Sunlight
Assessments UK

Internal Scheme Performance

Project address: 1B & 1C Claremont Road, Teddington TW11 8EA

Designer/Architects HOLLOWAY+HOLLOWAY

Contents

1. Introduction

1.1 Sunlight Assessments UK have been instructed to assess the internal daylight of the proposed conversion of 1B & 1C Claremont Road, Teddington TW11 8EA.

1.2 The report relates to the proposed Scheme and provides detailed technical support regarding the potential internal Scheme Performance

1.3 The new regulations revise the General Permitted Development Order by making the provision of "adequate natural light in all habitable rooms" a matter for prior approval consideration. It applies to conversions from offices, retail, light industrial and barn buildings to residential, as well as the new upward extension right for freestanding blocks of flats.

1.4 The Local Authority will be informed of this by the BRE document entitled 'Site layout planning for daylight and sunlight: a guide to good practice' (BR209 2022). This document is the principal guidance in this area and sets out the methodology for measuring light and recommends what it considers to be permitted or unobtrusive levels of change.

1.5 The BRE guidelines are not mandatory, though local planning authorities and planning inspectors will consider the suitability of a proposed scheme for a site within the context of BRE guidance. Consideration will be given to the urban context within which a scheme is located, and the daylight and sunlight will be one of several planning considerations which the local authority will weigh.

Sources of Information

1.6 In the process of compiling this report, the following sources of information have been used:

Ordnance Survey Data

OS Map

Proposed drawings in Appendix 1

2. Methodology

2.1 This Daylight and Sunlight Assessments report focuses on the internal scheme performance of which there are several different metrics to assess:

Interior Daylighting *(Spatial Daylight Autonomy SDA)*

2.2 The BRE guide recommends that interior daylighting is checked using the daylight provision test set out in BS EN 17037. The test measures both the amount of daylight, as well as the distribution of daylight within a room. The test is applied to habitable rooms within domestic properties. A kitchen is generally deemed to be a habitable room if it is large enough to accommodate a dining area. If the kitchen is small, or if the property has a separate dining area, then the accepted practice is to treat the kitchen as a non-habitable room. The assessment is carried out using a grid of points on a horizontal reference plane in each room. In accordance with the BRE recommendations, we have set the reference plane at 850mm above the floor and have excluded assessment points from a 0.3m wide band around the perimeter of each room.

2.3 The UK National Annex to BS EN 17037 gives UK-specific minimum illuminance recommendations which we have set as the targets for this project. The target comprises of 100 lux in bedrooms, 150 lux in living rooms and 200 lux in kitchens to be exceeded over at least 50% of the reference plane. Where a room has a shared use, the highest target should apply. However, the guide states that local authorities could use discretion here. For example, the target for a living room could be used for a combined living/dining/kitchen area if the kitchens are not treated as habitable spaces, as it may avoid small separate kitchens in a design.

2.4 The data in Appendix 2 sets out the percentage of the reference plane that meets the relevant lux target for the given room use the median illuminance (lux) achieved for each room is also presented. Where the median illuminance exceeds the lux target, this means the lux target has been achieved over at least 50% of the assessment grid. The daylight provision test may be carried out using either the daylight factor method or the interior illuminance method. For this assessment, we have adopted the daylight factor method. Using the conversion table set out in the BRE guide, we have expressed the results in terms of lux.

2.5 Since the assessment is based on a computer simulation, it is necessary to set various surface reflectance values. By example, a 0.6 reflectance means that 60% of the light hitting the surface will be reflected. Maximum reflectance for white painted surfaces in the calculations should not exceed 0.8 indoors, and 0.6 outdoors, maximum reflectance for light wood floors should not exceed 0.4. For the purpose of this assessment, we have assumed the following reflectance.

