RIGHT OF LIGHT CONSULTING
Chartered Surveyors

Right of Light Consulting
Burley House
15-17 High Street
Rayleigh
Essex
SS6 7EW
TEL 0800 197 4836
E-MAIL enquiries@right-of-light.co.uk
WEBSITE www.right-of-light.co.uk

Daylight and Sunlight Study (Neighbouring Properties)

28 Charlotte Street, London W1T 2NF

26 August 2015

Right of Light Consulting

Burley House
15-17 High Street
Rayleigh
Essex SS6 7EW

Tel: 0800 197 4836

CONTENTS

1 EXECUTIVE SUMMARY

1.1 Overview

1.1.1 Right of Light Consulting has been commissioned by Damon Heath to undertake a daylight and sunlight study of the proposed development at Robert Hossock Gallery, 28 Charlotte Street, London W1T 2NF.

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 26 & 30 Charlotte Street, Crabtree Playground, 7 to 10 Crabtree 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.

1.1.3 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 relatively low impact on the light receivable by its neighbouring properties. In our opinion there is no daylight or 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:

THS CONCEPTS

1117-001	Floor Plans 1 of 3	Rev –
1117-002	Floor Plans 2 of 3	Rev –
1117-003	Floor Plans 3 of 3	Rev –
1117-004	Section A-A	Rev –
1117-005	Section B-B	Rev –
1117-006	Front & Rear Elevations	Rev –

Studio Stassano

	20_GROUND FLOOR PLAN	Rev –
CH(20)A01	Proposed-1_Ground_1st Floor Plan	Rev –
CH(20)A02	Proposed 2nd_3rd_4th Floor Plan	Rev –
CH(20)A03	Proposed Section	Rev –
CH(20)A04	Proposed Rear Elevation	Rev –

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 13m^2, 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 <u>Vertical Sky Component</u>

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 do and do not 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 21 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 sunlight on 21 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 main habitable room windows pass the Vertical Sky Component test with the exception of window 2 at 26 Charlotte Street. However, the BRE guide goes on to explain that where existing neighbouring buildings sit close to the boundary (as with 26 Charlotte Street) a higher degree of obstruction may be unavoidable. Furthermore, the BRE guide is intended to be used flexibly, particularly in urban locations, and given the isolated and borderline nature of the results we are of the opinion that the development design is acceptable.

4.4 Sunlight to Windows

4.4.1 All 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 (annual probable sunlight hours between 21 September and 21 March). The proposed development therefore satisfies the BRE direct sunlight to windows requirements.

4.5 Overshadowing to Gardens and Open Spaces

4.5.1 The results show that 90% of the area of garden 1 will receive at least two hours of sunlight on 21st March. This is significantly better than the BRE recommendation which states that at least 50% of any garden or amenity area should receive at least two hours of sunlight on the 21st March. The proposed development therefore passes the BRE overshadowing to gardens and open spaces test.

4.6 Conclusion

4.6.1 The results confirm that the development will have a relatively low impact on the light receivable by its neighbouring properties. In our opinion there is no daylight or sunlight related reason why planning permission should not be granted for this scheme.

