

Our Ref: 22585/Ch

Thavies Inn House
3-4 Holborn Circus
London EC1N 2HA
020 7936 3668

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Matthew Burns
Reading Borough Council
Civic Offices, Level 1 North
Bridge Street
Reading
RG1 2LU

info@delvapatmanredler.co.uk
www.delvapatmanredler.co.uk

Dear Matt,

221446 – Soane Point, 3-10 Market Place, Reading
Independent review of daylight, sunlight and overshadowing assessment

As instructed, I have reviewed the daylight and sunlight report prepared by the Applicant's consultant, T16 Design ("the assessment") submitted in support of the planning application for the proposed development known as Soane Point, 3-10 Market Place, Reading.

My instructions are to advise on the suitability of its scope, method of assessment, criteria used, results produced, and conclusions reached therein to assist the Council in understanding the potential effects of the proposed development, and the levels of natural light provision to proposed new dwellings, so it may make an informed judgement as to their acceptability.

I have not been supplied with or checked the consultant's 3D computer model or calculations; nor have I run any calculations of my own. I have assumed the assessment is accurate and simply report on the results and conclusions; although, if I feel there is reason to seek confirmation on matters affecting accuracy I have stated so below. I have not undertaken a site inspection.

1. Guidelines for daylight, sunlight, overshadowing

The leading guidelines on daylight, sunlight, and overshadowing are published by the Building Research Establishment in BR209 '*Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice*' (third edition, 2022).

I have included at Appendix 1 a glossary of key terminology and acronyms used in this letter, and at Appendix 2 a summary of the relevant guidelines for daylight, sunlight, and how they should be applied by reference to a number of key appeal and judicial review decisions. Appendix 2 forms a key part of my advice.

The Applicant's assessment also summarises the relevant guidelines, which it appears to do appropriately.

2. Planning policy and guidance

Local plans typically seek to ensure provision of adequate daylight and sunlight for future occupiers of new residential development and avoid unacceptable deterioration in daylight and sunlight to surrounding buildings and unacceptable levels of overshadowing to surrounding amenity space.

To the extent that the proposed development may be considered to provide housing, regard should be had for the National Planning Policy Framework (NPPF) and the Reading Local Plan. These encourage a flexible approach in applying daylight/sunlight policies or guidance where they would otherwise inhibit making efficient use of land for housing, provided the resulting scheme would provide acceptable living standards. Account should be taken of

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12 Princes Parade
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local circumstances, the need to optimise housing capacity, and the scope for the character and form of an area to change over time.

3. Scope of the assessment

Daylight and sunlight levels within the proposed dwellings, and sunlight to proposed amenity spaces within the development, have been assessed.

The potential daylight and sunlight effects to the following sensitive receptors have been assessed.

- 11-13 Kings Road
- Jackson Corner Scheme
- 1-9 King Street & 7-8 High Street
- 32-40 Market Place
- 11-12 Market Place
- 1 Forbury Square

The location plan image shown on Page 4 only shows the location of the two nearest properties, ideally a location plan would be provided showing the location of all neighbouring buildings considered in relation to the development site. Although, I generally consider the scope of the assessment to be appropriate. The permitted development flats within the development site have not been considered. These are expected to experience a reduction in daylight and sunlight as a result of the additional massing being proposed and should be included in the assessment for completeness.

4. Applicant's assessment methodology and application of the guidelines

I have reviewed the assessment methodology and am generally satisfied that it is appropriate and in accordance with the guidelines.

3D modelling and sources information

The report states that the computer model has been created based on 2D drawings provided by the design team. The drawings used for the assessment are not listed and the neighbouring properties appear to be based on external photos rather than a context model or survey information.

The report does not contain a spot height drawing or an image of the 3D model, so I cannot comment on the accuracy of the 3D model. A spot height drawing showing the orientation and datum of the heights of the neighbouring buildings is useful to show the comparison between the existing and proposed condition.

The assessment notes that NSL testing has only occurred to the rooms served by windows that fall below the BRE guidelines and not to any other areas. Paragraph 2.2.10 of the BRE guide states that where layouts are known, the impact on the daylight distribution in the existing buildings should be found by plotting the NSL. There have been successful planning applications overturned because the NSL test is not compliant even though the VSC levels are acceptable. Therefore, you may want to review the NSL results for the neighbouring properties where floor plans are available for completeness. I would expect that most would satisfy the BRE guidelines.

Assessment methodology – daylight and sunlight within the proposed development

2022 BRE Guidelines

The new BRE guidance replaced the ADF and NSL assessment with the new more detailed daylight illuminance and daylight factor methods. The APSH test was also replaced with new sunlight exposure assessment.

