REPORT

1 GUILFORD STREET
LONDON
WC1

DAYLIGHT AND SUNLIGHT REPORT
NEIGHBOURING BUILDINGS AND PROPOSED ACCOMMODATION

DECEMBER 2015

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2. Daylight, Sunlight Results

Prepared by:

John Carter FRICS
For Brooke Vincent + Partners

email: john.carter@brooke-vincent.co.uk

23 December 2015

1 Guilford Street, London WC1

Daylight & Sunlight

We are instructed to provide a report on the daylight and sunlight aspects of this Planning Application with regard to the immediate neighbouring residential buildings and the proposed accommodation to the lower floors at the rear of the building, due to concern expressed by the Planning Office at pre-application stage.

This report is based upon a 3D Model, survey information, photographs, together with daylight and sunlight studies prepared by Brooke Vincent + Partners.

1.0 SUMMARY

This report has been drafted by reference to the Building Research Establishment (BRE) publication (2011), *"Site Layout Planning for Daylight and Sunlight. A Guide to Good Practice"* and local planning policy.

1.2 Daylighting and sunlight to residential buildings neighbouring the proposed development will continue to satisfy BRE criteria in the proposed condition. There would be no adverse effect.

1.3 Daylight to the proposed accommodation in the lower parts and to the rear of 1 Guilford Street have specifically been designed to ensure that daylight satisfies BRE criteria. Typically for Central London, sunlight availability would be variable but BRE do not consider this to be important for the bedroom accommodation. The combined living room and kitchen at ground floor is south facing an good sunlight availability is assured.

1.4 In summary, BRE's recommendations and criteria have been satisfied in addition to, the relevant policies of Camden Council.

2.0 PLANNING POLICY

2.1 London Borough of Camden

Core Strategy (2010)

2.1.1 Camden's *Local Development Framework (LDF), November 2010,* sets out the key elements of the Council's vision for the Borough through its Core Strategy. The relevant policies are listed below.

POLICY CS5 – Managing the impact of growth and development

The second part of this Policy confirms:

"The Council will protect the amenity of Camden's residents and those working in and visiting the Borough by:

(e) Making sure that the impact of developments on their occupiers and neighbours is fully considered."

In the explanatory notes following this Policy item 5.8 confirms: *"We will expect development to avoid harmful effects on the amenity of existing and future occupiers and nearby properties or, where this is not possible, to take appropriate measures to minimise potential negative impacts."*

Development Policies (2010)

POLICY DP26 – Managing the impact of development on occupiers and neighbours

"The Council will protect the quality of life of occupiers and neighbours by only granting permission for development that does not cause harm to amenity. The factors we will consider include;

(c) Sunlight, daylight and artificial light levels."

2.1.2 Camden also makes reference to the good practice guide detailed in **item 3**, 'Method of Calculation', which is used to compare the compatibility of the application to the stated Policies.

3.0 METHOD OF CALCULATION

Building Research Establishment

3.1 The calculations and considerations within this report are based upon the Building Research Establishment (BRE) publication 2011 ''Site Layout Planning to Daylight and Sunlight. A Guide To Good Practice''. BRE confirm that the Guide does not contain mandatory requirements and in the Introduction provides a full explanation of its purpose:-

"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."

"It aims 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 levels. For example, in an historic city centre, or in an area with 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 Modelling and Results

3.2.1 Our analysis and subsequent results are produced by the application of our specialist software on our three-dimensional model, images of which are included in **Appendix 1**. This is based upon survey information, photographs, and the architect's planning drawings also included in **Appendix 1**.

3.2.2 In this model, the neighbouring buildings are defined in green, the existing site buildings in blue and the proposed scheme in magenta.

3.3 Daylight

3.3.1 Daylight is not specific to a particular direction, as it is received from the dome of the sky.

3.3.2 Reference is made in the BRE report to various methods of assessing the effect a development will have on diffused daylight.

3.3.3 The simplest methods are not appropriate in an urban environment, where the built form is invariably complex. Vertical Sky Component (VSC) is the calculation most readily adopted, as the principles of calculation can be established by relating the location of any particular window to the existing and proposed, built environment.

3.3.4 The BRE Guide 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^{o} to the horizontal, then the diffused 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".

3.3.5 Where the VSC calculation has been used, BRE also seeks to consider daylight distribution (DD) within neighbouring rooms, once again defining an adverse effect as a result that is less than 0.8 the former value. DD measures the portion of a room that has a sight of the sky from a reference plane set 0.85m above floor level. Access is rarely available and we have therefore taken a reasoned approach.

3.3.6 The method of calculation for proposed accommodation is known as Average Daylight Factor (ADF). This is the most comprehensive of daylight calculations defined by BRE and is appropriate to proposed accommodation, because all relevant information is available.

3.3.7 The initial calculation is Vertical Sky Component which measures the value of daylight received at the centre of the window face. The area of glazing through which the light is transmitted and the transmission value of the glazing is then considered. Within the room the total surface area is calculated and a degree of reflection applied. The outcome is then compared to the values recommended by BRE. Assuming that the rooms are used in conjunction with artificial lighting the minimum recommended ADF levels are:-

2% Kit
chen or combined kitchen and living space where the kitchen is served by a local window.

