 1 - Inner Catchment

Source Protection Zone 2C - Outer Catchment within Confined Aquifer

Source Protection Zone 3C - Total Catchment within Confined Aquifer

Potable Water Abstraction Licence

# 6e. Hydrology – Detailed River Network and River Quality




Mapping sourced from Ordnance Survey



Site Outline

250 — Search Buffers (m)
500 —

Primary River
Secondary River
Tertiary River
Lake/Reservoir
Underground River (inferred)
General Quality Assessment: Biology
General Quality Assessment: Chemistry

Canal
Canal Tunnel
Culvert
Multiple Channel Culvert
Underground River (Potential Sewer)
Underground River (local knowledge)

# 6.Hydrogeology and Hydrology

## 6.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property? No

Database searched and no data found.

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviroinsight User Guide.

## 6.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

| ID | Distance (m) | Direction | Designation | Description |
|---|---|---|---|---|
| 1 | 0 | On Site | Unproductive | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow |

## 6.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site? Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

| ID | Distance (m) | Direction | NGR | Details | |
|---|---|---|---|---|---|
| Not shown | 1190 | NE | 526750 184261 | Status: Active<br>Licence No: TH/039/0039/087<br>Details: Spray Irrigation - Direct<br>Direct Source: Thames Groundwater<br>Point: Swiss Cottage Open Space- Borehole<br>Data Type: Point<br>Name: LONDON BOROUGH OF CAMDEN | Annual Volume ($m^3$): 10512<br>Max Daily Volume ($m^3$): 28.8<br>Original Application No: NPS/WR/014567<br>Original Start Date: 5/12/2013<br>Expiry Date: 31/3/2025<br>Issue No: 1<br>Version Start Date: 5/12/2013<br>Version End Date: |

| ID | Distance (m) | Direction | NGR | Details | |
|---|---|---|---|---|---|
| Not shown | 1190 | NE | 526750 184261 | Status: Active<br>Licence No: TH/039/0039/087<br>Details: Lake & Pond Throughflow<br>Direct Source: Thames Groundwater<br>Point: Swiss Cottage Open Space- Borehole<br>Data Type: Point<br>Name: LONDON BOROUGH OF CAMDEN | Annual Volume ($m^3$): 10512<br>Max Daily Volume ($m^3$): 28.8<br>Original Application No: NPS/WR/014567<br>Original Start Date: 5/12/2013<br>Expiry Date: 31/3/2025<br>Issue No: 1<br>Version Start Date: 5/12/2013<br>Version End Date: |
| Not shown | 1190 | NE | 526750 184261 | Status: Active<br>Licence No: TH/039/0039/087<br>Details: General Washing/Process Washing<br>Direct Source: Thames Groundwater<br>Point: Swiss Cottage Open Space- Borehole<br>Data Type: Point<br>Name: LONDON BOROUGH OF CAMDEN | Annual Volume ($m^3$): 10512<br>Max Daily Volume ($m^3$): 28.8<br>Original Application No: NPS/WR/014567<br>Original Start Date: 5/12/2013<br>Expiry Date: 31/3/2025<br>Issue No: 1<br>Version Start Date: 5/12/2013<br>Version End Date: |
| Not shown | 1241 | NE | 526800 184280 | Status: Historical<br>Licence No: 28/39/39/0219<br>Details: Spray Irrigation - Direct<br>Direct Source: Thames Groundwater<br>Point: Swiss Cottage Open Space- Borehole<br>Data Type: Point<br>Name: LONDON BOROUGH OF CAMDEN | Annual Volume ($m^3$): 10512<br>Max Daily Volume ($m^3$): 28.8<br>Original Application No: WRA/N/1407<br>Original Start Date: 12/8/2005<br>Expiry Date: 31/3/2013<br>Issue No: 1<br>Version Start Date: 1/4/2008<br>Version End Date: |
| Not shown | 1827 | E | 527636 183697 | Status: Active<br>Licence No: TH/039/0039/058<br>Details: Potable Water Supply - Direct<br>Direct Source: Thames Groundwater<br>Point: Borehole At Barrow Hill<br>Data Type: Point<br>Name: THAMES WATER UTILITIES LTD | Annual Volume ($m^3$): 631000<br>Max Daily Volume ($m^3$): 2000<br>Original Application No: NPS/WR/009229<br>Original Start Date: 1/4/2013<br>Expiry Date: 31/3/2025<br>Issue No: 1<br>Version Start Date: 1/4/2013<br>Version End Date: |
| Not shown | 1831 | E | 527640 183690 | Status: Historical<br>Licence No: 28/39/39/0231<br>Details: Potable Water Supply - Direct<br>Direct Source: Thames Groundwater<br>Point: Barrow Hill Pumping Station - Borehole<br>Data Type: Point<br>Name: THAMES WATER UTILITIES LTD | Annual Volume ($m^3$): 631000<br>Max Daily Volume ($m^3$): 2000<br>Original Application No: WRA/R/1026<br>Original Start Date: 1/4/2007<br>Expiry Date: 31/3/2013<br>Issue No: 1<br>Version Start Date: 1/4/2007<br>Version End Date: |
| Not shown | 1831 | E | 527640 183690 | Status: Historical<br>Licence No: 28/39/39/0202<br>Details: Potable Water Supply - Direct<br>Direct Source: Thames Groundwater<br>Point: Barrow Hill Pumping Station - Borehole<br>Data Type: Point<br>Name: THAMES WATER UTILITIES LTD | Annual Volume ($m^3$): 631000<br>Max Daily Volume ($m^3$): 2000<br>Original Application No: WRA/2/2(24)<br>Original Start Date: 26/9/2002<br>Expiry Date: 31/3/2007<br>Issue No: 1<br>Version Start Date: 26/9/2002<br>Version End Date: |
| Not shown | 1840 | SE | 527420 182620 | Status: Historical<br>Licence No: 28/39/39/0115<br>Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household<br>Direct Source: Thames Groundwater<br>Point: Two Boreholes At Abbey Lodge, Park Road, London Nw8<br>Data Type: Point<br>Name: WOOD MANAGEMENT TRUSTEES LTD | Annual Volume ($m^3$): 28640<br>Max Daily Volume ($m^3$): 100<br>Original Application No: -<br>Original Start Date: 5/9/1966<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date: 28/11/1991<br>Version End Date: |

