

**Proposed Development at 16-18 West
Central Street, London, WC1A**
Daylight, Sunlight and Overshadowing

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1 Introduction

- 1.1 Deloitte has been appointed by City & General New Oxford Street LLP to undertake a daylight and sunlight study with regard to the proposed redevelopment at 16-18 West Central Street, London, WC1A.
- 1.2 The calculations in this report have been based on the submitted plans, elevations and sections by Squire and Partners which are listed below and we have used these to model the proposed building which has formed the basis of our assessment.

Table 1: Drawings Used for the Assessments

Drawing Number	Drawing Name	Date	Revision
C-465-E-E-001	East Elevation	May 13	A
C-465-E-N-001	North Elevation	May 13	A
C-465-E-S-001	South Elevation	May 13	C
C-465-E-W-001	West Elevation	May 13	B
C-465-P-00-001	Ground Level	May 13	D
C-465-P-01-001	Level 01	May 13	B
C-465-P-02-001	Level 02	May 13	A
C-465-P-03-001	Level 03	May 13	A
C-465-P-04-001	Level 04	May 13	A
C-465-S-AA-001	Section AA	May 13	A
C-465-P-RF-001	Roof Plan	May 13	-

2 Planning Policy

- 2.1 The proposed site is located within the London Borough of Camden (Camden's) and the proposals have therefore been considered against Camden's 2006 replacement Unitary Development Plan (UDP). In particular the proposals have been considered against Policy SD6 which states:

"Harmful effects to the amenity of existing and future occupiers on a development site and to nearby properties should be avoided, especially in the case of residential buildings. The design of development should give consideration to overlooking and the potential effects on privacy, and allow sufficient daylight and sunlight into buildings and land".

- 2.2 In addition, the proposals have also been considered against Camden Planning Guidance CPG2 – Housing which states:

"Residential development should maximise sunlight and daylight, both within the new development and to neighbouring properties whilst minimising overshadowing or blocking light to adjoining properties".

- 2.3 Also against Camden Planning Guidance CPG6 which states:

"The Council expects that all developments receive adequate daylight and sunlight to support the activities taking place in that building".

- 2.4 The above policy has been considered utilising the standards and recommendations set out in the Building Research Establishment (BRE) report:

- P J Littlefair (2011) "Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice", Building Research Establishment Report 209. (Referred to in this report as the "BRE guidelines").

3 Daylight and Sunlight Methodology

- 3.1 When assessing any potential effects on the surrounding properties, the BRE guidelines suggest that only those windows that have a reasonable expectation of daylight or sunlight need be assessed. In particular the BRE guidelines at paragraph 2.2.2 state:

“The guidelines given here are intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed. The guidelines may also be applied to any existing non-domestic building where the occupants have a reasonable expectation of daylight; this would normally include schools, hospitals, hotels and hostels, small workshops and some offices.”

- 3.2 Further to the above statement, it is considered that the vast majority of commercial properties do not have a reasonable expectation of daylight or sunlight. This is because they are generally designed to rely on electric lighting rather than natural daylight or sunlight.
- 3.3 If a property is considered to have a reasonable expectation of daylight or sunlight the following methodology to assess the impacts has been used.

Daylighting

- 3.4 Where the internal arrangements are not known, the BRE guidelines set out three methods for assessing the daylight impacts on neighbouring properties. These methods are summarised below.
- 3.5 The first of these methods is to strike a line at an angle of 25° from the centre of the lowest existing windows. If the profile of the proposed development sits beneath the 25° angle line then the development is unlikely to have a substantial effect on the daylight enjoyed by the existing building. This test is known as the 25° angle test.
- 3.6 If the proposed development protrudes past the 25° angle line then the second test needs to be applied. For this assessment, the first method has not been used as it does not always reflect the differing heights and layouts of the buildings in the local area.
- 3.7 The second method calculates the Vertical Sky Component (VSC) at the centre point of each affected window on the outside face of the wall. The VSC is an external daylighting calculation that measures the amount of direct daylight to a specific window point on the outside of a property. The calculations fundamentally assess the amount of blue sky that you will see, converting results into a percentage. A window looking into an empty field will achieve a maximum value of 40%. However, the BRE suggests that 27% VSC is a good level of daylight. If a window does not achieve 27% VSC in the proposed scenario, then the third test is used.
- 3.8 The third method involves calculating the VSC at the window in the existing situation, i.e. before redevelopment. If the reduction of VSC is less than 0.8 times its former value, then the occupants of the adjoining building are likely to notice the reduction in daylight.

3.9 In conjunction with the VSC tests, the BRE guidelines and British Standard 8206-2:2008 suggest that the distribution of daylight is assessed using the No Sky Line (NSL) test. This test separates those areas of the working plane that can receive direct skylight and those that cannot.

3.10 The BRE guidelines suggest that the daylight distribution test is undertaken to existing surrounding properties when the internal arrangements are known. To assess the impact of any reduction the BRE guidelines suggest:

If, following construction of a new development, the no sky line moves so that the area of the existing room, which does receive direct skylight, is reduced to less than 0.8 times its former value this will be noticeable to the occupants, and more of the room will appear poorly lit.

