gia

Daylight and Sunlight

Branch Hill House

Prepared by: Joseph Dunne Reference: 13769 Date: 18/12/2019

Contents Page

Client:

Issue Date:

Almax Group

18th December 2019

Document References:

13769-JODU-19-1218 (Daylight and Sunlight Report) Principles of Daylight and Sunlight Existing Drawings: 13769/IS01/01-03 (ReI06) Proposed Drawings: 13769/IS01/04-06 (ReI06) Overlay Drawings: 13769/01-02 Daylight and Sunlight Results (ReI06) Floor Plans

Author for and Behalf of GIA: Authorised by: Joseph Dunne Molly Moruzzi

Authorisation for GIA:

This report is intended solely for Almax Group and may contain confidential information. The Liability of this Report extends to Almax Group and their duly appointed advisors. No part or whole of its contents may be disclosed to or relied upon by any Third Parties without the consent of this Practice. This report is accurate as at the date of publication but does not take into account anything that has happened since the date of this report.

S	Section	Page
1.0 Ex	xecutive Summary	1-2
2.0 Co	Context Methodology	3
3.0 Th	he Site	4-6
4.0 Su	urrounding Properties	7-12
5.0 Co	Conclusions	13

Appended to this report:

Appendix 01	-	Assumptions
Appendix 02	-	Principles of Daylight and Sunlight
Appendix 03	-	Existing & Proposed Drawings
Appendix 04	-	Daylight and Sunlight Results
Appendix 05	-	Floor Plans

Sources of Information:

Information Received:	Valuation Office Agency
	London Borough of Camden – Online Planning
Release Number:	Rel_06_13769_CAD
Issue Number:	IS01-MZ02-EvP (IR16)
OS Data:	F!ND Maps
3D Models:	Vertex-1R03-19-1203-Stanhope Gate – Update smaller massing
Site Photos:	GIA
	Google: Maps & Street Views

1.0 Executive Summary

GIA have been instructed by Almax Group to undertake a daylight and sunlight assessment of the Stanhope Gate scheme at Branch Hill House.

The daylight and sunlight analysis has been considered by reference to the criteria and methodology within the Building Research Establishment Guidelines (2011) "BRE Guidelines". The BRE Guidelines, when published in 2011, recognised that it should not form a mandatory set of criteria, rather it should be used to help inform good site layout and design.

GIA have analysed the neighbouring properties to understand the potential alteration in daylight and sunlight between the existing condition and the proposed daylight levels. We have considered the following 20 properties within our assessment;

1)	1 Spedan Close;	11)	11 Spedan Close;
2)	2 Spedan Close;	12)	12 Spedan Close;
3)	3 Spedan Close;	13)	13 Spedan Close;
4)	4 Spedan Close;	14)	14 Spedan Close;
5)	5 Spedan Close;	15)	1 Branch Hill;
6)	6 Spedan Close;	16)	2 Branch Hill;
7)	7 Spedan Close;	17)	3 Branch Hill;
8)	8 Spedan Close;	18)	4 Branch Hill;
9)	9 Spedan Close;	19)	5 Branch Hill;
10)	10 Spedan Close;	20)	6 Branch Hill.

Against the proposed scheme, 17 of 20 properties assessed will remain compliant to all of the BRE daylight and sunlight methodologies.

The three properties that do not adhere to the BRE guidelines are;

- > 2 Spedan Close;
- > 4 Spedan Close;
- > 7 Spedan Close.

Each property includes two rooms that face the site. One room in each property will transgress the BRE guidelines for NSL while the VSC and APSH for all will be BRE compliant.

The bedroom located in 4 Spedan Close will retain a view of the sky to more than 60% of the room at a table top height. Where one can see the sky, there is the potential for natural daylight. 2 Spedan Close and 7 Spedan Close will experience a change in NSL to their respective kitchens.

These rooms are served by letterbox windows under an overhang. In the existing situation both kitchens will experience less than 50% NSL and we can therefore infer that the architecture of this property is a factor in the impact on light.

Section 3.23 of the Camden Planning Guidance to Amenity 2018 notes that that while Camden strongly support the aims of the BRE methodology for assessing sunlight and daylight Camden will consider the outcomes of the assessments flexibility where appropriate, taking into account site specific circumstances and context.

On the basis of the above, it is our considered view that whilst there are BRE transgressions, with a 94.2% compliance rate across the site, we believe that this impact is within the intention of the Camden Planning Guidance to Amenity.

2.0 Context Methodology

To understand the impact of the proposed development (in terms daylight and sunlight amenity to existing residential properties), we have considered the below documents:

- > Building Research Establishment Guidelines 2011 "BRE Guidelines"
- > The Camden planning guidance to amenity 2018

Building Research Establishment Guidelines 2011 "BRE Guidelines"

The technical analysis that forms the basis of this report has been predicated against the methodologies set out within the Building Research Establishment Guidelines entitled 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice (2011)'.

The BRE Guidelines provide three methodologies for daylight assessment, namely;

- 1) The Vertical Sky Component (VSC)
- 2) The No Sky Line (NSL); and
- 3) The Average Daylight Factor (ADF)

Appendix 02 of this report elaborates on the mechanics of each of the above assessment criteria, explains the appropriateness of their use and the parameters of each specific recommendation.

Camden Planning Guidance Amenity 2018

We have used this document to further understand the policies and targets for Camden in relation to amenity and their interpretation of the BRE.

The following sections are relevant to our discipline.

3.22 The Council notes the intentions of the BRE document is to provide advice to developers and decision makers and therefore it should be regarded as a guide rather than policy.

3.23 While we strongly 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, it may be necessary to consider exceptions to the recommendations cited in the BRE guidance. Any exceptions will have assessed on a case-by-case basis.

3.0 The Site

The site is located along the western edge of Hampstead Heath within the Borough of Camden. It is bound by Heysham Lane to the north, Branch Hill to the east, Oak Hill Way to the south and Spedan Close to the west. Our understanding of the existing building and the surrounding context is depicted on GIA drawings 13769-REL06-IS01-01-03-EXI found below in Figure 01 and further within Appendix 03.



Figure 01 – Image of the Existing Site

The proposed scheme (Figure 02), designed by Stanhope Gate Architects, will involve a change of use of Branch Hill House from care home (Use Class C2) to residential (Use Class C3).



Figure 02 – Image of the Proposed Development

Our analysis is based on the proposed scheme massing model Stanhope Gate scheme received 9th December 2019. GIA's understanding of the proposed building and the surrounding context is depicted in Figure 02 above and further in GIA drawings 13769-REL06-IS01-04-PR(IR16) within Appendix 03.

Updated Scheme

GIA have been provided with an updated model which was received on 17th December (IR19). The technical analysis is based on the massing issued on the 9th of December (IR16) as illustrated in figure 02. Subsequent to carrying out our technical analysis GIA were provided with a modified scheme (received 17th December). We have overlaid the two schemes, as illustrated in figure 03 below. In our opinion, the modifications are non-material and would not affect the overall conclusions within this report.



Figure 03 – Image of updated scheme overlay

4.0 Surrounding Properties

There are 20 properties surrounding the site which include windows and rooms that are relevant for technical assessment. GIA have assessed residential properties only as they are considered by the BRE Guidelines to have the highest requirement for or natural light.

Figure 03 below identifies the scope of residential properties GIA have assessed. This is based on a Valuation Office Agency search and site observations.



Figure 04 – Use Map

We have compared the levels of daylight and sunlight in the existing condition to those that would be achieved with the development in place. Upon successful implementation of the proposed Stanhope Gate design scheme, the following 17 properties will achieve full BRE compliance in relation to daylight (VSC and NSL) and sunlight (APSH) and as such, no further consideration has been within this report given in accordance with the BRE Guidelines. A full set of results for these properties can be found within Appendix 05 of this report.

- 1) 1 Spedan Close
- 2) 3 Spedan Close
- 3) 5 Spedan Close
- 4) 6 Spedan Close
- 5) 8 Spedan Close
- 6) 9 Spedan Close
- 7) 10 Spedan Close
- 8) 11 Spedan Close
- 9) 12 Spedan Close

- 10) 13 Spedan Close
- 11) 14 Spedan Close
- 12) 1 Branch Hill
- 13) 2 Branch Hill
- 14) 3 Branch Hill
- 15) 4 Branch Hill
- 16) 5 Branch Hill
- 17) 6 Branch Hill

The remaining three properties that will experience BRE transgressions are identified in Figure 04 below and are discussed within this report in greater detail.

