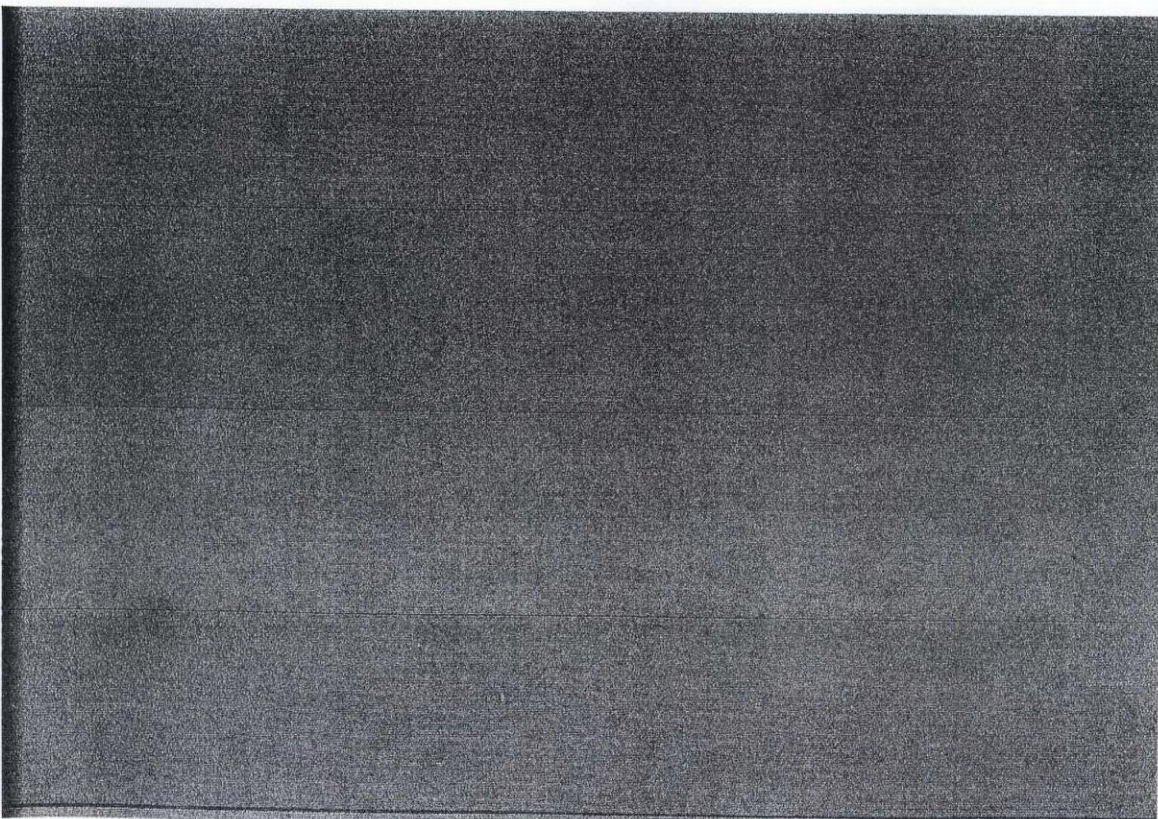


Daylight & Sunlight Report

**1-2 Wilmot Place,
London, NW1 9JS**

12th June, 2012



CHP
SURVEYORS LIMITED

Hudson House
8 Tavistock Street
London, WC2E 7PP
Tel: 020 7083 0133

enquiries@chp.gb.com
www.chp.gb.com

Daylight & Sunlight Report

**1-2 WILMOT PLACE,
LONDON,
NW1 9JS**

Prepared for:-

Apex Housing Solutions

1 Wilmot Place

Camden

London NW1 9JS

Prepared by

James M A Crowley

Date

12th June, 2012

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This report is solely for the benefit of **Apex Housing Solutions** and the benefit cannot be transferred to any other party without the express written consent of CHP Surveyors Limited.

CHP Surveyors Limited
CHP Surveyors Limited

Instruction

In accordance with our instructions we have considered the proposals for the site with reference to the Building Research Establishments 2011 publication "Site Layout Planning for Daylight and Sunlight. A Guide to Good Practice".