| ID | Distance (m) | Direction | NGR | Details | |
|---|---|---|---|---|---|
| Not shown | 1840 | SE | 527420 182620 | Status: Active<br>Licence No: 28/39/39/0115<br>Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household<br>Direct Source: Thames Groundwater<br>Point: Abbey Lodge, Park Road, London Nw8- two Boreholes<br>Data Type: Point<br>Name: ABBEY LODGE RTM COMPANY LIMITED | Annual Volume ($m^3$): 28640<br>Max Daily Volume ($m^3$): 100<br>Original Application No: -<br>Original Start Date: 5/9/1966<br>Expiry Date: -<br>Issue No: 101<br>Version Start Date: 1/6/2006<br>Version End Date: |
| Not shown | 1927 | S | 526131 181594 | Status: Active<br>Licence No: TH/039/0039/070<br>Details: Heat Pump<br>Direct Source: Thames Groundwater<br>Point: The Novotel, 3 Kingdom St, Paddington, London, W2 - Borehole<br>Data Type: Point<br>Name: ACCOR UK BUSINESS & LEISURE HOTELS LIMITED | Annual Volume ($m^3$): 70000<br>Max Daily Volume ($m^3$): 390<br>Original Application No: NPS/WR/014832<br>Original Start Date: 20/6/2013<br>Expiry Date: 31/3/2019<br>Issue No: 2<br>Version Start Date: 20/6/2013<br>Version End Date: |
| Not shown | 1948 | S | 526220 181590 | Status: Historical<br>Licence No: 28/39/39/0237<br>Details: Non-Evaporative Cooling<br>Direct Source: Thames Groundwater<br>Point: The Novotel, 3 Kingdom St, Paddington, London, W2 - Borehole<br>Data Type: Point<br>Name: ACCOR UK BUSINESS & LEISURE HOTELS LIMITED | Annual Volume ($m^3$): 70000<br>Max Daily Volume ($m^3$): 390<br>Original Application No: GEN/39/170<br>Original Start Date: 18/12/2008<br>Expiry Date: 31/3/2013<br>Issue No: 1<br>Version Start Date: 18/12/2008<br>Version End Date: |

## 6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site? Yes

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

| ID | Distance (m) | Direction | NGR | Details | |
|---|---|---|---|---|---|
| Not shown | 1624 | SE | 527050 182460 | Status: Active<br>Licence No: 28/39/39/0164<br>Details: Non-Evaporative Cooling<br>Direct Source: Thames Surface Water - Non Tidal<br>Point: St John's Wood, London - Regents Canal<br>Data Type: Point<br>Name: Canal and River Trust | Annual Volume ($m^3$): 7010000<br>Max Daily Volume ($m^3$): 19520<br>Application No: -<br>Original Start Date: 18/7/1980<br>Expiry Date: -<br>Issue No: 101<br>Version Start Date: 17/12/2007<br>Version End Date: |

## 6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site? Yes

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (6c):

| ID | Distance (m) | Direction | NGR | Details | |
|---|---|---|---|---|---|
| Not shown | 1827 | E | 527636 183697 | Status: Active<br>Licence No: TH/039/0039/058<br>Details: Potable Water Supply - Direct<br>Direct Source: Thames Groundwater<br>Point: Borehole At Barrow Hill<br>Data Type: Point<br>Name: THAMES WATER UTILITIES LTD | Annual Volume ($m^3$): 631000<br>Max Daily Volume ($m^3$): 2000<br>Original Application No: NPS/WR/009229<br>Original Start Date: 1/4/2013<br>Expiry Date: 31/3/2025<br>Issue No: 1<br>Version Start Date:<br>Version End Date: |
| Not shown | 1831 | E | 527640 183690 | Status: Historical<br>Licence No: 28/39/39/0202<br>Details: Potable Water Supply - Direct<br>Direct Source: Thames Groundwater<br>Point: Barrow Hill Pumping Station - Borehole<br>Data Type: Point<br>Name: THAMES WATER UTILITIES LTD | Annual Volume ($m^3$): 631000<br>Max Daily Volume ($m^3$): 2000<br>Original Application No: WRA/2/2(24)<br>Original Start Date: 26/9/2002<br>Expiry Date: 31/3/2007<br>Issue No: 1<br>Version Start Date:<br>Version End Date: |
| Not shown | 1831 | E | 527640 183690 | Status: Historical<br>Licence No: 28/39/39/0231<br>Details: Potable Water Supply - Direct<br>Direct Source: Thames Groundwater<br>Point: Barrow Hill Pumping Station - Borehole<br>Data Type: Point<br>Name: THAMES WATER UTILITIES LTD | Annual Volume ($m^3$): 631000<br>Max Daily Volume ($m^3$): 2000<br>Original Application No: WRA/R/1026<br>Original Start Date: 1/4/2007<br>Expiry Date: 31/3/2013<br>Issue No: 1<br>Version Start Date:<br>Version End Date: |
| Not shown | 1840 | SE | 527420 182620 | Status: Active<br>Licence No: 28/39/39/0115<br>Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household<br>Direct Source: Thames Groundwater<br>Point: Abbey Lodge, Park Road, London Nw8- two Boreholes<br>Data Type: Point<br>Name: ABBEY LODGE RTM COMPANY LIMITED | Annual Volume ($m^3$): 28640<br>Max Daily Volume ($m^3$): 100<br>Original Application No: -<br>Original Start Date: 5/9/1966<br>Expiry Date: -<br>Issue No: 101<br>Version Start Date:<br>Version End Date: |
| Not shown | 1840 | SE | 527420 182620 | Status: Historical<br>Licence No: 28/39/39/0115<br>Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household<br>Direct Source: Thames Groundwater<br>Point: Two Boreholes At Abbey Lodge, Park Road, London Nw8<br>Data Type: Point<br>Name: WOOD MANAGEMENT TRUSTEES LTD | Annual Volume ($m^3$): 28640<br>Max Daily Volume ($m^3$): 100<br>Original Application No: -<br>Original Start Date: 5/9/1966<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date:<br>Version End Date: |

## 6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site? No

Database searched and no data found.

## 6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site? No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

## 6.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency information on groundwater vulnerability and soil leaching potential within 500m of the study site? No

Database searched and no data found.

## 6.9 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site? No

### 6.9.1 Biological Quality:

Database searched and no data found.

### 6.9.2 Chemical Quality:

Database searched and no data found.

