



4th Floor, Holborn Tower
137-144 High Holborn
London
WC1V 6PL

T: +44(0)20 7148 6290
E: info@eb7.co.uk
W: eb7.co.uk

DAYLIGHT & SUNLIGHT REPORT

14 Greenaway Gardens
Camden, London NW3 7DH

Our Ref: 5252

8 April 2022

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Report details

Client: SHH Architects

Prepared by: DS

Checked by: JL

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1 Introduction

- 1.1.1 eb7 have been instructed to consider the potential effect of proposed rear extensions at 14 Greenaway Gardens upon the daylight and sunlight to the existing surrounding property at 12a Greenaway Gardens as well as the internal amenity to the proposed rooms within the basement extension following comments raised by Camden Council at pre-application stage. These assessments consider the latest SHH Architects scheme proposals dated December 2021.
- 1.1.2 The methodology and criteria used for these assessments is provided by Building Research Establishment's (BRE) guidance 'Site layout planning for daylight and sunlight: A guide to good practice' (BRE 209 2nd edition, 2011).
- 1.1.3 In order to carry out an assessment, we have generated a 3D computer model (Test Environment) of the existing site, the key surrounding properties and the proposed scheme. Using this model and our specialist software, we have calculated the daylight and sunlight levels in both the existing and proposed conditions for the relevant neighbouring buildings.
- 1.1.4 The numerical criteria suggested within the BRE guidelines has been applied to each of the assessments mentioned above. It is important to note that these guidelines are not a rigid set of rules, but are advisory and need to be applied flexibly according to the specific context of a site.

April 2022 Scheme Amendments

- 1.1.5 Minor amendments have been made to the original December 2021 scheme issued for planning following further comments from the council. Given these alterations do not present a materially different footprint / massing, we have not revised our technical assessments for the impacts to the neighbours. We have however revisited our internal daylight calculations to quantify the daylight amenity to the basement levels accommodation where this have been extended slightly at the front of the property.

2 Guidance

2.1 Daylight & sunlight for planning

'Site layout planning for daylight and sunlight: A guide to good practice', BRE 2011

- 2.1.1 The Building Research Establishment (BRE) Report 209, *'Site layout planning for daylight and sunlight: A guide to good practice'*, is the reference document used by most local authorities for assessing daylight and sunlight in relation to new developments. Commonly referred to as 'the BRE guidelines', it provides various testing methodologies to calculate the potential light levels received by neighbours of a development site and provided within proposed new development.
- 2.1.2 The guidance given within the BRE document makes direct reference to the British Standard BS8206 Part 2: Code of Practice for Daylighting (2008) and the CIBSE (Chartered Institute of Building Services Engineers) guide LG10: Daylighting – a guide for designers (2014). It is intended to be used in conjunction with these guides as they provide more detailed background to the assessments and methodologies used for assessment of proposed dwellings.
- 2.1.3 The European Standard EN17037 was published in 2018 and is intended to replace the British Standard BS8206 Part 2: Code of Practice for Daylighting. Current policy and guidance from most planning authorities still refers to the BRE guide and its methodologies, which in turn are based upon the BS8206 document. As such, we continue to base our daylight and sunlight assessments for proposed new dwellings on the BRE, British Standard and CIBSE guidance until planning policy dictates otherwise.

Daylight and Sunlight to Neighbouring Properties

Detailed daylight assessments

- 2.1.4 The guidance outline three detailed methods for calculating daylight: the Vertical Sky Component (VSC), the No-Sky Line (NSL) and the Average Daylight Factor (ADF).
- 2.1.5 The VSC and NSL are primarily used for the assessment of existing buildings, while the ADF test is generally recommended for proposed rather than existing dwellings. The ADF test may sometimes be useful as a supplementary analysis for existing buildings, particularly newer ones, and a number of local authorities request this as a standard measurement for impact assessments. It can help in judging whether impacts to daylight, which might otherwise be deemed 'noticeable', are nonetheless acceptable if affected rooms continue to receive levels of daylight sufficient for their use.
- 2.1.6 The VSC test measures the amount of sky that is visible to a specific point on the outside of a property, which is directly related to the amount of daylight that can be received. It is measured on the outside face of the external walls, usually at the centre

point of a window.

- 2.1.7 The NSL test calculates the distribution of daylight within rooms by determining the area of the room at desk / work surface height (the 'working plane') which can and cannot receive a direct view of the sky and hence 'sky light'. The working plane height is set at 850mm above floor level within residential property.
- 2.1.8 For the above methods, the guidance suggests that existing daylight may be noticeably affected by new development if: -
- Windows achieve a VSC below 27% and are reduced to less than 0.8 times their former value; and / or
 - Levels of NSL within rooms are reduced to less than 0.8 times their former values.
- 2.1.9 Where rooms are greater than 5m in depth and lit from only one side, the guidance recognises that "*a greater movement of the no sky-line may be unavoidable*" (page 8, paragraph 2.2.10).

Daylight to new buildings

- 2.1.10 The ADF method calculates the average illuminance within a room as a proportion of the illuminance available to an unobstructed point outdoors under a sky of known luminance and luminance distribution.
- 2.1.11 This is the most detailed of the daylight calculations and considers the physical nature of the room behind the window, including window transmittance and surface reflectivity. The BRE guidance references the former British Standard BS8206 Part 2 and sets the following recommended ADF levels for habitable room uses: -

Bedrooms	1% ADF
Living rooms & dining rooms	1.5% ADF
Kitchens	2% ADF

- 2.1.12 For multi-purpose living / kitchen / diner arrangements the higher 2% 'kitchen' target can be difficult to achieve due to the depth of internal space. In such cases, it is generally accepted that the 1.5% target for living rooms be used instead as this represents the predominant use of the space.

Detailed sunlight assessments

- 2.1.13 For sunlight, the Annual Probable Sunlight Hours (APSH) test calculates the percentage of probable hours of sunlight received by a window or room over the course of a year.
- 2.1.14 In assessing sunlight effects to existing properties surrounding a new development, only those windows orientated within 90° of due south and which overlook the site require assessment. The main focus is on living rooms, with bedrooms and kitchens

deemed less important.

- 2.1.15 The British Standard guidance BS8206 part 2 advises that the degree of satisfaction for occupants is related to the expectation of sunlight, so if a room is north facing, or if the building is in a densely-built urban area, the absence of sunlight is more acceptable than where its exclusion seems arbitrary.

"The degree of satisfaction is related to the expectation of sunlight. If a room is necessarily north facing or if the building is in a densely-built urban area, the absence of sunlight is more acceptable than when its exclusion seems arbitrary."

- 2.1.16 The guidelines suggest that the main living rooms within new buildings should achieve at least 25% of annual sunlight hours, with 5% during the winter period. For neighbouring buildings, the guide suggests that occupiers will notice the loss of sunlight if the APSH to main living rooms is both less than 25% annually (with 5% during winter) and that the amount of sunlight, following the proposed development, is reduced by more than 4%, to less than 0.8 times its former value.

3 Application of the guidance

3.1 Scope of assessment

Impact analysis for neighbouring buildings

- 3.1.1 The BRE guidelines advise that, when assessing any potential effects on surrounding properties, only those windows and rooms that have a 'reasonable expectation' of daylight and sunlight need to be considered. At paragraph 2.2.2 it states: -

"The guidelines given here are intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed."

- 3.1.2 Our assessments therefore consider the neighbouring residential properties only, which the BRE recognises have the highest expectation for natural light. We have tested the impact on the main rooms in each residential property and ignored non-habitable space (e.g. staircases, hallways, bathrooms, toilets, stores etc.) as per BRE guidance.

Assessment for proposed accommodation

- 3.1.3 Our assessment has considered the 3 rooms served by windows within the front basement rooms in response to comments raised by the LPA at pre-application stage. The ADF criteria under the BRE guidelines considers all main habitable rooms (bedrooms, living rooms, kitchens etc.) - toilets, hallways and staircases are not considered habitable use and any rooms which have a specific requirement for daylight.
- 3.1.4 The basement level accommodation serves as auxiliary accommodation to the main house above ground and whilst there are no specific ADF recommendations for such spaces within the BRE guidelines, we have assessed these against the target levels for principal habitable space (i.e. main living rooms and bedrooms).

