AVISON YOUNG

Detailed Daylight & Sunlight Report

95 Avenue Road, London NW8 6HY (Semi-detached Houses)

June 2023

Contents

Appendices

Prepared By: Gregory Francis
e: **gregory.francis@avisonyoung.com**

m: **07908 664 649**

Status: Final Draft
Draft Date: June 2023

For and on behalf of Avison Young (UK) Limited

1. Introduction and Scope of Report

1.1 Avison Young are instructed by 95 Avenue Road (Freehold) Ltd to consider Daylight & Sunlight amenity matters associated with their proposed development of the site at 95 Avenue Road, London NW8.

1.2 The proposals for this submission encompass the conversion of existing garages to provide two new semi-detached houses.

1.3 Given no significant change to the external massing of the buildings is being proposed, this report will therefore focus on natural light amenity which would be provided for future occupants.

1.4 The site is a located in a dense part of central London, with several neighbouring properties in close proximity as can be seen from the site location plan below.

1.5 It is therefore a special situation whereby the BRE state that their default guidance on daylight and sunlight are not expected to be met and need to be interpreted flexibly therefore alternative, contextually appropriate targets should be adopted (para 1.6 and Appendix F).

Figure 1: site location plan showing proposed development site (outlined red) in context

2. Executive Summary

2.1 The Proposed Development site is centrally located in an urban context, a baseline within which the default BRE recommendations are unlikely to be met and more appropriate targets need to be adopted.

2.2 We have worked very closely with the Architects to maximise skylight access within the constraints posed by both the urban context and the existing building as well as other competing design priorities.

2.3 Despite this restrictive situation, the range of detailed technical assessments have confirmed the Proposed Development would provide good Daylight and Sunlight amenity for future occupants.

2.4 The Proposed Development therefore complies with national and local planning policy and guidance on Daylight & Sunlight and as such is concluded as acceptable on these grounds.

3. Planning Policy

National Planning Policy

National Planning Policy Framework (2019)

3.1 Section 11 "Making effective use of land" Para 123 states:

"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).****"*

3.2 Section 12 "Achieving well-designed places" Para 127 states:

"Planning policies and decisions should ensure that developments:

f) Create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience."

National Planning Practice Guidance "Design" (13 September 2018 Update)

3.3 Paragraph 021 "A well designed space is attractive":

"The way a place looks, sounds, feels, and even smells, affects its attractiveness and long-term success. Streetscapes, landscapes, buildings and elements within them all have an influence.

So too can more transient elements – such as the way sunshine and shadows move across an area or the way it is maintained and cleaned."

3.4 Paragraph 26 "Consider scale" states:

"This relates both to the overall size and mass of individual buildings and spaces in relation to their surroundings, and to the scale of their parts.

Decisions on building size and mass, and the scale of open spaces around and between them, will influence the character, functioning and efficiency of an area.

In general terms too much building mass compared with open space may feel overly cramped and oppressive, with access and amenity spaces being asked to do more than they feasibly can. Too little and neither land as a resource or monetary investment will be put to best use.

The size of individual buildings and their elements should be carefully considered, as their design will affect the: overshadowing and overlooking of others; local character; skylines; and vistas and views. The scale of building elements should be both attractive and functional when viewed and used from neighbouring streets, gardens and parks.

The massing of development should contribute to creating distinctive skylines in cities, towns and villages, or to respecting existing skylines. Consideration needs to be given to roof space design within the wider context, with any adverse visual impact of rooftop servicing minimised.

Account should be taken of local climatic conditions, including daylight and sunlight, wind, temperature and frost pockets."

Ministry of Housing, Communities & Local Government Guidance "Effective use of land" (22 July 2019)

"All developments should maintain acceptable living standards.

What this means in practice, in relation to assessing appropriate levels of sunlight and daylight, will depend to some extent on the context for the development as well as its detailed design.

For example, in areas of high-density historic buildings, or city centre locations where tall modern buildings predominate, lower daylight and daylight and sunlight levels at some windows may be unavoidable if new developments are to be in keeping with the general form of their surroundings."

Regional Planning Policy

GLA "The London Plan" March 2021

3.5 Policy D6 "Housing quality and standards" states:

> *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."*

Mayor of London "Housing Supplementary Planning Guidance" (SPG) March 2016

3.6 Para 1.3.45 "Standards for privacy, daylight and sunlight" states:

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

3.7 Para 1.3.46 "Standards for privacy, daylight and sunlight" states:

> *"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"*

3.8 The above principles have been applied by the GLA and Planning Inspectorate on several occasions, most notably in respect of Monmouth House (GLA ref: D&P/3698/03 dated February 2016) and the Whitechapel Estate (PINS ref: APP/E5900/W/17/3171437 dated November 2017). Please refer to Appendix I for copies of these decisions.

3.9 In summary, the following principles have been established in London:

- In a dense urban environment, VSC values in excess of 20% should be considered as reasonably good, and VSC in the mid-teens should be acceptable
- In suitable locations there should generally be a high expectation of development taking place.
- In relation to new development it is reasonable to adopt an alternative target of 1.5% ADF for living/kitchen/dining rooms.

Local Planning Policy

London Borough of Camden "Camden Local Plan" (2017)

3.10 Policy A1 "Managing the impact of Development" states:

"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.

…

The factors we will consider include:

f. sunlight, daylight and overshadowing;"

London Borough of Camden "Camden Planning Guidance, Amenity" (March 2018)

3.11 Section 3 "Daylight and Sunlight" states:

"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 follow the guidance in the BRE's Site layout planning for daylight and sunlight: A guide to good practice.

The 45 degree and 25 degree 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."

Application of Principles

3.12 A number of principles have been applied within urban locations such as this, both by the Planning Inspectorate and by the GLA in relation to development proposals.

