REPORT

59-61 Camden High Street London NW1 7JL

Daylight, Sunlight and Overshadowing To Neighbouring Buildings And Proposed Accommodation

March 2022



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59-61 Camden High Road, London NW1 7JL

Daylight, Sunlight & Overshadowing

We are instructed to report on the daylight, sunlight and overshadowing aspects of this Planning Application in relation to both neighbouring residential properties and the proposed accommodation.

Our report is based upon the scheme drawings prepared by Andreas + Buxton Associates, OS map, survey, photographs plus the daylight and sunlight studies as further detailed.

1. <u>SUMMARY</u>

- 1.1. This report has been drafted by reference to the Building Research Establishment (BRE) publication (2011), *"Site Layout Planning for Daylight and Sunlight. A Guide to Good Practice"* and local planning policy.
- 1.2. Our studies have confirmed that the amenity values of daylight and sunlight to the neighbouring residential properties would be retained to a level that would satisfy the BRE criteria.
- 1.3. The proposed accommodation would receive daylight in excess of the BRE recommended values in all locations. Sunlight availability would vary in response to aspect and the layout guarantees that the living rooms which do not benefit from sunlight, would benefit from levels of daylight in accordance with the recommendations of the London Plan HSPG.
- The proposal would not cause any additional overshadowing to the nursery playground. The overshadowing to the proposed terrace on first floor would be in accordance with the BRE recommendations.



1.5. In summary, BRE's recommendations and criteria have been satisfied and therefore the relevant policies of the Camden Council's Local Plan.

2. PLANNING POLICY

2.1. London Borough of Camden

2.1.1. The Camden Local Plan replaced the Council's Core Strategy and Development Policies in July 2017. The relevant policy is listed below:

Policy A1 Managing the impact of development

The Council will seek to protect the quality of life of occupiers and neighbours. We will grant permission for development unless this causes unacceptable harm to amenity.

We will:

a. seek to ensure that the amenity of communities, occupiers and neighbours is protected;

•••

d. require mitigation measures where necessary.

The factors we will consider include:

. . .

- e. visual privacy, outlook;
- f. sunlight, daylight and overshadowing;

•••

Camden's Local Plan also refer to supplementary planning document Camden Planning Guidance CPG: Amenity, which states as follows:

KEY MESSAGES:

• The Council expects applicants to consider the impact of development schemes on daylight and sunlight levels. Where appropriate a daylight and sunlight assessment should be submitted which should be follow the guidance in the BRE's Site layout planning for daylight and sunlight: A guide to good practice.

• The 45° and 25° tests cited in the BRE guidance should be used to assess ('screen') whether a sunlight and daylight report is required.

• Levels of reported daylight and sunlight will be considered flexibly taking into account site-specific circumstances and context.

• The Council may seek independent verification of sunlight and daylight reports if necessary.

2.2 The London Plan 2021

- 2.2.1 The relevant policy above must be read in conjunction with the other relevant plans and guidance, such as the London Plan.
- 2.2.2 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. The Plan is part of the statutory development plan for London and the policies in the Plan inform decisions on planning applications across the capital. We refer to the relevant policies with regard to daylight and sunlight and the respective explanatory notes.

Policy D6 Housing quality and standards

• • •

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.

...

The explanatory notes that follow Policy D6 include the following comments:

3.6.3 "... a minimum ceiling height of 2.5m for at least 75% of the gross internal area is required so that new housing is of adequate quality, especially in terms of daylight penetration, ventilation and cooling, and sense of space...".

3.6.4 "Dual aspect dwellings with opening windows on at least two sides have many inherent benefits. These include better daylight, a greater chance of direct sunlight for longer periods, natural cross-ventilation, a greater capacity to address overheating...".

3.6.5 "Single aspect dwellings are more difficult to ventilate naturally and are more likely to overheat, and therefore should normally be avoided. Single aspect dwellings that are north facing, contain three or more bedrooms or are exposed to noise levels above which significant adverse effects on health and quality of life occur, should be avoided. The design of single aspect dwellings must demonstrate that all habitable rooms and the kitchen are provided with adequate passive ventilation, privacy and daylight, and that the orientation enhances amenity, including views...".

3.6.6 "A variety of approaches to housing typologies and layout of buildings should be explored to make the best use of land and create high quality, comfortable and attractive homes. For example, increasing ceiling heights and having bay windows can optimise daylight and sunlight and allow buildings to be closer together than can otherwise be achieved".

 Table 3.2 Qualitative design aspects to be addressed in housing developments.

 ...

iii) The site layout, orientation and design of individual dwellings and, where applicable, common spaces should:

- provide privacy and adequate daylight for residents

...

3.6.11 "... The Mayor intends to produce a single guidance document which clearly sets out the standards which need to be met in order to implement Policy D6 Housing quality and standards for all housing tenures, as well as wider qualitative aspects of housing developments. This will include guidance on daylight and sunlight standards. This will build on the guidance set out in the 2016 Housing SPG and the previous London Housing Design Guide".

Policy D8 Public realm

Development Plans and development proposals should: ...

J ensure that appropriate shade, shelter, seating and, where possible, areas of direct sunlight are provided, with other microclimatic considerations, including temperature and wind, taken into account in order to encourage people to spend time in a place.

Policy D9 Tall buildings

Impacts

C Development proposals should address the following impacts:

3) environmental impact

. . .

a) wind, daylight, sunlight penetration and temperature conditions around the building(s) and neighbourhood must be carefully considered and not compromise comfort and the enjoyment of open spaces, including water spaces, around the building

The explanatory notes that follow Policy D8 include the following comment:

3.9.7 "The middle of a tall building has an important effect on how much sky is visible from surrounding streets and buildings, as well as on wind flow, privacy and the amount of sunlight and shadowing there is in the public realm and by surrounding properties".

2.2.3 The explanatory note 3.6.11 refers to "2016 Housing SPG and the previous London Housing Design Guide" as the basis for the production of the future "single guidance document which clearly sets out the standards which need to be met in order to implement Policy D6" that "will include guidance on daylight and sunlight standards". Therefore, we will still refer to the 2016 Housing Supplementary Planning Guidance (SPG). In the following paragraphs.

2.3 2016 Housing Supplementary Planning Guidance

2.3.1 Daylight and Sunlight

Standard 32 – All homes should provide for direct sunlight to enter at least one habitable room for part of the day. Living areas and kitchen/dining spaces should preferably receive direct sunlight.

The explanatory notes that follow Standard 32 include the following comments:

2.3.45 "... In addition to the above standards, BRE good practice guidelines and methodology can be used to assess the levels of daylight and sunlight achieved within new developments, taking into account guidance below and in Section 1.3".

Section 1.3 is entitled 'Optimising Housing Potential' and confirms that "... 'optimisation' can be defined as 'developing land to the fullest amount consistent with all relevant planning objectives'...".

2.3.46 "Where direct sunlight cannot be achieved in line with Standard 32, developers should demonstrate how the daylight standards proposed within a scheme and individual units would achieve good amenity for residents...".