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

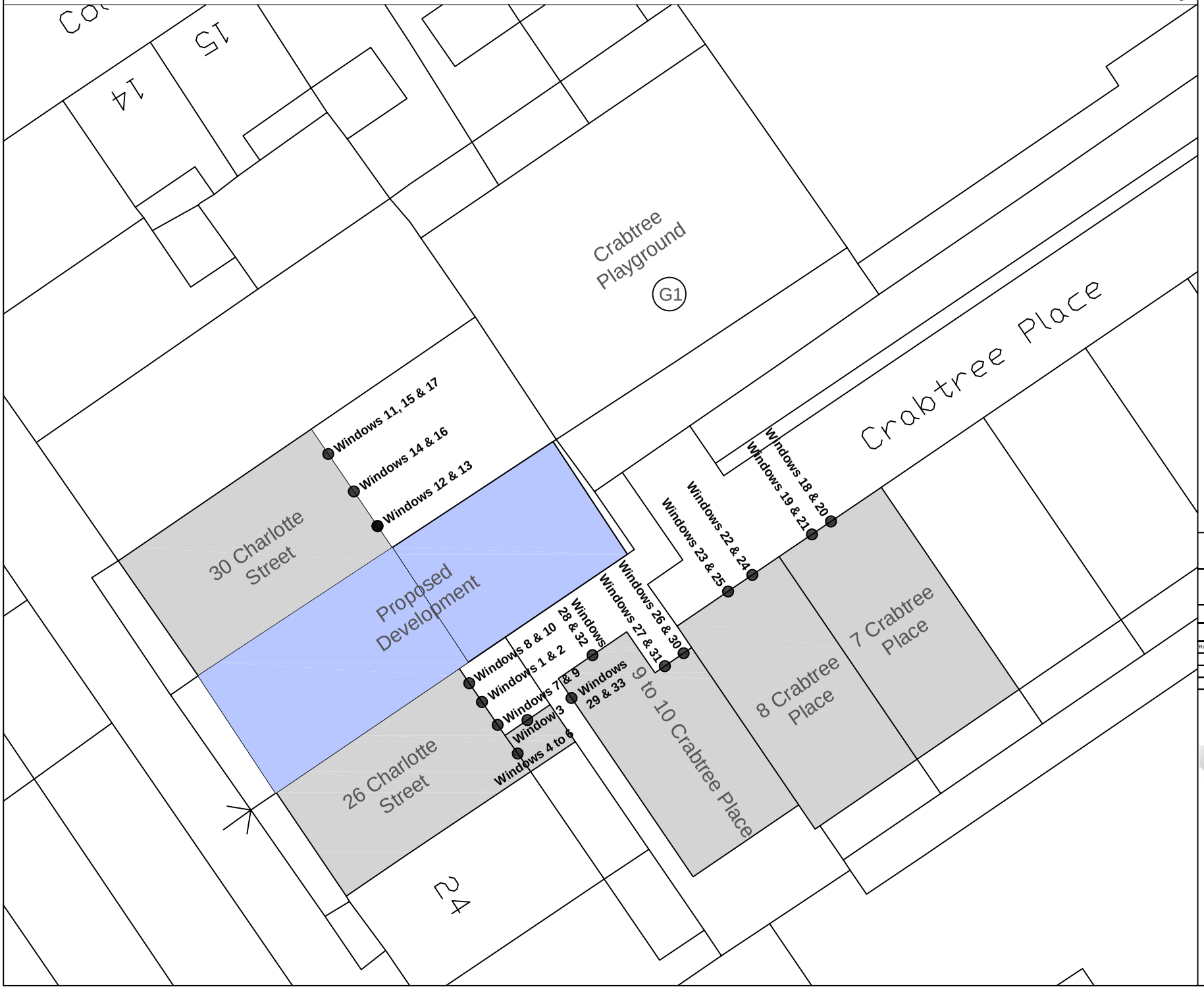
5.2.1 None

APPENDICES

APPENDIX 1

WINDOW & GARDEN KEY

Window & Garden Key



Key

Window 1 — Window reference

Development site

Neighbouring Properties

G1 — Neighbouring Gardens and Amenity Areas

Project Name: Robert Hossock Gallery, 28 Charlotte Street, London W1T 2NF

Drawing Title: Appendix 1 - Neighbouring Windows

Scale: Do not scale

Drawing No: 1 of 1 | Rev: -

Rev	Date	Details of revision

RIGHT OF LIGHT CONSULTING
Chartered Surveyors

Burley House
15 - 17 High Street
Rayleigh
Essex SS6 7EW

Tel. 0800 197 4836

enquiries@right-of-light.co.uk
www.right-of-light-consulting.com

APPENDIX 2

DAYLIGHT AND SUNLIGHT RESULTS

Appendix 2 - Vertical Sky Component
Robert Hossock Gallery, 28 Charlotte Street, London W1T 2NF

