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Daylight and Sunlight Study 51 to 52 Tottenham Court Road, London W1T 2EH

5 April 2016



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CONTENTS

1 EXE	CUTIVE SUMMARY	2
1.1	Overview	2
2 INFO	ORMATION SOURCES	
2.1		
Z. I	Documents Considered	3
3 MET	THODOLOGY OF THE STUDY	4
3.1	BRE Guide: Site Layout Planning for Daylight and Sunlight	2
3.2	Daylight to Windows	
3.3	Sunlight availability to Windows	
3.4	Overshadowing to Gardens and Open Spaces	
	·	
4 RES	SULTS OF THE STUDY	7
4.1	Windows & Amenity Areas Considered	7
4.2	Numerical Results	7
4.3	Daylight to Windows	7
4.4	Sunlight to Windows	7
4.5	Overshadowing to Gardens and Open Spaces	7
4.6	Conclusion	7
5 CLA	RIFICATIONS	8
5.1	General	
5.2	Project Specific	8

APPENDICES

APPENDIX 1 WINDOW KEY

APPENDIX 2 DAYLIGHT AND SUNLIGHT RESULTS

1 EXECUTIVE SUMMARY

1.1 Overview

- 1.1.1 Right of Light Consulting has been commissioned to undertake a daylight and sunlight study of the proposed development at 51 to 52 Tottenham Court Road, London W1T 2EH.
- 1.1.2 The aim of the study is to assess the impact of the development on the light receivable by the neighbouring properties at 46, 49, 53, 54, & 220 to 226 Tottenham Court Road, 27 Windmill Street, 6 to 10 Whitfield Street, 68 Kirkman Place. The study is based on the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice' by P J Littlefair 2011.
- 1.1.1 The window key in Appendix 1 identifies the windows analysed in this study. Appendix 2 gives the numerical results of the various daylight and sunlight tests. The results confirm that all neighbouring windows pass the BRE diffuse daylight and direct sunlight tests. The development also satisfies the BRE overshadowing to gardens and open spaces requirements.
- 1.1.2 In summary, the proposed development will have a low impact on the light receivable by its neighbouring properties. Right of Light Consulting confirms that the development design satisfies all of the requirements set out in the BRE guide 'Site Layout Planning for Daylight and Sunlight'.

2 INFORMATION SOURCES

2.1 Documents Considered

2.1.1 This report is based on drawings:

Squire and Partners		
G100_P_00_001	Site Location	Rev –
JA12_P_B1_001	Basement Plan Existing	Rev –
JA12_P_00_001	Ground Floor Plan Existing	Rev –
JA12_P_01_001	First Floor Plan Existing	Rev –
JA12_P_02_001	Second Floor Plan Existing	Rev –
JA12_P_03_001	Third Floor Plan Existing	Rev –
JA12_P_RF_001	Roof Plan Existing	Rev –
JA12_E_NE_001	Front Elevation Existing	Rev –
JA12_E_NW_001	North West Elevation Existing	Rev –
JA12_E_SE_001	South East Elevation Existing	Rev –
JA12_E_SW_001	Rear Elevation Existing	Rev –
JA12_S_AA_001	Section AA Existing	Rev –
C645_P_B1_001	Basement Plan Proposed	Rev B
C645_P_00_001	Ground Floor Plan Proposed	Rev C
C645_P_01_001	First Floor Plan Proposed	Rev D
C645_P_02_001	Second Floor Plan Proposed	Rev D
C645_P_03_001	Third Floor Plan Proposed	Rev D
C645_P_04_001	Fourth Floor Plan Proposed	Rev D
C645_P_RF_001	Roof Plan Proposed	Rev D
C645_E_NE_001	Front Elevation Proposed	Rev D
C645_E_SW_001	Rear Elevation Proposed	Rev –
C645_E_NW_001	North West Elevation Proposed	Rev –
C645_E_SE_001	South East Elevation Proposed	Rev –
C645_S_AA_001	Section AA Proposed	Rev B

3 METHODOLOGY OF THE STUDY

3.1 BRE Guide: Site Layout Planning for Daylight and Sunlight

- 3.1.1 The study is based on the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice' by P J Littlefair 2011. In general, the BRE tests are based on the requirements of the British Standard, BS 8206 Part 2.
- 3.1.2 The standards set out in the BRE guide are intended to be used flexibly. The following statement is quoted directly from the BRE guide:
- 3.1.3 "The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide 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 since natural lighting is only one of many factors in site layout design."

3.2 Daylight to Windows

3.2.1 Diffuse daylight is the light received from the sun which has been diffused through the sky. Even on a cloudy day when the sun is not visible, a room will continue to be lit with light from the sky. This is diffuse daylight.

Diffuse daylight calculations should be undertaken to all rooms where daylight is required, including living rooms, kitchens and bedrooms. Usually, if a kitchen is less than 13m² it is considered to be a non-habitable room and the daylight tests need not be applied. The BRE guide states that windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed.

