GeoSmart Information

FloodSmart

Flood Risk Assessment

Site Address

71 Avenue Road
London
Middlesex
NW8 6HP

Grid Reference

526989, 183774

Report Prepared for

PID Limited
71 Avenue Road
London
Middlesex
NW8 6HP

Date

2022-12-12

Report Status

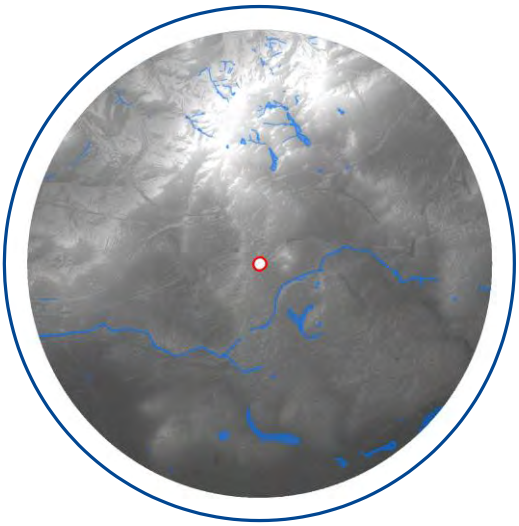
FINAL

Site Area

0.08 ha

Report Reference

754382



RISK - Very Low-Low

The Site is located within fluvial and tidal Flood Zone 1 (low probability), and within an area defined as being at Very Low risk. The Site has a Very Low-Low risk of surface water flooding and a Negligible risk of groundwater flooding.

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1. Executive summary

A review has been undertaken of national environmental data sets to assess the flood risk to the Site from all sources of flooding in accordance with The National Planning Policy Framework (NPPF) (2021) and National Planning Practice Guidance (NPPG) (2014). A site-specific flood risk assessment, to assess the flood risk to and from the development Site, is provided within this concise interpretative report written by an experienced GeoSmart consultant. Baseline flood risk and residual risks that remain after the flood risk management and mitigation measures are implemented are summarised in the table below.

Site analysis

Source of Flood Risk	Baseline	After Mitigation
River (fluvial) and Sea (coastal/tidal) flooding	Very Low	N/A
Surface water (pluvial) flooding	Very Low-Low	Very Low
Groundwater flooding	Negligible	N/A
Other flood risk factors present	No	No
Is any other further work recommended?	Yes	

N/A = mitigation not required

Summary of existing and proposed development

The Site is currently used within a residential capacity as a two storey detached dwelling including associated access, car parking and landscaping.

Development proposals comprise the extension of the existing building and the construction of a basement. No habitable rooms are proposed to be located on the basement level. Site plans are included within Appendix A.

Summary of flood risks

The flood risks from all sources have been assessed as part of this report and are as follows:

According to the Environment Agency's (EA) Flood Map for Planning Purposes, the Site is located within a fluvial and tidal Flood Zone 1 (low probability).

According to the EA's Risk of Flooding from Rivers and Sea (RoFRS) map, which considers the type, condition and crest height of flood defences, the Site has a Very Low risk of flooding from Rivers and the Sea.

According to the EA's Risk of Flooding from Surface Water (pluvial) flood mapping, the Site is at a Very Low-Low risk of flooding.

- An area in the north of the Site (approximately 22% of the Site) would be affected by flooding during a Low risk (1 in 1000 year) event. During this event flood depths could be up to 0.3m. Access to the Site could be affected during this Low risk flooding event, however it is recognised that local highway drainage systems are likely to intercept the flood waters.
- A surface water drainage strategy has been prepared separately (ref: 75438.01) to ensure surface water runoff can be managed effectively over the lifetime of the proposed development.

Groundwater Flood Risk screening data indicates there is a Negligible risk of groundwater flooding at the surface in the vicinity of the Site during a 1 in 100 year event.

The risk of flooding from artificial (man-made) sources such as reservoirs, sewers and canals has been assessed:

- The EA's Risk of Flooding from Reservoir map confirms the Site is not at risk of reservoir flooding.
- Ordnance Survey (OS) data confirms there are no canals within 500m of the Site.
- A sewer flooding history search was undertaken with the Thames Water and using the Strategic Flood Risk Assessment (URS, 2014). This confirms no recorded incidences of sewer flooding at or within the vicinity of the Site

The risk of flooding from artificial sources is considered to be Negligible.

The risk to the development has been assessed over its expected 100 year lifetime, including appropriate allowances for the impacts of climate change. More extreme weather events could increase the risk to the Site from sea level rise, increases in river flooding and an increased potential for surface water. Site specific assessment indicates risk to the Site will not increase significantly and appropriate mitigation measures are proposed.

Recommendations / Next steps

Recommendations for mitigation are provided below, based upon the proposed development and the flood risk identified at the Site:

As there is a risk of flooding from surface water (pluvial) sources, where flood depths in the north of the Site could be up to 0.3 m in depth during a Low risk (1 in 1000 year) event, A

water exclusion strategy, using avoidance and resistance measures, is recommended. Potential water exclusion strategies include:

- Passive flood door systems;
- Temporary flood barriers;
- Air brick covers (manual or automatic closing);
- Non-return flap valves on sewer outfalls.

Flood resilience measures are also recommended, as detailed in section 7.

As per Camden's Local Plan guidance, a Basement Impact Assessment should be undertaken. GeoSmart recommend the mitigation measures discussed within this report are considered as part of the proposed development where possible and evidence of this is provided to the Local Planning Authority as part of the planning application.

2. Introduction

Background and purpose

A site-specific flood risk assessment has been undertaken, to assess the flood risk to and from the development Site. This assessment has been undertaken by firstly compiling information concerning the Site and the surrounding area. The information gathered was then used to construct a 'conceptual site model', including an understanding of the appropriateness of the development as defined in the NPPF (2021) and the source(s) of any flood risk present. Finally, a preliminary assessment of the steps that can be taken to manage any flood risk to the development was undertaken.

This report has been prepared with reference to the NPPF (2021) and NPPG (2014).

"*The National Planning Policy Framework set out the Government's planning policies for England and how these are expected to be applied*" (NPPF, 2021).

The NPPF (2021) and NPPG (2014) promote a sequential, risk based approach to the location of development. This also applies to locating a development within a Site which has a variable risk of flooding.

"*This general approach is designed to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. The aim should be to keep development out of medium and high risk flood areas (Flood Zones 2 and 3) and other areas affected by other sources of flooding where possible*" (NPPG, 2014).

The purpose of this report is to provide clear and pragmatic advice regarding the nature and potential significance of flood hazards which may be present at the Site.

Report scope

In accordance with the requirements set out within NPPG 2014 (Paragraph: 030 Reference ID: 7-030-20140306), a thorough review of a commercially available flood risk report and EA supplied data indicating potential sources of flood risk to the Site from rivers and coastal sources, surface run-off (pluvial), groundwater and reservoirs, including historical flood information and modelled flood extent. Appropriate measures are recommended to manage and mitigate the flood risk to the property.

Information obtained from the EA and a review of the Camden London Borough Council Strategic Flood Risk Assessment (SFRA) (URS, 2014) is used to ascertain local flooding issues and, where appropriate, identify information to support a Sequential and/or Exception test required as part of the NPPF (2021).

The existing and future flood risks to and from the Site from all flood sources is assessed in line with current best practice using the best available data. The risk to the development has been assessed over its expected lifetime, including appropriate allowances for the impacts of climate change. Residual risks that remain after the flood risk management and mitigation

measures are implemented, are considered with an explanation of how these risks can be managed to keep the users of the development safe over its lifetime.

An indication of whether the Site will potentially increase flood risk elsewhere is provided, including where the proposed development increases the building footprint at the Site. A drainage strategy to control runoff can be commissioned separately if identified as a requirement within this report.

Report limitations

It is noted that the findings presented in this report are based on a desk study of information supplied by third parties. Whilst we assume that all information is representative of past and present conditions, we can offer no guarantee as to its validity and a proportionate programme of site investigations would be required to fully verify these findings.

The basemap used is the OS Street View 1:10,000 scale, however the Site boundary has been drawn using BlueSky aerial imagery to ensure the correct extent and proportion of the Site is analysed.

This report excludes consideration of potential hazards arising from any activities at the Site other than normal use and occupancy for the intended land uses. Hazards associated with any other activities have not been assessed and must be subject to a specific risk assessment by the parties responsible for those activities.

Datasets

The following table shows the sources of information that have been consulted as part of this report:

Table 1. Datasets consulted to obtain confirmation of sources of flooding and risk

Source of flooding	Datasets consulted				
	Commercial Flood Maps	SFRA*	Environment Agency	Thames Water (Appendix B)	OS Data
Historical	X	X	X		
Fluvial/tidal	X	X	X		
Surface water (pluvial)	X	X	X		

Source of flooding	Datasets consulted				
	Commercial Flood Maps	SFRA*	Environment Agency	Thames Water (Appendix B)	OS Data
Groundwater	X	X			
Sewer		X		X	
Culvert/bridges		X			X
Reservoir		X	X		

*The SFRA and local guidance have been used to inform this report as referenced in Section 6.

3. Site analysis

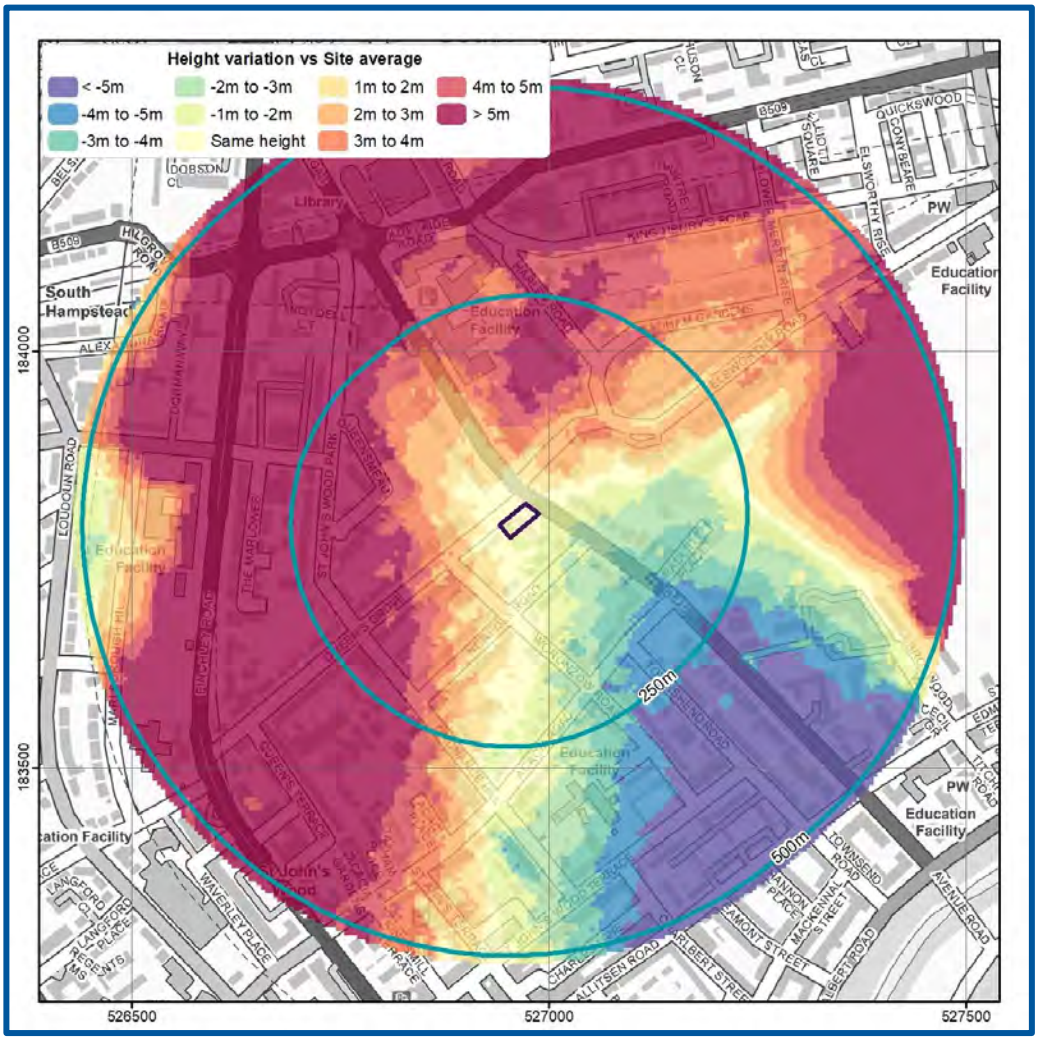
Site information

The Site is located in Swiss Cottage, London in a setting of residential land use at National Grid Reference TQ 26989 83774. Site plans and drawings are provided in Appendix A.

According to OS data, using a 500 m buffer around the Site, the area slopes to the south east(Figure 1). It is noted that to the north land rises to c. 52.8 m above Ordnance Datum (AOD). To the west land falls to c. 43.5 mAOD, to the east land rises to c. 53.8 mAOD and to the south falls to c. 43.3 mAOD.

The general ground levels on the Site are between 44.0 and 44.6 mAOD with the Site remaining at a fairly constant elevation. This is based on EA elevation data obtained for the Site to a 1 m resolution with a vertical accuracy of ±0.15 m (Appendix C).

Figure 1. Site Location and Relative Elevations (GeoSmart, 2022).



Development

The Site is currently used within a residential capacity as a two storey detached dwelling including associated access, car parking and landscaping.

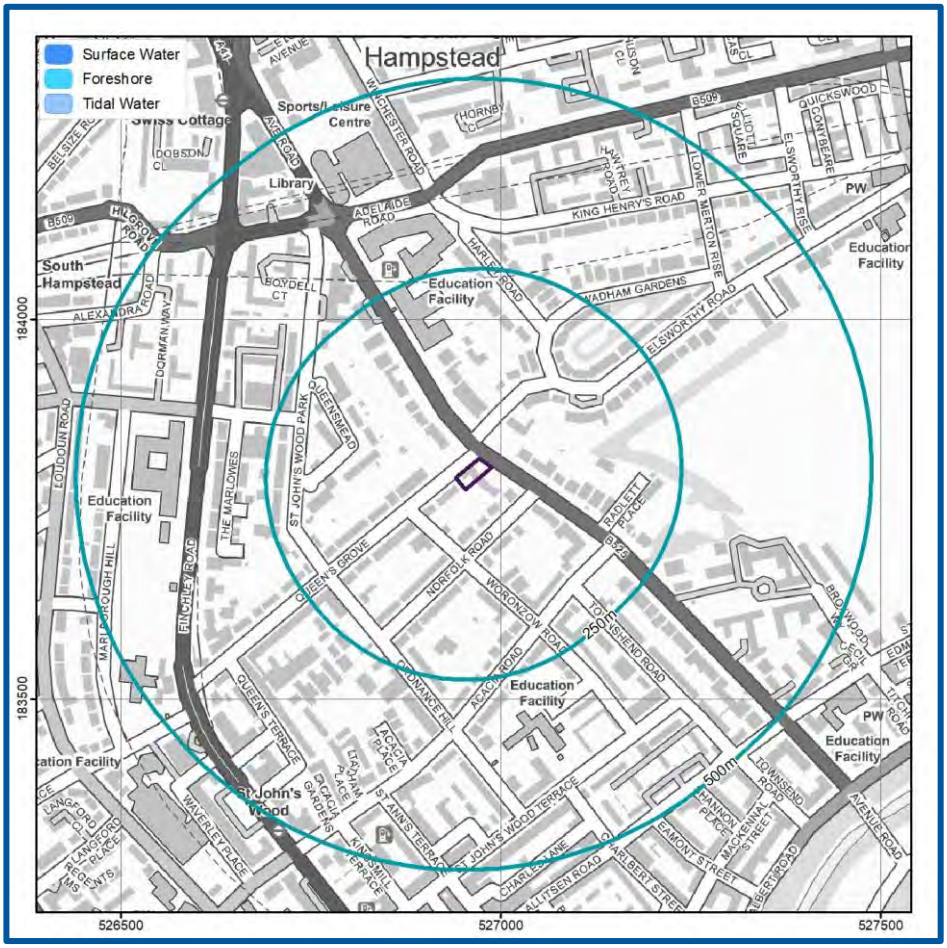
Development proposals comprise the extension of the existing building and the construction of a basement. No habitable rooms are proposed to be located on the basement level. Site plans are included within Appendix A.