Principles

To assist in the understanding of this report, attached at Appendix A are the Principles of Daylight and Sunlight.

Information

We have made reference to the following information:-

Ordnance Survey

Site Plan

Simon Miller Architects

Drawings referenced 299-e01 to 07 and PL01 to 07

CHP Surveyors Limited

Site Photographs and online investigations.

Proposals

Currently on the site is a structure over ground floor for the majority of the site with a first and second floor fronting onto Wilmot Place. The proposals are to construct a new third floor fronting onto Wilmot Place to provide 2 additional flats as indicated on drawing number 1612-01 attached at Appendix B.

Adjoining Properties

From our on-site observations the neighbouring residential properties that we need to be analysed are:-

- 3 Wilmot Place
- 108 St Pancras Way
- 110 St Pancras Way
- 16-30 Wilmot Place
- 1-7 Reed's Place

Daylight

With regard to daylight to the neighbouring residential properties, we have considered the Vertical Sky Component (VSC) to all habitable rooms. This establishes the amount of daylight enjoyed on the face of the window.

The BRE Guidelines state that if the VSC calculated at the centre of each window is 27% or more, then enough skylight should be reaching the window. If with the new development in place the window does not achieve 27% VSC but is more than 0.8 times its former value then the guidelines state that skylight is unlikely to be seriously affected.

The BRE Guidelines in relation to daylight also make reference to BS 8206 Part 2 which contains advice and guidance on internal daylighting. This should also be read in conjunction with the Guidelines.

BS8206 Part 2 makes reference to two analyses, the Average Daylight Factor (ADF) and the No Sky Line (NSL).

The ADF analysis takes into account the size of the window in question, the size of the room it serves and any other windows serving the room. The recommended minimum ADF levels depend on the room use with these being 2% for kitchens, 1.5% for living rooms and 1% for bedrooms.

In relation to the NSL, the BRE Guidelines state that a significant area of the room should not lie behind the NSL and that bedrooms are less important than living rooms.

3 Wilmot Place

This property is located to the North East of the site appear to provide residential accommodation over four floors. Within its flank elevation are 3No windows. From information we have been able to obtain for this property, none of these windows serve habitable rooms and are therefore not required to be analysed.

108 St Pancras Way

These properties are located to the South West of the site and provide residential accommodation over four floors.

As demonstrated by the results set out in the spread sheets attached at Appendix C all windows will achieve a VSC of greater than 27% or 0.8 times the existing value.

We have also considered daylight distribution within the rooms by plotting the NSL. As demonstrated by the results set out in the spread sheet attached at Appendix C in all instances a significant portion of the room will lay in front of this.

The BRE Guidelines are therefore met

110 St Pancras Way

These properties are located to the East of the site and provide residential accommodation over two floors.

As demonstrated by the results set out in the spread sheets attached at Appendix C all windows will achieve a VSC of greater than 27% or 0.8 times the existing value.

We have also considered daylight distribution within the rooms by plotting the NSL. As demonstrated by the results set out in the spread sheet attached at Appendix C in all instances a significant portion of the room will lay in front of this.

The BRE Guidelines are therefore met

16-30 Wilmot Place

These properties are located to the East of the site on the opposite side of Wilmot Place and provide residential accommodation over three floors.

As demonstrated by the results set out in the spread sheets attached at Appendix C all windows will either achieve a VSC of greater than 27% or is more than 0.8 times the existing VSC value.

In addition in all instances based on our assumptions as to the internal configuration the majority of each room lies in front of the NSL and therefore the property will enjoy good daylight distribution.

The BRE Guidelines are therefore met.

1-7 Reed's Place

These properties are located to the North West of the site and provide residential accommodation over two to three floors.

The proposals will not bisect 25 degrees drawn from the centre of those windows within these properties. In accordance with the BRE Guidelines the proposals will therefore not have an adverse effect.

The BRE Guidelines are therefore met.

Sunlight

The guidelines require that all windows within 90° of due south be considered. It states that if the window achieves 25% of Annual Probable Sunlight Hours (APSH), including at least 5% of annual probable sunlight hours during the winter months or more than 0.8 times its existing value, the implementation of the proposals should not have an adverse effect on sunlight. The guidelines however also state that sunlight is less important in relation to bedrooms.

