



DAYLIGHT & SUNLIGHT

IMPACT ON NEIGHBOURING
PROPERTIES REPORT

85 Grays Inn Road

Clearbell Capital LLP

02 July 2021

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Architect **BMJ Architects**
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DISCLAIMER:

This report has been prepared for Clearbell Capital LLP by GIA as their appointed Daylight & Sunlight consultants. It is accurate as at the time of publication and based upon the information we have been provided with as set out in the report. It does not take into account changes that have taken place since the report was written nor does it take into account private information on internal layouts and room uses of adjoining properties unless this information is publicly available.



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1 EXECUTIVE SUMMARY

GIA have assessed the proposed BMJ Architects scheme “proposed development” for the 85 Grays Inn Road site to understand the potential changes in light to the relevant surrounding properties.

- 1.1 GIA have been instructed by Clearbell Capital LLP to provide daylight, sunlight and overshadowing advice in relation to the 85 Grays Inn Road development in the London Borough of Camden. The proposed development includes an infill to the existing lightwell and an updated roof configuration.
- 1.2 GIA have undertaken a technical daylight, sunlight and overshadowing assessment of the architect’s scheme at 85 Grays Inn Road “the site” to understand the potential effect of the development on the daylight and sunlight amenity of the relevant neighbouring properties. Since the model was issued to GIA on 21st June 2021, there have been design changes made to the roof configuration including the adjustment of the fume extract and the air handling unit. Although GIA have not updated our technical analysis to reflect these changes, in our professional opinion, the alterations will not affect the conclusions within this report.
- 1.3 The requirement in London boroughs for significantly more living and working spaces necessitates higher density development. The Site is located within the London Borough of Camden..
- 1.4 The daylight and sunlight analysis has been considered by reference to the criteria and methodology within the Building Research Establishment Guidelines (2011), which when published, recognised that it should not form a mandatory set of criteria, rather it should be used to help and inform design.
- 1.5 Upon successful completion of the proposed scheme 1 of the 2 (50%) properties will meet the national numerical values identified in paragraphs 2.2.21 and 3.2.11 of the BRE handbook for daylight and sunlight.
- 1.6 When considering daylight (VSC and NSL) to the remaining property, it will experience an isolated imperceptible breach of VSC to one window, whilst the NSL test is met for daylight.
- 1.7 Breaches in sunlight (APSH) occur to two of the five rooms assessed within this property.
- 5.1 The primary window serving these two rooms is opaque and limits the level of sunlight entering the room in the existing scenario. In our opinion it is unlikely the change in sunlight will alter how these spaces are currently used and enjoyed.

2 THE SITE

GIA have been instructed to review and advise on the daylight and sunlight impacts associated with the implementation of the proposed development at 85 Grays Inn Road.

THE SITE

- 2.1 The Site is located in the London Borough of Camden and is bordered by Grays Inn Road to the north, Roger Street to the south and Brownlow Mews to the west.
- 2.2 Figure 01 below illustrates the Site. Further drawings are enclosed at Appendix 03 of this report.



Figure 01: 3D model of the site and Existing Property

PROPOSED DEVELOPMENT

- 2.3 The design focus for the proposed development is to infill the lightwell at the north of the existing building and reconfigure the existing roof.
- 2.4 GIA's understanding of the proposed development is illustrated in Figure 02.
- 2.5 Further drawings are enclosed in Appendix 3.