## 6.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site? No

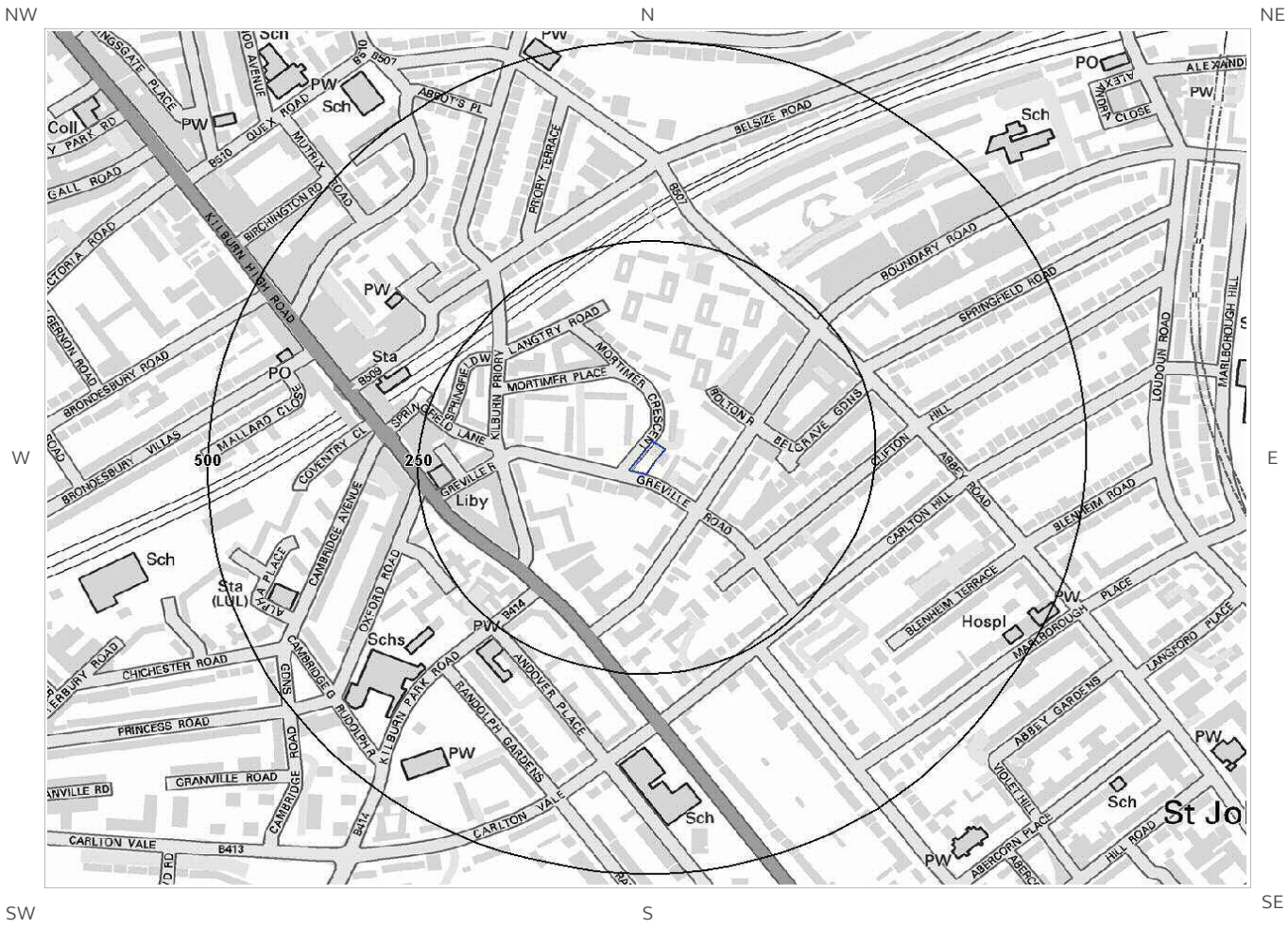
Database searched and no data found.

## 6.11 Surface Water Features

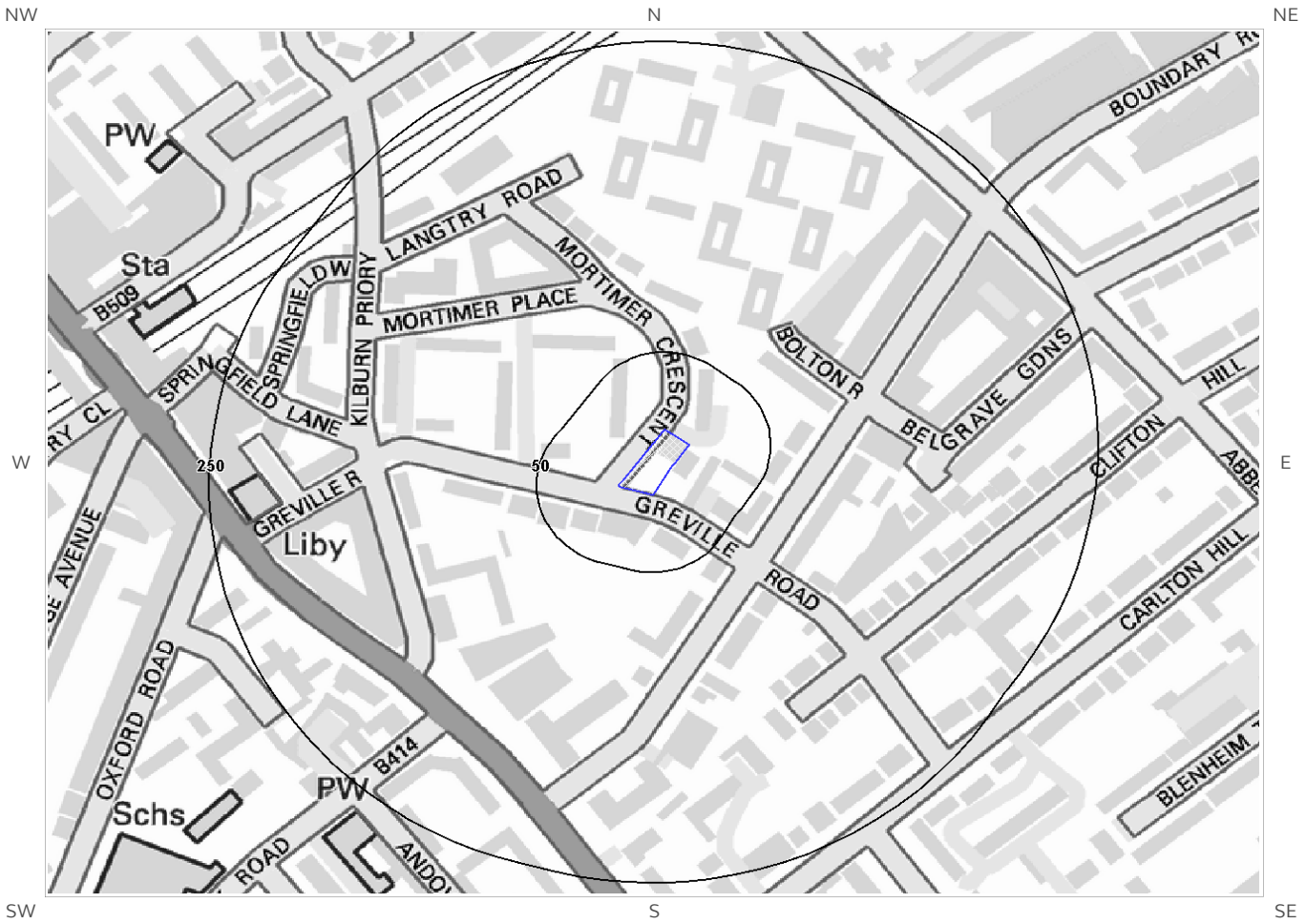
| | |
|---|---|
| Are there any surface water features within 250m of the study site? | No |

Database searched and no data found.

# 7a. Environment Agency Flood Map for Planning (from rivers and the sea)



# 7b. Environment Agency Risk of Flooding from Rivers and the Sea (RoFRaS) Map






Site Outline

100
250
Search Buffers (m)

RoFRaS Rating

- Very Low
- Low
- Medium
- High

# 7 Flooding

## 7.1 River and Coastal Zone 2 Flooding

Is the site within 250m of an Environment Agency Zone 2 floodplain? No

Environment Agency Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

Database searched and no data found.

## 7.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency Zone 3 floodplain? No

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

Database searched and no data found.

## 7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

What is the highest risk of flooding onsite? Very Low

The Environment Agency RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Very Low (less than 1 in 1000) chance of flooding in any given year.

## 7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? No

Database searched and no data found.

## 7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

## 7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? No

---

## 7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? No

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

---

7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Not Prone

The area is not considered to be prone to groundwater flooding based on rock type.

