



22 North Hill

Daylight Study

Design Stage Report

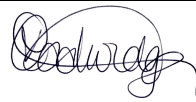
HDSGREENTECH LTD

The Old Dairy
8 Blackfield Road
Fawley
SO45 1ED

Registered Company 8978201

Phone: 07738946988

Email: info@HDSgreentech.co.ukWeb www.HDSgreentech.co.uk

Document Number: R03a 21710 22 North Hill VSC (Vertical Sky Component) Daylight Study			Revision
	Name	Signature	Date
Author	Clare Lodwidge		06/07/2026
Checked	Damian Markham-Smith CIBSE LCEA 4194		06/07/2026

Revision Record					
Rev	Date	By	Summary of changes	Ckd	Appr

Pejman Ellis
22 North Hill
London
N6 4BT

CONTENTS

Executive Summary	4
Introduction.....	4
Model Images	5
Model Construction Information.....	6
Location	6
Methodology	6
Vertical Sky Component	7
Conclusion	7

TABLE OF FIGURES

Figure 1 – Existing Model Images	5
Figure 2 – Proposed Model Images	5
Figure 3 - Site Orientation (North up the page).....	6

TABLE OF TABLES

Table 1 – VSC results.....	7
----------------------------	---

EXECUTIVE SUMMARY

HDSgreentech has undertaken a Vertical Sky Component (VSC) daylight impact assessment to evaluate the possible effect of the proposed extension at 22 North Hill would have on the on neighbouring rear windows at 18 and 24 North Hill. The study has been completed using industry-standard daylight modelling tools and assessed in accordance with BRE 209 (2022) “Site Layout and Planning for Daylight and Sunlight.”

As the internal uses of the neighbouring rooms are not known, all windows on the affected elevation have been included to ensure a comprehensive and precautionary analysis.

The assessment compares existing daylight conditions with those expected following the proposed development, applying the BRE’s two key VSC compliance criteria:

- A VSC of 27% or greater, or
- A reduction of no more than 20% from the existing baseline.

The results demonstrate that all assessed windows are anticipated to meet the BRE VSC standards, retaining sufficient daylight levels. Based on these outcomes, the proposed development is not expected to result in a noticeable reduction in skylight for occupants of the neighbouring properties.

Overall, the analysis confirms that the scheme performs satisfactorily in with BRE 209 (2022) guidance regarding VSC impacts on the impact on adjacent properties.

INTRODUCTION

This report presents a Vertical Sky Component (VSC) daylight impact assessment undertaken by HDSgreentech to evaluate the potential effects of the proposed extension at 22 North Hill. The scheme includes a two-storey extension to the rear of the property. The purpose of this study is to determine how the proposed massing may influence daylight availability to neighbouring property windows at 18 and 24 North Hill.

As the internal room uses of the neighbouring property are not known, all windows located on the rear of 18 and 24 North Hill have been included within the assessment to ensure a robust and comprehensive analysis.

Daylight modelling has been carried out using the Radiance engine within the IES Virtual Environment software suite. This platform enables detailed daylight simulations in accordance with the governing standard BS EN 17037: Daylight in Buildings, ensuring that the methodology aligns with recognised industry practice.

The assessment focuses on compliance with the Vertical Sky Component (VSC) criteria set out in BRE 209 (2022): Site Layout Planning for Daylight and Sunlight. Under this guidance, a window is considered to retain adequate daylight if:

- Its **VSC remains at or above 27%**, or
- The **reduction in VSC is no greater than 20%** compared with the existing baseline.

Where windows meet either of these criteria, they are deemed to satisfy the BRE recommendations and are highlighted accordingly within the results.

This introduction sets the context for the detailed analysis that follows, outlining the methodology, standards referenced, and performance benchmarks used to evaluate the daylight impact of the proposed development.

