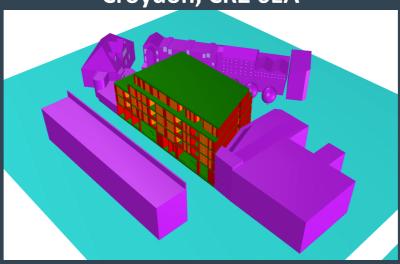


# DAYLIGHT AND SUNLIGHT ANALYSIS

1a Brighton Road Croydon, CR2 6EA



1<sup>st</sup> March 2024



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## Introduction

#### 1. Introduction

#### Overview

#### 1.1. Overview

- 1.1.1. EMH was commissioned by Marlpark Homes LTD to conduct a comprehensive daylight analysis for the proposed development at Stoneham House, 17 Scarbrook Road, Croydon, CRO 1SQ.
- 1.1.2. Objective: The objective of this report is to evaluate the potential impact of the proposed development on the daylight and skylight conditions of the surrounding residential properties, adhering to the guidance provided in BRE Report 209, Site Layout Planning for Daylight and Sunlight: A guide to good practice, Third Edition, 2022 (BR 209).
- 1.1.3. Disclaimer: This report does not address any rights to light for existing building windows. The assessment of loss of light in rights to light cases is conducted differently from the methods utilized in BR 209 and this report. Compliance with BR 209 guidelines does not guarantee that a proposed development will not infringe upon rights to light. If rights to light concerns arise, a qualified expert should be consulted for further investigation.

#### **Development Description**

#### 1.2. Development Description

- 1.2.1. The proposed development entails the construction of a new part 3/part 4/part 5 storey residential block at 1a Brighton Road.
- 1.2.2. Erection of a 5-storey building accommodating commercial space at ground floor level and 25 self-contained residential units on 1<sup>st</sup> -4<sup>th</sup> floors (C3).

## **Development Models**

#### 1.3. Development Models

1.3.1. Two 3D models have been developed as shown in Figures 1 and 2. The first model is of the existing development site and existing nearby buildings. The second model is of the proposed development and existing nearby buildings. The following information has been used in the preparation of the 3D models:



- A 3D model of the existing development and the existing surrounding buildings prepared using photogrammetric processes;
- Drawings of 2A, 2 and 4 Selsdon Road downloaded from Croydon's online planning register;
- Drawings of 1 Brighton Road downloaded from Croydon's online planning register;
   and
- Photos and images of the site. Two 3D models have been generated as outlined in Section 2. The first model represents the existing development site and the surrounding buildings, while the second model incorporates the proposed development and existing nearby structures.
- 1.3.2. Measurements have been estimated from images of the site where information has not been available from survey or from drawings on the Council's planning portal, and 4A and 6 Selsdon Road have been developed on the assumption that the 1st and 2nd floor elevations mirror 2 and 4 Selsdon Road.
- 1.3.3. MBS Daylight for SketchUp and Velux Daylight Visualizer, programs specifically developed to assess 3D models in accordance with guidance provided in BR 209, have been used.
- 1.3.4. Trees have not been included in the models because BR 209 Paragraph G1.2 states:

Where the effect of a new building on existing buildings nearby is being analysed, it is usual to ignore the effect of existing trees.

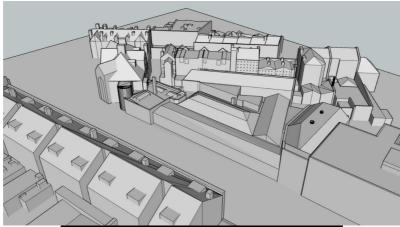


Figure 1- Existing Development Site and Surrounding Area



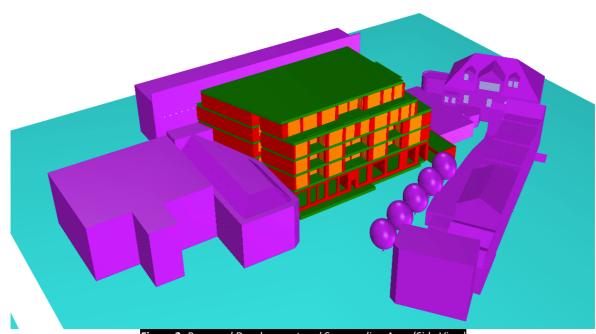


Figure 2- Proposed Development and Surrounding Area (Side View)

