

## Daylight, Sunlight & Overshadowing Report

DATE OF ISSUE: 8 NOVEMBER 2019  
ISSUE: 0.1  
HM REFERENCE: 24812-RP-SU-001

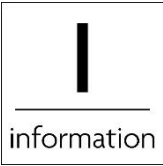
### PROJECT:

WHITE BEAR YARD  
144A CLERKENWELL RD  
LONDON  
EC1R 5DF

### CLIENT:

THE SENATOR GROUP  
7TH FLOOR  
1 FOUNTAIN HOUSE, 130 FENCHURCH  
STREET  
LONDON, EC3M 5DJ





PROJECT NAME: **WHITE BEAR YARD**

REPORT NAME: **Daylight, Sunlight & Overshadowing Report**

ISSUE STATUS: **DRAFT**

HM REFERENCE: **24812-RP-SU-001**

DATE OF ISSUE: **8 NOVEMBER 2019**

ISSUE: **0.1**

AUTHOR: **A SCOFONE**

CHECKER: **D SPITERI**

APPROVER: **D SPITERI**

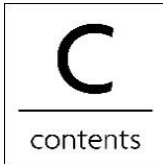
HM OFFICE: **NEO**  
**9 CHARLOTTE STREET**  
**MANCHESTER**  
**M1 4ET**

**T: +44 (0)161 876 2700**  
**hilsonmoran.com**  
**info@hilsonmoran.com**

DOCUMENT HISTORY:

ISSUE	DATE	DETAILS
0.1	8/11/2019	DRAFT FOR COMMENTS

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## Executive Summary

Hilson Moran has been commissioned by The Senator Group to undertake a daylight, sunlight and overshadowing assessment to support the planning application of the proposed re-development of the existing building associated with White Bear Yard, hereafter named 'Proposed Development', located on Back Hill in the London Borough of Camden.

The re-development consists in proposed provision of a reconfigured entrance, internal reconfiguration and extension of third floor to provide additional office floor space at 144 A Clerkenwell Road.

This report describes the effect of the proposed development on the daylight, sunlight and overshadowing to habitable rooms and open spaces in adjacent existing and cumulative developments to the application site.

The Building Research Establishment's (BRE) 'Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice' (Littlefair, 2011) was used to establish the extent to which the proposed development meets current best practice guidelines. In cases where the proposed development is likely to cause a reduction of daylight and sunlight to key receptors in the surrounding area, the results were compared against the criteria.

While the BRE benchmarks are widely used, these criteria should not be seen as an instrument of planning policy. As stated in the BRE Guide:

*'...The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design.'*

The effect of the Proposed Development on the sunlight and daylight availability to windows and open spaces of neighbouring properties is assessed. Full details are provided in Appendix 1.

The results showed that the Proposed Development has a negligible impact on the vast majority of the receptors (98% - 248 out of 252) which demonstrated that within the design process the impact on surrounding buildings in terms of daylight and sunlight was carefully considered.

This represents also a major improvement compared to the impact of the previous design assessed in the report issued 10<sup>th</sup> April 2019 (HM Ref: 2812-RP-SU-001), where only 84.2% of the receptors (212 out of 252) were reported to be above the criteria.

Generally, the design team has worked with Hilson Moran to minimize the level of impact on the surrounding properties. Several design iterations were undertaken to reduce the impact to a more than acceptable level.

Considering the satisfactory results of the analysis, the high density of the area, and that the redevelopment of White Bear Yard will even provide more daylight compared to the existing condition on 31 windows of 1-10 Summer Street, it can be concluded that the impact of the Proposed Development on daylight and sunlight levels of the surrounding properties is acceptable.



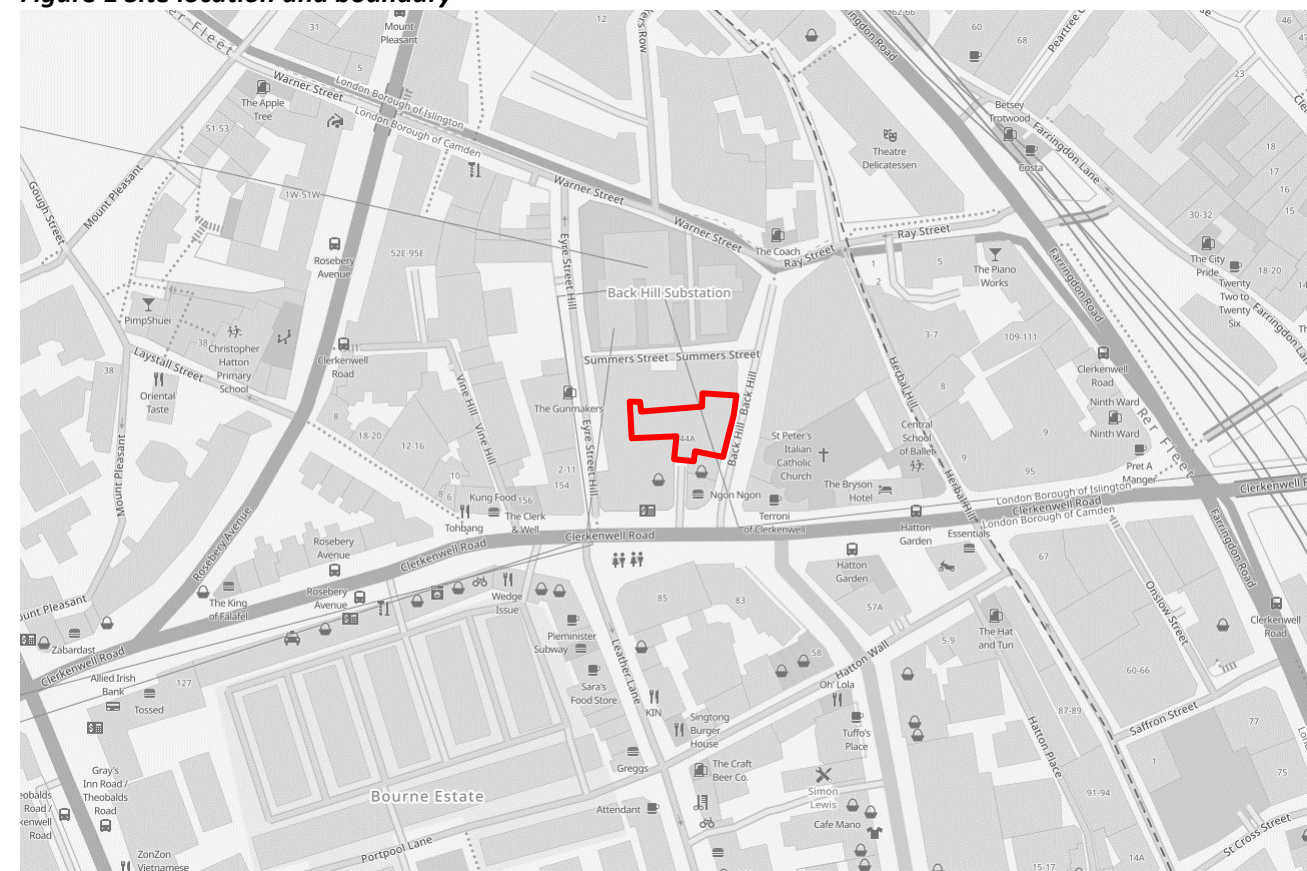
## 1. Introduction

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Figure 1 Site location and boundary







## 2. Planning policy and Guidance

### 2.1. Legislative Framework

There is no applicable legislation of relevance to this assessment.

### 2.2. National Planning Policy

NATIONAL PLANNING POLICY FRAMEWORK-FEBRUARY 2019<sup>1</sup>

Policy 123 – Achieving appropriate densities- states that:

- *“Local planning authorities should refuse applications which they consider fail to make efficient use of land, taking into account the policies in this Framework. In this context, when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site.*

### 2.3. Regional Planning Policy

THE LONDON PLAN: SPATIAL DEVELOPMENT STRATEGY FOR GREATER LONDON (2011)<sup>2</sup> - REVISED JAN 2017

The London Plan: Spatial Development Strategy for Greater London (2011) (the London Plan) contains general comments about enhancing the environment, open spaces (both public and private) and impacts on the microclimate.

In relation to daylight and sunlight impacts, the relevant sections are given below:

Policy 7.6 states that:

- *“Buildings and structures should not cause unacceptable harm to the amenity of surrounding land and buildings, particularly residential buildings, in relation to privacy, overshadowing, wind and microclimate”*

Policy 7.7 states that:

- *“Tall buildings should not affect adversely their surroundings in terms of microclimate, wind turbulence, overshadowing.... ”*

DRAFT LONDON PLAN <sup>3</sup>– DECEMBER 2017

Published in December 2017, the new London plan focuses on a design led, evidence based and contextual approach to density. Daylight is mainly mentioned in Policy D4 housing quality and standards:

- *‘F — The design of development should provide sufficient daylight and sunlight to new housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space’.*

### 2.4. Local Planning Policy

CAMDEN LOCAL PLAN- JULY 2017<sup>4</sup>

Policy A1 States that:

- *“The Council will seek to protect the quality of life of occupiers and neighbours. We will grant permission for development unless this causes unacceptable harm to amenity”. “We will seek to ensure that the amenity of communities, occupiers and neighbours is protected...and the factors we will consider include...sunlight, daylight and overshadowing”.*

At paragraph 6.5, the new Camden local plan states that:

- *“To assess whether acceptable levels of daylight and sunlight are available to habitable, outdoor amenity and open spaces, the Council will take into account the most recent guidance published by the Building Research Establishment (currently the Building Research Establishment’s Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice 2011).”*

### 2.5. Guidance

BUILDING RESEARCH ESTABLISHMENT (BRE), SITE LAYOUT PLANNING FOR DAYLIGHT AND SUNLIGHT, A GUIDE TO GOOD PRACTICE (LITTLEFAIR, 2011)<sup>5</sup>

The BRE Guide provides criteria and methods that are detailed below for calculating the effect of the proposed development on the daylight and sunlight availability to surrounding properties. These guidelines were first published in 1991, and superseded the document ‘Sunlight and Daylight Planning Criteria and Design of Buildings’ (Department of the Environment, 1971). The second and latest edition of the BRE Guide was released in 2011.

The BRE Guide includes advice on how to achieve good daylighting and sunlighting both within buildings and open spaces in new developments. It also covers guidance to safeguard daylight and sunlight of existing buildings nearby and the protection of daylighting of adjoining land for future development.

Whilst the BRE Guide provides numerical guidelines for daylight, sunlight and overshadowing, these criteria should not be seen as absolute targets since, as the document states, the intention of the Guide is to help rather than constrain the designer. The Guide is not an instrument of planning policy, therefore, whilst the methods given are technically robust, some level of flexibility should be applied given the context and constraints of the site.

<sup>1</sup> Ministry of Housing, Communities & Local Government (February 2019), ‘National Planning Policy Framework’.

<sup>2</sup> GLA (January 2017), ‘The London Plan, The Spatial Development Strategy for Greater London’.

<sup>3</sup> GLA (December 2017), ‘The London Plan, The Spatial Development Strategy for Greater London’, Draft for public consultation.

<sup>4</sup> Camden Council (July 2017) ‘Camden Local Plan’.

<sup>5</sup> Littlefair, P. (2011), Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice, IHS BRE Press, Watford. (BR209)



CAMDEN PLANNING GUIDANCE- MARCH 2018<sup>6</sup>

The Camden Planning Guidance (CPG) consists in a series of documents to support the delivery Camden Local plan adopted in 2017. Section 3 of CPG for Amenity has a section on daylight impact, where it states that:

- “The Council notes the intentions of the BRE document is to provide advice to developers and decision makers and therefore it should be regarded as a guide rather than policy.”
- While we strongly support the aims of the BRE methodology for assessing sunlight and daylight we will consider the outcomes of the assessments flexibility where appropriate, taking into account site specific circumstances and context. For example, to enable new development to respect the existing layout and form in some historic areas, it may be necessary to consider exceptions to the recommendations cited in the BRE guidance.”

### 3. Methodology & Assessment Criteria

The methodology adopted for the study follows that set out in BRE Guide which gives criteria and methods for calculating daylight and sunlight.

The BRE Guide uses a set of parameters to quantify the potential light loss level: Vertical Sky Component (VSC), Annual Probable Sunlight Hours (APSH) and Winter Probable Sunlight Hours (WPSH) for surrounding buildings. The Guide uses sun hours on the 21<sup>st</sup> March to quantify the sunlight levels in open spaces.

#### 3.1. Vertical Sky Component (VSC)

The VSC calculation is the ratio of the direct sky illuminance falling at the centre of a window, to the simultaneous horizontal illuminance under an unobstructed sky. The standard CIE (Commission Internationale d’Éclairage) Overcast Sky is used and the ratio is expressed as a percentage. The maximum VSC value is close to 39.6% for a completely unobstructed vertical wall.

The BRE Guide sets out two guidelines for the VSC:

- If the VSC at the centre of the existing window exceeds 27% with the new development in place, then enough sky light should still be reaching the existing window; and
- If the VSC with the new development in place is both less than 27% and less than 0.8 times its former value, then the reduction in light to the window is likely to be noticeable. This means that a reduction in the VSC value of up to 20% its former value would be acceptable and thus, the effect would be considered negligible.

