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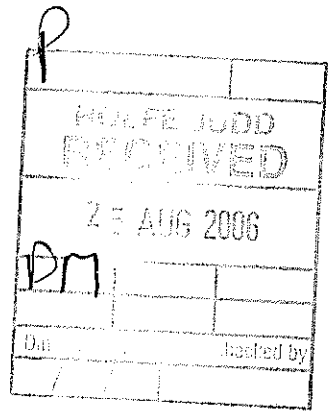

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23 August 2006

Our reference: AJC/JN/VLB/100366
Your reference:

P Owen Esq
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By post and e-mail Philip.Owen@morleyfm.com

Dear Mr Owen

REDEVELOPMENT OF 50A CHARLOTTE STREET (LAND TO REAR OF 31-37 WHIFIELD STREET), LONDON, W1 - DAYLIGHT AND SUNLIGHT REPORT

We have completed our assessment of the potential effect of your proposed development of the 50a Charlotte Street site on the daylight and sunlight amenity to existing neighbouring buildings. This letter reports on the assessment and our findings

1. Executive Summary

The London Borough of Camden's ('the Council') UDP, adopted 24 March 2000, sets out the standard for development and the relevant policies that specifically relate to daylight and sunlight considerations are Policies EN90 (Amenity for occupiers and neighbours), and RE2 (Residential Amenity and Environment Policy). EN90, at paragraph 4.53, in the UDP cites the BRE Report 209 "Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice".

Accordingly, we have undertaken a technical study of the impact of the proposed development on daylight, sunlight and overshadowing in accordance with BRE Report 209 and British Standard BS8206 Part 2 "Code of practice for daylighting" to the surrounding properties. We have assessed the impact in residential and commercial properties around the site, however, commercial buildings are usually considered to be less important

We found that overall the daylight and sunlight amenity to surrounding properties will not be materially affected, by reference the BRE guidelines. In some cases the daylight and sunlight amenity will actually improve. In our opinion the proposed development satisfies The London Borough of Camden's planning policies in respect of daylight and sunlight.

2. Instructions and brief

You will be submitting a planning application to the Council for the proposed development of 50a Charlotte Street ('the site'). You have, therefore, requested that we undertake an assessment of the effects of the proposed development to the daylight and sunlight to the surrounding properties. I

have not received any guidance from the Council as to the requirement to assess the neighbouring commercial premises, they therefore, have been included. This report will be submitted in support of your application

A summary is given below of the relevant planning policies, the basic principles of daylighting and sunlighting and the methods used to assess the potential impact of the development. The relevant tables of results are included, summarised and considered in this report.

3. The existing site

The existing building currently occupying the site comprises a two-storey recording hall and ancillary offices

4. The proposed development

The proposed redevelopment of the site generally comprises a refurbishment of the existing property with the addition of an entrance reception area and plant services at new roof level. The proposal is shown on your architect's proposed scheme drawings listed below

5. Local planning policy

The following references to daylight and sunlight are contained within the Council's EDP (adopted 2 March 2000):

- Policy EN90: Amenity for occupiers and neighbours, states:-

"EN90 – in assessing the impact of development, the Council will take into account the following considerations,

a) The implications for daylight and sunlight into and between the properties;
b) The extent of any loss of privacy;
c) *The degree of visual intrusion."*

Paragraph 4 53 goes on to state.-

"It is important that in all development proposals, including extensions to existing buildings, any harmful effects to the amenity of occupiers of existing and proposed buildings on the site and neighbouring properties is avoided, especially in the case of residential buildings. The design of development should allow sufficient daylight and sunlight into buildings and land, give consideration to the potential affects on visual privacy and safeguard the outlook for the premises. The Council will apply the standards recommended in the Building Research Establishment Report: Site Layout Planning for Sunlight – A Guide to Good Practice (1991), which gives advice on sunlight and daylight. While this document does not operate fixed planning standards, there will be taken into account when considering planning applications, having regard to existing lighting conditions. Wherever possible, the Council will seek to improve existing light conditions."

