



**ANTHOLOGY  
KENNINGTON STAGE**

Built from London

**DAYLIGHT AND SUNLIGHT PROOF OF EVIDENCE**

**Nick Lane**

19<sup>th</sup> October 2020



**LOCAL PLANNING AUTHORITY REF: 19/02696/FUL  
PLANNING INSPECTORATE REF: APP/N5660/W/20/3248960**

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**TOWN & COUNTRY PLANNING ACT 1990 (AS AMENDED)**

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**ANTHOLOGY KENNINGTON STAGE AGAINST THE NON-DETERMINATION OF  
PLANNING PERMISSION BY THE LONDON BOROUGH OF LAMBETH**

**SITE OF WOODLANDS NURSING HOME, 1 DUGARD WAY, LONDON SE11 4TH**

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**DAYLIGHT, SUNLIGHT & OVERSHADOWING EVIDENCE**

**OF**

**NICK LANE BA (HONS)**

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## **1** Qualification & Experience

- 1.1 I am a founding Director of Point 2, a company that specialises in daylight, sunlight and overshadowing matters. We are a leading consultancy within this field with over 75 staff. We are unique in that we design and write our own software. Aside from providing client consultancy we are also trusted to provide daylight software/calculations to other leading practices.
- 1.2 Prior to establishing Point 2, I was the Director of the Daylight and Sunlight department at Deloitte Real Estate LLP and led a team of 30 staff.
- 1.3 Point 2 advise on approximately 400 sites a year. The majority of our work is concentrated in London although we are advising on numerous large-scale projects in the city centres of Manchester, Birmingham, Bristol, Nottingham and Leeds.
- 1.4 I have specialised in advising on daylight, sunlight and overshadowing matters for some 14 years. My work includes providing detailed advice during the design development stage of a project to ensure that development reacts appropriately to its context and provides amenity within properties and to open space. I am responsible for the preparation of planning reports that assess the effects of development by reference to the appropriate planning policy.
- 1.5 I have substantial experience in this area, having advised on thousands of projects during my career, the vast majority of which are in central London. I have advised on many high-density developments that are surrounded by residential buildings. Examples of some of the projects I have been involved with are provided within Appendix 1.

- 1.6 A selection of current clients includes British Land, Derwent London, The Crown Estate, Shaftesbury PLC, Sellar, Great Portland Estate, Grainger PLC, The Berkeley Group, Taylor Wimpey, London Square, Peabody, M&G, Legal & General and Crossrail/TFL. I have also acted for various local authorities such as the London Borough of Camden, London Borough of Barking & Dagenham, London Borough of Southwark and Warwick District Council.
- 1.7 I have prepared proof of evidence/expert witness reports for various planning appeals.
- 1.8 I have led extensive research that explores the daylight values that are present within densely developed areas of London including Westminster and multiple opportunity areas across London. I have presented this research to numerous London boroughs and the GLA and it has informed planning officers assessments of daylight effects to neighbouring buildings. My research has allowed me to develop a sophisticated understanding of the daylight values that are common within inner urban areas of London.
- 1.9 I am familiar with the Appeal Site and the surrounding area, which I have visited on multiple occasions. I have been involved with the Appeal scheme for over three years. With the assistance of colleagues I prepared the daylight, sunlight and overshadowing report dated July 2019 (the Report) that accompanied the planning application.
- 1.10 I am instructed by Anthology (Kennington Stage) Ltd (the Appellant) to act as an Expert Witness in this Appeal in respect of the Reason for Refusal 6 and 7 detailed in the Delegated Officers Report prepared on behalf of the London Borough of Lambeth (The Council).
- 1.11 This proof examines whether the implementation of the Appeal scheme will cause unacceptable harm to the daylight and sunlight enjoyed by neighbouring residential buildings. It also examines whether future occupiers will achieve satisfactory levels of residential amenity.

1.12 I have read all the relevant background information and made such enquiries as I consider necessary to prepare this statement. I confirm that this statement has been prepared and is given in accordance with the guidance of the RICS and I confirm that the opinions expressed are my true and professional opinions.

## **2 Reasons for Refusal and the Consideration by the Planning Officer to Date**

2.1 I am instructed by the Appellant in support of their appeal against the non-determination of planning application reference 19/02696/FUL by the Council in respect of the site of the former Woodlands Nursing Home at 1 Dugard Way, London SE11 4<sup>TH</sup> (the Site) for the following development (the Appeal Scheme):

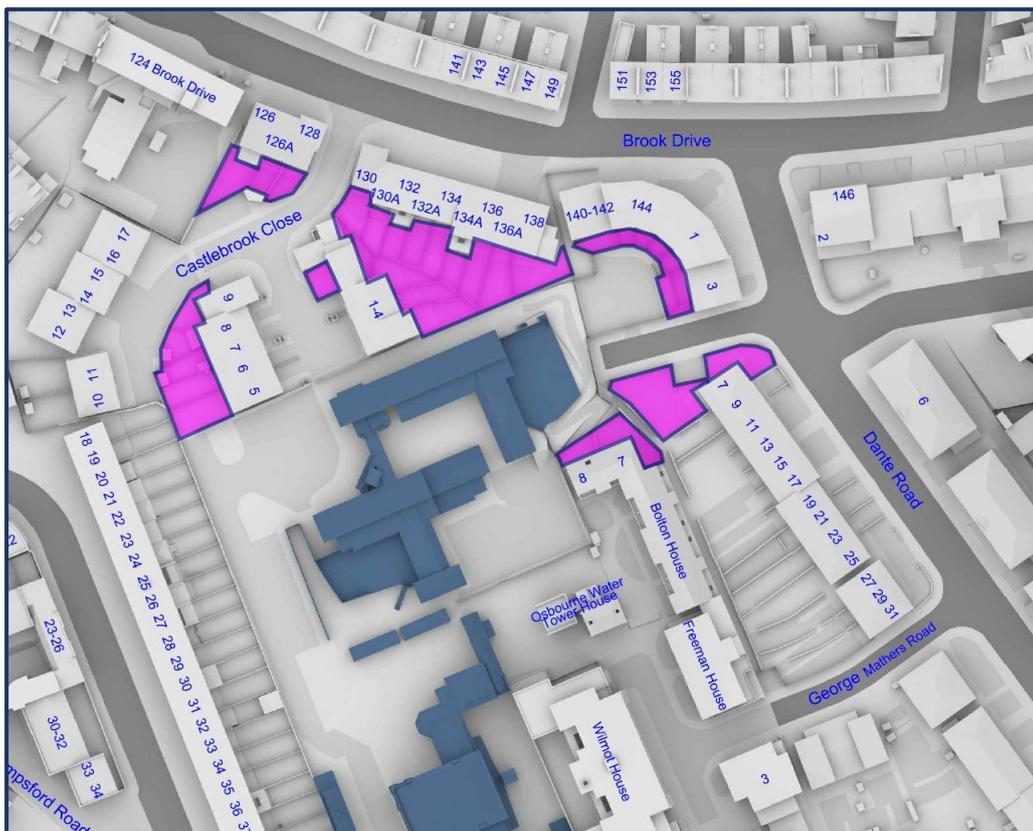
*“Redevelopment of the former Woodlands and Master’s House site retaining the Master’s House and associated ancillary buildings; demolition of the former care home; the erection of 29 storeys building and peripheral lower development of 3/4 storeys, to provide 258 residential units, together with servicing, disabled parking, cycle parking, landscaping, new public realm, a new vehicular and pedestrian access, and associated works..”*

2.2 Had the local planning authority been empowered to determine the application, the Council recommended that planning permission be refused for the indicative 13 reasons stated in the Council’s Delegated Officer’s Report. The following reasons are relevant to daylight and sunlight:

***‘6) Adverse Impact on Existing Residential Amenities (Daylight Effects to Habitable Rooms and Sunlight Amenity Effects to Gardens)***

The proposed development, by reason of its scale and massing and proximity to neighbouring residential properties would have a detrimental impact on the residential amenity of the occupiers in terms of loss of sunlight amenity to gardens specifically at Castlebrook Close, Brooks Drive and George Mathers Road and loss of daylight amenity to habitable rooms especially at (Wilmot House) & (Bolton House) George Mathers Road, Castlebrook Close, Brooks Drive and Dante Road. As such, the proposal would be contrary to and Policy 7.7(D) (a) of the London Plan (2016), D9 (3) (a) of the Intend to Publish London Plan (December 2019); Policies Q2 (iv) and Q26 (vi) of the Lambeth Local Plan (2015) and Policies Q2 (iv) and Q26..'

2.3 Plan 1A below identifies the location of the gardens referred to above. Plan 1B identifies the location of the properties specifically referred to as experiencing a detrimental impact on daylight.



Plan 1A



Plan 1B

**'7) Inadequate Residential Amenity For Future Occupiers Of Development**

*The proposed development, by reason of its density, scale, massing and resulting proximity would result in inadequate levels of residential amenity for future occupiers of Blocks A and B with specific regard to increased overlooking and loss of privacy including poor levels of daylight within habitable rooms of Block A. As such, the proposal would be contrary to Policy Q2 of the Lambeth Local Plan (2015) and Policy Q2 of the Draft Review Lambeth Local Plan (Submission Version January 2020).'*

2.4 Plan 2 below shows the location of Blocks A and B (referred to within the submitted planning drawings as 'Buildings A and B') within the Site.



Plan 2

- 2.5 The Council’s Statement of Case provides further explanation of the two reasons for refusal which are set out above at paragraphs 6.1.31-6.1.41.
- 2.6 This proof of evidence specifically addresses the Council's recommended reasons for refusal on the grounds of daylight and sunlight. This statement is supplemental to and should be read in conjunction with the Daylight, Sunlight & Overshadowing Report dated July 2019 (the "2019 Report") that was prepared by Point 2 and submitted with the Appellants Statement of Case.
- 2.7 On 24 September 2020, I met with Mr Ian Dias who is the Expert Witness on behalf of the Council to discuss Refusal Reason No 6 and No 7. The Daylight and Sunlight (‘Topic’) Statement of Common Ground (SOCG) has been agreed dated 6 October and is included within Appendix 2.

- 2.8 It is evident from the Topic SOCG that Mr Dias and I generally agree that the BRE Guidelines are to be interpreted flexibly in inner urban areas. We agree that in certain circumstances, such as this, it is appropriate to use alternative target daylight values to assess the effect of development and that this approach is supported by both the BRE Guidelines and mayoral planning policy.
- 2.9 The areas of disagreement between myself and Mr Dias are primarily concerned with the description of the context in which the development is taking place. I, along with other experts acting for the Appellant, consider the context to be inner urban. Mr Dias contends the site context to be low-rise and whilst Inner London, considers the area to demonstrate more suburban characteristics.
- 2.10 This proof of evidence provides further explanation of why I consider the Site to be inner urban although this specific point is addressed in much greater detail within the proofs that have been prepared by Mr Considine (Planning), Mr Graham (Architecture) and Mr Miele (Heritage and Townscape).

### **3 Assessment Methodology Guidance**

- 3.1 It is common practice to assess daylight and sunlight by reference to the guidelines set out in the 2011 Building Research Establishment (BRE) Report 'Site layout planning for daylight and sunlight - A guide to good practice' by Paul Littlefair<sup>1</sup> (BRE Guidelines). This document is widely accepted by planning authorities, including the Council as the means by which to consider the effect of development on the daylight and sunlight enjoyed by neighbouring buildings. It is also used to assess daylight and sunlight within new development.
- 3.2 The BRE Guidelines is a document that is applied across the country. Due to its national application, the framework for designers, practitioners and planning officials to refer to is in my opinion a 'one size fits all' approach to the assessment of daylight and sunlight. Theoretically, the methodology and subsequent technical specification offered by the BRE Guidelines is applicable to all manner of built environments, ranging from villages, to dense city centres, to areas where significant regeneration is taking place. Notwithstanding the stark disparity between these environments, the suggested target daylight and sunlight values remain consistent despite a suburban setting having very little in common with an inner urban one.
- 3.3 During my career, I have inspected hundreds of buildings in multiple settings and developed a detailed understanding of the availability of daylight and sunlight within a variety of built environments. Whilst there is no hard and fast rule about the light amenity occupants of buildings should enjoy in a particular setting, there are clear patterns that emerge.

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<sup>1</sup> BRE. Guide 209. Site Layout Planning for Daylight & Sunlight, A Guide to Good Practice. 2<sup>nd</sup> Edition. BRE Press. Paul Littlefair.

- 3.4 In my opinion, the expectation for daylight and sunlight in low density environments is invariably greater than it would be in a central London one. In inner London areas, the urban grain is much tighter than a suburban location and buildings are generally positioned much closer to one another. Buildings are also generally taller. Subsequently, neighbouring buildings obstruct much more of the sky dome which subsequently reduces the amount of light buildings receive. Occupiers in central London locations are familiar with this. If they were assessing whether a particular property had good levels of daylight, it would be logical to do so by making a comparison to other similar properties within the vicinity and across central London. They wouldn't compare whether the daylight was comparable to a property in say Guildford as the latter has no relationship to central London and the expectation of light would be that much greater. Subsequently, the context in which development takes place plays an important role in any decision concerned with assessing whether a development causes unacceptable harm to neighbouring occupiers.
- 3.5 The technical specification offered by the BRE Guidelines is generally accepted to be predicated upon a lower-rise suburban environment as opposed to denser urban environments or areas undergoing regeneration. There are multiple examples of the Council concurring with this view in their planning committee reports.

3.6 The existing and emerging urban grain of the immediate neighbourhood is clearly removed from the suburban context upon which the BRE Guidelines are predicated. This is evident from the existence of multiple tall buildings that are within close proximity and clearly visible from the Appeal Site. These new developments clearly play an important role in defining the scale and emerging character of this area of London. Neither the Bellway development to the south of the Site or the new development on Holyoak Road could be classified as suburban. Furthermore, many of the surrounding streets exhibit ‘building on building’ relationships that are evidently dense in nature. The Site context is therefore one that demonstrates many inner urban characteristics and therefore, there is a need for a practical application of the nationally applicable advice offered by the BRE Guidelines when developing sites in central London.

3.7 There are many examples of such an application by the Council (some of which are summarised in Section 4 below) and across London generally. In my experience, it is extremely rare for sites in inner urban locations to achieve full adherence to the BRE technical guidance. Indeed, with the exception of a small number of very modest developments that entail small extensions to existing buildings, I cannot recall advising on a single high density redevelopment project in central London within the last few years where the effects are fully compliant with guidance.

3.8 The BRE Guidelines repeatedly emphasise to the user, whether that be designers, consultants or planning officials to apply the guidelines in a manner that is appropriate for a particular situation. For example, in the introductory summary it states:

*“This guide as a comprehensive revision of the 1991 edition of site layout planning for daylight and sunlight. It is **purely advisory and the numerical target values within it may be varied to meet the needs of the development and its location.** Appendix F explains how this can be done in a logical way while retaining consistency with the British Standard Recommendations on interior lighting.”*

3.9 In Section 1: Introduction, at paragraph 1.6 it states:

*“the guide is intended for building designers and their clients, consultants and planning officials. **The advice given here is not mandatory** and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. **Although it gives numerical guidelines, these should be interpreted flexibly** since natural lighting is only one of the many factors in site layout design. **In special circumstances the developer or planning authority may wish to use different target values. For example, in historic city centres or in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings.**”*

3.10 At paragraph 2.3.3 (Existing Buildings), it states;

*“**Note that the numerical values given here are purely advisory.** Different criteria may be used based on the requirement for daylighting viewed against other site layout constraints. Another important issue is whether the existing building is itself a good neighbour, standing a reasonable distance from the boundary and taking no more than its fair share of light.”*

3.11 Finally, in Appendix F it states at section F1:

*“Sections 2.1 and 2.2 and 2.3 give numerical target values in assessing how much light from the sky is blocked by obstructing buildings. **These values are purely advisory and different targets may be used on special requirements of the proposed development or its location.**”*

3.12 It is clear that the numerical advice offered by the BRE is not mandatory and that a practical application of the target values is required as natural lighting is only one of many factors that should be considered. Where appropriate, the BRE Guidelines promote the use of alternative target values to those discussed in the main body of the document and cite the example of sites within an area of modern high-rise buildings. The image below has been prepared by the project architects, Rolfe Judd. It identifies the developments that either have been constructed or have planning permission. It clearly demonstrates that the Site is located in an area undergoing significant regeneration, which is largely comprised of modern high-rise buildings. I therefore conclude that it is appropriate to assess the effects of the Appeal Scheme against an appropriate alternative target value. Section 4 explains what I consider to be a reasonable alternative target value for this Site.



*Image 3.1*

3.13 To quantify the effect a development will have upon the daylight enjoyed by surrounding properties, the BRE Guidelines suggest using the Vertical Sky Component (VSC) and No-Sky Line (NSL) tests.

### *Vertical Sky Component Test*

- 3.14 Where the internal arrangements are not known, the BRE guidelines set out three methods for assessing the daylight impacts on neighbouring properties. These methods are summarised as follows:

**Method 1:** the first method is to draw a section in a plane perpendicular to the window wall of the existing building and measure the angle to the horizontal subtended by the new development at the level of the centre of the lowest window. If this angle is less than 25° then it is unlikely to have a substantial effect on the diffuse skylight enjoyed by the existing building. If, for any part of the new development, this angle is greater than 25°, a more detailed check is needed (outlined below) to find the loss of skylight to the existing building.

**Method 2:** this method calculates the VSC at the centre point of each main window on the outside face of the wall in question. The VSC is an external daylighting calculation that measures the amount of direct skylight to a specific window point on the outside of a property. The calculation fundamentally assesses the amount of vertical sky that can be seen, converting results into a percentage. A vertical window looking into an empty field will achieve a maximum value of 40%. The BRE suggests that if a window is able to maintain 27% VSC then enough skylight should still reach the window of the existing building. Any reduction below this level should be kept to a minimum. If a window does not achieve 27% VSC in the 'proposed development' scenario, then the third test is used.

**Method 3:** this method involves calculating the VSC at the window in the existing situation, i.e. before redevelopment. If the reduction of VSC is less than 0.8 times its former value (or more than 20%), then the occupants of the existing building are likely to notice the reduction in the amount of skylight. (I refer to this as the ‘percentage reduction test’).

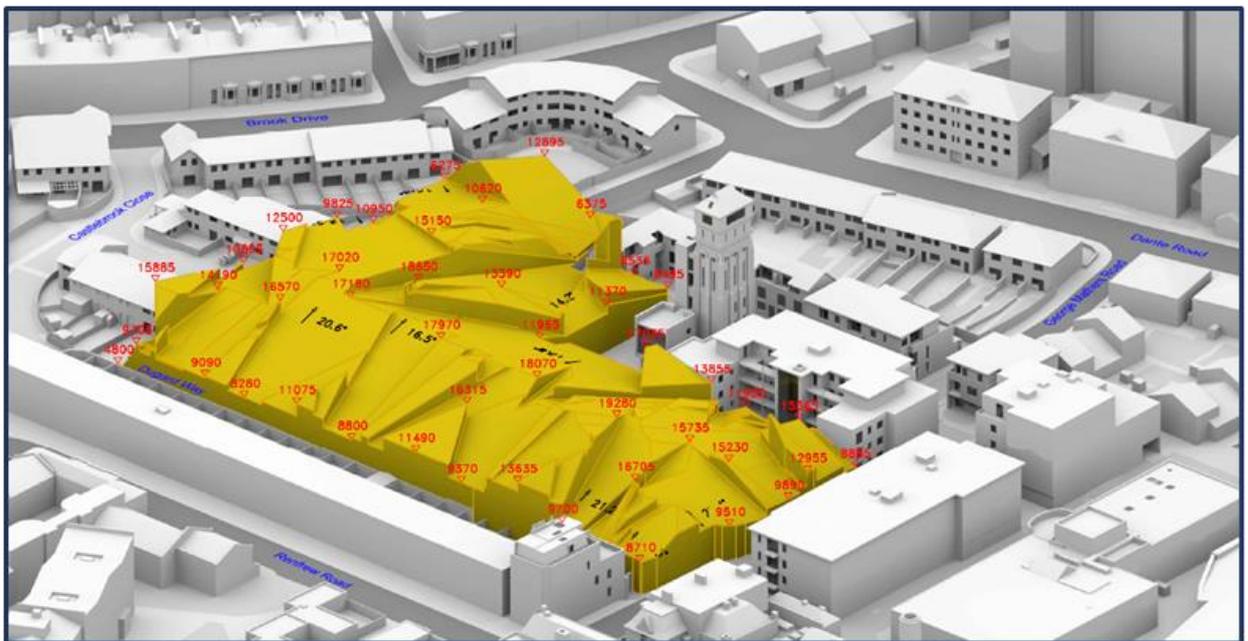
3.15 The VSC test set out in method 2, and again used in method 3, is considered a simple but useful test to consider whether the proposed ‘site layout’ is appropriate.

