

300 GRAYS INN ROAD

DAYLIGHT, SUNLIGHT & OVERSHADOWING REPORT

CLIENT: PLATIGNUM PROPERTIES LIMITED

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PROJECT: P2991

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1 Introduction

- 1.1 Point 2 have been appointed by Platignum Properties Limited to undertake daylight, sunlight and overshadowing analysis for the Proposed Development of 300 Grays Inn Road, London, WC1X 8DX (the 'Site'). This analysis has been undertaken to determine how the scheme affects the amenity to the surrounding residential properties, as well as the quality of light within the Proposed Development itself.
- 1.2 This application seeks planning permission for the *"refurbishment and extension of the building to provide residential flats (Class C3) and commercial, business and service use (Class E) including external alterations for new facades to all elevations, the introduction of terraces, reconfiguration of entrances and servicing arrangements, new hard and soft landscaping, provision of cycle parking and other ancillary works"* (The 'Proposed Development').
- 1.3 The analysis has been undertaken in accordance with the advice and recommendations set out in the BRE Guidelines 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice' Third Edition (2022).
- 1.4 The calculations within this report are based on a 3D contextual model created from point cloud data and supplemented with a Z-map and site photographs alongside the submitted drawings that have been prepared by Haptic Architects.

Sources of Information

- 1.5 In the process of compiling this report, the following sources of information have been used:

Point 2

Site Photographs
Point Cloud Data

Haptic Architects

Proposed Scheme 09/05/23
GIR-HAP-ZZZ-ZZ-M3-A-00001 – 230509 S2.dwg

Valuation Office Agency

Property uses

London borough of Camden

Neighbouring internal layouts (where available)

Real Estate Agency

Floorplans and pictures

2 The BRE Guidelines and Application of Alternative Target Values

- 2.1 It is common practice to assess daylight and sunlight by reference to the guidelines set out in the 2022 Building Research Establishment (BRE) Report 'Site layout planning for daylight and sunlight - A guide to good practice' by Paul Littlefair (the 'BRE Guidelines'). This document is widely accepted by planning authorities as the means by which to consider the effect of development on the daylight and sunlight enjoyed by neighbouring buildings. It is also used to assess daylight and sunlight within a new development.
- 2.2 The BRE Guidelines is a document that is applied across the country. Due to its national application, the framework for designers, practitioners, and planning officials to refer to is a 'one size fits all' approach to the assessment of daylight and sunlight. Theoretically, the methodology and subsequent technical specification offered by the BRE Guidelines is applicable to all manner of built environments, ranging from villages to dense city centres, to areas where significant regeneration is taking place. Notwithstanding the stark disparity between these environments, the suggested target daylight and sunlight values remain consistent despite a suburban setting having very little in common with inner urban locations.
- 2.3 The BRE Guidelines repeatedly emphasise to the user, whether that be designers, consultants or planning officials to apply the guidelines in a manner that is appropriate for a particular situation. For example, in the introductory summary it states:

"This guide as a comprehensive revision of the 2011 edition of site layout planning for daylight and sunlight. It is purely advisory and the numerical target values within it may be varied to meet the needs of the development and its location. Appendix F explains how this can be done in a logical way while retaining consistency with the British Standard Recommendations on interior lighting."

- 2.4 In Section 1: Introduction, at paragraph 1.6 it states:

"the guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of the many factors in site layout design. In special circumstances the developer or planning authority may wish to use different target values. For example, in historic city centres 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."

- 2.5 At paragraph 2.2.3 (Existing Buildings), it states;

“Note that the numerical values given here are purely advisory. Different criteria may be used based on the requirement for daylighting viewed against other site layout constraints. Another important issue is whether the existing building is itself a good neighbour, standing a reasonable distance from the boundary and taking no more than its fair share of light. Appendix F gives further guidance”

- 2.6 It is clear that the numerical advice offered by the BRE is not mandatory and that a practical application of the target values is required as natural lighting is only one of many factors that should be considered.

- 2.7 Where appropriate, the BRE Guidelines promote the use of alternative target values. This approach is supported within The London Plan, Supplementary Planning Guidance (SPG) - ‘Housing’ (March 2016) which states:

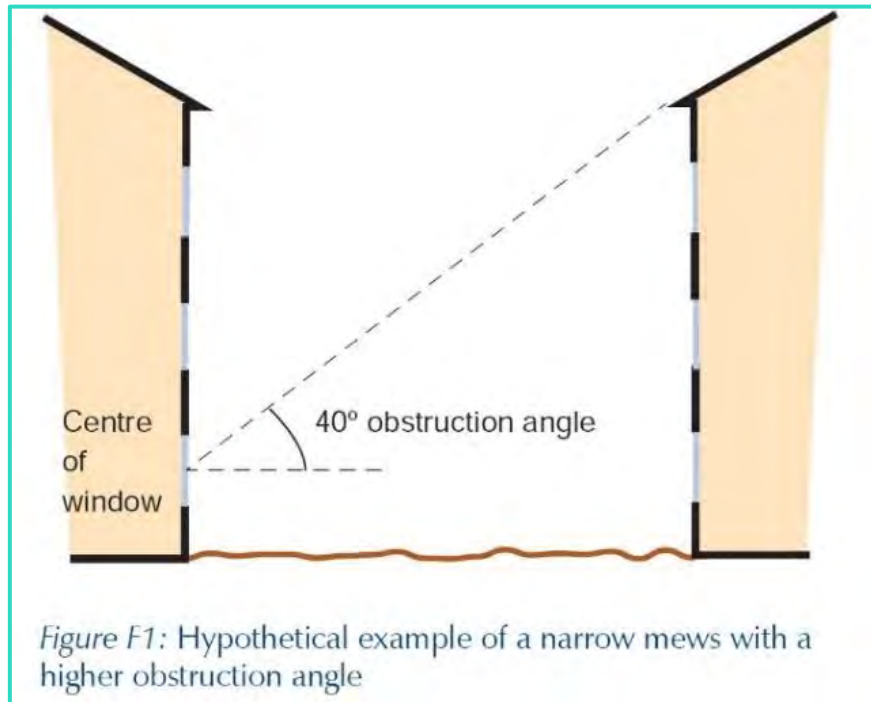
*“An appropriate degree of flexibility needs to be applied when using BRE guidelines to assess the daylight and sunlight impacts of new development on surrounding properties.... Guidelines should be applied sensitively to **higher density development**, especially in **opportunity areas, town centres, large sites and accessible locations**, where BRE advice suggests considering the use of alternative targets.*

- 2.8 The BRE offers some advice on how to define alternative target values. In Appendix F it states in Section F1:

*“Sections 2.1 and 2.2 and 2.3 give numerical target values in assessing how much light from the sky is blocked by obstructing buildings. **These values are purely advisory and different targets may be used on special requirements of the proposed development or its location.**”*

- 2.9 It goes on to say in section F4:

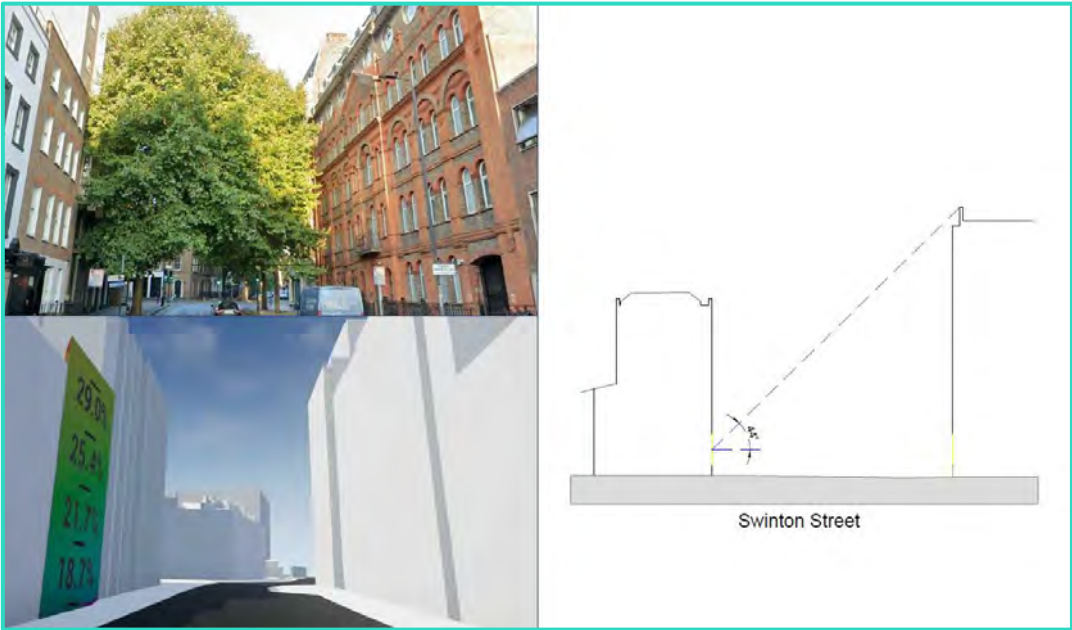
“Figure F1 illustrates a hypothetical example of a mews in a historic city centre, where the obstruction angle from ground floor window level might be close to 40°. This would correspond to a VSC of 18%, which could be used as a target value for ground floor windows in that street if new development is to match the existing layout.”



- 2.10 To understand what an appropriate alternative target value may be, we have examined the VSC values that are currently received within some of the streets surrounding the development site. Firstly, we have carried out a review of the local context, including walking the streets and reviewing the building on building relationships that exist first hand.
- 2.11 We have then used a Z-Map context model (a 3D computer model produced using photogrammetry) and completed two studies to quantify VSC in the neighbouring streets.
- 'Building on building' relationships – we have calculated the angles of obstruction that exist within streets surrounding the site, which in turn allows us to determine the corresponding VSC values that are achieved by reference to advice in Appendix F of the BRE Guidelines. The assessment point has been taken from ground floor windows;
 - VSC façade mapping study within the streets we have considered. This assessment essentially plots the VSC values across the façade of a building.
- 2.12 We have selected five locations and produced six sections to establish the angles of obstruction that exist within the subject streets. We have restricted our assessment to streets within the vicinity of the Site.
- 2.13 The image below identifies the location of the streets we have considered relative the Site.



2.14 Detailed drawings of the individual sections for the assessment points are included within Appendix 5. An example of the drawings is shown below with the section (below right) demonstrating the angle of obstruction and the two images (below left) showing a Google Street View image of the relationship and the corresponding VSC value from the VSC façade mapping study.



2.15 The table below summarises the angle of obstruction from each of the assessment points and the corresponding VSC's which have been taken from Table F1 in Appendix F of the BRE Guidelines. The table also records the VSC values from the VSC façade mapping study we have produced.

Section	Building	Angle of Obstruction (from the lowest residential window)	Equivalent VSC (Taken from the BRE Guidelines 2022)	VSC façade Value
1	Peperfield Apartments	35°	21.5%	24%
2	Linfield Building	43°	16.5%	18.3%
3	Swinton Street	44°	16%	18.7%
4	Cubitt Street	40°	18%	10.1%
5	Frederick Street - Cubitt Street	40°	18%	13.6%
6	Frederick Street - Kings Cross Road	49°	13.5%	17.4%
		Average	17%	17%

- 2.16 The angles of obstruction typically range between 35° and 49°. To achieve the BRE target VSC of 27%, the angle would need to be close to 25° (assuming a uniform level of obstruction opposite).
- 2.17 The obstruction angle analysis produces corresponding VSC values derived from Appendix F of the BRE Guidelines of 13.5%-21.5%, which averages to be 17%. The VSC values we have extracted from the façade mapping model show the average is also 17%.
- 2.18 Both assessments demonstrate that VSC's in the mid-teens is not uncommon within this area of London. Where relevant we have compared the retained levels of VSC to this alternative target figure throughout the body of the report.

3 Assessment Methodology

- 3.1 In relation to the properties surrounding a site, usually the local planning authority will only be concerned with the impact to main habitable accommodation (i.e. living rooms, bedrooms and kitchens) within residential properties. Commercial buildings as well as non-habitable rooms such as bathrooms and hallways have not been considered within this report.
- 3.2 The BRE Guidelines provide two principal measures of daylight for assessing the impact on properties neighbouring a site, namely Vertical Sky Component (VSC) and No-Sky Line (NSL).
- 3.3 In terms of sunlight, we examine the Annual Probable Sunlight Hours (APSH) and in relation to sunlight amenity to gardens and amenity spaces, we apply the quantitative BRE overshadowing guidance.

- 3.4 These measures of daylight and sunlight are discussed in the following paragraphs -

Diffuse Daylight

- 3.5 **Vertical Sky Component (VSC)** – VSC is a measure of the direct skylight reaching a point from an overcast sky. It is the ratio of the illuminance at a point on a given vertical plane to the illuminance at a point on a horizontal plane due to an unobstructed sky.
- 3.6 For existing buildings, the BRE guideline is based on the loss of VSC at a point at the centre of a window, on the outer plane of the wall.
- 3.7 The BRE guidelines state that if the VSC at the centre of a window is less than 27%, and it is less than 0.8 times its former value (i.e. the proportional reduction is greater than 20%), then the reduction in skylight will be noticeable, and the existing building may be adversely affected.
- 3.8 Where there are multiple windows serving a room, an overall VSC can be derived by weighting the VSC for each window in accordance with its window area. This method should not be used where the windows are more than 5m apart.
- 3.9 **No-Sky Line (NSL)** - NSL is a measure of the distribution of daylight within a room. It maps out the region within a room where light can penetrate directly from the sky, and therefore accounts for the size of and number of windows by simple geometry. It may be used where the room layouts are known.
- 3.10 The BRE suggest that the area of the working plane (set at 850mm above the floor) within a room that can receive direct skylight should not be reduced to less than 0.8 times its former value (i.e. the proportional reduction in area should not be greater than 20%).

Sunlight

- 3.11 **Annual Probable Sunlight Hours (APSH)** - In relation to sunlight, the BRE recommends that the APSH received at a given window in the proposed case should be at least 25% of the total available, including at least 5% in winter.
- 3.12 Where the proposed values fall short of these, and the absolute loss is greater than 4%, then the proposed values should not be less than 0.8 times their previous value in each period (i.e. the proportional reductions should not be greater than 20%).
- 3.13 The BRE guidelines state that *'...all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90 degrees of due south. Kitchens and bedrooms are less important, although care should be taken not to block out too much sun. Normally loss of sunlight need not be analysed to kitchens and bedrooms....'*
- 3.14 In accordance with the BRE Guidelines we have not assessed bedrooms or kitchens for APSH. The APSH figures are calculated for each window, and where a room is served by more than one window the contribution of each is accounted for in the overall figures for the room. The acceptability criteria is applied to overall room-based figures.

Overshadowing (Sun on Ground)

- 3.15 Section 3.3 of the BRE guidelines describes the method of assessment of the availability of sunlight within garden/amenity spaces. This relates to the proportion of shading on March 21st.
- 3.16 The following types of open spaces to be assessed would normally include:
- Gardens, such as the main back garden of a house or communal garden including courtyard and roof terraces.
 - Parks and playing fields
 - Children's playgrounds
 - Outdoor pools, marinas, and lakes
 - Sitting out areas and public squares
 - Nature reserves
- 3.17 The BRE criteria for gardens or amenity areas are as follows, *'It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity space should receive at least two hours of sunlight on 21 March. If as a result of a new development an existing garden or amenity space does not meet the above, and the area which can receive two hours of sunlight on 21 march is less than 0.8 times its former value, then the loss of amenity is likely to be noticeable.'* The results are analysed against these criteria.

Daylight within Proposed Developments

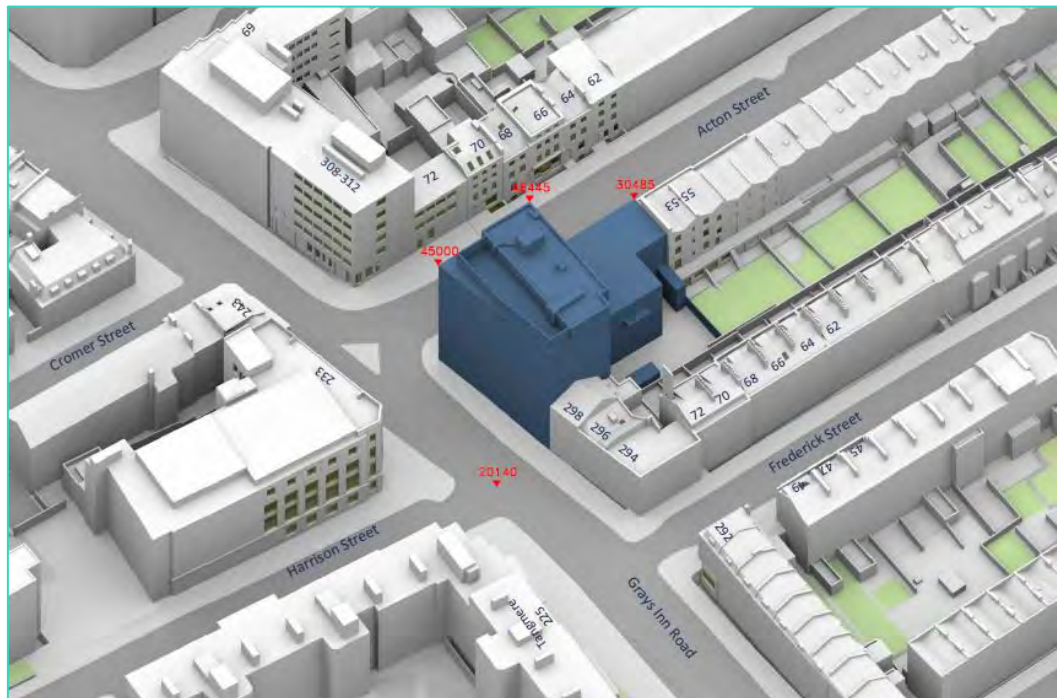
- 3.18 In the new 2022 revision of the BRE guidelines, a Climate Based Daylight Modelling (CBDM) methodology replaces the old Average Daylight Factor (ADF) methodology. The new methodology is more complex, is arguably a more accurate simulation of actual daylight levels but has targets that are generally more difficult to achieve in an urban context.

Climate Based Daylight Modelling (CBDM)

- 3.19 The new CBDM methodology is based on the British Standard 'Daylight in Buildings' (BS EN17037). This contains advice and guidance on interior daylighting for all buildings across Europe but also has a UK National Annex which provides suggested targets for dwellings in the UK.
- 3.20 BS EN17037 supersedes BS 8206 Part 2 which was based on Average Daylight Factor (ADF) and is no longer recommended.
- 3.21 The CBDM methodology is based on target illuminances from daylight. This is the Daylight Illuminance (DI) to be achieved over half the area of the room (measured on a reference plane at tabletop level) for at least half of the daylight hours in a typical year. The calculations are based on weather data files which cover different regions of the UK. The calculations are undertaken for each hour of the day for every day of the year. There are 8760 hours in the year, of which 4380 are daylight hours, and therefore the targets should be achieved for 2190 hours in the year.
- 3.22 The methodology uses a more accurate sky model which simulates the movement of the sun throughout the day and accounts for the weather conditions at the time. As a result, CBDM accounts for the presence of sunlight and therefore the orientation of the rooms/windows is accounted for. A south facing room is likely to have access to higher levels of natural light than a north facing room and as a result, in order to comply a north facing room would typically need larger windows.
- 3.23 The UK National Annex gives illuminance recommendations of 100 Lux in bedrooms, 150 Lux in living rooms and 200 Lux in kitchens. These are median illuminances to be achieved over 50% of the assessment grid for at least half of the daylight hours.
- 3.24 Where a room has a shared use, the highest target should apply. However, it also says that Local Authorities could use discretion here and that a living room target of 150 Lux could be used for combined living/kitchen/dining room if the kitchens are not treated as habitable spaces, as it may avoid small separate kitchens in the design.
- 3.25 There is a further simplistic methodology based on daylight factors (not the same as the old ADF methodology), which does not use climate-based data but uses a simple fixed sky model. However, since this alternative methodology is simplistic and does not account for the effect of sunlight, or the orientation of the room, it has not been used in our assessment.

4 The Existing Site

- 4.1 The Site occupies a prominent corner position at the junction of Acton Street and Grays Inn Road, in the Bloomsbury Conservation Area in the London Borough of Camden.
- 4.2 The existing building is a part 3, part 8 storey building currently occupied by BUPA within a commercial, business and service (Class E) use, a small area of hard standing is located to the rear accessed from Acton Street.
- 4.3 Our understanding of the current site is illustrated in blue on the image below and also within drawings P2991_01-03 which can be found within Appendix 1 of this report.



The Existing Site

4

5 Proposed Development

- 5.1 The Proposed Development seeks to erect a ground plus nine storey commercial unit facing Grays Inn Road, and ground plus four storey residential element along Acton Street.
- 5.2 Point 2 have been working with Haptic Architects over a number of months to ensure that, where possible, the proposed massing minimises the daylight and sunlight impacts to neighbouring residential properties.
- 5.3 The Proposed Development is illustrated in turquoise in the image below, as well as on drawing numbers P2991_16-18 are located within Appendix 1.



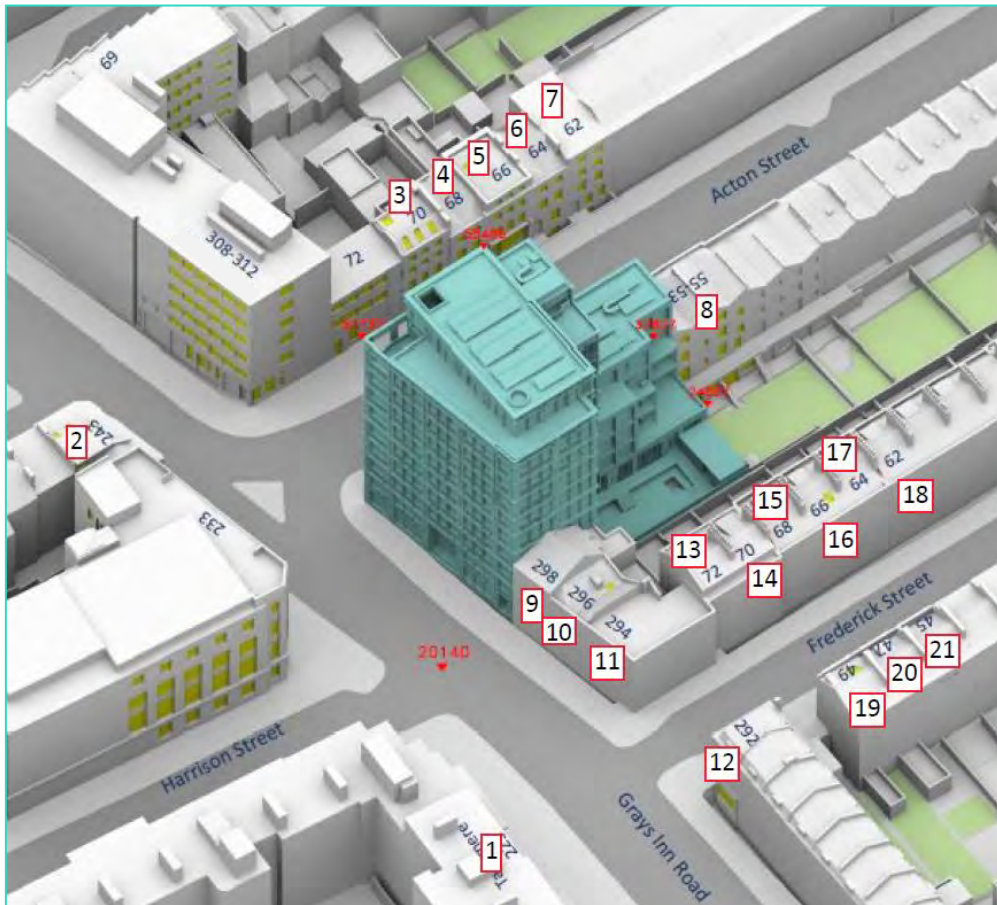
The Proposed Development

6 Daylight and Sunlight to Neighbouring Properties

6.1 The following 21 residential properties have been included within the scope of our analysis:

- | | |
|---------------------------------|-------------------------|
| 1. Tangmere, 225 Grays Inn Road | 12. 292 Grays Inn Road |
| 2. 243 Grays Inn Road | 13. 72 Frederick Street |
| 3. 70 Acton Street | 14. 70 Frederick Street |
| 4. 68 Acton Street | 15. 68 Frederick Street |
| 5. 66 Acton Street | 16. 66 Frederick Street |
| 6. 64 Acton Street | 17. 64 Frederick Street |
| 7. 62 Acton Street | 18. 62 Frederick Street |
| 8. 55-53 Acton Street | 19. 49 Frederick Street |
| 9. 298 Grays Inn Road | 20. 47 Frederick Street |
| 10. 296 Grays Inn Road | 21. 45 Frederick Street |
| 11. 294 Grays Inn Road | |

6.2 The location of each of these properties can be identified in the drawings located in Appendix 1 and also numbered in the image below.



