# DAYLIGHT, SUNLIGHT & OVERSHADOWING

Ringers Road

Produced by XCO2 for Ringers Road Properties Ltd.

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# EXECUTIVE SUMMARY

The daylight, sunlight and overshadowing analysis indicates the impact of the development at Ringers Road on surrounding properties is anticipated to be broadly in line with daylight and sunlight levels expected in dense urban environments with associated masterplan schemes.

Daylight and Sunlight analysis was carried out for the proposed development at Ringers Road, located within the London Borough of Bromley. This report outlines the results of the analysis for the planning application, assessing the daylight and sunlight impacts on surrounding developments.

The methodology set out in this report is in accordance with BRE's "Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice" by PJ Littlefair (2022) which is accepted as good practice by Planning Authorities.

The following assessments were carried out:

- Daylight: 25 Degree Line
- Daylight: Vertical Sky Component
- Daylight: No Sky Line
- Sunlight: Sunlight Access
- Sunlight: Sunlight Overshadowing

Research was also undertaken to identify properties in the vicinity of the site with planning consent that may have to be included in the assessment. Computer modelling software was used to carry out the assessments. The model used was based on drawings and a 3D model provided by the design team together with desktop research informing the neighbouring properties.

## DAYLIGHT ASSESSMENT

A total of 637 windows from buildings surrounding the site were highlighted as being in close proximity to, and facing the proposed development.

Daylighting levels for potentially affected windows of surrounding developments by the proposed development at Ringers Road were found to be generally acceptable and commensurate with the losses expected in dense urban environments subject to densification and wider development.

In summary,

- 161 windows passed the 25-degree line test;
- 139 windows achieved VSCs greater than 27% and pass NSL where tested;
- 79 windows achieved relative VSCs over 0.8 of their former values and pass NSL where tested;
- 11 windows were only tested for VSC achieved VSCs greater than 27%;
- 13 windows were only tested for VSC achieved relative VSCs over 0.8 of their former values;
- 19 windows achieved VSCs of either greater than 27% or 0.8 of their former values but did not pass NSL where tested;
- 128 windows did not meet VSCs recommendations but passed NSL where tested;
- 32 of the remaining windows were found to not be meeting any of the above criteria although they still achieved a VSC greater than 20% which is considered to still be a good level of daylight in an urban environment; and,
- 22 of the remaining windows were found to not be meeting the above criteria but still achieved a VSC greater than 15% which can be considered acceptable for an urban environment.

The remaining 33 windows do not any of the above criteria.

Overall, the impact of the development on surrounding properties is anticipated to be broadly in line with daylight levels expected in urban masterplans and where there is a wider development strategy involving the densification of the area and an aspiration to deliver more housing for the borough.

### EMERGING CONTEXT

For the emerging buildings assessed (62 High Street, and 66-70 High Street) subject to a successful planning application, Spatial Daylight Autonomy (sDA) assessments were carried out to understand the daylight performance with the proposed scheme in place. This assessment comprised 60 kitchen/living/dining rooms (KLDs) and 56 bedrooms.

The results for the proposed scenario indicated that 83 out of 116 rooms meet the recommendations set out by the BRE guide. Of the 33 remaining rooms, 4 meet within 80% (an sDA of 40%) or above the BRE recommendation and 8 within 60% (an sDA of 30%) or above the BRE recommendations.

It was found that the remaining 21 rooms were found to not meet the recommendations with the proposal in place.

## SUNLIGHT ASSESSMENT

An analysis of the context in which the site is located has been carried out. The Bromley Town Centre Area Action Plan (AAP), adopted in October 2010 '*sets out the vision for the town centre together with objectives, policies and proposals to guide future development and change... Some parts of the town centre are in need of revitalisation and the town centre also offers significant opportunities for the new development*'.

The proposed scheme is located within the Bromley Central Character Area which is the main retail and commercial hub of the borough, and it is expected to experience in the following years a revitalisation, as well as the construction of new, tall buildings that will result in daylight and sunlight reductions which exceed the conventional advice proposed by BRE.

A total of 296 windows from buildings surrounding the site were assessed for sunlight access. It was found 232 meet the BRE criteria for sunlight impacts, and a further 25 windows were found to be meeting at least one of the APSH or WPSH criteria for sunlight impacts.

The remaining 39 windows fall short of the BRE recommendations.

Overall, the proposed development at Ringers Road is not considered to have a significant impact on sunlight access to windows of surrounding developments.

It is important to mention 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. Where appropriate the BRE Guidelines promote the use of alternative target values to those discussed in this report and cite the example of using this approach in an area of modern high-rise buildings. The evolving contextual townscape of the Masterplan, where there will shortly be modern higher rise buildings, is a suitable example of where the use of alternative target values could be used.

### EMERGING CONTEXT

For emerging buildings, a total of 116 habitable rooms in all the assessed residential units of the emerging developments have been included in the analysis. The results have shown that 94 habitable rooms will achieve adequate annual sunlight based on the BRE Guidance.

The remaining 22 habitable rooms do not meet the BRE recommendations. However, the sunlight assessment of the emerging context shows the majority of rooms meeting the BRE recommendations with only a very small proportion falling short. When considered with the design and relative massing of the emerging context, it can be considered that the isolated impacts of the proposed scheme are only minor and fall within expected margins for dense urban development.

## OVERSHADOWING ASSESSMENT

A solar access analysis was undertaken for a total of 9 amenity spaces for the full 24 hours on 21st of March. All the assessed amenity spaces are predicted to have a minimum of 2 hours of sunlight on 21 March over at least 50% of each assessed amenity space.

The proposed development is therefore not considered to have any significant impact on sunlight access to the amenity spaces surrounding the site.

Table 1: Daylight results to existing windows summary.

| Number of windows tested | 637 |
|---|---|
| Number of windows passing the 25° initial test | 161 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 139 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 79 |
| Number of windows only tested for VSC with VSC higher than 27% | 11 |
| Number of windows only tested for VSC with VSC of at least 0.8 of existing value | 13 |
| Number of windows meeting VSC recommendations but not passing NSL where tested | 19 |
| Number of windows not passing VSC but passing NSL where tested | 128 |
| Number of windows with a VSC higher than 20% | 32 |
| Number of windows with a VSC higher than 15% | 22 |
| Number of windows that do not meet any of the above criteria | 33 |

Table 2: Sunlight results to existing windows summary.

| Total number of windows facing within 90° of south | 296 |
|---|---|
| Number of south facing windows passing the 25° initial test | 52 |
| Number of south facing windows with APSH greater than 25% and WPSH greater than 5%, or of at least 0.8 of their former existing value | 175 |
| Number of south facing windows with less than 4% reduction in annual sunlight | 5 |
| Number of south facing windows with APSH greater than 25% | 16 |
| Number of south facing windows with WPSH greater than 5% | 9 |
| Number of windows that do not meet any of the above criteria | 39 |

# INTRODUCTION

The site is located in an urban environment which is currently undergoing a wider regeneration and subsequently the interpretation of the results requires careful consideration of the BRE guidance.

This report assesses the daylight, sunlight and overshadowing impacts the proposed new build residential development may have on the existing properties and open spaces surrounding the site.

The approach is based on the BRE's "*Site Layout Planning for daylight and sunlight, a Guide to good practice"* PJ Littlefair 2022, which is generally accepted as good practice by Town and Country Planning authorities.

It should be noted that although the numerical values stated by the BRE provide useful guidance to designers, consultants and planning officials, these are purely advisory and may vary depending on context. Dense urban areas, for example, may often experience greater site constraints when compared to low-rise suburban areas, and thus a high degree of obstruction is often unavoidable. Appendix F of the BRE document is dedicated to the use of alternative values and it also demonstrates the manner in which the criteria for skylight was determined for the summary given above, i.e. the need for 27% vertical sky component for adequate daylighting.

This figure of 27% was achieved using the following methodology: a theoretical road was created with two storey terraced houses upon either side, approximately twelve metres apart. The houses have windows at ground and first floor level, and a pitched roof with a central ridge. Thereafter, a reference point was taken at the centre of a ground floor window of one of the properties and a line was drawn from this point to the central ridge of the property on the other side of the road.

The angle of this line equated to 25 degrees (the 25 degrees referred to in the summaries given with reference to the criteria for skylight). This 25-degree line obstructs 13% of the totally unobstructed sky available, leaving a resultant figure of 27% which is deemed to give adequate daylighting. This figure of 27% is the recommended criteria referred to in this report. It will be readily appreciated that in an urban area, this kind of urban form and setting is unlikely and impractical.

Furthermore, the BRE guidance also focuses on 'relative change' which is likely to be exaggerated given the low-rise nature of the existing structures on site. Where there is more than a 20% reduction in VSC, this does not mean that the level of daylight will be unacceptable but, rather, that there may be a noticeable change in daylight levels to the occupants.

The BRE guidelines include specific guidance for such circumstances on interpreting their standard criteria more flexibly in terms of relative reduction of daylight. Therefore, where the reduction in daylight would be noticeable does not necessarily mean that surrounding windows would not retain adequate levels of daylight post-development. For example, there are several windows which achieve VSCs over 30% and in some cases over 35% in the existing site condition (when the maximum VSC attainable by a completely unobstructed window is 40%). Fur such cases, if the window post-development achieves a VSC of over 20%, this window would retain good levels of daylight but would unlikely meet the relative VSC of 0.8 stipulated in the BRE guide. Achieving VSCs between 10-20% tend to be related more to typical dense urban and possibly city environments, and still be considered satisfactory values of attainable daylight. This should be taken into account when interpreting the results.

Therefore, given the location of the proposed development, with the height of the immediate neighbouring buildings to the east and west being more than two storeys in height, and the currently low-rise nature of the existing site, it is important to take into account that, although the 27% VSC target is the standard criterion available, it is not fully applicable to the development and that a lower VSC target is acceptable.

## SITE

The proposed development is a mixed-use building located between Ringers Road and Ethelbert Road in Bromley and includes the demolition of existing buildings and constructions of mixed-use development comprising residential units, ancillary residents' facilities (including co-working space) and commercial floor space (Use Class E) across two blocks, along with associated hard and soft landscaping, amenity spaces cycle and refuse storage.

Site analysis was carried out to identify any potential daylight and sunlight impacts on the surrounding development. Relevant properties tested in this report adjacent to the proposed development are annotated in the figure overleaf.

The following neighbouring buildings were tested in detail:

- 66-70 High Street (emerging context)
- 62 High Street (emerging context)
- Henry House
- William House
- Bromley Temple
- Simpsons Place
- Ringers Court
- Harestone Court
- 35-36 Ethelbert Close
- 1-2 Ethelbert Close
- 7 Ethelbert Court
- 1 Ethelbert Court
- 2 Ethelbert Road
- 11 Ethelbert Road
- 13 Ethelbert Road
- 72-76 High Street

All buildings have been modelled based on survey layouts prepared by RVM Partnership Chartered Surveyors, a 3D digital model provided by Zmapping along with photographs and research from publicly available records. For the residential properties forming part of the surrounding buildings of the site, an indicative value of 4-4.5 metres has been assumed as the projected depth of the rooms from the façade. For non-residential properties, the total floor footprint has been modelled.

Site Location

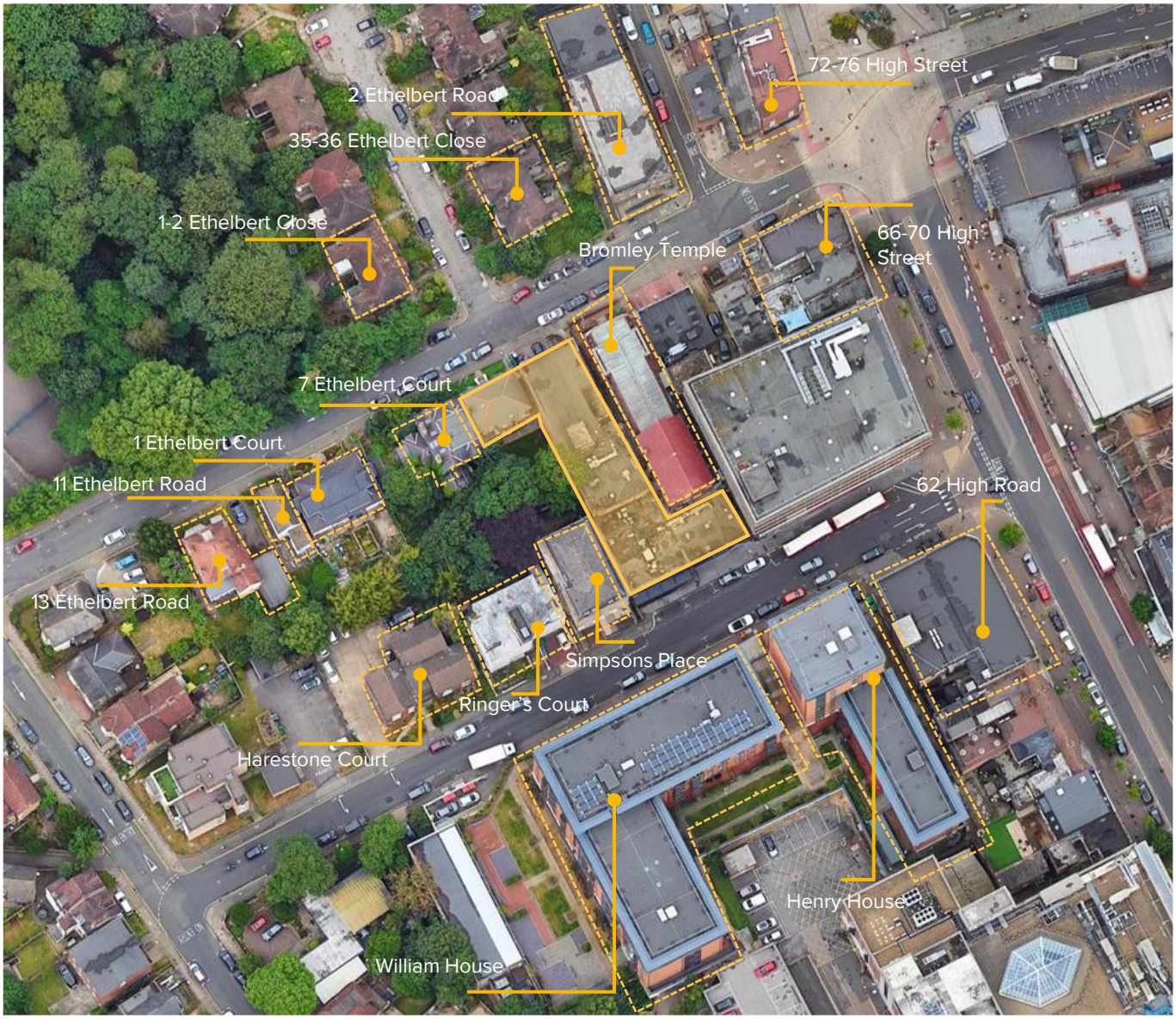


Figure 1: Site location and neighbouring buildings assessed.

# METHODOLOGY

The assessment is based on guidelines set out in the BRE "Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice" (2022).

## DAYLIGHT

### *DAYLIGHT TO SURROUNDING WINDOWS*

A plane is drawn at 25 degrees from the horizontal, at the centre of an existing window. If the new development intersects with this plane, the internal daylight levels of the surrounding windows may be reduced. When an obstruction of the 25-degree plane occurs, a more detailed assessment involving the Vertical Sky Component of the affected window would need to be carried out.

### *ABSOLUTE VERTICAL SKY COMPONENT (VSC)*

The Vertical Sky Component is the ratio of the direct sky illuminance falling on the vertical wall at a reference point, to the simultaneous horizontal illuminance under an unobstructed sky. To maintain good levels of daylight, the Vertical Sky Component of a window needs to be 27% or greater. If the VSC is less than 27%, then a comparison of existing and proposed levels of VSC level would need to be calculated.

### *RELATIVE VERTICAL SKY COMPONENT*

Good levels of daylighting can still be achieved if VSC levels are within 0.8 of their former value.

### *PERCENTAGE OF ROOM WITH VIEW OF THE SKY (NSL)*

Rooms connected to the windows assessed will not experience a noticeable loss in daylight if the percentage (%) of the room's working plane with view of the sky is over 0.8 of its former value. The former value could refer either to the existing development in place or the mirror image buildings for properties with windows close to site boundaries.

### *SPATIAL DAYLIGHT AUTONOMY (SDA)*

This assessment is carried out for emerging schemes in the vicinity of the proposed scheme, as they have no existing level of daylight being experienced by the occupants in order to judge relative loss.