#### 3.2. Probable Sunlight Hours (PSH)

Access to sunlight is measured on the windows to habitable rooms facing within 90° of due south. The PSH calculation method measures the proportion of the window assessed that is sunlit for a period of time. In new developments, each dwelling should have at least one main living room within 90° of due south to receive a reasonable amount of sunlight. The BRE Guide recommends that the PSH is calculated for the whole year, and for the winter months (21 September to 21 March).

If the window reference point can receive more than 25% of APSH, including at least 5% of winter probable sunlight hours (WPSH) during the winter months between 21 September and 21 March, then the room should still receive enough sunlight and the effect will therefore, be negligible. However, if the available sunlight hours are both less than the amount given above and less than 0.8 times their former value, either over the whole year or during the winter months (21 September to 21 March), then the occupants of the existing building will notice the loss of sunlight.

#### 3.3. Significance Criteria

The primary purpose of the daylight and sunlight assessment is to determine the likely loss of light to adjacent buildings resulting from the construction of the proposed development. Therefore, in these cases, the proposed development is identified as the potential source of impact.

The study quantifies the likely daylight and sunlight availability to the receptors identified and derives the resulting ratio of impact. The potential effects are:

- Noticeable reductions in daylight that are likely to make the rooms identified to appear gloomier, and electric lighting will be needed more often. This may result in a minor to major negative effect depending on the sensitivity of the receptor;
- Noticeable reductions in sunlight to the windows identified that will make the room appear colder and less pleasant. This may result in a minor to major negative effect depending on the sensitivity of the receptor;
- Noticeable increase in daylight thus improving the visual comfort qualities of rooms identified. This would result in a moderate to major beneficial effect depending on the sensitivity of the receptor; and
- Noticeable increase in sunlight to the windows identified that will make the rooms benefit from direct solar gains for longer, thus making the rooms appear warmer and more pleasant. This would result in a moderate to major beneficial effect depending on the sensitivity of the receptor.

#### 3.4. Receptors for Daylight

The scoping of impacts has considered the guidance contained in the BRE Guide.

Paragraph 2.2.2 of the BRE Guide states that the guidelines for daylight impacts are primarily for residential properties, where daylight is deemed to be required, including:

- Living rooms;
- Kitchens; and
- Bedrooms.

Paragraph 2.2.2 of the BRE Guide affirm also that the guidelines may also be applied to non-domestic buildings which have a reasonable expectation of daylight such as:

- Schools;
- Hospitals;
- Hotels/Hostels;
- Small workshops and some offices

<sup>6</sup> Camden Council (March 2017) ‘Camden Planning Guidance’.



### 3.5. Receptors for Sunlight

Paragraph 3.1.2 of the BRE Guide states that the main requirement for sunlight is on housing, particularly living rooms and conservatories whereas it is viewed as less important in bedrooms and kitchens.

In the absence of detailed internal layout information for the surrounding developments, all windows of residential properties facing within 90° of due south will be included within the assessment of effects. Paragraph 3.1.3 of the BRE Guide further states that sunlight is also valued in non-domestic buildings. However, this requirement will vary according to the type of non-domestic building, the aims of the occupants and the extent to which the occupants can control their environment.

### 3.6. Receptors for Overshadowing

Paragraph 3.3.3 of the BRE Guide states that the guidance is also concerned with the availability of sunlight in open space such as:

- Gardens (usually the back garden);
- Parks/playing fields;
- Children playgrounds;
- Outdoor swimming pools;
- Sitting out areas such as public squares; and
- Focal points for views.

### 3.7. Magnitude of Impact

The BRE Guide provides DSO criteria using absolute values, but it does not provide criteria for determining the impact magnitude. The compliance criteria for the effects on the surrounding developments are detailed in the section below, alongside how the impact magnitude has been determined using professional judgement.

The BRE criteria have been used to assess the likely levels of daylight and sunlight to habitable rooms in the surrounding properties. Compliance with the BRE Guide is achieved if the levels of daylight/sunlight within the identified receptors of the surrounding properties are equal to or greater than the absolute values established by the Guide.

Compliance with the BRE Guide is also achieved for the identified receptors of the surrounding properties if the ratio of impact between the baseline and proposed scenarios is 0.80 or higher, i.e. the reduction in daylight or sunlight hours is 20% or less. An additional criterion of overall annual loss for APSH values also needs to be satisfied to comply with the recommended BRE guidelines.

A negligible magnitude of change is established if compliance with the BRE criteria is met.

For the affected receptors that lie below the recommended BRE guidelines, the impact magnitude has been classified using professional judgement depending on the ratio of impact between the baseline (existing) and proposed scenarios. The criteria used for determining the impact magnitude for the VSC, APSH and WPSH results has been detailed below in Tables 2, 3 and 4.

VSC Values	Ratio of change	Magnitude of impact
VSC ≥ 27%	≥ 0.8	Negligible
VSC ≥ 27%	< 0.8	Negligible
VSC < 27%	> 0.8	Negligible
VSC < 27%	0.7 – 0.8	Minor
VSC < 27%	0.6 – 0.7	Moderate
VSC < 27%	< 0.6	Major

**Table 1 Impact Magnitude for Vertical Sky Component Results**

APSH Values	Ratio of change	Magnitude of impact
APSH ≥ 25%	≥0.8	Negligible
APSH ≥ 25%	<0.8	Negligible
APSH < 25%	>0.8	Negligible
APSH < 25%	>0.7	Minor
APSH < 25%	0.6 – 0.7	Moderate
APSH < 25%	< 0.6	Major

**Table 2 Impact Magnitude for Annual Probable Sunlight Hours Results**

WPSH Values	Ratio of change	Magnitude of impact
WPSH ≥ 5%	≥0.8	Negligible
WPSH ≥ 5%	<0.8	Negligible
WPSH < 5%	>0.8	Negligible
WPSH < 5%	0.7 – 0.8	Minor
WPSH < 5%	0.6 – 0.7	Moderate
WPSH < 5%	< 0.6	Major

**Table 3 Impact Magnitude for Winter Probable Sunlight Hours Results**

#### 3.7.1. Receptor Sensitivity/Value

A sensitivity rating has been developed using professional judgement based on the BRE Guide, which is described below in Table 4 and categorised into high, medium and low based on the function or use of the space being assessed. This rating is indicative and there will be occasions where the sensitivity may be interpreted differently on a site by site basis.





Receptor Sensitivity/ Value	Description
High	Habitable rooms such as living rooms, kitchens and bedrooms within residential developments generally require good levels of daylight to render them more enjoyable and adequate to their function. Windows to such spaces are classified as having high sensitivity to daylight.
High	Windows of residential dwellings have been classified as having high sensitivity to sunlight, particularly for living rooms and conservatories. In the absence of internal layout information of the surrounding residential developments, all windows facing within 90° of due south have been classified as having a high sensitivity to sunlight as a 'worst case' scenario.
High	Residential back garden spaces have been assigned a high sensitivity to sunlight.
Moderate	Non- domestic buildings where the occupants have a reasonable expectation of daylight have been classified as having a medium sensitivity to daylight.
Low	The windows of the surrounding non-domestic buildings have been classified as having a low sensitivity to sunlight.

**Table 4 Sensitivity/Value of Daylight, Sunlight & Overshadowing Receptors**

residential developments or office spaces, hotel rooms etc., for commercial buildings). However it is likely that a number of the windows may include circulation space.

The effect of existing trees and hedges has not been included in the modelling of effects.

### 3.8. Significance of Effects on Daylight, Sunlight & Overshadowing

In the absence of published guidance, a matrix for determining the significance of effects has been developed (Table 5) taking into account the sensitivity of the receptor and the impact magnitude; only those effects that are Major are considered to be 'significant'.

Magnitude	Sensitivity		
	High	Moderate	Low
Major	Major Adverse/Beneficial	Major - Moderate Adverse/Beneficial	Moderate – Minor Adverse/Beneficial
Moderate	Major - Moderate Adverse/Beneficial	Moderate – Minor Adverse/Beneficial	Minor Adverse/Beneficial
Minor	Moderate – Minor Adverse/Beneficial	Minor Adverse/Beneficial	Minor - Negligible
Negligible	Negligible	Negligible	Negligible

**Table 5 Significance Matrix for Daylight, Sunlight and Overshadowing**

### 3.9. Limitations and Assumptions

All calculations have been based on a z map model provided by the Architect as well as the 3D model prepared by MBS following their site survey and scanning of the surrounding existing receptors.

The accuracy of the model, and hence the validity of any findings, are governed by the assumptions made, and the resolution of the model's geometry.

In the absence of information regarding the internal layouts of the surrounding buildings, it was assumed that all the windows on the assessed buildings are located in habitable rooms (i.e. bedrooms, living rooms etc., for

## 4. Assessment Modelling

### 4.1. Scope of the Assessment

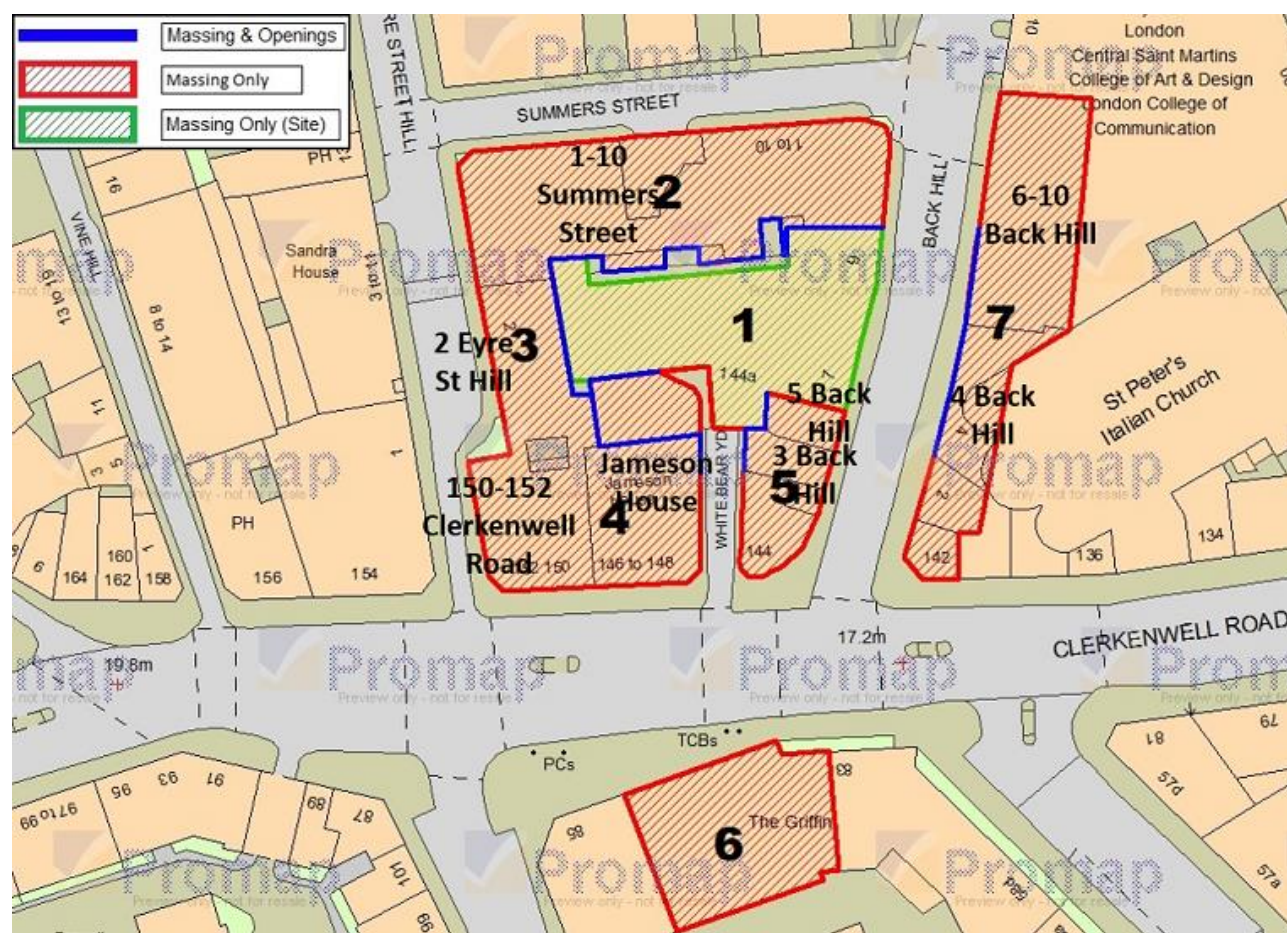
The purpose of the study is to determine the effect of the proposed Development on the daylight and sunlight availability to windows of the surrounding developments.

### 4.2. Extent of the Study Area

The study area modelled for this analysis includes the site and the surrounding properties likely to be affected by the proposed development – these are illustrated in Figure 2 and listed in Table 6.

Note that there are no amenity areas/public spaces identified to be assessed against the overshadowing criteria in the proximity of the application site.