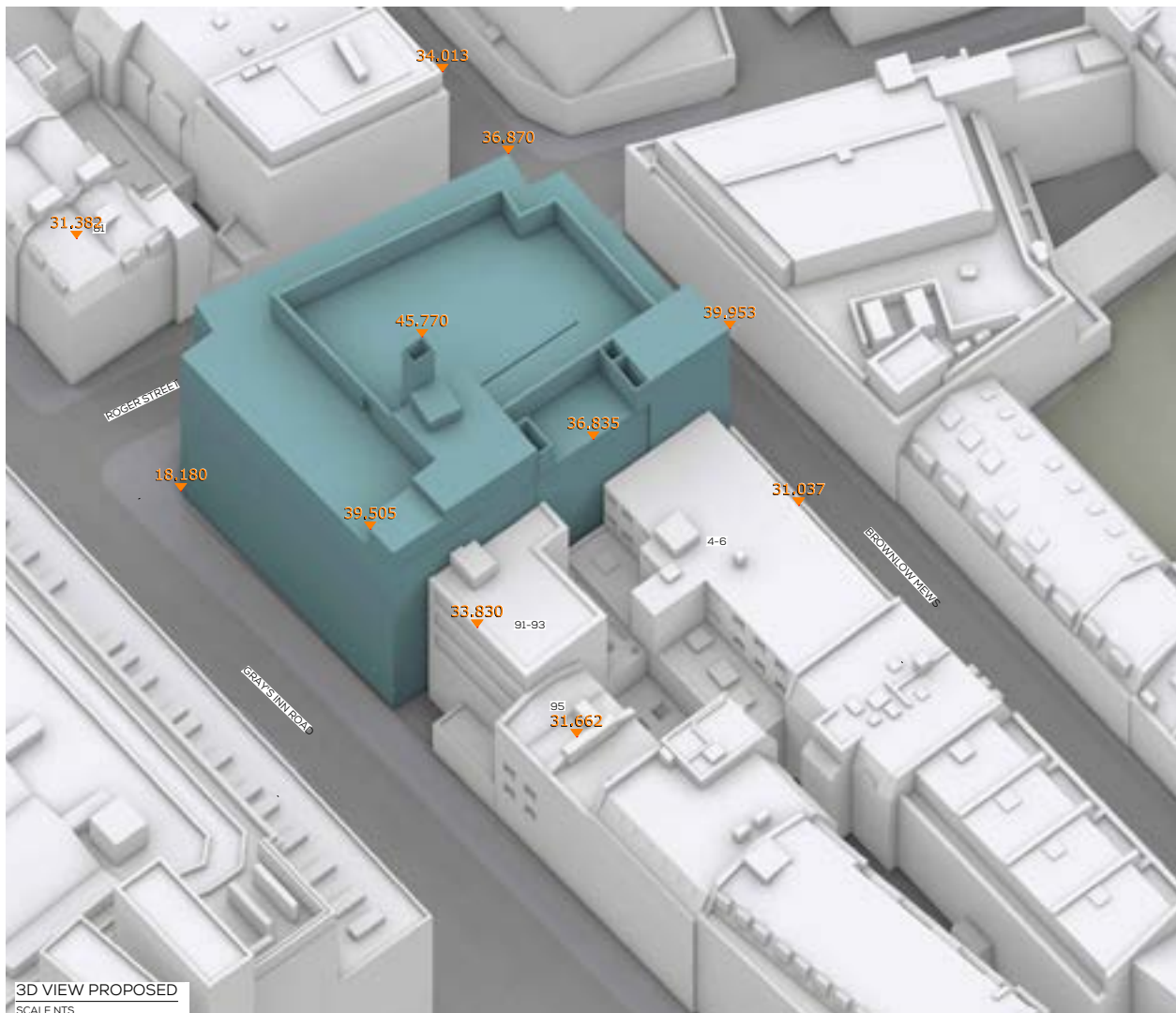


Figure 02: 3D Perspective View of the Proposed Scheme

3 POLICY & THE WIDER CONTEXT

- 3.1 Below we have detailed sections from the following documents as they are, in our opinion, the most pertinent in relation to daylight and sunlight matters and how we have approached the effects of the Proposed Development on the relevant neighbouring properties:
- National Planning Policy Framework (NPPF) (Feb 2019) (Ministry of Housing Communities and Local Government (MHCLG));
 - National Planning Practice Guidance (NPPG) (updated October 2019) (MHCLG);
 - The London Plan (March 2021) (Greater London Authority);
 - Sustainable Design and Construction Supplementary Guidance (2014);
 - Camden Local Plan (July 2017); and
 - London Borough of Camden Draft Site Allocation Plan (2020).

NATIONAL PLANNING POLICY FRAMEWORK (JUNE 2019)

- 3.2 The NPPF (Feb 2019) states that local planning authorities should refuse applications which they consider fail to make efficient use of land. The discussion in relation to daylight and sunlight highlights the Government's recognition that increased flexibility is required in response to the requirement for higher density development.

"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)"

NATIONAL PLANNING PRACTICE GUIDANCE (UPDATED JULY 2019)

- 3.3 In light of the update to the Government's Planning Practice Guidance, we have considered the relevant paragraphs on daylight and sunlight.
- 3.4 Paragraph 6 of the NPPG (Ref ID: 66-006-20190722) acknowledges that new development may cause an impact on daylight and sunlight levels enjoyed by neighbouring occupiers. It requires local authorities to assess whether the impact to neighbouring occupiers would be "unreasonable".