- Policy RE2: Residential Amenity and Environment, states:-

"The Council will seek to ensure that developments will not have an adverse impact on residential amenity, the environment or the safety and efficiency of transport systems."

Additionally at paragraph 3.39 it goes on to say:-

"The Council is concerned to ensure that individual development decisions are taken against an overall strategic framework that reflects environmental priorities and assists the implementation of sustaining the development objective. It is therefore concerned to ensure that environmental considerations are comprehensively and consistently taken into account when implementing the Plans and Plans' policies and proposals and that all development avoids harm to the residential amenity, the environment and the safety and efficiency of transport systems."

Further, policy EN1 General Environmental Protection Improvement states:-

"The Council will seek to ensure that developments will not have an adverse impact on the amenity of the surrounding area and the quality of the wider environment in the short term and long term. In particular, the Council will need to be satisfied that developments, whether buildings or changes of use protects or improve physical environments, including the Borough's living and working conditions, and its visual amenity."

6. Guidelines for assessing daylight and sunlight

The BRE Report 209, "Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice" provides guidance to assist designers, developers and town planners in assessing daylight and sunlight considerations

The BRE guide includes various tests and recommendations for assessing the effect of development on existing surrounding properties. The BRE guide is not intended to be an instrument of planning policy, but it is the leading publication on the subject and sets a standard by which proposed development may be assessed. The BRE guidelines are not mandatory and should be interpreted flexibly.

Watts and Partners have undertaken technical studies in accordance with the BRE report 209 and the British Standard BS8206 Part 2 "Code of Practice for Daylighting". The results are summarised and discussed later in this report.

6.1 Method of assessment

6.1.1 Daylight

The BRE guidelines present a number of methods of assessing daylight. The main methods are the vertical sky component (VSC) method and the area of working plane method (also known as the no-sky line (NSL) method or daylight distribution). A third method, which it takes from British Standard BS8206 Part 2, known as the average daylight factor (ADF) method, is also presented.

These various methods of daylight assessment can be summarised briefly as follows:

- The vertical sky component (VSC) method measures the amount of available skylight falling upon the outside face of a window It is expressed as a percentage of the total available sky falling upon an unobstructed horizontal plane and has a maximum possible value of almost 40%. It gives an indication of the potential for daylight but does not measure daylight internally
- The area of working plane or 'no-sky line' (NSL) also known as the daylight distribution method is a more complex calculation that measures the area of working plane within a room that receives light directly from the sky.
- The average daylight factor (ADF) method is another complex and accurate calculation to determine the internal daylighting within a room. It takes into account such factors as total net area of window glazing, glass transmission values, reflectance of internal surfaces and room size, layout and use

The guidelines suggest that buildings with a reasonable expectation for daylight ought to be assessed, although the Council's local plan seems to focus attention on residential properties only.

6.1 2 Sunlight

The BRE guidelines recommend that sunlight to existing surrounding dwellings should be assessed. A method of calculating annual probable sunlight hours (APSH) is put forward. This method is described in detail in the BRE Report 209 and involves predicting sunlight availability for windows to all the main living rooms of dwellings that face within 90° of due south. For the windows concerned, the assessment considers the effect on both the annual sunlight and the sunlight in the winter period from 21 September - 21 March.

6 2 Assessment Criteria

The BRE guide sets out criteria against which an assessment may be made of the levels of daylight and sunlight and the impact that development may cause. The advice given in the BRE report is not mandatory Specifically, in the introduction to the report, it states that:

> *"the guide is intended for building designers and their clients, consultants and planning officials The advice given is not mandatory and this document should not be seen as an instrument of planning policy Its aim is to help, rather than constrain the designer, and although it gives numerical guidelines, these should be interpreted flexibly, because natural lighting is only one of many factors in site layout design"*

The BRE guidelines may be applied to any location, from a rural conservation area to a densely populated urban environment. In fact the illustrations and photographs used in the BRE Report are generally of low-rise development Consequently the BRE report suggests that alternative numerical values may be appropriate, for example in city centres where higher densities usually mean a higher degree of obstruction or where developments are to match the height and proportions of existing buildings.