3.2 Application of the numerical criteria

- 3.2.1 The opening paragraphs of the BRE guidelines state:

"The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer."

Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design... In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre, or in an area with modern

high-rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings”.

3.2.2 It is therefore very important to apply the BRE guidance sensibly and flexibly, with careful consideration of the specific site context. Its numerical targets theoretically apply to any built environment, from city centres to rural villages. However, in more tightly constrained environments, achieving the default BRE targets can be very challenging and conflict with other beneficial factors of site layout design.

3.2.3 With the above in mind, rigid adherence to the BRE in certain situations could easily result in an inappropriate form of development. In which case it may be appropriate to adopt lower target values more appropriate to the location concerned. This is acknowledged in the BRE guidance at paragraph 2.2.3 (page 7):

“Note that numerical values given here are purely advisory. Different criteria maybe used, based on the requirements for daylighting in an area viewed against other site layout constraints.

3.2.4 For buildings that neighbour a new development, the guidance suggests that daylight will be adversely affected by the development, if either; its windows achieve a VSC below 27% and have their levels reduced to less than 0.8 times their former value, or the levels of NSC within rooms are reduced to less than 0.8 times their former values.

3.2.5 Some recent planning decisions by the Mayor of London¹ and Planning Inspectorate² have suggested that retained levels of daylight (VSC) between 10% and 20% can be considered acceptable for residential properties neighbouring new developments in Central London. Further to these decisions, recent guidance from the Mayor of London (Draft SPG ‘Good Quality Homes for all Londoners’) suggests that residential properties in Central London can typically expect VSC values of between 13% and 18%. We have therefore assessed the severity of impacts to the neighbouring residential properties in light of this guidance.

¹ Monmouth House, Islington (Ref.: D&P/3698/02)

² Whitechapel Estate (Ref: APP/E5900/W/17/3171437)

4 Planning Policy

4.1.1 We have considered local, regional and national planning policy relating to daylight and sunlight. In general terms, planning policy advises that new development will only be permitted where it is shown not to cause unacceptable loss of daylight or sunlight amenity to neighbouring properties.

4.1.2 The need to protect amenity of neighbours is echoed within recent publications from the Mayor of London and the Secretary of State for Housing, Communities and Local Government. Although, these documents also stress that current guidance needs to be used flexibly where developments are located in urban areas and intend to achieve higher densities. Specifically, these documents suggest that the nationally applicable criteria given within the BRE guidance needs to be applied in consideration of the development's context.

4.2 Camden Local Plan (July 2017)

Policy A1 Managing the impact of development

4.2.1 Policy A1 seeks to ensure that standards of amenity are protected stating: -

"The Council will seek to protect the quality of life of occupiers and neighbours. We will grant permission for development unless this causes unacceptable harm to amenity".

4.2.2 In respect of daylight and sunlight, paragraph 6.4 of the Camden Local Plan states the following: -

"Loss of daylight and sunlight can be caused if spaces are overshadowed by development. To assess whether acceptable levels of daylight and sunlight are available to habitable, outdoor amenity and open spaces, the Council will take into account the most recent guidance published by the Building Research Establishment (currently the Building Research Establishment's Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice 2011). Further detail can be found within our supplementary planning document Camden Planning Guidance on amenity".

4.3 Camden Planning Guidance - Amenity (January 2021)

4.3.1 Section 3 of the Camden Supplementary Planning Guidance on Amenity has the following key messages in respect of daylight and sunlight amenity:

"The Council expects applicants to consider the impact of development schemes on daylight and sunlight levels. Where appropriate a daylight and sunlight assessment should be submitted which should follow the guidance in the BRE's Site layout planning for daylight and sunlight: A guide to good practice.

The 45 degree and 25-degree tests cited in the BRE guidance should be used to assess ('screen') whether a sunlight and daylight report is required.

Levels of reported daylight and sunlight will be considered flexibly taking into account site-specific circumstances and context.

The Council may seek independent verification of sunlight and daylight reports if necessary."

- 4.3.2 The council reiterates the intentions of the BRE document is to provide advice to developers and decision makers therefore it should be regarded as a guide rather than policy (para 3.14).

- 4.3.3 It also goes further at para 3.15 to state that:

"While we support the aims of the BRE methodology for assessing sunlight and daylight we will consider the outcomes of the assessments flexibility where appropriate, taking into account site specific circumstances and context. For example, to enable new development to respect the existing layout and form in some historic areas, or dense urban environments, it may be necessary to consider exceptions to the recommendations cited in the BRE guidance."

4.4 The London Plan – The Mayor of London (March 2021)

- 4.4.1 The Mayor of London's New London Plan gives the following: -

Policy D6 Housing quality and standards

"C. Housing development should maximise the provision of dual aspect dwellings and normally avoid the provision of single aspect dwellings. A single aspect dwelling should only be provided where it is considered a more appropriate design solution to meet the requirements of Part B in Policy D3 Optimising site capacity through the design-led approach than a dual aspect dwelling, and it can be demonstrated that it will have adequate passive ventilation, daylight and privacy, and avoid overheating."

"D. The design of development should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space."

4.5 The Housing SPG – The Mayor of London (March 2016)

- 4.5.1 The London Plan Housing SPG confirms the flexibility that should be applied in the interpretation of the BRE guidelines having regard to the 'need to optimise capacity; and scope for the character and form of an area to change over time.'

1.3.45. Policy 7.6Bd requires new development to avoid causing 'unacceptable harm' to the amenity of surrounding land and buildings, particularly in relation to privacy and overshadowing and where tall buildings are proposed. An appropriate degree of flexibility needs to be applied when using BRE guidelines to assess the daylight and sunlight impacts of new development on surrounding properties, as well as within new developments themselves. Guidelines should

be applied sensitively to higher density development, especially in opportunity areas, town centres, large sites and accessible locations, where BRE advice suggests considering the use of alternative targets. This should take into account local circumstances; the need to optimise housing capacity; and scope for the character and form of an area to change over time.

1.3.46 The degree of harm on adjacent properties and the daylight targets within a proposed scheme should be assessed drawing on broadly comparable residential typologies within the area and of a similar nature across London. Decision makers should recognise that fully optimising housing potential on large sites may necessitate standards which depart from those presently experienced but which still achieve satisfactory levels of residential amenity and avoid unacceptable harm.

4.6 Draft SPG 'Good Quality Homes for all Londoners' – The Mayor of London (October 2020)

4.6.1 The Mayor of London has produced a draft SPG which includes the following: -

C5.3 Daylight, sunlight and overshadowing

Applying BRE guidelines in relation to neighbouring homes

"Decision-makers should recognise that fully optimising housing potential on sites may necessitate standards which depart from those presently experienced, but which still achieve satisfactory levels of residential amenity and avoid unacceptable harm.

Guidelines should be applied sensitively to higher density development, where BRE advice suggests considering the use of alternative targets. This should take into account local circumstances, the need to optimise housing capacity, and the scope for the character and form of an area to change over time.

The BRE guidelines apply nationwide, and the default numerical targets provided are purely advisory. These are based on a uniform, 25-degree development angle (vertical obstruction angle) typical of a low-rise suburban location. This corresponds to the Vertical Sky Component (VSC) target of 27 per cent cited in the guidelines. Typical development angles in a city or central urban location are considerably higher. In Central London, development angles of 40 degree or 50 degree are common and can, if well planned, deliver successful schemes. A uniform development angle of 40 degree corresponds to a VSC target of 18 per cent, and 50 degree gives a VSC target of 13 per cent. Such daylight levels have been accepted in many desirable central areas for well over a century. Module A: Optimising Site Capacity - A Design-led Approach therefore adopts a 50-degree development angle to determine offset distances.

Even with access to good levels of daylight on the outside of a building, it is possible to have low levels of daylight within a building due to design features such as small windows, recessed windows, poor placement of balconies or deep rooms. Therefore, consideration of the retained target VSC should be the

principal consideration. Where this is not met in accordance with BRE guidance, it should not be less than 0.8 times its former value (which protects areas that already have low daylight levels).