The effect of the overall development will not result in an increase in number of occupants and/or users of the building and will not result in the change of use, nature or times of occupation. According to Table 2 of the NPPG (2014), the vulnerability classification of the existing development is More Vulnerable and proposed development is More Vulnerable. The estimated lifespan of the development is 100 years.

Hydrological features

According to Ordnance Survey (OS) mapping included in the following figure, there are no mapped surface water features within 500 m of the Site.

Figure 2. Surface water features (EA, 2022)



The Regents Canal is located approximately 680 m south at a lower elevation than the Site.

The River Thames is located approximately 4.8km to the south east at a lower elevation that the Site.

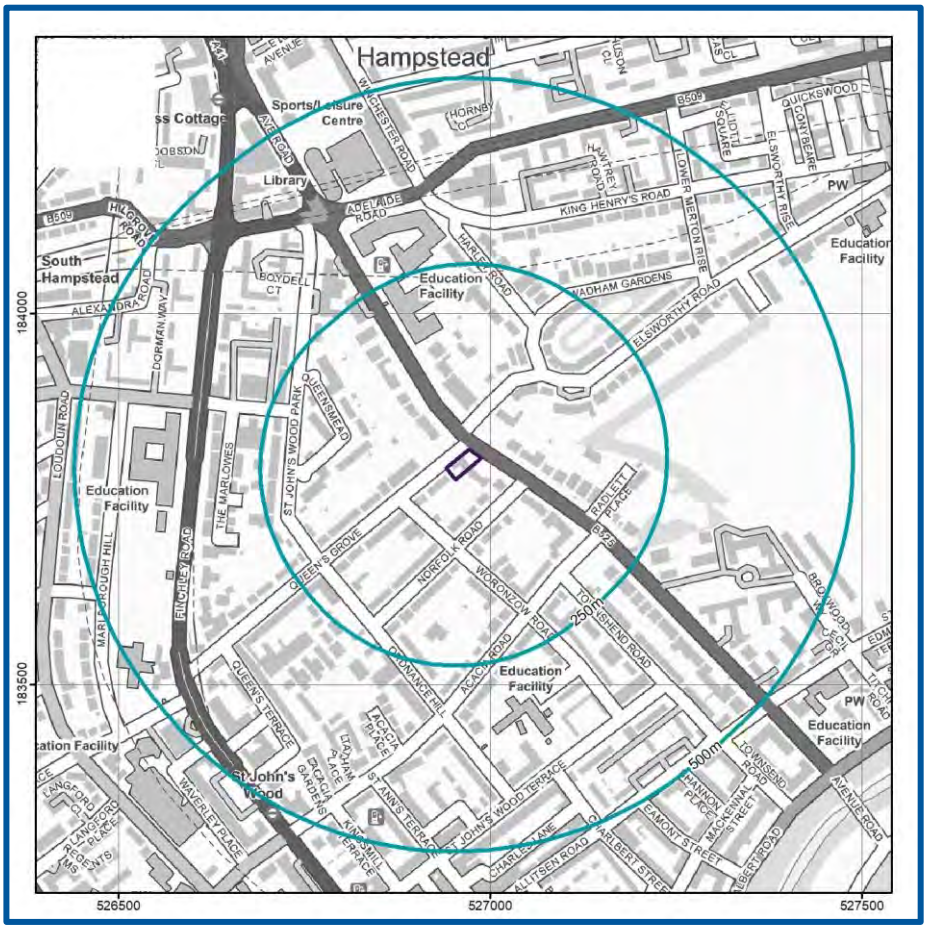
Proximity to relevant infrastructure

The nearest flood defences are located approximately 4.8km south east of the Site in the form of a raised wall on the bank of the River Thames.

Hydrogeological features

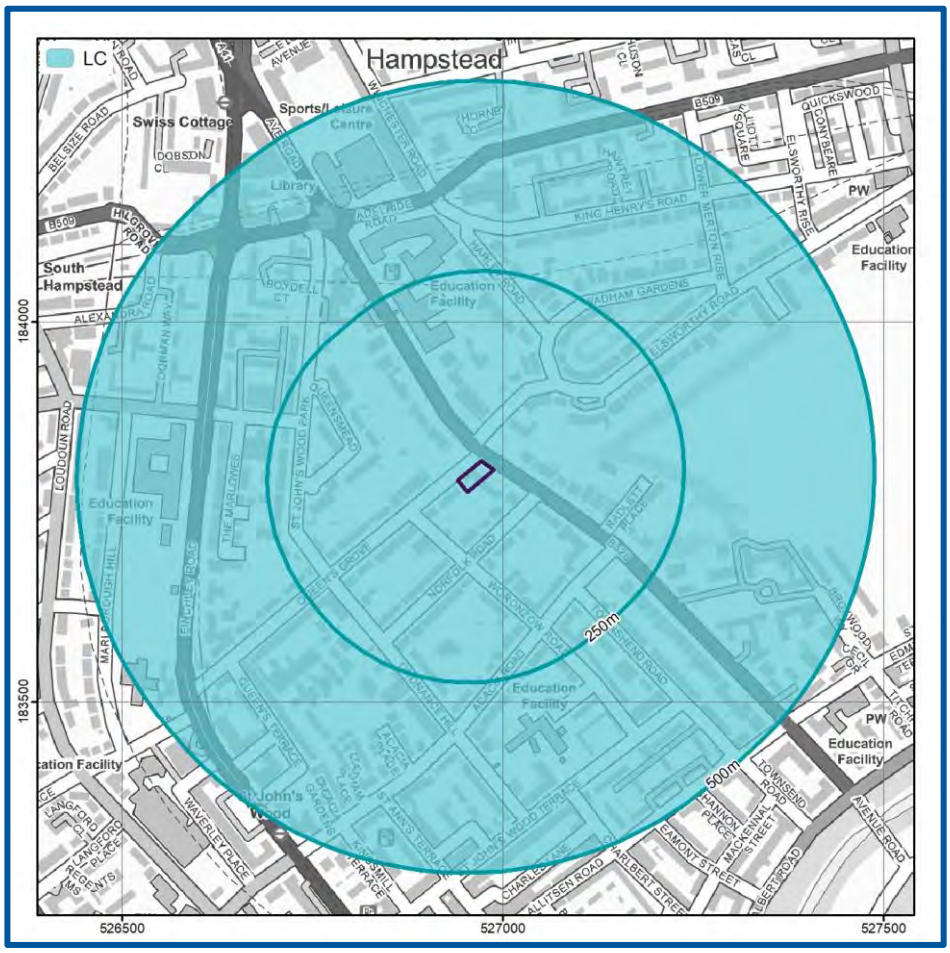
British Geological Survey (BGS) mapping indicates that there are no underlying superficial deposits (Figure 3).

Figure 3. Superficial Geology (BGS, 2022)



BGS mapping indicates the underlying bedrock geology (Figure 4) consists of the London Clay Formation (LC) (BGS, 2022) and is classified as Unproductive Strata (EA, 2022).

Figure 4. Bedrock Geology (BGS, 2022)



The Site lies within an outer groundwater Source Protection Zone (SPZ II) (EA, 2022).

A review of the BGS borehole database (BGS, 2022) indicates that the nearest and most relevant borehole (ref: TQ28SE353) is approximately 225 m to the west of the Site boundary at an elevation of 51.6 mAOD and indicates 0.3m thickness of paving stones over fill overlying 0.76 m of brown clay with stones overlying 3.66m of mottled brown and grey clay overlying 9.14m of dark brown fissured clay with a few gypsum crystals. Groundwater levels are not recorded.

The hydrogeological characteristics suggest there is unlikely to be a shallow groundwater table beneath the Site.

4. Flood risk to the development

Historical flood events

According to the EA's historical flood map no historical flood events have been recorded at the Site (EA, 2022). .

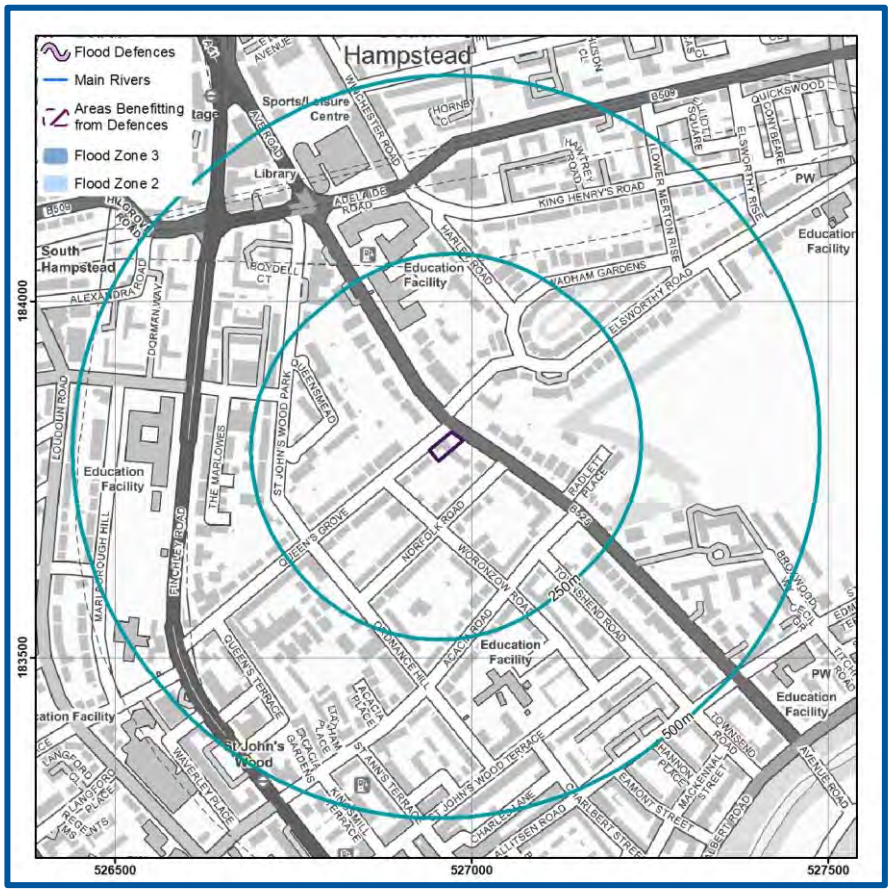
The SFRA does not document any records of historic flooding at the Site (URS, 2014).

The purpose of historical flood data is to provide information on where and why flooding may have occurred in the past. The absence of any recorded events does not mean flooding has never occurred on-Site or that flooding will never occur at the Site.

Rivers (fluvial) / Sea (coastal/tidal) flooding

According to the EA's Flood Map for Planning Purposes (Figure 5), the Site is located within fluvial and tidal Flood Zone 1 and is therefore classified as having a Low probability of fluvial and tidal (coastal) flooding. The Site lies approximately 4.6 km to the north west of the nearest land within Flood Zones 2 and 3.

Figure 5. EA Flood Map for Planning Purposes (EA, 2022)



Guidance

As defined in the NPPF (2021):

Ignoring the presence of any defences, land located in a Flood Zone 1 is considered to have a Low probability of flooding, with less than a 1 in 1000 annual probability of fluvial or coastal flooding in any one year.

Development of all uses of land is appropriate in this zone (see glossary for terminology).

Flood risk including the benefit of defences

The type and condition of existing flood defences influence the 'actual' risk of fluvial flooding to the Site, albeit the long-term residual risk of flooding (ignoring the defences) should be considered when proposing new development.

According to the EA's Risk of Flooding from Rivers and the Sea (RoFRS) mapping (Figure 6), which considers the crest height, standard of protection and condition of defences, the flood risk from Rivers and the Sea is Very Low.

Figure 6. Risk of Flooding from Rivers and Sea map (EA, 2022)

Surface water (pluvial) flooding

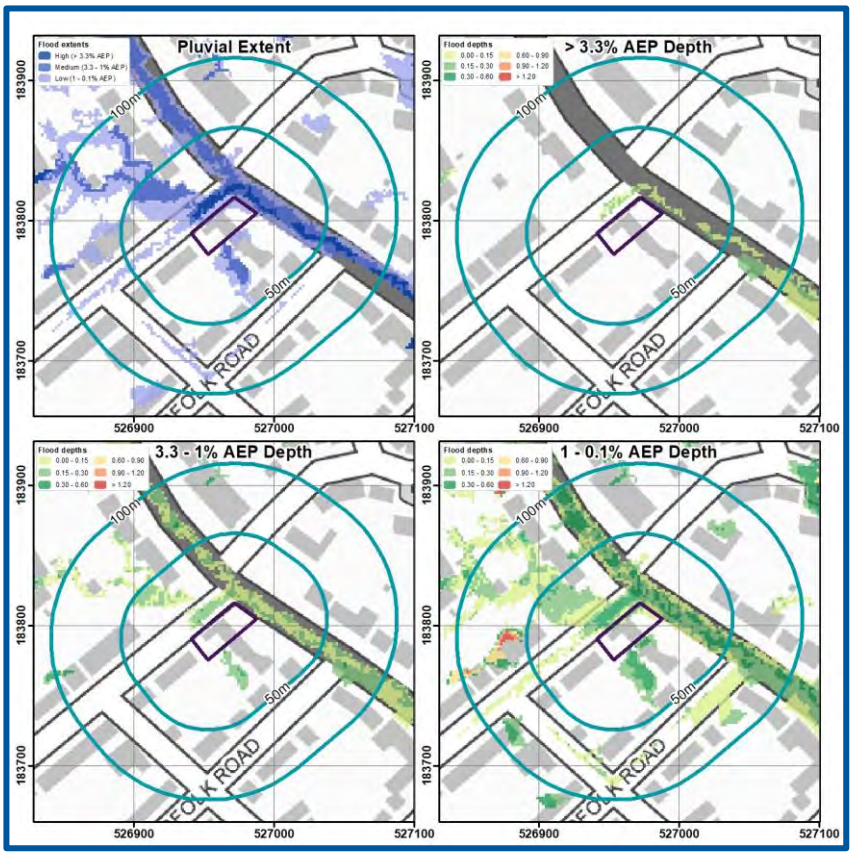
Surface water flooding occurs when intense rainfall exceeds the infiltration capacity of the ground and overwhelms the drainage systems. It can occur in most locations even at higher elevations and at significant distances from river and coastal floodplains.