6.3 We have managed to obtain floorplans for the properties listed below which we sourced from online research of publicly available records:

- 45 Frederick Street
- 47 Frederick Street
- 49 Frederick Street
- 62 Frederick Street
- 64 Frederick Street - Partial
- 66 Frederick Street - Partial
- 68 Frederick Street - Partial
- 70 Frederick Street - Partial
- 72 Frederick Street
- 55-53 Acton Street
- 70 Acton Street
- 294 Grays Inn Road – Partial Outline
- 298 Grays Inn Road – Partial

6.4 In accordance with normal working practice, we have not obtained access to these properties in order to confirm the internal layouts are as represented on the floorplans. Where applicable, the use of a room has been specified in the tables of results located in Appendix 2.

6.5 For those rooms where layout information was not available, reasonable assumptions have been made as to the internal configurations and uses of the rooms behind the site facing windows, which is normal working practice.

Analysis of Results

6.6 The results of our detailed daylight and sunlight assessment are shown in the tabulated results in Appendix 2 of this report.

6.7 The technical analysis undertaken demonstrates that 13 of the 21 residential properties will fully adhere to the BRE Guidelines for daylight (VSC and NSL) and sunlight (APSH). These properties are listed below:

- Tangmere, 225 Grays Inn Road
- 243 Grays Inn Road
- 62 Acton Street
- 55-53 Acton Street
- 296 Grays Inn Road
- 294 Grays Inn Road
- 292 Grays Inn Road
- 66 Frederick Street
- 64 Frederick Street
- 62 Frederick Street
- 45 Frederick Street
- 47 Frederick Street
- 49 Frederick Street

- 6.8 It can therefore be concluded that these properties will not experience any noticeable effects upon their daylight and sunlight amenity as a result of the implementation of the Proposed Development.
- 6.9 The remaining properties are discussed in greater detail below.

70 Acton Street



- 6.10 This mixed-use property is located directly to the north of the Site on the opposite side of Acton Street. The ground floor is in commercial use, whilst the 1st to 3rd floors are residential in use.
- 6.11 It was possible to obtain floorplans for this building from the London Borough of Camden planning portal. (Planning application reference number 2020/4877/P and 2004/1525/P). On the basis of these floorplans there appear to be a bedroom, kitchen/diner and bedsit that face the site.
- 6.12 In total, we have assessed 13 windows serving four habitable rooms.
- 6.13 Three of the 13 windows assessed meet the BRE test for VSC.
- 6.14 The remaining nine windows experience relative alterations in VSC that range from 26% to 28%. It is worth noting however, that all of the windows retain a VSC of 17% or above which is in line with the alternative target VSC value, which is discussed within Section 2 of this report. Therefore, whilst there would be some reductions in VSC, the retained levels are generally commensurate with the wider local context.
- 6.15 In terms of NSL, three of the four rooms assessed will meet the BRE guidance. The remaining bedroom (R2/241), located on the 1st floor, experiences an alteration in NSL of 58%. It is worth noting that bedrooms are considered to be 'less important' by the BRE for NSL (para 2.2.10)
- 6.16 In terms of APSH, all of the rooms relevant for analysis will adhere to the BRE Guidelines, thus there will be a negligible change in sunlight to this property.

68 Acton Street



- 6.17 This residential property is located directly to the north of the Site on the opposite side of Acton Street.
- 6.18 It was not possible to obtain floorplans for the building therefore, reasonable assumptions have been made in respect of the internal layouts, informed in part by layout information we have obtained for adjacent properties on the street.
- 6.19 In total, we have assessed six windows (five windows and a skylight) serving six habitable rooms.
- 6.20 One of the six windows adheres to the BRE Guidelines for VSC. The remaining five windows experience relative alterations in VSC of between 23% to 25% which is just beyond guidance and arguably considered minor adverse in the context of a central London location.
- 6.21 It is also worth noting that four of the five windows retain a VSC of between 19% to 23% which exceeds the alternative target VSC value of 17%, which is discussed within Section 2 of this report. The remaining ground floor window will retain a VSC of 16% which is fractionally below this level, but nonetheless generally commensurate with the wider local context.
- 6.22 The BRE Guidelines doesn't recommend assessing NSL where room layouts are not known however, we have included this building within our analysis for completeness.
- 6.23 In terms of NSL, one of the six rooms meets the guidance while the other five rooms experience alterations between 36% and 45%. It is worth noting that all of the rooms will retain a view of the sky dome to at least 50% of the working plane within the rooms, which in our experience, is a reasonable level of daylight distribution for an urban area such as this.

- 6.24 In terms of APSH, four of the six rooms relevant for analysis will adhere to the BRE Guidelines. The remaining rooms are located on the ground (R1/300) and 2nd floor (R2/302) and will experience some alterations in winter APSH that are beyond guidance. Both rooms will, however, retain an annual APSH of 32% and 48% which is far in excess of the 25% suggested and an excellent level of annual sunlight availability for an urban location.
- 6.25 In terms of winter APSH, the 2nd floor room will retain 4%, which is fractionally below the 5% suggested, while the ground floor room will retain 2%. Overall, the rooms within this property will continue to retain a good level of sunlight throughout the year.

66 Acton Street



- 6.26 This mixed-use property is located directly to the north of the Site on the opposite side of Acton Street. The ground floor is a public house while the 1st to 3rd floors are residential in use.
- 6.27 It was not possible to obtain floorplans for the building and therefore, reasonable assumptions have been made in respect of the internal layouts of the building.
- 6.28 In total, we have assessed 10 windows (nine windows and a skylight) serving eight habitable rooms within this building.
- 6.29 Eight of the 10 windows assessed will meet the BRE criteria for VSC. The remaining two windows will experience an alteration in VSC of 21%, which is fractionally beyond guidance and arguably considered a minor adverse effect in the context of an urban location.
- 6.30 Furthermore, all of these windows retain a VSC of 21% or above which exceeds the alternative target VSC value of 17%.
- 6.31 In terms of NSL, four of the seven rooms adhere to the BRE guidance. The remaining three rooms experience alterations of between 23%-25%, which is just beyond the 20% recommendation. All of these rooms will, however, retain a view of the sky dome to at least 74% of the working plane within the room which, in our experience, is a good level of daylight distribution for an urban area such as this.
- 6.32 In terms of APSH, all of the rooms relevant for analysis will adhere to the BRE Guidelines, thus there will be a negligible change in sunlight to this property.
- 6.33 Overall, there is considered to be a minor adverse effect on the daylight to this property and a negligible effect upon the sunlight availability.

64 Acton Street

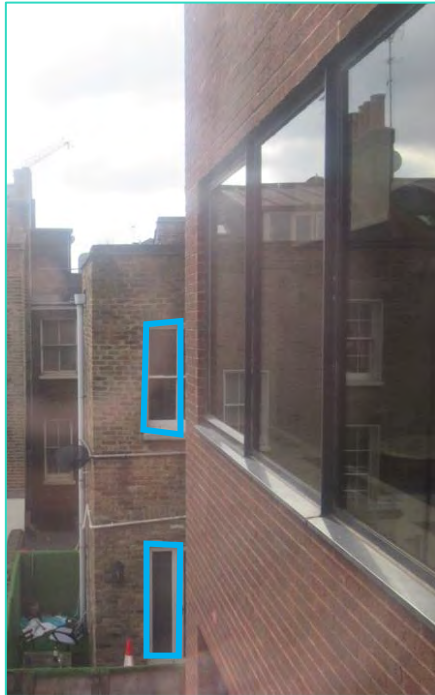


- 6.34 This residential property is located directly to north of the Site on the opposite side of Acton Street.
- 6.35 It was not possible to obtain floorplans for the building and therefore, reasonable assumptions have been made in respect of the internal layouts.
- 6.36 In total, we have assessed six windows (five windows and a skylight) serving six habitable rooms.
- 6.37 All six of the windows assessed will meet the BRE test for VSC. In addition, all six rooms will adhere to guidance for NSL meaning that there will be a negligible change in daylight to this property.
- 6.38 In terms of APSH, five of the six rooms assessed will meet guidance. The remaining room (R2/320) will experience an alteration in winter APSH that is beyond guidance however, the room will retain an annual APSH of 55%, which is far in excess of the 25% suggested within the BRE and an excellent level of sunlight availability for an urban location. The room will also retain a winter APSH of 4% which is just below the 5% suggested.
- 6.39 Overall, there is considered to be a negligible effect upon the daylight and sunlight amenity to this property.

298 Grays Inn Road



- 6.40 This mixed-use property directly abuts the Site to the south. Our research suggests that the ground floor is in commercial use with three residential flats located on the 1st to 3rd floors above.
- 6.41 We have been able to obtain plans for the flats from leases acquired through HM Land Registry records. On the basis of these plans, it appears that the main living rooms are located to the front of the building (facing away from the Site) while the rooms at the rear of the building (facing the Site) are a mixture of bedrooms, kitchens and a bathroom.
- 6.42 In total, we have assessed six windows serving five habitable rooms.
- 6.43 Four of the six windows assessed will meet the BRE criteria for VSC. The remaining two windows serve bedrooms located on the 1st and 2nd floor (W2/51 & W2/52). Both windows experience alterations in VSC of 42% and 49%, although the BRE does acknowledge that daylight to bedrooms is less important.
- 6.44 Nonetheless, it is worth noting that both of these windows face directly onto the existing building, as illustrated in the image below (the bedroom windows are outlined in blue in the image below).



- 6.45 As a result, both windows experience low levels of VSC in the existing condition (11% and 14%). In situations such as this, where windows have low levels of VSC in the existing condition, even relatively modest absolute changes can be disproportionately presented as larger percentage alterations.
- 6.46 In terms of NSL, three of the five rooms will meet guidance. The remaining two bedrooms (the two bedrooms highlighted in the image above) experience alterations of 37% and 26%. It is worth noting that bedrooms are considered by the BRE to be '*less important*' for NSL, and are more susceptible to alterations in daylight distribution given the location of their windows directly on the site boundary.
- 6.47 In terms of APSH, there are no windows within this property that face within 90° of due south and are therefore not relevant for analysis.

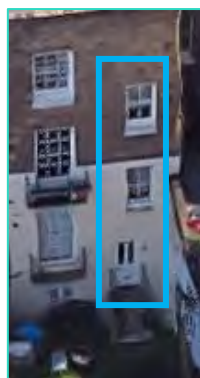
72 Frederick Street



6.48 This residential property is located directly to the south of the Site on Frederick Street.

6.49 It was possible to obtain floorplans for this building through the London Borough of Camden planning portal (*Planning ref: 2016/6328/P*), which have been incorporated within our model. On the basis of these floorplans, it appears that the main living areas are located at the front of the property (facing away from the Site).

6.50 To the rear (facing the Site) the smaller windows on the right-hand side of the image below (outlined in blue) serve a stairwell, while the larger windows on the left hand side serve a bedroom (lower ground floor), kitchen (ground & 1st floor) and a bedroom (2nd & 3rd floor).



6.51 In total, we have assessed five windows serving five habitable rooms.

- 6.52 Our analysis demonstrates that the five windows assessed will experience relative alterations in VSC of between 25% to 30%. The windows on the 2nd and 3rd floors retain a VSC of 18% and 20% which exceeds the alternative target VSC value of 17%. The windows on the lower ground to 1st floor retain a VSC of between 8% and 15%. It is worth noting that the lower ground and ground floor windows achieve VSC values below the alternative target value in the existing condition (11% & 16%). In situations where windows have low existing levels of VSC, even modest absolute changes (3-4% VSC) can be disproportionately presented as larger percentage alterations.
- 6.53 Nonetheless, the scale of these effects would ordinarily be considered to be no greater than minor adverse in nature, particularly in the context of a Central London location.
- 6.54 In terms of NSL, the five rooms experience alterations in NSL of between 22%-48%. It is worth noting that three of these rooms retain a view of the sky dome to at least 58% of the working plane, which in our experience is a reasonable level of daylight distribution for an urban area such as this. Furthermore, three of these five rooms are bedrooms which are considered by the BRE to be '*less important*' for NSL.
- 6.55 In terms of APSH, all of the windows that face the site are oriented due north and therefore are not relevant for sunlight analysis.

70 Frederick Street



- 6.56 This residential property is located directly to the south of the Site on Frederick Street.
- 6.57 It was possible to obtain floorplans for the 1st, 2nd and 3rd floors of this building through the London Borough of Camden planning portal (*Planning ref*: 2013/1716/L), which have been incorporated within our model.
- 6.58 These plans show that this property has a similar layout to 72 Frederick Street with the smaller windows above serving a stairwell, while the larger windows on the left-hand side serve a kitchen (1st floor) a bathroom (2nd floor) and a bedroom (3rd floor).
- 6.59 It is worth noting that the main living areas within this property are located to the front of the building and therefore remain unaffected by the Proposed Development.
- 6.60 In total, we have assessed four windows serving four habitable rooms.
- 6.61 The technical analysis shows that the four windows assessed will experience relative alterations in VSC of between 21% to 34%. It is worth noting however that the 1st and 3rd floor windows will retain a VSC of 17% and 23% respectively, which is in line with or above the alternative target VSC value of 17% and is therefore commensurate with the local wider context.
- 6.62 The lower ground and ground floor windows retain lower levels of VSC albeit, it is worth noting that the lower ground floor window achieved a VSC of 11% in the existing condition meaning that even a relatively modest absolute change (7% VSC) can be disproportionately presented as a larger percentage alteration (34%). Nonetheless, the scale of these effects would ordinarily be considered to generally be minor adverse in nature, particularly in the context of a Central London location.

- 6.63 In terms of NSL, the four rooms experience alterations between 25% and 39%. It is worth noting, however, that the ground, 1st and 3rd floor rooms will retain a view of the sky dome to at least 59% of the working plane, which in our experience is a reasonable level of daylight distribution for an urban environment such as this. Additionally, the 3rd floor room is a bedroom which is considered by the BRE to be less important for NSL.
- 6.64 In terms of APSH, all of the windows that face the site are oriented due north and therefore are not relevant for sunlight analysis.

68 Frederick Street

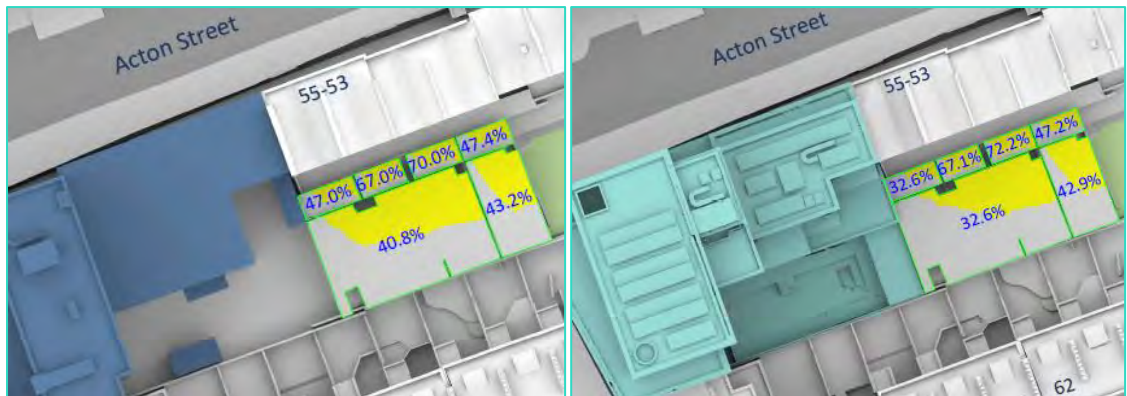


- 6.65 This residential property is located directly to the south of the Site on Frederick Street.
- 6.66 It was possible to obtain floorplans for the ground, 1st, 2nd and 3rd floors of this building through the London Borough of Camden planning portal (*Planning ref: 2013/1805/L*), which have been incorporated within our model.
- 6.67 These plans show that this property has a similar layout to nos. 70 & 72 Frederick Street with the smaller windows (shown in the image above) serving a bathroom or stairwell, while the larger windows (on the left-hand side in the image above) serve a bedroom (ground floor), kitchen (1st floor) and bathrooms (2nd & 3rd floor).
- 6.68 It is worth noting that the main living areas within this building are located on the other side of the building and therefore remain unaffected by the Proposed Development.
- 6.69 In total, we have assessed four windows serving four habitable rooms.
- 6.70 The technical analysis shows that one window located on the lower ground (W1/29) will meet the BRE test for VSC.
- 6.71 The remaining three windows will experience alterations in VSC of between 21% to 24%, which is just beyond the 20% recommendations within the BRE Guidelines. It is worth noting, however, that the 1st floor window (W1/31) will retain a VSC of 21%, which is above the alternative target VSC value of 17%.
- 6.72 Nonetheless, the scale of these effects would ordinarily be considered to be no greater than minor adverse in nature, particularly in the context of a Central London location.

- 6.73 In terms of NSL, two of the four rooms assessed will meet the BRE test. The remaining two rooms will experience a percentage alteration in NSL of 24%, which is fractionally beyond guidance. Both rooms will, however, retain a view of the sky dome to 54% and 74% of the working plane, which in our experience is a reasonable level of daylight distribution for an urban environment such as this.
- 6.74 In terms of APSH, all of the windows that face the site are oriented due north and therefore are not relevant for sunlight analysis.

7 Overshadowing of External Amenity Spaces

- 7.1 We have undertaken a Sun on Ground (overshadowing) assessment for the rear amenity areas serving 49-55 Acton Street. The rear amenity areas serving the Frederick Street properties are located to the south of the Site and therefore will be unaffected by the Proposed Development. We did not identify any other external amenity areas within the vicinity of the Site that are relevant for analysis.
- 7.2 The drawings, which are located in Appendix 3 and also shown below, compare the proportion of the amenity areas receiving at least 2 hours of direct sunlight on the 21st March in both the existing and proposed condition.



Existing (March 21st)

Proposed (March 21st)

- 7.3 The results for the assessment undertaken on the 21st of March demonstrate that 5 of the 6 areas included within the technical analysis, will meet the BRE Sun on Ground guideline recommendations such that they should continue to remain sufficiently sunlit throughout the year, or experience no noticeable alteration to their existing sunlight availability.
- 7.4 The remaining area, a small roof terrace outlined in blue in the image below, will experience a relative alteration of 31%, which is beyond the 20% recommendation set out in the BRE.



- 7.5 It is worth noting that this area is immediately adjacent to the Site and therefore is particularly sensitive, in terms of Sun on Ground, to any changes in massing.
- 7.6 In addition to the March 21st assessment, we have also considered the Sun on Ground assessment for the 21st June (also located in Appendix 3 and below) which is representative of midsummer when the sun is at its highest in the sky and sunlight hours are at their maximum for the year.
- 7.7 This assessment demonstrates that 83% of this area will achieve at least 2 hours of direct sunlight in June. It is acknowledged that the 21st June represents the maximum availability of sunlight and that the months either side would achieve lower levels of sunlight. However, this assessment indicates that the space is likely to receive reasonable levels of sunlight during the summer months.



- 7.8 The results also illustrate that all of the other amenity areas considered will experience high levels of direct sunlight during the summer months after the implementation of the Proposed Development, such that there should not be a noticeable effect upon the sunlight amenity to these areas.

8 Parameters and Assumptions for Internal Daylight

- 8.1 Point 2 have undertaken Climate Based Daylight Modelling (CBDM) of the habitable rooms within the Proposed Development. The following assumptions and parameters have been used.
- 8.2 The design team have specified light-coloured internal finishes and therefore, in accordance with paragraph C24 of Appendix C of the new BRE guidelines, the following Reflectance values have been used: light pastel walls with a reflectance of 0.7, light wood veneer floors/ cream carpets with a reflectance of 0.4, and white ceilings with a reflectance of 0.8. All external reflectance's have been assumed to 0.2 as per the guidelines.
- 8.3 As per the guidelines, for most windows a transmittance factor of 0.68 has been used, except where there is obscured glazing, a lower transmittance factor of 0.56 has been assumed. A window framing factor of 0.85 was derived from the framing dimensions for a typical window shown on the architects' drawings. A maintenance factor of 8% has been allowed to account for the effect of dirt on the glass in an urban environment. The room assessment grid area excludes a 300mm band around the perimeter of the room, as per the paragraph C28 of the guidelines.



9 Daylight Within Proposed Development

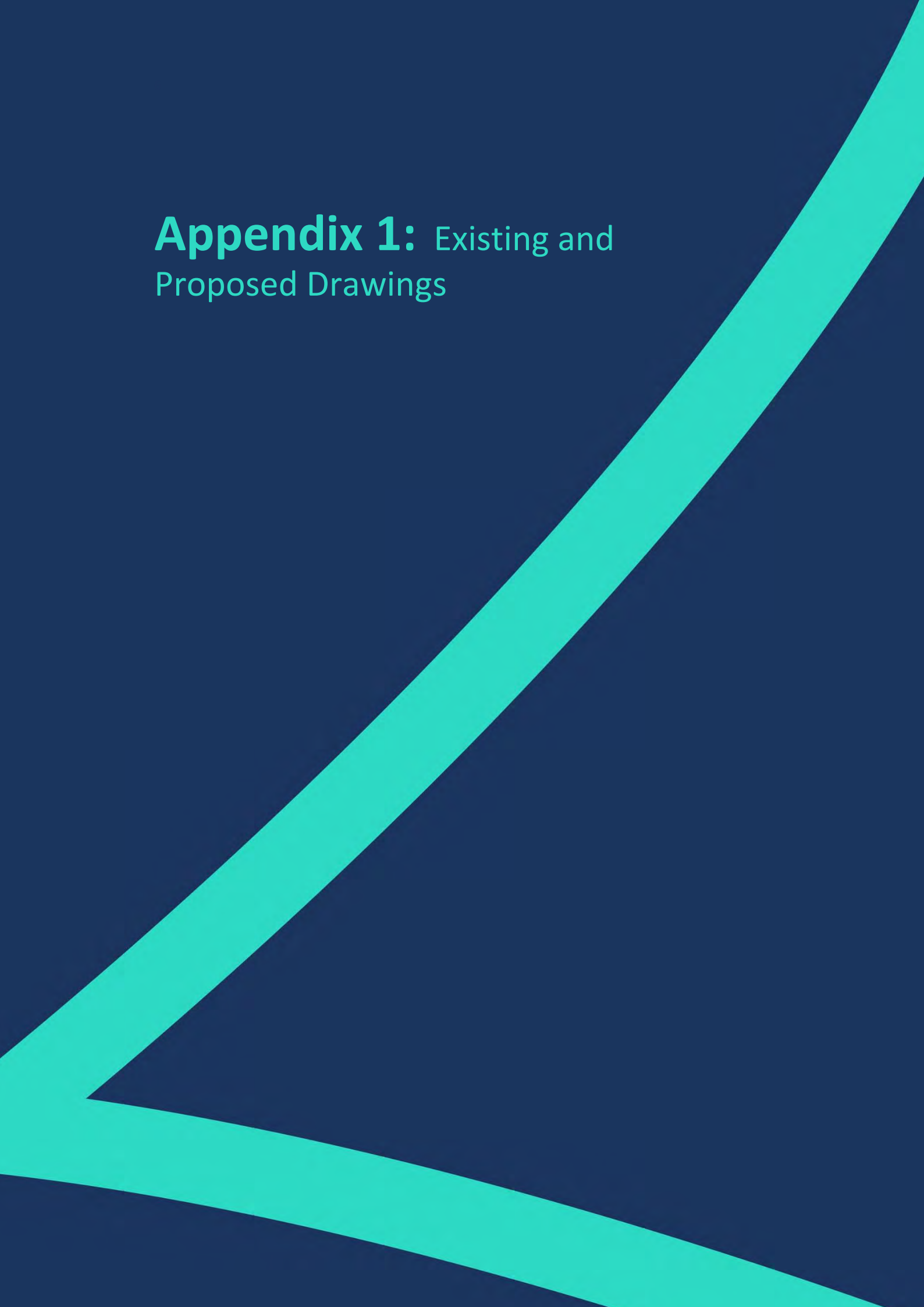
- 9.1 Drawings P2991_CBDM_01-02 located in Appendix 4 show the internal arrangements within the Proposed Development, together with daylight illuminance (Lux level) contours that are achieved for 50% of daylight hours. The drawings also show the median daylight illuminance figures for each room.
- 9.2 We have been working with the architect throughout the design process to refine the internal layouts and glazing design in order to maximise the availability of daylight for the rooms within the scheme wherever possible.
- 9.3 In total, we have assessed 19 habitable rooms, which includes 12 bedrooms and 7 living/kitchen/dining room's (LKD's) across the first to fourth floor levels.
- 9.4 16 of the 19 rooms assessed (84%) meet the suggested median lux levels for their particular room use. It is worth noting that all of the main living areas (LKD's) achieve good internal daylight levels with some achieving more than double the suggested values outlined within the BRE Guidelines.
- 9.5 The remaining rooms are bedrooms, which are discussed in further detail below.
- 9.6 Two of the three bedrooms are located on the 1st floor (R3/601 & R5/601) while the third bedroom is located on the 2nd floor (R3/602). These rooms achieve a median illuminance level of between 55 and 85 lux.
- 9.7 It is worth noting that one of the 1st floor bedrooms (to the rear) is located beneath a balcony. Balconies provide a valuable external private amenity space, however, they can often restrict the access and penetration of natural light within the room below the balcony. As such, there is always a trade- off between providing private external amenity space, which is of course a planning requirement, and natural light to the room below the balcony.
- 9.8 Overall, the results indicate that each of the proposed units assessed will have access to good levels of internal daylight, most notably to the principal living space in each dwelling.