Less weight should be given to the room-based measures of daylight such as 'no-sky-line' or average daylight factor as these are dependent on the design of the neighbouring property. Except in exceptional circumstances, design features of neighbouring properties (referred to above) should not hamper the development potential of a site."

Applying BRE guidelines in relation to proposed homes

"It may be possible to mitigate lower external daylight VSC levels by using design features such as larger windows, roof lights and light coloured internal and external surfaces to ensure reasonable internal daylight levels. Therefore, room based measures of daylight and sunlight are most appropriate for judging the acceptability of a proposed development, as these encourage good daylight design. Appropriate 3D modelling should be used to demonstrate acceptable levels.

BRE guidelines confirm that the acceptable minimum average daylight factor target value depends on the room use. That is 1 per cent for a bedroom, 1.5 per cent for a living room and 2 per cent for a family kitchen. In cases where one room serves more than one purpose, the minimum ADF should be that for the room type with the higher value. Notwithstanding this, the independent daylight and sunlight review states that in practice, the principal use of rooms designed as a 'living room/kitchen/dining room' is as a living room. Accordingly, it would be reasonable to apply a target of 1.5 per cent to such rooms."

4.7 The National Planning Policy Framework - Department for Housing, Communities and Local Government (July 2021)

- 4.7.1 The latest version of the National Planning Policy Framework was issued in July 2021. The document sets out planning policies for England and how these are expected to be applied. In respect of daylight and sunlight it stresses the need to make optimal use of sites and to take a flexible approach to daylight and sunlight guidance. Para 125 States: -

11. Making effective use of land

Achieving appropriate densities

"125. Area-based character assessments, design guides and codes and masterplans can be used to help ensure that land is used efficiently while also creating beautiful and sustainable places. Where there is an existing or anticipated shortage of land for meeting identified housing needs, it is especially important that planning policies and decisions avoid homes being built at low densities, and ensure that developments make optimal use of the potential of each site. In these circumstances:

c) local planning authorities should refuse applications which they consider fail to make efficient use of land, taking into account the policies in this Framework. In this context, when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards).

5 Sources of Information & Assumptions

- 5.1.1 A topographical survey, an architect's 3D model / architectural drawings, site photographs and Ordnance Survey information have been used to create a 3D computer model of the proposed development in the context of the existing site and surrounding buildings.
- 5.1.2 Where survey or planning information was unavailable, the position of the neighbouring property elevations has been estimated based upon brick counts from site photographs. Window positions and dimensions used directly affect the results of all assessment methods.
- 5.1.3 We have not sought access to the surrounding properties and, unless we have been able to source floor layouts via public records, the internal configuration and floor levels have been estimated. Unless the building form dictates otherwise, we assume room depths of c. 4.2m for principal living space. Room layouts used directly affect the results of the NSL and ADF assessments.
- 5.1.4 Where possible neighbouring building use has been identified via online research, including Valuation Office Agency (VOA) searches, and/or external observation.
- 5.1.5 The full list of source of information used in this assessment is as follows: -

5.2 Greenhatch Group

Topographical Survey

37915_01-07_PES.dwg

Received 22/09/2020

5.3 SHH Architects – December 2021 Drawings

2D Plans, Elevations & Sections – Existing & Proposed

(0942)0401_P04 - WIP Basement Floor Plan.dwg

(0942)0403_P06 - WIP Ground Floor Plan.dwg

(0942)0404_P06 - WIP First Floor Plan.dwg

(0942)0405_P05 - WIP Second Floor Plan.dwg

(0942)0406_P05 - WIP Third Floor Plan.dwg

(0942)0407_P04 Roof Plan.dwg

(0942)2101_P03 Existing Section A.dwg

(0942)2102_P03 Existing Section B.dwg

(0942)2201_P04 Proposed Section A.dwg

(0942)2202_P04 Proposed Section B.dwg

(0942)3101_P04 Existing South Elevation.dwg

(0942)3102_P04 Existing East Elevation.dwg

(0942)3103_P04 Existing North Elevation.dwg

(0942)3104_P04 Existing West Elevation.dwg

(0942)3201_P04 Proposed South Elevation.dwg
(0942)3202_P04 Proposed East Elevation.dwg
(0942)3203_P04 Proposed North Elevation.dwg
(0942)3204_P04 Proposed West Elevation.dwg
Received 06/12/21

5.4 SHH Architects – April 2022 Drawings

2D Plans – Proposed

(0942)0401_PL02 - WIP Basement Floor Plan.dwg
Received 06/04/2022

5.5 Camden Council Planning Portal

12a Greenaway Gardens drawings (LPA REF: 2017/1149/P)

5.6 eb7 Ltd

Site photographs

5.7 Promap

Ordnance Survey Map

6 The Site and Proposal

- 6.1.1 The site is a detached 3-storey dwelling located on the northern side of Greenaway Gardens nestled between 12A Greenaway Gardens and 15B Greenaway Gardens. The immediate neighbours adjacent to the site are similarly detached residential dwellings of a similar construction at 3-storeys in height.
- 6.1.2 The current proposal is for the demolition of the existing dwelling and the reconstruction of a new dwelling house including a basement, rear extension, retention of the existing front façade with various minor changes to the fenestration and other associated works.

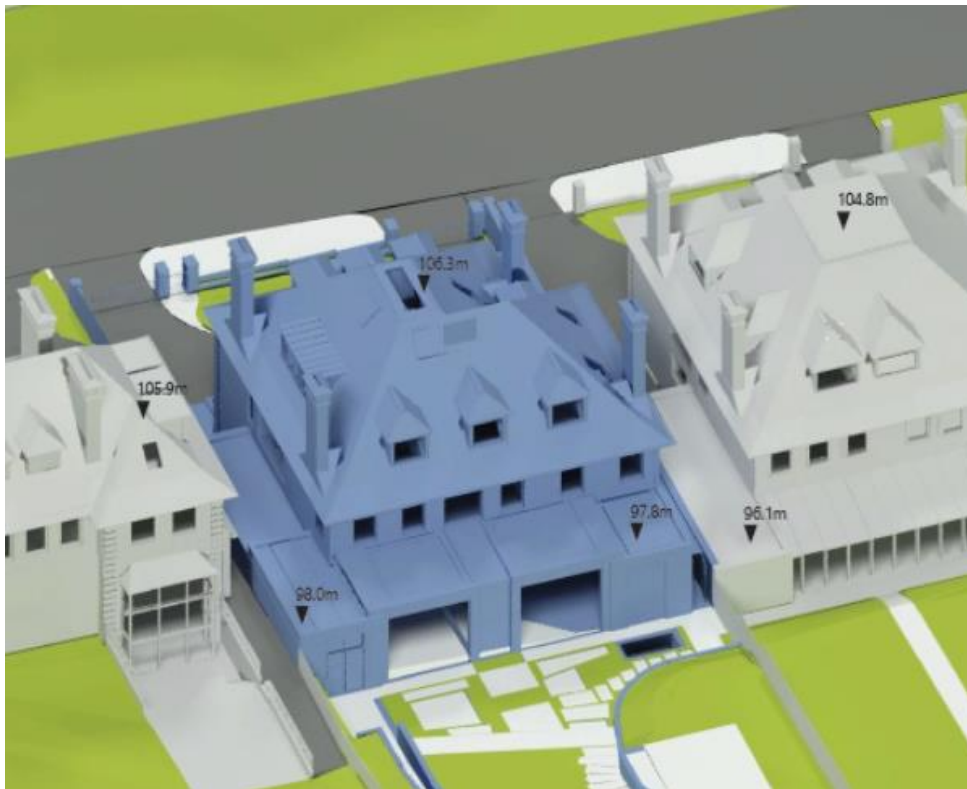


Image 1 - 3D view of the proposed development in its context (December 2021 scheme)