3.11 Where the internal arrangements of a property are known, the Average Daylight Factor (ADF) calculation can be undertaken. This calculation takes into account the size and shape of the room and window, the reflectance of the room's surfaces and diffuse transmittance of the glazing as well as the amount of blue sky calculated in the VSC calculation.

3.12 The BRE guidelines set out the ADF test at Appendix C and further guidance, such as the reflectance of certain materials are given within the British Standard BS8206-2:2008.

3.13 The BRE guidelines and British Standard 8206-2:2008 suggests that the following ADF values should be achieved for the following room types:

- Bedrooms 1%;
- Living Rooms 1.5%; and
- Kitchens 2%.

3.14 Certain constants were assumed in the formula, which are as follows: -

- (a) The diffuse light transmittance and maintenance factor for dirt on glass was taken as 0.59.
- (b) The average reflectance of interior surfaces was taken as 0.5.

3.15 The ADF results were obtained for each room individually and expressed as a percentage. Where there were two or more windows serving one room the ADF is found separately for each window, and the results summed.

3.16 In conjunction with the ADF tests, the BRE guidelines and British Standard 8206-2:2008 suggest that the distribution of daylight is assessed using the No-Sky Line test. This test separates those areas of the working plane that can receive direct skylight and those that cannot.

3.17 For existing buildings the BRE guidelines suggest that:

If, following construction of a new development, the no sky line moves so that the area of the existing room, which does receive direct skylight, is reduced to less than 0.8 times its former value this will be noticeable to the occupants, and more of the room will appear poorly lit.

3.18 For new developments the British Standard 8206-2:2008 suggest that the uniformity of daylight within a room will be poor if a significant area of the working plane lies beyond the no-sky line. The British Standard BS8206-2:2008 also suggests that 'a significant area' is more than 20% i.e. 80% of the room area should be in front of the no-sky line. This however is not considered practical for urban areas and large rooms over 4m deep. Taking into account an urban setting it is suggested that 'a significant area' should be interpreted as more than 50%. i.e. 50% of the room area should be in front of the no-sky line.

Sunlighting

- 3.19 The amount of direct sunlight a window can enjoy is dependent on its orientation and the extent of any external obstructions. For example a window that faces directly north, no matter what external obstructions are present, will not be able to enjoy good levels of sunlight throughout the year. However, a window that faces directly south with no obstructions will enjoy very high levels of sunlight throughout the year. As the potential to receive sunlight is dependent on a window's orientation, the BRE guidelines state:

To assess loss of sunlight to an existing building, it is suggested that all main living rooms of dwellings, and conservatories, 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.

- 3.20 To assess the potential effect on existing windows the BRE guidelines set out three methods. These methods are summarised below.
- 3.21 The first test is to apply the 25° angle test as detailed above. If the profile of the proposed development sits beneath the 25° angle line then the development is unlikely to have a substantial effect on the sunlight enjoyed by the existing building. If the proposed development protrudes past the 25° angle line then the second test needs to be applied.
- 3.22 As for the daylight assessments, the 25° angle test has not been used for this assessment as it does not always reflect the differing heights and layouts of the buildings in the local area.
- 3.23 For the second sunlighting test the BRE guidelines suggest calculating the Annual Probable Sunlight Hours (APSH) at the centre of each window on the outside face of the window wall. The BRE guidelines suggest that:

"If this window point can receive more than one quarter of APSH (see section 3.1), including at least 5% of APSH in the winter months between 21st September and 21st March, then the room should still receive enough sunlight".

- 3.24 The third method involves calculating the APSH at the window in the existing situation, i.e. before redevelopment. If the reduction of APSH between the existing and proposed situations is less than 0.8 times its former value for either the total APSH or in the winter months; and greater than 4% for the total APSH, then the occupants of the adjoining building are likely to notice the reduction in sunlight.

4 Assessment Results

14 West Central Street

Daylight

- 4.1 The VSC test results for 14 West Central Street are given at Appendix B.
- 4.2 All of the windows assessed and they are all meet the BRE guidelines suggested criteria by either continuing to receive a VSC of at least 27% in the proposed condition, or experiencing a ratio reduction no lower that 0.8 times its former value.
- 4.3 With respect to daylight distribution, the NSL test results show that each habitable room will continue to enjoy a very good level of daylight distribution.

Sunlight

- 4.4 The APSH test results show all windows assessed meet the BRE guidelines suggested criteria.

3 Grape Street

Daylight

- 4.5 The VSC test results for 3 Grape Street are given at Appendix B.
- 4.6 All of the windows assessed and they are all exceed the BRE guidelines suggested criteria by either continuing to receive a VSC of at least 27% in the proposed condition, or experiencing a ratio reduction no lower that 0.8 times its former value.
- 4.7 With respect to daylight distribution, the NSL test results show that each habitable room will continue to enjoy a very good level of daylight distribution.

Sunlight

- 4.8 The APSH test results show all windows assessed meet the BRE guidelines suggested criteria.

33 New Oxford Street

Daylight

- 4.9 The VSC and NSL results for 33 New Oxford Street are given at Appendix B.
- 4.10 We have analysed a total of four windows within this building, of which the 3rd and 4th floor windows meet the BRE criteria.

- 4.11 The remaining two windows which are labelled W130 and W131 in the results tables and are shown in the photo below are located on the 1st & 2nd floor. From our external inspections, we believe the rooms serve kitchens.