2.3.47 "BRE guidelines on assessing daylight and sunlight should be applied sensitively to higher density development in London, particularly in central and urban settings, recognising the London Plan strategic approach to optimising housing output (Policy 3.4) and the need to accommodate additional housing supply in locations with good accessibility suitable for higher density development (Policy 3.3). Quantitative standards on daylight and sunlight should not be applied rigidly without carefully considering the location and context and standards experienced in broadly comparable housing typologies in London".

2.3.2 Dual Aspect

Standard 29 – Developments should minimise the number of single aspect dwellings. Single aspect dwellings that are north facing or exposed to noise levels above which significant adverse effects on health and quality of life occur, or which contain three or more bedrooms should be avoided.

The explanatory notes that follow Standard 29 include the following comments:

2.4.37 "Dual aspect dwellings with opening windows on at least two sides have many inherent benefits. These include better daylight, a greater chance of direct sunlight for longer periods...".

2.4.39 "... The design of single aspect flats will need to demonstrate that all habitable rooms and the kitchen are provided with adequate ventilation, privacy and daylight and the orientation enhances amenity, including views. North facing single aspect dwellings should be avoided wherever possible. However, in applying this standard consideration should also be given to other planning and design objectives for a site, for example the aim to maximise active frontages and minimise inactive frontages".

2.4.41 "In single aspect dwellings with more than two bedrooms it is difficult to achieve adequate natural ventilation and daylight to all rooms in an efficient plan layout which avoids long internal corridors. Single aspect dwellings containing three or more bedrooms should therefore be avoided. The design of single aspect ground floor dwellings will require particular consideration to maintain privacy and adequate levels of daylight".

2.3.3 **Policy 7.6 Architecture** – "...B. Buildings and structures should not cause unacceptable harm to the amenity of surrounding land and buildings, particularly residential buildings, in relation to privacy, overshadowing, wind and microclimate. This is particularly important for tall buildings.

The explanatory notes that follow Policy 7.6 include the following comments:

1.3.45 Policy 7.6Bd requires new development to avoid causing 'unacceptable harm' to the amenity of surrounding land and buildings, particularly in relation to privacy and overshadowing and where tall buildings are proposed. An appropriate degree of flexibility needs to be applied when using BRE guidelines to assess the daylight and sunlight impacts of new development on surrounding properties, as well as within new developments themselves. Guidelines should be applied sensitively to higher density development, especially in opportunity areas, town centres, large sites and accessible locations, where BRE advice suggests considering the use of alternative targets. This should take into account local circumstances; the need to optimise housing capacity; and scope for the character and form of an area to change over time.

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

2.2. National Planning Policy Framework (NPPF) – July 2021

2.2.1. The National Planning Policy Framework was revised on 20 July 2021 and sets out the Government's planning policies for England and how these are expected to be applied. It provides a framework within which locally prepared plans for housing and other development can be produced.

2.2.2. The document contains reference to daylight and sunlight in Chapter 11 – Making effective use of land, in particular in the section Achieving appropriate densities and paragraph 125 as detailed below:

125. 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).

2.3. Summary

2.3.1. None of the policies mentioned above provide numerical values for daylight or sunlight. Those given in this report are based upon the BRE guidance referred to within the London Plan 2016 explanatory note 2.3.47 and are more fully detailed in the items that follows this.

3. METHOD OF CALCULATION

3.1. Building Research Establishment

- 3.1.1. The calculations and considerations within this report are based upon the Building Research Establishment (BRE) publication 2011 "Site Layout Planning for Daylight and Sunlight. A Guide to Good Practice". It is intended to be used in conjunction with the interior daylighting recommendations in BS 8206-2 Code of practice for daylighting.
- 3.1.2. The British Standard Code of Practice BS8206-2:2008 has now been superseded and has been replaced by the new standard known as the BS EN 17037:2019. We expect that the BRE guidance will be updated to reflect this new document within the next year. In mean the time, the BRE guidance 2011 remains the most relevant document referred to by Local Authorities as a means of articulating their policy.
- 3.1.3. BRE confirm that the Guide does not contain mandatory requirements and in the introduction provides a full explanation of its purpose:

"The Guide is intended for building designers and their clients, consultants and planning officials."

"The advice given here is not mandatory and this document should not be seen as an instrument of planning policy."

"It aims to help rather than constrain the designer."

"Although it gives numerical guidelines these should be interpreted flexibly since natural lighting is only one of many factors in site layout design."

"In special circumstances the developer or planning authority may wish to use different target levels. For example, in an historic city centre, or in an area with high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings."

3.2. Modelling and Results

- 3.2.1. Our analysis and subsequent results are produced by the application of specialist software on our three-dimensional model, images of which are included in Appendix 1. This is based upon survey information, supplemented by photographs, plus the architect's plan drawings also included in Appendix 3.
- 3.2.2. In this model, the existing site building is defined in blue, the neighbouring buildings in grey and the proposed building in light brown. The deciduous trees have not been included in the assessment as per the BRE recommendation. We have tested the additional scenario with the trees for the overshadowing to the nursery playground to further confirm the positive outcome.

3.3. Daylight

- 3.3.1 Daylight is not specific to a particular direction, as it is received from the dome of the sky.
- 3.3.2. Reference is made in the BRE report to various methods of assessing the effect a development will have on diffused daylight.
- 3.3.3. The simplest methods are not appropriate in an urban environment, where the built form is invariably complex. Vertical Sky Component (VSC) is the calculation most readily adopted, as the principles of calculation can be established by relating the location of any particular window to the existing and proposed, built environment.
- 3.3.4. The BRE Guide states *"If any part of a new building or extension, measured in a vertical* section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25° to the horizontal, then the diffused daylighting of the existing building may be adversely affected.

This will be the case if the Vertical Sky Component measured at the centre of an existing main window is less than 27% and less than 0.8 times its former value".

3.3.5. Where the VSC calculation has been used, BRE also seeks to consider daylight distribution (DD) or No-Sky-Line (NSL) within neighbouring rooms; this measures the

portion of a room that has a sight of the sky from a reference plane set 0.85m above floor level and defines an adverse effect as a result that is less than 0.8 the former value. Access is rarely available and we have therefore taken a reasoned approach.

- 3.3.6. The third method is known as Average Daylight Factor (ADF). This is the most comprehensive of daylight calculations defined by BRE and is only appropriate when all relevant information is available. Drawings gained from the planning department have provided BVP with the requisite knowledge.
- 3.3.7. The initial calculation is Vertical Sky Component which measures the value of daylight received at the centre of the window face. The area of glazing through which the light is transmitted and the transmission value of the glazing is then considered. Within the room the total surface area is calculated and a degree of reflection applied. The outcome is then compared to the values recommended by BRE. Assuming that the rooms are used in conjunction with artificial lighting the minimum recommended ADF levels are:
 - 2% Kitchen
 - 1.5% Studio and Living/Kitchen/Dining room (LKD)
 - 1% Bedroom

Where kitchens have been sited at the rear of the room these are to be served by task lighting in the modern mode; in these circumstances many local authorities accept a lower ADF level of 1.5% which we have used throughout this report. For Living/Kitchen/Dining areas, the entire floor area has been included within the calculation.