Reference	Use Class	Vertical Sky Component			
		Before	After	Loss	Ratio
26 Charlotte Street					
Window 1	Habitable	14.3%	11.8%	2.5%	0.83
Window 2	Habitable	29.6%	20.9%	8.7%	0.71
Window 3	Non habitable	9.9%	4.2%	5.7%	0.42
Window 4	Habitable	27.6%	24.3%	3.3%	0.88
Window 5	Habitable	35.4%	33.4%	2.0%	0.94
Window 6	Habitable	36.9%	36.7%	0.2%	0.99
Window 7	Habitable	36.4%	33.6%	2.8%	0.92
Window 8 (Secondary)	Habitable	34.1%	24.4%	9.7%	0.72
Window 9	Habitable	37.5%	37.1%	0.4%	0.99
Window 10	Habitable	35.6%	30.9%	4.7%	0.87
30 Charlotte Street					
Window 11	Habitable	34.3%	31.9%	2.4%	0.93
Window 12	Habitable	37.0%	32.3%	4.7%	0.87
Window 13	Habitable	38.1%	38.0%	0.1%	1.0
Window 14	Habitable	37.2%	36.5%	0.7%	0.98
Window 15	Habitable	37.1%	36.9%	0.2%	0.99
Window 16	Habitable	38.4%	38.4%	0.0%	1.0
Window 17	Habitable	38.5%	38.5%	0.0%	1.0
7 Crabtree Place					
Window 18	Habitable	33.6%	33.6%	0.0%	1.0
Window 19	Habitable	12.2%	12.2%	0.0%	1.0
Window 20	Habitable	17.0%	17.0%	0.0%	1.0
Window 21	Habitable	13.8%	13.8%	0.0%	1.0
8 Crabtree Place					
Window 22	Habitable	13.2%	13.2%	0.0%	1.0
Window 23	Habitable	28.1%	27.7%	0.4%	0.99
Window 24	Habitable	14.5%	14.5%	0.0%	1.0
Window 25	Habitable	14.9%	14.9%	0.0%	1.0
9 to 10 Crabtree Place					

Appendix 2 - Vertical Sky Component

Robert Hossock Gallery, 28 Charlotte Street, London W1T 2NF

Reference	Use Class	Vertical Sky Component			
		Before	After	Loss	Ratio
Window 26	Habitable	8.9%	7.8%	1.1%	0.88
Window 27	Habitable	11.7%	11.2%	0.5%	0.96
Window 28 (Secondary)	Habitable	1.0%	0.7%	0.3%	0.7
Window 29	Habitable	3.0%	2.9%	0.1%	0.97
Window 30	Habitable	14.8%	13.6%	1.2%	0.92
Window 31	Habitable	17.0%	16.5%	0.5%	0.97
Window 32 (Secondary)	Habitable	5.5%	2.5%	3.0%	0.45
Window 33	Habitable	4.2%	4.1%	0.1%	0.98

Appendix 2 - Sunlight to Windows
Robert Hossock Gallery, 28 Charlotte Street, London W1T 2NF

Reference	Use Class	Sunlight to Windows							
		Total Sunlight Hours				Winter Sunlight Hours			
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
9 to 10 Crabtree Place									
Window 29	Habitable	12%	12%	0%	1.0	5%	5%	0%	1.0
Window 33	Habitable	13%	13%	0%	1.0	6%	6%	0%	1.0

Appendix 2 - Overshadowing to Gardens and Open Spaces
Robert Hossock Gallery, 28 Charlotte Street, London W1T 2NF

Reference	Total Area	Area receiving at least two hours of sunlight on 21st March						
		Before		After		Loss		Ratio
Crabtree Playground								
Garden 1	178.55 m2	159.76 m2	89%	160.2 m2	90%	-0.44 m2	-1%	1.01

APPENDIX 3

OVERSHADOWING TO GARDENS AND OPEN SPACES

Appendix 3 : Overshadowing to Gardens and Open Spaces

Key

- Receives under two hours sunlight on 21st March before and after the development.
- Receives under two hours sunlight on 21st March before the development; but will receive at least two hours sunlight on 21st March after the development (light improved).
- Receives at least two hours sunlight on 21st March before the development; but will receive under two hours sunlight after the development (light loss).
- Receives at least two hours sunlight on 21st March before and after the development.

Notes:

1. Contours derived in accordance with BRE Guide : Site Layout Planning for Daylight and Sunlight

Project Name:	Robert Hossock Gallery, 28 Charlotte Street, London W1T 2NF
Drawing Title:	Appendix 3 - Overshadowing to Gardens and Open Spaces
Scale:	Do not scale
Drawing No:	1 of 1
Rev:	-

Rev	Date	Details of revision

RIGHT OF LIGHT CONSULTING
Chartered Surveyors

Burley House
15 - 17 High Street
Rayleigh
Essex SS6 7EW

Tel. 0800 197 4836

enquiries@right-of-light.co.uk
www.right-of-light-consulting.com