3.13 For example, in the Inspector's appeal decision relating to development on Whitechapel Estate (between Varden Street and Ashfield Street in Tower Hamlets, Appeal Ref: APP/E5900/W/3171437), the Inspector stated at paragraphs 127 through 129:

"The need for flexibility in applying BRE guidelines applies equally to the consideration of light levels in the proposed accommodation and outdoor spaces.

The Housing SPG requirement to consider broadly comparable residential typologies as well as local circumstances remains equally appropriate.

The appellants' analysis suggests that 77% of all proposed habitable rooms would comply with the relevant minimum standards of ADF recommended by BS 8206-243 and referenced in the BRE guide.

This would rise to 84% if shared living/dining room/kitchens were rated at the lower standard of 1.5% ADF, which I consider a reasonable approach. I also accept that small studios for staff and students, particularly those for short-term occupation, can reasonably be tested against a lower standard. I note that overall NSL compliance would be 82%.

The Council draw particular attention to Building E, where balcony overhangs would result in reduced daylight to some bedrooms.

I accept the appellants' case that this is an instance where a future resident would balance the amenity offered by the balcony with the lower daylight in the bedroom and would not regard the accommodation as sub-standard."

3.14 The Mayor of London in his decision in relation to Monmouth House (58-64 City Road, and Speedfix House, 19-23 Featherstone Street, London, EC1Y, GLA ref: 3698/03) dated 8 February 2016 stated (at paragraphs 119 through 121)

"When considering the findings of the assessment, GLA officers have had regard to the site's central urban context and BRE's advice that the numerical guidelines it provides are not mandatory and should be interpreted with a reasonable degree of flexibility – taking into account site context and the nature of the situation in which they are being applied.

For general guidance, whilst the BRE guidelines recommend a target value of 27% VSC when measured on an absolute scale, that value is derived from a low-density suburban housing model.

In an inner-city urban environment, VSC values in excess of 20% should be considered as reasonably good, and VSC in the mid-teens should be acceptable.

GLA officers acknowledge that it can be difficult to meet the recommended daylight and sunlight standards for all residential units in the centre of London where there is a strong demand for accommodation of all types and where high density development is encouraged by local and national planning policies.

When considering the information available, including the site context, policy-led development aspirations, ***and having reference to BRE guidelines that are intended to be applied flexibly to help rather than constrain design,*** *on balance the predicted impacts are acceptable.*

The proposed development will ***reasonably satisfy BRE guidelines for daylight and sunlight****, and overall the relationship between the proposed building and neighbouring residential buildings is acceptable, and therefore complies with London Plan Policy 7.6, Policy DM2.1 (part A) of Islington Council's Development Management DPD, and Policy BC9 of Islington Council's Finsbury Local Plan."*

Conclusion on Planning Policy and Guidance

3.15 As set out above, all levels of planning policy and guidance support the optimisation of highly sustainable/ accessible sites such as this.

3.16 The location of the Proposed Development is such that it is fair to assume a high expectation of development to take place.

3.17 Planning decision makers should apply default daylight and sunlight standards sensitively and flexibly so that such assessments do not prevent appropriate development coming forward on the right sites.

4. Information Relied Upon

Existing Buildings/Surrounding Buildings

4.1 The immediate surroundings and the existing site were modelled using a combination of measured survey produced by "On Centre Surveys" (drawing refs 227798A-1 (Land Survey), 27798A-12 (Elevations & Section), 27798A-11 (Roof Plan) and 27798A (Ground Floor Plan) received 7 January 2022 together with a 3D photogrammetry model produced by "AccuCities" "2447_95 Avenue Road_HD MASTER" for the wider context.

Proposed Buildings

4.2 The Proposed Development was represented by information provided by the architects, HUB Architects in May 2023:

- 2305-05 (Semi & LGF Conversion)
- Semi Detached Houses

4.3 The Proposed Development as represented by the above drawings and 3D model was arrived at by way of detailed design advice with respect to Daylight & Sunlight matters, including workshops and several design amendments.

4.4 The analyses were run in 'SOL', a specialist professional software developed specially for the purposes of conducting these types of assessment.

4.5 SOL has been accepted in various planning appeals and is widely considered to be a highly accurate and robust means of conducting the assessments set out in the BRE Guidelines.

5. Approach and Methodology

5.1 The information set out in Section 4 above was used to produce a 3D assessment model representing the neighbouring, existing and proposed buildings in AutoCAD.

5.2 A set of technical studies were undertaken using 'SOL', a specialist plug tool for AutoCAD written by especially for the purposes of undertaking daylight and sunlight assessments by Dr Malcolm MacPherson, Dr Martin Howarth and Paul Fletcher of Waterslade Ltd.

5.3 SOL is considered to be accurate and a well-established software for assessing light, having been accepted in numerous planning inquiries throughout the UK.

5.4 The BRE Guidance (2022) and British Standard BS EN 17037:2018 have formed the basis of the technical assessments undertaken and reported on.

5.5 Our interpretation of the principles established by these documents is set out below.

Daylight & Sunlight Principles

5.6 The BRE Guidelines – Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice Third Edition (2022) are well established and are adopted by most planning authorities as a scientific and empirical method for measuring daylight and sunlight in order to provide objective data upon which to apply the relevant planning policies.

5.7 The default targets set out in the BRE Guidelines are predicated on a comparatively low-rise suburban environment but recognise that decision makers should not rigidly apply the default standards and may apply alternative targets if appropriate depending on the context of the development being assessed.

5.8 Paragraph 1.2 in the Introduction of the Guidelines states:

> *"The quality and quantity of natural light in an interior depend on two main factors. The design of the interior environment is important the size and positions of windows, the depth and shape of rooms, and the colours of internal surfaces.*
>
> *But the design of the external environment also plays a major role: e.g. if obstructing buildings are so tall they make adequate daylighting impossible, or if the block sunlight for much of the year."*

5.9 Paragraph 1.6 in the Introduction of the Guidelines states:

"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; its aim is to help rather than constrain the developer.

Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of the many factors in site layout design (see Section 5).

