Daylight & Sunlight Study

224 St Leonards Rd, London SW14 7BN

Contents

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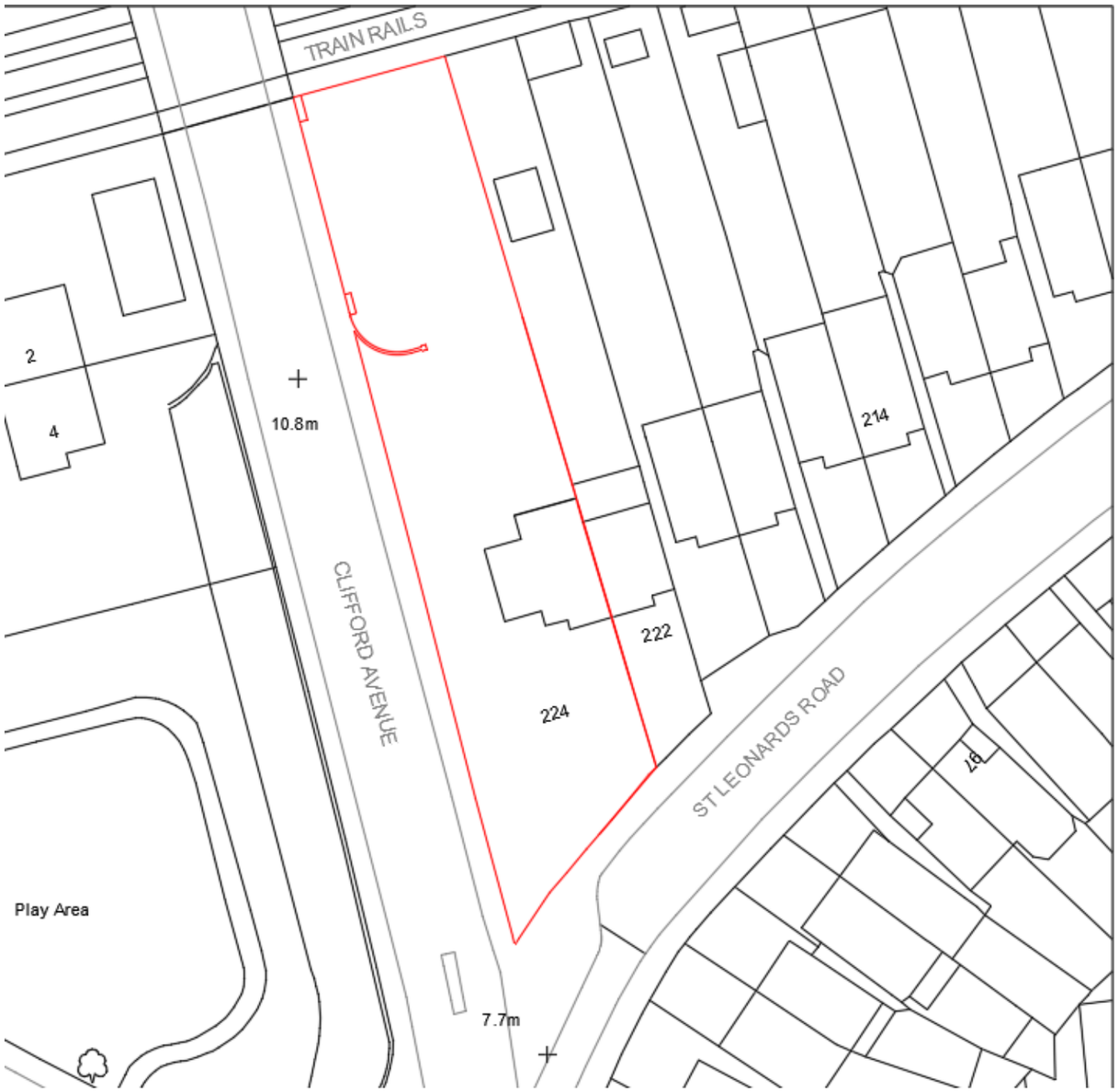
Introduction

BRE Daylight & Sunlight Report

The proposed develpment of a residential Building site is located on 224 St Leonards Rd, London SW14 7BN. The immediate neighbors are to the east of the site, 222 St Leonards Rd, London SW14 7BN. After discussions with the Council Planning Department, the development on 224 St Leonards Rd, London SW14 7BN was to be tested for daylight to ensure compliance with the guidelines in the BRE publication Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice.



2. Planning policy and guidance

National Planning Policy and Guidance *National*

Planning Policy Framework (December 2023)

2.1. The National Planning Policy Framework (NPPF) sets out the Government's planning policies and how these should be applied. It provides a framework within which locally prepared plans for housing and other development can be produced. It places an emphasis on sustainable development and delivery of housing.

2.2. Chapter 11 of the NPPF, entitled *"Making effective use of land"*, promotes the effective use of land in meeting the need for homes and other uses. It gives examples such as developing under-utilised land and buildings, especially if this would help to meet identified needs for housing where land supply is constrained and available sites could be used more effectively, and upward extensions to create new homes, where they would be consistent with the prevailing height and form of neighbouring properties and the overall street scene.

2.3. In particular, paragraph 125 of the NPPF states:

> *Area-based character assessments, design guides and codes and masterplans can be used to help ensure that land is used efficiently while also creating beautiful and sustainable places. Where there is an existing or anticipated shortage of land for meeting identified housing needs, it is especially important that planning policies and decisions avoid homes being built at low densities, and ensure that developments make optimal use of the potential of each site. In these circumstances:*
>
> *c) 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).*

BRE Report 209, 'Site Layout Planning for Daylight and Sunlight: A guide to good practice' (2022)

2.4. The leading publication providing national guidance on the provision of daylight and sunlight to new development, and the impacts of development on daylight and sunlight to neighbouring buildings and open spaces, is BRE Report 209, '*Site Layout Planning for Daylight and Sunlight: A guide to good practice*' (third edition,2022). It is referred to in the development plan documents or supplementary planning documents of most planning authorities.

2.5. The BRE guide states:

> *This guide gives advice on site layout planning to achieve good daylighting and sun lighting, within buildings and in the open spaces between them.*
>
> *(Its) main aim is … to help to ensure good conditions in the local environment, considered broadly, with enough sunlight and daylight on or between buildings for good interior and exterior conditions.*
>
> *The guide is intended for building designers and their clients, consultants and planning officials. The advice given is not mandatory and the report should not be seen as a part of planning policy. Its aim is to help rather than constrain the designer.*
>
> *Although it gives numerical guidelines, these should be interpreted flexibly because 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.*

Regional planning policy and guidance

The London Plan (March 2021)

2.6. The London Plan 2021 is the Spatial Development Strategy for Greater London. It sets out a framework for how London will develop over the next 20-25 years and the Mayor's vision for Good Growth. Its policies should inform decisions on planning applications across the capital.

2.7. The Plan notes that if London is to meet the challenges of the future, all parts of London will need to embrace and manage change. In many places, change will occur incrementally, especially in outer London, where the suburban pattern of development has significant potential for appropriate intensification over time, particularly for additional housing. The areas that will see the most significant change are identified as Opportunity Areas, many of which are already seeing significant development. London's Central Activities Zone (CAZ) and town centre network have a crucial role to play in supporting London's growth.

Policy GG2 *'Making the best use of land'*

2.8. Policy GG2 states:

> *To create successful sustainable mixed-use places that make the best use of land, those involved in planning and development must:*
>
> *B prioritise sites which are well-connected by existing or planned public transport*
>
> *C proactively explore the potential to intensify the use of land to support additional homes and workspaces, promoting higher density development, particularly in locations that are well-connected to jobs, services, infrastructure and amenities by public transport, walking and cycling*
>
> *D applying a design–led approach to determine the optimum development capacity of sites*

Policy D3 *'Optimising site capacity through the design-led approach'*

2.9. Policy D3 states:

> *A All development must make the best use of land by following a design-led approach that optimises the capacity of sites, including site allocations. Optimising site capacity means ensuring that development is of the most appropriate form and land use for the site…*
>
> *B Higher density developments should generally be promoted in locations that are well connected to jobs, services, infrastructure and amenities by public transport, walking and cycling…*

Policy D6 *'Housing quality and standards'*

2.10. Policy D6 states:

> *C Housing development should maximise the provision of dual aspect dwellings and normally avoid the provision of single aspect dwellings. A single aspect dwelling should only be provided where it is considered a more appropriate design solution to meet the requirements of Part B in Policy D3 'Optimising site capacity through the design-led approach' than a dual aspect dwelling, and it can be demonstrated that it will have adequate passive ventilation, daylight and privacy, and avoid overheating.*
>
> *D The design of development should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space.*

2.11. The supporting text notes that dual aspect dwellings with opening windows on at least two sides have many inherent benefits, including better daylight, a greater chance of direct sunlight for longer periods, natural cross-ventilation, etc. It notes that the design of single aspect dwellings must demonstrate that all habitable rooms and the kitchen are provided with adequate daylight, and that the orientation enhances amenity, including views. Single aspect dwellings that are north facing should be avoided. Having bay windows can optimise daylight and sunlight and allow buildings to be closer together than can otherwise be achieved.