3.16 With regards to the VSC test, it can often be described as a simple but useful initial test to assess whether a loss of skylight is significant.

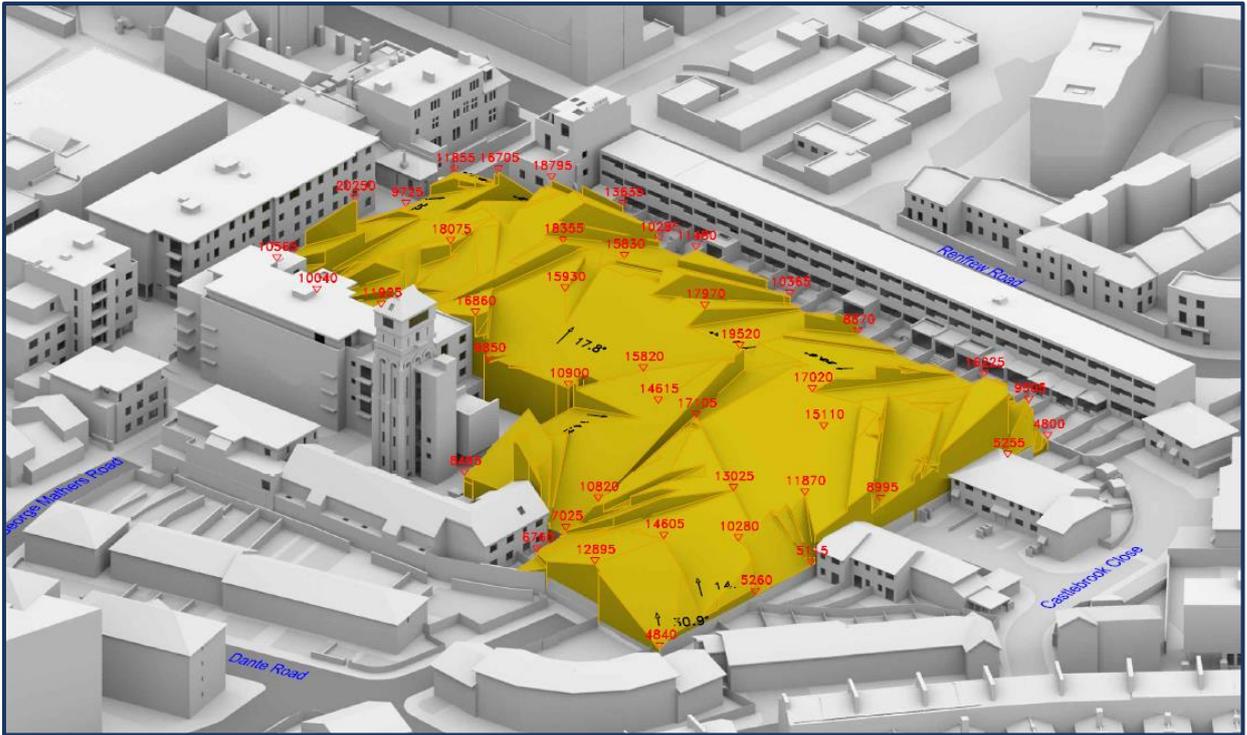
3.17 I say ‘simple’ as it only measures one component of the natural light that will enter a room. The measurement has little regard for the size of a window which clearly has a material bearing upon the amount of daylight that can enter a room. For example, the VSC reading for a set of bi-folding doors that span the width of a property would be the same as a tiny box window (e.g. one that typically serve small WC’s) if the centre point of the both windows were in the same position. Whilst the VSC value would be the same, the distribution of daylight within the room would obviously be very different. It is for this reason that the BRE Guidelines state that the total amount of skylight and its distribution within a building (measured using the NSL test) are important.

3.18 If the VSC criteria was slavishly adhered to across all development sites in London, many new developments would be limited to just a few storeys around the perimeter of development sites. Whilst development often steps down towards the perimeter to safeguard acceptable levels of daylight to adjacent residential properties, it is seldom the case that it results in developments subtending to the 25° angle line that can produce the BRE target of 27% VSC. In my experience, such a pattern of new development would be the exception rather than the rule.

3.19 To illustrate this point, Images 3.2 and 3.3 below and drawings P1870/36 in Appendix 3 demonstrate the capacity of the Site if the VSC test was strictly adhered to.



*Image 3.2 - 3D representation of the development capacity of the Site if the effects fully adhered to the BRE Guidelines- view looking north east*



*Image 3.3 - 3D representation of the development capacity of the Site if the effects fully adhered to the BRE Guidelines- view looking south west*

3.20 As you can see, a development which adhered to the VSC test would result in a built form that is at odds with the evolving higher density character of the area. I cannot recall advising on any inner urban site that has been developed to such low density. If applied to the Site, the proof of evidence produced by Mr Considine explains why the resultant development would fail to satisfy numerous other planning policies, none more so than those designed to ensure the efficient use of land. Subsequently, such an approach to development on this Site would be contrary to Policy 3.4 of the London Plan and inconsistent with NPPF 123.

#### 4 Review of Planning Policy & Relevant Publications

4.1 To consider whether the effects upon amenity are detrimental or the amenity for future occupants is acceptable, the relevant planning policy has been considered.

##### Policy relating to Reason for Refusal 6

4.2 The principal planning policies relevant to Reason for Refusal 6:

- London Borough of Lambeth- Lambeth Local Plan (2015)- Policy Q2- Amenity
- Draft Revised Lambeth Local Plan – Policy Q2. (Submission Version January 2020)
- The London Plan 2016 - to Policy 7.6 B(d)
- The London Plan 2019- Intend to Publish- Policy 7.7 D(a)

4.3 Also relevant to this proof of evidence is:

- The National Planning Policy Framework (NPPF) (February 2019).
- The London Plan, Supplementary Planning Guidance (SPG) - ‘Housing’ (March 2016)
- Building Research Establishment: Site Layout Planning for Daylight and Sunlight: A guide to good practice 2nd Edition 2011

4.4 The relevant policy guidance clearly indicates that the BRE Guidelines should be applied flexibly when delivering housing. For example, The London Plan, Supplementary Planning Guidance (SPG) - ‘Housing’ (March 2016) states:

*‘Policy 7.6Bd requires new development to avoid causing **‘unacceptable harm’** to the amenity of surrounding land and buildings, particularly in relation to privacy and overshadowing and where tall buildings are proposed.*

*An appropriate degree of flexibility needs to be applied when using BRE guidelines to assess the daylight and sunlight impacts of new development on surrounding properties, as well as within new developments themselves. Guidelines should be applied sensitively to higher density development, especially in opportunity areas, town centres, large sites and accessible locations, where BRE advice suggests considering the use of alternative targets. This should take into account local circumstances; the need to optimise housing capacity; and scope for the character and form of an area to change over time.*

*The degree of harm on adjacent properties and the daylight targets within a proposed scheme should be assessed drawing on broadly comparable residential typologies within the area and of a similar nature across London. Decision makers should recognise that fully optimising housing potential on large sites may necessitate standards which depart from those presently experienced but which still achieve satisfactory levels of residential amenity and avoid unacceptable harm’.*

4.5 The NPPF similarly endorses a flexible approach to the guidelines. Under ‘*Achieving Appropriate Densities*’, paragraph 123 (c) states:

*“local planning authorities should refuse applications which they consider fail to make efficient use of land, taking into account the policies in this Framework. In this context, when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards).”*

- 4.6 In my opinion, the 2019 NPPF marks a significant evolution in the Government's approach to achieving appropriate densities. The 2012 version of the NPPF gave no consideration to the implications a rigid approach to daylight and sunlight can have on making efficient use of land. As I have explained and demonstrated above, in urban areas, such an approach would often result in development proposals being severely compromised and of a scale that are significantly less than other policy requirements would support. It is for this reason that the 2019 version endorses a flexible approach to daylight and sunlight matters and in my opinion, is of material relevance to this Site. The national and mayoral policies are completely aligned on this point.
- 4.7 In reading these policies I interpret that I should apply the BRE Guidelines sensitively and within the flexibility expressly stated with the London Plan SPG, NPPF and repeatedly throughout the BRE Guidelines themselves.
- 4.8 It is a fact that the Council and indeed most London Boroughs, have historically and consistently applied the Guidelines in a flexible manner. I cannot see any particular reason for deviating from that application here.
- 4.9 There are many examples of the Council adopting a flexible approach over a consistent period and Appendix 4 captures some of these. This list is by no means exhaustive, but it does serve to demonstrate how the Council typically apply the BRE Guidelines. Whilst I accept that every site must be treated on its own merits, the same principle should apply to the Appeal Site, with an equal degree of flexibility applied.
- 4.10 There are further important components of the national and mayoral policy that I consider to be relevant to this Appeal.

- 4.11 Firstly, the Housing SPG refers to policy 7.6Bd of the London Plan which requires new development to avoid causing *'unacceptable harm'*. As far as I am aware, it is not a 'no effect' or 'no harm' policy but rather, one that requires the full examination of all the facts that are relevant to daylight and sunlight. To achieve a 'no harm' position, the BRE Guidelines would need to be completely adhered to. I have demonstrated in Section 3 what form of development this would permit. Mr Considine's proof of evidence explains why such a form of development would fail to address other planning policies.
- 4.12 In my opinion, the London Plan recognises the impractical consequences of a 'no harm' policy. Sites would be developed to such low densities that the overall objectives of local plans would be compromised. Therefore, some harm (by reference to the BRE Guidelines) is inevitable in inner urban areas and professional judgement is required to establish whether that is unacceptable or not.
- 4.13 Secondly, where development involves optimising housing, the SPG recognises that it may *'necessitate standards which depart from those presently experienced, but which still achieve satisfactory levels of residential amenity and avoid unacceptable harm'*.
- 4.14 To examine whether *'satisfactory levels of residential amenity'* are maintained, it is important to examine the context in which the development takes place.
- 4.15 If the neighbouring buildings maintain daylight and sunlight values that are below the national advice offered by the BRE Guidelines but are demonstrably commensurate with those that are indicative of the wider site context and indeed inner London more generally, then in my opinion, occupiers of those properties could be said to retain *'satisfactory levels of residential amenity'*, notwithstanding that the levels are a departure from the existing levels.

- 4.16 Similarly, if the retained levels are commensurate to the wider context, whilst there may be some harm, it does not automatically translate into that harm being unacceptable as the occupants would enjoy a level of daylight that is not dissimilar to many occupiers in the neighbouring streets.
- 4.17 Therefore, a critical step in the process in establishing whether '*satisfactory levels of residential amenity*' are maintained or there is '*unacceptable harm*', it is essential to examine the retained levels of daylight and sunlight and compare these to what one can reasonably expect for a site in an inner urban area. Such an approach is commonly adopted across London. It is an approach that has been adopted by the Council. The SOCG between myself and Mr Dias concludes that it is appropriate for the Appeal Scheme.
- 4.18 Thirdly, the SPG supports the BRE Guidelines recognition that in certain circumstances, it is appropriate to adopt alternative target daylight and sunlight values which should '*take into account the scope for the character and form of an area to change over time*'.
- 4.19 When I exit the nearest tube station at Elephant & Castle, it is quite apparent that the character and form of the area has been subject to and will continue to be subject to significant change. Whilst it is acknowledged that a number of the tall buildings within the vicinity of the Appeal Site (One The Elephant, Strata and Castilla for example) are located within the London Borough of Southwark, the simple fact that those buildings are located on the opposite side of an administrative boundary does not detract from the evolving urban context which is evidently progressing towards medium to high density scale.

4.20 In my experience, where development of a low-density site (which is very much the case here) responds to an evolving higher density context (such as that provided by the nearby regeneration of Elephant and Castle and surrounding areas), it will obstruct some of the largely uninterrupted access to daylight and sunlight currently received by neighbouring buildings. In situations such as this, even modest buildings would result in relative reductions or retained values that breach the BRE Guidelines. The Council have expressly recognised this scenario in multiple planning committee reports and so I can only assume they agree with this view.

4.21 It is for this very reason that the Housing SPG advises applying targets that are based on comparable residential typologies within the area and of a similar nature across London as the character of an area will change over time. This area of London has been and will continue to be subject to substantial change and therefore the policy supports the use of alternative target values to assess the effect of development.

4.22 The Planning Inspectorate has previously considered what daylight values are indicative of urban areas. The cases referred to below provide useful background on what is an acceptable threshold of VSC.

4.23 Regarding the Whitechapel Estate, the Appeal Decision states:

*“The figures 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 pre-SPG 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%... The appeal proposal would therefore appear to be in compliance with the LP as amplified by the SPG and as it is being interpreted by the Mayor”*

4.24 The Tileyard Appeal decision states:

*“The target values in the BRE Guide are advisory and may be varied to meet the needs of development and its location. As noted by two Inspector colleagues, the Mayor’s Housing SPG also expects flexibility, with the guidelines to be applied sensitively to higher density developments, especially in opportunity areas, taking into account local circumstances and the scope for the character and form of an area to change over time, as long as the resulting scheme would provide acceptable living standards. There appears to be a growing recognition in heavily built up areas of London that a VSC of 20% is now regarded as reasonably good, with a VSC of 15% being considered acceptable in most instances.”*

4.25 The Burgess Business Park Appeal decision states:

*“The consistent theme of the relevant policies is that it is not appropriate to judge the acceptability of impact on sunlight and daylight by rigid application of standards or guidelines. A balanced approach must be taken to ensure that adequate or sufficient levels of amenity are enjoyed and that any impact is not unreasonable.*

*This can be approached by applying the BRE Guidelines. This includes a number of different tests to determine impact. In relation to daylight an adverse effect will occur if either the Vertical Sky Component (VSC) or NSL test is failed. However, it is also important to recognise that the BRE Guidelines are not intended to be applied rigidly or inflexibly. They are more suited to lower density suburban type housing than to an inner-city environment. In the latter context, particularly in London, **VSC values in the mid-teens are generally considered to be acceptable.**”*

4.26 I also refer to the Holy Trinity School the GLA representation hearing report states:

*“the 27% VSC target value is derived from a low density suburban housing model. The independent daylight and sunlight review states that in an inner city urban environment, VSC values in excess of 20% should be considered as reasonably good, and that VSC in the mid-teens should be acceptable.”*

4.27 The Monmouth House representation hearing report states:

*“For general guidance, whilst the BRE guidelines recommend a target value of 27% VSC when measured on an absolute scale, that value is derived from a low density suburban housing model. In an inner city urban environment, VSC values in excess of 20% should be considered as reasonably good, and VSC in the mid-teens should be acceptable.”*

4.28 Each decision concludes that the BRE recommendations are derived from a low-density suburban housing model. In inner urban areas, a VSC in the mid-teens may be seen as acceptable. Similar conclusions have been reached by many other London boroughs within their planning officer committee reports and so this isn't a new concept or one that is only applicable to the Site.

4.29 The Council have themselves recognised that lower VSC values can be expected in urban environments. The Officer's Committee Report for 275 Kennington Lane and 145-149 Vauxhall Street (Application reference 18/02597/EIAFUL) stated:

*“8.5.2 The application is accompanied by a daylight and sunlight report which was independently reviewed by a consultant appointed by the council. It should be noted that the BRE guidance sets a benchmark of 27 per cent for VSC however this figure is derived from a low density suburban housing model and can be impractical to apply to existing dense urban areas. In densely built up areas retained VSC values of 18 per cent can be considered more appropriate. Where VSC drops below 10 per cent, direct daylight from the sky will be poor.”*

4.30 The Officer's Committee Report for Oval Gasworks, Kennington (Application Reference 17/05773) stated:

*"8.16.6 The benchmark for VSC is 18 per cent rather than the 27 per cent set out in the BRE guidance as 18 per cent is considered to be more appropriate in a dense urban context."*

4.31 The Council have adopted 18% for other developments which is not materially different to 'mid-teens'. Presumably, the Council must consider a VSC in this range to provide satisfactory living conditions otherwise they would not have considered it appropriate and acceptable.

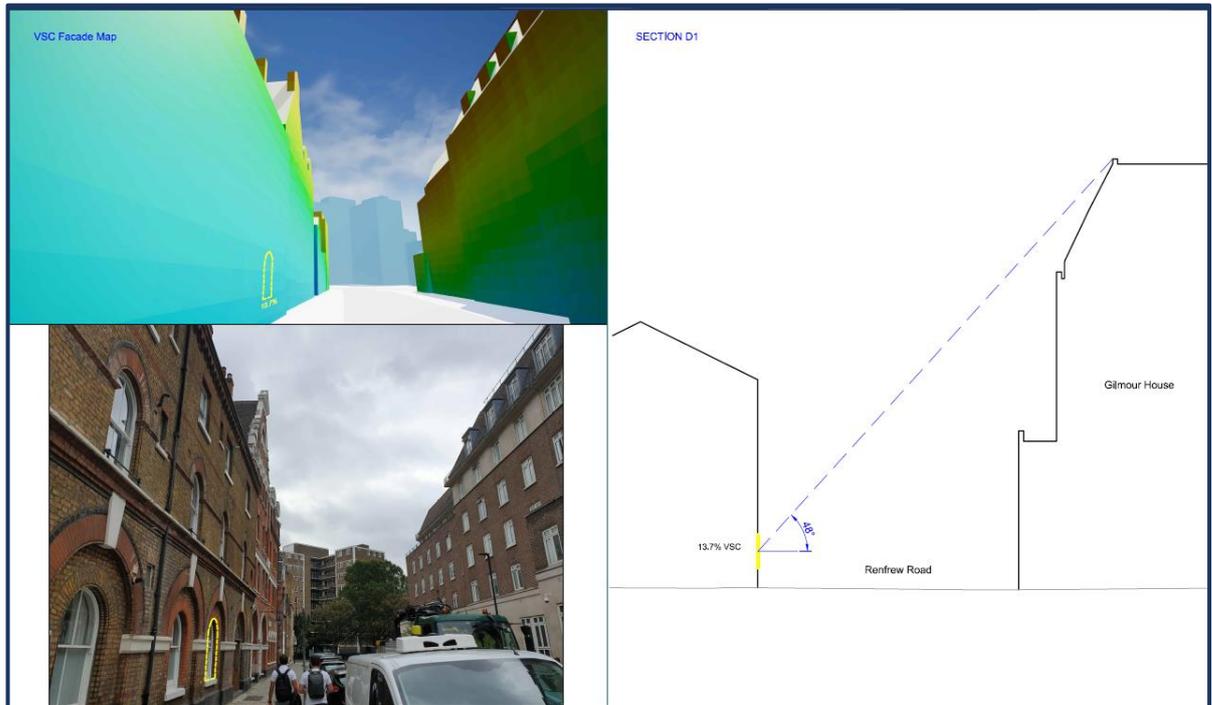
4.32 In the Delegated Officers Report on the Appeal Scheme, Officers conclude at paragraph 10.6.23 that *'The retained VSC value at 17.3% for LKD Room/261 is still considered reasonable for an urban context'*.

4.33 The same report also makes multiple references to 15% VSC when reporting on the retained values that will be enjoyed by neighbouring windows. Presumably, Officers consider this to be a reasonable benchmark in which to compare the results of the Appeal Scheme otherwise, why would it be referred to?

4.34 Some of the effects within the examples listed in Appendix 4 are comparable to the Appeal Scheme. For example South Lambeth Estate (planning reference: 17/05993/OUT), 275 Kennington Lane & 145 – 149 Vauxhall Street (planning reference: 18/02597/EIAFUL), Oval Gasworks (planning reference: 17/05773/LB), 8 Albert Embankment (planning reference: 19/01305/LB).