1.5% Living room and study

1% Bedroom

Where kitchens have been sited at the rear of the room these are to be served by task lighting in the modern mode.

3.3.8 Where a room is served by more than one window, ADF calculations are made in relation to each window and the individual results added together to provide the true ADF for that room.

3.3.9 With regard to the ADF calculations for proposed accommodation daylight, the following assumptions have been made with regard to the various elements that together are computed to produce the ADF value;

- Glazing transmittance – 0.68 for the double glazing (BRE default reading);
- Net glazed area of the window – 0.8 (BRE default reading)
- Interior surface reflectance – Living Room – 0.5 (BRE default 0.5)
  – Bedroom 0.5 (BRE default reading)
- Reflectance beneath reference plane – Living Room – 0.2 (BRE default 0.15)
  – Bedroom 0.15 (BRE default reading)

3.4 Sunlight

3.4.1 The BRE *Guide to Good Practice* confirms:

(i) Sunlight is only relevant to neighbouring residential windows which have a view of the proposed development and face within 90^{o} of south, i.e. south of the east-west axis.

(ii) If any part of a new development subtends an angle of more than 25^{o} to the horizontal measured from the centre of the main living room window, a vertical section perpendicular to the window, then the sunlighting in the existing dwelling may be adversely affected.

(iii) Similarly, the sunlight availability to an existing dwelling may be adversely affected if the APSH, when measured at the centre of the window is reduced by more than 4%.

(iv) Should the loss be greater than 4%, then sunlight availability may be adversely affected if the centre of the window receives less than 25% of the annual probable sunlight hours, of which 5% of the annual total should be received between 21 September and 21 March (winter) and less than 0.8 times its former sunlight hours during either period.

(v) Kitchens and bedrooms are less important, although care should be taken not to block too much sun.

3.4.2 The requirements for proposed accommodation are similar to the above although very difficult to satisfy in Central London. The facts are detailed under the relevant heading.

4.0 DAYLIGHT TO NEIGHBOURING BUILDINGS

4.1.1 The proposed development is located in an area where residential use is frequently located above commercial use but is not always obvious. The images can be seen in **Appendix 1** and the results of the analysis can be found in **Appendix 3**.

North

4.1.2 There are no variations to the front of 1 Guilford Street, which is sited on the north side. There will therefore be no variation to the receipt of daylight within properties on the north side of Guilford Street.

East

4.1.3 To the east stands 137 and 137a Grays Inn Road. The images of our modelling in **Appendix 1** and the results in **Appendix 2** confirm that the proposed rear extension to 1 Guilford Street would not the cause of an adverse effect to the VSC or daylight distribution calculation. VSC measures daylight at the face of each window whilst daylight distribution measures the distribution of daylight within the room.

4.1.4 With regard to VSC, Many of the readings are above 27% VSC in the proposed condition. This is a benchmark figure provided by BRE as confirmation of good continuing daylight. BRE also explains that an adverse effect is only likely to occur if VSC is not only below 27% in the proposed condition, but also less than 0.8 the previous (existing) value. This would not occur as no value would be less than 0.90 the existing value.

4.1.5 With regard to daylight distribution. There would be no variation except for a bathroom serving 137 Grays Inn Road. Even in this location, daylight distribution will continue to be 0.94 the existing value, well above the figure of 0.8, below which an adverse effect may occur. However, bathrooms are non-habitable spaces and specifically excluded by BRE guidelines from the need to satisfy daylighting recommendations.

South

4.1.6 To the south east is 135 Grays Inn Road. However this has to rise to third floor level before there are windows with a site of the proposed development, over 20 Brownlow Mews.

4.1.7 The VSC values are between 37.41% and 38.48% and do not change in the proposed condition. 40% is the maximum VSC value and because daylight remains so good, there is no opportunity of daylight distribution being varied because these windows stand above the proposed extension.

4.1.8 Immediately neighbouring the development site and slightly offset to the south is 20 Brownlow Mews. Again the windows face across the Mews, not towards the proposed development and the results confirm there will be no variation in VSC and for this reason we have not tested DD.

West

4.1.9 2 Guilford Streets stands to the west of the development site and the rear windows have only a peripheral view of the existing and proposed buildings. With a single exception, all locations will maintain a VSC above 27% in the proposed condition if below this benchmark figure, well above 0.8 the former value.

4.1.10 The single exception is first floor Window W3. This serves Room R2 which is also served by Window W2. The fact that Window W3 would have a proposed reading of 0.78 former, which is itself extremely close to 0.8, balanced by the fact that there is a second window to this room, and daylight availability to that window will not be adversely effect.

4.1.11 In confirmation that daylight to this bedroom will remain good, is the reading for daylight distribution which would remain above 99% of the room area in both existing and proposed conditions.

Daylight Summary

4.1.12 The habitable residential rooms closest to the site would continue to receive recommended VSC daylight values and there would be no adverse effect. Consideration has also been given to daylight distribution within the rooms served by these windows see **Appendix 2**. Some sizes are known others are based upon a best estimate. In all locations the outcome is better than 0.8 the existing value. Therefore, BRE criteria is satisfied with regard to both VSC and DD. A very good outcome for central London.