MODEL IMAGES

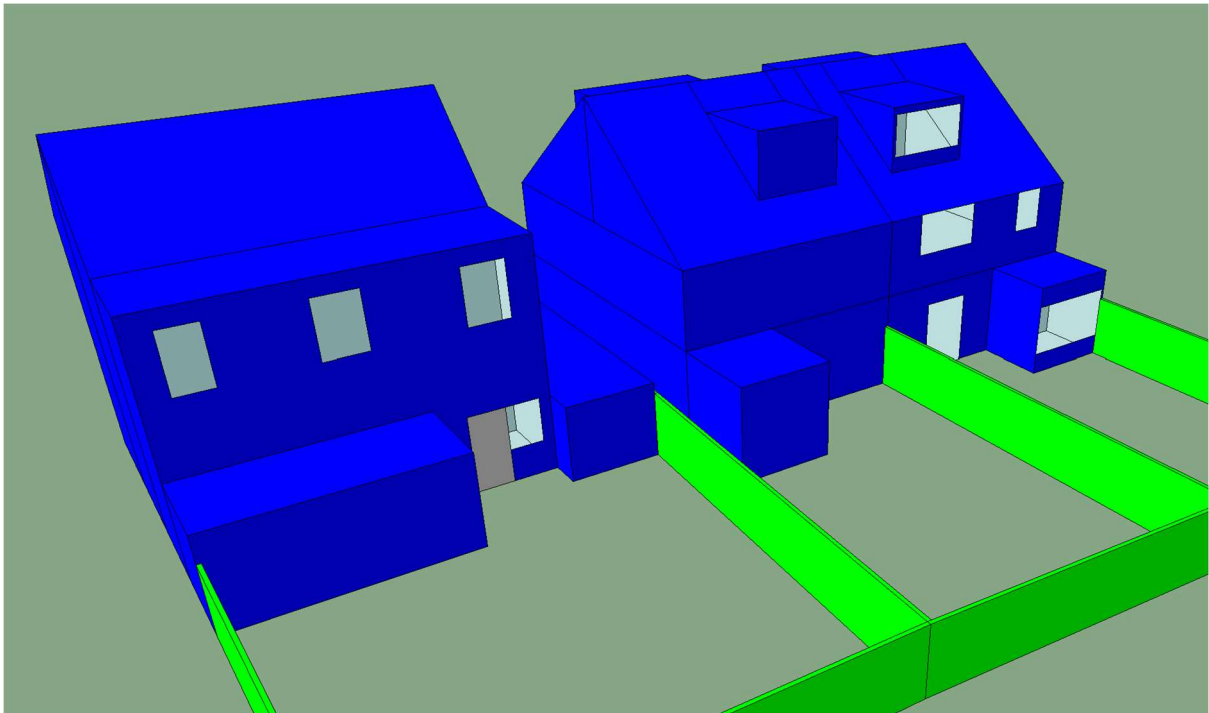


Figure 1 – Existing Model Images

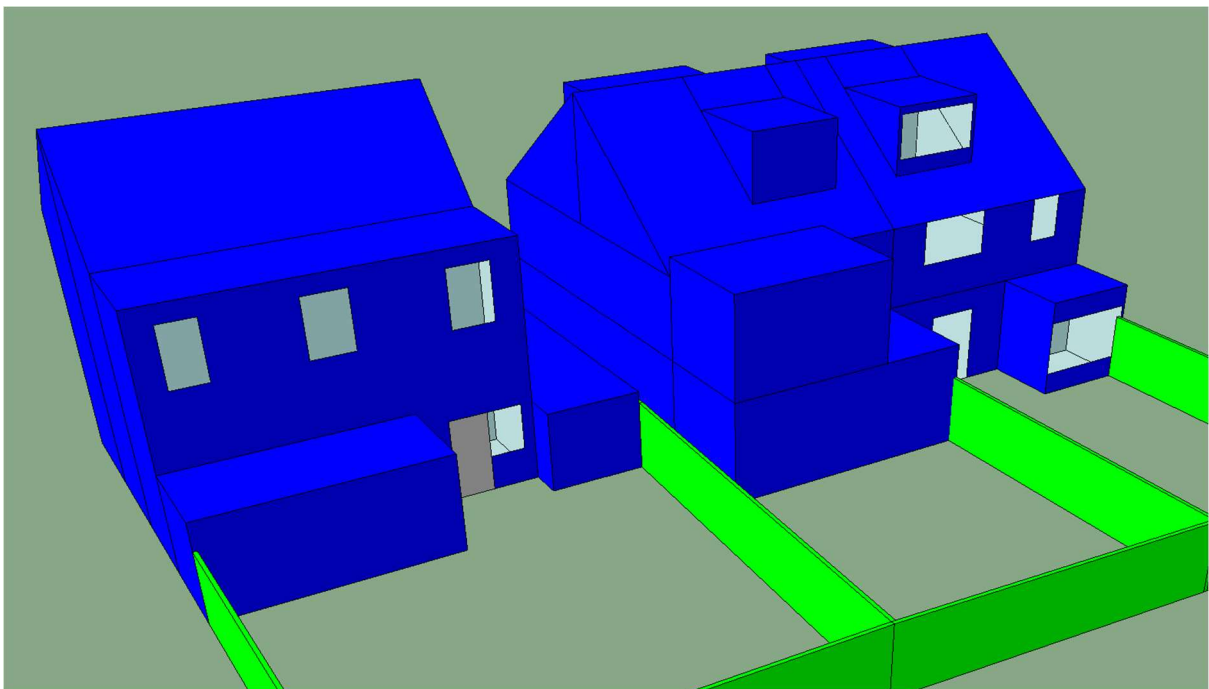


Figure 2 – Proposed Model Images



Figure 3 - Site Orientation (North up the page)

MODEL CONSTRUCTION INFORMATION

The model has been based on drawings provided by Twelve Forty One

LOCATION

This project uses the location of London weather file this being the most appropriate for the N6 4BT location.

METHODOLOGY

The daylight impact assessment has been carried out in accordance with the guidance set out in BRE 209 (2022): Site Layout Planning for Daylight and Sunlight. The analysis focuses on the Vertical Sky Component (VSC), which is the primary metric recommended by the BRE for assessing the potential impact of new development on daylight received by neighbouring windows.

Assessment Approach

- A skylight (VSC) analysis has been undertaken for all relevant windows on the affected elevation of the neighbouring property.
- The assessment compares existing (baseline) conditions with the proposed development massing to determine any change in daylight availability.
- The study has been completed using industry-standard daylight simulation tools that calculate VSC in accordance with BRE methodology and geometric principles.

BRE Compliance Criteria

In line with BRE 209 (2022), each window is assessed against the following VSC benchmarks:

- $VSC \geq 27\%$ under the proposed condition, *or*
- No more than a 20% reduction in VSC when comparing the proposed scenario to the existing baseline.

A window meeting either of these criteria is considered to satisfy BRE recommendations and is unlikely to experience a noticeable reduction in daylight.

