



RIGHT OF LIGHT
CONSULTING
Chartered Surveyors

Daylight and Sunlight Report

(Within Development)

14 June 2024

9 and 10 High Street
Hitchin
Hertfordshire
SG5 1BH

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CONTENTS

1 EXECUTIVE SUMMARY	2
1.1 Overview	2
2 INFORMATION SOURCES	3
2.1 Documents Considered	3
3 METHODOLOGY OF THE ASSESSMENT	4
3.1 Local Planning Policy.....	4
3.2 National Planning Policy Framework.....	4
3.3 National Planning Practice Guidance.....	5
3.4 Interior Daylighting.....	5
3.5 Exposure to Sunlight.....	7
4 RESULTS OF THE ASSESSMENT	8
4.1 Windows Analysed	8
4.2 Interior Daylighting.....	8
4.3 Exposure to Sunlight.....	8
4.4 Conclusion.....	9
5 CLARIFICATIONS	10
5.1 General.....	10

APPENDICES

APPENDIX 1	WINDOW KEY
APPENDIX 2	DAYLIGHT PROVISION DATA & CONTOURS
APPENDIX 3	EXPOSURE TO SUNLIGHT DATA
APPENDIX 4	OVERSHADOWING DATA & CONTOURS

1 EXECUTIVE SUMMARY

1.1 Overview

- 1.1.1 Right of Light Consulting has been commissioned by Bellborough Limited to undertake a daylight and sunlight assessment in connection with the development at 9 and 10 High Street, Hitchin Hertfordshire SG5 1BH. The aim of the assessment is to check whether the proposed accommodation will provide its future occupiers with adequate levels of natural light.
- 1.1.2 The assessment is based on the numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a good practice guide, 3rd Edition' by P J Littlefair 2022.
- 1.1.3 Appendix 1 identifies the windows analysed in this assessment. Daylight provision data and contours for the habitable rooms are presented in Appendix 2. Exposure to sunlight data is provided in Appendix 3.
- 1.1.4 The numerical results demonstrate an overall high level of compliance with the BRE recommendations. Whilst there are instances where the Daylight Provision targets are not met, the results are not abnormal in the context of an urban location. The NPPF requires developments to provide acceptable living standards whilst making efficient use of land. The NPPG and BRE guide explain that acceptability is dependent on context and location. The BRE guide also explains that the numerical guidelines should be interpreted flexibly, since natural lighting is only one of many factors in site layout design. The local authority should therefore balance daylight and sunlight considerations against all other material planning considerations when deciding whether to grant planning permission.

2 INFORMATION SOURCES

2.1 Documents Considered

2.1.1 This report is based on the following drawings:

Tigg Coll Architects Ltd

270 - HH - P - 105	Roof Plan	Rev E
270 - HH - P - 110	Ground Floor Plan - Block 1-2	Rev E
270 - HH - P - 111	Ground Floor Plan - Block 3-4	Rev E
270 - HH - P - 112	First Floor Plan - Block 1-2	Rev D
270 - HH - P - 113	First Floor Plan - Block 3-4	Rev E
270 - HH - P - 114	Second Floor Plan - Block 1-2	Rev C
270 - HH - P - 115	Second Floor Plan - Block 3-4	Rev B
270 - HH - P - 116	Third Floor Plan - Block 2-3	Rev D
270 - HH - P - 200	North & South Elevations	Rev -
270 - HH - P - 300	Proposed Site Sections	Rev A

3 METHODOLOGY OF THE ASSESSMENT

3.1 Local Planning Policy

- 3.1.1 We understand that the Local Authority takes the conventional approach of considering daylight and sunlight amenity with reference to the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice, 3rd Edition' by P J Littlefair 2022. The BRE guide is based on European standard BS EN 17037 'Daylight in Buildings', 2019 (BS EN 17037).
- 3.1.2 The standards set out in the BRE guide are intended to be used flexibly. The BRE guide states:
- 3.1.3 "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."
- 3.1.4 In reference to applying different numerical target values in different locations, the BRE guide states:
- 3.1.5 "These values are purely advisory and different targets may be used based on the special requirements of the proposed development or its location."

3.2 National Planning Policy Framework

- 3.2.1 The BRE numerical guidelines should be considered in the context of the National Planning Policy Framework (NPPF), which stipulates that local planning authorities should take a flexible approach to daylight and sunlight to ensure the efficient use of land. The NPPF states:

"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 (as long as the resulting scheme would provide acceptable living standards)."

3.3 National Planning Practice Guidance

- 3.3.1 The BRE numerical guidelines should also be considered in the context of the National Planning Practice Guidance (NPPG). The NPPG states that developments should maintain acceptable living standards. It goes on to explain that what this means in practice is that appropriate levels of sunlight and daylight, will depend to some extent on the context for the development. This is consistent with the BRE guide which as noted in paragraphs 3.1.4 to 3.1.5 above, states that site location is a relevant factor when setting sunlight and daylight targets.