3.2.2 The BRE guide contains two tests which measure diffuse daylight:

3.2.3 Test 1 Vertical Sky Component

The percentage of the sky visible from the centre of a window is known as the Vertical Sky Component. Diffuse daylight may be adversely affected if after a development the Vertical Sky Component is both less than 27% and less than 0.8 times its former value.

3.2.4 Test 2 Daylight Distribution

The BRE guide states that where room layouts are known, the impact on the daylighting distribution can be found by plotting the 'no sky line' in each of the main rooms. The no-sky line is a line which separates areas of the working plane that can and cannot have a direct view of the sky. Daylight may be adversely affected if after the development 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.

3.3 Sunlight availability to Windows

- 3.3.1 The BRE sunlight tests should be applied to all main living rooms and conservatories which have a window which faces within 90 degrees of due south. The guide states that kitchens and bedrooms are less important, although care should be taken not to block too much sunlight.
- 3.3.2 The BRE guide states that sunlight availability may be adversely affected if the centre of the window:
 - receives less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 March and
 - receives less than 0.8 times its former sunlight hours during either period and
 - has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.

3.4 Overshadowing to Gardens and Open Spaces

- 3.4.1 The availability of sunlight should be checked for all open spaces where sunlight is required. This would normally include:
 - Gardens, usually the main back garden of a house
 - Parks and playing fields
 - Children's playgrounds
 - Outdoor swimming pools and paddling pools
 - Sitting out areas, such as those between non-domestic buildings and in public squares
 - Focal points for views such as a group of monuments or fountains.

3.4.2 The BRE guide recommends that at least 50% of the area of each amenity space listed above should receive at least two hours of sunlight on 21st March. If as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21st March is less than 0.8 times its former value, then the loss of light is likely to be noticeable.

4 RESULTS OF THE STUDY

4.1 Windows & Amenity Areas Considered

4.1.1 Appendix 1 provides a plan and photographs to indicate the positions of the windows analysed in this study.

4.2 Numerical Results

4.2.1 Appendix 2 lists the detailed numerical daylight and sunlight test results. The results are interpreted below.

4.3 Daylight to Windows

4.3.1 All main habitable room windows pass the Vertical Sky Component test. The proposed development therefore satisfies the BRE daylight requirements.

4.4 Sunlight to Windows

4.4.1 All main habitable room windows which face within 90 degrees of due south have been tested for direct sunlight. All windows pass both the total annual sunlight hours test and the winter sunlight hours test. The proposed development therefore satisfies the BRE direct sunlight to windows requirements.

4.5 Overshadowing to Gardens and Open Spaces

4.5.1 There are no nearby gardens or amenity areas directly to the north of the development. The proposed development will therefore not create any new areas which receive less than two hours of sunlight on 21st March. The proposed development satisfies the BRE overshadowing to gardens and open spaces requirements.

4.6 Conclusion

4.6.1 In summary, the proposed development will have a low impact on the light receivable by its neighbouring properties. Right of Light Consulting confirms that the development design satisfies all of the requirements set out in the BRE guide 'Site Layout Planning for Daylight and Sunlight'.

