



Zahra Akkerhuys

LAND TO REAR OF BANYERS HOTEL

Daylight & Sunlight Assessment

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Document Reference: MB/VL/P25-3522/01

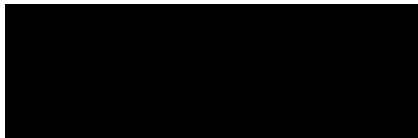
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Date: May 2025

DOCUMENT AND QUALITY CONTROL

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EXECUTIVE SUMMARY

This report assesses the level of daylight and sunlight provision for the proposed development located at Land to the Rear of Banyers Hotel, King James Way, Royston, Hertfordshire, SG8 7BZ in the North Hertfordshire Borough. It examines the daylight and sunlight levels within the habitable spaces of the proposed development. It also assesses the proposed development's impact on the neighbouring properties and amenity areas.

The proposed development at Land to the Rear of Banyers Hotel, King James Way, Royston, Hertfordshire, SG8 7BZ involves the construction of a two-storey residential block comprising 9 residential dwellings. The scheme includes the reinstatement and improvement of an existing vehicular access from King James Way to serve the proposed dwellings.

This assessment has been undertaken following the guidance given in the Building Research Establishment's (BRE) Publication 'Site Layout Planning for Daylight and Sunlight', 2022 Edition. It calculates the Vertical Sky Component (VSC), Illuminance Levels (Lux) and Sunlight Hours for the proposed units and reviews these values in line with BRE guidance. For the existing buildings in the vicinity of the site, the assessment determines the overall reduction in VSC for the relevant windows within the dwellings, which will be experienced following the construction of the proposed extension. It also assesses the Annual Probable Sunlight Hours (APSH) for existing living spaces, which is a key indicator of how much sunlight a window can receive with and without the new development, helping to assess the level of overshadowing.

It has been established that there are no specific daylight criteria for commercial buildings, therefore the neighbouring non-residential buildings have been excluded from this assessment.

Results for the proposed development

Daylight Assessment

The assessment finds that all relevant spaces meet BRE guidance for the recommended daylight levels in new developments.

- 96% of windows achieve a Vertical Sky Component (VSC) above 27%, which is considered an adequate level of daylight.
- The remaining 4% of windows have VSC values between 15% and 27%, which is generally deemed acceptable for dense urban settings.

Sunlight Assessment

An assessment of sunlight access was carried out for all living rooms with windows facing within 90° of due south. The findings indicate:

- All living rooms with windows facing within 90° of due south receive at least 1.5 hours of direct sunlight on 21 March, meeting the BRE requirement for sunlight access.

Impact on Neighbouring Buildings

The proposed development is located near several residential buildings, including Hunter Mews, 30 Dog Kennel Lane, 124–126 King James Way, and 3–11 King James Way. Nearby non-residential buildings include Banyers House and 16 Melbourn Street. Since no specific daylight criteria apply to commercial buildings, these non-residential properties are excluded from the daylight and sunlight assessment.

Daylight (VSC)

- 91% of neighbouring windows assessed will retain at least 0.80 of their former VSC, indicating that there will be no significant reduction in daylight for most of the neighbouring properties due to the construction of the proposed development.
- Some of the windows that do not meet the BRE criteria are located within Hunter Mews. Although these windows have VSC values that fall below 0.8 times their former values, they still receive a reasonable amount of daylight in the proposed scenario, with VSC values remaining above 20%. Therefore, the reduction in daylight is unlikely to be noticeable to the occupants or to significantly affect their comfort levels.

Sunlight (APSH)

- 91% of neighbouring windows will retain at least 0.80 of their former annual sunlight value, and 85% retain at least 0.80 of their winter sunlight value, in compliance with BRE standards.
- Windows that fall short of the BRE criteria already receive low levels of sunlight under existing conditions. The marginal reduction is not expected to be noticeable or have any significant impact on occupant comfort and wellbeing.

Amenity Areas

It is concluded that there are no external amenity areas that would be impacted by the proposed development.

Conclusion

It is concluded that the proposed development will have a satisfactory level of daylight and sunlight in all new spaces and will have a small impact on the internal day and sunlight levels in the neighbouring buildings. The impact caused is deemed typical to the developments in the dense urban environment and should not be noticeable to current residents of the neighbouring buildings.

1.0 INTRODUCTION

- 1.1 Create Consulting Engineers Ltd has been commissioned by Barker Associates on behalf of Zahra Akkerhuys to undertake a Daylight & Sunlight Assessment to support an application for planning permission for the proposed residential building at Land To The Rear Of Banyers Hotel, King James Way, Royston, Hertfordshire, SG8 7BZ. This report assesses the daylight and sunlight levels within the habitable spaces of the proposed development and the impact of the proposed development on the daylight and sunlight availability for the neighbouring dwellings surrounding the site, and compares these conditions to the existing site situation.

Site Description and Location

- 1.2 The site is currently vacant and overgrown, with dense vegetation and mature trees along all boundaries. It is situated to the rear of The Banyers Hotel on Melbourn Street and falls within the Royston Conservation Area. The surrounding context comprises residential housing to the north and west, locally listed and heritage buildings to the east, the Banyers Hotel to the south, and 18 Melbourn Street to the southeast.
- 1.3 Figure 1.1 locates the site within the wider context of Royston, Hertfordshire.



Figure 1.1: Proposed Site Plan (Source: Google maps)

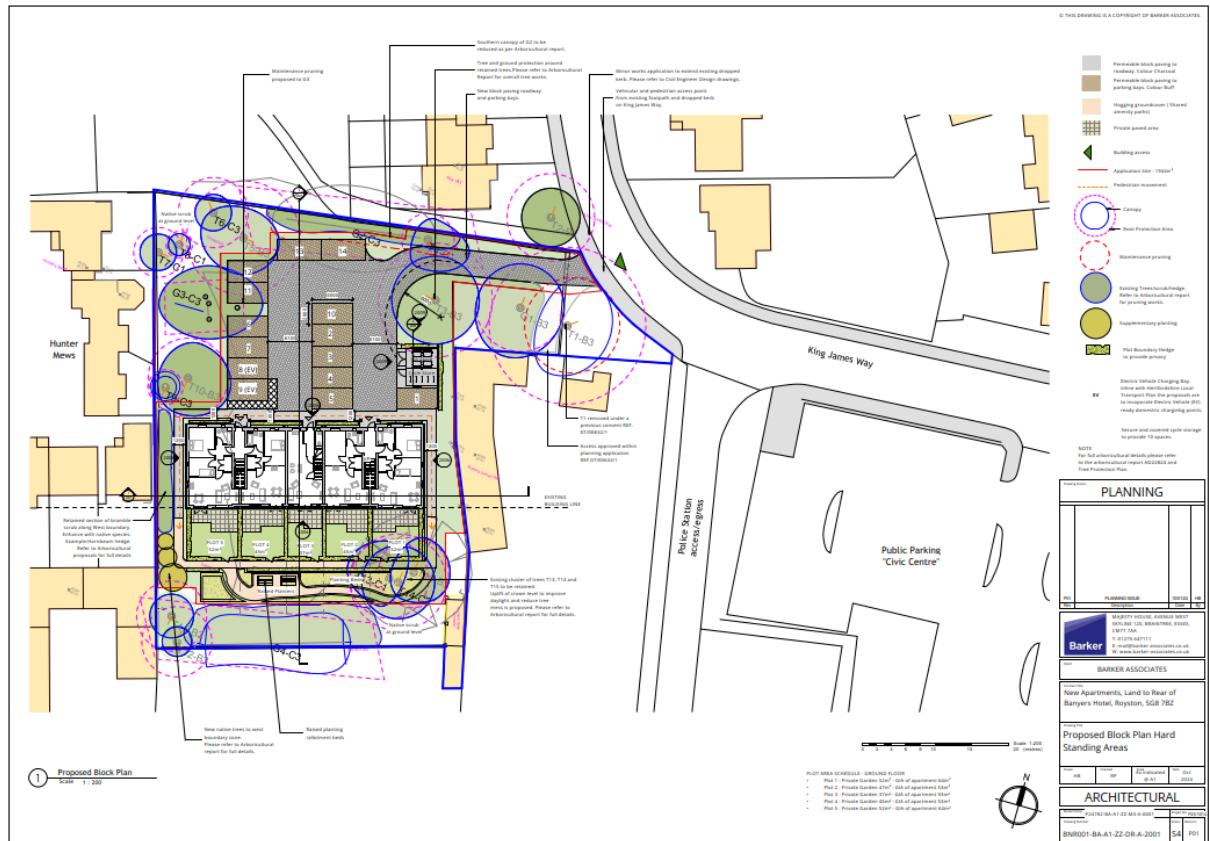


Figure 1.2: Proposed site plan (Ref: Barker Associates)

1.4 The development has been designed to provide a mix of 1- and 2-bedroom dwellings, including a duplex unit, offering a total of nine apartments arranged over ground and first floors. The proposed mix, layout, and floor areas are detailed in the Accommodation Schedule – Gross Internal Areas (GIA) table below.

Flat No.	Type	Occupancy	GIA (m²)	Floor
1	2b3p	2 Bed/3 Person	64	Ground Floor
2	1b2p	1 Bed/2 Person	53	Ground Floor
3 (Duplex)	2b4p	2 Bed/4 Person	94	Ground + First
4	1b2p	1 Bed/2 Person	53	Ground Floor
5	2b3p	2 Bed/3 Person	64	Ground Floor
6	2b3p	2 Bed/3 Person	67	First Floor
7	1b2p	1 Bed/2 Person	57	First Floor
8	1b2p	1 Bed/2 Person	57	First Floor
9	2b3p	2 Bed/3 Person	67	First Floor

Table 1.1: Accommodation Schedule – Gross Internal Areas (GIA)

Assessed Spaces

1.5 Following the BRE guidance, the following spaces must be included in the assessment:

- For the daylight study – all living rooms, kitchens, bedrooms, and studies in the new proposal and in the neighbouring properties, on affected elevations;
- For the sunlight study – all living rooms facing within 90 degrees of due south, located in the proposed development and in the surrounding dwellings (where floor layout is known);
- For the over-shading study – all private gardens and communal sitting areas are potentially overshadowed by the proposed development.

Policy Context

North Hertfordshire Local Plan 2011-2031

- Policy SPI: Sustainable development in North Hertfordshire

This Plan supports the principles of sustainable development within North Hertfordshire. We will:

- a) Maintain the role of key settlements within and adjoining the District as the main focus for housing, employment and new development making use of previously developed land where possible;*
- b) Ensure the long-term vitality of the District's villages by supporting growth which provides opportunities for existing and new residents and sustains key facilities;*
- c) Grant planning permission for proposals that, individually or cumulatively:*
 - i. deliver an appropriate mix of homes, jobs and facilities that contribute towards the targets and aspirations in this Plan;*
 - ii. create high-quality developments that respect and improve their surroundings and provide opportunities for healthy lifestyle choices;*
 - iii. provide the necessary infrastructure required to support an increasing population;*
 - iv. protect key elements of North Hertfordshire's environment including biodiversity, important landscapes, heritage assets and green infrastructure (including the water environment); and*
 - v. secure any necessary mitigation measures that reduce the impact of development, including on climate change; and*
- d) Support neighbourhood plans and other local planning initiatives where they are in general conformity with the strategic policies of this Local Plan.*

- Policy D3: Protecting living conditions

Planning permission will be granted for development proposals which do not cause unacceptable harm to living conditions. Where the living conditions of proposed developments would be affected by an existing use or the living conditions of an existing development would be affected by a proposed use, the Council will consider whether there are mitigation measures that can be taken to mitigate the harm to an acceptable level. If the Council is not satisfied that mitigation proposals would address the identified harm, development proposals will not be permitted.

2.0 CALCULATION METHODOLOGY

Guidance and Software Used

- 2.1 The provision of daylight access has been assessed based upon the guidance and methodologies detailed in the Building Research Establishment's (BRE) Guide 'Site Layout and Planning for Daylight and Sunlight – a Good Practice Guide', 2022 Edition.
- 2.2 The assessment model was produced using IES VE version 2024.0.1.0, a full dynamic simulation modelling software capable of performing a variety of environment simulations for large and complex buildings. IES VE can produce accurate predictions of several lighting parameters through its SunCast and RadianceIES modules.

25 Degree Line Check

- 2.3 The 25-degree line check is an initial quick test to determine if a new development will impact the amount of daylight received by the surrounding buildings, as well as assessing whether the surrounding buildings will impact the amount of daylight received within the proposed development.
- 2.4 The 25-degree line check consists of drawing a line in a sectional view from the highest obstructing point to the centre of the assessed window. If the angle of this line exceeds 25° from the perpendicular, then the amount of daylight received by the window is likely to be affected.
- 2.5 For areas identified as failing the 25-degree line check, the BRE guide presents two additional methods for more in-depth daylight analysis. These are the Vertical Sky Component (VSC) and Average Daylight Factors (ADF).

45 Degree Line Check

- 2.6 The 45-degree line check is applicable to extensions or new parts of the development where part of the building is perpendicular to the potentially affected windows. It involves drawing a line on elevation at an angle of 45 degrees away from the near top corner of the perpendicular extension and drawing another line on the plan, also at 45-degree angle, back towards the window wall from the end of the extension.

Vertical Sky Component (VSC)

- 2.7 The Vertical Sky Component is a measure of the amount of skylight incident on a vertical plane. It is most commonly applied to the light incident at the centre of a window, and in this sense is a measure of the potential for good daylight. The VSC is calculated by taking the ratio of the skylight incident at a point to the unobstructed skylight available at that same point on a horizontal plane. For a uniform sky, the maximum value is 50% (since the point is on a vertical plane, clearly only half the hemisphere can contribute). For a CIE sky, which for the purposes of the daylight & sunlight study is a standard overcast sky, the maximum value is 39.6%. VSC calculations have been undertaken using computer-based simulation.

Illuminance Check

- 2.8 The illuminance recommendations are based around the illuminances that would be met or exceeded over half of the room, over half of daylight hours over the year. BS EN 17037 gives a range of recommendations for high, medium and minimum daylight provision. The National Annex A also gives minimum values for housing in living rooms, kitchens and bedrooms. These are minimum recommended values for locations where a predominantly daylight appearance is not achievable, e.g., where external obstructions are present.

Sunlight Analysis

- 2.9 The measure of sunlight that a given window may expect over a year is known as the Annual Probable Sunlight Hours (APSH) and expressed as a percentage. Due to the sun's path across our sky, north-facing windows are able to receive direct sunlight on only a small number of occasions per year, and windows facing east or west will typically only receive sunlight in the morning or evening. Therefore, BRE guidance states that only windows with an orientation 90° of south need to be assessed.
- 2.10 Sunlight access and overshadowing impact have been determined using a 3D computer simulation of the proposed development and a sun path calculation tool to determine the difference in direct solar exposure between the existing and proposed developments.

Limitations and Assumptions

- 2.11 The following assumptions and limitations have been made within this assessment:
- The locations and sizes of openings to neighbouring dwellings near the proposed development — such as Hunter Mews, 30 Dog Kennel Lane, 124–126 King James Way, and 3–11 King James Way — are based on survey images, street view photographs, property listing websites such as Rightmove and Zoopla, and the site's topographical layout provided by the client.
 - The model for the proposed development at Land to the Rear of Banyers Hotel has been created based on the proposed plans and elevation drawings received from Barker Associates, dated October 2024.
 - Reflectance and transmittance values for all glazing as well as for external walls, balconies, internal walls, and ceilings are based on information acquired from the IES Construction Database, and to aligned with the BRE recommendations.

3.0 25 DEGREE LINE TEST

- 3.1 The 25-degree line check is used as a first-pass assessment of the potential impact on daylight access for a given window area opposing a potential source of shading.
- 3.2 The 25-degree line check involves using a sectional view to draw a line from the centre of the window in question to the highest point of the obstructing object. If the angle of this line is greater than 25 degrees to the horizontal, it indicates daylight access may be affected.
- 3.3 Based on the site location plan and the proposed floor plan, it has been determined that the 25-degree line has been encroached by the proposed development, and further compliance checks have been carried out.
- 3.4 The BRE Guide suggests that the daylight levels in existing buildings, where the 25-degree line check has failed, should be examined using the VSC method. This has been described in more detail in the following section.