**Figure 2 Buildings identified for the assessment**



No.	Building Reference	Assumed use	Sensitivity
1	Existing/Proposed development	N/A	N/A
2	1-10 Summers Street	Residential	High
3	2 Eyre St Hill	Educational	Medium
4	150-152 Clerkenwell Road	Educational	Medium
4	Jameson House	Office	Low
5	3 Back Hill	Residential	High
5	5 Back Hill	Residential	High
7	4 Back Hill	Residential	High
7	6-10 Back Hill	Residential	High

**Table 6 Buildings and uses identified for the assessment**

#### 4.2.1. Method of Data Collection

The baseline and proposed conditions at the site and the surrounding areas were established from the following:

- 3D model of the existing buildings provided by MBS Survey Software Ltd on 11<sup>th</sup> December, 2017;
- Floor plan and elevations drawings of the Proposed Development provided by Four Architects on 17<sup>th</sup> October, 2019; and
- Information on the building uses and on the habitable rooms location of 1-10 Summer Street provided by Cassidy & Ashton Architects on 21<sup>st</sup> March 2019.

The baseline and proposed scenarios assessed for the purposes of this study are illustrated below.



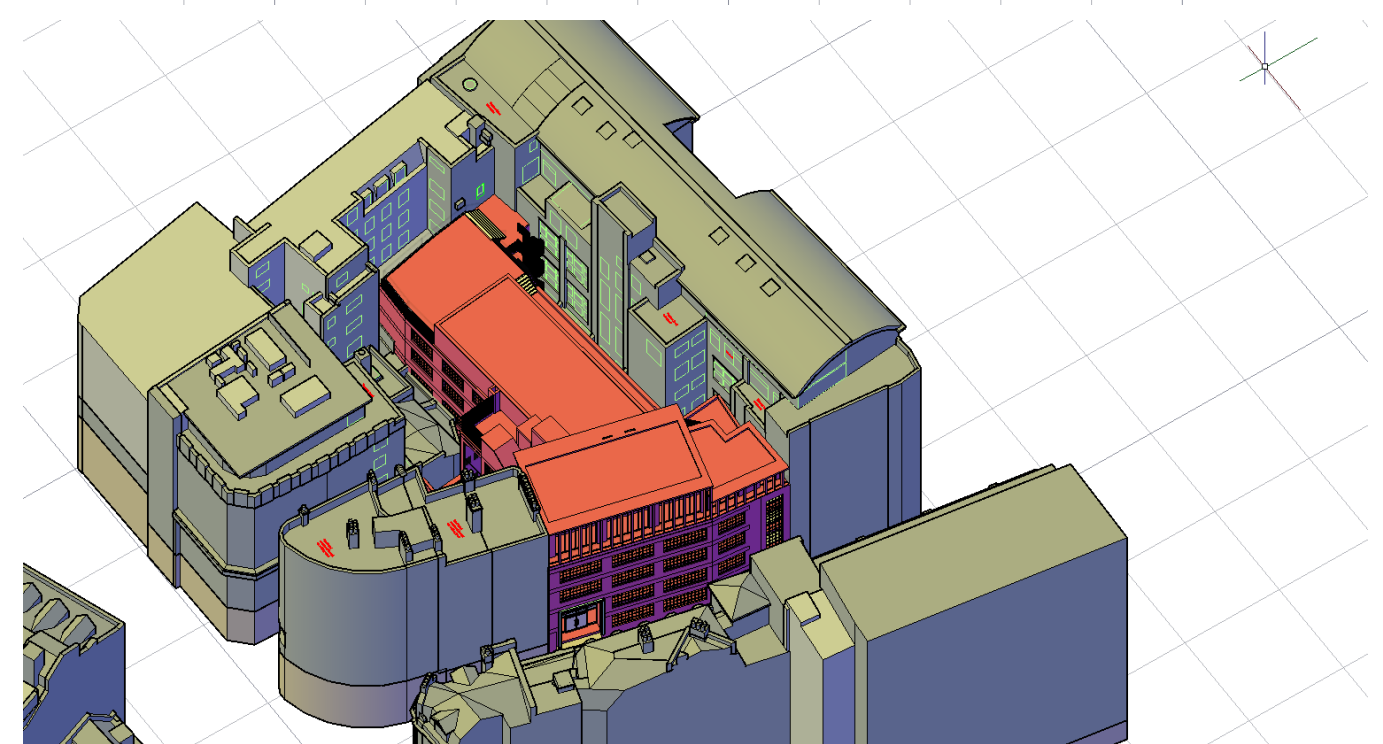
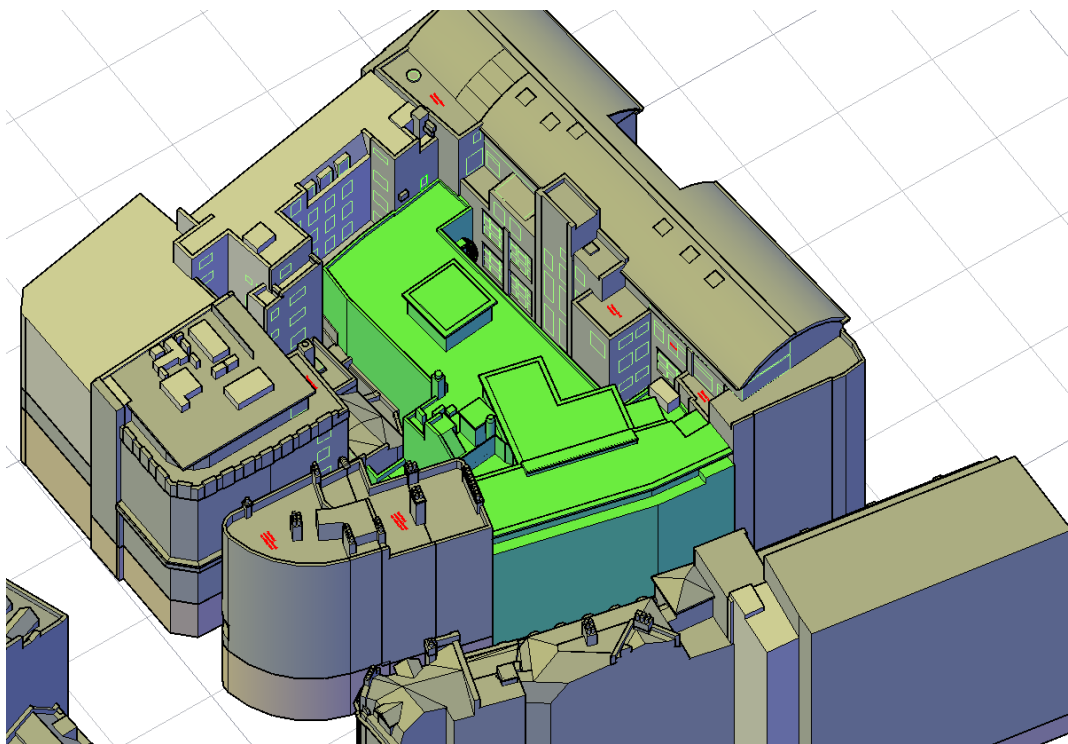
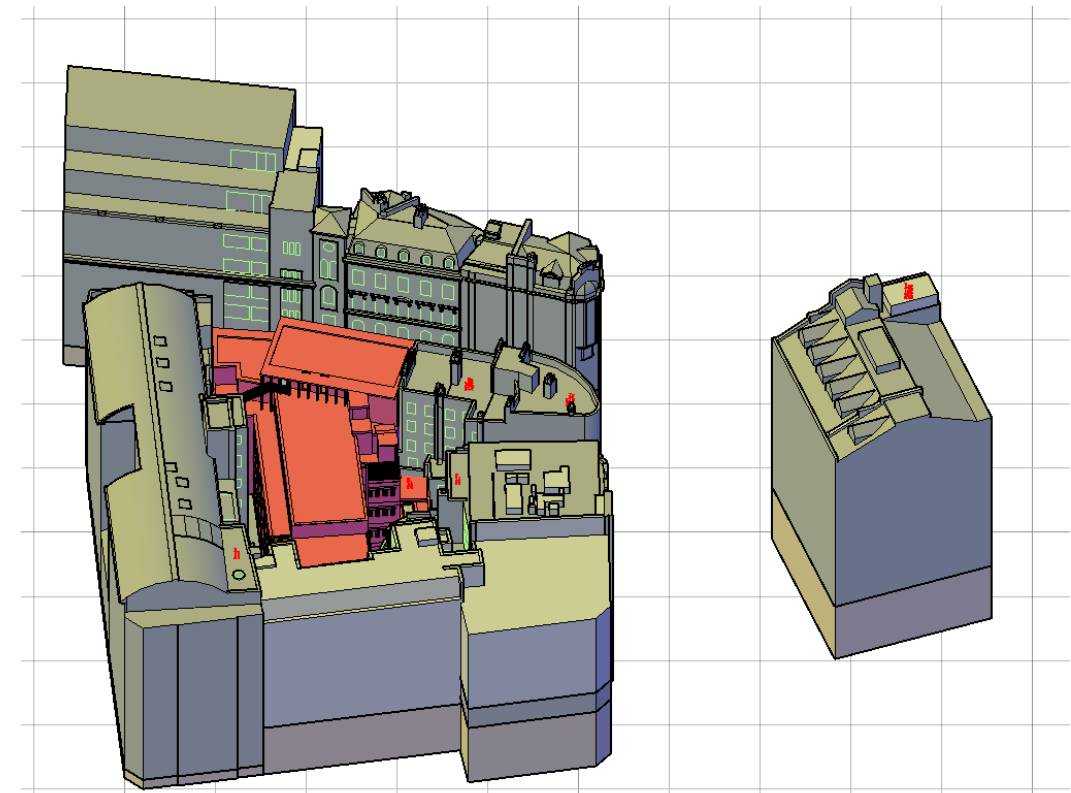
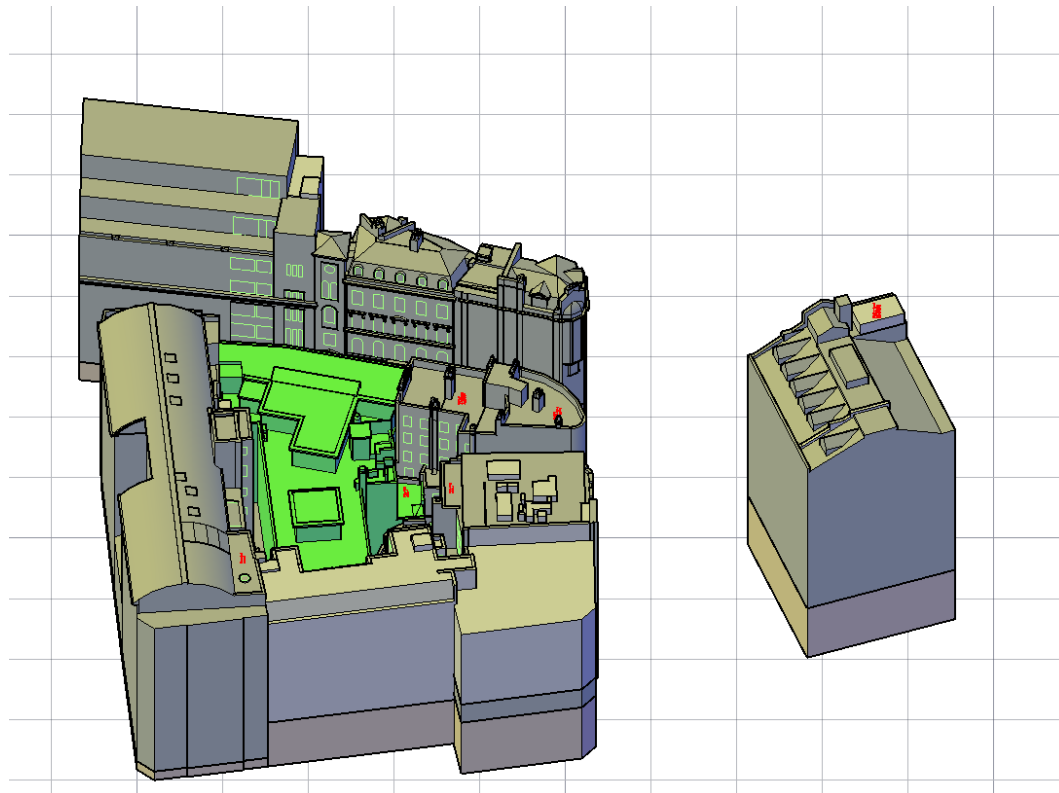


Figure 3 Baseline scenario, South-West & South-East views (existing building on site in green)

Figure 4 Proposed scenario, South-West & South-East views (proposed building on site in red)



## 5. Impact assessment

### 5.1. Impact on Daylight Levels in the Surrounding Area

A summary of the Vertical Sky Component results is provided in Table 7 and the corresponding magnitude of impact in Table 8. A complete set of results are reported in Appendix 1 of this report.