- 1. 2 Spedan Close
- 2. 4 Spedan Close
- 3. 7 Spedan Close



Figure 05 – Property Map

Within the property commentary there is a street view image and a plan view map showing the location of the property in relation to the development. Within the plan view map, the development site is shown in red, the property outlined in blue.

Property 1: 2 Spedan Close



2 Spedan Close is located to the west of the development separated by a narrow access road to the site facing Spedan Close properties. From our external inspection and VOA search we know that this property is residential. We have obtained a floor plan for 5 Spedan Close and have replicated the internal layout within this property. This is a reasonable assumption.

The daylight and sunlight results for this property can be found in Appendix 04.

We have assessed 4 apertures serving 2 rooms relevant for assessment within this property. One room (bedroom) will achieve BRE compliance (VSC, NSL, APSH).

The remaining room a kitchen (F00/R1), is served by two windows. Both windows will adhere to VSC test, however, the strict application of the guidelines means the room will not comply with NSL as there is a greater than 20% change. This room is served by a letter box window situated beneath an overhang and the daylight is already restricted, with less than 50% of the room having a view of the sky in the existing scenario. By virtue of the architecture an NSL breach would likely occur if any reasonable massing were to come forward within a close proximity to the property.

In relation to sunlight there is no change from the existing situation.

In conclusion although there are changes in the daylight to one room this can be in part attributed to the nature of the buildings architecture. The other room in the property will not experience a change in light conditions beyond the BRE guidance. Furthermore, the main living space does not face the site and will be therefore unaffected.

Property 2: 4 Spedan Close



4 Spedan Close is located to the west of the development separated by a narrow access road to the site facing Spedan Close properties. From our external inspection and VOA search we know that this property is residential. We have obtained a floor plan for 5 Spedan Close and have replicated the internal layout within this property. This is a reasonable assumption.

The daylight and sunlight results for this property can be found in Appendix 04.

We have assessed 4 apertures serving 2 rooms relevant for assessment within this property. One room (kitchen) will achieve BRE compliance (VSC, NSL, APSH).

The remaining room not achieving compliance is a bedroom (F01/R1). This room will maintain a view of the sky to 66% of the area. Where one can see the sky, there is potential for natural light. The breach in NSL guidelines for this property is marginal with a percentage change of 25.1% when the threshold is a 20% change.

In relation to sunlight there is no change from the existing situation.

In conclusion although there is a change in the daylight to the bedroom, the kitchen and main living space (which does not face the site) will not experience a change in light conditions beyond the BRE guidance.

Property 3: 7 Spedan Close



7 Spedan Close is located to the west of the development separated by a narrow access road to the site facing Spedan Close properties. From our external inspection and VOA search we know that this property is residential. We have obtained a floor plan for 5 Spedan Close and have replicated the internal layout within this property. This is a reasonable assumption.

The daylight and sunlight results for this property can be found in Appendix 04.

We have assessed 4 apertures serving 2 rooms relevant for assessment within this property. One room (bedroom) will achieve BRE compliance (VSC, NSL, APSH).

The remaining room a kitchen (F00/R1), is served by two windows. Both windows will adhere to VSC test, however, the strict application of the guidelines means the room will not comply with NSL as there is a greater than 20% change. This room is served by a letter box window situated beneath an overhang and the daylight is already restricted, with less than 50% of the room having a view of the sky in the existing scenario. By virtue of the architecture an NSL breach would likely occur if any reasonable massing were to come forward within a close proximity to the property.

In relation to sunlight there is no change from the existing situation.

In conclusion although there are changes in the daylight to one room this can be in part attributed to the nature of the buildings architecture. The other room in the property will not experience a change in light conditions beyond the BRE guidance. Furthermore, the main living space does not face the site and will be therefore unaffected.

5.0 Conclusions

GIA have been instructed by the Almax Group to undertake a detailed daylight and sunlight technical assessment of the proposed Stanhope Gate scheme received 9th December 2019 at Branch Hill House to understand the potential effect that the development may have on the neighbouring properties levels of daylight and sunlight.

GIA have analysed the neighbouring properties to understand the potential alteration in daylight and sunlight between the existing condition and the proposed daylight levels.

Against the proposed scheme, 17 of the 20 properties assessed will remain compliant to BRE guidelines for both daylight methodologies (VSC and NSL) and the sunlight methodology (APSH).

The three properties in breach of the BRE guidelines are 2 Spedan Close, 4 Spedan Close and 7 Spedan Close, one room in each property (a bedroom and two kitchens) experience BRE transgressions. A bedroom in 4 Spedan close is marginally in breach of the BRE guideline, while the other two rooms experience larger changes in NSL. All living rooms will be unaffected as they do not face the site.

On the basis of the above, it is our considered view that whilst there are BRE transgressions, with a 94.2% compliance rate across the site, we believe that this impact is within the intention of the Camden Planning Guidance to Amenity.

Appendix 01

Assumptions

- A photogrammetric model from Vertex received 24th August 2019 has been used to understand the base levels and heights of the surrounding buildings and indeed the location and size of those apertures that surround and face the site. Any change to the surrounding environment since the receipt of the photogrammetric data has been captured by online planning drawings. We have assumed that the photogrammetric data is true and accurate.
- 2. GIA have sought to create the most accurate model possible based on the data available, however, a degree of tolerance should be applied to this model. Where information was not available best assumptions have been used.
- 3. The scope of buildings assessed has been determined as a reasonable zone which considers both the scale of the proposed scheme and the proximity of those buildings which surround and face the site. There may be properties outside of the considered scope that are affected by the scheme, however, undertaking assessments beyond this area would not be commensurate with industry practices (nor cost effective) for a scheme of this size.
- 4. The property uses have been estimated by reference to a Valuation Office Agency search carried out and updated in November 2019.
- 5. GIA have obtained full or partial floor plans for the following properties:
 - > 5 Branch Hill
 - ➢ 6 Branch Hill
 - > 5 Spedan Close

These layouts have been incorporated into our computer model. It is reasonable to assume that these layouts have been implemented, however, GIA would require access to confirm this.

- 6. Where we have not been able to source detailed internal floor-plans we have made reasonable assumptions as to the internal layouts of the rooms behind the fenestration. This is normal practice where access to adjoining properties is undesirable in terms of development confidentiality. Unless the building form dictates otherwise, we assume a standard 4.2m deep room (14ft) for residential properties.
- 7. Floor levels for adjoining properties have been replicated from other floor plans or assumed as access has not been obtained. This dictates the level of the working plane which is the point at which the No Sky Line assessments are carried out.

8. GIA have discounted rooms that appear to be or are confirmed to be bathrooms, hallways, circulation space etc. These rooms are not considered to be habitable and thus do not require assessment.



Background

The quality of amenity and open spaces is often stipulated within planning policy for protection or enhancement and is often a concern for adjoining properties and other interested parties.

Historically the department of environment provided guidance with the issues, and in this country, this role has now been taken on by the Building Research Establishment (BRE), the British Standards Institutions (BSI) and the Chartered Institute of Building Services Engineers (CIBSE). Fortunately they have collaborated in many areas, to provide as much unified advice as possible in the form of industry best practice.

Many local planning authorities consider daylight and sunlight an important factor for determining planning applications. Policies refer to both the protection of daylight and sunlight amenity within existing properties as well as the creation of proposed dwellings with high levels of daylight and sunlight amenities.

In terms of considering what is material, local authorities typically refer to the BRE guidelines and apply their criteria set out within. The guidelines were originally produced in 1991, but superseded by the BRE guidelines (2011) *site layout planning for daylight and sunlight*.

Where developers are seeking to maximise their development value, it is often in the area of daylight and sunlight issues that they may seek to push the boundaries. Particularly in London, there is a priority on the creation of more housing thus resulting in the densification of urban areas. Local authorities vary in their attitude of how flexible they can be with the degree of impact on the daylight and sunlight amenity enjoyed by neighbouring owners and it is one factor among many planning aspects considered when determining an application. In city centres where high density is common, the protection of amenity is more challenging and there are many factors that need to be taken into account: each case has to be considered on its own merits.

