



10 The Hermitage, London, SW13

Daylight and Sunlight Assessment

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1.0 Introduction

- 1.1 This daylight and sunlight assessment has been prepared in relation to a planning application for the proposed extension of dwelling at 10, The Hermitage, London SW13.
- 1.2 The report assesses the impacts of the proposals in relation to daylight, sunlight and overshadowing matters, having regard to industry standard guidance.
- 1.3 The report concludes that the proposal is acceptable and in accordance with planning policy requirements in relation to daylight and sunlight.
- 1.4 There is no existing specific National Planning Policy relating to the prospective impacts of developments on daylight and sunlight on their surrounding environment.
- 1.5 However, the NPPF (Para 129) does refer to daylight and sunlight in relation to density, encouraging Local Planning Authorities to take a flexible approach to applying policies and guidance relating to the impacts of proposals where they would otherwise inhibit making effective use of the site.
- 1.6 The BRE Report 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice' (3rd Edition, 2022) is the established National guidance to aid the developer to prevent and/or minimise the impact of a new development on the availability of daylight and sunlight in the environs of the site and the assessment of light within proposed new dwellings.
- 1.7 It refers in turn to the daylight and sunlight recommendations in BS EN 17037: 2018+A1:2021 (with UK Annexe): 'Daylight in Buildings'
- 1.8 These reference documents are accepted as the authoritative works in the field on daylight, sunlight and overshadowing and the BRE guidance specifically referred to in many Local Authorities' planning policy guidance for daylighting.
- 1.9 The methodology therein has been used in numerous lighting analyses and the standards of permissible reduction in light are accepted as the industry standards.

2.0 Project Summary

- 2.1 The proposal site is at 10 The Hermitage, SW13 and is occupied by a 2-storey end-terrace dwelling.
- 2.2 The proposal is for a part single, part 2-storey extension to the rear, a rear roof extension and various changes to the façade, garage and front porch.
- 2.3 The impacts of the scheme have been assessed, in line with BRE guidance. Generally, it is the impacts on residential neighbours which are of primary concern.
- 2.4 In this instance, there is also a school to the south of the site, which has been assessed.
- 2.5 Further details on the location of the assessed neighbours and their windows are given in Section 5.0.



Site Location

3.0 Methodology

- 3.1 For this analysis, we have undertaken the following calculations for the change in daylight and sunlight to existing buildings, as recommended in BRE Digest 209:
- Vertical Sky Component (VSC) for daylight impacts
 - Annual Probable Sunlight Hours and Winter Probable Sunlight Hours (WPSH) (APSH) for sunlight impacts
- 3.2 The VSC method measures the general amount of light available on the outside plane of the window as a ratio (%) of the amount of total unobstructed sky viewable following introduction of visible barriers such as buildings. The maximum value is just under 40% for a completely unobstructed vertical wall.
- 3.3 The VSC is calculated using computer simulation under a CIE overcast sky. This works by simulating the amount of visible sky from the centre point of each window. It is not affected by orientation and so all potentially affected windows are assessed.
- 3.4 Annual Probable Sunlight Hours (APSH) and Winter Probable Sunlight Hours (WPSH) are a measure of the amount of potential direct sunlight that is available to a given surface. APSH covers sunlight over the whole year and WPSH from September 21st to March 21st.
- 3.5 Only windows which face within 90° of due south need be assessed for sunlight. This is looked at in Section 8.
- 3.6 The sunlight hours test can also be used to assess the impact on external spaces such as gardens. This is looked at in Section 9.

4.0 Modelling & Data Sources

- 4.1 The first stage of the analysis is to create the analysis model of the existing site condition and the proposal. This allows us to analyse the impact of the proposal in terms of loss of daylight and sunlight.
- 4.2 2D drawings have been provided by the design team. These drawings are used to construct a 3D analysis model which is exported into the specialist daylight software. Calculations are then run, for both existing and proposed scenarios.
- 4.3 Sufficient detail is added to the model for the analysis. In accordance with BRE recommendations, trees and foliage have been omitted from the calculations.
- 4.4 Information on the properties has been provided to us by the design team in the form of drawings giving the site as existing and proposed and photographs of the site and surroundings.
- 4.5 Web-based mapping sources and planning records for neighbouring buildings have also been used where available.



Front Elevation – As Existing



Front Elevation – As Proposed

5.0 BRE Guidance Targets

5.1 The reference document for this analysis, BRE Digest 209, 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice' (3rd Edition, 2022) gives the methodology for undertaking the calculations.

5.2 It also provides benchmark figures for the acceptable reduction in the daylight on existing properties which might be affected by development.