Location	Total Assessed	No. of Receptors	BRE Compliance Criteria
1-10 Summers Street	78	74	Above
		4	Below
2 Eyre St Hill	42	42	Above
		0	Below
150-152 Clerkenwell Road	6	6	Above
		0	Below
Jameson House	35	33	Above
		2	Below
3 Back Hill	22	22	Above
		0	Below
4 Back Hill	31	30	Above
		1	Below
5 Back Hill	9	9	Above
		0	Below
6-10 Back Hill	29	29	Above
		0	Below

Table 7 Vertical Sky Component results

Location	Total Receptors faced by the development	No. of receptors	Magnitude of change
1-10 Summers Street	78	74	Negligible
		2	Minor
		0	Moderate
		2	Major
2 Eyre St Hill	42	42	Negligible
		0	Minor
		0	Moderate
		0	Major
150-152 Clerkenwell Road	6	6	Negligible
		0	Minor
		0	Moderate
		0	Major
Jameson House	35	33	Negligible
		2	Minor

Location	Total Receptors faced by the development	No. of receptors	Magnitude of change
3 Back Hill	22	0	Moderate
		0	Major
		22	Negligible
		0	Minor
		0	Moderate
		0	Major
4 Back Hill	31	31	Negligible
		0	Minor
		0	Moderate
		1	Major
5 Back Hill	9	9	Negligible
		0	Minor
		0	Moderate
		0	Major
6-10 Back Hill	29	29	Negligible
		0	Minor
		0	Moderate
		0	Major

Table 8 Vertical Sky Component Impact Magnitude

The assessment has indicated that the Proposed Development has a **negligible effect** on the vast majority of the daylight receptors of all the surrounding buildings: out of 252 receptor tested 245 meet the BRE daylight criteria.

The high level of compliance of the Proposed Development is achieved thanks to a careful design that was conceived considering the daylight impact on surrounding buildings. This level of compliance is usually very hard to achieve, especially considering the high density of the area, the proximity of the receptors to the Proposed Site and the low existing daylight levels.

On 1-10 summer Street, 4 out of 78 receptors tested fail the BRE criteria. These windows are located on the second floor within the proximity of the proposed external staircase. Figure 5 shows the VSC calculation produced of one of the receptors below the criteria by the MBS Wald ram software for the Existing scenario –in green- and for the proposed scenario- in red-.

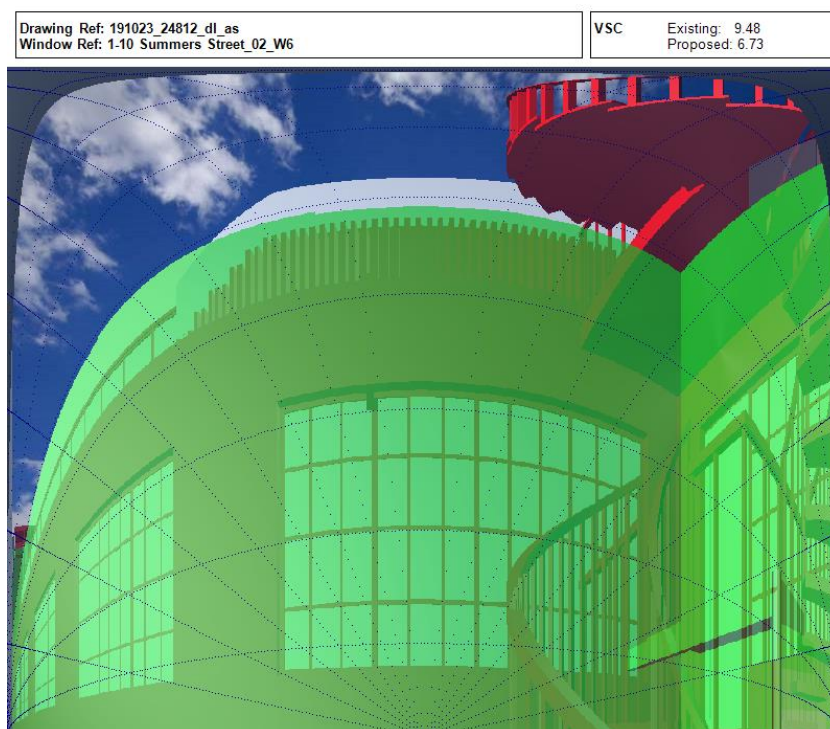


Figure 5 Existing and Proposed VSC for one of the failing windows on the 2<sup>nd</sup> floor

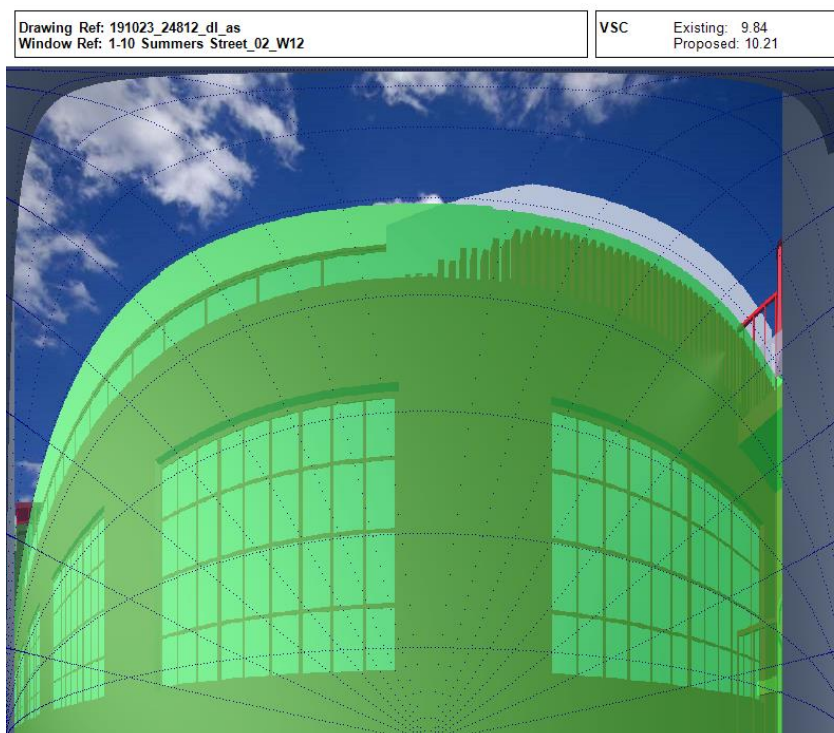


Figure 6 Existing and Proposed VSC for of a typical windows on the 2<sup>nd</sup> floor

It can be observed that massing of the Proposed Building is slightly recessed compared to the existing which on the majority of the cases provides more daylight than the exiting scenario –see figure 6-. In the case of the 4 failing windows the external staircase inevitably obstructs the view of the sky, but on the vast majority of the windows (60 out of 78), the proposed daylight level is greater or equal to the existing; which can be considered a positive result.

## 5.2. Impact on Sunlight Levels in the Surrounding Area

The sunlight assessment has been conducted for receptors of residential developments facing within 90° of due south. A summary of the APSH results is provided in Table 9 and the corresponding magnitude of impact in Table 10. A further summary of the WPSH results has been provided in Table 11 and their corresponding magnitude of impact in Table 12. A complete set of results are reported in Appendix 1 of this report.

Location	Total Assessed	No. of Receptors	BRE Compliance Criteria
1-10 Summers Street	67	65	Above
		2	Below
2 Eyre St Hill	10	10	Above
		0	Below

Table 9 Annual Probable Sunlight Hours Results

Location	Total Receptors faced by the development	No. of receptors	Magnitude of change
1-10 Summers Street	67	65	Negligible
		1	Minor
		1	Moderate
		0	Major
2 Eyre St Hill	10	10	Negligible
		0	Minor
		0	Moderate
		0	Major

Table 10 Annual Probable Sunlight Hours Impact Magnitude

Location	Total Assessed	No. of Receptors	BRE Compliance Criteria
1-10 Summers Street	67	56	Above
		11	Below
2 Eyre St Hill	10	9	Above
		1	Below

Table 11 Winter Probable Sunlight Hours Results





Location	Total Receptors faced by the development	No. of receptors	Magnitude of change
1-10 Summers Street	67	67	Negligible
		0	Minor
		0	Moderate
		0	Major
Eyre St Hill	10	10	Negligible
		0	Minor
		0	Moderate
		0	Major

Table 12 Winter Probable Sunlight Hours Impact Magnitude

The following surrounding buildings don't comprise of any receptors facing within 90° of due south, therefore no PSH results are generated for them:

- 2 Eyre Street Hill;
- 150 – 152 Clerkenwell Road;
- Jameson House;
- 3 Back Hill;
- 4 Back Hill;
- 5 Back Hill
- 6 – 10 Back Hill

The results shows that the Proposed Development has a negligible impact on the vast majority of the receptors in terms of APSH and it has no noticeable impact on all receptors in terms of WPSH.

This can be considered acceptable as only 2 windows out of 77 do not meet the BRE criteria for sunlight.

## 6. Conclusions

Hilson Moran has been commissioned by The Senator Group to undertake a daylight, sunlight and overshadowing assessment to support the planning application of the proposed re-development of the existing building associated with 144A Clerkenwell Road, located on Back Hill in the London Borough of Camden.

The re-development consist in proposed provision of a reconfigured entrance, internal reconfiguration and extension of third floor to provide additional office floor space at 144 A Clerkenwell Road.

The effect of the Proposed Development on the sunlight and daylight availability to windows and open spaces of neighbouring properties is assessed. Full details are provided in Appendix 1.

The results show that the Proposed Development has a negligible impact on the vast majority or receptors (98% of the tested windows) which demonstrated that within the design process the impact on surrounding buildings in terms of daylight and sunlight was carefully considered.

This represent also a major improvement compared to the impact of the previous design assessed in the report issued 10<sup>th</sup> April 2019 (HM Ref: 2812-RP-SU-001), where only 84.2% of the receptors (212 out of 252) where reported to be above the criteria.

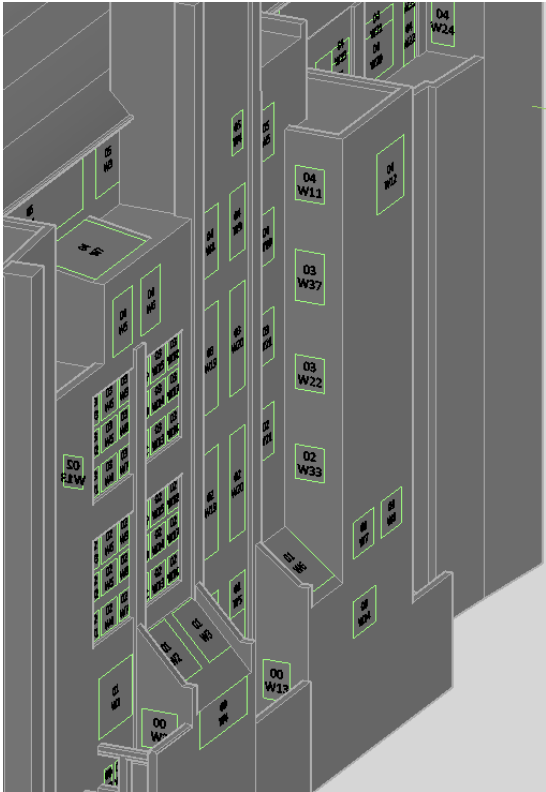
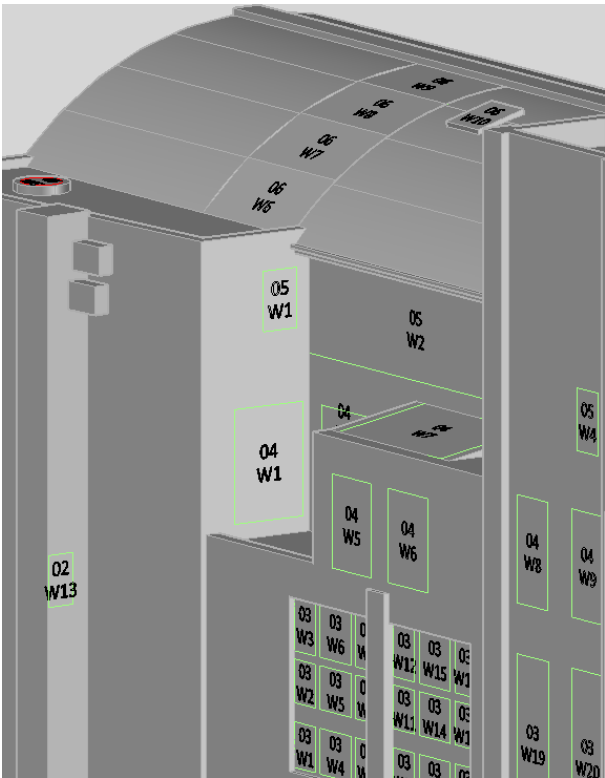
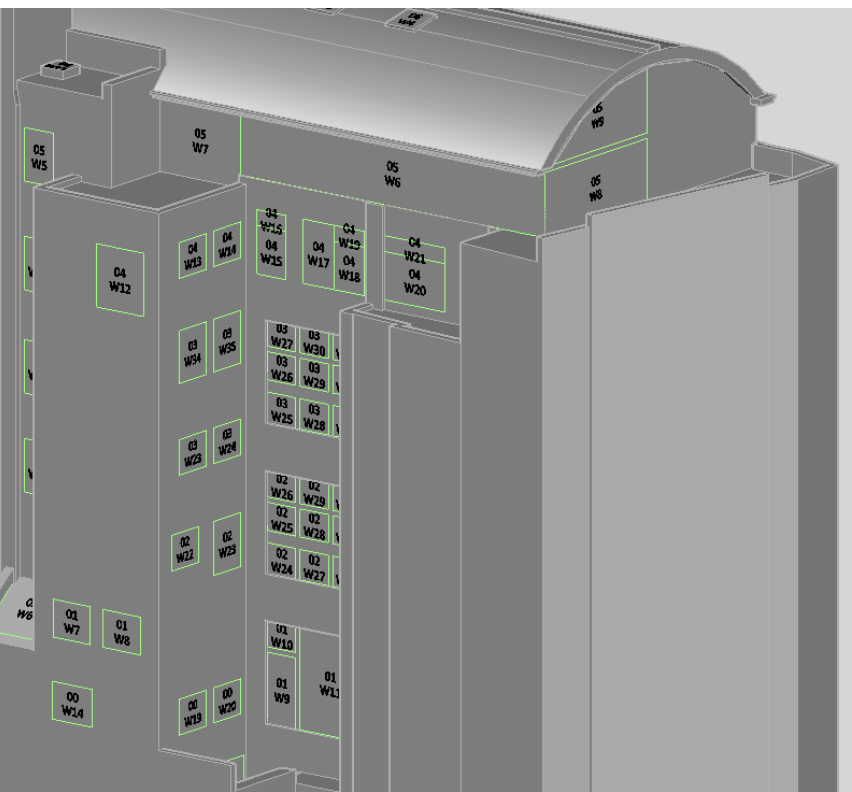
Generally, the design team has worked with Hilson Moran to minimize the level of impact on the surrounding properties. Several design iterations were undertaken to reduce the impact to a more than acceptable level.