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

5.10 The 'flexibility' recommended in the Guidelines is a suggestion that a decision maker must consider the specific characteristics of each case being considered when determining whether alternative targets should be adopted.

5.11 Paragraph 2.1.10 of the Guidelines states:

"The National Annex A of BS EN 17037 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: for example in basement rooms or with significant external obstructions (perhaps in a dense urban area or with tall tress outside), or for existing buildings being converted into dwellings."

5.12 In addition, where existing buildings have specific design features which self-limit access to daylight and sunlight such as projecting balconies, deep recesses, rooms greater than 5m deep or lit from one side only, the BRE Guidelines suggest ways in which such features may be taken into account in the assessment.

Daylighting

5.13 In respect of daylighting, the BRE Guidelines adopt different methods of measurement depending on whether the assessment is for the impact on existing neighbouring premises or for measuring the adequacy of proposed new dwellings.

5.14 These methods of measurement are summarised below.

New Development

5.15 Section 2.1 of the BRE guidance (New Development) recommends that general illumination from skylight in proposed new buildings be checked using the methods set out in BS EN 17037:2018 "Daylight in Buildings".

5.16 BS EN 17037 makes use of target illuminances, by use of either direct prediction using hourly climate data ("Climate Based Daylight Modelling" also referred to as "CBDM") or estimated using daylight factors. Both methods seek to measure the overall amount of daylight in a space.

5.17 The recommendations are based around the illuminances that would be met or exceeded over half the room, over half of the daylight hours over the year.

5.18 BS EN 17037 gives a range of recommendations for 'high', 'medium' and 'minimum' daylight provision.

5.19 The UK National Annex gives further recommendations and data for daylight provision in the UK and Channel Islands.

5.20 The UK National Annex of BS EN 17037 gives minimum recommended values for locations where a predominantly daylit appearance is not achievable; giving non-exhaustive examples of basement rooms, significant external obstruction and existing buildings being converted into dwellings.

5.21 The BRE Guidelines advise that room reflectances considerably influence the assessment and therefore realistic values must be used in the calculations and that these should be stated and specified in the design of the building.

5.22 The layout and location of spaces and rooms, taking into account their use/ demand for natural light are other key factors to consider at the design stage.

5.23 The BRE Guidelines recommend avoiding, where possible, locating windows serving habitable rooms at internal corners, basements or adjacent extensions/ projections i.e. where they would be obstructed.

5.24 The BRE Guidelines state that living rooms and kitchens need more daylight than bedrooms and therefore recommend siting these in the less obstructed areas in situations where a choice needs to be made. They also suggest, again subject to practicality, locating areas without a special requirement for daylight, e.g. bathrooms, stairwells, garages and storage areas in the most obstructed areas.

5.25 External reflectances also help improve daylighting conditions within new buildings. Lighter coloured building materials and ground finishes are suggested; however these are subject to geometrical limitations and maintenance considerations.

5.26 Balconies and overhangs are often a necessary feature of new building design, especially where access to public amenity spaces is limited. These will inevitably have a negative effect to light entering windows located beneath them, especially where there are also significant obstructions opposite.

5.27 The BRE Guidelines suggest that well designed balconies offer pleasant amenity for future occupants and provide useful solar shading to help mitigate overheating risk, factors which need to be considered on balance against their inevitable limiting effect to daylight entering rooms located nearby.

Daylight Measure, New Build: Target Illuminance

5.28 As summarised above, BS EN 17037 sets out two methods for assessing and predicting illuminance levels within new buildings.

5.29 Of the two approaches, we have applied the more accurate "Climate Based Daylight Modelling" method, which is based on existing/ proposed geometry, local climatic weather files and surface reflectances both internal and external.

5.30 As can be seen, there are several influencing factors outside the control of the designer, i.e. degree of existing obstructions and their surface reflectances/ finishes. As such there will be varying degrees of daylighting potential dependent on the inherent context/ site location.

5.31 The default BS EN 17037 target daylight recommendations are as follows:

Table A.1 — Recommendations of daylight provision by daylight openings in vertical and inclined surface

Level of recommendation for vertical and inclined daylight opening	**Target illuminance** E_T lx	**Fraction of space for target level** $F_{plane,\%}$	**Minimum target illuminance** E_{TM} lx	**Fraction of space for minimum target level** $F_{plane,\%}$	**Fraction of daylight hours** $F_{time,\%}$
Minimum	300	50 %	100	95 %	50 %
Medium	500	50 %	300	95 %	50 %
High	750	50 %	500	95 %	50 %
NOTE Table A.3 gives target daylight factor (D_T) and minimum target daylight factor (D_{TM}) corresponding to target illuminance level and minimum target illuminance, respectively, for the CEN capital cities.					

Table A.2 — Recommendations of daylight provision by daylight openings in a horizontal surface

Level of recommendation for horizontal daylight opening	Target illuminance E_T lx	Fraction of space for target level $F_{plane,\%}$	Fraction of daylight hours $F_{time,\%}$
Minimum	300	95 %	50 %
Medium	500	95 %	50 %
High	750	95 %	50 %
NOTE Tables A.3 and A.4 give target daylight factor (D_T) corresponding to target illuminance level for the CEN capital cities. Note, that for spaces with horizontal daylight openings, there is no minimum target illuminance recommendations. Table A.4 is only for horizontal daylight openings with diffusing material.			

5.32 BS EN 17037 also contains the UK National Annex, which sets out alternative targets for dwellings in locations where a predominantly daylit appearance is not achievable, i.e. "hard to light". These alternative targets are set out below.

Table NA.1 — Values of target illuminance for room types in UK dwellings

Room type	Target illuminance E_T (lx)
Bedroom	100
Living room	150
Kitchen	200

5.33 The BRE Guidelines recommend that where a room has shared use the decision maker can use discretion, for example the target for a living room can be used for a combined living/kitchen/dining space if the kitchen is not treated as a habitable space.