- 4.35 Reason for Refusal 6 states that the Appeal Scheme would *'have a detrimental impact on residential amenity'*. If it is the case that the effects of the Appeal Scheme are not substantially different to other schemes that have been deemed acceptable by the Council, it is difficult to understand why the Appeal Scheme has been deemed to have a detrimental impact on amenity, but other have not.
- 4.36 To provide further evidence of what an appropriate alternative target value may be, we have examined the VSC values that are currently received within some of the streets surrounding the development site.
- 4.37 Using a Z-Map context model (a 3d computer model produced using photogrammetry), we have completed two studies to quantify VSC in the neighbouring streets.
1. 'Building on building' relationships – we have calculated the angles of obstruction that exist within streets surrounding the site, which in turn allows us to determine the corresponding VSC values that are achieved by reference to advice in Appendix F of the BRE Guidelines. The assessment point has been taken from ground floor windows;
  2. VSC façade mapping study within the streets we have considered. This assessment essentially plots the VSC values across the façade of a building.
- 4.38 We have selected 17 locations and drawn sections to establish the angles of obstruction that exist within the subject streets. We have restricted our assessment to streets within the vicinity of the Site. If we examined the relationships within the new development around Elephant & Castle, they would produce lower average VSC values than those identified in the table below.

4.39 Image 4.1 below identifies the location of the streets we have considered. Detailed drawings of the individual sections for the assessment points are included within Appendix 5. An example of the drawings image is an extract from the VSC facade mapping study. The section on the right demonstrates the angle of obstruction.



*Image 4.1*



**Table 4.1**

Street Name	Section Ref.	Angle of Obstruction	Equivalent VSC (from appendix F of BRE)	Actual VSC from façade mapping
Heralds Place				
	2	46	15	14.7
	3	51	12	15.0
Elliots Row - South	<b>C</b>			
	2	46	15	14.5
Renfrew Road	<b>D</b>			
	1	48	14	13.7
Holyoak Road	<b>E</b>			
	1	43	17	17.1
	2	35	22	21.9
UNCLE Development	<b>F</b>			
	2	48	14	10.3
Dugard Way	<b>G</b>			
	2	47	15	17.9
	3	52	12	15.9
	4	53	11	11.6
George Mathers Road	<b>H</b>			
	1	45	16	15.6
	2	68	4	19.4
	4	38	20	19.9
Gaywood Street	<b>I</b>			
	1	45	16	16.6
	3	37	21	15.1
Elliots Row - North	<b>J</b>			
	1	50	13	14.3
Reedworth Street	<b>M</b>			
	1	38	20	18.0
	<b>Average</b>		<b>15.1</b>	<b>16.0</b>

4.41 The angles of obstruction typically range between 35° -53°. To achieve the BRE target VSC of 27%, the angle would need to be close to 25°.

4.42 Section H2 is somewhat of an anomaly when examining obstruction angles as it cuts through Bolton House and the Water Tower, however, it is useful in terms of examining the actual VSC received by windows in Bolton House which we have extracted from the façade mapping model.

4.43 The obstruction angle analysis produces corresponding VSC values of 11% -22%, which averages to be 15%. The VSC values we have extracted from the façade mapping model show the average is 16%.

4.44 Both assessments demonstrate that VSC's in the mid-teens is not uncommon within this area of London. If I repeated this exercise around the new developments in Elephant and Castle, I expect the average VSC would be lower.

4.45 This analysis confirms the conclusions reached in other Planning Inspector decisions that VSC's in the mid-teens is acceptable for inner urban areas. I therefore conclude that an alternative VSC target in the mid-teens is appropriate to this Site.

#### Policy relating to Reason for Refusal 7

4.46 The principal planning policies relevant to Reason for Refusal 7:

- London Borough of Lambeth- Lambeth Local Plan (2015)- Policy Q2
- Draft Revised Lambeth Local Plan- Policy Q2. (Submission Version January 2020)
- The London Plan, Supplementary Planning Guidance (SPG) - 'Housing' (March 2016)

4.47 In a similar way to the assessment of daylight and sunlight to neighbouring buildings, The London Plan, SPG - 'Housing' indicates that the BRE Guidelines should be applied flexibly when considering daylight within new development. It states:

***“An appropriate degree of flexibility needs to be applied when using BRE guidelines to assess the daylight and sunlight impacts of new development on surrounding properties, as well as within new developments themselves.***

***The degree of harm on adjacent properties and the daylight targets within a proposed scheme should be assessed drawing on broadly comparable residential typologies within the area and of a similar nature across London”***

4.48 In my experience of advising on a very large number of high-density developments in inner urban areas, it is extremely rare for all of the rooms in a development to meet the BRE minimum standards. In fact, I cannot recall a single large development that has.

4.49 There are many reasons why some rooms in high density development achieve daylight standards below guidance. These range from some rooms being located in the corners of buildings (for example in a courtyard arrangement) where access to daylight is more limited, to rooms being located below balconies that are required to satisfy policy requirements concerned with private amenity space, to window sizes being limited to prevent overheating issues.

4.50 I have always found that local authorities in central London recognise the challenges architects face with ensuring all rooms in a development meet the minimum standards. The Council are no different in that regard and there are many examples of them approving residential development notwithstanding that some rooms do not meet standards. The Council has experienced this with some of their own developments, for example:

4.51 In the Officer's Committee Report for the consented South Lambeth Estate development (planning ref. 17/05993/OUT), another development that was submitted by the London Borough of Lambeth, it states at paragraph 7.5.13 that:

*'In consideration of the ADF analysis, whilst theoretically, all habitable rooms should meet minimum ADF targets, in practical terms, it is not uncommon to have some isolated habitable rooms on larger development schemes not meeting ADF targets. A 'pass rate' of 90% is considered reasonable for an urban development scheme.'*

4.52 To conclude, it is invariably the case for higher density development within Central London that some rooms will fall short of the BRE targets. Mayoral policy recommends that ***daylight targets within a proposed scheme should be assessed drawing on broadly comparable residential typologies within the area and of a similar nature across London.*** It is therefore appropriate to compare the daylighting within the Appeal Scheme to other developments within the Councils jurisdiction to determine whether the daylight is commensurate with development in Lambeth.

## 5 Sunlight within external amenity spaces

- 5.1 Sun on Ground assessments have been undertaken for the gardens of the surrounding residential properties. The results are presented in Appendix 6.
- 5.2 The BRE guidelines suggest that at least half the garden or amenity area should receive at least two hours of sunlight on 21 March. If, as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable.
- 5.3 The results of the sun on ground assessment for the 21st March are summarised in Table 5.1 below. 68 neighbouring amenity spaces have been assessed, of which 55 meet the BRE 2 hour sun on ground test.
- 5.4 The effect to 1 Castlebrook Drive is in my opinion a technical breach of guidance. Just 1.7% of the garden receives 2 hours of sunlight on the 21st March. This is only detectable using specialist computer software and so in practical terms, the reduction in the area that receives 2 hours of sunlight is unlikely to be perceptible. I believe Mr Dias broadly concurred with this view in his November 2019 report.

Property	March 21 <sup>st</sup> - % 2hrs Sun on Ground			Property	March 21 <sup>st</sup> - % 2hrs Sun on Ground		
	Existing	Proposed	Meet BRE?		Existing	Proposed	Meet BRE?
140-142 Brook Drive	45.3	39.9	Yes	30 Brook Drive	76.7	57.8	Yes
144 Brook Drive	54.6	34.5	No	130A Brook Drive	68.2	40.4	No
	48.6	33.4	No	132 Brook Drive	60.6	38.5	No
1 Dante Road	39.8	32.2	Yes	132A Brook Drive	76.4	62.7	Yes
	40.9	37.6	Yes	134 Brook Drive	79.3	61	Yes
3 Dante Road	67.8	67.5	Yes	134A Brook Drive	71.3	55.5	Yes
	63.9	61.6	Yes	136 Brook Drive	81.7	58.2	Yes
8 George Mathers Road	19.6	0	No	136A Brook Drive	74.5	33	No
7 George Mathers Road	19	1.8	No	138 Brook Drive	70.1	28.3	No
Bolton House, 9 George Mathers Road	91	90.8	Yes	4 Castlebrook Close	69.1	11.5	No
31 Renfrew Road	43.4	43.4	Yes	3 Castlebrook Close	39.9	19.3	No
	40.5	40.5	Yes	2 Castlebrook Close	52.8	27	No
30 Renfrew Road	59.5	59.5	Yes	1 Castlebrook Close	76.1	63.1	Yes
	66.1	66.1	Yes		1.7	0	No
29 Renfrew Road	59.2	59.2	Yes	9 Castlebrook Close	76.6	76.6	Yes
28 Renfrew Road	50.6	50.6	Yes	8 Castlebrook Close	67.7	66.6	Yes
	41.9	41.9	Yes	7 Castlebrook Close	68.4	67.9	Yes
27 Renfrew Road	46.2	46.2	Yes	6 Castlebrook Close	76.7	74.9	Yes
26 Renfrew Road	53.3	53.3	Yes	5 Castlebrook Close	85.7	81.8	Yes
25 Renfrew Road	48.4	48.4	Yes	7 Dante Road	90.8	90.1	Yes
24 Renfrew Road	52.4	52.4	Yes		71.9	45.1	No
23 Renfrew Road	66.1	66.1	Yes	9 Dante Road	74	74	Yes
22 Renfrew Road	69.2	69.2	Yes	11 Dante Road	95.5	95.5	Yes
21 Renfrew Road	65.7	65.7	Yes	13 Dante Road	96.6	96.6	Yes
	67.9	67.9	Yes	15 Dante Road	95.6	95.6	Yes
20 Renfrew Road	61.4	61.4	Yes	17 Dante Road	95	95	Yes
19 Renfrew Road	46.1	46.1	Yes	19 Dante Road	76.5	76.5	Yes
	42.2	42.2	Yes	21 Dante Road	64.6	64.6	Yes
18 Renfrew Road	49.4	49.4	Yes	23 Dante Road	74.9	74.9	Yes
	74.3	74.3	Yes	25 Dante Road	81.2	81.2	Yes
10 Castlebrook Close	50.3	50.3	Yes	27 Dante Road	89.1	89.1	Yes
11 Castlebrook Close	54.9	54.9	Yes	29 Dante Road	83.4	83.4	Yes
126 Brook Drive	76.7	76.7	Yes	31 Dante Road	69.2	69.2	Yes
126A Brook Drive	46.7	46.1	Yes				
128 Brook Drive	52.6	52.6	Yes				

**Table 5.1**

5.5 The following 12 amenity spaces/gardens would not meet the BRE 2 hour sun on ground test.

Please note this list discounts 1 Castlebrook Close for the reasons explained above:

- 2 Castlebrook Close
- 3 Castlebrook Close
- 4 Castlebrook Close
- 130a Brook Drive
- 132 Brook Drive
- 136a Brook Drive
- 138 Brook Drive
- 144 Brook Drive
- 7 Dante Road
- 7 George Mathers Road
- 8 George Mathers Road

5.6 It is worth explaining why the 21<sup>st</sup> March assessment date is recommended by the BRE. It is the spring equinox and is equidistant between the height of summer (21<sup>st</sup> June summer solstice), when there are high levels of sunlight due to the sun's high altitude and mid-winter (21<sup>st</sup> December winter solstice), when the sun reaches low altitudes and little sunlight reaches amenity spaces, particularly in built up areas. The 21<sup>st</sup> March provides an average between the two solstices and offers an indication of whether an amenity area is likely to appear adequately sunlit throughout the year.

5.7 The sun on ground test is a 'cliff edge' assessment. You could have part of a garden that receives 1hr 55mins of sunlight and it would be considered inadequately sunlit whereas another patch that receives 2hr 5mins of sunlight would be adequately sunlit. In practical terms, there is no difference between the two. Similarly, if a garden receives 2 hours of sunlight within a small margin of the suggested assessment date, does that automatically mean the garden wouldn't be adequately sunlit throughout the year? In my opinion, it would not.

5.8 Such an approach would imply there is no flexibility within the BRE Guidelines. The SOCG states that not to be the case and this proof of evidence demonstrates the same. Indeed, the BRE Guidelines state that it is difficult to apply a hard and fast rule to this matter.

5.9 I have therefore examined at what date the affected gardens would receive 2 hours of sunlight to 50% of their areas. I have initially focused on the gardens that receive sunlight to over 50% of their areas in the existing condition. The results of this assessment are included within Appendix 7 and are summarised in Table 5.2 below.

**Table 5.2**

<b>Address</b>	<b>Date Met</b>	<b>Variance (days)</b>
7 Dante Road	March 30 <sup>th</sup>	9
144 Brook Drive	April 14 <sup>th</sup>	24
130A Brook Drive	March 27 <sup>th</sup>	6
132 Brook Drive	March 28 <sup>th</sup>	7
136A Brook Drive	March 31 <sup>st</sup>	10
138 Brook Drive	March 28 <sup>th</sup>	7
4 Castlebrook Close	April 15 <sup>th</sup>	25
2 Castlebrook Close	March 31 <sup>st</sup>	10

5.10 6 of the 8 gardens would receive 2 hours of sunlight within just 10 days of the BRE 21<sup>st</sup> March recommended assessment date. Over the course of a year, and planting my feet in reality, I do not consider this to be a material difference, especially in consideration of this inner urban location. Put another way, I do think it would be reasonable to conclude that a garden would be adequately sunlit throughout the year if it receives 2 hours of sun on the 21<sup>st</sup> March but the same could not be said if it achieved the threshold on the 31<sup>st</sup> March.

5.11 The patio serving 144 Brook Drive is a very small area that only just meets the 21<sup>st</sup> March target in the existing condition, receiving 2 hours of sun to 54% of its area. As you can see from the photo below, some large trees are located immediately to the south of the patio which will block the majority of sunlight reaching this garden, whether that be when the tree is in or out of leaf. In practical terms, the sun on ground analysis overstates the amount of sunlight the patio receives, and I believe it to be considerably lower. The reported effect to this space should therefore be treated with caution and common sense applied.



*Photo 5.1*

5.12 4 Castlebrook Drive would receive 2 hours of sun by the 15<sup>th</sup> April. It would receive increased hours of sunlight after this date throughout the remainder of April, May, June July and August. This property shares the boundary with the Site and is located immediately along its northern boundary. The location of this property dictates that it is more vulnerable to shadow than other properties surrounding the site.

- 5.13 Therefore, in respect of the gardens that receive more than 2 hours of sun to 50% of their areas in the existing condition, I do not agree that the Appeal Scheme will have a detrimental effect upon the access of sunlight throughout the year. Whilst there may be some harm to these spaces, I do not consider it to be unacceptable harm as the BRE test would be satisfied within a relatively small number of days of the recommended test date.
- 5.14 With regards to the remaining three gardens, they all receive less than 2 hours of sun to 50% of their areas in the existing condition notwithstanding that the existing Site buildings make no contribution to the reduced sunlight availability. I have explored the date at which the gardens would receive 2 hours of sunlight in the existing condition and when they would do the same with the Appeal Scheme in place.
- 5.15 With regards to 3 Castlebrook Close, it would receive 2 hours of sun to 50% of its area on the 2<sup>nd</sup> April. It would achieve the same on the 7<sup>th</sup> April with the Appeal Scheme in place.
- 5.16 With regards to 8 George Mathers Road, the garden is located due north of the property. Its orientation dictates that it is limited to receiving sunlight during the early morning or later afternoon periods. Sunlight in this garden is generally received in the latter. It would receive 2 hours of sun by the 6 April in the existing condition. A maximum of 14.6% of the area will receive at least 2 hours of sun on 21<sup>st</sup> June with the Appeal Scheme in place.
- 5.17 As you can see from the photos below, the garden to this property is heavily enclosed with dense trees and foliage. The trees run along the western boundary of the property and therefore in practical terms, they will obstruct the afternoon sun from reaching a substantial area of the garden for a significant period of the year.



Photo 5.2



Photo 5.3

- 5.18 The obstruction created by the trees will be greater when it is in leaf than when it is not, but even without the leaves, the main trunk and branch structure will obstruct some sunlight and so the 2 hour sun on ground assessment probably overstates the availability of sunlight.
- 5.19 The garden is technically capable of receiving 2 hours of sun by the 6<sup>th</sup> April and is reliant upon afternoon sunlight to achieve this threshold. However, the trees are likely to be in leaf within a few weeks of this date and will start to prevent sunlight from actually reaching the garden as they block the sun from the west. As such, the actual period of time the garden receives 2 hours of sunlight is likely to be short (just a few weeks), after which the trees will obstruct the sun.
- 5.20 If one remembers that the BRE test date is intended to indicate whether a garden will be adequately sunlit throughout the year, in my opinion, it has very limited value in this particular instance. Due to its orientation and the presence of trees, a large area of the garden will be self-shaded between April- November (when the tree is in leaf). For the remaining months (November-March), little sunlight will reach the garden in the existing condition due the suns low altitude during the afternoon period of the winter months and so there is unlikely to be a significant worsening of the position in the proposed condition. So practically speaking, just because the 21st March date isn't met doesn't mean the Appeal Scheme will have a detrimental effect upon the access of sunlight to this property.
- 5.21 7 George Mathers Road would receive 2 hours of sun by the 30<sup>th</sup> April in the existing condition and will do the same on 5<sup>th</sup> June with the Appeal Scheme in place.

- 5.22 My daylight, sunlight and overshadowing report dated July 2019 considered the availability of sunlight on the 21<sup>st</sup> June to supplement the other sunlight studies I produced. This assessment was considered by both Mr Dias in his report dated November 2019 and within the Officers Delegated report. The latter states at paragraph 10.6.51 *'Whilst not the BRE benchmark, a useful criteria is to also consider the data at mid-summer (21st June) when amenity spaces are generally utilised more during the summer months. On this basis the proposed situation results in a very limited reduction in reference to the 2 hour test at mid-summer with the isolated exception to 8 George Mathers Road.'*
- 5.23 I have considered the changes that would be required to the Appeal Scheme to avoid sunlight reductions that exceed BRE guidance. This 'cutback' is illustrated in image 5.1 below and also within the drawings within Appendix 8.
- 5.24 Rolfe Judd have reviewed the 'cutback' and calculated that it would result in the loss of 204 homes.
- 5.25 Mr Considine and Mr Seamer in their evidence demonstrate that the Appeal Scheme has an agreed viability assessment which demonstrates that there is a minimum quantum of development below which the development is unviable. I am advised that reducing the number of units by the extent required to achieve BRE compliance would have a negative impact on the viability and thus render the scheme unviable.
- 5.26 Mr Considine's evidence also explains why this would result in a proposal that is contrary to other policy considerations.

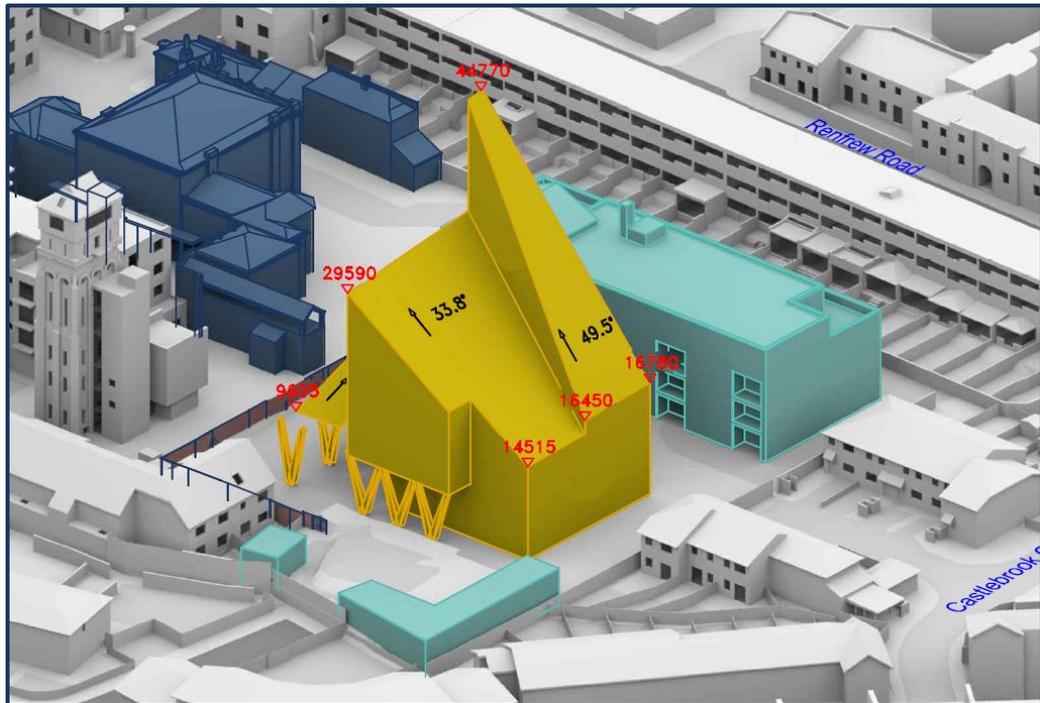


Image 5.1 - Cutback - view looking south west

- 5.27 I have also undertaken assessments that explore what effects shorter buildings will have on neighbouring gardens. The Appeal Scheme reaches a maximum of 29 storeys. I have assessed a 20 storey, 15 storey and a 10 storey building on the same footprint as Block B as Mr Graham provides extensive evidence to demonstrate that the Appeal Scheme has been through a rigorous design process and that Building B is optimally located on the Site.
- 5.28 The summary table below details the sun on ground results for those gardens that do not meet the 21<sup>st</sup> March assessment and then compares the results with the Appeal Scheme.