Considering the satisfactory results of the analysis, the high density of the area, and that the redevelopment of White Bear Yard will even provide more daylight compared to the existing condition on 31 windows of 1-10 Summer Street, it can be concluded that the impact of the Proposed Development on daylight and sunlight levels of the surrounding properties is acceptable .

## Appendix 1 Detailed Daylight and Sunlight Results

### 1-10 Summers Street





Second floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W2</u>	Existing	6.16	0.43	NO	175°	14	0.79	YES	0	1.00	YES
	Proposed	2.67				11			0		
<u>W3</u>	Existing	8.49	0.39	NO	175°	23	0.65	NO	0	1.00	YES
	Proposed	3.31				15			0		
<u>W5</u>	Existing	6.97	0.78	NO	175°	14	1.14	YES	0	1.00	YES
	Proposed	5.44				16			0		
<u>W6</u>	Existing	9.48	0.71	NO	175°	26	0.77	NO	0	1.00	YES
	Proposed	6.73				20			0		
<u>W8</u>	Existing	5.98	0.92	YES	175°	9	1.11	YES	0	1.00	YES
	Proposed	5.51				10			0		
<u>W9</u>	Existing	8.56	0.89	YES	175°	19	0.84	YES	0	1.00	YES
	Proposed	7.59				16			0		
<u>W11</u>	Existing	7.12	1.12	YES	175°	16	1.13	YES	0	1.00	YES
	Proposed	7.98				18			0		
<u>W12</u>	Existing	9.84	1.04	YES	175°	26	1.12	YES	0	1.00	YES
	Proposed	10.21				29			0		

Second floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W14</u>	Existing	7.75	1.17	YES	175°	16	1.19	YES	0	1.00	YES
	Proposed	9.06				19			0		
<u>W15</u>	Existing	10.35	1.09	YES	175°	27	1.15	YES	0	1.00	YES
	Proposed	11.27				31			0		
<u>W17</u>	Existing	7.53	1.22	YES	175°	15	1.33	YES	0	1.00	YES
	Proposed	9.22				20			0		
<u>W18</u>	Existing	10.24	1.13	YES	175°	26	1.19	YES	0	1.00	YES
	Proposed	11.60				31			0		
<u>W23</u>	Existing	2.07	1.34	YES	85°N		*North*			*North*	
	Proposed	2.78									
<u>W25</u>	Existing	4.03	1.29	YES	175°	7	1.43	YES	0	1.00	YES
	Proposed	5.21				10			0		
<u>W26</u>	Existing	4.97	1.27	YES	175°	10	1.10	YES	0	1.00	YES
	Proposed	6.32				11			0		
<u>W28</u>	Existing	3.57	1.32	YES	175°	7	1.29	YES	0	1.00	YES
	Proposed	4.73				9			0		
<u>W29</u>	Existing	4.23	1.35	YES	175°	9	1.00	YES	0	1.00	YES
	Proposed	5.69				9			0		
<u>W31</u>	Existing	0.61	1.92	YES	175°	0	1.00	YES	0	1.00	YES
	Proposed	1.16				0			0		
<u>W32</u>	Existing	0.42	3.46	YES	175°	0	1.00	YES	0	1.00	YES
	Proposed	1.46				0			0		

Third floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W2</u>	Existing	23.74	1.03	YES	175°	55	1.04	YES	12	1.17	YES
	Proposed	24.38				57			14		
<u>W3</u>	Existing	25.93	1.03	YES	175°	63	1.00	YES	19	1.00	YES
	Proposed	26.60				63			19		
<u>W5</u>	Existing	24.36	1.04	YES	175°	58	1.03	YES	12	1.17	YES
	Proposed	25.28				60			14		
<u>W6</u>	Existing	26.73	1.03	YES	175°	66	1.00	YES	19	1.00	YES
	Proposed	27.56				66			19		
<u>W8</u>	Existing	22.30	1.06	YES	175°	47	1.06	YES	10	1.30	YES
	Proposed	23.53				50			13		
<u>W9</u>	Existing	25.10	1.04	YES	175°	56	1.04	YES	17	1.12	YES
	Proposed	26.06				58			19		
<u>W11</u>	Existing	23.89	1.06	YES	175°	56	1.07	YES	11	1.36	YES
	Proposed	25.36				60			15		
<u>W12</u>	Existing	26.88	1.04	YES	175°	65	1.02	YES	20	1.05	YES

Third floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
	Proposed	27.85				66			21		
<a href="#">W14</a>	Existing	25.19	1.06	YES	175°	64	1.03	YES	14	1.14	YES
	Proposed	26.74				66			16		
<a href="#">W15</a>	Existing	28.32	1.03	YES	175°	70	1.04	YES	18	1.17	YES
	Proposed	29.28				73			21		
<a href="#">W17</a>	Existing	25.11	1.06	YES	175°	61	1.03	YES	14	1.14	YES
	Proposed	26.51				63			16		
<a href="#">W18</a>	Existing	28.37	1.03	YES	175°	66	1.03	YES	19	1.11	YES
	Proposed	29.21				68			21		
<a href="#">W23</a>	Existing	6.78	1.43	YES	85°N		*North*			*North*	
	Proposed	9.66									
<a href="#">W24</a>	Existing	6.33	1.38	YES	85°N		*North*			*North*	
	Proposed	8.76									
<a href="#">W26</a>	Existing	16.56	1.01	YES	175°	36	1.03	YES	8	1.13	YES
	Proposed	16.77				37			9		
<a href="#">W27</a>	Existing	19.39	0.94	YES	175°	44	0.95	YES	13	0.85	YES
	Proposed	18.26				42			11		
<a href="#">W29</a>	Existing	16.99	1.11	YES	175°	31	1.19	YES	7	1.57	YES
	Proposed	18.88				37			11		
<a href="#">W30</a>	Existing	22.14	0.95	YES	175°	44	0.98	YES	15	0.93	YES
	Proposed	21.05				43			14		
<a href="#">W32</a>	Existing	12.97	1.28	YES	175°	24	1.29	YES	4	2.50	YES
	Proposed	16.66				31			10		
<a href="#">W33</a>	Existing	19.96	0.95	YES	175°	38	0.97	YES	13	0.92	YES
	Proposed	18.98				37			12		
<a href="#">W34</a>	Existing	17.48	0.97	YES	85°N		*North*			*North*	
	Proposed	16.88									
<a href="#">W35</a>	Existing	15.06	0.96	YES	85°N		*North*			*North*	
	Proposed	14.46									
<a href="#">W36</a>	Existing	9.63	1.04	YES	265°	25	1.04	YES	8	1.13	YES
	Proposed	10.01				26			9		

Fourth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<a href="#">W1</a>	Existing	16.99	1.00	YES	85°N		*North*			*North*	
	Proposed	16.99									
<a href="#">W2</a>	Existing	22.49	1.00	YES	175°	45	1.00	YES	17	1.00	YES
	Proposed	22.49				45			17		
<a href="#">W3</a>	Existing	24.85	1.00	YES	175°	48	1.00	YES	18	1.00	YES
	Proposed	24.85				48			18		

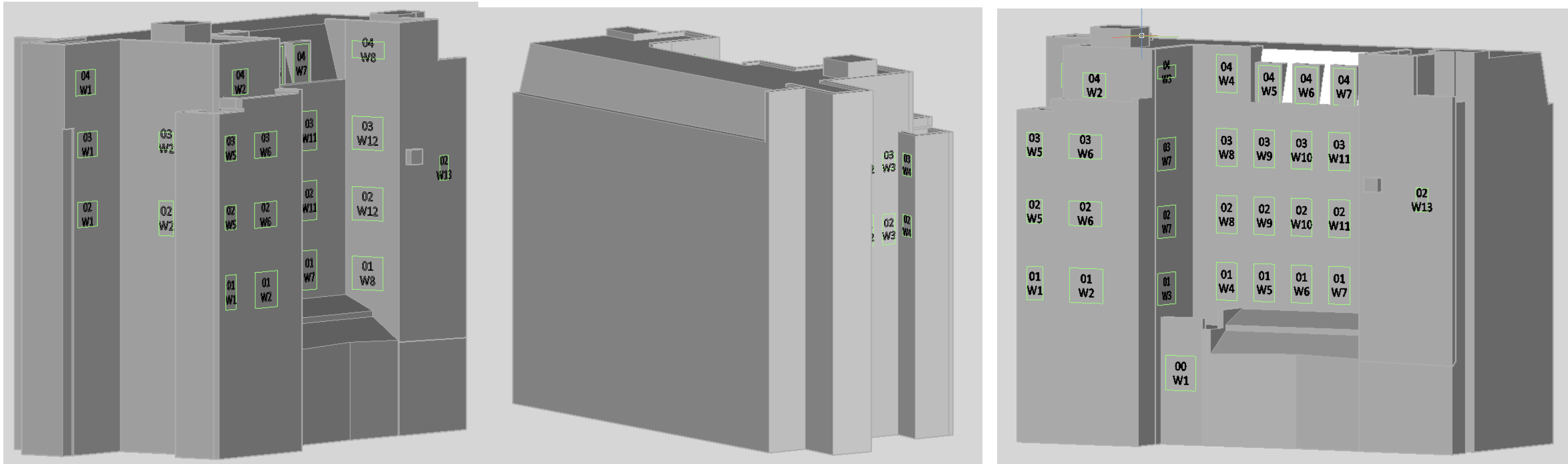


Fourth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
W7	Existing	59.48	1.00	YES	175° Inc	76	1.00	YES	27	1.00	YES
	Proposed	59.48				76			27		
W11	Existing	19.37	1.00	YES	265°	42	1.00	YES	14	1.00	YES
	Proposed	19.37				42			14		
W13	Existing	24.36	1.00	YES	85°N		*North*			*North*	
	Proposed	24.35									
W14	Existing	18.84	1.00	YES	85°N		*North*			*North*	
	Proposed	18.83									
W15	Existing	24.84	1.00	YES	175°	53	1.00	YES	16	1.00	YES
	Proposed	24.75				53			16		
W16	Existing	29.40	1.00	YES	175°	65	1.00	YES	19	1.00	YES
	Proposed	29.40				65			19		
W17	Existing	32.20	1.00	YES	175°	72	1.00	YES	21	1.00	YES
	Proposed	32.10				72			21		
W18	Existing	32.99	0.99	YES	175°	74	1.00	YES	23	1.00	YES
	Proposed	32.77				74			23		
W19	Existing	34.71	1.00	YES	175°	77	1.00	YES	25	1.00	YES
	Proposed	34.71				77			25		
W20	Existing	33.59	0.99	YES	175°	73	1.00	YES	24	1.00	YES
	Proposed	33.35				73			24		
W21	Existing	35.18	1.00	YES	175°	79	1.00	YES	25	1.00	YES
	Proposed	35.18				79			25		
W22	Existing	27.02	0.99	YES	175°	55	1.00	YES	21	1.00	YES
	Proposed	26.65				55			21		
W23	Existing	30.08	1.00	YES	175°	64	1.00	YES	23	1.00	YES
	Proposed	30.08				64			23		
W24	Existing	16.97	1.00	YES	266°	42	1.00	YES	15	1.00	YES
	Proposed	16.94				42			15		

Fifth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
W1	Existing	21.19	1.00	YES	85°N		*North*			*North*	
	Proposed	21.19									
W2	Existing	32.28	1.00	YES	175°	71	1.00	YES	27	1.00	YES
	Proposed	32.28				71			27		
W3	Existing	21.29	1.00	YES	175°	47	1.00	YES	20	1.00	YES
	Proposed	21.29				47			20		
W6	Existing	33.09	1.00	YES	175°	78	1.00	YES	29	1.00	YES
	Proposed	33.09				78			29		
W7	Existing	28.54	1.00	YES	175°	62	1.00	YES	23	1.00	YES