7 Assessment results

7.1 Daylight and sunlight to neighbouring buildings

- 7.1.1 Full results of the daylight and sunlight assessments are attached within Appendix 2. Drawings to show the existing and proposed buildings in the context of the neighbouring properties as well as window maps showing individual window references are attached within Appendix 1.
- 7.1.2 Our technical assessment has focussed on the potential daylight and sunlight effects of the proposals upon the neighbouring property to the north at 12A Greenaway Gardens as requested by the Camden Council at pre-application stage. This property and its relationship with the existing site is shown on the following image:



Image 2 - Map showing site location and neighbouring residential properties

12A Greenaway Gardens



Image 3 - Photograph of the flank / rear of 12A Greenaway Gardens from the site

- 7.1.3 This 3-storey residential property is located immediately north of the site however is slightly lower than the existing building where the road gradually slopes down towards this neighbour.
- 7.1.4 Concerns were raised at pre-application stage in regards to the potential daylight / sunlight impacts of the proposed rear extension upon the nearest elevation at 12A Greenaway Gardens. Our analysis has therefore assessed the potential daylight/sunlight effects to the side and rear of this neighbouring property.
- 7.1.5 Whilst internal information was limited for this property on the Camden Council planning portal, given the property is of a similar construction to 14 Greenaway Gardens, we adopted similar internal configurations to the existing building at the site. This assumes that the flank wall windows overlooking the site serve a WC, circulation space, an ensuite bathroom and a dual aspect bedroom. The single storey building along the boundary is understood to serve a garage.

Daylight

- 7.1.6 When considering the Vertical Sky Component (VSC) to the neighbouring windows overlooking the site between ground and first level, our results show that there will be no reduction in sky visibility to the windows as a result of the proposal.
- 7.1.7 Where minor changes are recorded to the flank windows serving the dual aspect bedroom at first level, these are improvements in sky view as the ridge level of the existing pitched roof is higher than the proposed flat roof at the rear extension.

- 7.1.8 Our No-Sky Line (NSL) analysis considering the daylight distribution to the rooms demonstrates that none of the rooms will experience a change from the current condition.
- 7.1.9 The results therefore demonstrate that there will be no loss of daylight to these neighbouring rooms and windows as a result of the proposals. This neighbour is fully compliant with the BRE guidelines in respect of VSC and NSL daylighting.

Sunlight

- 7.1.10 For sunlight effects to the neighbouring properties, the BRE considers all main living rooms with windows within 90° of due south relevant for assessment under the Annual Probable Sunlight Hours (APSH) criteria.
- 7.1.11 The main living spaces are understood to be served by windows in the front and rear elevations – none of which will have a view of the proposals. As such, there will be no reduction in sunlight recorded as a result of the proposed scheme.

April 2022 Amendments

- 7.1.12 Following submission of the planning application in December 2021, further discussions have been had with the council in order to resolve some outstanding issues. This has led to some tweaks to the scheme design:
- Basement level has been reconfigured without the car lift with the basement extending slightly further to the front of the house
 - The rear extension windows / apertures have been modified slightly;
 - The 2 dormers above the main staircase have changed to pitched roof dormers rather than flat roof
 - Fenestration to the north west elevation has been updated including the consolidation of the vent grilles and addition of a new 'false window'.
- 7.1.13 Given there has been no material change to the proposed rear extension or shift in the proposed building footprint / height, these minor changes would not present a materially different position from that illustrated above based on the earlier December 2021 submission scheme in terms of the potential daylight / sunlight effects to the neighbour at 12a Greenaway Gardens.
- 7.1.14 As there will be no material shift in the daylight / sunlight position to the neighbours, it has not been necessary to revisit our analysis based on the latest scheme updates. We have however reconsidered the internal daylight levels given the slight reconfiguration / extension of the basement at the front of the property. Details of which are set out in the following section.

7.2 Internal amenity within the proposal

- 7.2.1 The daylight amenity provided within the proposed residential accommodation has been assessed using the ADF test following the methodology of the BRE guidance.
- 7.2.2 For our assessments we have analysed the proposed rooms at basement level as comments were raised at pre-application with respect daylight to the rooms at the front of the property in the basement. This is based upon the revised basement plan prepared by SHH architects named '(0942)0401_PL02 - WIP Basement Floor Plan.dwg' issued on 6th April 2022.
- 7.2.3 It should be noted, the focus for internal daylight assessments under the BRE guidelines is habitable space within dwellings and any non-domestic buildings where there is a particular requirement for daylight. The principal habitable rooms are located above ground with the basement level serving as auxiliary accommodation to the main house - these will be occupied less and used more transiently such that the requirement for natural light would be somewhat lower than that of the main dwelling. We have nevertheless tested these rooms to understand the levels of daylight to these spaces in response to the councils' comments.
- 7.2.4 The proposed basement plan includes a plant room, games / music rooms, kitchen / prep room, a wine cellar, cinema room, a utility room, store rooms, bathrooms / WCs, a craft room, an office and a break room all spaces which are not reliant upon natural light and indeed it is common and preferable for these spaces to be artificially lit given the nature and specific use. The rooms we have included within our assessment maybe more reliant on natural light due to the nature of their use and the higher occupation during the daytime. These include the craft room served by the courtyard, also the office and break room served by sky lights.
- 7.2.5 The results of these daylight assessments to these basement rooms, along with drawings to show the layout of rooms and windows, are attached within Appendix 3.
- 7.2.6 In calculating the ADF for the proposed habitable space we have applied the following parameters:
- Maintenance factor: 0.95
 - Window transmittance: 0.68
 - Framing factor: 0.85
 - Internal wall reflectance: 0.81
 - Internal ceiling reflectance: 0.85
 - Internal floor reflectance: 0.4

Daylight

- 7.2.7 The results of the ADF assessment have shown that the all 3 of the rooms will achieve the minimum target for a habitable space at 1% or above. The 3 rooms achieve the following results:

- Craft Room (R1) – **1.3% ADF**
- Office (R2) – **1.8% ADF**
- Break Room (R3)– **1.2% ADF**

7.2.8 The results also show that the office room exceeds the 1.5% ADF recommendation for a primary main living space at 1.9%. Whilst the craft room and break room are marginally below the 1.5% threshold for a main living room, this is only marginally where these deviate by 0.2-0.3% ADF. Minor changes of this degree from the 1.5% recommendation would be unrecognisable to the occupants and thus would not present a materially different daylight condition.

7.2.9 Given the rooms will achieve daylight levels typically expected for main living rooms within principal dwellings and all exceed the minimum ADF recommendation for a habitable space, the spaces demonstrate sufficient levels of natural light for an auxiliary accommodation and are considered fully acceptable in terms of internal amenity.

8 Conclusions

- 8.1.1 This practice has undertaken a detailed assessment of the potential daylight and sunlight effects of the proposed development at 14 Greenaway Gardens upon the neighbouring property at 12A Greenaway Gardens. We have also undertaken an assessment of the provision of the internal daylight levels within the proposed habitable space within the front basement as per the council's request at pre-application stage.
- 8.1.2 Our assessments for the impacts to the neighbouring properties is based upon the earlier December 2021 submission scheme. Whilst slight changes have been made to the design following submission, these would have no material impact on the previous assessments. As such it has not been necessary to update our technical assessments for the effects to the neighbour.
- 8.1.3 Amendments have been to the internal layout of the basement at the front of the property therefore we have revised our assessments for internal daylighting based on the latest April 2022 basement plan prepared by SHH Architects.

8.2 Daylight and sunlight impact to neighbouring properties

- 8.2.1 Our assessments have been undertaken using the VSC, NSL, ADF (daylight) and APSH (sunlight) tests set out within the BRE guidance 'Site layout planning for daylight and sunlight: A guide to good practice' (2011). It is important to reiterate that the BRE guide is meant to be interpreted flexibly because natural lighting is only one of many factors in site layout design. Indeed, the guidelines suggest that different criteria may be used based upon the requirements for natural lighting in an area viewed against other constraints.
- 8.2.2 The results of our assessments upon 12A Greenaway Gardens have shown that no material reduction in daylight or sunlight will be experienced by 12A Greenaway Gardens as a result of the proposed development. The effects of the proposals are therefore in full accordance with the BRE guidelines and Policy A1 of the Camden Local Plan with respect to impacts to the neighbours.