---

## 7.8 Groundwater Flooding Confidence Areas

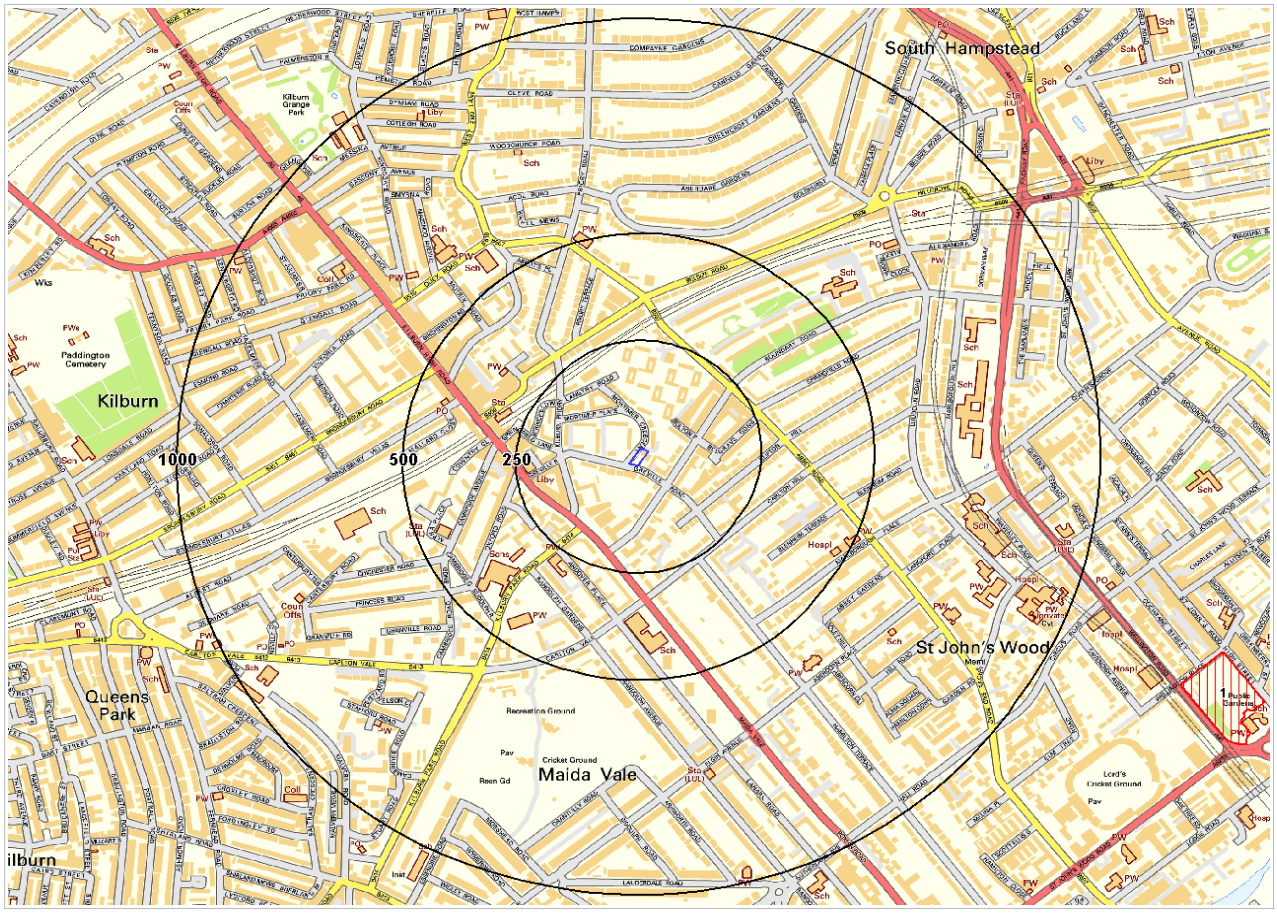
What is the British Geological Survey confidence rating in this result? Not Applicable

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

# 8. Designated Environmentally Sensitive Sites Map

NW N NE




W E

SW S SE

Mapping sourced from Ordnance Survey



- Site Outline
- 100 / 250 Search Buffers (m)
- AONB
- National Park
- SSSI
- Special Protection Areas
- Nitrate Vulnerable Zones
- Green Belt
- Environmentally Sensitive Areas
- Special Areas of Conservation
- World Heritage Sites
- Nitrate Sensitive Areas
- Ancient Woodland
- National Nature Reserve
- Local Nature Reserves
- Ramsar Sites

# 8. Designated Environmentally Sensitive Sites

| | |
|---|---|
| Presence of Designated Environmentally Sensitive Sites within 2000m of the study site? | Yes |

## 8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

0

Database searched and no data found.

## 8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

## 8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

0

Database searched and no data found.

## 8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

0

Database searched and no data found.

## 8.5 Records of Ramsar sites within 2000m of the study site:

0

Database searched and no data found.

## 8.6 Records of Ancient Woodland within 2000m of the study site:

0

Database searched and no data found.

## 8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

1

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

| ID | Distance (m) | Direction | LNR Name | Data Source |
|---|---|---|---|---|
| 1 | 1294 | SE | St John's Wood Church Grounds | Natural England |

## 8.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

## 8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

## 8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

## 8.11 Records of National Parks (NP) within 2000m of the study site:

0

Database searched and no data found.

## 8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

## 8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

0

Database searched and no data found.

## 8.14 Records of Green Belt land within 2000m of the study site:

0

Database searched and no data found.

# 9. Natural Hazards Findings

## 9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a Groundsure GeoInsight, available from our website. The following information has been found:

### 9.1.1 Shrink Swell

What is the maximum Shrink-Swell*[*] hazard rating identified on the study site? Moderate

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

| Hazard |
|---|
| Ground conditions predominantly high plasticity. Do not plant or remove trees or shrubs near to buildings without expert advice about their effect and management. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a probable increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a probable increase in insurance risk during droughts or where vegetation with high moisture demands is present. |

### 9.1.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

| Hazard |
|---|
| Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides. |

### 9.1.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site? Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

| Hazard |
|---|
| Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks. |

* This indicates an automatically generated 50m buffer and site.

### 9.1.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site? Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

| Hazard |
| --- |
| No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits. |

### 9.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

| Hazard |
| --- |
| Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits. |

### 9.1.6 Running Sand

What is the maximum Running Sand** hazard rating identified on the study site? Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

| Hazard |
| --- |
| No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand. |

## 9.2 Radon

### 9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

* This indicates an automatically generated 50m buffer and site.

### 9.2.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing
ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

# 10. Mining

## 10.1 Coal Mining

Are there any coal mining areas within 75m of the study site? No

Database searched and no data found.

## 10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary? No

Database searched and no data found.