1-7 Reed's Place

As the proposals do not bisect a 25 degree line drawn from the centre of the windows that can see the proposals and therefore there will be no adverse effect.

The BRE Guidelines are therefore met.

Conclusion

As demonstrated by the results set out in the spread sheet attached at Appendix C, in relation to daylight all properties will either achieve a VSC of greater than 27% or 0.8 times the existing value where the proposals bisect a 25 degree line.

In relation to sunlight, the only properties that need to be analysed are 1-7 Reed's Place. The proposals will not bisect a line drawn at 25 degrees from these properties and therefore the proposals will not adversely affect the sunlight enjoyed by these properties.

The results of our analysis therefore demonstrate that aims of the Building Research Establishments 2011 publication "Site Layout Planning for Daylight and Sunlight. A Guide to Good Practice" are met.

Appendix A

Principles of Daylight and Sunlight

In 2011 the Building Research Establishment (BRE) published a handbook called *"Site Layout Planning for Daylight and Sunlight. A Guide to Good Practice."*

As stated within the Introduction of this document, the main aim is:-

"To help to ensure good conditions in the local environment, considered broadly, with enough sunlight and daylight on or between buildings for good interior and exterior conditions."

Within the introduction the document goes onto state:-

"The advice given here is not mandatory and this document should not be seen as an instrument of planning policy. It's aim is to help, rather than constrain the Designer. Although it gives numerical guidelines, these should be interpreted flexibly..."

It must therefore be appreciated as can be seen from the above extracts of the Introduction of this document and reiterated throughout, the handbook is for guidance only.

DAYLIGHT

When considering daylight, the handbook introduces a number of ways of assessing this. The first check is to establish whether the proposals will subtend an angle of 25° from the centre of the window. If it does not then it is considered there will be good daylight.

(i) No Sky Line

This divides those areas that can see direct daylight from those which cannot and helps to indicate how good the distribution of daylight is in a room. The guidelines is that, should the implementation of a scheme result in the area receiving direct skylight less than 0.8 times the existing area, then this will be noticeable to the occupier.

(ii) Vertical Sky Component (VSC)

This may be calculated using either the skylight indicators of Waldram Diagrams contained within the handbook and is the ratio of the direct sky illuminance falling on the vertical wall at a reference point, to the simultaneous horizontal illuminance under an unobstructed sky.

The principle is that from the face of a window, with no obstruction 50% of the hemisphere is visible which equates to 40% VSC.

The Handbook sets out different guidelines when considering both new developments and existing buildings adjacent to a development, but in both situations these are applicable to principal rooms, such as kitchens and living rooms.

New Developments

In general a building will retain the potential for good interior diffuse lighting provided that on all its main faces:-

- (a) an obstruction, measured in a vertical section perpendicular to the main face, from a point 2m above ground level, subtends an angle of more than 25° to the horizontal.

or

- (b) if (a) is not satisfied, then all points on the main face on a line 2m above ground level are within 4m (measured sideways) of a point which has a vertical sky component of 27% or more.

Existing Buildings

If any part of a new building or extension measured in a vertical section perpendicular to a main window wall or an existing building, from the centre of the lowest window, subtends an angle of more than 25° to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be case if either:-

- (a) the VSC measured at the centre of an existing main window is less than 27% and less than 0.8 times its former value.

or

- (b) the area of the working plane level is a room which can receive direct sunlight is reduced to less than 0.8 times its former value.

(iii) Average Daylight Factor (ADF)

This takes into account not only the obstruction externally, but also the size of the window concerned and the area of the room it serves. In addition, depending on the nature of the room, the handbook sets out different levels of ADF, with kitchens only being 2%, lounges 1.5% and bedrooms 1%.

In summary, VSC gives a good indication as to whether sufficient daylight is going to be enjoyed, because it is a calculation on the face of the window, however if all the information can be obtained to calculate ADF's, this is a more realistic analysis.

SUNLIGHT

This is measured in a similar method to calculating VSC and relates to windows within 90° of due south.

The BRE handbook has calculated that the total annual probable sunlight hours amount to 1486.