For the purposes of this assessment, the applicant has considered the new guidance and the previous methodology. This is a reasonable approach.

BS EN 17037

Daylight provision in new rooms may be checked using either of the methods described in the BRE guide 2022, direct prediction of illuminance levels using hourly climate data, or the use of the daylight factor, which is a ratio of unobstructed external illuminance under overcast sky conditions. Both are measures of the overall amount of daylight in a space.

The Daylight Factor (DF) method has been used. The minimum recommended DF levels for room types in this location are 0.7% for bedrooms, 1.1% for living rooms and 1.4% for kitchens. This level should be achieved across half of the room area.

Paragraph 11.2 states that internal reflectance levels have been applied for the ceiling, floors and walls taken from the relevant BS guidance. These should be clarified as should the following factors which for part of the calculation.

- Maintenance factor (dirt on glass)
- Light transmittance of glazing
- Frame and glazing bar correction factor
- External reflectance values

Assessment methodology – impacts on surrounding environment***Principal assessments***

The BRE assessment methodology has been used for assessing the effects on existing surrounding properties, including daylight (the two-part assessment of VSC and NSL) and sunlight (the two-part assessment of APSH annually and in winter) to buildings, sun-on-ground to amenity spaces, and overshadowing to the surrounding area.

Detailed tabulated results have been provided showing the daylight and sunlight levels in the existing and proposed conditions, the absolute loss (existing value minus proposed) and relative loss (proposed value divided by existing value).

The BRE standard numerical guidelines have been applied to establish the number of impacts on each property (or group of properties) that are within the guidelines and the number that are outside the guidelines.

To assist your understanding of the magnitude of the impacts, in this review report I will use the terms 'negligible', 'low', medium' and 'high' for the magnitude of impact, based on the categorisation set out in **Table 1** below.

Table 1 – Categorisation of magnitudes of effect used in this review

Impact satisfies the BRE guidelines	Impact does not satisfy the BRE guidelines		
	0.79 to 0.70 times former value i.e. 21% to 30% loss	0.69 to 0.60 times former value i.e. 31% to 40% loss	<0.60 times former value i.e. more than 40% loss
Negligible impact	Low magnitude impact	Medium magnitude impact	High magnitude impact

Appendix I of the BRE guide provides guidance for use in EIAs to determine the significance of effect ('negligible', 'minor', 'moderate', and 'major' adverse). Whilst the Application is not EIA development, the guidelines are nonetheless helpful in understanding the significance of the effects of the development. Significance takes into account the number of impacts that are outside the BRE guidelines, the magnitude of the impacts and the margin by which they are outside, the sensitivity of the receptors (in terms of the strength of their requirement for daylight and sunlight), whether the receptors have other sources of light and whether there are particular reasons why an alternative, less stringent, guideline should be applied (see Appendix 2).

When reporting the findings, the applicant has used the bandings shown above to categorise the windows/rooms that fall below the BRE guidelines.

There are no published numerical criteria for transient overshadowing and significance therefore relies on professional judgement.

5. Internal daylight and sunlight to proposed dwellings and sunlight to proposed amenity spaces

Daylight has been assessed to all dwellings, although sunlight has not been considered. The BRE states that for interiors, access to sunlight can be quantified applying the BS EN 17037 recommendations. The guidance suggests that a space should receive a minimum of 1.5 hours of direct sunlight on a selected date between 1 February and 21 March with cloudless conditions. It is suggested that 21 March (equinox) be used.

The report states that all proposed habitable dwellings will satisfy the BRE guidelines.

Sunlight to proposed amenity spaces

The results of the two-hours sun-on-ground assessment shows that all 9 amenity areas will satisfy the BRE guidelines.

6. Effects of proposed development on existing surroundings

Daylight and sunlight to neighbouring properties

The report splits the commentary of the results into VSC, NSL and APSH sections, stating that 84% of the windows considered satisfy the BRE guidelines in VSC terms. As mentioned in section 4, NSL has only been considered for the rooms served by windows that fail to satisfy the VSC standard. The results indicate that all 12 rooms satisfy the BRE guidelines in NSL terms. The APSH section states that all 43 windows considered for assessment fully comply with the BRE guidelines.

The Sun-on-Ground assessment indicates that the amenity area to the rear of 11-12 Market Place satisfies the BRE guidelines.

The report states that only 11-13 Kings Road and the new Jackson Corner scheme to the south have the potential to experience a reduction beyond the BRE guidelines in VSC terms. These properties are discussed in more detailed below.