5.0 SUNLIGHT IN NEIGHBOURING BUILDINGS

5.1 The sunlight results are defined by the two right hand columns in **Appendix 2** and adjacent to VSC results.

5.2 By reference to the results in **Appendix 2** and sited to the right of the VSC values that have just been detailed, it will be seen there is the occasional reference to “north facing”. This is because there are no sunlight values to consider when a window faces north of the east west axis. It is simply referred to as north facing.

5.3 The great majority of locations are the windows that have sight of the development are south facing and in a great majority of locations there will be no variation to those values. With a single exception, where they vary, the proposed reading would remain above 0.8 the previous reading and there would be no adverse effect. The single exception is again Window W3 and first floor level in 2 Guilford Street but in this location annual probable sunlight hours would be 43%, which is considerably in excess of BRE’s recommended annual value of 25%. Again, there would be no adverse effect.

Proposed Accommodation

5.4 Sunlight availability to the two bedrooms will be limited but this typical in Central London. This factor is recognised by BRE which confirms that sunlight availability to bedrooms is less important.

The living room/kitchen space at ground floor level will be good as the principal window has a clear southerly aspect along Brownlow Mews and adequate sunlight is assured.

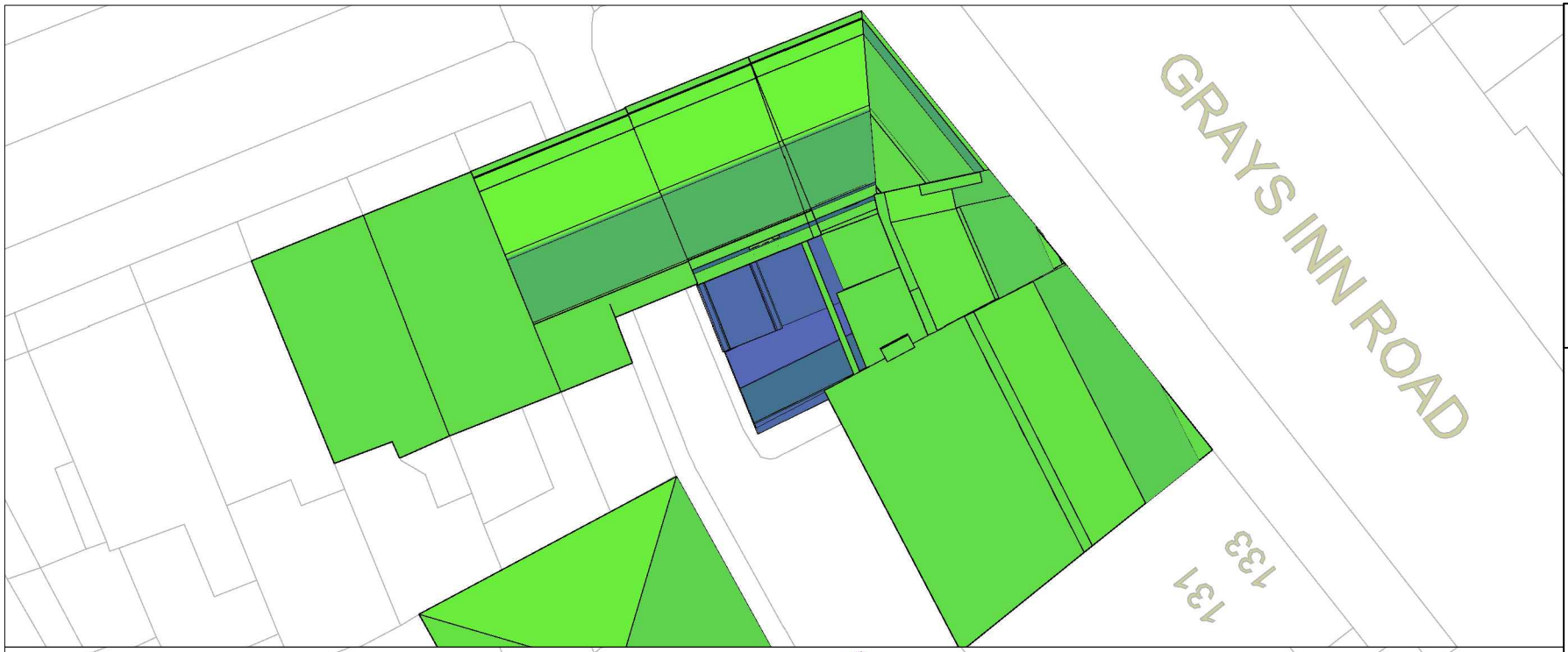
Sunlight Summary

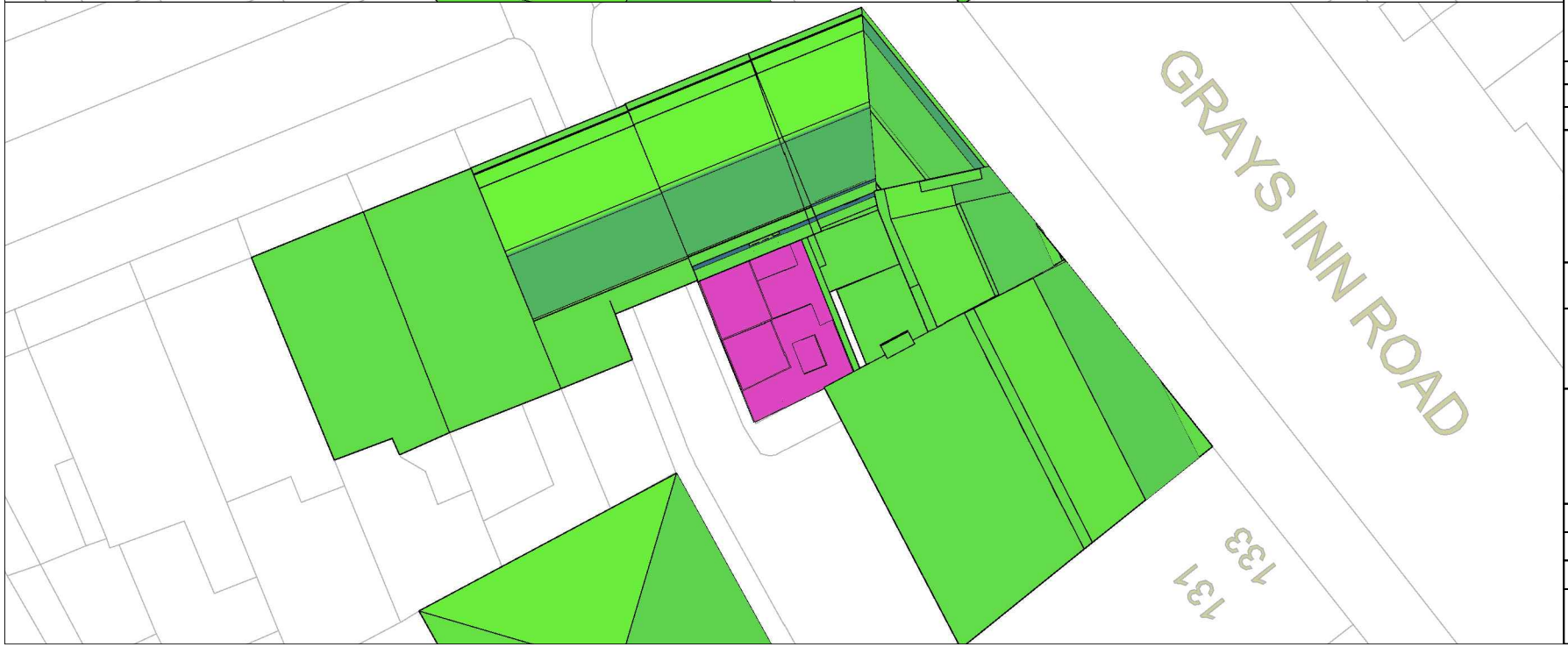
