



# 6 Stukeley Street, WC2B

Internal Daylight Assessment

Job No.: 2398  
Issued: April, 2017  
Issue: 2



## Contents


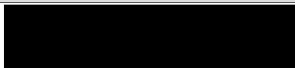
---

1.0	Introduction .....	4
2.0	Existing Site and Proposal .....	5
3.0	Methodology .....	6
4.0	Internal ADF Results .....	7
5.0	Conclusions .....	10



## Document Control

---

Author	Date	Signature
OW	26.04.17	
Checked	Date	Signature
BW	26.04.17	

*This report has been prepared for the exclusive use of the commissioning party and may not be reproduced without prior written permission from T16 Design. All work has been carried out within the terms of the brief using all reasonable skill, care and diligence. No liability is accepted by T16 Design for the accuracy of data or opinions provided by others in the preparation of this report, or for any use of this report other than for the purpose for which it was produced.*

© 2017 - T16 Design Ltd.



## 1.0 Introduction

- 
- |     |  |
|-----|--|
| 1.1 | T16 Design is engaged to produce this report, which is an analysis of the internal daylight levels that will be experienced within the proposed habitable rooms following the proposed refurbishment of the existing house at 6 Stukeley Street, London WC2.   |
| 1.2 | The developer wishes to ensure that the proposed habitable rooms will have sufficient daylight for their proposed uses.  |
| 1.3 | There is no existing specific National Planning Policy relating to levels of daylight and sunlight in proposed dwellings. However, the BRE Report 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice' is the established national guidance to aid the designer to ensure sufficient levels of daylight availability in a development. It has been developed in conjunction with daylight and sunlight recommendations in BS 8206: Part 2: 'Lighting for Buildings - Code of Practice for Daylighting' |
| 1.4 | This reference document, along with the relevant British Standard, is accepted as the authoritative work in the field on daylight and sunlight and is specifically referred to in many Local Authorities' planning policy guidance. The methodology therein has been used in numerous lighting analyses and the standards of daylight and sunlight are accepted as the industry standards.   |
-

## 2.0 Existing Site and Proposal

- 2.1 The development site is 6 Stukeley Street and is occupied by a residential dwelling. The proposal is to refurbish and extend the building to create 2 self contained flats.
- 2.2 The proposal involves the creation of habitable rooms at basement level to be lit with generous lightwells. The developer wishes to ensure that the occupants of these spaces as well as those on the upper levels will have sufficient natural light in light in line with the relevant British Standard guidance. The daylight levels in the ground floor living space has also been assessed
- 2.3 The assessment has been undertaken using drawn information supplied by the design team and from Ordnance Survey and web-based mapping data.



Site Location





## 3.0 Methodology

- 
- 3.1 This report looks at the internal daylight levels that the new units will receive using the standard methodology as prescribed by BRE and British Standard guidance:
- **Average Daylight Factor (ADF) - Daylight**
- 3.2 The ADF is derived from British Standard BS 8206 and is a complex and representative calculation to determine natural internal luminance (daylight). The ADF takes into account such factors as window size, number of windows available to the room, room size and layout, room surface reflectance, and the angle of visible sky reaching the window.
- 3.3 Due to the complexity of the daylight entering the proposed rooms, ADF is the most suitable calculation to give a realistic indication of the internal illuminance that will be experienced.
- 3.4 Calculations have been undertaken in accordance with BRE methodology, using a CIE overcast sky at an illuminance value of 8500 lux. For the purposes of this analysis, it has been assumed that the lightwells and external walls will be a light colour.
- 3.5 The assessed units comprise 2 bedrooms at basement level and a kitchen/living/dining room at ground floor and then 2 further bedrooms on the first floor, with a kitchen/living/dining room at upper floor level. The British Standard recommended ADF values for these spaces are: Bedrooms: 1%, Living/Dining Rooms, 1.5% and Kitchens, 2%. The higher target value (2%) has been used for the combined space.
-