8.3 Internal amenity within the proposed rooms

- 8.3.1 Our assessment of internal light levels has focussed on the rooms at the front of the proposed basement level given following comments from the council at pre-application stage.
- 8.3.2 Our ADF analysis demonstrates that craft room, office and break room to the front of the property at basement level will either be in excess of the BRE recommendations for a main living space or experience minor / unnoticeable deviations from the level. All 3 of the rooms exceed the minimum ADF threshold for a habitable space (at least 1% ADF). Given the basement level rooms achieve daylight

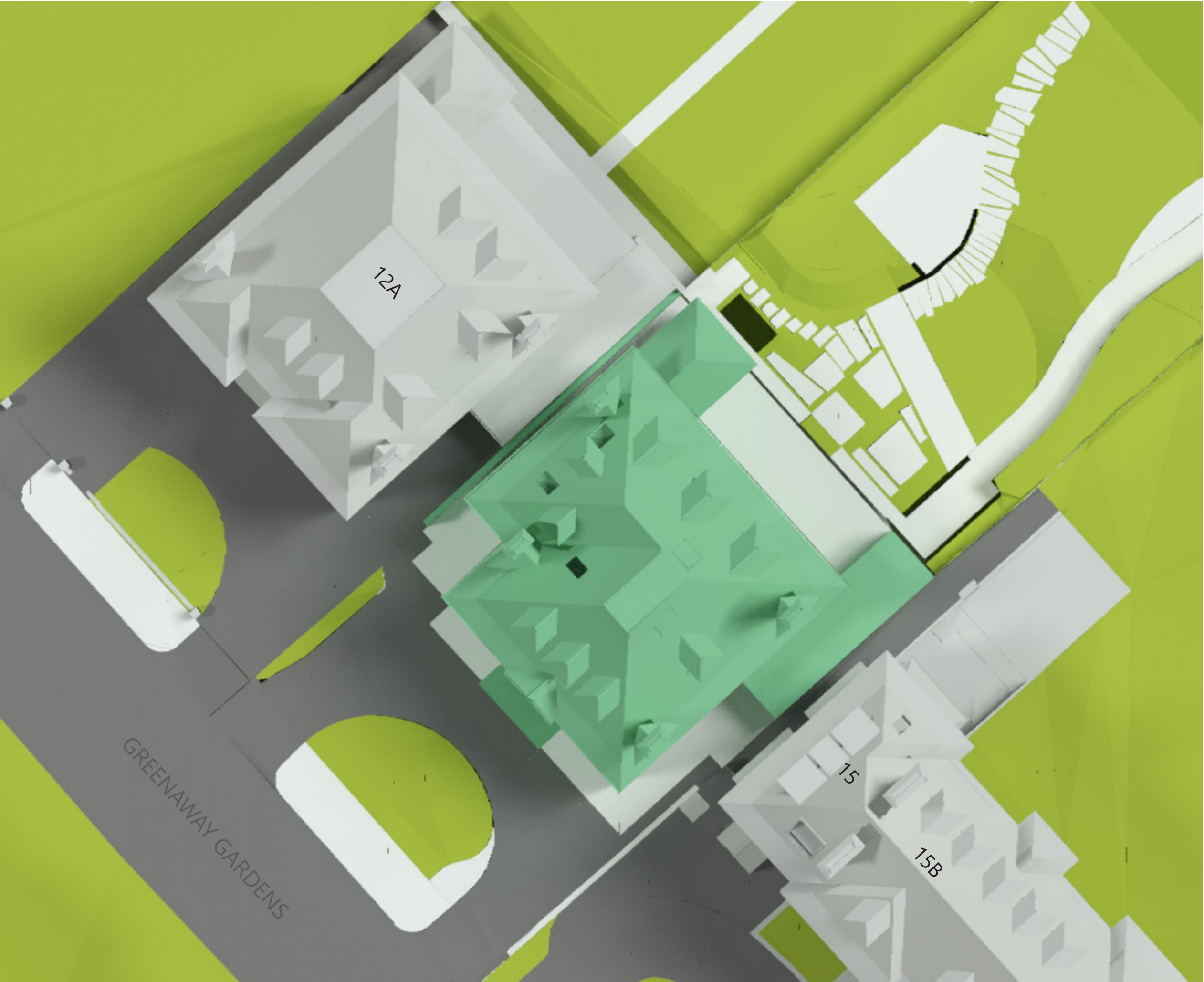
levels typically accepted for principal habitable accommodation and serve as auxiliary space to the main dwelling at the upper levels / will be used more transiently, the daylight levels to this space are fully acceptable and are not considered to result inadequate levels of daylight for their use.

- 8.3.3 Overall, the proposals show that the scheme will have no adverse impact upon the daylight / sunlight to the neighbouring property at 12A Greenaway Gardens and adequate levels of light will be enjoyed within the auxiliary accommodation at basement level. As such, the scheme is considered in line with the BRE recommendations and relevant planning policy in respect of daylight and sunlight amenity.



Appendix 1

Drawings of the existing and proposed
buildings within its context



Sources of information

SHH
(0942)0401_P04 - WIP Basement Floor
Plan.dwg
(0942) - 14 Greenaway Gardens - 3D
model.dwg
Received 06/12/2021

EB7 Ltd
Site Photographs
Ordnance Survey

Key:



Existing

NORTH



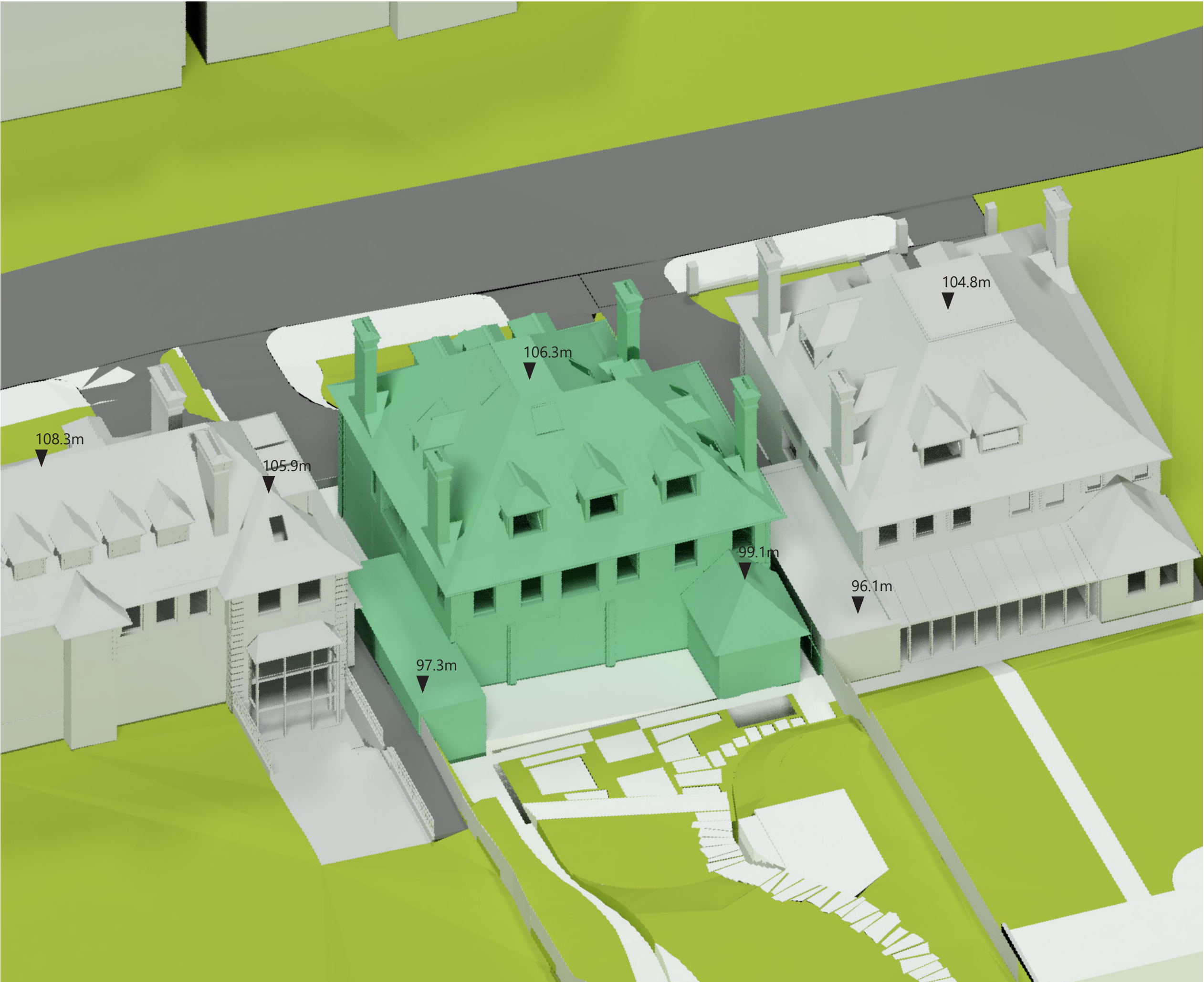
Project 14 Greenaway Gardens
Hampstead

Title Existing Condition
Plan View

Drawn JG Checked --

Date 16/12/2021 Project 5252

Rel no. 01 Prefix DS01 Page no. 01




Sources of information

SHH
(0942)0401_P04 - WIP Basement Floor
Plan.dwg
(0942) - 14 Greenaway Gardens - 3D
model.dwg
Received 06/12/2021

EB7 Ltd
Site Photographs
Ordnance Survey

Key:

 Existing

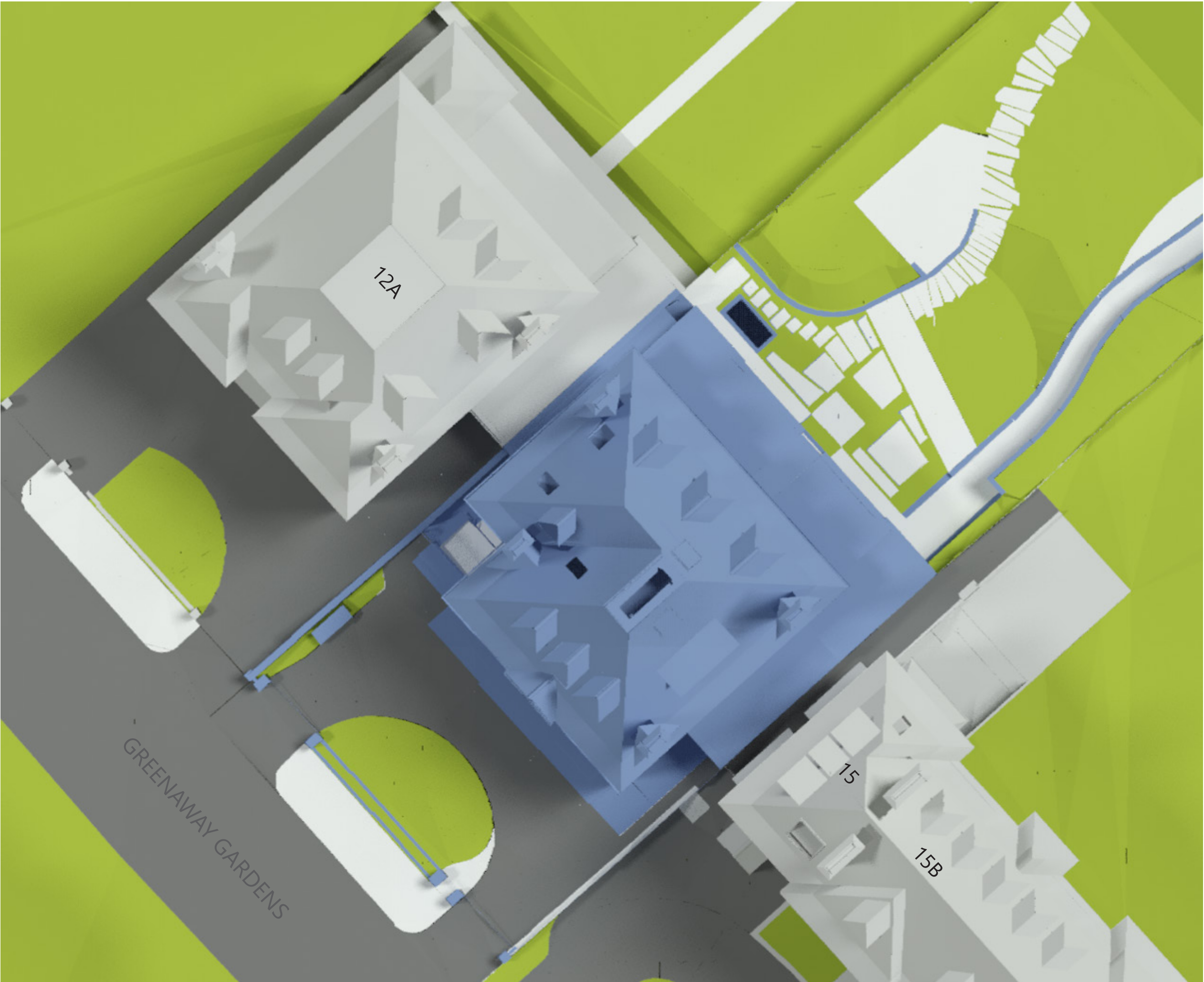
Project 14 Greenaway Gardens
Hampstead

Title Existing Condition
3D View

Drawn JG Checked --

Date 16/12/2021 Project 5252

Rel no. 01 Prefix DS01 Page no. 02



Sources of information

SHH
(0942)0401_P04 - WIP Basement Floor
Plan.dwg
(0942) - 14 Greenaway Gardens - 3D
model.dwg
Received 06/12/2021

