



daylight&sunlight

Daylight and Sunlight Report
for the Proposed Development at
25 Warren Road, Ickenham, UB10 8AA

Prepared for: GA & A Design
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1. Executive Summary

1.1 Scope of Service

- 1.1.1 We have been instructed by GA & A Design to consider the potential impact upon the amenity of the surrounding residential amenity, which may arise from the proposed development at 25 Warren Road, Ickenham, UB10 8AA.

1.2 BRE Assessment Criteria

- 1.2.1 To ensure that this assessment has been appropriately considered, daylight and sunlight assessments have been undertaken in accordance with the Building Research Establishment Report 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice' 2022 (the "BRE guide").
- 1.2.2 The standards and tests applied within this assessment are briefly described at Section 3 below.

1.3 Daylight and Sunlight

- 1.3.1 Regarding the surrounding properties the proposed development is generally BRE compliant.
- 1.3.2 We noted a very minor transgression to the ground floor living room of 23 Warren Road, which is unsurprising given that the living room windows are located so close to the common boundary.
- 1.3.3 The BRE cites special circumstances, where buildings located uncommonly close to the site boundary, they may be considered as "bad" neighbours, taking more than their fair share of light. Accordingly, a greater reduction in daylight or sunlight may be unavoidable and so the local authority may wish to apply different target values.
- 1.3.4 Nonetheless, with the application of the mirror-image principle, the proposed development is BRE compliant.

1.4 Generally

- 1.4.1 When considering the numerical results, it is important to approach and interpret the BRE guidelines flexibly along with the following material mitigating factors:

*The BRE guidelines recognises that buildings located uncommonly close to the site boundary, as is the case here, may be considered as "bad" neighbours, taking more than their fair share of light. Accordingly, a greater reduction in daylight or sunlight may be unavoidable and so the local authority may wish to apply different target values.

*Where buildings match the height and proportions of existing surrounding buildings some transgressions will be inevitable.

* Also, where the sites are undeveloped or are infill sites, again a higher degree of obstruction may be unavoidable, leading to a higher frequency of non-compliance

*Kitchens and bedrooms are given less weighting than that of a living room.



1.5 Generally

1.5.1 When considering the numerical results, it is important to approach and interpret the BRE guidelines flexibly along with the following material mitigating factors:

*The BRE guidelines recognises that buildings located uncommonly close to the site boundary, as is the case here, may be considered as “bad” neighbours, taking more than their fair share of light. Accordingly, a greater reduction in daylight or sunlight may be unavoidable and so the local authority may wish to apply different target values.

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2. Introduction

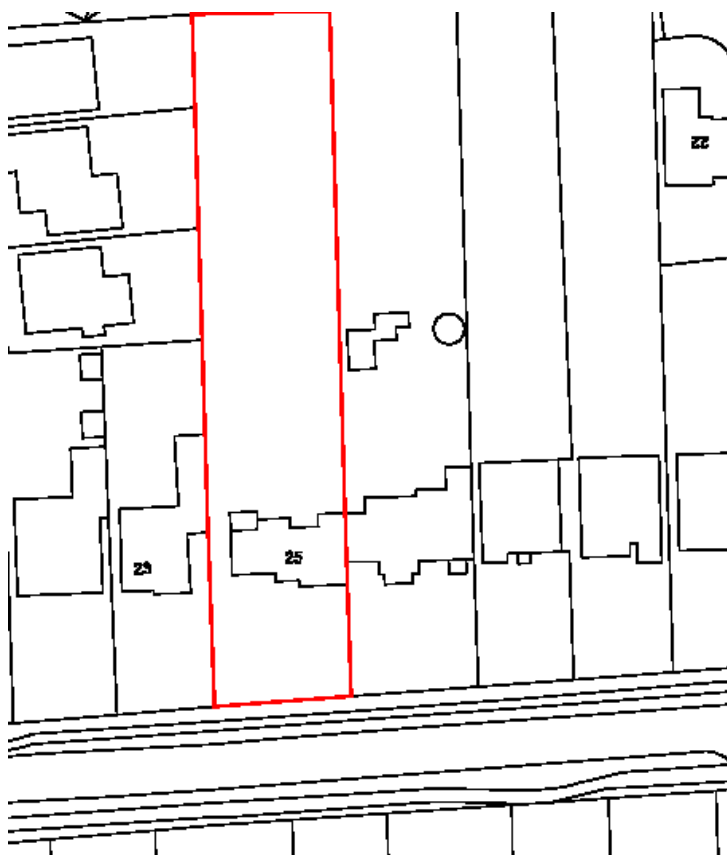
2.1 Scope of Service

- 2.1.1 We have been instructed by GA & A Design to consider the potential impact upon the amenity of the surrounding residential amenity, which may arise from the proposed development at the 25 Warren Road, Ickenham, UB10 8AA.