## 10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No
Guidance: No Guidance Required.

# Contact Details

**Groundsure Helpline**
Telephone: 08444 159 000
info@groundsure.com

**British Geological Survey Enquiries**
Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email:
Web:**www.bgs.ac.uk**
BGS Geological Hazards Reports and general geological enquiries:
**enquiries@bgs.ac.uk**

**Environment Agency**
National Customer Contact Centre, PO Box 544
Rotherham, S60 1BY
Tel: 08708 506 506
Web:**www.environment-agency.gov.uk**
Email:**enquiries@environment-agency.gov.uk**

**Public Health England**
Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
www.gov.uk/phe
Email:**enquiries@phe.gov.uk**
Main switchboard**: 020 7654 8000**

**The Coal Authority**
200 Lichfield Lane
Mansfield
Notts NG18 4RG
Tel: 0345 7626 848
DX 716176 Mansfield 5
**www.coal.gov.uk**

**Ordnance Survey**
Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505

**Local Authority**
Authority: London Borough of Camden
Phone: 020 7974 4444
Web: http://www.camden.gov.uk/
Address: Camden Town Hall, Judd Street, London, WC1H 9JE

**Gemapping PLC**
Virginia Villas, High Street, Hartley Witney,
Hampshire RG27 8NW
Tel: 01252 845444

## Standard Terms and Conditions

### 1 Definitions

I**n these terms and conditions unless the context otherwise requires:**

**"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.**

**"Client"** means the party or parties entering into a Contract with Groundsure.

**"Commercial"** means any building or property which is not Residential.

**"Confidential Information"** means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

(i) information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

**"Support Services"** means Support Services provided by Groundsure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

**"Contract"** means the contract between Groundsure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

**"Third Party Data Provider"** means any third party providing Third Party Content to Groundsure.

**"Data Reports"** means reports comprising factual data with no accompanying interpretation.

**"Fees"** has the meaning set out in clause 5.1.

**"Groundsure"** means Groundsure Limited, a company registered in England and Wales under number 03421028.

**"Groundsure Materials"** means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

**"Intellectual Property"** means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

**"Mapping"** means a map, map data or a combination of historical maps of various ages, time periods and scales.

**"Order"** means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.

**"Ordnance Survey"** means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

**"Order Website"** means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

**"Report"** means a Risk Screening Report or Data Report for Commercial or Residential property.

**"Residential"** means any building or property used as or intended to be used as a single dwelling.

**"Risk Screening Report"** means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

**"Services"** means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause 2.6.

**"Site"** means the area of land in respect of which the Client has requested Groundsure to provide the Services.

**"Third Party Content"** means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from Groundsure and on the website (www.Groundsure.com) and forming part of this Contract.

### 2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 Groundsure agrees to provide the Services in accordance with the Contract.

2.2 Groundsure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of Groundsure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefor. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure. Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

### 3 The Client's obligations

3.1The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to Groundsure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

### 4 Reliance

4.1The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,

(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),

(iv) the first purchaser or first tenant of the Site, and

(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by Groundsure. Any party considering such Reports and Services does so at their own risk.

### 5 Fees and Disbursements

5.1Groundsure shall charge and the Client shall pay fees at the rate and

frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

5.2 The Client shall pay all outstanding Fees to Groundsure in full without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

## 6 Intellectual Property and Confidentiality

6.1 Subject to

(i) full payment of all relevant Fees and

(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the Groundsure Materials.

6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client shall, and shall procure that any recipients of the Groundsure Materials shall:

(i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to Groundsure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

(iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information data or service;

(v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and

(vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.

6.6 The Client shall procure that any person to whom the Services are made available shall notify Groundsure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

## 7.Liability: Particular Attention Should Be Paid To This Clause

7.1 This Clause 7 sets out the entire liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.

7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 Groundsure shall not be liable for

(i) loss of profits;

(ii) loss of business;

(iii) depletion of goodwill and/or similar losses;

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;

(xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;

(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;

(xiii) loss or damage to a computer, software, modem, telephone or other property; and

(xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.

7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.

7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

## 8 Groundsure's right to suspend or terminate

8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to Groundsure within 30 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

## 9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.

9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon Groundsure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

(a) supplied to the Client's specification(s) and in any event

(b) by their nature cannot be returned.

## 10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) Groundsure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and

(ii) the Client shall pay to Groundsure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

## 11 Anti-Bribery

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of Groundsure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

## 12 General

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.

12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through Groundsure.

12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of Groundsure.

12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.

12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

12.7 Groundsure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

(i) the Client or Beneficiary's failure to provide facilities, access or information;

(ii) fire, storm, flood, tempest or epidemic;

(iii) Acts of God or the public enemy;

(iv) riot, civil commotion or war;

(v) strikes, labour disputes or industrial action;

(vi) acts or regulations of any governmental or other agency;

(vii) suspension or delay of services at public registries by Third Party Data Providers;

(viii) changes in law; or

(ix) any other reason beyond Groundsure's reasonable control.

In the event that Groundsure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 Groundsure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner.

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law. 

# APPENDIX B

Site plans and elevations
(provided by Croft Structural Engineers Ltd)

FK Project Management LTD
17 Hill street, Mayfair, W1J 5LJ
Tel.: +44(0)2074091446
Mob.: +44(0)7903899889
www.fkprojectmanagement.com

NOTES:

THIS DRAWING IS NOT TO BE SCALED.
ALL DIMENSIONS ARE TO BE CHECKED ON SITE AND ANY DISCREPANCIES OR ERRORS ARE TO BE REPORTED TO THE ARCHITECT PRIOR TO COMMENCEMENT OF WORKS

Existing front elevation Side A

Existing street front elevation Side A

Existing elevation Side B

Existing elevation Side C

Existing elevation Side D

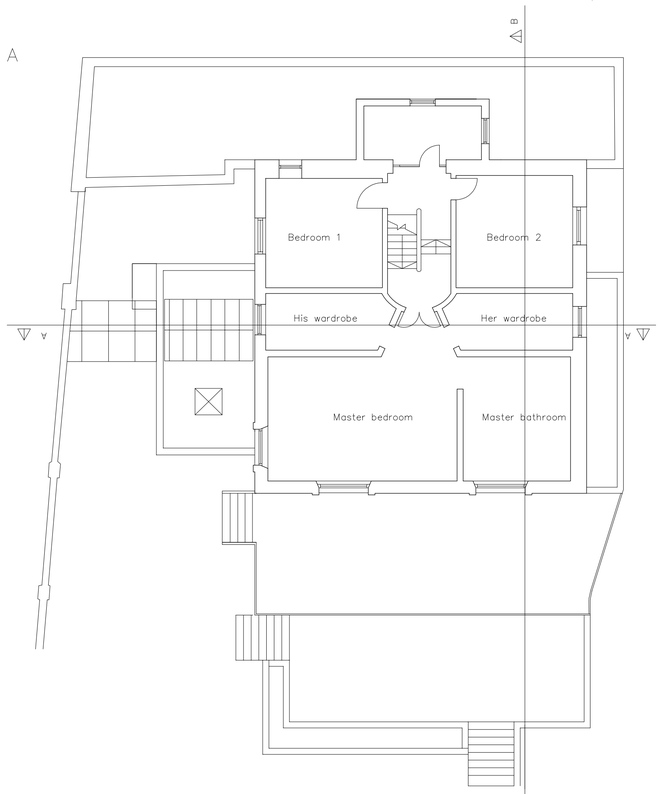
| | |
|---|---|
| DATE: 19/03/15 | PROJECT: 35 Greville road London NW6 5JB |
| SCALE: 1:100 at A1 | DRAWING TITLE: Existing elevations drawings |