According to the EA's Risk of Flooding from Surface Water (pluvial) flood mapping, the Site is at a Very Low-Low risk of pluvial flooding.

Figure 7 confirms the extent and depth of flooding during a range of return periods. This confirms an area in the north of the Site (approximately 22% of the Site) would be affected by flooding during a 1 in 1000 year event. During this event flood depths could be up to 0.3m. Access to the Site could be affected during this Low risk flooding event, however it is recognised that local highway drainage systems are likely to intercept the flood waters.

Figure 7 also confirms that areas immediately adjacent to the Site on the western and northern boundaries which are at Medium risk of surface water flooding where depths could range between 0.15 m and 0.3 m above ground. Access to the Site could be affected by the flooding on the northern boundary, however it is again recognised that local highway drainage systems are likely to intercept the flood waters. A review of the 3.3% AEP (1 in 30 year – high risk) event mapping shows these off-Site areas are also impacted during the High risk event to a depth of up to 0.3 m.

Figure 7. EA surface water flood risk map (EA, 2022)



Guidance

According to EA's surface water flood risk map the Site is at:

- Very Low risk - chance of flooding of less than 1 in 1000 (0.1%).
- Low risk - chance of flooding of between a 1 in 1000 & 1 in 100 (0.1% and 1%).

Analysis of OS mapping, ground elevation data and the EA's pluvial flow route mapping in the 1 in 1000 year event confirms the Site is located on a potential overland flow route during a Low risk scenario.

During this event the majority of of flow velocities are less than 0.25 m/s but could potentially affect the buildings and/or access routes to the Site, however a highway drainage network located within the highway of Queens Grove which may intercept and mitigate the surface water flooding.

Water may flow onto the Site from adjacent land to the west and should be managed, in addition to run-off generated on-Site.

The Site may potentially transmit overland flows off-Site in a north west direction.

The SFRA does not indicate any reported incidents of historical surface water flooding within 100 m of the Site (URS, 2014), however the LLFA has confirmed that Avenue Road experienced flooding in 2002 and 2021. Figure 6 of the SFRA confirms the Site is located within a Critical Drainage Area (CDA)1 - Group3_005 (URS, 2014) (Mapping included in Appendix E).

Climate change may lead to an increase in rainfall intensity which affects river levels, land and urban drainage systems. Rainfall intensity for small and urban catchments may increase from 5 to 20% (central estimate) or 10% to 40% (Upper estimate) over the period to 2115 (EA, 2022). The increase in surface water flood risk is best represented by the 1 in 1000 year pluvial flood extent but according to the mapping this is unlikely to impact the Site.

Guidance

According to EA's surface water flood risk map the following advisory guidance applies to the Site:

Flood Depth

- 0.15 to 0.3 m - Flooding would: typically exceed kerb height, likely exceed the level of a damp-proof course, cause property flooding in some areas

[1] A Critical Drainage Area (CDA) is an area that has critical drainage problems and which has been notified to the local planning authority as such by the Environment Agency in line with the National Planning Policy Framework (NPPF, 2021). CDA's are specific to Flood Zone 1, defined as areas where runoff can and may have historically contributed to flooding downstream, although they are not necessarily areas where flooding problems may occur. Where a Site is located in Flood Zone 1 and within a CDA, a Flood Risk Assessment (FRA) is required and the Council may also request Sustainable Drainage Scheme (SuDS) features to be included within the proposed development.

Groundwater flooding

Groundwater flooding occurs when sub-surface water emerges from the ground at the surface or into Made Ground and structures. This may be as a result of persistent rainfall that recharges aquifers until they are full; or may be as a result of high river levels, or tides, driving water through near-surface deposits. Flooding may last a long time compared to surface water flooding, from weeks to months. Hence the amount of damage that is caused to property may be substantially higher.

Groundwater Flood Risk screening data (Figure 8) indicates there is a Negligible risk of groundwater flooding at surface in the vicinity during a 1 in 100 year event.

Figure 8. GeoSmart GW5 Groundwater Flood Risk Map (GeoSmart, 2022)

Mapped classes combine likelihood, possible severity and the uncertainty associated with predicting the subsurface system. The map is a national scale screening tool to prompt site-specific assessment where the impact of groundwater flooding would have significant adverse consequences. Mapping limitations and a number of local factors may reduce groundwater flood risk to land and property even where it lies within mapped groundwater flood risk zones, which do not mean that groundwater floods will occur across the whole of the risk area

Figure 4e of the SFRA does not indicate any reported incidents of historical ground water flooding within 20 m of the Site (URS, 2014).

A site-specific assessment has been undertaken to refine the groundwater risk screening information on the basis of site-specific datasets (see Section 3) including BGS borehole data to develop a conceptual groundwater model. The risk rating is refined further using the vulnerability of receptors including occupants and the existing and proposed Site layout, including the presence of basements and buried infrastructure. The presence of any nearby or on-Site surface water features such as drainage ditches, which could intercept groundwater have also been considered.

Based on a review of (limited) site specific data and despite a basement being proposed as part of the proposed development there is unlikely to be a mechanism for groundwater flooding at the Site and the risk is Negligible.

Guidance
Negligible Risk - There will be a remote possibility that incidence of groundwater flooding could lead to damage to property or harm to other sensitive receptors at, or near, this location.

Climate change predictions suggest an increase in the frequency and intensity of extremes in groundwater levels. Rainfall recharge patterns will vary regionally resulting in changes to average groundwater levels. A rise in peak river levels will lead to a response of increased groundwater levels in adjacent aquifers subject to the predicted climate change increases in peak river level for the local catchment. Sea level rises of between 0.4m and 1m are predicted by 2100, leading to a rise in average groundwater levels in the adjacent coastal aquifer systems, and potential increases in water levels in the associated drainage systems. The 'backing up' of groundwater levels from both coast and tidal estuary locations may extend a significant distance inland and affect infrastructure previously constructed above average groundwater levels.

The impact of climate change on groundwater levels beneath the Site is linked to the predicted risk in both peak river levels and sea levels and also the variation in rainfall recharge which is uncertain.

Based on the available evidence the resulting increase to groundwater flood risk is not considered significant.

Flooding from artificial sources

Artificial sources of flood risk include waterbodies or watercourses that have been amended by means of human intervention rather than natural processes. Examples include reservoirs (and associated water supply infrastructure), docks, sewers and canals. The flooding mechanism associated with flood risk from artificial sources is primarily related to breach or failure of structures (reservoir, lake, sewer, canal, flood storage areas, etc.)

Sewer flooding

Figure 5a of the SFRA has identified 1 incidence or modelled incidences of internal flooding as a result of surcharging sewers within the NW8 6 postcode. However, it is recognised that this four digit postcode covers a large area and instances of flooding are not specific to the Site (URS, 2014).

The SFRA does not confirm whether the the Site has been identified as a "Local Flooding Hot Spot" (URS, 2014).

Records held by Thames Water indicate that there have been no incidences of flooding related to the surcharging of public sewers at the Site (Thames Water, 2022; Appendix B).

Guidance

Properties classified as "at risk" are those that have suffered, or are likely to suffer, internal flooding from public foul, combined or surface water sewers due to overloading of the sewerage system either once or twice in the ten year reference period. Records held by the sewage utility company provide information relating to reported incidents, the absence of any records does not mean that the Site is not at risk of flooding.

Canal failure

According to Ordnance Survey (OS) mapping, there are no canals within 500 m of the Site.

Water supply infrastructure

Water supply infrastructure is comprised of a piped network to distribute water to private houses or industrial, commercial or institution establishments and other usage points. In urban areas, this represents a particular risk of flooding due to the large amount of water supply infrastructure, its condition and the density of buildings. The risks of flooding to properties from burst water mains cannot be readily assessed.

If more information regarding the condition and history of the water supply infrastructure within the vicinity of the Site is required, then it is advisable to contact the local water supplier (Thames Water).

Culverts and bridges

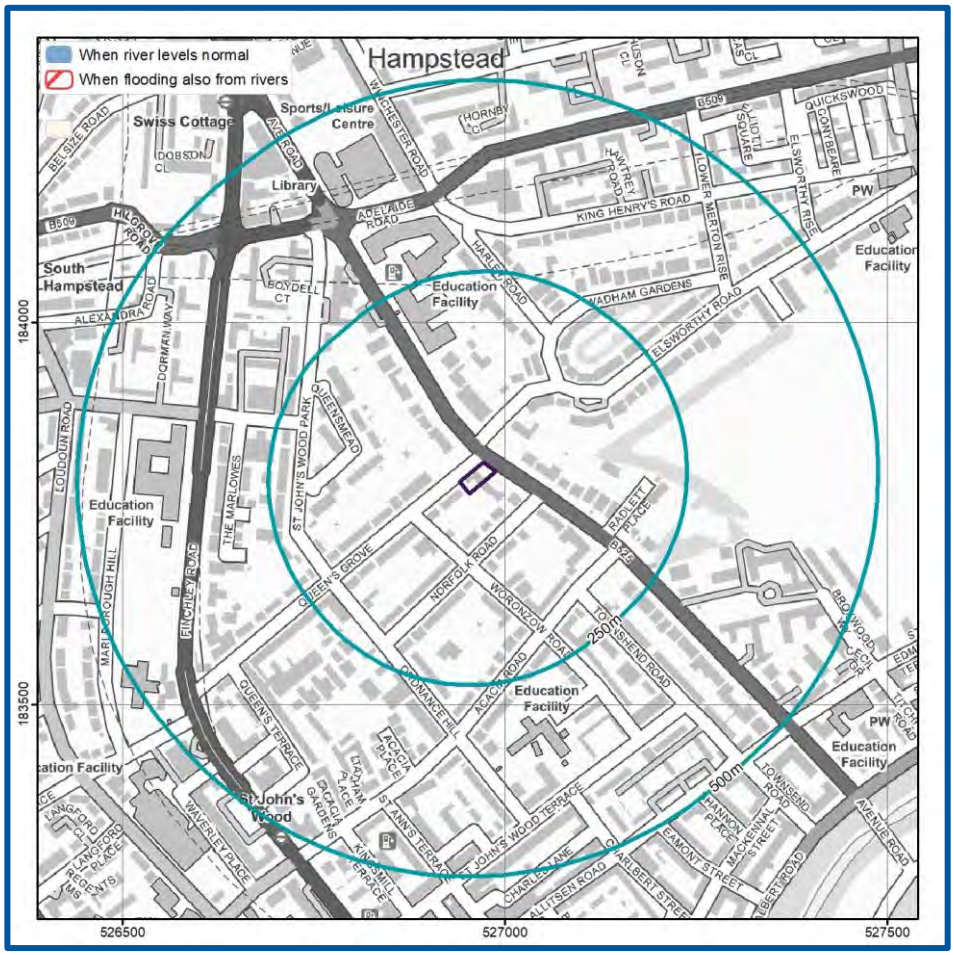
The blockage of watercourses or structures by debris (that is, any material moved by a flowing stream including vegetation, sediment and man-made materials or refuse) reduces flow capacity and raises water levels, potentially increasing the risk of flooding. High water levels can cause saturation, seepage and percolation leading to failure of earth embankments or other structures. Debris accumulations can change flow patterns, leading to scour, sedimentation or structural failure.

Culverts and bridges have not been identified within 500 m of the Site.

Reservoir flooding

According to the EA's Risk of Flooding from Reservoir mapping the Site is not at risk of flooding from reservoirs (Figure 9) (EA, 2022).

Figure 9. EA Risk of Reservoir Flooding (EA, 2022)



Guidance

The risk of reservoir flooding is related to the failure of a large reservoir (holding over 25,000 m^3 of water) and is based on the worst-case scenario. Reservoir flooding is extremely unlikely to occur (EA, 2022).

5. Flood risk from the development

Floodplain storage

As the development is located within Flood Zone 1, there would be no losses in floodplain storage as a result of the development.

Drainage and run-off

A surface water drainage strategy has been prepared separately (ref: 75438.01R1) to ensure surface water runoff can be managed effectively over the lifetime of the proposed development.

6. Suitability of the proposed development

The information below outlines the suitability of proposed development in relation to national and local planning policy.

National policy and guidance

The aims of the national planning policies are achieved through application of the Sequential Test and in some cases the Exception Test.

Guidance

Sequential test: The aim of this test is to steer new development towards areas with the lowest risk of flooding (NPPF, 2021). Reasonably available sites located in Flood Zone 1 should be considered before those in Flood Zone 2 and only when there are no reasonably available sites in Flood Zones 1 and 2 should development in Flood Zone 3 be considered.

Exception test: In some cases, this may need to be applied once the Sequential Test has been considered. For the exception test to be passed it must be demonstrated that the development would provide wider sustainability benefits to the community that outweigh flood risk and a site-specific FRA must demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

Suitability of the proposed development, and whether the Sequential and Exception Tests are required, is based on the Flood Zone the Site is located within and the flood risk vulnerability classification of the existing and proposed development. Some developments may contain different elements of vulnerability and the highest vulnerability category should be used, unless the development is considered in its component parts.

This report has been produced to assess all development types, prior to any development. The vulnerability classification and Flood Zones are compared within Table 2 overleaf (Table 3 of the NPPG (2014)).

As the Site is located within Flood Zone 1, all types of development listed within the Table overleaf are acceptable according to National Policy.

Table 2. Flood risk vulnerability and flood zone 'compatibility (taken from NPPG, 2014)

Flood risk vulnerability classification		Essential infrastructure	Water compatible	Highly vulnerable	More vulnerable	Less vulnerable
Flood Zone	Zone 1 – low probability	✓	✓	✓	✓	✓
	Zone 2 – medium probability	✓	✓	Exception test required	✓	✓
	Zone 3a - high probability	Exception test required	✓	X	Exception test required	✓
	Zone 3b – functional flood plain	Exception test required	✓	X	X	X

Local policy and guidance

For this report, several documents have been consulted for local policy and guidance and relevant information is outlined below:

Camden Local Plan (London Borough of Camden, 2017):

Policy CC3 Water and flooding

The Council will seek to ensure that development does not increase flood risk and reduces the risk of flooding where possible.

We will require development to:

- incorporate water efficiency measures;
- avoid harm to the water environment and improve water quality;
- consider the impact of development in areas at risk of flooding (including drainage);
- incorporate flood resilient measures in areas prone to flooding;
- utilise Sustainable Drainage Systems (SuDS) in line with the drainage hierarchy to achieve a greenfield run-off rate where feasible; and

- not locate vulnerable development in flood-prone areas. Where an assessment of flood risk is required, developments should consider surface water flooding in detail and groundwater flooding where applicable.