2.2 Assessment

- 2.2.1 To ensure that this assessment has been appropriately considered, daylight and sunlight assessments have been undertaken in accordance with the Building Research Establishment Report 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice' 2011 (the "BRE guide") and with the British Standard 8206 – 2: 2008 – 'Lighting for Buildings – Part 2: Code of Practice for Daylighting', to which the BRE report refers.
- 2.2.2 The standards and tests applied within this assessment are briefly described at Section 3 below.
- 2.2.3 The existing buildings adjacent to the site are shown on the Site Location Plan below.

Site Location Plan





- 2.2.4 The existing buildings adjacent to the site considered for this report are listed in the following table. Some of these buildings may not require a comprehensive assessment with the reasons for these findings given later in this report under section 3: Results and Consideration.

Adjacent Building Summary Table		
Name/Address of Building	Assumed Use of Building	Position in Relation to the Proposed Development
23 Warren Road	Residential	West

2.3 Limitations

- 2.3.1 Our assessment is based on the proposed development drawings by GA & A Design.
- 2.3.2 Topographical survey information was provided for the site and adjacent buildings. Where buildings were not surveyed, the locations and heights were derived from site photographs and oblique aerial photography.
- 2.3.3 We refer you to the drawings which accompany this report for a list of the third party information relied upon which our 3D computer model and resultant analyses are based.



3. BRE Criteria and Mitigating Factors

3.1 BRE Daylight Criteria

- 3.1.1 The BRE guide target value for the Vertical Sky Component Assessment (VSC) is 27%. However, where the values are lower than this in the existing situation, the BRE allows a reduction of 20%, *subject to mitigating factors*.
- 3.1.2 For Daylight Distribution, namely, sky visibility at table level, the BRE allows a reduction of 20%, *subject to mitigating factors*.

3.2 BRE Sunlight Criteria

- 3.2.1 The BRE guide target value for the Annual Probable Sunlight Hours (APSH) to a living room, is 25%, 5% of which should be enjoyed during the winter months. However, where the values are lower than this in the existing situation, the BRE allows a reduction of 20%, again, *subject to mitigating factors*.
- 3.2.2 The overshadowing assessment is undertaken on 21 March, the spring equinox. This assessment shows areas of a subject amenity area where less than 2 hours of sunlight will be available during the winter period, however, the subject area may still receive some sunlight during the summer. If an open amenity area, is more than 50% in shade for more than 2 hours in either existing or proposed situations, and is reduced by more than 20% of its existing value of a new development, then that loss is likely to be noticeable.
- 3.2.3 These criteria are, however, purely numerical guidelines. They can be misinterpreted as a hard and fast rule, which is of course an unsustainable argument at planning. A loss of greater than 20% implies that the loss may be noticeable by its occupants, but noticeable does not mean, significant or adverse, it just means that it needs to be considered in the broader context. Namely, is the development acceptable in respect of all the surrounding circumstances? This leads us on to the mitigating factors.

3.3 Mitigating Factors

- 3.3.1 As with all development sites, it would be helpful at this stage to outline the mitigating factors.
- 3.3.2 Mitigating factors are to be considered in conjunction with the numerical data, particularly with regards to the specific surrounding circumstances, to arrive at a more balanced view.
- 3.3.3 By balanced, it is meant that the two often conflicting material considerations at planning, (to have amenity protected (neighbours) and to utilise adjacent land in a reasonable manner (developer), need to be considered fairly.
- 3.3.4 The BRE guidelines states at the beginning and throughout that it is “to be interpreted flexibly”; “not intended to constrain but help the designer”; and “not to be used as an instrument of planning policy”.



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- 3.3.5 The simplest way of approaching all the above is to keep in mind one basic question – “is it [the development] fair/balanced/acceptable in consideration of all the surrounding circumstances”.

Mitigating Factor #1

- 3.3.6 The main mitigating factor is, that where buildings located uncommonly close to the site boundary, they may be considered as “bad” neighbours, taking more than their fair share of light. Accordingly, a greater reduction in daylight or sunlight may be unavoidable and so the local authority may wish to apply different target values.