Again the handbook sets out criteria for both new developments and existing buildings.

(i) New Developments

In general, a dwelling or non-domestic building which has a particular requirement for sunlight will appear reasonably sunlit provided that:-

(a) at least one main window wall faces within 90° of due south

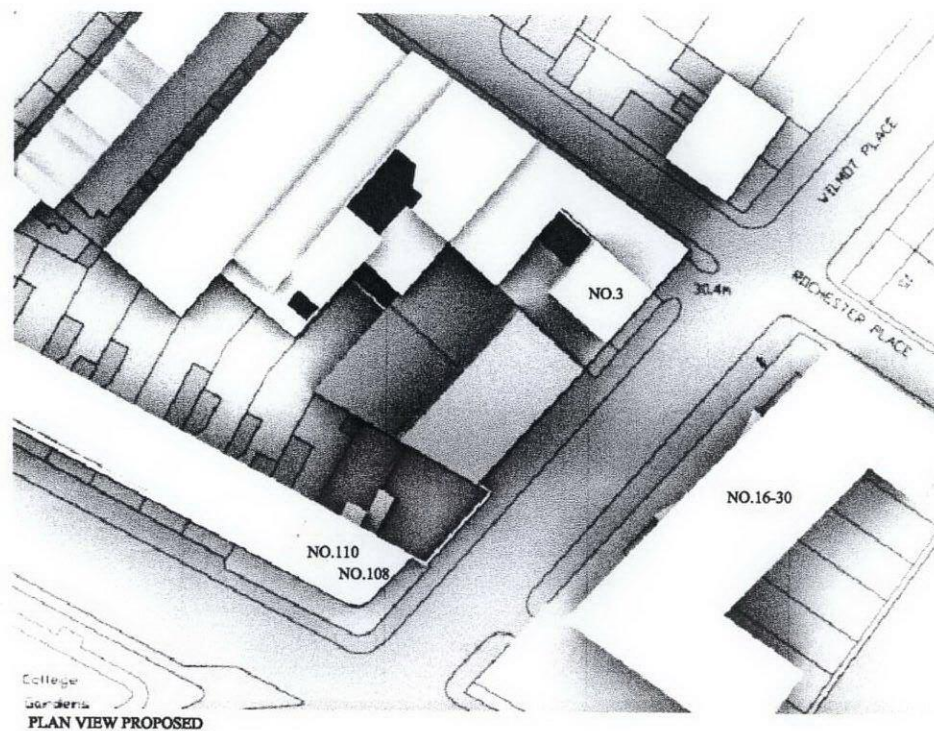
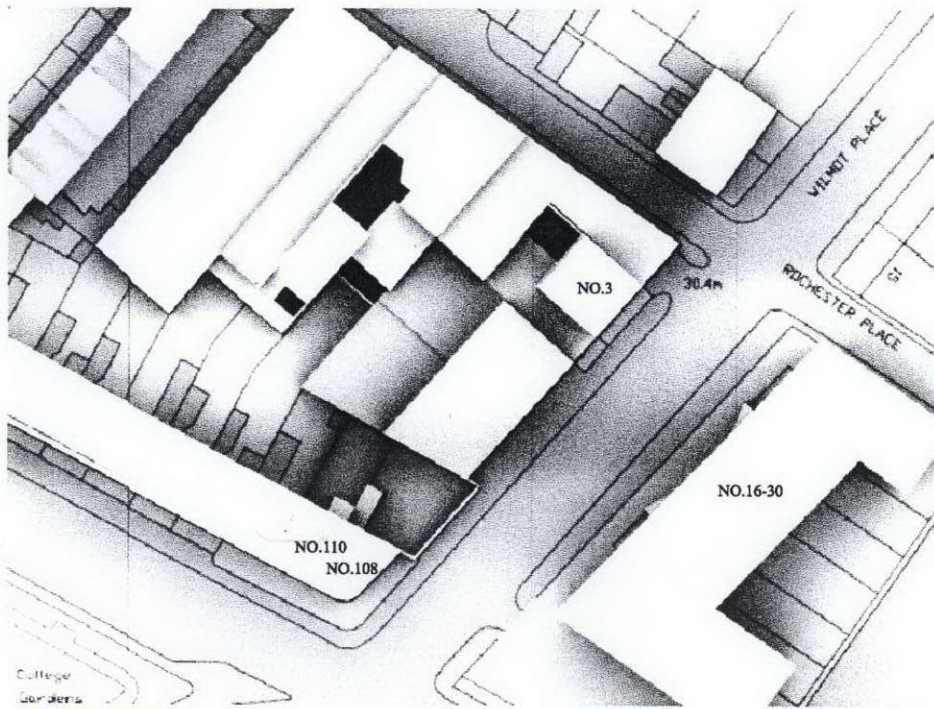
or

