# SUNLIGHT AND DAYLIGHT REPORT

CENTRE HEIGHTS, FINCHLEY ROAD

**DECEMBER 2003** 

SCHATUNOWSKI BROOKS

CHARTERED BUILDING SURVEYORS

IA/LRN/CE06

S Graham Esq Tasou Associates 4 Amwell Street London EC1R 1UQ

16 December 2003

Dear Mr Graham

Centre Heights, Finchley Road

Further to your instructions we confirm that we have completed the assessment of the state of the proposed development at the above with regard to sunlight and daylight.

The information used to undertake this assessment are the set of A3 drawings provided by yourselves on 27 October, along with the survey elevations of the existing site and all the surrounding elevations as provided by XYZ Land Surveys and provided to us on disk.

We have also used our own on site photographs to verify the set up.

BRE REPORT 1991 CRITERIA

The BRE Guide covers amenity requirements for sunlight and daylight to residential buildings around any development site.

Before dealing specifically with the requirements of the Guide under the various headings, we would note certain relevant aspects set out in the Introduction to the Guide which are as follows:-

17-21 EMERALD STREET, LONDON WC1N 3QN TELEPHONE: 920 7269 4740 FAX: 020 7269 4747 E-mail: a trian@schatunowski-brooks.co.uk

"While this guide supercedes the 1971 Department of the Environment document 'Sunlight and Daylight' which is now withdrawn, the main aim is the same - to help to ensure good conditions in the local environment, considered broadly, with enough sunlight and daylight on or between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.

The guide is intended for building designers and their clients, consultants and planning officials. The advice given here 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 developer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of the many factors in site layout design."

### **DAYLIGHTING**

The requirements governing daylighting to existing residential buildings around a development site are set out in Part 2.2 of the Guide. The amount of light available to any window depends upon the amount of unobstructed sky that can be seen from the centre of the window under consideration. The amount of visible sky and consequently the amount of available skylight is assessed by calculating the vertical sky component at the centre of the window. The Guide advises that bathrooms, toilets, storerooms, circulation areas and garages need not be analysed. As regards distribution of daylight within rooms the Guide advises that bedrooms are considered to be less important.

A CONTRACTOR

The vertical sky component can be calculated by using the skylight indicator provided as part of the Guide or by mathematical methods using what is known as a waldram diagram. The use of the skylight indicator is, in our view, the less accurate and can only be relied upon for indicative results. The mathematical method which actually measures the amount of visible sky gives far more accurate and truly representative results, and this is the method we have used.

The Guide states the following:-

"If this vertical sky component is greater than 27% then enough skylight should still be reaching the window of the existing building. Any reduction below this level should be kept to a minimum. If the vertical sky component with the new development in place, is both less than 27% and less than 0.8 times its former value, then occupants of the existing building will notice the reduction in the amount of skylight."

It must be interpreted from this criteria that a 27% vertical sky component (VSC) constitutes adequacy, but where this value cannot be achieved a reduction of up to 20% of the former value would not be noticeable and would not therefore be considered material.

The VSC calculation only measures light reaching the outside plane of the window under consideration, so this is potential light rather than actual. Depending upon the room and window-size, the room may still be adequately lit with a lesser VSC value than the target values referred to above.

Appendix C of the BRE Guide sets out various more detailed tests that assess the interior daylit conditions of rooms. These include the calculation of the average daylight factors (ADF) and no sky-lines. The ADF value determines the level of interior illumination that can be compared with the British Standard, BS 8206: Part 2. This recommends a minimum of 2% for kitchens, 1.5% for living rooms and 1% for bedrooms.

The no sky-line contour shows the extent of light penetration into the room at working plane level, 850mm above floor level. If a substantial part of the room falls behind the no sky-line contour, the distribution of light within the room may look poor.

## **SUNLIGHTING**

Requirements for protection of sunlighting to existing residential buildings around a development site are set out in Fart 3.2 of the BRE Guide. There is a requirement to assess windows of surrounding properties where the main windows face within 90

degrees of due south. The calculations are taken at the window reference point as recommended in British Standard BS8206: Part 2, at the centre of each window on the plane of the inside surface of the wall. The Guide further states that kitchens and bedrooms are less important in the context of considering sunlight, although care should be taken not to block too much sun. The Guide sets the following standard:-

"If this window reference point can receive more than one quarter of annual probable sunlight hours, including at least 5% of annual probable sunlight hours during the winter months of 21st September and 21st March, then the room should still receive enough sunlight. The sunlight availability indicator in Appendix A can be used to check this.

Any reduction in sunlight access below this level should be kept to a minimum. If the available sunlight hours are both less than the amount given and less than 0.8 times their former value, either over the whole year or just during the winter months then the occupants of the existing building will notice the loss of sunlight."

Our computer software has been designed to calculate the percentage of annual probable sunlight hours on the basis of the sunlight availability indicator, which in this instance is the indicator for London having a latitude of 51.5 degrees north. The total of annual unobstructed sunlight is 1,486 hours.

#### THE SITE

The site is an existing car park which is to be demolished and converted into the ground plus 5-storey building stepped down to ground plus three storeys at the site edges.

The results for the tests are shown in our bound package entitled "BRE Sunlight and Daylight Report for Centre Heights, Finchley Road".

This incorporates Drawings CE06/ROL/CAD01-CAD12.

Drawings CAD08 and CAD09 show the 3D view of the existing and then proposed schemes whilst Drawings CAD10-CAD12 show the elevation to the adjoining buildings that were tested.

#### **CAMPDEN HOUSE**

We have undertaken a test for sunlight and daylight on the ground floor, first floor and second floor of Campden House.

You will recall that under the guidelines a 20% reduction in daylight and/or sunlight is allowable without the Adjoining Owner's finding any noticeable difference.

It can be clearly seen from the figures on all three drawings related to Campden House but the alteration in both the daylight and sunlight is minimal, in all instances there are less than 20% reductions and in terms of sunlight, even the ground floor levels remain well in advance of the minimum sunlight provision required by the guidance.

In fact we can conclude from these figures that there is no adverse effect on Campden House whatsoever.

# **HICKS HOUSE**

It can be seen from these drawings that as the elevation of Hicks House is served by access balconies at each level, the levels of daylight are not great.

Indeed, they are in the region of 4-5% vertical sky component.

These are reduced marginally in most cases, save for the three windows at the bottom of Drawing CAD04. In fact, we believe that two of these namely those with the existing vertical sky component in red marked 4.798 and 4.402 are not habitable rooms, but bathrooms and hallway. The bigger window which has an existing value of 4.754 and a proposed value of 3.345 marginally fails the 20% reduction test, but the plan of the room shown behind that window "Room 1" shows a green contour which describes where visible sky can be seen from within the room. It can be seen that this does cover a

of 5.723 does pass the 20% reduction test.

Again therefore, we do not think there is any significant reduction in light to this building.

# CONCLUSIONS

For the two adjacent residential properties, the losses of daylight in terms of the vertical sky component are very small and in the vast majority of cases, that is save for two habitable room windows, they pass the BRE Guideline.

Sunlight guidelines are passed in all respects.

We trust the foregoing is satisfactory. If you require any further information, please do not hesitate to contact us.

The liabilities of Schatunowski Brooks do not extend to any third parties.

Yours faithfully

Schatunowski Brooks