4.0 DAYLIGHT (VSC)

- 4.1 The assessment of Daylight has been undertaken using Vertical Sky Component (VSC).
- 4.2 The VSC calculation has been assessed against the guidance given in the BRE publication 'Site Layout Planning for Daylight and Sunlight'. The VSC check is used to assess the daylight access to a vertical surface, such as a window. VSC calculations produce a value between 0 and 40%.
- 4.3 If the calculated VSC for a window is greater than 27% then the window is considered to receive enough skylight. If the VSC for the buildings surrounding the proposed development, is both less than 27% and less than 0.8 times its former value ('existing' case), occupants of the existing building will notice the reduction in the amount of skylight.
- 4.4 Comments by the Greater London Authority (GLA), in the context of a planning appeal, are also noted:

"It should, nevertheless, be noted that 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 more than 20% should be considered as reasonably good, and that VSC in the mid-teens should be acceptable. However, where the VSC value falls below 10% (to be in single figures), the availability of direct light from the sky will be poor."

Source: Greater London Authority, representation hearing report D&P/3067/03 – Appendix 1, 18/11/2013

- 4.5 VSC check should be carried out for all 'main windows' which are defined as openings serving living rooms, dining rooms, studies, kitchens, and bedrooms. Windows to bathrooms, toilets, storerooms, and circulation do not have to be analysed.
- 4.6 It should be noted that the VSC check measures the illuminance of a surface, as opposed to the level of light that is transmitted through an opening. Subsequently, the precise geometric dimensions of any window or surface assessed are less important than its relative position to any obstructions.

BRE Requirement for Daylight for New Development

Obstructions can limit access to light from the sky. This can be checked at an early design stage by measuring or calculating the angle of visible sky θ , angle of obstruction or vertical sky component (VSC) at the centre of the lowest window where daylight is required. If VSC is:

- at least 27% (θ is greater than 65° , obstruction angle less than 25°) conventional window design will usually give reasonable results.*
- between 15% and 27% (θ is between 45° and 65° , obstruction angle between 25° and 45°) special measures (larger windows, changes to room layout) are usually needed to provide adequate daylight.*
- between 5% and 15% (θ is between 25° and 45° , obstruction angle between 45° and 65°) it is very difficult to provide adequate daylight unless very large windows are used.*
- less than 5% (θ less than 25° , obstruction angle more than 65°) it is often impossible to achieve reasonable daylight, even if the whole window wall is glazed.*

Daylight – Results of the calculations for the proposed development

- 4.7 The daylight assessment has been carried out for all windows within the proposed development. The results indicate that most windows achieve a Vertical Sky Component (VSC) value greater than 27%. However, a number of windows have VSC values below this benchmark. While the Building Research Establishment (BRE) recommends 27% as a target, the Greater London Authority (GLA) acknowledges that in an urban setting, VSC values above 20% are considered reasonable, and values above 15% are generally acceptable. A VSC below 10% indicates poor daylight access.

Category	Number	Pass/Fail (%)	Cumulative Pass Rate
Total Assessed Windows	48	—	—
VSC Pass	46	96%	100%
VSC Marginal Fail (Pass2: VSC > 15)	02	4%	—
VSC Fail	0	0%	—

Table 4.1: Daylight (VSC) Check

- 4.8 Table 4.1 confirms that 96% of the assessed windows meet the BRE target of 27% VSC or higher. The remaining 4% fall slightly below this threshold but retain VSC values above 15%, which, according to GLA guidance, are still considered acceptable within an urban context. As none of the windows fall below 15%, it can be concluded that all habitable rooms within the proposed development at the land to the rear of Banyers Hotel will receive an adequate level of daylight. Therefore, no additional check for daylight is required.

Results of the calculations for existing dwellings

- 4.9 The assessment included an evaluation of the impact on daylight for the existing buildings in relation to the proposed development.
- 4.10 The four residential buildings close to the proposed development have been assessed:
- 30 Dog Kennel Lane
 - 124-126 King James Way
 - 3-11 King James Way
 - Hunter Mews
- 4.11 The existing residential buildings, as illustrated in Figure 4.1 below, have been modelled based on the site layout, survey photographs, and publicly available information from sources such as Google Earth, Google Street View, and property listing websites including Rightmove and Zoopla. A complete set of window maps is provided in Appendix E.



:Proposed Development



:Hunter Mews



:3-11 King James Way



:30 Dog Kennel Ln



:124-126 King James Way

Figure 4.1: Image of Existing Building (Source: Google Earth)

- 4.12 The detailed results for the impact of daylight in existing residential buildings for all assessed windows can be found in Appendix B.

30 Dog Kennel Lane:

- 4.13 30 Dog Kennel Lane is a two-storey detached house is situated on Dog Kennel Lane, a residential street in Royston. The property features a rear elevation facing east, with the majority of its windows oriented towards the proposed development site.
- 4.14 The results confirm that all relevant windows of 30 Dog Kennel Lane pass the '0.8 times the former value' check, as per the BRE guidance. The results table for all assessed windows can be found in Appendix B.

124-126 King James Way:

- 4.15 124-126 King James Way comprises a pair of two-storey semi-detached maisonettes. Most of the windows on the front (eastern) and side (southern) elevations face towards the proposed development.
- 4.16 The results confirm that all relevant windows of 124-126 King James Way pass the '0.8 times the former value' check, as per the BRE guidance. The results table for all assessed windows can be found in Appendix B.

3-11 King James Way:

- 4.17 3-11 King James Way consists of two-storey semi-detached maisonettes, with the majority of their front elevation (west-facing) and side elevation (south-facing) windows facing the proposed development.
- 4.18 The results confirm that all relevant windows of 3-11 King James Way pass the '0.8 times the former value' check, as per the BRE guidance. The results table for all assessed windows can be found in Appendix B.

Hunter Mews:

- 4.19 Hunter Mews is a two-storey residential block with its rear elevation (east-facing) directed towards the proposed development.
- 4.20 The results confirm that 16 out of the 21 assessed windows at Hunter Mews comply with the BRE guideline of retaining at least 0.8 times their former VSC values. The windows that do not meet this benchmark still achieve VSC values above 20%, which is generally considered to provide a reasonable level of daylight in an urban context. Therefore, the loss of daylight is unlikely to be noticeable to occupants or have any significant impact on their visual comfort. A detailed results table for all assessed windows is provided in Appendix B.
- 4.21 The windows on the east-facing elevation of Hunter Mews that experience a daylight reduction exceeding the recommended 20% are those located closest to the common boundary fence. As outlined in paragraph 3.2.10 of the BRE Guide:

"...if the existing building stands unusually close to the common boundary with the new development, or has a large balcony or overhang above the window, then a greater reduction in sunlight access may be unavoidable. The guidelines are purely advisory."

- 4.22 Although not all windows meet the BRE standard of 27% for VSC, it is recognised that a figure above 20% should be considered reasonably good and above 15% should be deemed acceptable in the urban environment (please refer to paragraph 4.4).

Assessment Category	Count	Pass/Fail (%)
Total Number of Windows Assessed (Existing Residential Building)	54	-
Windows Receiving ≥ 0.80 of Their Former Value	49	91%
Windows Receiving < 0.80 of Their Former Value	05	9%

Table 4.2: Results VSC- Existing Development

Conclusion:

- 4.23 It can be, therefore, be concluded that the proposed development will have no significant impact on the neighbouring building's access to daylight and should be justifiable in areas designated for urban redevelopment.

5.0 ILLUMINANCE METHOD

- 5.1 Illuminance is a measure of the amount of light falling on a surface, usually measured in lux.
- 5.2 Illuminance method involves using climatic data for the location of the site to calculate the illuminance from daylight at each point on an assessment grid on the reference plane at an at least hourly interval for a typical year.
- 5.3 For compliance with the BRE standard (and BS EN 17037), a daylight space should achieve the minimum level of recommendation. This is shown in Table 5.1 below.

Level of recommendation	Target illuminance Et (lx) for 50% of assessment grid	Target illuminance Et (lx) for 95% of assessment grid
Minimum	300	100
Medium	500	300
High	750	500

Table 5.1: Illuminance targets

- 5.4 Additionally, according to the UK National Annex, the illuminance recommendations for daylight provision in UK dwellings is as below:

Room type	Target illuminance Et (lx) for 50% of the assessment grid
Bedroom	100
Living room	150
Kitchen	200

Table 5.2: Illuminance targets for UK dwellings according to UK National Annex

- 5.5 Where the room is designed to serve as kitchen, dining and living area, the higher kitchen target might be difficult to achieve due to the room's depth. In such circumstances the recommended illuminance value for living rooms would be more appropriate, as it usually is the predominant space use.
- 5.6 The surface reflectance values assumed for the purpose of the illuminance calculations are based on the values suggested in the BRE guide.
- 5.7 An additional daylight illuminance check is not required, as the proposed development's habitable room windows receive an adequate amount of daylight, with VSC values exceeding 20%.

6.0 SUNLIGHT ANALYSIS (APSH)

- 6.1 The sunlight assessment of the proposed development has been conducted in accordance with the guidance provided in the BRE publication 'Site Layout Planning for Daylight and Sunlight, 2022'.

BRE Requirement for Sunlight for New Development

In general a dwelling, or non-domestic building that has a particular requirement for sunlight, will appear reasonably sunlit provided:

- *at least one main window wall faces within 90° of due south and*
- *a habitable room, preferably a main living room, can receive a total of at least 1.5 hours of sunlight on 21 March. This is assessed at the inside centre of the window(s); sunlight received by different windows can be added provided they occur at different times and sunlight hours are not double counted.*

Where groups of dwellings are planned, site layout design should aim to maximise the number of dwellings with a main living room that meets the above recommendations.

- 6.2 The guidelines confirm the difficulty imposed by this requirement and acknowledge that it will not always be possible to achieve for all living spaces. For larger developments of flats, especially those with site constraints, it may not be feasible for every living room to face within 90° of south.
- 6.3 The guidelines then provide an example of a carefully designed layout for a relatively small block, where four out of five flats have south-facing living rooms, while one faces north and receives no sunlight at all. Based on this layout and its results, we can conclude that an 80% pass rate is considered indicative of careful layout design.

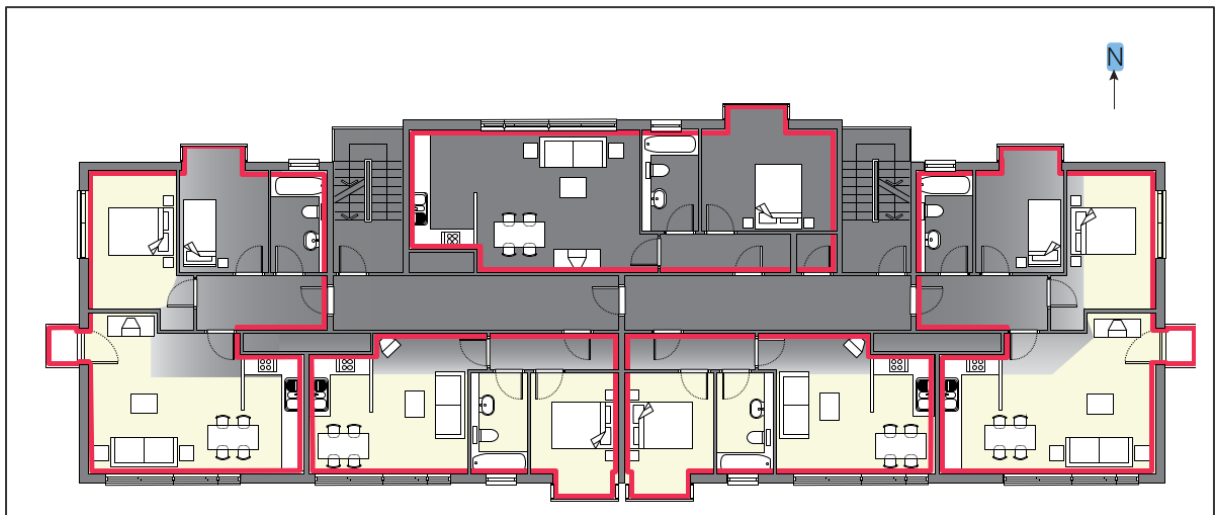


Figure 6.1: Careful layout design means that four out of the five flats shown have a south-facing living room (Source – BRE 'Site Layout Planning for Daylight and Sunlight', 2022)

Sunlight- Results of the calculations for the proposed development

- 6.4 The BRE guidance requires that access to sunlight be considered and that sunlight availability be maximized without overheating the space. The guidance recommends that at least one main window wall faces within 90° of due south, and a habitable room, preferably the main living room, should receive a total of at least 1.5 hours of sunlight on 21 March, where possible.
- 6.5 The sunlight assessment confirms that all the windows of habitable rooms, which are within 90° of due south, receive at least 1.5 hours of direct sunlight on 21 March.
- 6.6 Windows facing more than 90° from due south are not expected to meet BRE criteria and are therefore excluded from the sunlight analysis.

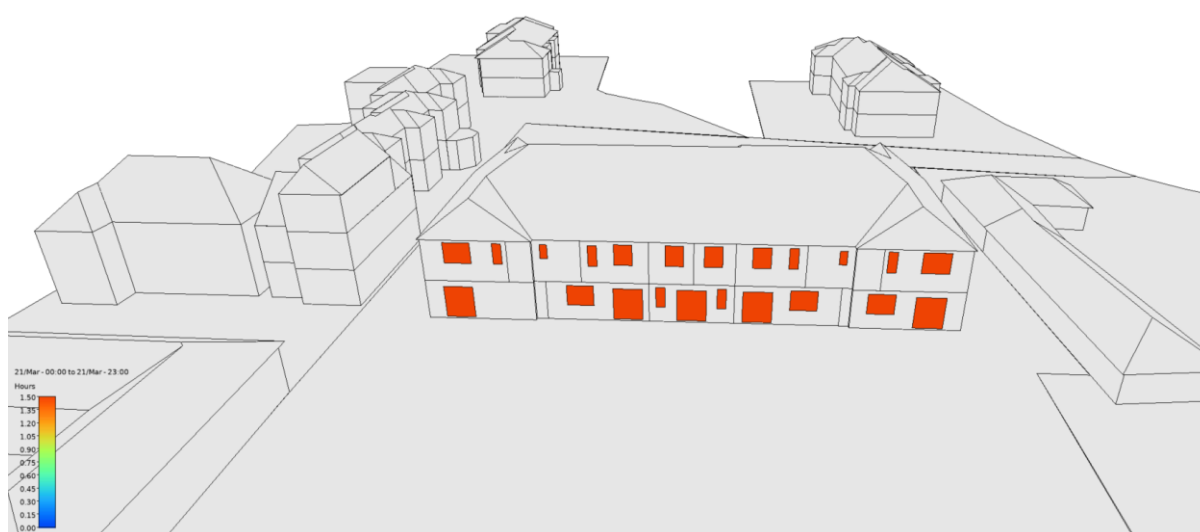


Figure 6.2: South elevation

- 6.7 The image above (taken from the south) shows the living spaces of the proposed development. As indicated, openings that receive at least 1.5 hours of sunlight on March 21 are highlighted in red. These openings will be adequately sunlit, in line with the BRE 209 2022 guidance. Other openings, shown in yellow, green, and blue, do not meet the BRE's recommended threshold of at least 1.5 hours of sunlight on March 21.

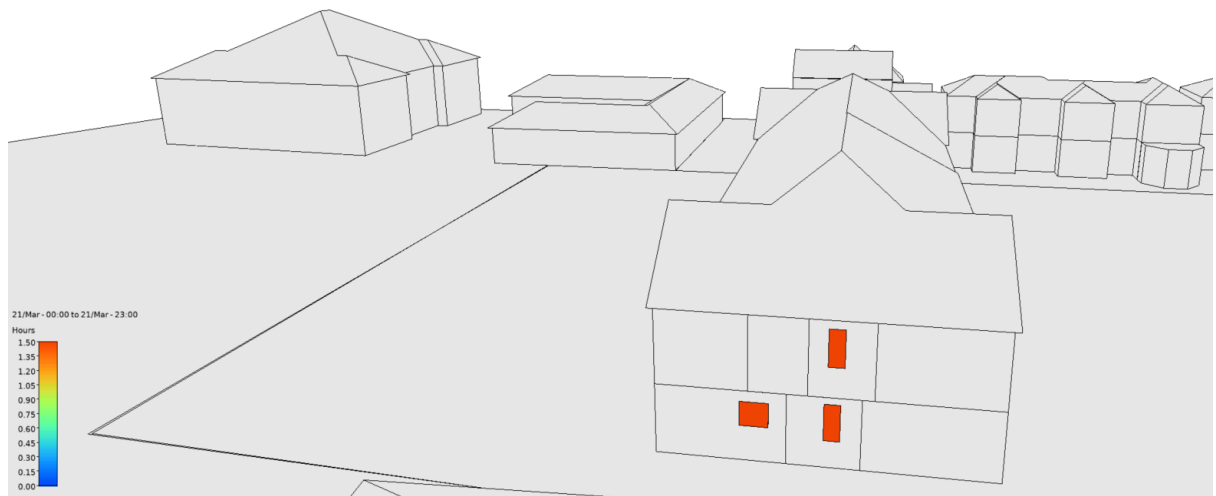


Figure 6.3: East elevation

- 6.8 The image above (taken from the east) shows the living spaces of the proposed development. As indicated, openings that receive at least 1.5 hours of sunlight on March 21 are highlighted in red. These openings will be adequately sunlit, in line with the BRE 209 2022 guidance. Other openings, shown in yellow, green, and blue, do not meet the BRE's recommended threshold of at least 1.5 hours of sunlight on March 21.