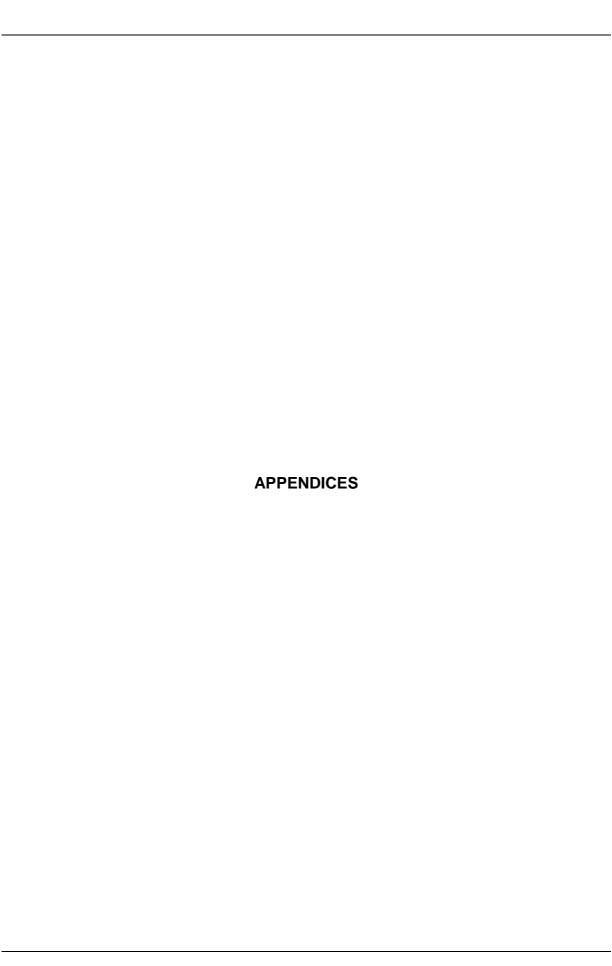
5 CLARIFICATIONS

5.1 General

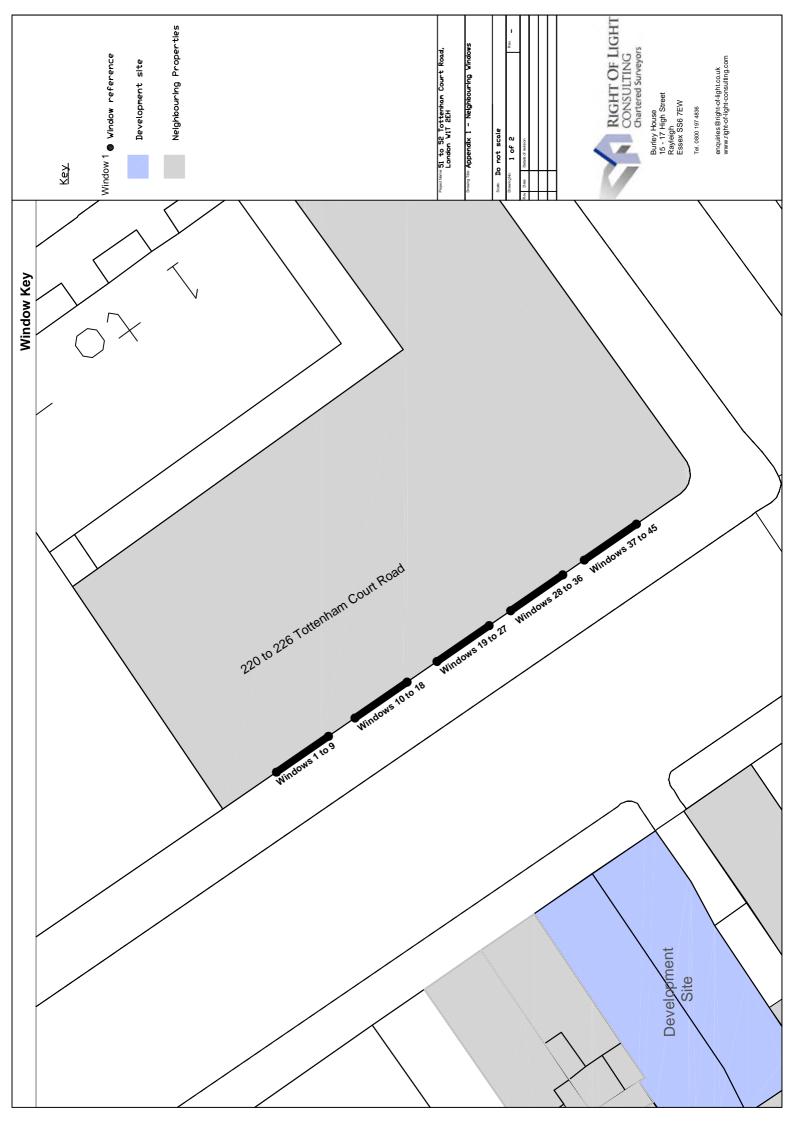
- 5.1.1 The report provided is solely for the use of the client and no liability to anyone else is accepted.
- 5.1.2 We have undertaken the survey following the guidelines of the RICS publication "Surveying Safely".
- 5.1.3 We have used our best endeavours to ensure all relevant windows within the neighbouring properties have been identified.
- 5.1.4 Where limited access is available, reasonable assumptions will have been made.
- 5.1.5 We have adopted the conventional approach of assessing all habitable rooms within domestic properties.
- 5.1.6 Right of Light Consulting have endeavoured to include in the report those matters, which they have knowledge of or of which they have been made aware, that might adversely affect the validity of the opinion given.