11-13 Kings Road

This is the three-storey building located to the south of the site on the corner of Kings Road and Abbey Square. The building has commercial units at ground floor level with residential dwellings above.

The VSC table indicates that of the 5 windows considered, 4 satisfy the BRE guidelines in VSC terms. The one window that does fall below the BRE guidelines remains within 27% of the existing baseline condition.

The NSL results indicate that the room tested will satisfy the BRE guidelines.

Overall, the results indicate that the scheme will not cause unacceptable harm to this property in daylight terms.

Jackson Corner Scheme

This is the recently constructed 5 storey building located directly to the south and east of the development site. The building contains several windows/rooms located close to the boundary.

The VSC summary table provided does not split the results per property and only lists the window location number, it appears that windows 6-15 and 52-61 are located within the Jackson Corner Scheme. If my understanding of the information provided is correct, of the 20 windows considered, 7 (35%) satisfy the BRE guidelines. Of the 13 that fall below the BRE recommendations, 2 experience a low magnitude of impact beyond the BRE guidelines, 4 a moderate impact and 7 a major impact.

The report states that due to the design and location of this building in relation to the development site the VSC reductions are amplified. This is a reasonable justification as the windows are located close to the boundary and several have their ability to receive daylight hindered by the recessed balconies. It is also worth noting that all living/kitchen/dining areas appear to be dual aspect.

The NSL results indicate that all rooms will satisfy the BRE guidelines.

Overall, there are a number of VSC transgressions which are largely due to proximity of the building in relation to the development site. The NSL results indicate that all rooms will satisfy the BRE guidelines and sky will be visible from within the main habitable rooms.

7. Conclusions and recommendations

The assessment has been undertaken in accordance with the published guidelines, although the applicant has only commented on the overall compliance levels and has provided very little detail on the use and location of the neighbouring windows/rooms that fall below the BRE guidelines. This is the same for the self-test part of the assessment.

Internal daylight and overshadowing within the proposed development

The report indicates that all habitable rooms and amenity area will satisfy the relevant BRE guidelines.

Effects on existing surrounding properties

With the exception of Jackson Corner, the daylight and sunlight implications to the neighbouring properties appears to be acceptable. With regards to Jackson Corner there are several mitigating factors and the question for you and, ultimately, the Council's decision makers is whether, in the site context, the effects are acceptable. Ultimately it comes down to a matter of judgment and overall planning balance, which is beyond my remit.

Clarifications

It is suggested that the Applicant be asked to provide the following clarifications.

- The permitted development flats within the scheme should be included so the implications of the scheme on these units can be evaluated.
- Provide a spot height drawing or at least an image of the 3D model so the accuracy can be verified and provide further clarification of how the neighbouring windows/rooms were modelled.
- You may wish to request that the NSL levels to the neighbouring rooms where floor plans are available are provided for completeness.
- The window parameters and external reflectance values used for the internal daylight assessment.
- The internal sunlight levels have not been included within the assessment.

I trust this provides you with what you need. If you have any queries, please let me know.

Yours sincerely



Chris Harris BSc

Partner

E: chris.harris@delvapatmanredler.co.uk

M: 07701 386268

Encs: Appendix 1 – Glossary of terms
Appendix 2 – Summary of guidelines for assessing daylight, sunlight, and overshadowing

Appendix 1 – Glossary of terms

The daylight and sunlight terminology used in our review is explained below.

Term	Meaning
Annual probable sunlight hours (APSH)	The long-term average of the total number of hours during a year in which direct sunlight is expected to shine on the unobstructed ground, allowing for average levels of cloudiness for the location in question.
Daylight factor(D)	Ratio of total daylight illuminance at a reference point on the working plane within a space to outdoor illuminance on a horizontal plane due to an unobstructed CIE standard overcast sky.
Daylight	Combined skylight and sunlight.
No-sky line (NSL)	The outline on the working plane of the area from which no sky can be seen. It divides points on the working plane which can and cannot see the sky.
Illuminance	A measure of the amount of light falling on a surface, usually measured in lux.
Obstruction angle	The angular altitude of the top of an obstruction above the horizontal, measured from a reference point in a vertical plane in a section perpendicular to the vertical plane.
Sky factor	Ratio of the parts of illuminance at a point on a given plane that would be received directly through unglazed openings from a sky of uniform luminance, to illuminance on a horizontal plane due to an unobstructed hemisphere of this sky. The sky factor does not include reflected light, either from outdoor or indoor surfaces.
Sun on ground (SOG)	The measure of sunlight potential to gardens and amenity spaces. It is measured in hours on the spring equinox (21 March) at a point on the ground accounting for the latitude of the site location. Sunlight below an altitude of 10° is usually discounted as it is likely to be prevented from reaching the ground by fences, plants or other low-level obstructions.
Target illuminance (E_T)	Illuminance from daylight that should be achieved for at least half of annual daylight hours across a specified fraction of the reference plane in a daylit space.
Vertical sky component (VSC)	The amount of daylight falling on a vertical wall or window. It is the ratio of that part of illuminance, at a point on a given vertical plane (e.g. window), that is received directly from a CIE standard overcast sky, to simultaneous illuminance on a horizontal plane due to an unobstructed hemisphere of this sky. The VSC does not include reflected light, either from the ground or from other buildings. The ratio is usually expressed as a percentage. The maximum value is almost 40% for a completely unobstructed vertical wall.
Working plane	Horizontal, vertical or inclined plane in which a visual task lies. Normally the working plane may be taken to be horizontal, 0.85 m above the floor in housing.