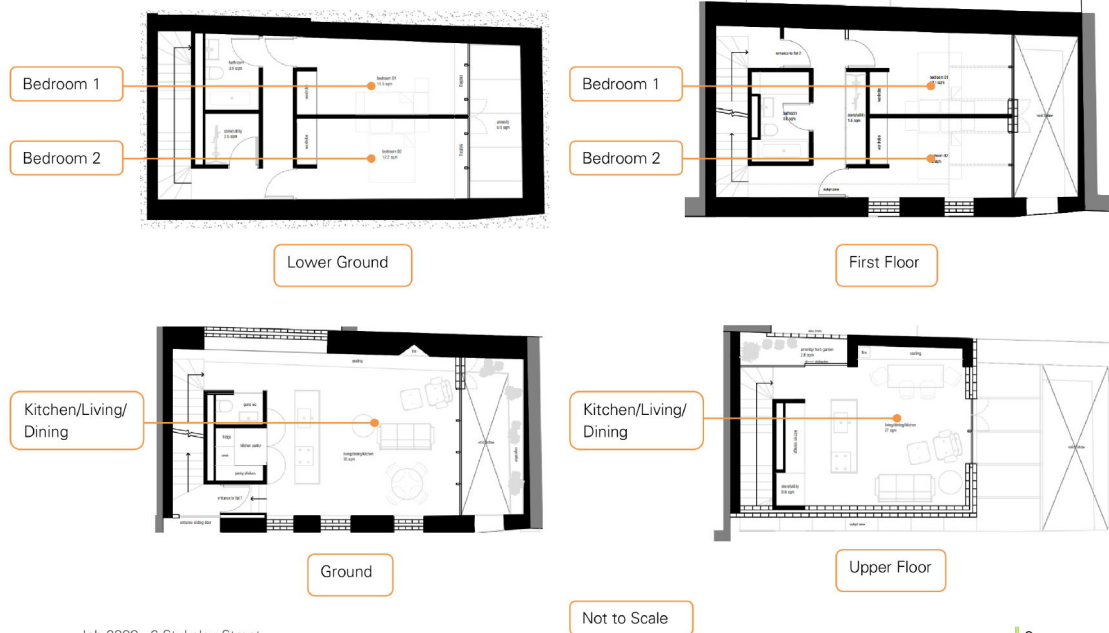


## 4.0 Internal ADF Results

- 
- 4.1 The full results of the ADF tests are given below and a key to the rooms assessed (as identified on the following page).
- 4.2 It can be seen from the results on the that all of the assessed rooms meet the recommended levels of internal daylight as defined by BS 8206-2:2008
- 4.3 Daylight distribution diagrams (not to scale) are also given below to show the spread of daylight in each room.

Floor	Room	Target ADF	Actual ADF
LG	Bedroom 1	1.0%	<b>5.68%</b>
LG	Bedroom 2	1.0%	<b>5.53%</b>
G	Kitchen/Living/Dining	2.0%	<b>11.29%</b>
1	Bedroom 1	1.0%	<b>8.92%</b>
1	Bedroom 2	1.0%	<b>20.62%</b>
U	Kitchen/Living/Dining	2.0%	<b>16.67%</b>

## 4.0 Internal ADF Results



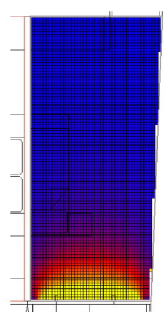
Job 2398 - 6 Stukeley Street



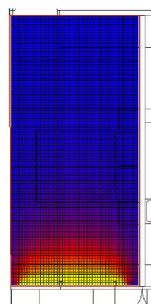


## 4.0 Internal ADF Results

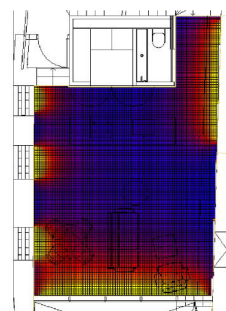
Not to Scale



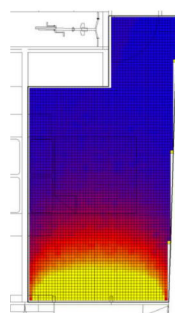
Bedroom 1  
(Basement)



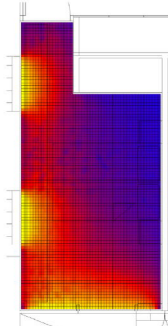
Bedroom 2  
(Basement)



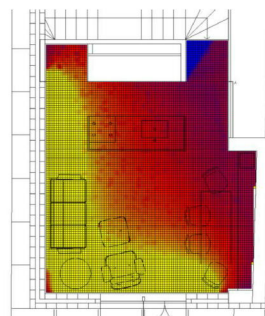
Kitchen/Living/  
Dining  
(Ground Floor)



Bedroom 1  
(Upper)



Bedroom 2  
(Upper)



Kitchen/Living/  
Dining (First  
Floor)



## 5.0 Conclusions

- 
- |     |  |
|-----|--|
| 5.1 | This report has been produced to ensure that the habitable rooms in the proposed development at 6 Stukeley Street will be sufficiently daylight in line with the recommendations of BRE Digest 209 and the relevant British Standards.   |
| 5.2 | In doing so, calculations were undertaken for the Average Daylight Factor for all habitable rooms, in accordance with the agreed methodology.  |
| 5.3 | It was shown that in all cases the ADF predicted for the assessed rooms is in excess of BRE guidance and the future occupants will enjoy a sufficiently well lit environment. This represents an improvement over the previous scheme for this site due to the increased fenestration. |
| 5.4 | The impact of the scheme on neighbouring dwellings will also be reduced as a result of the smaller massing in this revised design.   |
| 5.5 | It is therefore the conclusion of this report that the proposal can be considered compliant for planning purposes in daylight terms.   |

*This report has been prepared for the exclusive use of the commissioning party and may not be reproduced without prior written permission from T16 Design. All work has been carried out within the terms of the brief using all reasonable skill, care and diligence. No liability is accepted by T16 Design for the accuracy of data or opinions provided by others in the preparation of this report, or for any use of this report other than for the purpose for which it was produced.*

© 2017 - T16 Design Ltd.