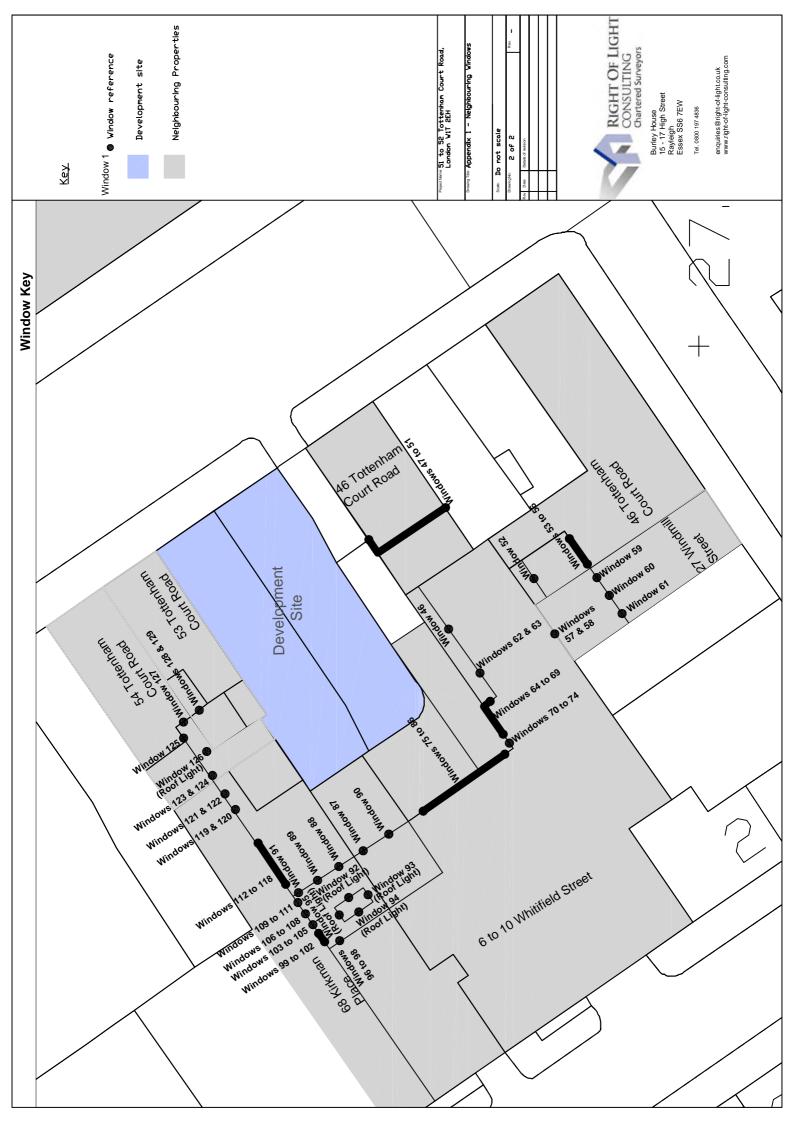
5.2 Project Specific

5.2.1 None



APPENDIX 1
WINDOW KEY
WINDOW RET





Neighbouring Windows



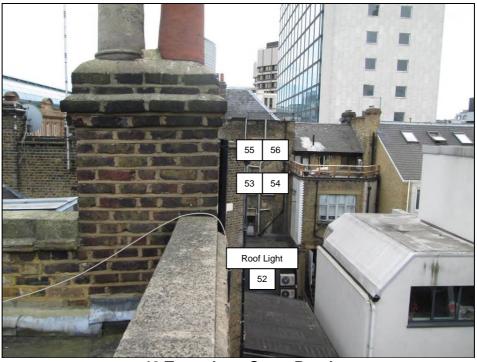
220 to 226 Tottenham Court Road



220 to 226 Tottenham Court Road



49 Tottenham Court Road



46 Tottenham Court Road



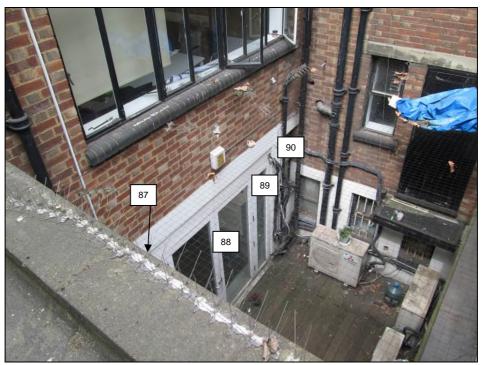
27 Windmill Street



6 to 10 Whitfield Street



6 to 10 Whitfield Street



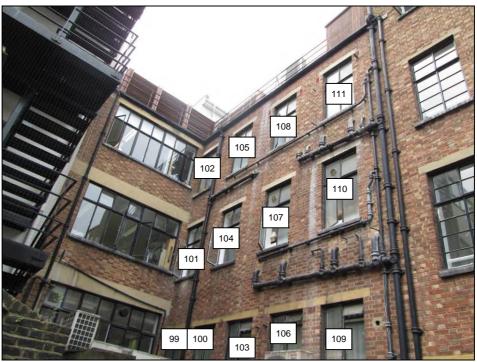
68 Kirkman Place



68 Kirkman Place



68 Kirkman Place



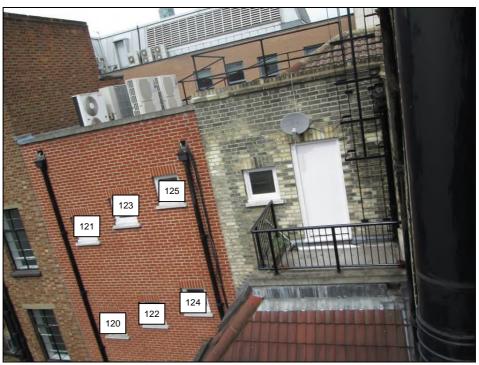
68 Kirkman Place



68 Kirkman Place



68 Kirkman Place



68 Kirkman Place



54 Tottenham Court Road



53 Tottenham Court Road

APPEN	IDIX 2
DAYLIGHT AND SU	NLIGHT RESULTS

Appendix 2 - Vertical Sky Component 51 to 52 Tottenham Court Road, London W1T 2EH