- 4.12 Both windows experience ratio reduction beyond that recommended by the BRE guidelines although it is important to note that they both have VSC values which are significantly below 27% requirement in the existing condition which is a consequence of the existing site buildings and the properties on New Oxford Street blocking out parts of the sky dome.
- 4.13 In such circumstances, even relatively modest absolute changes in VSC are reflected as larger percentage alterations which quickly results in breaches of guidance. This is evident here as the absolute change is just 6-7% however owing to the low existing values, is expressed as a large percentage alteration. As such, even small obstructions opposite this property would result in impacts which technically exceed guidance.

Sunlight

- 4.14 The APSH test results for 33 New Oxford Street are given at Appendix B.
- 4.15 As is the case with daylight, the 3rd and 4th floor windows meet the BRE criteria. The 1st and 2nd floor windows retain between 13-19% total APSH which is below guidance but commensurate with values you would expect in densely developed urban areas.

35 New Oxford Street

Daylight

- 4.16 The VSC test results for 35 New Oxford Street are given at Appendix B.
- 4.17 The proposal includes the conversion of the 1st & 2nd floor within this building to office accommodation and therefore we have not considered the impact to the rooms at these levels.
- 4.18 The 3rd floor will remain in residential use and the result shows that W12 will experience a minor alteration in VSC with a ratio reduction of 0.75 which is slightly beyond guidance. To mitigate against this modest impact, a new skylight has been added to the room behind the window which ensures the whole room area will continue to receive direct skylight after the development and the impact is therefore considered acceptable.

Sunlight

- 4.19 The APSH test results show all windows assessed meet the BRE guidelines suggested criteria.

37 New Oxford Street

Daylight

- 4.20 The proposal also includes the conversion of the 1st & 2nd floors to office use and therefore we have only assessed the residential accommodation at 3rd floor level.
- 4.21 Similar to the results for 35 New Oxford Street, the third floor windows will experience a ratio reduction which exceed the VSC criteria however the addition of a new roof light ensure that the overall light distribution within the room is very good as 93% of the room will continue to receive direct skylight and therefore the impacts comply with the BRE Guidelines and are considered acceptable.

Sunlight

- 4.22 The third floor windows retain between 36-37% APSH which is significantly above the 25% requirement. In both cases, winter sunlight levels are below the 5% criteria which is not uncommon when developing in dense urban environments where relatively small buildings obstruct the sun's low altitude. Importantly, direct sunlight is retained throughout the year and in consideration of the high levels of overall sunlight amenity to the property, the impacts are considered acceptable.

43 New Oxford Street

Daylight

- 4.23 The VSC test results for 43 New Oxford Street are given at Appendix B.
- 4.24 The windows at 2nd – 4th floors meet the VSC criteria. The first floor window experiences a ratio reduction of 0.67 which is beyond guidance although this is partly due to the window having a low existing value and therefore compliance with the BRE guideline is challenged. The NSL result shows that there will be no effect upon the distribution of light within the room whatsoever and therefore we are of the view that there will be a negligible impact upon the amenity of the room and the impacts are considered acceptable.

