

**BRE**  
Watford, Herts  
WD25 9XX

T +44 (0)1923 664000  
F +44 (0)1923 664010  
E enquiries@bre.co.uk  
W www.bre.co.uk

bre

Mr A Buckley  
GIA  
The Whitehouse  
Belvedere Road  
London SE1 8GA

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Our Ref. BRE114/6/25

Dear Mr Buckley

## **XXXXX XXXXX DAYLIGHT AND SUNLIGHT QUERIES**

Thank you for your email of 11 December.

You asked about loss of sunlight to existing bedrooms. The BRE Report 'Site layout planning for daylight and sunlight: a guide to good practice' recommends that 'all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun.' Normally we would not include loss of sunlight to bedrooms in a detailed analysis; and loss of sunlight to bedrooms would not be treated as a material issue except in bedrooms that also comprised a living space, for example a bed sitting room in an old people's home. Loss of diffuse daylight to bedrooms does need to be taken into account, as stated in paragraph 2.2.2 of the BRE Report.

You also asked about a situation where the winter probable sunlight hours decreased, but the annual probable sunlight hours over the whole year increased (because some parts of the obstructing building were being removed while others were added). 'Site layout planning for daylight and sunlight: a guide to good practice' states that sunlight loss is only significant if the reduction of sunlight received over the whole year is greater than 4% of annual probable sunlight hours. Thus in the situation you describe there would not be a significant loss of sunlight, because loss of winter sun would be more than compensated by extra sunlight at different times of year, and therefore the window would comply with the guidelines as far as sunlight is concerned.

Your email also explained that the courtyard part of the proposed building would be clad in white glazed bricks to reflect extra light to the nearby windows. The vertical sky component, which is the basis for the BRE guidance) does not take account of reflected light. However, having light coloured external surfaces does increase the daylight to neighbouring windows and could offset the loss of light. One way to check this would be to carry out a detailed analysis using software



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that can model the effects of interreflection (the Radiance software you mentioned is an example of this). It is important to use realistic reflectance values and include the effects of windows in the reflecting façade, as windows tend to absorb light. You stated that your modelling resulted in an increase in the internal daylight levels. In this case there would not be any loss of diffuse daylight and therefore there would not be an adverse effect on the amount of daylight in the existing rooms.

Yours sincerely

*PJ Littlefair*

Dr Paul Littlefair  
Principal Lighting Consultant  
For and on behalf of BRE  
Telephone: +44 (0)1923 664874  
E-mail: [littlefairp@bre.co.uk](mailto:littlefairp@bre.co.uk)