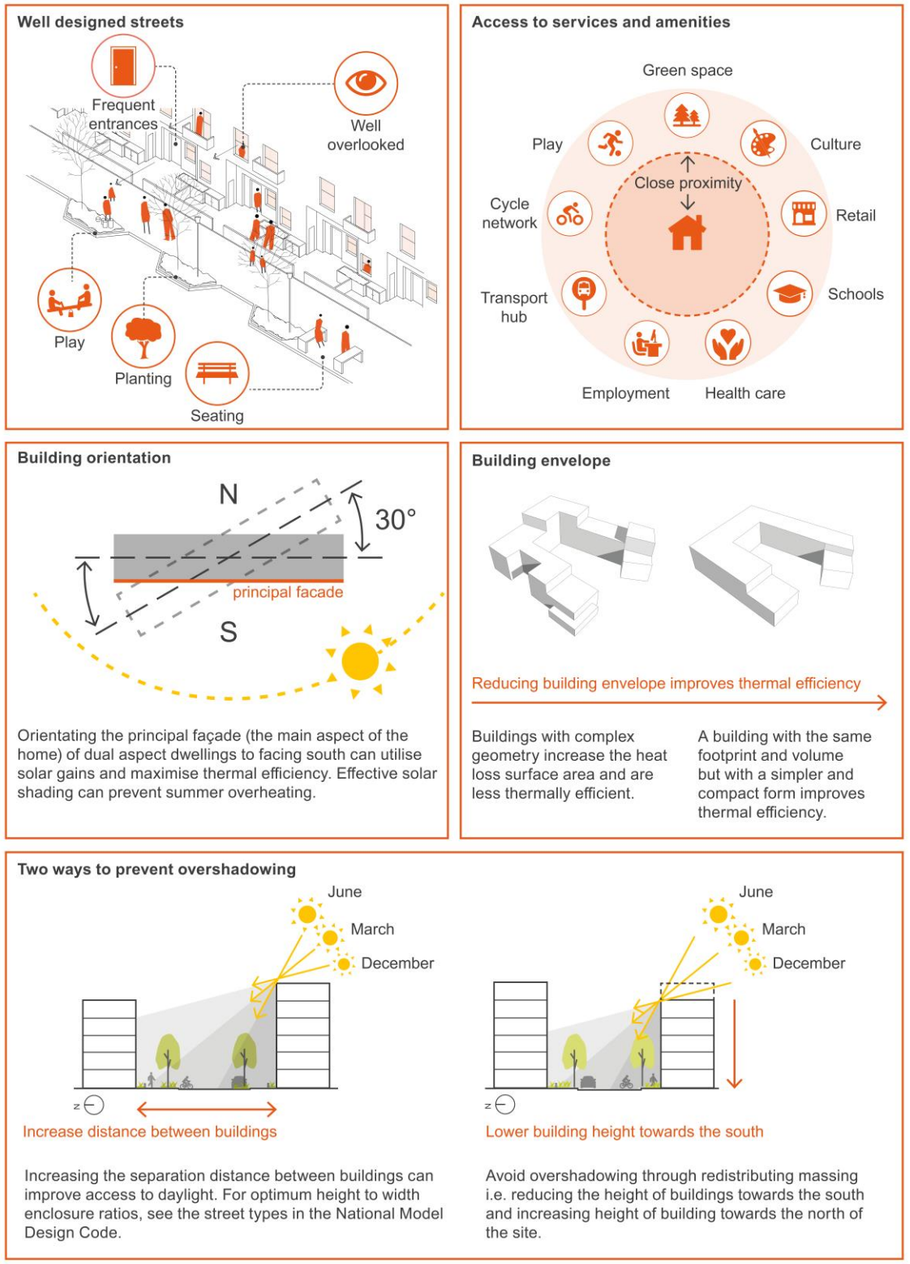
2.12. The Mayor intends to produce a single guidance document on housing design standards which need to be met in order to implement Policy D6 *'Housing quality and standards'*. This will include guidance on daylight and sunlight standards and will build on the guidance set out in the 2016 Housing SPG.

Mayor of London's Housing Supplementary Planning Guidance (March 2016)

2.13. The Mayor of London's *'Housing Supplementary Planning Guidance'* (March 2016) was superceded by the Housing Design Standards London Plan Guidance (adopted June 2023).

2.14. Part C of the LPG deals with Aspect, orientation, daylight and sunlight At paragraphs 4.1.2 it states:

> *Visual privacy is more difficult to achieve in dense environments, particularly on lower floors. Off-setting or angling windows can mitigate problems; and fixed or movable screening devices can also be effective where they are an integral part of the overall design. It is also important to achieve high levels of soundproofing in party walls and windows, particularly where homes are located next to non-residential uses and communal spaces, such as entrances; lift and stair cores; bin and bike stores; and other soundgenerating facilities. Consideration should be given to the internal layout of homes, including vertical stacking, to reduce noise impacts (for example, between living rooms and bedrooms). The standards in this section also aim to complement the consideration of daylight and sunlight impacts using the BRE guidance (Site layout planning for daylight and sunlight). This process involves a two-stage approach: firstly, by applying the BRE guidance; and secondly, by considering the location and wider context when assessing any impacts. With extreme weather events becoming increasingly common, design must balance daylight, passive solar gain and overheating considerations. Summer heat can be reduced through orientation, shading, fenestration, insulation, high-albedo materials, the provision of green infrastructure and other strategies. In areas with poorer air quality and/or high background noise levels, careful design will be needed to ensure passive ventilation is possible, in line with carbon reduction targets and the need to avoid additional waste heat and noise associated with mechanical ventilation*



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5	

1. Connecting homes with streets, creating attractive, social spaces (A1.5, A3.2, A3.4, A3.6, A3.7, A5.1)
2. Access to services and amenities (A2.1)
3. Layouts should optimise orientation of new buildings to maximise the quality of daylight and thermal comfort (A1.7)
4. Simple and compact massing improves thermal efficiency (A1.14)
5. Optimal building heights and separation distances (A1.8, A1.9)

[1] In the context of the LPG 'north-facing' means an orientation within 45 degrees either side of due north.

C4	Aspect, orientation, daylight and sunlight	
C4.1	New homes should be dual aspect unless exceptional circumstances make this impractical or undesirable; for example, when one side of the dwelling would be subjected to excessive noise or outside air pollution. Where single aspect dwellings are proposed, by exception, they should be restricted to homes with one or two bedspaces; should not face north; and must demonstrate that the units will: have adequate passive ventilation, daylight and privacy; and not overheat (particularly relevant for south or west-facing single aspect units). **[All]** *Note: See Appendix 3 for definition of dual aspect.*	D3 D6 SI4
C4.2	The location of the main living and eating spaces, and the main private outside space, should be optimised to make the most of the best views and the orientation. These spaces should receive direct sunlight (south-facing is preferable, provided that appropriate shading devices are incorporated) and enjoy reasonable privacy through the careful placement of windows, balcony design or other measures. **[NB]**	D6
C4.3	All homes should allow for direct sunlight in conjunction with solar shading. As a minimum, at least one habitable room should receive direct sunlight – preferably the living area and/ or the kitchen and dining space. **[NB, CoU]**	D6
C4.4	Avoid placing bedrooms and bathrooms on street-facing facades at ground level or where they face onto a busy courtyard or podium. **[All]**	D3 D6
C4.5	The primary window of a habitable room should not be located on an access deck. Where possible, avoid locating windows close to the internal corners of courtyards or L-shaped blocks. **[NB]**	D3 D6
C4.6	Avoid large wide full-height windows to habitable rooms (particularly in bedrooms) where the risk of being overlooked and/or overheating is high. **[NB, CoU]**	D6 SI4
C4.7	All habitable rooms (including a kitchen/dining room) should receive natural light and have at least one openable window that provides a view out when seated. **[All]**	D6
C4.8	**Best practice:** Bathrooms should receive natural light through openable window/s. **[All]**	D6