- 3.3.8. Where a room is served by more than one window, ADF calculations are made in relation to each window and the individual results added together to provide the true ADF for that room. In the results there will be the occasional suffix 'u' or 'l'. This refers to full height glazing and BRE's requirement that the window is split into two parts, above and below the reference plane.
- 3.3.9. With regard to the ADF calculations for proposed accommodation daylight, we have used the following values that the BRE guide has recommended or that we have

calculated based on information provided to us by the Architect. Together with other data these are used to produce the ADF value:

- Glazing transmittance 0.68 for double glazing (BRE default reading)
- Net glazed area of the window 0.8 (BRE default reading)
- Maintenance Factor vertical glazing 8% which equates to 0.92 on the results sheet
 horizontal rooflight 24% which equates to 0.76 in the results
- Interior surface average reflectance LKDs and Studios 0.68

- Bedrooms - 0.63

- Reflectance beneath reference plane – LKDs and Studios - 0.2

– Bedrooms 0.15.

The average reflectance value depends on the respective values of walls, ceiling and floor. We have been informed by the architects of the use of the following finishes and we have applied the relevant conventional light reflectance values:

- White painted walls and ceiling: Light Reflectance Value (LVR) of 0.8
- Light coloured carpet finishing: LVR of 0.3
- Light coloured timber finishing: LVR of 0.44

3.4. Sunlight

- 3.4.1. The BRE *Guide to Good Practice* confirms:
 - Sunlight is only relevant to neighbouring residential windows which have a view of the proposed development and face within 90° of south, i.e. south of the east-west axis.
 - (ii) If any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the main living room window, a vertical section perpendicular to the window, then the sunlighting in the existing dwelling may be adversely affected.
 - (iii) Similarly, the sunlight availability to an existing dwelling may be adversely affected if the APSH, when measured at the centre of the window is reduced by more than 4%.

- (iv) Should the loss be greater than 4%, then sunlight availability may be adversely affected if the centre of the window receives less than 25% of the annual probable sunlight hours, of which 5% of the annual total should be received between 21 September and 21 March (winter) and less than 0.8 times its former sunlight hours during either period.
- (v) Kitchens and bedrooms are less important, although care should be taken not to block too much sun.
- 3.5.2. Proposed accommodation "will appear reasonably sunlit provided":
 - at least one main window wall faces within 90° of due south; and
 - the centre of at least one window to a main living room can receive 25% of annual probable sunlight hours, including at least 5% of annual probable sunlight hours in the winter months between 21 September and 21 March.
 - In housing, the main requirement for the sunlight is living rooms... It is viewed as less important in bedrooms and in kitchens.
- 3.5.3 BRE acknowledges that a simple layout strategy can be an issue for flats:

"Sensitive layout design of flats will attempt to ensure that each individual dwelling has at least one main living room which can receive a reasonable amount of sunlight. In both flats and houses, a sensible approach is to try to match internal room layout with window/wall orientation. Where possible, living rooms should face the southern or western parts of the sky and kitchens towards the north or east.

The overall sunlighting potential of a large residential development may be initially assessed by counting how many dwellings have a window to a main living room facing south, east or west. The aim should be to minimise the number of dwellings whose living rooms face solely north, north east or north west, unless there is some compensating factor such as an appealing view to the north."

3.5.4 BRE then provides an example of "*careful layout design*" in which "*four out of the five flats shown have a south-facing living room*". This example is provided without having to consider the site constraints that impact upon most urban locations.

3.5 Permanent Overshadowing

3.5.1 BRE explains that sunlight in the spaces between buildings has an important impact and is important for a number of reasons. It therefore recommends that: -

"The availability of sunlight should be checked for all open spaces where it will be required. This would normally include: -

- gardens, usually the main back garden of a house;
- parks and playing fields;
- outdoor swimming pools and paddling pools;
- sitting out areas, such as those between non-domestic buildings and in public squares;
- focal points for views, such as a group of monuments or fountains.
- 3.5.2 BRE recognises that each of these spaces will have different sunlight requirements and suggests the Equinox (21 March) is chosen as a date for assessment:

"It is recommended that at least half of the amenity areas listed above should receive at least two hours of sunlight on 21 March. If a detailed calculation cannot be carried out and the area is a simple shape, it is suggested that the centre of the area should receive at least two hours of sunlight on 21 March."

3.5.3 Further BRE guidance recommends that sunlight should not be reduced by 0.8 times its former value:

"If an existing garden or outdoor space is already heavily obstructed then any further loss of sunlight should be kept to a minimum. In this poorly sunlit case, if as a result of new development the area which can receive two hours of direct sunlight on 21 March is reduced to less than 0.8 times its former size, this further loss of sunlight is significant. The garden or amenity area will tend to look more heavily overshadowed".

4. DAYLIGHT RESULTS

Neighbouring Buildings

4.1. North

63 Camden High Street

- 4.1.1. The property adjacent to the development site on north-west side does not have windows facing the proposed extension; therefore, this has not been assessed.
- 4.1.2. Other residential properties to the north are too distant to be affected by the proposal.
- 4.2. East

52-56 Camden High Street 48-50 Camden High Street - PH

- 4.2.1. These properties stand to the north-east and on the opposite side of Camden High Street. They are respectively a block of flats with a commercial unit at ground floor level and the Belushi's Public House. The council tax register shows an entry for the latter and therefore, we have assumed residential use on the upper floors. We have assessed the windows on the first floor with a view of the proposed extension.
- 4.2.2. The BRE Guidelines state, and as already reiterated in item 3.3.4 of this report, *"If any part of a new building or extension, measured in a vertical section perpendicular to a main window or wall of an existing building, from the centre of the lowest window, sub-tends an angle more than 25° to the horizontal, then the diffused daylighting of the existing building may be adversely affected."* The first sheet in Appendix 2 shows that the proposed profile sits below the 25° angle. No adverse effect would occur to the daylight enjoyed by these residential units.

4.3. South

57 Camden High Street

- 4.3.1. The end of terrace property adjacent to the site on the south-east side has residential use at first and second floor levels, as confirmed by the council tax register. We have assessed the windows on the rear elevation, closest to the proposed extension. We have not been able to locate information on this property through internet searches; we have therefore based our modelling on photographs and reasonable assumptions.
- 4.3.2. BRE provides the appropriate advice, which we have reiterated in item 3.3.4 of our report. This states that an adverse effect would occur if the proposed value was not only less than 27% VSC but also less than 0.8 of the former (existing) value. The results confirm that the VSC readings would remain unchanged and the BRE criteria would be fully satisfied.
- 4.3.3. We have not given consideration to the DD because it was not considered necessary due to the good VSC readings and very little change between the existing and proposed values.