5.5 Sunlight availability to neighbouring residential buildings will remain extremely good and in most locations, unaltered. An unusually good outcome in Central London.

5.6 Sunlight availability to proposed accommodation will be limited to the lower ground floor bedrooms but this outcome is acceptable to BRE's guidance. More important is the sunlight availability to the ground floor kitchen and living room due to the south facing principal window.

APPENDIX 1

LOCATION PLAN
CAD MODEL





LEGEND

Indicative

Existing Buildings

Existing Buildings to be Demolished

Proposal

SOURCES OF DATA

Rev.	Date	Description

Brooke Vincent & Partners
Chartered Building Surveyors
Enterprise House The Crest London NW4 2HW

Tel: 020 8202 1013 Fax: 020 8202 9488
E-mail: info@brooke-vincent.co.uk

CLIENT / ARCHITECT:
Haines Phillips Architects

PROJECT:
1 Guilford Street
WC1N 1DR

DRAWING:
Plan View
Existing and Proposed View

DRAWN: RV	PROJECT NO: 10873
SCALE: NTS	
DATE: 24.12.2015	

DRAWING NO: 10873 - 01

REV:

LEGEND

Indicative

Existing buildings

Existing buildings to be demolished

Proposed new buildings

SOURCES OF DATA

Rev.	Date	Description

Brooke Vincent & Partners
Chartered Building Surveyors
Enterprise House The Crest London NW4 2HW

Tel: 020 8202 1013 Fax: 020 8202 9488
E-mail: info@brooke-vincent.co.uk

CLIENT / ARCHITECT:
Haines Phillips Architects

PROJECT:
1 Guilford Street
WC1N 1DR

DRAWING:
Existing and Proposed View
Perspective 1

DRAWN: RV

SCALE: NTS

DATE: 26.11.2015

PROJECT NO:
10873

DRAWING NO:
10873-01

REV:

APPENDIX 2

DAYLIGHT & SUNLIGHT RESULTS

Project Name: Guilford Street 2015-12-03
Project No: 10873
Date of Analysis: 24/12/2015
Key drawings: VSC-APSH Results