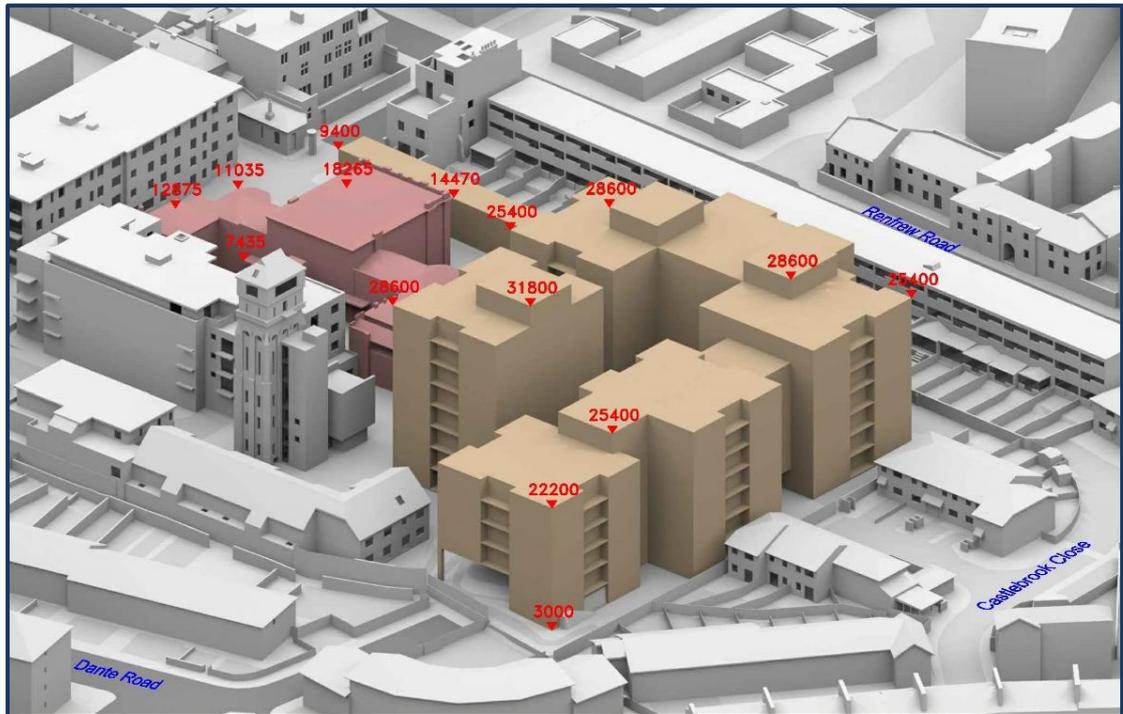
**Table 5.3**

Property	March 21 <sup>st</sup> - % 2hrs Sun on Ground				
	Existing	Appeal Scheme	20 Storey	15 Storey	10 Storey
2 Castlebrook Close	52.8%	27%	27%	27%	27%
3 Castlebrook Close	39.9%	19.3%	19.3%	19.3%	19.3%
4 Castlebrook Close	69.1%	11.5%	11.5%	11.5%	11.5%
130A Brook Drive	67.8%	40.4%	40.4%	40.4%	40.4%
132 Brook Drive	72.1%	38.5%	38.5%	38.5%	38.5%
136A Brook Drive	74.5%	33%	33%	33%	34.6%
138 Brook Drive	70.1%	28.3%	28.3%	28.3%	30.5%
144 Brook Drive	54.6%	34.5%	34.5%	34.5%	42.4%
	48.6%	33.4%	33.4%	33.4%	37.2%
7 Dante Road	71.9%	45.1%	45.1%	45.1%	45.1%
7 George Mathers Road	19%	1.8%	1.8%	1.8%	1.8%
8 George Mathers Road	19.6%	0%	0%	0%	0%

5.29 This analysis demonstrates that the effects of a 15 storey building, which is essentially half the height of the Appeal Scheme, would produce identical results to the Appeal Scheme.

5.30 With regard to the 10 storey scheme, there are No4 amenity spaces at 136A Brook Drive, 138 Brook Drive and 144 Brook Drive (two spaces) that would see negligible improvements in sun on ground levels. Nevertheless, the No4 gardens do not meet the BRE sun on ground test on March 21st.

5.31 During the pre-application process the Council requested the Appellant explore whether there was a viable, lower scale massing option that did not incorporate a tall building. Rolfe Judd designed and presented a mansion style block to the Council and I was tasked with assessing this scheme for sunlight within gardens (and indeed daylight to neighbouring buildings). An image of the mansion block arrangement is provided at 5.3 below.



*Image 5.3*

5.32 My analysis, which can be seen in Appendix 9 demonstrates that the lower-scale mansion block site layout would be more injurious than the Appeal Scheme. An additional No3 gardens would exceed the sun on ground test.

5.33 36 neighbouring gardens would experience increased levels of overshadowing when compared to the Appeal Scheme, 23 gardens would experience no difference, and just 8 gardens would experience reduced levels of overshadowing. Moreover, the mansion block scheme would have a dramatically greater effect on the Brook Drive and Castlebrook properties. I have extracted the data for these properties into a separate table below to illustrate this point.

**Table 5.4**

Property	March 21 <sup>st</sup> - % 2hrs Sun on Ground				
	Existing	Appeal Scheme	Meet BRE?	Mansion Block / Perimeter Scheme	Meet BRE?
132 Brook Drive	60.6	38.5	No	8.1	No
132A Brook Drive	76.4	62.7	Yes	24.7	No
134 Brook Drive	79.3	61	Yes	9.6	No
134A Brook Drive	71.3	55.5	Yes	0	No
136 Brook Drive	81.7	58.2	Yes	0	No
136A Brook Drive	74.5	33	No	0	No
138 Brook Drive	70.1	28.3	No	25.9	No
4 Castlebrook Close	69.1	11.5	No	0	No
3 Castlebrook Close	39.9	19.3	No	0	No
2 Castlebrook Close	52.8	27	No	0	No

5.34 6 gardens would receive 2 hours of sunlight to 0% of their areas which represents a material worsening of the position by comparison to the Appeal Scheme. Equally, there are significantly greater effects to 132, 132A and 143 Brook Drive.

### Overshadowing Conclusion

5.35 The effects upon sunlight are attributable to Block B. Other evidence has demonstrated that the location of the tower on the site was explored at length during the design development stages, as well as through pre-application discussions with the Council. It has been carefully considered taking into account many different factors and constraints; these include seeking to maintain acceptable overlooking distances between neighbouring buildings; to align and respect adjacent building lines in respect of Bolton House, Wilmott House and the existing cinema museum; establishing an appropriate separation distance between Building A and the tower; as well as ensuring that deep piled foundations do not conflict with the Northern Line underground tunnel that is located beneath the site.

- 5.36 The loss of sunlight is restricted to a small number of private amenity spaces. The vast majority experience no noticeable effect. Where there is an effect beyond guidance, in the majority of cases, the affected gardens would receive 2 hours of sunlight within a matter of days of the BRE test date, indicating that they will be adequately sunlit throughout the day.
- 5.37 In the three instances where gardens receive less than 2 hours of sun on the 21<sup>st</sup> March in the existing condition, further testing identifies there is no perceptible difference between when 3 Castlebrook Close will receive 2 hours in the existing and proposed condition.
- 5.38 With regards 8 George Matthers Road, there are very good reasons why the 21<sup>st</sup> March test date has limited practical application to this property. In my opinion, exceeding the BRE test date does not necessarily dictate that the Appeal Scheme will have a detrimental effect upon the access of sunlight to this property.
- 5.39 With regards to 7 George Matthers Road, there are noticeable effects at both the spring equinox and summer solstice as the afternoon sun is obstructed by the Appel Scheme.
- 5.40 Accepting that Block B represents the only practical location for a taller building on the Site, my evidence demonstrates that a building that is some 2/3rds lower than the Appeal Scheme (10 storeys) would have a substantially similar effect to the gardens affected by the Appeal Scheme. Whilst there would be some very marginal improvements in sunlight availability, the effects continue to breach guidance to a substantially similar degree. Therefore, achieving what are effectively marginal gains would result in the loss of approximately 200 residential units for no material improvement in the position. Alternative, lower-scale mansion block arrangements were considered but quickly dismissed as this form of site layout would have substantially greater effects on residential amenity.

5.41 To eradicate the effects would necessitate a building of 4 storeys, stepping up to a maximum of 8 storeys which other evidence has demonstrated would yield an unviable proposal. In my opinion, such an approach would be completely at odds with policies centred around making efficient use of land for housing such as 3.4 of the London Plan and inconsistent with NPPF 123. I believe it would clash with the intention of the BRE Guidelines as it would incorrectly over elevate the necessity to strictly adhere to the BRE Guidelines without having any regard to all other planning considerations. It would imply that the guidelines recommendations are fixed and absolute when they are not, and that there is no flexibility as to how they should be applied in urban settings, when clearly there is.

## 6 Daylight Effects to Neighbouring Properties

6.1 The results set out in the Appendices are based on bespoke software and a 3D computer model of the site and the surrounding area. The existing surrounding buildings that have been assessed have been modelled from land survey data produced by Point 2. Where the survey data was incomplete, windows were modelled from site photographs and drawing information available on the LBL planning website.

6.2 It is worth explaining at this juncture that subsequent to the production of the Report that was submitted as part of the planning application for the Site, some updates have been made to the 3D computer model to take into consideration the implementation of two consented ground floor extensions at 132 Brook Drive (planning reference 19.01.001 FUL) and 134A Brook Drive (planning reference 17.05144.LDCP). In addition, a series of internal property inspections were carried out on 8<sup>th</sup> October 2020 in respect of the following properties:

- 134a Brook Drive
- 132 Brook Drive
- 138 Brook Drive
- 136a Brook Drive
- 136 Brook Drive
- 4 Castlebrook Close
- Flat 1 Bolton House
- Flat 4 Bolton House
- 7 George Mathers Road
- Dante Road
- 23 Renfrew Road

6.3 The 3D computer model was updated based upon the layouts and dimensions obtained during the inspections and updated daylight and sunlight analyses undertaken.

6.4 Detailed tabulated results are provided within Appendix 10. Window maps identifying the location of the assessed windows are presented in Appendix 12. No sky line contour plots are included within Appendix 11.

6.5 This section of my evidence is focused specifically on addressing the daylight effects to the properties referenced at paragraph 6.130 of the Council's Statement of Case. These are (Wilmott House) and (Bolton House) George Mathers Road, Castlebrook Close, Brook Drive and Dante Road. I have not provided detailed commentary on the effects to the remaining properties. This is covered in our 2019 Report.

6.6 One means of assessing the extent of any daylight/sunlight effect is by reference to the relative percentage alteration, comparing the 'existing' and 'proposed' conditions. This approach is a useful starting point as it indicates the degree of change and I report on this for each of the streets/buildings identified above. For the reasons set out in Section 4, it is also important to consider the absolute reduction in daylight alongside the level of retained daylight as this ultimately informs whether any change results in unacceptable harm or satisfactory living condition are maintained.

6.7 Other factors that must be taken into consideration are the use of the affected rooms, the number of windows/rooms affected and any other mitigating factors that have a material bearing on the light levels, such as any architectural features that clearly inhibit the access to daylight.

6.8 It is also acknowledged by the Council that equal weighting of both VSC and NSL forms of daylight assessment should be afforded when considering daylight effects to neighbouring properties. For example, 8 Albert Embankment committee report states at paragraph 8.4.14 that:

*'Based on consideration of the particular points highlighted above, it seems apparent that:*

- *VSC and daylight distribution are of equal importance (as per the BRE Guide and supported in various planning appeal cases).'*

6.9 The Delegated Officers Report and Mr Dias November 2019 report categorise the effects to those windows that exceed guidance by reference to the relative change they experience. The purpose of this exercise is presumably to distinguish between those windows that do and do not require further discussion. The approach is useful for this purpose alone, however it is an overly simplistic approach considering effects upon amenity and doesn't get to the heart of the key policy requirements of establishing if there is unacceptable harm or whether satisfactory living conditions are maintained. That decision must take account of other factors such as the retained daylight value and any other mitigating factors.

6.10 To allow a comparison to the Delegated officers Report, the table below summarises how we have initially categorised the effects.

Category 1	less than a 20% change or meets BRE.
Category 2	between a 20-29% change
Category 3	between a 30-39% change
Category 4	greater than a 40% change

6.11 There are a large number of windows and rooms within the neighbouring buildings. It is therefore impractical to report on the effect to all of them, although, the results for every window and room within the assessment are included within the tabulated results at Appendix 10. To provide focus to this proof, I provide commentary on relative reductions that fall within Category 3 or 4. Specific commentary is provided on the retained daylight levels and how these compare to the alternative target value discussed in section 4.

6.12 I now provide a summary of the daylight effects for each of the relevant properties listed in Reason for Refusal 6. I have grouped properties where they form part of the same terrace for ease of reference.

**140-142, 144 Brook Drive & 1-3 Dante Road**



6.13 These properties are located to the north east of the site and form a crescent of buildings at the junction of Brook Drive and Dante Road ranging in height from two to three storeys.

6.14 A total of 40 windows serving 32 habitable rooms have been assessed.

**VSC Daylight Results**

6.15 By reference to the numerical targets set out in the BRE national guidance, the VSC Daylight results can be summarised as follows:

**Table 6.1 – VSC summary**

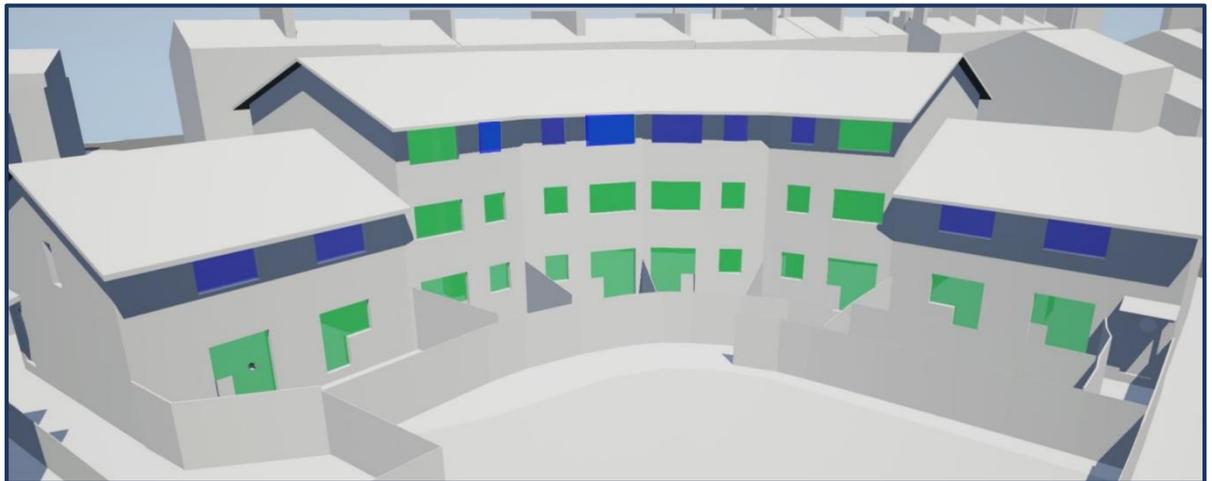
Address	No. Windows Tested	Total that Meet BRE	Below BRE Guidelines			Total
			20-29% change	30-39.9% change	>=40% change	
140-142 Brook Drive	6	0	6	0	0	6
144 Brook Drive	14	1	10	3	0	13
1 Dante Road	14	0	6	8	0	14
3 Dante Road	6	0	4	2	0	6

- 6.16 One window would meet the VSC test (Category 1), with 26 windows experiencing a 20-29% relative change (Category 2) and 13 windows experiencing a 30-39% relative change (Category 3).
- 6.17 In respect of the 13 windows that fall within Category 3, 8 are located under projecting roof eaves which block out a portion of the sky view from the centre of the window. There are multiple examples of where the Council and Mr Dias has acknowledged the additional effect of these inherent obstructions. I refer you to Appendix 4 for further details on this, but as an example of the Council's approach, they have previously stated within the Committee Report for the South Lambeth Estate consented development (planning reference: 17/05993/OUT):
- 'The bedrooms at second floor level have a retained VSC of similar levels or slightly worse than the ground floor flats due to the window heads being located immediately below **the projecting eaves of the roofs**. There is therefore **some inherent daylight reduction associated with this configuration (the BRE Guide allows consideration on the extent of inherent obstruction)**. In any case, given that these windows service bedrooms, the requirement for daylight is considered less important.'*
- 6.18 This view was also recently applied by the Council in the Committee Reports for 8 Albert Embankment (planning ref. 19/01305/LB & 19/01304/FUL) and Roman Rise (planning ref. 20/01480/FUL)
- 6.19 This is clearly a comparable situation to what is identified in respect of the top floor windows at 140-142 Brook Drive, 144 Brook Drive and 1-3 Dante Road.
- 6.20 The remaining 5 windows serve either living rooms or kitchens and would experience relative percentage alterations of between 30.1% and 32.9%.

6.21 For the 26 windows that fall within Category 2, 4 are located under projecting eaves (as previously explained) and would experience relative percentage alterations of between 23.7% and 28.5%. The remaining 22 windows serve living rooms or kitchens and would experience relative percentage alterations between 24.8% and 29.2%.

Daylight results by comparison to Alternative Target

6.22 The following window map highlights the number of windows tested that retain a VSC greater than or equal to the alternative target of 15% (Green) and those that do not (blue).



*Image 6.1: Window Map illustrating compliance with alternative VSC target*

6.23 The majority of windows (30) will retain a VSC in excess of the alternative target (ranging from 15.2 – 25.1) with an average retained VSC across all windows of 22.6.

6.24 10 windows would retain a VSC of less than the alternative target. The window map above demonstrates that they are all located at the uppermost level of their respective properties and are overhung by projecting roof eaves which self-obstruct the view of sky from these windows. The photograph below shows how the roof eaves at 3 Dante Road project beyond the rear elevation of building and overhang the first-floor windows.



*Image 6.2: Site Photographs looking at the rear of 3 Dante Road (and view location plan)*

6.25 The limiting effect that these overhanging projections have on the VSC levels is evident by reference to the existing VSC levels for those respective windows. In each case, the existing VSC level is less than the corresponding window on the floor below, despite its elevated position. To provide an example, window W1/40 at ground floor level within 3 Dante Road has an existing VSC of 33%, whereas the corresponding window immediately above at first floor level (and located under the projecting roof eaves) has an existing VSC of 20.5% despite its elevated position. The eaves therefore reduce the available VSC by almost 40% which clearly demonstrates the additional constraint or burden it creates. It is the overhang that is the critical factor in the lower levels of retained VSC, rather than the effect of the Appeal Scheme.

6.26 If the limiting effect of the eaves are discounted, the 11 windows would all retain in excess of 25% VSC (ranging from 25.7 – 27.9) with 6 of those windows exceeding the BRE 27% level, clearly demonstrating that were it not for the overhanging eaves, these windows would retain sufficient skylight with Appeal Scheme in place.