Reference	Use Class	Vertical Sky Component					
		Before	After	Loss	Ratio		
220 to 226 Tottenham Court	220 to 226 Tottenham Court Road						
Window 1	Habitable	28.6%	28.0%	0.6%	0.98		
Window 2	Habitable	28.5%	27.8%	0.7%	0.98		
Window 3	Habitable	28.5%	27.7%	0.8%	0.97		
Window 4	Habitable	33.1%	32.5%	0.6%	0.98		
Window 5	Habitable	33.1%	32.4%	0.7%	0.98		
Window 6	Habitable	33.1%	32.3%	0.8%	0.98		
Window 7	Habitable	35.5%	34.9%	0.6%	0.98		
Window 8	Habitable	35.5%	34.9%	0.6%	0.98		
Window 9	Habitable	35.6%	34.8%	0.8%	0.98		
Window 10	Habitable	28.5%	27.6%	0.9%	0.97		
Window 11	Habitable	28.5%	27.5%	1.0%	0.96		
Window 12	Habitable	28.6%	27.5%	1.1%	0.96		
Window 13	Habitable	33.0%	32.1%	0.9%	0.97		
Window 14	Habitable	e 33.0% 32.		0.9%	0.97		
Window 15	Habitable	33.1%	32.0%	1.1%	0.97		
Window 16	Habitable	35.6%	34.7%	0.9%	0.97		
Window 17	Habitable	35.6%	34.7%	0.9%	0.97		
Window 18	Habitable	35.6%	34.6%	1.0%	0.97		
Window 19	Habitable	28.7%	27.5%	1.2%	0.96		
Window 20	Habitable	28.8%	27.5%	1.3%	0.95		
Window 21	Habitable	28.9%	27.6%	1.3%	0.96		
Window 22	Habitable	33.1%	31.8%	1.3%	0.96		
Window 23	Habitable	33.1%	31.8%	1.3%	0.96		
Window 24	Habitable	33.0%	31.8%	1.2%	0.96		
Window 25	Habitable	35.6%	34.5%	1.1%	0.97		
Window 26	Habitable	35.6%	34.5%	1.1%	0.97		
Window 27	Habitable	35.5%	34.5%	1.0%	0.97		
Window 28	Habitable	29.0%	27.7%	1.3%	0.96		
Window 29	Habitable	29.0%	27.9%	1.1%	0.96		
Window 30	Habitable	29.0%	28.0%	1.0%	0.97		
Window 31	Habitable	33.0%	31.7%	1.3%	0.96		
Window 32	Habitable	32.9%	31.7%	1.2%	0.96		
Window 33	Habitable	32.8%	31.7%	1.1%	0.97		

Appendix 2 - Vertical Sky Component 51 to 52 Tottenham Court Road, London W1T 2EH

Reference	Use Class	Vertical Sky Component						
		Before	After	Loss	Ratio			
Window 34	Habitable	35.4%	34.4%	1.0%	0.97			
Window 35	Habitable	35.3%	34.4%	0.9%	0.97			
Window 36	Habitable	35.2%	34.4%	0.8%	0.98			
Window 37	Habitable	28.9%	28.0%	0.9%	0.97			
Window 38	Habitable	28.8%	28.0%	0.8%	0.97			
Window 39	Habitable	28.7%	28.0%	0.7%	0.98			
Window 40	Habitable	32.5%	31.6%	0.9%	0.97			
Window 41	Habitable	32.3%	31.5%	0.8%	0.98			
Window 42	Habitable	32.0%	31.3%	0.7%	0.98			
Window 43	Habitable	35.0%	34.3%	0.7%	0.98			
Window 44	Habitable	34.8%	34.2%	0.6%	0.98			
Window 45	Habitable	34.6%	34.1%	0.5%	0.99			
49 Tottenham Court Road								
Window 46	Habitable	28.1%	23.1%	5.0%	0.82			
Window 47	Habitable	27.1%	24.7%	2.4%	0.91			
Window 48	Habitable	22.6%	20.7%	1.9%	0.92			
Window 49 (Secondary)	Habitable	28.9%	10.5%	18.4%	0.36			
Window 50	Habitable	34.5%	33.2%	1.3%	0.96			
Window 51	Habitable	34.5%	34.2%	0.3%	0.99			
46 Tottenham Court Road								
Window 52	Habitable	14.9%	14.9%	0.0%	1.0			
Window 53	Habitable	26.2%	24.4%	1.8%	0.93			
Window 54	Habitable	25.3%	23.6%	1.7%	0.93			
Window 55	Habitable	32.0%	30.8%	1.2%	0.96			
Window 56	Habitable	32.0%	30.9%	1.1%	0.97			
27 Windmill Street								
Window 57	Habitable	0.1%	0.1%	0.0%	1.0			
Window 58	Habitable	0.1%	0.1%	0.0%	1.0			
Window 59	Habitable	30.8%	29.8%	1.0%	0.97			
Window 60	Habitable	29.6%	28.6%	1.0%	0.97			
Window 61	Habitable	25.1%	24.2%	0.9%	0.96			