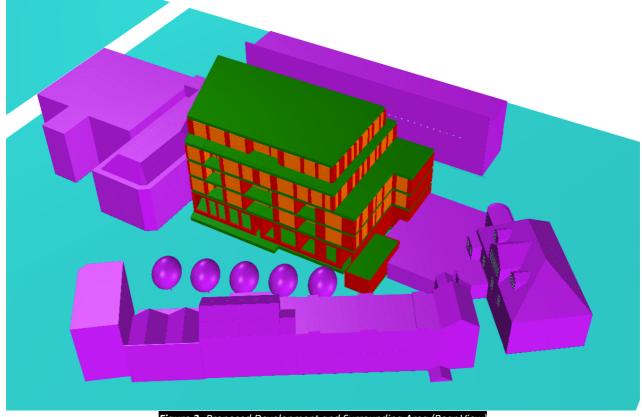


Figure 3- Proposed Development and Surrounding Area (Rear View)



# Sunlight Assessment (Neighbouring Properties)

2. Sunlight Assessment (Neighbouring Properties)

**BRE 209** 

- 2.1. Skylight Vertical Sky Component (VSC) Existing Buildings
  - 2.1.1. BRE 209 paragraph 2.2.7 states:

If the VSC (of the window in an existing building) is greater than 27% then enough skylight should still be reaching the window of the existing building. This value of VSC typically supplies enough daylight to a standard room when combined with a window of normal dimensions, with glass area around 10% or more of the floor area. Any reduction below this level should be kept to a minimum. If the VSC, with the new development in place, is both less than 27% and less than 0.80 times its former value, occupants of the existing building will notice the reduction in the amount of skylight.

- 2.1.2. Table 1 provides a record of the assessment of the VSC of windows at the following locations:
  - 2A, 2, 4, 4A, 6, 8, 10, 12, and 14 Selsdon Road;
  - 1 Brighton Road; and
  - 22-40 Brighton Road (even numbers only).
- 2.1.3. Having reviewed the window positions of the existing surrounding buildings in relation to the proposed development, it is asserted that the proposed development would have an imperceptible impact on all other existing surrounding residential buildings due to their distance from the proposed development.
- 2.1.4. Because the exact positions of the residential windows of 8-14 Selsdon Road and 22-40 Brighton Road are not known, a grid of points has been used to ensure that the impact of the proposed development on the elevations of these buildings is fully understood. The lowest points have been modelled 4.5m above ground level on the assumption that the ground floor is occupied by commercial premises. The positions of all the windows and points assessed are shown in Figures 3 to 6.