Sunlighting

5.34 As for daylighting, the BRE Guidelines adopt different methods of measurement depending on whether the assessment is being undertaken to judge the impact on existing neighbouring buildings or the adequacy of natural light provision within new buildings.

5.35 There are separate methods for assessing sunlight provision to external spaces such as parks, sitting out areas and gardens.

5.36 These methods of sunlight measurement are summarised below.

New Development

5.37 Section 3.1 of the BRE guidance (New Development) recommends that access to sunlight in interiors be checked using the methods set out in BS EN 17037:2018 "*Daylight in Buildings*".

5.38 BS EN 17037 recommends assessment of direct sunlight exposure on a selected date between February 1 and March 21, assuming a cloudless sky. For dwellings, it recommends that at least one habitable room achieves the targets.

5.39 The BRE Guidelines state (at paragraph 3.1.2):

> *"In housing, the main requirement for sunlight is in living rooms, where it is valued at any time of day but especially in the afternoon. Sunlight is also required in conservatories.*
>
> *It is viewed as less important in bedrooms and in kitchens, where people prefer it in the morning rather than the afternoon."*

5.40 The BRE Guidelines therefore suggest using March 21 (equinox) as the assessment day and to aim for the living area as the habitable room to achieve the target, as arguably this is where sunlight would be most valued.

5.41 As for daylight, BS EN 17037 gives a range of recommendations for 'high', 'medium' and 'minimum' sunlight provision.

Sunlight Measure, New Build: Target Sunlight Exposure

5.42 BRE Guidelines set out that site layout is the most important factor affecting the duration of sunlight in buildings, more specifically site orientation and degree of overshadowing.

5.43 With respect to orientation, the BRE Guidelines state (at paragraph 3.1.6):

> *"A south-facing window will, in general, receive most sunlight, while a north facing one will only receive it on a handful of occasions (early morning and late evening in summer).*
>
> *…*
>
> *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."*

5.44 With respect to overshadowing, the BRE Guidelines make recommendations mainly with regards to the layout of new buildings, however existing third-party buildings and obstructions will of course have an influence.

5.45 The inherent site orientation and degree of overshadowing are outside the control of the designer and the BRE Guidelines accept that it is not always feasible to have all living areas facing south, especially in denser development when seeking to make most efficient use of the available site area.

5.46 The default BS EN 17037 target sunlight recommendations are as follows:

Table A.6 — Recommendation for daily sunlight exposure

Level of recommendation for exposure to sunlight	Sunlight exposure
Minimum	1,5 h
Medium	3,0 h
High	4,0 h

Flexibility

5.47 As set out in the BRE Guidelines and BS EN 17037:2018, these default recommendations are "purely advisory" (paragraph F1) and "should be interpreted flexibly" (paragraph 1.6).

5.48 This does not mean that the default recommendations and targets within the Guidelines can be disregarded but, instead, any 'flexibility' that is applied after applying the default recommendations should be founded on sound scientific principles that can be objectively supported and justified.

5.49 Where appropriate, if the initial assessments show non-compliance with the default target recommendations, the suggestions in the BRE guidance with respect to alternative targets have been applied, as follows.

New Development

5.50 The location of the site in a very dense part of Central London with neighbouring properties in close proximity together with the constraints posed by the existing building means it is appropriate for flexible application of the default UK National Annex targets.

6. Assessment Results and Commentary: Amenity Provision within the Proposed Development

Daylight and Sunlight to Proposed Habitable Rooms

6.1 As set out above, CBDM assessments have been undertaken and judged against the default targets set out in the UK National Annex. (BS EN 17037), as well as Sunlight Exposure assessments to each of the proposed habitable rooms within the proposed dwellings.

6.2 It should be noted however that some of the existing areas proposed to be converted are northerly facing, in respect of which the BRE Guidelines sets out that the default criteria are unlikely to be met.

6.3 AY have worked alongside the design team throughout the design process to maximise levels of natural light within the Proposed Development as far as reasonably possible, given the Site context and the need to make efficient use of the land to provide much needed housing.

6.4 The need for flexibility in applying the BRE Guidelines applies equally to the consideration of light levels within a proposed development.

6.5 The following design measures were considered within the constraints of the current building to take daylight and sunlight into account:

- Designing dual aspect habitable rooms where feasible;
- Arranging layouts to prioritise daylight and sunlight within the main living areas;
- Arranging room layouts to ensure the potential of each window is realised, as far as reasonably possible;
- Where practical, locating non-habitable rooms and those requiring less daylight and sunlight in more obstructed locations;
- Provision of glazed doors and translucent internal partitions to help circulate natural light within the proposed dwellings.

6.6 The results of the assessments are at appendix 1.

6.7 With regard to the CBDM analysis the following variables were applied:

• Internal Walls – 0.8	• Internal Ceilings – 0.8
• Internal floors – 0.4	• Internal reveals – 0.8
• External walls/ reveals – 0.4	• Surroundings and ground - 0.2
• Glazing Transmittance – 0.68	• Glazing bar correction – 0.75
	• Maintenance Factor – 0.92/0.76

6.8 The table below summarises the assessment results.

	LIVING AREAS / KITCHENS		BEDROOMS	
	150lx, 50% Area, 50% Time	**1.5h Sunlight Exposure (March 21)**	**100lx, 50% Area, 50% Time**	**1.5h Sunlight Exposure (March 21)**
Rooms Assessed	4	4	6	6
Meeting Default Recommendation	4	2	4	0
Equivalent Percentage	**100%**	**50%**	**67%**	**0%**

Proposed Living Areas/ Kitchens

6.9 A total of 2 proposed living/ dining areas and 2 large kitchens were assessed in the proposed development.

Daylight

6.10 These would achieve 100% of their areas in receipt of 150lx over 50% of daylight hours, comfortably meeting the default UKNA recommendation of at least 50%.