3.4 Interior Daylighting

- 3.4.1 The BRE guide recommends that interior daylighting is checked using the daylight provision test set out in BS EN 17037. The test measures both the amount of daylight, as well as the distribution of daylight within a room. The test is applied to habitable rooms such as living rooms and bedrooms. A kitchen is generally deemed to be a habitable room if it is large enough to accommodate a dining area. If the kitchen is small and is solely used for cooking purposes, then the accepted practice is to treat the kitchen as a non-habitable room. The BRE guide recommends that if the layout means that a small internal kitchen is inevitable, it should be directly linked to a well daylit room.
- 3.4.2 The assessment is carried out using a grid of points on a horizontal reference plane in each room. In accordance with the BRE recommendations, we have set the reference plane at 850mm above the floor and have excluded assessment points from a 0.3m wide band around the perimeter of each room.
- 3.4.3 The UK National Annex to BS EN 17037 gives UK specific minimum illuminance recommendations which we have set as the targets for this project. The targets comprise of 100 lux in bedrooms, 150 lux in living rooms and 200 lux in kitchens to be exceeded over at least 50% of the reference plane.
- 3.4.4 Where a room has a shared use, the highest target should apply. However, the BRE guide explains that local authorities could use discretion here. The guide gives the example where the target for a living room could be used for a combined living/dining/kitchen area if the kitchens are not treated as habitable spaces, as it may avoid small separate kitchens in a design.

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- 3.4.5 In the case of the proposed development, it has not been possible to achieve the 200 lux target for all living/dining/kitchen areas. One solution to this issue would have been to subdivide off the kitchens to make non-habitable non-daylit kitchens, which would not have a requirement for daylight. However, in our opinion this would result in a lower quality of accommodation. Therefore, we have instead applied a 150 lux target to the living/dining/kitchen areas as per the example given in the BRE guide. In our opinion, the 150 lux target is justified as it avoids separate small non-daylit kitchens and results in an overall better standard of accommodation.
- 3.4.6 The data in Appendix 2 includes the lux target we have assigned to each room, together with the percentage of the reference plane that meets the target. The median illuminance (lux) achieved for each room is also presented. Where the median illuminance exceeds the lux target, this means the lux target has been achieved over at least 50% of the assessment grid.
- 3.4.7 The daylight provision test may be carried out using either the daylight factor method, or the interior illuminance method. For the purpose of this assessment, we have adopted the daylight factor method. Using the conversion table set out in the BRE guide, we have expressed the results in terms of lux.
- 3.4.8 Since the assessment is based on a computer simulation, it is necessary to set various surface reflectance values. For example, a 0.6 reflectance means that 60% of the light hitting the surface will be reflected. The BRE guide states that it is necessary to make an allowance for the deterioration of surface finishes. Furniture within the rooms will also have an impact on daylight provision. Since the computer model used in the simulation does not include furniture, the BRE guide recommends that an allowance for this is also made within the reflectance values. For this reason, we have set out below, both the manufacturer's reflectance values, and the values used in the simulation. The simulation values include allowances for furniture and the deterioration of the surfaces. Should product substitutions be required, products with equal reflectance values should be chosen to ensure the daylight results presented in this report are achieved.

Surface	Product	Product Reflectance	Simulation Reflectance
Interior walls	Dulux Light & Space Absolute White	0.93	0.8
Ceilings	Dulux Light & Space Absolute White	0.93	0.8
Floors	Kahrs engineered wood (Ash Coral)	0.62	0.4
Development cladding	BRE default value	n/a	0.2

Balcony floors	Portland stone	0.6	0.5
Balcony soffits	Dulux Weathershield Brilliant White	0.92	0.6
Neighbouring buildings	BRE default value	n/a	0.2
Mirror	Generic value	n/a	0.95
Glass	Generic value	n/a	0.1
Exterior ground	BRE default value	n/a	0.2

3.4.9 The simulation is based on double-glazed windows with a glazed area that equates to 80% of the structural opening size. The glazing consists of a Pilkington 4mm Optifloat Clear outer pane and a Pilkington 6.4mm OptiLam K Glass S inner pane, which has an overall manufacturer's direct transmittance of 0.82. In accordance with the BRE guide, the simulation includes maintenance factors to allow for the effect of dirt on the glazing.

3.5 Exposure to Sunlight

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

3.5.2 The BRE guide states that, in general, a dwelling will appear reasonably sunlit provided:

- at least one main window wall faces within 90 degrees 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.

3.5.3 The guide states that, where groups of dwellings are planned, site layout design should aim to maximise the number of dwellings with a main living room that meets the above recommendations.

4 RESULTS OF THE ASSESSMENT

4.1 Windows Analysed

4.1.1 Appendix 1 identifies the windows serving habitable rooms analysed in this assessment.

4.2 Interior Daylighting

4.2.1 Daylight provision data and contours for the habitable rooms are presented in Appendix 2.

4.2.2 All habitable rooms tested surpass the BRE minimum illuminance recommendations, with the exception of 5 bedrooms and 1 living room. In total 105 of the 111 rooms (95%) therefore surpass the recommendations. This is a very high level of compliance in the context of an urban development site.