(b) on this window wall, all points on a line 2m above ground level are within 4m (measured sideways) of a point which receives at least a quarter of annual probable sunlight hours, including at least 5% of annual probable sunlight hours during the winter months, between 21 September and 21 March.

(ii) Existing Buildings

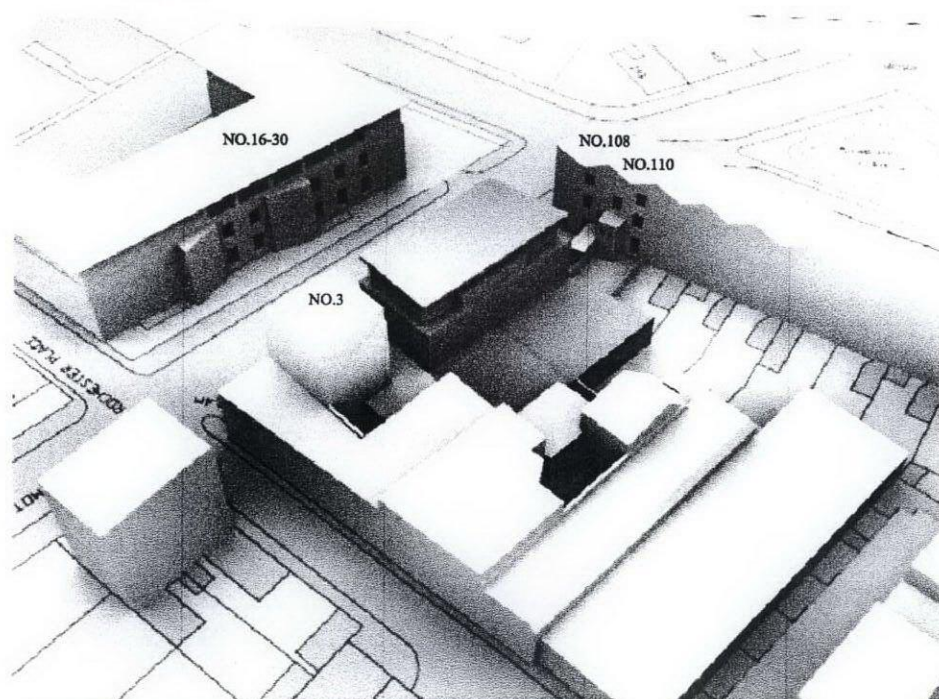
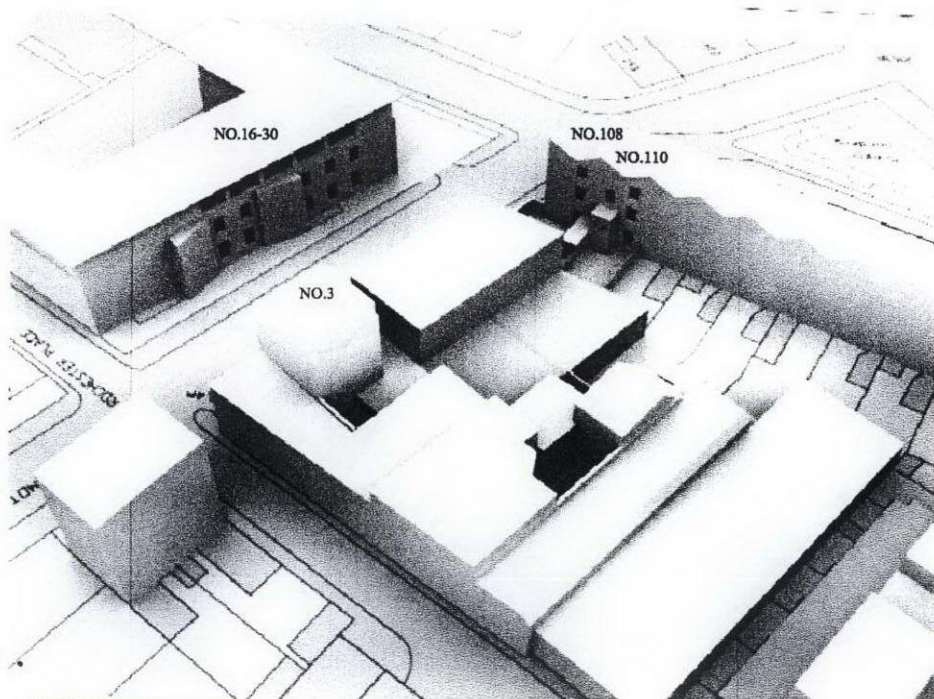
If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlight of the existing dwelling may be affected. This will be the case if a point at the centre of the window, in the plane of the inner window wall, receives in the year less than one quarter of annual probable sunlight hours including at least 5% of annual probable sunlight hours in the Winter months between 21 September and 21 March or less than 0.8 times its former sunlight hours during either period.