THE LONDON PLAN (MARCH 2021)

- 3.5 The London Plan was published in March 2021 and sets out the integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years.
- 3.6 Part D of Policy D6 (Housing Quality and Standards) states that 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."
- 3.7 It is clear that the GLA's focus is on sufficient or retained daylight and sunlight to neighbouring properties and highlights that context will be a consideration to determine sufficiency.

CAMDEN LOCAL PLAN (JULY 2017)

- 3.8 The Camden Local Plan was adopted by Council on 3 July 2017 and comprises the strategic and development management policies which will be used to inform development in the borough.
- 3.9 Policy A1 of the Camden Local Plan (2017) seeks to ensure that standard of amenity are protected. It states that 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" (our emphasis).

- 3.10 There are several factors the Council have identified as contributing to amenity, which includes "sunlight, daylight and overshadowing". The policy recognises that harm to daylight and sunlight condition within neighbouring properties, as well as overshadowing can occur, but it is to be considered whether this is "unacceptable".
- 3.11 A two staged approach should be considered when applying this policy:
- Whether there is any "harm" to existing daylight and sunlight levels and overshadowing of adjoining properties; and
 - Whether the level of "harm" is unacceptable.

- 3.12 Supporting text requires applicants to refer to the BRE Guidelines (para 6.5).

LONDON BOROUGH OF CAMDEN DRAFT SITE ALLOCATION PLAN (2020)

- 3.13 The Site is located within the Council's Draft Site Allocations Plan (2020) under Policy HCG1 ('Holborn and Covent Garden Area'). The draft allocation supports the comprehensive redevelopment of this area with a mix of commercial, leisure and retail uses, emphasising the requirement for higher density redevelopment of existing properties and infill development.
- 3.14 The Site lies within the Central Activities Zone ('CAZ').

4 BRE GUIDELINES & CONTEXT METHODOLOGY

The Building Research Establishment (BRE) have set out in their handbook '*Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice (2011)*', guidelines and methodology for the measurement and assessment of daylight and sunlight.

BUILDING RESEARCH ESTABLISHMENT GUIDELINES 2011

- 4.1 The BRE Guidelines note that the document is intended to be used in conjunction with the interior daylight recommendations found within the British Standard BS8206-2:2008 and The Applications Manual on Window Design of the Chartered Institution of Building Services Engineers (CIBSE).
- 4.2 The BRE Guidelines provides three methodologies for daylight assessment of neighbouring properties, namely;
 - 1 The Vertical Sky Component (VSC);
 - 2 The No Sky Line (NSL); and
 - 3 The Average Daylight Factor (ADF).
- 4.3 For daylight to be compliant (in accordance with figure 20 of the Guide), both the VSC and NSL tests have to be met.
- 4.4 The BRE Guidelines suggest that the ADF assessment should only be used to "*check that adequate daylight is provided in new rooms*", rather than existing buildings.
- 4.5 There is one methodology provided by the BRE Guidelines for sunlight assessment, denoted as Annual Probable Sunlight Hours (APSH).
- 4.6 It is an inevitable consequence of the built-up urban environment that daylight and sunlight will be more limited in dense urban areas. It is well acknowledged that in such situations there may be many planning and urban design matters to consider other than daylight and sunlight.
- 4.7 The BRE Guide provides two methods of overshadowing assessment, the Sun Hours on Ground and Transient Overshadowing studies.
- 4.8 Appendix 02 of this report elaborates on the mechanics of each of the above assessment criteria, explains the appropriateness of their use and the parameters of each specific recommendation.

5 DAYLIGHT & SUNLIGHT IMPACTS TO NEIGHBOURING PROPERTIES

This section details the daylight and sunlight impacts in relation to the relevant properties neighbouring the Site.

- 5.1 A three-dimensional computer model of the Site and surrounding properties was produced to carry out the relevant technical studies. All relevant assumptions made in producing this model can be found in Appendix 01.
- 4.9 It was agreed that GIA would complete the modelling of the neighbouring properties in line with our standard assumptions, using any relevant floor plans obtained to understand room uses only
- 4.10 All relevant assumptions made in producing this model can be found in Appendix 01.