6.11 In respect of the kitchen areas, these would also satisfy the higher UKNA target of $sDA_{200,\ 50\%}$, also achieving this for 100% of their area.

Sunlight

6.12 As set out in the BRE Guidance, sunlight is more heavily dependent on factors outside the control of the designer i.e. existing obstructions and site orientation.

6.13 These factors are highly influential in respect of the proposed development, whereby the central London urban location and orientation of the current buildings heavily restrict sunlight access.

6.14 Despite these factors, both proposed semi-detached houses would achieve the default recommendation of at least 1.5hrs of sunlight on 21 March, in respect of their dual aspect living dining spaces.

Proposed Bedrooms

6.15 A total of 6 proposed bedrooms were assessed, 3 in each proposed house.

6.16 It should be noted that natural light to bedrooms is generally less important, given their mainly night time use.

Daylight

6.17 4 (i.e. the two main bedrooms in each proposed house) would achieve the UKNA recommendation for their proposed use.

6.18 The remaining third bedroom/ study in each house achieves either 0.0% or 23.2% of their area in receipt of at least 100lx for 50% of annual daylight hours, reflective of the strategy whereby daylight has been prioritised to living areas or primary bedrooms.

6.19 Glazing has been maximised to these, bearing in mind overheating and privacy concerns.

6.20 Given their mainly night time use and prioritisation of main bedrooms and living/ kitchen areas these are considered acceptable on balance.

Sunlight

6.21 As set out in the BRE guidance, the priority for sunlight amenity is in respect of living areas, as discussed above. As such, the proposed bedrooms have been located on the lower ground floor level, illuminated by large areas of glazing onto lightwells. Rooflights have also been incorporated where practical.

6.22 On the reference / average annual conditions day of 21 March, one bedroom in each proposed house would achieve a degree of sunlight exposure. Proposed bedroom R4/59 achieves 80mins of sunlight exposure, marginally below the default recommendation of at least 90mins.

6.23 Proposed bedroom R5/59 achieves 20mins on the same reference day.

6.24 It should be noted that this is a singular "snapshot" of a continually changing situation and therefore it is most likely that R4/59 will meet the recommendation shortly after 21 March, with R5/59 following afterwards.

Overall Conclusion: Amenity Provision within the Proposed Development

6.25 The BRE Guidelines state that development in very dense urban locations is challenging in terms of achieving their default recommendations, which are based on more standard suburban contexts.

6.26 Furthermore, when converting a "host" building for residential use there are additional constraints which dictate daylight and sunlight performance when compared to new-build, for example room location/ orientation and glazing sizes.

6.27 The BRE Guidelines also recognise this and state that such dwellings can be "hard to light" and further sunlight targets are unlikely to be met.

6.28 The proposed development follows this expected pattern and given the inherent limitations/ constraints, as discussed above the living areas have been prioritised over sleeping areas.

6.29 It must also be borne in mind the need to make efficient use of the available site footprint to provide much needed housing, as set out in National Planning Policy. This recommends flexible application of default standards and targets.

6.30 In overall conclusion the proposed dwellings will provide an adequate level of natural light amenity for future occupants on balance.

7. Summary and Conclusions

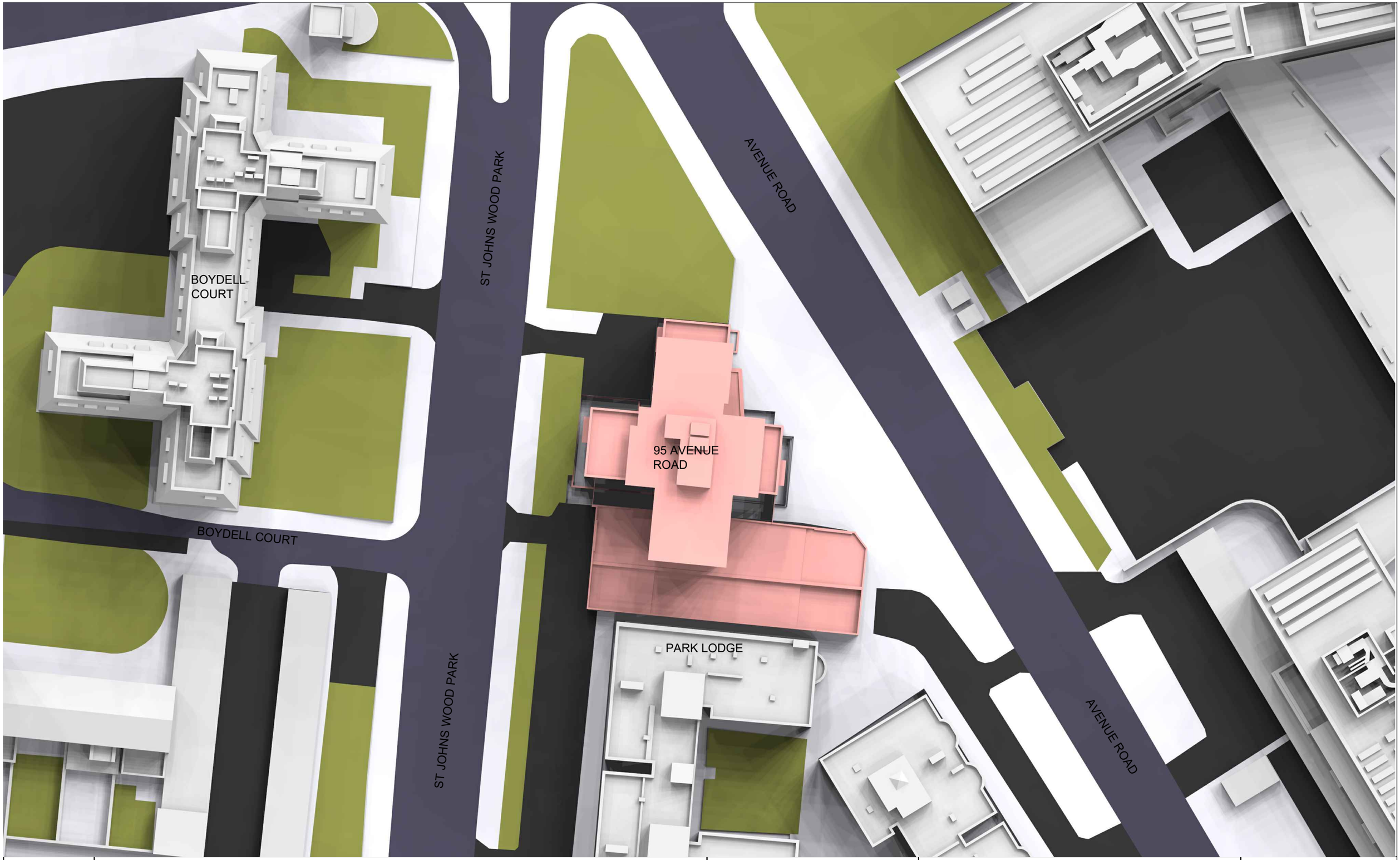
7.1 The detailed assessments showed that the proposed development would follow the expectations set out in the default BRE recommendations given the very dense context and nature of the development.