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Scenario	VSC	Difference	Pass / Fail	Available Sunlight Hours					
								Annual %	Diff	Pass / Fail	Winter %	Diff	Pass / Fail
2 Guilford Street													
First	R1	Bedroom	W1	Existing	38.02	1.00	PASS	81	1.00	PASS	28	1.00	PASS
				Proposed	38			81			28		
First	R2	Bedroom	W2	Existing	25.86	0.92	PASS	43	0.84	PASS	13	1.00	PASS
				Proposed	23.89			36			13		
First	R2	Bedroom	W3	Existing	32.37	0.78	FAIL	60	0.72	PASS	21	0.90	PASS
				Proposed	25.28			43			19		
Second	R1	Bedroom	W1	Existing	39.14	1.00	PASS	84	1.00	PASS	28	1.00	PASS
				Proposed	39.14			84			28		
Second	R2	Bedroom	W2	Existing	27.69	1.00	PASS	49	1.00	PASS	15	1.00	PASS
				Proposed	27.69			49			15		
Second	R2	Bedroom	W3	Existing	34.89	1.00	PASS	67	1.00	PASS	23	1.00	PASS
				Proposed	34.89			67			23		
Third	R1	Bedroom	W1	Existing	39.57	1.00	PASS	84	1.00	PASS	28	1.00	PASS
				Proposed	39.57			84			28		
Third	R2	Bedroom	W2	Existing	32.11	1.00	PASS	63	1.00	PASS	17	1.00	PASS
				Proposed	32.11			63			17		
Third	R2	Bedroom	W3	Existing	37.59	1.00	PASS	78	1.00	PASS	24	1.00	PASS
				Proposed	37.59			78			24		
1 Guilford Street													
Basement	R1	Bedroom	W1	Existing	0	0.00	PASS	*North Facing					
				Proposed	0.54								
Basement	R1	Bedroom	W2	Existing	0	0.00	PASS	*North Facing					
				Proposed	0.16								
Basement	R1	Bedroom	W3	Existing	0	0.00	PASS	*North Facing					
				Proposed	0.21								
Basement	R1	Bedroom	W4	Existing	0	0.00	PASS	*North Facing					
				Proposed	0.24								
Basement	R1	Bedroom	W5	Existing	0.06	9.67	PASS	*North Facing					
				Proposed	0.58								
Basement	R1	Bedroom	W11	Existing	0	0.00	PASS	*North Facing					
				Proposed	1.51								
Basement	R2	Bedroom	W6	Existing	0.32	5.97	PASS	1	0.00	PASS	1	0.00	FAIL
				Proposed	1.91			0			0		
Basement	R2	Bedroom	W7	Existing	0	0.00	PASS	*North Facing					
				Proposed	0.18								
Basement	R2	Bedroom	W8	Existing	0	0.00	PASS	*North Facing					
				Proposed	0.17								
Basement	R2	Bedroom	W9	Existing	0	0.00	PASS	*North Facing					
				Proposed	0.18								
Basement	R2	Bedroom	W10	Existing	0	0.00	PASS	*North Facing					
				Proposed	0.46								
Basement	R2	Bedroom	W12	Existing	0	0.00	PASS	0	0.00	PASS	0	0.00	PASS
				Proposed	7.72			11			1		
Ground	R1	LKD	W1	Existing	19.99	1.00	PASS	45	0.96	PASS	15	0.93	PASS
				Proposed	19.99			43			14		
Ground	R1	LKD	W2	Existing	0	0.00	PASS	0	0.00	PASS	0	0.00	PASS
				Proposed	21.05			47			14		
Ground	R1	LKD	W3	Existing	0	0.00	PASS	0	0.00	PASS	0	0.00	PASS
				Proposed	19.54			45			14		
Ground	R1	LKD	W4	Existing	6.65	1.00	PASS	*North Facing					
				Proposed	6.65								
Ground	R1	LKD	W5	Existing	24.49	0.93	PASS	49	0.98	PASS	19	0.95	PASS
				Proposed	22.73			48			18		
Ground	R1	LKD	W6	Existing	7.77	0.89	PASS	*North Facing					
				Proposed	6.88								
Ground	R1	LKD	W7	Existing	20.32	1.00	PASS	46	1.00	PASS	18	1.00	PASS
				Proposed	20.23			46			18		
First	R1	Kitchen	W1	Existing	29.7	0.59	FAIL	62	0.50	PASS	23	0.39	PASS
				Proposed	17.57			31			9		
Third	R1	Bedroom	W1	Existing	0	0.00	PASS	0	0.00	PASS	0	0.00	PASS
				Proposed	0			0			0		

Project Name: Guilford Street 2015-12-03
Project No: 10873
Date of Analysis: 24/12/2015
Key drawings: VSC-APSH Results