4.3 Exposure to Sunlight

4.3.1 Exposure to sunlight data is provided in Appendix 3.

4.3.2 In the case of the proposed development, 39 of the 44 units have at least one habitable room window which faces within 90 degrees of due south. 35 units have a living room window which faces within 90 degrees of due south. 32 of the 44 units have a living room which receives a total of at least 1.5 hours of sunlight on 21 March.

4.3.3 The BRE guide acknowledges that in some cases, it may not be possible for every dwelling to achieve ideal levels of sunlight. The guide explains that where groups of dwellings are planned, site layout design should aim to maximise the number of dwellings with a main living room that:

- faces within 90 degrees of due south, and
- can receive a total of at least 1.5 hours of sunlight on 21 March.

4.3.4 In our opinion, the proposed development represents good site layout design. Since the design maximises sunlight availability, as far as practically possible given the constraints of the site, the BRE exposure to sunlight recommendations for groups of dwellings have been met.

4.4 Conclusion

- 4.4.1 The numerical results demonstrate an overall high level of compliance with the BRE recommendations. Whilst there are instances where the Daylight Provision targets are not met, the results are not abnormal in the context of an urban location. The NPPF requires developments to provide acceptable living standards whilst making efficient use of land. The NPPG and BRE guide explain that acceptability is dependent on context and location. The BRE guide also explains that the numerical guidelines should be interpreted flexibly, since natural lighting is only one of many factors in site layout design. The local authority should therefore balance daylight and sunlight considerations against all other material planning considerations when deciding whether to grant planning permission.

5 CLARIFICATIONS

5.1 General

- 5.1.1 The report provided is solely for the use of the client and no liability to anyone else is accepted.
- 5.1.2 The assessment is limited to assessing daylight, sunlight of the proposed development as set out in section 2.1 and 3.1 of the BRE guide.
- 5.1.3 The assessment is based on the information listed in section 2 of this report and a site visit undertaken in February 2022.
- 5.1.4 We have undertaken the survey following the guidelines of the RICS publication "Surveying Safely". Where limited access is available, assumptions will have been made.
- 5.1.5 This report is based upon and subject to the scope of work set out in Right of Light Consulting's quotation and standard terms and conditions.