2.19. The supporting text on daylight, sunlight and overshadowing states:

> ***Balancing natural light***
>
> *Providing good levels of natural light makes for a more pleasant internal environment, improving wellbeing as well as reducing the energy required for artificial lighting. This document prioritises good daylight to the home in determining suitable development capacity…*
>
> *…Natural light can be restricted in densely developed areas. However, an appropriate degree of flexibility needs to be applied when using BRE guidelines to assess the daylight and sunlight impacts within proposed new homes, as well as the impact that proposed development would have on surrounding homes and open spaces.*
>
> ***Applying BRE guidelines in relation to neighbouring homes***
>
> *Decision-makers should recognise that fully optimising housing potential on sites may necessitate standards which depart from those presently experienced, but which still achieve satisfactory levels of residential amenity and avoid unacceptable harm.*
>
> *Guidelines should be applied sensitively to higher density development, where BRE advice suggests considering the use of alternative targets. This should take into account local circumstances, the need to optimise housing capacity, and the scope for the character and form of an area to change over time.*
>
> *The BRE guidelines apply nationwide, and the default numerical targets provided are purely advisory. These are based on a uniform, 25-degree development angle (vertical obstruction angle) typical of a low-rise suburban location. This corresponds to the Vertical Sky Component (VSC) target of 27 per cent cited in the guidelines. Typical development angles in a city or central urban location are considerably higher. In Central London, development angles of 40 degree or 50 degree are common and can, if well planned, deliver successful schemes. A uniform development angle of 40 degree corresponds to a VSC target of 18 per cent, and 50 degree gives a VSC target of 13 per cent. Such daylight levels have been accepted in many desirable central areas for well over a century. Module A: Optimising Site Capacity - A Design-led Approach therefore adopts a 50-degree development angle to determine offset distances.*
>
> *Even with access to good levels of daylight on the outside of a building, it is possible to have low levels of daylight within a building due to design features such as small windows, recessed windows, poor placement of balconies or deep rooms. Therefore, consideration of the retained target VSC should be the principal consideration. Where this is not met in accordance with BRE guidance, it should not be less than 0.8 times its former value (which protects areas that already have low daylight levels).*
>
> *Less weight should be given to the room-based measures of daylight such as 'no-sky line' or average daylight factor as these are dependent on the design of the neighbouring property. Except in exceptional circumstances, design features of neighbouring properties (referred to above) should not hamper the development potential of a site.*

Applying BRE guidelines in relation to proposed homes

It may be possible to mitigate lower external daylight VSC levels by using design features such as larger windows, roof lights and light coloured internal and external surfaces to ensure reasonable internal daylight levels. Therefore, room-based measures of daylight and sunlight are most appropriate for judging the acceptability of a proposed development, as these encourage good daylight design. Appropriate 3D modelling should be used to demonstrate acceptable levels.

BRE guidelines confirm that the acceptable minimum average daylight factor target value depends on the room use. That is 1 per cent for a bedroom, 1.5 per cent for a living room and 2 per cent for a family kitchen. In cases where one room serves more than one purpose, the minimum ADF should be that for the room type with the higher value. Notwithstanding this, the independent daylight and sunlight review states that in practice, the principal use of rooms designed as a 'living room/kitchen/dining room' is as a living room. Accordingly, it would be reasonable to apply a target of 1.5 per cent to such rooms.

The need for balconies to be a minimum depth so as to function as usable amenity space, (see C4 Dwelling Space Standards), can have significant bearing on the daylight and sunlight levels reaching nearby windows and rooms. Inevitably, any window or room under a balcony will receive much lower daylight and sunlight levels, although the adjacent balcony space will typically have excellent levels of daylight and sunlight amenity. Given this, the Mayor encourages boroughs to allow the daylight levels on the balcony to contribute to the ADF of the adjacent living space.

3. Acceptability of daylight/sunlight levels and impacts

3.1. The assessment of impact on daylight amenity is a two-part process[2]: first, as a matter of calculation, whether there would be acceptable light conditions by reference to the BRE guidelines; and second, as a matter of judgment, whether those light conditions would be acceptable in the circumstances.

3.2. The first stage can be addressed by applying the BRE assessment methodology and numerical guidelines. The second stage brings into play much wider considerations, such as:

i) Whether the neighbouring building stands unusually close to the site boundary, including the highway, taking more than its fair share of light, such that lower light levels may be unavoidable if one site is not to be prejudiced by how another has been developed. (A 'mirror-image' study can be informative in such cases.)

ii) Whether windows in buildings themselves are self-obstructed by overhanging or inset balconies or other projections such as to make relatively lower light levels unavoidable even if there is modest obstructions opposite - in effect themselves taking away more than their fair share of light. (A 'without balconies' study can be informative in such cases.)

iii) In historic city centres or areas characterised by modern tall buildings, high density and close proximity, a higher degree of obstruction may be unavoidable if buildings are to accommodate residential uses which match the height and proportion of existing buildings.

iv) In areas that are designated by planning authorities for substantial growth or providing opportunities for change and sustainable regeneration, the sort of change that would be brought about by the introduction of taller, denser development is to be expected, including reductions in daylight and sunlight levels, closer proximity, loss of outlook, etc.

v) In the case of repurposed buildings (change of use applications as is the case here) can the new configuration be laid out to ensure good daylight provision by adopting the existing window configuration.

3.3. Where a higher degree of obstruction may be unavoidable it is appropriate to consider the reasonableness of the retained levels of daylight within the proposed development in context.

4. Assessment methodology and numerical guidelines

4.1. The technical assessments that underpin this daylight and sunlight study have been carried out in accordance with the assessment methodology recommended in the BRE guide.

4.2. The principal assessments and numerical criteria are summarised below. A fuller explanation of the assessment methodology is given at Appendix 1 of this report.

4.3. The BRE guide (third edition, 2022) is intended to be used in conjunction with the interior daylighting recommendations in BS EN17037:2018 *Daylight in buildings,* and in the CIBSE publication *LG 10 Daylighting - a guide to designer.* The BRE guide is the leading publication providing national guidance and is referred to in development plan documents or supplementary planning documents of most planning authorities. We have therefore followed the assessment methodology in the BRE guide.

Daylight to new dwellings

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

4.5. The Illuminance method is more useful, informative and accurate as it is dependent on both geographic location and orientation of the building. Therefore, we undertake our technical assessment using illuminance method.

4.6. The illuminance method requires a 3d model of the space together with the key parameters such as nearby obstructions, the assigned internal and external surface reflectance values, diffuse glazing transmittance, and maintenance factors for the dirt that are a reasonable representation of those for the actual, completed building.

4.7. The minimum recommended target illuminance level (lux) for room types in UK dwellings is 100 lux for bedrooms, 150 lux for living rooms and 200 lux for kitchens. Bathrooms, stairwells and other circulation areas with less than 1.5m wide need not be assessed.

4.8. The guide recommends the target illuminance for the room type with the highest value should be taken where one room in a UK dwelling serves more than a single purpose - for example, in a space that combines a living room and a kitchen the target illuminance is recommended to be 200 lux. T

4.9. The BRE guide also advises that non-daylit internal kitchens should be avoided wherever possible, and the target for a living room could be used for a combined living/dining/kitchen area if the kitchens are not treated as habitable spaces. The kitchen space should still need to be included in the assessment area. In this case the target illuminance level of 150 lux or more might be acceptable.. That view is supported by the author of the BRE guide, Dr Paul Littlefair, who explains it thus3:

4.10. Where a room has a shared use, the British Standard states that the higher minimum value should apply. However, local authorities frequently accept the living room standard for a shared kitchen/living room, as a small kitchen would not be considered as a habitable room. This is a practical approach, as it is seldom in the final resident's interest to have a closed off, small kitchen which is completely artificially lit in order to force compliance with the Standard for the living room.

4.11. We have therefore adopted an alternative target of 150 lux for KDs and LKDs in our assessment

4.12. Additionally, we also compare these findings to the only recently superseded ADF assessment methodology as championed in the 2011 version of the BRE Guide for benchmarking and comparison purposes. See Appendix 1 for descriptions of the assessment methodologies.