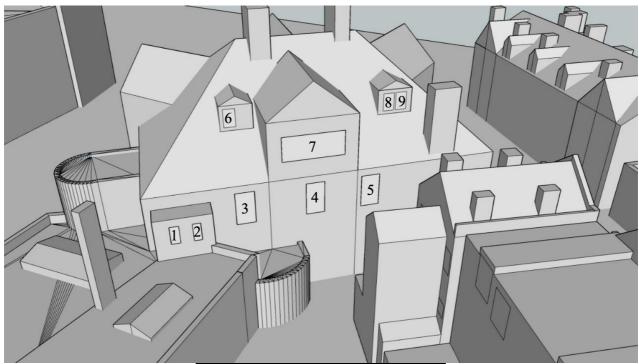


Figure 4- Windows 1-9 assessed at 1 Brighton Road



**Figure 5**-Windows 10-22 assessed at 2A-6 Selsdon Road



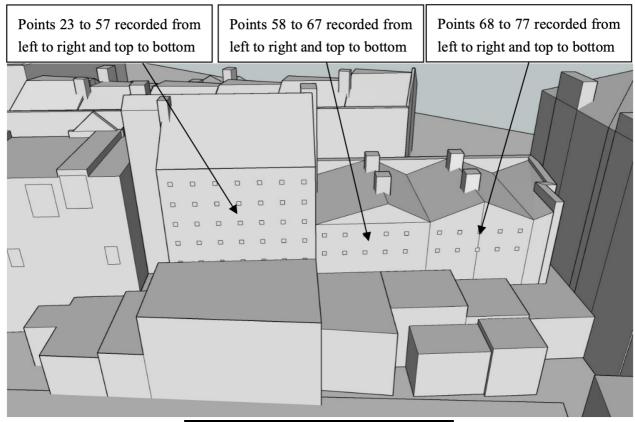


Figure 6- Points 23 to 77 assessed at 8-14 Selsdon Road

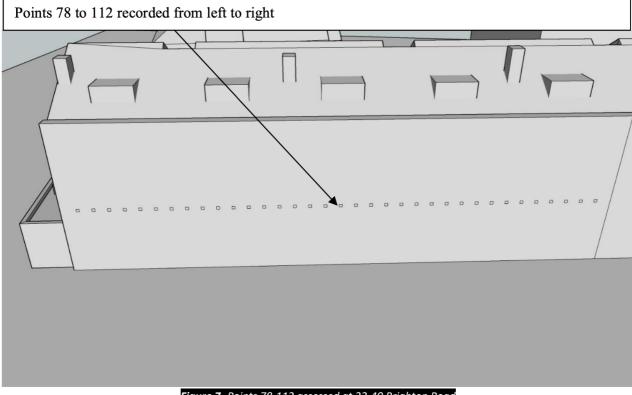


Figure 7- Points 78-112 assessed at 22-40 Brighton Road



**Table 1** - VSC – existing surrounding residential windows

No.	VSC before development	VSC after development	Fraction	Compliance
1	33.83	32.63	0.96	<b>√</b>
2	33.88	32.88	0.97	<b>√</b>
3	33.37	31.27	0.94	<b>√</b>
4	31.09	29.99	0.96	<b>√</b>
5	27.09	23.69	0.87	<b>√</b>
6	35.94	35.94	1.00	✓
7	37.88	34.58	0.91	✓
8	35.11	34.01	0.97	✓
9	33.05	31.85	0.96	<b>√</b>
10	14.92	16.02	1.07	<b>√</b>
11	17.75	14.35	0.81	<b>✓</b>
12	22.57	19.27	0.85	<b>√</b>
13	23.21	24.31	1.05	✓
14	35.62	32.32	0.91	<b>√</b>
15	35.45	32.25	0.91	<b>√</b>
16	27.8	26.8	0.96	<b>√</b>
17	26.83	23.43	0.87	✓
18	25.41	22.11	0.87	✓
19	25.21	24.21	0.96	✓
20	36.48	34.88	0.96	✓
21	35.79	32.39	0.91	✓
22	36.46	33.96	0.93	✓
23	24.72	22.62	0.92	✓
24	25.01	21.71	0.87	✓
25	25.34	23.74	0.94	✓
26	25.59	23.49	0.92	$\checkmark$
27	25.85	25.85	1.00	✓
28	26.09	23.89	0.92	$\checkmark$
29	26.32	27.52	1.05	✓
30	30.14	26.84	0.89	✓
31	30.22	27.02	0.89	✓
32	30.31	27.91	0.92	✓
33	30.4	27.9	0.92	✓
34	30.48	30.48	1.00	✓
35	30.55	28.05	0.92	✓
36	30.61	28.11	0.92	$\checkmark$



37	33.23	31.83	0.96	/
38	33.3	32.1	0.96	<b>√</b>
39	33.35	29.95	0.90	<b>√</b>
40	33.4	30.1	0.90	<b>√</b>
41	33.43	31.23		<b>√</b>
41			0.93	<b>√</b>
	33.46	30.86	0.92	<b>√</b>
43	33.48	32.28	0.96	<b>√</b>
44	35.93	37.03	1.03	<b>√</b>
45	35.94	32.64	0.91	<b>√</b>
46	35.95	34.35	0.96	<b>√</b>
47	35.95	32.65	0.91	<b>√</b>
48	35.95	32.75	0.91	<b>√</b>
49	35.94	33.74	0.94	<b>√</b>
50	35.92	37.12	1.03	<b>√</b>
51	37.28	34.08	0.91	<b>✓</b>
52	37.28	33.98	0.91	<b>√</b>
53	37.27	38.37	1.03	<b>√</b>
54	37.26	34.66	0.93	✓
55	37.24	33.84	0.91	✓
56	37.21	36.11	0.97	✓
57	37.18	35.78	0.96	✓
58	24.06	21.46	0.89	✓
59	26.93	25.53	0.95	✓
60	27.33	25.23	0.92	✓
61	27.42	27.42	1.00	✓
62	27.46	24.36	0.89	✓
63	27.52	25.42	0.92	✓
64	30.49	29.49	0.97	✓
65	30.77	27.67	0.90	✓
66	30.75	31.85	1.04	✓
67	30.67	29.57	0.96	✓
68	27.23	27.23	1.00	✓
69	26.86	25.86	0.96	<b>√</b>
70	26.13	24.53	0.94	✓
71	25.03	21.83	0.87	<b>√</b>
72	23.28	19.98	0.86	<b>√</b>
73	30.26	28.06	0.93	<b>√</b>
74	29.74	27.34	0.92	<b>√</b>
75	28.87	25.57	0.89	<b>√</b>
76	27.56	27.56	1.00	<b>√</b>
77	25.54	22.44	0.88	<b>√</b>