The BRE Guidelines

The guidelines are typically referred to for daylight and sunlight amenity issues, however they were not intended to be used as an instrument of planning policy. In the introduction of 'Site Layout Planning for Daylight and Sunlight (2011)', section 1.6 (page 1), states that:-

"The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document 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 because natural lighting is only one of many factors in site layout design (see Section 5). In special circumstances the developer or Planning Authority may wish to use different target values. For example, in an 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".

Again, the paragraph 2.2.3 (page 7) of the document states:-

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

The numerical criteria suggested by the BRE are therefore designed to provide industry advice/guidance to plan/design with daylight in mind. Alternative values may be appropriate in certain circumstances such as highly dense urban areas around London, for e.g. the approach to creating alternative criteria is detailed within Appendix F of the BRE.

Measurement and Criteria for Daylight and Sunlight as set out in the BRE Guidelines

The BRE guidelines state that they are;

"intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedroom. Windows to bathrooms, toilets, garages need not be analysed."

They are therefore primarily designed to be used for residential properties however, the BRE guidelines continue to state that they may be applied to any existing non-residential buildings where there may be a reasonable expectation of daylight including; schools, hospitals, hostels, small workshop and some offices.

Daylight

In the first instance, if a proposed development falls beneath a 25 degree angle taken from the centre point of the lowest window, then the BRE suggests that no further analysis is required as there will be adequate sky light (i.e. sky visibility). This rule is applied when considering the scope of any assessments.

The BRE guidelines provide two methods for calculating daylight to existing surrounding properties:

- Vertical Sky Component (VSC)
- No Sky Line (NSL) also referred to as daylight distribution

A further method, the Average Daylight Factor (ADF) is provided for calculating daylight within proposed properties. However, it is sometimes applied as a supplementary assessment for exiting surrounding properties.

Each method is described below:

Vertical Sky Component

Methodology

This is defined in the BRE as:-

"Ratio of that part of illuminance, at a point on a given vertical plane that, is received directly from a CIE standard overcast sky, to illuminance on a horizontal plane due to an unobstructed hemisphere of this sky."

This statement means, in practice that if one had a totally unobstructed view of the sky, looking in a single direction, then just under 40% of the complete hemisphere would be visible. The measurement of this vertical sky component is undertaken using two indicators, namely a skylight indicator and a transparent direction finder.

Alternatively a further method of measuring the VSC, which is easier to understand both in concept and analysis, is often more precise and can deal with more complex instructions, is that of the Waldram diagram.



The point of reference is the same as for the skylight indicator, at the centre of the outward window face. Effectively a snap shot is taken from that point of the sky in front of the window, before and after the obstruction is put in place together with all the relevant obstructions to it, i.e. the buildings.

An unobstructed sky from that point of reference would give a vertical sky component of 39.6%, corresponding to 50% of the hemisphere, and therefore the purpose of the diagram is to discover how much sky remains once obstructions exist in front of that point.

Criteria

The BRE Handbook provides criteria for:

- (a) New Development
- (b) Existing Buildings
- (c) Adjoining Development Land
- (a) New Development

Paragraph 2.1.21 of the BRE states that:

"Obstructions can limit access to light from the sky. This can be checked by measuring or calculating the angle of visible sky 'theta', angle of obstruction or Vertical Sky Component (VSC) at the centre of the lowest window where daylight is required. If VSC is:

- at least 27% ('theta' is greater than 65 degrees, obstruction angle less than 25 degrees) conventional window design will usually give reasonable results.
- between 15% and 27% ('theta' is between 45 degrees and 65 degrees, obstruction angle between 25 degrees and 45 degrees) special measures (larger windows, changes to room layout) are usually needed to provide adequate daylight.
- between 5% and 15% ('theta' is between 25 degrees and 45 degrees, obstruction angle between 45 degrees and 65 degrees) it is very difficult to provide adequate daylight unless very large windows are used.
- less than 5% ('theta' less than 25 degrees, obstruction angle more than 65 degrees) it is often impossible to achieve reasonable daylight, even if the whole window wall is glazed."
- (b) Existing Buildings

Para 2.2.21 (page 11) of the BRE states:

"If any part of a new building or extension measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25 degree to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be the case if the vertical sky component measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value".

The VSC provides a quick and simple test which looks to give an early indication of the potential for light at the window face. However considered in isolation, it does not, in any fashion, indicate the quality of actual light within a space. It does not take into account the window size, the room size or room use. It helps by indicating that if there is an appreciable amount of sky visible from a given point there will be a reasonable potential for daylighting.

(c) Adjoining Development Land

Paragraph 2.3.10 of the BRE guidelines states:

"in broad general terms, a development site next to a proposed new building will retain the potential for good diffuse daylighting provided that on each common boundary:

- (a) no new building, measured in a vertical section perpendicular to the boundary, from a point 1.6m above ground level, subtends an angle of more than 43 degrees to the horizontal;
- (b) or, If (a) is not satisfied, then all points 1.6m above the boundary line are within 4m (measured along the boundary) of a point which has a VSC (looking towards the new building(s)) of 17% or more 2m above ground level are within 4m (measured sideways) of a point which has a vertical sky component of 27% or more.

Alternative VSC criteria as per Appendix F of the BRE guidelines

The 27% VSC target criteria is based upon a sub-urban type environment whereby a 25 degree line was taken from the centre point on a ground floor window as shown below:



However, in city centre locations and urban areas where density levels are increasing, these values may not be considered appropriate. The BRE guidelines provide that "*different targets may be used based on the special requirements of the proposed development or its location*" (paragraph F1).

Appendix F of the BRE suggests several approaches as to how alternative targets may be considered including:

- Consented scheme use of an extant planning permission to establish alternative benchmark criteria for VSC and APSH. It is not appropriate to treat a permitted scheme in the same manner as an existing building and allow a 20% reduction beyond this. If the levels of daylight and sunlight retained are similar to a previously consented scheme then it follows that these levels should be considered acceptable again, notwithstanding other planning considerations.
- Mirror massing to ensure a development matches the height and proportions of existing buildings, the VSC and APSH targets could be set to those of a mirror image of the same height and size, an equal distance away from the boundary (paragraph F5).
- Consider surrounding context and existing obstruction angles as well as spacing to height ratios.

In addition, due to the requirements for external amenity space within local planning policies, many residential buildings are served by balconies. Balconies can restrict the view of the sky dome whereby even the modest obstruction may result in a large relative impact on the VSC. The BRE guidelines therefore provide that an assessment can be carried out comparing the levels of VSC with and without the balconies in place for both the existing and proposed scenarios, to establish whether it is the presence of the balcony or the size of the new obstruction that is the main factor in the loss of light (paragraph 2.2.11).

No Sky Line

Methodology

The NSL method is a measure of the distribution of daylight at the working plane within a room. The 'working plane' means a horizontal 'desktop' plane 0.85m in height for residential properties. The NSL divides those areas of the working plane which can receive direct sky light from those which cannot. If a significant area of the working plane lies beyond the NSL (i.e. it receives no direct sky light), then the distribution of daylight in the room will be poor and supplementary electric lighting may be required.

It is similar to the VSC approach in that a reduction of 0.8 times in the area of sky visibility at the working plane may be deemed to be noticeable. It is however, very dependent upon knowing the actual room layouts or having a reasonable understanding of the likely layouts.

It is assessed by plotting the area of a room which can see the sky and which cannot, referred to as the NSL contour or daylight distribution contour. The contours assist in helping to understand the way the daylight is distributed within a room and the comparisons of existing and limitations of proposed circumstances within neighbouring properties. Like the VSC method, it relates to the amount of visible sky but does not consider the room use in its criteria, it is simply a test to assess the change in position of the No Sky Line, between the existing and proposed situation. It does take into account the number and size of windows to a room, but does not give any quantitative or qualitative assessment of the light in the rooms, only where sky can or cannot be seen.

Criteria

BS 8206 Part 2 (para 5.7) that the:

"uniformity of daylight is considered to be unsatisfactory if a significant part of the working plane (normally more than 20%) lies behind the no-sky line".