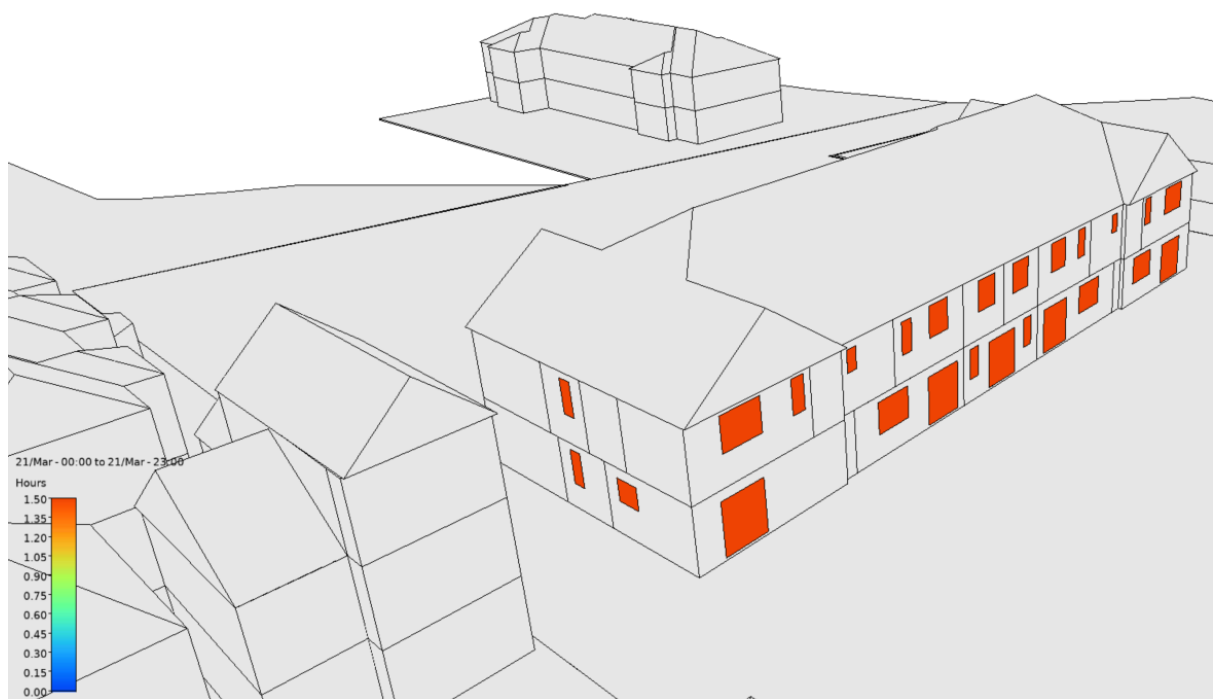


Figure 6.4: West Elevation

- 6.9 The image above (taken from the west) shows the living spaces of the proposed development. As indicated, openings that receive at least 1.5 hours of sunlight on March 21 are highlighted in red. These openings will be adequately sunlit, in line with the BRE 209 2022 guidance. Other openings, shown in yellow, green, and blue, do not meet the BRE's recommended threshold of at least 1.5 hours of sunlight on March 21.

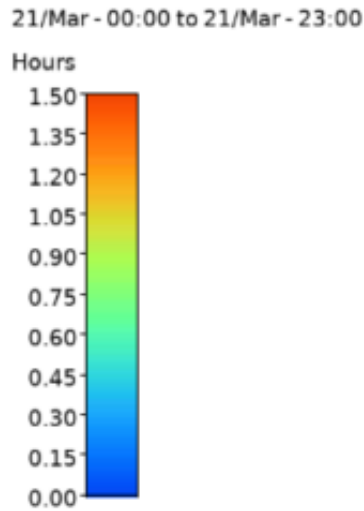


Figure 6.5: Gradient Scale

Sunlight- Results for Neighbouring Buildings

30 Dog Kennel Lane:

- 6.10 The sunlight assessment results confirm that all 6 windows of 30 Dog Kennel Lane meet the '0.8 times the former value' criterion for both annual and winter sunlight levels, in accordance with BRE guidance. The results table for all assessed windows is provided in Appendix C.

124-126 King James Way:

- 6.11 The sunlight assessment results confirm that all 14 windows of 124-126 King James Way meet the '0.8 times the former value' criterion for both annual and winter sunlight levels, in accordance with BRE guidance. The results table for all assessed windows is provided in Appendix C.

3-11 King James Way:

- 6.12 The sunlight assessment results confirm that all 13 windows of 3-11 King James Way meet the '0.8 times the former value' criterion for both annual and winter sunlight levels, in accordance with BRE guidance. The results table for all assessed windows is provided in Appendix C.

Hunter Mews:

- 6.13 The sunlight assessment results confirm that 16 out of 21 windows at Hunter Mews meet the '0.8 times the former value' criterion for annual sunlight access, in accordance with BRE guidance. For the winter period, 13 out of 21 windows meet this criterion. The assessment of the existing conditions indicates that these windows already receive a very limited amount of sunlight during both the annual and winter periods—well below the levels recommended by the BRE. This suggests that the building was not originally designed with optimal sunlight access in mind, and there is limited scope to maintain or enhance existing sunlight levels. As such, any additional reduction in sunlight is expected to have a negligible impact on occupant comfort and is unlikely to be perceptible. Full results for all assessed windows are provided in Appendix C.

Category	Number of Windows	Pass/Fail (%)
Total Assessed Windows	54	—
Annual Sunlight Hours		
- Pass (≥ 0.80 of former value)	49	91%
- Fail (< 0.80 of former value)	05	09%
Winter Sunlight Hours		
- Pass (≥ 0.80 of former value)	46	85%
- Fail (< 0.80 of former value)	08	15%

Table 6.1: Results APSH- Existing Development

- 6.14 It can be concluded that the proposed development will have no significant impact on the neighbouring buildings' access to sunlight.

Over-shading of Gardens and Open Spaces

- 6.15 According to the BRE guide, the availability of sunlight should also be checked for all open spaces “where it will be required”. It suggests that assessments should include:
- Main, back gardens of a house;
 - Parks and playing fields;
 - Sitting out areas, such as those in public squares;
 - Other areas e.g., children’s playgrounds, paddling pools, fountains etc.
- 6.16 Following a review of the surrounding area and outdoor spaces near the proposed development, it has been concluded that the relevant outdoor amenity spaces in close proximity include those associated with nearby residential properties—Hunter Mews, 30 Dog Kennel Lane, 124–126 King James Way, and 3–11 King James Way—as well as non-residential properties such as Banyers House and 16 Melbourn Street. These amenity areas have been assessed in accordance with the BRE Guidelines for Daylight and Sunlight (2022) to ensure they receive adequate levels of sunlight.

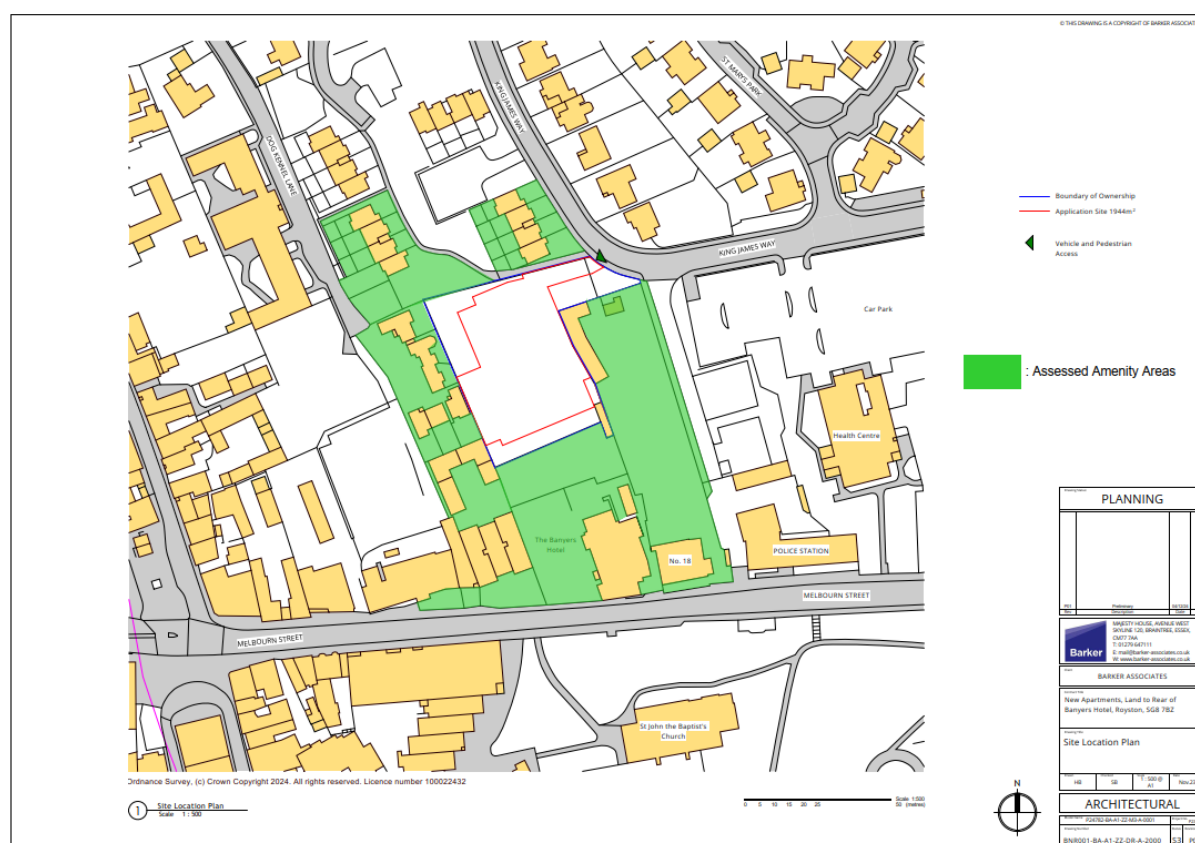


Figure 6.6: Assessed Amenity areas

- | | |
|------|---|
| 6.17 | The BRE guide further recommends that "as a check (...) at least half of the amenity areas listed above should receive at least two hours of sunlight on 21 March." |
| 6.18 | Based on the hourly images for the spring equinox, it is clear that the shade created by the proposed development does not affect the assessed area. Please refer to Appendix D for the shading images. |

7.0 CONCLUSION

- 7.1 This assessment has been undertaken following the guidance given in the Building Research Establishment's (BRE) Publication 'Site Layout Planning for Daylight and Sunlight'.
- 7.2 The daylight assessment for all habitable room windows within the proposed development at Land To The Rear Of Banyers Hotel confirms that 96% of windows achieve an adequate level of daylight, with a VSC greater than 27%. The remaining 4% of windows, with a VSC between 15% and 27%, are considered generally acceptable for urban developments of this nature.
- 7.3 Regarding sunlight, the assessment demonstrates that all living rooms within the proposed development that have windows facing within 90° of due south receive the required minimum of 1.5 hours of direct sunlight on 21 March, in accordance with BRE guidelines.
- 7.4 The proposed development is assessed to have no significant impact on the daylight and sunlight levels of neighbouring residential buildings. The findings indicate compliance with BRE standards:
- Daylight (VSC): The VSC analysis indicates that 91% of the windows assessed meet the BRE guideline of retaining at least 0.80 times their former VSC value. This suggests that the daylight levels for the majority of neighbouring properties remain within acceptable limits, with no noticeable reduction.
 - Some windows at Hunter Mews fall below the BRE guideline of retaining at least 0.8 times their former VSC values. However, they still receive adequate daylight, with VSC values remaining above 20% in the proposed scenario. Therefore, the reduction in daylight is unlikely to be noticeable or to affect the occupants' comfort.
 - Sunlight (APSH): The sunlight analysis shows that 91% of the windows receive at least 0.80 of their former annual sunlight value, and 85% of the windows receive at least 0.80 of their former sunlight value during the winter months (21 September to 21 March), which also complies with the BRE criteria for sunlight access.
 - A few windows fall below the BRE thresholds; however, these windows already receive low levels of sunlight under existing conditions, well below the BRE targets. Therefore, any further reduction in sunlight is unlikely to be noticeable to occupants or affect their comfort.
- 7.5 The neighbouring amenity areas have been assessed to determine the level of sunlight received by the external spaces. It has been found that areas of relevance will not be affected by the proposed development.
- 7.6 It is concluded that the proposed development will have no significant impact on the neighbouring buildings.

8.0 DISCLAIMER

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APPENDICES

APPENDIX A

VSC for the Proposed Building

Num	Zone	Surface	Opening	VSC		Status	Location Description
				VSC			
1	GF000001	2	0	16.84		Marginal Pass	
2	GF000000	4	0	36.27		Pass	
3	GF000000	5	0	19.53		Marginal Pass	
4	GF000002	2	0	35.67		Pass	
5	GF000004	2	0	37		Pass	
6	GF000005	2	0	36.6		Pass	
7	GF000005	4	0	36.59		Pass	
8	GF000006	2	0	37.2		Pass	
9	GF000006	2	1	37.4		Pass	
10	GF000007	2	0	33.92		Pass	
11	GF000007	3	0	37.08		Pass	
12	GF000007	3	1	37.43		Pass	
13	GF000007	3	2	37.33		Pass	
14	GF000003	2	0	33.29		Pass	
15	GF000009	2	0	36.75		Pass	
16	GF00000A	2	0	37.31		Pass	
17	GF00000A	2	1	37.69		Pass	
18	GF00000B	2	0	34.35		Pass	
19	GF00000B	3	0	37.25		Pass	
20	GF00000B	3	1	37.55		Pass	
21	GF00000C	2	0	33.97		Pass	
22	GF000008	2	0	37.1		Pass	
23	GF00000D	2	0	37.53		Pass	
24	GF00000D	4	0	37.46		Pass	
25	FF000005	3	0	38.23		Pass	
26	FF000001	1	0	37.34		Pass	
27	FF000002	2	0	24.64		Marginal Pass	
28	FF000003	2	0	39.33		Pass	
29	FF000000	3	0	37.42		Pass	
30	FF000000	3	1	37.65		Pass	
31	FF000004	5	0	38.42		Pass	
32	FF000004	5	1	37.67		Pass	
33	FF000006	2	0	31.11		Pass	
34	FF000006	2	1	30.75		Pass	
35	FF000008	2	0	38.37		Pass	
36	FF000008	2	1	38.28		Pass	
37	FF000009	2	0	38.32		Pass	
38	FF00000A	3	0	37.39		Pass	
39	FF00000A	3	1	37.72		Pass	
40	FF00000B	2	0	37.54		Pass	
41	FF00000B	2	1	37.33		Pass	
42	FF000007	2	0	38.13		Pass	
43	FF000007	2	1	37.93		Pass	
44	FF00000C	2	0	32.64		Pass	
45	FF00000C	2	1	32.37		Pass	
46	FF00000D	5	0	37.15		Pass	
47	FF00000D	6	0	37.99		Pass	
48	FF00000D	7	0	37.33		Pass	

Total Assessed Windows:	48		
VSC Pass	46	96%	100.0%
VSC Marginal Fail (Pass2: VSC>15)	2	4%	
VSC Fail	0		0.0%