6.2.1 Daylight Criteria

In summary, the BRE report states that:

If any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of 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 the case if either:

- *the vertical sky component measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value; or*
- *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 (NB: plane is measured 0.85m above floor level in residential properties, 0.7m in offices).*

The BRE guide states that living rooms, dining rooms and kitchens within dwellings should be assessed. Bedrooms should also be checked, although it is acknowledged that they are less important. Non-domestic buildings where the occupants have a reasonable expectation of daylight should also be considered, although these are usually less sensitive than dwellings.

According to BS8206 Part 2, for dwellings the following minimum ADF values are recommended:

- Bedrooms – 1%
- Living Rooms – 1.5%
- Kitchens – 2%

6.2.2 Sunlight Criteria

The BRE report states that if a window receives more than one quarter of annual probable sunlight hours after development, including at least 5% of annual probable sunlight hours during the winter months between 21 September and 21 March, then the room should still receive enough sunlight. If the available sunlight hours are both less than the recommended target values and less than 0.8 times their former value, either over the whole year or during the winter months, then the occupants of the existing building will notice the loss of sunlight.

Existing dwellings should be assessed, however windows only need to be tested where they face within 90° of due south and where a 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. All main living rooms of dwellings and conservatories should be checked, but kitchens and bedrooms are considered to be less important.

7. Use of computer modelling

7.1 Approach

The daylight and sunlight assessments have been undertaken using 3D computer modelling, computer software and templates published in the BRE Report 209. A 3D computer model of the existing buildings on the site and the existing surrounding buildings has been compiled. The envelope of the new scheme was then built and superimposed.

The accompanying Watts and Partners drawing nos. 100366/Whitfield/01-06, Appendix B, shows outlined in green, both in 2D plan form and 3D view, the existing buildings in the context of the surrounding buildings and, in red, the proposed scheme also in the context of the surrounding buildings.

7 2 Sources of information

The computer model is based on the following information:

- Tate and Hindle Design Limited's planning drawings PL A(03) 010-012, PL A(04) 020-021, 030, 040, PL A(05) 020, 030 and 040.dwgs;
- APR Services drawings 26001 1 to 4, E2 to E3, S1 to S2, B, G and R.dwgs; and
- Watts and Partners' site photographs

7.3 Assumptions and limitations

A site visit was undertaken and site photographs taken, which enabled the relationship between the site and the surrounding properties to be ascertained. Survey information and architect's drawings have also been provided in digital CAD format. Where there was restricted or no information available, professional judgement has been used to position certain windows and to assess likely room layouts and uses

8. Assessment of existing surrounding buildings

8.1 Preliminary 25°-section line test

The starting point for a daylight and sunlight assessment of surrounding buildings is the BRE Report's preliminary 25°-section line test for all buildings with a main window wall facing the proposed development. However, this test is not applicable in this context as either the existing building already subtends at an angle greater than 25° from the majority of the main windows to the lower levels of the surrounding properties, or the scheme does not bisect any point perpendicular to a number of the subject windows. Consequently, the more detailed daylight analyses are required. The more detailed daylight tests include the Vertical Sky Component (VSC), Average Daylight Factor (ADF). In addition, sunlight was also considered for the subject windows that are situated north of the proposed development and face within 90° of due south. Assessments were undertaken to the following properties: -

- 18 Scala Street
- 19 Scala Street
- 32-34 Goodge Street

8 2 Daylight

Full results for the VSC, daylight distribution and ADF daylight tests are given in the appendices and a summary of each set of results is given below.