SURROUNDING PROPERTIES

- 5.1 GIA have identified the following properties as relevant for daylight and sunlight assessment:
 - 91-93 Grays Inn Road; and
 - 4-6 Brownlow Mews.
- 5.2 The following properties adhere to the numerical values set out within the BRE Guidelines and are not discussed further:

- 4-6 Brownlow Mews.
- 5.3 Where changes in daylight and sunlight occur to the remaining properties, the impacts are fully discussed in the following sections. All results can be found in Appendix 04.
- 5.4 To assist the readers understanding of the surrounding properties and window locations, we have produced window maps which are enclosed at Appendix 05 of this report.

DISCUSSION OF RESULTS

91 -93 Grays Inn Road

- 5.5 This property is located north east of the site and has been identified as residential in use.
- 5.6 We have sourced proposed floor plans which detail each of the room uses within this property. The floor plans obtained display two additional roof lights which serve the first floor rooms, however a site photograph issued to GIA by BMJ architects on 31st May 2021 confirms that only one roof light exists at

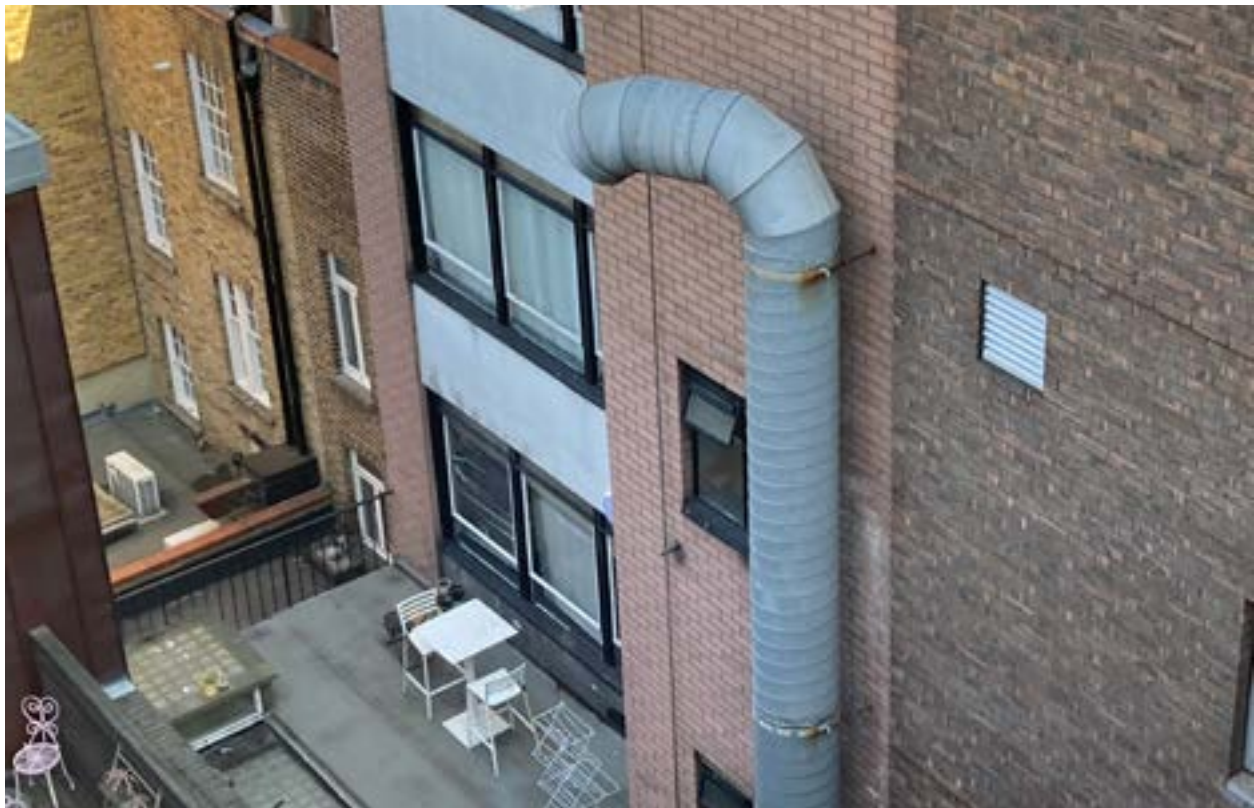


Figure 03: Image showing the roof light serving 91-93 Grays Inn Road

this current time.