55 Camden High Street

4.3.4. This property at the junction of Camden High Street and Miller Street consists of a cocktail bar at street level with residential above, as per the council tax register. The windows at ground level on the flank wall that directly face the proposed extension serve the rear of the cocktail bar. These are not relevant for the purposes of our report and therefore have not been assessed.

Carlow House

4.3.5. This building to the south of the development site in Miller Street has been converted into residential. The closest windows at ground floor level serving the flat at the north-western end of the property are too distant to be affected by the proposed extension. This is confirmed by the image in Appendix 2 that shows the proposal sitting below the 25° angle. There would be no adverse effect.

4.4. West

Fairfield, Arlington Road

4.4.1. To the west and on the other side of Mary Terrace stands this block of flats. Again, we have considered the angle of obstruction from the centre of the lowest window at ground floor level. The last sheet in Appendix 2 confirms the proposed extension would not cause any adverse effect.

4.5. **Proposed accommodation**

- 4.5.1. For the purposes of this report, we have analysed ADF (which is fully explained in item 3.3.6 to 3.3.9) for the proposed residential habitable rooms at all floor levels. The results are detailed in Appendix 3 together with the architects' drawings.
- 4.5.2. The results for all the habitable rooms would achieve an ADF above the BRE recommended values. Good amenity of daylight would be achieved within all the proposed residential units.

4.6. Daylight Summary

- 4.6.1. Our analysis has confirmed that the daylight availability to the neighbouring buildings would remain in accordance with the BRE recommendation in all locations.
- 4.6.2. Within the proposed accommodation, all the habitable rooms would achieve daylight availability in excess of the BRE recommendation. The relevant criteria would be fully satisfied.

5. <u>SUNLIGHT RESULTS</u>

5.1. Neighbouring Buildings

- 5.1.1. The images shown in Appendix 2 confirm that the angle of obstruction to most of the neighbouring properties is below 25°. The relevance of this angle of obstruction has been fully explained in item 3.4.1 and confirms BRE's advice that adequate levels of sunlight would continue to benefit these windows.
- 5.1.2. The sunlight results for the neighbouring property at no.57 Camden High Street are defined in Appendix 2 to the right-hand side of the VSC results. The windows that face within 90° of south would retain both annual and winter sunlight availability with proposed values well in excess of the BRE and unchanged from the existing condition. The BRE criteria would be fully satisfied.

5.2. **Proposed accommodation**

- 5.2.1. Sunlight availability depends on orientation and site constraints often make sunlight availability recommendations difficult to achieve. The annual sunlight results in Appendix 3 confirm that out of a total of 8 LKDs and studios tested, half of the rooms would achieve the BRE recommended value. The remaining rooms would achieve either 19% or 20% annually and 2% winter sunlight probable hours. We consider that achieving annual results in the order of 75-80% of the BRE recommended value should be considered acceptable in such a dense urban area. Similarly, winter sunlight by its very nature is difficult to maintain at the BRE recommended value of 5% and the fact that half of the rooms achieve less than 50% should not negate an otherwise good set of results.
- 5.2.2. Where sunlight levels are low, reference should be made to the Housing Supplementary Planning Guidance to The London Plan. This guidance document acknowledges the great difficulty of providing all flats with a south facing aspect and recommends that where a north facing aspect is unavoidable, the living rooms should be provided with good levels of daylight. In response to the London Plan HSPG guidance, all living rooms failing the annual sunlight availability would receive good daylight; therefore, the results would be acceptable.

5.3. Sunlight Summary

- 5.3.1. Sunlight availability to neighbouring residential properties that face within 90° of south demonstrates that BRE's criteria would be satisfied.
- 5.3.2. Sunlight availability inevitably varies through aspect and the outcome ought to be considered acceptable with reference to the London Plan HSPG and BRE's guidance.

6. OVERSHADOWING RESULTS

6.1. Nursery playground

- 6.1.1. The results in Appendix 1 confirm that the proposed extension would not cause any additional permanent overshadowing to the nursery playground to the rear of the development site. The result would remain unchanged satisfying the BRE criteria.
- 6.1.2. BRE states in paragraph 3.3.9 "Normally trees and shrubs need not be included, partly because their shapes are almost impossible to predict, and partly because the dappled shade of a tree is more pleasant than the deep shadow of a building (this applies especially to deciduous trees)". Therefore, the results at the paragraph above do not make allowance for the deciduous trees between the playground and the row of properties in Camden High Road. However, we have also tested an additional scenario including the trees for the sake of completeness. The results and diagram on the last sheet of Appendix 4 confirm 2 hours of sunlight on 21 March would be achieved on 77% of the playground area, with no variation to the area receiving good sunlight. Again, the BRE criteria would be fully satisfied.

6.2. Proposed Accommodation

6.2.1. We have assessed the proposed terraces at first floor level. The results in Appendix 5 represent the overshadowing condition on 21 March as per the BRE recommendation. The amenity areas A1 and A2 would achieve 2 hours sunlight on more than 50% of the garden area, satisfying the BRE criterion.

6.3. Overshadowing Summary

- 6.3.1. Our assessment has confirmed that the proposed extension would not have any adverse effect on the overshadowing of the nursery playground to the rear.
- 6.3.2. The proposed terraces would receive good sunlight satisfying the BRE criterion.