The Council will protect the borough's existing drinking water and foul water infrastructure, including the reservoirs at Barrow Hill, Hampstead Heath, Highgate and Kidderpore.

Policy A5 Basements

The Council will only permit basement development where it is demonstrated to its satisfaction that the proposal would not cause harm to:

- neighbouring properties;
- the structural, ground, or water conditions of the area;
- the character and amenity of the area;
- the architectural character of the building; and
- the significance of heritage assets.

In determining proposals for basements and other underground development, the Council will require an assessment of the scheme's impact on drainage, flooding, groundwater conditions and structural stability in the form of a Basement Impact Assessment and where appropriate, a Basement Construction Plan.

The siting, location, scale and design of basements must have minimal impact on, and be subordinate to, the host building and property. Basement development should:

- not comprise of more than one storey;
- not be built under an existing basement;
- not exceed 50% of each garden within the property;
- be less than 1.5 times the footprint of the host building in area;
- extend into the garden no further than 50% of the depth of the host building measured from the principal rear elevation;
- not extend into or underneath the garden further than 50% of the depth of the garden;
- be set back from neighbouring property boundaries where it extends beyond the footprint of the host building; and
- avoid the loss of garden space or trees of townscape or amenity value.

Exceptions to f. to k. above may be made on large comprehensively planned sites.

The Council will require applicants to demonstrate that proposals for basements:

- do not harm neighbouring properties, including requiring the provision of a Basement Impact Assessment which shows that the scheme poses a risk of damage to neighbouring properties no higher than Burland Scale 1 'very slight';
- avoid adversely affecting drainage and run-off or causing other damage to the water environment;

- avoid cumulative impacts;
- do not harm the amenity of neighbours;
- provide satisfactory landscaping, including adequate soil depth;
- do not harm the appearance or setting of the property or the established character of the surrounding area;
- protect important archaeological remains; and
- do not prejudice the ability of the garden to support trees where they are part of the character of the area.

The Council will not permit basement schemes which include habitable rooms and other sensitive uses in areas prone to flooding.

We will generally require a Construction Management Plan for basement developments.

Given the complex nature of basement development, the Council encourages developers to offer security for expenses for basement development to adjoining neighbours.

London Borough of Camden Strategic Flood Risk Assessment (URS, 2014):

- The Environment Agency's Historic Flood Map shows that no flooding has occurred within LBC from fluvial or tidal sources.
- 4.2 Flooding from Surface Water
    - 4.2.1 The LBC Surface Water Management Plan (SWMP) identified a number of Critical Drainage Areas (CDAs) within LBC (Appendix B: Figure 6), which are defined in the SWMP as: "A discrete geographic area (usually a hydrological catchment) where multiple and interlinked sources of flood risk (surface water, groundwater, sewer, main river and/or tidal) cause flooding in one or more Local Flood Risk Zones during severe weather thereby affecting people, property or local infrastructure."
    - 4.2.2 Therefore a specific area within a CDA is not necessarily at higher risk from surface water than an area outside of a CDA. However, the location of an area within a CDA indicates that it is within a catchment area which contributes to a flooding hotspot. Within CDAs, surface water management should be a particul0.07ar focus of new developments.
    - 4.2.3 The majority of the borough is located within a CDA identified in the SWMP (See Appendix B Figure 6), with the exception of a narrow strip of land along the northern boundary of the borough, the western section of Hampstead Heath including the Hampstead Pond chain and an area around Royal Free Hospital. Any development in areas of previously undeveloped land in LBC is likely to have a negative impact on surface water flood risk in LBC by reducing the potential for infiltration of runoff unless appropriate surface water management is incorporated into the development to reduce the runoff from the site post-development.

Guidance

Strategic Flood Risk Assessments are carried out by local authorities, in consultation with the Environment Agency, to assess the flood risk to the area from all sources both now and in the future due to climate change. They are used to inform planning decisions to ensure inappropriate development is avoided (NPPF, 2021).

7. Resilience and mitigation

Based on the flood risk identified at the Site, the national and local policies and guidance and proposed development, the mitigation measures outlined within this section of the report are likely to help protect the development from flooding.

Sea (coastal/tidal) flood mitigation measures

As the Site is not identified as being at risk of flooding from the sea, mitigation measures are not required.

Rivers (fluvial) flood mitigation measures

As the Site is not identified as being at risk of flooding from fluvial sources, mitigation measures are not required.

Surface water (pluvial) flood mitigation measures

A Very Low-Low surface water (pluvial) flooding risk has been identified at the Site. In order to ensure the development includes sufficient flood mitigation measures to reduce the risk of pluvial flooding over its lifetime, the flood depths, levels and appropriate mitigation measures are summarised below:

Flood event	Flood depth (m)
1 in 30	No flooding
1 in 100	No flooding
1 in 1000	Up to 0.3

This report recognises that development proposals are for the extension of an existing dwelling, therefore it is not practicable to recommend the raising of finished floor levels. Alternatively, it may be appropriate to adopt a water exclusion strategy for flood depths up to 0.3 m in line with the EA's Standing Advice. A water exclusion strategy, using avoidance and resistance measures, is appropriate where floods are expected to last for short durations. Potential water exclusion strategies include:

- Passive flood door systems;
- Temporary flood barriers;
- Air brick covers (manual or automatic closing);
- Non-return flap valves on sewer outfalls.

Avoidance and resistance measures are unlikely to completely prevent floodwater entering a property, particularly during longer duration flood events. Therefore, it is recommended that the following flood resilience measures are also considered.

- Flood resilient materials and designs:
    - Use of low permeability building materials up to 0.3 m such as engineering bricks (Classes A and B) or facing bricks;
    - Hard flooring and flood resilient metal staircases;
    - The use of internal lime plaster/render or where plasterboards are used these should be fitted horizontally instead of vertically and/or using moisture resistant plasterboard at lower levels;
    - Water, electricity and gas meters and electrical sockets should be located above the predicted flood level;
    - Communications wiring: wiring for telephone, TV, Internet and other services should be protected by suitable insulation in the distribution ducts to prevent damage.

In addition, the regular maintenance of any drains and culverts surrounding/on the Site should be undertaken to reduce the flood risk.

A surface water drainage strategy has been prepared separately (ref: 75438.01) to ensure surface water runoff can be managed effectively over the lifetime of the proposed development.

If these mitigation measures are implemented this could reduce the flood risk to the development from Very Low-Low to Very Low.

Groundwater flood mitigation measures

As the Site is not identified as being at risk of groundwater flooding, mitigation measures are not required. However, as per Camden's Local Plan guidance, a Basement Impact Assessment should be undertaken.

Reservoir flood mitigation measures

The Site is not a risk of flooding from reservoirs; therefore, mitigation measures are not required.

Other flood risk mitigation measures

As the Site is not identified as at risk from other sources, mitigation measures are not required.

Residual flood risk mitigation measures

The risk to the Site has been assessed from all sources of flooding and appropriate mitigation and management measures proposed to keep the users of the development safe over its lifetime. There is however a residual risk of flooding associated with the potential for failure of mitigation measures if regular maintenance and upkeep isn't undertaken. If mitigation

measures are not implemented or maintained, the risk to the development will remain as the baseline risk.

Further flood mitigation information

More information on flood resistance, resilience and water entry can be found here: http://www.planningportal.gov.uk/uploads/br/flood_performance.pdf

www.knowyourfloodrisk.co.uk

8. Conclusions and recommendations

Table 3. Risk ratings following implementation and subsequent maintenance of mitigation measures

Source of Flood Risk	Baseline	After Mitigation
River (fluvial) and Sea (coastal/tidal) flooding	Very Low	N/A
Surface water (pluvial) flooding	Very Low-Low	Very Low
Groundwater flooding	Negligible	N/A
Other flood risk factors present	No	N/A

The table below provides a summary of where the responses to key questions are discussed in this report. Providing the recommended mitigation measures are put in place it is likely that flood risk to this Site will be reduced to an acceptable level.

Table 4. Summary of responses to key questions in the report

Key sources of flood risks identified	Surface water (pluvial) (see Section 4).
Are standard mitigation measures likely to provide protection from flooding to/from the Site?	Yes (see Section 7).
Is any further work recommended?	Yes

9. Further information

The following table includes a list of additional products by GeoSmart:

Additional GeoSmart Products			
✓	Additional assessment: EnviroSmart Report		Provides a robust desk-based assessment of potential contaminated land issues, taking into account the regulatory perspective. Our EnviroSmart reports are designed to be the most cost effective solution for planning conditions. Each report is individually prepared by a highly experienced consultant conversant with Local Authority requirements. Ideal for pre-planning or for addressing planning conditions for small developments. Can also be used for land transactions. Please contact info@geosmartinfo.co.uk for further information.

10. References and glossary

References

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GeoSmart Information

Glossary

General terms

BGS	British Geological Survey
EA	Environment Agency
GeoSmart groundwater flood risk model	GeoSmart's national groundwater flood risk model takes advantage of all the available data and provides a preliminary indication of groundwater flood risk on a 50m grid covering England and Wales. The model indicates the risk of the water table coming within 1 m of the ground surface for an indicative 1 in 200 year return period scenario.
Dry-Island	An area considered at low risk of flooding (e.g. In a Flood Zone 1) that is entirely surrounded by areas at higher risk of flooding (e.g. Flood Zone 2 and 3)
Flood resilience	Flood resilience or wet-proofing accepts that water will enter the building, but through careful design will minimise damage and allow the re-occupancy of the building quickly. Mitigation measures that reduce the damage to a property caused by flooding can include water entry strategies, raising electrical sockets off the floor, hard flooring.
Flood resistance	Flood resistance, or dry-proofing, stops water entering a building. Mitigation measures that prevent or reduce the likelihood of water entering a property can include raising flood levels or installation of sandbags.
Flood Zone 1	This zone has less than a 0.1% annual probability of river flooding
Flood Zone 2	This zone has between 0.1 and 1% annual probability of river flooding and between 0.1% and 0.5 % annual probability sea flooding
Flood Zone 3	This zone has more than a 1% annual probability of river flooding and 0.5% annual probability of sea flooding
Functional Flood Plain	An area of land where water has to flow or be stored in times of flood.
Hydrologic model	A computer model that simulates surface run-off or fluvial flow. The typical accuracy of hydrologic models such as this is ±0.25m for estimating flood levels at particular locations.
OS	Ordnance Survey
Residual Flood Risk	The flood risk remaining after taking mitigating actions.
SFRA	Strategic Flood Risk Assessment. This is a brief flood risk assessment provided by the local council

SuDS	A Sustainable drainage system (SuDS) is designed to replicate, as closely as possible, the natural drainage from the Site (before development) to ensure that the flood risk downstream of the Site does not increase as a result of the land being developed. SuDS also significantly improve the quality of water leaving the Site and can also improve the amenity and biodiversity that a Site has to offer. There are a range of SuDS options available to provide effective surface water management that intercept and store excess run-off. Sites over 1 Ha will usually require a sustainable drainage assessment if planning permission is required. The current proposal is that from April 2014 for more than a single dwelling the drainage system will require approval from the SuDS Approval Board (SABs).

Aquifer Types

Principal aquifer	These are layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale.
Secondary A aquifer	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.
Secondary B aquifer	Predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.
Secondary undifferentiated	Has been assigned in cases where it has not been possible to attribute either category A or B to a rock type due to the variable characteristics of the rock type.
Unproductive Strata	These are rock layers or drift deposits with low permeability that has negligible significance for water supply or river base flow.

NPPF (2021) terms

Exception test	Applied once the sequential test has been passed. For the exception test to be passed it must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk and a site-specific FRA must demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.
Sequential test	Aims to steer new development to areas with the lowest probability of flooding.
Essential infrastructure	Essential infrastructure includes essential transport infrastructure, essential utility infrastructure and wind turbines.

Water compatible	Water compatible land uses include flood control infrastructure, water-based recreation and lifeguard/coastal stations.
Less vulnerable	Less vulnerable land uses include police/ambulance/fire stations which are not required to be operational during flooding and buildings used for shops/financial/professional/other services.
More vulnerable	More vulnerable land uses include hospitals, residential institutions, buildings used for dwelling houses/student halls/drinking establishments/hotels and sites used for holiday or short-let caravans and camping.
Highly vulnerable	Highly vulnerable land uses include police/ambulance/fire stations which are required to be operational during flooding, basement dwellings and caravans/mobile homes/park homes intended for permanent residential use.

Data Sources

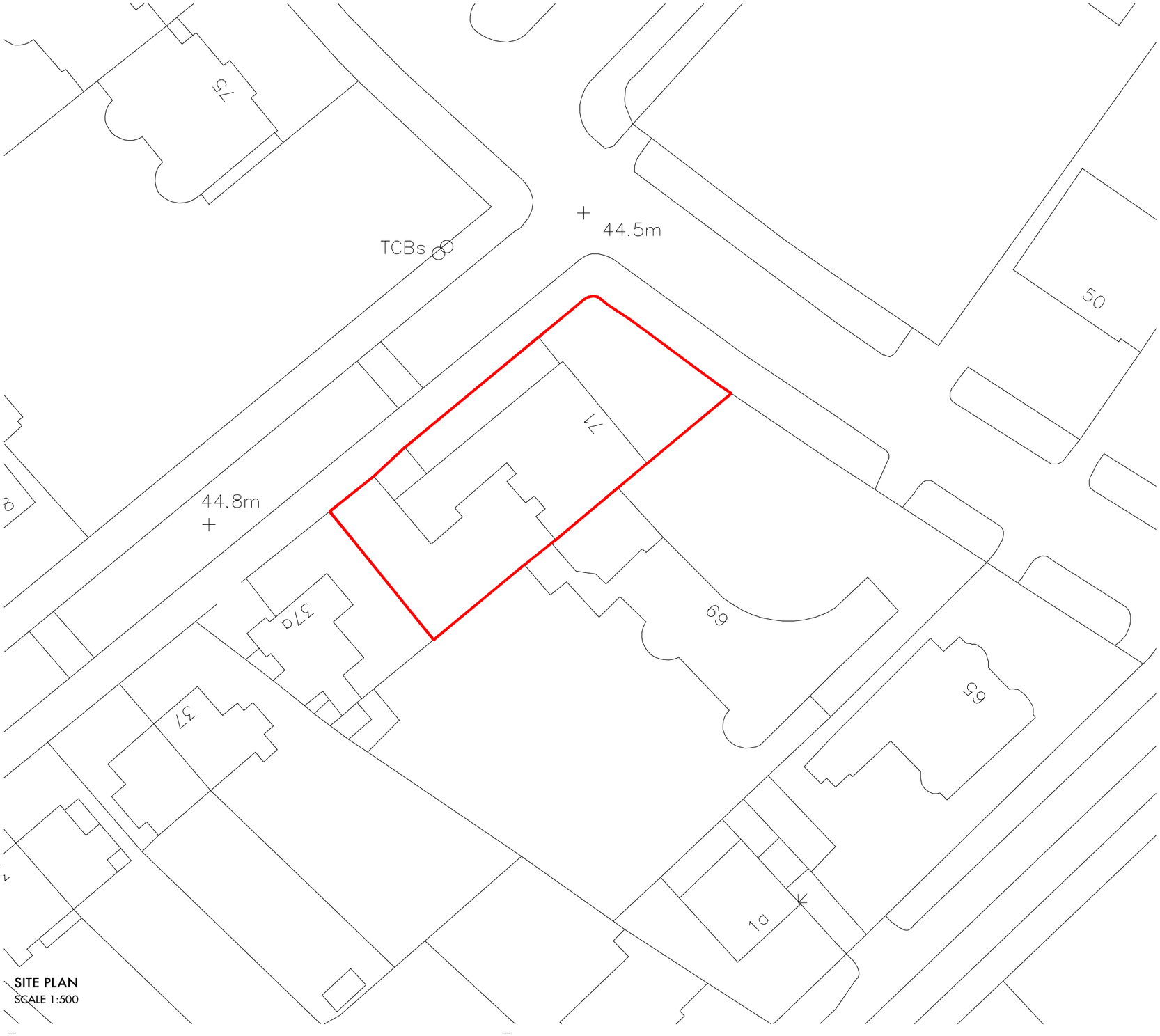
Aerial Photography	Contains Ordnance Survey data © Crown copyright and database right 2022 BlueSky copyright and database rights 2022
Bedrock & Superficial Geology	Contains British Geological Survey materials © NERC 2022 Ordnance Survey data © Crown copyright and database right 2022
Flood Risk (Flood Zone/RoFRS/Historic Flooding/Pluvial/Surface Water Features/Reservoir/ Flood Alert & Warning)	Environment Agency copyright and database rights 2022 Ordnance Survey data © Crown copyright and database right 2022
Flood Risk (Groundwater)	GeoSmart, BGS & OS GW5 (v2.4) Map (GeoSmart, 2022) Contains British Geological Survey materials © NERC 2022 Ordnance Survey data © Crown copyright and database right 2022
Location Plan	Contains Ordnance Survey data © Crown copyright and database right 2022
Topographic Data	OS LiDAR/EA Contains Ordnance Survey data © Crown copyright and database right 2022 Environment Agency copyright and database rights 2022