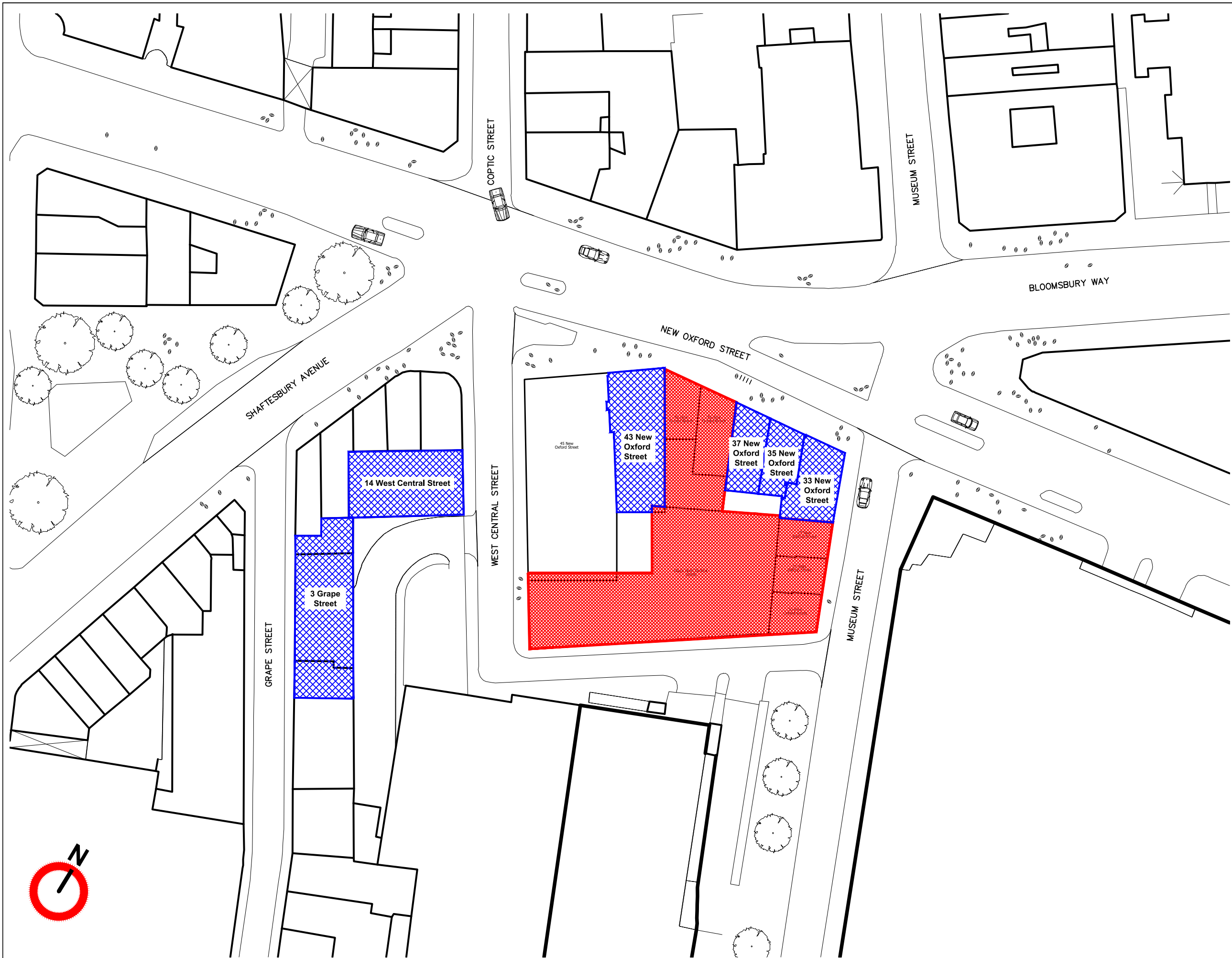
Sunlight

- 4.25 The APSH test results show that the windows at 3rd and 4th floor levels satisfy the BRE criteria. The 1st floor window experiences a ratio reduction of 0.74 which is slightly below guidance. The 2nd floor window retains a total of 33% APSH, of which 2% is enjoyed during winter sunlight which is slightly below the 5% criteria. Given the high level of sunlight amenity retained to this building, we consider the impacts to be acceptable particularly given the dense location in which the building is positioned.

5 Conclusions

- 5.1 Deloitte has undertaken a daylight and sunlight study with regard to the proposed redevelopment at 16-18 West Central Street, London, WC1A.
- 5.2 The scheme has been sensitively designed to ensure that the impacts upon the daylight and sunlight amenity enjoyed by the neighbouring residential buildings have been kept to a minimum and testament to this is the generally high level of compliance with the BRE standards. There are isolated instances where the impacts deviate from the BRE criteria however there are mitigating circumstances for this.
- 5.3 It must of course be remembered that the technical specification offered by the BRE is purely advisory as natural lighting is only one of many factors in site layout. This is particularly relevant for this site as it is located within a conservation area. The alterations to the scheme to produce a fully compliant position would not only in our view be inappropriate, but would result in an architectural solution which is wholly at odds with the urban grain of the area.
- 5.4 Overall the proposals are considered to follow the intentions of the BRE Guidelines and the London Borough of Camden's planning policies on daylight and sunlight.