APPENDICES

APPENDIX 1

WINDOW KEY



Paynes Park

Proposed
Development

104

45

1



Proposed
Development

173

172

126

125

171

67

66

129

70

14



Proposed
Development

181

184

185

144

145

146

147

85

86

87

88

25

26



Proposed
Development

159

164

158

163

162

161

160

100

99

98

103

102

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41

42

43

44



Proposed
Development

116

112

111

57

53

110

52

109

6

11

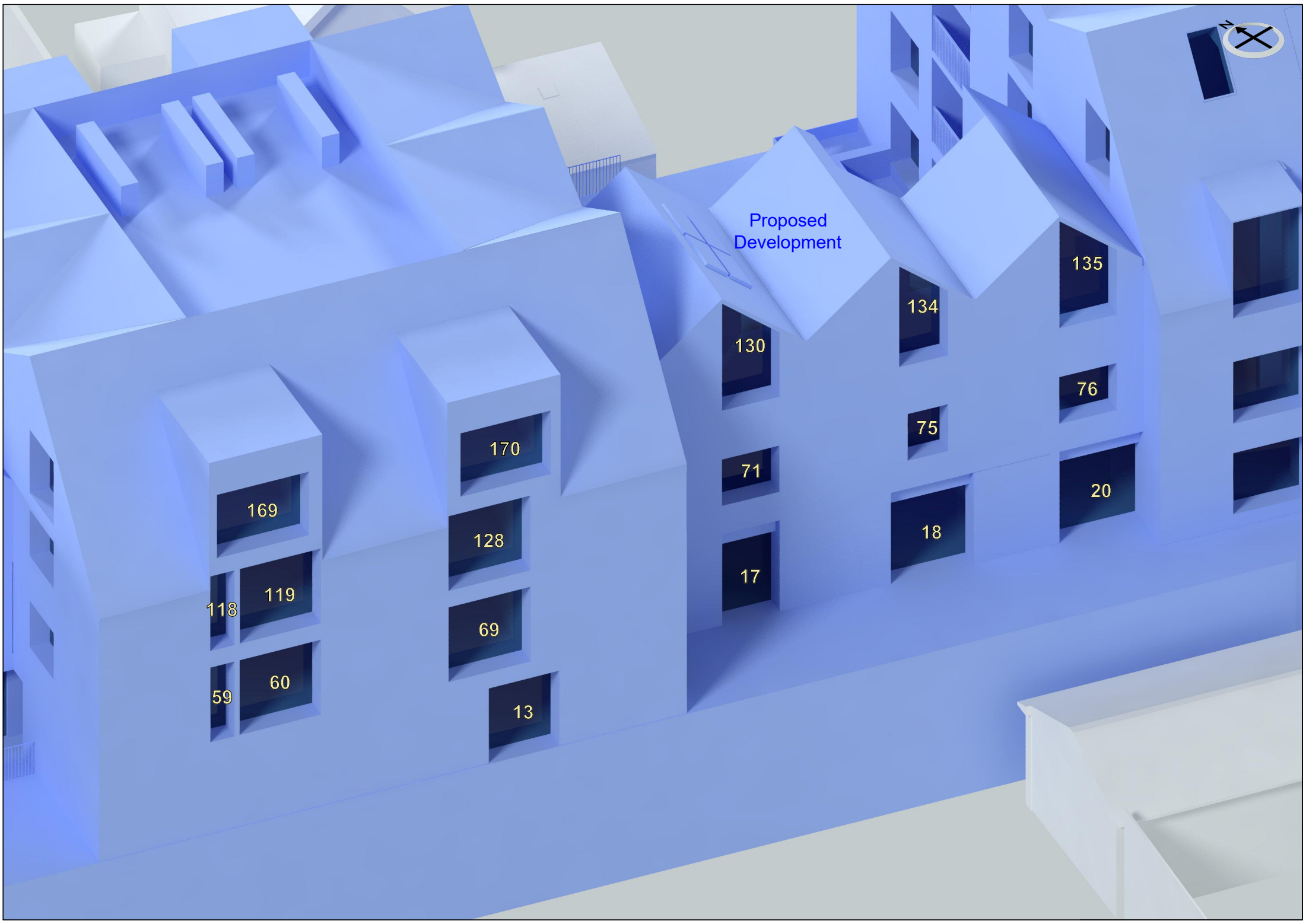
5

51

50

3

2



Proposed
Development

135

134

130

76

75

71

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18

17

170

128

69

13

169

118

119

59

60



Proposed
Development

180

182

183

136

137

142

143

84

83

78

77

24

23

22

21



Proposed
Development

150

151

155

156

91

93

96

97

34

35

38



Proposed
Development

114

115

113

55

56

54

10

4

105

106

46

47



Proposed
Development

174

127

68

165

120

61

7



Proposed
Development

186

176

177

148

149

138

89

90

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32

31

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133

74

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131

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132

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15



Proposed
Development

152

154

153

92

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94

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36

37





Proposed
Development

179

178

141

82

175

140

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80

28



Proposed
Development

159

164

157

101

39

APPENDIX 2

DAYLIGHT PROVISION DATA & CONTOURS

Appendix 2 - Daylight Provision
9 and 10 High Street, Hitchin Hertfordshire SG5 1BH

Reference	Room Use	Target Illuminance (Lux)	Target % of Reference Plane	% of Reference Plane Achieved	Target % Achieved	Median Illuminance (Lux)
<u>Block 1 and 2 (Unit 1)</u>						
<u>Ground Floor</u>						
Window 1	Bedroom	100	50%	65%	Yes	117
Windows 2 & 3	Living/Dining/Kitchen	150	50%	100%	Yes	460
<u>Block 1 and 2 (Unit 2)</u>						
<u>Ground Floor</u>						
Windows 4 & 5	Living/Dining/Kitchen	150	50%	98%	Yes	321
Window 6	Bedroom	100	50%	100%	Yes	241
<u>Block 1 and 2 (Unit 3)</u>						
<u>Ground Floor</u>						
Windows 7 to 9	Living/Dining/Kitchen	150	50%	100%	Yes	384
Window 10	Bedroom	100	50%	100%	Yes	236
Windows 11 & 12	Bedroom	100	50%	92%	Yes	173
<u>Block 1 and 2 (Unit 4)</u>						
<u>Ground Floor</u>						
Windows 13 & 14	Living/Dining/Kitchen	150	50%	82%	Yes	274
Windows 15 & 16	Bedroom	100	50%	40%	No	81
<u>Block 3 and 4 (Unit 5)</u>						
<u>Ground Floor</u>						
Window 17	Bedroom	100	50%	100%	Yes	326
Windows 18 & 19	Living/Dining/Kitchen	150	50%	100%	Yes	484
<u>Block 3 and 4 (Unit 6)</u>						
<u>Ground Floor</u>						
Window 20	Living/Dining/Kitchen	150	50%	91%	Yes	215
Window 21	Bedroom	100	50%	100%	Yes	336
Window 22	Bedroom	100	50%	100%	Yes	393
<u>Block 3 and 4 (Unit 7)</u>						
<u>Ground Floor</u>						
Window 23	Bedroom	100	50%	100%	Yes	432
Windows 24 to 26	Living/Dining/Kitchen	150	50%	100%	Yes	550
<u>Block 3 and 4 (Unit 8)</u>						
<u>Ground Floor</u>						
Windows 27 to 29	Living/Dining/Kitchen	150	50%	100%	Yes	570
Window 30	Bedroom	100	50%	100%	Yes	504