The BRE guidelines refers to the British Standard BS EN 17037 *Daylight in Buildings* recommendations. This stipulates the calculation of the amount of daylight in a space using one of two methods: prediction of illuminance levels using hourly data, or the use of the daylight factor. For this assessment, the method predicting illuminance levels using hourly data is used. For daylight levels in dwellings, BS EN 17037 refers to the UK National Annex which outlines the illuminance level needed in a room according to its occupancy. These are as follows:

- 100 lux for bedrooms
- 150 lux for living rooms and
- 200 lux for kitchens, or rooms with kitchens

The calculation is carried out taking into consideration the relative illuminance values, the amount of daylight hours, and the area of the room. For a room to be compliant with the BRE guidance it must reach the required illuminance levels for at least 50% of the daylight hours across 50% of the room area.

This is measured by the Spatial Daylight Autonomy (sDA) metric. sDA is defined as the percentage area of the analysed space that is above a certain lux level for a certain percentage of time.

In addition to the amount of light reaching the working plane, this assessment takes into consideration surface materials and in particular their reflectance. For the calculations, the following assumptions have been made:

- 50% interior wall reflectance
- 70% interior ceiling reflectance
- 20% interior floor reflectance
- 20% exterior surface reflectance
- 68% light transmission for vertical glazing

These calculations are carried out using Radiance based software approved by the BRE.

## SUNLIGHT

### *ACCESS TO SUNLIGHT (APSH)*

The BRE test relates mainly to existing living room windows, although care should be taken to ensure that kitchens and bedrooms receive reasonable amounts of sunlight. Annual Probable Sunlight Hour (APSH) assessment is carried out when there is an obstruction within the 25-degree line and the window is facing within 90 degrees due south. The APSH assessment states that the existing living room window should receive at least:

- 25% of annual probable sunlight hours (APSH) throughout the year;
- 5% of annual probable sunlight hours during the winter months;
- not less than 80% of its former sunlight hours during either period;
- not more than a 4% reduction in sunlight received over the whole year (APSH).

The term 'annual probable sunlight hours' refers to the long-term average of the total of hours during a year in which direct sunlight reaches the unobstructed ground (when clouds are taken into account). The 'winter probable sunlight hours' is used to mean the same but only for the winter period (21 September – 21 March).

### *SUNLIGHT EXPOSURE (SE)*

Sunlight is valued within a space, and according to the BRE guidance access to sunlight can be quantified. BS EN 17037 recommends that a space should receive a minimum of 1.5 hours of direct sunlight on the 21st of March – the equinox. The guidance rates the amount of access to daylight as below:

- 1.5 hours as the minimum
- 3 hours as a medium level
- 4 hours as a high level

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

The guidance states at least one habitable room is required to meet the criteria per dwelling.

## OVERSHADOWING

### *SUNLIGHT TO AMENITY SPACES*

Open spaces should retain a reasonable amount of sunlight throughout the year. The BRE states that for an amenity space to "appear adequately sunlit throughout the year, at least half of the area should receive at least 2 hours of sunlight on 21 March". Where this is not achieved, the difference between the area achieving 2 hours of sun on 21 March should be no less than 0.8 times its former value.

# DAYLIGHT ASSESSMENT

The analysis indicates that the proposed development is likely to affect the daylight of neighbouring properties commensurately with developments in urban environments which are subject to wider regeneration and densification. The following subsections detail the findings for each neighbouring building individually.

## 66-70 HIGH STREET

This consented residential building will be located to the east of the proposed development. Figure 2 shows the assessed windows. The model for this consented building was developed based on the planning submission with reference 19/04588/FULL1.

The analysis found that 56 of the 136 assessed windows passed the 25-degree plane test. Of the remaining 80 windows, 33 were found to achieve a VSC greater than 27% and pass the NSL test, and 6 more were found to achieve a relative VSC greater than 80% when compared to the existing value and pass the NSL.

Of the remaining 41 windows, 41 were found to not meet the BRE criteria for VSC but pass the NSL test..

The rooms were also assessed for sDA and the results indicated the following:

For KLDs:

- Of the 30 KLDs tested, 26 meet the BRE recommendations;
- Of the remaining 4 KLDs, 1 is meeting within 60% of the recommendations (sDA of at least 30%);
- The remaining 3 KLDs do not meet any of the above criteria due to being adjacent to an existing building.

For bedrooms:

- Of the 22 bedrooms tested, all meet the BRE recommendations.

The tables overleaf summarise the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

Figure 2: 66-70 High Street south elevation (L) and west elevation (R) windows.

Figure 3: 66-70 High Street 25-degree plane.

Table 3: Daylight results summary (VSC and NSL) for 66-70 High Street.

| Number of windows tested | 136 |
|---|---|
| Number of windows passing the 25° initial test | 56 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 33 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 6 |
| Number of windows meeting VSC recommendations but not passing NSL where tested | 0 |
| Number of windows not passing VSC but passing NSL where tested | 41 |
| Number of windows that do not meet any of the above criteria | 0 |

Table 4: Daylight results summary (sDA) for 66-70 High Street

| Number of habitable rooms tested | 52 |
|---|---|
| Number of KLDs | 30 |
| Number of KLDs meeting the BRE recommendations | 26 |
| Number of KLDs meeting within 80% or above of the BRE recommendations (sDA of at least 40%) | 0 |
| Number of KLDs meeting within 60% or above of the BRE recommendations (sDA of at least 30%) | 1 |
| Number of KLDs not meeting any of the above criteria | 3 |
| Number of bedrooms | 22 |
| Number of bedrooms meeting the BRE recommendations | 22 |
| Number of bedrooms not meeting any of the above criteria | 0 |

## 62 HIGH STREET

This consented residential building will be located to the south of the proposed development. Figure 4 shows the assessed windows. The model for this consented building was developed based on the planning submission with reference 21/04667/FULL1.

The analysis found that 82 of the 153 assessed windows passed the 25-degree plane test. Of the remaining 72 windows, 16 were found to achieve a VSC greater than 27% and pass the NSL test, and 34 more were found to achieve a relative VSC greater than 80% when compared to the existing value and pass the NSL.

Of the remaining 22 windows, 10 were found to meet BRE criteria for VSC but not the NSL test, and 6 were found to not meet the BRE criteria for VSC but pass the NSL test.

The remaining 6 windows were found to be achieving a VSC below 15% largely due to these windows having enjoyed a relatively significant amount of daylight in the existing context.

The rooms were also assessed for sDA and the results indicated the following:

For KLDs:

- Of the 30 KLDs tested, 14 meet the BRE recommendations;
- Of the remaining 16 KLDs, 3 are meeting within 80% of the recommendations (sDA of at least 40%);
- Of the remaining 13 KLDs, 3 are meeting within 60% of the recommendations (sDA of at least 30%);
- The remaining 10 KLDs do not meet any of the above criteria due to being adjacent to an existing building.

For bedrooms:

- Of the 34 bedrooms tested, 21 meet the BRE recommendations;
- Of the remaining 13 bedrooms, 1 is meeting within 80% of the recommendations (sDA of at least 40%);
- Of the remaining 12 bedrooms, 3 are meeting within 60% of the recommendations (sDA of at least 30%);
- The remaining 9 bedrooms do not meet any of the above criteria.

The table overleaf summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

Figure 4: 62 High Street north elevation (L) and west elevation (R) windows

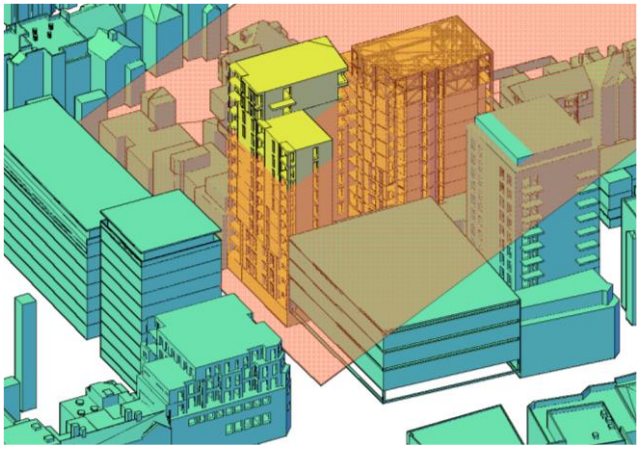

Figure 5: 62 High Street 25-degree plane.

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Table 5: Daylight results summary (VSC and NSL) for 62 High Street.

| Number of windows tested | 154 |
|---|---|
| Number of windows passing the 25° initial test | 82 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 16 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 34 |
| Number of windows meeting VSC recommendations but not passing NSL where tested | 10 |
| Number of windows not passing VSC but passing NSL where tested | 6 |
| Number of windows that do not meet any of the above criteria | 6 |

Table 6: Daylight results summary (sDA) for 62 High Street

| Number of habitable rooms tested | 64 |
|---|---|
| Number of KLDs | 30 |
| Number of KLDs meeting the BRE recommendations | 14 |
| Number of KLDs meeting within 80% or above of the BRE recommendations (sDA of at least 40%) | 3 |
| Number of KLDs meeting within 60% or above of the BRE recommendations (sDA of at least 30%) | 3 |
| Number of KLDs not meeting any of the above criteria | 10 |
| Number of bedrooms | 34 |
| Number of bedrooms meeting the BRE recommendations | 21 |
| Number of bedrooms meeting within 80% or above of the BRE recommendations (sDA of at least 40%) | 1 |
| Number of bedrooms meeting within 60% or above of the BRE recommendations (sDA of at least 30%) | 3 |
| Number of bedrooms not meeting any of the above criteria | 9 |

## HENRY HOUSE

This building is located to the south of the proposed development. Figure 6 shows the assessed windows. The rooms were tested for NSL.

The analysis found that none of the 54 assessed windows passed the 25-degree plane test. Of the remaining 54 windows, 12 were found to achieve a VSC greater than 27% and pass the NSL test, and 4 more were found to achieve a relative VSC greater than 80% when compared to the existing value and pass the NSL.

Of the remaining 38 windows, 3 were found to meet BRE criteria for VSC but not the NSL test, and 11 were found to not meet the BRE criteria for VSC but pass the NSL test.

Of the remaining 24 windows, 10 were found to achieve a VSC greater than 20% with the proposed development in place, and whilst this is strictly below the BRE criteria, it is still considered to be a good level of daylight for an urban environment and a further 9 windows were found to achieve a VSC of 15% which is considered reasonable for a dense urban environment.

The remaining 5 windows were found to be achieving a VSC below 15% largely due to these windows having enjoyed a very significant amount of daylight in the existing context.

The table below summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

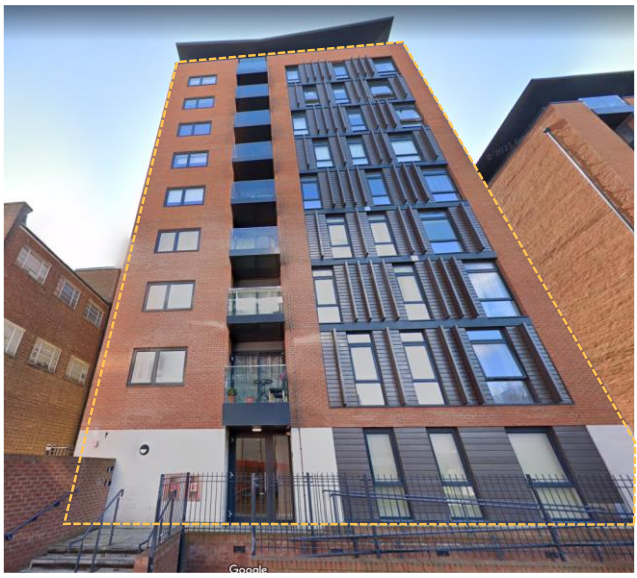

Figure 6: Henry House windows.

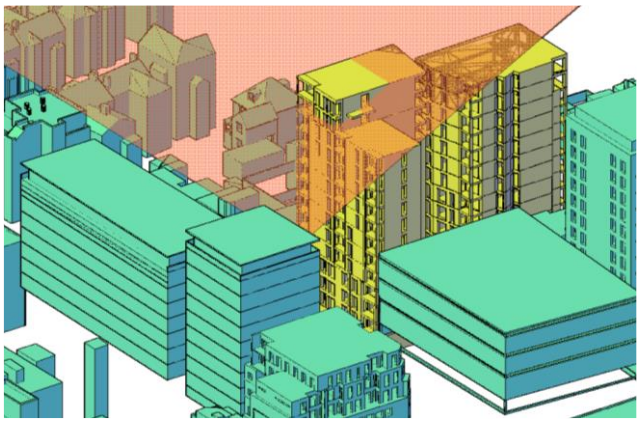
Figure 7: Henry House 25-degree plane.

Table 7: Daylight results summary for Henry House.

| Number of windows tested | 54 |
|---|---|
| Number of windows passing the 25° initial test | 0 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 12 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 4 |
| Number of windows meeting VSC recommendations but not passing NSL where tested | 3 |
| Number of windows not passing VSC but passing NSL where tested | 11 |
| Number of windows with VSC higher than 20% | 10 |
| Number of windows with VSC higher than 15% | 9 |
| Number of windows that do not meet any of the above criteria | 5 |

## WILLIAM HOUSE

This building is located to the south of the proposed development. Figure 8 shows the assessed windows. The rooms were tested for NSL.

The analysis found that none of the 104 assessed windows passed the 25-degree plane test. Of the remaining 104 windows, 30 were found to achieve a VSC greater than 27% and pass the NSL test, and 10 more were found to achieve a relative VSC greater than 80% when compared to the existing value and pass the NSL.

Of the remaining 64 windows, 3 were found to meet BRE criteria for VSC but not the NSL test, and 33 were found to not meet the BRE criteria for VSC but pass the NSL test.

Of the remaining 28 windows, 18 were found to achieve a VSC greater than 20% with the proposed development in place, and whilst this is strictly below the BRE criteria, it is still considered to be a good level of daylight for an urban environment and a further 6 windows were found to achieve a VSC of 15% which is considered reasonable for a dense urban environment.

The remaining 4 windows were found to be achieving a VSC below 15% largely due to these windows having enjoyed a very significant amount of daylight in the existing context.

The table overleaf summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

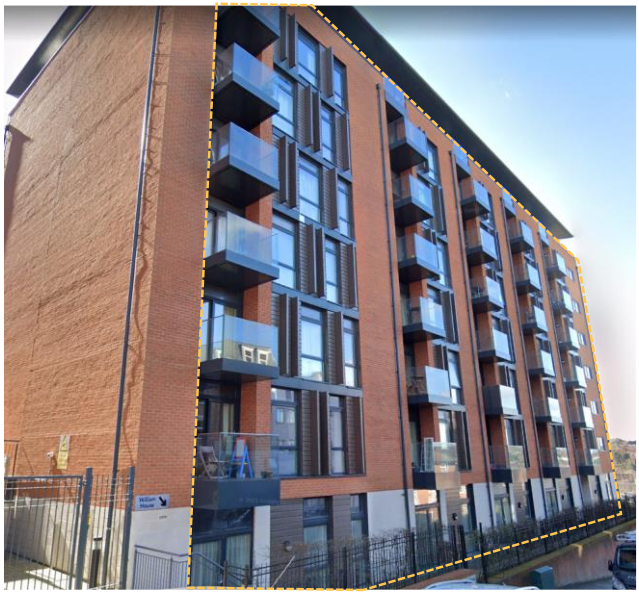

Figure 8: William House windows.

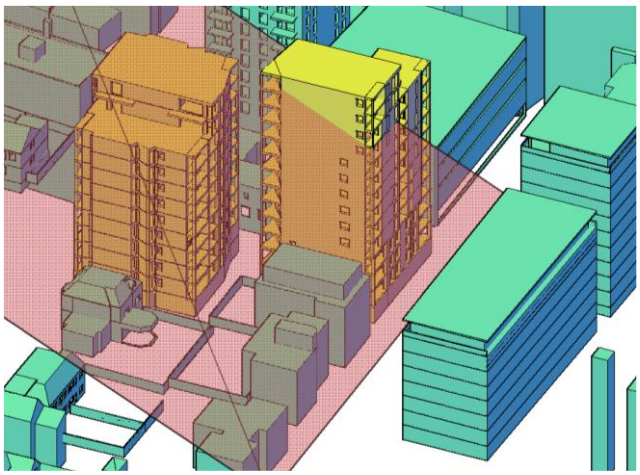

Figure 9: William House 25-degree plane.

Table 8: Daylight results summary for William House.

| Number of windows tested | 104 |
|---|---|
| Number of windows passing the 25° initial test | 0 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 30 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 10 |
| Number of windows meeting VSC recommendations but not passing NSL where tested | 3 |
| Number of windows not passing VSC but passing NSL where tested | 33 |
| Number of windows with VSC higher than 20% | 18 |
| Number of windows with VSC higher than 15% | 6 |
| Number of windows that do not meet any of the above criteria | 4 |

## BROMLEY TEMPLE

This building is located to the east boundary of the proposed development. Figure 10 shows the assessed windows. The rooms were tested for NSL.