Appendix 1 – Site Plan



Notes

- Proposed Site
- Surrounding Residential Properties

Date Revision

Drawing No. C-0207279-Site PlanRevision

Address.
West Central Street
London WC1A

Title.
Site Plan

Client
City & General New Oxford St

Date	Drawn by	AJ	Scale	A3 @
30/05/13	File No.	C-0207279	NTS	

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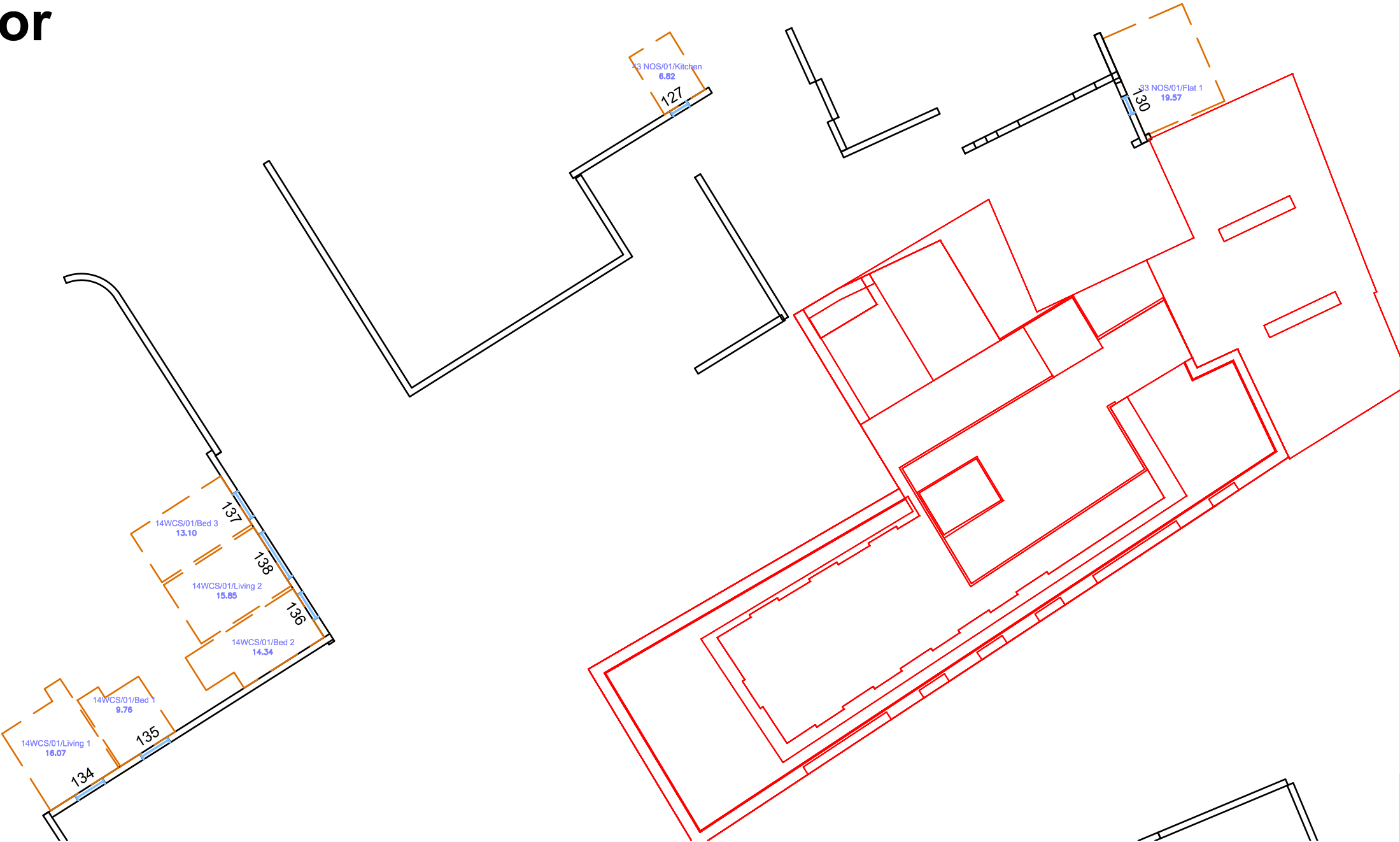
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Appendix 2 – Daylight and Sunlight Results

First Floor



Vertical Sky Component Results Table					
Window			Existing	Proposed	Ratio Reduction
Name	Level	Number			
14 WCS	01	137	16.90%	16.60%	0.98
14 WCS	01	136	17.66%	16.96%	0.96
14 WCS	01	135	20.49%	20.33%	0.99
14 WCS	01	134	16.07%	16.01%	1.00
14 WCS	01	138	17.26%	16.80%	0.97
33 NOS	01	130	15.75%	8.41%	0.53
43 NOS	01	127	12.04%	8.03%	0.67

Annual Probable Sunlight Hours Results Table									
Window			Existing		Proposed		Ratio Reduction		
Name	Level	Number	Total	Winter	Total	Winter	Total	Winter	
14 WCS	01	134	21.00%	4.00%	21.00%	4.00%	1.00	1.00	
14 WCS	01	135	30.00%	6.00%	30.00%	6.00%	1.00	1.00	
33 NOS	01	130	27.00%	7.00%	13.00%	0.00%	0.48	0.00	
43 NOS	01	127	23.00%	2.00%	17.00%	0.00%	0.74	0.00	

No Sky Line Results Table								
Room			Existing (sq.m)	Proposed (sq.m)	Loss Total (sq.m)	Existing % Lit	Proposed % Lit	Ratio Reduction
Name	Floor Level	Base Area (sq.m)						
14WCS/01/Bed 1	01	9.76	9.76	9.76	0.00	100.00	100.00	1.00
14WCS/01/Bed 2	01	14.34	6.29	6.29	0.00	43.86	43.86	1.00
14WCS/01/Bed 3	01	13.10	5.21	5.25	-0.04	39.77	40.08	1.01
14WCS/01/Living 1	01	16.07	14.43	14.43	0.00	89.79	89.79	1.00
14WCS/01/Living 2	01	15.85	6.43	6.43	0.00	40.57	40.57	1.00
33 NOS/01/Flat 1	01	19.57	13.99	7.38	6.61	71.49	37.71	0.53
43 NOS/01/Kitchen	01	6.82	5.95	5.95	0.00	87.24	87.24	1.00

Notes

Date	Revision
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Drawing No. 0207279-DS1 Revision

Address.
West Central St
London

Title.
Daylight & Sunlight Results

Client
City & General New Oxford St

Date	Drawn by	Scale
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	File No. 0207279	NTS