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Scenario	VSC	Difference	Pass / Fail	Available Sunlight Hours					
								Annual %	Diff	Pass / Fail	Winter %	Diff	Pass / Fail
137a Grays Inn Road													
First	RoomAttach	-	W1	Existing	21.38	0.90	PASS	48	0.81	PASS	16	0.69	PASS
				Proposed	19.21			39			11		
First	R1	Bedroom	W2	Existing	16.17	0.92	PASS	44	0.84	PASS	16	0.75	PASS
				Proposed	14.92			37			12		
Second	R1	Bedroom	W1	Existing	29.69	0.98	PASS	60	0.97	PASS	22	0.91	PASS
				Proposed	29.1			58			20		
Second	R1	Bedroom	W2	Existing	24.94	0.99	PASS	52	0.98	PASS	20	0.95	PASS
				Proposed	24.61			51			19		
Third	R1	Bedroom	W1	Existing	36.99	1.00	PASS	77	1.00	PASS	26	1.00	PASS
				Proposed	36.99			77			26		
137 Grays Inn Road													
First	R1	Bathroom	W1	Existing	18.53	0.91	PASS	31	1.00	PASS	8	1.00	PASS
				Proposed	16.95			31			8		
First	R1	Bathroom	W2	Existing	17.56	0.95	PASS	26	0.96	PASS	3	1.00	PASS
				Proposed	16.66			25			3		
First	R2	Kitchen	W3	Existing	4.01	0.99	PASS	*North Facing					
				Proposed	3.96								
Second	R1	Bedroom	W1	Existing	26.03	0.98	PASS	45	1.00	PASS	15	1.00	PASS
				Proposed	25.59			45			15		
Second	R2	Bedroom	W2	Existing	22.21	1.00	PASS	30	1.00	PASS	7	1.00	PASS
				Proposed	22.21			30			7		
Third	R1	Bedroom	W1	Existing	0	0.00	PASS	0	0.00	PASS	0	0.00	PASS
				Proposed	0			0			0		
Third	R1	Bedroom	W3	Existing	39.37	1.00	PASS	*North Facing					
				Proposed	39.37								
Third	R1	Bedroom	W4	Existing	39.53	1.00	PASS	*North Facing					
				Proposed	39.53								
Third	R2	Bedroom	W2	Existing	36.39	1.00	PASS	59	1.00	PASS	21	1.00	PASS
				Proposed	36.39			59			21		
135 Grays Inn Road													
Third	RoomAttach	-	W1	Existing	37.41	1.00	PASS	62	1.00	PASS	23	1.00	PASS
				Proposed	37.41			62			23		
Third	RoomAttach	-	W2	Existing	38.06	1.00	PASS	63	1.00	PASS	23	1.00	PASS
				Proposed	38.06			63			23		
Third	RoomAttach	-	W3	Existing	38.48	1.00	PASS	63	1.00	PASS	23	1.00	PASS
				Proposed	38.48			63			23		
20 Brownlow Mews													
First	RoomAttach	-	W1	Existing	30.58	1.00	PASS	56	1.00	PASS	21	1.00	PASS
				Proposed	30.58			56			21		
First	RoomAttach	-	W2	Existing	31.94	1.00	PASS	57	1.00	PASS	21	1.00	PASS
				Proposed	31.94			57			21		
First	RoomAttach	-	W3	Existing	31.29	1.00	PASS	57	1.00	PASS	19	1.00	PASS
				Proposed	31.29			57			19		
First	RoomAttach	-	W4	Existing	33.55	1.00	PASS	60	1.00	PASS	21	1.00	PASS
				Proposed	33.55			60			21		
Second	RoomAttach	-	W1	Existing	35.1	1.00	PASS	58	1.00	PASS	23	1.00	PASS
				Proposed	35.1			58			23		
Second	RoomAttach	-	W2	Existing	36.66	1.00	PASS	62	1.00	PASS	23	1.00	PASS
				Proposed	36.66			62			23		
Second	RoomAttach	-	W3	Existing	36.98	1.00	PASS	62	1.00	PASS	23	1.00	PASS
				Proposed	36.98			62			23		
Second	RoomAttach	-	W4	Existing	38.19	1.00	PASS	63	1.00	PASS	23	1.00	PASS
				Proposed	38.19			63			23		

Project Name: Guilford Street 2015-12-03
Project No: 10873
Date of Analysis: 24/12/2015
Key drawings: DD RESULTS