Sunlight to new dwellings

4.13. In housing, sunlight should be assessed in living rooms and conservatories. For interiors, access to sunlight can be quantified by measuring the number of hours during which the space receives direct sunlight, for a clear cloudless reference day in the year.

4.14. The BRE guide recommends that. for dwellings, at least one habitable room, preferably a living room, should receive at least 1.5 hours of sunlight on 21 March. Where groups of dwellings are planned, site layout design should aim to maximise the number of dwellings meeting this recommendation.

5. Flexible application of the guidelines and alternative target values

5.1. As noted in paragraph 2.4 above, the BRE guide states that its default numerical guidelines are not mandatory and must be interpreted flexibly because natural lighting is only one of many factors in site layout design.

5.2. We set out below some examples of a flexible approach to applying the BRE guidelines that are of relevance.

5.3. For the reasons explained at paragraphs 4.9 to 4.11 we have adopted an alternative target for the minimum illuminance level of 150 lux for any main living spaces that contain a kitchen, such as LKDs,LKs,KDs and studios.

5.4. Ultimately, it is for the planning authority to judge whether acceptable levels of daylight amenity will be provided to new dwellings and amenity spaces in their neighbourhood context, having regard to all relevant planning policies and guidance and balanced against the merits of the proposed development.

6. Scope of the internal assessment

6.1. Within the proposed development, we have assessed daylight and sunlight to all relevant habitable rooms on all floors within the proposed development.

7. Information used in our technical study

7.1. We have undertaken our technical study using a 3D computer model built in AutoCAD and specialist analysis software, which runs the assessments recommended in the BRE guide.

7.2. We compiled our 3D computer model from the following information:

7.2.1. 3D computer model of the existing buildings on the Site and the contextual massing produced from photogrammetry (aerial photography) , subsequently enhanced by us with the more detailed information listed below

7.2.2. Measured survey model point cloud produced by our in-house measured survey team.

7.2.3. Floor plans for neighbouring buildings, where available;

7.3. Our 3D computer model is shown on our spot-height drawings at Appendix 2.

7.4. For the daylight illuminance assessment (BRE 2022), we used the window and room parameters stated in **Table** 1.

Table 1 *– Window and room parameters used in illuminance calculations*

Parameter	Value – Proposed Dwellings
Maintenance factor (dirt on glass)	0.92 for vertical windows with normal exposure in residential developments in urban locations with good maintenance
Diffuse light transmittance of glazing	0.68 for double glazing
Frame and glazing bar factor	0.7 for metal frames and large panes
Internal surface reflectance	0.8 for white ceilings 0.7 for pale cream walls 0.4 for light wood floors

7.5. For the comparative ADF assessment (BRE 2011), we used the window and room parameters stated in **Table 2**.

Table 2 *– Window and room parameters used in ADF calculations*

Parameter	Value – Proposed Dwellings
Maintenance factor (dirt on glass)	0.92 for vertical windows with normal exposure in residential developments in urban locations with good maintenance
Diffuse light transmittance of glazing	0.68 for double glazing
Frame and glazing bar factor	0.8 for metal frames and large panes
Internal surface reflectance	0.85 for white ceilings 0.81 for pale cream walls 0.4 for light wood floors

Limitations and assumptions

7.6. In compiling our 3D computer model for our technical study, we have sought to be as accurate as reasonably possible within the scope of our instruction. We have relied upon the information noted above.

7.7. We have used proven and trusted specialist computer software (Waldram Tools for AutoCAD®) to run the calculations recommended in the BRE guide.

7.8. To the best of our knowledge, the information and advice contained in this report is accurate at the date of issue, based on the information provided to or procured by us prior to its production.

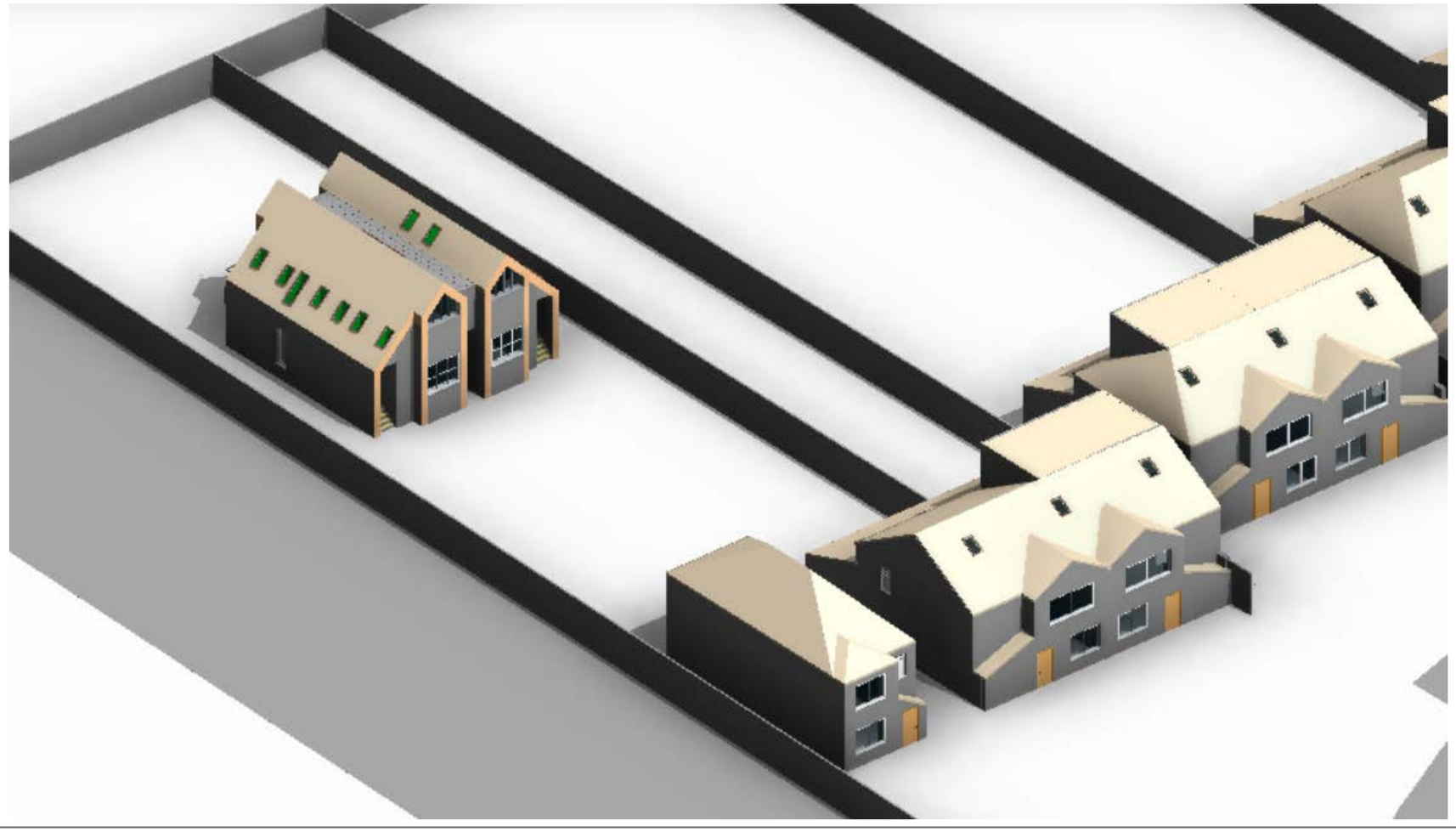
Daylight

Analysis

The windows of 224, 222 St Leonards Rd, London SW14 7BN. were tested to check a minimum of 27% Vertical Sky Component (VSC) is available after the proposal is built. If the windows achieved a minimum value of 27% VSC, no further testing would be required. If below 27%, further analysis would be carried out to see if the reduction in light would be greater than 0.8 the former value. If this test also failed, the Daylight Illuminance (DI) for the rooms would be calculated to check compliance and a No Sky Line test could also be carried out.