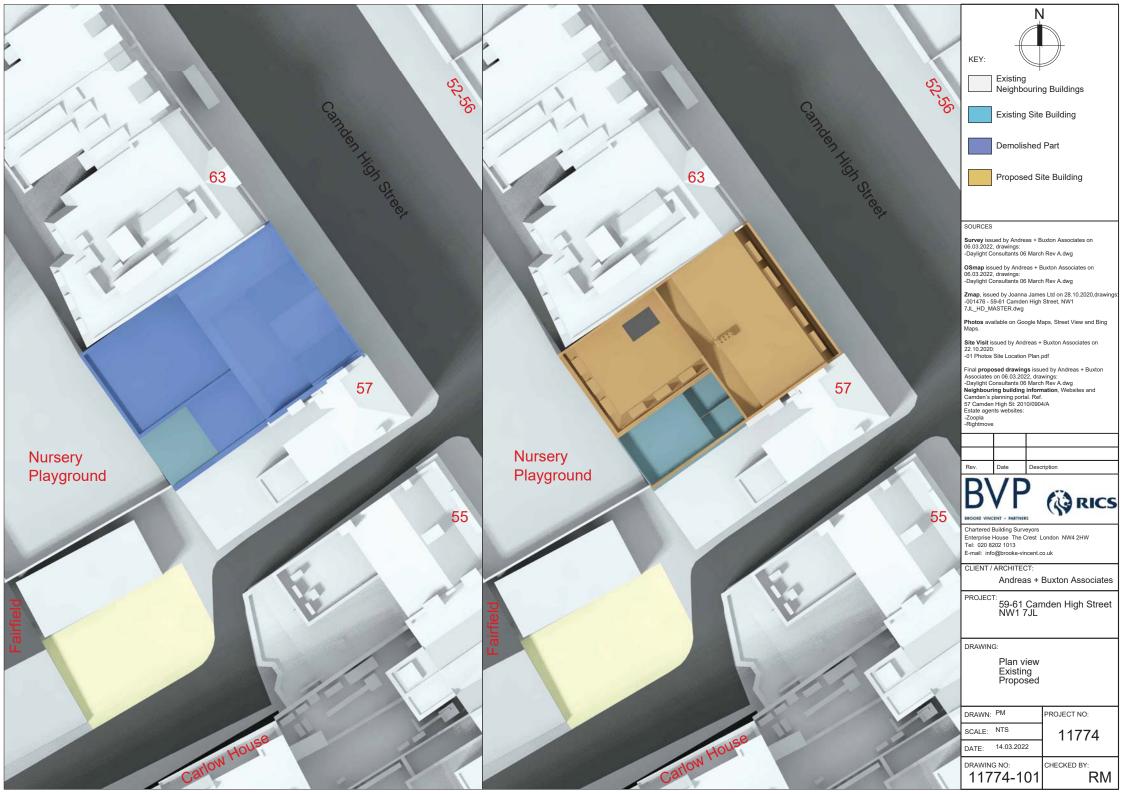
7. <u>SOURCES</u>

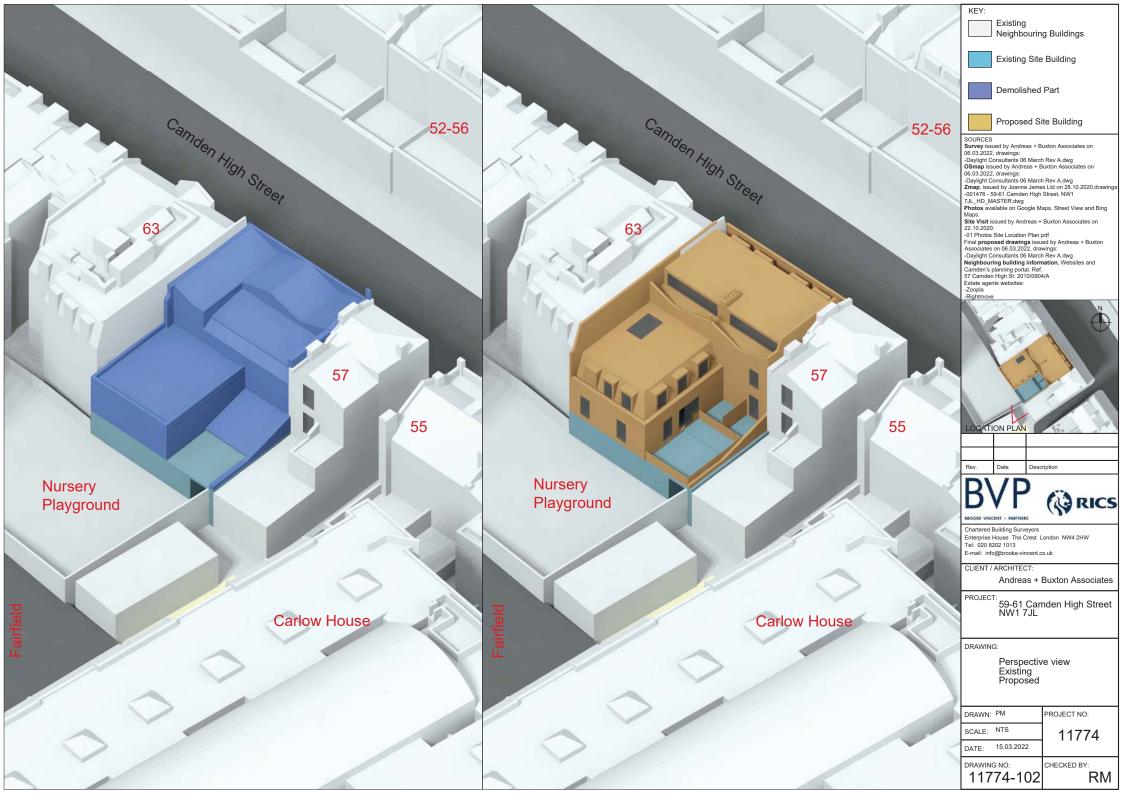
BVP's modelling and analysis are based on the following information:

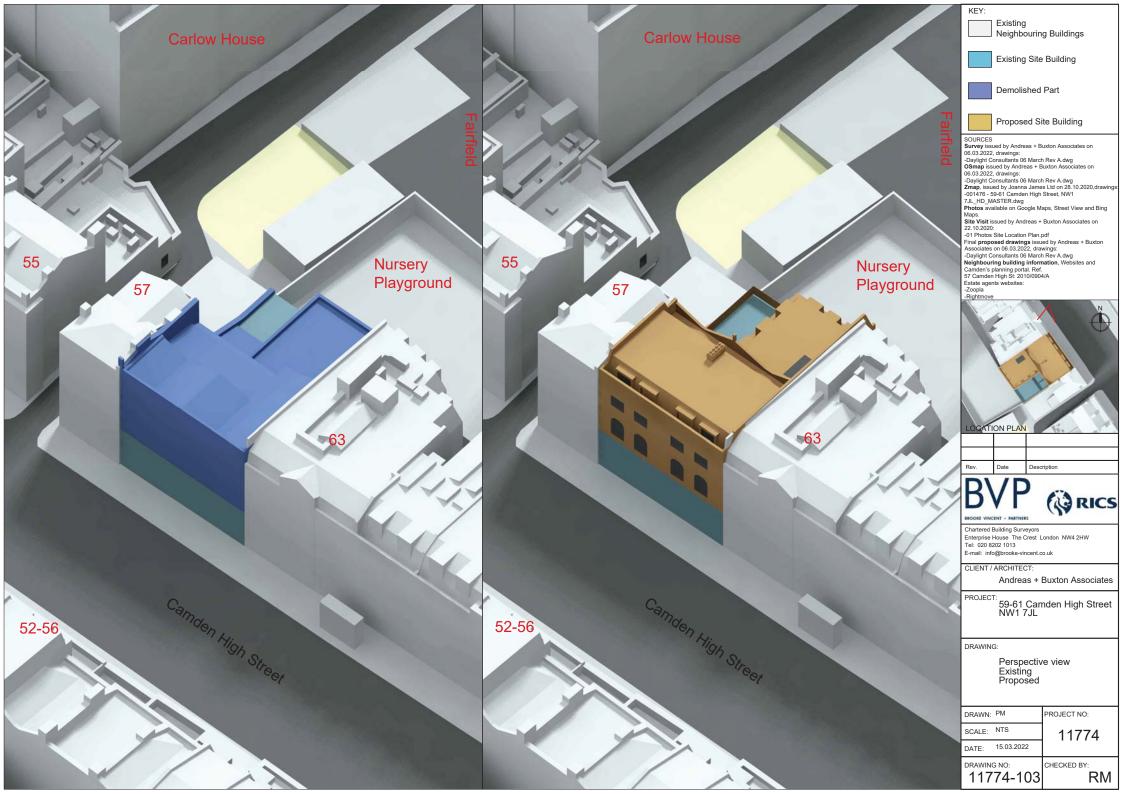
- 7.1. **Survey and OSmap** and issued by Andreas + Buxton Associates on 6.03.2022, drawings:
 - Daylight Consultants 06 March Rev A.dwg
- 7.2. **Zmap** issued by Joanna James Ltd on 28.10.2020, drawings:
 - 001476 59-61 Camden High Street, NW1 7JL_HD_MASTER.dwg
- 7.3. **Photos** available on Google Maps, Street View and issued by Andreas + Buxton Associates on 22.10.2020:
 - 01 Photos Site Location Plan.pdf
- 7.4. **Final proposed drawings** issued by Andreas + Buxton Associates on 06.03.2022, drawings:
 - Daylight Consultants 06 March Rev A.dwg
- 7.5 Neighbouring building information, Websites and Camden's planning portal. Ref.
 57 Camden High St: 2010/0904/A
 Estate agents websites:
 -Zoopla
 - -Rightmove