7.2 When taken in the round and applying the requisite flexibility, the assessment results demonstrate that the proposed development would provide an acceptable level of daylight and sunlight amenity for future occupants, especially when considering that the living areas have been prioritised for the most access to available skylight.

7.3 In overall conclusion the proposed development is therefore considered to meet local and national planning policy related to Daylight and Sunlight, especially in the context of aiming to achieve efficient site use/ density and the need to consider Daylight and Sunlight matters as part of the overall amenity balance.

Appendix I

Assessment Drawings and Results Tables



Key:

- Existing
- Proposed
- Consented
- Surrounding Context

Sources of information

Existing building
measured survey 7 Jan 22
27798A-1(Land Survey)
27798A-12(Elevations & Section)
27798A-11(Roof Plan)
27798A-3(Ground Floor Plan)

Surrounding buildings
ACCUCITIES MODEL 28 JAN 2022
2447_95 Avenue Road_HD_MASTER

Proposed building
19.Revised Proposed internals - 05.05.2023
2305-05 to AY (Semi & LGF
Conversion updated for review)
LGF Conversion
Semi Detached Houses

Consented
N/A

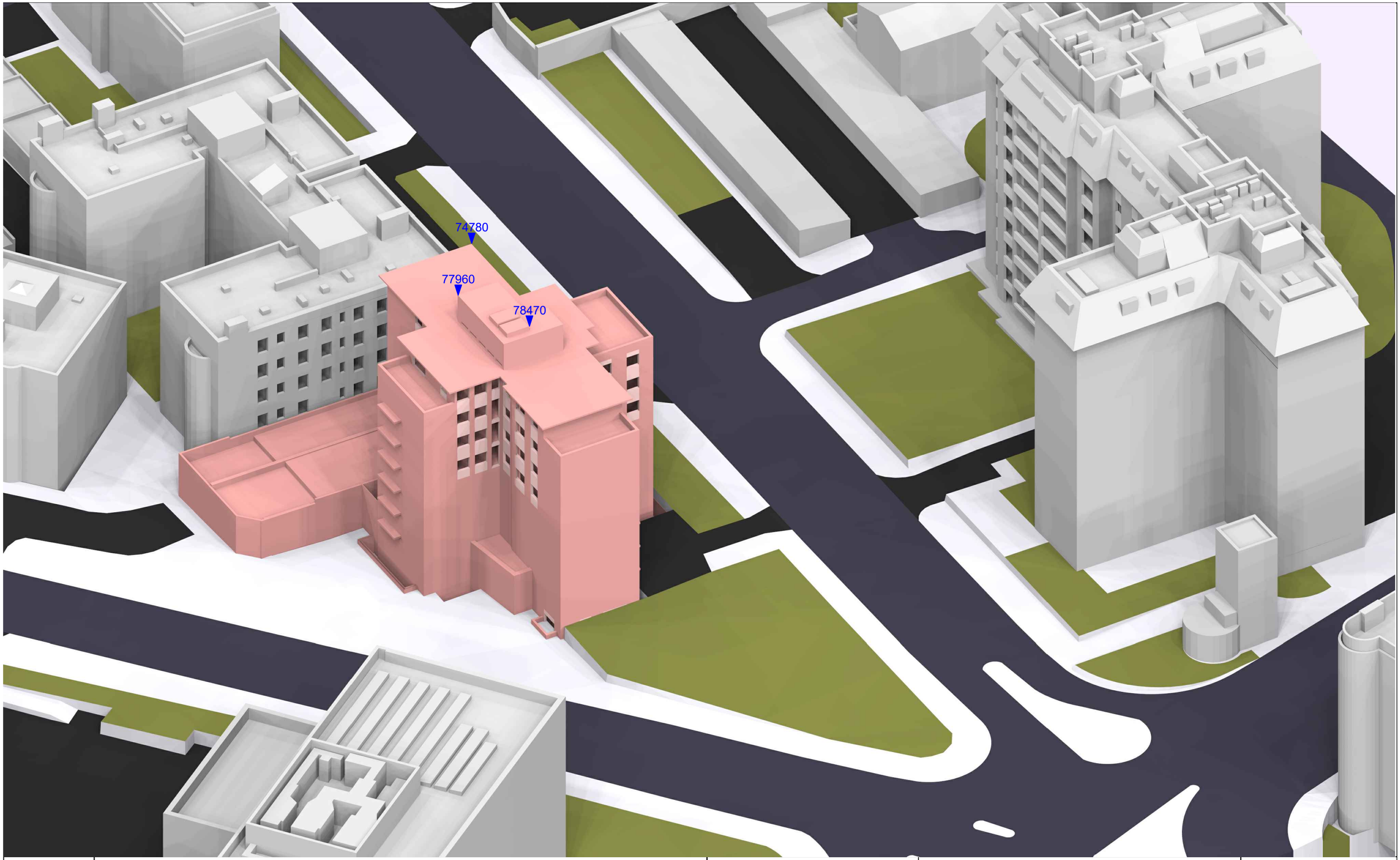
Project Name
95 AVENUE ROAD

Drawing Title
PLAN VIEW FOR
EXISTING SITE

Drawn By	Scale @ A3	Date
RV	N/A	17 MAY 2023

Project No.	Drawing No.	Revision
AV26/12	BRE/01	-

AVISON YOUNG
65 Gresham Street, London, EC2V 7NQ
08449 02 03 04 www.avisonyoung.co.uk