5.3 Specifically, the guidance gives figures for the VSC and APSH, as a percentage reduction that is "permissible" for the effect on existing windows.

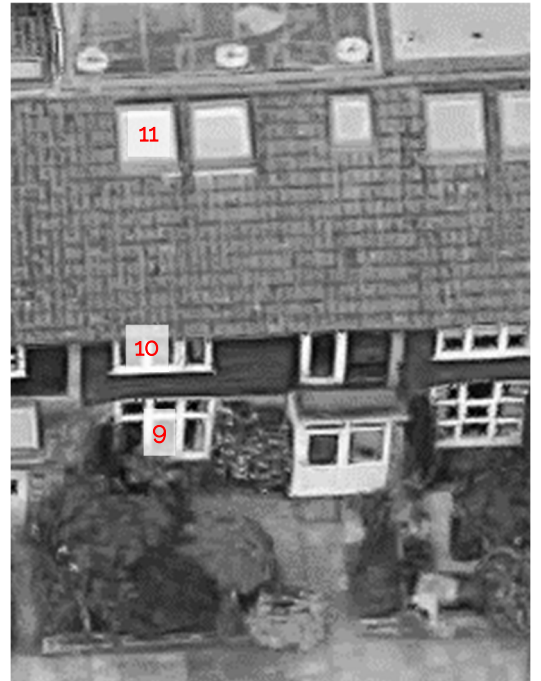
5.4 It is worth noting the following statement in the Guidance introduction:

- "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."

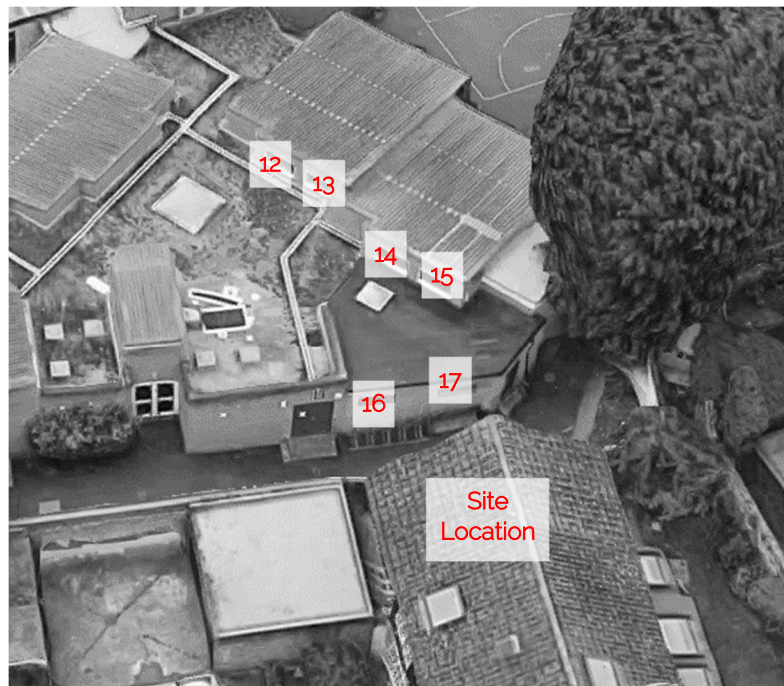
5.5 The relevant BRE recommendations for daylight and sunlight are:

- The Vertical Sky Component measured at the centre of a window should be no less than 27%, or if reduced to below this, no less than 0.8 times the former value.
- The window should receive at least 25% of available annual sunlight hours and more than 5% during the winter months (September 21st to March 21st), or, where this is not the case, 80% of its former value.

6.0 Window Schedules



9 The Hermitage



St. Osmund's Primary School

7.0 Daylight Impact Results

- 7.1 The Vertical Sky Component has been calculated for each of the 17 assessed windows for both the existing and proposed conditions.
- 7.2 As can be seen in the results below, all windows retain in excess of 80% of their current values.
- 7.3 The scheme is therefore compliant with BRE recommendations in relation to daylight impacts.