10 Summary and Conclusions

- 10.1 Point 2 have assessed the Haptic Architects scheme for 300 Grays Inn Road to understand its potential effect upon the daylight, sunlight and overshadowing to existing neighbouring residential properties and amenity spaces, as well as the levels of internal daylight within the scheme itself.
- 10.2 Point 2 have been working with Haptic Architects for a number of months in order to design a scheme that limits daylight and sunlight impacts to neighbouring residential properties, wherever possible.
- 10.3 In respect of daylight and sunlight to neighbouring residential properties, where appropriate, the BRE Guidelines promote the use of alternative target values. This approach is supported within The London Plan, Supplementary Planning Guidance (SPG) - 'Housing' (March 2016). To understand what an appropriate alternative target figure could look like we have examined the VSC values that are currently received within some of the streets surrounding the development site. This exercise produced an average VSC value of 17%, demonstrating that VSC's in the mid-teens are not uncommon within this locality. This figure has served as an alternative VSC target throughout.
- 10.4 The technical analysis demonstrates that 224/258 (87%) of the windows assessed will adhere to the BRE Guidelines for VSC. In terms of NSL, 179/202 (89%) will adhere to the BRE criteria while finally 61/64 (95%) of the rooms assessed will adhere to the BRE Guidelines for APSH.
- 10.5 In total, there are eight properties that experience some alterations beyond the BRE guideline recommendations. The majority of these properties experience minor percentage alterations in VSC and retain VSC levels that are in line with or above the alternative target value of 17%. The exception to this are some windows located on the lower ground or ground floors along Frederick Street and two rear windows serving 298 Grays Inn Road, which are already somewhat constrained by their proximity and location relative to the Site.
- 10.6 In terms of NSL, the alterations would be more noticeable however, the majority of the rooms are either bedrooms (less sensitive) or retain a view of the sky to over half of the working plane within the room, which in our experience is a reasonable level of daylight distribution for an urban environment. Overall, the effects upon daylight amenity are generally considered to be minor to moderate adverse in nature, particularly in the context of a central London location.
- 10.7 In terms of sunlight (APSH), alterations beyond guidance are isolated and limited to winter sunlight only. Where they occur the retained levels of annual APSH remain well in excess of the BRE 25% recommendations.
- 10.8 For overshadowing, only one area will experience an alteration beyond guidance. This area is particularly sensitive to changes in massing on the Site due to its location but will achieve good levels of Sun on Ground in the summer months.

- 10.9 In terms of internal daylight (CBD M), the Proposed Development performs well with 84% of the rooms meeting the suggested median lux levels for their particular room use. This includes all of the LKD's which achieve good lux levels with some achieving more than double the suggested values outlined within the BRE Guidelines. The three rooms that fall below the suggested values are bedrooms.
- 10.10 Overall, the scheme performs well from a daylight, sunlight and overshadowing perspective. While the proposals will result in some alterations in daylight and sunlight to some of the surrounding properties, the retained levels are generally good and the impacts are indicative of what you would expect when developing a scheme within a Central London location.

Appendix 1: Existing and Proposed Drawings





Sources: Z-mapping Ltd
Point 2
Site Photography
Point Cloud Data

Local Planning Authority
Various Surrounding Building Layouts

Morrow + Lorraine
Proposed Scheme 21/13/22
300 GIR - Proposal Option 1.dwg

Key: Existing Buildings
 Proposed Scheme

Project: 300 Grays Inn Road

Title: Site Plan
Existing Buildings

Scheme Confirmed:

Date:

Drawn By:
EVJ/SM

Scale:
1:750

Date:
March 22

Dwg No:
P2991/01

Rel:
01





Sources: Z-mapping Ltd
Point 2
Site Photography
Point Cloud Data

Local Planning Authority
Various Surrounding Building Layouts

Morrow + Lorraine
Proposed Scheme 21/13/22
300 GIR - Proposal Option 1.dwg

Key: Existing Buildings
 Proposed Scheme

All Heights in mm AOD

Project: 300 Grays Inn Road

Title: 3D View
Existing Buildings

Scheme Confirmed:

Date:

Drawn By:
EVJ/SM

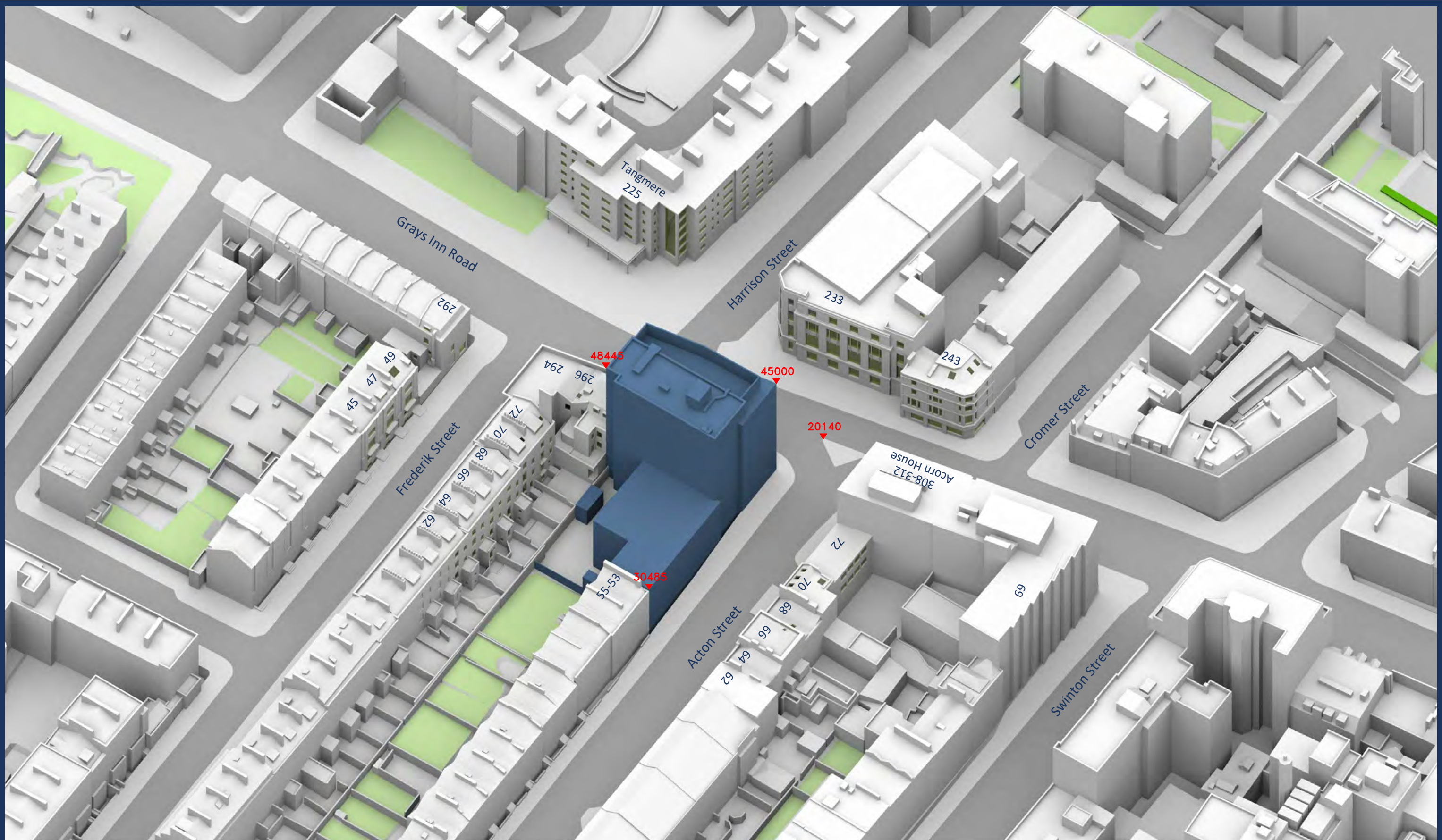
Scale:
NTS

Date:
March 22

Dwg No:
P2991/02

Rel:
01





Sources: Z-mapping Ltd
Point 2
Site Photography
Point Cloud Data

Local Planning Authority
Various Surrounding Building Layouts

Morrow + Lorraine
Proposed Scheme 21/13/22
300 GIR - Proposal Option 1.dwg

Key:  Existing Buildings
 Proposed Scheme

All Heights in mm AOD

Project: 300 Grays Inn Road

Title: Site Plan
Existing Buildings

Scheme Confirmed:

Date:

Drawn By:
EVJ/SM

Scale:
1:750

Date:
March 22

Dwg No:
P2991/03

Rel:
01





Sources: Z-mapping Ltd
Point 2
Site Photography
Point Cloud Data

Local Planning Authority
Various Surrounding Building Layouts

Haptic Architects
Proposed Scheme 09/05/23
GIR-HAP-ZZZ-M3-A-00001 - 230509 S2 Revit Model.dwg

Key: Existing Buildings Proposed Scheme

Project: 300 Grays Inn Road

Title: Site Plan
Proposed Scheme 09/05/23

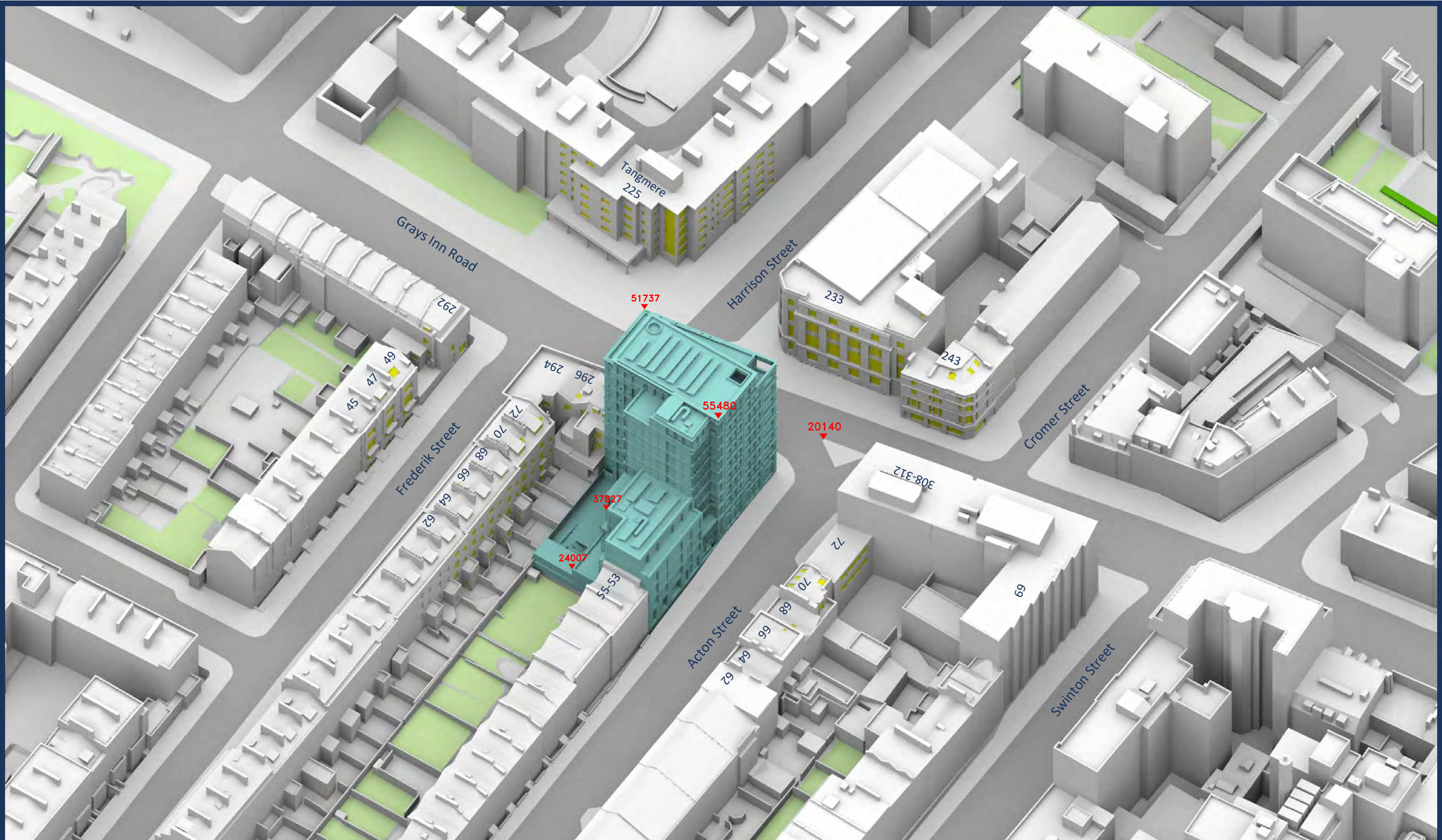
Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
-	-	EVJ/MG/CJ	1:750	MAY 23	P2991/16	09





<div>Sources: Z-mapping Ltd</div> <div>Point 2 Site Photography Point Cloud Data</div> <div>Local Planning Authority Various Surrounding Building Layouts</div> <div>Haptic Architects Proposed Scheme 09/05/23 GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg</div>	<div>Key: <div><div></div> Existing Buildings</div><div><div></div> Proposed Scheme</div></div> <div>All Heights in mm AOD</div>		Project: 300 Grays Inn Road			Title: 3D View Proposed Scheme 09/05/23		
	Scheme Confirmed: -		Date: -	Drawn By: EVJ/MG/CJ	Scale: NTS	Date: MAY 23	Dwg No: P2991/17	







Sources: Z-mapping Ltd
Point 2
Site Photography
Point Cloud Data

Local Planning Authority
Various Surrounding Building Layouts

Haptic Architects
Proposed Scheme 09/05/23
GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg

Key:  Existing Buildings
 Proposed Scheme

All Heights in mm AOD

Project: 300 Grays Inn Road

Title: Site Plan
Proposed Scheme 09/05/23

Scheme Confirmed:

Date:

Drawn By:
EVJ/MG/CJ

Scale:
NTS

Date:
MAY 23

Dwg No:
P2991/18

Rel:
09



Appendix 2: External Daylight and Sunlight Results



DAYLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
Tangmere 225 Grays Inn Road						
R5/270	ASSUMED	W17/270	12.32	11.65	0.67	5.44
R5/270	ASSUMED	W18/270	14.21	13.64	0.57	4.01
R6/270	ASSUMED_RESI	W19/270	20.29	19.71	0.58	2.86
R7/270	ASSUMED_RESI	W20/270	19.25	18.84	0.41	2.13
R8/270	ASSUMED_RESI	W21/270	18.99	18.63	0.36	1.90
R9/270	ASSUMED_RESI	W22/270	19.00	18.67	0.33	1.74
R1/271	ASSUMED_RESI	W1/271	31.61	31.29	0.32	1.01
R2/271	ASSUMED_RESI	W2/271	27.59	27.59	0.00	0.00
R3/271	ASSUMED_RESI	W3/271	32.93	32.50	0.43	1.31
R4/271	ASSUMED_RESI	W4/271	32.53	32.03	0.50	1.54
R5/271	ASSUMED_RESI	W5/271	26.54	26.01	0.53	2.00
R6/271	ASSUMED_RESI	W6/271	27.28	26.68	0.60	2.20
R6/271	ASSUMED_RESI	W7/271	13.25	12.50	0.75	5.66
R6/271	ASSUMED_RESI	W8/271	15.44	14.79	0.65	4.21
R7/271	ASSUMED_RESI	W9/271	22.81	22.16	0.65	2.85
R8/271	ASSUMED_RESI	W10/271	22.58	21.99	0.59	2.61
R9/271	ASSUMED_RESI	W11/271	22.45	21.89	0.56	2.49
R10/271	ASSUMED_RESI	W12/271	22.01	21.57	0.44	2.00
R11/271	ASSUMED_RESI	W13/271	21.98	21.53	0.45	2.05
R12/271	ASSUMED_RESI	W14/271	21.77	21.38	0.39	1.79
R13/271	ASSUMED_RESI	W15/271	21.83	21.48	0.35	1.60
R1/272	ASSUMED_RESI	W1/272	33.39	33.03	0.36	1.08



DAYLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
R2/272	ASSUMED_RESI	W2/272	28.99	28.99	0.00	0.00
R3/272	ASSUMED_RESI	W3/272	34.73	34.26	0.47	1.35
R4/272	ASSUMED_RESI	W4/272	34.32	33.76	0.56	1.63
R5/272	ASSUMED_RESI	W5/272	28.19	27.59	0.60	2.13
R6/272	ASSUMED_RESI	W6/272	29.01	28.33	0.68	2.34
R6/272	ASSUMED_RESI	W7/272	14.13	13.31	0.82	5.80
R6/272	ASSUMED_RESI	W8/272	16.87	16.14	0.73	4.33
R7/272	ASSUMED_RESI	W9/272	25.65	24.94	0.71	2.77
R8/272	ASSUMED_RESI	W10/272	25.47	24.82	0.65	2.55
R9/272	ASSUMED_RESI	W11/272	25.37	24.76	0.61	2.40
R10/272	ASSUMED_RESI	W12/272	25.03	24.54	0.49	1.96
R11/272	ASSUMED_RESI	W13/272	25.11	24.62	0.49	1.95
R12/272	ASSUMED_RESI	W14/272	24.98	24.57	0.41	1.64
R13/272	ASSUMED_RESI	W15/272	25.07	24.69	0.38	1.52
R1/273	ASSUMED_RESI	W1/273	34.91	34.53	0.38	1.09
R2/273	ASSUMED_RESI	W2/273	30.22	30.22	0.00	0.00
R3/273	ASSUMED_RESI	W3/273	36.27	35.75	0.52	1.43
R4/273	ASSUMED_RESI	W4/273	35.86	35.25	0.61	1.70
R5/273	ASSUMED_RESI	W5/273	29.60	28.91	0.69	2.33
R6/273	ASSUMED_RESI	W6/273	30.53	29.77	0.76	2.49
R6/273	ASSUMED_RESI	W7/273	14.78	13.88	0.90	6.09
R6/273	ASSUMED_RESI	W8/273	18.00	17.18	0.82	4.56
R7/273	ASSUMED_RESI	W9/273	28.57	27.78	0.79	2.77



DAYLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
R8/273	ASSUMED_RESI	W10/273	28.45	27.74	0.71	2.50
R9/273	ASSUMED_RESI	W11/273	28.38	27.71	0.67	2.36
R10/273	ASSUMED_RESI	W12/273	28.10	27.56	0.54	1.92
R11/273	ASSUMED_RESI	W13/273	28.31	27.80	0.51	1.80
R12/273	ASSUMED_RESI	W14/273	28.24	27.80	0.44	1.56
R13/273	ASSUMED_RESI	W15/273	28.32	27.93	0.39	1.38
R1/274	ASSUMED_RESI	W1/274	36.55	36.14	0.41	1.12
R2/274	ASSUMED_RESI	W2/274	30.96	30.96	0.00	0.00
R3/274	ASSUMED_RESI	W3/274	37.21	36.65	0.56	1.50
R4/274	ASSUMED_RESI	W4/274	36.81	36.14	0.67	1.82
R5/274	ASSUMED_RESI	W5/274	30.23	29.47	0.76	2.51
R6/274	ASSUMED_RESI	W6/274	31.27	30.41	0.86	2.75
R6/274	ASSUMED_RESI	W7/274	14.48	13.49	0.99	6.84
R6/274	ASSUMED_RESI	W8/274	18.68	17.75	0.93	4.98
R7/274	ASSUMED_RESI	W9/274	31.26	30.40	0.86	2.75
R8/274	ASSUMED_RESI	W10/274	31.21	30.45	0.76	2.44
R9/274	ASSUMED_RESI	W11/274	31.18	30.46	0.72	2.31
R10/274	ASSUMED_RESI	W12/274	30.87	30.28	0.59	1.91
R11/274	ASSUMED_RESI	W13/274	31.31	30.77	0.54	1.72
R12/274	ASSUMED_RESI	W14/274	31.30	30.84	0.46	1.47
R13/274	ASSUMED_RESI	W15/274	31.39	30.98	0.41	1.31
R1/275	ASSUMED_RESI	W1/275	37.85	37.61	0.24	0.63



DAYLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
R2/275	ASSUMED_RESI	W2/275	29.14	29.14	0.00	0.00
R3/275	ASSUMED_RESI	W3/275	29.53	28.95	0.58	1.96
R4/275	ASSUMED_RESI	W4/275	29.36	28.64	0.72	2.45
R5/275	ASSUMED_RESI	W5/275	22.92	22.09	0.83	3.62
R6/275	ASSUMED_RESI	W6/275	22.77	21.83	0.94	4.13
R6/275	ASSUMED_RESI	W7/275	7.33	6.26	1.07	14.60
R6/275	ASSUMED_RESI	W8/275	15.35	14.33	1.02	6.64
R7/275	ASSUMED_RESI	W9/275	26.13	25.22	0.91	3.48
R8/275	ASSUMED_RESI	W10/275	26.25	25.44	0.81	3.09
R9/275	ASSUMED_RESI	W11/275	26.30	25.54	0.76	2.89
R10/275	ASSUMED_RESI	W12/275	25.69	25.07	0.62	2.41
R11/275	ASSUMED_RESI	W13/275	26.25	25.69	0.56	2.13
R12/275	ASSUMED_RESI	W14/275	26.46	25.99	0.47	1.78
R13/275	ASSUMED_RESI	W15/275	26.65	26.23	0.42	1.58
R1/276	ASSUMED_RESI	W1/276	38.71	38.20	0.51	1.32
R2/276	ASSUMED_RESI	W2/276	38.64	38.08	0.56	1.45
R3/276	ASSUMED_RESI	W3/276	38.43	37.82	0.61	1.59

243 Grays Inn Road

R1/212	ASSUMED_RESI	W1/212	26.21	24.74	1.47	5.61
R2/212	ASSUMED_RESI	W2/212	25.93	24.49	1.44	5.55
R2/212	ASSUMED_RESI	W3/212	25.91	24.47	1.44	5.56
R2/212	ASSUMED_RESI	W4/212	25.75	24.37	1.38	5.36
R3/212	ASSUMED_RESI	W5/212	24.39	23.24	1.15	4.72



DAYLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
R3/212	ASSUMED_RESI	W6/212	26.33	26.15	0.18	0.68
R3/212	ASSUMED_RESI	W7/212	30.67	30.67	0.00	0.00
R1/213	ASSUMED_RESI	W1/213	28.26	26.73	1.53	5.41
R2/213	ASSUMED_RESI	W2/213	28.16	26.70	1.46	5.18
R3/213	ASSUMED_RESI	W3/213	26.89	25.74	1.15	4.28
R3/213	ASSUMED_RESI	W4/213	29.16	28.98	0.18	0.62
R3/213	ASSUMED_RESI	W5/213	32.93	32.93	0.00	0.00
R1/214	ASSUMED_RESI	W1/214	13.25	12.73	0.52	3.92
R1/214	ASSUMED_RESI	W2/214	30.92	29.73	1.19	3.85
R1/214	ASSUMED_RESI	W3/214	79.92	78.75	1.17	1.46
R1/214	ASSUMED_RESI	W4/214	86.42	86.30	0.12	0.14
R1/214	ASSUMED_RESI	W5/214	82.40	82.34	0.06	0.07