| JOB | SERIES | DRAWING No. | REV. |
|---|---|---|---|
| 71 | | 71–1 | |

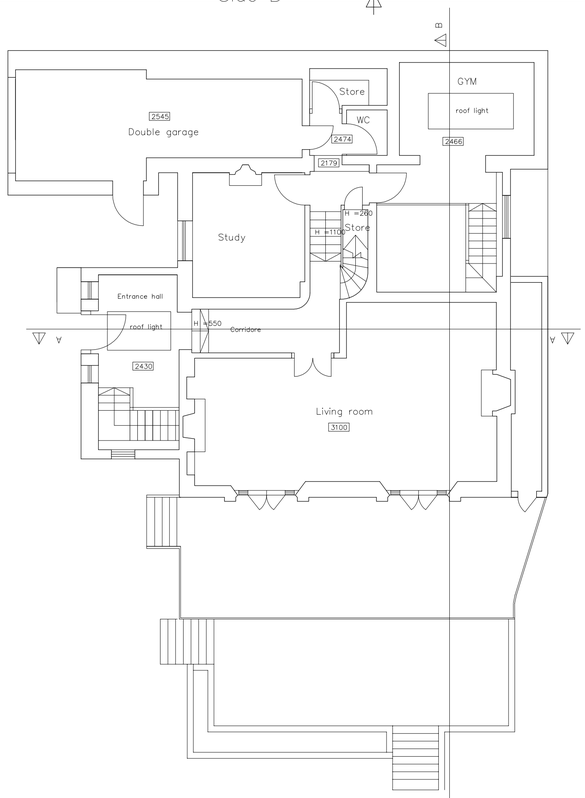
CHECKED:

A1

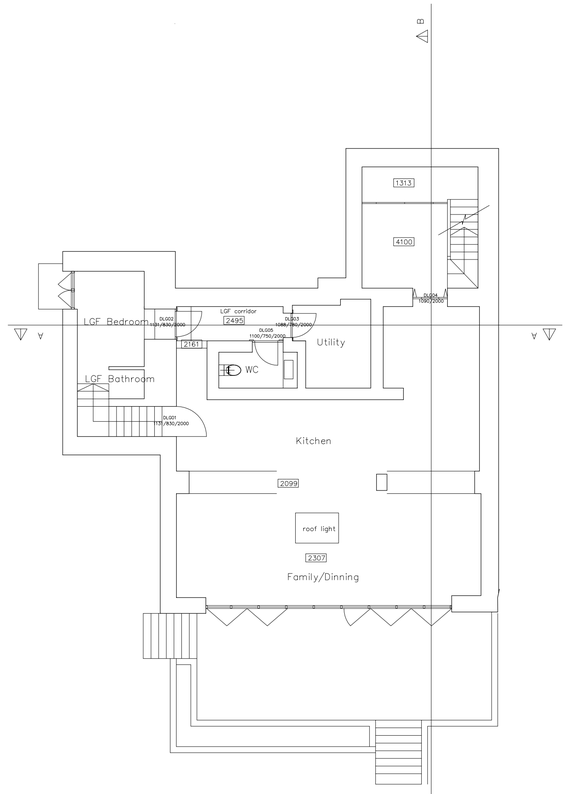
Side A




Existing First floor




Existing Ground floor




Existing Lower Ground floor

FK Project Management LTD
17 Hill street, Mayfair, W1J 5LJ
Tel.: +44(0)2074091446
Mob.: +44(0)7903899889
www.fkprojectmanagement.com

NOTES:

THIS DRAWING IS NOT TO BE SCALED.
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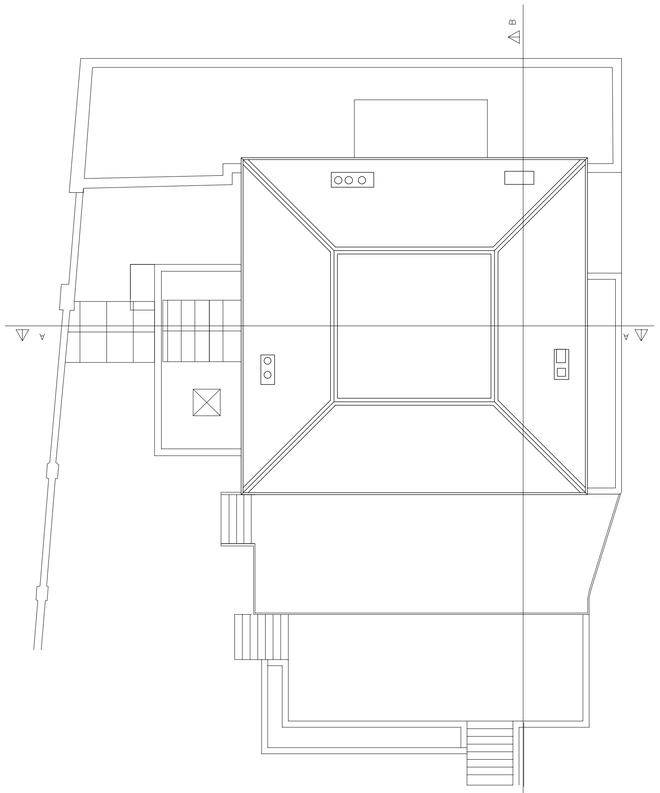
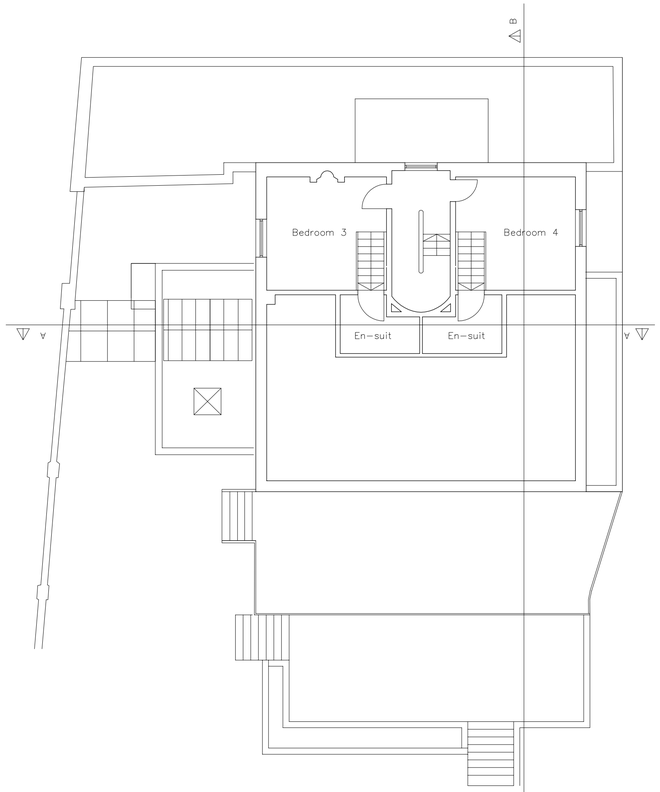