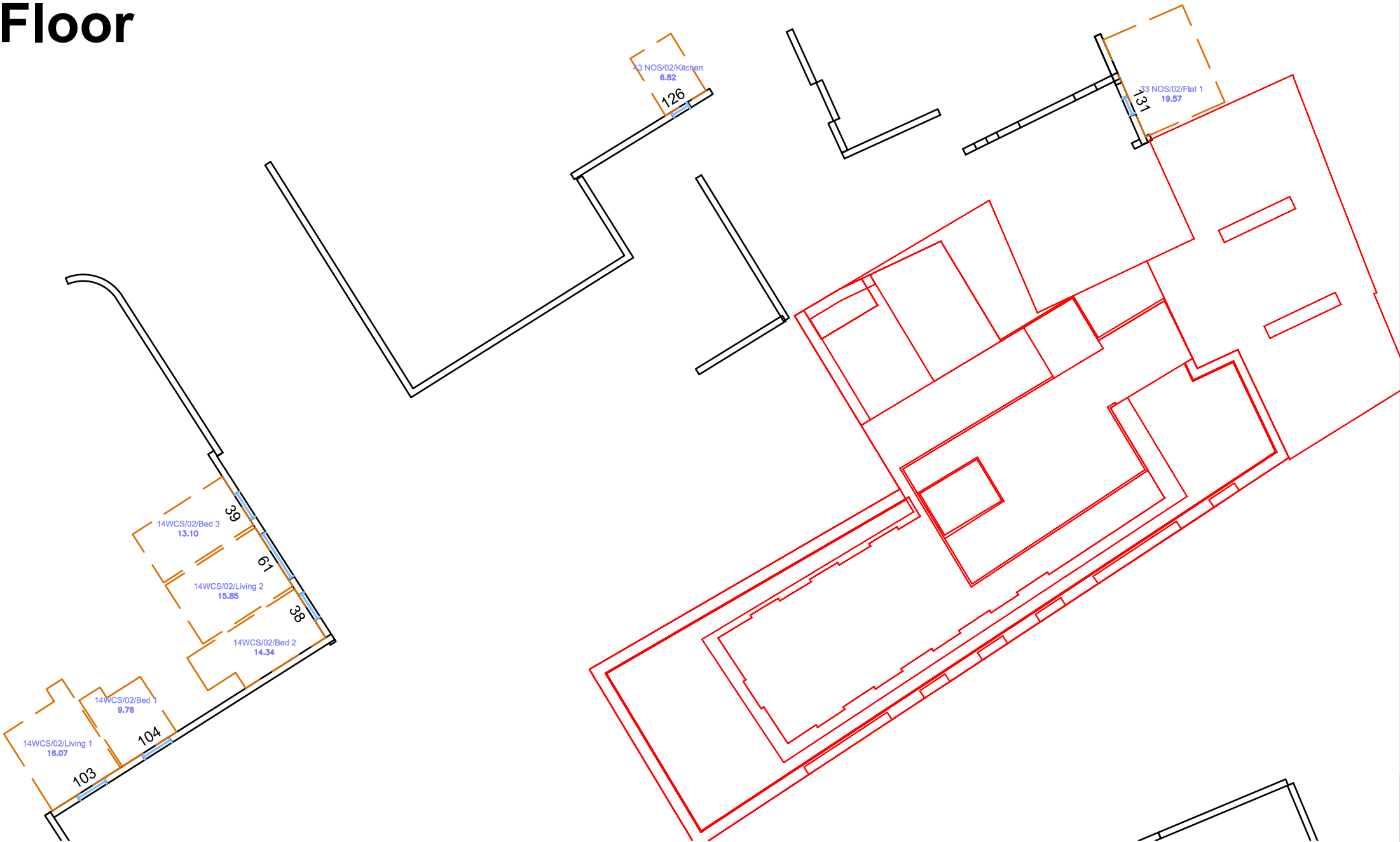
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Second Floor



Vertical Sky Component Results Table					
Window			Existing	Proposed	Ratio Reduction
Name	Level	Number			
14 WCS	02	38	23.89%	23.12%	0.97
14 WCS	02	104	23.97%	23.96%	1.00
14 WCS	02	103	18.41%	18.41%	1.00
14 WCS	02	61	23.01%	22.45%	0.98
14 WCS	02	39	22.65%	22.28%	0.98
33 NOS	02	131	18.54%	12.01%	0.65
43 NOS	02	126	19.27%	15.65%	0.81

Annual Probable Sunlight Hours Results Table									
Window			Existing		Proposed		Ratio Reduction		
Name	Level	Number	Total	Winter	Total	Winter	Total	Winter	
14 WCS	02	103	22.00%	4.00%	22.00%	4.00%	1.00	1.00	
14 WCS	02	104	34.00%	9.00%	34.00%	9.00%	1.00	1.00	
33 NOS	02	131	31.00%	9.00%	19.00%	1.00%	0.61	0.11	
43 NOS	02	126	38.00%	5.00%	33.00%	2.00%	0.87	0.40	

No Sky Line Results Table								
Room			Existing (sq.m)	Proposed (sq.m)	Loss Total (sq.m)	Existing % Lit	Proposed % Lit	Ratio Reduction
Name	Floor Level	Base Area (sq.m)						
14WCS/02/Bed 1	02	9.76	9.76	9.76	0.00	100.00	100.00	1.00
14WCS/02/Bed 2	02	14.34	14.34	14.34	0.00	100.00	100.00	1.00
14WCS/02/Bed 3	02	13.10	13.05	13.05	0.00	99.62	99.62	1.00
14WCS/02/Living 1	02	16.07	14.44	14.44	0.00	89.86	89.86	1.00
14WCS/02/Living 2	02	15.85	15.85	15.85	0.00	100.00	100.00	1.00
33 NOS/02/Flat 1	02	19.57	14.53	8.32	6.21	74.25	42.51	0.57
43 NOS/02/Kitchen	02	6.82	6.63	6.63	0.00	97.21	97.21	1.00