- 5.7 Figure 04 is a copy of the floor plan GIA have obtained and used to update our 3D model, whilst figure 03 shows the recent photograph of the one roof light in existence. We have considered it most appropriate to only model the one window in existence.
- 5.8 GIA have therefore used these floor plans to ascertain the room uses only.
- 5.9 A copy of the floor plans can be located in Appendix 05.

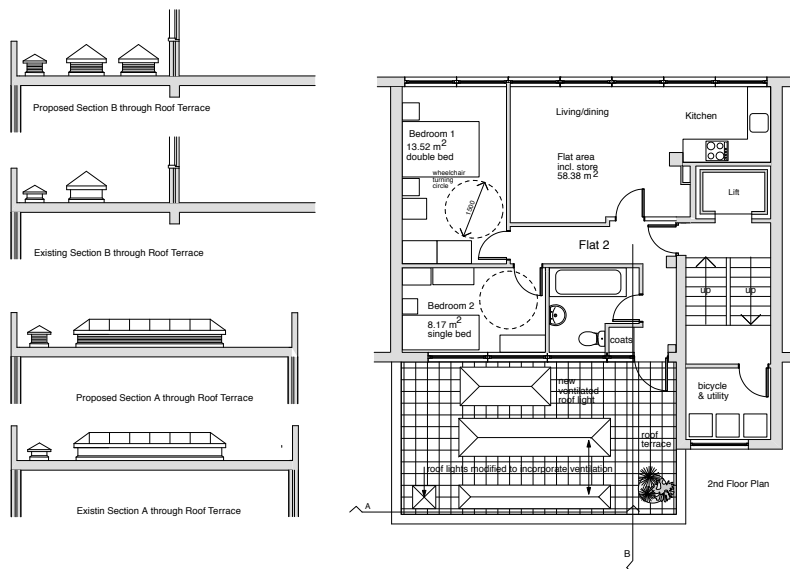
Daylight (VSC & NSL)

- 5.10 In relation to VSC, our analysis demonstrates that one of the seven windows assessed will experience a change in light that exceeds the numerical criteria in the BRE Guidelines.
- 5.11 This window experiences a small absolute change of 1.4.

- 5.12 When considering VSC to the room this window serves, it is considered compliant and the room benefits further from a mitigating window that is also considered compliant when assessed against the VSC criteria.
- 5.13 We understand the failing window to serve a bedroom. The BRE considers the use of bedrooms less important in relation to daylight as the primary use of the room is for sleeping.
- 5.14 Turning to the NSL assessment, all rooms are considered fully compliant against the BRE criteria

Sunlight (APSH)

- 5.15 In relation to sunlight (APSH), there are five habitable rooms which have seven windows facing within 90 degrees of due south. Upon successful implementation of the scheme, three rooms achieve compliance in relation to Sunlight
- 5.16 Of the two rooms which do not meet the criteria, we understand one to be a bedroom and the other to be a Living Kitchen Diner (LKD).



<p>0 1 2 3 4 5 6 plan scale metres</p>		<p>Print on A4 paper</p>				
<p>Revisions</p> <table border="1"> <tr> <td>A</td> <td>7/5/2014</td> <td>Flat revised to show 3 bedrooms & bicycle store note added</td> </tr> </table>	A	7/5/2014	Flat revised to show 3 bedrooms & bicycle store note added	<p>Job 91 Gray's Inn Road, London WC1X 8TX</p> <p>Title Proposed Second Floor Plan</p>	<p>Triplos Architects Corner House, High Street, Wrotham, Kent TN15 7AD tel: 01732 789667 e-mail: info@triplosarchitects.co.uk</p>	<p>Scale 1:100 Date October 2013 Drawing No. 8390.15A</p>
A	7/5/2014	Flat revised to show 3 bedrooms & bicycle store note added				

Figure 04: Image showing the roof light serving 91-93 Grays Inn Road

- 5.17 The bedroom experiences a percentage alteration of 90%. The BRE considers the use of bedrooms less important in relation to sunlight as the primary use of the room is for sleeping.
- 5.18 The LKD experiences a percentage alteration of 58%.
- 5.19 From a review of the floor plans obtained, both the bedroom and the LKD are served by the same roof light. This is shown on the floor plan in figure 04 and the window maps in figures 05-07 overleaf.
- 5.20 Figure 03 demonstrates the shared window is opaque due to its luxcrete style, therefore although there will be a breach in guidance, in our opinion it is unlikely the change in sunlight will alter how these spaces are currently used and enjoyed.
- 5.21 The expectation of sunlight should also be considered in the context of the urban grain of the location and the relationship with the neighbouring buildings.
- 5.22 In this case, it is apparent that natural light sources to these rooms is already very limited. This is supported by the fact the windows face onto a compacted lightwell and the impacted rooms share one source of natural light via the luxcrete style roof light which limits the light entering the room in the existing

scenario.