Mitigating Factor #2

- 3.3.7 Where sites are undeveloped or are infill sites, again a higher degree of obstruction may be unavoidable, leading to a higher frequency of non-compliance. So, for example, you have a gap in a line of terraced properties, or an existing street scape of 6-storey high buildings. Where a developer wishes to fill this gap, or indeed reinstate a previous building, it would certainly be acceptable in planning terms, irrespective of the potential effect on surrounding buildings.

Mitigating Factor #3

- 3.3.8 The BRE guidelines also recognises that where buildings match the height and proportions of existing surrounding buildings a higher degree of obstruction may be unavoidable, leading to a higher frequency of non-compliance.

Mitigating Factor #4

- 3.3.9 Additionally, kitchens and bedrooms are generally given less weighting than that of a principal room such as a living room.



4. Results and Consideration

4.1 Daylight

- 4.1.1 Detailed test results for the buildings assessed for daylight availability in accordance with the BRE recommendations are shown in Appendix A.

4.2 Our Approach

- 4.2.1 We have assessed the surrounding residential buildings that are most likely to be affected by the proposed development. Other properties are either retail premises, or aligned at an oblique angle, or are considered to be too far away to be affected have been considered, but not assessed.
- 4.2.2 We have also considered the windows and the rooms of each building listed. With some buildings, we have obtained floor plans from the local authority planning portal, or sales brochures. Where building plans are not readily available, generally, we designate the windows and rooms as habitable within the BRE framework, unless there are obvious clues that would suggest otherwise.
- 4.2.3 Things such as opaque glazing, soil pipes, stairwells etc., suggest toilets, bathrooms, or circulation spaces, which in accordance with the BRE guidelines need not be assessed.
- 4.2.4 For habitable rooms, we look for paraphernalia in the windows, blinds, flue pipes, which might suggest a kitchen, smaller windows with net curtains which suggests bedrooms and say larger windows for living rooms etc.

Existing Baseline

- 4.2.5 The site is situated to the north side of Warren Road. It currently comprises a 2-storey dwelling, see accompanying drawing 1959/DSO/01.

Proposed Development

- 4.2.6 The proposed development plans will enlarge the footprint of the existing dwelling, a single-storey rear extension and additional rooms to the roof level, see accompanying drawing 1959/DSO/01.
- 4.2.7 We have considered and/or assessed the habitable windows and rooms of the adjacent buildings at that are most likely to be affected by the proposed development.

23 Warren Road

- 4.2.8 This dwelling is situated immediately west sharing a common boundary with the site, see accompanying drawing 1959/DSO/01.
- 4.2.9 To the gable end of #23, at ground floor level, the window (W2) serves what appears to be a dual aspect living room area, with another window to the front elevation (W1) set underneath the above projection. The window to the first floor level (W1) serves what appears to be a bedroom.



- 4.2.10 Turning now to the assessment results, the windows and habitable rooms were assessed for Vertical Sky Component (VSC), Daylight Distribution (DD), and Sunlight (APSH) respectively.
- 4.2.11 For sunlight (APSH), whilst W1 loses 2% APSH over the course of the year, the BRE guidelines allows a maximum loss of 4% APSH over the course of the year even if in percentage terms the existing vs proposed loss is more than 20%.
- 4.2.12 Regarding VSC, all windows assessed meet the BRE criteria. The ground floor windows W1 and W2 lose 12% and 18% respectively.
- 4.2.13 Regarding Daylight Distribution, the first floor bedroom meets the BRE criteria, but the ground floor living room losses 21%, which is classed as a minor loss.
- 4.2.14 The living room is, however, located very close to the common boundary and so some losses beyond the BRE guidelines are to be expected. This is one of the “special circumstances” that are outlined in the BRE guidelines and our mitigating factors section of our report.
- 4.2.15 Namely, where buildings located uncommonly close to the site boundary, they may be considered as “bad” neighbours, taking more than their fair share of light. Accordingly, a greater reduction in daylight or sunlight may be unavoidable and so the local authority may wish to apply different target values.
- 4.2.16 As an extension to the BRE standard tests, the guidelines provides a clause for specific situations such as this.