EB7 Ltd
Site Photographs
Ordnance Survey

Key:
 Proposed



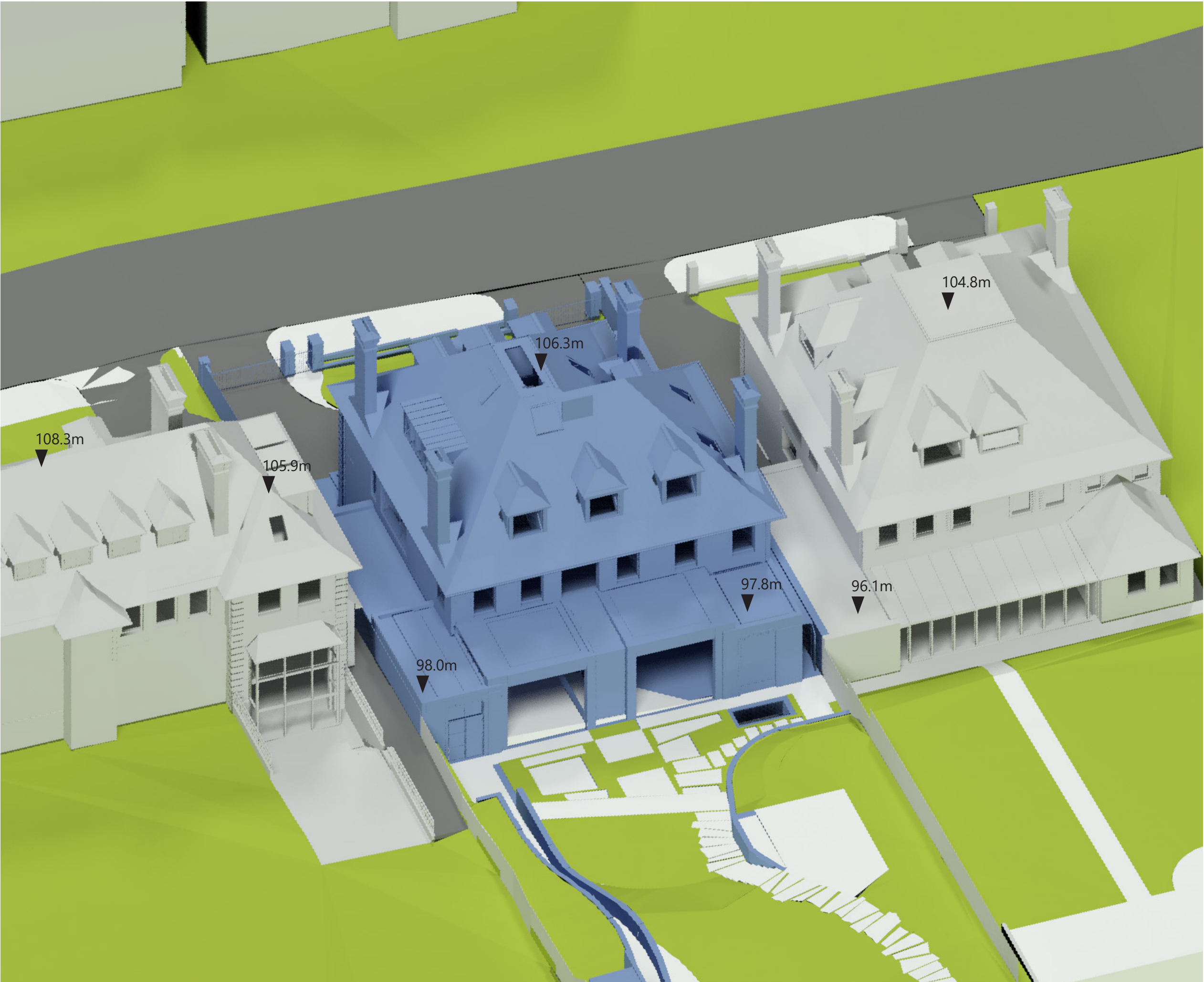
Project 14 Greenaway Gardens
Hampstead

Title Proposed Development
Plan View

Drawn JG Checked --

Date 16/12/2021 Project 5252

Rel no. 01 Prefix DS01 Page no. 03




Sources of information

SHH
(0942)0401_P04 - WIP Basement Floor
Plan.dwg
(0942) - 14 Greenaway Gardens - 3D
model.dwg
Received 06/12/2021

EB7 Ltd
Site Photographs
Ordnance Survey

Key:

 Proposed

Project 14 Greenaway Gardens
Hampstead

Title Proposed Development
3D View

Drawn JG Checked --

Date 16/12/2021 Project 5252

Rel no. 01 Prefix DS01 Page no. 04

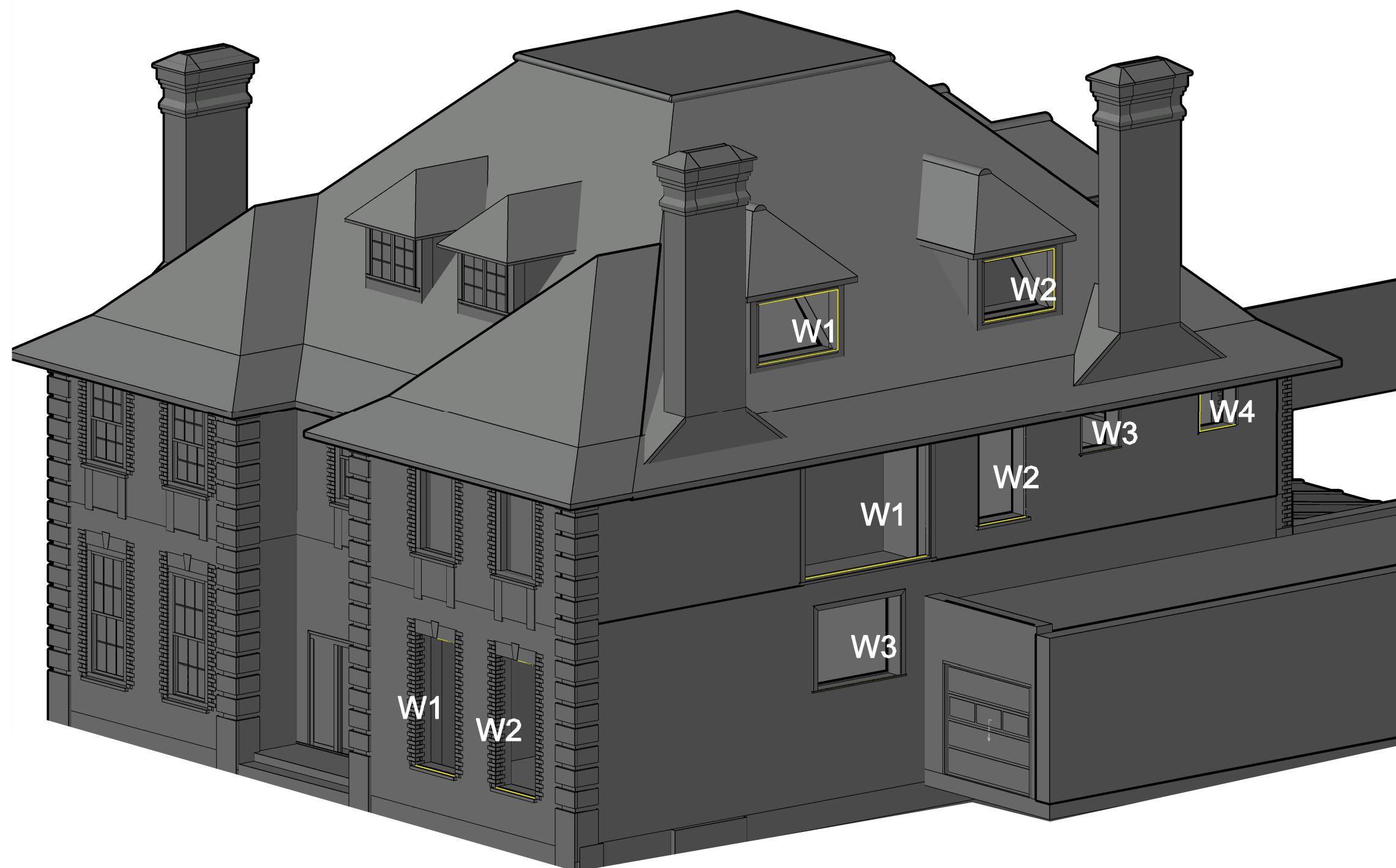
Sources of information

SHH

(0942)0401_P04 - WIP Basement Floor
Plan.dwg
(0942) - 14 Greenaway Gardens - 3D
model.dwg
Received 06/12/2021