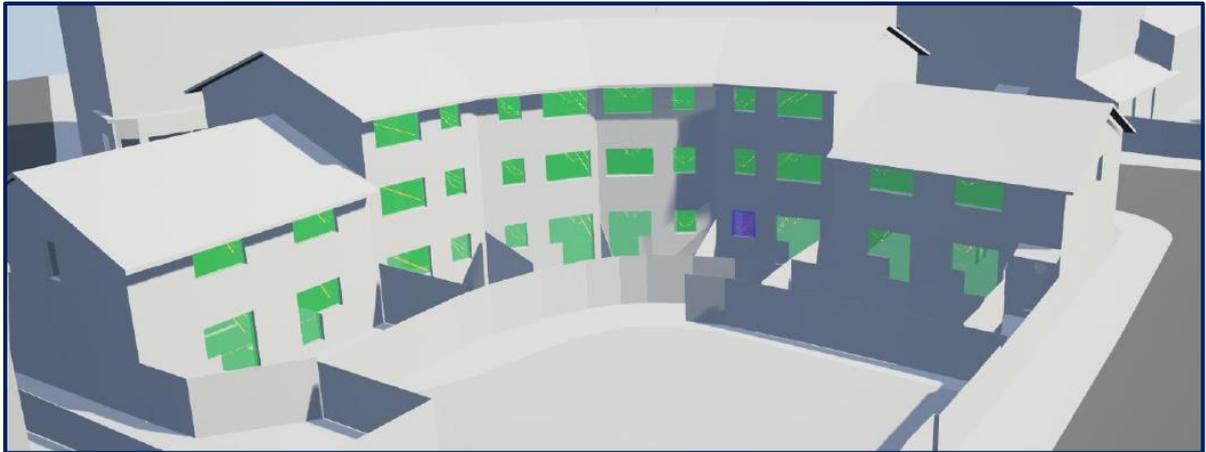
#### NSL Daylight Results

6.27 By reference to the numerical targets set out in the BRE national guidance, the NSL Daylight results can be summarised as follows:

**Table 6.2 – NSL Summary**

Address	No. Rooms Tested	Total that Meet BRE	Below BRE Guidelines			Total
			20-29% change	30-39.9% change	>=40% change	
140-142 Brook Drive	4	4	0	0	0	0
144 Brook Drive	12	12	0	0	0	0
1 Dante Road	11	11	0	0	0	0
3 Dante Road	4	3	1	0	0	1

6.28 31 of the 32 habitable rooms tested will satisfy the NSL test. The one room that falls fractionally short of the BRE NSL test is a ground floor kitchen at 3 Dante Road (R3/30). The room has a relative percentage alteration of 20.8%.



**Image 6.3: Window Map illustrating compliance to NSL daylight test**

6.29 The BRE states at para. 2.2.8 that *'Areas beyond the no sky line, since they receive no direct daylight, usually look dark and gloomy compared with the rest of the room, however bright it is outside. According to BS 8206-2, supplementary electric lighting will be needed if a significant part of the working plane lies beyond the no sky line.'*

6.30 By reference to the BRE guideline recommendations, it states at para 2.2.9 that if *'the no sky line moves so that the area of the existing room, which does receive direct skylight, is reduced to less than 0.8 times its former value, this will appear noticeable.'* Therefore, this would infer that if a room receives direct skylight to 100% of its working plane in the existing condition, and is reduced to 0.8 times its former value (i.e. 80% of the working plane) by a new development, then this is likely to be noticeable.

6.31 Conversely, if a room continues to receive direct skylight to over 80% of its working plane following the construction of a new development, then by reference to paragraph 2.2.8 and 2.2.9 of the BRE guidelines, the room should not require supplementary electric lighting and any daylight effect is unlikely to be noticeable to the occupants.

6.32 In this case, 29 of the 32 habitable rooms tested within 138-142 Brook Drive, 144 Brook Drive and 1-3 Dante Road would retain an NSL in excess of 80% such that electric lighting should not be required. 2 of the 3 remaining rooms meet the NSL criteria and should not therefore experience a noticeable effect, and the other would retain an NSL 76.82% of the working plane and experience a marginal deviation from the BRE numerical targets with a relative percentage alteration of 20.8%.

### Summary

6.33 Whilst there will be relative percentage alterations in VSC that exceed the test criteria, the alternative VSC target is met in the majority of cases. Where it is not, it is a direct result of the self-obstructing nature of the projecting roof eaves above the windows. The NSL test is satisfied for all except one of the rooms tested and the one remaining room only fractionally falls short of the BRE criteria. When viewing the daylight effects holistically and in context, it is my view that the Appeal Scheme will not cause unacceptable harm to these properties.

### Nos. 130 – 138 Brook Drive (inclusive)



6.34 These properties form a terrace of two storey houses located to the north of the site. A total of 34 windows serving 24 habitable rooms have been assessed.

## VSC Daylight Results

6.35 By reference to the numerical targets set out in the BRE national guidance, the VSC Daylight results can be summarised as follows:

**Table 6.3 – VSC summary**

Address	No. Windows Tested	Total that Meet BRE	Below BRE Guidelines			
			20-29% change	30-39.9% change	>=40% change	Total
130 Brook Drive	3	1	2	0	0	3
130A Brook Drive	3	0	3	0	0	3
132 Brook Drive	4	1	3	0	0	4
132A Brook Drive	3	0	0	3	0	3
134 Brook Drive	3	0	0	2	1	3
134A Brook Drive	4	1	0	1	2	4
136 Brook Drive	3	0	0	0	3	3
136A Brook Drive	3	0	0	0	3	3
138 Brook Drive	8	3	0	0	5	5

6.36 The VSC results indicate that 4 windows would meet the VSC test (Category 1), with 8 windows experiencing a 20-29% relative change (Category 2), 6 windows experiencing a 30-39% relative change (Category 3) and 14 windows experiencing more than a 40% relative change (Category 4).

6.37 In respect of the 14 windows that fall under Category 4, 10 of those are first floor bedroom windows that are overhung by projecting roof eaves. As discussed above, this inherent design feature makes the window more sensitive to alterations in daylight. The BRE, the Council and Mr Dias each acknowledge that bedrooms have a lesser requirement for daylight.

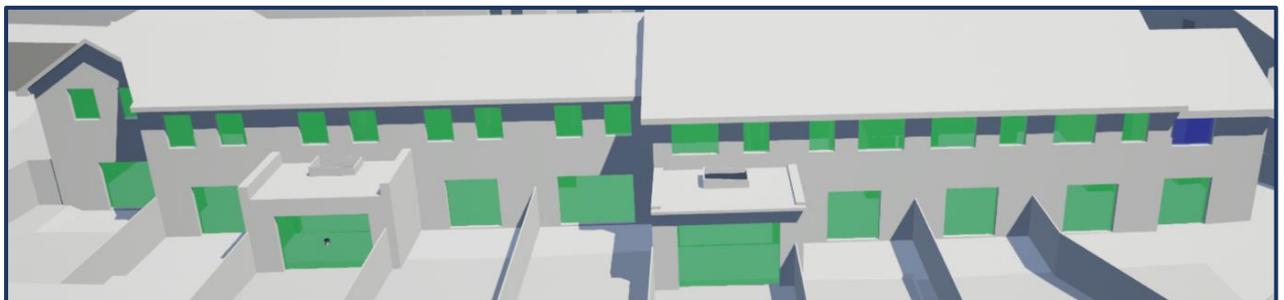
6.38 The remaining 4 windows are ground floor living rooms/living/dining rooms within nos. 136, 136A and 138 Brook Drive and would have relative percentage alterations in VSC of between 40.8% and 48.2%. Each of the windows would, however, retain a VSC in excess of 15.8.

6.39 There are 6 windows that fall within Category 3, 4 of which are again first floor bedrooms overhung by projecting roof eaves. The remaining 2 serve ground floor living rooms within 132A and 134 Brook Drive and would have relative percentage alterations of 34.5% and 35.9% respectively. In both cases, the windows would retain a VSC in excess of the alternative target., as discussed in more detail below.

6.40 Finally, 8 windows fall within Category 2 and would have relative percentage alterations of between 20.2% and 29.2%. 5 of these windows serve first floor bedrooms that are overhung by projecting roof eaves. The remaining 3 serve ground floor living spaces and would retain a VSC of between 19.6 and 20.5.

#### Daylight results by comparison to Alternative Target

6.41 The following window map highlights the number of windows that retain a VSC greater than or equal to the alternative target of 15% (green) and those that do not (blue).



**Image 6.4: Window Map illustrating compliance with alternative VSC target**

6.42 The majority of windows (31 of 32) will retain a VSC in excess of the alternative target (ranging from 15.1 – 62.91) with an average retained VSC across all windows of 21.8.

6.43 The one remaining window (W1/801) serves a first-floor room within 138 Brook Drive and will retain a VSC of 14.3. The window is overhung by projecting roof eaves. As discussed above, this inherent design feature makes the window more sensitive to alterations in daylight. The room is assumed to be a bedroom for which the BRE, Council and Mr Dias acknowledge as having a lower requirement for daylight.

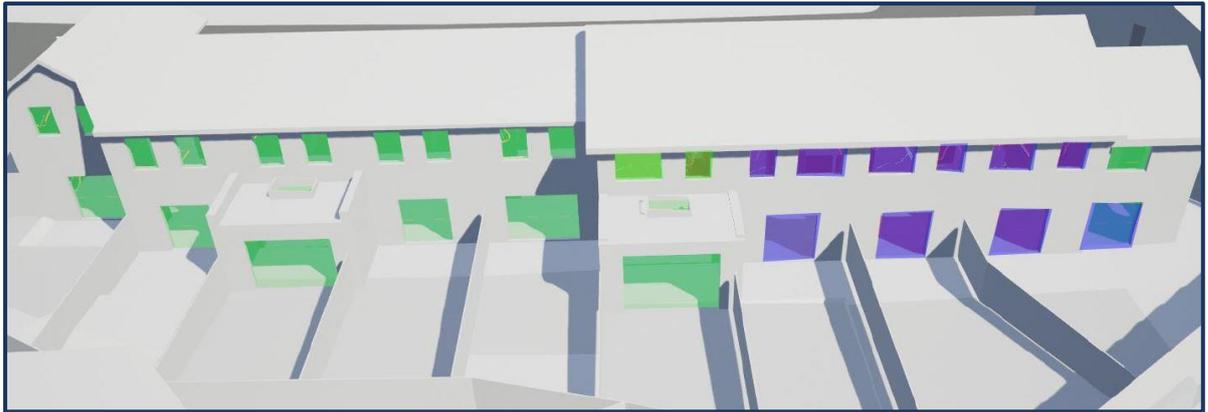
NSL Daylight Results

6.44 By reference to the numerical targets set out in the BRE national guidance, the NSL Daylight results can be summarised as follows:

**Table 6.4 – NSL Summary**

Address	No. Rooms Tested	Total that Meet BRE	Below BRE Guidelines			
			20-29% change	30-39.9% change	>=40% change	Total
130 Brook Drive	2	2	0	0	0	0
130A Brook Drive	2	2	0	0	0	0
132 Brook Drive	2	2	0	0	0	0
132A Brook Drive	2	2	0	0	0	0
134 Brook Drive	2	2	0	0	0	0
134A Brook Drive	3	0	2	1	0	3
136 Brook Drive	3	0	1	2	0	3
136A Brook Drive	3	0	1	1	1	3
138 Brook Drive	5	4	0	1	0	1

6.45 The NSL results indicate that 11 of the 24 habitable rooms tested will satisfy the NSL test, as illustrated on the below window map image:



*Image 6.5: Window Map illustrating compliance to NSL daylight test*

6.46 There are 10 habitable rooms that do not satisfy the NSL test. Six of these are bedrooms which both the BRE and the Council acknowledge have a lesser requirement for daylight. Three are ground floor LKDs that experience relative percentage reductions in NSL of between 25% and 29.7%. In my opinion and in consideration that this inner urban Site is currently occupied with low density buildings, I consider these effects to be a minor deviation from the NSL test criteria.

6.47 The remaining room is a ground floor Living/Dining room within 138 Brook Drive which experiences a relative percentage alteration of 38.2%. It should however be noted that this room is in excess of 5 metres deep and the BRE acknowledge that where this is the case greater movement of the No Sky Line may be unavoidable.

### Summary

6.48 There will be relative reductions in daylight that exceed the VSC test criteria however, the alternative VSC target is satisfied in all but one instance. Where it is not, a marginally lower VSC level is retained as a direct result of the self-obstructing nature of the projecting roof eaves above the window.

6.49 There will be some NSL reductions that exceed the NSL test criteria, the most notable of which occurs within 136A and 138 Brook Drive.

6.50 Overall, the properties retain a reasonable level of daylight for an inner urban location and for that reason, I believe satisfactory living conditions will be maintained.

**1-4 Castlebrook Close**



6.51 These properties are located immediately to the north of the site and form a terrace of four, two-storey residential houses.

6.52 A total of 29 windows serving 28 habitable rooms have been assessed.

**VSC Daylight Results**

6.53 By reference to the numerical targets set out in the BRE national guidance, the VSC Daylight results can be summarised as follows:

**Table 6.5 – VSC summary**

Address	No. Windows Tested	Total that Meet BRE	Below BRE Guidelines			
			20-29% change	30-39.9% change	>=40% change	Total
1 Castlebrook Close	8	6	0	2	0	2
2 Castlebrook Close	7	7	0	0	0	0
3 Castlebrook Close	7	7	0	0	0	0
4 Castlebrook Close	7	7	0	0	0	0

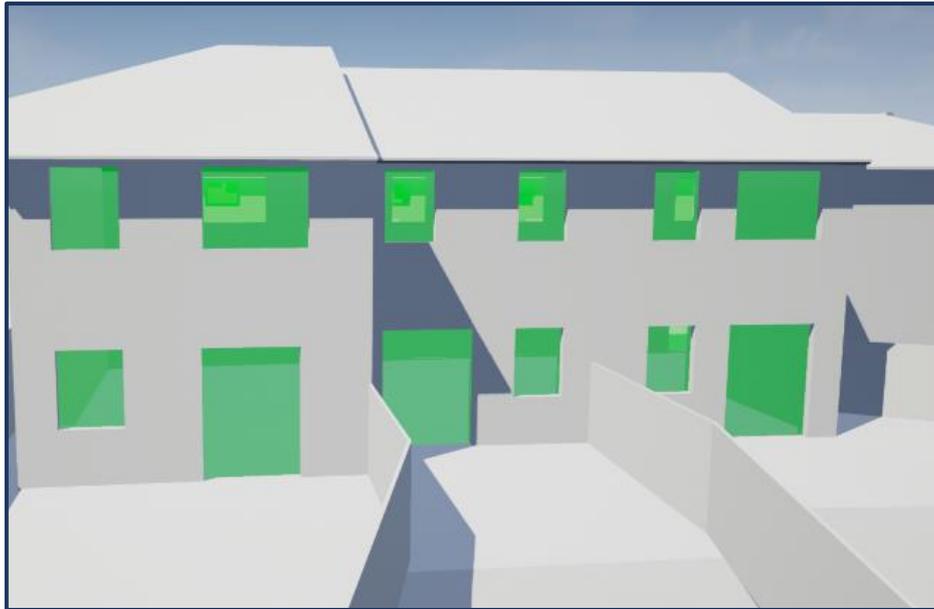
- 6.54 The majority of windows (27) meet the BRE numerical target (Category 1), with 2 windows experiencing a 20-29% relative change (Category 2).
- 6.55 The overwhelming majority of windows tested fall within Category 1 and will therefore not experience any noticeable alterations in VSC.
- 6.56 The two windows where relative percentage alterations fall within Category 3 are located at ground floor level within 1 Castlebrook Close. Both windows are heavily self-obstructed by projecting roof eaves and as discussed above, this inherent design feature makes these windows more sensitive to alterations in daylight.

#### Daylight results by comparison to Alternative Target

- 6.57 The following window maps highlight the number of windows tested that retain a VSC greater than or equal to the alternative target (green) and those that do not (blue).



*Image 6.6: Window Map illustrating compliance with alternative VSC target (Front Elevation)*



**Image 6.7: Window Map illustrating compliance with alternative VSC target (Rear Elevation)**

6.58 The majority of windows (27) will retain a VSC in excess of the alternative target (ranging from 20.5 – 31.3) with an average retained VSC across all windows of 27.8.

6.59 The two remaining windows (W4/1110 and W5/1110) serve a ground-floor room within 1 Castlebrook Close and would retain a VSC of 13.8 and 12 respectively. The windows are both overhung by projecting roof eaves and therefore as discussed earlier in this Section, this inherent design feature makes the windows more sensitive to alterations in daylight.

6.60 Whilst an assessment without the roof eaves in place demonstrates that the windows would continue to experience relative percentage alterations that fall short of the VSC test, the retained levels of VSC would be markedly improved (20.6 and 18.4) compared to if the eaves were in place. This illustrates that were it not for the overhanging roof eaves, these windows would retain levels of VSC that would be reasonable for this urban location.

#### NSL Daylight Results

6.61 By reference to the numerical targets set out in the BRE national guidance, the NSL Daylight results can be summarised as follows:

Table 6.6 – NSL summary

Address	No. Rooms Tested	Total that Meet BRE	Below BRE Guidelines			
			20-29% change	30-39.9% change	>=40% change	Total
1 Castlebrook Close	8	8	0	0	0	0
2 Castlebrook Close	7	7	0	0	0	0
3 Castlebrook Close	7	7	0	0	0	0
4 Castlebrook Close	6	6	0	0	0	0

6.62 The NSL results indicate that all of the habitable rooms tested will satisfy the NSL test, as illustrated on the below window map images:

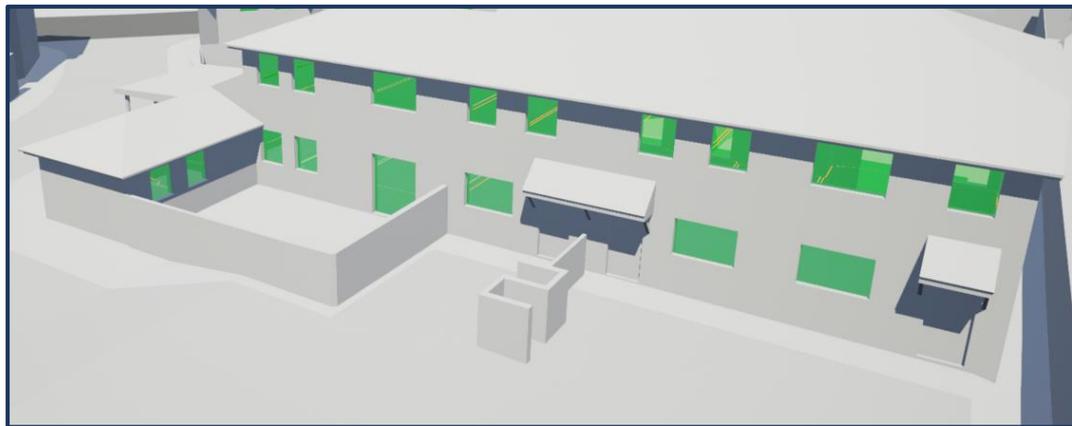


Image 6.8: Window Map illustrating compliance to NSL daylight test (Front Elevation)



Image 6.9: Window Map illustrating compliance to NSL daylight test (Rear Elevation)

## Summary

6.63 The overwhelming majority of windows tested meet the VSC test, with only two windows retaining lower VSC levels as a direct result of the self-obstructing nature of the projecting roof eaves above the windows. The NSL test is satisfied for all of the rooms tested.