Appendix 2 - Daylight Provision
9 and 10 High Street, Hitchin Hertfordshire SG5 1BH

Reference	Room Use	Target Illuminance (Lux)	Target % of Reference Plane	% of Reference Plane Achieved	Target % Achieved	Median Illuminance (Lux)
<u>Block 3 and 4 (Unit 9)</u>						
<u>Ground Floor</u>						
Window 31	Bedroom	100	50%	100%	Yes	365
Window 32	Bedroom	100	50%	100%	Yes	407
Windows 33 & 34	Living/Dining/Kitchen	150	50%	79%	Yes	270
<u>Block 3 and 4 (Unit 10)</u>						
<u>Ground Floor</u>						
Window 35	Bedroom	100	50%	93%	Yes	189
Window 36	Bedroom	100	50%	91%	Yes	219
Windows 37 & 38	Living/Dining/Kitchen	150	50%	100%	Yes	477
<u>Block 3 and 4 (Unit 11)</u>						
<u>Ground Floor</u>						
Window 39	Living/Dining/Kitchen	150	50%	49%	No	147
Window 40	Bedroom	100	50%	100%	Yes	331
Window 41	Bedroom	100	50%	100%	Yes	421
<u>Block 3 and 4 (Unit 12)</u>						
<u>Ground Floor</u>						
Window 42	Bedroom	100	50%	100%	Yes	299
Window 43	Bedroom	100	50%	100%	Yes	300
Window 44	Living/Dining/Kitchen	150	50%	74%	Yes	188
<u>Block 1 and 2 (Unit 101)</u>						
<u>First Floor</u>						
Windows 45 & 46	Living/Dining/Kitchen	150	50%	70%	Yes	285
Windows 47 & 48	Bedroom	100	50%	100%	Yes	464
<u>Block 1 and 2 (Unit 102)</u>						
<u>First Floor</u>						
Windows 49 & 50	Bedroom	100	50%	100%	Yes	726
Window 51	Bedroom	100	50%	100%	Yes	576
Windows 52 to 54	Living/Dining/Kitchen	150	50%	79%	Yes	233
<u>Block 1 and 2 (Unit 103)</u>						
<u>First Floor</u>						
Windows 55 to 57	Living/Dining/Kitchen	150	50%	73%	Yes	196
Windows 58 & 59	Bedroom	100	50%	100%	Yes	201
Window 60	Bedroom	100	50%	100%	Yes	377

Appendix 2 - Daylight Provision
9 and 10 High Street, Hitchin Hertfordshire SG5 1BH

Reference	Room Use	Target Illuminance (Lux)	Target % of Reference Plane	% of Reference Plane Achieved	Target % Achieved	Median Illuminance (Lux)
<u>Block 1 and 2 (Unit 104)</u>						
<u>First Floor</u>						
Windows 61 to 63	Living/Dining/Kitchen	150	50%	100%	Yes	424
Window 64	Bedroom	100	50%	2%	No	23
<u>Block 1 and 2 (Unit 105)</u>						
<u>First Floor</u>						
Window 65	Bedroom	100	50%	3%	No	33
Windows 66 to 68	Living/Dining/Kitchen	150	50%	100%	Yes	415
<u>Block 1 and 2 (Unit 106)</u>						
<u>First Floor</u>						
Window 69	Bedroom	100	50%	100%	Yes	426
Window 70	Bedroom	100	50%	100%	Yes	276
Windows 71 to 73	Living/Dining/Kitchen	150	50%	95%	Yes	237
<u>Block 3 and 4 (Unit 107)</u>						
<u>First Floor</u>						
Windows 74 to 76	Living/Dining/Kitchen	150	50%	92%	Yes	279
Window 77	Bedroom	100	50%	100%	Yes	331
Window 78	Bedroom	100	50%	100%	Yes	330
<u>Block 3 and 4 (Unit 108)</u>						
<u>First Floor</u>						
Windows 79 to 81	Living/Dining/Kitchen	150	50%	100%	Yes	403
Window 82	Bedroom	100	50%	87%	Yes	138
<u>Block 3 and 4 (Unit 109)</u>						
<u>First Floor</u>						
Window 83	Bedroom	100	50%	100%	Yes	379
Windows 84 to 86	Living/Dining/Kitchen	150	50%	100%	Yes	385
Window 87	Bedroom	100	50%	97%	Yes	170
<u>Block 3 and 4 (Unit 110)</u>						
<u>First Floor</u>						
Windows 88 & 89	Living/Dining/Kitchen	150	50%	95%	Yes	323
Window 90	Bedroom	100	50%	100%	Yes	374
<u>Block 3 and 4 (Unit 111)</u>						
<u>First Floor</u>						
Window 91	Bedroom	100	50%	68%	Yes	136
Windows 92 & 93	Living/Dining/Kitchen	150	50%	94%	Yes	310