The analysis found that none of the 23 assessed windows passed the 25-degree plane test. Of the remaining 23 windows, 8 were found to achieve a relative VSC greater than 80% when compared to the existing value and pass the NSL.

Of the remaining 15 windows, 4 were found to not meet the BRE criteria for VSC but pass the NSL test.

The remaining 11 windows were found to be achieving a VSC below 15% largely due to these windows having enjoyed a very significant amount of daylight in the existing context.

The table overleaf summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

Figure 10: Bromley Temple windows.

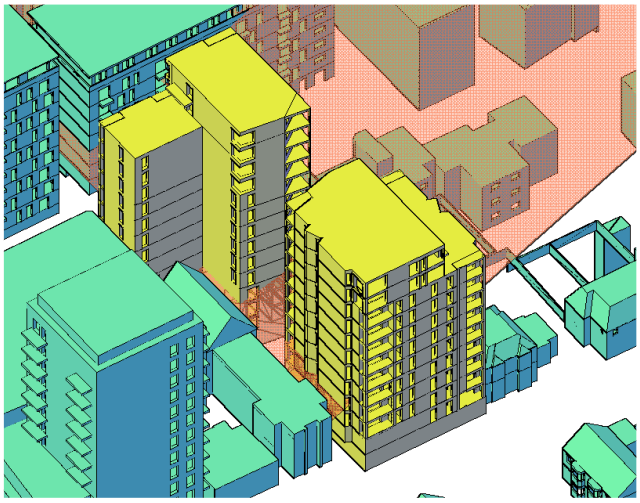

Figure 11: Bromley Temple 25-degree plane.

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Table 9: Daylight results summary for Bromley Temple.

| Number of windows tested | 23 |
|---|---|
| Number of windows passing the 25° initial test | 0 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 0 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 8 |
| Number of windows meeting VSC recommendations but not passing NSL where tested | 0 |
| Number of windows not passing VSC but passing NSL where tested | 4 |
| Number of windows that do not meet any of the above criteria | 11 |

## SIMPSONS PLACE

This building is located to the west boundary of the proposed development. Figure 12 shows the assessed windows. The rooms were tested for NSL.

The analysis found that none of the 15 assessed windows passed the 25-degree plane test. Of the remaining 15 windows, 9 were found to not meet the BRE criteria for VSC but pass the NSL test.

Of the remaining 6 windows, 1 window was found to achieve a VSC of 15% which is considered reasonable for a dense urban environment.

The remaining 5 windows were found to be achieving a VSC below 15% largely due to these windows having enjoyed a very significant amount of daylight in the existing context.

The table overleaf summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

Figure 12: Simpsons Place windows.

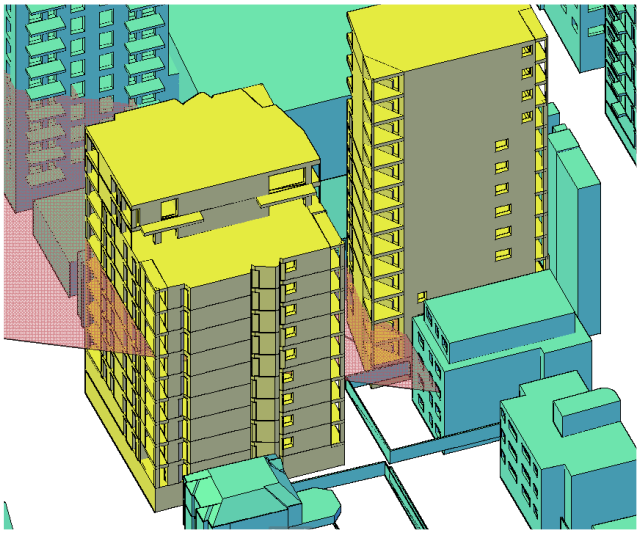

Figure 13: Simpsons Place 25-degree plane.

Table 10: Daylight results summary for Simpsons Place.

| Number of windows tested | 15 |
|---|---|
| Number of windows passing the 25° initial test | 0 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 0 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 0 |
| Number of windows meeting VSC recommendations but not passing NSL where tested | 0 |
| Number of windows not passing VSC but passing NSL where tested | 9 |
| Number of windows with VSC higher than 15% | 1 |
| Number of windows that do not meet any of the above criteria | 5 |

## RINGERS COURT

This building is located to the west of the proposed development. Figure 14 shows the assessed windows. The rooms were tested for NSL.

The analysis found that none of the 12 assessed windows passed the 25-degree plane test. Of the remaining 12 windows, 7 were found to achieve a VSC greater than 27% and pass the NSL test, and 2 more were found to achieve a relative VSC greater than 80% when compared to the existing value and pass the NSL.

Of the remaining 3 windows, 1 was found to meet BRE criteria for VSC but not the NSL test.

The remaining 2 windows were found to achieve a VSC greater than 20% with the proposed development in place, and whilst this is strictly below the BRE criteria, it is still considered to be a good level of daylight for an urban environment.

The table below summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

Figure 14: Ringers Court windows.

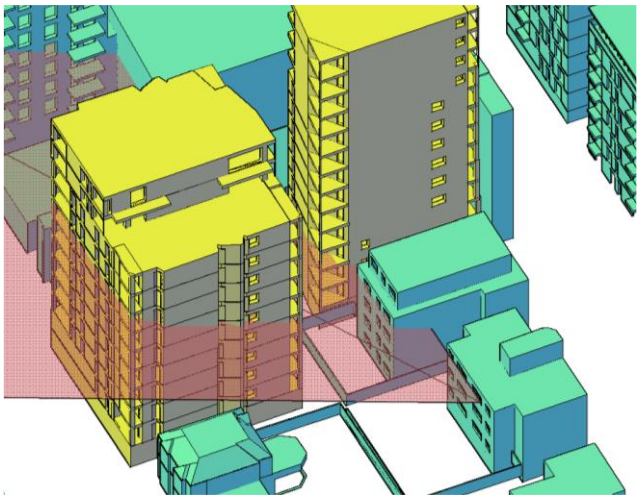

Figure 15: Ringers Court 25-degree plane.

Table 11: Daylight results summary for Ringers Court.

| Number of windows tested | 12 |
|---|---|
| Number of windows passing the 25° initial test | 0 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 7 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 2 |
| Number of windows meeting VSC recommendations but not passing NSL where tested | 1 |
| Number of windows not passing VSC but passing NSL where tested | 0 |
| Number of windows with VSC higher than 20% | 2 |
| Number of windows that do not meet any of the above criteria | 0 |

## HARESTONE COURT

This building is located to the west of the proposed development. Figure 16 shows the assessed windows. The rooms were tested for NSL.

The analysis found that none of the 6 assessed windows passed the 25-degree plane test. Of the remaining 6 windows, 6 were found to achieve a VSC greater than 27% and pass the NSL test.

The table below summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

Figure 16: Harestone Court windows.

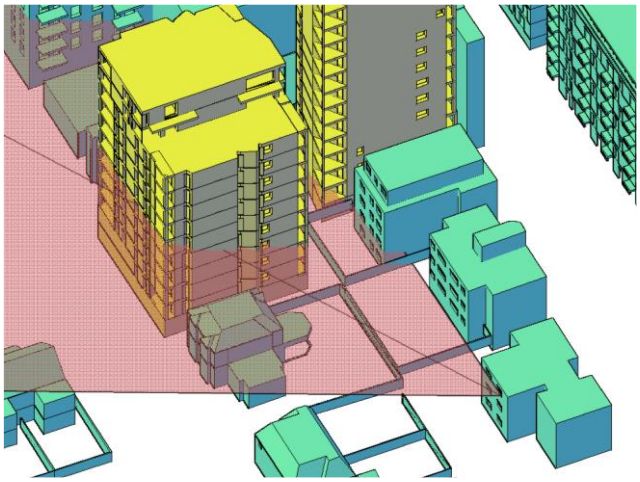

Figure 17: Harestone Court 25-degree plane.

Table 12: Daylight results summary for Harestone Court.

| Number of windows tested | 6 |
|---|---|
| Number of windows passing the 25° initial test | 0 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 6 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 0 |
| Number of windows that do not meet any of the above criteria | 0 |

## 35-36 ETHELBERT CLOSE

This building is located to the north of the proposed development. Figure 18 shows the assessed windows. The rooms were tested for NSL.

The analysis found that 8 of the 26 assessed windows passed the 25-degree plane test. Of the remaining 18 windows, 7 were found to achieve a VSC greater than 27% and pass the NSL test, and 1 more was found to achieve a relative VSC greater than 80% when compared to the existing value and pass the NSL.

Of the remaining 10 windows, 10 were found to not meet the BRE criteria for VSC but pass the NSL test.

The table below summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

Figure 18: 35-36 Ethelbert Close windows.

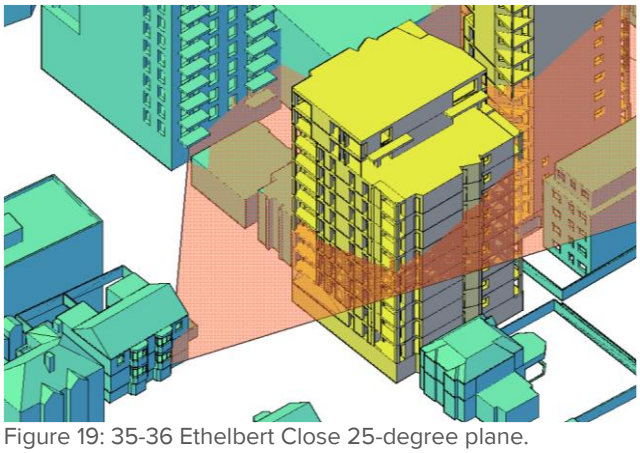

Figure 19: 35-36 Ethelbert Close 25-degree plane.

Table 13: Daylight results summary for 35-36 Ethelbert Close.

| Number of windows tested | 26 |
|---|---|
| Number of windows passing the 25° initial test | 8 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 7 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 1 |
| Number of windows meeting VSC recommendations but not passing NSL where tested | 0 |
| Number of windows not passing VSC but passing NSL where tested | 10 |
| Number of windows that do not meet any of the above criteria | 0 |

## 1-2 ETHELBERT CLOSE

This building is located to the north of the proposed development. Figure 20 shows the assessed windows. The rooms were tested for NSL.

The analysis found that 8 of the 26 assessed windows passed the 25-degree plane test. Of the remaining 18 windows, 3 were found to achieve a VSC greater than 27% and pass the NSL test, and 3 more were found to achieve a relative VSC greater than 80% when compared to the existing value and pass the NSL.

Of the remaining 12 windows, 2 were found to meet BRE criteria for VSC but not the NSL test, and 8 were found to not meet the BRE criteria for VSC but pass the NSL test.

Of the remaining 2 windows, 2 were found to achieve a VSC greater than 20% with the proposed development in place, and whilst this is strictly below the BRE criteria, it is still considered to be a good level of daylight for an urban environment.

The table overleaf summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

Figure 20: 1-2 Ethelbert Close windows.

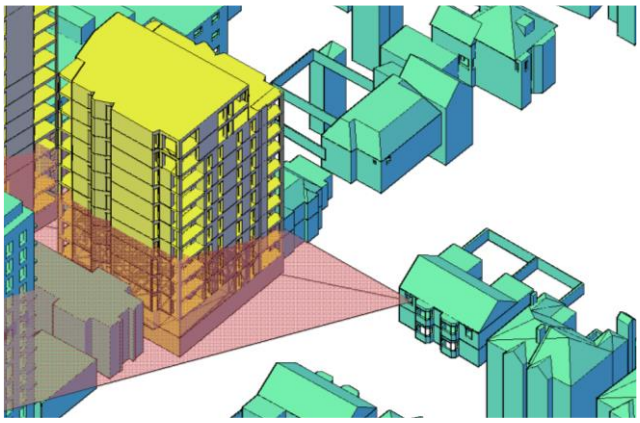

Figure 21: 1-2 Ethelbert Close 25-degree plane.

Table 14: Daylight results summary for 1-2 Ethelbert Close.

| Number of windows tested | 26 |
|---|---|
| Number of windows passing the 25° initial test | 8 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 3 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 3 |
| Number of windows meeting VSC recommendations but not passing NSL where tested | 2 |
| Number of windows not passing VSC but passing NSL where tested | 8 |
| Number of windows with VSC higher than 20% | 2 |
| Number of windows that do not meet any of the above criteria | 0 |

## 7 ETHELBERT COURT

This building is located to the west of the proposed development. Figure 22 shows the assessed windows. The rooms were tested for NSL.

The analysis found that 1 of the 11 assessed windows passed the 25-degree plane test. Of the remaining 10 windows, 3 were found to achieve a VSC greater than 27% and pass the NSL test, and 2 more were found to achieve a relative VSC greater than 80% when compared to the existing value and pass the NSL.

Of the remaining 5 windows, 5 were found to not meet the BRE criteria for VSC but pass the NSL test.

The table overleaf summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

Figure 22: 7 Ethelbert Court windows.

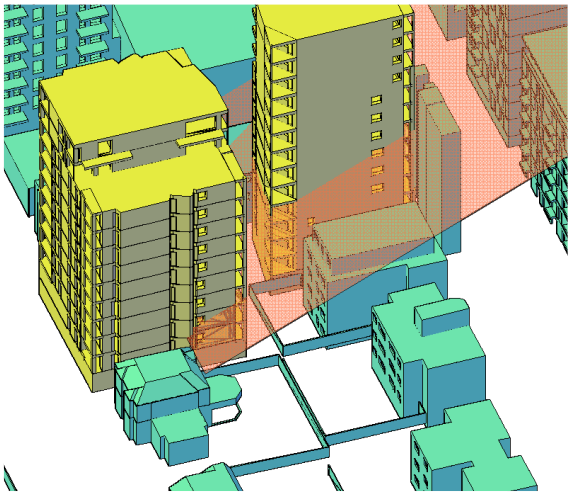

Figure 23: 7 Ethelbert Court 25-degree plane.

Table 15: Daylight results summary for 7 Ethelbert Court.

| Number of windows tested | 11 |
|---|---|
| Number of windows passing the 25° initial test | 1 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 3 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 2 |
| Number of windows meeting VSC recommendations but not passing NSL where tested | 0 |
| Number of windows not passing VSC but passing NSL where tested | 5 |
| Number of windows that do not meet any of the above criteria | 0 |

## 1 ETHELBERT COURT

This building is located to the west of the proposed development. Figure 24Figure 30 shows the assessed windows. The rooms were tested for NSL.

The analysis found that 1 of the 22 assessed windows passed the 25-degree plane test. Of the remaining 21 windows, 14 were found to achieve a VSC greater than 27% and pass the NSL test, and 6 more were found to achieve a relative VSC greater than 80% when compared to the existing value and pass the NSL.

The remaining 1 window was found to not meet the BRE criteria for VSC but pass the NSL test.

The table below summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

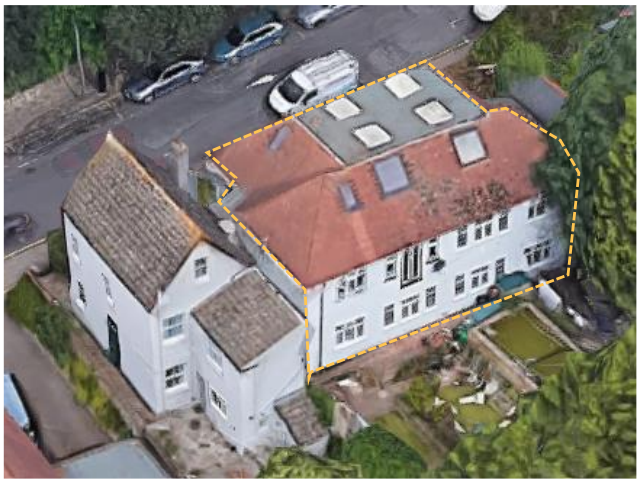

Figure 24: 1 Ethelbert Court windows.

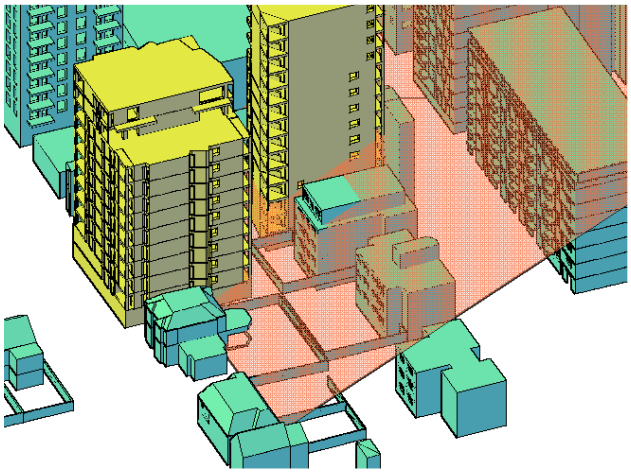

Figure 25: 1 Ethelbert Court 25-degree plane.

