



Vertical Sky Component

VSC is expressed as a % ratio of the skylight illuminance on a surface compared with the illuminance on unobstructed horizontal ground. VSC calculations are normally carried at the centre of the outside pane of a window.

For VSC calculations the maximum value is nearly 40% for a completely unobstructed vertical plane.

When measuring the impacts of new buildings on existing buildings measurements can be taken to assess the VSC impacts, by comparing both before development VSC with after. If the VSC is less than 0.8 times its before value occupants will notice a reduction in daylight.

The table below indicates the VSC% value calculated by the angle to the nearest neighbouring building obstruction

Obstruction angle on building	Equivalent VSC%
40	18
42	17
44	16
46	15
48	14

(taken from *lightup-analytics.com*)

- **Site line 1a** - Existing site line of proposed Parker Street development basement bedroom window to horizon line set by tallest point of existing school building. **Line is 42° from ground plane.**
- **Site line 1b** - Site line of proposed development basement bedroom window after new nursery building is built. **Line is 46° from ground plane.**
- **Site line 2** - Unaffected site line of proposed development ground floor living room window to horizon line set by tallest point of existing school building.
- **Site line 3** - Unaffected site line of proposed development first floor living room window to horizon line set by tallest point of existing school building.

Conclusion

The VSC% on the basement window of the Parker Street development prior to the development of the new nursery building would be 17%. The VSC% for this window would reduce to 15% when the nursery is built.

However the BRE report advises that the VSC is permitted to reduce existing levels by 20% and still meet the required standards. In this case the 80/20 threshold of the existing 17% would be 13.6%.

Therefore the VSC value of 15% for the basement window after the nursery is built will be above the permitted minimum percentage value.

INFORMATION

Project
St Joseph's Primary School
 Holborn

Drawing Title
Sunlight/Daylight Test
Proposed Section CC

Date 13.04.15	Scale 1:50@A2	Drawn by AB	Check by TC
Project No 23171	Drawing No SE-050	Revision	-



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