	Proposed	28.54				62			23		
W8	Existing	34.01	1.00	YES	85°N		*North*			*North*	
	Proposed	34.01									
W9	Existing	35.26	1.00	YES	85°N		*North*			*North*	
	Proposed	35.26									
Sixth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
W1	Existing	98.76	1.00	YES	175° Inc	98	1.00	YES	28	1.00	YES
	Proposed	98.76				98			28		
W2	Existing	97.84	1.00	YES	175° Inc	98	1.00	YES	28	1.00	YES
	Proposed	97.84				98			28		
W3	Existing	98.20	1.00	YES	175° Inc	99	1.00	YES	29	1.00	YES
	Proposed	98.20				99			29		
W4	Existing	98.29	1.00	YES	175° Inc	99	1.00	YES	29	1.00	YES
	Proposed	98.29				99			29		
W5	Existing	97.50	1.00	YES	90° Hz	99	1.00	YES	30	1.00	YES
	Proposed	97.50				99			30		
W6	Existing	81.06	1.00	YES	175° Inc	97	1.00	YES	30	1.00	YES
	Proposed	81.06				97			30		
W7	Existing	89.32	1.00	YES	175° Inc	98	1.00	YES	30	1.00	YES
	Proposed	89.32				98			30		
W8	Existing	95.53	1.00	YES	175° Inc	98	1.00	YES	30	1.00	YES
	Proposed	95.53				98			30		
W9	Existing	98.59	1.00	YES	175° Inc	98	1.00	YES	30	1.00	YES
	Proposed	98.59				98			30		

## 2 Eyre St Hill



Ground floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	5.60	1.00	YES	80°N		*North*			*North*	
	Proposed	5.59									

First floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	16.45	0.96	YES	80°N		*North*			*North*	
	Proposed	15.75									
<u>W2</u>	Existing	19.74	0.93	YES	80°N		*North*			*North*	
	Proposed	18.31									
<u>W3</u>	Existing	6.30	0.96	YES	350°N		*North*			*North*	
	Proposed	6.06									
<u>W4</u>	Existing	11.28	0.93	YES	80°N		*North*			*North*	
	Proposed	10.47									
<u>W5</u>	Existing	9.76	0.88	YES	80°N		*North*			*North*	
	Proposed	8.62									

First floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W6</u>	Existing	9.11	0.83	YES	80°N		*North*			*North*	
	Proposed	7.54									
<u>W7</u>	Existing	8.60	0.81	YES	80°N		*North*			*North*	
	Proposed	6.93									
<u>W8</u>	Existing	5.08	0.96	YES	171°	6	1.00	YES	0	1.00	YES
	Proposed	4.90				6			0		

Second floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	7.65	1.00	YES	83°N		*North*			*North*	
	Proposed	7.65									
<u>W2</u>	Existing	4.78	1.00	YES	170°	7	1.00	YES	0	1.00	YES
	Proposed	4.78				7			0		
<u>W3</u>	Existing	4.05	1.00	YES	170°	6	1.00	YES	0	1.00	YES
	Proposed	4.05				6			0		
<u>W4</u>	Existing	3.05	1.00	YES	266°	4	1.00	YES	0	1.00	YES
	Proposed	3.05				4			0		
<u>W5</u>	Existing	21.17	1.00	YES	80°N		*North*			*North*	
	Proposed	21.14									
<u>W6</u>	Existing	26.15	1.00	YES	80°N		*North*			*North*	
	Proposed	26.06									
<u>W7</u>	Existing	15.69	0.99	YES	350°N		*North*			*North*	
	Proposed	15.47									
<u>W8</u>	Existing	19.87	0.98	YES	80°N		*North*			*North*	
	Proposed	19.42									
<u>W9</u>	Existing	23.86	0.93	YES	80°N		*North*			*North*	
	Proposed	22.24									
<u>W10</u>	Existing	25.00	0.92	YES	80°N		*North*			*North*	
	Proposed	23.02									
<u>W11</u>	Existing	23.67	0.92	YES	80°N		*North*			*North*	
	Proposed	21.85									
<u>W12</u>	Existing	15.27	0.85	YES	171°	38	0.79	YES	5	0.80	YES
	Proposed	12.93				30			4		
<u>W13</u>	Existing	21.45	1.01	YES	81°N		*North*			*North*	
	Proposed	21.61									

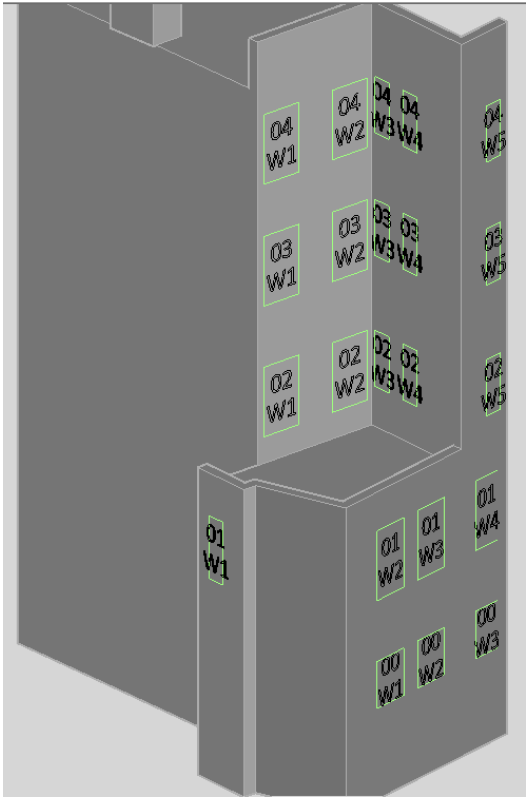
Third floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	17.40	1.00	YES	83°N		*North*			*North*	
	Proposed	17.40									
<u>W2</u>	Existing	18.10	1.00	YES	170°	32	1.00	YES	8	1.00	YES
	Proposed	18.10				32			8		
<u>W3</u>	Existing	14.95	1.00	YES	170°	29	1.00	YES	9	1.00	YES
	Proposed	14.95				29			9		
<u>W4</u>	Existing	9.38	1.00	YES	266°	20	1.00	YES	4	1.00	YES
	Proposed	9.38				20			4		
<u>W5</u>	Existing	28.06	1.00	YES	80°N		*North*			*North*	
	Proposed	28.06									
<u>W6</u>	Existing	31.67	1.00	YES	80°N		*North*			*North*	
	Proposed	31.67									
<u>W7</u>	Existing	21.52	1.00	YES	350°N		*North*			*North*	
	Proposed	21.52									
<u>W8</u>	Existing	23.61	1.00	YES	80°N		*North*			*North*	
	Proposed	23.61									
<u>W9</u>	Existing	28.49	1.00	YES	80°N		*North*			*North*	
	Proposed	28.49									
<u>W10</u>	Existing	29.70	1.00	YES	80°N		*North*			*North*	
	Proposed	29.70									
<u>W11</u>	Existing	28.00	1.00	YES	80°N		*North*			*North*	
	Proposed	28.00									
<u>W12</u>	Existing	21.19	1.00	YES	171°	48	1.00	YES	10	1.00	YES
	Proposed	21.19				48			10		

Fourth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	30.44	1.00	YES	83°N		*North*			*North*	
	Proposed	30.44									
<u>W2</u>	Existing	35.93	1.00	YES	80°N		*North*			*North*	
	Proposed	35.93									
<u>W3</u>	Existing	32.92	1.00	YES	350°N		*North*			*North*	
	Proposed	32.92									
<u>W4</u>	Existing	32.20	1.00	YES	80°N		*North*			*North*	
	Proposed	32.20									
<u>W5</u>	Existing	32.64	1.00	YES	80°N		*North*			*North*	
	Proposed	32.64									
<u>W6</u>	Existing	34.70	1.00	YES	80°N		*North*			*North*	
	Proposed	34.70									



Fourth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W7</u>	Existing	33.39	1.00	YES	80°N		*North*			*North*	
	Proposed	33.39									
<u>W8</u>	Existing	34.36	1.00	YES	171°	81	1.00	YES	24	1.00	YES
	Proposed	34.36				81			24		

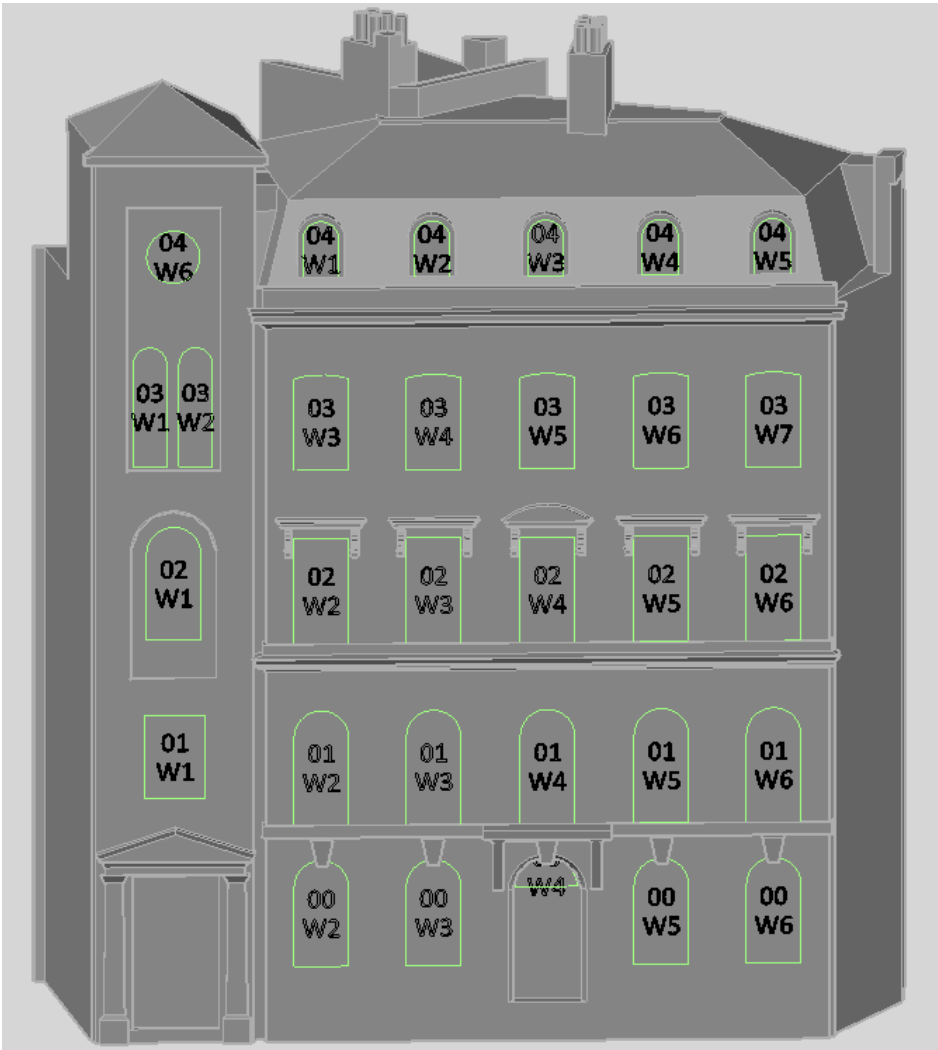
3 Back Hill



First floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	6.01	0.94	YES	273°N		*North*			*North*	
	Proposed	5.63									
<u>W2</u>	Existing	5.93	0.94	YES	273°N		*North*			*North*	
	Proposed	5.57									
<u>W3</u>	Existing	4.42	0.93	YES	273°N		*North*			*North*	
	Proposed	4.11									

Second floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	1.47	1.01	YES	17°N		*North*			*North*	
	Proposed	1.47									
<u>W2</u>	Existing	10.40	0.95	YES	273°N		*North*			*North*	
	Proposed	9.82									
<u>W3</u>	Existing	9.03	0.94	YES	273°N		*North*			*North*	
	Proposed	8.53									
<u>W4</u>	Existing	4.84	0.96	YES	273°N		*North*			*North*	
	Proposed	4.62									
Third floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	18.46	1.01	YES	283°N		*North*			*North*	
	Proposed	18.61									
<u>W2</u>	Existing	15.26	1.00	YES	283°N		*North*			*North*	
	Proposed	15.31									
<u>W3</u>	Existing	12.62	0.98	YES	17°N		*North*			*North*	
	Proposed	12.32									
<u>W4</u>	Existing	15.97	0.96	YES	17°N		*North*			*North*	
	Proposed	15.30									
<u>W5</u>	Existing	12.11	1.00	YES	273°N		*North*			*North*	
	Proposed	12.12									
fourth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	24.40	1.00	YES	283°N		*North*			*North*	
	Proposed	24.40									
<u>W2</u>	Existing	18.94	1.00	YES	283°N		*North*			*North*	
	Proposed	18.94									
<u>W3</u>	Existing	15.38	1.00	YES	17°N		*North*			*North*	
	Proposed	15.36									
<u>W4</u>	Existing	21.03	1.00	YES	17°N		*North*			*North*	
	Proposed	20.94									
<u>W5</u>	Existing	17.91	1.00	YES	273°N		*North*			*North*	
	Proposed	17.91									