EB7 Ltd

Site Photographs
Ordnance Survey



Project 14 Greenaway Gardens
Hampstead

Title 12A Greenaway Gardens
Window Map

Drawn JG Checked --

Date 15/12/2021 Project 5252

Rel no. 01 Prefix WM01 Page no. 01

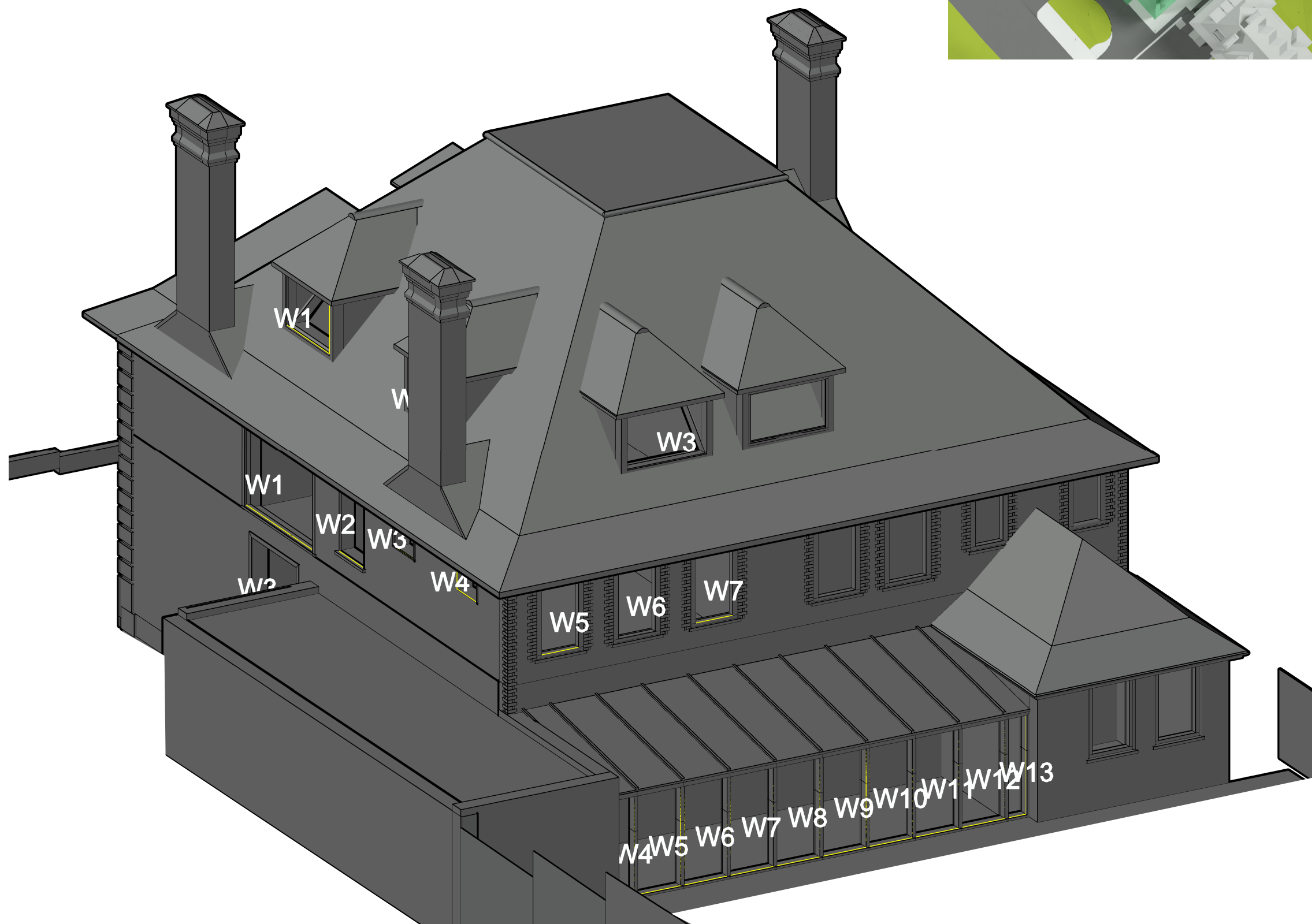
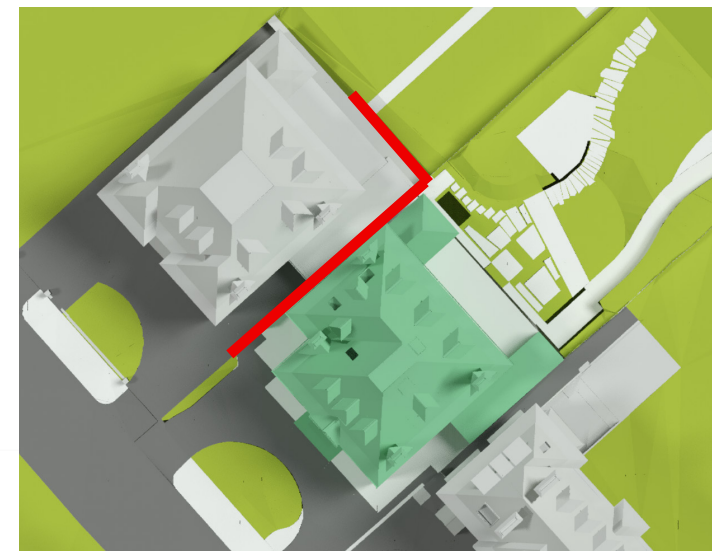
Sources of information

SHH

(0942)0401_P04 - WIP Basement Floor
Plan.dwg
(0942) - 14 Greenaway Gardens - 3D
model.dwg
Received 06/12/2021

EB7 Ltd

Site Photographs
Ordnance Survey



Project 14 Greenaway Gardens
Hampstead

Title 12A Greenaway Gardens
Window Map

Drawn JG Checked --

Date 15/12/2021 Project 5252

Rel no. 01 Prefix WM01 Page no. 02



Appendix 2

Results of the daylight and sunlight assessments
within neighbouring properties

Address	Room	Window	Room Use	Existing VSC	Proposed VSC	Loss	Proportion Retained	Room Area	Existing NSC	Proposed NSC	Loss	Proportion Retained	Existing APSH Total	Existing APSH Winter	Proposed APSH Total	Proposed APSH Winter	Total Retained	Winter Retained
12A Greenaway Gardens																		
Ground	R1	W1-L	Living Room	36.7	36.7	0.0	1.0											
		W1-U																
		W2-L		36.6	36.6	0.0	1.0											
		W2-U						283.5	278.6	278.6	0.0	1.0	67	23	67	23	1.0	1.0
Ground	R2	W3	Bathroom	14.8	14.9	0.0	1.0	114.8	70.4	70.5	-0.1	1.0	31	13	31	13	1.0	1.0
Ground	R3	W4-L	Residential	30.2	30.2	0.0	1.0											
		W4-U																
		W5-L		35.1	35.1	0.0	1.0											
		W5-U																
		W6-L		36.2	36.2	0.0	1.0											
		W6-U																
		W7-L		36.6	36.6	0.0	1.0											
		W7-U																
		W8-L		36.9	36.9	0.0	1.0											
		W8-U																
		W9-L		37.0	37.0	0.0	1.0											
		W9-U																
		W10-L		37.0	37.0	0.0	1.0											
		W10-U																
		W11-L		36.8	36.8	0.0	1.0											
		W11-U																
		W12-L		35.6	35.6	0.0	1.0											
		W12-U																
		W13-L		28.4	28.4	0.0	1.0											
		W13-U						377.6	377.6	377.6	0.0	1.0	N/F	N/F	N/F	N/F	N/F	N/F
First	R1	W1-L W1-U	Stairwell	16.2	16.5	-0.3	1.0	68.9	68.5	68.5	0.0	1.0	34	13	36	13	1.1	1.0
First	R2	W2-L W2-U	Bathroom	12.5	12.8	-0.3	1.0	105.6	44.2	44.2	0.0	1.0	30	8	31	8	1.0	1.0
First	R3	W3	Bedroom	6.3	6.6	-0.3	1.0											
		W4		10.1	10.5	-0.4	1.0											
		W5-L		30.5	30.5	0.0	1.0											
		W5-U																
		W6-L		30.3	30.3	0.0	1.0											
		W6-U																
		W7-L W7-U		30.3	30.3	0.0	1.0	281.9	281.2	281.2	0.0	1.0	31	11	32	11	1.0	1.0
Second	R1	W1	Bedroom	29.2	29.2	0.0	1.0	321.5	224.1	224.1	0.0	1.0	59	18	59	18	1.0	1.0
Second	R2	W2	Bedroom	25.4	25.4	0.0	1.0											
		W3		38.3	38.3	0.0	1.0	328.5	297.9	297.9	0.0	1.0	67	21	67	21	1.0	1.0



Appendix 3

Internal Amenity Results



Sources of information

SHH
(0942) - 14 Greenaway Gardens - 3D
model.dwg
Received 06/12/2021

(0942)0401_PL02 - WIP Basement Floor
Plan.dwg
Received 05/04/2022

EB7 Ltd
Site Photographs
Ordnance Survey



Project 14 Greenaway Gardens
Hampstead

Title Basement Floor
Room Layout

Drawn MZ Checked --

Date 07/04/2022 Project 5252

Rel no. 02 Prefix ID01 Page no. 01

Floor	Room	Window	Room Use	Average Daylight Factor (ADF) Room Total (%)
Proposed				
Basement	R1	W1-L	Craft Room	
		W1-U	Craft Room	
		W2-L	Craft Room	
		W2-U	Craft Room	
		W3-L	Craft Room	
		W3-U	Craft Room	
		W6	Craft Room	1.3
Basement	R2	W4	Office	1.8
Basement	R3	W5	Break Room	1.2