69 Swinton Street

R1/291	ASSUMED_RESI	W1/291	5.60	5.29	0.31	5.54
R2/291	ASSUMED_RESI	W2/291	24.85	23.56	1.29	5.19
R1/292	ASSUMED_RESI	W1/292	17.35	15.97	1.38	7.95
R1/292	ASSUMED_RESI	W2/292	19.48	18.10	1.38	7.08
R2/292	ASSUMED_RESI	W3/292	21.28	19.74	1.54	7.24
R2/292	ASSUMED_RESI	W4/292	22.96	21.37	1.59	6.93
R3/292	ASSUMED_RESI	W5/292	24.26	22.63	1.63	6.72
R4/292	ASSUMED_RESI	W6/292	28.19	26.49	1.70	6.03
R1/293	ASSUMED_RESI	W1/293	18.56	17.12	1.44	7.76
R1/293	ASSUMED_RESI	W2/293	21.49	20.02	1.47	6.84
R2/293	ASSUMED_RESI	W3/293	23.83	22.21	1.62	6.80
R2/293	ASSUMED_RESI	W4/293	25.83	24.14	1.69	6.54
R3/293	ASSUMED_RESI	W5/293	27.32	25.56	1.76	6.44
R3/293	ASSUMED_RESI	W6/293	28.72	26.92	1.80	6.27



DAYLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
R4/293	ASSUMED_RESI	W7/293	31.33	29.44	1.89	6.03
R1/294	ASSUMED_RESI	W1/294	19.22	17.97	1.25	6.50
R1/294	ASSUMED_RESI	W2/294	23.38	22.11	1.27	5.43
R2/294	ASSUMED_RESI	W3/294	26.48	25.11	1.37	5.17
R2/294	ASSUMED_RESI	W4/294	28.79	27.35	1.44	5.00
R3/294	ASSUMED_RESI	W5/294	30.32	28.82	1.50	4.95
R3/294	ASSUMED_RESI	W6/294	31.67	30.12	1.55	4.89
R4/294	ASSUMED_RESI	W7/294	33.87	32.24	1.63	4.81
R1/295	ASSUMED_RESI	W1/295	19.91	18.87	1.04	5.22
R1/295	ASSUMED_RESI	W2/295	25.71	24.64	1.07	4.16
R2/295	ASSUMED_RESI	W3/295	29.85	28.68	1.17	3.92
R2/295	ASSUMED_RESI	W4/295	32.35	31.13	1.22	3.77
R3/295	ASSUMED_RESI	W5/295	33.72	32.47	1.25	3.71
R3/295	ASSUMED_RESI	W6/295	34.82	33.56	1.26	3.62
R4/295	ASSUMED_RESI	W7/295	36.28	35.00	1.28	3.53
70 Acton Street						
R1/241	BEDROOM	W1/241	24.02	17.24	6.78	28.23
R1/241	BEDROOM	W2/241	24.40	17.68	6.72	27.54
R2/241	BEDROOM	W3/241	24.84	18.15	6.69	26.93
R1/242	BEDROOM	W1/242	27.38	19.61	7.77	28.38
R1/242	BEDROOM	W2/242	27.82	20.18	7.64	27.46
R1/242	BEDROOM	W3/242	28.35	20.75	7.60	26.81
R1/243	LKD	W1/243	75.85	68.16	7.69	10.14
R1/243	LKD	W2/243	29.74	21.57	8.17	27.47
R1/243	LKD	W4/243	76.22	68.85	7.37	9.67
R1/243	LKD	W5/243	30.22	22.23	7.99	26.44
R1/243	LKD	W6/243	72.13	65.01	7.12	9.87
R1/243	LKD	W7/243	30.81	22.91	7.90	25.64
R1/243	LKD	W8/243	30.20	30.20	0.00	0.00



DAYLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
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68 Acton Street

R1/300	ASSUMED_RESI	W1/300	21.60	16.36	5.24	24.26
R1/301	ASSUMED_RESI	W1/301	25.83	19.33	6.50	25.16
R2/301	ASSUMED_RESI	W2/301	26.35	20.09	6.26	23.76
R1/302	ASSUMED_RESI	W1/302	29.61	22.28	7.33	24.76
R2/302	ASSUMED_RESI	W3/302	67.15	64.59	2.56	3.81
R3/302	ASSUMED_RESI	W2/302	30.14	23.10	7.04	23.36

66 Acton Street

R1/310	ASSUMED_COMMERCI.	W1/310	19.07	14.41	4.66	24.44
R1/310	ASSUMED_COMMERCI.	W2/310	9.31	6.24	3.07	32.98
R1/310	ASSUMED_COMMERCI.	W3/310	18.45	13.76	4.69	25.42
R1/310	ASSUMED_COMMERCI.	W4/310	22.37	18.04	4.33	19.36
R1/310	ASSUMED_COMMERCI.	W5/310	23.11	20.03	3.08	13.33
R1/310	ASSUMED_COMMERCI.	W6/310	20.25	16.28	3.97	19.60
R1/310	ASSUMED_COMMERCI.	W7/310	14.40	13.96	0.44	3.06
R1/311	ASSUMED_RESI	W1/311	27.01	21.43	5.58	20.66
R2/311	ASSUMED_RESI	W2/311	27.37	22.19	5.18	18.93
R2/311	ASSUMED_RESI	W3/311	27.74	22.98	4.76	17.16
R1/312	ASSUMED_RESI	W1/312	30.46	24.20	6.26	20.55
R2/312	ASSUMED_RESI	W2/312	30.88	25.07	5.81	18.81
R2/312	ASSUMED_RESI	W3/312	31.33	26.00	5.33	17.01
R1/313	ASSUMED_RESI	W1/313	78.97	76.44	2.53	3.20
R2/313	ASSUMED_RESI	W2/313	33.71	27.56	6.15	18.24
R3/313	ASSUMED_RESI	W3/313	34.10	28.43	5.67	16.63
R3/313	ASSUMED_RESI	W4/313	34.47	29.32	5.15	14.94



DAYLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
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64 Acton Street

R1/319	ASSUMED_RESI	W1/319	7.73	7.27	0.46	5.95
R1/320	ASSUMED_HALL	W1/320	23.89	20.29	3.60	15.07
R2/320	ASSUMED_RESI	W2/320	24.01	20.95	3.06	12.74
R1/321	ASSUMED_RESI	W1/321	28.50	24.50	4.00	14.04
R2/321	ASSUMED_RESI	W2/321	28.91	25.40	3.51	12.14
R1/322	ASSUMED_RESI	W1/322	32.48	28.05	4.43	13.64
R2/322	ASSUMED_RESI	W2/322	33.02	29.17	3.85	11.66

62 Acton Street

R2/329	ASSUMED_RESI	W2/329	11.65	11.64	0.01	0.09
R2/330	ASSUMED_RESI	W2/330	23.42	21.24	2.18	9.31
R2/330	ASSUMED_RESI	W3/330	23.63	21.72	1.91	8.08
R1/331	ASSUMED_RESI	W1/331	27.78	25.13	2.65	9.54
R2/331	ASSUMED_RESI	W2/331	28.12	25.83	2.29	8.14
R1/332	ASSUMED_RESI	W1/332	31.79	28.89	2.90	9.12
R2/332	ASSUMED_RESI	W2/332	32.12	29.65	2.47	7.69
R1/333	ASSUMED_RESI	W1/333	34.88	31.89	2.99	8.57
R2/333	ASSUMED_RESI	W2/333	35.18	32.65	2.53	7.19

55-53 ACTON STREET

R1/9	LKD	W1/9	21.16	20.93	0.23	1.09
R1/9	LKD	W2/9	22.29	21.73	0.56	2.51
R2/9	LKD	W3/9	22.49	20.87	1.62	7.20
R2/9	LKD	W4/9	18.63	16.30	2.33	12.51



DAYLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
R2/10	ASSUMED	W2/10	27.16	26.83	0.33	1.22
R3/10	ASSUMED	W3/10	26.61	26.00	0.61	2.29
R4/10	ASSUMED	W4/10	24.32	21.53	2.79	11.47
R1/11	BEDROOM	W1/11	30.71	30.37	0.34	1.11
R3/11	KD	W3/11	29.51	29.06	0.45	1.52
R1/12	BEDROOM	W1/12	33.90	33.53	0.37	1.09
R3/12	KD	W3/12	33.08	32.46	0.62	1.87

298 GRAY INN ROAD

R1/51	KITCHEN	W1/51	20.61	18.41	2.20	10.67
R2/51	BEDROOM	W2/51	10.69	6.18	4.51	42.19
R1/52	KITCHEN	W1/52	23.78	20.60	3.18	13.37
R2/52	BEDROOM	W2/52	14.24	7.33	6.91	48.53
R1/53	ASSUMED	W1/53	29.94	28.07	1.87	6.25
R1/53	ASSUMED	W2/53	34.39	32.06	2.33	6.78

296 GRAY INN ROAD

R1/61	ASSUMED	W1/61	31.43	31.43	0.00	0.00
R1/62	ASSUMED	W1/62	18.50	18.45	0.05	0.27
R2/62	ASSUMED	W2/62	72.12	70.19	1.93	2.68
R2/62	ASSUMED	W3/62	22.57	21.60	0.97	4.30

294 GRAY INN ROAD

R1/71	ASSUMED	W1/71	5.44	4.39	1.05	19.30
R1/72	UNKNOWN	W1/72	11.84	10.40	1.44	12.16



DAYLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
72 FREDERICK STREET						
R1/19	BEDROOM	W1/19	10.89	7.62	3.27	30.03
R1/20	KITCHEN	W1/20	16.47	12.01	4.46	27.08
R1/21	KITCHEN	W1/21	20.87	15.06	5.81	27.84
R1/22	BEDROOM	W1/22	24.66	17.64	7.02	28.47
R1/23	BEDROOM	W1/23	26.95	20.34	6.61	24.53
70 FREDERICK STREET						
R2/19	ASSUMED	W2/19	10.52	6.90	3.62	34.41
R2/20	ASSUMED	W2/20	17.51	12.85	4.66	26.61
R2/21	KITCHEN	W2/21	23.35	17.42	5.93	25.40
R2/23	BEDROOM	W2/23	29.77	23.40	6.37	21.40
68 FREDERICK STREET						
R1/29	ASSUMED	W1/29	11.24	11.10	0.14	1.25
R2/29	ASSUMED	W2/29	12.30	9.32	2.98	24.23
R1/30	BEDROOM	W1/30	20.51	15.89	4.62	22.53
R1/31	KITCHEN	W1/31	26.88	21.13	5.75	21.39
66 FREDERICK STREET						
R3/29	WINDOW_TEST	W3/29	11.32	11.31	0.01	0.09
R4/29	ASSUMED	W4/29	13.73	11.37	2.36	17.19
R2/30	ASSUMED	W2/30	23.56	19.49	4.07	17.28
R2/31	KD	W2/31	29.04	24.27	4.77	16.43



DAYLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
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R2/33	BEDROOM	W2/33	33.47	29.16	4.31	12.88
R2/33	BEDROOM	W3/33	81.32	80.90	0.42	0.52

64 FREDERICK STREET

R6/29	LD	W6/29	14.75	13.05	1.70	11.53
R3/30	ASSUMED	W3/30	23.37	20.00	3.37	14.42
R3/31	ASSUMED	W3/31	30.73	26.96	3.77	12.27
R3/32	ASSUMED	W3/32	33.44	29.94	3.50	10.47
R3/33	ASSUMED	W4/33	34.46	31.32	3.14	9.11
R4/35	ASSUMED	W4/35	24.37	20.57	3.80	15.59
R5/35	ASSUMED	W5/35	23.82	20.27	3.55	14.90

62 FREDERICK STREET

R2/39	BEDROOM	W3/39	15.17	14.33	0.84	5.54
R1/40	KITCHEN	W1/40	24.86	22.50	2.36	9.49
R1/41	KITCHEN	W1/41	31.61	28.90	2.71	8.57
R1/42	KITCHEN	W1/42	34.53	32.08	2.45	7.10
R1/43	ASSUMED	W1/43	35.75	33.62	2.13	5.96

45 Frederick Street

R1/349	BEDROOM	W1/349	19.35	18.79	0.56	2.89
R1/350	LIVINGROOM	W1/350	20.81	19.98	0.83	3.99
R1/351	BEDROOM?	W1/351	27.67	26.63	1.04	3.76
R1/352	BEDROOM	W1/352	31.78	30.47	1.31	4.12



DAYLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

DAYLIGHT

Room	Room Use	Window	Existing VSC	Proposed VSC	Loss	%Loss
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47 Frederick Street

R1/339	BEDROOM	W1/339	18.96	18.36	0.60	3.16
R1/340	LIVINGROOM	W1/340	20.55	19.66	0.89	4.33
R1/341	BEDROOM?	W1/341	27.33	26.15	1.18	4.32
R1/342	BEDROOM	W1/342	31.47	29.96	1.51	4.80
R1/343	BEDROOM_HALF_DEPT	W1/343	34.64	32.81	1.83	5.28

49 Frederick Street

R1/249	BEDROOM	W1/249	18.26	17.64	0.62	3.40
R1/250	LIVINGROOM	W1/250	20.08	19.22	0.86	4.28
R1/251	BEDROOM?	W1/251	26.92	25.79	1.13	4.20
R1/252	BEDROOM	W1/252	31.10	29.69	1.41	4.53
R1/253	BEDROOM_HALF_DEPT	W1/253	82.88	81.34	1.54	1.86

292 Grays Inn Road

R1/360	ASSUMED	W1/360	5.07	5.07	0.00	0.00
R1/361	ASSUMED	W1/361	10.97	10.96	0.01	0.09
R2/361	ASSUMED	W2/361	13.32	13.32	0.00	0.00
R3/361	ASSUMED	W3/361	27.52	26.31	1.21	4.40
R1/362	ASSUMED	W1/362	28.12	28.12	0.00	0.00
R1/363	ASSUMED	W1/363	36.18	36.12	0.06	0.17



NSL ANALYSIS

300 Grays Inn Road
Existing vs PR090523

NSL						
Room	Room Use	Whole Room sq ft	Existing sq ft	Proposed sq ft	Loss sq ft	%Loss

Tangmere 225 Grays Inn Road

R5/270	ASSUMED	26.0	19.3	19.3	0.0	0.0
R6/270	ASSUMED_RESI	148.3	87.9	87.9	0.0	0.0
R7/270	ASSUMED_RESI	180.6	78.5	78.5	0.0	0.0
R8/270	ASSUMED_RESI	151.1	59.2	59.2	0.0	0.0
R9/270	ASSUMED_RESI	105.8	39.3	39.3	0.0	0.0
R1/271	ASSUMED_RESI	97.7	96.3	96.3	0.0	0.0
R2/271	ASSUMED_RESI	109.1	106.1	106.1	0.0	0.0
R3/271	ASSUMED_RESI	190.8	187.0	186.7	0.3	0.2
R4/271	ASSUMED_RESI	194.1	188.5	186.7	1.8	1.0
R5/271	ASSUMED_RESI	133.0	130.5	130.5	0.0	0.0
R6/271	ASSUMED_RESI	54.3	48.5	48.5	0.0	0.0
R7/271	ASSUMED_RESI	148.3	99.3	99.3	0.0	0.0
R8/271	ASSUMED_RESI	70.6	25.3	25.3	0.0	0.0
R9/271	ASSUMED_RESI	70.7	26.3	26.3	0.0	0.0
R10/271	ASSUMED_RESI	162.7	97.9	97.9	0.0	0.0
R11/271	ASSUMED_RESI	180.6	78.9	78.9	0.0	0.0
R12/271	ASSUMED_RESI	151.1	60.6	60.6	0.0	0.0
R13/271	ASSUMED_RESI	105.8	40.3	40.3	0.0	0.0
R1/272	ASSUMED_RESI	97.7	96.3	96.3	0.0	0.0
R2/272	ASSUMED_RESI	109.1	106.1	106.1	0.0	0.0
R3/272	ASSUMED_RESI	190.8	187.0	187.0	0.0	0.0
R4/272	ASSUMED_RESI	194.1	189.4	188.0	1.4	0.7
R5/272	ASSUMED_RESI	133.0	130.5	130.5	0.0	0.0
R6/272	ASSUMED_RESI	54.3	50.4	50.4	0.0	0.0
R7/272	ASSUMED_RESI	148.3	107.2	107.2	0.0	0.0
R8/272	ASSUMED_RESI	70.6	32.6	32.6	0.0	0.0
R9/272	ASSUMED_RESI	70.7	33.3	33.3	0.0	0.0
R10/272	ASSUMED_RESI	162.7	109.9	109.9	0.0	0.0
R11/272	ASSUMED_RESI	180.6	94.4	94.4	0.0	0.0
R12/272	ASSUMED_RESI	151.1	76.7	76.7	0.0	0.0
R13/272	ASSUMED_RESI	105.8	53.1	53.1	0.0	0.0
R1/273	ASSUMED_RESI	97.7	96.4	96.4	0.0	0.0
R2/273	ASSUMED_RESI	109.1	106.1	106.1	0.0	0.0
R3/273	ASSUMED_RESI	190.8	187.0	187.0	0.0	0.0
R4/273	ASSUMED_RESI	194.1	189.4	188.8	0.7	0.4
R5/273	ASSUMED_RESI	133.0	130.5	130.5	0.0	0.0
R6/273	ASSUMED_RESI	54.3	50.4	50.4	0.0	0.0
R7/273	ASSUMED_RESI	148.3	120.0	120.0	0.0	0.0
R8/273	ASSUMED_RESI	70.6	45.5	45.5	0.0	0.0
R9/273	ASSUMED_RESI	70.7	46.0	46.0	0.0	0.0



NSL ANALYSIS

300 Grays Inn Road
Existing vs PR090523

NSL						
Room	Room Use	Whole Room sq ft	Existing sq ft	Proposed sq ft	Loss sq ft	%Loss
R10/273	ASSUMED_RESI	162.7	125.9	125.9	0.0	0.0
R11/273	ASSUMED_RESI	180.6	123.4	123.4	0.0	0.0
R12/273	ASSUMED_RESI	151.1	105.9	105.9	0.0	0.0
R13/273	ASSUMED_RESI	105.8	73.6	73.6	0.0	0.0
R1/274	ASSUMED_RESI	97.7	96.4	96.4	0.0	0.0
R2/274	ASSUMED_RESI	109.1	106.1	106.1	0.0	0.0
R3/274	ASSUMED_RESI	190.8	187.0	187.0	0.0	0.0
R4/274	ASSUMED_RESI	194.1	189.4	189.4	0.0	0.0
R5/274	ASSUMED_RESI	133.0	130.5	130.5	0.0	0.0
R6/274	ASSUMED_RESI	54.3	50.4	50.4	0.0	0.0
R7/274	ASSUMED_RESI	148.3	146.3	146.3	0.0	0.0
R8/274	ASSUMED_RESI	70.6	68.5	68.5	0.0	0.0
R9/274	ASSUMED_RESI	70.7	69.1	69.1	0.0	0.0
R10/274	ASSUMED_RESI	162.7	161.0	161.0	0.0	0.0
R11/274	ASSUMED_RESI	180.6	177.2	177.2	0.0	0.0
R12/274	ASSUMED_RESI	151.1	149.1	149.1	0.0	0.0
R13/274	ASSUMED_RESI	105.8	104.2	104.2	0.0	0.0
R1/275	ASSUMED_RESI	97.7	96.6	96.6	0.0	0.0
R2/275	ASSUMED_RESI	109.1	107.0	107.0	0.0	0.0
R3/275	ASSUMED_RESI	190.8	187.0	187.0	0.0	0.0
R4/275	ASSUMED_RESI	194.1	189.4	189.4	0.0	0.0
R5/275	ASSUMED_RESI	133.0	130.9	130.9	0.0	0.0
R6/275	ASSUMED_RESI	54.3	51.3	51.3	0.0	0.0
R7/275	ASSUMED_RESI	148.3	146.3	146.3	0.0	0.0
R8/275	ASSUMED_RESI	70.6	68.5	68.5	0.0	0.0
R9/275	ASSUMED_RESI	70.7	68.9	68.9	0.0	0.0
R10/275	ASSUMED_RESI	162.7	161.0	161.0	0.0	0.0
R11/275	ASSUMED_RESI	180.6	177.2	177.2	0.0	0.0
R12/275	ASSUMED_RESI	151.1	149.1	149.1	0.0	0.0
R13/275	ASSUMED_RESI	105.8	104.2	104.2	0.0	0.0
R1/276	ASSUMED_RESI	97.7	96.6	96.6	0.0	0.0
R2/276	ASSUMED_RESI	109.1	107.5	107.5	0.0	0.0
R3/276	ASSUMED_RESI	192.6	188.8	188.8	0.0	0.0

243 Grays Inn Road

R1/212	ASSUMED_RESI	154.0	106.2	100.2	6.0	5.6
R2/212	ASSUMED_RESI	122.7	108.1	105.6	2.5	2.3
R3/212	ASSUMED_RESI	139.7	131.4	131.4	0.0	0.0
R1/213	ASSUMED_RESI	154.0	113.6	106.4	7.2	6.3
R2/213	ASSUMED_RESI	122.7	87.2	80.7	6.5	7.5
R3/213	ASSUMED_RESI	139.7	139.1	139.1	0.0	0.0



NSL ANALYSIS

300 Grays Inn Road
Existing vs PR090523

NSL						
Room	Room Use	Whole Room sq ft	Existing sq ft	Proposed sq ft	Loss sq ft	%Loss

R1/214	ASSUMED_RESI	190.5	185.6	185.6	0.0	0.0
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69 Swinton Street

R1/291	ASSUMED_RESI	136.8	65.8	51.9	13.8	21.0
R2/291	ASSUMED_RESI	142.7	133.3	126.9	6.4	4.8
R1/292	ASSUMED_RESI	121.1	118.4	109.4	9.0	7.6
R2/292	ASSUMED_RESI	108.3	107.0	103.5	3.5	3.3
R3/292	ASSUMED_RESI	136.8	69.0	64.5	4.5	6.5
R4/292	ASSUMED_RESI	142.7	136.7	133.6	3.0	2.2
R1/293	ASSUMED_RESI	121.1	119.3	116.0	3.3	2.8
R2/293	ASSUMED_RESI	108.3	107.1	107.1	0.0	0.0
R3/293	ASSUMED_RESI	136.8	133.4	133.3	0.1	0.1
R4/293	ASSUMED_RESI	142.7	137.6	137.6	0.0	0.0
R1/294	ASSUMED_RESI	121.1	119.6	119.6	0.0	0.0
R2/294	ASSUMED_RESI	108.3	107.1	107.1	0.0	0.0
R3/294	ASSUMED_RESI	136.8	133.7	133.7	0.0	0.0
R4/294	ASSUMED_RESI	142.7	137.7	137.7	0.0	0.0
R1/295	ASSUMED_RESI	121.1	119.7	119.7	0.0	0.0
R2/295	ASSUMED_RESI	108.3	107.1	107.1	0.0	0.0
R3/295	ASSUMED_RESI	136.8	134.3	134.3	0.0	0.0
R4/295	ASSUMED_RESI	142.7	137.7	137.7	0.0	0.0

70 Acton Street

R1/241	BEDROOM	84.9	83.4	81.7	1.7	2.0
R2/241	BEDROOM	147.4	136.3	56.9	79.4	58.3
R1/242	BEDROOM	179.5	172.8	159.5	13.3	7.7
R1/243	LKD	324.6	322.1	320.3	1.7	0.5

68 Acton Street

R1/300	ASSUMED_RESI	147.9	140.3	83.8	56.6	40.3
R1/301	ASSUMED_RESI	113.0	111.1	71.1	40.0	36.0
R2/301	ASSUMED_RESI	122.8	115.8	65.9	49.9	43.1
R1/302	ASSUMED_RESI	113.0	111.1	67.6	43.6	39.2
R2/302	ASSUMED_RESI	50.0	47.7	47.7	0.0	0.0
R3/302	ASSUMED_RESI	122.8	111.5	61.3	50.2	45.0

66 Acton Street

R1/310	ASSUMED_COMMERCIAL	389.4	344.3	328.1	16.2	4.7
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NSL ANALYSIS