Appendix 2 - Vertical Sky Component 51 to 52 Tottenham Court Road, London W1T 2EH

Reference	Use Class	Vertical Sky Component					
		Before	After	Loss	Ratio		
6 to 10 Whitfield Street							
Window 62	Non Domestic	10.7%	2.2%	8.5%	0.21		
Window 63	Non Domestic	17.7%	4.6%	13.1%	0.26		
Window 64	Non Domestic	7.9%	3.8%	4.1%	0.48		
Window 65	Non Domestic	8.2%	2.6%	5.6%	0.32		
Window 66	Non Domestic	14.8%	8.7%	6.1%	0.59		
Window 67	Non Domestic	16.6%	4.8%	11.8%	0.29		
Window 68	Non Domestic	26.4%	19.7%	6.7%	0.75		
Window 69	Non Domestic	22.8%	10.5%	12.3%	0.46		
Window 70	Non Domestic	7.7%	3.7%	4.0%	0.48		
Window 71	Non Domestic	12.4%	6.2%	6.2%	0.5		
Window 72	Non Domestic	16.3%	11.5%	4.8%	0.71		
Window 73	Non Domestic	35.3%	31.8%	3.5%	0.9		
Window 74	Non Domestic	22.6%	20.7%	1.9%	0.92		
Window 75	Non Domestic	9.5%	4.3%	5.2%	0.45		
Window 76	Non Domestic	9.6%	4.3%	5.3%	0.45		
Window 77	Non Domestic	9.5%	2.1%	7.4%	0.22		
Window 78	Non Domestic	15.2%	7.2%	8.0%	0.47		
Window 79	Non Domestic	19.2%	7.7%	11.5%	0.4		
Window 80	Non Domestic	18.6%	4.7%	13.9%	0.25		
Window 81	Non Domestic	20.6%	13.9%	6.7%	0.67		
Window 82	Non Domestic	27.8%	16.2%	11.6%	0.58		
Window 83	Non Domestic	25.9%	11.8%	14.1%	0.46		
Window 84	Non Domestic	27.5%	24.3%	3.2%	0.88		
Window 85	Non Domestic	34.2%	29.1%	5.1%	0.85		
Window 86	Non Domestic	33.2%	27.0%	6.2%	0.81		
68 Kirkman Place							
Window 87	Non Domestic	5.5%	3.1%	2.4%	0.56		
Window 88	Non Domestic	8.0%	3.2%	4.8%	0.4		
Window 89	Non Domestic	8.2%	3.2%	5.0%	0.39		
Window 90	Non Domestic	8.4%	3.5%	4.9%	0.42		
Window 91	Non Domestic	13.4%	5.7%	7.7%	0.43		

Appendix 2 - Vertical Sky Component 51 to 52 Tottenham Court Road, London W1T 2EH

Reference	Use Class	,	Vertical Sky	Component	
		Before	After	Loss	Ratio
Window 92	Non Domestic	33.9%	30.9%	3.0%	0.91
Window 93	Non Domestic	27.9%	25.6%	2.3%	0.92
Window 94	Non Domestic	23.5%	23.5%	0.0%	1.0
Window 95	Non Domestic	18.3%	18.1%	0.2%	0.99
Window 96	Non Domestic	17.9%	15.2%	2.7%	0.85
Window 97	Non Domestic	24.0%	22.9%	1.1%	0.95
Window 98	Non Domestic	32.9%	32.4%	0.5%	0.98
Window 99	Non Domestic	14.2%	12.2%	2.0%	0.86
Window 100	Non Domestic	18.6%	15.7%	2.9%	0.84
Window 101	Non Domestic	18.7%	17.9%	0.8%	0.96
Window 102	Non Domestic	23.8%	23.5%	0.3%	0.99
Window 103	Non Domestic	22.5%	18.2%	4.3%	0.81
Window 104	Non Domestic	27.4%	25.9%	1.5%	0.95
Window 105	Non Domestic	34.4%	34.1%	0.3%	0.99
Window 106	Non Domestic	24.8%	18.8%	6.0%	0.76
Window 107	Non Domestic	31.2%	28.6%	2.6%	0.92
Window 108	Non Domestic	36.4%	35.9%	0.5%	0.99
Window 109	Non Domestic	26.0%	17.4%	8.6%	0.67
Window 110	Non Domestic	32.4%	27.8%	4.6%	0.86
Window 111	Non Domestic	36.8%	36.2%	0.6%	0.98
Window 112	Non Domestic	10.5%	1.8%	8.7%	0.17
Window 113	Non Domestic	13.3%	2.5%	10.8%	0.19
Window 114	Non Domestic	14.2%	2.9%	11.3%	0.2
Window 115	Non Domestic	17.9%	4.8%	13.1%	0.27
Window 116	Non Domestic	23.3%	9.1%	14.2%	0.39
Window 117	Non Domestic	29.2%	17.5%	11.7%	0.6
Window 118	Non Domestic	34.8%	30.2%	4.6%	0.87
Window 119	Non Domestic	37.8%	37.3%	0.5%	0.99
Window 120	Non Domestic	28.1%	14.2%	13.9%	0.51
Window 121	Non Domestic	27.8%	14.5%	13.3%	0.52
Window 122	Non Domestic	26.9%	14.8%	12.1%	0.55
Window 123	Non Domestic	34.0%	27.6%	6.4%	0.81
Window 124	Non Domestic	34.1%	28.3%	5.8%	0.83