11. Appendices

GeoSmart Information

Appendix A

Site plans



SITE PLAN
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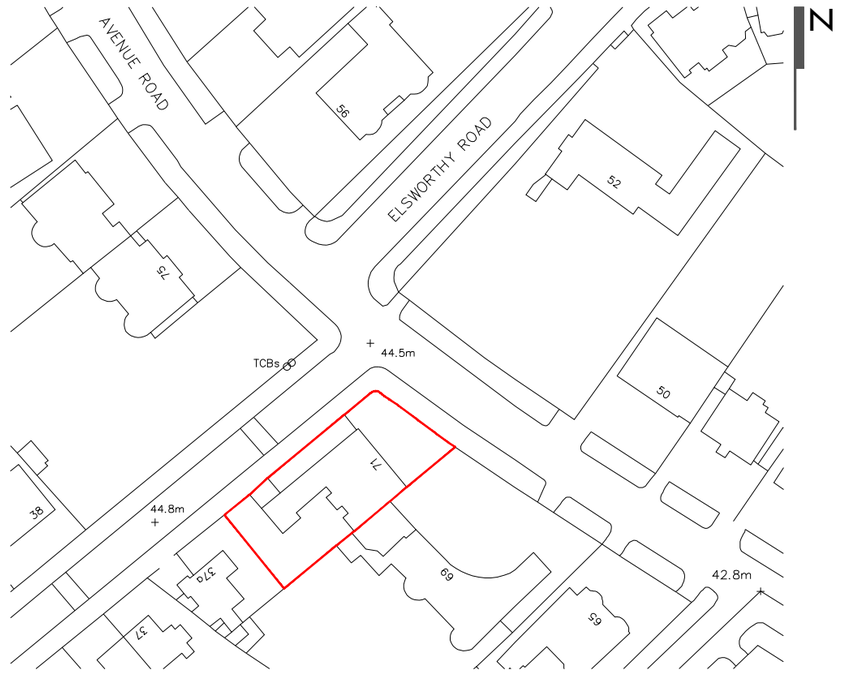

LOCATION PLAN
SCALE 1:1250

APPLICATION SITE

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0m 5m 25m 50m

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Mr Meir N N Gareh
client_

19.07.19
date_

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project no_

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Planning
status_

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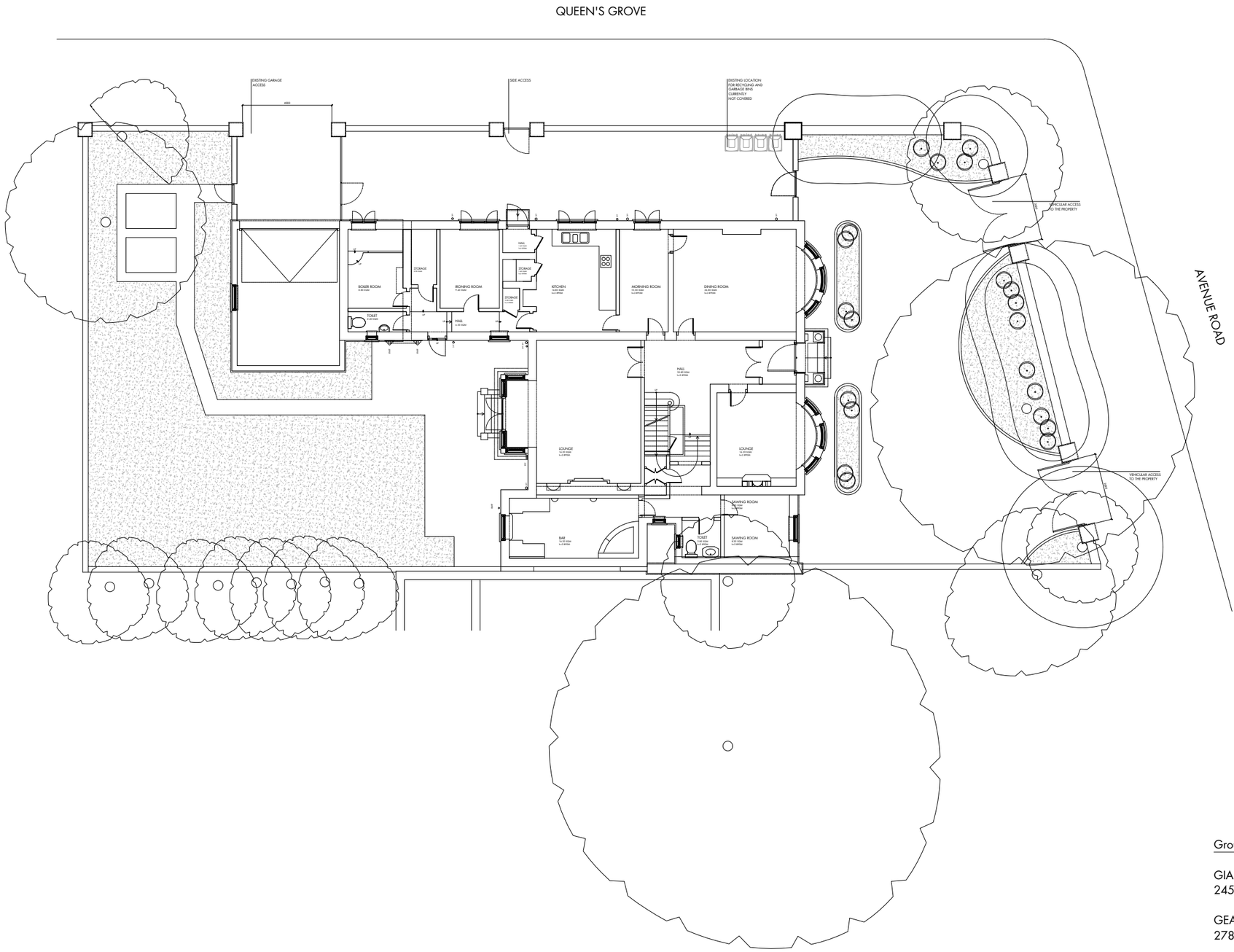

Ground Floor Area:

GIA Sq m	GIA Sq ft
245.00	2637.00

GEA Sq m	GEA Sq ft
278.00	2992.00

GROUND FLOOR PLAN

SCALE 1:200

0m 2m 10m 20m

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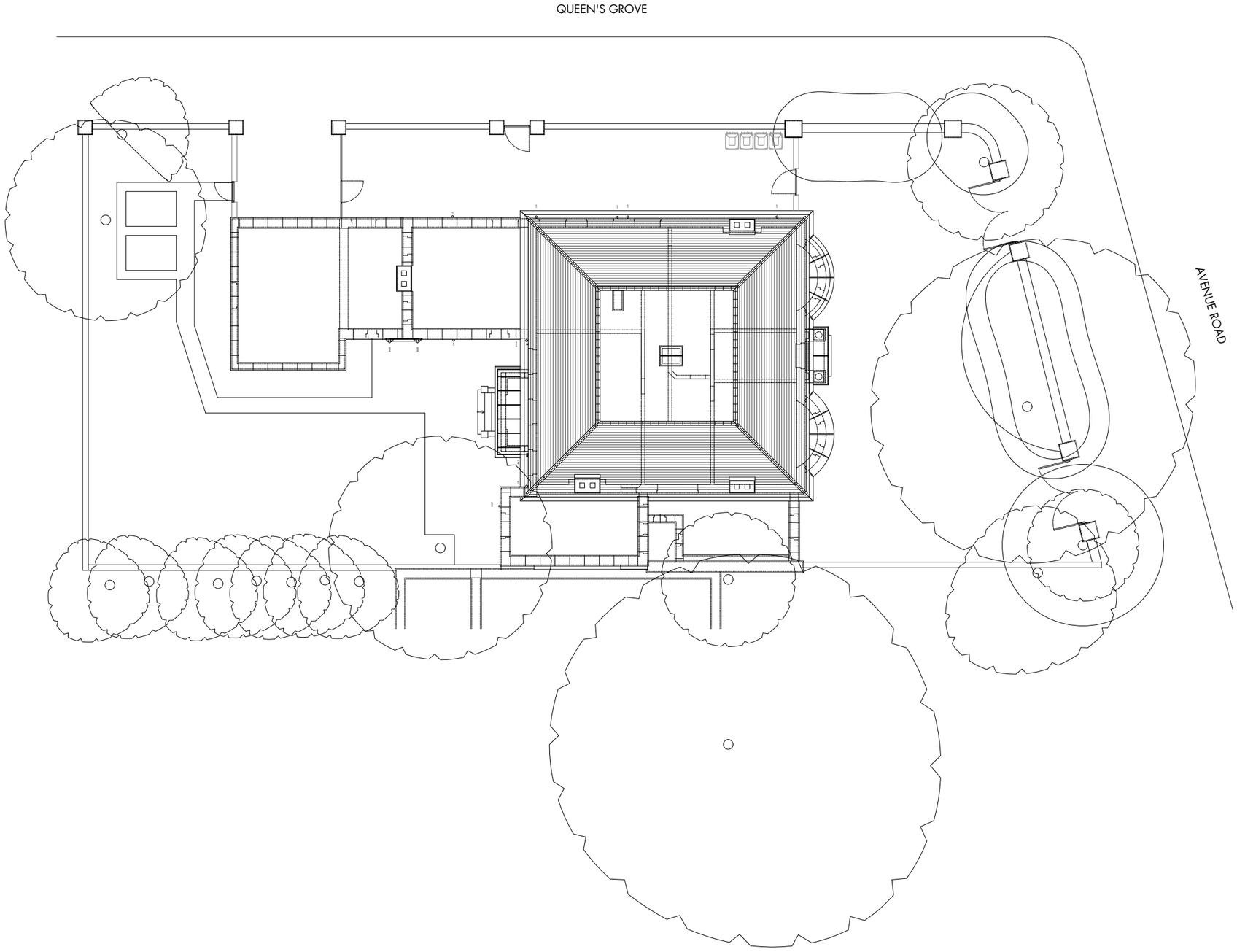

ROOF PLAN

SCALE 1:200

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Planning
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drawing no_

FRONT ELEVATION
SCALE 1:100

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scale_

Planning
status_

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drawing no_

SIDE ELEVATION
SCALE 1:100

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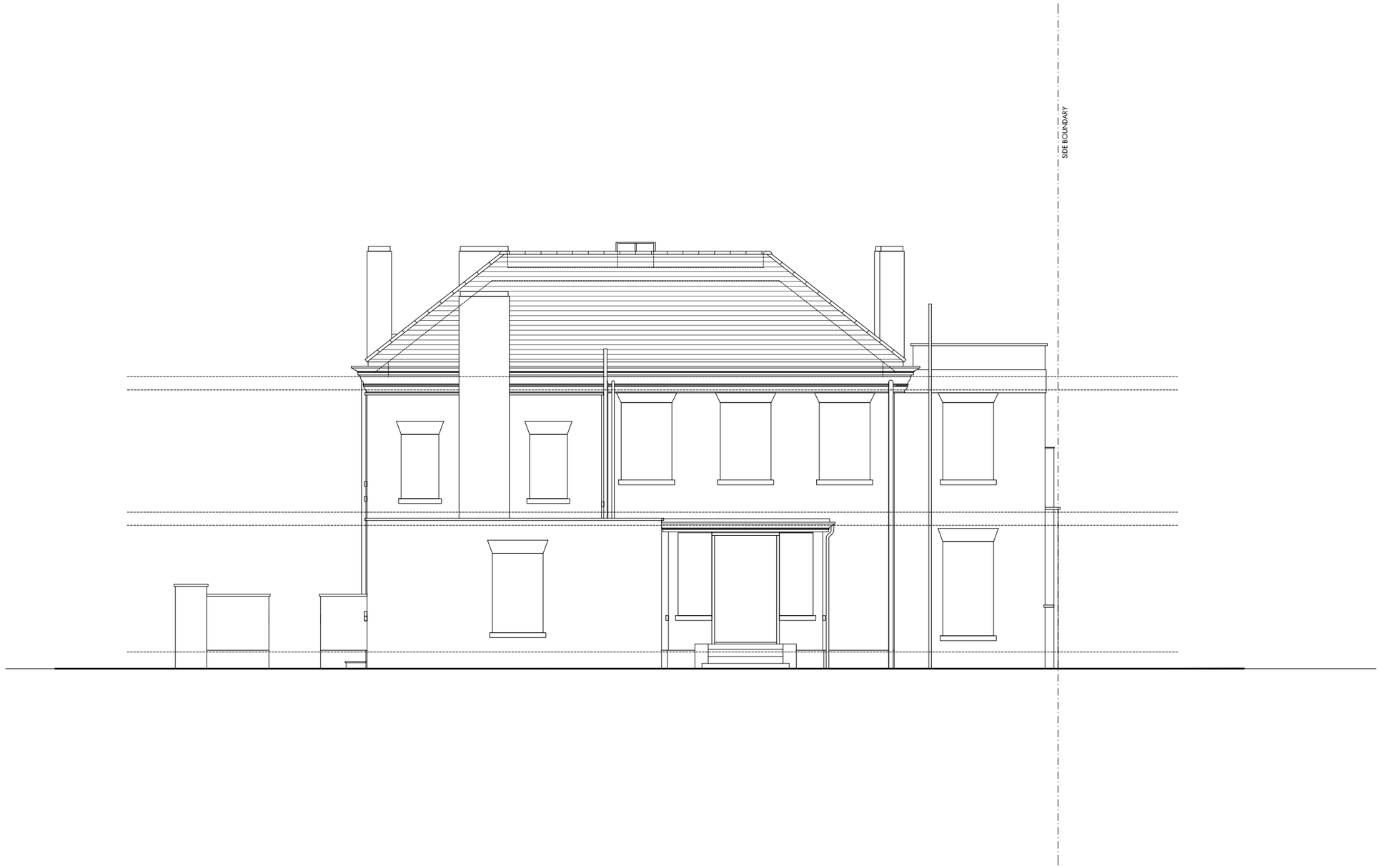