Appendix B



SOURCE

299PL01, 299PL02, 299PL03, 299PL04, 299PL05, 299PL06
299PL07, 299PL08
APEX 881, APEX 882, APEX 883, APEX 884, APEX 885
APEX 886, APEX 887
ORDNANCE SURVEY
SITE PHOTOGRAPHY



CHP
SURVEYORS LTD

10 TAVATON STREET - LONDON
W1G 7PP
TEL: 020 7593 0100

PROJECT TITLE
WILMOT PLACE

DRAWING TITLE
PLAN & PERSPECTIVE VIEWS
EXISTING VS PROPOSED

SCALE
N/TB

DATE
11/06/12

Drawing Number

1612_01

Revision

Appendix C

1-2 Wilmot Place

Daylight Results

VSC					NOSKY			
LEVEL	WINDOW	ROOM	EXISTING	PROPOSED	LOSS	% LOSS	EXISTING	PROPOSED
<u>108 St Pancras Way</u>								
LEV 0	W1	R1	16.7	14.4	2.3	13.8	80%	76%
LEV 1	W2	R2	31.9	28.4	3.5	11.0	>95%	93%
LEV 2	W3	R3	37.3	33.8	3.5	9.4	>95%	>95%
<u>110 St Pancras Way</u>								
LEV 0	W1	R1	24.4	23.3	1.1	4.5	>95%	>95%
LEV 1	W2	R2	34.2	32.1	2.1	6.1	>95%	>95%
LEV 2	W3	R3	38	36.1	1.9	5.0	>95%	>95%
<u>16-30 Wilmot Place</u>								
LEV 0	W1	R1	27.4	25.7	1.7	6.2	>95%	>95%
	W2	R2	27.2	25.2	2.0	7.4	>95%	>95%
	W3	R3	23.1	20.6	2.5	10.8	>95%	>95%
	W4	R4	28.6	26.1	2.5	8.7	>95%	>95%
	W5	R5	30	27.7	2.3	7.7	>95%	>95%
LEV 1	W6	R6	31.9	30.2	1.7	5.3	>95%	>95%
	W7	R7	31.9	29.8	2.1	6.6	>95%	>95%
	W8	R8	28.3	25.6	2.7	9.5	>95%	>95%
	W9	R9	33.3	30.6	2.7	8.1	>95%	>95%
	W10	R10	34.1	31.6	2.5	7.3	>95%	>95%
LEV 2	W11	R11	30	28.6	1.4	4.7	>95%	>95%
	W12	R12	30	28.3	1.7	5.7	>95%	>95%
	W13	R13	30.2	28	2.2	7.3	>95%	>95%
	W14	R14	30.3	28	2.3	7.6	>95%	>95%
	W15	R15	30.4	28.3	2.1	6.9	>95%	>95%