6.64 Overall, I do not believe the Appeal Scheme will cause unacceptable harm to these properties.

### 5-9 Castlebrook Close



6.65 These properties are located to the north west of the site and form a terrace of two-storey residential houses.

6.66 A total of 20 windows serving 19 habitable rooms have been assessed.

### VSC Daylight Results

6.67 By reference to the numerical targets set out in the BRE national guidance, the VSC Daylight results can be summarised as follows:

Table 6.7 – VSC summary

Address	No. Windows Tested	Total that Meet BRE	Below BRE Guidelines			
			20-29% change	30-39.9% change	>=40% change	Total
5 Castlebrook Close	7	4	3	0	0	3
6 Castlebrook Close	3	1	2	0	0	2
7 Castlebrook Close	3	3	0	0	0	0
8 Castlebrook Close	3	3	0	0	0	0
9 Castlebrook Close	4	4	0	0	0	0

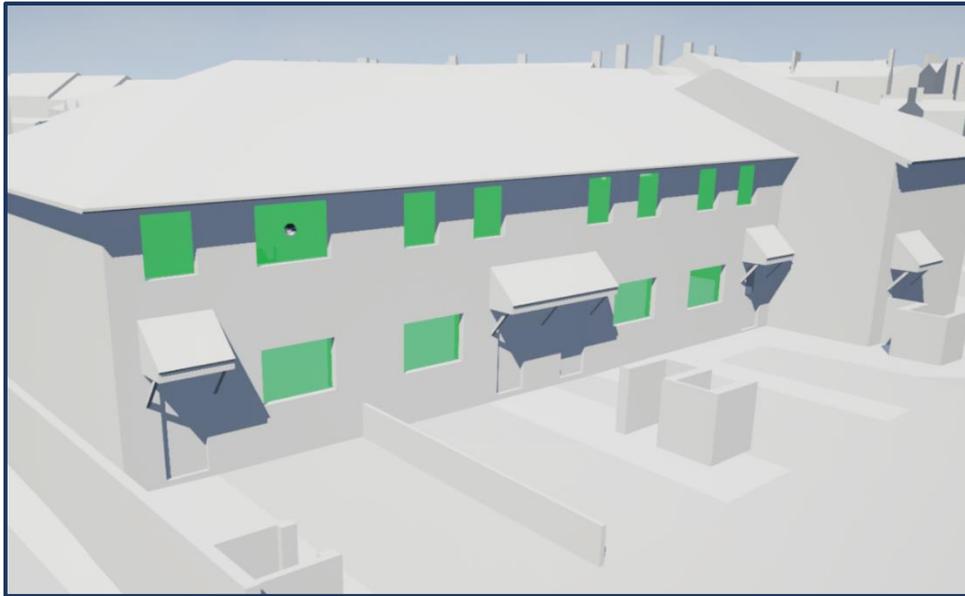
6.68 The VSC results indicate that 15 windows would meet the BRE VSC test (Category 1), with the other 5 windows experiencing a 20-29% relative change (Category 2).

6.69 All of the windows within nos. 7, 8 and 9 Castlebrook Close will meet the VSC test. In respect of the 5 windows that fall marginally short of the VSC test, 3 are located within 5 Castlebrook Close with relative percentage alterations of 22.5% - 25.5%. The other two windows are located within 6 Castlebrook Close with relative percentage alterations of 21.9% and 20.2%, fractionally short of the VSC test. Four of these five windows are bedrooms, located at first floor level and are overhung by projecting roof eaves, which as discussed earlier, the BRE, the Council and Mr Dias all acknowledge gives rise to inherent daylight reductions.

6.70 An assessment without the projecting eaves in place demonstrates that each of these windows would meet the VSC test, with the exception of two windows at 5 Castlebrook Close which would retain VSC levels of 25.3 and 26.2, fractionally short of the BRE 27% recommendation.

Daylight results by comparison to Alternative Target

6.71 The following window map highlights the number of windows tested that retain a VSC greater than or equal to the alternative target of 15% (green) and those that do not (blue).



*Image 6.10: Window Map illustrating compliance with alternative VSC target*

6.72 All 20 windows will retain a VSC in excess of the alternative target (ranging from 19.5 – 30.6) with an average retained VSC across all windows of 24.2.

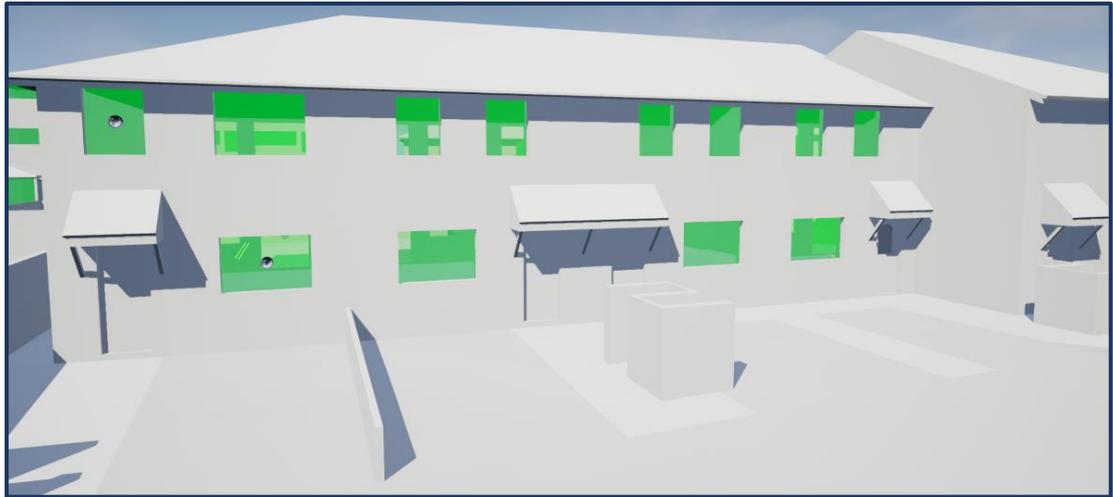
NSL Daylight Results

6.73 By reference to the numerical targets set out in the BRE national guidance, the NSL Daylight results can be summarised as follows:

**Table 6.8 – NSL summary**

Address	No. Rooms Tested	Total that Meet BRE	Below BRE Guidelines			Total
			20-29% change	30-39.9% change	>=40% change	
5 Castlebrook Close	7	7	0	0	0	0
6 Castlebrook Close	3	3	0	0	0	0
7 Castlebrook Close	3	3	0	0	0	0
8 Castlebrook Close	3	3	0	0	0	0
9 Castlebrook Close	3	3	0	0	0	0

6.74 The NSL results indicate that all of the habitable rooms tested will satisfy the NSL test, as illustrated on the below window map image:

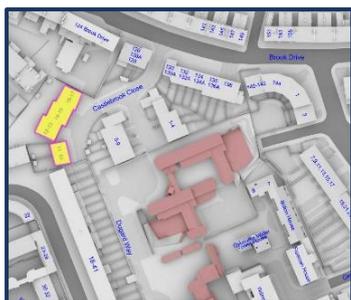


*Image 6.11: Window Map illustrating compliance to NSL daylight test*

### Summary

- 6.75 The overwhelming majority of windows tested will meet the VSC test. In the few instances where it is not met, the windows fall marginally short of the VSC test criteria and will exceed the alternative target. 4 of these 5 windows serve bedrooms located at first floor level that are overhung by projecting roof eaves, limiting the view of sky. Without the eaves, these windows would all retain VSC levels in excess of 25% with the Appeal Scheme in place, clearly demonstrating that these windows are only more sensitive due these inherent design features.
- 6.76 In addition, all of the habitable rooms tested will meet the NSL test.
- 6.77 Overall, I do not believe the Appeal Scheme will cause unacceptable harm to these properties.

## 10-17 Castlebrook Close



6.78 These properties are located to the north west of the site and form a series of 8 two-storey residential houses.

6.79 A total of 22 windows serving 22 habitable rooms have been assessed.

### VSC Daylight Results

6.80 By reference to the numerical targets set out in the BRE national guidance, the VSC Daylight results can be summarised as follows:

**Table 6.9 – VSC summary**

Address	No. Windows Tested	Total that Meet BRE	Below BRE Guidelines			Total
			20-29% change	30-39.9% change	>=40% change	
10 Castlebrook Close	2	0	2	0	0	2
11 Castlebrook Close	2	1	1	0	0	1
12 Castlebrook Close	3	0	3	0	0	3
13 Castlebrook Close	3	1	2	0	0	2
14 Castlebrook Close	3	1	2	0	0	2
15 Castlebrook Close	3	1	2	0	0	2
16 Castlebrook Close	3	1	2	0	0	2
17 Castlebrook Close	3	1	2	0	0	2

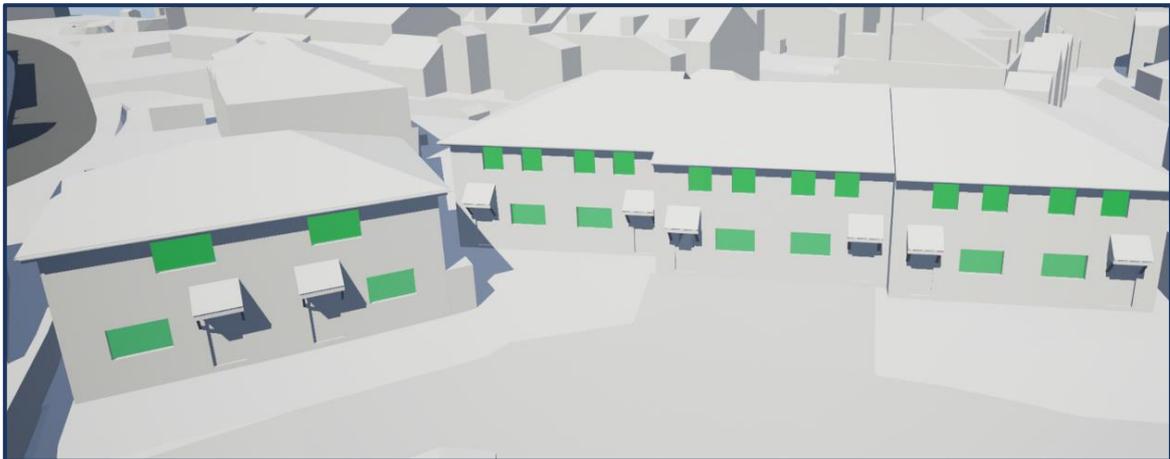
6.81 The VSC results indicate that six windows would meet the VSC Test (Category 1), with 16 windows experiencing a 20-29% relative change (Category 2).

6.82 14 of the 16 windows that do not meet the VSC test are all located at first floor level and serve bedrooms which the BRE, the Council and Mr Dias all acknowledge there is a lesser requirement for daylight. Each of these windows are overhung by projecting roof eaves which as discussed earlier, the BRE, the Council and Mr Dias also all acknowledge gives rise to inherent daylight reductions.

6.83 The two remaining windows serve ground floor rooms within nos. 10 and 12 Castlebrook Close, with relative percentage alterations of 20.5% and 20.4% respectively, fractionally short of guidance.

#### Daylight results by comparison to Alternative Target

6.84 The following window map highlights the number of windows tested that retain a VSC greater than or equal to the alternative target of 15% (green) and those that do not (blue).



*Image 6.12: Window Map illustrating compliance with alternative VSC target*

6.85 All of the windows tested will retain a VSC in excess of the alternative target (ranging from 17.9 – 27) with an average retained VSC across all windows of 21.8.

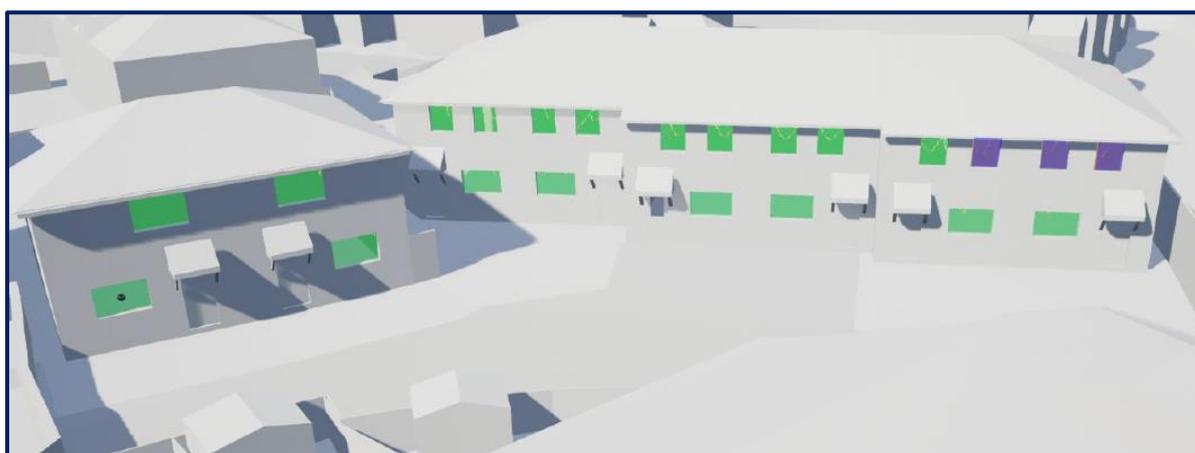
#### NSL Daylight Results

6.86 By reference to the numerical targets set out in the BRE national guidance, the NSL Daylight results can be summarised as follows:

**Table 6.10 – NSL summary**

Address	No. Rooms Tested	Total that Meet BRE	Below BRE Guidelines			
			20-29% change	30-39.9% change	>=40% change	Total
10 Castlebrook Close	2	2	0	0	0	0
11 Castlebrook Close	2	2	0	0	0	0
12 Castlebrook Close	3	3	0	0	0	0
13 Castlebrook Close	3	3	0	0	0	0
14 Castlebrook Close	3	3	0	0	0	0
15 Castlebrook Close	3	3	0	0	0	0
16 Castlebrook Close	3	2	1	0	0	1
17 Castlebrook Close	3	1	2	0	0	2

6.87 The NSL results indicate that the vast majority of the habitable rooms tested (19) will satisfy the NSL test, as illustrated on the below window map image:



**Image 6.13: Window Map illustrating compliance to NSL daylight test**

6.88 The remaining three rooms are all located at first floor level. The rooms experience relative percentage alterations in NSL of between 21.9% and 23.5% which is marginally beyond guidance. The rooms are also all served by windows that are overhung by projecting roof eaves and therefore as discussed earlier in this Section, this inherent design feature makes the rooms more sensitive to alterations in daylight. This is demonstrated by the fact that each of the rooms at ground floor level meet the NSL test. In addition, the rooms are assumed to be bedrooms. The BRE, the Council and Mr Dias acknowledge that the requirement for daylight in bedrooms is less important.

## Summary

- 6.89 There will be relative reductions in daylight that exceed the VSC test criteria, although in each case they are limited to between 20.4% and 24.4% which is not materially beyond guidance. In all but two cases, the windows are overhung by projecting roof eaves which the Council and Mr Dias have acknowledged on numerous occasions give rise to an inherent reduction in daylight availability. Those that are not overhung experience no more than a 21% reduction. The alternative VSC target is exceeded in all instances.
- 6.90 The NSL test is satisfied in all but three instances, and where it is not, the percentage alterations are also only marginally beyond guidance. The rooms in question are also understood to be first floor bedrooms for which both the BRE and the Council acknowledge have a lesser requirement for daylight. The rooms are also served by windows that are overhung by projecting roof eaves which restrict the amount of direct skylight entering the room.
- 6.91 When viewing the daylight effects holistically and in context, it is my view that the Appeal Scheme will not cause unacceptable harm to these properties.

### 7-17 Dante Road



- 6.92 These properties are located to the east of the site and form a terrace of two-storey residential houses. A total of 24 windows serving 18 habitable rooms have been assessed.

## VSC Daylight Results

6.93 By reference to the numerical targets set out in the BRE national guidance, the VSC Daylight results can be summarised as follows:

**Table 6.11 – VSC summary**

Address	No. Windows Tested	Total that Meet BRE	Below BRE Guidelines			
			20-29% change	30-39.9% change	>=40% change	Total
7 Dante Road	4	0	0	4	0	4
9 Dante Road	4	0	2	2	0	4
11 Dante Road	4	0	4	0	0	4
13 Dante Road	4	0	4	0	0	4
15 Dante Road	4	2	2	0	0	2
17 Dante Road	4	1	3	0	0	3

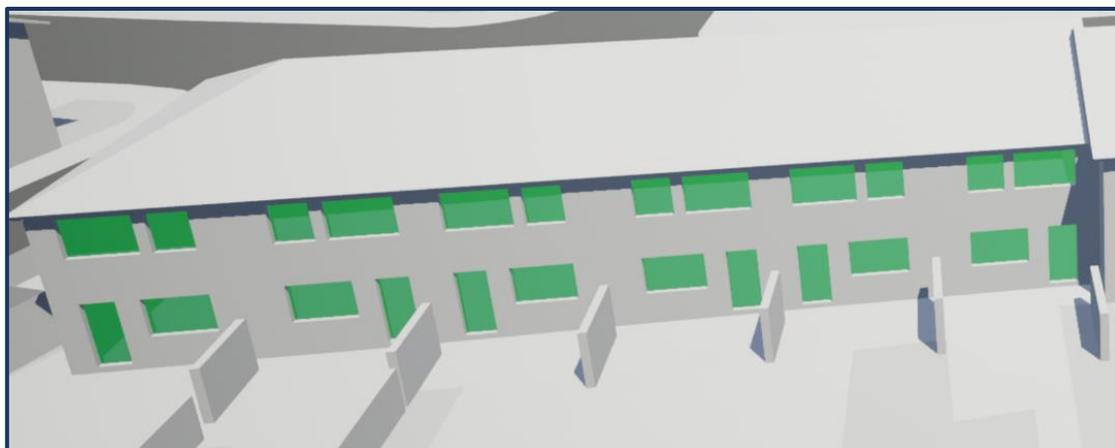
6.94 The VSC results indicate that three windows would meet the VSC Test (Category 1), with 15 windows experiencing a 20-29% relative change (Category 2) and 6 windows experiencing a 30-39% relative change (Category 3).

6.95 8 of the 15 windows in Category 2 also serve first floor bedrooms overhung by projecting roof eaves and would experience relative percentage alterations of between 20.8% and 28.5%. As discussed earlier, the Council and Mr Dias have frequently acknowledged that this gives rise to an inherent reduction in daylight and that there is a lesser requirement for daylight to bedrooms. The other 7 windows are located at ground floor level and record relative percentage alterations of between 20.9% and 29.7%.

6.96 4 of the 6 windows in Category 3 also serve first floor bedrooms that are overhung by projecting roof eaves. The remaining 2 windows serve a ground floor living room in 7 Dante Road with relative percentage alterations of 36.8% and 35.3%.

Daylight results by comparison to Alternative Target

6.97 The following window map highlights the number of windows tested that retain a VSC greater than or equal to the alternative target of 15% (green) and those that do not (blue).



*Image 6.14: Window Map illustrating compliance with alternative VSC target*

6.98 All of the windows tested will retain a VSC in excess of the alternative target (ranging from 19.8 – 24) with an average retained VSC across all windows of 22.1.

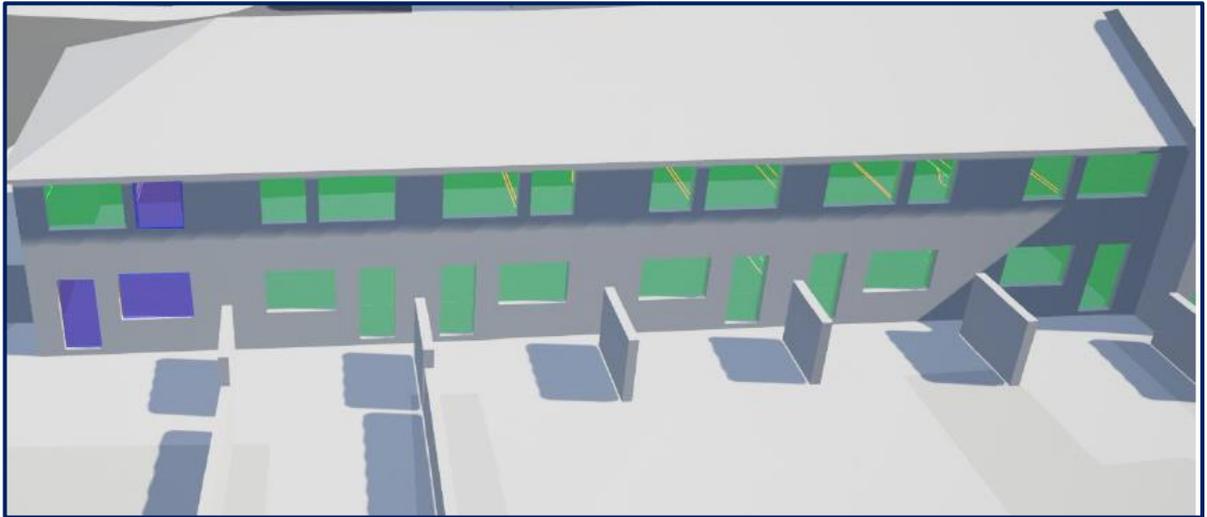
NSL Daylight Results

6.99 By reference to the numerical targets set out in the BRE national guidance, the NSL Daylight results can be summarised as follows:

*Table 6.12 – NSL summary*

Address	No. Rooms Tested	Total that Meet BRE	Below BRE Guidelines			Total
			20-29% change	30-39.9% change	>=40% change	
7 Dante Road	3	1	2	0	0	0
9 Dante Road	3	3	0	0	0	0
11 Dante Road	3	3	0	0	0	0
13 Dante Road	3	3	0	0	0	0
15 Dante Road	3	3	0	0	0	0
17 Dante Road	3	3	0	0	0	0

6.100 The NSL results indicate that the vast majority of the habitable rooms tested (16/18) will satisfy the NSL test, as illustrated on the below window map image:



*Image 6.15: Window Map illustrating compliance to NSL daylight test*

6.101 The remaining two rooms are located at 7 Dante Road. A ground room experiences a relative percentage alteration of 20.2% which is fractionally beyond guidance. The first-floor room is believed to be a bedroom and experiences a 23.6% relative percentage alteration. The BRE and Council acknowledge that there is a lesser requirement for daylight in bedrooms.