Table 16: Daylight results summary for 1 Ethelbert Court.

| Number of windows tested | 22 |
|---|---|
| Number of windows passing the 25° initial test | 1 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 14 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 6 |
| Number of windows meeting VSC recommendations but not passing NSL where tested | 0 |
| Number of windows not passing VSC but passing NSL where tested | 1 |
| Number of windows that do not meet any of the above criteria | 0 |

## 2 ETHELBERT ROAD

This building is located to the west of the proposed development. Figure 26 shows the assessed windows. Since there was no publicly available information on the building's internal layout, the rooms were not tested for NSL.

The analysis found that none of the 22 assessed windows passed the 25-degree plane test. Of the remaining 22 windows, 7 were found to achieve a VSC greater than 27%, and 7 more were found to achieve a relative VSC greater than 80% when compared to the existing value.

Of the remaining 8 windows, 6 were found to achieve a VSC of 15% which is considered reasonable for a dense urban environment.

The remaining 2 windows were found to be achieving a VSC below 15% largely due to these windows having enjoyed a very significant amount of daylight in the existing context.

The table below summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

Figure 26: 2 Ethelbert Road windows.

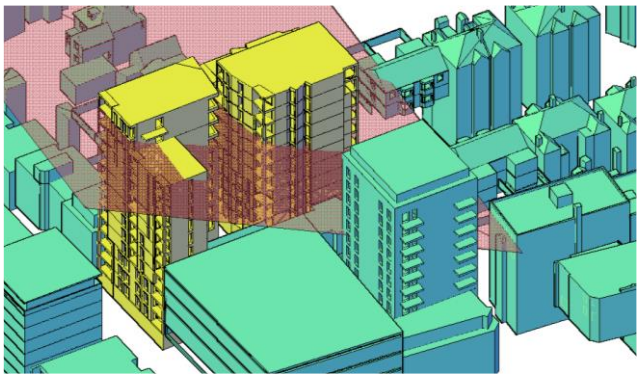

Figure 27: 2 Ethelbert Road 25-degree plane.

Table 17: Daylight results summary for 2 Ethelbert Road.

| Number of windows tested | 22 |
|---|---|
| Number of windows passing the 25° initial test | 0 |
| Number of windows with VSC higher than 27% | 7 |
| Number of windows with VSC of at least 0.8 of existing value | 7 |
| Number of windows with VSC higher than 15% | 6 |
| Number of windows that do not meet any of the above criteria | 2 |

## 11 ETHELBERT ROAD

This building is located to the west of the proposed development. Figure 28 shows the assessed windows. Since there was no publicly available information on the building's internal layout, the rooms were not tested for NSL.

The analysis found that none of the 3 assessed windows passed the 25-degree plane test. Of the remaining 3 windows, 2 were found to achieve a VSC greater than 27%, and 1 was found found to achieve a relative VSC greater than 80% when compared to the existing value.

The table below summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

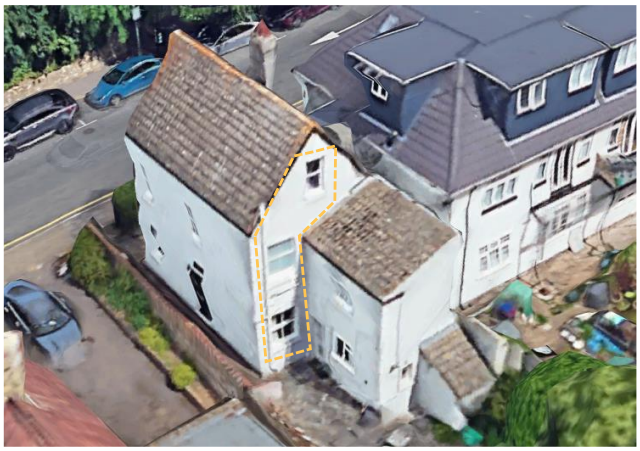

Figure 28: 11 Ethelbert Road windows.

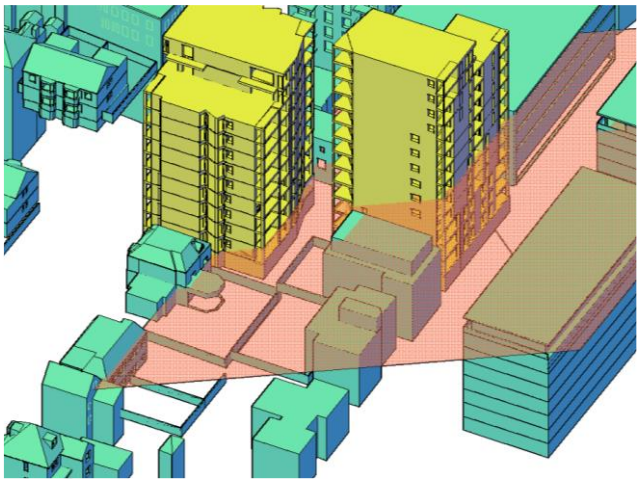

Figure 29: 11 Ethelbert Road 25-degree plane.

Table 18: Daylight results summary for 11 Ethelbert Road.

| Number of windows tested | 3 |
|---|---|
| Number of windows passing the 25° initial test | 0 |
| Number of windows with VSC higher than 27% | 2 |
| Number of windows with VSC of at least 0.8 of existing value | 1 |
| Number of windows that do not meet any of the above criteria | 0 |

## 13 ETHELBERT ROAD

This building is located to the west of the proposed development. Figure 30 shows the assessed windows. The rooms were tested for NSL.

The analysis found that 5 of the 16 assessed windows passed the 25-degree plane test. Of the remaining 11 windows, 8 were found to achieve a VSC greater than 27% and pass the NSL test, and 3 more were found to achieve a relative VSC greater than 80% when compared to the existing value and pass the NSL.

The table below summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.

Figure 30: 13 Ethelbert Road windows.

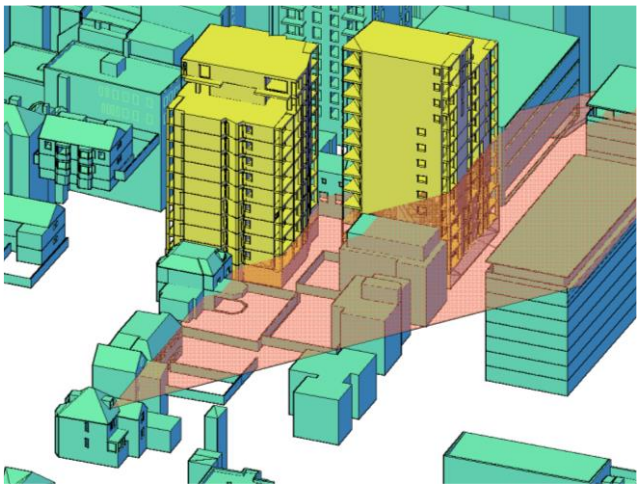

Figure 31: 13 Ethelbert Road 25-degree plane.

Table 19: Daylight results summary for 13 Ethelbert Road.

| Number of windows tested | 16 |
|---|---|
| Number of windows passing the 25° initial test | 5 |
| Number of windows with VSC higher than 27% and passing NSL where tested | 8 |
| Number of windows with VSC of at least 0.8 of existing value and passing NSL where tested | 3 |
| Number of windows that do not meet any of the above criteria | 0 |

## 72-76 HIGH STREET

This building is located to the west of the proposed development. Figure 32 shows the assessed windows. Since there was no publicly available information on the building's internal layout, the rooms were not tested for NSL.

The analysis found that none of the 7 assessed windows passed the 25-degree plane test. Of the remaining 7 windows, 2 were found to achieve a VSC greater than 27%, and 5 were found to achieve a relative VSC greater than 80% when compared to the existing value.

The table below summarises the findings. Detailed results are presented in Appendix B - Detailed Daylight Results.


Figure 32: 72-76 High Street windows.

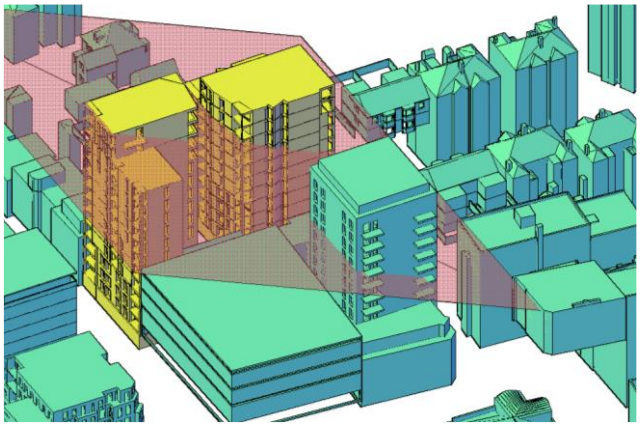

Figure 33: 72-76 High Street 25-degree plane.

Table 20: Daylight results summary for 72-76 High Street.

| Number of windows tested | 7 |
|---|---|
| Number of windows passing the 25° initial test | 0 |
| Number of windows with VSC higher than 27% | 2 |
| Number of windows with VSC of at least 0.8 of existing value | 5 |
| Number of windows that do not meet any of the above criteria | 0 |

# SUNLIGHT ASSESSMENT

The analysis indicates that the proposed development is anticipated to be broadly in line with sunlight levels expected in this developing area at the centre of Bromley.

The BRE guide states that:

*"if a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely affected"*

A total of 296 windows from buildings surrounding the site were highlighted as facing the development and within 90° of due south.

These windows belong to:

- 66-70 High Street
- 62 High Street
- Henry House
- Bromley Temple
- 35-36 Ethelbert Close
- 1-2 Ethelbert Close
- 7 Ethelbert Court
- 1 Ethelbert Court
- 2 Ethelbert Road
- 11 Ethelbert Road
- 13 Ethelbert Road
- 72-76 High Street

Included within this assessment.

A total of 296 windows from buildings surrounding the site were highlighted as facing the development and within 90° of due south.

The analysis indicated that 52 of the 296 assessed windows passed the 25-degree plane test. Of the remaining 244 windows, 175 were found to meet the BRE criteria for APSH and WPSH levels or their relative values when compared to the existing context. A further 5 windows were found to have less than a 4% reduction in total sunlight.

The remaining 64 windows were found to achieve sunlight levels below the above criteria however of these, 16 windows were found to meet the APSH target only with the proposed development in place and 9 were found to meet the WPSH criteria only in the proposed context.

Overall, the proposed development is not considered to have a significant impact on sunlight access to windows of surrounding developments.

The table below shows the results summary. The detailed results can be found in Appendix C - Detailed Sunlight Results.

An analysis of the context in which the site is located has been carried out. The Bromley Town Centre Area Action Plan (AAP), adopted in October 2010 '*sets out the vision for the town centre together with objectives, policies and proposals to guide future development and change... Some parts of the town centre are in need of revitalisation and the town centre also offers significant opportunities for the new development*'.

The proposed scheme is located within the Bromley Central Character Area which is the main retail and commercial hub of the borough, and it is expected to experience in the following years a revitalisation, as well as the construction of new tall buildings that will result in daylight and sunlight reductions which exceed the conventional advice proposed by BRE.

Overall, the proposed development is expected to have an impact on sunlight access to a small amount of windows of surrounding developments.

It is important to mention 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. Where appropriate the BRE Guidelines

promote the use of alternative target values to those discussed in this report and cite the example of using this approach in an area of modern high-rise buildings. The evolving contextual townscape of the Masterplan, where there will shortly be modern higher rise buildings, is a suitable example of where the use of alternative target values could be used.

### EMERGING CONTEXT

For consented buildings, a total of 116 habitable rooms in all the assessed residential units of the emerging developments have been included in the analysis. The results have shown that:

- 49 habitable rooms will achieve high levels of sunlight recommendation;
- 22 habitable rooms will achieve medium levels of sunlight recommendation;
- 23 habitable rooms will achieve minimum levels of sunlight recommendation;

The remaining 22 habitable rooms do not meet the BRE recommendations. However, the sunlight assessment of the emerging context shows the majority of rooms meeting the BRE recommendations with only a very small proportion falling short. When considered with the design and relative massing of the emerging context, it can be considered that the isolated impacts of the proposed scheme are only minor and fall within expected margins for dense urban development.

Table 21: Sunlight results (APSH/WPSH) summary.

| **Total number of windows facing within 90° of south** | **296** |
|---|---|
| Number of south facing windows passing the 25° initial test | 52 |
| Number of south facing windows with APSH greater than 25% and WPSH greater than 5%, or of at least 0.8 of their former existing value | 175 |
| Number of south facing windows with less than 4% reduction in annual sunlight | 5 |
| Number of south facing windows with APSH greater than 25% | 16 |
| Number of south facing windows with WPSH greater than 5% | 9 |
| Number of windows that do not meet any of the above criteria | 39 |

Table 22: Sunlight results summary for the emerging context

| Number of habitable spaces tested | 116 |
|---|---|
| Number of habitable spaces meeting the high level of sunlight recommendation | 49 |
| Number of habitable spaces meeting the medium level of sunlight recommendation | 22 |
| Number of habitable spaces meeting the minimum level of sunlight recommendation | 23 |
| Number of habitable spaces not meeting any of the above criteria | 22 |

# OVERSHADOWING ASSESSMENT

The analysis indicates that the proposed development is unlikely to have a significant impact on the sunlight received by neighbouring amenity spaces.

A review of the site plan showed that there are 9no. amenity or open spaces in close proximity to the proposed development, as shown in the figure below. A Solar Access Analysis was undertaken on these amenity areas for the full 24 hours on 21 March as set out by the BRE.

The images show that at least 50% of each of the analysed spaces will receive more than 2 hours of sunlight on 21 March under proposed conditions, meeting the BRE requirements for overshadowing.

The proposed development is not considered to have any significant impact on sunlight access to neighbouring amenity and open spaces.


Figure 34: Amenity and open spaces in close proximity to development site.


Figure 35: Overshadowing results for existing and proposed cases in amenity spaces.

Table 23: Detailed overshadowing results for proposed development.

| Amenity | Area ($m^2$) | Existing lit area ($m^2$) | Proposed lit area ($m^2$) | Proposed lit area (%) | Pr/Ex | BRE result |
|---|---|---|---|---|---|---|
| A1 | 57.82 | 32.43 | 30.93 | 53.5% | 0.95 | Pass |
| A2 | 80.76 | 56.50 | 49.80 | 61.7% | 0.88 | Pass |
| A3 | 67.57 | 49.11 | 47.00 | 69.6% | 0.96 | Pass |
| A4 | 77.04 | 55.05 | 53.23 | 69.1% | 0.97 | Pass |
| A5 | 117.97 | 101.13 | 101.13 | 85.7% | 1.00 | Pass |
| A6 | 108.96 | 92.86 | 92.86 | 85.2% | 1.00 | Pass |
| A7 | 254.04 | 229.30 | 229.30 | 90.3% | 1.00 | Pass |
| A8 | 212.42 | 165.41 | 156.41 | 77.9% | 1.00 | Pass |
| A9 | 110.42 | 66.01 | 65.60 | 59.4% | 0.99 | Pass |

# CONCLUSION

The daylight, sunlight and overshadowing analysis indicates the impact of the development at Ringers Road on surrounding properties is anticipated to be broadly in line with daylight and sunlight levels expected in urban masterplans.

## DAYLIGHT ASSESSMENT

A total of 637 windows from buildings surrounding the site were highlighted as being in close proximity to, and facing the proposed development.

Daylighting levels for potentially affected windows of surrounding developments by the proposed development at Ringers Road were found to be generally acceptable and commensurate with the losses expected in dense urban environments subject to densification and wider development.

In summary,

- 161 windows passed the 25-degree line test;
- 139 windows achieved VSCs greater than 27% and pass NSL where tested;
- 79 windows achieved relative VSCs over 0.8 of their former values and pass NSL where tested;
- 11 windows were only tested for VSC achieved VSCs greater than 27%;
- 13 windows were only tested for VSC achieved relative VSCs over 0.8 of their former values;
- 19 windows achieved VSCs of either greater than 27% or 0.8 of their former values but did not pass NSL where tested;
- 128 windows did not meet VSCs recommendations but passed NSL where tested;
- 32 of the remaining windows were found to not be meeting any of the above criteria although they still achieved a VSC greater than 20% which is considered to still be a good level of daylight in an urban environment; and,
- 22 of the remaining windows were found to not be meeting the above criteria but still achieved a VSC greater than 15% which can be considered acceptable for an urban environment.