Appendix 2 - Vertical Sky Component 51 to 52 Tottenham Court Road, London W1T 2EH

Reference	Use Class	Vertical Sky Component						
		Before	After	Loss	Ratio			
Window 125	Non Domestic	34.0%	29.0%	5.0%	0.85			
54 Tottenham Court Road								
Window 126	Habitable	31.0%	26.5%	4.5%	0.85			
Window 127	Habitable	45.0%	39.2%	5.8%	0.87			
53 Tottenham Court Road								
Window 128	Habitable	25.8%	23.8%	2.0%	0.92			
Window 129	Non Habitable	25.5%	11.3%	14.2%	0.44			
Window 130	Non Habitable	32.5%	21.2%	11.3%	0.65			

Appendix 2 - Sunlight to Windows 51 to 52 Tottenham Court Road, London W1T 2EH

		Sunlight to Windows							
Reference	Use Class	Т	otal Sun	light Ho	urs	W	inter Su	nlight Ho	ours
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
220 to 226 Tottenham Co	urt Road								
Window 1	Habitable	51%	50%	1%	0.98	14%	13%	1%	0.93
Window 2	Habitable	52%	51%	1%	0.98	14%	13%	1%	0.93
Window 3	Habitable	51%	49%	2%	0.96	15%	13%	2%	0.87
Window 4	Habitable	60%	60%	0%	1.0	19%	19%	0%	1.0
Window 5	Habitable	60%	59%	1%	0.98	19%	18%	1%	0.95
Window 6	Habitable	59%	58%	1%	0.98	18%	17%	1%	0.94
Window 7	Habitable	63%	62%	1%	0.98	21%	20%	1%	0.95
Window 8	Habitable	63%	62%	1%	0.98	21%	20%	1%	0.95
Window 9	Habitable	63%	62%	1%	0.98	21%	20%	1%	0.95
Window 10	Habitable	50%	48%	2%	0.96	14%	12%	2%	0.86
Window 11	Habitable	50%	48%	2%	0.96	14%	12%	2%	0.86
Window 12	Habitable	54%	51%	3%	0.94	18%	15%	3%	0.83
Window 13	Habitable	59%	58%	1%	0.98	18%	17%	1%	0.94
Window 14	Habitable	60%	58%	2%	0.97	19%	17%	2%	0.89
Window 15	Habitable	61%	60%	1%	0.98	20%	19%	1%	0.95
Window 16	Habitable	63%	62%	1%	0.98	21%	20%	1%	0.95
Window 17	Habitable	63%	63%	0%	1.0	21%	21%	0%	1.0
Window 18	Habitable	63%	63%	0%	1.0	21%	21%	0%	1.0
Window 19	Habitable	54%	51%	3%	0.94	17%	15%	2%	0.88
Window 20	Habitable	53%	51%	2%	0.96	16%	14%	2%	0.88
Window 21	Habitable	52%	51%	1%	0.98	15%	14%	1%	0.93
Window 22	Habitable	59%	58%	1%	0.98	19%	18%	1%	0.95
Window 23	Habitable	58%	57%	1%	0.98	18%	17%	1%	0.94
Window 24	Habitable	57%	57%	0%	1.0	17%	17%	0%	1.0
Window 25	Habitable	63%	62%	1%	0.98	21%	20%	1%	0.95
Window 26	Habitable	63%	62%	1%	0.98	21%	20%	1%	0.95
Window 27	Habitable	63%	62%	1%	0.98	21%	20%	1%	0.95
Window 28	Habitable	52%	52%	0%	1.0	15%	15%	0%	1.0
Window 29	Habitable	54%	53%	1%	0.98	15%	15%	0%	1.0
Window 30	Habitable	53%	52%	1%	0.98	15%	15%	0%	1.0
Window 31	Habitable	58%	57%	1%	0.98	18%	17%	1%	0.94
Window 32	Habitable	57%	56%	1%	0.98	18%	17%	1%	0.94
Window 33	Habitable	57%	56%	1%	0.98	18%	17%	1%	0.94