4 Back Hill



Ground floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
W1	Existing	0.00	1.00	YES	283°N		*North*			*North*	
	Proposed	0.00									
W2	Existing	13.01	0.93	YES	283°N		*North*			*North*	
	Proposed	12.15									
W3	Existing	12.64	0.93	YES	283°N		*North*			*North*	
	Proposed	11.73									
W4	Existing	0.03	0.07	NO	283°N		*North*			*North*	
	Proposed	0.00									
W5	Existing	12.62	0.94	YES	283°N		*North*			*North*	
	Proposed	11.81									

<u>W6</u>	Existing	12.97	0.95	YES	283°N		*North*			*North*	
	Proposed	12.25									

First floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	17.84	0.93	YES	283°N		*North*			*North*	
	Proposed	16.67									
<u>W2</u>	Existing	16.98	0.92	YES	283°N		*North*			*North*	
	Proposed	15.62									
<u>W3</u>	Existing	16.83	0.91	YES	283°N		*North*			*North*	
	Proposed	15.40									
<u>W4</u>	Existing	16.72	0.92	YES	283°N		*North*			*North*	
	Proposed	15.33									
<u>W5</u>	Existing	16.63	0.93	YES	283°N		*North*			*North*	
	Proposed	15.39									
<u>W6</u>	Existing	16.62	0.94	YES	283°N		*North*			*North*	
	Proposed	15.57									

Second floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	24.58	0.93	YES	283°N		*North*			*North*	
	Proposed	22.80									
<u>W2</u>	Existing	23.75	0.91	YES	283°N		*North*			*North*	
	Proposed	21.61									
<u>W3</u>	Existing	23.60	0.91	YES	283°N		*North*			*North*	
	Proposed	21.46									
<u>W4</u>	Existing	23.40	0.92	YES	283°N		*North*			*North*	
	Proposed	21.44									
<u>W5</u>	Existing	23.19	0.93	YES	283°N		*North*			*North*	
	Proposed	21.50									
<u>W6</u>	Existing	22.95	0.94	YES	283°N		*North*			*North*	
	Proposed	21.59									

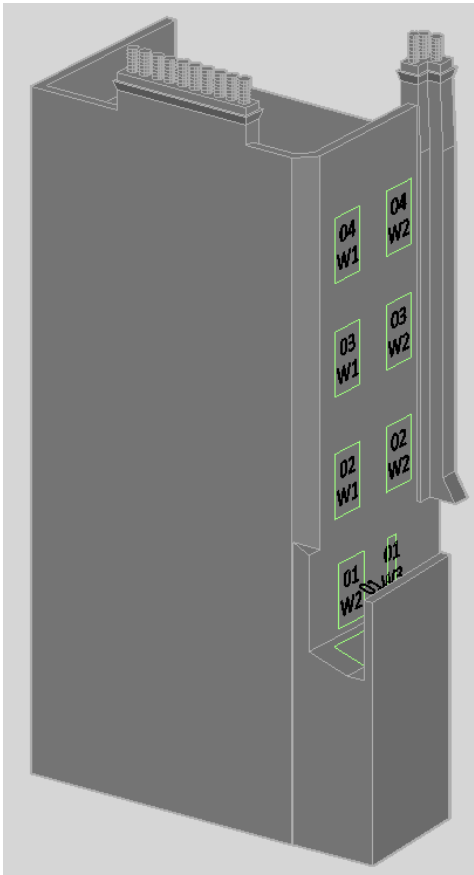
Third floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	31.37	0.96	YES	283°N		*North*			*North*	
	Proposed	30.11									
<u>W2</u>	Existing	31.52	0.96	YES	283°N		*North*			*North*	
	Proposed	30.27									

<u>W3</u>	Existing	31.02	0.95	YES	283°N		*North*			*North*	
	Proposed	29.61									
<u>W4</u>	Existing	30.90	0.96	YES	283°N		*North*			*North*	
	Proposed	29.59									
<u>W5</u>	Existing	30.75	0.96	YES	283°N		*North*			*North*	
	Proposed	29.59									
<u>W6</u>	Existing	30.52	0.97	YES	283°N		*North*			*North*	
	Proposed	29.57									
<u>W7</u>	Existing	30.23	0.98	YES	283°N		*North*			*North*	
	Proposed	29.55									

Fourth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	34.62	1.00	YES	283°N		*North*			*North*	
	Proposed	34.62									
<u>W2</u>	Existing	35.70	1.00	YES	283°N		*North*			*North*	
	Proposed	35.70									
<u>W3</u>	Existing	35.83	1.00	YES	283°N		*North*			*North*	
	Proposed	35.83									
<u>W4</u>	Existing	35.85	1.00	YES	283°N		*North*			*North*	
	Proposed	35.85									
<u>W5</u>	Existing	35.83	1.00	YES	283°N		*North*			*North*	
	Proposed	35.83									
<u>W6</u>	Existing	34.78	1.00	YES	283°N		*North*			*North*	
	Proposed	34.78									



5 Back Hill



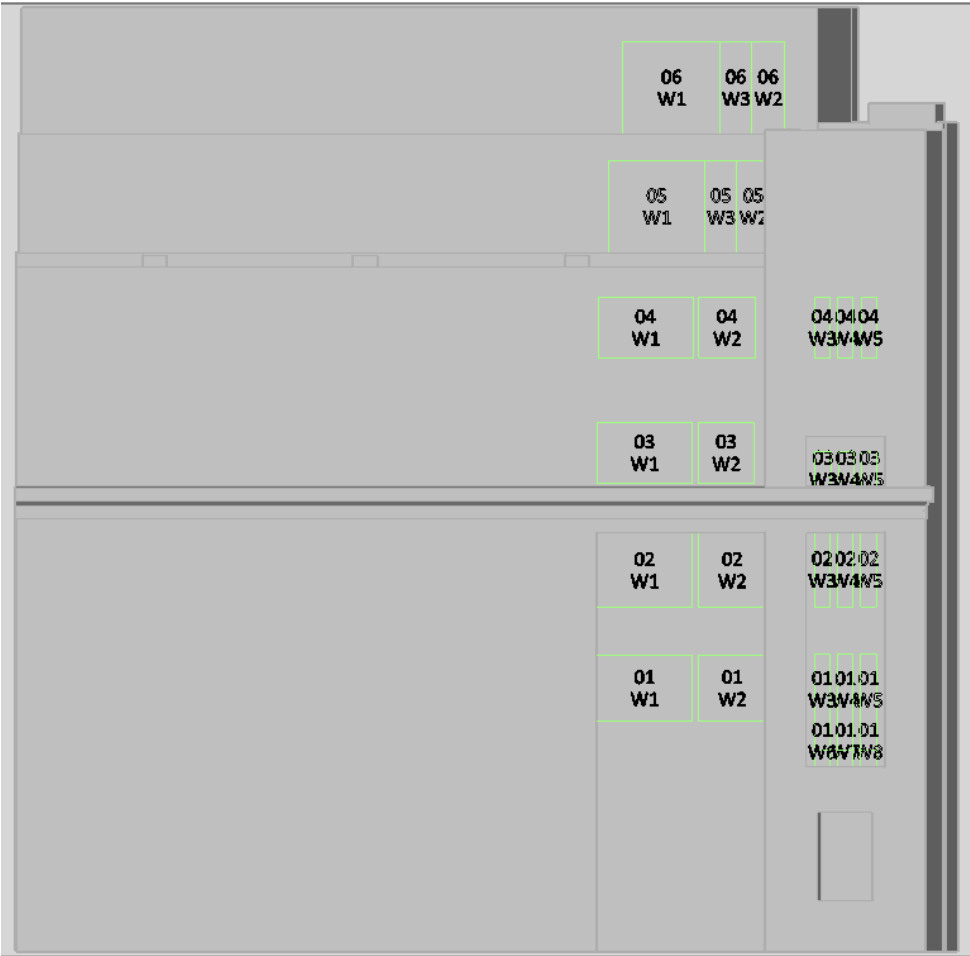
First floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
W1	Existing	0.00	1.00	YES	283°N		*North*			*North*	
	Proposed	0.00									
W2	Existing	7.65	0.99	YES	283°N		*North*			*North*	
	Proposed	7.59									
W3	Existing	4.79	0.98	YES	283°N		*North*			*North*	
	Proposed	4.68									

Second floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
W1	Existing	10.78	1.02	YES	283°N		*North*			*North*	
	Proposed	10.97									
W2	Existing	13.68	0.99	YES	283°N		*North*			*North*	
	Proposed	13.60									

Third floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	18.37	0.79	NO	283°N		*North*			*North*	
	Proposed	14.54									
<u>W2</u>	Existing	20.98	0.89	YES	283°N		*North*			*North*	
	Proposed	18.88									

Fourth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	29.78	0.95	YES	283°N		*North*			*North*	
	Proposed	28.17									
<u>W2</u>	Existing	28.51	0.99	YES	283°N		*North*			*North*	
	Proposed	28.17									

6-10 Back Hill



First floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	17.64	0.99	YES	279°N		*North*			*North*	
	Proposed	17.41									
<u>W2</u>	Existing	17.44	0.98	YES	279°N		*North*			*North*	
	Proposed	17.02									
<u>W3</u>	Existing	16.22	0.96	YES	279°N		*North*			*North*	
	Proposed	15.57									
<u>W4</u>	Existing	16.81	0.96	YES	279°N		*North*			*North*	
	Proposed	16.10									
<u>W5</u>	Existing	16.60	0.95	YES	279°N		*North*			*North*	
	Proposed	15.82									
<u>W6</u>	Existing	14.15	0.96	YES	279°N		*North*			*North*	
	Proposed	13.60									
<u>W7</u>	Existing	14.72	0.96	YES	279°N		*North*			*North*	
	Proposed	14.12									
<u>W8</u>	Existing	14.50	0.96	YES	279°N		*North*			*North*	
	Proposed	13.85									

Second floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	22.08	0.99	YES	279°N		*North*			*North*	
	Proposed	21.82									
<u>W2</u>	Existing	22.28	0.98	YES	279°N		*North*			*North*	
	Proposed	21.73									
<u>W3</u>	Existing	21.97	0.96	YES	279°N		*North*			*North*	
	Proposed	21.03									
<u>W4</u>	Existing	22.50	0.95	YES	279°N		*North*			*North*	
	Proposed	21.45									
<u>W5</u>	Existing	22.38	0.95	YES	279°N		*North*			*North*	
	Proposed	21.23									

Third floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	28.91	0.98	YES	279°N		*North*			*North*	
	Proposed	28.35									
<u>W2</u>	Existing	29.29	0.97	YES	279°N		*North*			*North*	
	Proposed	28.41									
<u>W3</u>	Existing	27.85	0.95	YES	279°N		*North*			*North*	
	Proposed	26.52									

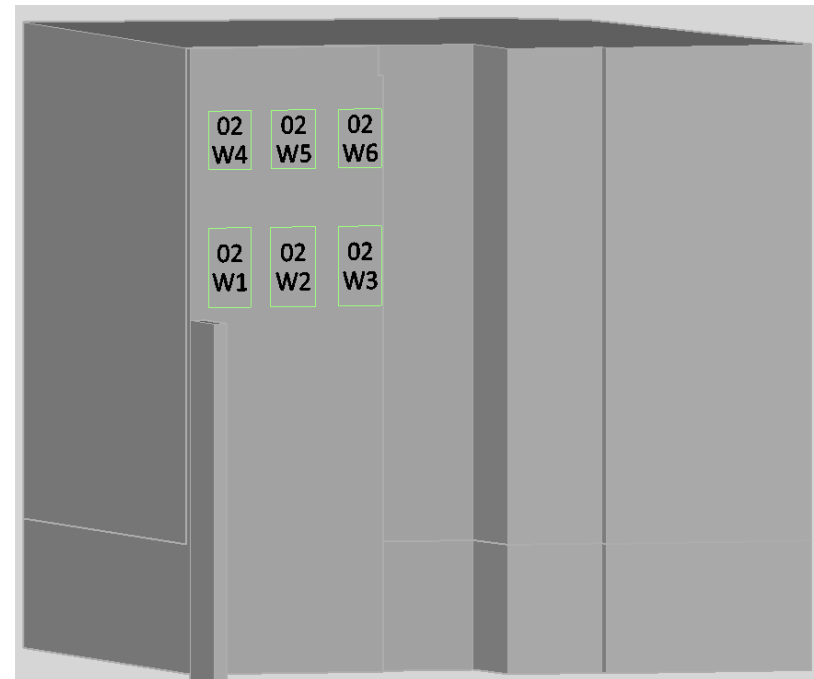
Third floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W4</u>	Existing	28.38	0.95	YES	279°N		*North*			*North*	
	Proposed	26.93									
<u>W5</u>	Existing	28.17	0.95	YES	279°N		*North*			*North*	
	Proposed	26.64									

