SPD LTD

DAYLIGHT AND SUNLIGHT REPORT

MARCH 2017, REF: 1623/TP/SUN

COMMISSIONED FOR:

15 ST SILAS PLACE
LONDON
NW5 3QP

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Introduction

This report has been commissioned by Mr Christopher Wickham, on behalf of Mr John Stooke of 15 St Silas Place, and produced by Savage Pottinger Design Ltd to provide detailed information on the impact of the proposed extension at 15 St Silas Place on the daylight levels to the adjacent 1st floor window at number 6. For the purpose of this study the existing building at Number 15 is referred to as “existing” and the extended building is referred to as “proposed”.

The approach is based on the BRE’s “Site Layout Planning for daylight and sunlight, a Guide to good practice”, second addition, PJ Littlefair 2011, which is generally accepted as good practice by Town and Country Planning authorities.

Site

The property (15) is part of an ex local authority development with the elevation in question facing approximately due East. The site is surrounded by taller properties of between 4 and 6 storeys high casting much of the property in shadow. For the purpose of this study the bulk of the large building to the south ("Wingham" - 1 to 27) was included in the computer modelling, although out of view in the rendered images, as it has the greatest impact on existing light levels.

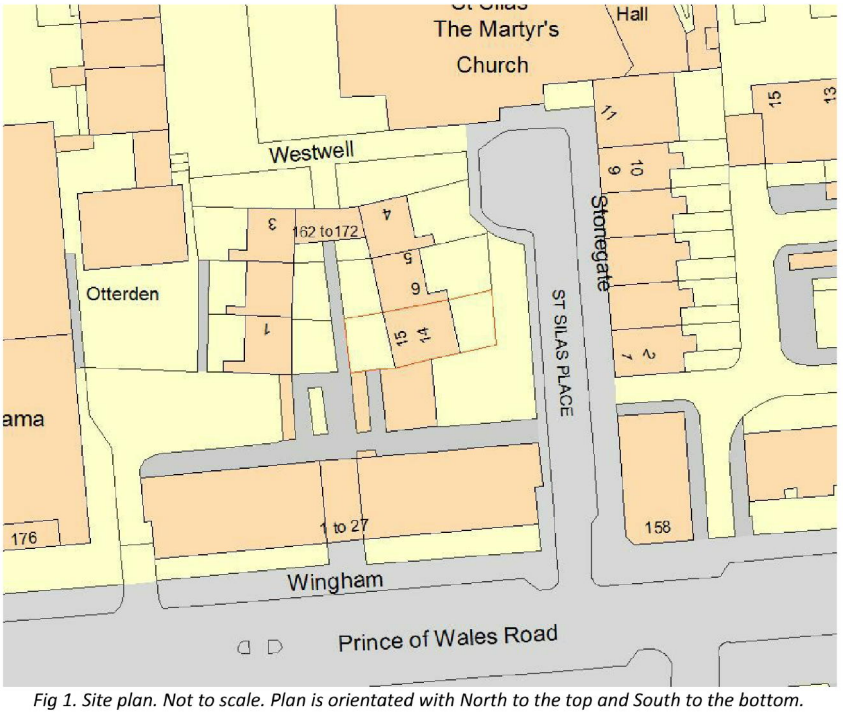

Fig 1. Site plan. Not to scale. Plan is orientated with North to the top and South to the bottom.

Methodology

Daylight

The Vertical Sky Component 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. To maintain good levels of daylight, the Vertical Sky Component of a window needs to be 27% or greater. If the VSC is less than 27%, then a comparison of "existing" and "proposed" levels of VSC need to be calculated. Good daylighting can still be achieved if levels are within 0.8 of their former value.

Two computer models of the property were constructed using 3D modelling software, one showing "existing" and one "proposed". Specialist daylight modelling software was then used to measure the VSC values of the first floor window adjacent to the proposal and the "existing" and "proposed" results then compared.

The 3D models were created using a combination of OS data, drawings supplied by the owner and an on-site measured survey carried out by this practice. The 3D models are therefore accurate to the best of SPD Ltd's knowledge.

Data

The following existing and proposed images show the levels of VSC using a colour gradient, with exact readings indicated on the window in question.

Existing:

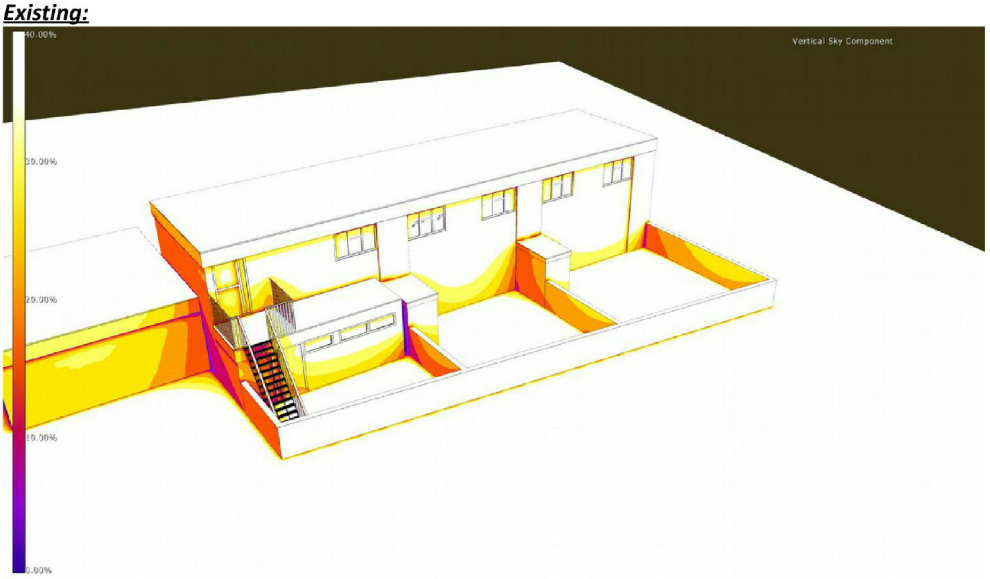

Fig 2. Existing VSC levels.