Floor	Room	Room Use.	Window	Room Area	Lit Area Existing	Lit Area Proposed	Difference	Pass / Fail
2 Guilford Street								
First	R1	Bedroom	Area m2 % of room	16.45	16.12 97.99%	16.12 97.99%	1.00	PASS
First	R2	Bedroom	Area m2 % of room	15.68	15.57 99.30%	15.56 99.23%	1.00	PASS
Second	R1	Bedroom	Area m2 % of room	16.45	16.12 97.99%	16.12 97.99%	1.00	PASS
Second	R2	Bedroom	Area m2 % of room	15.68	15.56 99.23%	15.56 99.23%	1.00	PASS
Third	R1	Bedroom	Area m2 % of room	16.45	16.13 98.05%	16.13 98.05%	1	PASS
Third	R2	Bedroom	Area m2 % of room	15.68	15.64 99.74%	15.64 99.74%	1	PASS
137a Grays Inn Road								
First	R1	Bedroom	Area m2 % of room	8.24	6.46 78.40%	6.46 78.40%	1.00	PASS
Second	R1	Bedroom	Area m2 % of room	11.74	11.69 99.57%	11.69 99.57%	1.00	PASS
Third	R1	Bedroom	Area m2 % of room	11.05	9.72 87.96%	9.72 87.96%	1.00	PASS
137 Grays Inn Road								
First	R1	Bathroom	Area m2 % of room	5.92	5.71 96.45%	5.37 90.71%	0.94	PASS
First	R2	Kitchen	Area m2 % of room	7.39	0.6 8.12%	0.6 8.12%	1.00	PASS
Second	R1	Bedroom	Area m2 % of room	8.1	7.88 97.28%	7.88 97.28%	1.00	PASS
Second	R2	Bedroom	Area m2 % of room	8.66	8.51 98.27%	8.51 98.27%	1.00	PASS
Third	R1	Bedroom	Area m2 % of room	19.44	19.36 99.59%	19.36 99.59%	1.00	PASS
Third	R2	Bedroom	Area m2 % of room	1.58	1.21 76.58%	1.21 76.58%	1.00	PASS

Project Name: Guilford Street 2015-12-03
Project No: 10873
Date of Analysis: 24/12/2015
Key drawings: ROL RESULTS

Floor	Room Ref.	Room Use		Room Area	Lit Area Existing	Front Zone	First Zone	Second Zone	MKWT Zone	Lit Area Proposed	Total Area Lost	Front Loss	First Loss	Second Loss	MKWT Loss	EFZ m²	EFZ Sq Ft	Condition
2 Guilford Street																		
First	R1	Bedroom	Area m2	16.45	16.07	4.11	4.11	4.11	3.74	16.07	0.00	0.00	0.00	0.00	0.00			
			% of sector			100.00%	100.00%	100.00%	90.83%									
			% of sector			25.00%	25.00%	25.00%	22.71%							0.00	0.00	PASS
			Factored Area									0.00	0.00	0.00	0.00			
			% of room		98%					98%								
First	R2	Bedroom	Area m2	15.68	15.54	3.92	3.92	3.92	3.79	15.51	0.03	0.00	0.00	0.00	0.03			
			% of sector			100.00%	100.00%	100.00%	96.59%									
			% of sector			25.00%	25.00%	25.00%	24.15%							0.01	0.08	PASS
			Factored Area									0.00	0.00	0.00	0.01			
			% of room		99%					99%								
Second	R1	Bedroom	Area m2	16.45	16.07	4.11	4.11	4.11	3.74	16.07	0.00	0.00	0.00	0.00	0.00			
			% of sector			100.00%	100.00%	100.00%	90.83%									
			% of sector			25.00%	25.00%	25.00%	22.71%							0.00	0.00	PASS
			Factored Area									0.00	0.00	0.00	0.00			
			% of room		98%					98%								
Second	R2	Bedroom	Area m2	15.68	14.85	3.92	3.92	3.92	3.09	14.84	0.01	0.00	0.00	0.00	0.01			
			% of sector			100.00%	100.00%	100.00%	78.81%									
			% of sector			25.00%	25.00%	25.00%	19.70%							0.00	0.03	PASS
			Factored Area									0.00	0.00	0.00	0.00			
			% of room		95%					95%								
Third	R1	Bedroom	Area m2	16.45	15.65	4.11	4.11	4.11	3.31	15.65	0.00	0.00	0.00	0.00	0.00			
			% of sector			100.00%	100.00%	100.00%	80.45%									
			% of sector			25.00%	25.00%	25.00%	20.11%							0.00	0.00	PASS
			Factored Area									0.00	0.00	0.00	0.00			
			% of room		95%					95%								
Third	R2	Bedroom	Area m2	15.68	15.59	3.92	3.92	3.92	3.84	15.59	0.00	0.00	0.00	0.00	0.00			
			% of sector			100.00%	100.00%	100.00%	97.88%									
			% of sector			25.00%	25.00%	25.00%	24.47%							0.00	0.00	PASS
			Factored Area									0.00	0.00	0.00	0.00			
			% of room		99%					99%								
														Total EFZ		**0.009879**	**0.106391**	
137a Grays Inn Road																		
First	R1	Bedroom	Area m2	8.24	4.15	2.06	2.06	0.03	0.00	4.15	0.00	0.00	0.00	0.00	0.00			
			% of sector			100.00%	100.00%	1.59%	0.00%									
			% of sector			25.00%	25.00%	0.40%	0.00%							0.00	0.00	PASS
			Factored Area									0.00	0.00	0.00	0.00			
			% of room		50%					50%								
Second	R1	Bedroom	Area m2	11.74	11.69	2.94	2.94	2.94	2.88	11.68	0.00	0.00	0.00	0.00	0.00			
			% of sector			100.00%	100.00%	100.00%	98.08%									
			% of sector			25.00%	25.00%	25.00%	24.52%							0.00	0.00	PASS
			Factored Area									0.00	0.00	0.00	0.00			
			% of room		100%					100%								
Third	R1	Bedroom	Area m2	11.05	4.01	2.76	1.25	0.00	0.00	4.01	0.00	0.00	0.00	0.00	0.00			
			% of sector			100.00%	45.18%	0.00%	0.00%									
			% of sector			25.00%	11.29%	0.00%	0.00%							0.00	0.00	PASS
			Factored Area									0.00	0.00	0.00	0.00			
			% of room		36%					36%								
														Total EFZ		**0.00**	**0.00**	
137 Grays Inn Road																		
First	R1	Bathroom	Area m2	5.92	3.52	1.48	1.48	0.57	0.00	2.73	0.79	0.00	0.22	0.57	0.00			
			% of sector			100.00%	100.00%	38.22%	0.00%									
			% of sector			25.00%	25.00%	9.56%	0.00%							0.51	5.46	FAIL
			Factored Area									0.00	0.22	0.28	0.00			
			% of room		60%					46%								
First	R2	Kitchen	Area m2	7.39	0.37	0.37	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00			
			% of sector			19.96%	0.00%	0.00%	0.00%									
			% of sector			4.99%	0.00%	0.00%	0.00%							0.00	0.00	PASS
			Factored Area									0.00	0.00	0.00	0.00			
			% of room		5%					5%								
Second	R1	Bedroom	Area m2	8.10	7.77	2.03	2.03	2.03	1.70	7.77	0.00	0.00	0.00	0.00	0.00			
			% of sector			100.00%	100.00%	100.00%	83.82%									
			% of sector			25.00%	25.00%	25.00%	20.96%							0.00	0.00	PASS
			Factored Area									0.00	0.00	0.00	0.00			
			% of room		96%					96%								
Second	R2	Bedroom	Area m2	8.66	8.32	2.17	2.17	2.17	1.83	8.32	0.00	0.00	0.00	0.00	0.00			
			% of sector			100.00%	100.00%	100.00%	84.32%									
			% of sector			25.00%	25.00%	25.00%	21.08%							0.00	0.00	PASS
			Factored Area									0.00	0.00	0.00	0.00			
			% of room		96%					96%								
Third	R1	Bedroom	Area m2	19.44	13.07	4.86	4.86	3.35	0.00	13.07	0.00	0.00	0.00	0.00	0.00			
			% of sector			100.00%	100.00%	68.90%	0.00%									
			% of sector			25.00%	25.00%	17.23%	0.00%							0.00	0.00	PASS
			Factored Area									0.00	0.00	0.00	0.00			
			% of room		67%					67%								
Third	R2	Bedroom	Area m2	1.58	0.91	0.40	0.40	0.12	0.00	0.91	0.00	0.00	0.00	0.00	0.00			
			% of sector			100.00%	100.00%	29.88%	0.00%									
			% of sector			25.00%	25.00%	7.47%	0.00%							0.00	0.00	PASS
			Factored Area									0.00	0.00	0.00	0.00			
			% of room		57%					57%								
														Total EFZ		**0.51**	**5.47**	