Fourth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	33.75	1.00	YES	279°N		*North*			*North*	
	Proposed	33.75									
<u>W2</u>	Existing	33.96	1.00	YES	279°N		*North*			*North*	
	Proposed	33.96									
<u>W3</u>	Existing	34.30	1.00	YES	279°N		*North*			*North*	
	Proposed	34.30									
<u>W4</u>	Existing	34.34	1.00	YES	279°N		*North*			*North*	
	Proposed	34.34									
<u>W5</u>	Existing	34.39	1.00	YES	279°N		*North*			*North*	
	Proposed	34.38									

Fifth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	36.16	1.00	YES	279°N		*North*			*North*	
	Proposed	36.16									
<u>W2</u>	Existing	25.84	1.00	YES	279°N		*North*			*North*	
	Proposed	25.84									
<u>W3</u>	Existing	31.72	1.00	YES	279°N		*North*			*North*	
	Proposed	31.72									

Sixth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	39.36	1.00	YES	279°N		*North*			*North*	
	Proposed	39.36									
<u>W2</u>	Existing	39.34	1.00	YES	279°N		*North*			*North*	
	Proposed	39.34									
<u>W3</u>	Existing	39.35	1.00	YES	279°N		*North*			*North*	
	Proposed	39.35									

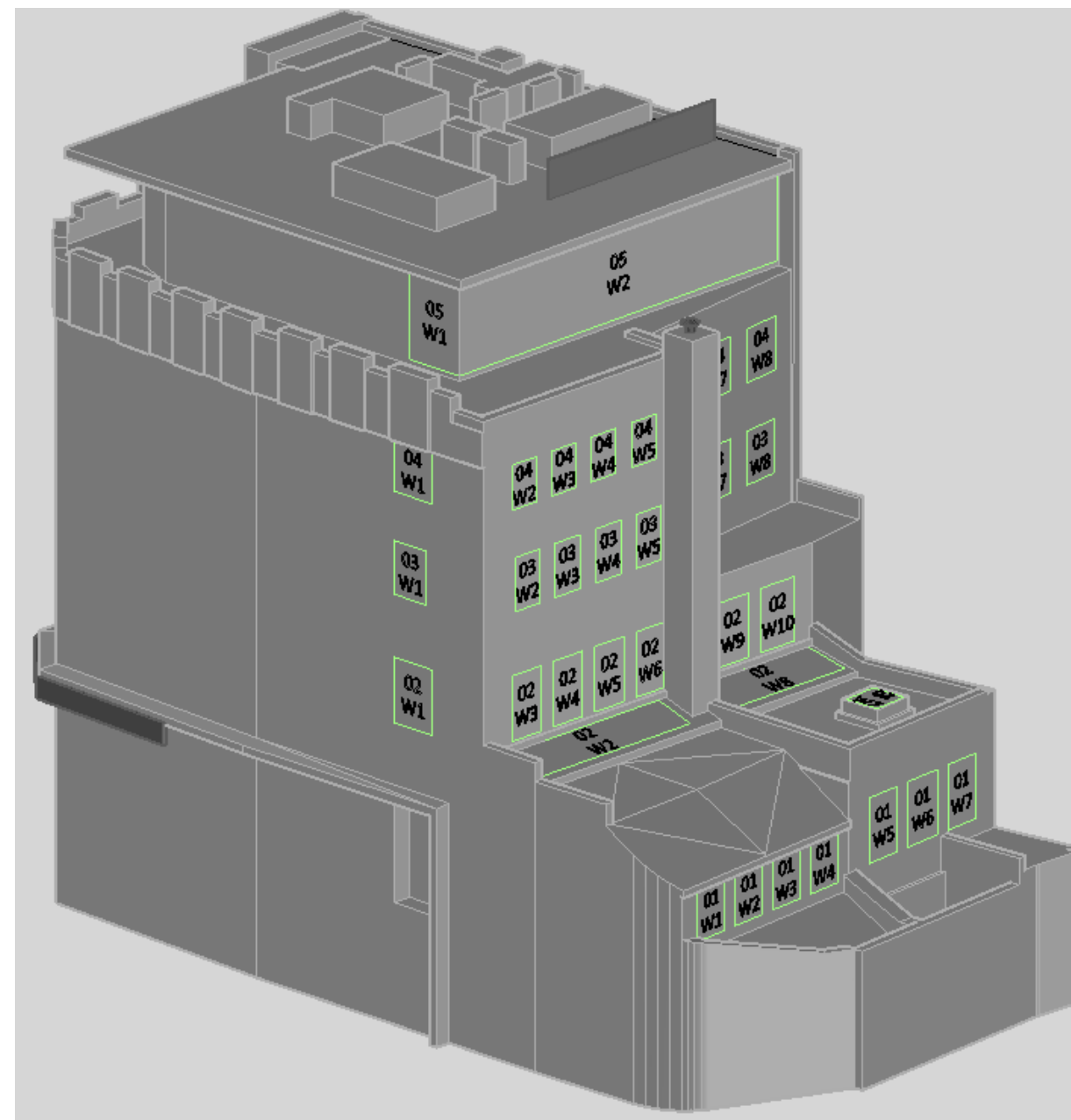
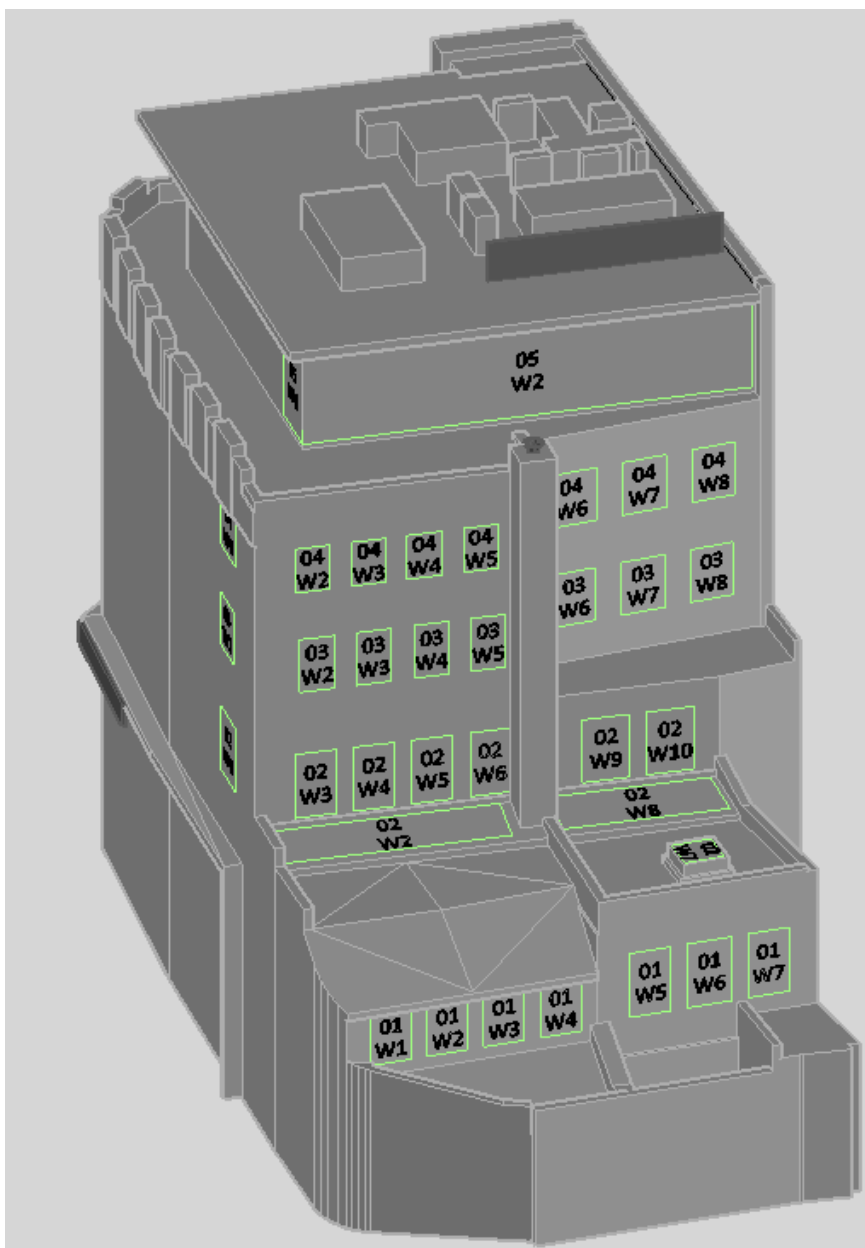
## 150-152 Cleckernwell Rd



Fourth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	5.18	1.00	YES	352°N		*North*			*North*	
	Proposed	5.18									
<u>W2</u>	Existing	3.88	1.00	YES	352°N		*North*			*North*	
	Proposed	3.88									
<u>W3</u>	Existing	3.04	1.00	YES	352°N		*North*			*North*	
	Proposed	3.04									
<u>W4</u>	Existing	10.78	1.00	YES	352°N		*North*			*North*	
	Proposed	10.78									
<u>W5</u>	Existing	8.59	1.00	YES	352°N		*North*			*North*	
	Proposed	8.59									
<u>W6</u>	Existing	6.37	1.00	YES	352°N		*North*			*North*	
	Proposed	6.37									



## Jameson house



First floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>		Existing	1.70	0.76	NO	355°N		*North*		*North*	
		Proposed	1.29								
W2		Existing	1.92	0.77	NO	355°N		*North*		*North*	

First floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
	Proposed	1.48									
<u>W3</u>	Existing	2.06	0.80	YES	355°N		*North*			*North*	
	Proposed	1.64									
<u>W4</u>	Existing	2.14	0.82	YES	355°N		*North*			*North*	
	Proposed	1.75									
<u>W5</u>	Existing	2.61	0.87	YES	355°N		*North*			*North*	
	Proposed	2.27									
<u>W6</u>	Existing	2.56	0.90	YES	355°N		*North*			*North*	
	Proposed	2.31									
<u>W7</u>	Existing	2.36	0.92	YES	355°N		*North*			*North*	
	Proposed	2.18									

Second floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	10.29	0.96	YES	89°N		*North*			*North*	
	Proposed	9.87									
<u>W2</u>	Existing	41.97	0.94	YES	359°N		*North*			*North*	
	Proposed	39.61									
<u>W3</u>	Existing	19.68	0.93	YES	359°N		*North*			*North*	
	Proposed	18.23									
<u>W4</u>	Existing	20.11	0.93	YES	359°N		*North*			*North*	
	Proposed	18.75									
<u>W5</u>	Existing	20.04	0.94	YES	359°N		*North*			*North*	
	Proposed	18.76									
<u>W6</u>	Existing	16.23	0.93	YES	359°N		*North*			*North*	
	Proposed	15.13									
<u>W7</u>	Existing	41.53	0.94	YES	86°N		*North*			*North*	
	Proposed	39.04									
<u>W8</u>	Existing	35.38	0.95	YES	359°N		*North*			*North*	
	Proposed	33.70									
<u>W9</u>	Existing	16.12	0.95	YES	359°N		*North*			*North*	
	Proposed	15.38									
<u>W10</u>	Existing	15.60	0.95	YES	359°N		*North*			*North*	
	Proposed	14.87									

Third floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	17.82	0.97	YES	89°N		*North*			*North*	

	Proposed	17.35									
<u>W2</u>	Existing	26.65	0.99	YES	359°N		*North*			*North*	
	Proposed	26.49									
<u>W3</u>	Existing	26.40	1.00	YES	359°N		*North*			*North*	
	Proposed	26.30									
<u>W4</u>	Existing	25.67	1.00	YES	359°N		*North*			*North*	
	Proposed	25.62									
<u>W5</u>	Existing	20.73	1.00	YES	359°N		*North*			*North*	
	Proposed	20.72									
<u>W6</u>	Existing	15.22	1.00	YES	352°N		*North*			*North*	
	Proposed	15.22									
<u>W7</u>	Existing	16.54	1.00	YES	352°N		*North*			*North*	
	Proposed	16.54									
<u>W8</u>	Existing	11.81	1.00	YES	352°N		*North*			*North*	
	Proposed	11.82									

Fourth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	26.68	1.00	YES	89°N		*North*			*North*	
	Proposed	26.61									
<u>W2</u>	Existing	30.74	1.00	YES	359°N		*North*			*North*	
	Proposed	30.72									
<u>W3</u>	Existing	30.45	1.00	YES	359°N		*North*			*North*	
	Proposed	30.43									
<u>W4</u>	Existing	29.67	1.00	YES	359°N		*North*			*North*	
	Proposed	29.67									
<u>W5</u>	Existing	24.94	1.00	YES	359°N		*North*			*North*	
	Proposed	24.94									
<u>W6</u>	Existing	20.78	1.00	YES	352°N		*North*			*North*	
	Proposed	20.78									
<u>W7</u>	Existing	22.79	1.00	YES	352°N		*North*			*North*	
	Proposed	22.79									
<u>W8</u>	Existing	17.05	1.00	YES	352°N		*North*			*North*	
	Proposed	17.05									
Fifth floor											
Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
<u>W1</u>	Existing	34.17	1.00	YES	89°N		*North*			*North*	
	Proposed	34.17									
<u>W2</u>	Existing	31.30	1.00	YES	359°N		*North*			*North*	
	Proposed	31.30									