Conclusion

- 5.23 In conclusion only one bedroom and one LKD will see a change in sunlight by reference to the APSH test, whilst there is an isolated breach in VSC to one window, whilst the NSL test is met for daylight.
- 5.24 In consideration of the above, although there is a breach of the BRE Guidelines in relation to the daylight and sunlight levels, this is to one bedroom (which has less significance in daylight and sunlight terms) and an LKD which sees an absolute APSH change of 9. Furthermore the primary window serving these rooms is opaque and limits the level of sunlight entering the room.

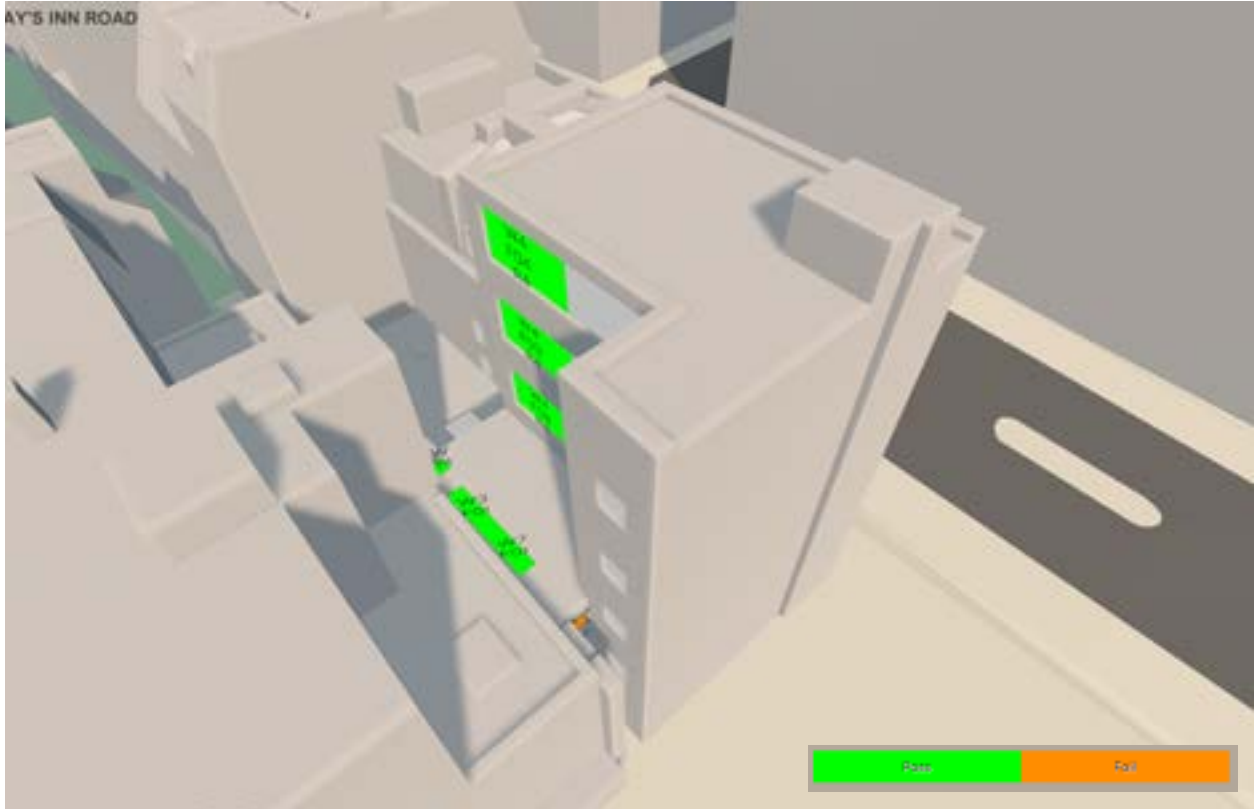


Figure 05: VSC Window Maps of 91-93 Gray's Inn Road

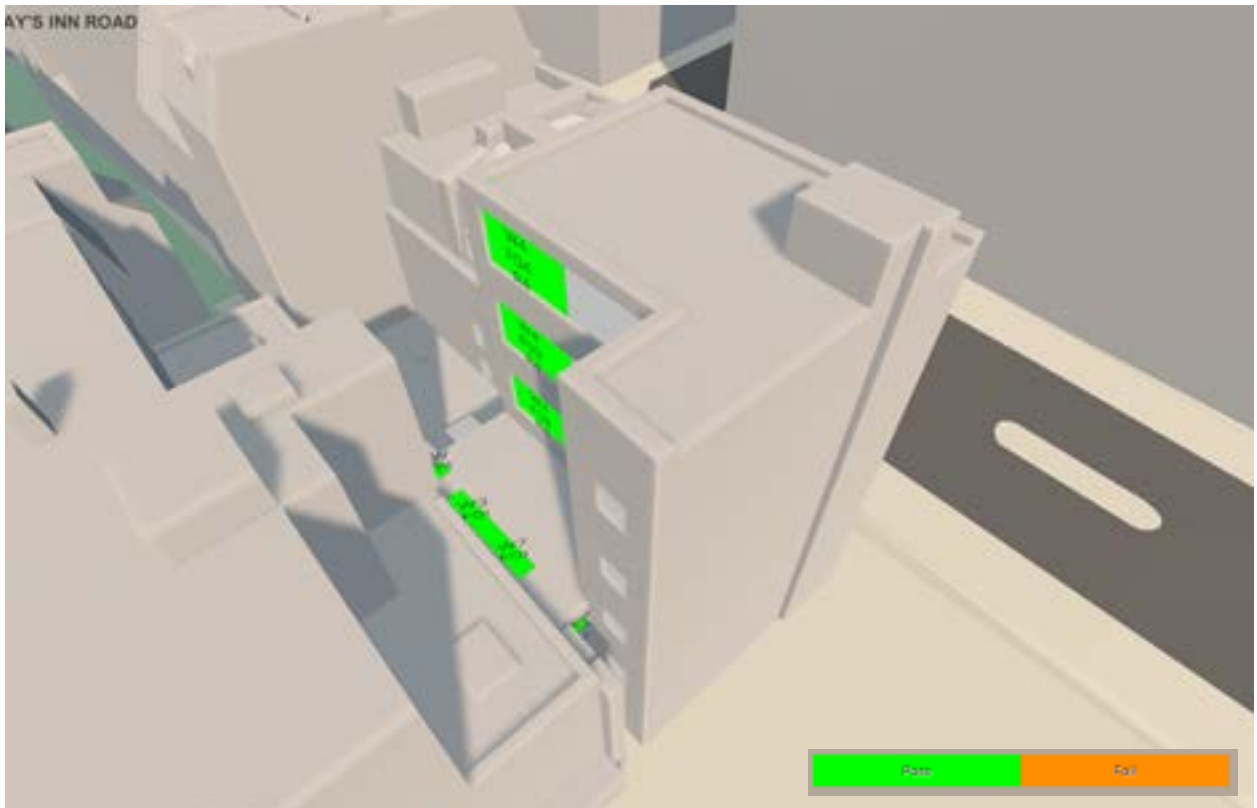


Figure 06: NSL Window Maps of 91-93 Gray's Inn Road

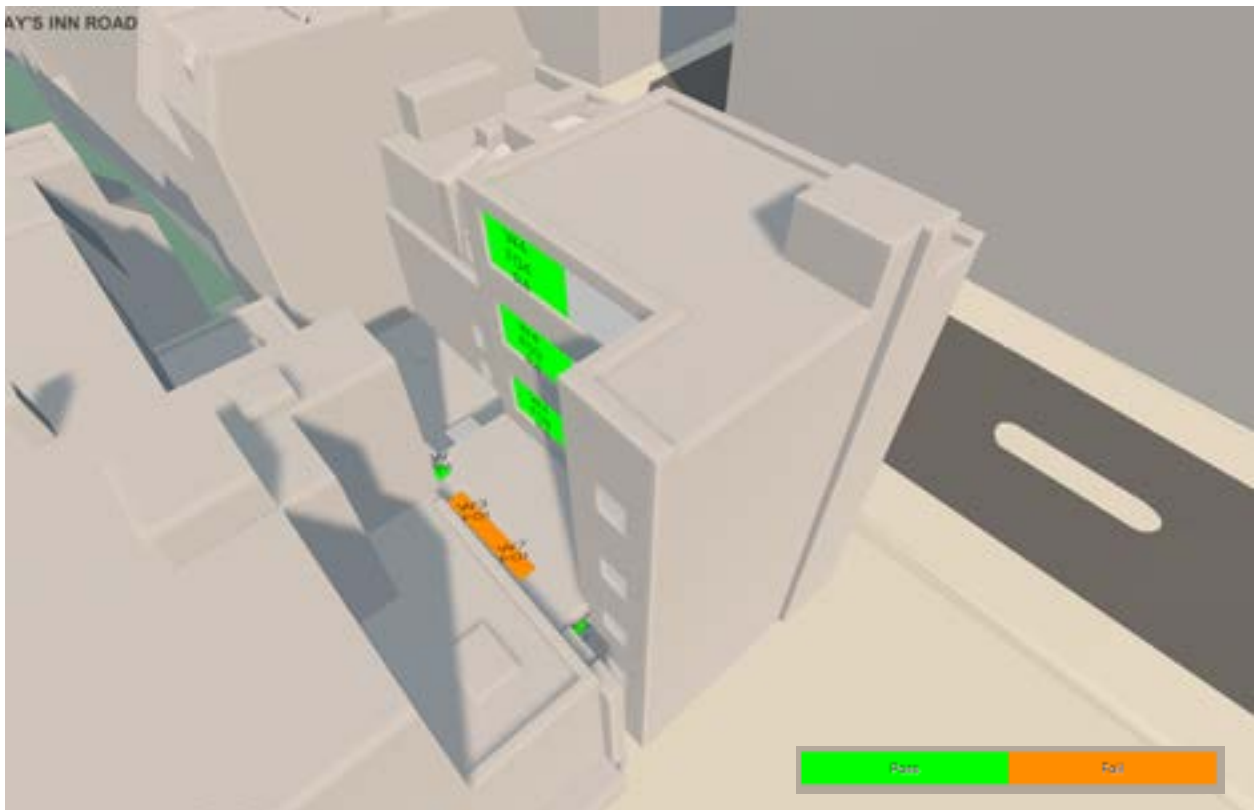


Figure 07: APSH Window Maps of 91-93 Gray's Inn Road

6 TRANSIENT OVERSHADOWING