Appendix 2 – Summary of guidelines for assessing daylight, sunlight and overshadowing

1. The key guidelines relating to daylight, sunlight and overshadowing, solar glare and light pollution, are contained in 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice' (Building Research Establishment (**BRE**), BR209, second edition, 2011).

Guidelines on daylight and sunlight within new buildings

Outline design

2. At early stages in design, before room layouts and window sizes/locations are undecided, the BRE guide recommends calculating the vertical sky component (**VSC**) and percentage of annual probable sunlight hours (**APSH**) at a series of points on each main face of the proposed building 1.6 m above ground and no more than 5 m apart.
3. The BRE gives the following rules of thumb in relation to daylight:
 - ≥27% VSC – conventional window design usually gives reasonable results
 - 15% to 27% VSC – special measures (larger windows, changes to room layout) are usually needed to provide adequate daylight
 - 5% to 15% VSC – it is very difficult to provide adequate daylight unless very large windows are used
 - <5% VSC – it is often impossible to achieve reasonable daylight, even if the whole window wall is glazed
4. Living rooms and kitchens need more daylight than bedrooms, so where there is a choice it is best to site them away from obstructions.
5. For good sunlight, the BRE guide recommends at least 25% APSH, including at least 5% APSH in the winter months between 21 September and 21 March. Living rooms and conservatories have the main requirement for sunlight. Sensitive layout design of flats will attempt to ensure that each individual dwelling has at least one main living room with a southerly aspect that can receive a reasonable amount of sunlight.

Detailed design

6. Where room layouts and window sizes/locations are known, the BRE guide recommends the following tests and criteria:

Daylight test	What it measures	Recommended criteria
Average daylight factor (ADF)	Amount of daylight inside the room averaged across the space	At least 2% in kitchens, 1.5% in living rooms and 1% in bedrooms
No-sky line contour (NSL)	Distribution of daylight around the room, by plotting the no-sky line	At least 80% of room should be enclosed by NSL contour and therefore enjoy a view of sky
Room-depth criterion (RDC)	Whether the limiting depth of a single-aspect room that can be satisfactorily daylight will be exceeded	$\frac{L}{W} + \frac{L}{H} < \frac{2}{1 - R_b}$ Where: <i>L</i> is depth of room <i>W</i> is width of room <i>H</i> is head-height of window above floor level <i>R_b</i> is average reflectance of surfaces in rear half of room

7. In multi-purpose rooms containing a kitchen, such as open-plan living/kitchen/dining rooms (LKDs), the target for kitchens should apply. However, planning authorities frequently accept the living room target (1.5% ADF) as a suitable alternative target for LKDs in modern dense housing developments, as noted by the author of the BRE guide, Dr Paul Littlefair, who explains it thus:¹

Where a room has a shared use, the British Standard states that the higher minimum value should apply. However, local authorities frequently accept the living room standard for a shared

¹ BRE Client Report (paragraph 2.3.5) dated 5 March 2019 for Reardon and Lowder Houses, Wapping on behalf of London Borough of Tower Hamlets (LBTH planning application reference PA/18/03541/A1)

kitchen/living room, as a small kitchen would not be considered as a habitable room. This is a practical approach, as it is seldom in the final resident's interest to have a closed off, small kitchen which is completely artificially lit in order to force compliance with the Standard for the living room. In this case an average daylight factor of 1.5% or more might be acceptable.