78	32.79	28.18	0.86	✓
79	33.22	27.89	0.84	✓
80	33.16	27.39	0.83	✓
81	33.19	27.01	0.81	✓
82	33.4	26.35	0.79	x
83	33.74	26.01	0.77	x
84	33.67	25.98	0.77	x
85	33.79	25.75	0.76	x
86	33.92	25.29	0.75	x
87	34.13	25.26	0.74	X
88	34.15	25.13	0.74	x
89	34.15	24.91	0.73	x
90	34.54	25.02	0.72	x
91	34.35	28.99	0.84	✓
92	34.43	25.81	0.75	x
93	34.72	25.25	0.73	X
94	34.81	25.34	0.73	x
95	34.69	25.22	0.73	x
96	35.06	25.66	0.73	x
97	34.84	25.85	0.74	x
98	35.1	26.08	0.74	x
99	34.97	26.29	0.75	X
100	35.03	26.65	0.76	x
101	35.29	27.17	0.77	✓
102	35.43	27.45	0.77	✓
103	35.38	28.02	0.79	✓
104	35.3	28.3	0.80	✓
105	35.43	29.22	0.82	<b>√</b>
106	35.24	29.77	0.84	<b>√</b>
107	35.36	30.61	0.87	<b>√</b>
108	35.56	31.06	0.87	<b>√</b>
109	35.44	32.14	0.91	<b>√</b>
110	35.54	32.94	0.93	✓
111	35.53	33.57	0.94	<b>√</b>
112	35.51	34.78	0.98	<b>√</b>

2.1.5. The results show that the proposed development would have an acceptable impact on the skylight of existing surrounding residential windows.

# 2.2. Sunlight- Amenity Areas- Existing Buildings



#### 2.2.1. BR 209 paragraph 3.3.17 states:

It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area that can receive two hours of sun on 21 March is less than 0.80 times its former value, then the loss of sunlight is likely to be noticeable.

2.2.2. There are no existing amenity areas that would be affected by the proposed development.

#### 2.3. Sunlight- Annual Probable Sunlight Hours - Existing Buildings

2.3.1. BR 209 paragraph 3.2.3 states:

To assess loss of sunlight to an existing building, it is suggested that all main living rooms of dwellings, and conservatories, should be checked if they have a window facing within 90 degrees of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun. Normally loss of sunlight need not be analysed to kitchens and bedrooms, except for bedrooms that also comprise a living space, for example a bed sitting room in an old people's home.

2.3.2. BR 209 paragraphs 3.2.6 and 3.2.7 state:

If a room can receive more than one quarter of annual probable sunlight hours (APSH), including at least 5% of APSH in the winter months between 21 September and 21 March, then it should still receive enough sunlight. Also, if the overall annual loss of APSH is 4% or less, the loss of sunlight is small...Any reduction in sunlight access below these levels should be kept to a minimum. If the available sunlight hours are both less than the amount above and less than 0.80 times their former value, either over the whole year or just the winter months (21 September to 21 March), and the overall annual loss is greater than 4% of APSH, then the occupants of the existing building will notice the loss of sunlight; the room may appear colder and less cheerful and pleasant.

- 2.3.3. Table 2 provides a record of the assessment of the annual probable sunlight hours (APSH) and the APSH in the winter months (WPSH) received by windows at the following locations:
  - 2A, 2, 4, 4A, 6, 8, 10, 12, and 14 Selsdon Road;
  - 1 Brighton Road; and
  - 22-40 Brighton Road (even numbers only).



- 2.3.4. Windows that do not face within 90 degrees of due south have not been assessed.
- 2.3.5. Climate data from London Gatwick has been used.
- 2.3.6. The results show that the proposed development would have an acceptable impact on the sunlight of existing surrounding residential windows

Window/ point	%APSH before development	%APSH after development	Fraction of former value	%WPSH before development	%WPSH after development	Fraction of former value	Complies
1	66	52	0.79	20	18	0.90	<b>√</b>
2	67	62	0.93	21	18	0.86	<b>√</b>
3	63	60	0.95	19	17	0.89	<b>✓</b>
4	63	53	0.84	22	20	0.91	<b>√</b>
5	56	52	0.93	19	18	0.95	<b>√</b>
6	69	62	0.90	25	26	1.04	<b>√</b>
7	74	66	0.89	25	21	0.84	<b>✓</b>
8	66	65	0.98	21	18	0.86	<b>√</b>
9	61	56	0.92	22	19	0.86	<b>√</b>
10	20	17	0.85	3	0	0.00	<b>√</b>
11	45	39	0.87	17	17	1.00	<b>✓</b>
12	33	25	0.76	5	2	0.40	<b>√</b>
13	51	44	0.86	21	18	0.86	<b>✓</b>
14	64	61	0.95	22	17	0.77	<b>√</b>
15	65	61	0.94	22	25	1.14	<b>√</b>
16	56	53	0.95	14	14	1.00	<b>√</b>
17	54	51	0.94	14	10	0.71	<b>✓</b>
18	52	57	1.10	14	14	1.00	<b>√</b>
19	45	48	1.07	11	12	1.09	<b>√</b>
20	66	61	0.92	23	20	0.87	<b>√</b>
21	66	56	0.85	22	17	0.77	<b>√</b>
22	68	64	0.94	24	22	0.92	<b>√</b>
23	47	51	1.09	13	11	0.85	<b>√</b>
24	49	51	1.04	13	11	0.85	<b>√</b>
25	50	58	1.16	13	12	0.92	<b>√</b>
26	50	51	1.02	13	12	0.92	<b>√</b>
27	50	58	1.16	13	11	0.85	<b>√</b>
28	50	58	1.16	13	12	0.92	<b>√</b>
29	51	50	0.98	13	14	1.08	<b>√</b>
30	58	62	1.07	18	18	1.00	<b>√</b>
31	60	61	1.02	18	16	0.89	<b>√</b>