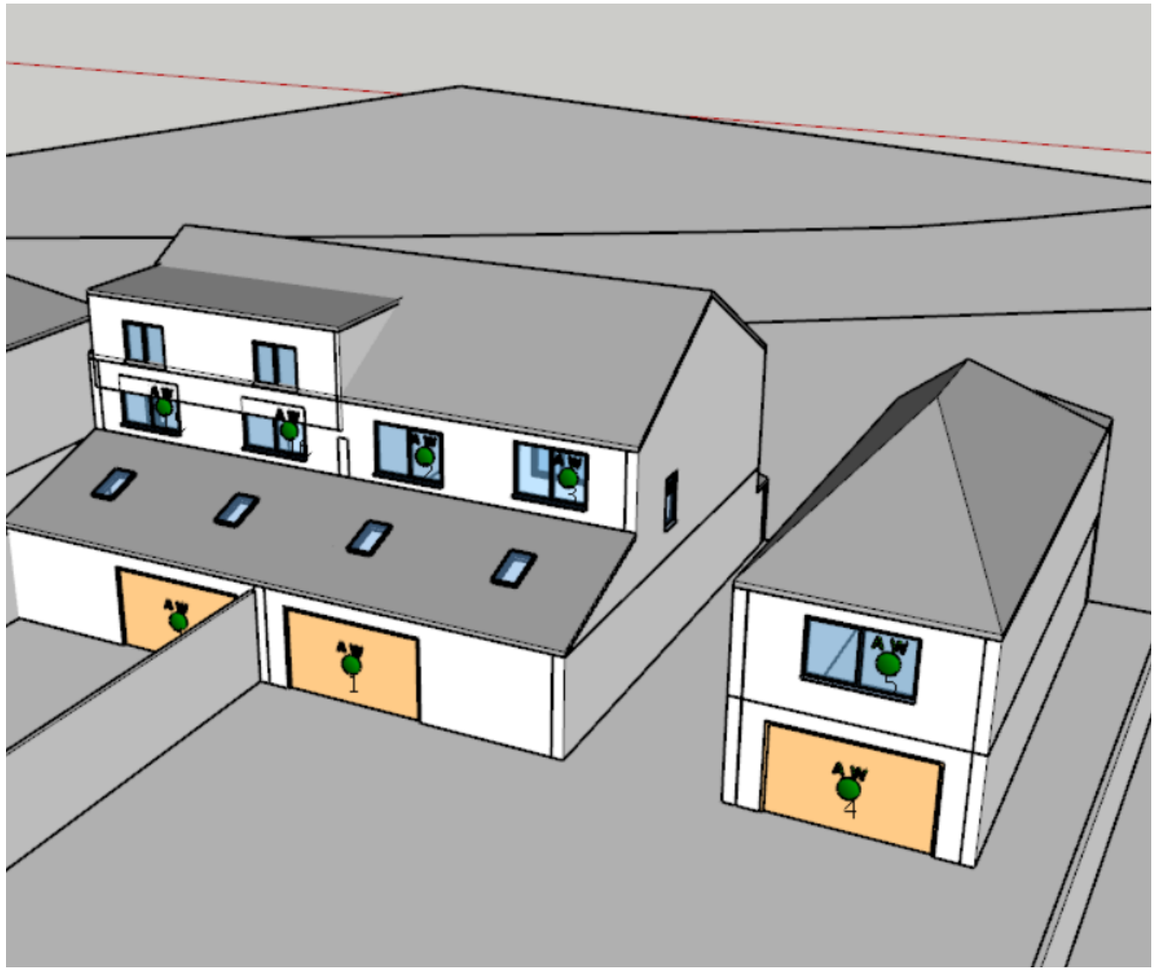
A simplified 3D model was built of the surrounding buildings and the proposed development for detailed analysis of the VSC.
The surrounding site was modelled in greyscale and the proposed building modelled in blue. A VSC component modeller by MBS Survey Software Ltd was used to calculate the Waldram Diagrams and the existing and proposed VSC.
A simple traffic light system also gives a quick visual guide to compliance with the BRE recommendations - green for a pass, red for fail, and amber for results that fail within 1% of the recommendations. Waldram Diagrams are produced in the same colours as the model, and the calculated existing and proposed VSC are given a numerical value.

From MBS Survey Software Ltd:



Daylight Model

Surrounding site in modeled in grayscale. Proposed building modeled showing windows.
The green ‘traffic lights” show compliance with the BRE guidelines.