Key:

- Existing
- Proposed
- Consented
- Surrounding Context

Sources of information

Existing building
measured survey 7 Jan 22
27798A-1(Land Survey)
27798A-12(Elevations & Section)
27798A-11(Roof Plan)
27798A-3(Ground Floor Plan)

Surrounding buildings
ACCUCITIES MODEL 28 JAN 2022
2447_95 Avenue Road_HD_MASTER

Proposed building
19.Revised Proposed internals - 05.05.2023
2305-05 to AY (Semi & LGF
Conversion updated for review)
LGF Conversion
Semi Detached Houses

Consented
N/A

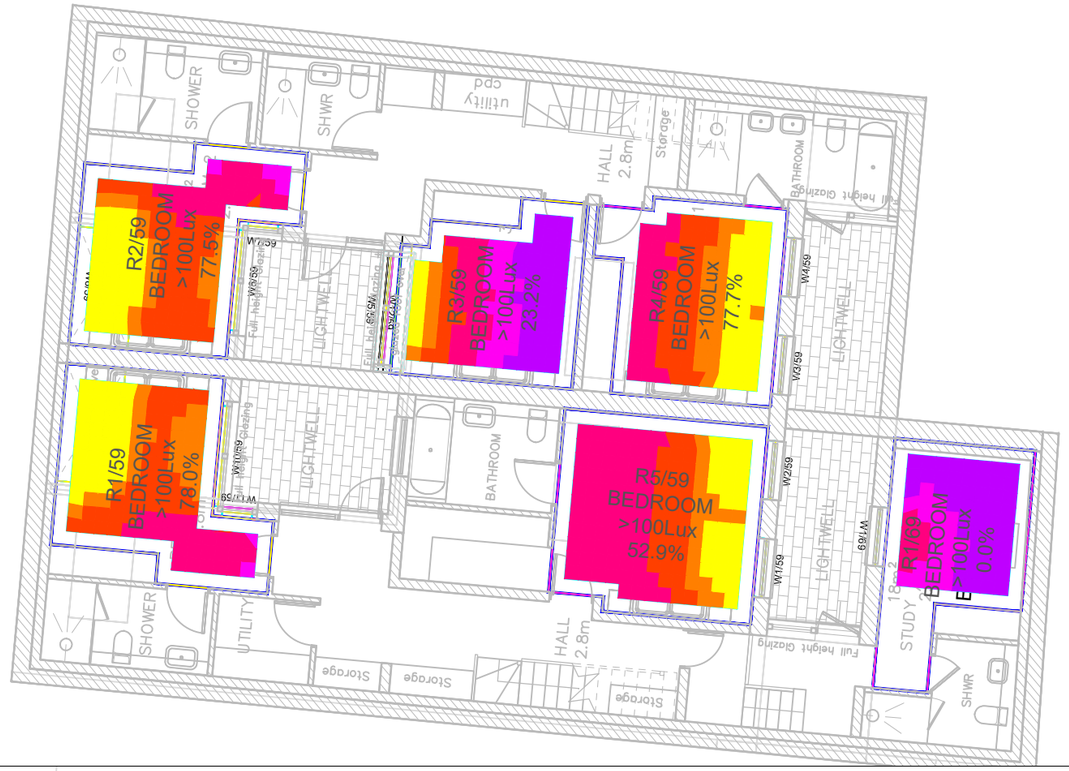
Project Name
95 AVENUE ROAD

Drawing Title
3D VIEW FOR
EXISTING SITE

Drawn By	Scale @ A3	Date
RV	N/A	17 MAY 2023

Project No.	Drawing No.	Revision
AV26/12	BRE/03	-

AVISON YOUNG
65 Gresham Street, London, EC2V 7NQ
08449 02 03 04 www.avisonyoung.co.uk



LOWER GROUND FLOOR

GROUND FLOOR

Key:
Daylight Illuminance falsecolour Lux

- 0-5 lux
- 5-10 lux
- 10-25 lux
- 25-50 lux
- 50-100 lux
- 100-150 lux
- 150-200 lux
- >200 lux

Sources of information

Existing building
measured survey 7 Jan 22
27798A-1(Land Survey)
27798A-12(Elevations & Section)
27798A-11(Roof Plan)
27798A-3(Ground Floor Plan)

Surrounding buildings
ACCUCITIES MODEL 28 JAN 2022
2447_95 Avenue Road_HD_MASTER

Proposed building
19.Revised Proposed internals - 05.05.2023
2305-05 to AY (Semi & LGF Conversion updated for review)
LGF Conversion
Semi Detached Houses

Consented
N/A

Project Name	**Drawn By**	**Scale @ A3**	**Date**
95 AVENUE ROAD	RV	1/150	17 MAY 2023
Drawing Title			
Daylight Illuminance UKNA 200LUX LKD	**Project No.**	**Drawing No.**	**Revision**
95 AVENUE ROAD - 2 Semi Detached houses	AV26/12	BRE/05	-

AVISON YOUNG
65 Gresham Street, London, EC2V 7NQ
08449 02 03 04 www.avisonyoung.co.uk