#### Summary

6.102 There will be relative reductions in daylight that exceed the VSC test criteria, however, it can be noted that 12 of the 21 windows serve first floor bedrooms that are overhung by projecting roof eaves. The Council and Mr Dias have acknowledged on numerous occasions that such projections can result in inherent daylight reductions and furthermore that bedrooms have a lesser requirement for daylight. The alternative VSC target is well exceeded in all instances.

6.103 The NSL test is satisfied in all but two instances, and where it is not, the percentage alterations are only fractionally beyond guidance.

6.104 Overall, the properties retain a good level of daylight for an inner urban location and for that reason, I believe satisfactory living conditions will be maintained and they would not experience unacceptable harm as a result of the Appeal Scheme.

**Bolton House, George Mathers Road**



6.105 This property is a three-storey flatted residential development located to the east of the site.

6.106 A total of 32 windows serving 20 habitable rooms have been assessed.

**VSC Daylight Results**

6.107 By reference to the numerical targets set out in the BRE national guidance, the VSC Daylight results can be summarised as follows:

**Table 6.13 – VSC summary**

Address	No. Windows Tested	Total that Meet BRE	Below BRE Guidelines			
			20-29% change	30-39.9% change	>=40% change	Total
Bolton House	32	6	3	8	15	26

6.108 The VSC results indicate that six windows would meet the VSC test (Category 1), with three windows experiencing a 20-29% relative change (Category 2), 8 windows experiencing a 30-39% relative change (Category 3) and 15 windows experiencing a relative change of greater than 40% (Category 4).

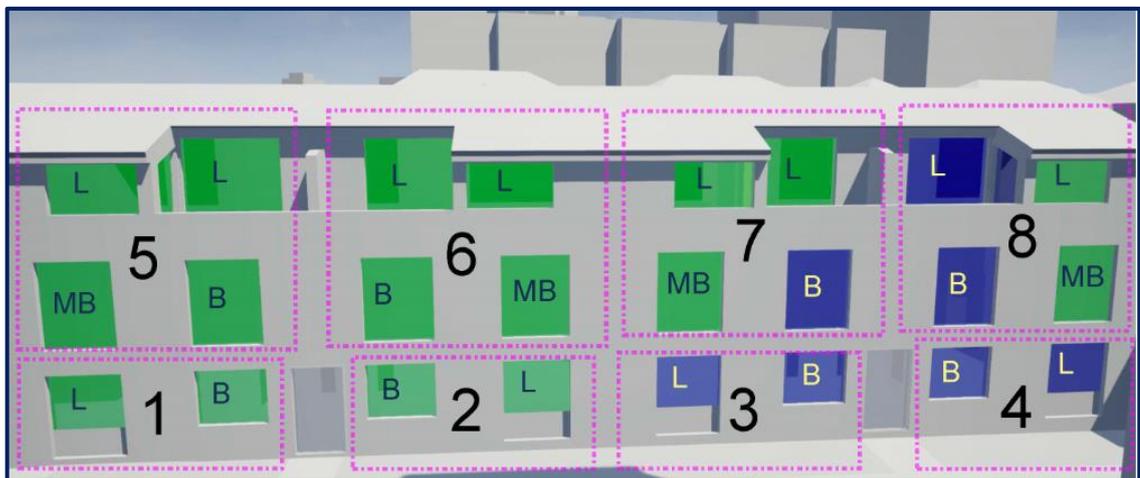
6.109 In respect of the 15 windows in Category 4, 6 serve bedrooms which the BRE, the Council and Mr Dias all acknowledge have a lesser requirement for daylight. The remaining 9 windows each serve multi-lit LKDs, with 8 of the windows serving rooms lit by other windows that meet the VSC test.

6.110 Of the 8 windows in Category 3, 5 serve bedrooms which as discussed above are acknowledged as having a lesser requirement for daylight. The other 3 windows serve multi-lit LKDs.

6.111 The remaining 3 windows in Category 2 have relative percentage alterations of 23.6%, 29.4% and 29.6%.

Daylight results by comparison to Alternative Target

6.112 The following window map highlights the number of windows tested that retain a VSC greater than or equal to the alternative target of 15% (green) and those that do not (blue).



*Image 6.16: Window Map illustrating compliance with alternative VSC target*

6.113 17 of the 31 windows tested will retain a VSC in excess of the alternative target (ranging from 15.49 – 52.41) with an average retained VSC across all windows of 24.23. Three of these windows are secondary roof lights serving ground floor spaces which have uncharacteristically high VSC values. Excluding these windows, the average VSC would be 16.19 which is still in excess of the alternative target.

6.114 Image 6.16 identifies an interesting pattern. The windows on the left-hand side of the image are located closer to the Site than those on the right of the image however, it is the windows that are located further away from the site that retain values below the alternative target value. Ordinarily, you would expect the opposite to apply.

6.115 The windows highlighted blue are located immediately opposite the Osborne Water Tower. The photo below is taken from immediately outside Bolton House.



- 6.116 As there are 14 windows that do not retain the alternative target, we have provided a more detailed commentary below on a flat by flat basis:
- 6.117 In total, there are 8 flats within this building that have windows facing towards the site. In the image below, we have numbered the flat demises from 1 – 9 for the purposes of reference and identified the use of the rooms behind the windows. 'LKD' refers to a Living Kitchen Dining room, 'MB' refers to a Master Bedroom and 'B' refers to Bedroom. Master Bedrooms have been identified as so because they have an en-suite bathroom by reference to the floor plans obtained for the building.
- 6.118 In the west elevation of the building, there are 4, 1-bed flats on the ground floor. The LKD's to these rooms are served by two windows- one in the west elevation and a separate roof light. There are 4 duplex flats on the 1st and 2nd floors. Bedrooms occupy the 1st floor and open-plan LKD's served by 2 large windows and a third slender window occupy the 2nd.
- 6.119 A summary of the effects to each flat are provided below:
- 6.120 **Flat 1-** All of the windows meet the alternative target. All of the rooms meet the NSL test. I conclude the occupant will maintain satisfactory living standards.
- 6.121 **Flat 2-** All of the windows meet the alternative target. All of the rooms meet the NSL test. I conclude the occupant will maintain satisfactory living standards
- 6.122 **Flat 3-** The west facing LKD window retains a VSC of 13.6. The roof light, which lights the rear of the room retains a VSC of 52. The room meets the NSL test, retaining daylight distribution to 96% of the room area (0.6% relative alteration from the existing value).
- 6.123 The bedroom window retains a VSC of 12.4. The room meets the NSL test, retaining daylight distribution to 77% of the room area (0% relative alteration from the existing value).

- 6.124 **Flat 4** - The west facing LKD window retains a VSC of 12.3. The roof light, which lights the rear of the room retains a VSC of 43. The room meets the NSL test, retaining daylight distribution to 92.7% of the room area (5.6% relative alteration from the existing value).
- 6.125 The bedroom window retains a VSC of 11.4. The room meets the NSL test, retaining daylight distribution to 87% of the room area (1.8% relative alteration from the existing value).
- 6.126 In conclusion, the retained VSC values in Flats 3 and 4 are slightly lower than the alternative target value. This is in part a consequence of their proximity to the water tower. The reduced VSC to the LKD is offset to some extent by the roof light providing an additional source of light. Good daylight distribution is maintained throughout the flat and so overall, I conclude satisfactory living conditions are maintained, however, it is a borderline matter.
- 6.127 **Flat 5** - All of the windows meet the alternative target. All of the rooms meet the NSL test. I conclude the occupant will maintain satisfactory living standards.
- 6.128 **Flat 6**- All of the windows meet the alternative target, save for the slender, 3rd floor window serving the LKD. This is not the main window serving this room. All of the rooms meet the NSL test. I conclude the occupant will maintain satisfactory living standards.
- 6.129 **Flat 7**- The master bedroom and LKD windows meet the alternative target. Both rooms meet the NSL test. The second bedroom retains a VSC of 13.8. The room meets the NSL test, retaining daylight distribution to 89.3% of the room area (a 2.5% relative alteration from the existing value). I conclude the occupant will main satisfactory living standards.
- 6.130 **Flat 8** - The master bedroom meets the alternative target. The room meets the NSL test.
- 6.131 1 of the main LKD windows meets the alternative target. The other main window retains a VSC of 13.2. The mean VSC for these two main windows is 14.35 and thus fractionally below the alternative target.

6.132 The room meets the NSL test, retaining daylight distribution to 94.4% of the room area (4.9 % relative alteration from the existing value).

6.133 The second bedroom retains a VSC of 13.2. The room meets the NSL test, retaining daylight distribution to 94.2% of the room area (0.6% reduction from the existing value).

6.134 In conclusion, the retained VSC values for the LKD and master bedrooms either exceed or are very close to the alternative target value. The second bedroom is slightly below, which is partly due to it being located immediately opposite the water tower. Good daylight distribution is maintained throughout the flat and so overall, I conclude satisfactory living conditions are maintained.

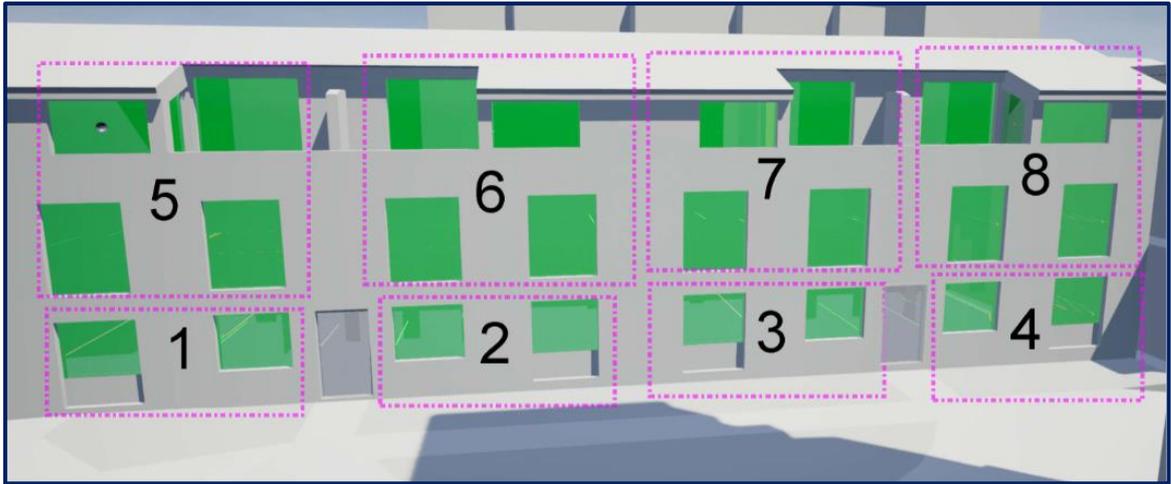
NSL Daylight Results by Comparison to BRE National Guidance

6.135 By reference to the numerical targets set out in the BRE national guidance, the NSL Daylight results can be summarised as follows:

**Table 6.14 – NSL summary**

Address	No. Rooms Tested	Total that Meet BRE	Below BRE Guidelines			Total
			20-29% change	30-39.9% change	>=40% change	
Bolton House	20	20	0	0	0	20

6.136 The NSL results indicate that all of the habitable rooms tested will satisfy the NSL test, as illustrated on the below window map image:

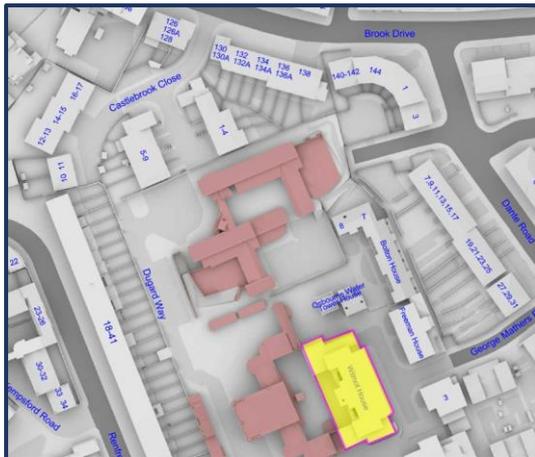


*Image 6.17: Window Map illustrating compliance to NSL daylight test*

### Summary

- 6.137 It is acknowledged that there will be some relative reductions in daylight that exceed the VSC test criteria, and that there will be some isolated instances where main habitable rooms will retain VSC levels below the alternative target. Over half of the rooms tested would, however exceed the alternative target, and where this is not the case, the majority serve bedrooms which have a lesser requirement for daylight, or serve LKDs lit by multiple other windows that either meet the VSC test or the alternative target.
- 6.138 In each instance, the NSL test is satisfied indicating that despite some reductions in direct skylight from the window, daylight penetration into the spaces will remain good. In all but one instance, the rooms would retain an NSL in excess of 80% such that electric lighting should not be required. In the one instance where this is not the case, the room experiences no alteration in NSL from the existing condition as a result of the Appeal Scheme.
- 6.139 Therefore, when viewing the daylight effects to this property holistically and in context, it is my view that the Appeal Scheme would not have an unacceptable impact on the levels of daylight to these properties.

**Wilmott House, George Mathers Road**



6.140 This is a five-storey flatted residential development located to the south of the site. A total of 55 windows serving 42 habitable rooms have been assessed.

VSC Daylight Results by Comparison to BRE National Guidance

6.141 By reference to the numerical targets set out in the BRE national guidance, the VSC Daylight results can be summarised as follows:

**Table 6.15 – VSC summary**

Address	No. Windows Tested	Total that Meet BRE	Below BRE Guidelines			
			20-29% change	30-39.9% change	>=40% change	Total
Wilmott House	55	37	0	12	6	18

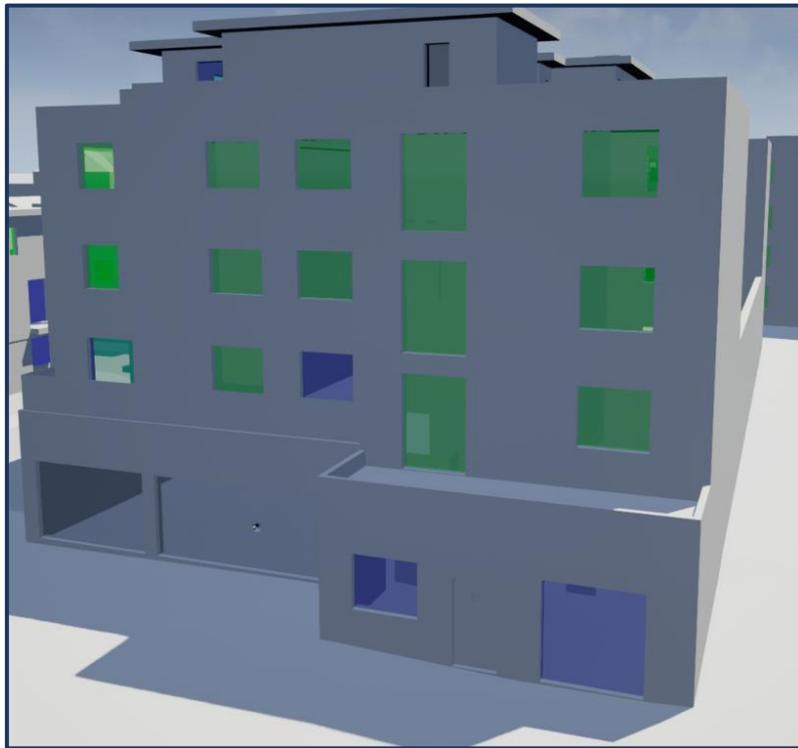
6.142 The VSC results indicate that 37 windows would meet the VSC test (Category 1), with 12 windows experiencing a 30-39% relative change (Category 3) and 6 windows experiencing a relative change of greater than 40% (Category 4).

6.143 In respect of the 6 windows within Category 4, four serve bedrooms which the BRE and the Council acknowledge have a lesser requirement for daylight. The remaining two serve a ground and first floor LKD, with relative percentage alteration of 60% and 41% respectively.

6.144 Of the 12 windows that fall within Category 3, 7 serve bedrooms which have a lesser requirement for daylight. In respect of the remaining 5 serve LKDs, 4 are multi-lit and served by additional windows that meet the VSC test. The other serves a second floor LKD which has a relative percentage alteration of 38.9% but would retain a VSC of 20.6.

#### Daylight results by comparison to Alternative Target

6.145 The following window map highlights the number of windows tested that retain a VSC greater than or equal to the alternative target of 15% (Green) and those that do not (blue).



*Image 6.18: Window Map illustrating compliance with alternative VSC target*

6.146 The majority of windows (39) will retain a VSC in excess of the alternative target (ranging from 15.1 – 33.7) with an average retained VSC across all windows of 21.9.

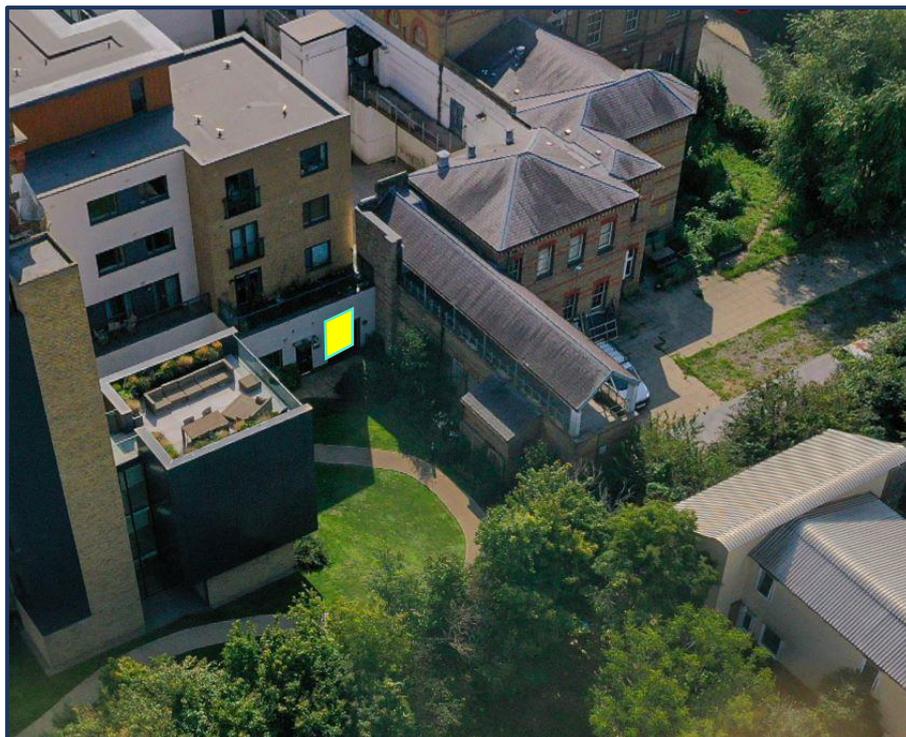
6.147 There are 9 windows that retain a VSC below the alternative target, however, they do so in the existing condition and experience no perceptible change in VSC as a result of the Appeal Scheme.

6.148 The remaining 7 windows all retain VSCs below the alternative target (ranging from 7.8 to 14.6) however, the following should be noted:

6.148.1 Four of these windows serve bedrooms which the BRE and the Council acknowledge have a lesser requirement for daylight (VSCs ranging from 12.1 – 14.9).