The remaining 33 windows fall below the above targets.

Overall, the impact of the development on surrounding properties is anticipated to be broadly in line with daylight levels expected in urban masterplans and where there is a wider development strategy involving the densification of the area and an aspiration to deliver more housing for the borough.

### EMERGING CONTEXT

For the consented buildings, Spatial Daylight Autonomy (sDA) assessments were carried out for 60 kitchen/living/dining rooms (KLDs) and 56 bedrooms.

The results for the proposed scenario indicated that 83 out of 116 rooms meet the recommendations set out by the BRE guide. Of the 33 remaining rooms, 4 meet within 80% (an sDA of 40%) or above the BRE recommendation and 8 within 60% (an sDA of 30%) or above the BRE recommendations.

It was found that the remaining 21 rooms were found to not meet the recommendations with the proposal in place.

## SUNLIGHT ASSESSMENT

An analysis of the context in which the site is located has been carried out. The Bromley Town Centre Area Action Plan (AAP), adopted in October 2010 '*sets out the vision for the town centre together with objectives, policies and proposals to guide future development and change... Some parts of the town centre are in need of revitalisation and the town centre also offers significant opportunities for the new development*'.

The proposed scheme is located within the Bromley Central Character Area which is the main retail and commercial hub of the borough, and it is expected to experience in the following years a revitalisation, as well as the construction of new, tall buildings that will

result in daylight and sunlight reductions which exceed the conventional advice proposed by BRE.

A total of 296 windows from buildings surrounding the site were assessed for sunlight access. It was found 232 meet the BRE criteria for sunlight impacts, and a further 25 windows were found to be meeting at least one of the APSH or WPSH criteria for sunlight impacts.

The remaining 39 windows fall short of the BRE recommendations.

Overall, the proposed development at Ringers Road is not considered to have a significant impact on sunlight access to windows of surrounding developments.

It is important to mention 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. Where appropriate the BRE Guidelines promote the use of alternative target values to those discussed in this report and cite the example of using this approach in an area of modern high-rise buildings. The evolving contextual townscape of the Masterplan, where there will shortly be modern higher rise buildings, is a suitable example of where the use of alternative target values could be used.

### EMERGING CONTEXT

For emerging buildings, a total of 116 habitable rooms in all the assessed residential units of the emerging developments have been included in the analysis. The results have shown that 94 habitable rooms will achieve adequate annual sunlight based on the BRE Guidance.

The remaining 22 habitable rooms do not meet the BRE recommendations. However, the sunlight assessment of the emerging context shows the majority of rooms meeting the BRE recommendations with only a very small proportion falling short. When considered with the design and relative massing of the emerging context, it can be considered that the isolated impacts of the proposed scheme are only minor and fall within expected margins for dense urban development.

## OVERSHADOWING ASSESSMENT

A solar access analysis was undertaken for a total of 9 amenity spaces for the full 24 hours on 21st of March. All the assessed amenity spaces are predicted to have a minimum of 2 hours of sunlight on 21 March over at least 50% of each assessed amenity space.

The proposed development is therefore not considered to have any significant impact on sunlight access to the amenity spaces surrounding the site