Project Name: Guilford Street 2015-12-03
Project No: 10873
Date of Analysis: 24/12/2015
Key drawings: ADF RESULTS

1 Guilford Street

Floor	Room	Room Use.	Window	Glass Transmittance	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Recom'd Value	Difference	Pass/Fail
Basement	R1	Bedroom	W1	0.68	0.49	0.00	51.22	0.50	1.00	0.00			
			W11	0.68	3.91	14.70	51.22	0.50	1.00	1.02			
			W2	0.68	0.25	0.00	51.22	0.50	1.00	0.00			
			W3	0.68	0.97	1.28	51.22	0.50	1.00	0.02			
			W4	0.68	0.10	3.30	51.22	0.50	1.00	0.01			
			W5	0.68	3.70	7.41	51.22	0.50	1.00	0.49			
										1.53	1.00	0.00	PASS
Basement	R2	Bedroom	W10	0.68	0.30	0.00	78.31	0.50	1.00	0.00			
			W12	0.68	3.91	28.16	78.31	0.50	1.00	1.27			
			W6	0.68	3.70	13.47	78.31	0.50	1.00	0.58			
			W7	0.68	0.10	3.20	78.31	0.50	1.00	0.00			
			W8	0.68	0.99	0.00	78.31	0.50	1.00	0.00			
			W9	0.68	0.25	0.00	78.31	0.50	1.00	0.00			
										1.85	1.00	0.00	PASS
Ground	R1	LKD	W1	0.68	0.61	45.95	68.87	0.50	1.00	0.37			
			W2	0.68	1.77	51.76	68.87	0.50	1.00	1.21			
			W3	0.68	1.77	49.51	68.87	0.50	1.00	1.15			
			W4	0.68	1.54	80.28	68.87	0.50	1.00	1.63			
										4.36	2.00	0.00	PASS
First	R1	Kitchen	W1	0.68	2.12	46.37	66.10	0.50	1.00	1.35			
										1.35	2.00	0.00	FAIL
Third	R1	Bedroom	W1	0.68	1.20	68.95	65.09	0.50	1.00	1.16			
										1.16	1.00	0.00	PASS