300 Grays Inn Road
Existing vs PR090523

NSL						
Room	Room Use	Whole Room sq ft	Existing sq ft	Proposed sq ft	Loss sq ft	%Loss
R1/311	ASSUMED_RESI	97.5	96.0	73.7	22.3	23.2
R2/311	ASSUMED_RESI	168.4	166.3	146.4	19.9	12.0
R1/312	ASSUMED_RESI	97.5	96.0	72.5	23.6	24.6
R2/312	ASSUMED_RESI	168.4	166.3	144.5	21.9	13.2
R1/313	ASSUMED_RESI	40.5	40.5	40.5	0.0	0.0
R2/313	ASSUMED_RESI	97.5	95.6	73.4	22.2	23.2
R3/313	ASSUMED_RESI	168.4	165.3	144.3	21.0	12.7

64 Acton Street

R1/319	ASSUMED_RESI	144.7	98.9	82.2	16.7	16.9
R1/320	ASSUMED_HALL	61.0	50.4	46.1	4.4	8.7
R2/320	ASSUMED_RESI	144.7	141.8	119.3	22.5	15.9
R1/321	ASSUMED_RESI	112.6	109.9	108.3	1.7	1.5
R2/321	ASSUMED_RESI	118.6	116.5	109.3	7.2	6.2
R1/322	ASSUMED_RESI	112.6	109.9	107.5	2.4	2.2
R2/322	ASSUMED_RESI	118.6	116.5	106.3	10.2	8.8

62 Acton Street

R2/329	ASSUMED_RESI	165.9	45.1	38.5	6.6	14.6
R2/330	ASSUMED_RESI	165.9	99.8	99.8	0.0	0.0
R1/331	ASSUMED_RESI	122.4	120.2	120.2	0.0	0.0
R2/331	ASSUMED_RESI	116.5	114.8	114.8	0.0	0.0
R1/332	ASSUMED_RESI	122.4	120.2	120.2	0.0	0.0
R2/332	ASSUMED_RESI	116.5	114.8	114.8	0.0	0.0
R1/333	ASSUMED_RESI	122.4	120.2	120.2	0.0	0.0
R2/333	ASSUMED_RESI	116.5	114.8	114.4	0.3	0.3

55-53 ACTON STREET

R1/9	LKD	271.4	132.5	131.9	0.6	0.5
R2/9	LKD	272.0	127.1	127.1	0.0	0.0
R2/10	ASSUMED	134.1	131.2	130.9	0.3	0.2
R3/10	ASSUMED	71.5	56.9	56.9	0.0	0.0
R4/10	ASSUMED	145.9	142.2	140.9	1.3	0.9
R1/11	BEDROOM	97.2	93.8	93.7	0.1	0.1
R3/11	KD	145.9	141.9	140.2	1.7	1.2
R1/12	BEDROOM	97.2	93.8	93.6	0.2	0.2
R3/12	KD	145.9	141.9	140.5	1.4	1.0

298 GRAY INN ROAD



NSL ANALYSIS

300 Grays Inn Road
Existing vs PR090523

NSL						
Room	Room Use	Whole Room sq ft	Existing sq ft	Proposed sq ft	Loss sq ft	%Loss

R1/51	KITCHEN	93.2	89.4	89.2	0.3	0.3
R2/51	BEDROOM	115.8	76.1	47.8	28.3	37.2
R1/52	KITCHEN	93.2	91.8	91.5	0.3	0.3
R2/52	BEDROOM	115.8	84.6	62.6	22.0	26.0
R1/53	ASSUMED	185.6	175.9	175.7	0.2	0.1

296 GRAY INN ROAD

R1/61	ASSUMED	91.8	34.3	33.7	0.6	1.7
R1/62	ASSUMED	80.9	77.2	76.7	0.5	0.6
R2/62	ASSUMED	126.6	123.4	122.1	1.3	1.1

294 GRAY INN ROAD

R1/71	ASSUMED	108.9	28.7	27.8	0.9	3.1
R1/72	UNKNOWN	108.9	51.9	51.1	0.8	1.5

72 FREDERICK STREET

R1/19	BEDROOM	119.7	36.6	24.3	12.3	33.6
R1/20	KITCHEN	119.7	97.5	50.6	46.9	48.1
R1/21	KITCHEN	120.1	108.8	70.0	38.8	35.7
R1/22	BEDROOM	104.6	92.5	71.4	21.1	22.8
R1/23	BEDROOM	92.5	72.3	56.3	16.1	22.3

70 FREDERICK STREET

R2/19	ASSUMED	120.8	54.3	37.7	16.6	30.6
R2/20	ASSUMED	120.8	116.1	70.7	45.4	39.1
R2/21	KITCHEN	120.8	117.5	83.8	33.6	28.6
R2/23	BEDROOM	119.5	96.4	72.1	24.2	25.1

68 FREDERICK STREET

R1/29	ASSUMED	35.0	22.0	22.0	0.0	0.0
R2/29	ASSUMED	115.7	82.2	62.4	19.8	24.1
R1/30	BEDROOM	84.1	78.8	65.8	13.0	16.5
R1/31	KITCHEN	115.7	113.0	85.6	27.5	24.3

66 FREDERICK STREET



NSL ANALYSIS

300 Grays Inn Road
Existing vs PR090523

NSL						
Room	Room Use	Whole Room sq ft	Existing sq ft	Proposed sq ft	Loss sq ft	%Loss
R3/29	WINDOW_TEST	32.1	20.2	20.2	0.0	0.0
R4/29	ASSUMED	118.0	92.4	81.2	11.2	12.1
R2/30	ASSUMED	118.0	113.9	99.1	14.9	13.1
R2/31	KD	116.1	112.6	102.3	10.3	9.1
R2/33	BEDROOM	208.2	207.7	207.6	0.0	0.0

64 FREDERICK STREET

R6/29	LD	115.9	92.2	89.6	2.6	2.8
R3/30	ASSUMED	115.9	112.9	109.8	3.0	2.7
R3/31	ASSUMED	115.9	113.1	112.9	0.2	0.2
R3/32	ASSUMED	115.9	112.9	111.4	1.5	1.3
R3/33	ASSUMED	133.9	119.4	106.0	13.4	11.2
R4/35	ASSUMED	15.5	14.5	14.5	0.0	0.0
R5/35	ASSUMED	20.1	20.1	20.1	0.0	0.0

62 FREDERICK STREET

R2/39	BEDROOM	117.9	74.9	74.4	0.4	0.5
R1/40	KITCHEN	117.0	114.7	114.6	0.1	0.1
R1/41	KITCHEN	117.0	114.7	114.7	0.0	0.0
R1/42	KITCHEN	117.0	114.7	114.6	0.1	0.1
R1/43	ASSUMED	134.5	131.3	129.0	2.3	1.8

45 Frederick Street

R1/349	BEDROOM	114.6	36.4	36.4	0.0	0.0
R1/350	LIVINGROOM	148.4	127.2	121.8	5.4	4.2
R1/351	BEDROOM?	215.3	210.1	204.3	5.8	2.8
R1/352	BEDROOM	131.4	126.1	126.1	0.0	0.0

47 Frederick Street

R1/339	BEDROOM	114.6	35.3	35.2	0.1	0.3
R1/340	LIVINGROOM	159.3	129.3	122.6	6.7	5.2
R1/341	BEDROOM?	215.3	209.6	206.2	3.4	1.6
R1/342	BEDROOM	131.4	124.3	124.3	0.0	0.0
R1/343	BEDROOM_HALF_DEPTH	118.8	104.1	102.9	1.2	1.2

49 Frederick Street

R1/249	BEDROOM	114.6	35.1	34.9	0.2	0.6
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NSL ANALYSIS

300 Grays Inn Road
Existing vs PR090523

NSL						
Room	Room Use	Whole Room sq ft	Existing sq ft	Proposed sq ft	Loss sq ft	%Loss
R1/250	LIVINGROOM	146.2	114.8	109.0	5.8	5.1
R1/251	BEDROOM?	215.3	210.2	208.9	1.3	0.6
R1/252	BEDROOM	131.4	126.2	126.2	0.0	0.0
R1/253	BEDROOM_HALF_DEPTH	125.8	124.4	124.4	0.0	0.0

292 Grays Inn Road

R1/360	ASSUMED	35.0	7.0	7.0	0.0	0.0
R1/361	ASSUMED	35.0	14.8	14.8	0.0	0.0
R2/361	ASSUMED	53.6	23.6	23.6	0.0	0.0
R3/361	ASSUMED	54.1	53.1	50.1	3.0	5.6
R1/362	ASSUMED	90.2	84.9	84.9	0.0	0.0
R1/363	ASSUMED	103.4	100.4	100.4	0.0	0.0



SUNLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

APSH

Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		

243 Grays Inn Road

R1/214	W1/214	ASSUMED_RESI	6	41	6	39	0.0	4.9						
R1/214	W2/214	ASSUMED_RESI	3	23	3	21	0.0	8.7						
R1/214	W3/214	ASSUMED_RESI	5	40	5	39	0.0	2.5						
R1/214	W4/214	ASSUMED_RESI	2	68	2	66	0.0	2.9						
R1/214	W5/214	ASSUMED_RESI	0	49	0	48	-	2.0	11	79	11	77	0.0	2.5

69 Swinton Street

R1/291	W1/291	ASSUMED_RESI	0	9	0	9	-	0.0	0	9	0	9	-	0.0
R2/291	W2/291	ASSUMED_RESI	9	54	8	53	11.1	1.9	9	54	8	53	11.1	1.9
R1/292	W1/292	ASSUMED_RESI	7	38	7	38	0.0	0.0						
R1/292	W2/292	ASSUMED_RESI	7	40	7	40	0.0	0.0	7	40	7	40	0.0	0.0
R2/292	W3/292	ASSUMED_RESI	7	43	7	43	0.0	0.0						
R2/292	W4/292	ASSUMED_RESI	9	49	9	49	0.0	0.0	9	49	9	49	0.0	0.0
R3/292	W5/292	ASSUMED_RESI	11	52	9	50	18.2	3.8	11	52	9	50	18.2	3.8
R4/292	W6/292	ASSUMED_RESI	13	60	11	58	15.4	3.3	13	60	11	58	15.4	3.3
R1/293	W1/293	ASSUMED_RESI	8	39	8	39	0.0	0.0						
R1/293	W2/293	ASSUMED_RESI	8	42	8	42	0.0	0.0	8	42	8	42	0.0	0.0



SUNLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

APSH

Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		
R2/293	W3/293	ASSUMED_RESI	9	47	9	47	0.0	0.0						
R2/293	W4/293	ASSUMED_RESI	11	53	11	53	0.0	0.0	11	53	11	53	0.0	0.0
R3/293	W5/293	ASSUMED_RESI	13	55	11	53	15.4	3.6						
R3/293	W6/293	ASSUMED_RESI	14	59	12	57	14.3	3.4	14	59	12	57	14.3	3.4
R4/293	W7/293	ASSUMED_RESI	17	67	15	65	11.8	3.0	17	67	15	65	11.8	3.0
R1/294	W1/294	ASSUMED_RESI	9	40	8	39	11.1	2.5						
R1/294	W2/294	ASSUMED_RESI	12	46	11	45	8.3	2.2	12	46	11	45	8.3	2.2
R2/294	W3/294	ASSUMED_RESI	14	53	12	51	14.3	3.8						
R2/294	W4/294	ASSUMED_RESI	15	57	13	55	13.3	3.5	15	57	13	55	13.3	3.5
R3/294	W5/294	ASSUMED_RESI	18	63	16	61	11.1	3.2						
R3/294	W6/294	ASSUMED_RESI	19	65	17	63	10.5	3.1	19	65	17	63	10.5	3.1
R4/294	W7/294	ASSUMED_RESI	21	73	19	71	9.5	2.7	21	73	19	71	9.5	2.7
R1/295	W1/295	ASSUMED_RESI	10	41	9	40	10.0	2.4						
R1/295	W2/295	ASSUMED_RESI	15	51	12	48	20.0	5.9	15	51	13	49	13.3	3.9
R2/295	W3/295	ASSUMED_RESI	19	60	16	57	15.8	5.0						
R2/295	W4/295	ASSUMED_RESI	22	67	19	64	13.6	4.5	22	67	19	64	13.6	4.5



SUNLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

APSH

Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		
R3/295	W5/295	ASSUMED_RESI	23	73	20	70	13.0	4.1						
R3/295	W6/295	ASSUMED_RESI	23	75	20	72	13.0	4.0	23	75	20	72	13.0	4.0
R4/295	W7/295	ASSUMED_RESI	26	81	24	79	7.7	2.5	26	81	24	79	7.7	2.5

70 Acton Street

R1/241	W1/241	BEDROOM	9	62	4	50	55.6	19.4						
R1/241	W2/241	BEDROOM	11	65	5	52	54.5	20.0	11	65	5	53	54.5	18.5
R2/241	W3/241	BEDROOM	11	64	5	52	54.5	18.8	11	64	5	52	54.5	18.8
R1/242	W1/242	BEDROOM	13	67	8	55	38.5	17.9						
R1/242	W2/242	BEDROOM	14	68	9	58	35.7	14.7						
R1/242	W3/242	BEDROOM	16	70	9	57	43.8	18.6	16	70	9	58	43.8	17.1
R1/243	W1/243	LKD	16	72	12	64	25.0	11.1						
R1/243	W2/243	LKD	15	70	8	57	46.7	18.6						
R1/243	W4/243	LKD	18	71	12	62	33.3	12.7						
R1/243	W5/243	LKD	17	72	9	59	47.1	18.1						
R1/243	W6/243	LKD	19	65	12	55	36.8	15.4						
R1/243	W7/243	LKD	17	72	10	61	41.2	15.3						
R1/243	W8/243	LKD	0	2	0	2	-	0.0	21	80	14	70	33.3	12.5

68 Acton Street



SUNLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

APSH

Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		
R1/300	W1/300	ASSUMED_RESI	7	60	2	48	71.4	20.0	7	60	2	48	71.4	20.0
R1/301	W1/301	ASSUMED_RESI	13	68	5	54	61.5	20.6	13	68	5	54	61.5	20.6
R2/301	W2/301	ASSUMED_RESI	14	68	7	56	50.0	17.6	14	68	7	56	50.0	17.6
R1/302	W1/302	ASSUMED_RESI	17	72	9	59	47.1	18.1	17	72	9	59	47.1	18.1
R2/302	W3/302	ASSUMED_RESI	8	37	4	32	50.0	13.5	8	37	4	32	50.0	13.5
R3/302	W2/302	ASSUMED_RESI	18	74	11	61	38.9	17.6	18	74	11	61	38.9	17.6

66 Acton Street

R1/310	W1/310	ASSUMED_COMMERCIAL	7	50	3	38	57.1	24.0						
R1/310	W2/310	ASSUMED_COMMERCIAL	7	31	3	19	57.1	38.7						
R1/310	W3/310	ASSUMED_COMMERCIAL	7	53	3	41	57.1	22.6						
R1/310	W4/310	ASSUMED_COMMERCIAL	7	61	3	50	57.1	18.0						
R1/310	W5/310	ASSUMED_COMMERCIAL	6	54	3	46	50.0	14.8						
R1/310	W6/310	ASSUMED_COMMERCIAL	8	54	4	45	50.0	16.7						
R1/310	W7/310	ASSUMED_COMMERCIAL	5	37	2	34	60.0	8.1	9	63	5	54	44.4	14.3
R1/311	W1/311	ASSUMED_RESI	13	68	8	57	38.5	16.2	13	68	8	57	38.5	16.2
R2/311	W2/311	ASSUMED_RESI	14	69	8	57	42.9	17.4						
R2/311	W3/311	ASSUMED_RESI	15	70	10	61	33.3	12.9	15	70	10	61	33.3	12.9



SUNLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

APSH

Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		
R1/312	W1/312	ASSUMED_RESI	18	74	12	62	33.3	16.2	18	74	12	62	33.3	16.2
R2/312	W2/312	ASSUMED_RESI	19	74	12	64	36.8	13.5						
R2/312	W3/312	ASSUMED_RESI	19	73	13	64	31.6	12.3	19	74	13	65	31.6	12.2
R1/313	W1/313	ASSUMED_RESI	20	74	15	69	25.0	6.8	20	74	15	69	25.0	6.8
R2/313	W2/313	ASSUMED_RESI	20	76	15	69	25.0	9.2	20	76	15	69	25.0	9.2
R3/313	W3/313	ASSUMED_RESI	20	76	15	69	25.0	9.2						
R3/313	W4/313	ASSUMED_RESI	20	76	16	70	20.0	7.9	20	76	16	70	20.0	7.9

64 Acton Street

R1/319	W1/319	ASSUMED_RESI	0	13	0	13	-	0.0	0	13	0	13	-	0.0
R1/320	W1/320	ASSUMED_HALL	9	59	5	51	44.4	13.6	9	59	5	51	44.4	13.6
R2/320	W2/320	ASSUMED_RESI	8	62	4	55	50.0	11.3	8	62	4	55	50.0	11.3
R1/321	W1/321	ASSUMED_RESI	16	72	10	62	37.5	13.9	16	72	10	62	37.5	13.9
R2/321	W2/321	ASSUMED_RESI	16	72	12	65	25.0	9.7	16	72	12	65	25.0	9.7
R1/322	W1/322	ASSUMED_RESI	20	74	14	66	30.0	10.8	20	74	14	66	30.0	10.8



SUNLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

APSH

Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		

R2/322	W2/322	ASSUMED_RESI	20	75	16	69	20.0	8.0	20	75	16	69	20.0	8.0
--------	--------	--------------	----	----	----	----	------	-----	----	----	----	----	------	-----

62 Acton Street

R2/329	W2/329	ASSUMED_RESI	0	24	0	24	-	0.0	0	24	0	24	-	0.0
R2/330	W2/330	ASSUMED_RESI	7	62	5	58	28.6	6.5						
R2/330	W3/330	ASSUMED_RESI	7	62	5	58	28.6	6.5	7	62	5	58	28.6	6.5
R1/331	W1/331	ASSUMED_RESI	12	68	10	63	16.7	7.4	12	68	10	63	16.7	7.4
R2/331	W2/331	ASSUMED_RESI	15	71	12	66	20.0	7.0	15	71	12	66	20.0	7.0
R1/332	W1/332	ASSUMED_RESI	21	76	16	69	23.8	9.2	21	76	16	69	23.8	9.2
R2/332	W2/332	ASSUMED_RESI	22	78	17	71	22.7	9.0	22	78	17	71	22.7	9.0
R1/333	W1/333	ASSUMED_RESI	24	80	18	72	25.0	10.0	24	80	18	72	25.0	10.0
R2/333	W2/333	ASSUMED_RESI	24	80	20	75	16.7	6.3	24	80	20	75	16.7	6.3

55-53 ACTON STREET

R1/9	W1/9	LKD	8	51	7	49	12.5	3.9						
R1/9	W2/9	LKD	7	54	7	51	0.0	5.6	9	58	8	56	11.1	3.4



SUNLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

APSH

Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter APSH	Annual APSH	Winter APSH	Annual APSH			Winter APSH	Annual APSH	Winter APSH	Annual APSH		
R2/9	W3/9	LKD	7	52	5	49	28.6	5.8						
R2/9	W4/9	LKD	5	44	3	38	40.0	13.6	7	52	5	49	28.6	5.8
R2/10	W2/10	ASSUMED	12	62	12	59	0.0	4.8	12	62	12	59	0.0	4.8
R3/10	W3/10	ASSUMED	12	60	11	58	8.3	3.3	12	60	11	58	8.3	3.3
R4/10	W4/10	ASSUMED	9	55	6	48	33.3	12.7	9	55	6	48	33.3	12.7
R1/11	W1/11	BEDROOM	20	72	20	68	0.0	5.6	20	72	20	68	0.0	5.6
R3/11	W3/11	KD	19	67	19	64	0.0	4.5	19	67	19	64	0.0	4.5
R1/12	W1/12	BEDROOM	24	77	24	74	0.0	3.9	24	77	24	74	0.0	3.9
R3/12	W3/12	KD	22	72	22	68	0.0	5.6	22	72	22	68	0.0	5.6

296 GRAY INN ROAD

R1/61	W1/61	ASSUMED	0	14	0	14	-	0.0	0	14	0	14	-	0.0
R2/62	W2/62	ASSUMED	11	68	11	68	0.0	0.0						
R2/62	W3/62	ASSUMED	0	3	0	3	-	0.0	11	69	11	69	0.0	0.0

66 FREDERICK STREET



SUNLIGHT ANALYSIS

300 Grays Inn Road
Existing vs PR090523

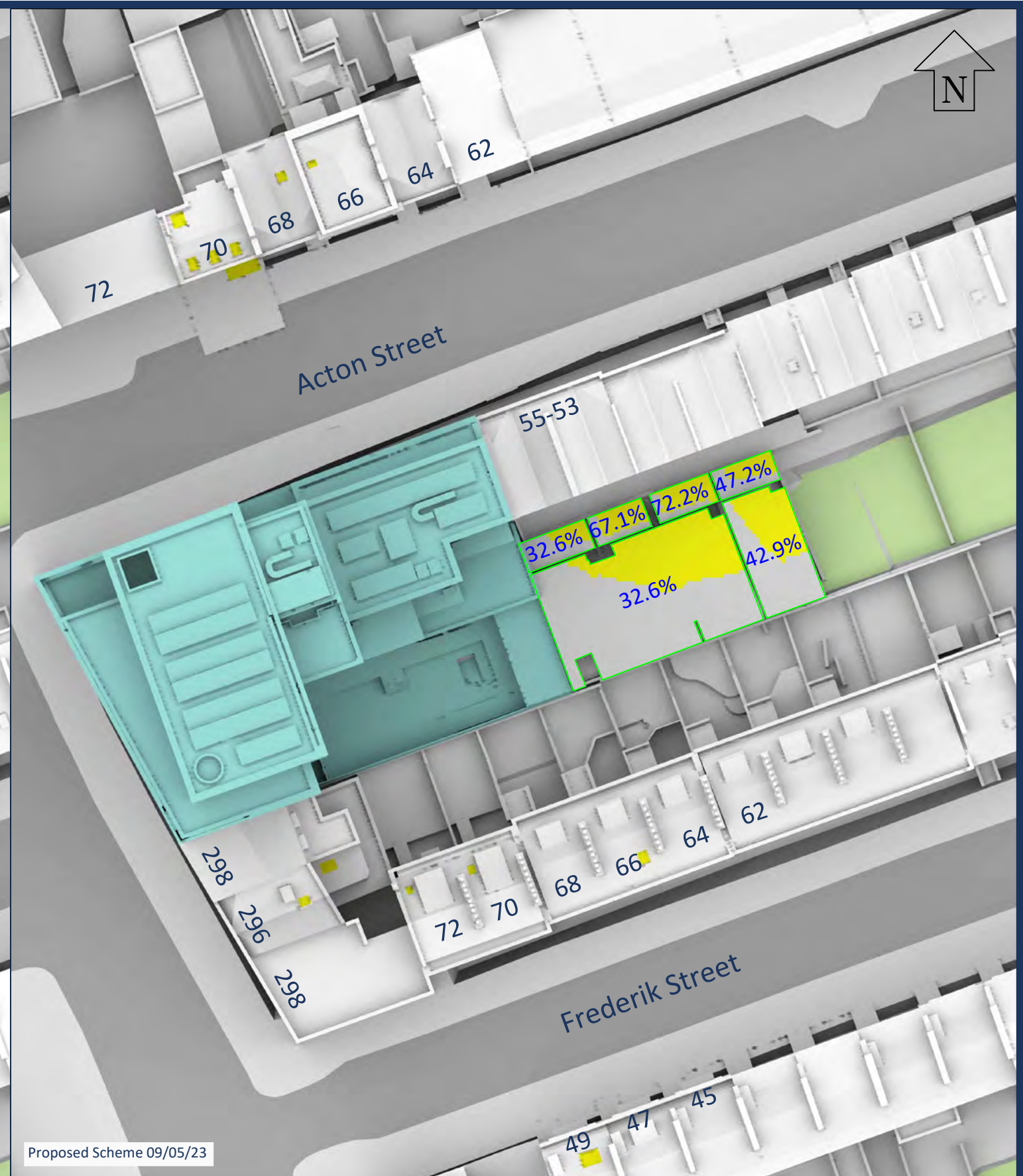
APSH

Room	Window	Room Use	Window				Winter %Loss	Annual %Loss	Room				Winter %Loss	Annual %Loss
			Existing		Proposed				Existing		Proposed			
			Winter	Annual	Winter	Annual			Winter	Annual	Winter	Annual		
			APSH	APSH	APSH	APSH			APSH	APSH	APSH	APSH		
R2/33	W2/33	BEDROOM	2	8	2	8	0.0	0.0						
R2/33	W3/33	BEDROOM	27	85	27	85	0.0	0.0	29	92	29	92	0.0	0.0