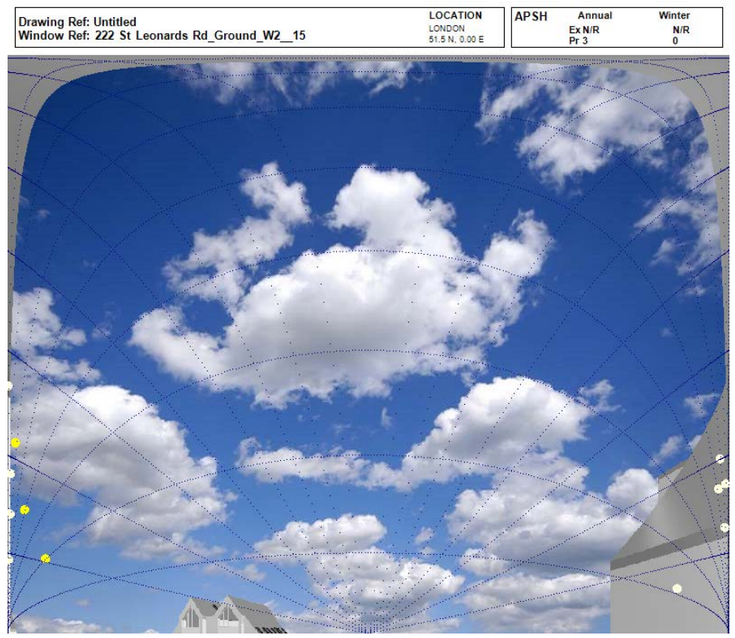


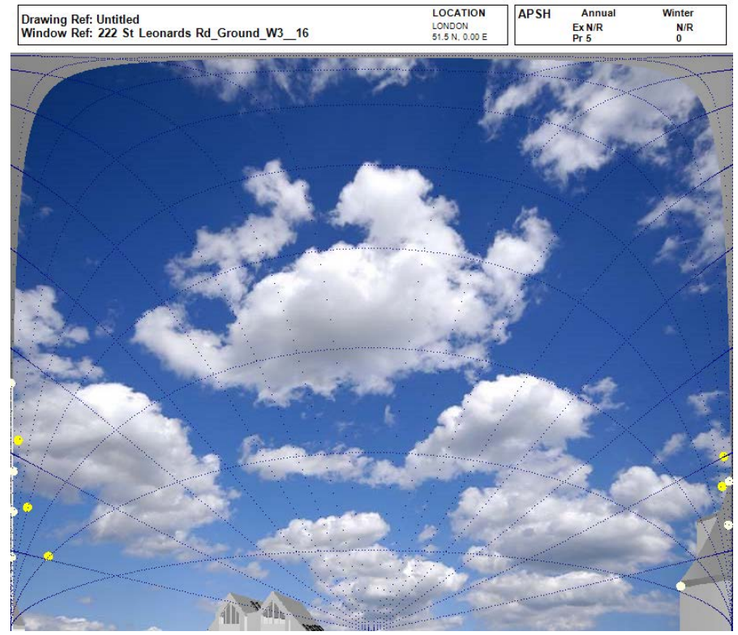
224 St Leonards Rd, London SW14 7BN

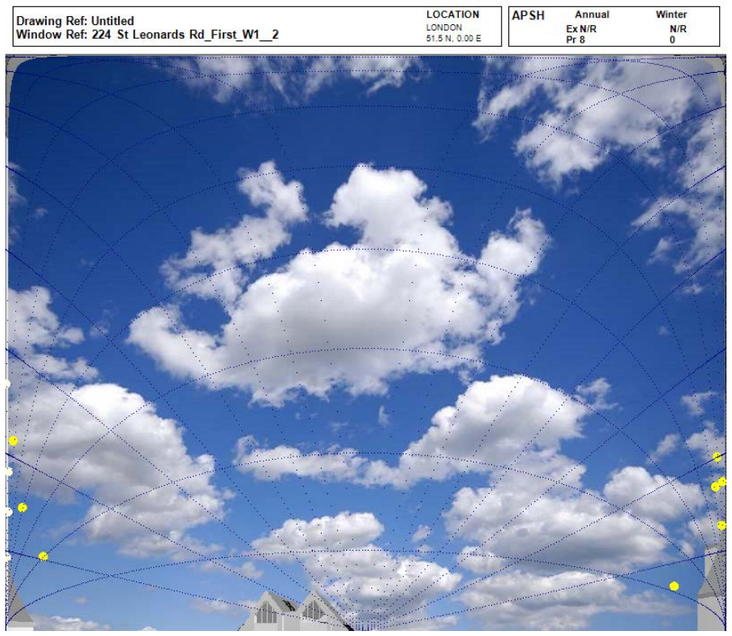
Waldram Diagrams

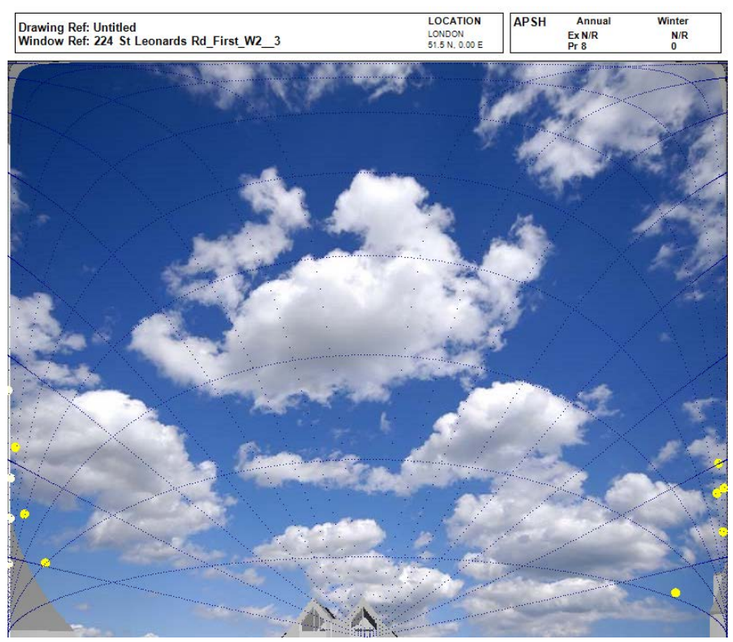
224 St Leonards Rd, London SW14 7BN

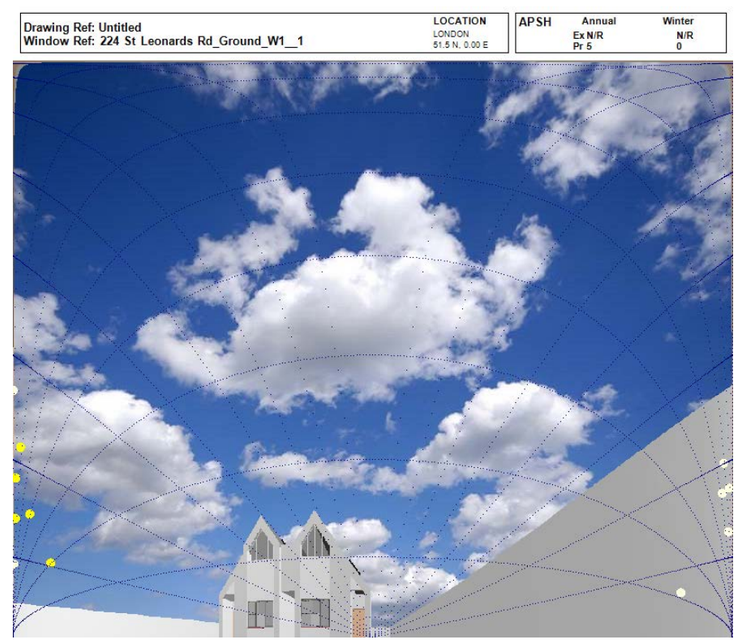
Below diagram showing available daylight to 224 St Leonards Rd, London SW14 7BN