6.148.2 Two of these windows serve LKDs, where the room is lit by at least one other window that meets the VSC test and retains in excess of the alternative target, such that the rooms as a whole should continue to receive sufficient VSC.

6.148.3 The remaining window (W1/260) serves a ground floor LKD and retains a VSC of 7.8. The outlook from this window is restricted to the west by the tall adjoining wall of Masters House, which runs the length of the site boundary blocking out a notable portion of the sky. To the east of the window is the Osborne Water Tower, which again restricts part of the view of available sky. This means that this window relies heavily from the view of sky directly from across the Appeal site. The location of the subject window is shown highlighted in yellow on the aerial image below:



6.148.4 The BRE acknowledges such scenarios at paragraph 2.2.12 where it states, ‘A larger relative reduction in VSC may also be unavoidable if the existing window has projecting wings on one or both sides of it’.

6.148.5 It is acknowledged that there will be a noticeable reduction in VSC to this window, however, this is at least in part due to constraining external factors and not solely the cause of the Appeal Scheme. The room meets the NSL test, explained in further detail below, and retains an NSL of 78% indicating that sufficient daylight distribution will remain within the room following the implementation of the Appeal Scheme.

NSL Daylight Results by Comparison to BRE National Guidance

6.149 By reference to the numerical targets set out in the BRE national guidance, the NSL Daylight results can be summarised as follows:

**Table 6.16 – NSL summary**

Address	No. Rooms Tested	Total that Meet BRE	Below BRE Guidelines			
			20-29% change	30-39.9% change	>=40% change	Total
Wilmott House	42	41	1	0	0	1

6.150 The NSL results indicate that all except one of the habitable rooms tested will satisfy the NSL test, as illustrated on the below window map image:



*Image 6.19: Window Map illustrating compliance to NSL daylight test*

6.151 The one room that does not meet the NSL test is a first-floor bedroom (R7/261) and would experience a relative percentage alteration of 20.1%, just fractionally short of the NSL test criteria. In addition, when reviewing the NSL contour for this room, it is clear that the reductions occur at the very back of the room where the entrance circulation space is located, rather than the main useable bedroom area. Furthermore, 30 of the habitable rooms tested will retain an NSL in excess of 80% such that electric lighting should not be required.

## Summary

- 6.152 Despite some relative reductions in daylight that exceed the VSC and NSL tests, the majority of windows meet the alternative target. There are only 7 windows that do not meet the VSC or achieve the alternative target. Four of which are bedrooms which both the BRE and the Council acknowledge have a lesser requirement for daylight. 2 serve LKDs where there are other additional windows that meet VSC test, and the one other window serves a ground floor LKD, which has a partially restricted outlook by way of a tall adjoining wall to the west and the presence of the water tower to the east.
- 6.153 In all but one instance the NSL test is met, such that good daylight distribution is maintained within the rooms. The only room that falls short of the NSL test is a first-floor bedroom that experiences a relative alteration of 20.9% - a fractional deviation from the NSL test criteria. In my view, taking into account the use of the room and a retained NSL of 78%, sufficient living standards should be maintained.
- 6.154 Therefore, in conclusion, when viewing the daylight effects holistically and in context, whilst there will be reductions to the existing levels of daylight currently experienced, it is my view that the Appeal Scheme would not have an unacceptable impact on the levels of daylight to this property.

## 7 Internal Daylight Amenity within Appeal Scheme

- 7.1 This section of my evidence is focused specifically on addressing Indicative Reason for Refusal No.7 which is:

**'6.1.37 Indicative Refusal Reason No.7: Inadequate Residential Amenity For Future Occupiers Of Development**

*The proposed development, by reason of its density, scale, massing and resulting proximity would result in inadequate levels of residential amenity for future occupiers of Blocks A and B with specific regard to increased overlooking and loss of privacy including poor levels of daylight within habitable rooms of Block A. As such, the proposal would be contrary to Policy Q2 of the Lambeth Local Plan (2015) and Policy Q2 of the Draft Review Lambeth Local Plan (Submission Version January 2020).'*

- 7.2 Typically, the recognised methodology for undertaking daylight and sunlight assessments is provided by the Building Research Establishment 'Site planning for daylight and sunlight – a guide to good practice' (2011); commonly referred to as the 'BRE Guidelines' and also the previous British Standard, BS 8206-2:2008. The British Standard BS 8206-2:2008 was superseded in May 2019 by EN 17037:2018, which provides a new methodology for assessing daylight within new buildings that focuses on climate-based modelling. Whilst the current BRE Guidelines continue to reference BS8206-2:2008, we have sought the advice of Dr Paul Littlefair as to how one should approach the assessment of daylighting to new developments in the absence of an updated BRE guideline document, and he advised the following:

*"Until new BR209 guidance is written, we are adopting a flexible approach to applying the two standards, for example in assessing the daylight and sunlight in new buildings...We would consider it reasonable to accept either average daylight factor tables calculated using BS8206 or median daylight factors/median illuminances calculated using EN17037, provided they were calculated and presented properly."*

- 7.3 The BS8206-2:2008 methodology of Average Daylight Factor (ADF) was used in my 2019 Report and is reported on this proof of evidence.

7.4 The recommend minimum ADF target values for the specific room uses are set out below:

- Kitchens: 2.0%
- Living rooms: 1.5%
- Bedrooms: 1.0%

7.5 The Submitted Daylight, Sunlight and Overshadowing Report confirmed that the Appeal Scheme has an ADF compliance rate of 94%. In my experience, this represents a very good level of overall compliance for a high-density urban development. It would certainly be commensurate, if not better than many of the larger scale developments I have advised on during my career.

7.6 Indeed, by the Council's own admission, the level of compliance to the recommended daylight targets within the Appeal Scheme is high, with only a small proportion of rooms (predominantly bedrooms) being below this level. In the Delegated Officer's Report at paragraph 10.5.14 it states:

*'Officers acknowledge that the number of habitable rooms in Block A not meeting minimum ADF target levels would represent a small proportion (c.6%) of the overall total number of habitable rooms within the proposed development.'*

7.7 There are many examples where the Council have approved development that does not fully comply with the BRE standards. They are not alone in that regard and it is frequently the case that some rooms in high density developments fall short of the national targets offered by the BRE.

7.8 The list of sites at Appendix 4 is by no means exhaustive but highlights a number of developments over the years where approvals have been granted for developments that fall short of the BRE targets. To provide an example, the Officer's Committee Report for the consented Knights Walk Estate development (Planning ref. 17/05992/RG3) which is an application that was made by the London Borough of Lambeth stated at paragraph 6.116:

*'BRE guidelines should be used flexibly and act as a guide to help understand whether or not a proposed development receives satisfactory levels of daylight and sunlight. It does acknowledge that in some circumstances such as that of a dense urban environment lower levels of daylight and sunlight may be unavoidable.'*

7.9 In the Officer's Committee Report for the consented South Lambeth Estate development (planning ref. 17/05993/OUT), another development that was submitted by the London Borough of Lambeth, it states at paragraph 7.5.13 that:

*'In consideration of the ADF analysis, whilst theoretically, all habitable rooms should meet minimum ADF targets, in practical terms, it is not uncommon to have some isolated habitable rooms on larger development schemes not meeting ADF targets. A 'pass rate' of 90% is considered reasonable for an urban development scheme.'*

7.10 There are numerous examples of consented developments where the Council have accepted lower ADF levels than those recommended within the BRE and BS8206. The table below is again by no means exhaustive, however does provide a clear summary

Development	Planning Ref:	ADF compliance rate	No. of rooms below guidance	Specific Notes
South Lambeth Estate	17/05993/OUT	90%	13	5 living rooms at 1% ADF; 4 Living rooms at 1.1%-1.2% ADF; 2 bedrooms at 0.5% and 0.7%; 2 LKDs at 1.8% ADF.
80 South Lambeth Road	17/05311/EIAFUL	83%	48	Mainly LKDs, with 34 greater than 1% ADF, and 2 LKDs below 1% (0.55 and 0.61%)
Knights Walk Estate	17/02992/RG3	89%	29	25 bedrooms with ADF levels between 0.2% and 0.9%.
130-138 Newington Butts	12/00054/FUL	80%	33	Bedrooms as low as 0.57% ADF; 3 LKDs at 1.1-1.2% ADF
340A Clapham Road	16/06668/FUL	88%	22	15 main living rooms (lowest 0.99% ADF) and 7 bedrooms (ranging from 0.59% to 0.92% ADF)

**Table 7.1 – Lambeth internal daylight precedent summary**

7.11 In respect of the 340A Clapham Road consented scheme, the Officer’s Committee Report stated at Paragraph 6.3.16 that

*‘Given the above assessment it is considered that the standard of residential accommodation that would be provided, is acceptable, and the application is therefore in accordance with LLP Policies Q2 and H5 and London Plan Policy 3.5.’*

7.12 This judgment was based upon an ADF compliance rate of 88%, with 15 main living rooms and 7 bedrooms falling short of the recommended ADF targets.

- 7.13 In all of the above examples, the ADF compliance rate was lower than the Appeal Scheme (94%). This clearly demonstrates that it is not uncommon for some rooms to fall short of their target values in urban development and that some flexibility of the guidelines is common. Such flexibility should be applied to the Appeal Scheme, particularly as it performs better than numerous other schemes the Council have deemed acceptable.
- 7.14 Of the 34 habitable rooms in Block A that do not meet the recommended minimum ADF levels, 21 are bedrooms.
- 7.15 It is widely recognised by the BRE and the Council that there is a lesser requirement for daylight to bedrooms. The Officer's Delegated Report at paragraph 10.5.13, where it states that *'...it is appreciated that these are all bedrooms where daylight could be considered less important'*.
- 7.16 It is recognised in the Officers Delegated Report at paragraph 10.5.13, all of the bedrooms where lower ADF levels are recorded within Block A, are served by private amenity balconies. This was a conscious design decision to ensure that the principal living rooms within each dwelling were not entirely self-obstructed by balconies and the daylight to them is maximised.
- 7.17 The effect of balconies upon daylight provision is widely acknowledged by both the BRE and the Council. Whilst balconies provide a considerable amenity to residents, they restrict the receipt of daylight as the balcony blocks light from the upper parts of the sky. The BRE Guidelines recognise this with paragraph 2.1.17 stating that *"balconies and overhangs significantly reduce the light entering windows below them"*.
- 7.18 Therefore, balancing the trade-off between these two valuable amenities is a challenge in every medium and high-density urban project as the necessity to provide private external space does often result in some rooms receiving less than optimal levels of daylighting.

7.19 This is an issue that is familiar to the Council. In respect of the consented scheme at 130-138 Newington Butts (planning reference 12/00054/FUL), the Officer's Committee Report stated at paragraph 7.28:

*'In any case the deviations are generally constrained where the provision of external private amenity space, such as balconies, is a trade off against daylight provision.'*

7.20 Two of the rooms that do not meet the minimum ADF recommendations are kitchens. They record ADF levels of 1.8% and 1.9%, which are just short of the recommended 2% target.

7.21 The remaining 11 rooms are LKDs, which record ADF levels between 1% and 1.3%. These levels are below guidance, but in my opinion, certainly not uncommon in urban development.

7.22 For example, the 80 South Lambeth consented development (planning reference 17/05311/EIAFUL) the Officer's Committee Report summarised the ADF results within the proposed development at paragraph 7.4.22 as follows:

*'With regard to ADF, the assessment concludes that 235 of the 283 rooms (83%) would comply with the BRE target guidelines. The 48 rooms that don't meet the minimum guideline target are in most cases combined living, kitchen dining rooms (LKDs). Of this total, the majority of the rooms (34 no) generally retained an ADF value of 1% or greater compared with only 2 rooms with an ADF value of below 1% (0.55% and 0.61%).'*

7.23 It goes on to conclude at paragraph 7.4.24 that

*'It is therefore considered that the daylight amenity is generally good within the majority of the residential block.'*

- 7.24 The Appeal Scheme has fewer habitable rooms that do not meet the minimum ADF recommendations than the above example. Furthermore, there are no LKDs with an ADF of less than 1%, which is a level of daylight that has been considered acceptable by the Council previously.
- 7.25 This view, twinned with the BRE and the Council's acknowledgment that bedrooms have a lesser requirement for daylight, would indicate that in my opinion the overall daylighting performance of the Appeal Scheme is commensurate with similar urban developments. It actually achieves a better overall compliance rate than numerous other consented developments within the Council's jurisdiction.
- 7.26 Applying the guidelines with the flexibility I am permitted, taking into consideration the urban context within which the Appeal Scheme is proposed, the low proportion of habitable rooms that do not meet the recommended ADF recommendations and the fact that lowest levels generally occur to bedrooms which are served by private amenity balconies, I disagree with the Council's Indicative Reason for Refusal No.7. in so far as daylight amenity is concerned.

## 8 Conclusions

- 8.1 In conclusion, I have carefully considered the potential daylight and sunlight effects upon the neighbouring residential properties. Both government and mayoral policy clearly indicate that it is both appropriate and indeed necessary to apply the BRE Guidelines in a flexible manner as daylight and sunlight is only one of many considerations on any development site. Moreover, an overly rigid and slavish application of the BRE Guidelines is certainly not promoted by the BRE as it is simply impractical to do so in higher density environments.
- 8.2 The Council state that the Appeal Scheme will have a detrimental impact on the residential amenity to the occupiers of neighbouring buildings in terms of loss of sunlight to gardens and a loss of daylight to habitable rooms. Overall, I disagree.
- 8.3 The loss of sunlight is restricted to a small number of private amenity spaces. The vast majority experience no noticeable effect. Where there is an effect beyond guidance, in the majority of cases, the affected gardens would receive 2 hours of sunlight within a matter of days of the BRE test date. Therefore, in respect of the gardens that receive more than 2 hours of sun to 50% of their areas in the existing condition, I do not agree that the Appeal Scheme will have a detrimental effect upon the access of sunlight throughout the year. Whilst there may be some harm to these spaces, I do not consider it to be unacceptable harm as the BRE test would be satisfied within a relatively small number of days of the recommended test date.
- 8.4 In the three instances where gardens receive less than 2 hours of sun on the 21<sup>st</sup> March in the existing condition, further testing identifies there is no perceptible difference between when 3 Castlebrook Close will receive 2 hours in the existing and proposed condition.

- 8.5 With regards 8 George Mathers Road, there are very good reasons why the 21<sup>st</sup> March test date has limited practical application to this property. Due to its orientation and the presence of trees along its western boundary, a large area of the garden will be self-shaded from April-November. For the remaining months (November-March), little sunlight will reach the garden in the existing condition due the sun's low altitude during the afternoon period of the winter months. So practically speaking, just because the 21<sup>st</sup> March date is not met does not mean the Appeal Scheme will have a detrimental effect upon the access of sunlight.
- 8.6 With regards to 7 George Mathers Road, there are noticeable effects at both the spring equinox and summer solstice as the afternoon sun is obstructed by the Appel Scheme.
- 8.7 Other evidence demonstrates that Block B represents the only practical location for a taller building on the Site. My evidence demonstrates that a building that is some two thirds lower in height than the Appeal Scheme (10 storeys) would have a substantially similar effect to the gardens affected by the Appeal Scheme. Whilst there would be some very marginal improvements in sunlight availability, the effects continue to breach guidance to a substantially similar degree. Therefore, achieving what are effectively marginal gains would result in the loss of approximately 200 residential units for no material improvement in the position.

- 8.8 To eradicate the effects would necessitate a building of 4 storeys, stepping up to a maximum of 8 storeys which other evidence has demonstrated would yield an unviable proposal. In my opinion, such an approach would be at odds with policies centred around making efficient use of land for housing such as 3.4 of the London Plan and inconsistent with NPPF 123. I believe it would also clash with the intention of the BRE Guidelines as it would incorrectly over elevate the necessity to strictly adhere to the BRE Guidelines without having regard to all other site layout and planning considerations. It would imply that the guidelines recommendations are fixed and absolute when they are not, and that there is no flexibility as to how they should be applied in urban settings, when clearly there is.
- 8.9 With regards to daylight into habitable rooms, this is clearly a case where it is appropriate to assess the effects of the Appeal Scheme against appropriate alternative target values. I have explained my rationale for adopting a VSC in the mid-teens to establish whether there will be unacceptable harm (as opposed to any harm) to the neighbouring occupiers. Similarly, the use of alternative target values allows one to comprehensively assess whether satisfactory living conditions will be maintained notwithstanding that the standards depart from those presently experienced.
- 8.10 By comparison to the existing baseline condition, there are effects upon the VSC currently enjoyed by neighbouring buildings. There is a limited effect upon the No Sky Line, with the majority of rooms meeting the NSL test.
- 8.11 Reasonable levels of VSC are maintained with the Appeal Scheme in place that are generally commensurate with what one often finds within inner London locations. All the windows within the Dante Road, Brook Drive and Castlebrook Close properties, save those that are self-obstructed by roof eaves, meet the alternative target value.

8.12 With regards to Bolton House, there will be some relative reductions in daylight that exceed the VSC test. Over half of the windows tested will exceed the alternative target. Where this is not the case, the majority serve bedrooms which have a lesser requirement for daylight, or serve LKDs lit by multiple other windows that either meet the VSC test or the alternative target. In each instance, the NSL test is satisfied indicating that despite some reductions in direct skylight from the window, daylight penetration into the spaces will remain good. In all but one instance, the rooms will retain an NSL in excess of 80% such that electric lighting should not be required. In the one instance where this is not the case, the room experiences no alteration in NSL from the existing condition as a result of the Appeal Scheme.

8.13 With regards to Wilmott House, despite some relative reductions in daylight that exceed the VSC test, the majority of windows meet the alternative target. There are only 7 windows that do not meet the VSC test or achieve the alternative target, 4 of which are bedrooms which both the BRE and the Council acknowledge have a lesser requirement for daylight. 2 serve LKDs where there are other additional windows that meet the VSC test, and the one other window serves a ground floor LKD, which has a partially restricted outlook by way of a tall adjoining wall to the west and the presence of the water tower to the east. In all but one instance the NSL test is met, such that good daylight distribution is maintained within the rooms. The only room that falls short of the NSL test is a first-floor bedroom that experiences a relative alteration of 20.9% - a fractional deviation from the NSL test criteria.

8.14 Overall, the neighbouring buildings retain reasonable levels of daylight which is commensurate with an inner London location. Whilst the change in daylight, mainly in terms of VSC will be noticeable, it is my view that the Appeal Scheme would not cause unacceptable harm and satisfactory living conditions are maintained.

- 8.15 With regards to daylight within the proposed accommodation, 94% of the rooms meet their respective standards. In my experience, this represents a very good level of overall compliance for a high-density urban development. It would certainly be commensurate, if not better than many of the larger scale developments I have advised on during my career. I have demonstrated how the Appeal Scheme performs better than a number of recent decisions in Lambeth which have all been considered acceptable for an urban location.
- 8.16 Of the 34 habitable rooms in Block A that do not meet the recommended minimum ADF levels, 21 are bedrooms. It is widely recognised by the BRE and the Council that there is a lesser requirement for daylight to bedrooms.
- 8.17 All of the bedrooms where lower ADF levels are recorded are served by private amenity balconies. This was a conscious design decision to ensure that the principal living rooms within each dwelling were not entirely self-obstructed by balconies which limit the access of daylight. Whilst balconies provide a considerable amenity to residents, they restrict the receipt of daylight as the balcony blocks light from the upper parts of the sky. Therefore, balancing the trade-off between these two valuable amenities is a challenge in every medium and high-density urban project (a point previously recognised by the Council) as the necessity to provide private external space does often result in some rooms receiving less than optimal levels of daylighting.
- 8.18 Two of the rooms that do not meet the minimum ADF recommendations are kitchens. They record ADF levels of 1.8% and 1.9%, which are just short of the recommended 2% target.

8.19 The remaining 11 rooms are LKDs, which record ADF levels between 1% and 1.3%. These levels are below guidance, but in my opinion, are certainly not uncommon in urban development and I have demonstrated that the Council have considered this level of daylight acceptable on several previous occasions.

8.20 Applying the guidelines with the flexibility I am permitted, taking into consideration the urban context within which the Appeal Scheme is proposed, the low proportion of habitable rooms that do not meet the recommended ADF recommendations and the fact that lowest levels generally occur to bedrooms which are served by private amenity balconies, I disagree with the Council's Indicative Reason for Refusal No.7. in so far as daylight amenity is concerned.