Appendix 2 - Daylight Provision

9 and 10 High Street, Hitchin Hertfordshire SG5 1BH

Reference	Room Use	Target Illuminance (Lux)	Target % of Reference Plane	% of Reference Plane Achieved	Target % Achieved	Median Illuminance (Lux)
<u>Block 3 and 4 (Unit 112)</u>						
<u>First Floor</u>						
Window 94	Bedroom	100	50%	100%	Yes	313
Windows 95 & 96	Living/Dining/Kitchen	150	50%	92%	Yes	281
Window 97	Bedroom	100	50%	98%	Yes	278
<u>Block 3 and 4 (Unit 113)</u>						
<u>First Floor</u>						
Window 98	Bedroom	100	50%	100%	Yes	303
Window 99	Bedroom	100	50%	100%	Yes	336
Windows 100 & 101	Living/Dining/Kitchen	150	50%	55%	Yes	168
<u>Block 3 and 4 (Unit 114)</u>						
<u>First Floor</u>						
Window 102	Living/Dining/Kitchen	150	50%	76%	Yes	194
Window 103	Bedroom	100	50%	100%	Yes	354
<u>Block 1 and 2 (Unit 201)</u>						
<u>Second Floor</u>						
Windows 104 & 105	Living/Dining/Kitchen	150	50%	70%	Yes	335
Windows 106 & 107	Bedroom	100	50%	100%	Yes	526
<u>Block 1 and 2 (Unit 202)</u>						
<u>Second Floor</u>						
Windows 108 & 109	Bedroom	100	50%	100%	Yes	566
Window 110	Bedroom	100	50%	100%	Yes	369
Windows 111 to 113	Living/Dining/Kitchen	150	50%	96%	Yes	489
<u>Block 1 and 2 (Unit 203)</u>						
<u>Second Floor</u>						
Windows 114 to 116	Living/Dining/Kitchen	150	50%	100%	Yes	446
Windows 117 & 118	Bedroom	100	50%	100%	Yes	236
Window 119	Bedroom	100	50%	100%	Yes	361
<u>Block 1 and 2 (Unit 204)</u>						
<u>Second Floor</u>						
Windows 120 to 122	Living/Dining/Kitchen	150	50%	100%	Yes	475
Window 123	Bedroom	100	50%	3%	No	31
<u>Block 1 and 2 (Unit 205)</u>						
<u>Second Floor</u>						
Window 124	Bedroom	100	50%	4%	No	36
Windows 125 to 127	Living/Dining/Kitchen	150	50%	100%	Yes	461