8. Where groups of dwellings are planned, site layout design should aim to maximise the number of dwellings that meet the minimum ADF recommendations.
9. Even if there is sufficient ADF, the overall daylight appearance will be impaired if daylight distribution is poor. The NSL and RDC criteria should also be satisfied for the whole room to look adequately daylight. It is nevertheless very common for designers, consultants and planning officials to form a view based on ADF results alone.
10. The ADF calculation considers the amount of sky visible at the window, diffuse visible light transmittance of the glazing, effects of dirt on glass, net glazed area of the windows after frame and glazing bars are deducted, the area of the room surfaces and their surface reflectance. Reasonable parameters must be adopted and clearly stated. The view of sky should be measured accurately taking account of external obstructions, including balconies.
11. In early stages of design, the default parameters may be assumed, such as: a diffuse visible light transmittance of 0.68 for clean, clear double glazing; a frame/glazing bar factor of 0.8 for large panes in metal frames; and an average surface reflectance of 0.5 for fairly light-coloured rooms. Where glazing details and surface finishes are known, more accurate parameters may be used instead.
12. For sunlight, the overall sunlighting potential of a large residential development may be initially assessed by counting how many dwellings have a window to a main living room facing south, east or west. The aim should be to minimise the number of dwellings whose living rooms face solely north, north east or north west, unless there is some compensating factor such as an appealing view to the north. It is recommended that interiors where the occupants expect sunlight, such as living rooms and conservatories, should receive at least 25% APSH, including at least 5% APSH in the winter months between 21 September and 21 March.

British Standards on daylighting in new buildings – BS EN 17037:2019

13. The daylight and sunlight recommendations for new buildings given in the BRE guide are taken from BS 8206-2:2008 'Lighting for Buildings - Code of practice for daylighting'. The latter has now been withdrawn and replaced by the new European standard, BS EN 17037:2019 'Daylight in buildings', which provides new assessment methodologies for new buildings.
14. Whilst the new standard sets target levels for 'minimum', 'medium' and 'high' levels of daylight, it recognises they may not but not be achievable in UK dwellings in dense urban areas or with basement rooms. In dwellings it therefore recommends target illuminances of at least 200 lux in kitchens, 150 lux in living rooms and 100 lux in bedrooms over at least 50 % of the reference plane for at least half of the annual daylight hours. For sunlight, the new standard recommends that at least one habitable space/room in dwellings can receive at least 1.5 hours of daily sunlight exposure at its window(s).

Amenity spaces

15. Proposed amenity spaces should be assessed on the equinox (21 March). The sunlighting requirements of each space may differ depending on use, but in general it will be considered adequately sunlit if at least half its area can receive at least two hours of sunlight on 21 March (the two-hours sun-on-ground test). Normally trees and shrubs, fences or walls less than 1.5 metres high and sunlight at an altitude of 10° or less are all ignored.
16. Where a large building is proposed, it can be illustrative to plot shadow plots at different times of day and year, with the equinox (21 March) being the best assessment date. Summer and winter solstices (21 June and 21 December) are optional additional dates.

Guidelines on impact of development on daylight, sunlight and overshadowing to neighbouring properties

17. The BRE guide provides methodologies and numerical guidelines for assessing the effects of development on daylight and sunlight to neighbouring properties and sunlight to amenity spaces.

Effects on daylight and sunlight to buildings

18. Where some part of the proposed development will subtend an angle greater than 25° to the horizontal measured from the level of the centre of the lowest neighbouring windows, the effect on daylight and sunlight to the habitable rooms should be assessed using the following tests:

- Daylight:
 - vertical sky component (**VSC**) at the window, which assesses the total available skylight; and
 - no-sky line contour (**NSL**) on the working plane inside rooms (where layouts are known²), which assesses the distribution of daylight around the room.
- Sunlight:
 - percentage of annual probable sunlight hours (**APSH**) at the window, where it faces within 90° due south, both annually and in the winter months.

19. The assessments are run in the existing and proposed scenarios on an absolute scale, followed by a comparative scale measuring the factor of former value (or percentage reduction), so that the magnitude of impact is quantified.

20. For daylight, all habitable rooms should be assessed. For sunlight, all main living rooms and conservatories should be assessed.

21. The BRE numerical guidelines work on the principle that, unless certain minimum values will be retained with the proposed development in place (27% VSC and 25% APSH with 5% APSH in winter), or in the case of sunlight the annual loss will be no greater than 4% APSH, a reduction to less than **0.8 times former value** (i.e. relative losses exceeding 20% of the existing value) will be noticeable to occupiers.

22. ADF is primarily intended for assessing daylight within new development but can be used for assessing neighbouring consented buildings that are not yet built or are under construction.³ It may also be helpful as a supplementary test when considering whether acceptable living conditions would remain and whether any significant adverse effects to VSC and NSL are nonetheless acceptable. (See paragraphs 38 and 39 below.) Parameters used in the ADF calculation need to be stated and reasonable.