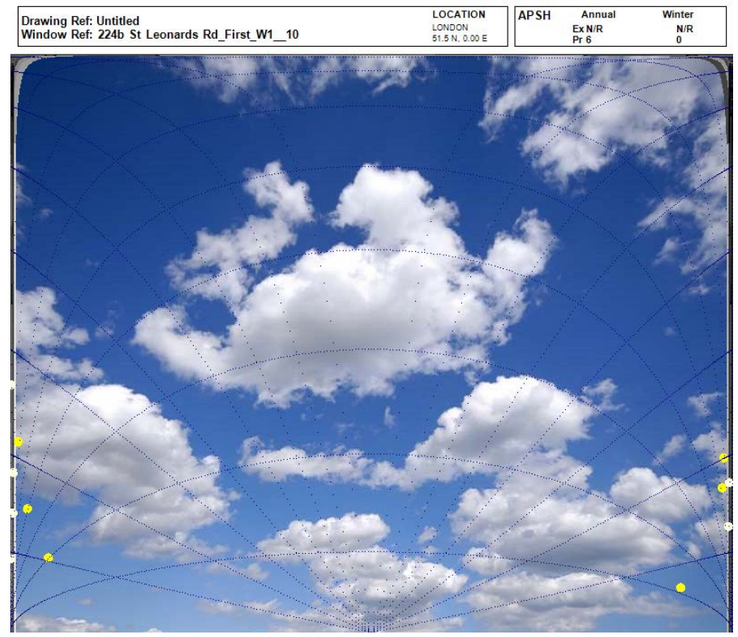


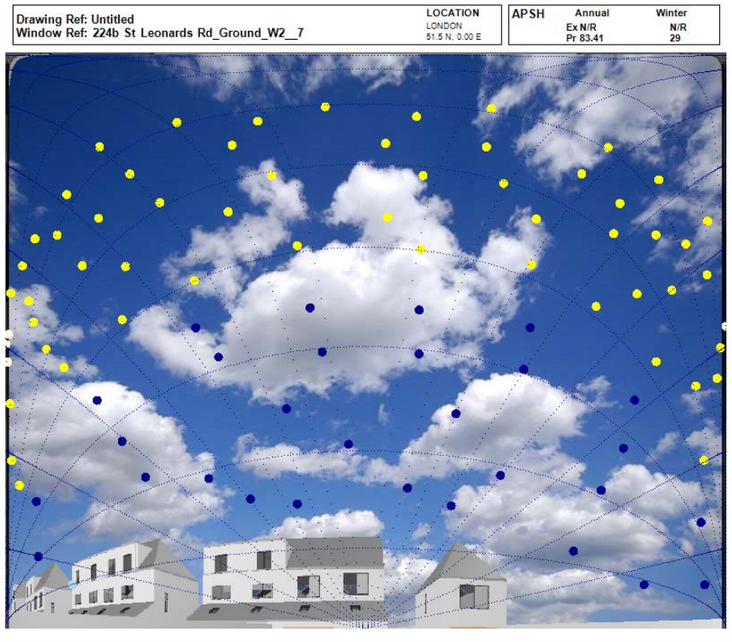


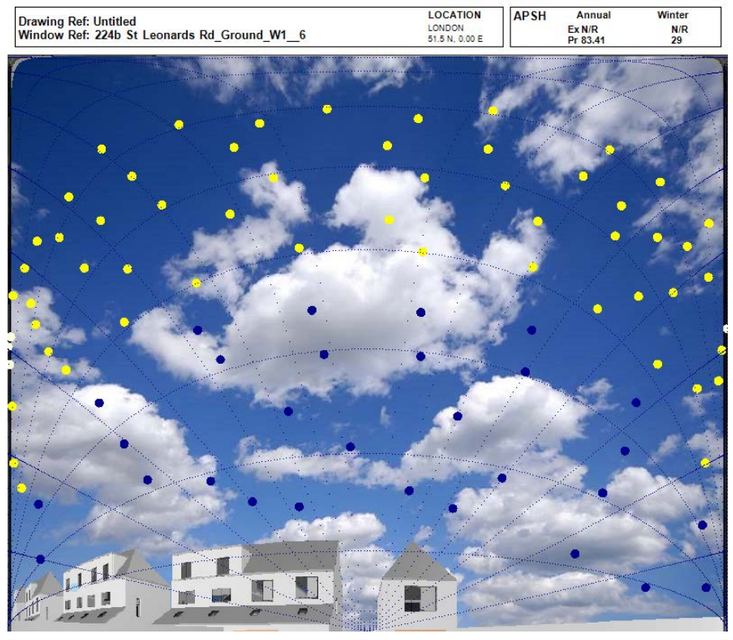
Waldram Diagrams

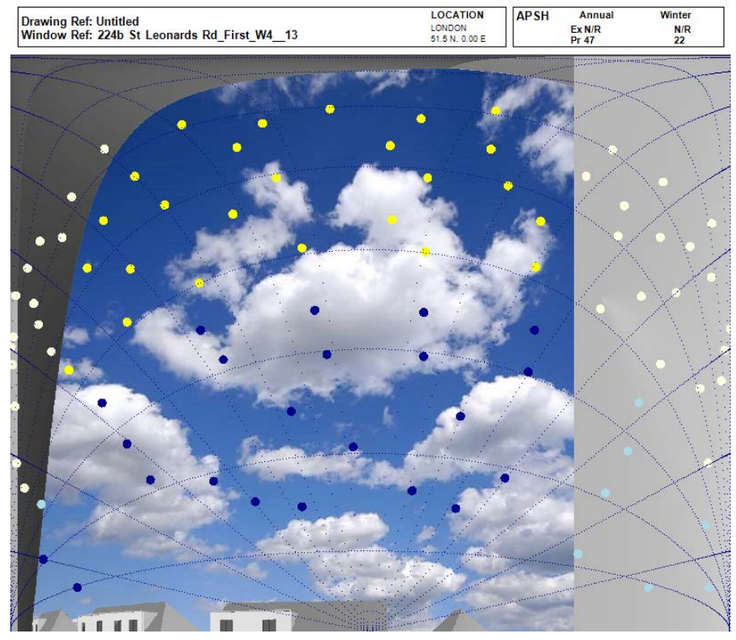
224 St Leonards Rd, London SW14 7BN

Below diagram showing available daylight to 224 St Leonards Rd, London SW14 7BN









VSC Results

Tabulated Vertical Sky Components

Building Name	Floor Name	Window Name	Window Id	Vsc Proposed	Meets BRE Criteria	Window Orientation
222 St Leonards Rd	Ground	W1	14	32.08	YES	360°N
222 St Leonards Rd	Ground	W2	15	35.81	YES	0°N
222 St Leonards Rd	Ground	W3	16	37.19	YES	0°N
224 St Leonards Rd	First	W1	2	38.58	YES	0°N
224 St Leonards Rd	First	W2	3	38.49	YES	0°N
224 St Leonards Rd	Ground	W1	1	33.31	YES	0°N
224a St Leonards Rd	First	W1	5	38.35	YES	0°N
224a St Leonards Rd	Ground	W1	4	35.14	YES	360°N
224b St Leonards Rd	First	W1	10	38.76	YES	0°N
224b St Leonards Rd	First	W2	11	38.76	YES	0°N
224b St Leonards Rd	First	W3	12	25.99	NO	180°
224b St Leonards Rd	First	W4	13	25.61	NO	180°
224b St Leonards Rd	Ground	W1	6	35.93	YES	180°
224b St Leonards Rd	Ground	W2	7	35.56	YES	180°
224b St Leonards Rd	Ground	W3	8	36.8	YES	0°N
224b St Leonards Rd	Ground	W4	9	36.8	YES	0°N

Daylight illuminance

Building Name	Floor Name	Window Name	Window Id	Daylight (illum) 150Lux		Sun Exposure Hrs	Meets BRE Criteria
				Target	Meet % area		
222 St Leonards Rd	Ground	W1	14	100	100	5.06	YES
222 St Leonards Rd	Ground	W2	15	100	100	3.98	YES
222 St Leonards Rd	Ground	W3	16	100	100	4.25	YES
224 St Leonards Rd	First	W1	2	100	100	5.12	YES
224 St Leonards Rd	First	W2	3	100	100	4.12	YES
224 St Leonards Rd	Ground	W1	1	100	100	4.12	YES
224a St Leonards Rd	First	W1	5	100	100	3.82	YES
224a St Leonards Rd	Ground	W1	4	100	100	4.01	YES
224b St Leonards Rd	First	W1	10	100	100	3.84	YES
224b St Leonards Rd	First	W2	11	100	100	4.05	YES
224b St Leonards Rd	First	W3	12	100	100	4.21	YES
224b St Leonards Rd	First	W4	13	100	100	3.93	YES
224b St Leonards Rd	Ground	W1	6	100	100	3.88	YES
224b St Leonards Rd	Ground	W2	7	100	100	4.04	YES
224b St Leonards Rd	Ground	W3	8	100	100	5.01	YES
224b St Leonards Rd	Ground	W4	9	100	100	5.01	YES

100 lux for bedrooms, 150 lux for living rooms and 200 lux for kitchens. Bathrooms, stairwells and other circulation areas with less than 1.5m wide not assessed.

Sunlight

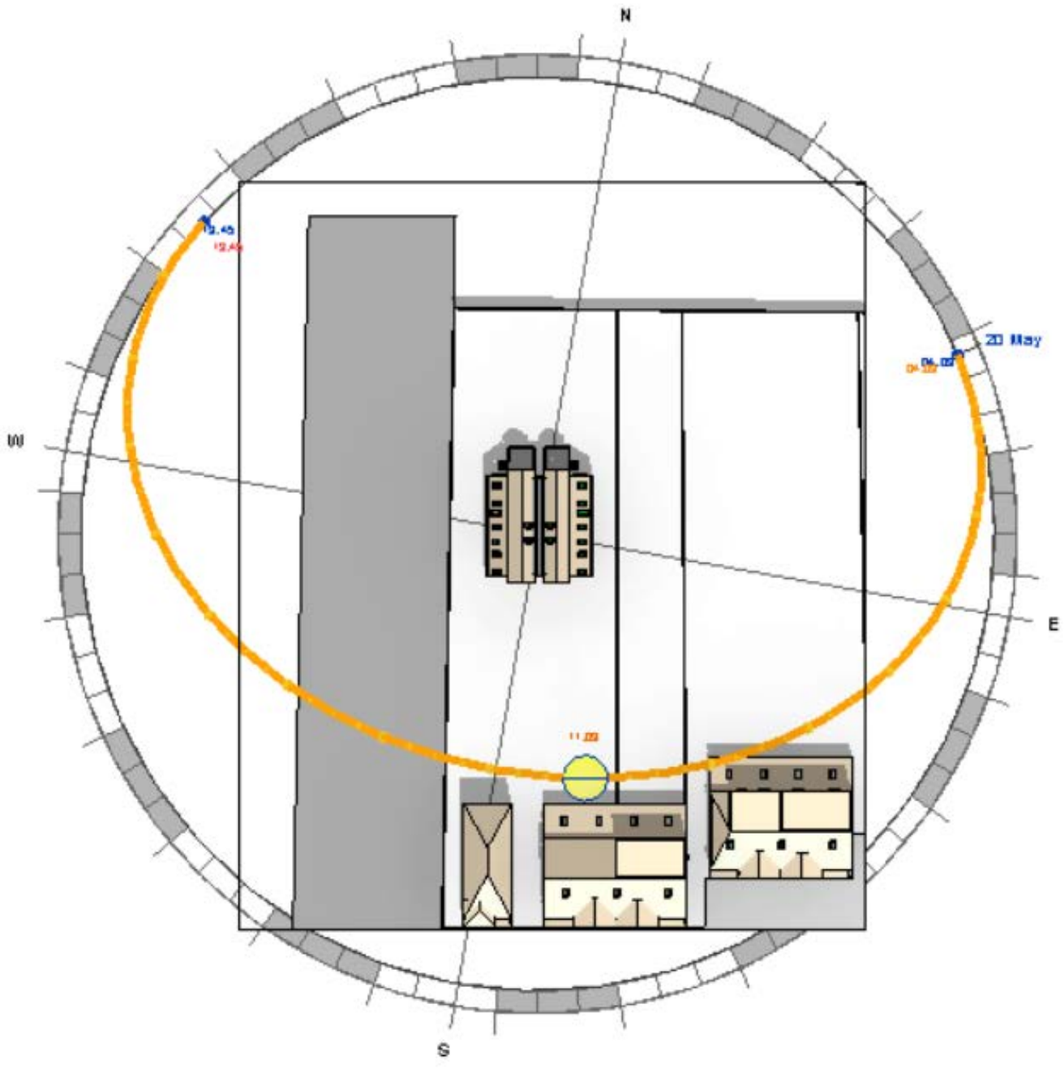
Analysis

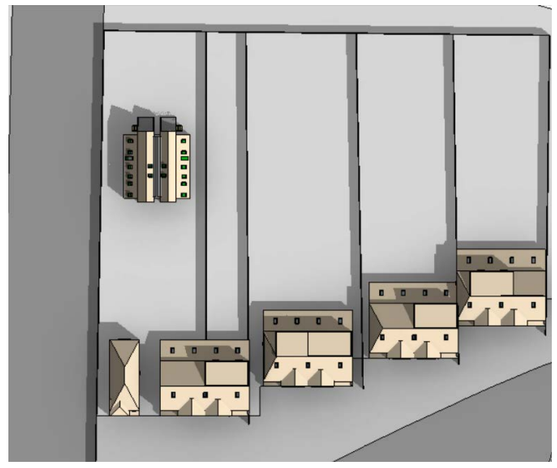
The adjoining property to the South of the site lies due south of the proposed development and the access to sunlight will not be materially affected.