# APPENDIX A – WINDOW AND ROOM REFERENCE

# APPENDIX B - DETAILED DAYLIGHT RESULTS

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| 66-70 High Street | Ground | W1 | Further testing required | 11.9% | 16.0% | 0.74 | 61.8% | 68.9% | 0.9 |
| 66-70 High Street | Ground | W2 | Further testing required | 11.5% | 16.3% | 0.7 | 78.8% | 95.2% | 0.83 |
| 66-70 High Street | Ground | W3 | Pass | - | - | - | - | - | - |
| 66-70 High Street | Ground | W5 | Further testing required | 17.5% | 19.4% | 0.9 | 100.0% | 100.0% | 1 |
| 66-70 High Street | Ground | W6 | Further testing required | 27.8% | - | - | 100.0% | 100.0% | 1 |
| 66-70 High Street | Ground | W7 | Further testing required | 27.2% | - | - | 100.0% | 100.0% | 1 |
| 66-70 High Street | Ground | W4 | Further testing required | 11.4% | 12.9% | 0.88 | 51.4% | 51.5% | 1 |
| 66-70 High Street | Ground | W8 | Further testing required | 17.3% | 22.1% | 0.78 | 73.4% | 81.7% | 0.9 |
| 66-70 High Street | Ground | W9 | Further testing required | 22.7% | 28.5% | 0.8 | 98.8% | 98.8% | 1 |
| 66-70 High Street | Ground | W11 | Further testing required | 13.4% | 13.8% | 0.97 | 98.8% | 98.8% | 1 |
| 66-70 High Street | Ground | W10 | Further testing required | 3.2% | 4.8% | 0.68 | 28.7% | 37.0% | 0.78 |
| 66-70 High Street | First | W1 | Further testing required | 21.8% | 26.0% | 0.84 | 95.4% | 97.2% | 0.98 |
| 66-70 High Street | First | W2 | Further testing required | 22.7% | 29.1% | 0.78 | 93.1% | 98.0% | 0.95 |
| 66-70 High Street | First | W3 | Further testing required | 23.5% | 25.5% | 0.92 | 94.6% | 94.6% | 1 |
| 66-70 High Street | First | W4 | Pass | - | - | - | - | - | - |
| 66-70 High Street | First | W5 | Further testing required | 29.3% | - | - | 99.9% | 99.9% | 1 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| 66-70 High Street | First | W6 | Further testing required | 28.8% | - | - | 99.9% | 99.9% | 1 |
| 66-70 High Street | First | W7 | Further testing required | 28.5% | - | - | 99.9% | 99.9% | 1 |
| 66-70 High Street | First | W8 | Further testing required | 28.2% | - | - | 99.9% | 99.9% | 1 |
| 66-70 High Street | First | W9 | Further testing required | 19.7% | 24.6% | 0.8 | 59.9% | 62.3% | 0.96 |
| 66-70 High Street | First | W10 | Further testing required | 25.6% | 32.4% | 0.79 | 90.1% | 90.1% | 1 |
| 66-70 High Street | First | W11 | Further testing required | 7.5% | 9.5% | 0.79 | 17.4% | 30.3% | 0.57 |
| 66-70 High Street | First | W12 | Further testing required | 23.3% | 23.6% | 0.98 | 97.8% | 97.8% | 1 |
| 62 Ringers Road | Ground | W1 | Further testing required | 35.6% | - | - | 81.4% | 81.5% | 1 |
| 62 Ringers Road | Ground | W2 | Further testing required | 25.6% | 27.3% | 0.94 | 81.4% | 81.5% | 1 |
| 62 Ringers Road | Ground | W3 | Further testing required | 21.5% | 24.6% | 0.87 | 81.4% | 81.5% | 1 |
| 62 Ringers Road | First | W1 | Further testing required | 36.8% | - | - | 75.0% | 79.4% | 0.94 |
| 62 Ringers Road | First | W2 | Further testing required | 28.1% | - | - | 75.0% | 79.4% | 0.94 |
| 62 Ringers Road | First | W3 | Further testing required | 25.9% | 29.2% | 0.89 | 75.0% | 79.4% | 0.94 |
| 62 Ringers Road | First | W4 | Further testing required | 25.2% | 29.1% | 0.86 | 75.0% | 79.4% | 0.94 |
| 62 Ringers Road | First | W5 | Further testing required | 24.4% | 29.2% | 0.83 | 75.0% | 79.4% | 0.94 |
| 62 Ringers Road | First | W6 | Further testing required | 10.4% | 15.5% | 0.67 | 75.0% | 79.4% | 0.94 |
| 62 Ringers Road | First | W7 | Further testing required | 5.2% | 9.5% | 0.55 | 75.0% | 79.4% | 0.94 |
| 62 Ringers Road | First | W8 | Further testing required | 5.0% | 6.9% | 0.73 | 75.0% | 79.4% | 0.94 |
| 62 Ringers Road | Second | W1 | Further testing required | 37.9% | - | - | 75.7% | 83.3% | 0.91 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| 62 Ringers Road | Second | W2 | Further testing required | 31.5% | - | - | 75.7% | 83.3% | 0.91 |
| 62 Ringers Road | Second | W3 | Further testing required | 29.7% | - | - | 75.7% | 83.3% | 0.91 |
| 62 Ringers Road | Second | W4 | Further testing required | 29.0% | - | - | 75.7% | 83.3% | 0.91 |
| 62 Ringers Road | Second | W5 | Further testing required | 28.3% | - | - | 75.7% | 83.3% | 0.91 |
| 62 Ringers Road | Second | W6 | Further testing required | 11.3% | 16.4% | 0.69 | 75.7% | 83.3% | 0.91 |
| 62 Ringers Road | Second | W7 | Further testing required | 5.8% | 10.2% | 0.57 | 75.7% | 83.3% | 0.91 |
| 62 Ringers Road | Second | W8 | Further testing required | 5.5% | 7.4% | 0.75 | 75.7% | 83.3% | 0.91 |
| Henry House | Ground | W1 | Further testing required | 17.6% | 27.7% | 0.64 | 79.6% | 96.4% | 0.83 |
| Henry House | Ground | W2 | Further testing required | 17.3% | 28.1% | 0.62 | 79.6% | 96.4% | 0.83 |
| Henry House | Ground | W3 | Further testing required | 17.0% | 28.7% | 0.59 | 60.3% | 88.1% | 0.68 |
| Henry House | First | W1 | Further testing required | 21.5% | 29.2% | 0.74 | 62.4% | 81.1% | 0.77 |
| Henry House | First | W2 | Further testing required | 15.4% | 24.5% | 0.63 | 62.9% | 93.0% | 0.68 |
| Henry House | First | W3 | Further testing required | 19.8% | 30.4% | 0.65 | 62.2% | 95.1% | 0.65 |
| Henry House | First | W4 | Further testing required | 19.6% | 31.7% | 0.62 | 54.1% | 95.2% | 0.57 |
| Henry House | First | W5 | Further testing required | 19.1% | 32.2% | 0.59 | 74.2% | 99.7% | 0.74 |
| Henry House | Second | W1 | Further testing required | 24.7% | 32.8% | 0.75 | 96.7% | 97.8% | 0.99 |
| Henry House | Second | W2 | Further testing required | 18.3% | 27.9% | 0.66 | 98.6% | 99.8% | 0.99 |
| Henry House | Second | W3 | Further testing required | 22.7% | 34.1% | 0.67 | 58.6% | 97.0% | 0.6 |
| Henry House | Second | W4 | Further testing required | 22.3% | 34.6% | 0.64 | 76.1% | 98.6% | 0.77 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| Henry House | Second | W5 | Further testing required | 21.6% | 35.0% | 0.62 | 90.4% | 99.1% | 0.91 |
| Henry House | Third | W1 | Further testing required | 28.0% | - | - | 99.3% | 99.3% | 1 |
| Henry House | Third | W2 | Further testing required | 21.4% | 31.1% | 0.69 | 86.8% | 99.4% | 0.87 |
| Henry House | Third | W3 | Further testing required | 25.3% | 36.4% | 0.7 | 66.1% | 98.0% | 0.67 |
| Henry House | Third | W4 | Further testing required | 24.6% | 37.4% | 0.66 | 54.7% | 95.2% | 0.57 |
| Henry House | Third | W5 | Further testing required | 23.7% | 37.6% | 0.63 | 78.2% | 99.7% | 0.79 |
| Henry House | Fourth | W1 | Further testing required | 31.0% | - | - | 99.3% | 99.3% | 1 |
| Henry House | Fourth | W2 | Further testing required | 24.2% | 33.6% | 0.72 | 98.7% | 99.8% | 0.99 |
| Henry House | Fourth | W3 | Further testing required | 27.9% | - | - | 59.5% | 97.0% | 0.61 |
| Henry House | Fourth | W4 | Further testing required | 27.2% | - | - | 77.0% | 98.6% | 0.78 |
| Henry House | Fourth | W5 | Further testing required | 26.1% | 39.2% | 0.67 | 90.5% | 99.1% | 0.91 |
| Henry House | Fifth | W1 | Further testing required | 31.9% | - | - | 99.3% | 99.3% | 1 |
| Henry House | Fifth | W2 | Further testing required | 25.4% | 34.1% | 0.75 | 86.9% | 99.4% | 0.87 |
| Henry House | Fifth | W3 | Further testing required | 29.1% | - | - | 68.2% | 98.0% | 0.7 |
| Henry House | Fifth | W4 | Further testing required | 28.0% | - | - | 56.3% | 95.2% | 0.59 |
| Henry House | Fifth | W5 | Further testing required | 26.8% | 39.5% | 0.68 | 78.3% | 99.7% | 0.79 |
| Henry House | Sixth | W1 | Further testing required | 32.7% | - | - | 99.3% | 99.3% | 1 |
| Henry House | Sixth | W2 | Further testing required | 26.2% | 34.1% | 0.77 | 98.7% | 99.8% | 0.99 |
| Henry House | Sixth | W3 | Further testing required | 30.0% | - | - | 62.8% | 97.0% | 0.65 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| Henry House | Sixth | W4 | Further testing required | 29.3% | - | - | 79.7% | 98.6% | 0.81 |
| Henry House | Sixth | W5 | Further testing required | 28.3% | - | - | 90.8% | 99.1% | 0.92 |
| Henry House | Seventh | W1 | Further testing required | 33.8% | - | - | 99.3% | 99.3% | 1 |
| Henry House | Seventh | W2 | Further testing required | 27.2% | - | - | 87.8% | 99.4% | 0.88 |
| Henry House | Seventh | W3 | Further testing required | 31.2% | - | - | 73.9% | 98.0% | 0.75 |
| Henry House | Seventh | W4 | Further testing required | 30.2% | - | - | 60.5% | 95.2% | 0.64 |
| Henry House | Seventh | W5 | Further testing required | 29.2% | - | - | 80.2% | 99.7% | 0.8 |
| Henry House | Eighth | W1 | Further testing required | 35.0% | - | - | 99.4% | 99.4% | 1 |
| Henry House | Eighth | W2 | Further testing required | 33.8% | - | - | 99.8% | 99.8% | 1 |
| Henry House | Eighth | W3 | Further testing required | 32.6% | - | - | 73.2% | 97.0% | 0.75 |
| Henry House | Eighth | W4 | Further testing required | 31.9% | - | - | 89.0% | 98.6% | 0.9 |
| Henry House | Eighth | W5 | Further testing required | 31.0% | - | - | 94.4% | 99.1% | 0.95 |
| Henry House | Ninth | W1 | Further testing required | 29.4% | - | - | 100.0% | 100.0% | 1 |
| Henry House | Ninth | W2 | Further testing required | 28.7% | - | - | 100.0% | 100.0% | 1 |
| Henry House | Ninth | W3 | Further testing required | 28.1% | - | - | 99.1% | 99.1% | 1 |
| Henry House | Ninth | W4 | Further testing required | 27.5% | - | - | 100.0% | 100.0% | 1 |
| Henry House | Ninth | W5 | Further testing required | 27.2% | - | - | 100.0% | 100.0% | 1 |
| Henry House | Ninth | W6 | Further testing required | 26.6% | 32.6% | 0.81 | 100.0% | 100.0% | 1 |
| Henry House | Ninth | W7 | Further testing required | 26.3% | 32.7% | 0.81 | 100.0% | 100.0% | 1 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| Henry House | Ninth | W8 | Further testing required | 26.4% | 33.1% | 0.8 | 100.0% | 100.0% | 1 |
| Henry House | Ninth | W9 | Further testing required | 31.2% | - | - | 100.0% | 100.0% | 1 |
| Henry House | Ninth | W10 | Further testing required | 31.0% | - | - | 100.0% | 100.0% | 1 |
| Henry House | Ninth | W11 | Further testing required | 31.1% | - | - | 100.0% | 100.0% | 1 |
| William House | Ground | W1 | Further testing required | 11.5% | 22.4% | 0.51 | 64.7% | 99.5% | 0.65 |
| William House | Ground | W2 | Further testing required | 16.7% | 27.8% | 0.6 | 68.4% | 99.8% | 0.68 |
| William House | Ground | W3 | Further testing required | 17.3% | 27.9% | 0.62 | 68.4% | 99.8% | 0.68 |
| William House | Ground | W4 | Further testing required | 14.0% | 23.2% | 0.6 | 80.2% | 99.4% | 0.81 |
| William House | Ground | W5 | Further testing required | 19.1% | 27.8% | 0.69 | 80.6% | 97.3% | 0.83 |
| William House | Ground | W6 | Further testing required | 15.9% | 23.3% | 0.68 | 94.7% | 99.5% | 0.95 |
| William House | Ground | W7 | Further testing required | 21.3% | 28.3% | 0.75 | 84.9% | 97.5% | 0.87 |
| William House | Ground | W8 | Further testing required | 17.7% | 24.1% | 0.74 | 97.7% | 99.6% | 0.98 |
| William House | Ground | W9 | Further testing required | 23.1% | 29.0% | 0.79 | 85.3% | 98.8% | 0.86 |
| William House | Ground | W10 | Further testing required | 26.2% | 31.0% | 0.85 | 98.1% | 98.1% | 1 |
| William House | Ground | W11 | Further testing required | 27.9% | - | - | 95.3% | 99.2% | 0.96 |
| William House | First | W1 | Further testing required | 13.1% | 26.0% | 0.5 | 80.3% | 99.5% | 0.81 |
| William House | First | W2 | Further testing required | 18.2% | 31.0% | 0.59 | 68.0% | 99.2% | 0.69 |
| William House | First | W3 | Further testing required | 19.1% | 31.5% | 0.61 | 42.6% | 96.8% | 0.44 |
| William House | First | W4 | Further testing required | 15.9% | 26.7% | 0.59 | 83.7% | 99.8% | 0.84 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| William House | First | W5 | Further testing required | 20.4% | 30.9% | 0.66 | 60.7% | 98.7% | 0.62 |
| William House | First | W6 | Further testing required | 18.1% | 26.9% | 0.67 | 95.6% | 99.9% | 0.96 |
| William House | First | W7 | Further testing required | 22.5% | 31.0% | 0.73 | 65.4% | 98.4% | 0.66 |
| William House | First | W8 | Further testing required | 20.1% | 27.5% | 0.73 | 99.7% | 99.7% | 1 |
| William House | First | W9 | Further testing required | 24.3% | 31.3% | 0.78 | 71.7% | 98.3% | 0.73 |
| William House | First | W10 | Further testing required | 23.1% | 29.0% | 0.79 | 99.8% | 99.8% | 1 |
| William House | First | W11 | Further testing required | 27.6% | - | - | 79.6% | 98.3% | 0.81 |
| William House | First | W12 | Further testing required | 30.7% | - | - | 97.1% | 98.4% | 0.99 |
| William House | Second | W1 | Further testing required | 14.9% | 29.1% | 0.51 | 80.1% | 99.5% | 0.8 |
| William House | Second | W2 | Further testing required | 20.7% | 34.4% | 0.6 | 74.0% | 98.5% | 0.75 |
| William House | Second | W3 | Further testing required | 21.4% | 34.7% | 0.62 | 46.6% | 95.8% | 0.49 |
| William House | Second | W4 | Further testing required | 17.9% | 29.8% | 0.6 | 79.7% | 99.7% | 0.8 |
| William House | Second | W5 | Further testing required | 23.5% | 34.7% | 0.68 | 73.6% | 99.0% | 0.74 |
| William House | Second | W6 | Further testing required | 20.2% | 30.2% | 0.67 | 86.3% | 99.9% | 0.86 |
| William House | Second | W7 | Further testing required | 25.8% | 35.0% | 0.74 | 77.2% | 98.7% | 0.78 |
| William House | Second | W8 | Further testing required | 22.3% | 30.6% | 0.73 | 93.7% | 99.7% | 0.94 |
| William House | Second | W9 | Further testing required | 27.8% | - | - | 83.7% | 98.8% | 0.85 |
| William House | Second | W10 | Further testing required | 24.5% | 31.4% | 0.78 | 99.7% | 99.7% | 1 |
| William House | Second | W11 | Further testing required | 30.6% | - | - | 98.7% | 98.7% | 1 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| William House | Second | W12 | Further testing required | 32.2% | - | - | 97.1% | 98.3% | 0.99 |
| William House | Third | W1 | Further testing required | 16.7% | 31.5% | 0.53 | 80.8% | 99.5% | 0.81 |
| William House | Third | W2 | Further testing required | 22.1% | 36.5% | 0.6 | 69.7% | 99.2% | 0.7 |
| William House | Third | W3 | Further testing required | 23.0% | 37.1% | 0.62 | 45.7% | 96.8% | 0.47 |
| William House | Third | W4 | Further testing required | 19.6% | 32.3% | 0.61 | 87.8% | 99.8% | 0.88 |
| William House | Third | W5 | Further testing required | 24.5% | 36.6% | 0.67 | 64.9% | 98.7% | 0.66 |
| William House | Third | W6 | Further testing required | 21.8% | 32.6% | 0.67 | 97.7% | 99.9% | 0.98 |
| William House | Third | W7 | Further testing required | 26.3% | 36.6% | 0.72 | 69.7% | 98.4% | 0.71 |
| William House | Third | W8 | Further testing required | 23.9% | 32.9% | 0.73 | 99.7% | 99.7% | 1 |
| William House | Third | W9 | Further testing required | 28.0% | - | - | 77.3% | 98.3% | 0.79 |
| William House | Third | W10 | Further testing required | 26.4% | 33.6% | 0.79 | 99.8% | 99.8% | 1 |
| William House | Third | W11 | Further testing required | 30.8% | - | - | 86.9% | 98.3% | 0.88 |
| William House | Third | W12 | Further testing required | 33.1% | - | - | 97.6% | 98.4% | 0.99 |
| William House | Fourth | W1 | Further testing required | 18.2% | 33.2% | 0.55 | 80.5% | 99.5% | 0.81 |
| William House | Fourth | W2 | Further testing required | 24.1% | 38.5% | 0.63 | 75.9% | 98.5% | 0.77 |
| William House | Fourth | W3 | Further testing required | 24.8% | 38.7% | 0.64 | 50.4% | 95.8% | 0.53 |
| William House | Fourth | W4 | Further testing required | 21.0% | 33.6% | 0.62 | 84.0% | 99.7% | 0.84 |
| William House | Fourth | W5 | Further testing required | 26.6% | 38.5% | 0.69 | 78.7% | 99.0% | 0.79 |
| William House | Fourth | W6 | Further testing required | 22.9% | 33.8% | 0.68 | 91.5% | 99.9% | 0.92 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| William House | Fourth | W7 | Further testing required | 28.6% | - | - | 83.2% | 98.7% | 0.84 |
| William House | Fourth | W8 | Further testing required | 24.9% | 33.9% | 0.73 | 98.3% | 99.7% | 0.99 |
| William House | Fourth | W9 | Further testing required | 30.4% | - | - | 90.0% | 98.8% | 0.91 |
| William House | Fourth | W10 | Further testing required | 26.8% | 33.9% | 0.79 | 99.7% | 99.7% | 1 |
| William House | Fourth | W11 | Further testing required | 32.7% | - | - | 98.7% | 98.7% | 1 |
| William House | Fourth | W12 | Further testing required | 33.8% | - | - | 97.8% | 98.3% | 0.99 |
| William House | Fifth | W1 | Further testing required | 19.4% | 34.0% | 0.57 | 81.1% | 99.5% | 0.82 |
| William House | Fifth | W2 | Further testing required | 25.0% | 39.1% | 0.64 | 71.7% | 99.2% | 0.72 |
| William House | Fifth | W3 | Further testing required | 25.7% | 39.4% | 0.65 | 49.5% | 96.8% | 0.51 |
| William House | Fifth | W4 | Further testing required | 22.0% | 34.2% | 0.64 | 93.2% | 99.8% | 0.93 |
| William House | Fifth | W5 | Further testing required | 27.0% | - | - | 70.8% | 98.7% | 0.72 |
| William House | Fifth | W6 | Further testing required | 23.8% | 34.2% | 0.7 | 99.9% | 99.9% | 1 |
| William House | Fifth | W7 | Further testing required | 28.5% | - | - | 76.5% | 98.4% | 0.78 |
| William House | Fifth | W8 | Further testing required | 25.8% | 34.2% | 0.75 | 99.7% | 99.7% | 1 |
| William House | Fifth | W9 | Further testing required | 30.0% | - | - | 84.7% | 98.3% | 0.86 |
| William House | Fifth | W10 | Further testing required | 28.0% | - | - | 99.8% | 99.8% | 1 |
| William House | Fifth | W11 | Further testing required | 32.6% | - | - | 93.9% | 98.3% | 0.96 |
| William House | Fifth | W12 | Further testing required | 34.5% | - | - | 98.4% | 98.4% | 1 |
| William House | Sixth | W1 | Further testing required | 25.8% | 39.6% | 0.65 | 80.6% | 99.5% | 0.81 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| William House | Sixth | W2 | Further testing required | 26.5% | 39.6% | 0.67 | 78.1% | 98.5% | 0.79 |
| William House | Sixth | W3 | Further testing required | 27.1% | - | - | 53.9% | 95.8% | 0.56 |
| William House | Sixth | W4 | Further testing required | 28.3% | - | - | 87.7% | 99.7% | 0.88 |
| William House | Sixth | W5 | Further testing required | 29.2% | - | - | 83.4% | 99.1% | 0.84 |
| William House | Sixth | W6 | Further testing required | 30.1% | - | - | 96.8% | 99.9% | 0.97 |
| William House | Sixth | W7 | Further testing required | 31.0% | - | - | 89.6% | 98.7% | 0.91 |
| William House | Sixth | W8 | Further testing required | 32.0% | - | - | 99.8% | 99.8% | 1 |
| William House | Sixth | W9 | Further testing required | 32.7% | - | - | 96.4% | 98.8% | 0.98 |
| William House | Sixth | W10 | Further testing required | 33.7% | - | - | 99.7% | 99.7% | 1 |
| William House | Sixth | W11 | Further testing required | 34.4% | - | - | 98.7% | 98.7% | 1 |
| William House | Sixth | W12 | Further testing required | 35.1% | - | - | 98.4% | 98.4% | 1 |
| William House | Seventh | W1 | Further testing required | 20.9% | 32.9% | 0.64 | 99.8% | 99.8% | 1 |
| William House | Seventh | W2 | Further testing required | 20.8% | 32.6% | 0.64 | 99.8% | 99.8% | 1 |
| William House | Seventh | W3 | Further testing required | 21.0% | 32.6% | 0.65 | 99.8% | 99.8% | 1 |
| William House | Seventh | W4 | Further testing required | 21.3% | 32.6% | 0.66 | 83.5% | 99.3% | 0.84 |
| William House | Seventh | W5 | Further testing required | 21.6% | 32.5% | 0.66 | 83.5% | 99.3% | 0.84 |
| William House | Seventh | W6 | Further testing required | 22.4% | 32.5% | 0.69 | 93.3% | 99.4% | 0.94 |
| William House | Seventh | W7 | Further testing required | 22.7% | 32.5% | 0.7 | 93.3% | 99.4% | 0.94 |
| William House | Seventh | W8 | Further testing required | 23.2% | 32.5% | 0.71 | 95.8% | 99.4% | 0.96 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| William House | Seventh | W9 | Further testing required | 23.4% | 32.5% | 0.72 | 95.8% | 99.4% | 0.96 |
| William House | Seventh | W10 | Further testing required | 24.0% | 32.5% | 0.74 | 99.5% | 99.5% | 1 |
| William House | Seventh | W11 | Further testing required | 24.2% | 32.5% | 0.74 | 99.5% | 99.5% | 1 |
| William House | Seventh | W12 | Further testing required | 24.9% | 32.5% | 0.76 | 99.1% | 99.1% | 1 |
| William House | Seventh | W13 | Further testing required | 25.1% | 32.5% | 0.77 | 99.1% | 99.1% | 1 |
| William House | Seventh | W14 | Further testing required | 25.7% | 32.5% | 0.79 | 99.4% | 99.4% | 1 |
| William House | Seventh | W15 | Further testing required | 25.9% | 32.5% | 0.8 | 99.4% | 99.4% | 1 |
| William House | Seventh | W16 | Further testing required | 26.3% | 32.5% | 0.81 | 97.3% | 98.7% | 0.99 |
| William House | Seventh | W17 | Further testing required | 26.5% | 32.6% | 0.81 | 97.3% | 98.7% | 0.99 |
| William House | Seventh | W18 | Further testing required | 27.2% | - | - | 99.5% | 99.5% | 1 |
| William House | Seventh | W19 | Further testing required | 27.4% | - | - | 99.5% | 99.5% | 1 |
| William House | Seventh | W20 | Further testing required | 28.0% | - | - | 97.7% | 97.7% | 1 |
| William House | Seventh | W21 | Further testing required | 28.8% | - | - | 100.0% | 100.0% | 1 |
| Bromley Temple | Ground | W1 | Further testing required | 1.0% | 10.5% | 0.1 | 89.2% | 97.2% | 0.92 |
| Bromley Temple | Ground | W2 | Further testing required | 3.8% | 12.2% | 0.31 | 89.2% | 97.2% | 0.92 |
| Bromley Temple | Ground | W3 | Further testing required | 10.7% | 11.0% | 0.97 | 89.2% | 97.2% | 0.92 |
| Bromley Temple | Ground | W4 | Further testing required | 11.9% | 7.8% | 1.54 | 89.2% | 97.2% | 0.92 |
| Bromley Temple | Ground | W5 | Further testing required | 10.3% | 6.7% | 1.54 | 60.3% | 22.7% | 2.65 |
| Bromley Temple | Ground | W6 | Further testing required | 5.9% | 7.0% | 0.85 | 53.6% | 24.4% | 2.2 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| Bromley Temple | Ground | W7 | Further testing required | 0.2% | 16.1% | 0.01 | 0.0% | 88.5% | 0 |
| Bromley Temple | Ground | W8 | Further testing required | 0.1% | 24.5% | 0.01 | 0.2% | 98.6% | 0 |
| Bromley Temple | Ground | W9 | Further testing required | 0.1% | 18.6% | 0.01 | 0.2% | 98.6% | 0 |
| Bromley Temple | Ground | W10 | Further testing required | 0.1% | 16.7% | 0.01 | 0.6% | 78.9% | 0.01 |
| Bromley Temple | First | W4 | Further testing required | 1.7% | 19.9% | 0.09 | 8.2% | 41.0% | 0.2 |
| Bromley Temple | First | W5 | Further testing required | 6.2% | 22.3% | 0.28 | 8.2% | 41.0% | 0.2 |
| Bromley Temple | First | W6 | Further testing required | 11.6% | 22.0% | 0.53 | 8.2% | 41.0% | 0.2 |
| Bromley Temple | First | W7 | Further testing required | 12.8% | 21.0% | 0.61 | 8.2% | 41.0% | 0.2 |
| Bromley Temple | First | W1 | Further testing required | 4.7% | 18.5% | 0.26 | 8.2% | 41.0% | 0.2 |
| Bromley Temple | First | W2 | Further testing required | 3.6% | 14.2% | 0.25 | 8.2% | 41.0% | 0.2 |
| Bromley Temple | First | W3 | Further testing required | 0.6% | 12.1% | 0.05 | 0.4% | 27.2% | 0.01 |
| Bromley Temple | First | W8 | Further testing required | 10.7% | 32.3% | 0.33 | 60.1% | 97.6% | 0.62 |
| Bromley Temple | First | W9 | Further testing required | 3.8% | 33.4% | 0.11 | 46.5% | 98.5% | 0.47 |
| Bromley Temple | First | W10 | Further testing required | 0.1% | 33.5% | 0 | 0.7% | 98.3% | 0.01 |
| Bromley Temple | First | W11 | Further testing required | 0.1% | 32.8% | 0 | 0.3% | 97.5% | 0 |
| Bromley Temple | First | W12 | Further testing required | 0.2% | 22.4% | 0.01 | 0.3% | 97.5% | 0 |
| Bromley Temple | First | W13 | Further testing required | 0.2% | 18.0% | 0.01 | 1.7% | 44.9% | 0.04 |
| Simpsons Place | Ground | W1 | Further testing required | 10.9% | 19.6% | 0.56 | 61.7% | 92.4% | 0.67 |
| Simpsons Place | Ground | W2 | Further testing required | 13.7% | 21.8% | 0.63 | 88.7% | 95.7% | 0.93 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| Simpsons Place | Ground | W3 | Further testing required | 14.5% | 22.1% | 0.66 | 88.7% | 95.7% | 0.93 |
| Simpsons Place | First | W1 | Further testing required | 12.9% | 23.7% | 0.54 | 69.3% | 98.6% | 0.7 |
| Simpsons Place | First | W2 | Further testing required | 16.3% | 26.9% | 0.61 | 93.7% | 98.5% | 0.95 |
| Simpsons Place | First | W3 | Further testing required | 18.8% | 28.4% | 0.66 | 93.7% | 98.5% | 0.95 |
| Simpsons Place | Second | W1 | Further testing required | 14.3% | 29.4% | 0.49 | 70.2% | 98.7% | 0.71 |
| Simpsons Place | Second | W2 | Further testing required | 18.3% | 31.9% | 0.57 | 94.2% | 98.5% | 0.96 |
| Simpsons Place | Second | W3 | Further testing required | 20.8% | 33.0% | 0.63 | 94.2% | 98.5% | 0.96 |
| Simpsons Place | Third | W1 | Further testing required | 16.1% | 35.5% | 0.45 | 70.4% | 98.7% | 0.71 |
| Simpsons Place | Third | W2 | Further testing required | 20.0% | 36.2% | 0.55 | 94.5% | 98.5% | 0.96 |
| Simpsons Place | Third | W3 | Further testing required | 22.6% | 36.7% | 0.62 | 94.5% | 98.5% | 0.96 |
| Simpsons Place | Fourth | W1 | Further testing required | 17.4% | 38.6% | 0.45 | 56.1% | 99.6% | 0.56 |
| Simpsons Place | Fourth | W2 | Further testing required | 20.4% | 38.8% | 0.53 | 48.4% | 99.4% | 0.49 |
| Simpsons Place | Fourth | W3 | Further testing required | 23.0% | 39.0% | 0.59 | 82.4% | 99.9% | 0.83 |
| Ringers Court | Ground | W1 | Further testing required | 22.5% | 29.7% | 0.76 | 68.1% | 94.9% | 0.72 |
| Ringers Court | Ground | W2 | Further testing required | 24.8% | 31.8% | 0.78 | 91.4% | 98.0% | 0.93 |
| Ringers Court | Ground | W3 | Further testing required | 27.2% | - | - | 99.6% | 99.7% | 1 |
| Ringers Court | Ground | W4 | Further testing required | 28.4% | - | - | 96.5% | 98.9% | 0.97 |
| Ringers Court | First | W1 | Further testing required | 24.7% | 32.9% | 0.75 | 72.9% | 96.4% | 0.76 |
| Ringers Court | First | W2 | Further testing required | 27.0% | 34.8% | 0.77 | 92.1% | 98.4% | 0.94 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| Ringers Court | First | W3 | Further testing required | 29.3% | - | - | 99.6% | 99.7% | 1 |
| Ringers Court | First | W4 | Further testing required | 30.4% | - | - | 96.8% | 99.0% | 0.98 |
| Ringers Court | Second | W1 | Further testing required | 26.8% | 36.3% | 0.74 | 76.7% | 98.0% | 0.78 |
| Ringers Court | Second | W2 | Further testing required | 28.9% | - | - | 92.8% | 99.0% | 0.94 |
| Ringers Court | Second | W3 | Further testing required | 30.8% | - | - | 99.6% | 99.7% | 1 |
| Ringers Court | Second | W4 | Further testing required | 32.0% | - | - | 97.4% | 99.0% | 0.98 |
| Harestone Court | Ground | W1 | Further testing required | 28.2% | - | - | 97.8% | 98.0% | 1 |
| Harestone Court | Ground | W2 | Further testing required | 29.5% | - | - | 96.6% | 97.8% | 0.99 |
| Harestone Court | First | W1 | Further testing required | 31.1% | - | - | 97.8% | 98.0% | 1 |
| Harestone Court | First | W2 | Further testing required | 32.0% | - | - | 97.1% | 97.9% | 0.99 |
| Harestone Court | Second | W1 | Further testing required | 33.3% | - | - | 97.9% | 98.0% | 1 |
| Harestone Court | Second | W2 | Further testing required | 34.1% | - | - | 97.7% | 97.9% | 1 |
| 35-36 Ethelbert Close | Ground | W1 | Further testing required | 21.5% | 32.4% | 0.66 | 66.1% | 73.7% | 0.9 |
| 35-36 Ethelbert Close | Ground | W2 | Further testing required | 21.8% | 32.5% | 0.67 | 66.1% | 73.7% | 0.9 |
| 35-36 Ethelbert Close | Ground | W3 | Pass | - | - | - | - | - | - |
| 35-36 Ethelbert Close | Ground | W4 | Pass | - | - | - | - | - | - |
| 35-36 Ethelbert Close | Ground | W5 | Further testing required | 34.5% | - | - | 82.5% | 93.0% | 0.89 |
| 35-36 Ethelbert Close | Ground | W6 | Further testing required | 23.9% | 29.9% | 0.8 | 82.5% | 93.0% | 0.89 |
| 35-36 Ethelbert Close | Ground | W7 | Further testing required | 9.6% | 13.2% | 0.72 | 82.5% | 93.0% | 0.89 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| 35-36 Ethelbert Close | Ground | W8 | Pass | - | - | - | - | - | - |
| 35-36 Ethelbert Close | Ground | W9 | Pass | - | - | - | - | - | - |
| 35-36 Ethelbert Close | Ground | W10 | Further testing required | 33.5% | - | - | 95.4% | 96.9% | 0.98 |
| 35-36 Ethelbert Close | Ground | W11 | Further testing required | 22.3% | 31.8% | 0.7 | 95.4% | 96.9% | 0.98 |
| 35-36 Ethelbert Close | Ground | W12 | Further testing required | 8.6% | 18.5% | 0.47 | 95.4% | 96.9% | 0.98 |
| 35-36 Ethelbert Close | First | W1 | Further testing required | 23.0% | 34.8% | 0.66 | 66.7% | 73.7% | 0.91 |
| 35-36 Ethelbert Close | First | W2 | Further testing required | 23.2% | 34.8% | 0.67 | 66.7% | 73.7% | 0.91 |
| 35-36 Ethelbert Close | First | W3 | Further testing required | 36.5% | - | - | 98.3% | 98.6% | 1 |
| 35-36 Ethelbert Close | First | W4 | Pass | - | - | - | - | - | - |
| 35-36 Ethelbert Close | First | W5 | Pass | - | - | - | - | - | - |
| 35-36 Ethelbert Close | First | W6 | Further testing required | 36.2% | - | - | 99.7% | 99.8% | 1 |
| 35-36 Ethelbert Close | First | W7 | Further testing required | 27.7% | - | - | 99.7% | 99.8% | 1 |
| 35-36 Ethelbert Close | First | W8 | Further testing required | 13.0% | 19.1% | 0.68 | 99.7% | 99.8% | 1 |
| 35-36 Ethelbert Close | First | W9 | Pass | - | - | - | - | - | - |
| 35-36 Ethelbert Close | First | W10 | Pass | - | - | - | - | - | - |
| 35-36 Ethelbert Close | First | W11 | Further testing required | 35.3% | - | - | 96.9% | 99.7% | 0.97 |
| 35-36 Ethelbert Close | First | W12 | Further testing required | 25.3% | 35.5% | 0.71 | 96.9% | 99.7% | 0.97 |
| 35-36 Ethelbert Close | First | W13 | Further testing required | 11.2% | 21.9% | 0.51 | 96.9% | 99.7% | 0.97 |
| 35-36 Ethelbert Close | First | W14 | Further testing required | 33.5% | - | - | 98.0% | 99.1% | 0.99 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| 1-2 Ethelbert Close | Ground | W1 | Pass | - | - | - | - | - | - |
| 1-2 Ethelbert Close | Ground | W2 | Pass | - | - | - | - | - | - |
| 1-2 Ethelbert Close | Ground | W3 | Further testing required | 31.2% | - | - | 80.2% | 91.9% | 0.87 |
| 1-2 Ethelbert Close | Ground | W4 | Further testing required | 20.6% | 26.7% | 0.77 | 80.2% | 91.9% | 0.87 |
| 1-2 Ethelbert Close | Ground | W5 | Further testing required | 7.9% | 11.9% | 0.67 | 80.2% | 91.9% | 0.87 |
| 1-2 Ethelbert Close | Ground | W6 | Pass | - | - | - | - | - | - |
| 1-2 Ethelbert Close | Ground | W7 | Pass | - | - | - | - | - | - |
| 1-2 Ethelbert Close | Ground | W8 | Further testing required | 30.1% | - | - | 95.2% | 96.9% | 0.98 |
| 1-2 Ethelbert Close | Ground | W9 | Further testing required | 20.5% | 29.0% | 0.71 | 95.2% | 96.9% | 0.98 |
| 1-2 Ethelbert Close | Ground | W10 | Further testing required | 8.6% | 17.1% | 0.5 | 95.2% | 96.9% | 0.98 |
| 1-2 Ethelbert Close | Ground | W11 | Further testing required | 24.5% | 32.7% | 0.75 | 67.1% | 74.3% | 0.9 |
| 1-2 Ethelbert Close | Ground | W12 | Further testing required | 25.1% | 33.0% | 0.76 | 67.1% | 74.3% | 0.9 |
| 1-2 Ethelbert Close | First | W1 | Further testing required | 33.8% | - | - | 98.6% | 98.7% | 1 |
| 1-2 Ethelbert Close | First | W2 | Pass | - | - | - | - | - | - |
| 1-2 Ethelbert Close | First | W3 | Pass | - | - | - | - | - | - |
| 1-2 Ethelbert Close | First | W4 | Further testing required | 33.1% | - | - | 99.7% | 99.9% | 1 |
| 1-2 Ethelbert Close | First | W5 | Further testing required | 24.9% | 31.7% | 0.78 | 99.7% | 99.9% | 1 |
| 1-2 Ethelbert Close | First | W6 | Further testing required | 12.0% | 17.6% | 0.68 | 99.7% | 99.9% | 1 |
| 1-2 Ethelbert Close | First | W7 | Pass | - | - | - | - | - | - |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| 1-2 Ethelbert Close | First | W8 | Pass | - | - | - | - | - | - |
| 1-2 Ethelbert Close | First | W9 | Further testing required | 32.1% | - | - | 96.4% | 99.6% | 0.97 |
| 1-2 Ethelbert Close | First | W10 | Further testing required | 23.6% | 32.8% | 0.72 | 96.4% | 99.6% | 0.97 |
| 1-2 Ethelbert Close | First | W11 | Further testing required | 11.3% | 20.4% | 0.55 | 96.4% | 99.6% | 0.97 |
| 1-2 Ethelbert Close | First | W12 | Further testing required | 30.5% | - | - | 97.8% | 99.0% | 0.99 |
| 1-2 Ethelbert Close | First | W13 | Further testing required | 26.3% | 35.1% | 0.75 | 67.2% | 74.3% | 0.9 |
| 1-2 Ethelbert Close | First | W14 | Further testing required | 26.8% | 35.3% | 0.76 | 67.2% | 74.3% | 0.9 |
| 7 Ethelbert Court | Ground | W1 | Further testing required | 32.1% | - | - | 100.0% | 100.0% | 1 |
| 7 Ethelbert Court | Ground | W2 | Further testing required | 33.2% | - | - | 100.0% | 100.0% | 1 |
| 7 Ethelbert Court | Ground | W3 | Further testing required | 24.0% | 28.9% | 0.83 | 100.0% | 100.0% | 1 |
| 7 Ethelbert Court | Ground | W4 | Further testing required | 8.6% | 24.1% | 0.36 | 100.0% | 100.0% | 1 |
| 7 Ethelbert Court | Ground | W5 | Further testing required | 2.0% | 16.5% | 0.12 | 100.0% | 100.0% | 1 |
| 7 Ethelbert Court | Ground | W6 | Further testing required | 16.4% | 22.9% | 0.72 | 60.3% | 70.2% | 0.86 |
| 7 Ethelbert Court | First | W1 | Further testing required | 26.0% | 32.6% | 0.8 | 45.7% | 53.8% | 0.85 |
| 7 Ethelbert Court | First | W2 | Further testing required | 24.4% | 32.0% | 0.76 | 37.8% | 45.5% | 0.83 |
| 7 Ethelbert Court | Second | W1 | Further testing required | 53.2% | - | - | 72.1% | 72.1% | 1 |
| 7 Ethelbert Court | Second | W2 | Further testing required | 25.4% | 34.1% | 0.75 | 72.1% | 72.1% | 1 |
| 7 Ethelbert Court | Second | W3 | Further testing required | 51.7% | - | - | 72.1% | 72.1% | 1 |
| 1 Ethelbert Court | Ground | W1 | Further testing required | 31.0% | - | - | 99.9% | 99.9% | 1 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| 1 Ethelbert Court | Ground | W2 | Further testing required | 31.7% | - | - | 99.9% | 99.9% | 1 |
| 1 Ethelbert Court | Ground | W3 | Further testing required | 31.7% | - | - | 99.9% | 99.9% | 1 |
| 1 Ethelbert Court | Ground | W4 | Further testing required | 31.8% | - | - | 99.9% | 99.9% | 1 |
| 1 Ethelbert Court | Ground | W5 | Further testing required | 31.6% | - | - | 99.9% | 99.9% | 1 |
| 1 Ethelbert Court | Ground | W6 | Further testing required | 31.1% | - | - | 99.9% | 99.9% | 1 |
| 1 Ethelbert Court | Ground | W7 | Further testing required | 27.7% | - | - | 99.8% | 99.8% | 1 |
| 1 Ethelbert Court | Ground | W8 | Further testing required | 29.7% | - | - | 99.8% | 99.8% | 1 |
| 1 Ethelbert Court | Ground | W9 | Further testing required | 29.0% | - | - | 99.8% | 99.8% | 1 |
| 1 Ethelbert Court | Ground | W10 | Further testing required | 29.8% | - | - | 99.8% | 99.8% | 1 |
| 1 Ethelbert Court | First | W1 | Further testing required | 34.1% | - | - | 99.9% | 99.9% | 1 |
| 1 Ethelbert Court | First | W2 | Further testing required | 34.0% | - | - | 99.9% | 99.9% | 1 |
| 1 Ethelbert Court | First | W3 | Further testing required | 33.7% | - | - | 99.9% | 99.9% | 1 |
| 1 Ethelbert Court | First | W4 | Further testing required | 33.6% | - | - | 99.9% | 99.9% | 1 |
| 1 Ethelbert Court | First | W5 | Further testing required | 33.2% | - | - | 99.9% | 99.9% | 1 |
| 1 Ethelbert Court | First | W6 | Further testing required | 33.1% | - | - | 99.9% | 99.9% | 1 |
| 1 Ethelbert Court | First | W7 | Further testing required | 33.0% | - | - | 99.8% | 99.8% | 1 |
| 1 Ethelbert Court | First | W8 | Further testing required | 32.7% | - | - | 99.8% | 99.8% | 1 |
| 1 Ethelbert Court | First | W9 | Further testing required | 32.3% | - | - | 99.8% | 99.8% | 1 |
| 1 Ethelbert Court | First | W10 | Further testing required | 31.9% | - | - | 99.8% | 99.8% | 1 |