GIA have undertaken a transient overshadowing assessment within our VU.CITY platform. The analysis can be located within Appendix 5.

- 6.1 On the basis of the transient overshadowing study there will be some additional shadow caused by the proposed development to the amenity spaces which is limited to only a few hours.
- 6.2 Images 03 and 04 within appendix 05 demonstrate that some additional shadow may be caused around 11am to the amenity spaces.
- 6.3 Images 01 -02 and 05-06 demonstrate that little to no change in shadow is occurring in the early morning and afternoon when amenity spaces are most used.
- 6.4 Appendix 05 shows the results of the transient overshadowing study.

7 CONCLUSIONS

GIA have undertaken a daylight and sunlight assessment in relation to the Proposed Development at 85 Grays Inn Road. The technical analysis has been undertaken in accordance with the BRE Guidelines.

- 7.1 Throughout the design process, the scheme has been subjected to extensive testing to minimise the daylight and sunlight impacts to the surrounding residential properties.
- 7.2 Our technical analysis shows that following the implementation of the proposed development 4-6 Brownlow Mews will adhere to the BRE recommendations for daylight and sunlight.
- 7.3 91-93 Grays Inn Road has two rooms that will fall short of the recommended criteria for sunlight, an isolated breach in daylight (VSC) although is considered compliant against the NSL criteria.
- 7.4 Our transient overshadowing assessment indicates that little to no change occurs to the amenity spaces at the times they are most likely used and enjoyed.
- 7.5 When constructing buildings, alterations in daylight and sunlight to adjoining properties are often unavoidable. The numerical guidance given in the BRE document should be treated flexibly.
- 7.6 The compliance rates are 90% in relation to daylight and 60% in relation to sunlight.



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