Notes

Date Revision

Drawing No. 0207279-DS2 Revision

Address.
West Central St
London

Title.
Daylight & Sunlight Results

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Third Floor

Notes



Vertical Sky Component Results Table					
Window			Existing	Proposed	Ratio Reduction
Name	Level	Number			
14 WCS	03	41	27.29%	27.02%	0.99
14 WCS	03	40	27.64%	27.33%	0.99
14 WCS	03	106	27.42%	27.42%	1.00
14 WCS	03	105	21.26%	21.26%	1.00
14 WCS	03	60	27.57%	27.28%	0.99
3 GS	03	87	26.83%	26.76%	1.00
3 GS	03	82	26.03%	25.94%	1.00
3 GS	03	101	14.63%	14.63%	1.00
3 GS	03	88	20.22%	20.17%	1.00
3 GS	03	81	19.83%	19.77%	1.00
33 NOS	03	132	24.85%	19.84%	0.80
35 NOS	03	12	17.66%	13.26%	0.75
35 NOS	03	140	33.87%	33.87%	1.00
37 NOS	03	16	24.38%	15.37%	0.63
37 NOS	03	139	34.99%	34.99%	1.00
37 NOS	03	19	25.59%	15.37%	0.60
43 NOS	03	125	26.87%	23.17%	0.86

Annual Probable Sunlight Hours Results Table								
Window			Existing		Proposed		Ratio Reduction	
Name	Level	Number	Total	Winter	Total	Winter	Total	Winter
14 WCS	03	105	25.00%	7.00%	25.00%	7.00%	1.00	1.00
14 WCS	03	106	39.00%	13.00%	39.00%	13.00%	1.00	1.00
3 GS	03	101	22.00%	6.00%	22.00%	6.00%	1.00	1.00
33 NOS	03	132	39.00%	9.00%	33.00%	3.00%	0.85	0.33
35 NOS	03	12	45.00%	14.00%	36.00%	5.00%	0.80	0.36
37 NOS	03	16	53.00%	18.00%	37.00%	3.00%	0.70	0.17
37 NOS	03	19	55.00%	18.00%	36.00%	1.00%	0.65	0.06
43 NOS	03	125	57.00%	16.00%	54.00%	13.00%	0.95	0.81

No Sky Line Results Table								
Room			Existing (sq.m)	Proposed (sq.m)	Loss Total (sq.m)	Existing % Lit	Proposed % Lit	Ratio Reduction
Name	Floor Level	Base Area (sq.m)						
14WCS/03/Bed 1	03	9.76	9.76	9.76	0.00	100.00	100.00	1.00
14WCS/03/Bed 3	03	13.10	13.10	13.10	0.00	100.00	100.00	1.00
14WCS/03/Bed2	03	14.34	14.34	14.34	0.00	100.00	100.00	1.00
14WCS/03/Living 1	03	16.07	14.96	14.96	0.00	93.09	93.09	1.00
14WCS/03/Living 2	03	15.85	4.17	4.17	0.00	26.31	26.31	1.00
3 GS/03/Space 1	03	7.77	2.23	2.23	0.00	28.70	28.70	1.00
3 GS/03/Space 2	03	18.58	18.20	18.20	0.00	97.95	97.95	1.00
33 NOS/03/Flat 1	03	19.57	16.82	12.96	3.86	85.95	66.22	0.77
35 NOS/03/Flat 1	03	10.81	10.71	10.66	0.06	99.07	98.61	1.00
37 NOS/03/Flat 1	03	15.34	15.34	14.22	1.12	100.00	92.70	0.93
43 NOS/03/Kitchen	03	6.82	6.63	6.63	0.00	97.21	97.21	1.00

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Date Revision

Drawing No. 0207279-DS3 Revision

Address.
West Central St
London

Title.
Daylight & Sunlight Results

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City & General New Oxford St

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Fourth Floor



Vertical Sky Component Results Table					
Window			Existing	Proposed	Ratio Reduction
Name	Level	Number			
14 WCS	04	20	29.00%	28.93%	1.00
14 WCS	04	21	27.87%	27.78%	1.00
14 WCS	04	23	26.25%	26.16%	1.00
14 WCS	04	24	19.57%	19.57%	1.00
14 WCS	04	97	30.93%	30.92%	1.00
14 WCS	04	22	26.51%	26.39%	1.00
3 GS	04	78	26.83%	26.74%	1.00
3 GS	04	100	16.72%	16.72%	1.00
3 GS	04	107	28.39%	28.34%	1.00
3 GS	04	80	20.37%	20.34%	1.00
3 GS	04	79	29.06%	29.02%	1.00
33 NOS	04	133	33.89%	30.73%	0.91
43 NOS	04	124	29.67%	27.46%	0.93

Annual Probable Sunlight Hours Results Table								
Window			Existing		Proposed		Ratio Reduction	
Name	Level	Number	Total	Winter	Total	Winter	Total	Winter
14 WCS	04	97	49.00%	16.00%	49.00%	16.00%	1.00	1.00
3 GS	04	100	27.00%	8.00%	27.00%	8.00%	1.00	1.00
33 NOS	04	133	48.00%	12.00%	44.00%	8.00%	0.92	0.67
43 NOS	04	124	68.00%	21.00%	67.00%	20.00%	0.99	0.95