Where the VSC remains above 27%, or the reduction is within the 20% threshold, the BRE considers the daylight change to be acceptable. In such cases, it is anticipated that occupants of the neighbouring property will not perceive a meaningful loss of skylight within the affected rooms.

This methodology ensures a consistent, transparent, and robust evaluation of the potential daylight impacts arising from the proposed development.

VERTICAL SKY COMPONENT

As the internal room uses of the neighbouring property are not known, all windows located on the rear of 18 and 24 North Hill have been included within the assessment to ensure a robust and comprehensive analysis.

If the VSC is above 27 the numbers are highlighted green in Table 1 and is considered a pass with no further comment.

Building	Elevation	Floor	Window No.	Existing VSC	Proposed VSC	Difference %	Pass / Fail
18 North Hill	NE	GF	1	33.5	33.0		Pass
	NE	FF	2	39.7	39.7		Pass
	NE	FF	3	39.6	39.6		Pass
	NE	FF	4	39.8	39.5		Pass
24 North Hill	NE	GF	1	32.7	30.1		Pass
	NE	GF	2	35.6	35.6		Pass
	NE	FF	3	39.7	39.0		Pass
	NE	FF	4	39.7	39.5		Pass
	BE	SF	5	39.7	39.7		Pass

Table 1 – VSC results

*Windows are number from left to right, Bottom to top.

CONCLUSION

The VSC assessment undertaken for the proposed extension at 22 North Hill demonstrates that all assessed windows on the rear of 18 and 24 North Hill are anticipated to meet the daylight standards set out in BRE 209 (2022) "Site Layout and Planning for Daylight and Sunlight." Each window retains a Vertical Sky Component above 27%.

On this basis, the proposed development is not expected to result in a noticeable loss of skylight for neighbouring occupants. The daylight levels to the affected windows remain within the thresholds considered acceptable by the BRE, indicating that the scheme performs satisfactorily in terms of daylight impact.

Overall, the analysis confirms that the proposed massing is compliant with BRE guidance.