32	59	50	0.85	18	13	0.72	$\checkmark$
33	59	55	0.93	18	17	0.94	·
34	59	57	0.97	18	16	0.89	
35	59	58	0.98	18	16	0.89	√
36	59	55	0.93	18	15	0.83	
37	63	63	1.00	20	22	1.10	· ✓
38	63	55	0.87	20	18	0.90	
39	63	65	1.03	20	23	1.15	√
40	63	56	0.89	20	20	1.00	<b>√</b>
41	64	60	0.94	21	19	0.90	<b>√</b>
42	63	60	0.95	20	16	0.80	<b>√</b>
43	63	61	0.97	20	18	0.90	<b>√</b>
44	66	60	0.91	22	20	0.91	<b>√</b>
45	66	61	0.92	22	19	0.86	<b>√</b>
46	66	64	0.97	22	21	0.95	<b>√</b>
47	66	60	0.91	22	24	1.09	<b>√</b>
48	65	59	0.91	21	21	1.00	<b>√</b>
49	65	57	0.88	21	23	1.10	<b>√</b>
50	65	56	0.86	21	22	1.05	<b>√</b>
51	68	64	0.94	24	23	0.96	<b>√</b>
52	68	61	0.90	24	23	0.96	<b>√</b>
53	68	63	0.93	24	21	0.88	<b>√</b>
54	68	66	0.97	24	20	0.83	<b>√</b>
55	68	63	0.93	24	25	1.04	<b>√</b>
56	68	62	0.91	24	21	0.88	<b>√</b>
57	68	58	0.85	24	21	0.88	<b>√</b>
58	51	53	1.04	13	16	1.23	<b>√</b>
59	51	57	1.12	13	10	0.77	<b>√</b>
60	49	52	1.06	11	8	0.73	$\checkmark$
61	49	46	0.94	10	7	0.70	✓
62	48	46	0.96	10	8	0.80	<b>√</b>
63	58	57	0.98	17	18	1.06	<b>√</b>
64	60	51	0.85	17	15	0.88	<b>√</b>
65	59	57	0.97	16	16	1.00	<b>√</b>
66	57	54	0.95	14	12	0.86	<b>√</b>
67	56	53	0.95	13	10	0.77	<b>√</b>
68	45	39	0.87	7	4	0.57	<b>√</b>
69	44	44	1.00	8	5	0.63	<b>√</b>
70	42	41	0.98	8	7	0.88	<b>√</b>
71	35	35	1.00	5	8	1.60	✓
72	33	31	0.94	6	4	0.67	$\checkmark$



73	53	51	0.96	11	13	1.18	<b>√</b>
74	51	45	0.88	10	6	0.60	<b>√</b>
75	48	48	1.00	9	7	0.78	<b>√</b>
76	42	35	0.83	7	5	0.71	✓
77	38	38	1.00	7	5	0.71	<b>✓</b>



# Daylight

#### 3. Daylight

## 3.1. BR 209 paragraphs C16 to C19 state:

C16 The UK National Annex [of BS EN 17037:2018] gives illuminance recommendations of 100 lux in bedrooms, 150 lux in living rooms and 200 lux in kitchens. These are the median illuminances, to be exceed over at least 50% of the assessment points in the room for at least half of the daylight hours. The recommended levels over 95% of a reference plane need not apply to dwellings in the UK.

C17 Where a room has a shared use, the highest target should apply. For example in a bed sitting room in student accommodation, the value for a living room should be used if students would often spend time in their rooms during the day. Local authorities could use discretion here. For example, the target for a living room could be used for a combined living/dining/kitchen area if the kitchens are not to be treated as habitable spaces, as it may avoid small separate kitchens in a design. The kitchen space would still need to be included in the assessment area. Alternatively, in rooms with a particular requirement for daylight, such as bed sitting rooms in homes for the elderly, higher values such as those in tables C1 and C2 may be taken.

C18 The UK National Annex gives the latitude, median external diffuse and global illuminances for various UK locations, as well as the daylight factor targets corresponding to the target illuminances as shown in Table C3. The targets for the latitude nearest to the assessment site should be used.

C19 Table C3 shows the daylight factor targets to be achieved over at least 50% of the assessment grid in domestic habitable rooms with vertical and/or inclined daylight apertures. The UK National Annex gives alternative target values for rooms with diffusing horizontal rooflights.