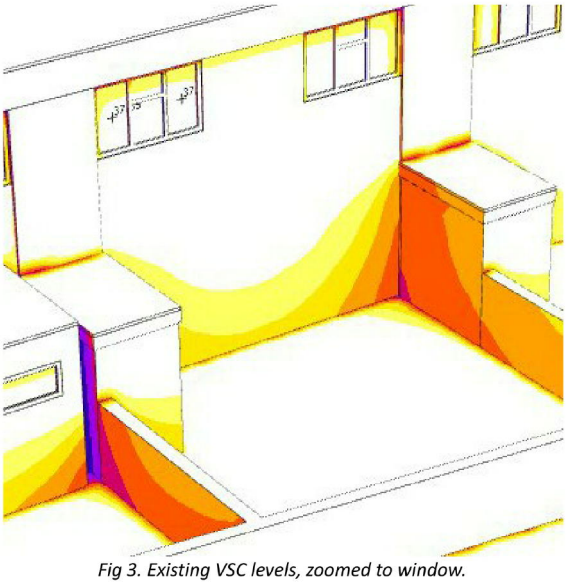

Fig 3. Existing VSC levels, zoomed to window.

Proposed:

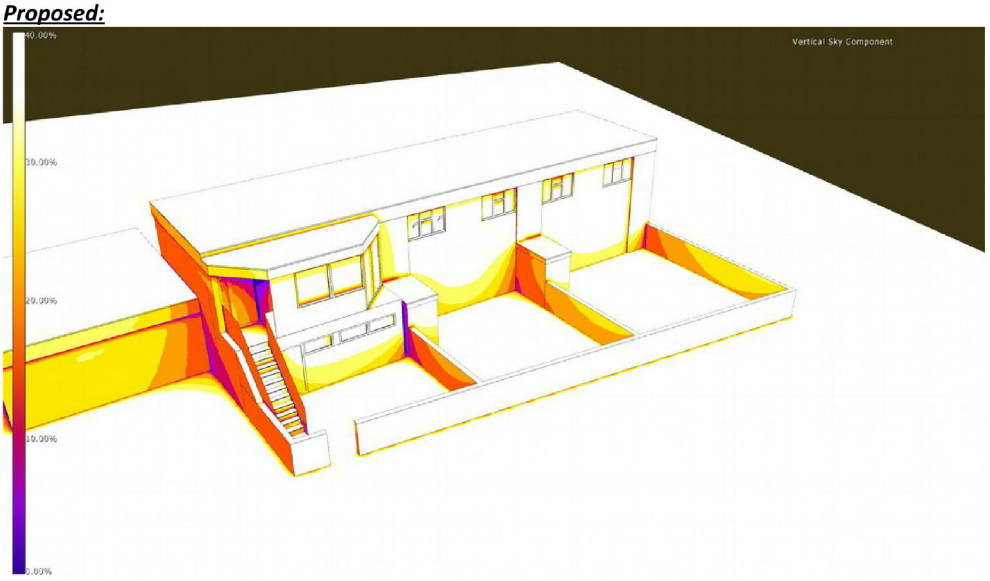

Fig 4. Proposed VSC levels.

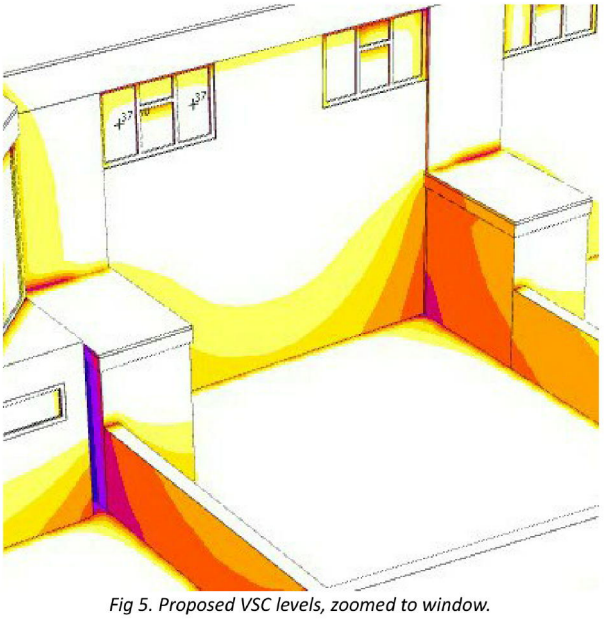

Fig 5. Proposed VSC levels, zoomed to window.

Conclusion

The proposal has been found to have almost zero impact on existing levels of daylight received by the window in question, with the "existing" and "proposed" figures being identical if rounded to the nearest single percentage figure, which equals 37%. This represents a very good level of existing daylighting, which the proposal maintains.

It is therefore the conclusion of SPD Ltd that there is no negative impact of the extension to Number 15 St Silas Place on the amount of daylight received by the adjacent 1st floor window of number 6 and that the extension to Number 15 therefore satisfies the BRE and CIBSE requirements for daylight and sunlight.

William Pottinger

For Savage & Pottinger Design (SPD) Ltd
March 2017