Effects on sunlight to gardens and amenity spaces

23. The effects on sunlight to gardens/amenity spaces can be checked by calculating the percentage of each area that can receive at least two hours of sunlight on 21 March. If, after development, it will reduce to less than 50% and less than 0.8 times its former value, the loss of sunlight will be noticeable to users of the space.

24. Where a large building is proposed, shadow plots can be produced at different times of day and year. The equinox (21 March) is the best assessment date. Summer and winter solstices (21 June and 21 December) are optional additional dates.

Cumulative effects

25. If planning consent has been granted for other nearby developments that have not yet been built, it is customary to assess the cumulative effects of the proposed development and nearby consented developments on the surrounding receptors so that the combined effects can be understood.

² The author of the BRE Guide, Dr Littlefair, recommends not running the NSL test using estimated layouts because it can give inaccurate findings. (BRE Client Report dated 5 March 2019 for a review at Reardon and Lowder Houses, Wapping on behalf of London Borough of Tower Hamlets - planning application reference PA/18/03541/A1)

³ BRE Guide, Appendix F, paragraphs F7 and F8

Setting alternative target values

26. Appendix F of the BRE guide provides advice on setting alternative target values for daylight and sunlight. This notes that the numerical target values are purely advisory and different targets may be used based on the special requirements of the proposed development or its location.
27. Alternative targets may be generated from the layout dimensions of existing development or be based on an extant planning permission. Table F1 of the BRE guide gives various building-to-building angles of long, uniform obstructions and their corresponding VSC values. An example is given of a narrow mews in an historic city centre where the VSC values derived from the obstruction angle could be used as a target value for development in that street if new development is to match the existing layout.
28. The guide notes that a similar approach may be adopted in cases where an existing building has windows that are unusually close to the site boundary and taking more than their fair share of light. This is an acknowledgement that the first built scheme of a local cluster could otherwise prevent the full potential of adjacent sites from being realised. In such cases, a greater reduction in daylight and sunlight may be unavoidable if one site is not to be unfairly prejudiced by how another has been developed.⁴ In such circumstances where it is appropriate to enable new development to match the height and proportions of existing buildings, alternative target values for VSC and APSH for the relevant windows may be set to those for a '**mirror-image**' building of the same height and size, an equal distance away on the other side of the boundary.⁵
29. Where there is an **extant planning consent** for the application site and the developer wishes to change the design, the BRE guide states:

In assessing the loss of light to existing windows nearby, a local authority may allow the vertical sky component (VSC) and annual probable sunlight hours (APSH) for the permitted scheme to be used as alternative benchmarks. However, since the permitted scheme only exists on paper, it would be inappropriate for it to be treated in the same way as an existing building, and for the developer to set 0.8 times the values for the permitted scheme as benchmarks.

Environmental Impact Assessments (EIAs)

30. Appendix I of the BRE guide provides advice on ascribing a significance to effects in **EIAs**. The guide states:

Adverse impacts occur when there is a significant decrease in the amount of skylight and sunlight reaching an existing building where it is required, or in the amount of sunlight reaching an open space.

The assessment of impact will depend on a combination of factors, and there is no simple rule of thumb that can be applied.

*Where the loss of skylight or sunlight fully meets the guidelines, the impact is assessed as negligible or minor adverse. Where the loss of light is well within the guidelines, or only a small number of windows or limited area of open space lose light (within the guidelines), a classification of **negligible** impact is more appropriate. Where the loss of light is only just within the guidelines, and a larger number of windows or open space area are affected, a **minor adverse** impact would be more appropriate, especially if there is a particularly strong requirement for daylight and sunlight in the affected building or open space.*

*Where the loss of skylight or sunlight does not meet the guidelines, the impact is assessed as minor, moderate or major adverse. Factors tending towards a **minor adverse** impact include:*

- *only a small number of windows or limited area of open space are affected;*
- *the loss of light is only marginally outside the guidelines;*
- *an affected room has other sources of skylight or sunlight;*
- *the affected building or open space only has a low level requirement for skylight or sunlight; and*

⁴ Appeal Reference APP/E5900/W/17/3191757, **Enterprise House, 21 Buckle Street**, London E1 8NN, London Borough of Tower Hamlets, Inspector's decision dated 17 December 2018, <https://acp.planninginspectorate.gov.uk/ViewDocument.aspx?fileid=30276955>

⁵ BRE Guide, Appendix F, paragraph F5

- *there are particular reasons why an alternative, less stringent, guideline should be applied.*