| Building | Floor | Window no. | 25-degree plane test | VSC tests | | | NSL tests | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed VSC 27%? | Existing VSC (%) | Relative VSC >0.8? | Proposed NSL (%) | Existing NSL (%) | Relative NSL >0.8? |
| 1 Ethelbert Court | First | W11 | Further testing required | 23.5% | 34.5% | 0.68 | 91.3% | 99.5% | 0.92 |
| 1 Ethelbert Court | First | W12 | Further testing required | 38.7% | - | - | 91.3% | 99.5% | 0.92 |

# APPENDIX C - DETAILED SUNLIGHT RESULTS

| Building | Floor | Window no. | 25-degree plane test | APSH test | | | WPSH test | | | Total reduction <4% |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed APSH >25%? | Existing APSH (%) | Relative APSH >0.8? | Proposed WPSH >5%? | Existing WPSH (%) | Relative WPSH >0.8? | |
| 66-70 High Street | Ground | W1 | Further testing required | 9.0% | 14.0% | 0.64 | 0.0% | 2.0% | 0.00 | 5.0% |
| 66-70 High Street | Ground | W2 | Further testing required | 25.0% | - | - | 3.0% | 7.0% | 0.43 | 8.0% |
| 66-70 High Street | Ground | W5 | Further testing required | 39.0% | - | - | 3.0% | 7.0% | 0.43 | 8.0% |
| 66-70 High Street | Ground | W6 | Further testing required | 43.0% | - | - | 7.0% | - | - | - |
| 66-70 High Street | Ground | W7 | Further testing required | 38.0% | - | - | 4.0% | 13.0% | 0.31 | 16.0% |
| 66-70 High Street | Ground | W4 | Further testing required | 32.0% | - | - | 4.0% | 7.0% | 0.57 | 5.0% |
| 66-70 High Street | Ground | W8 | Further testing required | 13.0% | 20.0% | 0.65 | 0.0% | 2.0% | 0.00 | 7.0% |
| 66-70 High Street | Ground | W9 | Further testing required | 30.0% | - | - | 2.0% | 2.0% | 1.00 | - |
| 66-70 High Street | Ground | W10 | Further testing required | 3.0% | 7.0% | 0.43 | 0.0% | 2.0% | 0.00 | 4.0% |
| 66-70 High Street | First | W1 | Further testing required | 23.0% | 30.0% | 0.77 | 1.0% | 3.0% | 0.33 | 7.0% |