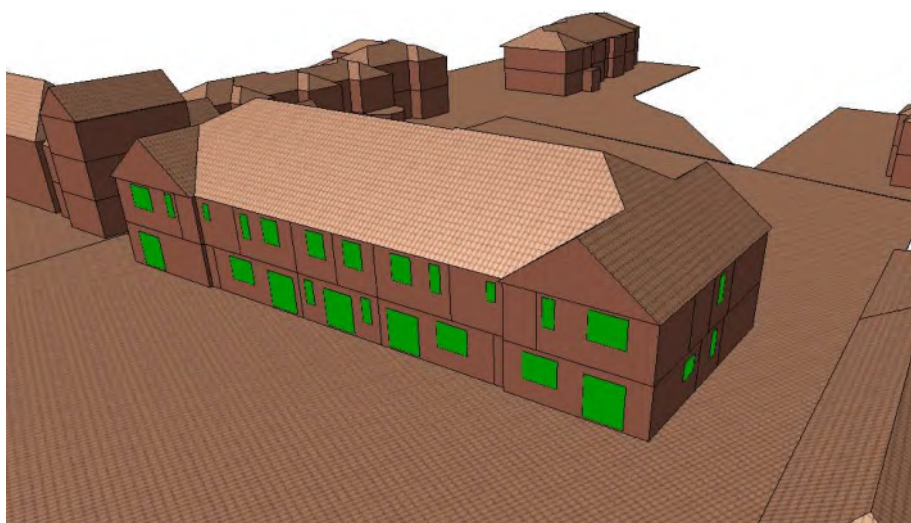


Figure A1: South Elevation (Windows in green indicate VSC > 27%, windows in red indicate VSC between 15% and 27%)

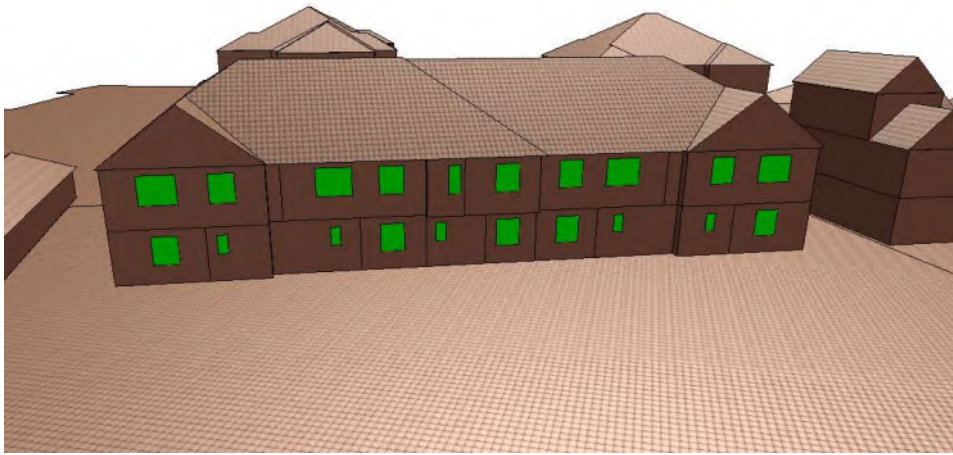


Figure A2: North Elevation (Windows in green indicate VSC > 27%, windows in red indicate VSC between 15% and 27%)

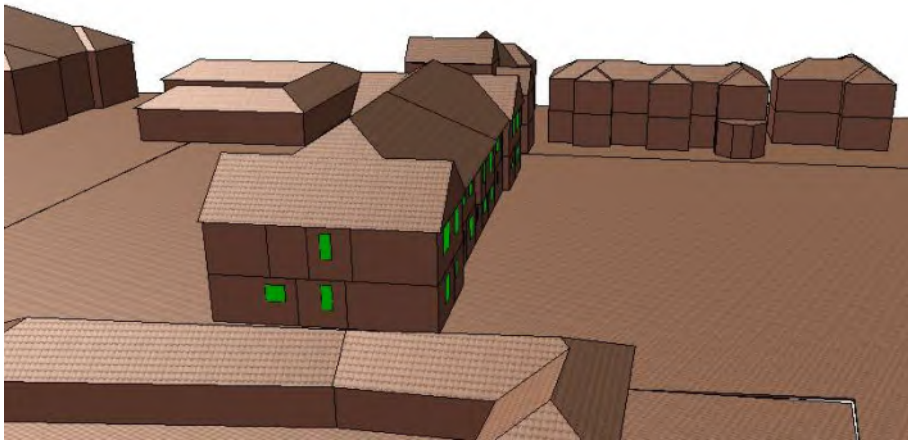


Figure A3: East Elevation (Windows in green indicate VSC > 27%, windows in red indicate VSC between 15% and 27%)

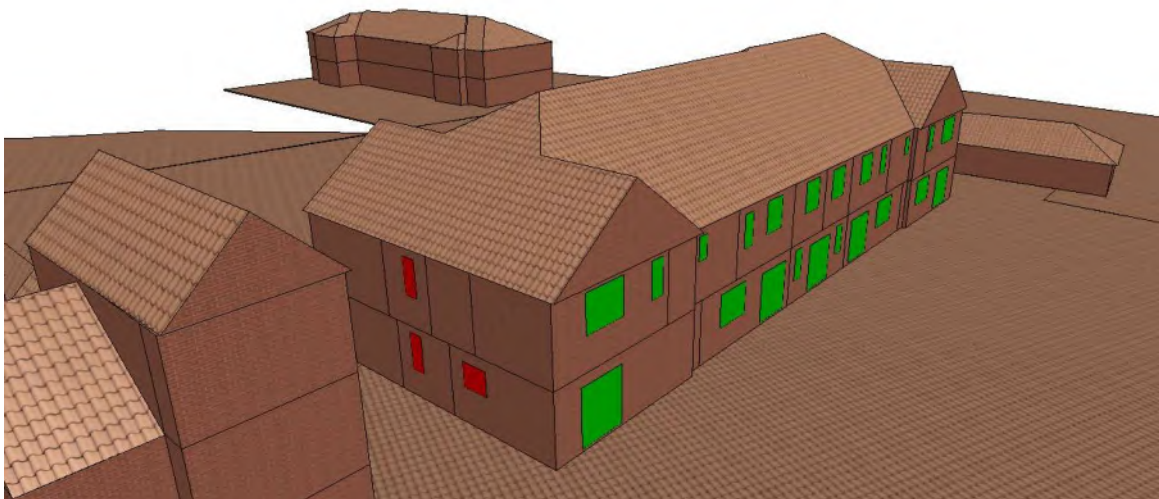


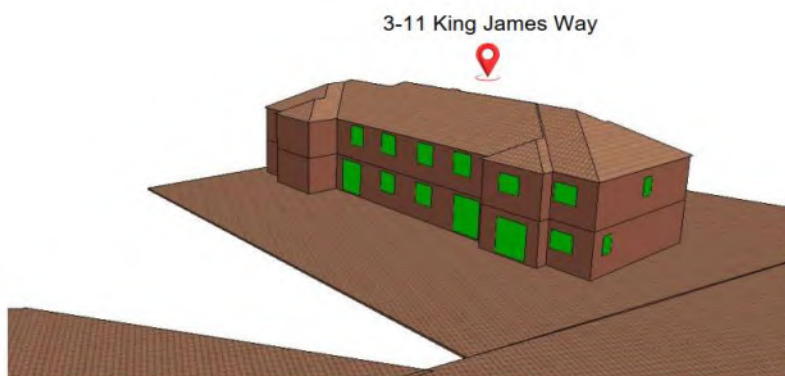
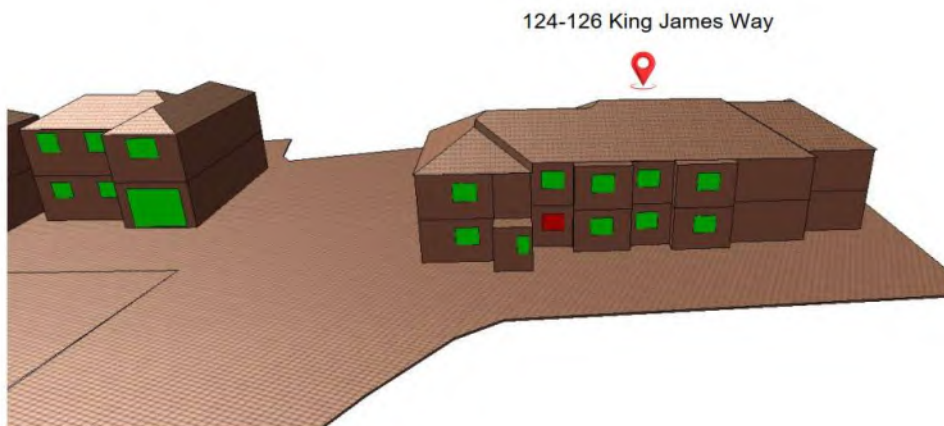
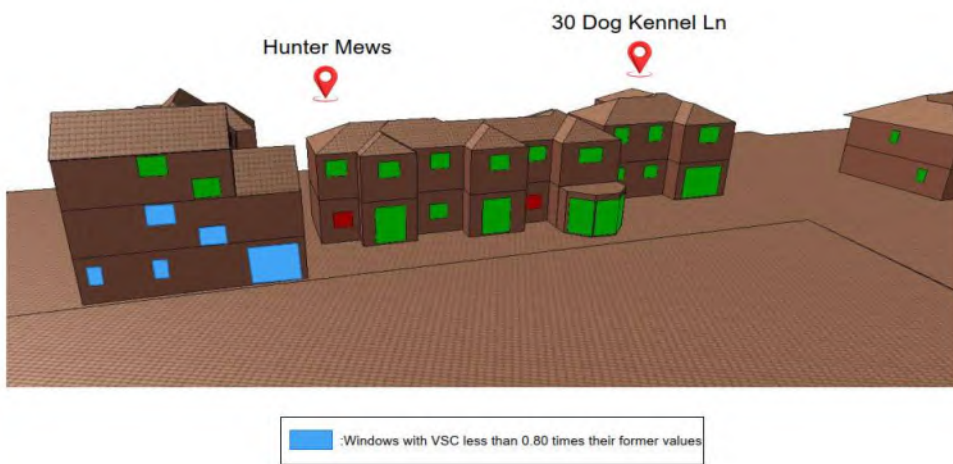
Figure A4: West Elevation (Windows in green indicate VSC > 27%, windows in red indicate VSC between 15% and 27%)

APPENDIX B

VSC for Neighbouring Buildings

	Number	Zone	Surface	Opening	VSC Before	VSC After	% Reduction	Pass/Fail	Location Description
Hunter Mews	1	GF00000E	2	0	38.19	23.63	38%	FAIL	Ground Floor- Hunter Mews
	2	GF00000E	2	1	38.22	24.43	36%	FAIL	
	3	GF00000E	2	2	38.3	21.77	43%	FAIL	
	4	GF00000F	2	0	24.09	21.45	11%	PASS	
	5	GF00000F	4	0	36.3	32.2	11%	PASS	
	6	GF00000F	6	0	31.31	28.29	10%	PASS	
	7	GF00000F	8	0	37.72	34.87	8%	PASS	
	8	GF00000F	10	0	22.94	21.98	4%	PASS	
	9	FF00000F	3	0	39.05	33.19	15%	PASS	
	10	FF00000F	3	1	39.18	36.17	8%	PASS	
30 Dog kennel Lane	11	GF000010	2	0	37.41	36.97	1%	PASS	
	12	GF000010	4	0	29.79	29.25	2%	PASS	
	13	GF000010	4	1	31	30.66	1%	PASS	
	14	FF000012	2	0	38.84	38.23	2%	PASS	
	15	FF000012	4	0	35.65	34.96	2%	PASS	
	16	FF000012	4	1	36.58	36.77	-1%	PASS	
Hunter Mews	17	GF000011	2	0	32.03	30.69	4%	PASS	
	18	GF000011	4	0	38.26	36.34	5%	PASS	
	19	GF000011	6	0	35.8	33.97	5%	PASS	
	20	GF000011	8	0	38.93	37.66	3%	PASS	
	21	GF000011	10	0	31.42	30.56	3%	PASS	
	22	GF000011	12	0	39.04	37.99	3%	PASS	
	23	GF000012	3	0	36.79	36.79	0%	PASS	
	24	GF000012	4	0	38.1	36.14	5%	PASS	
	25	GF000012	5	0	35.19	32.05	9%	PASS	
	26	GF000013	2	0	38.68	25.6	34%	FAIL	1st Floor- Hunter Mews
	27	GF000013	2	1	39	29.54	24%	FAIL	
3-11 King James Way	28	FF000013	17	0	38.03	36.35	4%	PASS	
	29	FF000013	18	0	31.4	31.12	1%	PASS	
	30	FF000013	20	0	37.19	36.36	2%	PASS	
	31	FF000013	22	0	36.64	36.26	1%	PASS	
	32	FF000013	22	1	37.31	36.97	1%	PASS	
	33	FF000013	22	2	29.51	29.51	0%	PASS	
	34	FF000013	22	3	35.65	35.55	0%	PASS	
124-126 King James Way	35	FF000014	6	0	38.35	38.33	0%	PASS	
	36	FF000014	8	0	32.97	32.42	2%	PASS	
	37	FF000014	10	0	37.36	37.77	-1%	PASS	
	38	FF000014	12	0	25.03	25.09	0%	PASS	
	39	FF000014	14	0	37.99	37.89	0%	PASS	
	40	FF000014	16	0	35.58	35.03	2%	PASS	
	41	FF000014	17	0	35.84	34.98	2%	PASS	
	42	FF000015	17	0	38.43	37.78	2%	PASS	
3-11 King James Way	43	FF000015	18	0	33.5	33.02	1%	PASS	
	44	FF000015	20	0	38.2	37.88	1%	PASS	
	45	FF000015	22	0	36.38	36.21	0%	PASS	
	46	FF000015	22	1	38.06	37.69	1%	PASS	
	47	FF000015	22	2	38.03	38.03	0%	PASS	
	48	FF000015	22	3	37.92	37.49	1%	PASS	
124-126 King James Way	49	FF000016	6	0	39.03	39.09	0%	PASS	
	50	FF000016	8	0	34.88	35.04	0%	PASS	
	51	FF000016	10	0	38.98	38.62	1%	PASS	
	52	FF000016	12	0	31.15	31.23	0%	PASS	
	53	FF000016	14	0	38.81	38.46	1%	PASS	
	54	FF000016	15	0	36.98	36.96	0%	PASS	

Total Number of Windows Assessed:	54	
Windows Receiving More Than 0.80 of their Former Value	49	91%
Windows Receiving Less Than 0.80 of their Former Value	5	9%