Vertical Sky Component				
Window	Existing VSC	Proposed VSC	% Retained	Meets BRE Guidance?
1	33.745	33.745	100.00%	Yes
2	75.348	75.170	99.76%	Yes
3	38.282	38.282	100.00%	Yes
4	38.272	38.268	99.99%	Yes
5	39.107	39.099	99.98%	Yes
6	73.998	72.648	98.18%	Yes
7	38.415	38.303	99.71%	Yes
8	39.158	39.134	99.94%	Yes
9	33.957	33.265	97.96%	Yes
10	35.872	35.872	100.00%	Yes
11	88.013	87.952	99.93%	Yes
12	36.172	36.099	99.80%	Yes
13	35.898	35.790	99.70%	Yes
14	34.608	34.293	99.09%	Yes
15	33.787	33.279	98.50%	Yes
16	30.046	28.076	93.44%	Yes
17	24.650	23.132	93.84%	Yes

8.0 Sunlight Impact Results

- 8.1 BRE guidance states that only windows which face within 90° of due south need be assessed for sunlight provision. In this instance, 8 windows fall into this category.
- 8.2 The remaining windows do not need to be assessed as they face within 90° of north.
- 8.3 The Annual Probable Sunlight Hours has been calculated for these windows for both the existing and proposed conditions using the methodology described previously, both over the whole year, and through the "winter months" (September 21st until March 21st)
- 8.4 The BRE guidance states that the sun lighting may be adversely affected if the centre of the window:
- Receives less than 25% of annual hours or less than 5% of winter hours and
 - Receives less than 80% of its current sunlight hours during either period and
 - Has a reduction in sunlight over the whole year greater than 4% of annual probable sunlight hours
- 8.5 It is clear from the wording of the above that all three clauses need to be met to qualify as an adverse impact. Thus, if the window does not meet any one of these criteria, the impact is acceptable.
- 8.6 The results below show that the assessed windows retain in excess of 80% of their existing sunlight hours, both annually and over the winter months.
- 8.7 The scheme is therefore compliant with BRE guidance in relation to sunlight impacts.

8.0 Sunlight Impact Results

Window	Annual Sunlight Hours			Winter Sunlight Hours			Meets Guidance?
	Ex. Hrs Received (%)	Prop. Hrs Received	% Retained	Ex. Hrs Received	Prop. Hrs Received	% Retained	
1	52.322	52.322	100.00%	15.523	15.523	100.00%	Yes
2	62.578	60.499	96.68%	19.473	17.394	89.32%	Yes
3	48.094	48.094	100.00%	15.177	15.177	100.00%	Yes
4	48.094	48.094	100.00%	15.177	15.177	100.00%	Yes
5	51.975	51.975	100.00%	15.177	15.177	100.00%	Yes
6	62.578	56.272	89.92%	19.473	16.035	82.34%	Yes
7	47.956	47.956	100.00%	15.177	15.177	100.00%	Yes
8	51.975	51.975	100.00%	15.177	15.177	100.00%	Yes

9.0 Sunlight to Neighbouring Gardens

- 9.1 Residential gardens are generally assessed using the sunlight hours test, but only on March 21st. The guidance describes a well-lit space as being one which receives at least 2 hours of direct sunlight on this date over 50% of its area.
- 9.2 BRE guidance also uses the "80%" rule for this test, whereby the effects are considered acceptable if the remaining sunlight is in excess of 80% of the existing level. This clause applies if the space is reduced to less than 50% of the area well sunlit.
- 9.3 The garden of the nearest neighbouring property to the site was assessed using this methodology.
- 9.4 As can be seen, the neighbouring garden retains in excess of 80% of its current area which receives 2 hours of sunlight on March 21st.
- 9.5 The scheme is therefore compliant with the BRE guidance in relation to sunlight impacts to gardens and overshadowing.



Site Location

Amenity Sunlight Hours				
Garden	Existing Area Receiving 2 Hours	Proposed Area Receiving 2 Hours	% Retained	Meets BRE Guidance?
G1	63.17%	62.27%	98.58%	Yes

10.0 Conclusions

- 10.1 Using industry standard methodology, we have made numerical analyses to ascertain the effects of the proposed works to 10, The Hermitage, SW13, and the levels of change in daylight and sunlight for the windows and gardens of the neighbouring properties.
- 10.2 The main criteria used in this analysis to show compliance are the Vertical Sky Component (VSC) for daylight impacts and Annual and Winter Probable Sunlight Hours for sunlight impacts
- 10.3 As has been shown, the effect on VSC is within the 80% BRE guidance value in all cases.
- 10.4 We are therefore able to conclude that there will be no adverse impact on neighbouring residents in terms of daylight as a result of the works.
- 10.5 In terms of sunlight, our analysis shows that the windows which require assessment retain in excess of 80% of their existing sunlight hours, both annually and over the winter months.
- 10.6 The nearest neighbouring garden retains in excess of 80% of its current area which receives 2 hours of sunlight on March 21st.
- 10.7 The scheme is therefore fully compliant with BRE guidance in relation to sunlight impacts.
- 10.8 It is therefore the conclusion of this report that the development meets the guidance values in the BRE report and is therefore entirely acceptable, in daylight and sunlight terms.



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