Therefore, it is implied that an NSL of at least 80% would be considered satisfactory in regards to deep rooms which are lit by windows on one side, the BRE Guidelines state (para, 2.2.10):

In regards to the alteration as a result of a proposed development or obstruction the BRE provide that the daylight may be adversely affected if "*the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value.*".

gia

Principles of Daylight and Sunlight

Average Daylight Factor

Methodology

The Average Daylight Factor (ADF) is defined within the 2011 BRE Guidelines as:

'a ratio of total daylight flux incident on a reference area to the total area of the reference area, expressed as a percentage of outdoor luminance on a horizontal plane, due to an unobstructed sky of assumed or known luminance distribution'.

Whilst the BRE guidelines provide this measure as a tool to understand daylight within proposed dwellings not existing dwellings, if room layouts are known it can provide a useful supplementary measure of daylight and is often requested by many local authorities.

The ADF method of assessment considers:

- The diffuse visible transmittance of the glazing to the room in question (i.e. how much light gets through the window glass). A transmittance value of 0.8% is assumed for single glazing and 0.65% for double glazed windows;
- The net glazed area of the window in question;
- The total area of the room surfaces (ceiling, walls, floor and windows); and
- The angle of visible sky reaching the window(s) in question

In addition, the ADF method makes allowance for the average reflectance of the internal surfaces of the room and of external obstruction (assumed to be 0.5 unless otherwise stated).

Criteria

The criteria for ADF is taken from the British Standard 8206 part II which gives the following criteria based on the room use:

- Bedroom 1% ADF
- Living room 1.5% ADF
- Kitchen 2% ADF

Where a room has multiple uses such as a living kitchen diner (LKD) or a studio apartment, the highest value is taken so in these cases the required ADF is 2%.

Sunlight

Methodology

The BS 8206 part 2 (section 5.2) states that:

"Provided that the entry of sunlight is properly controlled, it is generally welcome in most buildings in the UK. Dissatisfaction can arise as much from the permanent exclusion of sunlight as from its excess. The provision of sunlight is important in dwellings, particularly during winter months. Sunlight is especially valued in habitable rooms used for long periods during the day."

Sunlight is measured using a sun indicator which contains 100 spots, each representing 1% of Annual Probable Sunlight Hours (APSH). Where no obstruction exists the total APSH would amount to 1486 hours and therefore each spot equates to 14.86 hours of the total annual sunlight hours.

The number of spots is calculated for both the whole year and also during the winter period (21st September to 21st March) prior to an obstruction and after the obstruction is put in place. This provides a percentage of APSH for each of the time periods for each window assessed. The 2011 BRE Guidelines note that:

- "In housing, the main requirement for sunlight is in living rooms, where it is valued at any time of day, but especially in the afternoon."
- "all main living rooms of dwellings...should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun";
- "If the main living room to a dwelling has a main window facing within 90° of due north, but a secondary window facing within 90° of due south, sunlight to the secondary window should be checked."
- "...a south facing window will, in general, receive most sunlight, while a north facing one will receive it only on a handful of occasions. East and west facing windows will receive sunlight only at certain times of day".

When a room has multiple windows, not all may have a southerly orientation however, these windows may contribute to the levels of sunlight within a given room even if by 1-2% APSH. As well as the assessment on a window basis the BRE guidelines provide that an assessment can be undertaken on a room basis.

Whilst the emphasis of the BRE guidelines is in regards to living rooms, it is not always possible to determine the room uses within all of the properties assessed and therefore typically all windows or all rooms with windows facing within 90 degrees of due south and facing the site are assessed.

Criteria

The BRE provide that for existing buildings a window maybe adversely affected if a point at the centre of a window receives:

- Less than 25% of the APSH during the whole year, of which 5% APSH must be in the winter period; and
- Receives less than 0.8 times its former sunlight hours in either time period; and
- Has a reduction in sunlight for the whole year more than 4% APSH.

In terms of the assessment on a room basis the criteria applied is the same.

For proposed buildings the BRE provide (paragraph 3.1.15) that a dwelling or building which has a particular requirement for sunlight will appear reasonably sunlit provided:

• At least one main window faces within 90 degrees of due south; and

• Centre of one main living room window can receive 25% of APSH including 5% APSH in the winter months.

It continues that where groups of dwellings are planned the layout should aim to maximise the number of living rooms that meet the above recommendations.

Overshadowing

As well as daylight and sunlight amenity to neighbouring dwellings, planning policy often refers to the levels of overshadowing to amenity areas such as parks, public squares, playgrounds etc. The BRE guidelines provide two methods of calculation in regards to overshadowing which are as follows:

Sun Hours on Ground

Methodology

This method of overshadowing assessment uses the sun on ground indicator to determine the areas which receive direct sunlight and those which do not. This method applies to both new and existing areas of amenity space. The BRE Guidelines suggest that the Spring Equinox (21st March) is a suitable date for the assessment as this is the midpoint of the suns position throughout the year. Using specialist software, the path of the sun is tracked to determine where the sun would reach the ground and where it would not.

Criteria

The BRE guidelines recommend that at least half of an amenity space should receive at least two hours of direct sunlight on March 21st. In regards to existing spaces where the existing sunlit area is less than half of the area, the area which receives two hours of sunlight should not be reduced by more than 20% (it should retain 0.8 times its former value).

Transient Overshadowing

The BRE guidelines suggest that where large buildings are proposed which may affect a number of gardens or open spaces, it is useful to plot a shadow plan to illustrate the location of shadows at different times of the day and year. For the purpose of this assessment, shadow has been mapped at the following times of the year:

- 21st March (Spring equinox)
- 21st June (Summer solstice)
- 21st December (Winter solstice)

The September equinox is not assessed as this would provide the same results as those for March 21st.

For each of these dates the overshadowing is calculated at hourly intervals throughout the day however some images may not be present given the early sunset during the Winter period.

The BRE guidelines do not provide any criteria for transient overshadowing. Therefore the analysis provides a description of where additional shadow is cast as a result of a development with professional judgement to determine the effect comparing the shadow resulting from the proposed development against that of the existing site.

gia

Principles of Daylight and Sunlight

Light pollution and Solar Glare

Light pollution is defined as any light emitting from artificial sources into spaces where it is not wanted for example from offices into neighbouring residential properties where it could cause a nuisance. The ILP Guidance notes provide details of how to measure light pollution and criteria based on the urban density of the respective area to determine the acceptability of the light levels.

Solar glare is particularly important at pedestrian and road junctions as well as along railway lines where the glare can cause a temporary blinding to drivers or pedestrians. Glare can occur from reflective materials such as glazed areas or metal cladding on the facades. This assessment is therefore undertaken from viewpoints surrounding the site at junctions and positioned at the driver's eye level. Focal points are dictated by the location of signals or oncoming traffic.

Other Amenity Considerations

Daylight and sunlight is one factor among many under the heading of residential amenity considerations for any given development design or planning application; others include:

- outlook
- sense of enclosure
- privacy
- access to outdoor space e.g. balconies or communal garden/courtyard



Drawings

Existing



VERTEX IR03-18-0824 - VERTEX

STANHOPE GATE IR16-19-1203-Stanhope Gate - Update smaller Massing

PLANNING DOCUMENT

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN. GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES: EXISTING SCENARIO SHOWN IN SEPIA

N.B. DO NOT SCALE OFF THIS DRAWING PROJECT:

BRANCH HILL CLOSE

DRANCITIL

DRAWING NAME: PLAN VIEW EXISTING

DWN BY SCALE CHK BY DATE REV No. MACI DEC 19 MAAN 1:750@A3 А ADDR No. DWG No. PROJ No. REL No. IS No. 13769 01 01 06





VERTEX IR03-18-0824 - VERTEX

STANHOPE GATE IR16-19-1203-Stanhope Gate - Update smaller Massing

PLANNING DOCUMENT

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN, GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES: EXISTING SCENARIO SHOWN IN SEPIA ALL HEIGHTS AND DIMENSIONS GIVEN IN m AOD

N.B. DO NOT SCALE OFF THIS DRAWING PROJECT:

BRANCH HILL CLOSE

DRAWING NAME: 3D VIEW EXISTING

	-			-
DWN BY	SCALE	CHK BY	DATE	REV No.
MAAN	NTS	MACI	DEC 19	А
PROJ No.	REL No.	ADDR No.	IS No.	DWG No.
13769	06	-	01	02





VERTEX IR03-18-0824 - VERTEX

STANHOPE GATE IR16-19-1203-Stanhope Gate - Update smaller Massing

PLANNING DOCUMENT

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN, GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES: EXISTING SCENARIO SHOWN IN SEPIA ALL HEIGHTS AND DIMENSIONS GIVEN IN m AOD

N.B. DO NOT SCALE OFF THIS DRAWING PROJECT:

BRANCH HILL CLOSE

DRAWING NAME:

3D VIEW EXISTING

DWN BY	SCALE	CHK BY	DATE	REV No.
MACI	NTS	MACI	DEC 19	А
PROJ No.	REL No.	ADDR No.	IS No.	DWG No.
13769	06	-	01	03



Overlay









Proposed





VERTEX IR03-18-0824 - VERTEX

STANHOPE GATE IR16-19-1203-Stanhope Gate - Update smaller Massing

PLANNING DOCUMENT

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN, GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES: PROPOSED SCHEME SHOWN IN TEAL ALL HEIGHTS AND DIMENSIONS GIVEN IN m AOD

N.B. DO NOT SCALE OFF THIS DRAWING PROJECT:

BRANCH HILL CLOSE

DRAWING NAME:

3D VIEW PROPOSED PROPOSED SCHEME IR16 (03.12.19) CONFIRMATION PLOTS

DWN BY	SCALE	CHK BY	DATE	REV No.
MAAN	NTS	MACI	DEC 19	А
PROJ No.	REL No.	ADDR No.	IS No.	DWG No.
13769	06	-	01	05



The Whitehouse Belvedere Road London SE1 8GA t 020 7202 1400 f 020 7202 1401 mail@gia.uk.com www.gia.uk.com



VERTEX IR03-18-0824 - VERTEX

STANHOPE GATE IR16-19-1203-Stanhope Gate - Update smaller Massing

PLANNING DOCUMENT

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN. GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES: PROPOSED SCHEME SHOWN IN TEAL ALL HEIGHTS AND DIMENSIONS GIVEN IN m AOD

N.B. DO NOT SCALE OFF THIS DRAWING PROJECT:

BRANCH HILL CLOSE

DRAWING NAME:

3D VIEW PROPOSED PROPOSED SCHEME IR16 (03.12.19) CONFIRMATION PLOTS

DWN BY SCALE CHK BY DATE REV No. MAAN NTS MACI DEC 19 А PROJ No. REL No. ADDR No. IS No. DWG No. 13769 01 06 06





Vertical Sky Component (VSC) No Sky Line (NSL) Annual Probable Sunlight Hours (APSH)

DAYLIGHT AND SUNLIGHT EXISTING VS. PROPOSED RELEASE 06, ISSUE 01

						VSC (WINI	DOW)			NSL				APSH (WIN					
FLOOR	ROOM	PROPERTY	ROOM	ROOM	WINDOW	EX.	EX. PR. LOSS LOSS EX		EX.	PR.	LOSS	LOSS	EX.		PR.		LOSS %		
		TYPE	USE	NOTES		%	%		%	%	%	SQM	%	ANNUAL	WINTER	ANNUAL	WINTER	ANNUAL	WINTER

SPEDAN CLOSE 06																		
F00	R1	RESIDENTIAL	KITCHEN	W1/F00	2.7	2.4	0.3	11.1%	58	52.9	1.4	8.8%						
			KITCHEN	W2/F00	5.3	5.3	0	0.0%					14	з	14	з	0.0%	0.0%
F01	R1	RESIDENTIAL	BEDROOM	W1/F01	33.5	29.9	3.6	10.7%	89	87.9	0.2	1.3%						
			BEDROOM	W2/F01	33.5	29.8	3.7	11.0%										

SPEDAN CLOSE 07																
F00	R1	RESIDENTIAL	KITCHEN	W1/F00	4.7	4.4	0.3	6.4%	48.8	28.4	5.7	41.9%				
			KITCHEN	W2/F00	3	2.6	0.4	13.3%								
F01	R2	RESIDENTIAL	BEDROOM	W2/F01	34.8	31.6	3.2	9.2%	89.2	89.2	0.0	0.0%				
			BEDROOM	W3/F01	35.2	32.3	2.9	8.2%								

SPEDAN CL																	
F00	R1	RESIDENTIAL	KITCHEN	W1/F00	4.8	4.7	0.1	2.1%	53.2	49.4	1.0	7.0%					
			KITCHEN	W2/F00	2.1	2.4	-0.3	-14.3%									
F01	R2	RESIDENTIAL	BEDROOM	W2/F01	31.9	28.4	3.5	11.0%	84.7	74.7	1.6	11.8%					
			BEDROOM	W3/F01	32.8	29.2	3.6	11.0%									

SPEDAN CI																		
F00	R1	RESIDENTIAL	KITCHEN	W1/F00	4.1	4.3	-0.2	-4.9%	56.3	51.9	1.2	7.8%						
			KITCHEN	W2/F00	4.9	4.9	0	0.0%					12	3	13	3	-8.3%	0.0%
F01	R1	RESIDENTIAL	BEDROOM	W1/F01	36.1	35.8	0.3	0.8%	89	89	0.0	0.0%						
			BEDROOM	W2/F01	36.4	36.1	0.3	0.8%										

SPEDAN CI	-OSE 13														
F00	R1	RESIDENTIAL	KITCHEN	W1/F00	5.8	5.8	0	0.0%	59.7	59.8	0.0	0.0%			
			KITCHEN	W2/F00	3.8	4	-0.2	-5.3%							
F01	R2	RESIDENTIAL	BEDROOM	W2/F01	35.2	35.1	0.1	0.3%	89.2	89.2	0.0	0.0%			
			BEDROOM	W3/F01	35.2	35	0.2	0.6%							

SPEDAN CL	OSE 14														
F00	R1	RESIDENTIAL	KITCHEN	W1/F00	3.1	3.4	-0.3	-9.7%	47.9	47.9	0.0	0.0%			

(1) KITCHEN SMALLER THAN 13m2

DAYLIGHT AND SUNLIGHT EXISTING VS. PROPOSED RELEASE 06, ISSUE 01

						VSC (WINI	DOW)			NSL				APSH (WII	NDOW)				
FLOOR	ROOM	PROPERTY	ROOM	ROOM	WINDOW	EX. PR. LOSS LOSS E				EX.	PR.	LOSS	LOSS	E	Х.	Ρ	R.	LO:	6S %
		TYPE	USE	NOTES		%	%		%	%	%	SQM	%	ANNUAL	WINTER	ANNUAL	WINTER	ANNUAL	WINTER

SPEDAN C																		
			KITCHEN	W2/F00	11.2	11.2	0	0.0%					25	5	25	5	0.0%	0.0%
F01	R1	RESIDENTIAL	BEDROOM	W1/F01	33.8	34	-0.2	-0.6%	89.1	89.1	0.0	0.0%						
			BEDROOM	W2/F01	34.8	34.7	0.1	0.3%										

SPEDAN CL															
F00	R1	RESIDENTIAL	KITCHEN	W1/F00	6.4	6.4	0	0.0%	63.1	63.1	0.0	0.0%			
			KITCHEN	W2/F00	4.6	4.7	-0.1	-2.2%							
F01	R2	RESIDENTIAL	BEDROOM	W2/F01	36.6	36.4	0.2	0.5%	89.2	89.2	0.0	0.0%			
			BEDROOM	W3/F01	36.6	36.3	0.3	0.8%							

SPEDAN CL																		
F00	R1	RESIDENTIAL	KITCHEN	W1/F00	3.3	2.8	0.5	15.2%	95.1	95	0.0	0.2%						
			KITCHEN	W2/F00	35.8	35.8	0	0.0%					79	28	79	28	0.0%	0.0%
F01	R1	RESIDENTIAL	BEDROOM	W1/F01	35.4	32.9	2.5	7.1%	89.1	89.1	0.0	0.0%						
			BEDROOM	W2/F01	35.5	32.8	2.7	7.6%										