5. The Mirror Image Principle

5.1 The Principle

- 5.1.1 The BRE guidance at Appendix F provides an example that may be adopted where side windows are unusually close to the common boundary, and where if conventional BRE standards are applied, they have the potential to sterilise adjacent development land.
- 5.1.2 It states, "to ensure that new development matches the height and proportions of existing buildings, the VSC and APSH targets for those windows could be set to those for a "mirror-image" building of the same height and size, an equal distance away from the boundary."
- 5.1.3 To put it another way, the mirror image of the subject building (23 Warren Road) becomes the *existing scenario*, and the proposed development is then assessed against that.

5.2 Commentary

- 5.2.1 The principle is important because it balances both material considerations at planning - the “right” for a developer to utilise his land in a reasonable manner, and also to protect adjacent amenity. Essentially, to promote fairness between adjacent lands by saying the neighbour has a 3/4-storey dwelling it is only fair that the developer can have one too, notwithstanding the potential impact, in all its forms, to the side windows facing across the development land.



- 5.2.2 Although it is not expressly stated within the BRE guidelines, the natural consequence of the principle is, it over-rides the conventional BRE criteria for all potential impacts to side windows of adjacent buildings such as light, overshadowing, privacy, and outlook. This is because they are inextricably linked. We feel that the author of the BRE guidelines had intended the mirror image principle to be read this way. If not, they would have been expressly reserved.

5.3 Application of the Principle

- 5.3.1 As outlined above, the existing scenario is the mirror image of 23 Warren Road, set an equal distance from the boundary, which was then assessed against the proposed development. We found that for VSC the results with a gain to the ground floor living room from between 9% and 11%, and for DD there appears to be just a 4% loss to the ground floor living room. So, given that the proposed development is smaller than the proposed development it meets the BRE guidelines for daylight and sunlight.

Overshadowing

- 5.3.2 For overshadowing, the proposed development is situated east of the amenity areas to #23. The sun would easily meet the BRE criteria of 2 hours of sun over 50% of the amenity area between the hours of 11am and 1pm when the sun is at its highest. There might be a very small reduction in sun during the early morning but late morning and for the rest of the day the proposed development would cease to have any potential impact.

6. Conclusion

6.1 Daylight and Sunlight

- 6.1.1 Regarding the surrounding properties the proposed development is generally BRE compliant.
- 6.1.2 We noted a very minor transgression to the ground floor living room of 23 Warren Road, which is unsurprising given that the living room windows are located so close to the common boundary.
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- 6.1.4 Nonetheless, with the application of the mirror-image principle, the proposed development is BRE compliant.

6.2 Generally

- 6.2.1 When considering the numerical results, it is important to approach and interpret the BRE guidelines flexibly along with the following material mitigating factors:

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Appendix A

Daylight Results / Sunlight Results



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Vertical Sky Component (VSC) Assessment/ Sunlight (APSH) Assessment															
Floor Ref.	Room Ref.	Room	Use.	Window Ref.	Scenario	VSC	Difference	Condtn	Available Sunlight Hours						
									Annual %	Diff	%	Condtn	Winter %	Diff	%
23 Warren Road															
Ground	R1	Living Room	W1	Existing	2.48	0.88	YES	5.00	0.60	YES	2.00	1.00	YES		
				Proposed	2.19										
				W2	Existing	19.62	0.82							YES	
Proposed	16.04														
First	R1	Bedroom	W1	Existing	32.43	0.85	YES		*North	*North		*North	*North		
				Proposed	27.43										
23 Warren Road - Mirror Image															
Ground	R1	Living Room	W1	Existing	1.97	1.11	YES	2.00	1.50	YES	2.00	1.00	YES		
				Proposed	2.19										
				W2	Existing	14.69	1.09							YES	
Proposed	16.04														
First	R1	Bedroom	W1	Existing	29.20	0.94	YES		*North	*North		*North	*North		
				Proposed	27.43										



Daylight Distribution (DD) Assessment

Floor Ref.	Room Ref.	Room Use	Property Type	Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Meets BRE Criteria
23 Warren Road								
Ground	R1	Living Room	Area m2 % of room	17.08	16.14 94.49%	12.67 74.21%	0.79	NO
First	R1	Bedroom	Area m2 % of room	17.08	16.63 97.36%	16.63 97.36%	1.00	YES
23 Warren Road - Mirror Image								
Ground	R1	Living Room	Area m2 % of room	17.08	13.14 76.95%	12.67 74.21%	0.96	YES
First	R1	Bedroom	Area m2 % of room	17.08	16.63 97.36%	16.63 97.36%	1.00	YES

Appendix B

Context Drawings