TABLE 1: VSC ANALYSIS RESULTS SUMMARY						
	Total that meet BRE Guidelines	Below BRE Guidelines				Total No. of Windows
		20-29.99% Loss	30-39.99% Loss	> 40% Loss	Total	
18 Scala Street	8	0	0	0	0	8
19 Scala Street	7	0	0	0	0	7
32-34 Goodge Street	7	0	0	0	0	7
TOTALS	**22**	**0**	**0**	**0**	**0**	**22**

TABLE 2: AVERAGE DAYLIGHT FACTOR ANALYSIS RESULTS SUMMARY								
	> 2%	1.5-1.99%	1.0-1.49%	0.5-0.99%	< 0.49%	Total Below 1.50%	Total Above 1.50%	Total No. of Rooms
18 Scala Street	1	3	2	2	0	4	4	8
19 Scala Street	1	3	1	1	0	4	2	6
32-34 Goodge Street	0	4	0	0	1	0	0	5
TOTALS	**19**	**0**	**0**	**0**	**0**	**0**	**0**	**19**

TABLE 3: DAYLIGHT DISTRIBUTION ANALYSIS RESULTS SUMMARY						
	Total that meet BRE Guidelines	Below BRE Guidelines				Total No. of Windows
		20-29.99% Loss	30-39.99% Loss	> 40% Loss	Total	
18 Scala Street	8	0	0	0	0	8
19 Scala Street	6	0	0	0	0	6
32-34 Goodge Street	5	0	0	0	0	5
TOTALS	**19**	**0**	**0**	**0**	**0**	**19**

The results are now discussed below: -

The properties assessed generally appear to be residential in nature with the exception of the ground floor level of 32-34 Goodge Street, which appears to be commercial (see photograph no 3 in Appendix A). Some of the windows to the surrounding properties most likely to be affected by the proposed development serve bathrooms, toilets, and circulation space and according to the guide they need not be assessed (see photograph nos. 1 and 3). Nevertheless, with reference to the above tables and the full tables in Appendices B and C, the results to these windows and rooms have been included to demonstrate just how minor an impact the proposed scheme has in terms of daylight and sunlight amenity.

Generally, the majority of the windows and rooms tested remain virtually unaffected by the proposed development and in some cases the daylight improves fractionally. All properties assessed will meet the BRE's guidelines in terms of daylight.

8.3 Sunlight

Of the properties noted in section 8.1 of this report only two properties have windows that face within 90° of due south. These windows have therefore been assessed for sunlight.

The results of the sunlight tests are summarised below in table 2.

TABLE 4: SUNLIGHT ANALYSIS RESULTS SUMMARY (APSH)

	Total that meet BRE Guidelines	No. of windows that do not meet BRE suggested Guidelines								Total No. of Windows
		% loss for windows below threshold for Winter APSH				% loss for windows below threshold for Total APSH				
		20-29.99%	30-39.99%	> 40%	Total	20-29.99%	30-39.99%	> 40%	Total	
18 Scala Street	8	0	0	0	0	0	0	0	0	8
19 Scala Street	7	0	0	0	0	0	0	0	0	7
TOTALS	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**15**

As the table shows, the windows assessed will remain virtually unaffected by the proposed development. The majority of the windows will remain far in excess of the BRE Report's recommended target values for both annual and winter sunlight, in some cases the sunlight will improve slightly

All properties assessed, therefore, will meet the BRE's guidelines in terms of sunlight.

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9. Conclusion

The guidelines in BRE Report 209, "Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice" and BS8206 Part 2 "Code of practice for daylighting" have been applied in undertaking our assessment.

It is evident that care has been taken in designing the proposed scheme to preserve the amenity of existing neighbouring properties. The results of this study demonstrates that the proposed development will not have a significant effect upon daylight and sunlight amenity to the surrounding properties, in some cases the daylight and sunlight amenity will improve slightly.

The development therefore satisfies the London Borough of Camden's planning policies in respect of daylight and sunlight.

Yours sincerely

Jonathan Nash
Surveyor
WATTS AND PARTNERS

Enc. Appendices A – D inc

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