SPEDAN CI															
F00	R1	RESIDENTIAL	KITCHEN	W1/F00	39.1	39.1	0	0.0%	95.2	95.2	0.0	0.0%			
			KITCHEN	W2/F00	5.3	5.3	0	0.0%							
F01	R2	RESIDENTIAL	BEDROOM	W2/F01	37.4	37.2	0.2	0.5%	96.8	96.8	0.0	0.0%			
			BEDROOM	W3/F01	37.4	37.2	0.2	0.5%							

SPEDAN CL																		
F00	R1	RESIDENTIAL	KITCHEN	W1/F00	1.8	2.2	-0.4	-22.2%	35.6	17.8	5.0	49.9%						
			KITCHEN	W2/F00	5	4.8	0.2	4.0%					13	3	12	3	7.7%	0.0%
F01	R1	RESIDENTIAL	BEDROOM	W1/F01	31.3	29.7	1.6	5.1%	81.3	78	0.5	4.0%						
			BEDROOM	W2/F01	32	30.4	1.6	5.0%										

SPEDAN CI	.OSE 01														
F00	R1	RESIDENTIAL	KITCHEN	W1/F00	38.3	38.4	-0.1	-0.3%	90.3	90.2	0.0	0.0%			
			KITCHEN	W2/F00	2.3	2.8	-0.5	-21.7%							

(1) KITCHEN SMALLER THAN 13m2

DAYLIGHT AND SUNLIGHT EXISTING VS. PROPOSED RELEASE 06, ISSUE 01

						VSC (WIN	DOW)			NSL				APSH (WII	NDOW)				
FLOOR	ROOM	PROPERTY	ROOM	ROOM	WINDOW	EX. PR. LOSS LOSS E			EX.	PR.	LOSS	LOSS	E	X.	P	'R.	LO:	6S %	
		TYPE	USE	NOTES		EX. PR. LOSS LOSS EX. % % %			%	%	SQM	%	ANNUAL	WINTER	ANNUAL	WINTER	ANNUAL	WINTER	

SPEDAN CL	.0SE 01 (CON	ITINUED)													
F01	R2	RESIDENTIAL	BEDROOM	W2/F01	32.3	31.1	1.2	3.7%	83.7	83.1	0.1	0.7%			
			BEDROOM	W3/F01	32.3	31	1.3	4.0%							

SPEDAN CI	LOSE 10																	
F00	R1	RESIDENTIAL	KITCHEN	W1/F00	4.8	4.8	0	0.0%	57.3	54.8	0.7	4.4%						
			KITCHEN	W2/F00	5.5	5.5	0	0.0%					15	3	15	з	0.0%	0.0%
F01	R1	RESIDENTIAL	BEDROOM	W1/F01	37	36.8	0.2	0.5%	89.1	89.1	0.0	0.0%						
			BEDROOM	W2/F01	37.2	37	0.2	0.5%										

SPEDAN CI															
F00	R1	RESIDENTIAL	KITCHEN	W1/F00	5	5.3	-0.3	-6.0%	50.5	48.8	0.5	3.4%			
			KITCHEN	W2/F00	1.8	2	-0.2	-11.1%							
F01	R2	RESIDENTIAL	BEDROOM	W2/F01	30.8	28.3	2.5	8.1%	84.2	70.7	2.2	16.0%			
			BEDROOM	W3/F01	31.1	28.4	2.7	8.7%							

SPEDAN C																		
FOO	R1	RESIDENTIAL	KITCHEN	W1/F00	1.8	1.9	-0.1	-5.6%	50.2	45.9	1.2	8.7%						
			KITCHEN	W2/F00	4.8	4.5	0.3	6.2%					13	3	12	3	7.7%	0.0%
F01	R1	RESIDENTIAL	BEDROOM	W1/F01	30.8	27.5	3.3	10.7%	88.4	66.2	3.7	25.1%						
			BEDROOM	W2/F01	31.1	28.1	3	9.6%										

6 BRANCH	HILL																	
F00	R1	RESIDENTIAL	UNKNOWN	W1/F00	21.1	19.3	1.8	8.5%	96.4	96.4	0.0	0.0%	39	18	38	17	2.6%	5.6%
			UNKNOWN	W2/F00	30.5	28.7	1.8	5.9%					46	14	44	12	4.3%	14.3%
F01	R1	RESIDENTIAL	DINING ROOM	W1/F01	36.4	36.4	0	0.0%	100	100	0.0	0.0%						
			DINING ROOM	W2/F01	38.8	37.8	1	2.6%					60	20	59	19	1.7%	5.0%
	R2	RESIDENTIAL	LIVING ROOM	W3/F01	39.1	37.9	1.2	3.1%	95.7	95.7	0.0	0.0%	68	24	67	23	1.5%	4.2%
			LIVING ROOM	W4/F01	39.1	37.9	1.2	3.1%					67	24	65	22	3.0%	8.3%
F02	R1	RESIDENTIAL	BEDROOM	W1/F02	39.3	38.8	0.5	1.3%	89.6	89.6	0.0	0.0%	68	24	68	24	0.0%	0.0%

(1) KITCHEN SMALLER THAN 13m2

DAYLIGHT AND SUNLIGHT EXISTING VS. PROPOSED RELEASE 06, ISSUE 01

						VSC (WINI	DOW)			NSL				APSH (WII	NDOW)				
FLOOR	ROOM	PROPERTY	ROOM	ROOM	WINDOW	EX.	PR.	LOSS	LOSS	EX.	PR.	LOSS	LOSS	E	Х.	P	R.	LO:	SS %
		TYPE	USE	NOTES		%	%		%	%	%	SQM	%	ANNUAL	WINTER	ANNUAL	WINTER	ANNUAL	WINTER

5 BRANCH	HILL																	
B01	R1	RESIDENTIAL	BEDROOM	W1/B01	24.5	24.5	0	0.0%	99	99	0.0	0.0%	37	7	37	7	0.0%	0.0%
			BEDROOM	W2/B01	28.2	28.2	0	0.0%					60	18	60	18	0.0%	0.0%
			BEDROOM	W3/B01	24.1	24.1	0	0.0%					52	17	52	17	0.0%	0.0%
F00	R1	RESIDENTIAL	LIVING ROOM	W1/F00	33.1	31.7	1.4	4.2%	99.7	99.7	0.0	0.0%	49	14	48	13	2.0%	7.1%
			LIVING ROOM	W2/F00	38.3	36.8	1.5	3.9%					73	26	71	24	2.7%	7.7%
			LIVING ROOM	W3/F00	30.6	30	0.6	2.0%					61	25	59	23	3.3%	8.0%
F01	R1	RESIDENTIAL	BEDROOM	W3/F01	33.8	32.9	0.9	2.7%	99.7	99.7	0.0	0.0%	50	15	49	14	2.0%	6.7%
			BEDROOM	W4/F01	38.9	38	0.9	2.3%					73	26	72	25	1.4%	3.8%
			BEDROOM	W5/F01	32.5	32.1	0.4	1.2%					66	25	64	23	3.0%	8.0%
	R2	RESIDENTIAL	LIVING ROOM	W1/F01	38.9	37.7	1.2	3.1%	94.6	94.6	0.0	0.0%	71	24	69	22	2.8%	8.3%
			LIVING ROOM	W2/F01	38.7	37.6	1.1	2.8%					71	24	70	23	1.4%	4.2%

4 BRAN																		
B01	R1	RESIDENTIAL	UNKNOWN	W1/B01	21	21	0	0.0%	99.8	99.8	0.0	0.0%	30	з	30	з	0.0%	0.0%
			UNKNOWN	W2/B01	19.1	19.1	0	0.0%					42	10	42	10	0.0%	0.0%
			UNKNOWN	W3/B01	21.9	21.9	0	0.0%					51	19	51	19	0.0%	0.0%
F00	R3	RESIDENTIAL	UNKNOWN	W2/F00	32.9	31.8	1.1	3.3%	99.8	99.8	0.0	0.0%	51	16	49	14	3.9%	12.5%
			UNKNOWN	W3/F00	38.7	37.6	1.1	2.8%					75	26	74	25	1.3%	3.8%
			UNKNOWN	W4/F00	26.1	25.9	0.2	0.8%					57	24	56	23	1.8%	4.2%
F01	R1	RESIDENTIAL	UNKNOWN	W1/F01	34.4	33.6	0.8	2.3%	99.9	99.9	0.0	0.0%	51	16	50	15	2.0%	6.3%
			UNKNOWN	W2/F01	39.2	38.5	0.7	1.8%					75	26	74	25	1.3%	3.8%
			UNKNOWN	W3/F01	28.3	28.2	0.1	0.4%					61	24	60	23	1.6%	4.2%
F02	R2	RESIDENTIAL	UNKNOWN	W2/F02	39.2	38.9	0.3	0.8%	98	98	0.0	0.0%	73	26	73	26	0.0%	0.0%