APPENDIX 1

CAD Model

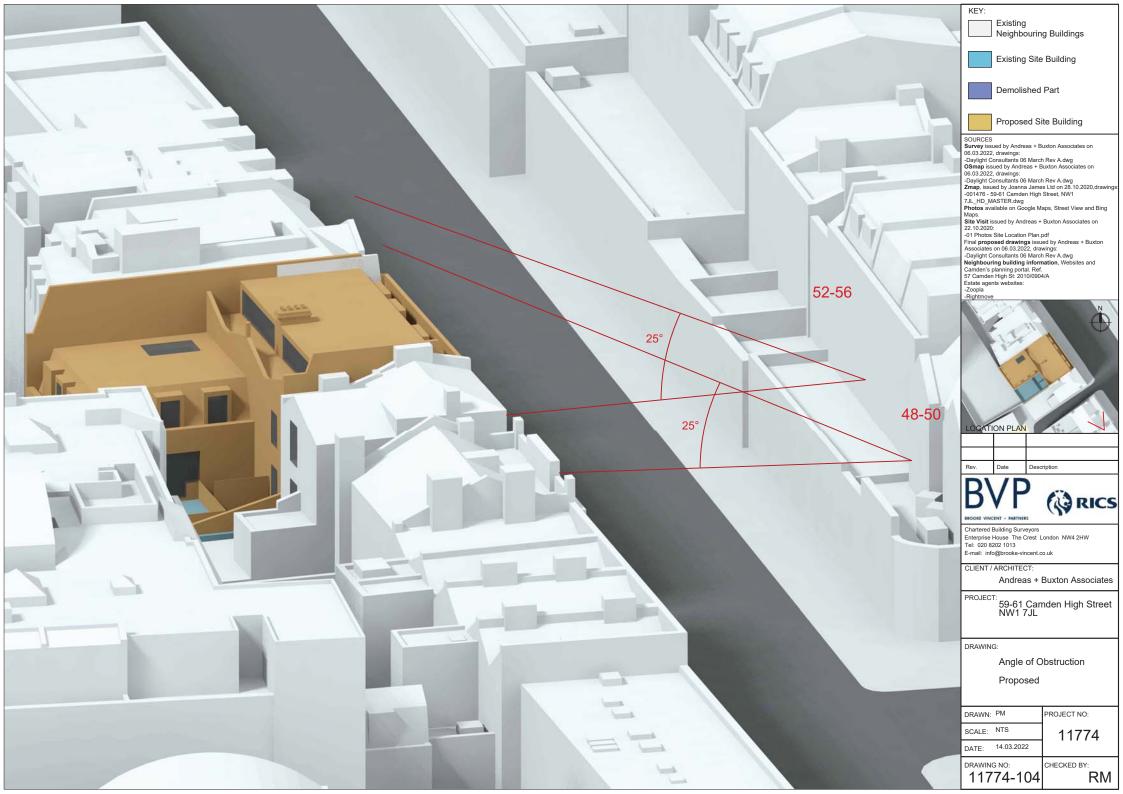






APPENDIX 2

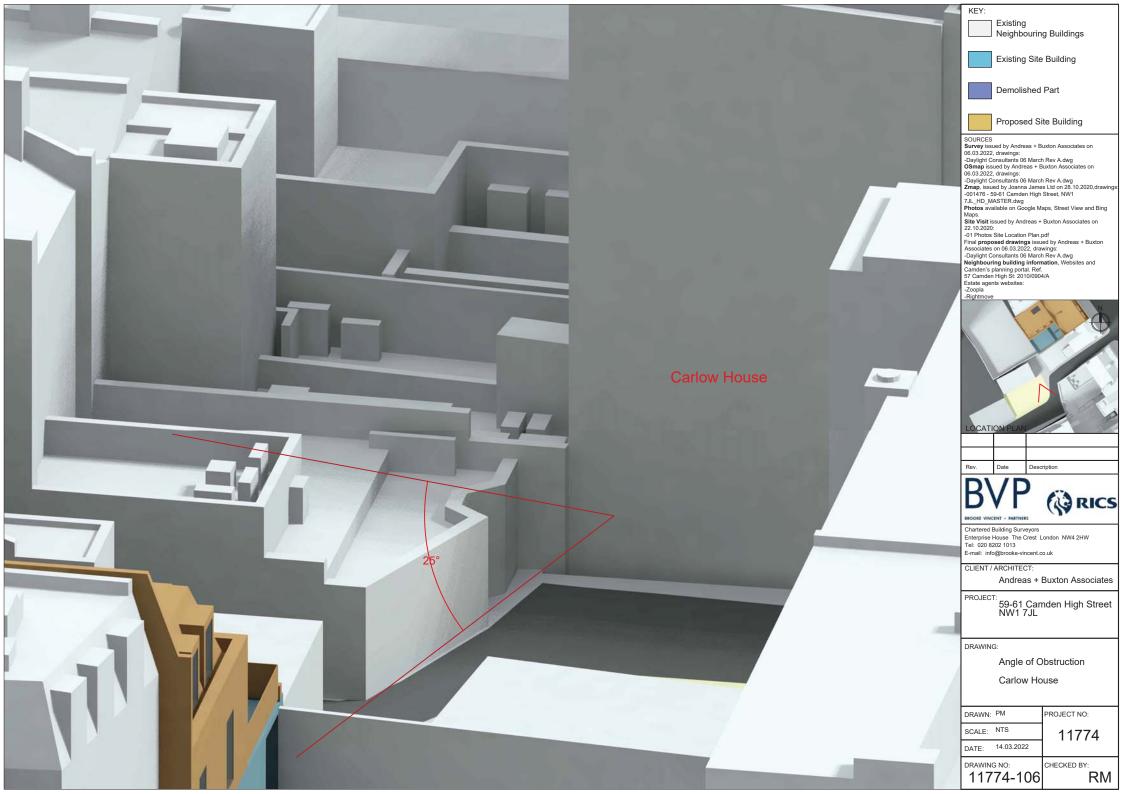
Daylight & Sunlight Results Neighbouring Properties