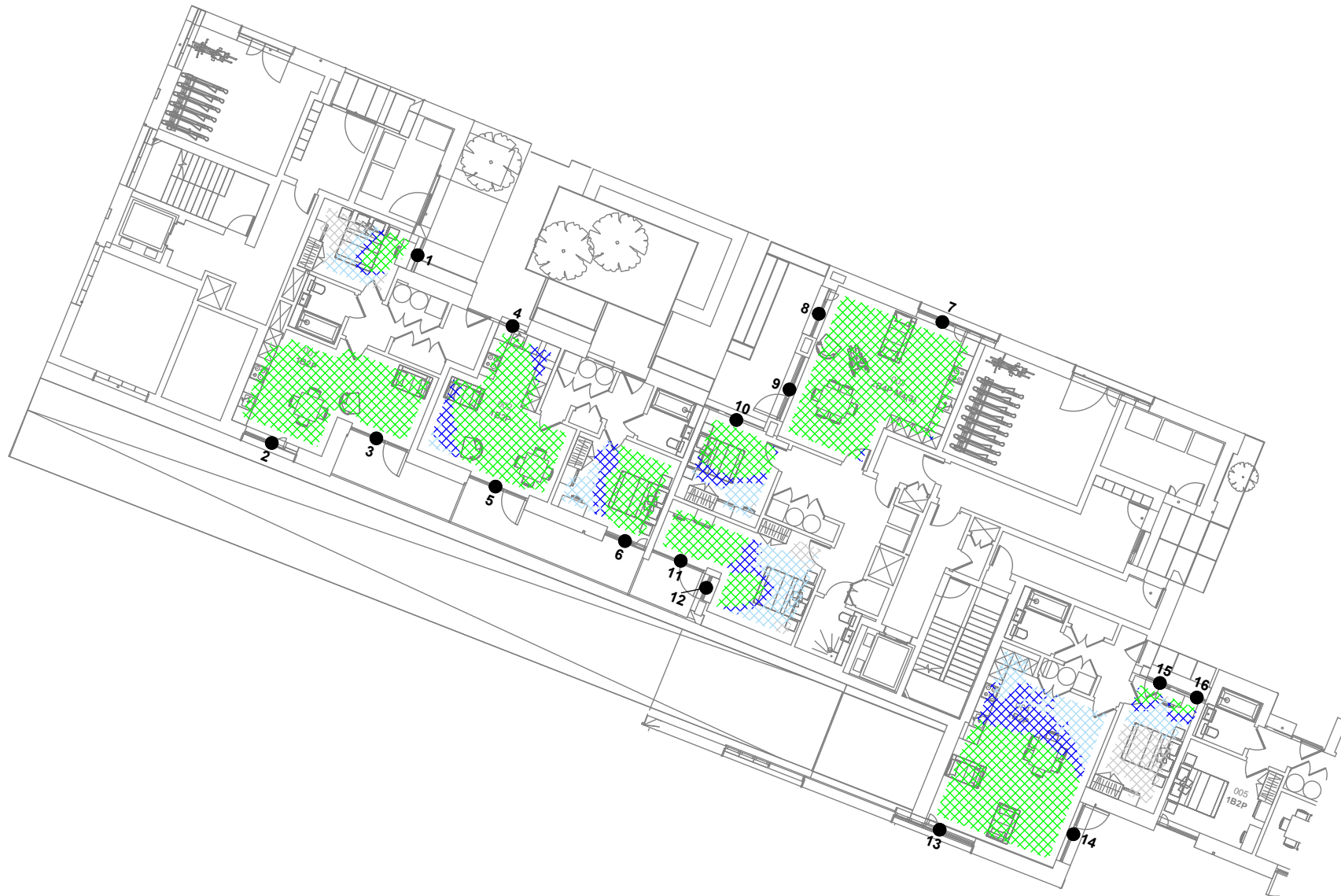
Appendix 2 - Daylight Provision

9 and 10 High Street, Hitchin Hertfordshire SG5 1BH

Reference	Room Use	Target Illuminance (Lux)	Target % of Reference Plane	% of Reference Plane Achieved	Target % Achieved	Median Illuminance (Lux)
<u>Block 1 and 2 (Unit 206)</u>						
<u>Second Floor</u>						
Window 128	Bedroom	100	50%	100%	Yes	417
Window 129	Bedroom	100	50%	100%	Yes	327
Windows 130 to 132	Living/Dining/Kitchen	150	50%	100%	Yes	515
<u>Block 3 and 4 (Unit 207)</u>						
<u>Second Floor</u>						
Windows 133 to 135	Living/Dining/Kitchen	150	50%	98%	Yes	725
Window 136	Bedroom	100	50%	100%	Yes	613
Window 137	Bedroom	100	50%	100%	Yes	511
<u>Block 3 and 4 (Unit 208)</u>						
<u>Second Floor</u>						
Windows 138 to 140	Living/Dining/Kitchen	150	50%	100%	Yes	587
Window 141	Bedroom	100	50%	100%	Yes	270
<u>Block 3 and 4 (Unit 209)</u>						
<u>Second Floor</u>						
Window 142	Bedroom	100	50%	100%	Yes	621
Windows 143 to 145	Living/Dining/Kitchen	150	50%	100%	Yes	656
Window 146	Bedroom	100	50%	100%	Yes	231
<u>Block 3 and 4 (Unit 210)</u>						
<u>Second Floor</u>						
Windows 147 & 148	Living/Dining/Kitchen	150	50%	100%	Yes	700
Window 149	Bedroom	100	50%	100%	Yes	721
<u>Block 3 and 4 (Unit 211)</u>						
<u>Second Floor</u>						
Window 150	Bedroom	100	50%	100%	Yes	435
Windows 151 & 152	Living/Dining/Kitchen	150	50%	100%	Yes	750
<u>Block 3 and 4 (Unit 212)</u>						
<u>Second Floor</u>						
Window 153	Bedroom	100	50%	100%	Yes	702
Windows 154 & 155	Living/Dining/Kitchen	150	50%	100%	Yes	750
Window 156	Bedroom	100	50%	100%	Yes	750
<u>Block 3 and 4 (Unit 213)</u>						
<u>Second Floor</u>						
Windows 157 to 159	Living/Dining/Kitchen	150	50%	100%	Yes	738
Window 160	Bedroom	100	50%	95%	Yes	186

Appendix 2 - Daylight Provision
9 and 10 High Street, Hitchin Hertfordshire SG5 1BH

Reference	Room Use	Target Illuminance (Lux)	Target % of Reference Plane	% of Reference Plane Achieved	Target % Achieved	Median Illuminance (Lux)
<u>Block 3 and 4 (Unit 214)</u>						
<u>Second Floor</u>						
Window 161	Bedroom	100	50%	93%	Yes	124
Windows 162 to 164	Living/Dining/Kitchen	150	50%	100%	Yes	750
<u>Block 1 and 2 (Unit 301)</u>						
<u>Third Floor</u>						
Windows 165 & 166	Living/Dining/Kitchen	150	50%	61%	Yes	176
Window 167	Bedroom	100	50%	100%	Yes	235
Windows 168 & 169	Bedroom	100	50%	100%	Yes	440
<u>Block 1 and 2 (Unit 302)</u>						
<u>Second Floor</u>						
Windows 170 & 171	Bedroom	100	50%	100%	Yes	460
Window 172	Bedroom	100	50%	100%	Yes	224
Windows 173 & 174	Living/Dining/Kitchen	150	50%	63%	Yes	171
<u>Block 3 and 4 (Unit 303)</u>						
<u>Second Floor</u>						
Windows 175 to 177	Living/Dining/Kitchen	150	50%	65%	Yes	319
Window 178	Bedroom	100	50%	100%	Yes	176
Windows 179 & 180	Bedroom	100	50%	100%	Yes	750
<u>Block 3 and 4 (Unit 304)</u>						
<u>Third Floor</u>						
Windows 181 to 183	Living/Dining/Kitchen	150	50%	90%	Yes	425
Window 184	Bedroom	100	50%	100%	Yes	255
Windows 185 & 186	Bedroom	100	50%	100%	Yes	726