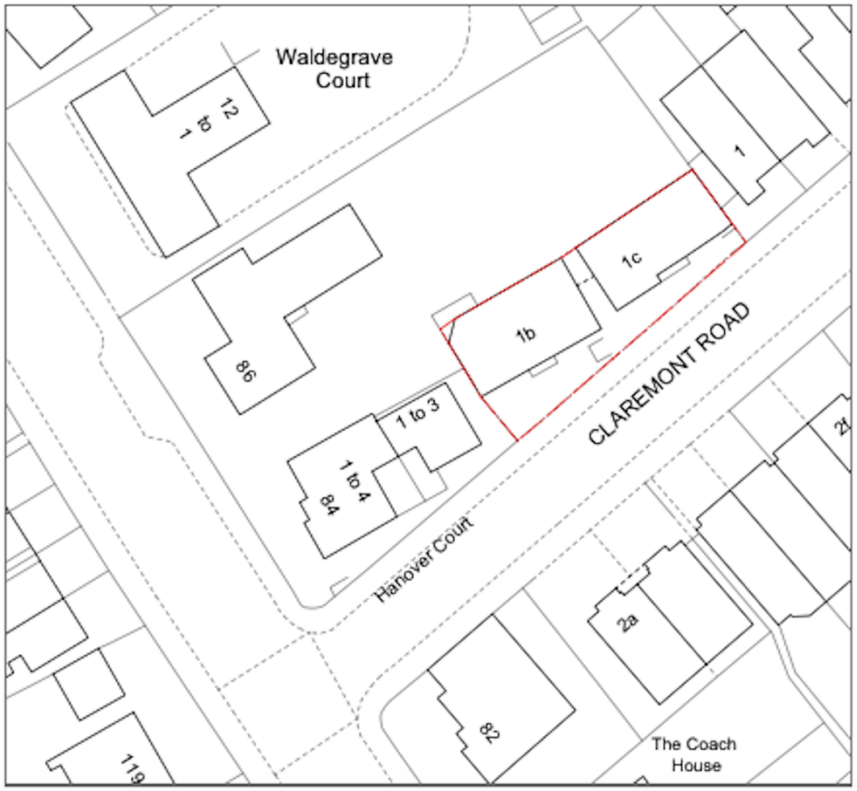
Surface	Reflectance
Interior walls	0.8
Window reveals	0.8
Ceilings	0.8
Floors	0.4
Exterior walls and obstructions	0.2
Exterior ground	0.2
Exterior glazing	0.064

3. Standard Survey Limitations

3.1 Although we have undertaken as detailed an inspection as possible, we are required by our professional indemnity insurers to notify you that our report is based upon the Standard Terms and Conditions. Our understanding of the proposed development is informed in the drawings in Appendix 1 and information supplied by HOLLOWAY+HOLLOWAY.

4. The Site

4.1 The site is located at 1B & 1C Claremont Road, Teddington TW11 8EA.



5. The Proposal

5.1 Our understanding of the Proposed Development is illustrated in drawings, located within Appendix 1.

5.2 HOLLOWAY+HOLLOWAY has provided floorplans and elevations.

6. Assessment Results

6.1 The proposed flats have been internally assessed for SDA.

Interior Daylighting, Spatial Daylight Autonomy (SDA)

6.2 The results show that the tested rooms comply with and are within the BRE (BR209 2022) guidelines for internal daylight.

7. Conclusion

7.1 The daylight in the internal habitable rooms of the proposed build all comply with the BRE (BR209 2022) guidance.

7.2 We therefore conclude that the Proposed Development concerning daylight is BRE (BR209 2022) compliant and we have identified no grounds for rejection of this application in terms of daylight to internal habitable rooms.

Appendix 1:

Drawings

1 PR GROUND FLOOR PLAN
1:100@A3

1:20 @ A3 | 1:50 @ A3 | 1:100 | 1:200 | 1:500 | 1:1250

DISCLAIMER:
Dimensions to be verified on site. Only figured dimensions to be used and any discrepancies in dimensions are to be reported to Holloway and Holloway. No dimensions are to be scaled from printed drawings. Any areas indicated on this drawing are for guidance only. No responsibility is taken for their accuracy.
There is a risk of injury or death in construction if works are not properly planning and supervised. The contractor must not undertake any elements of the work without first having carried out the necessary risk assessments and prepare detailed method statements.

KEY:

NOTES:

REV.	DESCRIPTION:	BY:	DATE:

STAGE: PLANNING

	HOLLOWAY+HOLLOWAY DONNINGTON HOUSE COLLEGE AVENUE MAIDENHEAD, BERKSHIRE, SL6 6AP		
Client	BRIGHT HILL		
Address	SANDFORD AND JARDINE HOUSE		
TITLE	PROPOSED PLANS		
DRAWING	101		
REV.	-	SCALE	AS STATED
STATUS	PLANNING	DRAWN	VH
DATE	DEC 24	CHECKED	-

1 PR FIRST FLOOR PLAN
1:100@A3

1:20 @ A3 | 1:50 @ A3 | 1:100 | 1:200 | 1:500 | 1:1250

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Client	BRIGHT HILL		
Address	SANDFORD AND JARDINE HOUSE		
TITLE	PROPOSED PLANS		
DRAWING	102		
REV.	-	SCALE	AS STATED
STATUS	PLANNING	DRAWN	VH
DATE	DEC 24	CHECKED	-

