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Daylight and Sunlight Study 10 Pratt Mews, London NW1 0AD

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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 10 Pratt Mews, London NW1 0AD.
- 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 84 to 88 Camden High Street and 3 to 5, 8, 9 & 11 Pratt Mews. 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.
- 1.1.3 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.
- 1.1.4 The results confirm that the development will have a low impact on the light receivable by its neighbouring properties. In our opinion there is no daylight/sunlight related reason why planning permission should not be granted for this scheme.

2 INFORMATION SOURCES

2.1 Documents Considered

2.1.1 This report is based on drawings:

Adelaide Jones

7459 001	Existing Floor Plans and Section	Rev –
7459 002	Existing Front and Rear Elevations	Rev –
7459 011	Proposed Floor Plans	Rev B
7459 012	Proposed Roof Plan & Section 1-1	Rev B
7459 013	Proposed Front and Rear Elevations	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 and gardens 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 windows pass the Vertical Sky Component test with the exception of windows 4 and 5 at 84 Camden High Street and window 10 at 86 Camden High Street. However, there are mitigating factors to mention. Firstly, the BRE guide acknowledges that if an existing building stands close to the common boundary, as is the case with 84 and 86 Camden High Street, a higher degree of obstruction may be unavoidable. Secondly, windows 4 and 5 fall marginally short with a before/after ratio of 0.78 and above (against the BRE target of 0.8). Finally, the BRE guide is intended to be used flexibly, particularly in urban locations. Therefore, in this instance we are of the opinion that the development design is likely to be acceptable.

4.4 Sunlight to Windows

4.4.1 All main habitable 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 The results of the study show that the proposed development will have a relatively low impact on the light receivable by its neighbouring properties.