3 BRANCH																		
B01	R1	RESIDENTIAL	UNKNOWN	W1/B01	22.5	22.4	0.1	0.4%	99.8	99.8	0.0	0.0%	44	11	44	11	0.0%	0.0%
			UNKNOWN	W2/B01	31.9	31.8	0.1	0.3%					68	20	68	20	0.0%	0.0%
			UNKNOWN	W3/B01	24.9	24.9	0	0.0%					56	20	56	20	0.0%	0.0%
F00	R1	RESIDENTIAL	UNKNOWN	W1/F00	27.9	27	0.9	3.2%	99.7	99.7	0.0	0.0%	49	15	48	14	2.0%	6.7%
			UNKNOWN	W2/F00	38.7	37.8	0.9	2.3%					75	26	74	25	1.3%	3.8%
			UNKNOWN	W3/F00	29.2	29.1	0.1	0.3%					62	25	61	24	1.6%	4.0%

(1) KITCHEN SMALLER THAN 13m2

DAYLIGHT AND SUNLIGHT EXISTING VS. PROPOSED RELEASE 06, ISSUE 01

						VSC (WINI	DOW)			NSL				APSH (WI	NDOW)				
FLOOR	ROOM	PROPERTY	ROOM	ROOM	WINDOW	EX.	PR.	LOSS	LOSS	EX.	PR.	LOSS	LOSS	E	Х.	Ρ	R.	LO:	6S %
		TYPE	USE	NOTES		%	%		%	%	%	SQM	%	ANNUAL	WINTER	ANNUAL	WINTER	ANNUAL	WINTER

3 BRANCH	HILL (CONTIN	IUED)																
F01	R1	RESIDENTIAL	UNKNOWN	W1/F01	29.9	29.3	0.6	2.0%	99.8	99.8	0.0	0.0%	49	15	48	14	2.0%	6.7%
			UNKNOWN	W2/F01	39.2	38.7	0.5	1.3%					75	26	74	25	1.3%	3.8%
			UNKNOWN	W3/F01	31.5	31.4	0.1	0.3%					67	27	66	26	1.5%	3.7%
F02	R1	RESIDENTIAL	UNKNOWN	W1/F02	39.4	39.2	0.2	0.5%	98.5	98.5	0.0	0.0%	75	26	75	26	0.0%	0.0%

2 BRANCH																		
B01	R1	RESIDENTIAL	UNKNOWN	W1/B01	25.5	25.5	0	0.0%	99.7	99.7	0.0	0.0%						
			UNKNOWN	W2/B01	32.6	32.6	0	0.0%					65	18	65	18	0.0%	0.0%
			UNKNOWN	W3/B01	20.4	20.4	0	0.0%					49	16	49	16	0.0%	0.0%
F00	R2	RESIDENTIAL	UNKNOWN	W2/F00	30.5	29.8	0.7	2.3%	99.7	99.7	0.0	0.0%						
			UNKNOWN	W3/F00	38.3	37.8	0.5	1.3%					75	26	74	25	1.3%	3.8%
			UNKNOWN	W4/F00	24.6	24.5	0.1	0.4%					56	22	56	22	0.0%	0.0%
F01	R1	RESIDENTIAL	UNKNOWN	W1/F01	32.3	31.9	0.4	1.2%	99.7	99.7	0.0	0.0%						
			UNKNOWN	W2/F01	39.2	38.9	0.3	0.8%					75	26	75	26	0.0%	0.0%
			UNKNOWN	W3/F01	28.4	28.4	0	0.0%					61	24	61	24	0.0%	0.0%
F02	R2	RESIDENTIAL	UNKNOWN	W2/F02	39.4	39.3	0.1	0.3%	97.7	97.7	0.0	0.0%	75	26	75	26	0.0%	0.0%

1 BRANCH																		
B01	R1	RESIDENTIAL	UNKNOWN	W1/B01	23.7	23.6	0.1	0.4%	99.4	99.4	0.0	0.0%						
			UNKNOWN	W2/B01	29.6	29.6	0	0.0%					48	12	48	12	0.0%	0.0%
			UNKNOWN	W3/B01	9.3	9.3	0	0.0%					28	8	28	8	0.0%	0.0%
F00	R1	RESIDENTIAL	UNKNOWN	W1/F00	27.5	27	0.5	1.8%	99.8	99.8	0.0	0.0%						
			UNKNOWN	W2/F00	35.8	35.5	0.3	0.8%					66	18	66	18	0.0%	0.0%
			UNKNOWN	W3/F00	15.9	15.9	0	0.0%					42	11	42	11	0.0%	0.0%
F01	R1	RESIDENTIAL	UNKNOWN	W1/F01	29.7	29.4	0.3	1.0%	99.9	99.9	0.0	0.0%						
			UNKNOWN	W2/F01	39.2	39	0.2	0.5%					75	26	75	26	0.0%	0.0%
			UNKNOWN	W3/F01	32.4	32.4	0	0.0%					70	28	70	28	0.0%	0.0%
F02	R1	RESIDENTIAL	UNKNOWN	W1/F02	39.4	39.3	0.1	0.3%	98.6	98.6	0.0	0.0%	75	26	75	26	0.0%	0.0%

(1) KITCHEN SMALLER THAN 13m2



5 Branch Hill





2 3





















N





3 D 2 4 5 scale







6 Branch Hill



 \otimes 2013 RCKa. This drawing is not to be scaled - use written dimensions only. Any discrepancies to be reported to the architect. All dimensions to be checked on site.



©2013 RCKa. This drawing is not to be scaled - use written dimensions only. Any discrepancies to be reported to the architect. All dimensions to be checked on site.





For Planning - Lobby elem	ent removed			01.02	.13	\mathbf{TR}	С
For Comment				31.01	.13	\mathbf{TR}	В
For Planning				20.11	.2012	$_{\rm JH}$	А
Revision description				Date		Init	Rev
Title First Floor As Propose	Plan ed For Pla	3 Dy Lond EC1	vers Buildings don N 2JT	T F W	+44 +44 www	(0) 20 7 (0) 20 7 v.rcka.c	7060 1930 7060 1940 co.uk
Project			Client				
Branch Hil	1		Aveli	ne			
Date	Drawn by		Checked		Scale		
20.11.12	J	Η		\mathbf{TR}		1:50	@ A2
Job No	Drwg No		45.0	4 4	Revis	sion	0
1133			15-2	TT.			C







WALL & CEILING BUILDUPS

WTA	K10/125A For Wall Partition Buildup WTA
WTB	K10/125B For Wall Partition Buildup WTB
WTC	K10/125C For Wall Partition Buildup WTC
WTD	K10/155A For Wall Lining Buildup WTD
WTE	K10/155B For Wall Partition Buildup WTE
WTF	K10/155C For Wall Partition Buildup WTF
WTG	K10/165A For Wall Partition Buildup WTG
CTA	K10/220 For Ceiling Buildup CTA
СТВ	K10/220A For Ceiling Buildup CTB

DOOR & WINDOW SPECIFICATION REFERENCES

EXD/01	L20/280A For External Door EXD/01
EXD/02	L20/280B For External Door EXD/02
EXD/03	L20/280C For External Door EXD/03
EXD/04	L20/500A For External Door EXD/04
EXD/05	L20/500B For External Door EXD/05
(IND/01)	L20/410 For Internal Door IND/01
(IND/02)	L20/410A For Internal Door IND/02
(IND/03)	L20/525 For Internal Door IND/03
(IND/04)	L20/410B For Internal Door IND/04
(W/01)	L10/400A For Window W/01
W/02	L10/400A For Window W/02
W/03	L10/400A For Window W/03
W/04	L10/210A For Window W/04
W/05	L10/100A For Window W/05
(RL/01)	L10/460B For Window RL/01
RL/02	L10/460B For Window RL/02
(RL/03)	L10/460A For Window RL/03