Given the nature of the proposal, it is considered that proposed building would not adversely affect the amenity of the existing building.

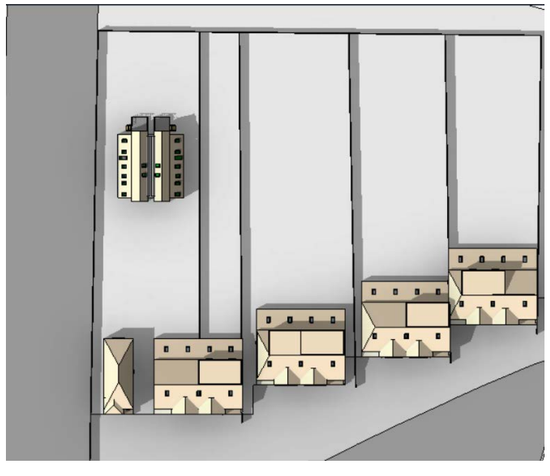
The guidelines the BRE publication Site Layout Planning for Daylight and Sunlight, A guide to Good Practice, are primarily concerned with firstly, residential properties, and secondly, living rooms. Kitchens, bedrooms, circulation spaces are of less or no importance and do not need to be analyzed.

The diagrams show that the adjoining windows will receive a minimum of 25% of the Annual Probable Sunlight Hours (APSH) with 5% in the winter between the 21st September and the 21st March.





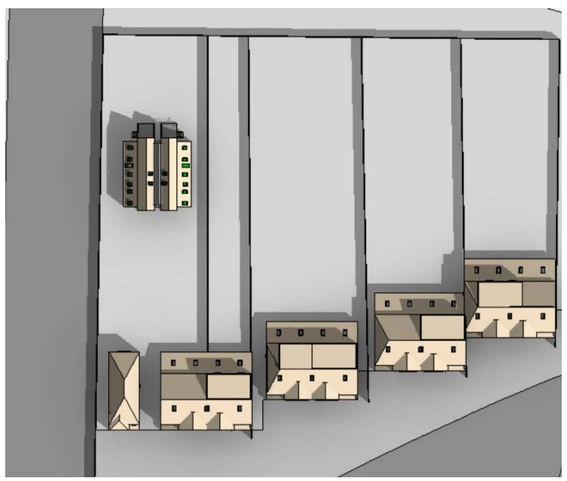
Morning



Evening

Sunlight

Analysis



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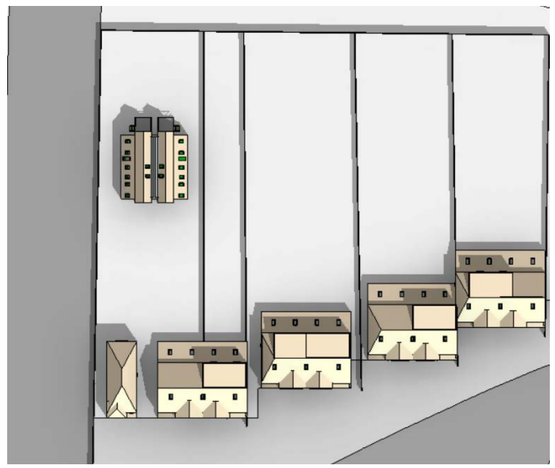
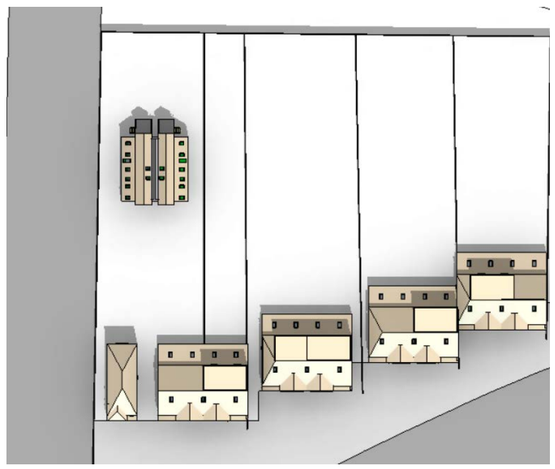
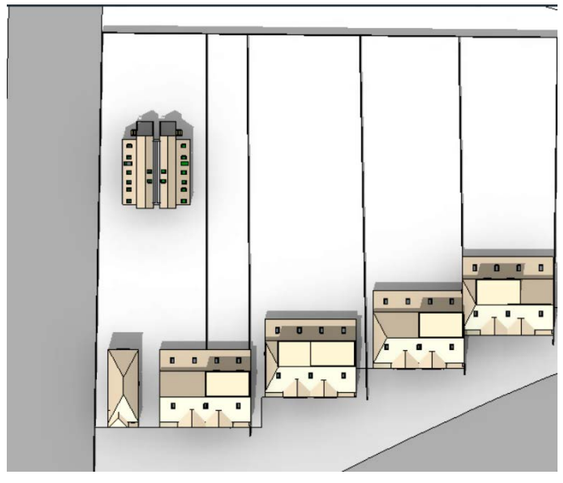


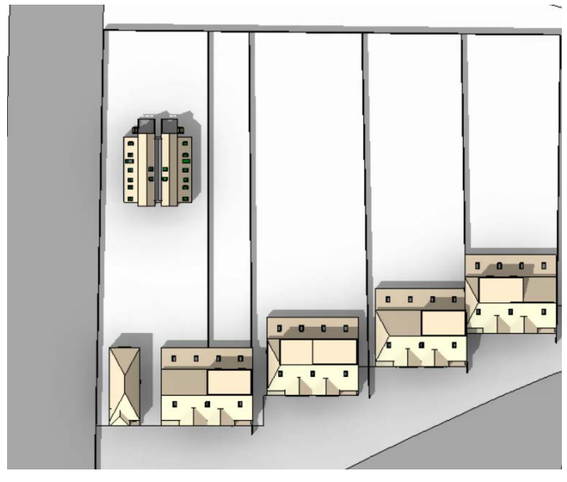
10:00 GMT



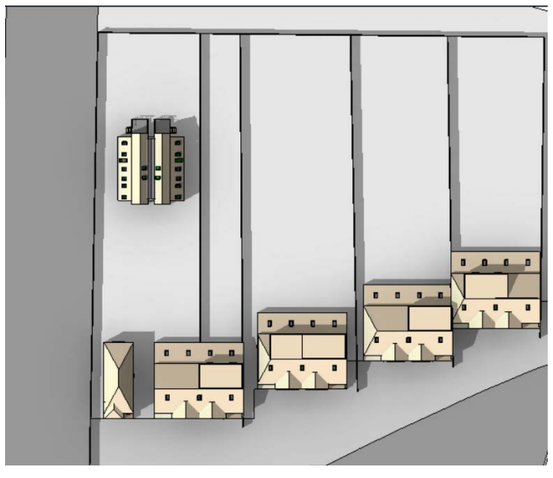
12:00 GMT



14:00 GMT



16:00 GMT



18:00 GMT

Conclusion

Daylight & Sunlight

The planned development at 224 St Leonards Rd, London SW14 7BN does not reduce the Vertical Sky Component (VSC) but rather exceeds the 27% minimum required by the BRE guidelines, Therefore, this development doesn't negatively impact the daylight conditions for 222 St Leonards Rd, London SW14 7BN, according to the 3D model analysis.

Therefore,In conclusion, the provision of internal natural light to habitable rooms of the residential dwellings has been found to be highly satisfactory. Our assessment finds that the design of the dwellings incorporate strategic placements of rooms, windows, and doors, ensuring maximum utilization of both daylight and sunlight. This not only enhances the aesthetic allure of the dwelling spaces but also contributes to the potential energy savings, providing an eco-friendlier and cost-effective solution for the residents. In fact, it complies with BRE 2022 Guidelines and is deemed acceptable by London Borough of Richmond upon Thames Council planning criteria.

No additional privacy issues are foreseen, and the design strategy ensures maximum daylight within the development. All habitable rooms meet the Daylight illuminance (DI) recommendation. Finally, this development at 224 St Leonards Rd, London SW14 7BN ensures satisfactory daylight and sunlight amenities for future residents.

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