Existing Roof plan




Existing Second floor

Side C

Dimensions in mm

| DATE | PROJECT |
|---|---|
| 19/03/15 | 35 Greville road London NW6 5JB |
| SCALE: 1:100 at A1 | DRAWING TITLE: Existing plans |

| JOB | SERIES | DRAWING No. | REV. |
|---|---|---|---|
| 71 | | 71–1 | |

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A1

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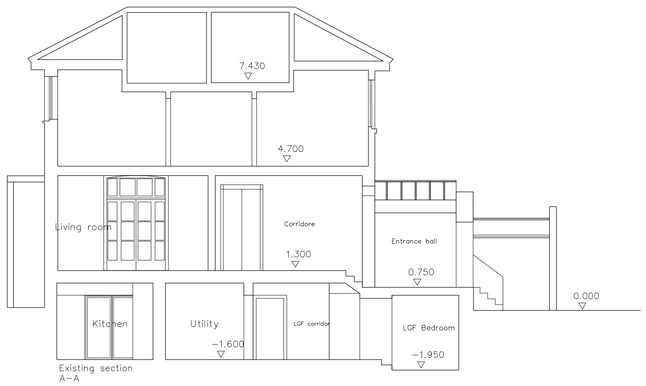
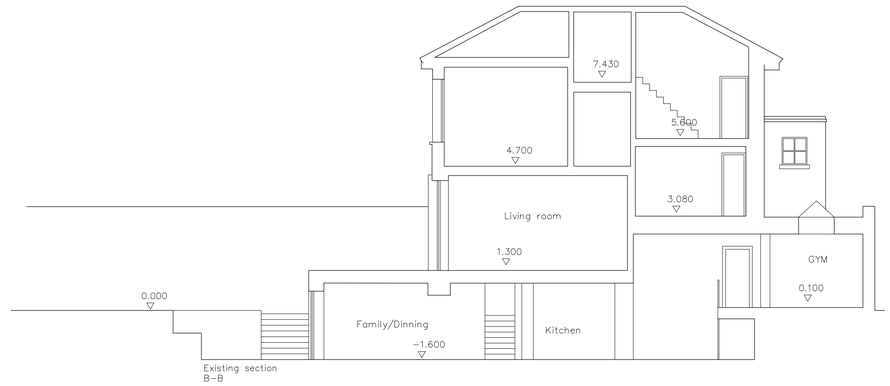


Existing section
A–A



Existing section
B–B

| DATE | PROJECT |
|---|---|
| 19/03/15 | 35 Greville road London NW6 5JB |
| SCALE: 1:100 at A1 | DRAWING TITLE: Existing section drawings |

| JOB | SERIES | DRAWING No. | REV. |
|---|---|---|---|
| 71 | | 71–1 | |

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35

37

37d

37e

# Existing Site plan

Dimensions in mm

| DATE | PROJECT |
|---|---|
| 19/03/15 | 35 Greville road London NW6 5JB |
| SCALE | DRAWING TITLE |
| 1:100 at A1 | Existing site plan |

| JOB | SERIES | DRAWING No. | REV. |
|---|---|---|---|
| 71 | | 71–1 | |

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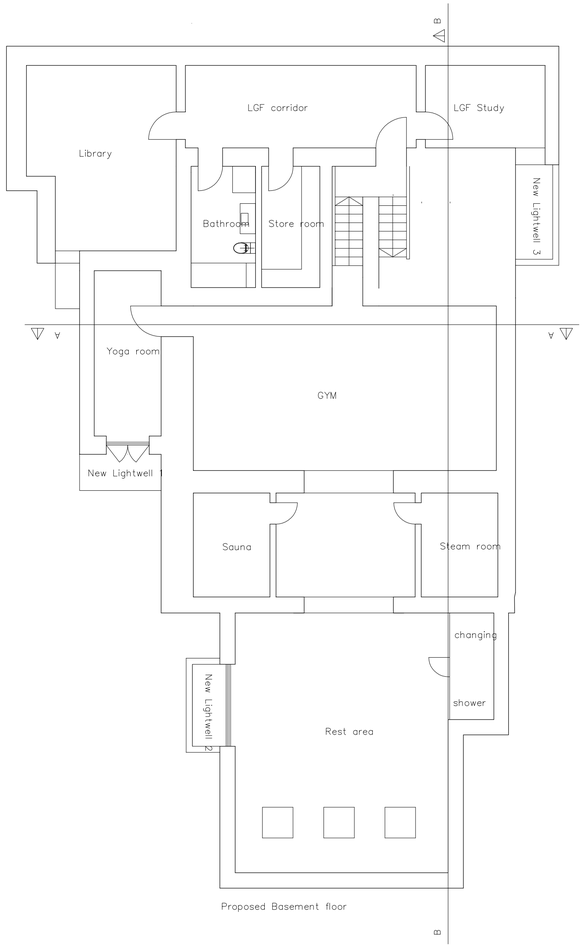


Dimensions in mm

| DATE | PROJECT |
|---|---|
| 10/04/15 | 35 Greville road London NW6 5JB |
| SCALE: 1:100 at A1 | DRAWING TITLE: Proposed basement plan |

| JOB | SERIES | DRAWING No. | REV. |
|---|---|---|---|
| 71 | | 71–1 | |

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Existing front elevation Side A

Existing street front elevation Side A

Existing elevation Side B

Existing elevation Side C

Existing elevation Side D

| | |
|---|---|
| DATE: 19/03/15 | PROJECT: 35 Greville road London NW6 5JB |
| SCALE: 1:100 at A1 | DRAWING TITLE: Proposed elevations drawings |

| JOB | SERIES | DRAWING No. | REV. |
|---|---|---|---|
| 71 | | 71–1 | |

CHECKED:

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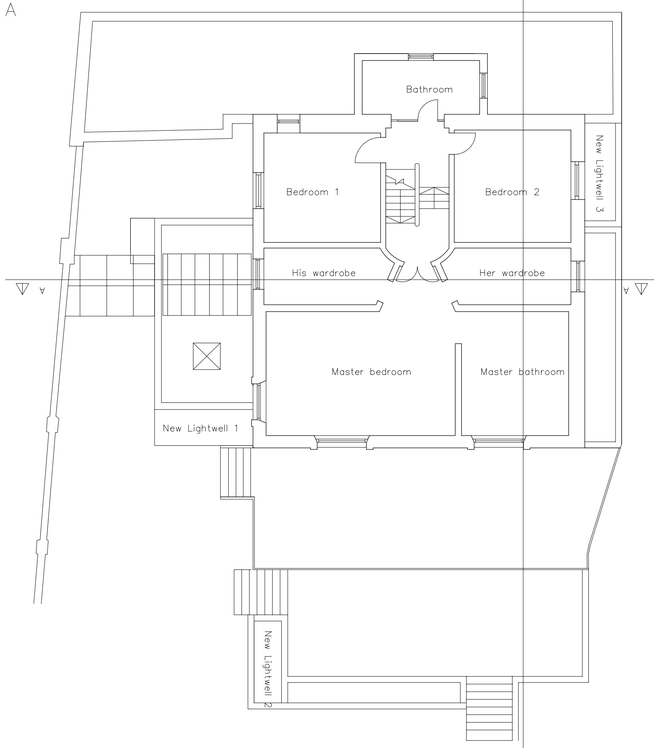
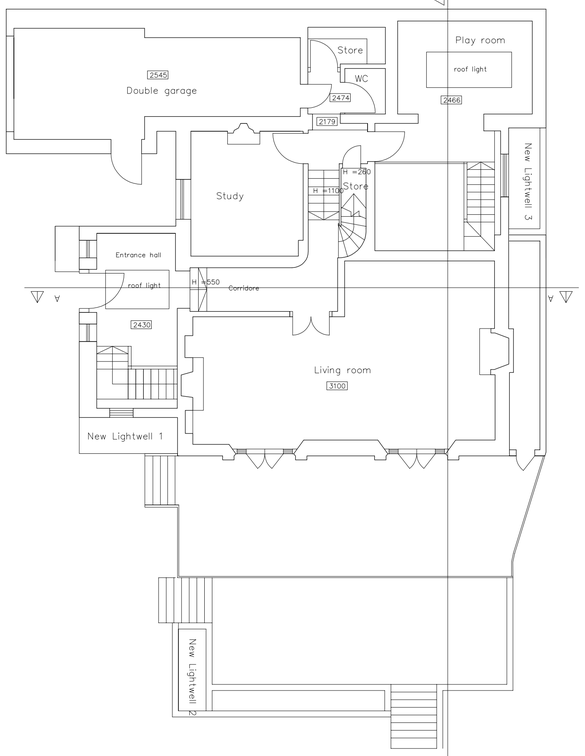
Side A