Appendix 2 - Sunlight to Windows 51 to 52 Tottenham Court Road, London W1T 2EH

		Sunlight to Windows							
Reference	Use Class	se Class Total Sunlight Hours Winter Sunlight Hours			urs				
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 34	Habitable	63%	62%	1%	0.98	21%	20%	1%	0.95
Window 35	Habitable	62%	62%	0%	1.0	20%	20%	0%	1.0
Window 36	Habitable	63%	62%	1%	0.98	21%	20%	1%	0.95
Window 37	Habitable	53%	51%	2%	0.96	15%	15%	0%	1.0
Window 38	Habitable	53%	51%	2%	0.96	15%	15%	0%	1.0
Window 39	Habitable	52%	50%	2%	0.96	14%	14%	0%	1.0
Window 40	Habitable	55%	54%	1%	0.98	17%	16%	1%	0.94
Window 41	Habitable	55%	54%	1%	0.98	17%	16%	1%	0.94
Window 42	Habitable	55%	55%	0%	1.0	18%	18%	0%	1.0
Window 43	Habitable	62%	60%	2%	0.97	20%	19%	1%	0.95
Window 44	Habitable	60%	58%	2%	0.97	19%	18%	1%	0.95
Window 45	Habitable	60%	58%	2%	0.97	19%	18%	1%	0.95
49 Tottenham Court Road									
Window 46	Habitable	46%	42%	4%	0.91	9%	9%	0%	1.0
Window 47	Habitable	40%	38%	2%	0.95	7%	7%	0%	1.0
Window 48	Habitable	28%	26%	2%	0.93	5%	5%	0%	1.0
Window 50	Habitable	56%	53%	3%	0.95	15%	15%	0%	1.0
Window 51	Habitable	58%	57%	1%	0.98	16%	16%	0%	1.0
68 Kirkman Place									
Window 93	Non Domestic	13%	6%	7%	0.46	0%	0%	0%	1.0
Window 94	Non Domestic	8%	8%	0%	1.0	0%	0%	0%	1.0
Window 99	Non Domestic	27%	20%	7%	0.74	2%	0%	2%	0.01
Window 100	Non Domestic	33%	24%	9%	0.73	2%	0%	2%	0.01
Window 101	Non Domestic	31%	30%	1%	0.97	3%	3%	0%	1.0
Window 102	Non Domestic	40%	40%	0%	1.0	6%	6%	0%	1.0
Window 103	Non Domestic	41%	32%	9%	0.78	4%	3%	1%	0.75
Window 104	Non Domestic	53%	50%	3%	0.94	13%	12%	1%	0.92
Window 105	Non Domestic	69%	69%	0%	1.0	19%	19%	0%	1.0
Window 106	Non Domestic	47%	34%	13%	0.72	7%	6%	1%	0.86
Window 107	Non Domestic	66%	58%	8%	0.88	18%	15%	3%	0.83
Window 108	Non Domestic	75%	75%	0%	1.0	25%	25%	0%	1.0
Window 109	Non Domestic	52%	31%	21%	0.6	10%	6%	4%	0.6

Appendix 2 - Sunlight to Windows 51 to 52 Tottenham Court Road, London W1T 2EH

		Sunlight to Windows							
Reference	Use Class	Т	otal Sun	light Hou	ırs	Winter Sunlight Hours			
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 110	Non Domestic	69%	60%	9%	0.87	21%	18%	3%	0.86
Window 111	Non Domestic	75%	75%	0%	1.0	25%	25%	0%	1.0
Window 112	Non Domestic	16%	0%	16%	0.01	0%	0%	0%	1.0
Window 113	Non Domestic	22%	1%	21%	0.05	0%	0%	0%	1.0
Window 114	Non Domestic	26%	3%	23%	0.12	0%	0%	0%	1.0
Window 115	Non Domestic	32%	6%	26%	0.19	4%	0%	4%	0.0
Window 116	Non Domestic	46%	18%	28%	0.39	8%	1%	7%	0.13
Window 117	Non Domestic	61%	36%	25%	0.59	17%	9%	8%	0.53
Window 118	Non Domestic	73%	65%	8%	0.89	25%	21%	4%	0.84
Window 119	Non Domestic	77%	77%	0%	1.0	27%	27%	0%	1.0
Window 120	Non Domestic	57%	30%	27%	0.53	17%	6%	11%	0.35
Window 121	Non Domestic	57%	33%	24%	0.58	18%	5%	13%	0.28
Window 122	Non Domestic	58%	33%	25%	0.57	20%	5%	15%	0.25
Window 123	Non Domestic	72%	62%	10%	0.86	25%	19%	6%	0.76
Window 124	Non Domestic	70%	63%	7%	0.9	24%	20%	4%	0.83
Window 125	Non Domestic	70%	64%	6%	0.91	24%	21%	3%	0.88
54 Tottenham Court Road	!								
Window 126	Habitable	63%	61%	2%	0.97	22%	22%	0%	1.0
Window 127	Habitable	60%	41%	19%	0.68	22%	7%	15%	0.32
53 Tottenham Court Road	Į.								
Window 128	Habitable	48%	48%	0%	1.0	18%	18%	0%	1.0
Window 129	Non Habitable	47%	11%	36%	0.23	16%	0%	16%	0.0
Window 130	Non Habitable	55%	28%	27%	0.51	18%	2%	16%	0.11