1 PR SECOND FLOOR PLAN
1:100@A3

1:20 @ A3 | 1:50 @ A3 | 1:100 | 1:200 | 1:500 | 1:1250

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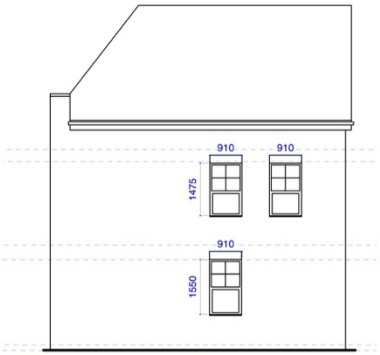
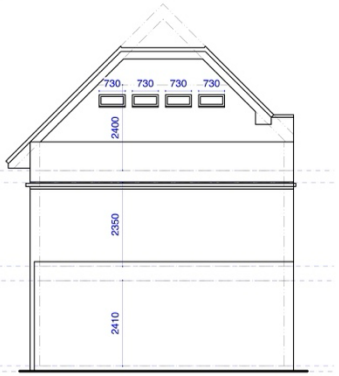
Client	BRIGHT HILL		
Address	SANDFORD AND JARDINE HOUSE		
TITLE	PROPOSED PLANS		
DRAWING	103		
REV.	-	SCALE	AS STATED
STATUS	PLANNING	DRAWN	VH
DATE	DEC 24	CHECKED	-

1 PR FRONT ELEVATION (SOUTH) JARDINE
1:100

2 PR WEST ELEVATION JARDINE
1:100



3 PR EAST ELEVATION JARDINE
1:100



1:20 @ A3 | 1:50 @ A3 | 1:100 | 1:200 | 1:500 | 1:1250

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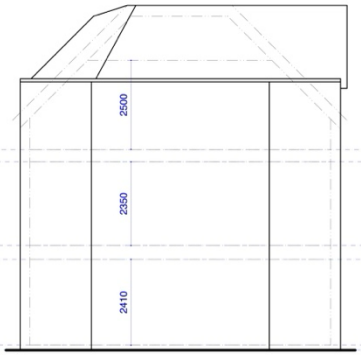
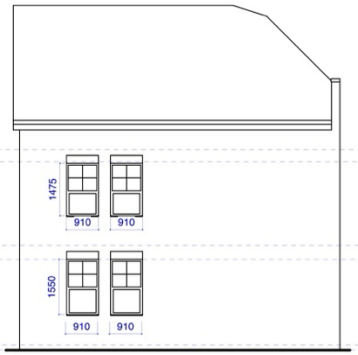
Address	SANDFORD AND JARDINE HOUSE		
TITLE	PROPOSED ELEVATIONS		
DRAWING	111		
REV.	-	SCALE	AS STATED
STATUS	PLANNING	DRAWN	VH
DATE	DEC 24	CHECKED	-

1 PR FRONT ELEVATION (SOUTH) SANDFORD
1:100

2 PR WEST ELEVATION SANDFORD
1:100



3 PR EAST ELEVATION SANDFORD
1:100



1:20 @ A3 1m 1:50 @ A3 1m 2m 3m 4m 1:100 1m 2m 3m 4m 1:200 2m 3m 4m 5m 6m 7m 8m 9m 1:500 10m 20m 1:1250 20m 30m 40m 50m

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Address	SANDFORD AND JARDINE HOUSE		
TITLE	PROPOSED ELEVATIONS		
DRAWING	112		
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STATUS	PLANNING	DRAWN	VH
DATE	DEC 24	CHECKED	-

Appendix 2:

Technical Analysis

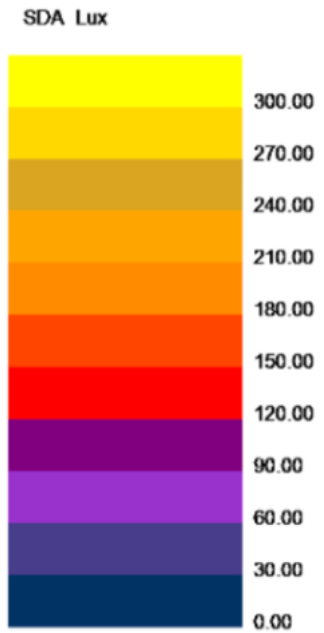
Interior Daylighting, Spatial Daylight Autonomy (SDA)

Building Ref	Floor Ref	Room Ref	Room Use	Room Area	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Space	Req % of Hours	Occupied Hours	Test
Flat 1 Jardine	Ground	R1	Living Room	12.38	8.38	226	5.98	71%	150	50%	50%	4380	YES
Flat 1 Jardine	Ground	R2	Bedroom	10.54	6.87	219	6.20	90%	100	50%	50%	4380	YES
Flat 1 Sandford	Ground	R1	Living Room	12.91	8.97	230	6.66	74%	150	50%	50%	4380	YES
Flat 1 Sandford	Ground	R2	Bedroom	10.57	6.72	99	3.36	50%	100	50%	50%	4380	YES
Flat 2 Jardine	Ground	R1	Living Room	13.72	9.60	304	9.51	99%	150	50%	50%	4380	YES
Flat 2 Jardine	Ground	R2	Bedroom	9.26	5.74	114	3.39	59%	100	50%	50%	4380	YES
Flat 2 Sandford	Ground	R1	Living Room	21.34	16.14	336	15.25	95%	150	50%	50%	4380	YES
Flat 2 Sandford	Ground	R2	Bedroom	7.08	3.76	101	1.92	51%	100	50%	50%	4380	YES
Flat 3 Jardine	First	R1	Living Room	16.39	11.67	327	11.12	95%	150	50%	50%	4380	YES
Flat 3 Jardine	First	R2	Bedroom	9.65	6.00	136	3.56	59%	100	50%	50%	4380	YES
Flat 3 Sandford	First	R1	Living Room	16.66	12.07	212	9.25	77%	150	50%	50%	4380	YES