Table C3 – Target daylight factors ( $D_T$ ) to achieve over at least 50% of the assessment grid in UK domestic habitable rooms with vertical and/or inclined daylight apertures							
Location	D <sub>T</sub> For 100 lx	D <sub>T</sub> For 150 lx	D <sub>T</sub> For 200 lx				
	(Bedroom	(Bedroom	(Bedroom				
St Peter (Jersey)	0.6%	0.9%	1.2%				
London (Gatwick Airport)	0.7%	1.1%	1.4%				
Birmingham	0.6%	0.9%	1.2%				
Hemsby (Norfolk)	0.6%	0.9%	1.3%				
Finningley (Yorkshire)	0.7%	1.0%	1.3%				
Aughton (Lancashire)	0.7%	1.1%	1.4%				
Belfast	0.7%	1.0%	1.4%				
Leuchars (Fife)	0.7%	1.1%	1.4%				
Oban	0.7%	1.1%	1.5%				
Aberdeen	0.7%	1.1%	1.4%				



- 3.2. Table 3 provides a record of the assessment of the daylight factors of the habitable rooms of the proposed dwellings. The floor plans provided in appendix A show the locations of the rooms assessed.
- 3.3. The following inputs have been used in the daylight factor calculations:
  - The reflectance of interior walls and ceilings has been taken as 0.80 (white painted).
  - The reflectance of interior floors has been taken as 0.40 (light wood floor/cream carpet).
  - The reflectance of walls and ceilings to the winter gardens has been taken as 0.80 (white painted).
  - The reflectance of walls to the light well has been taken as 0.60 (white painted).
  - The reflectance of exterior walls, obstructions and exterior ground has been taken as 0.20.
  - The normal incidence transmittance, accounting for maintenance factors, has been assumed as 0.72 for vertical glazing not sheltered from rain.
  - The normal incidence transmittance, accounting for maintenance factors, has been assumed as 0.66 for vertical glazing sheltered from rain.
  - The normal incidence transmittance, accounting for maintenance factors, has been assumed as 0.85 for single glazed privacy screens/windows to the winter gardens.
  - The targets from London (Gatwick Airport) have been used as this is the BR 209 location with the latitude nearest to the assessment site.

### **Table 3**: Daylight Factors- proposed development

Flat No.	Habitable Room	Target Daylight Factor (D <sub>T</sub> )	Daylight Factor Achieved (D)	Complies with BR 209 recommendations
Flat 1	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	7.4	<b>√</b>
	Bedroom 1	0.7%	1.2	✓
	Bedroom 2	0.7%	5.7	$\checkmark$



	D = d = = = = 2	0.70/	7.4	,
	Bedroom 3	0.7%	7.4	<b>√</b>
Flat 2	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	4.2	<b>√</b>
	Bedroom 1	0.7%	1.5	✓
	Bedroom 2	0.7%	1.6	✓
Flat 3	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	5.2	<b>√</b>
	Bedroom 1	0.7%	1.7	$\checkmark$
	Bedroom 2	0.7%	9.9	$\checkmark$
Flat 4	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	4.9	<b>√</b>
	Bedroom 1	0.7%	1.2	$\checkmark$
Flat 5	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	5.6	<b>√</b>
	Bedroom 1	0.7%	4.4	✓
	Bedroom 2	0.7%	1.4	$\checkmark$
Flat 6	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	3.5	<b>√</b>
	Bedroom 1	0.7%	4.9	$\checkmark$
	Bedroom 2	0.7%	1.5	$\checkmark$
Flat 7	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	3.3	<b>√</b>
	Bedroom 1	0.7%	6.3	$\checkmark$
	Bedroom 2	0.7%	1.1	$\checkmark$
	Bedroom 3	0.7%	5	<b>√</b>
Flat 8	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	7.6	<b>√</b>
	Bedroom 1	0.7%	1.2	✓
	Bedroom 2	0.7%	6	✓
	Bedroom 3	0.7%	8.4	✓
Flat 9	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	4.3	<b>√</b>
	Bedroom 1	0.7%	1.5	✓
	Bedroom 2	0.7%	1.6	<b>√</b>
Flat 10	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	5.3	<b>√</b>
	Bedroom 1	0.7%	1.8	<b>√</b>