APPENDIX C

APSH for Neighbouring Buildings

	Opening	Zone	Surface	Area	Azimuth	Annual Before	Winter Before	Annual After	Winter After	Annual % Reduction	Winter % Reduction	Annual Pass/Fail	Winter Pass/Fail
Hunter Mews	1	GF00000E	2	5.04	90	16.67	0.69	9.91	0	41%	100%	FAIL	FAIL
	2	GF00000E	2	0.6	90	16.67	0.69	14.01	0.69	16%	0%	PASS	PASS
	3	GF00000E	2	0.6	90	16.66	0.69	10.71	0.69	36%	0%	FAIL	PASS
	4	GF00000F	2	1.1	90	7.06	0	4.32	0	39%	0%	FAIL	PASS
	5	GF00000F	4	4.32	90	15.39	0.41	12.56	0	18%	100%	PASS	FAIL
	6	GF00000F	6	1.1	90	10.14	0.44	8.68	0	14%	100%	PASS	FAIL
	7	GF00000F	8	4.32	90	16.67	0.69	15.3	0	8%	100%	PASS	FAIL
	8	GF00000F	10	1.1	90	5.96	0	5.96	0	0%	0%	PASS	PASS
	9	FF00000F	3	1.2	90	15.59	0.69	13.42	0.69	14%	0%	PASS	PASS
	10	FF00000F	3	1.2	90	13.52	0.69	12.45	0.69	8%	0%	PASS	PASS
30 Dog Kennel Ln	11	GF000010	2	7.2	90	16.52	0.69	16.3	0.48	1%	30%	PASS	FAIL
	12	GF000010	4	1.1	90	15.93	0.02	15.93	0.02	0%	0%	PASS	PASS
	13	GF000010	4	1.1	90	7.56	0	7.56	0	0%	0%	PASS	PASS
	14	FF000012	2	1.92	90	16.67	0.69	16.67	0.69	0%	0%	PASS	PASS
	15	FF000012	4	1.32	90	16.59	0.62	16.59	0.62	0%	0%	PASS	PASS
	16	FF000012	4	1.32	90	16.01	0.04	16.01	0.04	0%	0%	PASS	PASS
Hunter Mews	17	GF000011	2	1.2	90	15.22	0	14.48	0	5%	0%	PASS	PASS
	18	GF000011	4	1.2	90	16.67	0.69	16.13	0.69	3%	0%	PASS	PASS
	19	GF000011	6	1.2	90	16.26	0.48	16.26	0.48	0%	0%	PASS	PASS
	20	GF000011	8	1.2	90	16.67	0.69	16.67	0.69	0%	0%	PASS	PASS
	21	GF000011	10	1.2	90	13.74	0	13.74	0	0%	0%	PASS	PASS
	22	GF000011	12	1.6	90	16.67	0.69	16.67	0.69	0%	0%	PASS	PASS
	23	GF000012	3	3.6	90	6.25	0	6.25	0	0%	0%	PASS	PASS
	24	GF000012	4	3.6	90	17.36	0.69	16.67	0	4%	100%	PASS	FAIL
	25	GF000012	5	3.6	90	21.12	1.49	20.42	0.8	3%	46%	PASS	FAIL
	26	GF000013	2	1.2	90	16.07	0.69	11.41	0.35	29%	49%	FAIL	FAIL
3-11 King James Way	27	GF000013	2	1.2	90	15.32	0.69	11.84	0.69	23%	0%	FAIL	PASS
	28	FF000013	17	0.7	90	32.64	3.47	32.64	3.47	0%	0%	PASS	PASS
	29	FF000013	18	1.2	90	27.26	2.78	27.26	2.78	0%	0%	PASS	PASS
	30	FF000013	20	3.6	90	31.61	2.78	31.61	2.78	0%	0%	PASS	PASS
	31	FF000013	22	1.62	90	30.56	2.78	30.56	2.78	0%	0%	PASS	PASS
	32	FF000013	22	1.62	90	30.08	2.3	30.08	2.3	0%	0%	PASS	PASS
	33	FF000013	22	3.96	90	25.38	2.78	25.38	2.78	0%	0%	PASS	PASS
	34	FF000013	22	3.96	90	27.23	1.63	27.23	1.63	0%	0%	PASS	PASS
	35	FF000014	6	1.2	90	14.76	0.69	14.76	0.69	0%	0%	PASS	PASS
	36	FF000014	8	1.2	90	7.96	0.29	7.96	0.29	0%	0%	PASS	PASS
124-126 King James Way	37	FF000014	10	1.2	90	15.11	0.55	15.11	0.55	0%	0%	PASS	PASS
	38	FF000014	12	1.2	90	3.05	0	3.05	0	0%	0%	PASS	PASS
	39	FF000014	14	0.6	90	15.28	0.69	15.28	0.69	0%	0%	PASS	PASS
	40	FF000014	16	1.2	90	14.46	0.69	14.46	0.69	0%	0%	PASS	PASS
	41	FF000014	17	0.6	90	31.22	3.47	31.22	3.47	0%	0%	PASS	PASS
	42	FF000015	17	0.7	90	31.15	3.47	31.15	3.47	0%	0%	PASS	PASS
	43	FF000015	18	1.2	90	26.51	2.34	26.51	2.34	0%	0%	PASS	PASS
	44	FF000015	20	1.2	90	30.16	2.39	30.16	2.39	0%	0%	PASS	PASS
	45	FF000015	22	1.62	90	26.4	2.08	26.4	2.08	0%	0%	PASS	PASS
	46	FF000015	22	1.62	90	29.31	2.08	29.31	2.08	0%	0%	PASS	PASS
3-11 King James Way	47	FF000015	22	1.62	90	29.31	2.08	29.31	2.08	0%	0%	PASS	PASS
	48	FF000015	22	1.63	90	29.22	2	29.22	2	0%	0%	PASS	PASS
	49	FF000016	6	1.2	90	15.28	0.69	15.28	0.69	0%	0%	PASS	PASS
	50	FF000016	8	1.2	90	11.77	0.29	11.77	0.29	0%	0%	PASS	PASS
	51	FF000016	10	1.2	90	15.97	0.69	15.97	0.69	0%	0%	PASS	PASS
	52	FF000016	12	1.2	90	9.61	0	9.61	0	0%	0%	PASS	PASS
	53	FF000016	14	1.2	90	14.08	0.69	14.08	0.69	0%	0%	PASS	PASS
	54	FF000016	15	0.6	90	30.66	3.47	30.66	3.47	0%	0%	PASS	PASS

Total Assessed Windows:	54	
Windows under 0.80 of its former value (Annual Pass)	49	91%
Windows over 0.80 of its former value (Annual Fail)	5	9%
Windows under 0.80 of its former value (Winter Pass)	46	85%
Windows over 0.80 of its former value (Winter Fail)	8	15%

APPENDIX D

Solar Shading Images for the Site

Land To The Rear Of Banyers Hotel
App D – Solar Shading Images



Figure D1: March 21st, 08:00

Land To The Rear Of Banyers Hotel
App D – Solar Shading Images



Figure D2: March 21st, 10:00

Land To The Rear Of Banyers Hotel
App D – Solar Shading Images



Figure D3: March 21st, 12:00

Land To The Rear Of Banyers Hotel
App D – Solar Shading Images



Figure D4: March 21st, 14:00

Land To The Rear Of Banyers Hotel
App D – Solar Shading Images

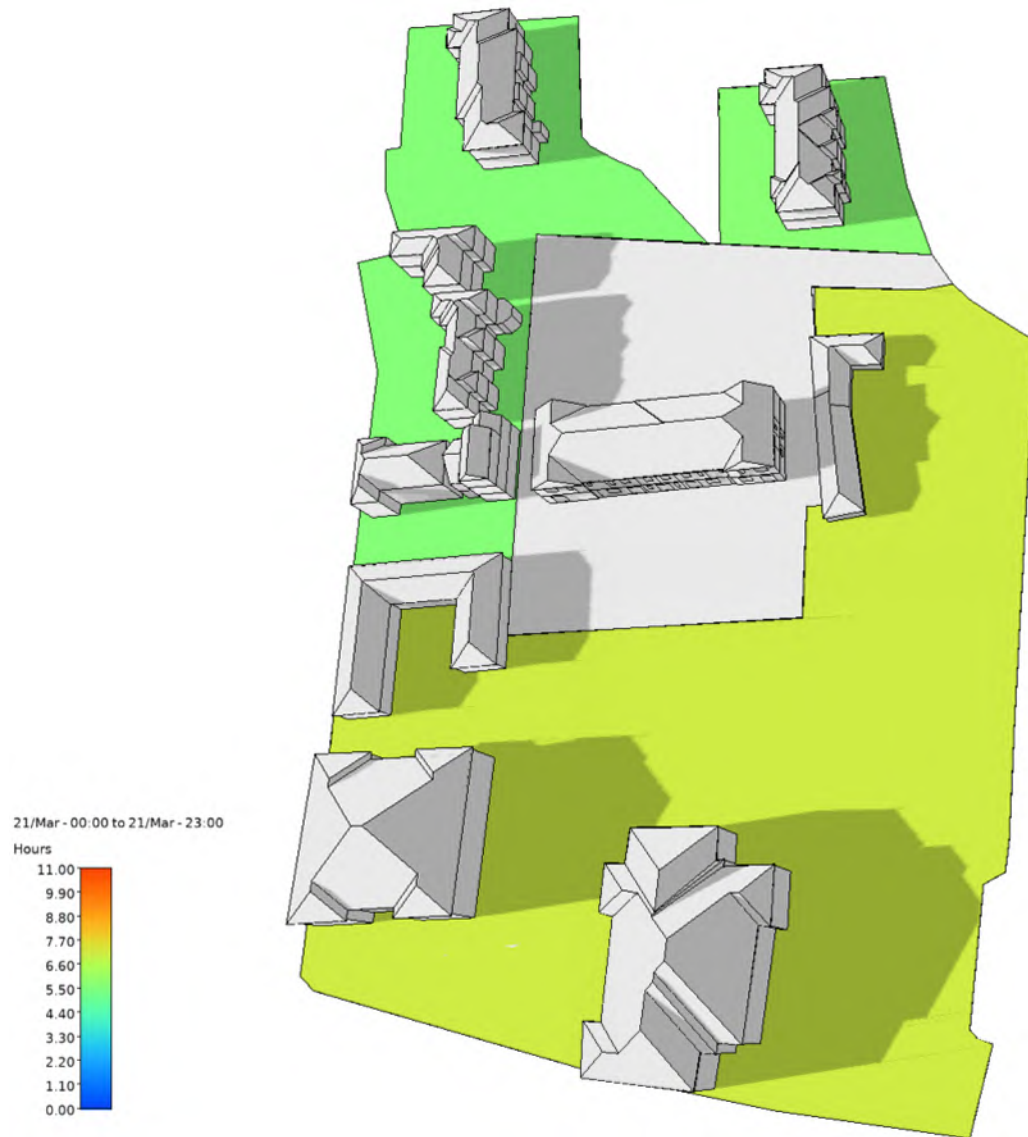


Figure D5: March 21st, 16:00

Land To The Rear Of Banyers Hotel
App D – Solar Shading Images

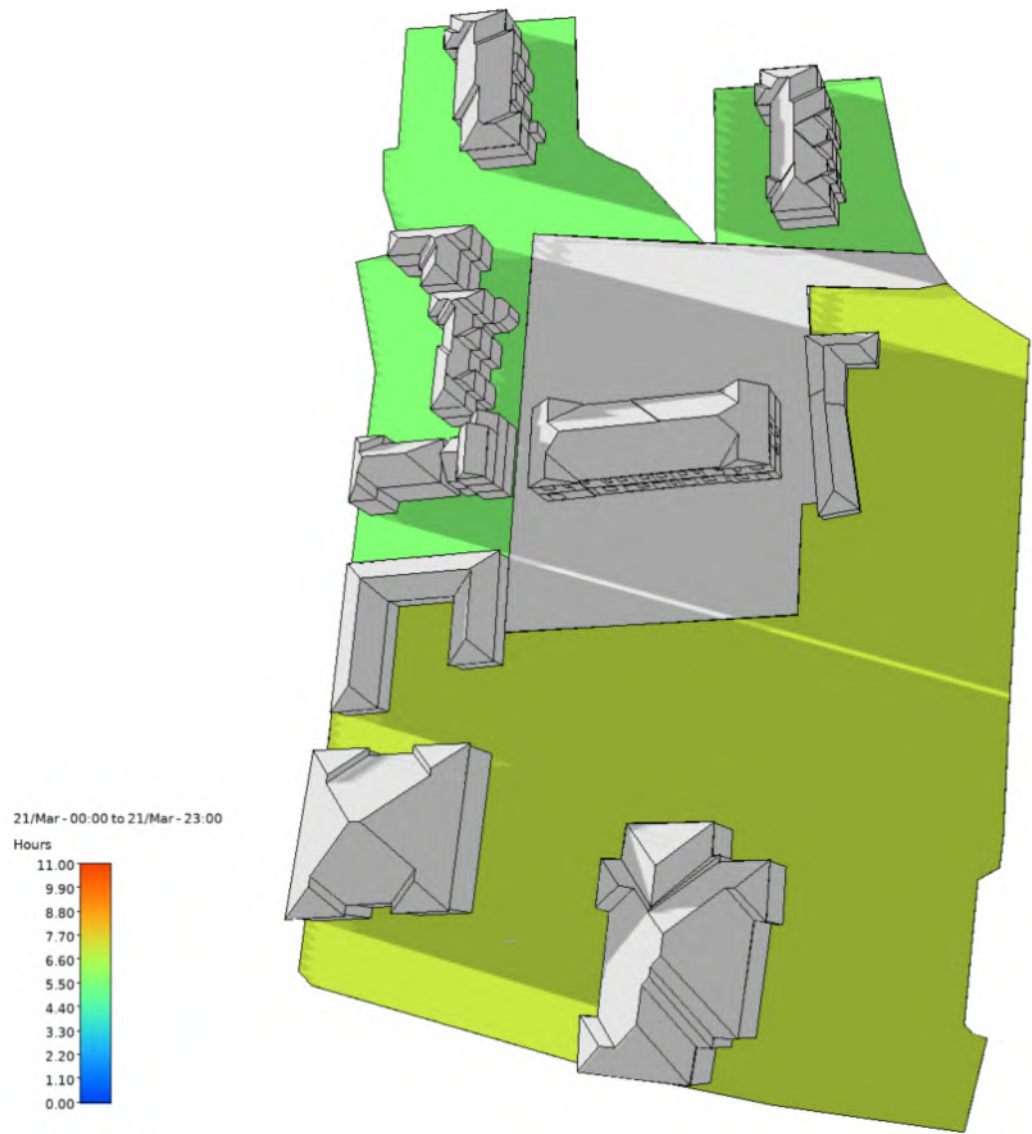


Figure D6: March 21st, 18:00

Figure D7: Assessed Amenity Areas



Land To The Rear Of Banyers Hotel

App D – Solar Shading Images

Suncast image:

View time = 21 Mar 06:00

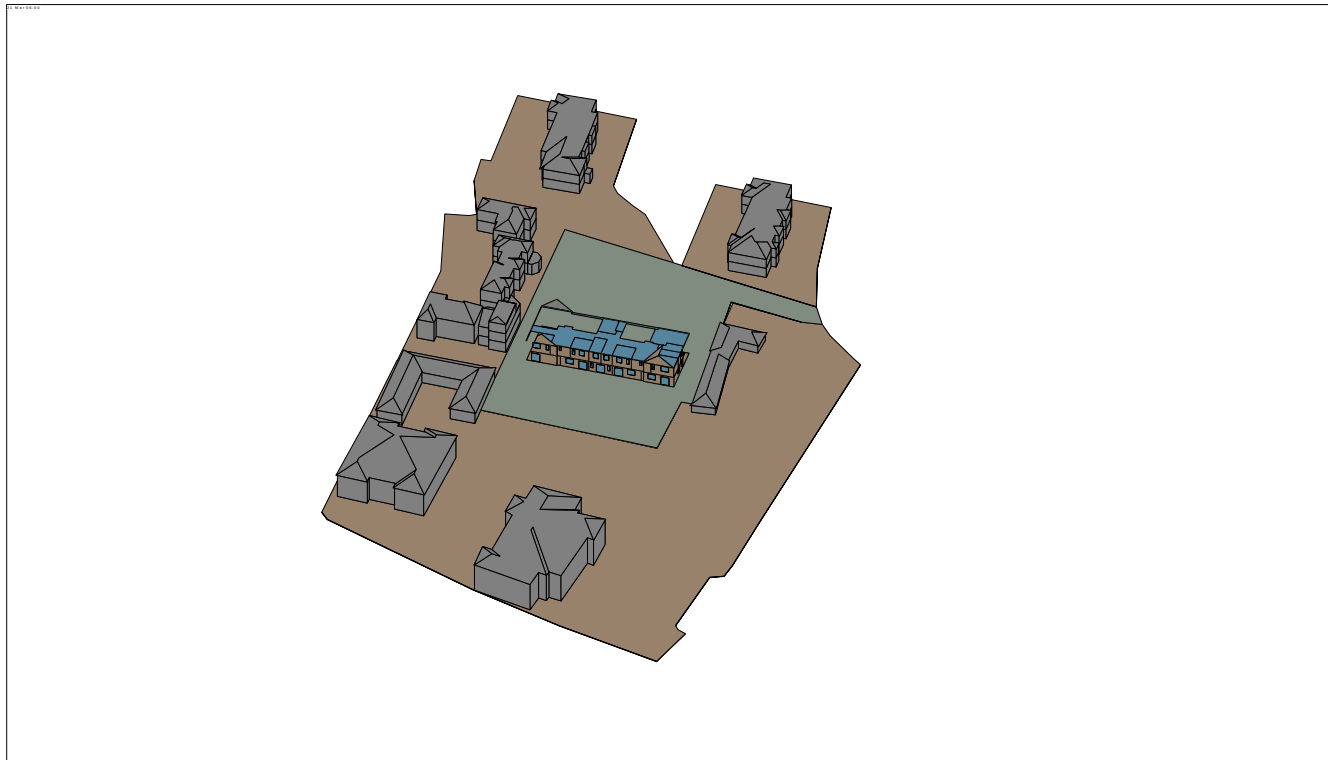
Site Latitude = 51.48

Longitude diff. = -0.45

Model Bearing = 0.00

Sun is not up

Eye: azi = 140.00 alt = 40.00



Land To The Rear Of Banyers Hotel

App D – Solar Shading Images

Suncast image:

View time = 21 Mar 07:00

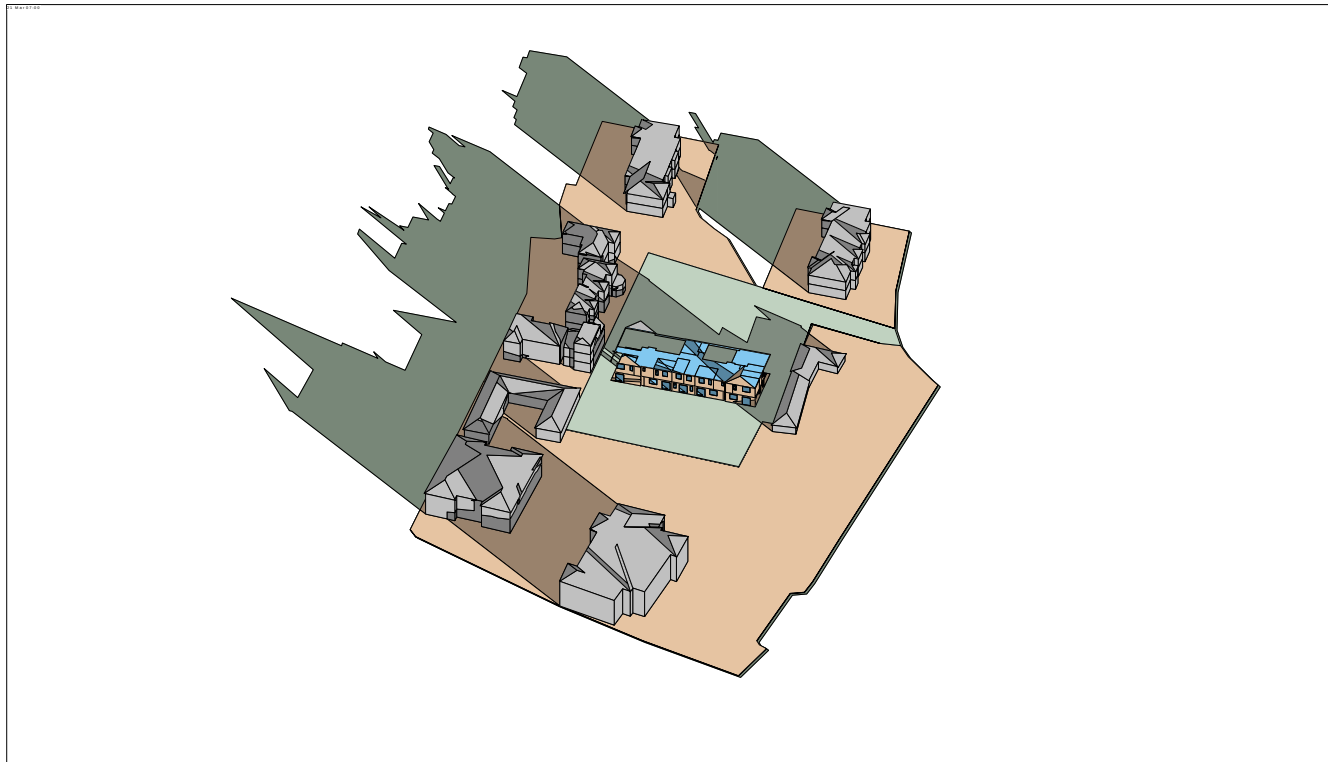
Site Latitude = 51.48

Longitude diff. = -0.45

Model Bearing = 0.00

Sun: azi = 100.16 alt = 7.48

Eye: azi = 140.00 alt = 40.00



Land To The Rear Of Banyers Hotel

App D – Solar Shading Images

Suncast image:

View time = 21 Mar 08:00

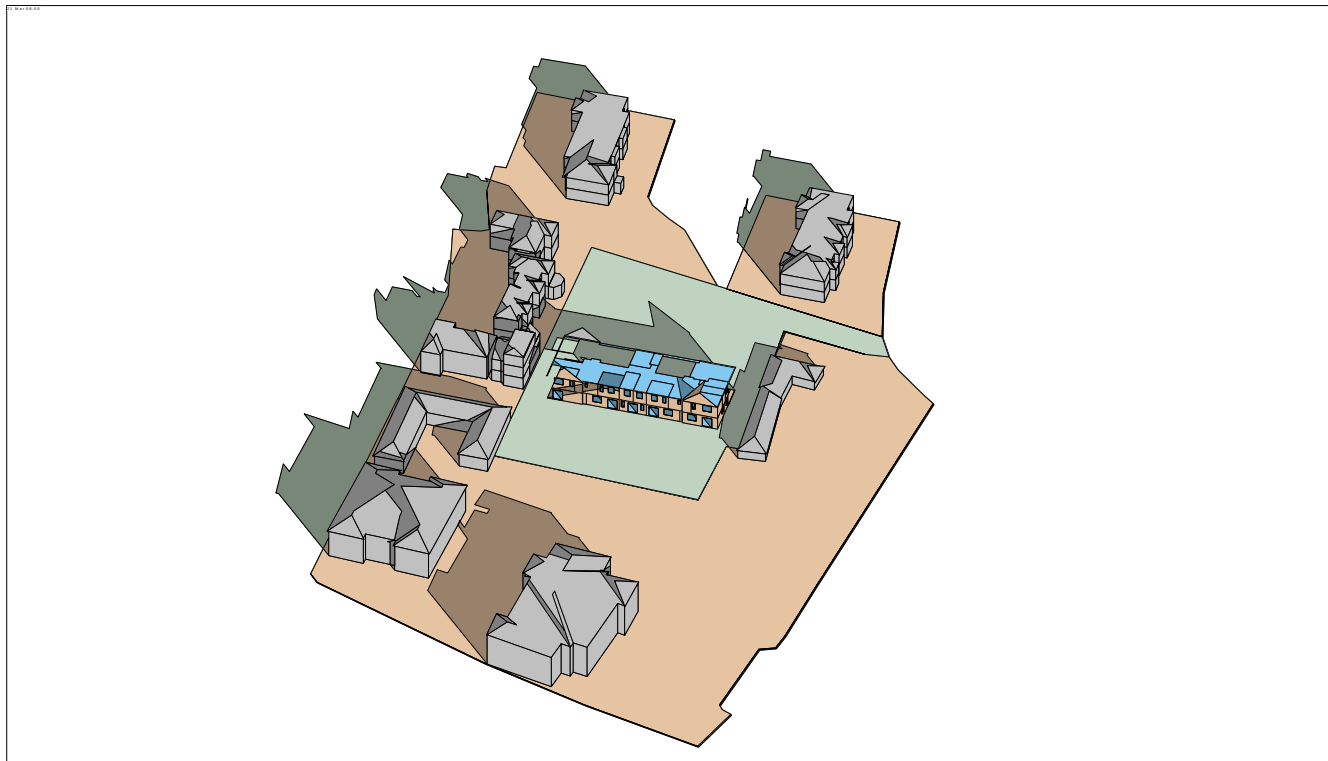
Site Latitude = 51.48

Longitude diff. = -0.45

Model Bearing = 0.00

Sun: azi = 112.48 alt = 16.43

Eye: azi = 140.00 alt = 40.00



Land To The Rear Of Banyers Hotel

App D – Solar Shading Images

Suncast image:

View time = 21 Mar 09:00

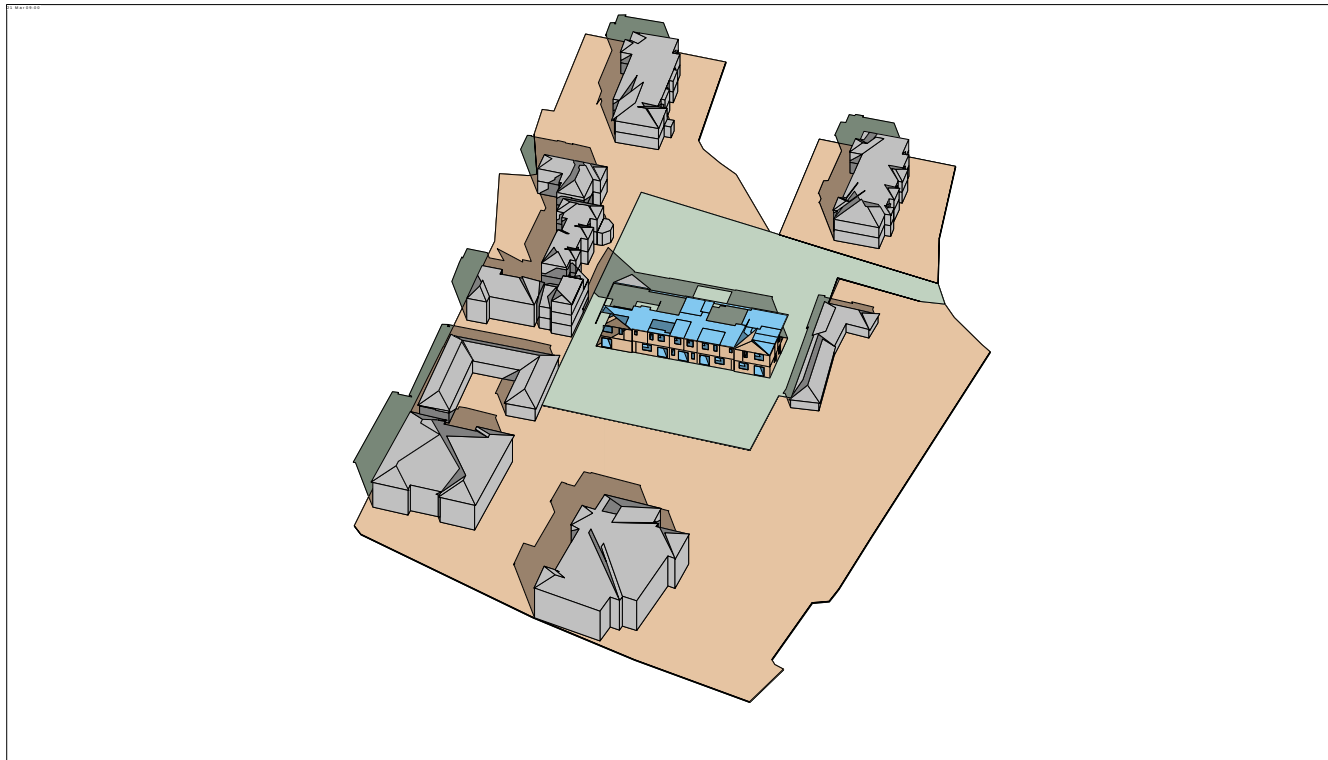
Site Latitude = 51.48

Longitude diff. = -0.45

Model Bearing = 0.00

Sun: azi = 125.95 alt = 24.58

Eye: azi = 140.00 alt = 40.00



Land To The Rear Of Banyers Hotel

App D – Solar Shading Images

Suncast image:

View time = 21 Mar 10:00

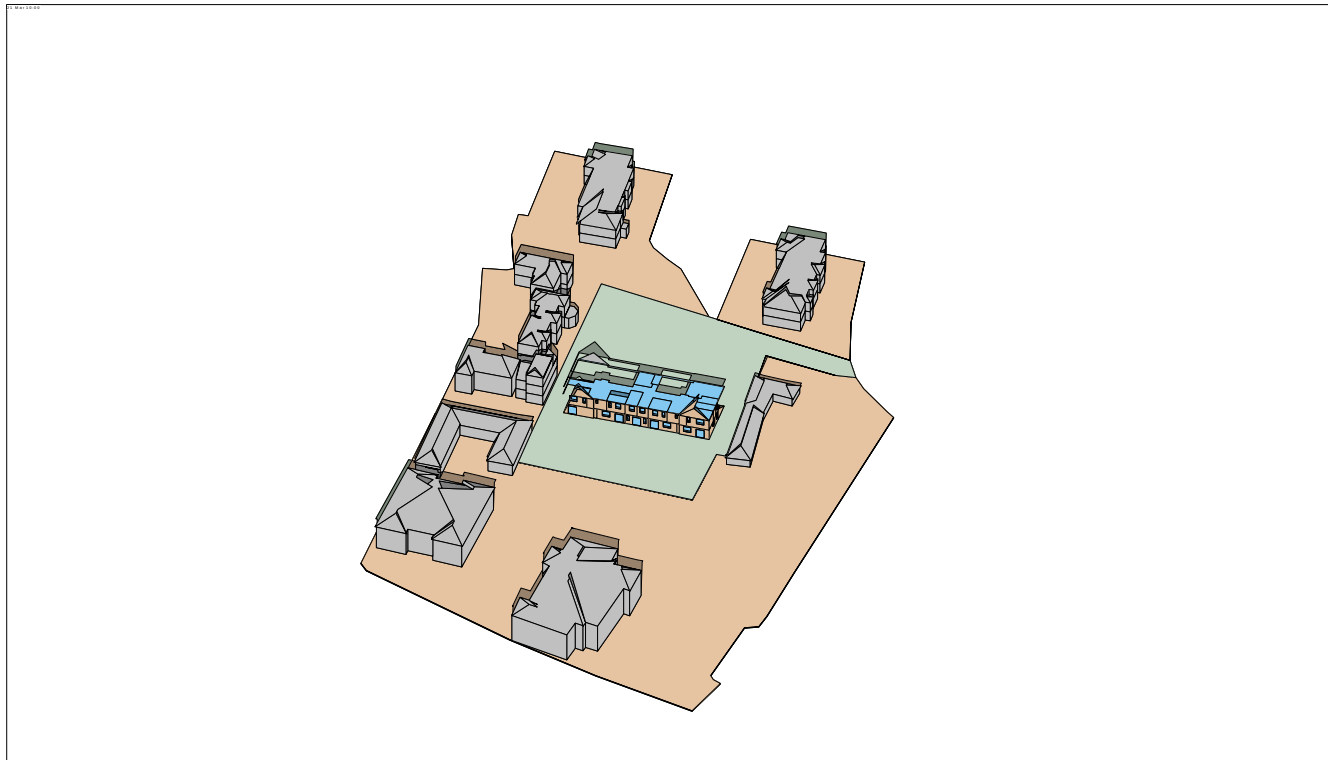
Site Latitude = 51.48

Longitude diff. = -0.45

Model Bearing = 0.00

Sun: azi = 141.13 alt = 31.35

Eye: azi = 140.00 alt = 40.00



Land To The Rear Of Banyers Hotel

App D – Solar Shading Images

Suncast image:

View time = 21 Mar 11:00

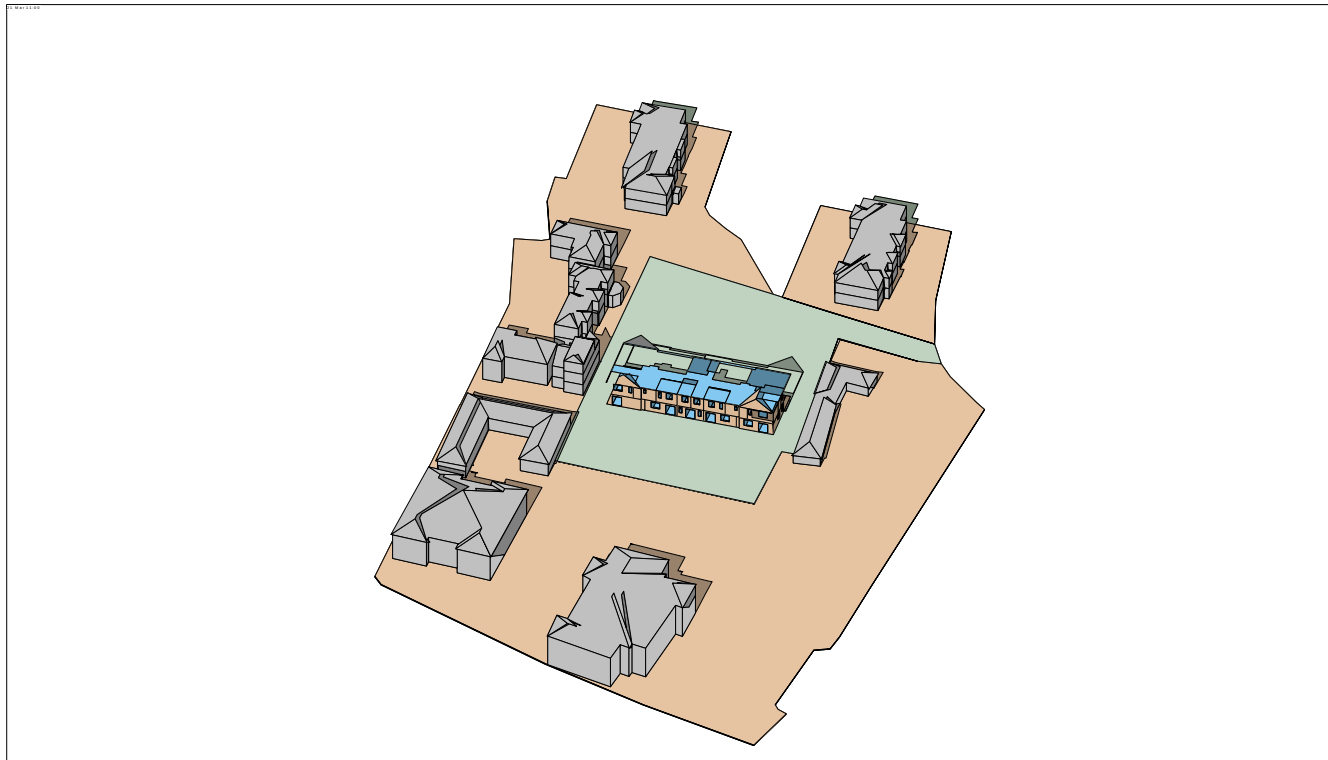
Site Latitude = 51.48

Longitude diff. = -0.45

Model Bearing = 0.00

Sun: azi = 158.28 alt = 36.06

Eye: azi = 140.00 alt = 40.00



Land To The Rear Of Banyers Hotel

App D – Solar Shading Images

Suncast image:

View time = 21 Mar 12:00

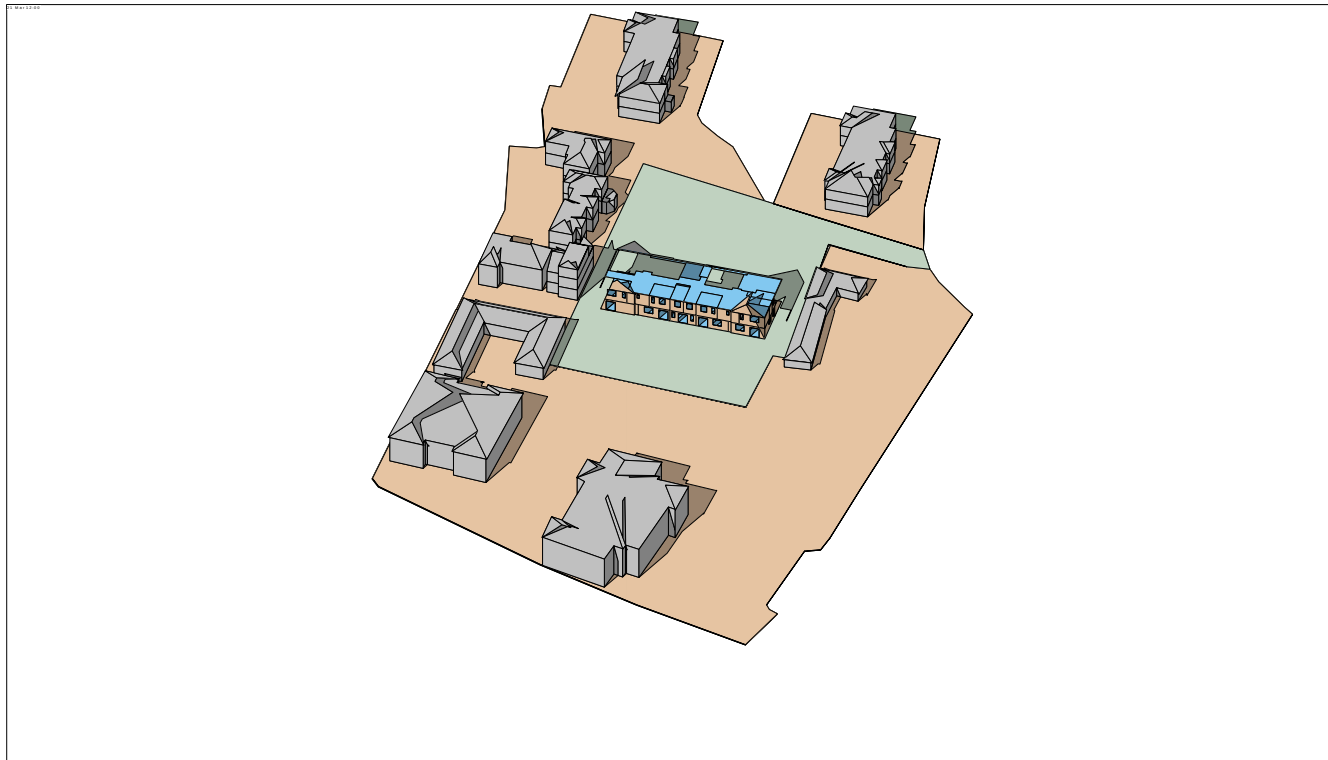
Site Latitude = 51.48

Longitude diff. = -0.45

Model Bearing = 0.00

Sun: azi = 176.94 alt = 38.07

Eye: azi = 140.00 alt = 40.00



Land To The Rear Of Banyers Hotel

App D – Solar Shading Images

Suncast image:

View time = 21 Mar 13:00

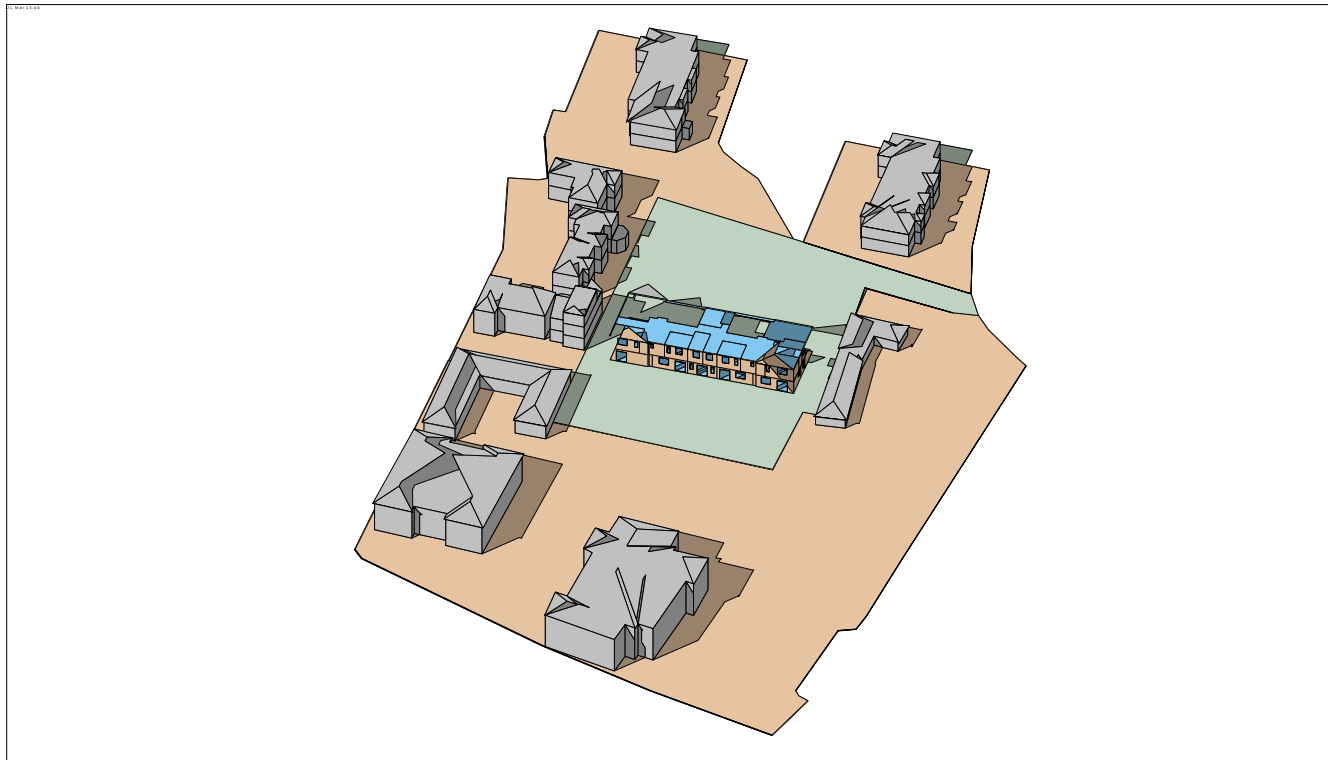
Site Latitude = 51.48

Longitude diff. = -0.45

Model Bearing = 0.00

Sun: azi = 195.84 alt = 37.03

Eye: azi = 140.00 alt = 40.00



Land To The Rear Of Banyers Hotel

App D – Solar Shading Images

Suncast image:

View time = 21 Mar 14:00

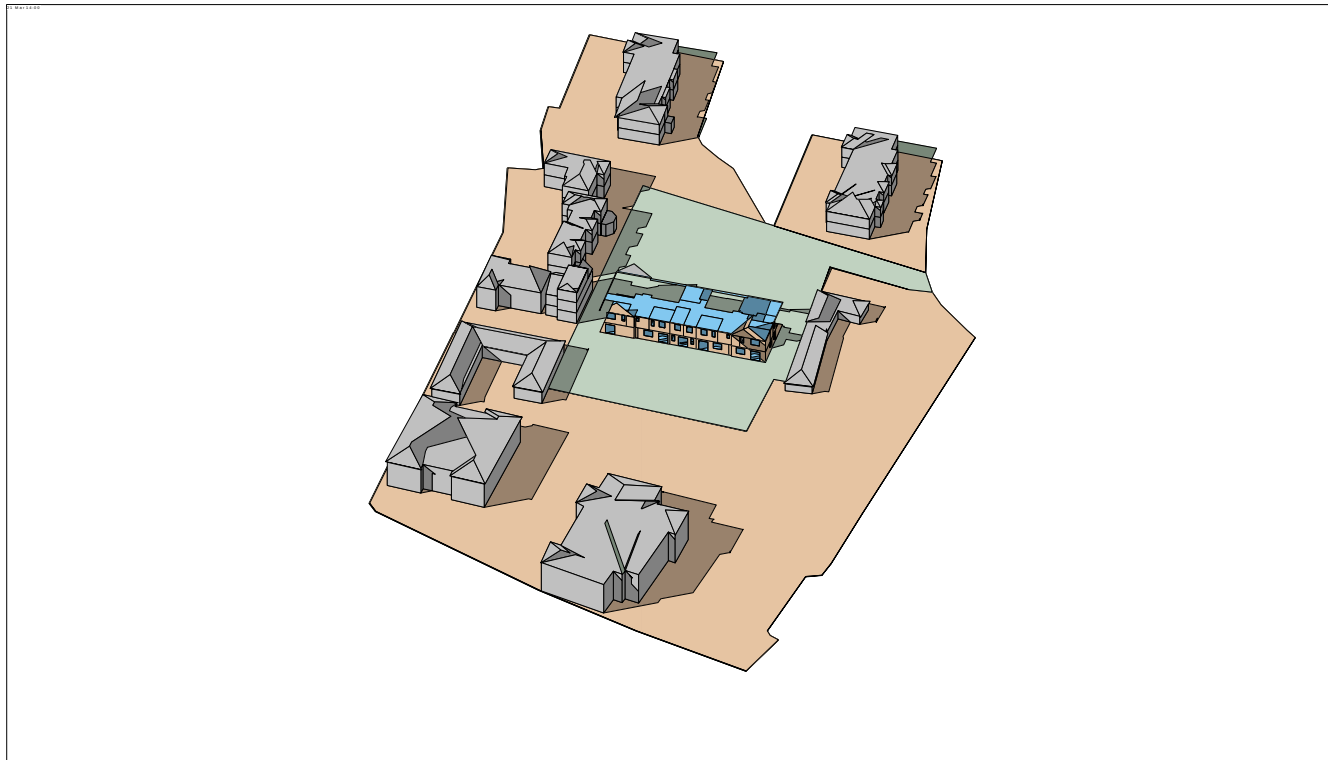
Site Latitude = 51.48

Longitude diff. = -0.45

Model Bearing = 0.00

Sun: azi = 213.57 alt = 33.12

Eye: azi = 140.00 alt = 40.00



Land To The Rear Of Banyers Hotel

App D – Solar Shading Images

Suncast image:

View time = 21 Mar 15:00

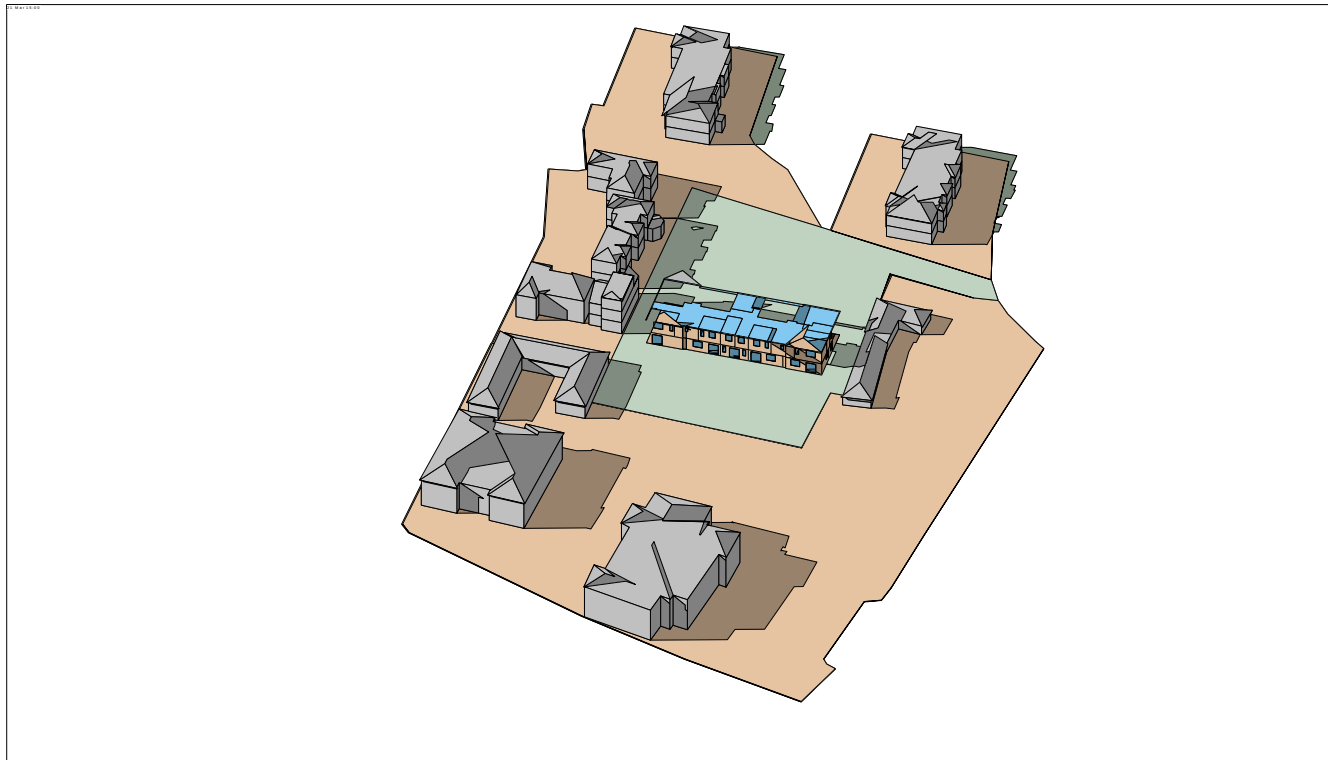
Site Latitude = 51.48

Longitude diff. = -0.45

Model Bearing = 0.00

Sun: azi = 229.38 alt = 26.93

Eye: azi = 140.00 alt = 40.00



Land To The Rear Of Banyers Hotel

App D – Solar Shading Images

Suncast image:

View time = 21 Mar 16:00

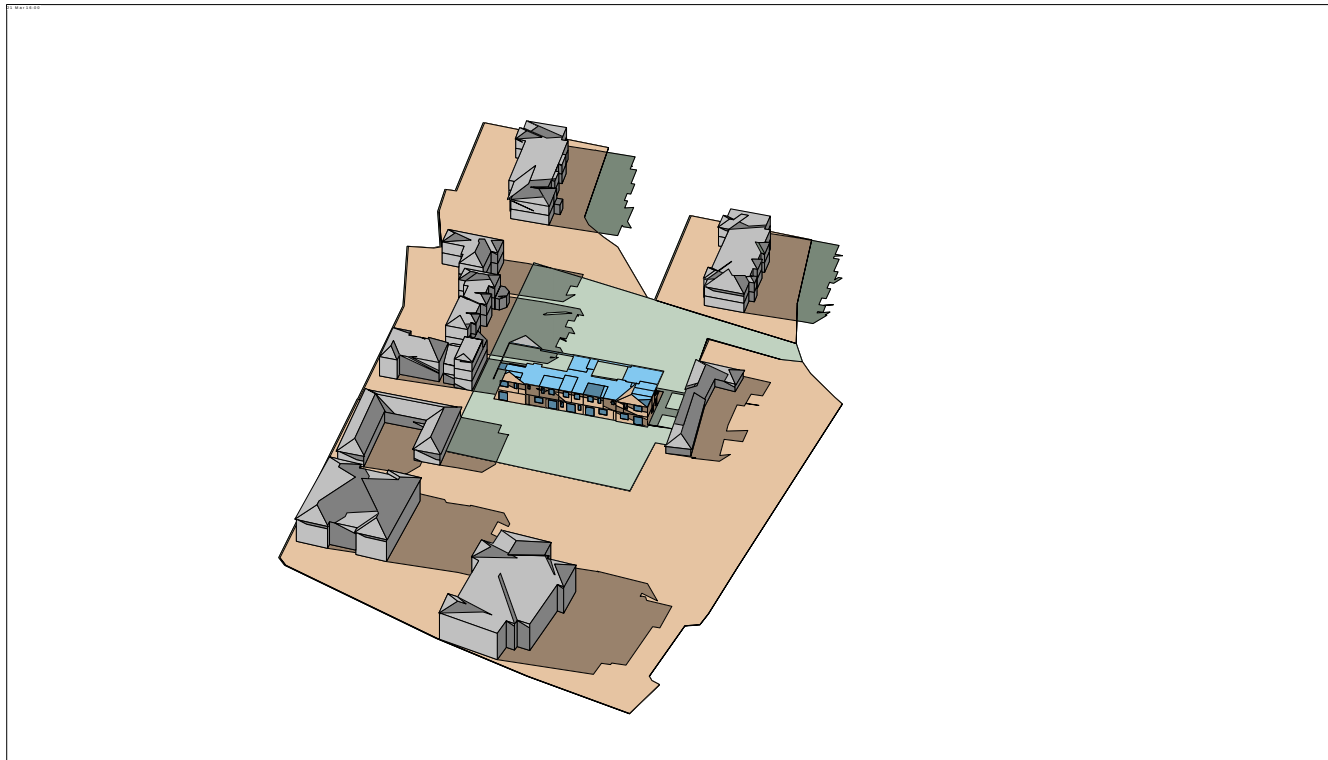
Site Latitude = 51.48

Longitude diff. = -0.45

Model Bearing = 0.00

Sun: azi = 243.34 alt = 19.16

Eye: azi = 140.00 alt = 40.00



Land To The Rear Of Banyers Hotel

App D – Solar Shading Images

Suncast image:

View time = 21 Mar 17:00

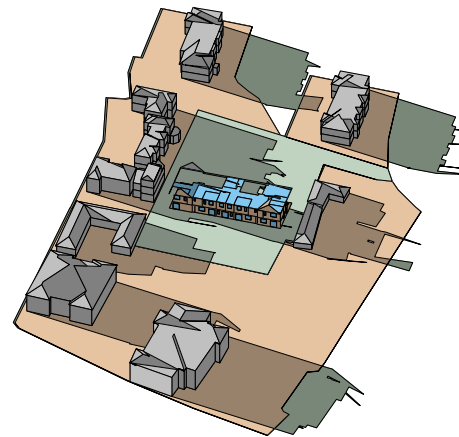
Site Latitude = 51.48

Longitude diff. = -0.45

Model Bearing = 0.00

Sun: azi = 255.96 alt = 10.42

Eye: azi = 140.00 alt = 40.00



Land To The Rear Of Banyers Hotel

App D – Solar Shading Images

Suncast image:

View time = 21 Mar 18:00

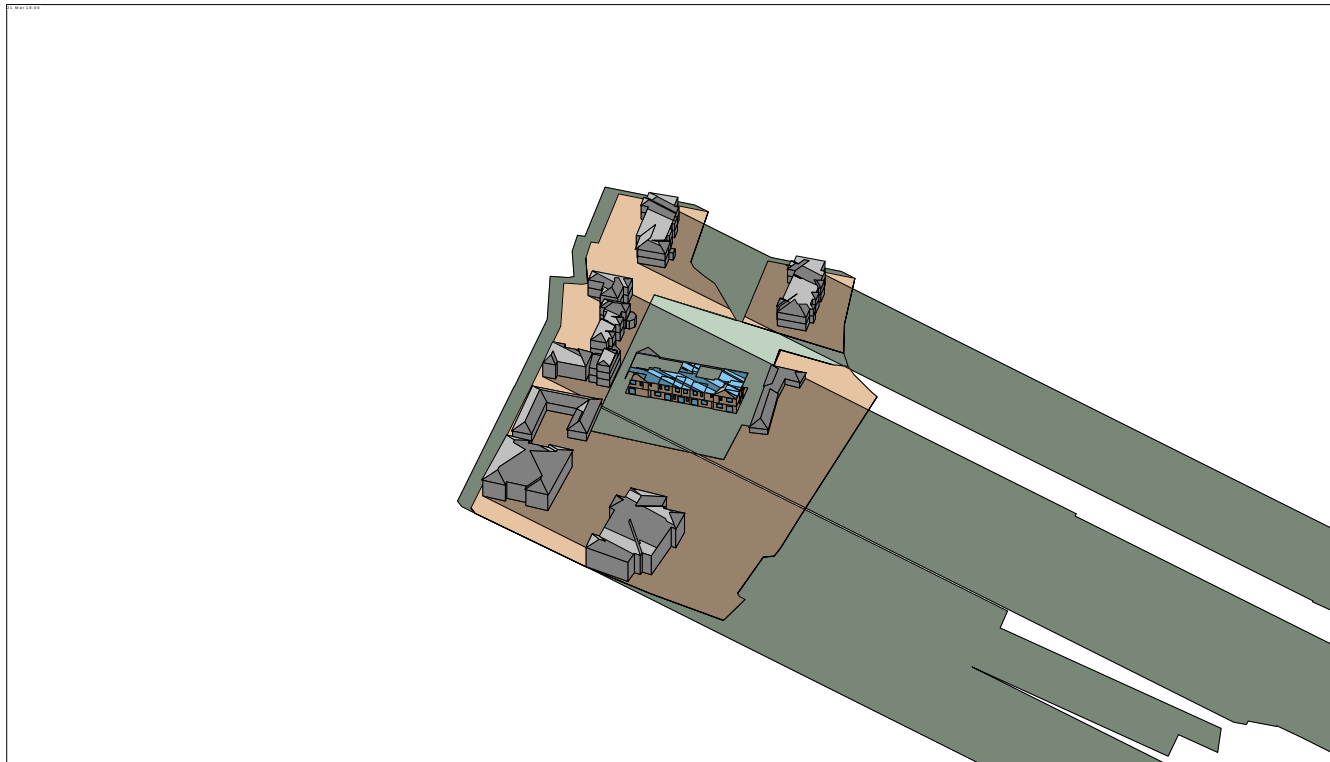
Site Latitude = 51.48

Longitude diff. = -0.45

Model Bearing = 0.00

Sun: azi = 267.86 alt = 1.18

Eye: azi = 140.00 alt = 40.00



APPENDIX E

Window Mapping

Land To The Rear Of Banyers Hotel
App E – Window Mapping



Figure E1: Hunter Mews– Window Mapping



Figure E2: Hunter Mews (Source – Survey Images)

Land To The Rear Of Banyers Hotel
App E – Window Mapping



Figure E3: Hunter Mews (Source – Survey Images)

30 Dog Kennel Ln

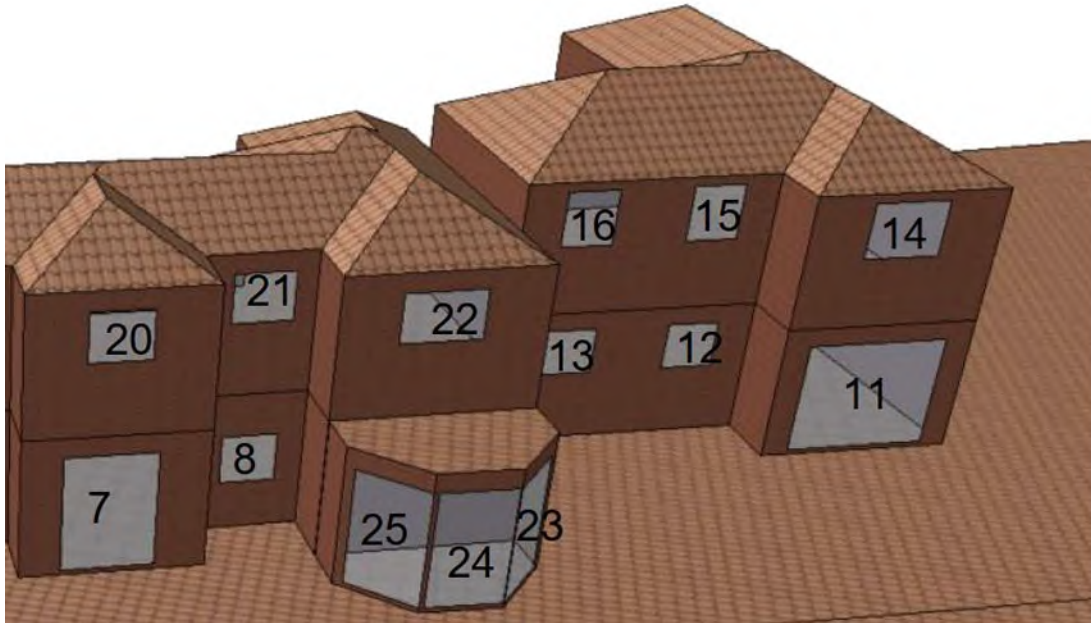


Figure E4: 30 Dog Kennel Lane– Window Mapping



Land To The Rear Of Banyers Hotel
App E – Window Mapping



Figure E5: 30 Dog Kennel Lane (Source – Rightmove)



Figure E6: 30 Dog Kennel Lane (Source – Rightmove)

Land To The Rear Of Banyers Hotel
App E – Window Mapping



Figure E7: 30 Dog Kennel Lane– Floor Plans (Source – Rightmove)

124-126 King James Way

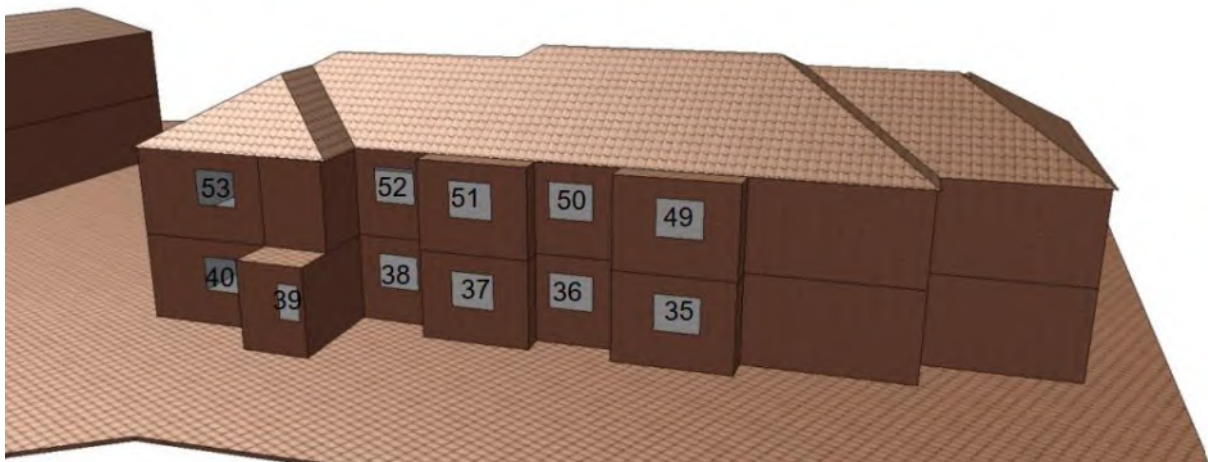


Figure E8: 124–126 King James Way– Window Mapping

App E – Window Mapping

124-126 King James Way

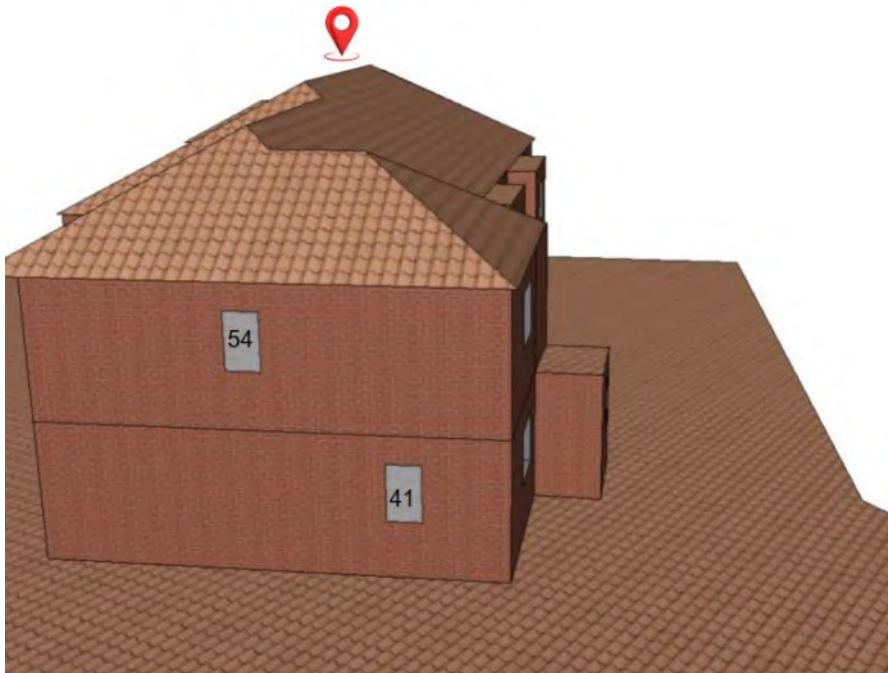


Figure E9: 124–126 King James Way– Window Mapping

Land To The Rear Of Banyers Hotel
App E – Window Mapping



Figure E10: 124–126 King James Way (Source: Survey Image)

Land To The Rear Of Banyers Hotel
App E – Window Mapping

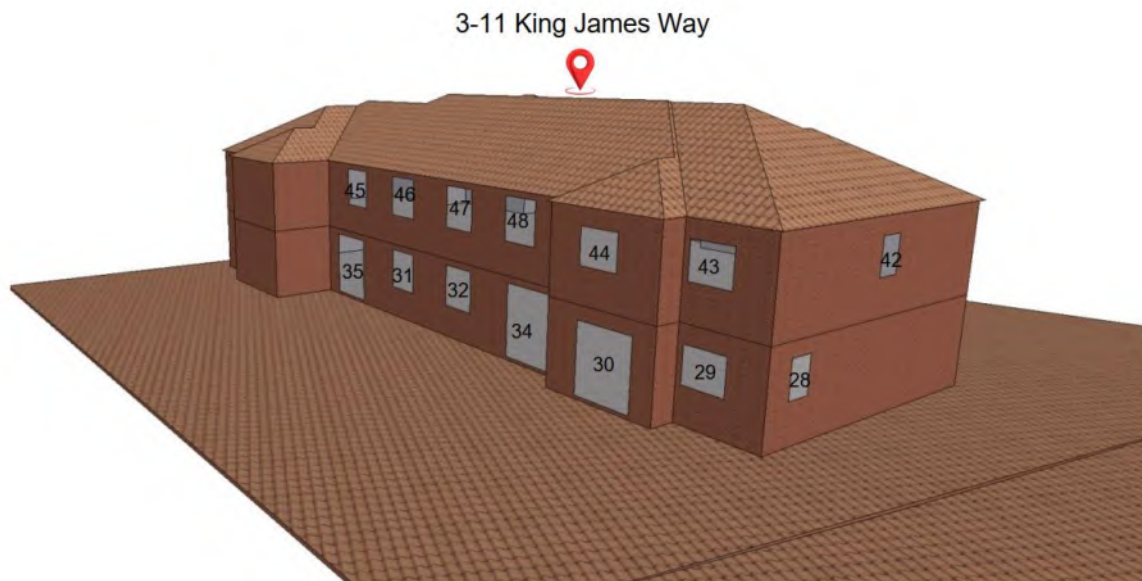


Figure E11: 3-11 King James Way– Window Mapping



Figure E12: 3-11 King James Way (Source – Streetview)

Zahra Akkerhuys

LAND TO REAR OF BANYERS HOTEL

Daylight & Sunlight Assessment

The information contained within this report and any appendices or supporting information provided are to be treated as confidential.



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