FLOOR FINISHES



TENDER ISSUE

Revision description			Date	Init	I	Rev
Title First Floor Plan Setting out plan		Dyers Buildings ndon 1N 2JT	T F W	+44 (0) 20 +44 (0) 20 www.rcka	7831 7060 .co.uk	7002 1940
As Proposed Project Branch Hill		Client Mr & Mrs 4	Velin	ie.		
Branen mil			wein			
Date 17/06/2013	Drawn by JH	Checked TR		^{Scale} 1:25@/	A 1	
Job No 1133	$\frac{Drwg No}{CT-GA-515}$			Revision		





2.5m

1.5m

Revision description			Date	Init	Rev
D D Title		3 Dyers Buildings London EC1N 2JT	T F W	+44 (0) 20 7 +44 (0) 20 7 www.rcka.c	7831 7002 7060 1940 o.uk
Section AA General Arrang As Proposed	ement				
Project Branch Hill		Mr & Mrs	Avelir	ie	
^{Date} 17/06/2013	Drawn by JH	Checked TR		^{Scale} 1:25@A	1
Job No 1133	Drwg No CT-GA-6	00		Revision	



For Planning - Lobby eleme	ent removed		01.02	.13	\mathbf{TR}	В
For Planning			20.11	.2012	$_{\rm JH}$	А
Revision description			Date		Init	Rev
Title Second Flo Proposed F	or Plan	yers Buildings ndon 1N 2JT	T F W	+44 +44 www	(0) 20 (0) 20 v.rcka	7060 1930 7060 1940 .co.uk
Project		Client				
Branch Hil	Aveli	ne				
Date	Drawn by	Checked		Scale		
20.11.2012	JH		\mathbf{TR}		1:50) @ A2
Job No 1133	Drwg No	15-2	21	Revis	sion	В
©2012 RCKa. This draw discrepancies to be repo	ving is not to be rted to the archi	scaled - use wri tect. All dimens	itten d sions t	imen o be c	sions checke	only. Any ed on site.













0.5m

1m

1.5m

2m



WALL & CEILING BUILDUPS

WTA	K10/125A For Wall Partition Buildup WTA
WTB	K10/125B For Wall Partition Buildup WTB
WTC	K10/125C For Wall Partition Bulldup WTC
WTD	K10/155A For Wall Lining Buildup WTD
WTE	K10/155B For Wall Partition Buildup WTE
WTF	K10/155C For Wall Partition Buildup WTF
WTG	K10/165A For Wall Partition Buildup WTG
CTA	K10/220 For Ceiling Buildup CTA
СТВ	K10/220A For Celling Buildup CTB
DOOR	& WINDOW
SPECIE	-ICATION REFERENCES
EXD/01	L20/280A For External Door EXD/01
EXD/01 EXD/02	L20/280A For External Door EXD/01 L20/280B For External Door EXD/02
EXD/01 EXD/02 EXD/03	L20/280A For External Door EXD/01 L20/280B For External Door EXD/02 L20/280C For External Door EXD/03
EXD/01 EXD/02 EXD/03 EXD/04	L20/280A For External Door EXD/01 L20/280B For External Door EXD/02 L20/280C For External Door EXD/03 L20/500A For External Door EXD/04
EXD/01 EXD/02 EXD/03 EXD/04 EXD/05	L20/280A For External Door EXD/01 L20/280B For External Door EXD/02 L20/280C For External Door EXD/03 L20/500A For External Door EXD/04 L20/500B For External Door EXD/05
EXD/01 EXD/02 EXD/03 EXD/04 EXD/05 [ND/01]	L20/280A For External Door EXD/01 L20/280B For External Door EXD/02 L20/280C For External Door EXD/03 L20/500A For External Door EXD/04 L20/500B For External Door EXD/05 L20/410 For Internal Door IND/01
EXD/01) EXD/02) EXD/03 EXD/04) EXD/04 EXD/05 IND/01 IND/02	L20/280A For External Door EXD/01 L20/280B For External Door EXD/02 L20/280C For External Door EXD/03 L20/500A For External Door EXD/04 L20/500B For External Door EXD/05 L20/410 For Internal Door IND/01 L20/410A For Internal Door IND/02
EXD/01) EXD/02 EXD/03 EXD/04 EXD/04 EXD/05 IND/01 IND/02 IND/03	L20/280A For External Door EXD/01 L20/280B For External Door EXD/02 L20/280C For External Door EXD/03 L20/500A For External Door EXD/04 L20/500B For External Door EXD/05 L20/410 For Internal Door IND/01 L20/410A For Internal Door IND/02 L20/525 For Internal Door IND/03
EXD/01) EXD/02 EXD/03 EXD/04 EXD/04 ND/01 ND/02 ND/03 ND/04	L20/280A For External Door EXD/01 L20/280B For External Door EXD/02 L20/280C For External Door EXD/03 L20/500A For External Door EXD/04 L20/500B For External Door EXD/05 L20/410 For Internal Door IND/01 L20/410A For Internal Door IND/02 L20/525 For Internal Door IND/03 L20/410B For Internal Door IND/04
EXD/01) EXD/02 EXD/03 EXD/04 EXD/05 IND/01 IND/02 IND/03 IND/04 W/01	L20/280A For External Door EXD/01 L20/280B For External Door EXD/02 L20/280C For External Door EXD/03 L20/500A For External Door EXD/04 L20/500B For External Door EXD/05 L20/410 For Internal Door IND/01 L20/410A For Internal Door IND/02 L20/525 For Internal Door IND/03 L20/410B For Internal Door IND/04 L10/400A For Window W/01
EXD/01) EXD/02 EXD/03 EXD/04 EXD/04 EXD/05 IND/01 IND/02 IND/03 IND/04 W/01 W/02	L20/280A For External Door EXD/01 L20/280B For External Door EXD/02 L20/280C For External Door EXD/03 L20/500A For External Door EXD/04 L20/500B For External Door EXD/05 L20/410 For Internal Door IND/01 L20/410A For Internal Door IND/02 L20/525 For Internal Door IND/03 L20/410B For Internal Door IND/03 L20/410B For Internal Door IND/04 L10/400A For Window W/01 L10/400A For Window W/02
EXD/01) EXD/02) EXD/03) EXD/04) EXD/05) IND/01) IND/02) IND/03) IND/04) W/01) W/02) W/03)	L20/280A For External Door EXD/01 L20/280B For External Door EXD/02 L20/280C For External Door EXD/03 L20/500A For External Door EXD/04 L20/500B For External Door EXD/05 L20/410 For Internal Door IND/01 L20/410A For Internal Door IND/01 L20/525 For Internal Door IND/03 L20/410B For Internal Door IND/03 L20/410B For Internal Door IND/04 L10/400A For Window W/02 L10/400A For Window W/03

L20/500B For Car Gate

TENDER ISSUE

2.5m

W/05 L10/100A For Window W/05

RL/01 L10/460B For Window RL/01

RL/02 L10/460B For Window RL/02

RL/03 L10/460A For Window RL/03

s T F W	+44 (0) 20 7 +44 (0) 20 7 www.rcka.c	831 7002 060 1940 o.uk
Avelir	ne	
	^{Scale} 1:25@A	1
	Revision	
;	Avelir	Aveline Scale 1:25@A Revision - vritten dimensions o





UNBUILT (PLANNING APPROVAL GRANTED)

5 Spedan Close

For Hustraline Russians Gray - Hat Ta Scale: First Flat to men plantsplant corr. Ref. No. 9219

Therefore processing to close use a general software by optimizer only wheat we combine on device if a part of the or contact, ing interprogramming of these objects of Artistenian properties, respiring, majorite and the contact and the processing of the processing

CONTACT

ADDRESS

THE WHITEHOUSE BELVEDERE ROAD LONDON SE18GA

TEL 020 7202 1400

FAX 020 7202 1401

MAIL@GIA.UK.COM