REAR ELEVATION
SCALE 1:100

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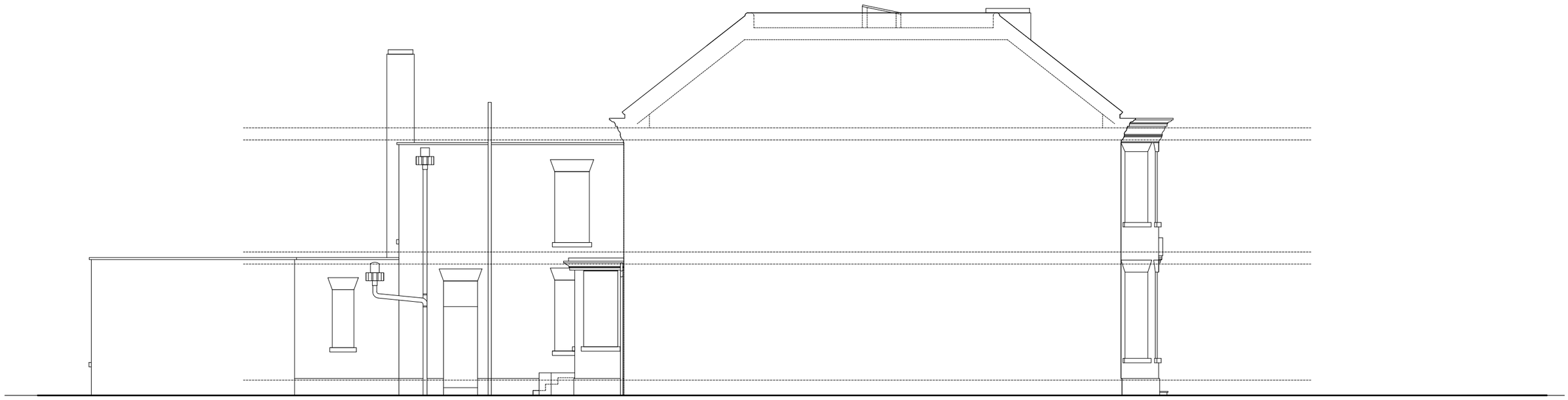

SIDE ELEVATION
SCALE 1:100

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Dimensions stated are for guidance only, contractor to verify all boundary positions and dimensions on site prior to commencing any works, making workshop drawings or obtaining any materials.
No site supervision is impliedor undertaken unless otherwise separately arranged.
The drawing does not indicate the extent of any excavation works and the contractor is to determine this prior to submitting a quotation for the works or commencing any works.
The drawing does not indicate or imply the structural condition of the property, the survey carried out was a "measure survey" for assistance in the preparation of details for Planning and Building Regulations purposes only. The details shown assume that the property is in sound condition and that there are no adverse ground conditions.
Prior to commencing works the contractor must verify with the client that no underpinning of the property has been carried out and that no structural survey has been undertaken reporting that structural and/or ground problems exist.

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Prior to commending works the contractor must obtain verification from the client or his legal adviser that no restrictive covenants exist or that any "right of light" wilt not be infringed and if so that reasonable steps have been taken by the client to comply with them.
Prior to commencing works the contractor must have sight of the Planning and Building Regulations approval and must note any conditions thereon, in particular, the Planning Consent will require samples of the facing materials to be submitted to the Planning Authority for their written approval prior to installation on sits.
All materials and workmanship to comply with the current Building Regulations and all relevant British Standards and Codes of Practice.

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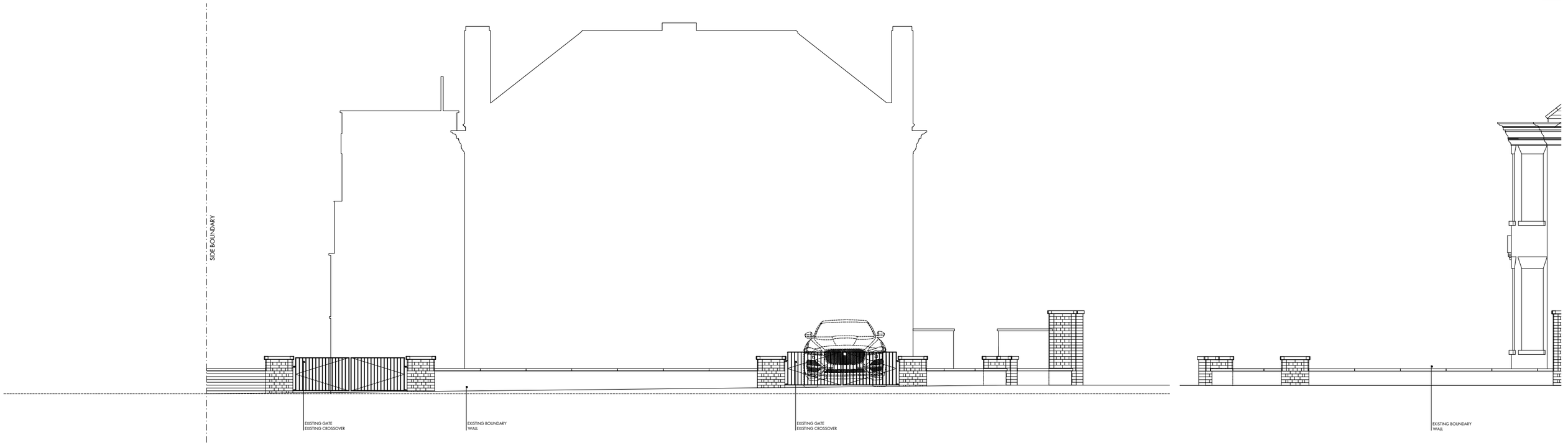

STREET ELEVATION
AVENUE ROAD
SCALE 1:200

STREET ELEVATION
QUEEN'S GROVE
SCALE 1:200

STREET ELEVATION
QUEEN'S GROVE
SCALE 1:200

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Dimensions stated are for guidance only, contractor to verify all boundary positions and dimensions on site prior to commencing any works, making workshop drawings or obtaining any materials.
No site supervision is impliedor undertaken unless otherwise separately arranged.
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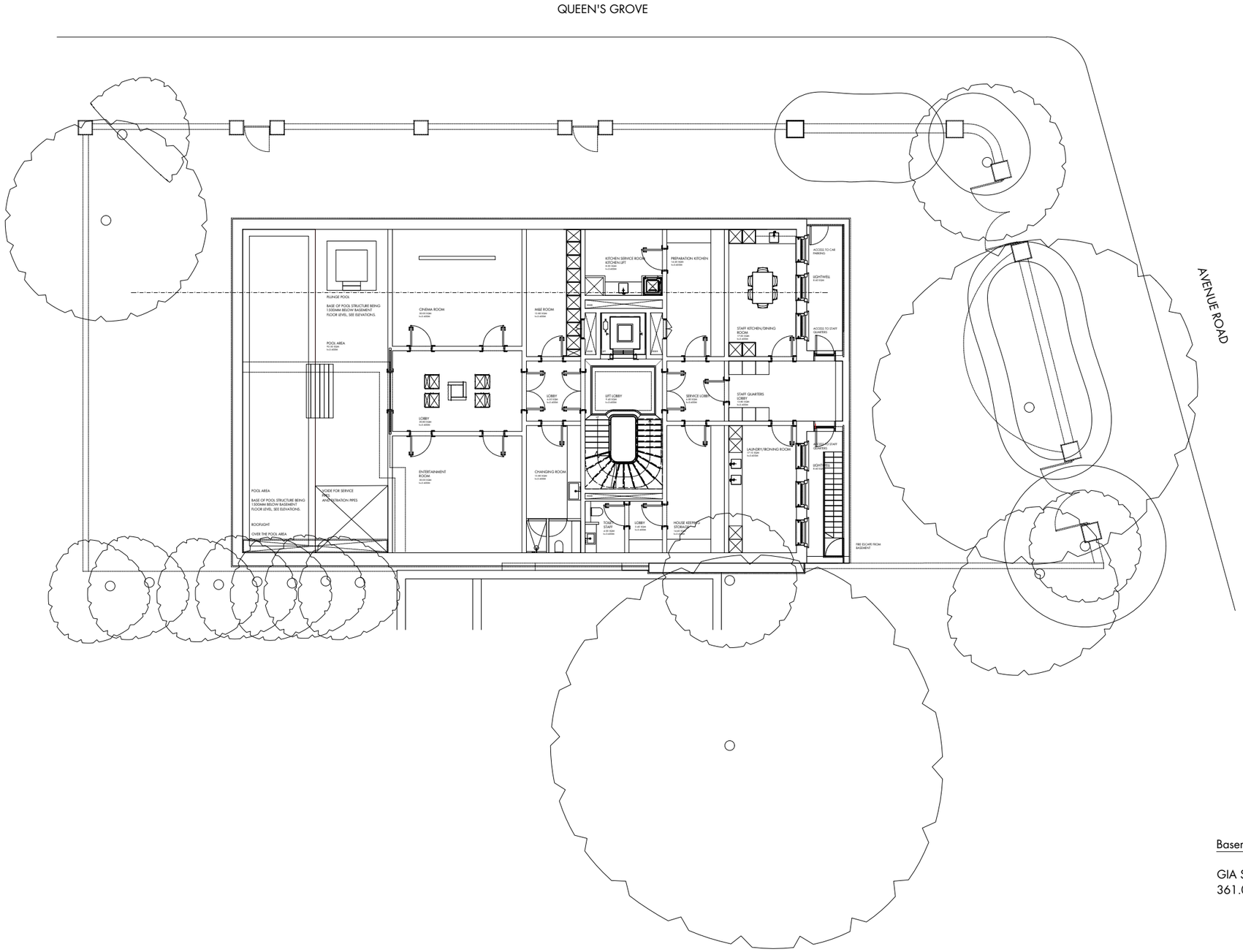

Basement Area:

GIA Sq m	GIA Sq ft
361.00	3885.00

BASEMENT PLAN

SCALE 1:200

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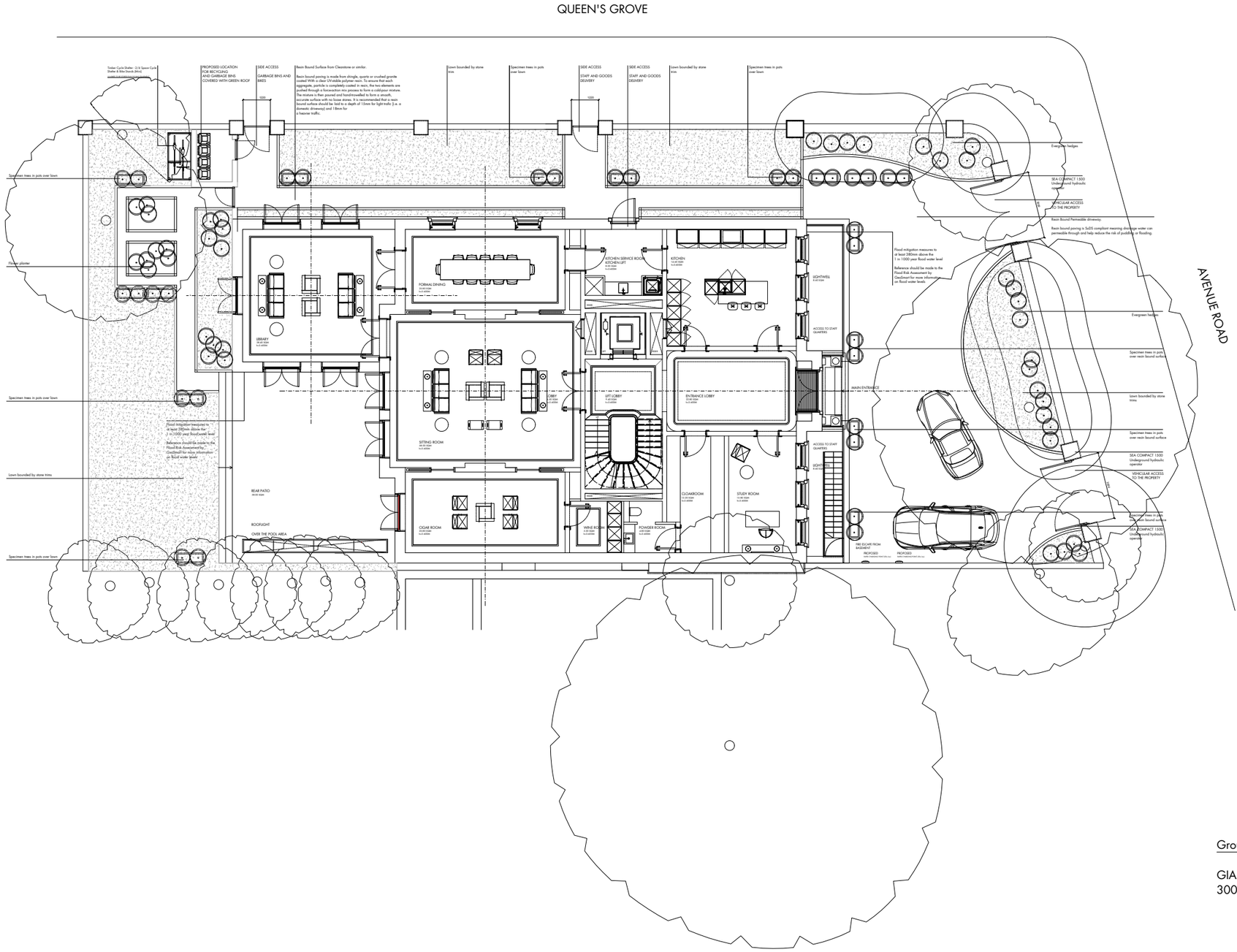

Ground floor Area:

GIA Sq m	GIA Sq ft
300.00	3229.00

GROUND FLOOR PLAN

SCALE 1:200

0m 2m 10m 20m

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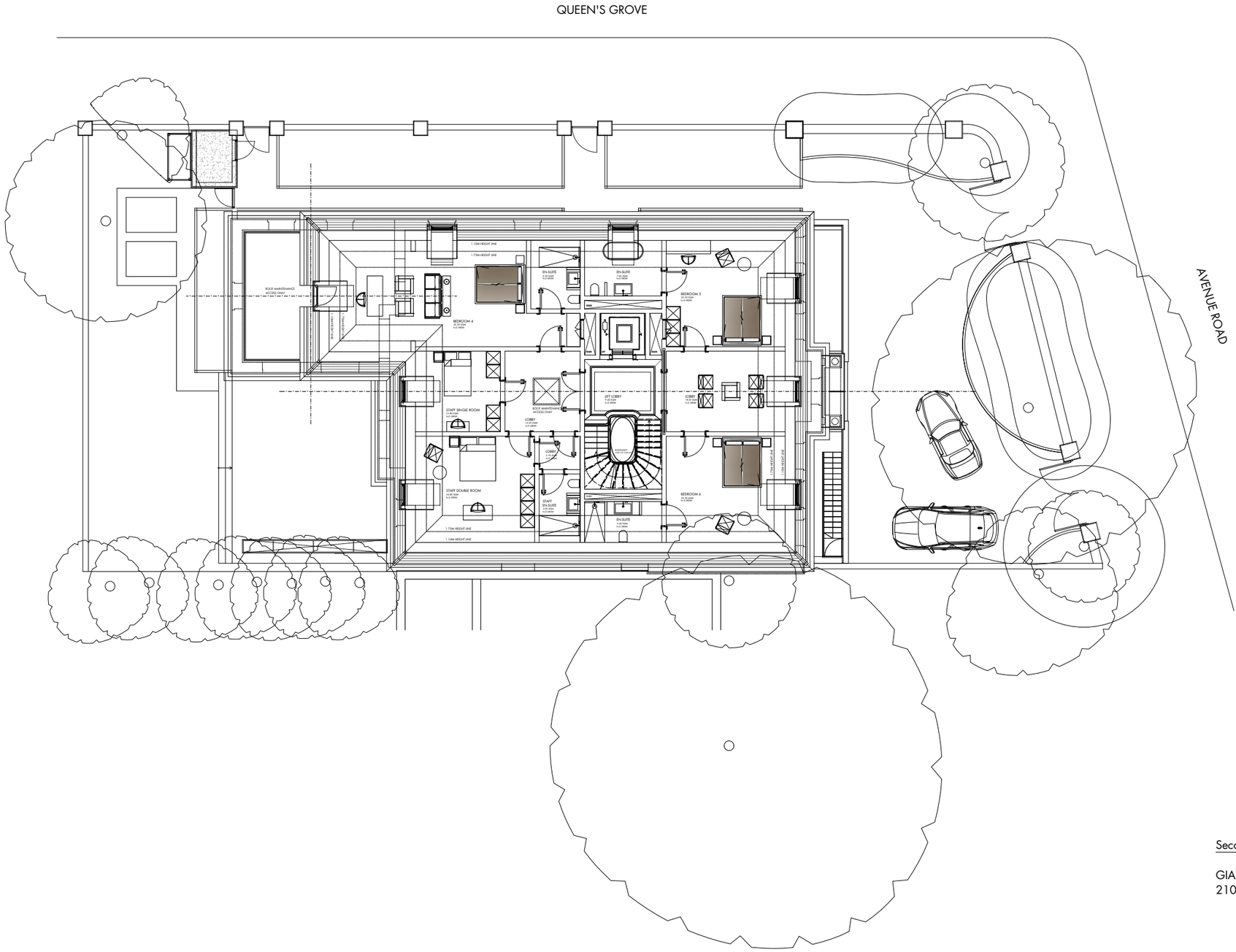
P101 Rev_K
drawing no_



Second floor Area:

GIA Sq m	GIA Sq ft
210.00	2260.00

SECOND FLOOR PLAN

SCALE 1:200

—

—

Dimensions stated are for guidance only, contractor to verify all boundary positions and dimensions on site prior to commencing any works, making workshop drawings or obtaining any materials.
No site supervision is impliedor undertaken unless otherwise separately arranged.
The drawing does not indicate the extent of any excavation works and the contractor is to determine this prior to submitting a quotation for the works or commencing any works.
The drawing does not indicate or imply the structural condition of the property, the survey carried out was a ''measure survey'' for assistance in the preparation of details for Planning and Building Regulations purposes only. The details shown assume that the property is in sound condition and that there are no adverse ground conditions.
Prior to commencing works the contractor must verify with the client that no underpinning of the property has been carried out and that no structural survey has been undertaken reporting that structural and/or ground problems exist.

—

Prior to commending works the contractor must obtain verification from the client or his legal adviser that no restrictive covenants exist or that any "right of light" wilt not be infringed and if so that reasonable steps have been taken by the client to comply with them.
Prior to commencing works the contractor must have sight of the Planning and Building Regulations approval and must note any conditions thereon, in particular, the Planning Consent will require samples of the facing materials to be submitted to the Planning Authority for their written approval prior to installation on sits.
All materials and workmanship to comply with the current Building Regulations and all relevant British Standards and Codes of Practice.

—

0m 2m 10m 20m

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Mr Meir N N Gareh
client_

30.09.19
date_

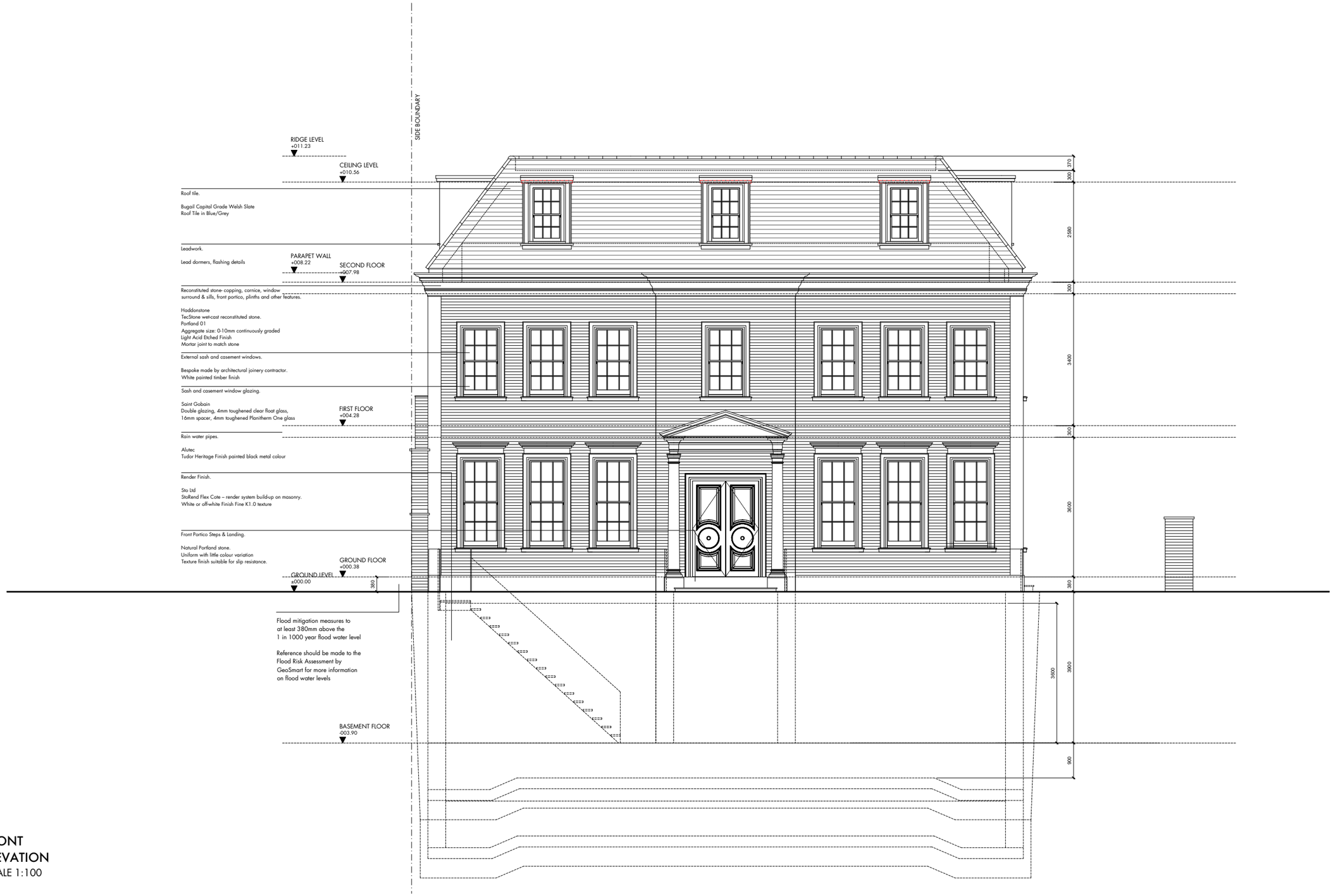
P_19_245
project no_

Second floor Plan Proposed
drawing title_

1:200 A3
scale_

Planning
status_

P104 Rev_K
drawing no_



FRONT ELEVATION

SCALE 1:100

—

Please Note (1) All drawings and designs are covered by design right (intellectual property), and may not be distributed, copied or issue without written permission of Pu architect. (2) All design concepts are the sole property of Pu architect and no adaptations, reproductions or copies may be made without written permission of Pu architect. (3) All dimensions to be checked on site, any discrepancy between this drawing and other information is to be referred to Pu architect. (4) All dimensions in milimeters unless otherwise noted. (5) Do not use for construction unless approved by Pu architect.—