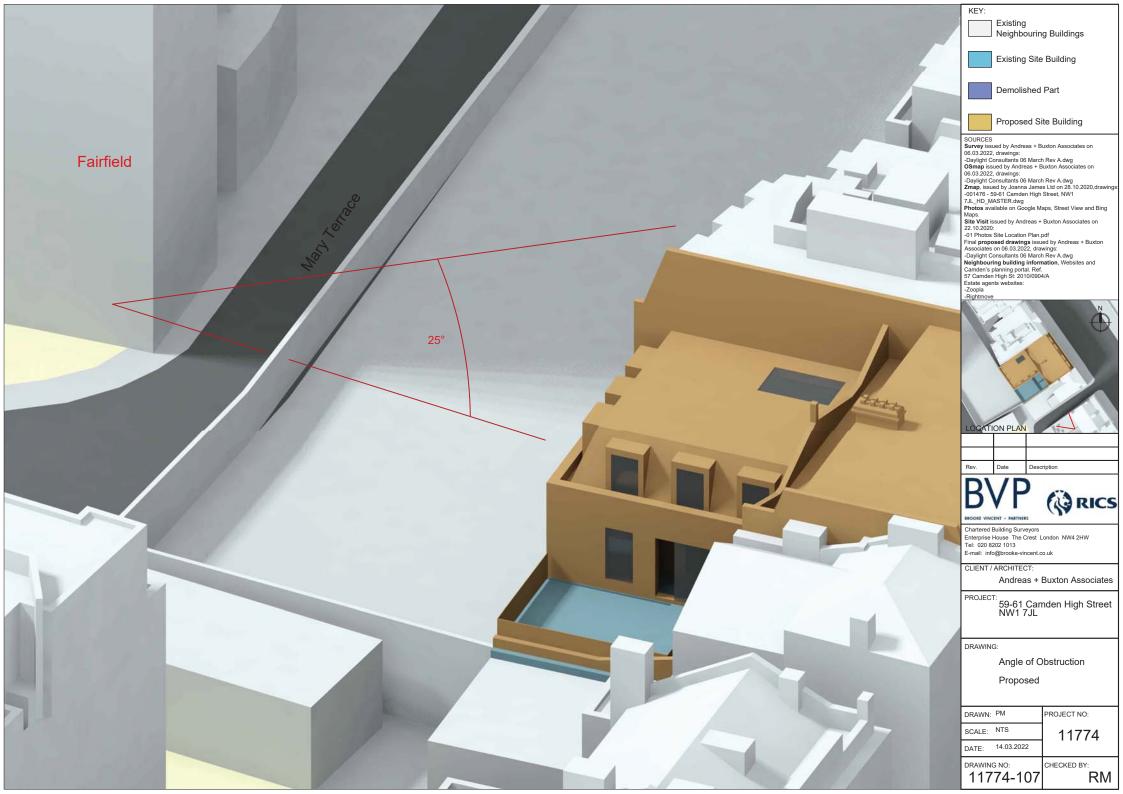


Project Name: 59-61 Camden High Street Project No.: 11774 Report Title: Daylight & Sunlight - Neighbours Date of Analysis: 09/03/2022

Floor Ref.	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
57 Camden High St												
First	W1	Existing	26.61	1.00	YES	235°	43	1.00	YES	9	1.00	YES
11150		Proposed	26.57				43			9		
Second	W1	Existing	30.50	1.00	YES	235°	54	1.00	YES	17	1.00	YES
Second		Proposed	30.49				54			17		







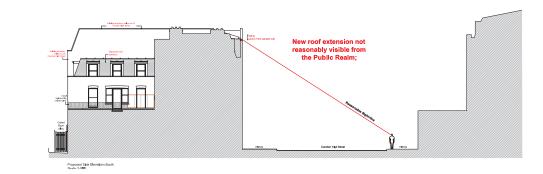
APPENDIX 3

Daylight & Sunlight Results Proposed Accommodation

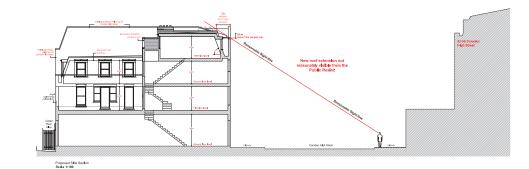
Project Name: 59-61 Camden High Street Project No.: 11774 Report Title: Average Daylight Factor - Proposed Date: 09/03/2022