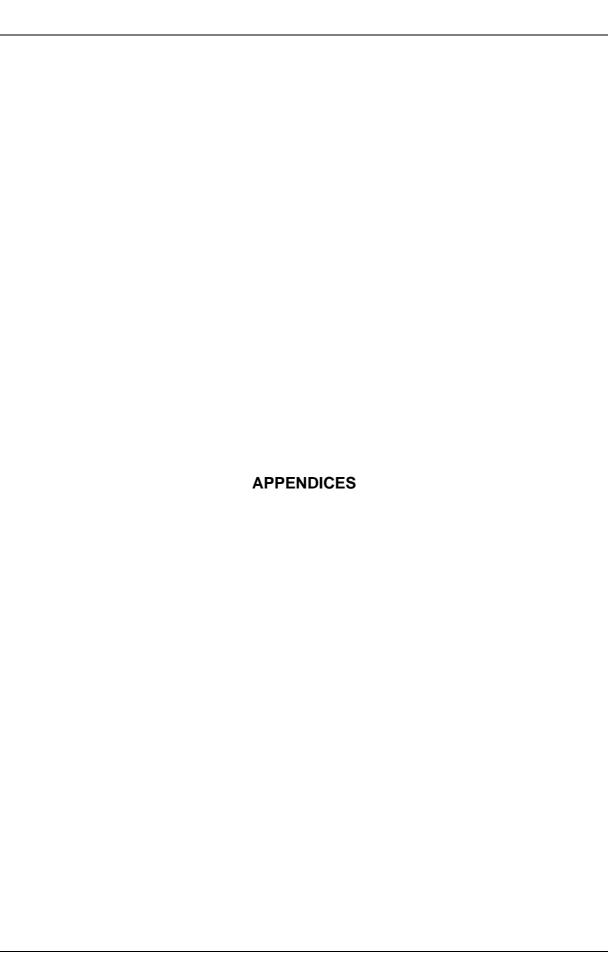
5 CLARIFICATIONS

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

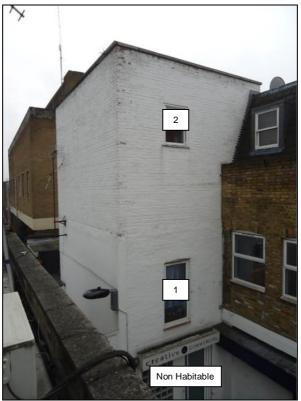


APPENDIX 1
WINDOW KEY
Will Sett NET





Neighbouring Windows



8 Pratt Mews



84 Camden High Street



86 Camden High Street



86 Camden High Street



88 Camden High Street



88 Camden High Street



11 Pratt Mews



11 Pratt Mews



3 Pratt Mews



4 Pratt Mews



5 Pratt Mews

APPENDIX 2	
DAYLIGHT AND SUNLIGHT R	ESULTS

Appendix 2 - Vertical Sky Component 10 Pratt Mews, London NW1 0AD

Reference	Use Class	Vertical Sky Component					
		Before	After	Loss	Ratio		
8 Pratt Mews							
Window 1	Habitable	24.9%	24.5%	0.4%	0.98		
Window 2	Habitable	34.6%	34.6%	0.0%	1.0		
84 Camden High Street							
Window 3	Habitable	12.7%	10.2%	2.5%	0.8		
Window 4	Habitable	16.1%	12.6%	3.5%	0.78		
Window 5	Habitable	15.6%	12.4%	3.2%	0.79		
Window 6	Habitable	37.0%	36.8%	0.2%	0.99		
Window 7	Habitable	37.6%	37.2%	0.4%	0.99		
Window 8	Habitable	39.3%	39.3%	0.0%	1.0		
Window 9	Habitable	39.3%	39.3%	0.0%	1.0		
86 Camden High Street							
Window 10	Habitable	25.9%	17.7%	8.2%	0.68		
Window 11	Habitable	35.8%	31.0%	4.8%	0.87		
Window 12	Habitable	39.2%	39.2%	0.0%	1.0		
Window 13	Non Habitable	32.3%	24.2%	8.1%	0.75		
88 Camden High Street							
Window 14	Habitable	33.7%	29.2%	4.5%	0.87		
Window 15	Habitable	37.8%	37.2%	0.6%	0.98		
Window 16	Habitable	39.2%	39.2%	0.0%	1.0		
11 Pratt Mews							
Window 17	Habitable	76.3%	75.1%	1.2%	0.98		
Window 18	Habitable	33.5%	33.5%	0.0%	1.0		
Window 19	Habitable	34.5%	34.5%	0.0%	1.0		
3 Pratt Mews							
Window 20	Habitable	17.7%	17.0%	0.7%	0.96		

Appendix 2 - Vertical Sky Component 10 Pratt Mews, London NW1 0AD

Reference	Use Class	Vertical Sky Component					
		Before After		Loss	Ratio		
Window 21	Habitable	17.4%	16.4%	1.0%	0.94		
Window 22	Habitable	25.9%	24.8%	1.1%	0.96		
Window 23	Habitable	25.3%	23.5%	1.8%	0.93		
4 Pratt Mews							
Window 24	Non Domestic	15.8%	14.2%	1.6%	0.9		
Window 25	Non Domestic	23.8%	21.1%	2.7%	0.89		
Window 26	Non Domestic	14.6%	12.6%	2.0%	0.86		
Window 27	Non Domestic	13.4%	11.5%	1.9%	0.86		
5 Pratt Mews							
Window 28	Non Habitable	12.3%	10.5%	1.8%	0.85		
Window 29	Habitable	19.6%	16.7%	2.9%	0.85		
Window 30	Habitable	13.8%	12.7%	1.1%	0.92		
Window 31	Habitable	8.6%	7.9%	0.7%	0.92		

Appendix 2 - Sunlight to Windows 10 Pratt Mews, London NW1 0AD

		Sunlight to Windows							
Reference	Use Class	Total Sunlight Hours				Winter Sunlight Hours			
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
8 Pratt Mews									
Window 2	Habitable	51%	51%	0%	1.0	20%	20%	0%	1.0
3 Pratt Mews									
Window 20	Habitable	31%	29%	2%	0.94	4%	3%	1%	0.75
Window 21	Habitable	32%	30%	2%	0.94	5%	4%	1%	0.8
Window 22	Habitable	46%	44%	2%	0.96	11%	9%	2%	0.82
Window 23	Habitable	46%	42%	4%	0.91	11%	8%	3%	0.73
4 Pratt Mews									
Window 24	Non Domestic	27%	21%	6%	0.78	2%	2%	0%	1.0
Window 25	Non Domestic	43%	38%	5%	0.88	7%	6%	1%	0.86
Window 26	Non Domestic	24%	19%	5%	0.79	3%	3%	0%	1.0
Window 27	Non Domestic	20%	17%	3%	0.85	3%	3%	0%	1.0
5 Pratt Mews									
Window 28	Non Habitable	14%	13%	1%	0.93	2%	2%	0%	1.0
Window 29	Habitable	32%	25%	7%	0.78	3%	3%	0%	1.0
Window 30	Habitable	18%	15%	3%	0.83	3%	3%	0%	1.0
Window 31	Habitable	8%	8%	0%	1.0	2%	2%	0%	1.0