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19.07.19
date_

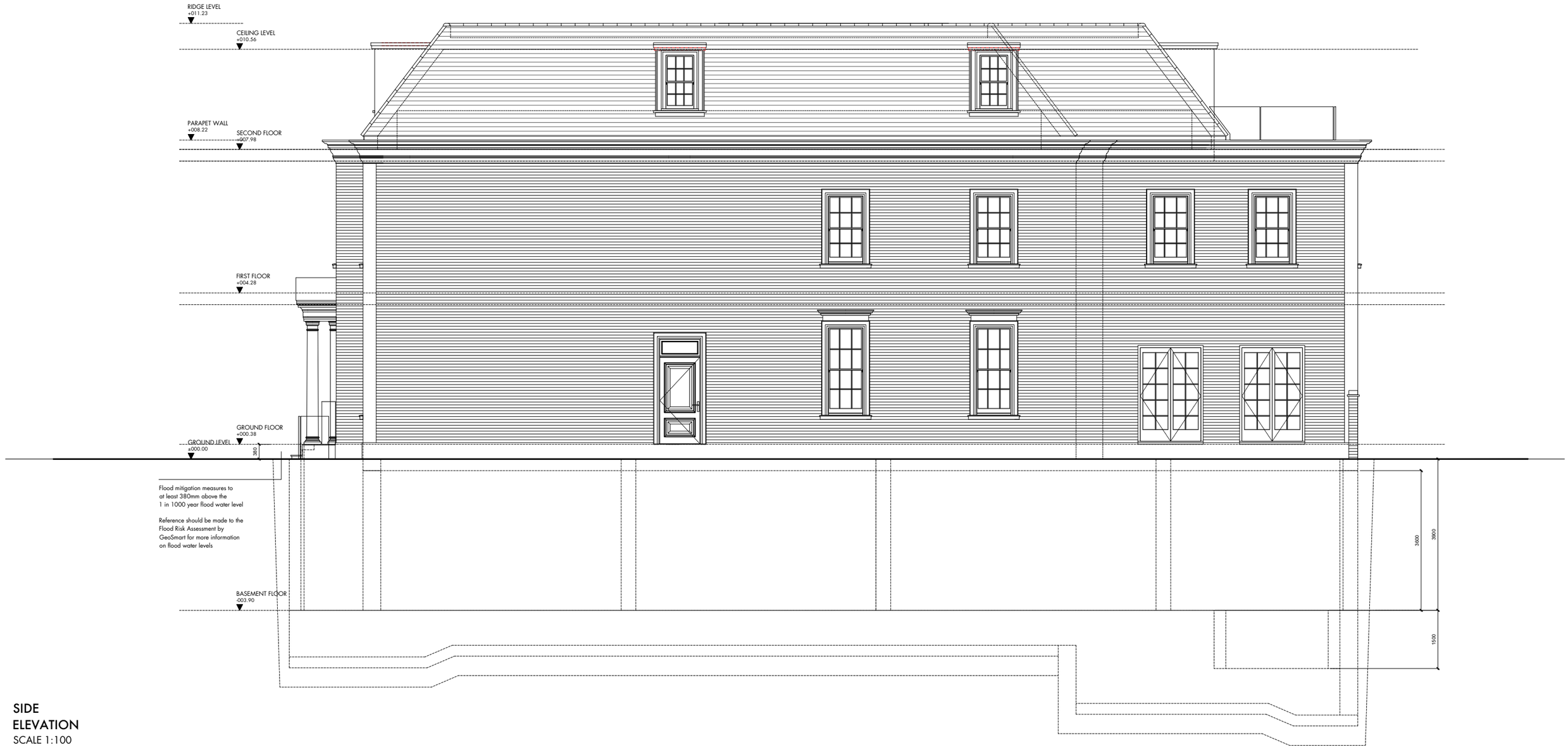
P_19_245
project no_

Front Elevation Proposed
drawing title_

1:100 A3
scale_

Planning
status_

P200 Rev_I
drawing no_



SIDE ELEVATION

SCALE 1:100

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19.07.19
date_

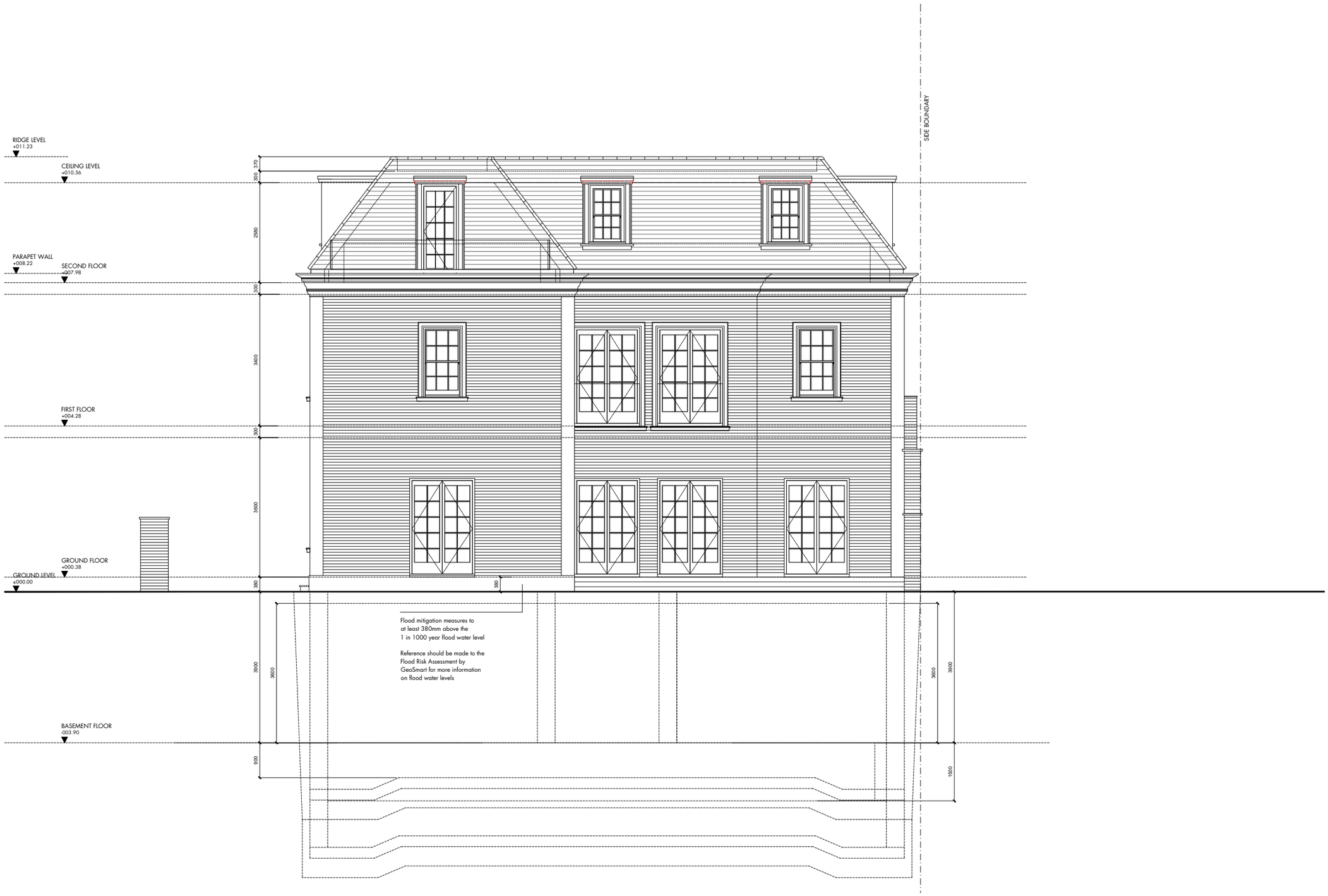
P_19_245
project no_

Side Elevation Proposed
drawing title_

1:100 A3
scale_

Planning
status_

P201 Rev_I
drawing no_



REAR ELEVATION

SCALE 1:100

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Mr Meir N N Gareh
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date_

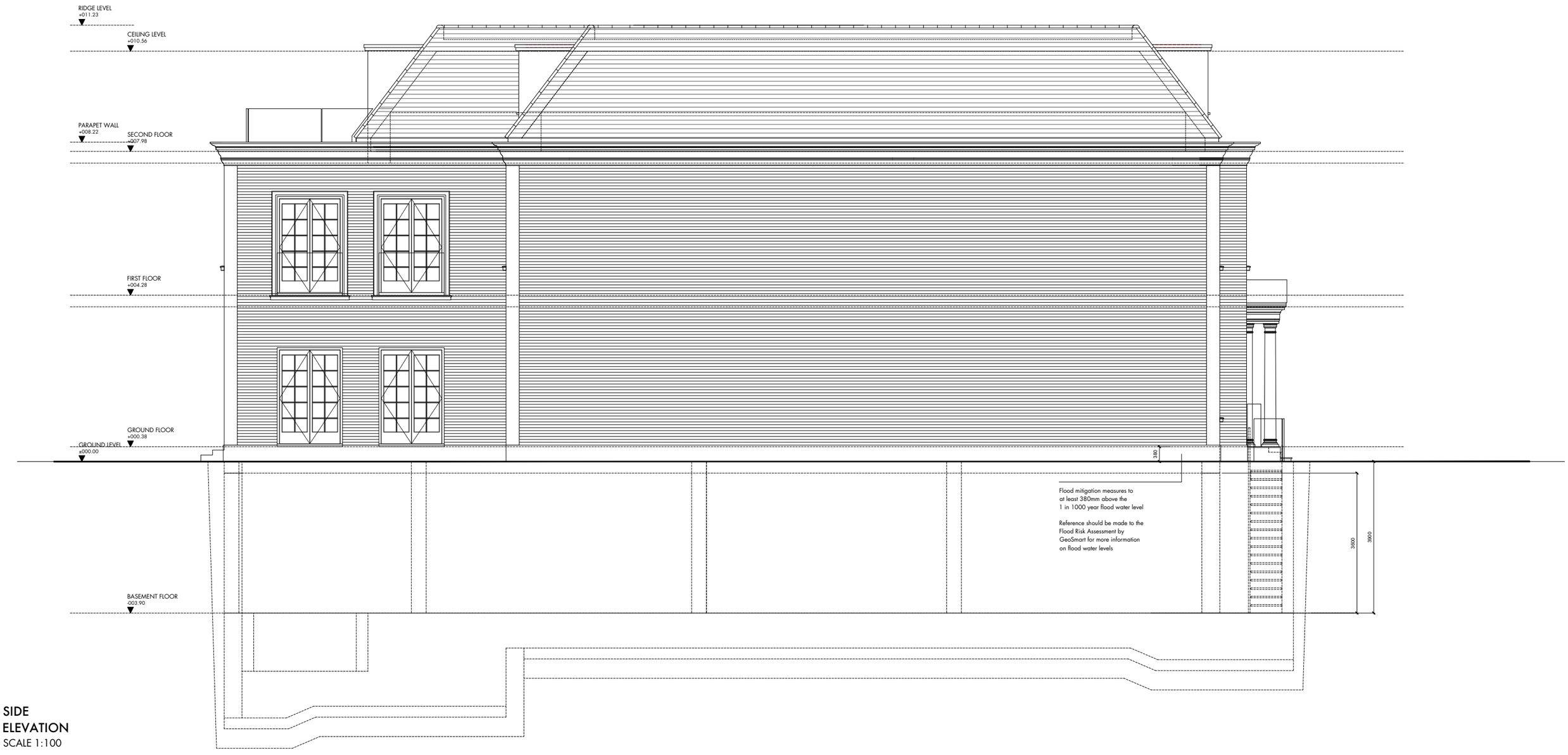
P_19_245
project no_

Rear Elevation Proposed
drawing title_

1:100 A3
scale_

Planning
status_

P202 Rev_I
drawing no_



SIDE ELEVATION
SCALE 1:100

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19.07.19
date_

P_19_245
project no_

Side Elevation Proposed
drawing title_

1:100 A3
scale_

Planning
status_

P203 Rev_I
drawing no_

GeoSmart Information

Appendix B

Thames Water sewer flooding report

Sewer Flooding
History Enquiry

Property Searches

GeoSmart Information Ltd

Bellstone

Search address supplied	71 Avenue Road London NW8 6HP
Your reference	75438
Our reference	SFH/SFH Standard/2022_4614328
Received date	**25 March 2022**
Search date	**25 March 2022**

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

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

0800 009 4540

Sewer Flooding
History Enquiry

Property Searches

Search address supplied: 71,Avenue Road,London,NW8 6HP

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

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

(i) any negligent or incorrect entry in the records searched;

(ii) any negligent or incorrect interpretation of the records searched;

(iii) and any negligent or incorrect recording of that interpretation in the search report

(iv) compensation payments

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

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

0800 009 4540

Sewer Flooding
History Enquiry

Property Searches

History of Sewer Flooding

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

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

For your guidance:

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

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Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13

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

0800 009 4540

GeoSmart Information

Appendix C

Environment Agency LiDAR ground elevation data

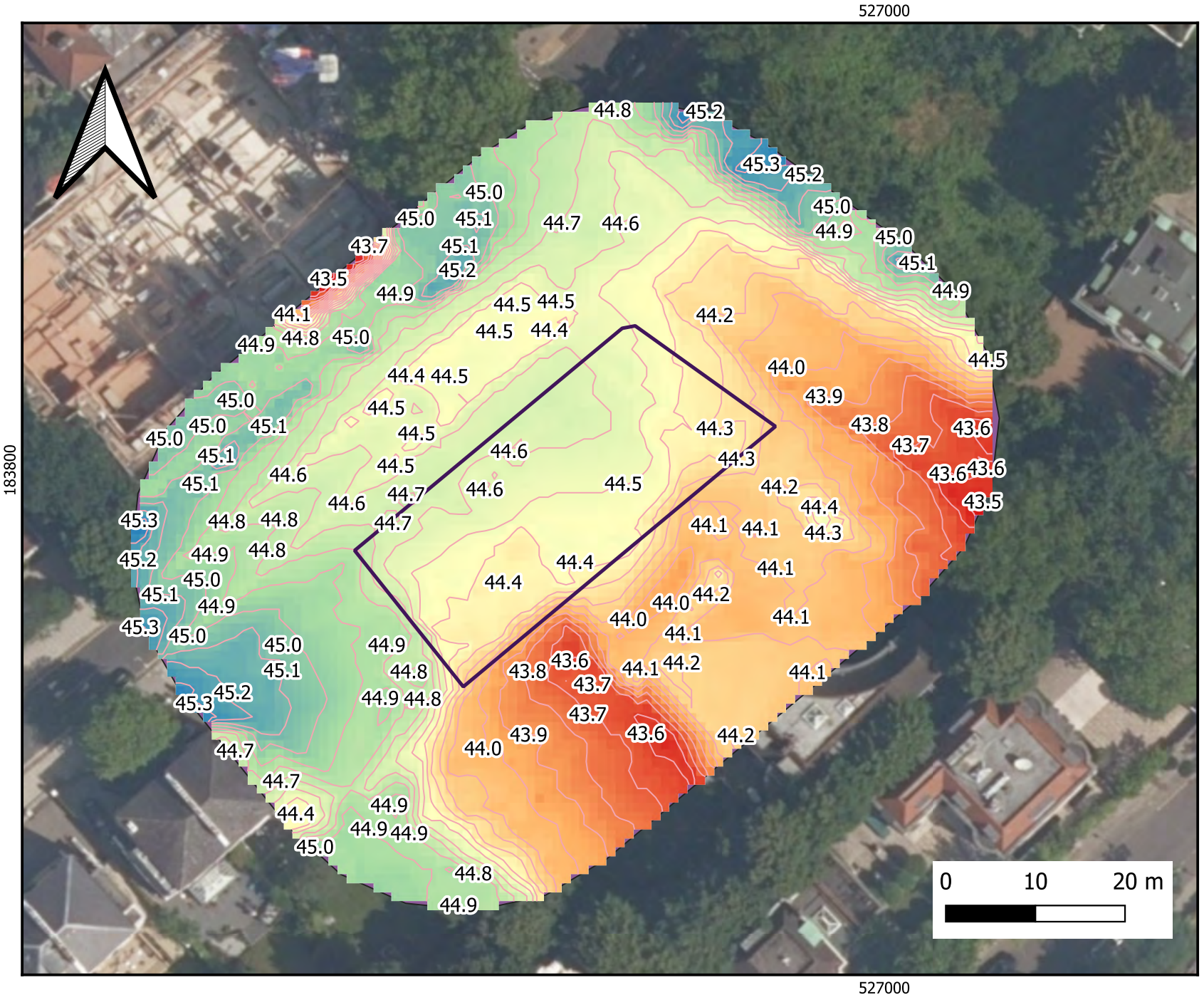

Figure D.1
Elevation on Site
(LIDAR Data)

Legend

- Site Boundary

Contours (0.1m)

Elevation (mAOD)

- -9.1200
- 12.3325
- 33.7850
- 55.2375
- 76.6900

Disclaimer

This report has been prepared by GeoSmart in its professional capacity as soil, groundwater, flood risk and drainage specialists, with reasonable skill, care and diligence within the agreed scope and terms of contract and taking account of the manpower and resources devoted to it by agreement with its client and is provided by GeoSmart solely for the internal use of its client.

The advice and opinions in this report should be read and relied on only in the context of the report as a whole, taking account of the terms of reference agreed with the client. The findings are based on the information made available to GeoSmart at the date of the report (and will have been assumed to be correct) and on current UK standards, codes, technology and practices as at that time. They do not purport to include any manner of legal advice or opinion. New information or changes in conditions and regulatory requirements may occur in future, which will change the conclusions presented here.

This report is confidential to the client. The client may submit the report to regulatory bodies, where appropriate. Should the client wish to release this report to any other third party for that party's reliance, GeoSmart may, by prior written agreement, agree to such release, provided that it is acknowledged that GeoSmart accepts no responsibility of any nature to any third party to whom this report or any part thereof is made known. GeoSmart accepts no responsibility for any loss or damage incurred as a result, and the third party does not acquire any rights whatsoever, contractual or otherwise, against GeoSmart except as expressly agreed with GeoSmart in writing.

For full T&Cs see http://geosmartinfo.co.uk/terms-conditions

Important consumer protection information

This search has been produced by GeoSmart Information Limited, Suite 9-11, 1st Floor, Old Bank Buildings, Bellstone, Shrewsbury, SY1 1HU.

Tel: 01743 298 100

Email: info@geosmartinfo.co.uk

GeoSmart Information Limited is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.

The Search Code:

- provides protection for homebuyers, sellers, estate agents, conveyancers and mortgage lenders who rely on the information included in property search reports undertaken by subscribers on residential and commercial property within the United Kingdom.
- sets out minimum standards which firms compiling and selling search reports have to meet.
- promotes the best practice and quality standards within the industry for the benefit of consumers and property professionals.
- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.
- By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

The Code's core principles

Firms which subscribe to the Search Code will:

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

GeoSmart Information

Complaints

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

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

TPOs contact details:

The Property Ombudsman scheme

Milford House

43-55 Milford Street

Salisbury

Wiltshire SP1 2BP

Tel: 01722 333306

Fax: 01722 332296

Email: admin@tpos.co.uk

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

Please ask your search provider if you would like a copy of the search code

Complaints procedure

GeoSmart Information Limited is registered with the Property Codes Compliance Board as a subscriber to the Search Code. A key commitment under the Code is that firms will handle any complaints both speedily and fairly. If you want to make a complaint, we will:

- Acknowledge it within 5 working days of receipt.
- Normally deal with it fully and provide a final response, in writing, within 20 working days of receipt.
- Keep you informed by letter, telephone or e-mail, as you prefer, if we need more time.
- Provide a final response, in writing, at the latest within 40 working days of receipt.
- Liaise, at your request, with anyone acting formally on your behalf.

If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs): Tel: 01722 333306, E-mail: admin@tpos.co.uk.

We will co-operate fully with the Ombudsman during an investigation and comply with his final decision. Complaints should be sent to:

Martin Lucass

Commercial Director

GeoSmart Information Limited

Suite 9-11, 1st Floor,

Old Bank Buildings,

Bellstone, Shrewsbury, SY1 1HU

Tel: 01743 298 100

martinlucass@geosmartinfo.co.uk

12. Terms and conditions, CDM regulations and data limitations

Terms and conditions can be found on our website:

http://geosmartinfo.co.uk/terms-conditions/

CDM regulations can be found on our website:

http://geosmartinfo.co.uk/knowledge-hub/cdm-2015/

Data use and limitations can be found on our website:

http://geosmartinfo.co.uk/data-limitations/