
18 Guilder Lane, Salisbury, SP1 1HW

Assessment of Adequacy of Natural Light

Rev: A

Date: 4th June 2026

Internal Daylight & Sunlight Study

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SCOPE

Model Environments was appointed by Pelleas Homes GL Ltd to assess whether adequate natural light will be provided in all the proposed habitable rooms in the conversion of 18 Guilder Lane from commercial use to dwellinghouses. The proposal is for one studio flat and seven residential one- and two-bedroom flats spread across the ground, 1st, and 2nd floors. Natural light comprises internal daylight and sunlight.

Habitable rooms include any rooms used or intended to be used for sleeping or living which are not solely used for cooking purposes, also not including bath or toilet facilities, service rooms, corridors, laundry rooms, hallways, or utility rooms.

Adequacy of provision of natural light has been assessed using the criteria set out in the latest BRE guide, BR209 (2022): *"Site layout planning for daylight and sunlight – a guide to good practice"* (Littlefair, 2022, BRE (Building Research Establishment)), and the British Standard BS EN 17037 *"Daylight in Buildings"*. Whilst the BRE guide itself states that its guidelines are not mandatory, they, along with British Standard BS EN 17037 are the predominant reference for daylight and sunlight standards in the UK. BS EN17037 pertains to daylight in buildings, however it also recommends that potential overheating risks due to high daylight factors be identified: the latter is beyond the scope of this report.

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In the absence of any definition in the permitted development rights legislation, our view is that any habitable room which meets the minimum standards set out in the BRE guide and in BS EN17037 for both daylight and sunlight, should be regarded as being provided with adequate natural light, given that sunlight and daylight are the components of natural light.

It is important to note that with any modelling exercise there are assumptions and approximations that must be made. As far as possible, details of all assumptions and approximations used are supplied as part of the report. All results are based on the output from computer modelling software and should be taken as an indication of the likely final situation, but these conditions cannot be guaranteed.

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METHODOLOGY

There are no national planning policy guidelines on sunlight, daylight and the effects of overshadowing. At the local level, the document *Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice* by Paul Littlefair of the Building Research Establishment (BRE, 2022) has been adopted into many councils' Local Plans and, even where some local authorities have not explicitly adopted the methodology, it is widely recognised as the best available means of determining potential impacts of this type. This assessment has been carried out in accordance with the best practice guidelines stated in this reference.

It should be noted that the guide says of itself that the intention is to help rather than constrain the designer, and that its advice is not mandatory. Further, whilst the document provides numerical guidelines for various natural light derived parameters, it advises that these should be applied flexibly.

Daylight Assessment Methodology

The internal assessment has been conducted with reference to the BRE guidance for internal daylight and sunlight, which itself references the British Standard BS EN17037.

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The British Standard for daylight BS EN17037 recommends calculating the Median Daylight Factor (MDF) for use in new residential developments. Calculating the median daylight value across the room ensures at least 50% of the room is lit to the minimum standard, which gives some guarantee of adequate daylight distribution across a room. BS EN17037 and the BRE guide, BR209 (2022), contain guidance on minimum recommended MDF values for different room types. Table C3 in Appendix C: *“Interior Daylighting Recommendations”*, on page 74 of the BRE guide, gives numerical minimum MDF values appropriate for different locations across the UK. No data is available for Salisbury. Hence the closest locale for which data is available was selected as a basis for this analysis: London. For kitchens (which includes kitchen/living/dining rooms), the minimum recommended MDF is 1.4%, for living rooms (which includes living/dining rooms and studio rooms with living/dining/bed facilities) it is 1.1%; and for bedrooms it is 0.7%.

Sunlight Assessment Methodology

For new residential developments living rooms should be checked for their access to sunlight. The BRE guide and the British Standard BS EN17037 recommend a test for available sunlight hours on 21st March, where a cloudless sky is used to assess the maximum possible access to sunlight on this day. A living room is deemed to have adequate access to sunlight if on 21st March, the main window serving the room can receive at least 1.5 hours of sunlight.

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THE MODEL

The calculations were made using Ecotect 5.6 software from Autodesk Ltd and Radiance from Lawrence Berkeley Laboratories. Three-dimensional electronic models suitable for daylight/sunlight analysis were constructed to represent the current site conditions and the proposed development.

The model was based on survey information, photographs, drawings, and information supplied by the design team in June 2026, as well as information found concurrently online. Estimations were made in the absence of other information, and these are made explicit where applicable throughout the report.

The reflectance values of the building surfaces in the model were set to BRE default values, these were: interior walls, $R=0.5$; ceilings, $R=0.7$; floors, $R=0.2$; exterior walls, $R=0.2$.

Glazing was modelled as standard double glazing with a transmittance of 0.64 to account for reductions due to pollution and obstruction by the frame. The working plane was set at 850mm above floor level.

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INTERNAL DAYLIGHT AND SUNLIGHT RESULTS

Eighteen habitable rooms within the eight new proposed residential units at 18 Guilder Lane were tested for their access to internal daylight and sunlight.

1. Internal Daylight

Rooms were tested against the recommended benchmarks for Median Daylight Factor (MDF) referenced by the BRE guide and the British Standard BS EN17037. The table below shows the results.

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Flat	Room	Median Daylight Factor (MDF)	Recommended Minimum MDF	BRE Compliance
1	Studio	1.5%	1.4%	Pass
2	KLD	2.2%	1.4%	Pass
	Bed	2.3%	0.7%	Pass
3	KLD	1.7%	1.4%	Pass
	Bed	3.5%	0.7%	Pass
4	KLD	4.1%	1.4%	Pass
	Bed	1.8%	0.7%	Pass
5	KLD	3.3%	1.4%	Pass
	Bed	2.0%	0.7%	Pass
6	KLD	1.7%	1.4%	Pass
	Bed 1	1.9%	0.7%	Pass
	Bed 2	1.6%	0.7%	Pass
7	KLD	4.3%	1.4%	Pass
	Bed 1	3.3%	0.7%	Pass
	Bed 2	1.3%	0.7%	Pass
8	KLD	1.4%	1.4%	Pass
	Bed 1	2.1%	0.7%	Pass
	Bed 2	2.7%	0.7%	Pass

Table 1: Internal daylight results for proposed habitable rooms.

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2. Sunlight Results

BRE and BS EN 17037 specify that main living room windows should be able to receive at least 1.5 hours of sunlight on 21st March. Seven proposed living (KLD) rooms and one studio room were tested for their access to sunlight on the target date. The results appear in the table below.

Flat	Sunlight Hours on 21 st March	BRE Compliance
1	5	Pass
2	5	Pass
3	3	Pass
4	9	Pass
5	5	Pass
6	3	Pass
7	9	Pass
8	3	Pass

Table 2: Sunlight hours for living (KLD) rooms.

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CONCLUSION

Our analysis demonstrates that all the habitable rooms in the proposed flats will meet or exceed, the minimum standards for both daylight and sunlight set out in the latest BRE guide, BR 209 (2022) and the British Standard BS EN 17037. Given that daylight and sunlight are the components of natural light, we conclude that all habitable rooms will be provided with adequate natural light.

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Issue	Date	Remarks	Prepared	Checked
A	4 th June 2026		Harry Westaway	IW

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