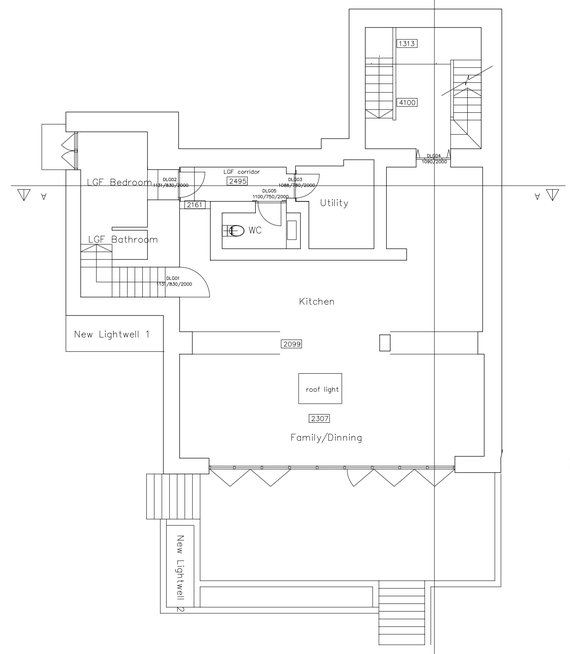



Proposed First floor




Proposed Ground floor

Side B




Proposed Lower Ground floor

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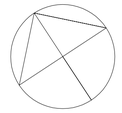
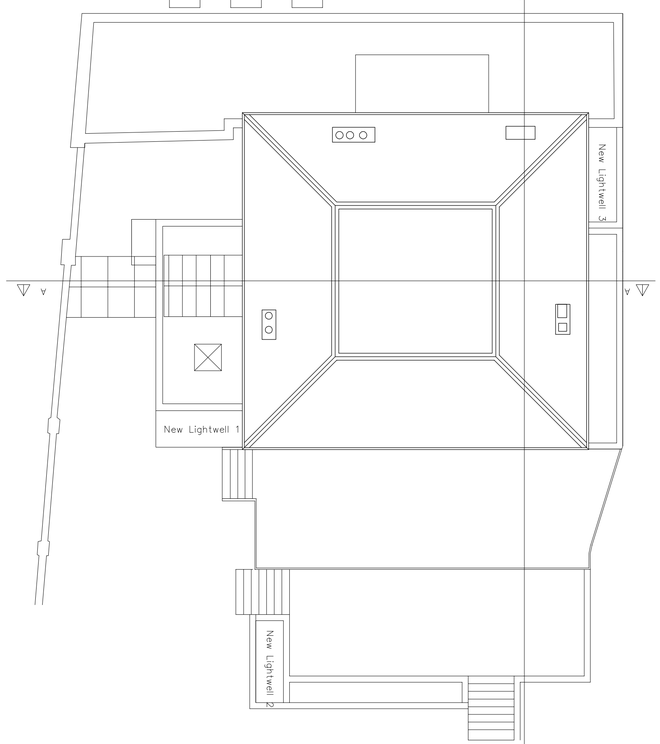
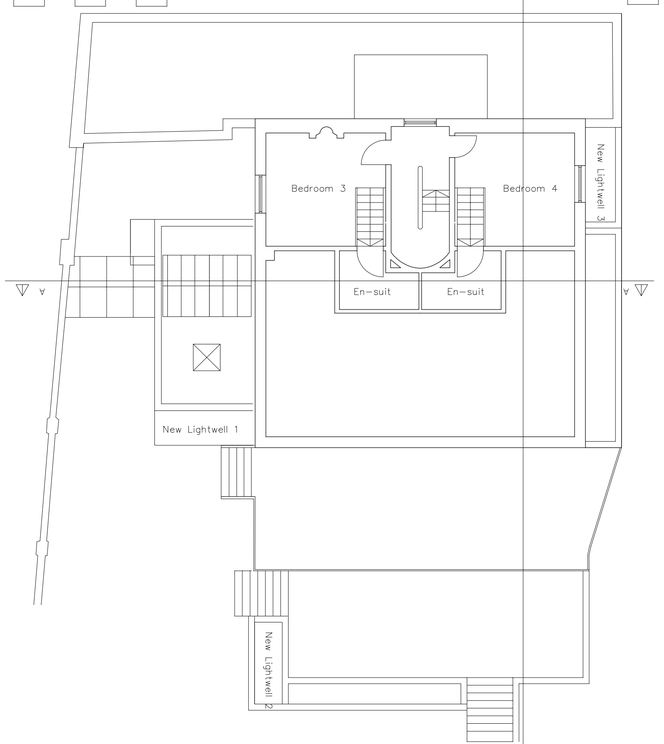





Proposed Roof plan

Side C




Proposed Second floor

Side D

Dimensions in mm

| DATE | PROJECT |
|---|---|
| 10/04/15 | 35 Greville road London NW6 5JB |
| SCALE: 1:100 at A1 | DRAWING TITLE: Proposed plans |

| JOB | SERIES | DRAWING No. | REV. |
|---|---|---|---|
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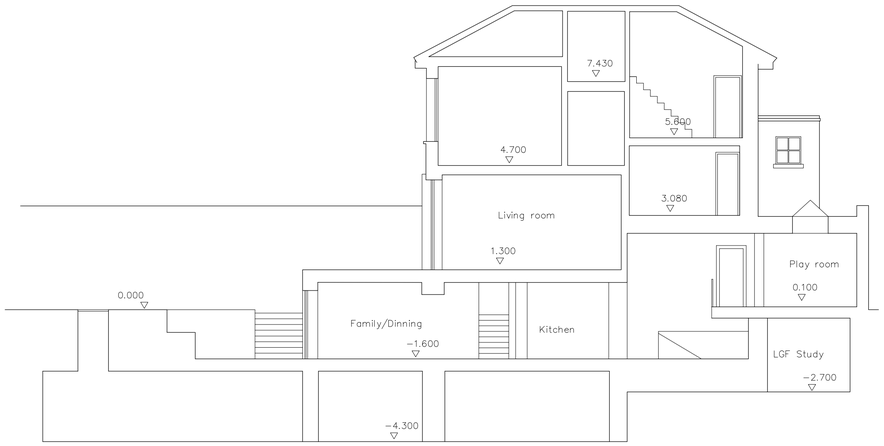
Proposed section
A–A




Proposed section
B–B

| DATE | PROJECT |
|---|---|
| 10/04/15 | 35 Greville road, London NW6 5JB |
| SCALE: 1:100 at A1 | DRAWING TITLE: Proposed section drawings |

| JOB | SERIES | DRAWING No. | REV. |
|---|---|---|---|
| 71 | | 71–1 | |

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A1