Building Ref	Floor Ref	Room Ref	Room Use	Room Area	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Space	Req % of Hours	Occupied Hours	Test
Flat 3 Sandford	First	R2	Bedroom	11.83	7.77	127	4.49	58%	100	50%	50%	4380	YES
Flat 4 Jardine	First	R1	Living Room	11.80	8.02	267	7.57	94%	150	50%	50%	4380	YES
Flat 4 Jardine	First	R2	Bedroom	6.94	3.95	203	3.52	89%	100	50%	50%	4380	YES
Flat 4 Sandford	First	R1	Living Room	21.91	16.56	268	13.07	79%	150	50%	50%	4380	YES
Flat 4 Sandford	First	R2	Bedroom	12.15	8.02	118	4.37	54%	100	50%	50%	4380	YES
Flat 5 Jardine	Second	R1	LKD	19.51	14.37	803	14.37	100%	200	50%	50%	4380	YES
Flat 5 Jardine	Second	R2	Bedroom	10.96	6.94	312	6.86	99%	100	50%	50%	4380	YES
Flat 5 Jardine	Second	R3	Bedroom	16.41	11.74	216	10.94	93%	100	50%	50%	4380	YES
Flat 5 Sandford	Second	R1	LKD	25.84	19.35	238	11.89	61%	200	50%	50%	4380	YES
Flat 5 Sandford	Second	R2	Bedroom	7.55	4.36	188	3.92	90%	100	50%	50%	4380	YES
Flat 6 Sandford	Second	R1	LKD	26.96	19.60	556	19.06	97%	200	50%	50%	4380	YES
Flat 6 Sandford	Second	R2	Bedroom	6.99	3.94	214	3.85	98%	100	50%	50%	4380	YES

Proposed internal LUX levels – Ground Floor

PR GROUND FLOOR PLAN
1:100@A3



1:50 @ A3 | 1:100 | 1:200 | 1:500 | 1:1250

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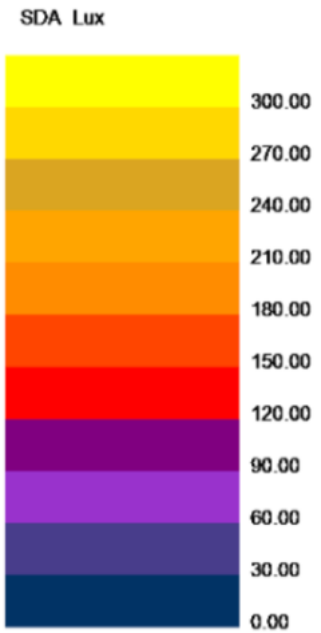
DRAWING	101		
REV.	-	SCALE	AS STA
STATUS	PLANNING	DRAWN	VH
DATE	DEC 24	CHECKED	-

Proposed internal LUX levels – First Floor

PR FIRST FLOOR PLAN
1:100@A3



A3 1:50 @ A3 | 1:100 | 1:200 | 1:500 | 1:1250

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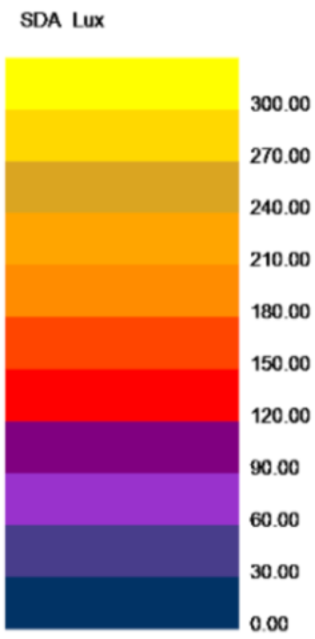
TITLE	PROPOSED PLANS
DRAWING	102
REV.	-
STATUS	PLANNING
DATE	DEC 24
SCALE	AS STA
DRAWN	VH
CHECKED	-

Proposed internal LUX levels – Second Floor



End of report.

Sunlight Assessments UK LTD

December 2024

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