*Factors tending towards a **major adverse** impact include:*

- *a large number of windows or large area of open space are affected;*
- *the loss of light is substantially outside the guidelines;*
- *all the windows in a particular property are affected; and*
- *the affected indoor or outdoor spaces have a particularly strong requirement for skylight or sunlight, e.g. a living room in a dwelling or a children's playground.*

Acceptability of impacts on daylight and sunlight

31. The assessment of impact on daylight and sunlight amenity is a two-part process⁶: first, as a matter of calculation, whether there would be a material deterioration in conditions by reference to the BRE guidelines; and second, as a matter of judgment, whether that deterioration would be acceptable in the circumstances.
32. The first stage can be addressed by applying the BRE assessment methodology and numerical guidelines, as explained above.
33. The second stage brings into play much wider considerations, such as:
 - i) Whether the neighbouring building stands unusually close to the site boundary, including the highway, taking more than its fair share of light, such that a greater reduction in light may be unavoidable if one site is not to be prejudiced by how another has been developed. (A '**mirror-image**' study can be informative in such cases – see paragraph 28 above.)
 - ii) Whether windows in neighbouring buildings are self-obstructed by overhanging or inset balconies or other projections such as to make relatively larger reductions unavoidable even if there is a modest new obstruction opposite - in effect themselves taking away more than their fair share of light. (A '**without balconies**' study can be informative in such cases – see paragraph 34 below.)
 - iii) In historic city centres or areas characterised by modern tall buildings, high density and close proximity, a higher degree of obstruction may be unavoidable if new buildings are to match the height and proportion of existing buildings.
 - iv) In areas that are designated by planning authorities for substantial growth or providing opportunities for change and sustainable regeneration, the sort of change that would be brought about by the introduction of taller, denser development is to be expected, including reductions in daylight and sunlight levels, closer proximity, loss of outlook, etc.
34. Balconies and projecting wings on an existing neighbouring building may mean larger relative reductions in daylight and sunlight are unavoidable. That is because they limit the available daylight and sunlight and may amplify relative reductions in light caused by development. Whether they are the main factor in the relative light loss can be checked by carrying out a supplementary assessment in the existing and proposed situations without the balcony or other projection in place. If, with the balcony, wing, or other projection in place, the proposed VSC/NSL/APSH value would be less than 0.8 times the existing value, yet with it removed the ratio would be well over 0.8, then the balcony, wing or other projection is the main factor in the relative loss of light, rather than purely the size of the new obstruction.⁷
35. When judging whether an adverse impact is acceptable, it may be appropriate to consider the levels of daylight and sunlight that would be retained with the proposed development in place and whether the resulting living conditions would nonetheless be acceptable, in context.
36. One benchmark that is commonly used in denser, inner-urban areas is to check whether retained VSC values would be in the mid-teens or greater. An example of this approach is the Whitechapel Estate Appeal⁸. There the Inspector noted that development that resulted in a proportion of residual VSC values in the mid-teens, with

⁶ *Rainbird, R (on the application of) v The Council of the London Borough of Tower Hamlets* [2018], <https://www.bailii.org/ew/cases/EWHC/Admin/2018/657.html>

⁷ BRE Guide, paragraphs 2.2.11 to 2.2.12 and paragraph 3.2.9

⁸ Appeal reference APP/E5900/W/17/3171437, **Varden Street and Ashfield Street**, London E1, London Borough of Tower Hamlets, Inspector's decision dated 21 February 2018, <https://acp.planninginspectorate.gov.uk/ViewDocument.aspx?fileid=25711269>

a smaller proportion in the bands below 15% VSC, have been found acceptable in major developments across London. He stated:

108. *The BRE document offers guidance on generally acceptable standards of daylight and sunlight, but advises that numerical values are not to be rigidly applied and recognises the importance of the specific circumstances of each case. Inner city development is one of the examples where a different approach might be justified. This is specifically endorsed by the [Mayor of London's] Housing SPG, which calls for guidelines to be applied sensitively to higher density developments, especially in (among others) opportunity areas and accessible locations, taking into account local circumstances, the need to optimise housing capacity, and the scope for the character and form of an area to change over time. ... I agree with the appellants that blanket application of the BRE guide optimum standards, which are best achieved in relatively low-rise well spaced layouts, is not appropriate in this instance.*
109. *The SPG advises that the daylight impact on adjacent properties should be assessed drawing on "broadly comparable residential typologies within the area and of a similar nature across London"...*
112. *The figures [from comparable typologies from a range of example sites across Central London analysed by the appellants, comprising both traditional urban streets and recently permitted areas of significant development] show that a proportion of residual Vertical Sky Component ('VSC') values in the mid-teens have been found acceptable in major developments across London. This echoes the Mayor's endorsement in the preSPG decision at Monmouth House, Islington that VSC values in the mid-teens are acceptable in an inner urban environment. They also show a smaller proportion in the bands below 15%...*
113. *I acknowledge that a focus on overall residual levels could risk losing sight of individual problem areas. It is accepted that light is only one factor in assessing overall levels of amenity, but I consider that the trade-off with other factors, such as access to public transport or green space, is likely to be of more relevance to an occupier of new development than to an existing neighbour whose long-enjoyed living conditions would be adversely affected by new buildings. However, I also consider that Inner London is an area where there should generally be a high expectation of development taking place. This is particularly so in the case of the appeal site, where the Whitechapel Vision Masterplan and the City Fringe Opportunity Area Planning Framework have flagged the desirability of high density development. Existing residents would in my view be prepared for change and would not necessarily expect existing standards of daylight and sunlight to persist after development.*

37. Whilst use of the mid-teen VSC benchmark may be appropriate in denser and more built-up areas, a higher benchmark may be more appropriate in more suburban areas.⁹
38. Another approach to judging acceptability is to consider the retained ADF values in the proposed condition against those recommended in the BRE guide for new dwellings (see paragraphs 6 and 7 above). Such an approach is advocated by the author of the BRE guide, Dr Paul Littlefair, because it relates to the level of daylight actually experienced by an occupant inside their property, rather than the amount of light falling on the outside face of the window. Arguably, it gives a better indication of residual daylight levels as it takes account of window design and room layout.¹⁰
39. Residual ADF values appear to have been a key factor in the dismissal of the Appeal at 8 Albert Embankment. In that case, the impact on a social housing block, which houses families and people with vulnerabilities, would have satisfied the mid-teen VSC benchmark; however, 23 out of 25 living rooms would have been left with

⁹ Appeal reference APP/A5840/W/19/3225548, **Burgess Business Park**, Parkhouse Street, London SE5, London Borough of Southwark, Secretary of State's decision dated 29 April 2020, paragraphs IR247 and IR248, <https://acp.planninginspectorate.gov.uk/ViewDocument.aspx?fileid=37313536>

¹⁰ Appeal reference APP/E5900/W/17/3190685, land at **1 Cambridge Heath Road**, London E1, London Borough of Tower Hamlets, Secretary of State's decision dated 10 June 2019, <https://acp.planninginspectorate.gov.uk/ViewDocument.aspx?fileid=32778055>

daylight levels below minimum recommended ADF values. The Inspector and Secretary of State considered the daylight impacts to be unacceptable.¹¹

40. In the Appeal at Graphite Square, the Inspector considered several important factors when judging very significant losses of light to be acceptable:¹²

- a. In relation to a neighbouring social housing block, the relevant factors were:
 - i. the flats were dual aspect, with the affected rooms being predominantly small kitchens, kitchen/diners, bathrooms, and second bedrooms, whilst the main living areas and main bedrooms, which faced in the opposite direction and received much more significant amounts of daylight and sunlight, would be completely unaffected;
 - ii. many of the affected kitchens were too small to qualify as habitable rooms for the purpose of the calculations; and
 - iii. the kitchens and second bedrooms received little daylight due to the overhanging deck-access or roof and relied on electric lighting most of the time to facilitate use, such that the loss of daylight would not make a great difference to their pattern of use or enjoyment.
- b. In relation to a neighbouring modern private housing block, the relevant factors were:
 - i. the impacts must be seen in the context that the building had a rather privileged position facing minimal massing on the relevant part of the appeal site, as a result of which it received much higher levels of daylight and sunlight than one might reasonably expect in such an urban location;
 - ii. the design of the building contributed to the impacts, because the worst affected rooms were those awkwardly located at an internal corner of the building or below overhanging balconies; and
 - iii. whoever designed that building ought to have considered the strong likelihood that the appeal site, given its central London location and obvious potential, would not remain underused.

¹¹ Appeal reference APP/N5660/V/20/32542038, **8 Albert Embankment**, London SE1, London Borough of Lambeth, Secretary of State's decision dated 23 June 2021, <https://acp.planninginspectorate.gov.uk/ViewDocument.aspx?fileid=43043066>

¹² Appeal references APP/N5660/W/18/3211223 and APP/N5660/W/19/3225761, **Graphite Square**, London SE11, London Borough of Lambeth, Inspector's decision dated 25 September 2019, <https://acp.planninginspectorate.gov.uk/ViewDocument.aspx?fileid=34348840>