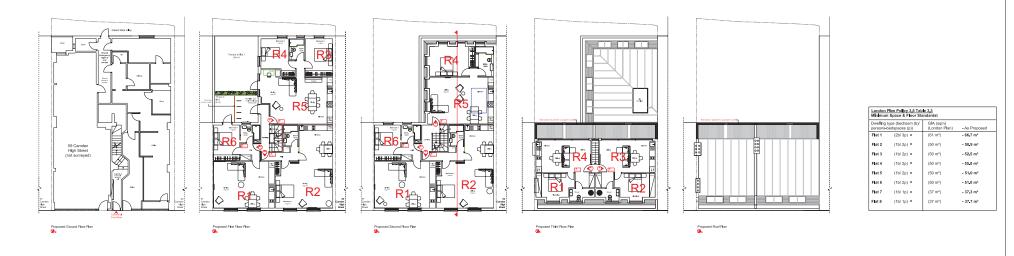
Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Transmittan ce	Maintenanc e Factor	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Req'd Value	Meets BRI Criteria
						Pro	posed						
First	R1	LKD	W1	0.68	0.92	2.39	72.44	120.92	0.68	1.00	1.66		
THSC	N1	LKD	W2	0.68	0.92	2.39	72.38	120.92	0.68	1.00	1.66		
		LIND		0.00	0.52	2.55	72.50	120.52	0.00	1.00	3.33	1.50	YES
First	R2	Studio	W3	0.68	0.92	2.39	72.40	160.20	0.68	1.00	1.26	2100	
		Studio	W4	0.68	0.92	2.39	72.47	160.20	0.68	1.00	1.26		
											2.51	1.50	YES
First	R3	Bedroom	W5	0.68	0.92	1.68	57.94	50.94	0.63	1.00	2.00		
											2.00	1.00	YES
First	R4	Bedroom	W6	0.68	0.92	1.68	59.48	48.65	0.63	1.00	2.15		
		Bedroom	W7	0.68	0.92	1.68	60.65	48.65	0.63	1.00	2.19		
											4.34	1.00	YES
First	R5	LKD	W8-L	0.68	0.92	0.95	55.77	141.00	0.68	0.20	0.09		
		LKD	W8-U	0.68	0.92	2.25	57.94	141.00	0.68	1.00	1.07		
		LKD	W9	0.68	0.92	0.90	54.92	141.00	0.68	1.00	0.41		
											1.57	1.50	YES
First	R6	Bedroom	W10-L	0.68	0.92	0.57	54.36	47.30	0.63	0.15	0.10		
		Bedroom	W10-U	0.68	0.92	1.35	61.06	47.30	0.63	1.00	1.82		
											1.92	1.00	YES
Second	R1	LKD	W1	0.68	0.92	1.37	77.24	118.63	0.68	1.00	1.04		
		LKD	W2	0.68	0.92	1.37	77.23	118.63	0.68	1.00	1.04		
											2.08	1.50	YES
Second	R2	Studio	W3	0.68	0.92	1.37	77.32	153.37	0.68	1.00	0.80		
		Studio	W4	0.68	0.92	1.37	77.42	153.37	0.68	1.00	0.80		
											1.61	1.50	YES
Second	R4	Bedroom	W5	0.68	0.92	0.99	61.28	62.52	0.63	1.00	1.02		
		Bedroom	W6	0.68	0.92	1.24	62.92	62.52	0.63	1.00	1.30		
		Bedroom	W7	0.68	0.92	1.24	68.13	62.52	0.63	1.00	1.41		
											3.73	1.00	YES
Second	R5	LKD	W8	0.68	0.92	1.24	65.56	126.41	0.68	1.00	0.75		
		LKD	W9	0.68	0.92	1.24	57.60	126.41	0.68	1.00	0.66		
		LKD	W11	0.68	0.76	3.36	144.63	126.41	0.68	1.00	3.70		
											5.10	1.50	YES
Second	R6	Bedroom	W10	0.68	0.92	1.44	67.11	46.11	0.63	1.00	2.19		
											2.19	1.00	YES
Third	R1	Bedroom	W1	0.68	0.92	1.36	40.69	44.04	0.63	1.00	1.31		
								10.85			1.31	1.00	YES
Third	R2	Bedroom	W2	0.68	0.92	1.36	40.89	46.55	0.63	1.00	1.25	4.00	
				0							1.25	1.00	YES
Third	R3	LKD	W3	0.68	0.92	5.63	69.31	82.82	0.68	1.00	5.48	4 = 0	
				0.55	0.00	F 60	72.07		0.55	4.00	5.48	1.50	YES
Third	R4	LKD	W4	0.68	0.92	5.63	72.05	82.04	0.68	1.00	5.76	4 = 2	
											5.76	1.50	YES











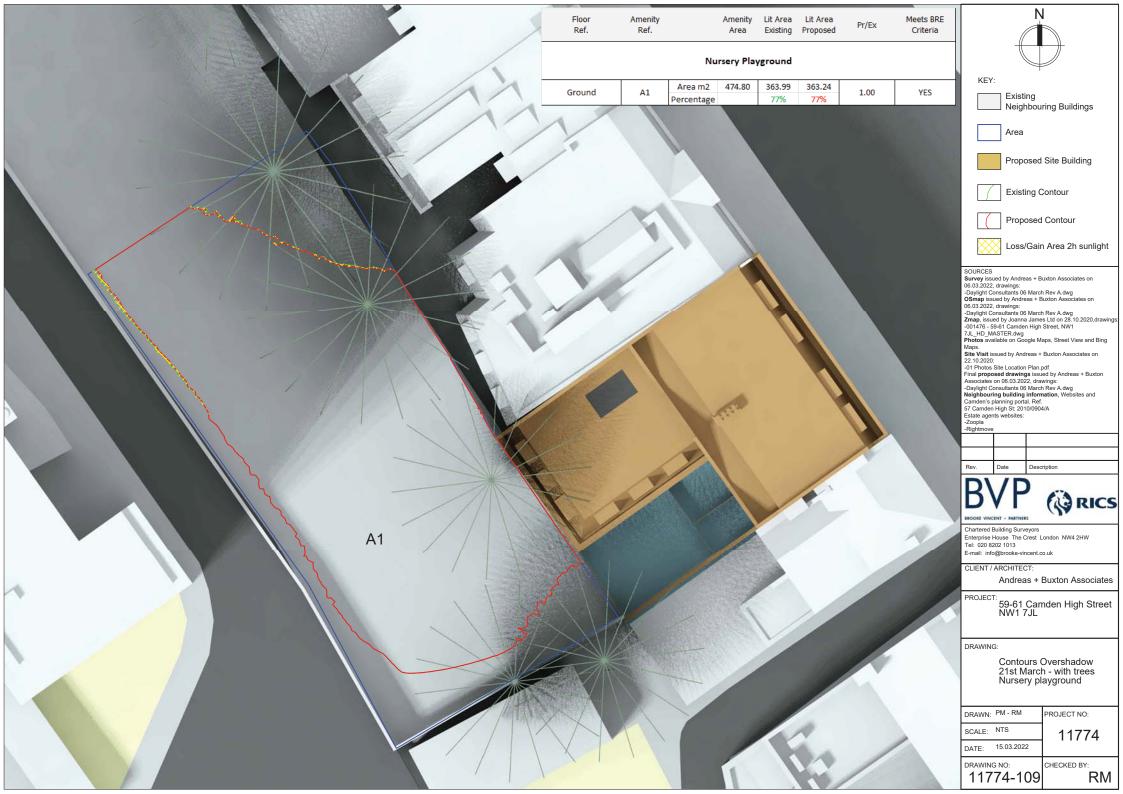
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Floor Ref.	Room Ref.	Property Type	Room Use.	Window Ref.		Window Orientation	Total Suns per Room Annual	Meets BRE Criteria	Total Suns per Room Winter	Meets BRE Criteria
				Р	roposed					
	R1	Residential	LKD	W1 W2	Proposed Proposed	55°N 55°N				
							19	NO	2	NO
First	R2	Residential	Studio	W3 W4	Proposed Proposed	55°N 55°N				
				W8		145°	19	NO	2	NO
	R5	Residential	LKD	W9	Proposed Proposed	145°				
				W1		55°N	45	YES	15	YES
	R1	Residential	LKD	W2	Proposed Proposed	55°N				
				W3		55°N	20	NO	2	NO
Second	R2	Residential	Studio	W4	Proposed Proposed	55°N				
				W8		145°	20	NO	2	NO
	R5	Residential	LKD	W9	Proposed Proposed	145°				
		nesidentiai		W11	Proposed	90° Hz				
	R3	Residential	LKD	W3	Proposed	235°	71	YES	20	YES
Third							52	YES	21	YES
	R4	Residential	LKD	W4	Proposed	235°				
							55	YES	21	YES

APPENDIX 4

Permanent Overshadowing Diagram & Results Nursery playground





APPENDIX 5

Permanent Overshadowing Diagram & Results Proposed Terraces