	Bedroom 2	0.7%	10.1	✓
Flat 11	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	5.6	<b>√</b>
	Bedroom 1	0.7%	0.8	$\checkmark$
Flat 12	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	6.3	<b>√</b>
	Bedroom 1	0.7%	5.2	$\checkmark$
	Bedroom 2	0.7%	1.4	✓
Flat 13	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	4.3	<b>√</b>
	Bedroom 1	0.7%	6	$\checkmark$
	Bedroom 2	0.7%	1.9	$\checkmark$
Flat 14	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	4	<b>√</b>
	Bedroom 1	0.7%	7.4	✓
	Bedroom 2	0.7%	1.16	✓
	Bedroom 3	0.7%	6.1	$\checkmark$
Flat 15	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	8.9	<b>√</b>
	Bedroom 1	0.7%	5.1	$\checkmark$
	Bedroom 2	0.7%	8.3	✓
	Bedroom 3	0.7%	7.3	$\checkmark$
Flat 16	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	4.3	<b>√</b>
	Bedroom 1	0.7%	8.2	✓
	Bedroom 2	0.7%	1.7	✓
	Bedroom 3	0.7%	5.8	$\checkmark$
Flat 17	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	6.1	<b>√</b>
	Bedroom 1		1	$\checkmark$
Flat 18	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	4.4	✓
	Bedroom 1	0.7%	5.6	✓
	Bedroom 2	0.7%	1.2	<b>√</b>
Flat 19	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	4.4	✓
	Bedroom 1	0.7%	5.7	✓



	Bedroom 2	0.7%	1.2	$\checkmark$
Flat 20	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	9.7	<b>√</b>
	Bedroom 1	0.7%	4	<b>√</b>
	Bedroom 2	0.7%	7.1	✓
Flat 21	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	9.4	<b>√</b>
	Bedroom 1	0.7%	7.5	✓
	Bedroom 2	0.7%	14.8	$\checkmark$
	Bedroom 3	0.7%	11.8	✓
Flat 22	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	4.8	<b>√</b>
	Bedroom 1	0.7%	3.8	✓
	Bedroom 2	0.7%	3.3	$\checkmark$
Flat 23	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	8.8	<b>√</b>
	Bedroom 1	0.7%	6.5	$\checkmark$
Flat 24	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	4.5	<b>√</b>
	Bedroom 1	0.7%	5.3	<b>√</b>
	Bedroom 2	0.7%	1.8	✓
Flat 25	Kitchen/Living	1.1% (recommended as 1.1% as opposed to 1.4% to avoid design of small separate kitchen)	4.7	<b>√</b>
	Bedroom 1	0.7%	5	✓
	Bedroom 2	0.7%	10.4	✓



# Sunlight – (New Development)

- 4. Sunlight (New Development)
  - 4.1. Habitable Rooms
    - 4.1.1. BR 209 paragraphs 3.1.15 states:

In general a dwelling, or non-domestic building, which has a particular requirement for sunlight, will appear reasonably sunlit provided:

- <u>At least one</u> main window wall faces within 90° of due south and;
- A habitable room, preferably a main living room, can receive a total of at least 1.5 hours of sunlight on 21 March. This is assessed at the inside centre of the window(s); sunlight received by different windows can be added provided they occur at different times and sunlight hours are not double counted.
- 4.1.2. Table 4 provides a record of the percentage of the sunlight hours received by windows of relevant habitable rooms of the proposed new dwellings. London Gatwick has been used as the location.

Table 4: Sunlight – proposed development

Flat No.	Habitable Room	Sunlight hours on 21st March (Not calculated for windows facing north)	Room Complies	Flat Complies
Flat 1	Kitchen/Living	270	<b>√</b>	
	Bedroom 1	40	X	<b>√</b>
	Bedroom 2	0	X	
	Bedroom 3	0	X	
Flat 2	Kitchen/Living	240	<b>√</b>	
	Bedroom 1	30	X	✓
	Bedroom 2	60	X	
Flat 3	Kitchen/Living	280	<b>√</b>	
	Bedroom 1	50	X	$\checkmark$
	Bedroom 2	250	✓	
Flat 4	Kitchen/Living	230	<b>√</b>	
	Bedroom 1	30	X	✓
Flat 5	Kitchen/Living	230	<b>√</b>	