AVISON YOUNG

95 AVENUE ROAD - LONDON
17-May-23
Daylight Illuminance UK National Annexe 150 LUX results
JOB 12

Address	Flat No.	Level	Room Label	Room Use	Room Area sq m	Percentage of Daylight Hours %	Median Illuminance Lux	Ref Plane Target %	Room Use Target IlluminanceLux	Fraction of Working Plane % Area	Above/ Below
							PROPOSED BASEMENT				
95 AVENUE ROAD	2	Base	R1/39	BEDROOM	7.97	50	20.6	50	100	29.9	Below
95 AVENUE ROAD	2	Base	R2/39	LKD	9.52	50	158.4	50	100	73.5	Above
95 AVENUE ROAD	2	Base	R3/39	BEDROOM	22.8	50	104.8	50	150	32.9	Below
95 AVENUE ROAD	1	Base	R4/39	BEDROOM	6.65	50	58.8	50	100	31.6	Below
95 AVENUE ROAD	1	Base	R5/39	LKD	22.76	50	185.5	50	150	62.5	Above
95 AVENUE ROAD	1	Base	R6/39	BEDROOM	11.26	50	228.3	50	100	84.5	Above
95 AVENUE ROAD	H2	Base	R1/59	BEDROOM	9.5	50	146.4	50	100	78	Above
95 AVENUE ROAD	H1	Base	R2/59	BEDROOM	9.5	50	134.8	50	100	77.5	Above
95 AVENUE ROAD	H1	Base	R3/59	BEDROOM	8.2	50	36.2	50	100	23.2	Below
95 AVENUE ROAD	H1	Base	R4/59	BEDROOM	9.03	50	144.5	50	100	77.7	Above
95 AVENUE ROAD	H2	Base	R5/59	BEDROOM	11.94	50	104.5	50	100	52.9	Above
95 AVENUE ROAD	H2	Base	R1/69	BEDROOM	6.1	50	20.4	50	100	0	Below
							GROUND FLOOR				
95 AVENUE ROAD	H2	Gnd	R1/60	KITCHEN	15.45	50	525.8	50	150	100	Above
95 AVENUE ROAD	H1	Gnd	R2/60	KITCHEN	16.49	50	517.3	50	150	100	Above
95 AVENUE ROAD	H1	Gnd	R3/60	LD	21.55	50	678.9	50	150	100	Above
95 AVENUE ROAD	H2	Gnd	R4/60	LD	21.33	50	662.9	50	150	100	Above

Total Above	11
Total Below	5
Percentage Below rate	31.25%
Percentage Above rate	68.75%
Total rooms	16

AVISON YOUNG

95 AVENUE ROAD - LONDON

Sunlight Exposure Analysis results for February 01, March 01 & March 21 Job 13 17 MAY 2023

Room	Feb-01	Above/Below 90 mins	Mar-01	Above/Below 90 mins	Mar-21	Above/Below 90 mins	Room use	Flat number
95 AVENUE ROAD - BASEMENT								
BASE FLOOR								
R1/39	0	BELOW	0	BELOW	0	BELOW	BEDROOM	2
R2/39	0	BELOW	40	BELOW	60	BELOW	LKD	2
R3/39	0	BELOW	50	BELOW	95	ABOVE	BEDROOM	2
R4/39	0	BELOW	0	BELOW	0	BELOW	BEDROOM	1
R5/39	0	BELOW	0	BELOW	10	BELOW	LKD	1
R6/39	0	BELOW	0	BELOW	0	BELOW	BEDROOM	1
95 AVENUE ROAD - HOUSES								
BASE FLOOR								
R1/59	0	BELOW	0	BELOW	0	BELOW	BEDROOM	H2
R2/59	0	BELOW	0	BELOW	0	BELOW	BEDROOM	H1
R3/59	0	BELOW	0	BELOW	0	BELOW	BEDROOM	H1
R4/59	0	BELOW	5	BELOW	80	BELOW	BEDROOM	H1
R5/59	0	BELOW	0	BELOW	20	BELOW	BEDROOM	H2
R1/69	0	BELOW	0	BELOW	0	BELOW	BEDROOM	H2
GND FLOOR								
R1/60	0	BELOW	0	BELOW	0	BELOW	KITCHEN	H2
R2/60	0	BELOW	0	BELOW	75	BELOW	KITCHEN	H1
R3/60	95	ABOVE	230	ABOVE	265	ABOVE	LD	H1
R4/60	65	BELOW	190	ABOVE	250	ABOVE	LD	H2

	Total above	1	Total above	2	Total above	3
	Total below	15	Total below	14	Total below	13
	Percentage below ra	93.75%	Percentage below rate	87.50%	Percentage below rate	81.25%
	Percentage above ra	6.25%	Percentage above rate	12.50%	Percentage above rate	18.75%
	Total rooms	16	Total rooms	16	Total rooms	16
LKD above	0	0%	0	0%	0	0%
BEDROOM above	0	0%	0	0%	1	10%
KD above	0	0%	0	0%	0	0%
LIVING above	0	0%	0	0%	0	0%
LD above	1	50%	2	100%	2	100%
KITCHEN above	0	0%	0	0%	0	0%
STUDIO above	0	0%	0	0%	0	0%
B_S above	0	0%	0	0%	0	0%
B_S_K above	0	0%	0	0%	0	0%
DINING above	0	0%	0	0%	0	0%
COMMUNAL above	0	0%	0	0%	0	0%
Total LKD	2		2		2	
Total BEDROOM	10		10		10	
Total KD	0		0		0	
Total Living Room	0		0		0	
Total LD	2		2		2	
Total KITCHEN	2		2		2	
Total STUDIO	0		0		0	
Total B_S	0		0		0	
Total B_S_K	0		0		0	
Total DINING	0		0		0	
Total COMMUNAL	0		0		0	
Total	16		16		16	

Contact Details

Enquiries
Gregory Francis
07908 664 649
gregory.francis@avisonyoung.com

Visit us online
avisonyoung.co.uk

Avison Young
3 Brindleyplace, Birmingham B1 2JB