No Sky Line Results Table								
Room			Existing (sq.m)	Proposed (sq.m)	Loss Total (sq.m)	Existing % Lit	Proposed % Lit	Ratio Reduction
Name	Floor Level	Base Area (sq.m)						
14WCS/04/Bed 1	04	11.65	8.14	8.14	0.00	69.87	69.87	1.00
14WCS/04/Bed 2	04	9.28	9.28	9.28	0.00	100.00	100.00	1.00
14WCS/04/Bed 3	04	7.88	7.88	7.88	0.00	100.00	100.00	1.00
14WCS/04/Living	04	17.48	17.48	17.48	0.00	100.00	100.00	1.00
3 GS/04/Space 1	04	10.12	5.98	5.98	0.00	59.09	59.09	1.00
3 GS/04/Space 2	04	14.11	12.59	12.59	0.00	89.23	89.23	1.00
3 GS/04/Space 3	04	12.99	11.74	11.74	0.00	90.38	90.38	1.00
3 GS/04/Space 4	04	15.51	13.44	13.44	0.00	86.65	86.65	1.00
3 GS/04/Space 5	04	8.91	7.16	7.16	0.00	80.36	80.36	1.00
33 NOS/04/Flat 1	04	19.57	15.55	13.87	1.68	79.46	70.87	0.89
43 NOS/04/Kitchen	04	6.82	6.63	6.63	0.00	97.21	97.21	1.00

Notes

Date Revision

Drawing No. 0207279-DS4 Revision

Address.
West Central St
London

Title.
Daylight & Sunlight Results

Client
City & General New Oxford St

Date	Drawn by	Scale
30/05/13	AJ	A3 @
	File No. 0207279	NTS

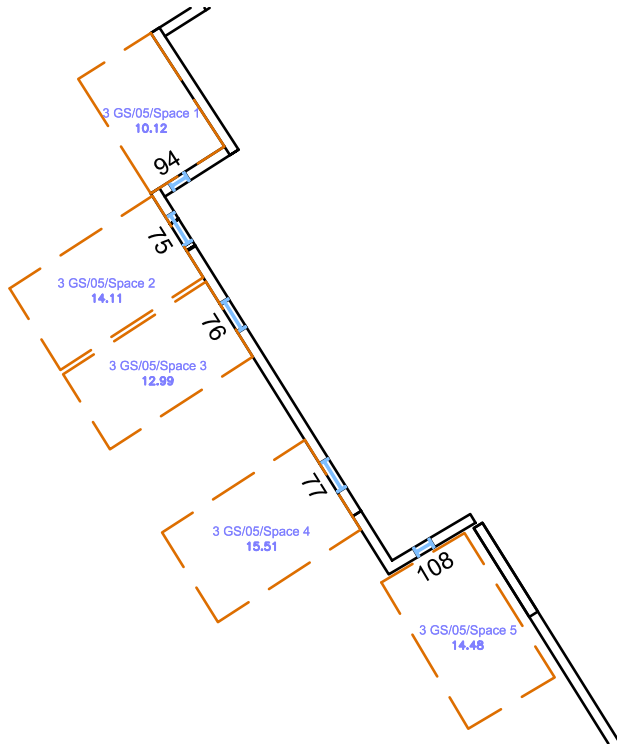
Deloitte

Real Estate

Athene Place, 66 Shoe Lane,
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For identification purposes only. All dimensions to be checked on site and used in preference to those given or scaled from the drawing, and must be brought to the attention of the Surveyor.

Fifth Floor



Vertical Sky Component Results Table					
Window			Existing	Proposed	Ratio Reduction
Name	Level	Number			
3 GS	05	94	21.49%	21.49%	1.00
3 GS	05	77	29.89%	29.87%	1.00
3 GS	05	76	31.36%	31.36%	1.00
3 GS	05	75	24.48%	24.48%	1.00
3 GS	05	108	32.38%	32.37%	1.00

Annual Probable Sunlight Hours Results Table								
Window			Existing		Proposed		Ratio Reduction	
Name	Level	Number	Total	Winter	Total	Winter	Total	Winter
3 GS	05	94	41.00%	10.00%	41.00%	10.00%	1.00	1.00

No Sky Line Results Table								
Room			Existing (sq.m)	Proposed (sq.m)	Loss Total (sq.m)	Existing % Lit	Proposed % Lit	Ratio Reduction
Name	Floor Level	Base Area (sq.m)						
3 GS/05/Space 1	05	10.12	8.27	8.27	0.00	81.72	81.72	1.00
3 GS/05/Space 2	05	14.11	13.23	13.23	0.00	93.76	93.76	1.00
3 GS/05/Space 3	05	12.99	12.03	12.03	0.00	92.61	92.61	1.00
3 GS/05/Space 4	05	15.51	13.90	13.90	0.00	89.62	89.62	1.00
3 GS/05/Space 5	05	14.48	14.26	14.26	0.00	98.48	98.48	1.00

Notes

Date Revision

Drawing No. 0207279-DS5 Revision

Address.
West Central St
London

Title.
Daylight & Sunlight Results

Client
City & General New Oxford St

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