Appendix 3: Sun on Ground (Overshadowing) Results



Existing Buildings



Proposed Scheme 09/05/23

Sources: Z-mapping Ltd Point 2 Site Photography Point Cloud Data Local Planning Authority Various Surrounding Building Layouts Haptic Architects Proposed Scheme 09/05/23 GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg		Key: <div><div></div>Area analysed</div> <div><div></div>Area with more than 2 hours of direct sunlight</div> <div><div></div>Area with less than 2 hours of direct sunlight</div> <div>50%</div> Percentage of area with more than 2 hours of direct sunlight		Project: 300 Grays Inn Road		Title: 2hr BRE Sunlight Test 21st March	
Scheme Confirmed: -		Date: -		Drawn By: EVJ/MG/CJ		Scale: 1:400	
				Date: MAY 23		Dwg No: P2991/SHA/05	
						Rel: 09	

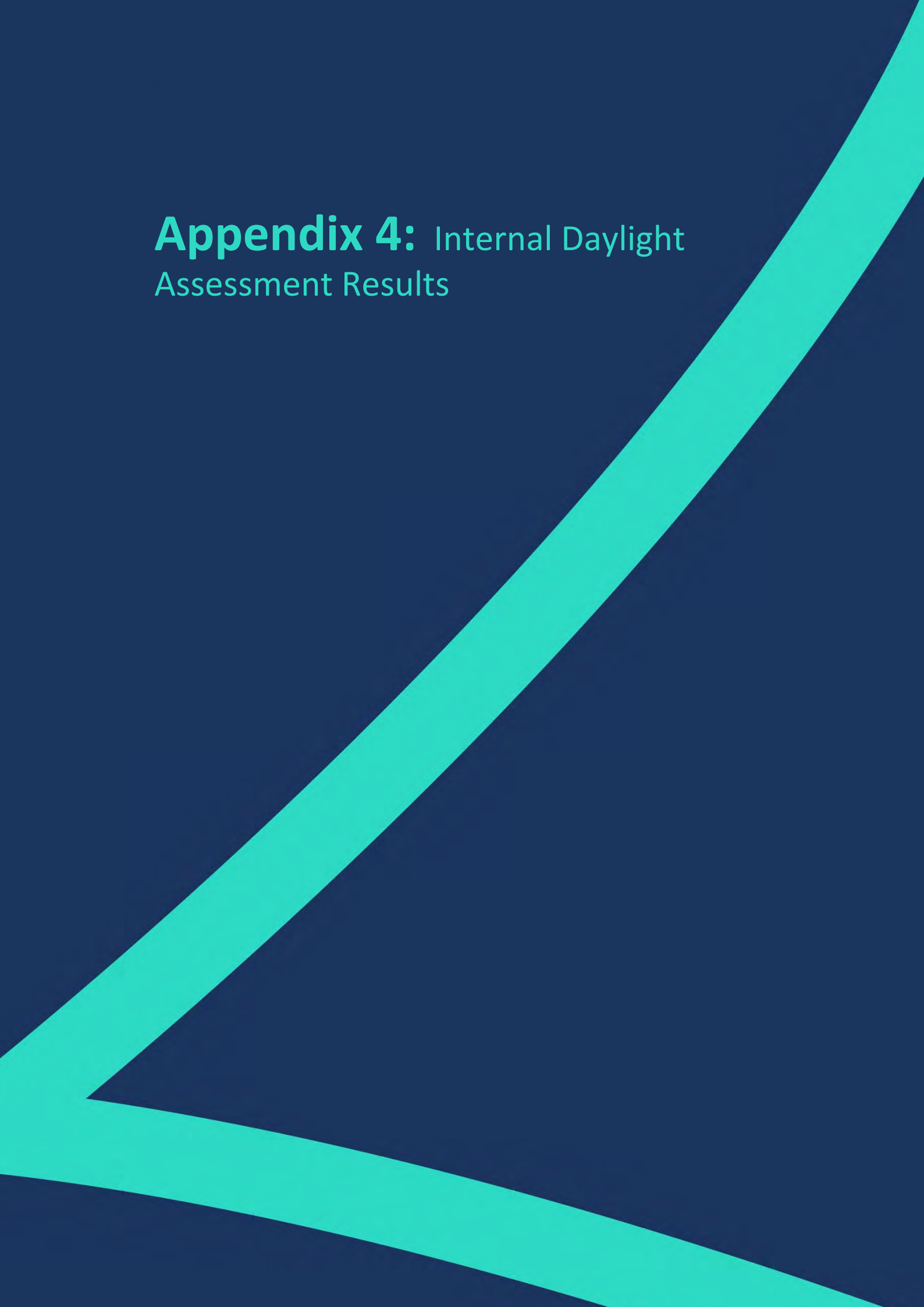


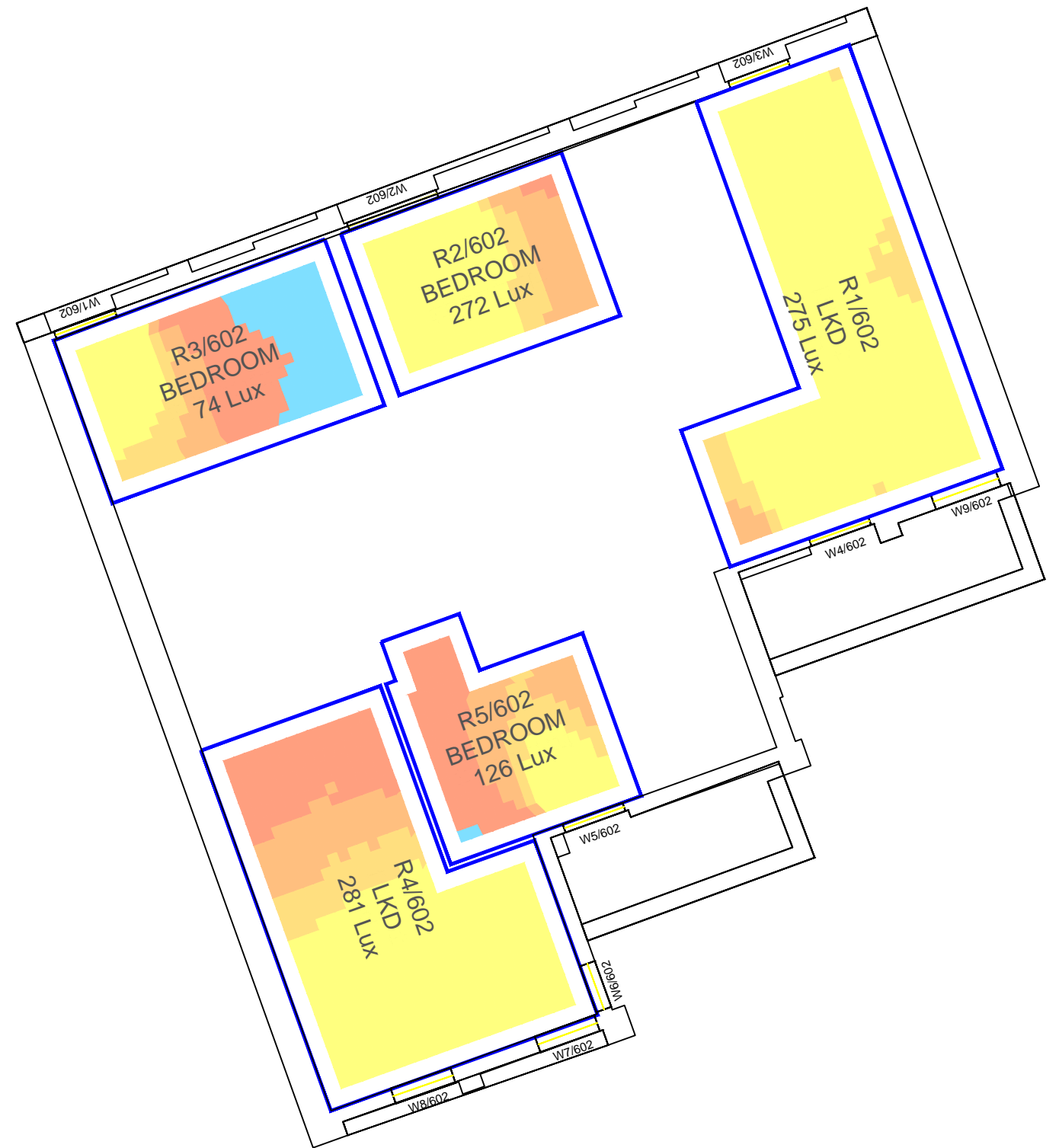
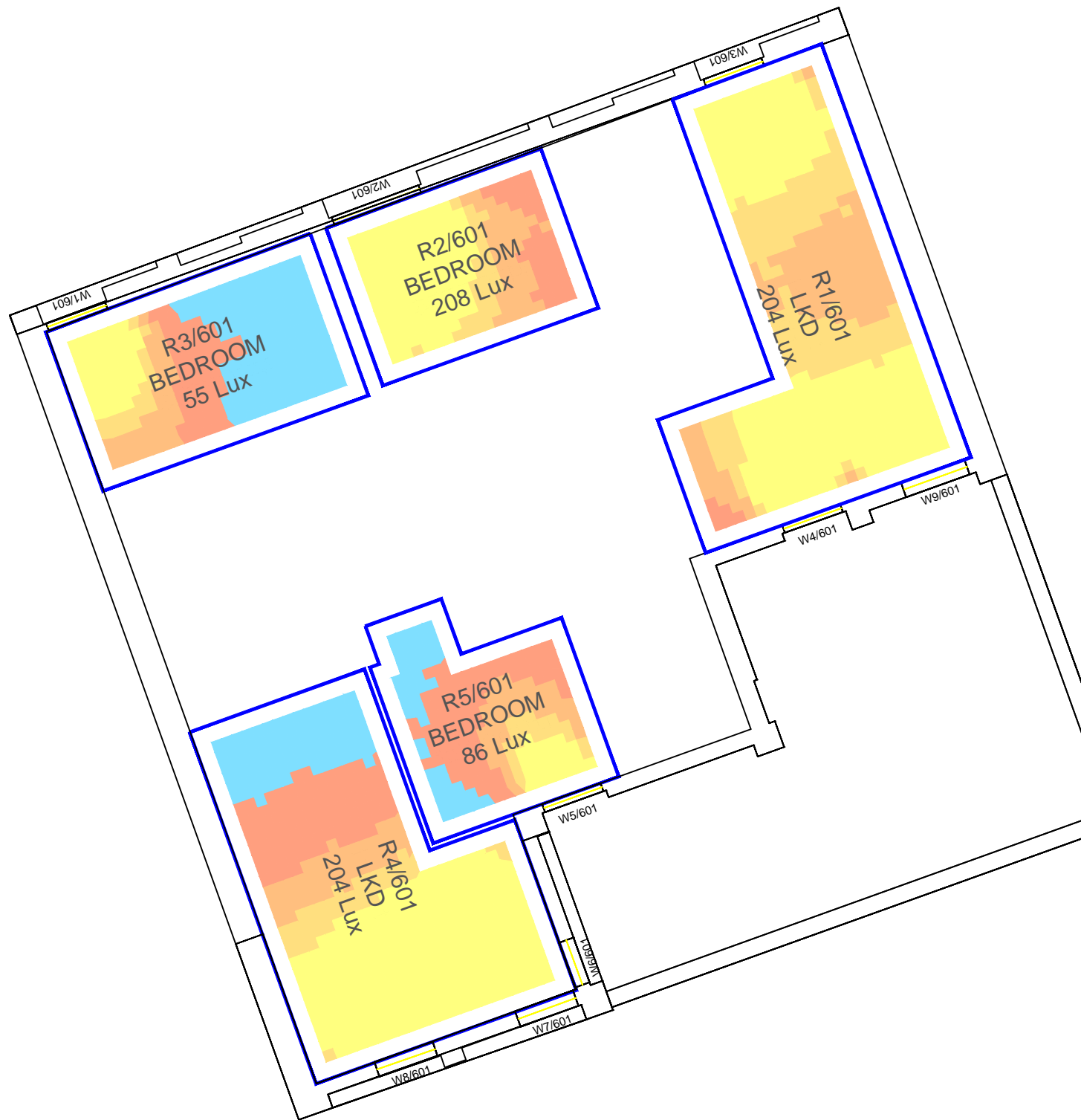


Sources: Z-mapping Ltd Point 2 Site Photography Point Cloud Data Local Planning Authority Various Surrounding Building Layouts Haptic Architects Proposed Scheme 09/05/23 GIR-HAP-ZZZ-M3-A-00001 - 230509 S2 Revit Model.dwg		Key: <div><div></div>Area analysed</div> <div><div></div>Area with more than 2 hours of direct sunlight</div> <div><div></div>Area with less than 2 hours of direct sunlight</div> <div>50%</div> Percentage of area with more than 2 hours of direct sunlight		Project: 300 Grays Inn Road		Title: 2hr BRE Sunlight Test 21st June	
Scheme Confirmed: -		Date: -		Drawn By: EVJ/MG/CJ		Scale: 1:400	
				Date: MAY 23		Dwg No: P2991/SHA/06	
						Rel: 09	



Appendix 4: Internal Daylight Assessment Results



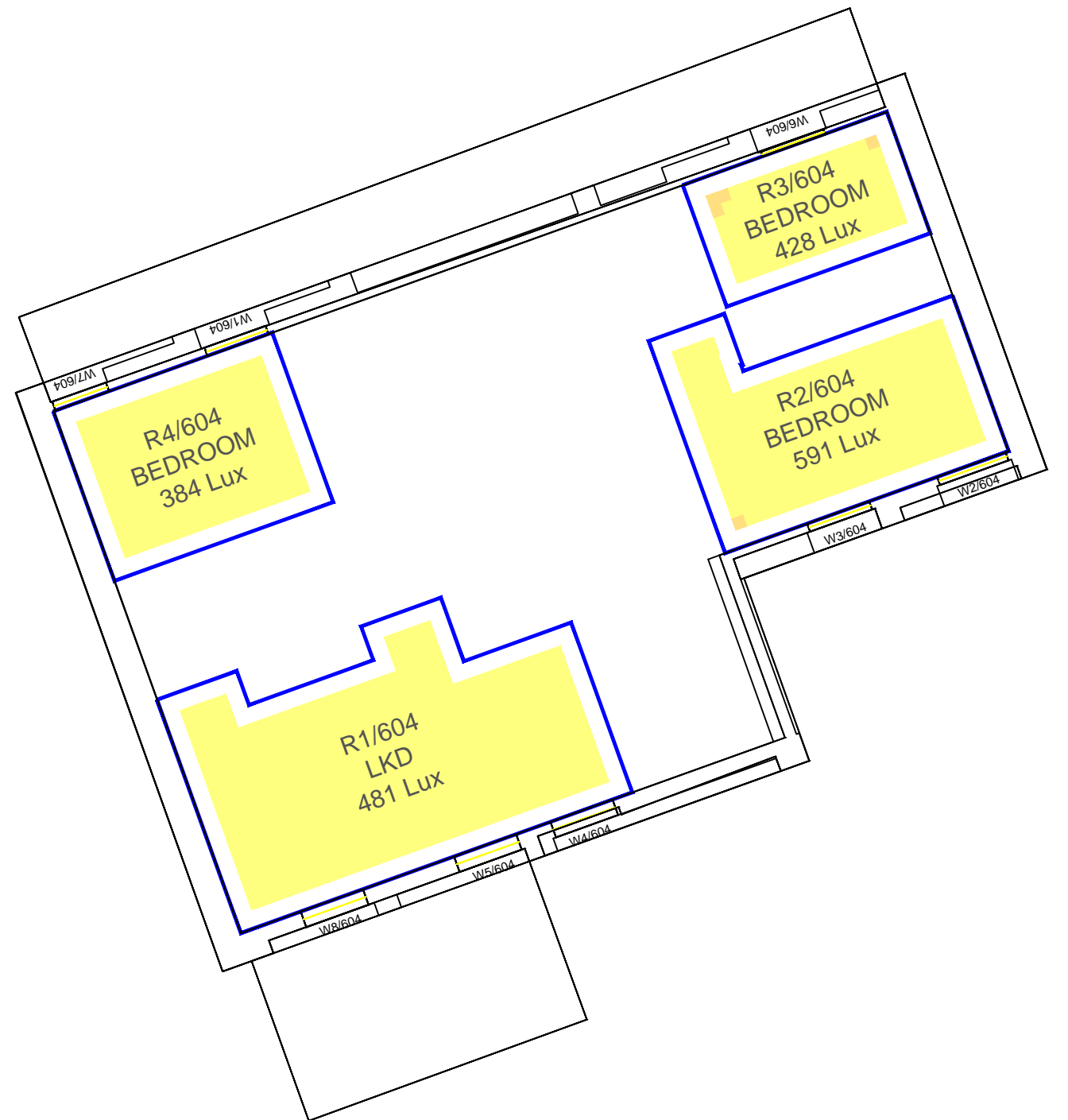


<div>Sources:</div> <div>Z-mapping Ltd Point 2 Site Photography Point Cloud Data</div> <div>Local Planning Authority Various Surrounding Building Layouts</div> <div>Haptic Architects Proposed Scheme 28/04/23 GIR-HAP-ZZZ-00-DR-A-20-2100.DWG TO GIR-HAP-ZZZ-RF-M2-A-20-2110.DWG. GIR-HAP-ZZZ-XXM2-A-20-2200.DWG TO GIR-HAP-ZZZ-XXM2-A-20-2203.DWG GIR-HAP-ZZZ-XXM2-A-20-2300.DWG TO GIR-HAP-ZZZ-XXM2-A-20-2302.DWG</div>	<div>Key: Daylight Illuminance (achieved for 50% of daylight hours)</div> <div><div><div><50 Lux</div><div>>50 Lux</div><div>>100 Lux</div><div>>150 Lux</div><div>>200 Lux</div></div><div>Median Illuminance (Lux) Levels shown for each room. Recommended Targets: Bedroom 100 Lux Living Room 150 Lux Kitchen 200 Lux</div><div><div></div><div>N</div></div></div>		Project: 300 Grays Inn Road		Title: CBDM Results Proposed Scheme 09/05/23		
	<div>Scheme Confirmed:</div> <div>-</div>		<div>Date:</div> <div>-</div>	<div>Drawn By:</div> <div>EVJ</div>	<div>Scale:</div> <div>1:100</div>	<div>Date:</div> <div>MAY 23</div>	<div>Dwg No:</div> <div>P2991/CBDM/01</div>





Third Floor



Fourth Floor

Sources: Z-mapping Ltd Point 2 Site Photography Point Cloud Data Local Planning Authority Various Surrounding Building Layouts Haptic Architects Proposed Scheme 28/04/23 GIR-HAP-ZZZ-00-DR-A-20-2100.DWG TO GIR-HAP-ZZZ-RF-M2-A-20-2110.DWG GIR-HAP-ZZZ-XXM2-A-20-2200.DWG TO GIR-HAP-ZZZ-XXM2-A-20-2203.DWG GIR-HAP-ZZZ-XXM2-A-20-2300.DWG TO GIR-HAP-ZZZ-XXM2-A-20-2302.DWG	Key: Daylight Illuminance (achieved for 50% of daylight hours) <div> <div><50 Lux</div> <div>>50 Lux</div> <div>>100 Lux</div> <div>>150 Lux</div> <div>>200 Lux</div> </div>		Median Illuminance (Lux) Levels shown for each room. Recommended Targets: Bedroom 100 Lux Living Room 150 Lux Kitchen 200 Lux		Project: 300 Grays Inn Road		Title: CBDM Results Proposed Scheme 09/05/23	
	Scheme Confirmed: -	Date: -	Drawn By: EVJ	Scale: 1:100	Date: MAY 23	Dwg No: P2991/CBDM/02	Rel: 08	





BRE CBDM ANALYSIS

300 Grays Inn Road, LONDON
Internal Analysis 28/04/23

BRE CBDM ANALYSIS

Room Label	Room Use	Room Use Target Illuminance Lux	Median Illuminance Lux	Fraction of Working Plane % Area
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300 GRAYS INN ROAD

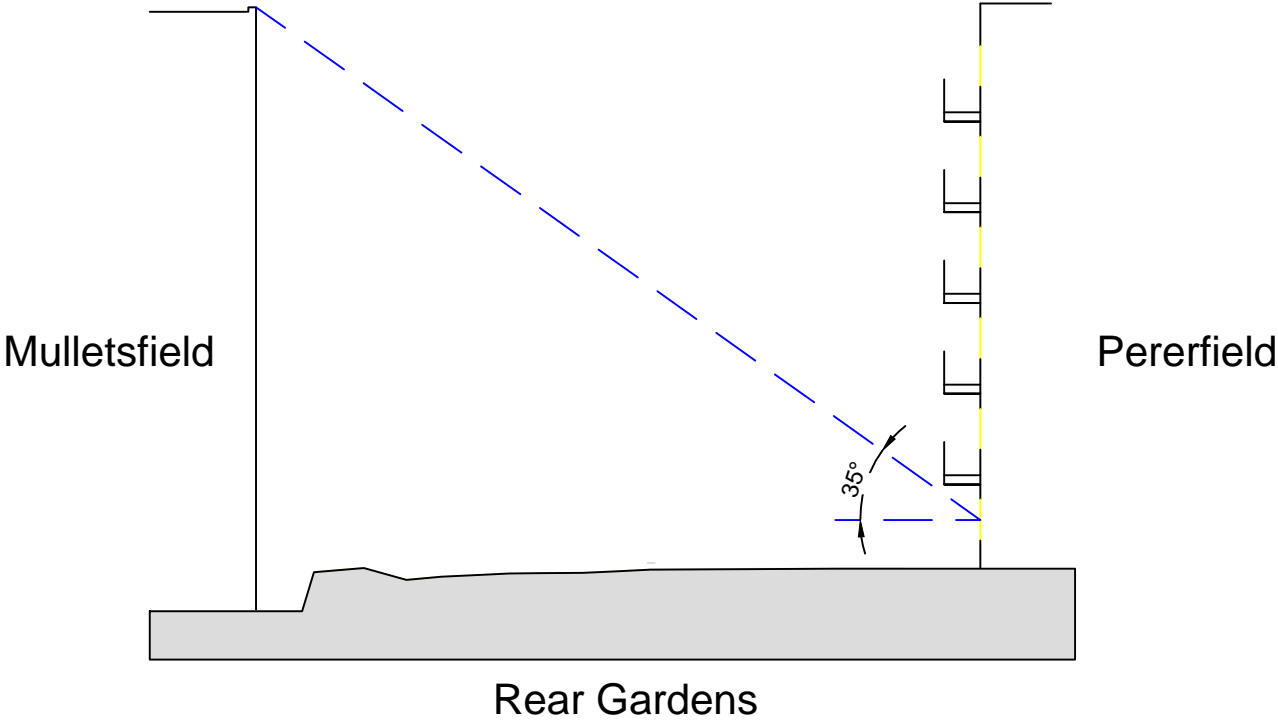
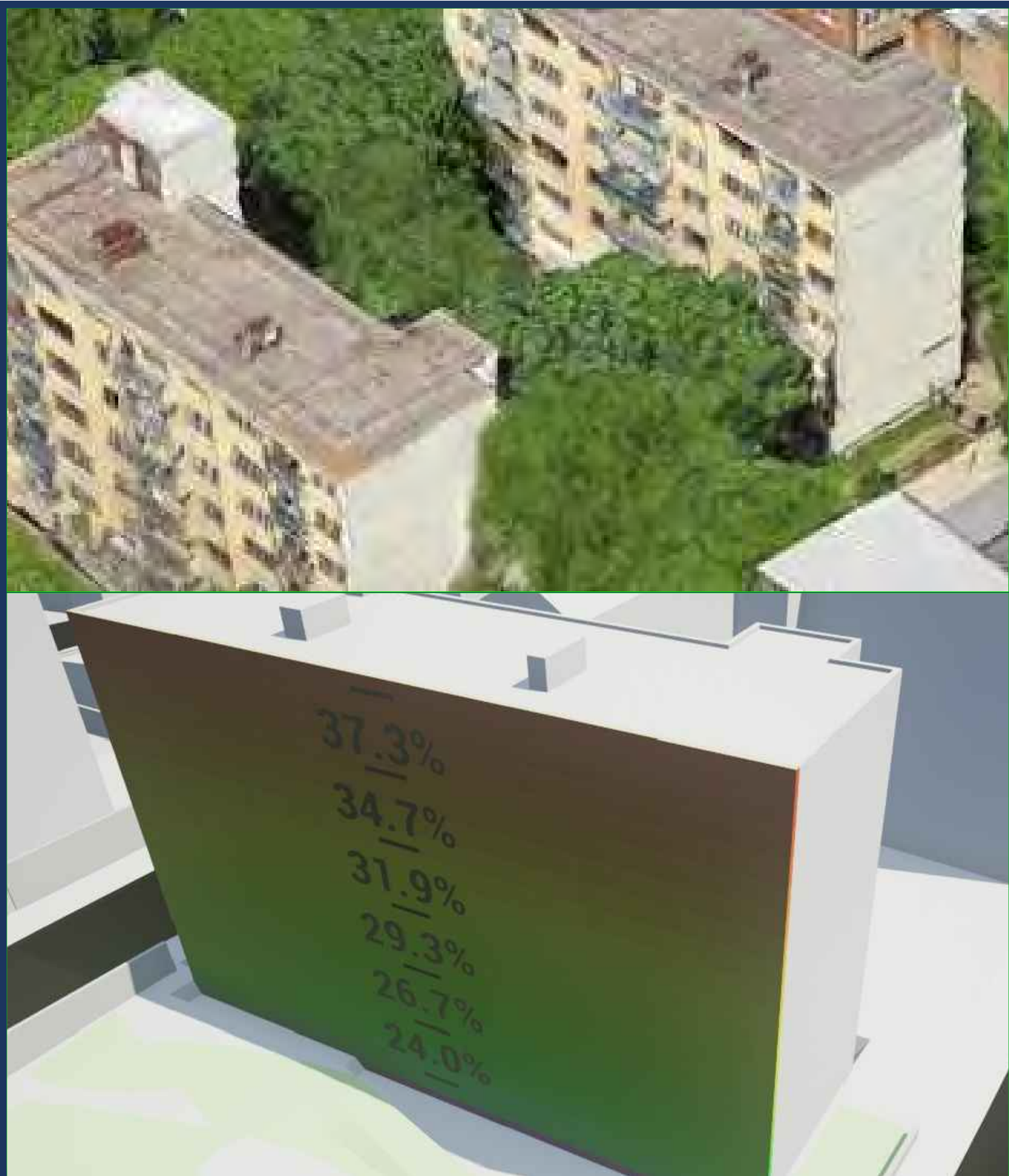
R1/601	LKD	200	204.3	51.4
R2/601	BEDROOM	100	207.8	83.4
R3/601	BEDROOM	100	55.3	34.5
R4/601	LKD	200	204.1	50.1
R5/601	BEDROOM	100	85.6	39.4
R1/602	LKD	200	274.8	91.6
R2/602	BEDROOM	100	272.4	98.3
R3/602	BEDROOM	100	74.1	41.8
R4/602	LKD	200	281.3	60.3
R5/602	BEDROOM	100	126.4	61.8
R1/603	LKD	200	413.3	99.6
R2/603	BEDROOM	100	358.8	100
R3/603	BEDROOM	100	104.7	52.2
R4/603	LKD	200	340.6	68.9
R5/603	BEDROOM	100	251.5	98.2
R1/604	LKD	200	481.2	100
R2/604	BEDROOM	100	591	100
R3/604	BEDROOM	100	428.1	100
R4/604	BEDROOM	100	383.6	100