	Bedroom 1	220		
	Bedroom 2	220	<b>√</b>	$\checkmark$
rel .			X	
Flat 6	Kitchen/Living	230	<b>√</b>	
	Bedroom 1	240	$\checkmark$	<b>√</b>
	Bedroom 2	15	X	
Flat 7	Kitchen/Living	240	✓	
	Bedroom 1	230	✓	$\checkmark$
	Bedroom 2	15	X	
	Bedroom 3	0	X	
Flat 8	Kitchen/Living	290	✓	
	Bedroom 1	50	X	$\checkmark$
	Bedroom 2	0	X	
	Bedroom 3	0	X	
Flat 9	Kitchen/Living	280	<b>✓</b>	
	Bedroom 1	40	X	<b>√</b>
	Bedroom 2	140	<b>√</b>	
Flat 10	Kitchen/Living	280	<b>√</b>	
	Bedroom 1	50	X	<b>√</b>
	Bedroom 2	280	<b>√</b>	
Flat 11	Kitchen/Living	310	<b>✓</b>	
	Bedroom 1	80	X	<b>√</b>
Flat 12	Kitchen/Living	310	<b>√</b>	
	Bedroom 1	300	<b>√</b>	<b>√</b>
	Bedroom 2	80	X	
Flat 13	Kitchen/Living	310	<b>√</b>	
	Bedroom 1	320	<b>√</b>	<b>√</b>
	Bedroom 2	80	X	
Flat 14	Kitchen/Living	320	<b>√</b>	
	Bedroom 1	310	<b>√</b>	<b>√</b>
	Bedroom 2	60	<b>√</b>	
	Bedroom 3	0	X	
Flat 15	Kitchen/Living	300	<b>√</b>	
	Bedroom 1	300	<b>√</b>	<b>√</b>
	Bedroom 2	280	<b>√</b>	
	Bedroom 3	300	<b>√</b>	
Flat 16	Kitchen/Living	280	<b>√</b>	
	Bedroom 1	280	<b>√</b>	<b>√</b>
	Bedroom 2	90	<b>√</b>	
	Bedroom 3	300	<b>√</b>	



Flot 17	Vitaban / Living	410	/	
Flat 17	Kitchen/Living	410	<b>√</b>	
	Bedroom 1	120	✓	$\checkmark$
Flat 18	Kitchen/Living	410	✓	
	Bedroom 1	400	<b>√</b>	✓
	Bedroom 2	120	✓	
Flat 19	Kitchen/Living	410	<b>√</b>	
	Bedroom 1	420	<b>√</b>	<b>√</b>
	Bedroom 2	160	<b>√</b>	
Flat 20	Kitchen/Living	420	<b>√</b>	
	Bedroom 1	40	X	<b>√</b>
	Bedroom 2	60	Х	
Flat 21	Kitchen/Living	300	<b>√</b>	
	Bedroom 1	405	<b>√</b>	<b>√</b>
	Bedroom 2	390	<b>√</b>	
	Bedroom 3	60	X	
Flat 22	Kitchen/Living	290	<b>√</b>	
	Bedroom 1	100	<b>√</b>	<b>√</b>
	Bedroom 2	180	<b>√</b>	
Flat 23	Kitchen/Living	290	<b>√</b>	
	Bedroom 1	290	<b>√</b>	<b>√</b>
Flat 24	Kitchen/Living	400	<b>√</b>	
	Bedroom 1	400	<b>√</b>	<b>√</b>
	Bedroom 2	180	✓	
Flat 25	Kitchen/Living	400	<b>√</b>	
	Bedroom 1	405	<b>√</b>	<b>√</b>
	Bedroom 2	400	✓	

4.1.3. All of the proposed dwellings have a habitable room with a window that would receive more than 1.5 hours of sunlight on 21 March.

## 4.2. Amenity Areas

## 4.2.1. BR 209 paragraph 3.3.17 states:

It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March.



4.2.2. Table 5 provides a record of the assessment of the percentage of the proposed communal amenity area that receives at least two hours of sunlight on 21 March.

# **Table 5**: Sunlight- proposed amenity area

Amenity Area	% of area that receives at least 2 hours of	
	sunlight on 21 March	
Communal amenity area	84.8	

4.3. More than 50% of the communal amenity area would receive more than two hours of sunlight on 21 March, complying with BR 209 recommendations.



# Conclusions

#### 5. Conclusions

- 5.1. An assessment of the daylight and sunlight levels of the proposed new dwellings at 1A Brighton Road, and an assessment of the impact that the proposed development would have on the skylight and sunlight of existing surrounding residential dwellings, has been undertaken in accordance with guidance set out in BRE report 209, Site Layout Planning for Daylight and Sunlight: A guide to good practice, Third Edition, 2022 (BR 209).
- 5.2. Whilst BR 209 gives numerical guidelines for assessing daylight and sunlight, it is important to bear in mind that the numerical guidelines should be interpreted flexibly. BR 209 Paragraph 1.6 states:

The guide (BR 209) 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 taken 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.

- 5.3. With this in mind, the following conclusions have been drawn:
  - 5.3.1. The proposed development would have an acceptable impact on the skylight of existing surrounding residential windows, complying with BR 209 recommendations.
  - 5.3.2. The proposed development would have an acceptable impact on the sunlight of existing surrounding residential windows, complying with BR 209 recommendations.
- 5.4. All of the proposed habitable rooms would achieve the daylight factors recommended in BR 209.
- 5.5. All of the 25 proposed dwellings have a habitable room with a window that would receive more than 1.5 hours of sunlight on 21 March.
- 5.6. At least 50% of the the communal amenity area would receive more than two hours of sunlight on 21 March, complying with BR 209 recommendations.



# Appendix A: Locations of Proposed Habitable Rooms

6. Appendix A: Locations of Proposed Habitable Rooms