## DAYLIGHT, SUNLIGHT & OVERSHADOWING

| Building | Floor | Window no. | 25-degree plane test | APSH test | | | WPSH test | | | Total reduction <4% |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed APSH >25%? | Existing APSH (%) | Relative APSH >0.8? | Proposed WPSH >5%? | Existing WPSH (%) | Relative WPSH >0.8? | |
| 66-70 High Street | First | W2 | Further testing required | 40.0% | - | - | 8.0% | - | - | - |
| 66-70 High Street | First | W3 | Further testing required | 54.0% | - | - | 10.0% | - | - | - |
| 66-70 High Street | First | W5 | Further testing required | 47.0% | - | - | 10.0% | - | - | - |
| 66-70 High Street | First | W6 | Further testing required | 44.0% | - | - | 8.0% | - | - | - |
| 66-70 High Street | First | W7 | Further testing required | 43.0% | - | - | 7.0% | - | - | - |
| 66-70 High Street | First | W8 | Further testing required | 43.0% | - | - | 7.0% | - | - | - |
| 66-70 High Street | First | W9 | Further testing required | 17.0% | 24.0% | 0.71 | 0.0% | 2.0% | 0.00 | 7.0% |
| 66-70 High Street | First | W10 | Further testing required | 39.0% | - | - | 4.0% | 8.0% | 0.50 | 10.0% |
| 66-70 High Street | First | W11 | Further testing required | 3.0% | 9.0% | 0.33 | 0.0% | 2.0% | 0.00 | 6.0% |
| 62 Ringers Road | First | W6 | Further testing required | 16.0% | 22.0% | 0.73 | 6.0% | - | - | 6.0% |
| 62 Ringers Road | First | W7 | Further testing required | 13.0% | 17.0% | 0.76 | 7.0% | - | - | 4.0% |
| 62 Ringers Road | First | W8 | Further testing required | 14.0% | 15.0% | 0.93 | 8.0% | - | - | - |

## DAYLIGHT, SUNLIGHT & OVERSHADOWING

| Building | Floor | Window no. | 25-degree plane test | APSH test | | | WPSH test | | | Total reduction <4% |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed APSH >25%? | Existing APSH (%) | Relative APSH >0.8? | Proposed WPSH >5%? | Existing WPSH (%) | Relative WPSH >0.8? | |
| 62 Ringers Road | Second | W6 | Further testing required | 16.0% | 22.0% | 0.73 | 6.0% | - | - | 6.0% |
| 62 Ringers Road | Second | W7 | Further testing required | 13.0% | 17.0% | 0.76 | 7.0% | - | - | 4.0% |
| 62 Ringers Road | Second | W8 | Further testing required | 14.0% | 15.0% | 0.93 | 8.0% | - | - | - |
| Henry House | Ninth | W9 | Further testing required | 50.0% | - | - | 20.0% | - | - | - |
| Henry House | Ninth | W10 | Further testing required | 50.0% | - | - | 20.0% | - | - | - |
| Henry House | Ninth | W11 | Further testing required | 51.0% | - | - | 20.0% | - | - | - |
| Bromley Temple | Ground | W1 | Further testing required | 0.0% | 22.0% | 0.00 | 0.0% | 4.0% | 0.00 | 22.0% |
| Bromley Temple | Ground | W2 | Further testing required | 6.0% | 18.0% | 0.33 | 1.0% | 4.0% | 0.25 | 12.0% |
| Bromley Temple | Ground | W3 | Further testing required | 19.0% | 15.0% | 1.27 | 6.0% | - | - | - |
| Bromley Temple | Ground | W4 | Further testing required | 16.0% | 4.0% | 4.00 | 4.0% | 0.0% | - | - |
| Bromley Temple | Ground | W5 | Further testing required | 14.0% | 13.0% | 1.08 | 3.0% | 2.0% | 1.50 | - |
| Bromley Temple | Ground | W6 | Further testing required | 4.0% | 13.0% | 0.31 | 0.0% | 3.0% | 0.00 | 9.0% |

# DAYLIGHT, SUNLIGHT & OVERSHADOWING

| Building | Floor | Window no. | 25-degree plane test | APSH test | | | WPSH test | | | Total reduction <4% |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed APSH >25%? | Existing APSH (%) | Relative APSH >0.8? | Proposed WPSH >5%? | Existing WPSH (%) | Relative WPSH >0.8? | |
| Bromley Temple | Ground | W7 | Further testing required | 0.0% | 36.0% | 0.00 | 0.0% | 10.0% | 0.00 | 36.0% |
| Bromley Temple | Ground | W8 | Further testing required | 0.0% | 44.0% | 0.00 | 0.0% | 10.0% | 0.00 | 44.0% |
| Bromley Temple | Ground | W9 | Further testing required | 0.0% | 45.0% | 0.00 | 0.0% | 9.0% | 0.00 | 45.0% |
| Bromley Temple | Ground | W10 | Further testing required | 0.0% | 40.0% | 0.00 | 0.0% | 8.0% | 0.00 | 40.0% |
| Bromley Temple | First | W4 | Further testing required | 2.0% | 38.0% | 0.05 | 1.0% | 10.0% | 0.10 | 36.0% |
| Bromley Temple | First | W5 | Further testing required | 9.0% | 40.0% | 0.23 | 4.0% | 10.0% | 0.40 | 31.0% |
| Bromley Temple | First | W6 | Further testing required | 20.0% | 35.0% | 0.57 | 7.0% | - | - | 15.0% |
| Bromley Temple | First | W7 | Further testing required | 17.0% | 23.0% | 0.74 | 4.0% | 6.0% | 0.67 | 6.0% |
| Bromley Temple | First | W1 | Further testing required | 2.0% | 19.0% | 0.11 | 0.0% | 0.0% | - | 17.0% |
| Bromley Temple | First | W2 | Further testing required | 1.0% | 7.0% | 0.14 | 0.0% | 0.0% | - | 6.0% |
| Bromley Temple | First | W3 | Further testing required | 0.0% | 23.0% | 0.00 | 0.0% | 9.0% | 0.00 | 23.0% |
| Bromley Temple | First | W8 | Further testing required | 14.0% | 51.0% | 0.27 | 3.0% | 16.0% | 0.19 | 37.0% |

## DAYLIGHT, SUNLIGHT & OVERSHADOWING

| Building | Floor | Window no. | 25-degree plane test | APSH test | | | WPSH test | | | Total reduction <4% |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed APSH >25%? | Existing APSH (%) | Relative APSH >0.8? | Proposed WPSH >5%? | Existing WPSH (%) | Relative WPSH >0.8? | |
| Bromley Temple | First | W9 | Further testing required | 1.0% | 54.0% | 0.02 | 0.0% | 15.0% | 0.00 | 53.0% |
| Bromley Temple | First | W10 | Further testing required | 0.0% | 54.0% | 0.00 | 0.0% | 14.0% | 0.00 | 54.0% |
| Bromley Temple | First | W11 | Further testing required | 0.0% | 53.0% | 0.00 | 0.0% | 12.0% | 0.00 | 53.0% |
| Bromley Temple | First | W12 | Further testing required | 0.0% | 54.0% | 0.00 | 0.0% | 13.0% | 0.00 | 54.0% |
| Bromley Temple | First | W13 | Further testing required | 0.0% | 45.0% | 0.00 | 0.0% | 12.0% | 0.00 | 45.0% |
| 35-36 Ethelbert Close | Ground | W1 | Further testing required | 54.0% | - | - | 11.0% | - | - | - |
| 35-36 Ethelbert Close | Ground | W2 | Further testing required | 57.0% | - | - | 12.0% | - | - | - |
| 35-36 Ethelbert Close | Ground | W5 | Further testing required | 51.0% | - | - | 13.0% | - | - | - |
| 35-36 Ethelbert Close | Ground | W6 | Further testing required | 48.0% | - | - | 12.0% | - | - | - |
| 35-36 Ethelbert Close | Ground | W7 | Further testing required | 32.0% | - | - | 11.0% | - | - | - |
| 35-36 Ethelbert Close | Ground | W10 | Further testing required | 44.0% | - | - | 10.0% | - | - | - |
| 35-36 Ethelbert Close | Ground | W11 | Further testing required | 45.0% | - | - | 11.0% | - | - | - |

## DAYLIGHT, SUNLIGHT & OVERSHADOWING

| Building | Floor | Windo w no. | 25-degree plane test | APSH test | | | WPSH test | | | Total reduction <4% |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed APSH >25%? | Existing APSH (%) | Relative APSH >0.8? | Proposed WPSH >5%? | Existing WPSH (%) | Relative WPSH >0.8? | |
| 35-36 Ethelbert Close | Ground | W12 | Further testing required | 29.0% | - | - | 10.0% | - | - | - |
| 35-36 Ethelbert Close | First | W1 | Further testing required | 55.0% | - | - | 11.0% | - | - | - |
| 35-36 Ethelbert Close | First | W2 | Further testing required | 59.0% | - | - | 12.0% | - | - | - |
| 35-36 Ethelbert Close | First | W3 | Further testing required | 54.0% | - | - | 15.0% | - | - | - |
| 35-36 Ethelbert Close | First | W6 | Further testing required | 53.0% | - | - | 15.0% | - | - | - |
| 35-36 Ethelbert Close | First | W7 | Further testing required | 61.0% | - | - | 14.0% | - | - | - |
| 35-36 Ethelbert Close | First | W8 | Further testing required | 38.0% | - | - | 12.0% | - | - | - |
| 35-36 Ethelbert Close | First | W11 | Further testing required | 47.0% | - | - | 12.0% | - | - | - |
| 35-36 Ethelbert Close | First | W12 | Further testing required | 56.0% | - | - | 13.0% | - | - | - |
| 35-36 Ethelbert Close | First | W13 | Further testing required | 33.0% | - | - | 10.0% | - | - | - |
| 35-36 Ethelbert Close | First | W14 | Further testing required | 43.0% | - | - | 10.0% | - | - | - |
| 1-2 Ethelbert Close | Ground | W4 | Further testing required | 12.0% | 27.0% | 0.44 | 0.0% | 4.0% | 0.00 | 15.0% |

## DAYLIGHT, SUNLIGHT & OVERSHADOWING

| Building | Floor | Window no. | 25-degree plane test | APSH test | | | WPSH test | | | Total reduction <4% |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed APSH >25%? | Existing APSH (%) | Relative APSH >0.8? | Proposed WPSH >5%? | Existing WPSH (%) | Relative WPSH >0.8? | |
| 1-2 Ethelbert Close | Ground | W5 | Further testing required | 11.0% | 21.0% | 0.52 | 0.0% | 2.0% | 0.00 | 10.0% |
| 1-2 Ethelbert Close | Ground | W9 | Further testing required | 19.0% | 38.0% | 0.50 | 3.0% | 7.0% | 0.43 | 19.0% |
| 1-2 Ethelbert Close | Ground | W10 | Further testing required | 15.0% | 34.0% | 0.44 | 2.0% | 6.0% | 0.33 | 19.0% |
| 1-2 Ethelbert Close | Ground | W11 | Further testing required | 57.0% | - | - | 21.0% | - | - | - |
| 1-2 Ethelbert Close | Ground | W12 | Further testing required | 58.0% | - | - | 22.0% | - | - | - |
| 1-2 Ethelbert Close | First | W5 | Further testing required | 31.0% | - | - | 3.0% | 8.0% | 0.38 | 15.0% |
| 1-2 Ethelbert Close | First | W6 | Further testing required | 23.0% | 35.0% | 0.66 | 0.0% | 2.0% | 0.00 | 12.0% |
| 1-2 Ethelbert Close | First | W10 | Further testing required | 29.0% | - | - | 6.0% | - | - | - |
| 1-2 Ethelbert Close | First | W11 | Further testing required | 20.0% | 40.0% | 0.50 | 2.0% | 7.0% | 0.29 | 20.0% |
| 1-2 Ethelbert Close | First | W13 | Further testing required | 58.0% | - | - | 22.0% | - | - | - |
| 1-2 Ethelbert Close | First | W14 | Further testing required | 58.0% | - | - | 22.0% | - | - | - |
| 7 Ethelbert Court | Ground | W1 | Further testing required | 56.0% | - | - | 20.0% | - | - | - |

## DAYLIGHT, SUNLIGHT & OVERSHADOWING

| Building | Floor | Window no. | 25-degree plane test | APSH test | | | WPSH test | | | Total reduction <4% |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed APSH >25%? | Existing APSH (%) | Relative APSH >0.8? | Proposed WPSH >5%? | Existing WPSH (%) | Relative WPSH >0.8? | |
| 7 Ethelbert Court | Ground | W2 | Further testing required | 71.0% | - | - | 22.0% | - | - | - |
| 7 Ethelbert Court | Ground | W3 | Further testing required | 58.0% | - | - | 20.0% | - | - | - |
| 7 Ethelbert Court | Ground | W4 | Further testing required | 25.0% | - | - | 6.0% | - | - | - |
| 7 Ethelbert Court | Ground | W6 | Further testing required | 30.0% | - | - | 10.0% | - | - | - |
| 7 Ethelbert Court | First | W1 | Further testing required | 58.0% | - | - | 22.0% | - | - | - |
| 7 Ethelbert Court | First | W2 | Further testing required | 57.0% | - | - | 22.0% | - | - | - |
| 7 Ethelbert Court | Second | W1 | Further testing required | 69.0% | - | - | 26.0% | - | - | - |
| 7 Ethelbert Court | Second | W2 | Further testing required | 59.0% | - | - | 24.0% | - | - | - |
| 7 Ethelbert Court | Second | W3 | Further testing required | 69.0% | - | - | 26.0% | - | - | - |
| 1 Ethelbert Court | Ground | W1 | Further testing required | 70.0% | - | - | 23.0% | - | - | - |
| 1 Ethelbert Court | Ground | W2 | Further testing required | 71.0% | - | - | 24.0% | - | - | - |
| 1 Ethelbert Court | Ground | W3 | Further testing required | 69.0% | - | - | 24.0% | - | - | - |

## DAYLIGHT, SUNLIGHT & OVERSHADOWING

| Building | Floor | Window no. | 25-degree plane test | APSH test | | | WPSH test | | | Total reduction <4% |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed APSH >25%? | Existing APSH (%) | Relative APSH >0.8? | Proposed WPSH >5%? | Existing WPSH (%) | Relative WPSH >0.8? | |
| 1 Ethelbert Court | Ground | W4 | Further testing required | 69.0% | - | - | 24.0% | - | - | - |
| 1 Ethelbert Court | Ground | W5 | Further testing required | 69.0% | - | - | 24.0% | - | - | - |
| 1 Ethelbert Court | Ground | W6 | Further testing required | 68.0% | - | - | 24.0% | - | - | - |
| 1 Ethelbert Court | Ground | W7 | Further testing required | 64.0% | - | - | 20.0% | - | - | - |
| 1 Ethelbert Court | Ground | W8 | Further testing required | 67.0% | - | - | 23.0% | - | - | - |
| 1 Ethelbert Court | Ground | W9 | Further testing required | 64.0% | - | - | 21.0% | - | - | - |
| 1 Ethelbert Court | Ground | W10 | Further testing required | 68.0% | - | - | 24.0% | - | - | - |
| 1 Ethelbert Court | First | W1 | Further testing required | 71.0% | - | - | 25.0% | - | - | - |
| 1 Ethelbert Court | First | W2 | Further testing required | 72.0% | - | - | 25.0% | - | - | - |
| 1 Ethelbert Court | First | W3 | Further testing required | 69.0% | - | - | 25.0% | - | - | - |
| 1 Ethelbert Court | First | W4 | Further testing required | 70.0% | - | - | 25.0% | - | - | - |
| 1 Ethelbert Court | First | W5 | Further testing required | 69.0% | - | - | 24.0% | - | - | - |

## DAYLIGHT, SUNLIGHT & OVERSHADOWING

| Building | Floor | Windo w no. | 25-degree plane test | APSH test | | | WPSH test | | | Total reduction <4% |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Proposed APSH >25%? | Existing APSH (%) | Relative APSH >0.8? | Proposed WPSH >5%? | Existing WPSH (%) | Relative WPSH >0.8? | |
| 1 Ethelbert Court | First | W6 | Further testing required | 69.0% | - | - | 24.0% | - | - | - |
| 1 Ethelbert Court | First | W7 | Further testing required | 69.0% | - | - | 24.0% | - | - | - |
| 1 Ethelbert Court | First | W8 | Further testing required | 69.0% | - | - | 24.0% | - | - | - |
| 1 Ethelbert Court | First | W9 | Further testing required | 68.0% | - | - | 24.0% | - | - | - |
| 1 Ethelbert Court | First | W10 | Further testing required | 69.0% | - | - | 24.0% | - | - | - |

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