Appendix 5: Alternative Target Sections



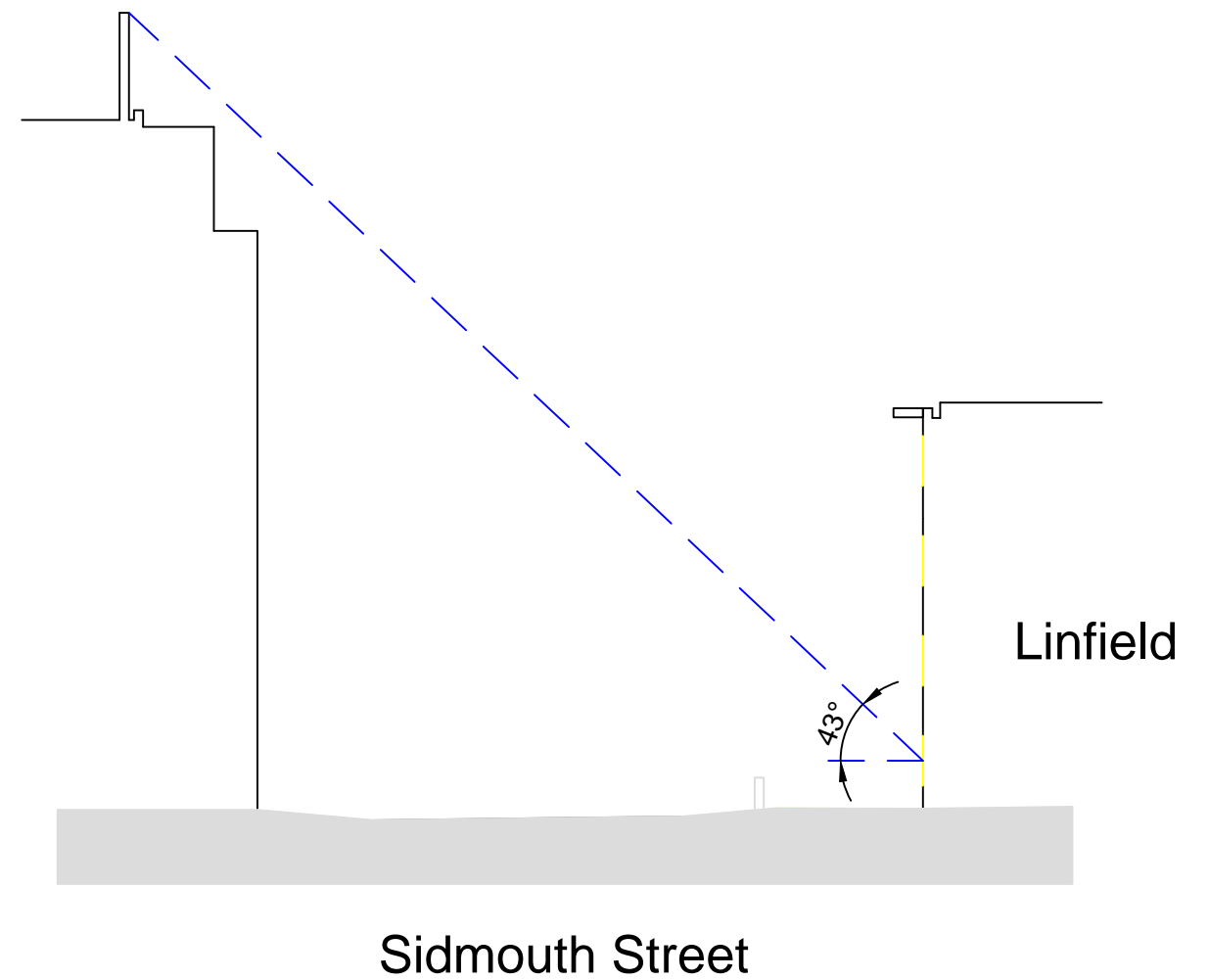
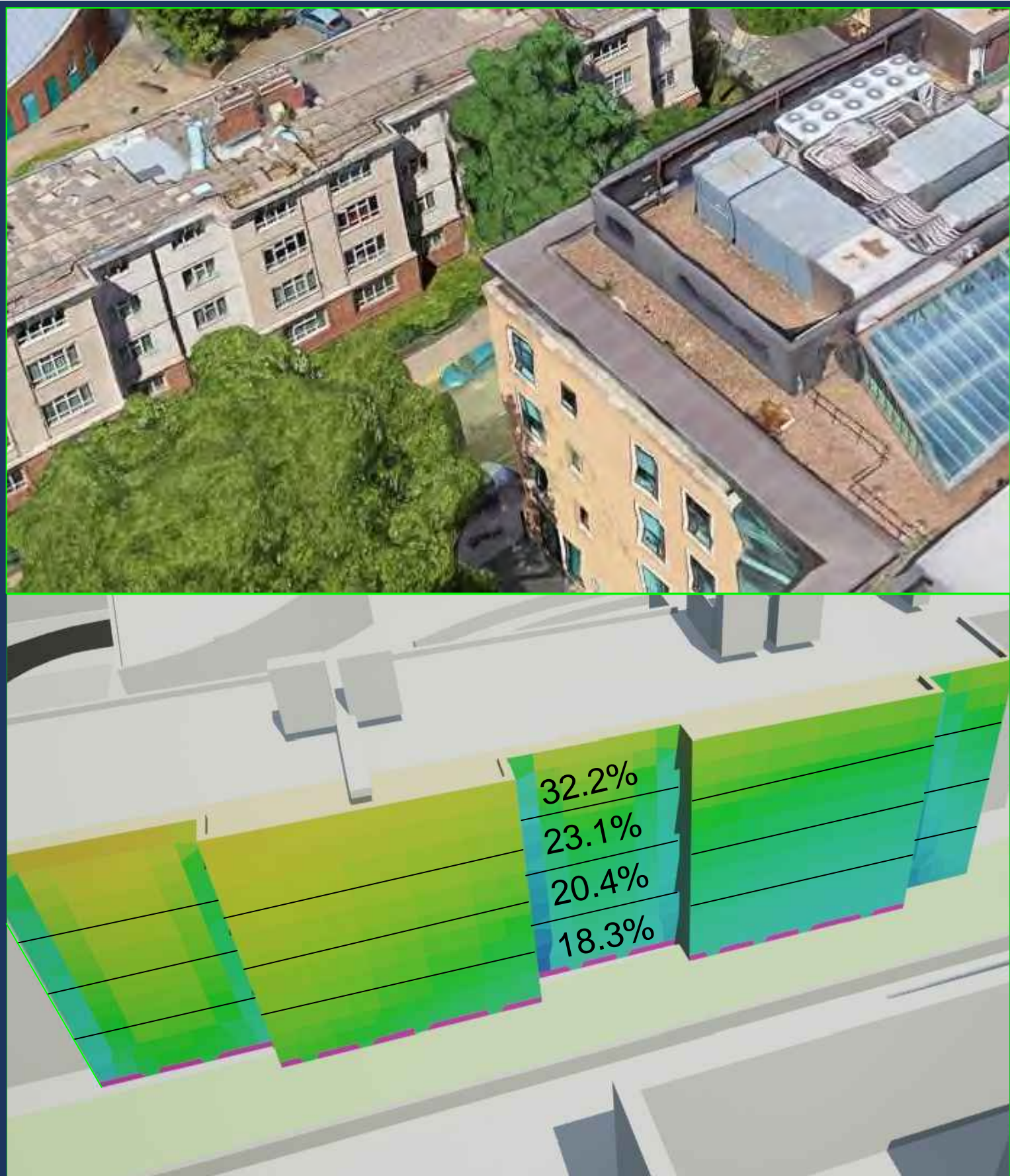
Sources: Z-mapping Ltd Point 2 Site Photography Point Cloud Data Local Planning Authority Various Surrounding Building Layouts Haptic Architects Proposed Scheme 09/05/23 GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg		Key: VSC (%) 0% 5% 10% 15% 20% 25% 30% 35% ≥ 40% - Site boundary		Project: 300 Grays Inn Road			Title: Daylight (VSC) Levels on Facade Sections Location	
Scheme Confirmed: -		Date: -		Drawn By: EVJ/MG/CJ	Scale: NTS	Date: MAY 23	Dwg No: P2991/FS/00	Rel: 09





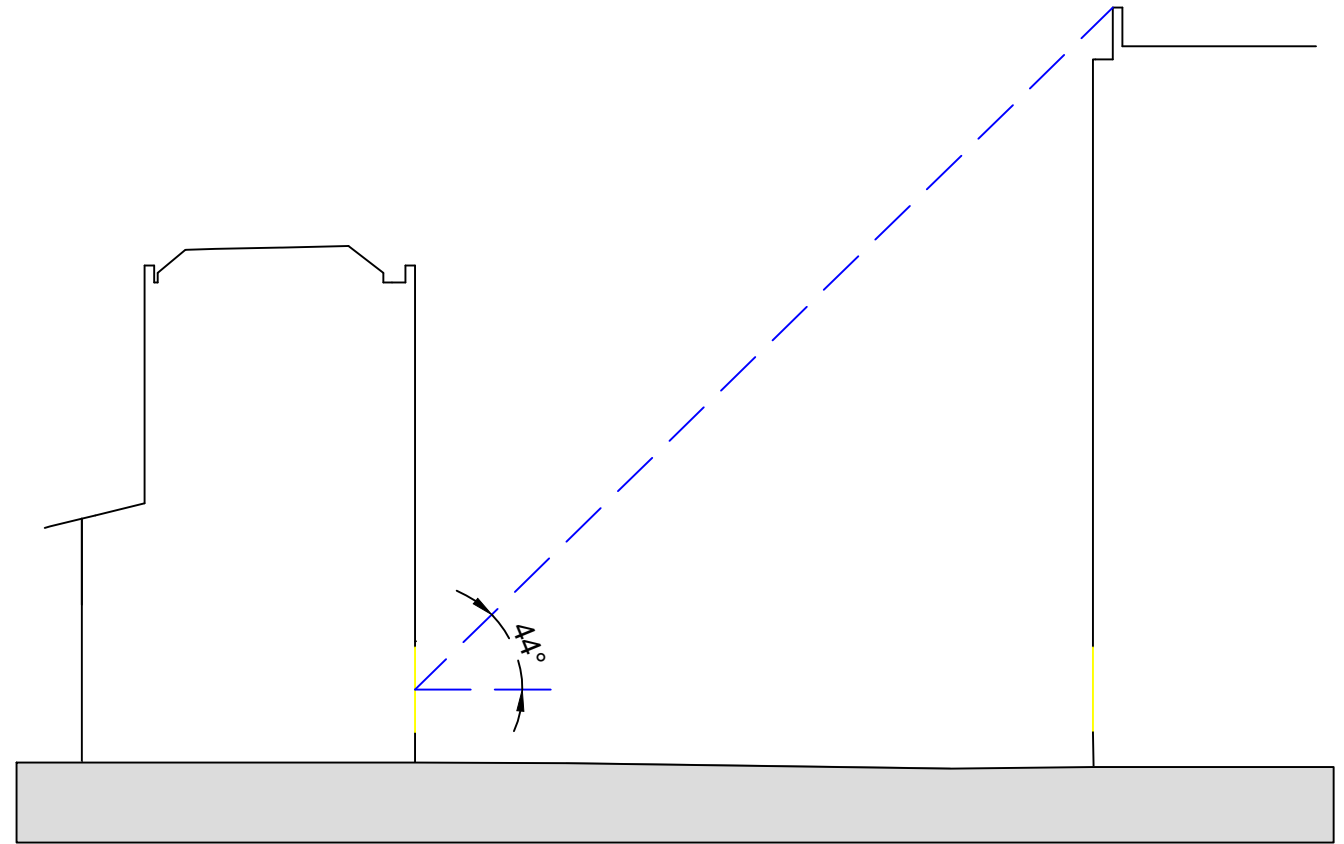
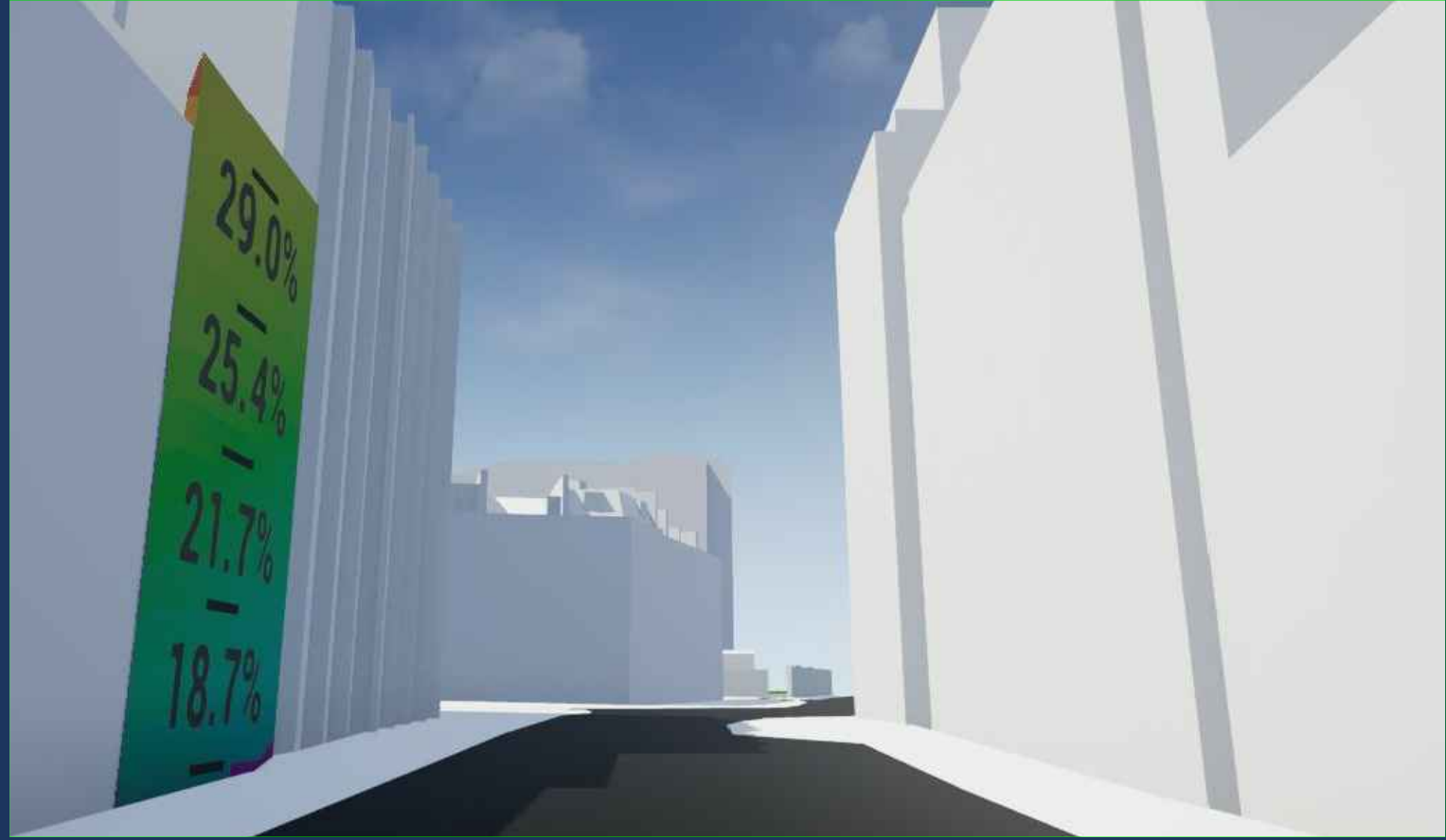
<div>Sources: Z-mapping Ltd</div> <div>Point 2 Site Photography Point Cloud Data</div> <div>Local Planning Authority Various Surrounding Building Layouts</div> <div>Haptic Architects Proposed Scheme 09/05/23 GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg</div>		<div>Key: VSC (%)</div> <div><div><div>0%</div><div>5%</div><div>10%</div><div>15%</div><div>20%</div><div>25%</div><div>30%</div><div>35%</div><div>≥ 40%</div></div><div>- VSC % Average</div></div>		<div>Project: 300 Grays Inn Road</div>		<div>Title: Daylight (VSC) Levels on Facade</div> <div>PERERFIELD</div>		
<div>Scheme Confirmed:</div> <div>-</div>		<div>Date:</div> <div>-</div>	<div>Drawn By:</div> <div>EVJ/MG/CJ</div>	<div>Scale:</div> <div>A3@1:250</div>	<div>Date:</div> <div>MAY 23</div>	<div>Dwg No:</div> <div>P2991/FS/1</div>		<div>Rel:</div> <div>09</div>





<div>Sources: Z-mapping Ltd</div> <div>Point 2 Site Photography Point Cloud Data</div> <div>Local Planning Authority Various Surrounding Building Layouts</div> <div>Haptic Architects Proposed Scheme 09/05/23 GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg</div>	<div>Key: VSC (%)</div> <div><div>0%</div><div>5%</div><div>10%</div><div>15%</div><div>20%</div><div>25%</div><div>30%</div><div>35%</div><div>≥ 40%</div></div> <div>- VSC % Average</div>		<div>Project: 300 Grays Inn Road</div>			<div>Title: Daylight (VSC) Levels on Facade</div> <div>Sidmouth Street</div>		
	<div>Scheme Confirmed:</div> <div>-</div>	<div>Date:</div> <div>-</div>	<div>Drawn By:</div> <div>EVJ/MG/CJ</div>	<div>Scale:</div> <div>A3@1:200</div>	<div>Date:</div> <div>MAY 23</div>	<div>Dwg No:</div> <div>P2991/FS/2</div>	<div>Rel:</div> <div>09</div>	





Swinton Street

Sources: Z-mapping Ltd
Point 2
Site Photography
Point Cloud Data

Local Planning Authority
Various Surrounding Building Layouts

Haptic Architects
Proposed Scheme 09/05/23
GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg

Key: VSC (%)

0%

5%

10%

15%

20%

25%

30%

35%

≥ 40%

- VSC % Average

Project: 300 Grays Inn Road

Title: Daylight (VSC) Levels on Facade
Swinton Street

Scheme Confirmed: -

Date: -

Drawn By: EVJ/MG/CJ

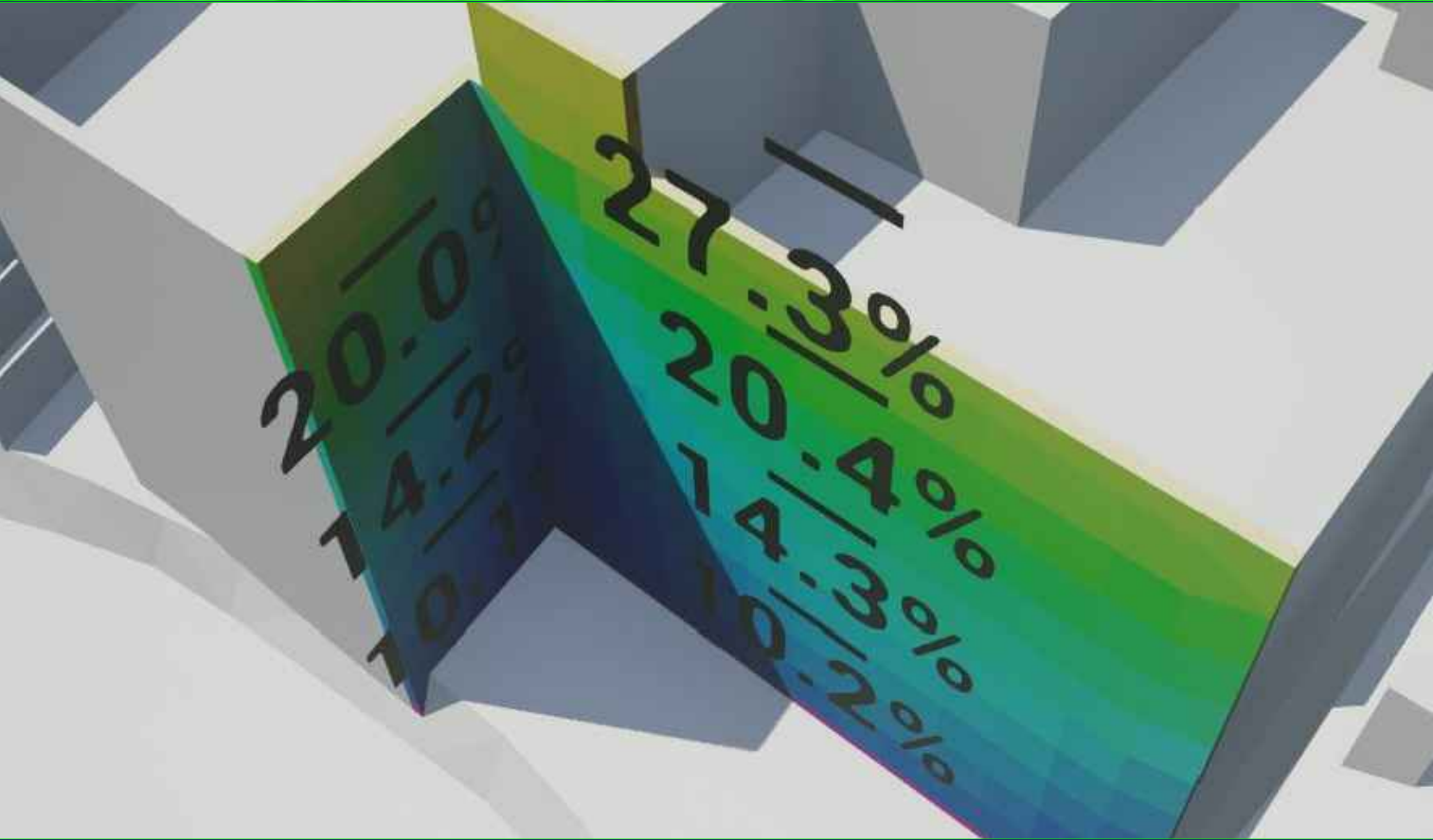
Scale: A3@1:200

Date: MAY 23

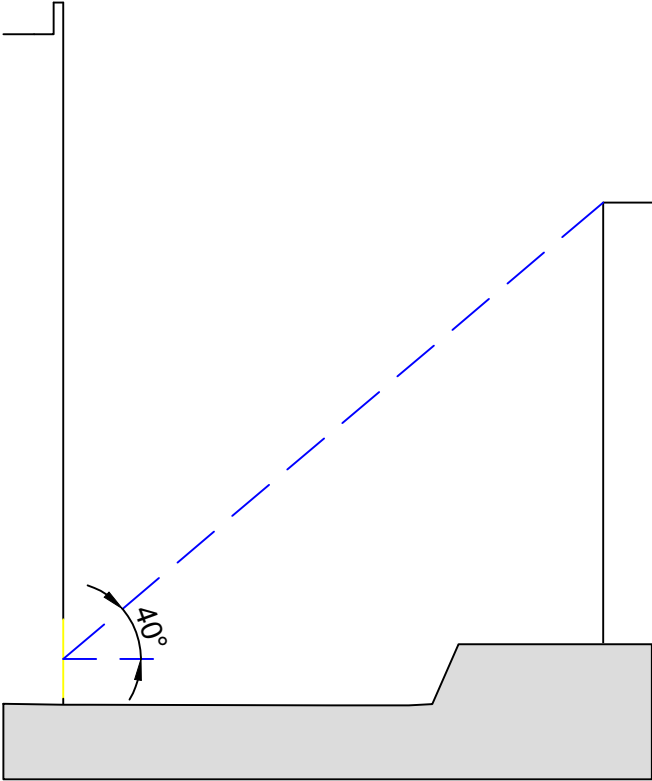
Dwg No: P2991/FS/3

Rel: 09





Cubitt Street



Kings's
Cross
Road

Rear Gardens

Sources: Z-mapping Ltd
Point 2
Site Photography
Point Cloud Data
Local Planning Authority
Various Surrounding Building Layouts
Haptic Architects
Proposed Scheme 09/05/23
GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg

Key:

VSC (%)

0%

5%

10%

15%

20%

25%

30%

35%

≥ 40%

- VSC % Average

Project:

300 Grays Inn Road

Title:

Daylight (VSC) Levels on Facade

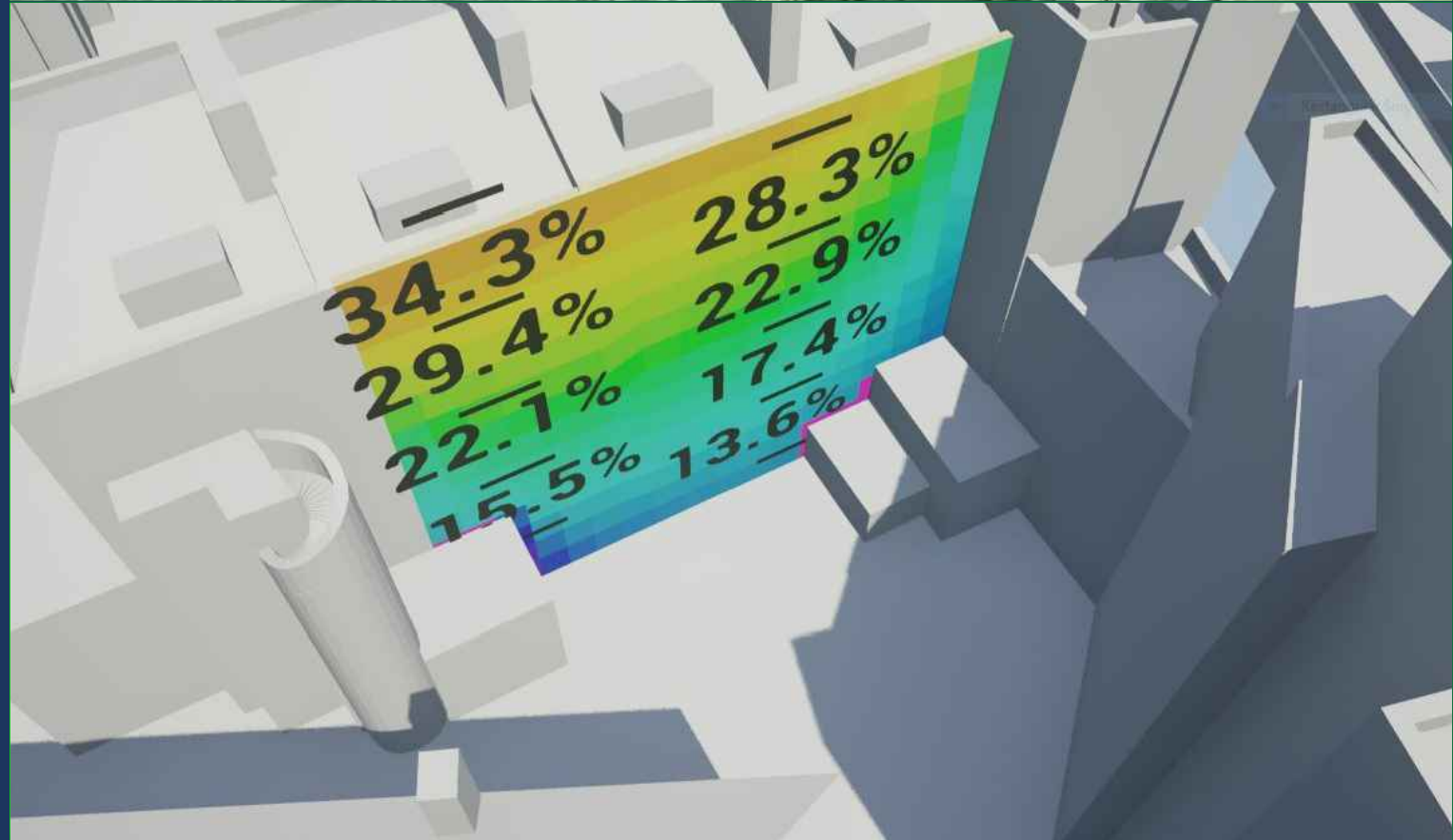
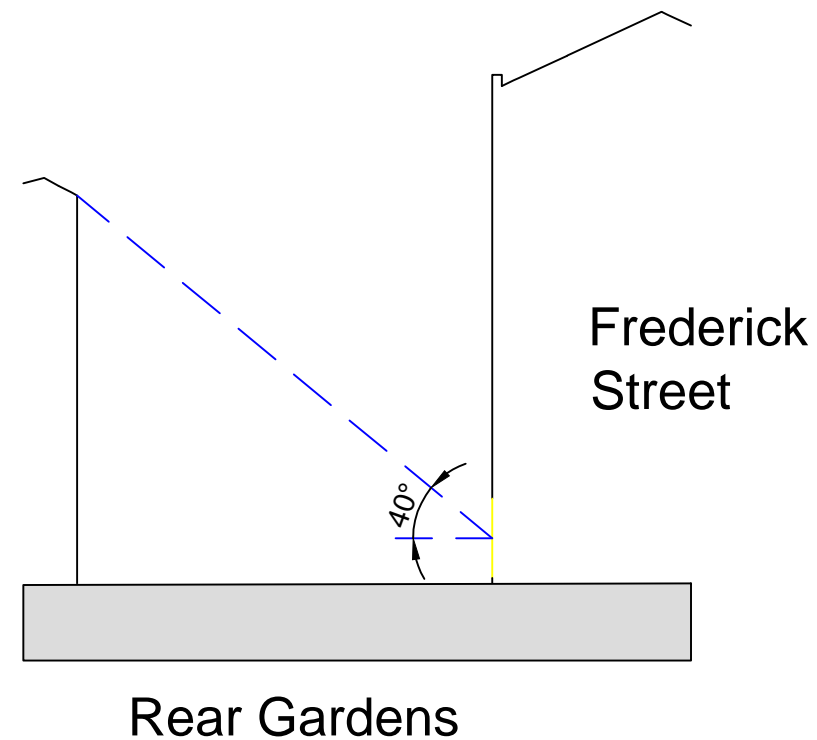
Cubitt Street

Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
-	-	EVJ/MG/CJ	A3@1:200	MAY 23	P2991/FS/5	09

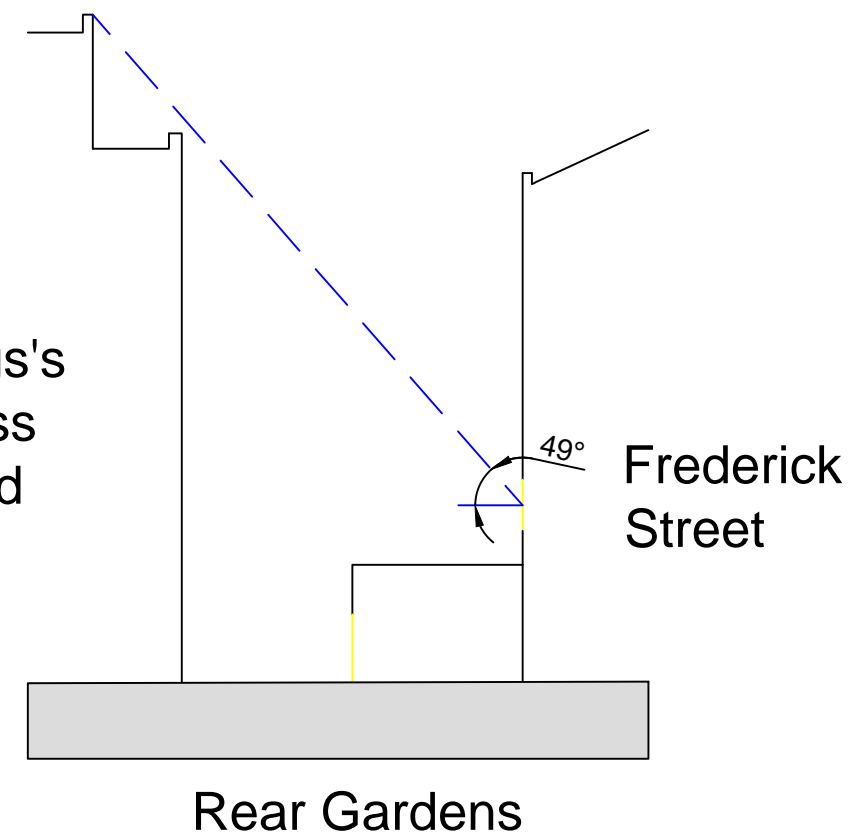




Cubitt Street



Kings's
Cross
Road



Sources: Z-mapping Ltd
Point 2
Site Photography
Point Cloud Data
Local Planning Authority
Various Surrounding Building Layouts
Haptic Architects
Proposed Scheme 09/05/23
GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg

Key:	VSC (%)	- VSC % Average
	0%	
	5%	
	10%	
	15%	
	20%	
	25%	
	30%	
	35%	
	≥ 40%	
Scheme Confirmed:	-	Date:

Project:	300 Grays Inn Road
Drawn By:	EVJ/MG/CJ
Scale:	A3@1:200
Date:	MAY 23

Title:	Daylight (VSC) Levels on Facade
	Frederick Street
Dwg No:	P2991/FS/6
Rel:	09

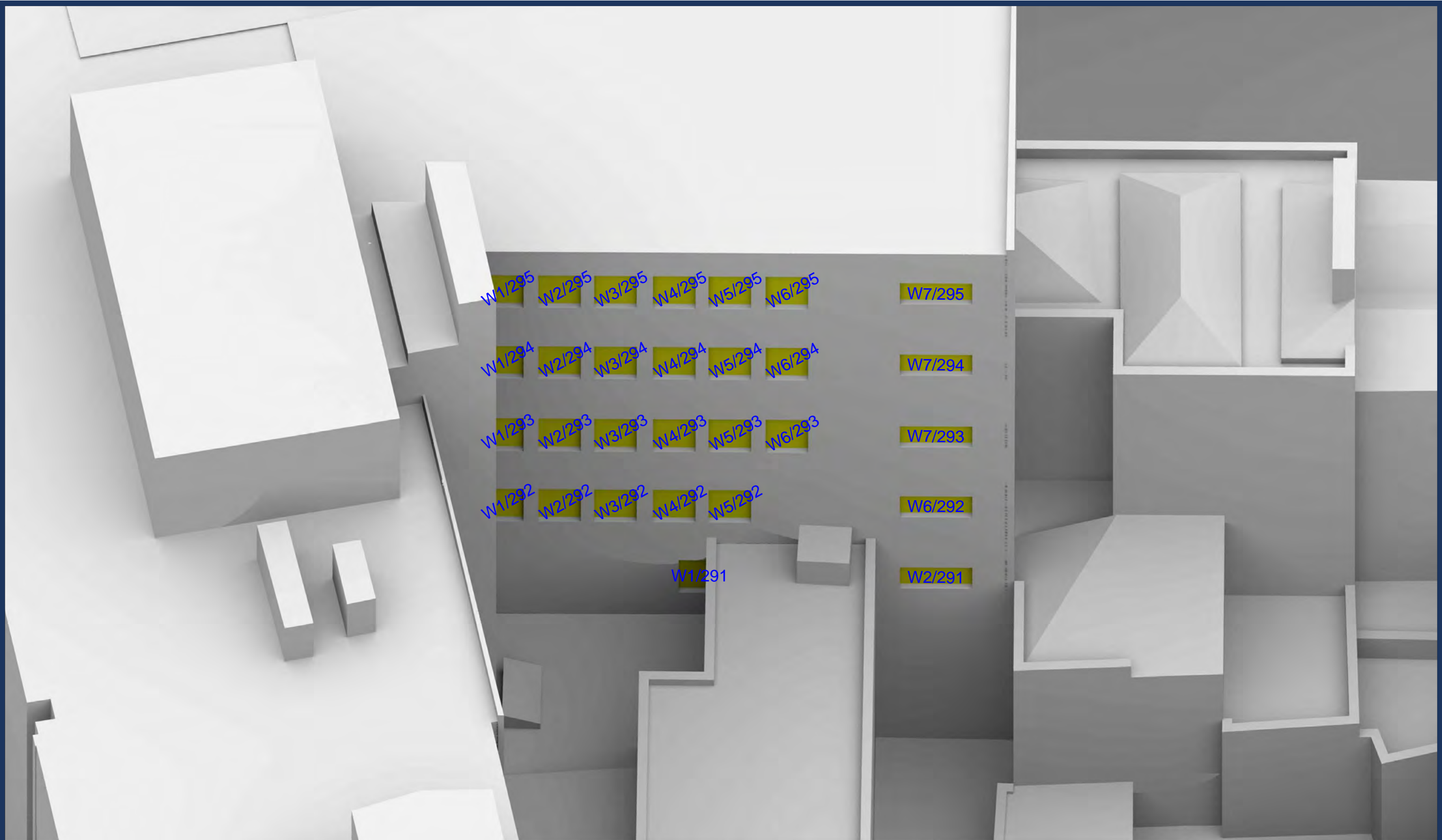


Appendix 6: Window Maps



<div>Sources: Z-mapping Ltd</div> <div>Point 2 Site Photography Point Cloud Data</div> <div>Local Planning Authority Various Surrounding Building Layouts</div> <div>Haptic Architects Proposed Scheme 09/05/23 GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg</div>	Key:		Project: 300 Grays Inn Road			Title: Window Locations 243 Grays Inn Road	
	Scheme Confirmed: -	Date: -	Drawn By: EVJ/MG/CJ	Scale: NTS	Date: MAY 23	Dwg No: P2991/WM 10	Rel: 09





Sources: Z-mapping Ltd Point 2 Site Photography Point Cloud Data Local Planning Authority Various Surrounding Building Layouts Haptic Architects Proposed Scheme 09/05/23 GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg	Key:		Project: 300 Grays Inn Road			Title: Window Locations	
	69 Swinton Street					Dwg No:	Rel:
Scheme Confirmed:		Date:	Drawn By:	Scale:	Date:	P2991/WM 11	09





<div>Sources: Z-mapping Ltd</div> <div>Point 2 Site Photography Point Cloud Data</div> <div>Local Planning Authority Various Surrounding Building Layouts</div> <div>Haptic Architects Proposed Scheme 09/05/23 GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg</div>	<div>Key:</div>		<div>Project: 300 Grays Inn Road</div>			<div>Title: Window Locations</div> <div>62-70 Acton Street</div>	
	<div>Scheme Confirmed:</div> <div>-</div>	<div>Date:</div> <div>-</div>	<div>Drawn By:</div> <div>EVJ/MG/CJ</div>	<div>Scale:</div> <div>NTS</div>	<div>Date:</div> <div>MAY 23</div>	<div>Dwg No:</div> <div>P2991/WM 12</div>	<div>Rel:</div> <div>09</div>

POINT





Sources: Z-mapping Ltd Point 2 Site Photography Point Cloud Data Local Planning Authority Various Surrounding Building Layouts Haptic Architects Proposed Scheme 09/05/23 GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg		Key:		Project: 300 Grays Inn Road		Title: Window Locations 53-55 Acton Street	
Scheme Confirmed: -		Date: -	Drawn By: EVJ/MG/CJ	Scale: NTS	Date: MAY 23	Dwg No: P2991/WM 13	Rel: 09

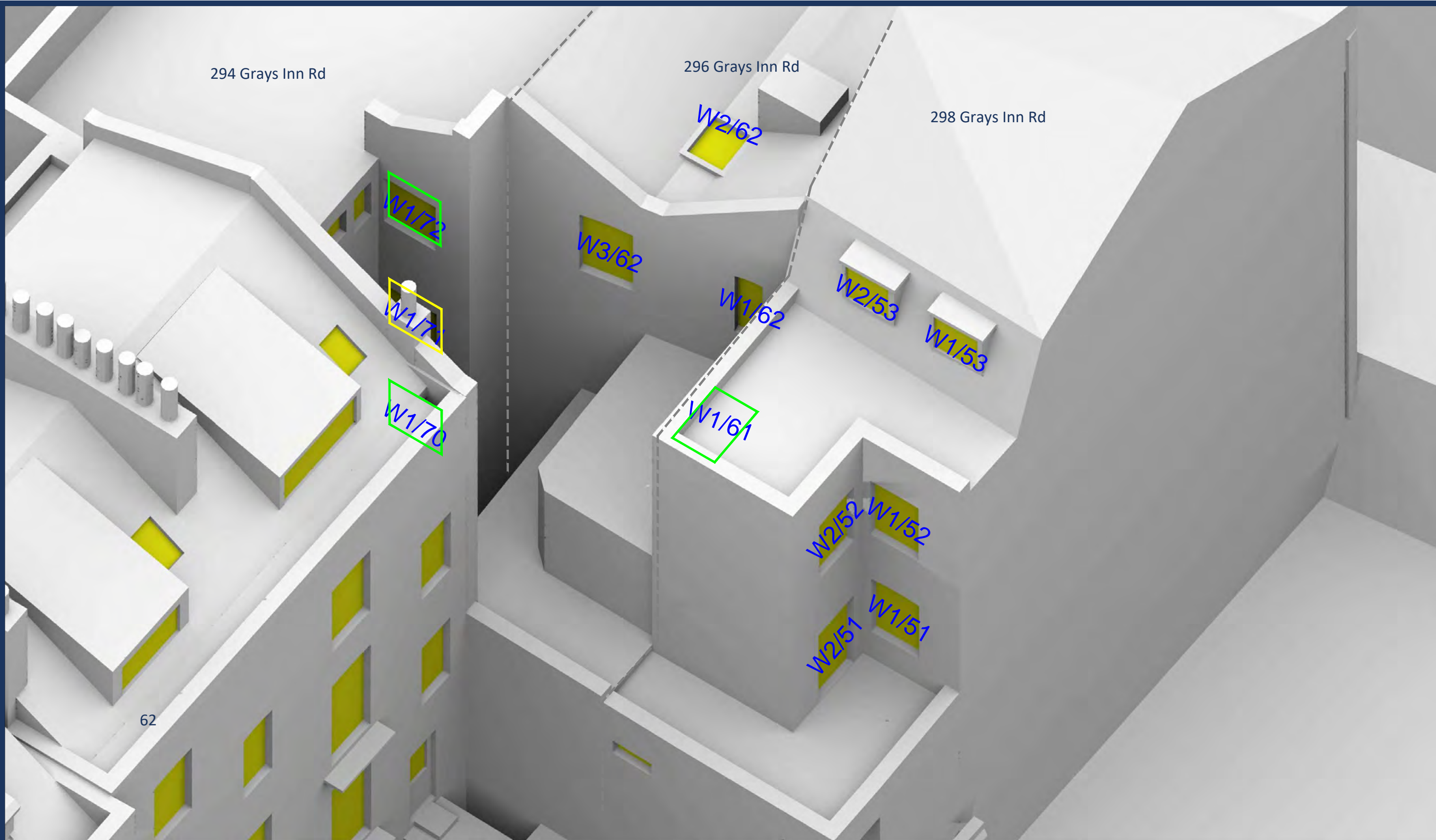




<div>Sources: Z-mapping Ltd</div> <div>Point 2 Site Photography Point Cloud Data</div> <div>Local Planning Authority Various Surrounding Building Layouts</div> <div>Haptic Architects Proposed Scheme 09/05/23 GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg</div>	<div>Key:</div>		<div>Project: 300 Grays Inn Road</div>			<div>Title: Window Locations</div> <div>62-72 Frederick Street, 294-298 Grays Inn Road</div>	
	<div>Scheme Confirmed:</div> <div>-</div>	<div>Date:</div> <div>-</div>	<div>Drawn By:</div> <div>EVJ/MG/CJ</div>	<div>Scale:</div> <div>NTS</div>	<div>Date:</div> <div>MAY 23</div>	<div>Dwg No:</div> <div>P2991/WM 14</div>	<div>Rel:</div> <div>09</div>

POINT





Sources: Z-mapping Ltd
Point 2
Site Photography
Point Cloud Data

Local Planning Authority
Various Surrounding Building Layouts

Haptic Architects
Proposed Scheme 09/05/23
GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg

Key:

Project: 300 Grays Inn Road

Title: Window Locations
294-298 Grays Inn Road

Scheme Confirmed: -

Date: -

Drawn By: EVJ/MG/CJ

Scale: NTS

Date: MAY 23

Dwg No: P2991/WM 15

Rel: 09





Sources: Z-mapping Ltd
Point 2
Site Photography
Point Cloud Data

Local Planning Authority
Various Surrounding Building Layouts

Haptic Architects
Proposed Scheme 09/05/23
GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg

Key:

Project: 300 Grays Inn Road

Title: Window Locations
45-49 Frederick Street

Scheme Confirmed: -

Date: -

Drawn By: EVJ/MG/CJ

Scale: NTS

Date: MAY 23

Dwg No: P2991/WM 16

Rel: 09





<div>Sources: Z-mapping Ltd</div> <div>Point 2 Site Photography Point Cloud Data</div> <div>Local Planning Authority Various Surrounding Building Layouts</div> <div>Haptic Architects Proposed Scheme 09/05/23 GIR-HAP-ZZZ-ZZ-M3-A-00001 - 230509 S2 Revit Model.dwg</div>	Key:		Project: 300 Grays Inn Road			Title: Window Locations	
	Scheme Confirmed:	Date:	Drawn By:	Scale:	Date:	Dwg No:	Rel:
	-	-	EVJ/MG/CJ	NTS	MAY 23	P2991/WM 17	09





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Scheme Confirmed: -		Date: -		Drawn By: EVJ/MG/CJ	Scale: NTS	Date: MAY 23	Dwg No: P2991/WM 18	Rel: 09