Key:

 200 lux and above

 150 lux to 199 lux

 100 lux to 149 lux

 Below 100 lux

 Window reference

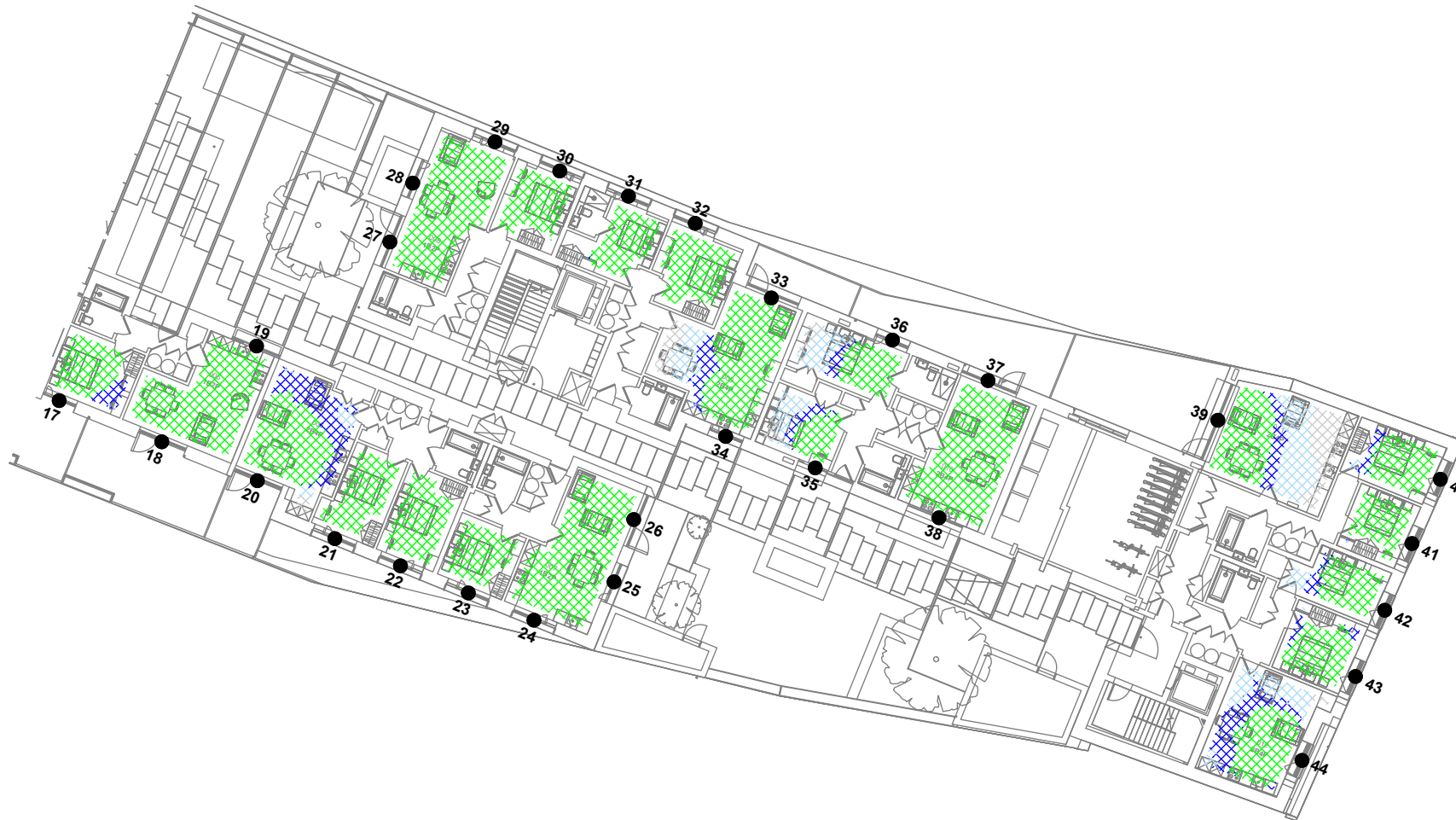
Drawing Title: Daylight Provision Contours

Scale: Do not scale

Drawing No: 1 of 8

Rev. .

Rev	Date	Details of revision



Key:

 200 lux and above 150 lux to 199 lux 100 lux to 149 lux Below 100 lux Window reference

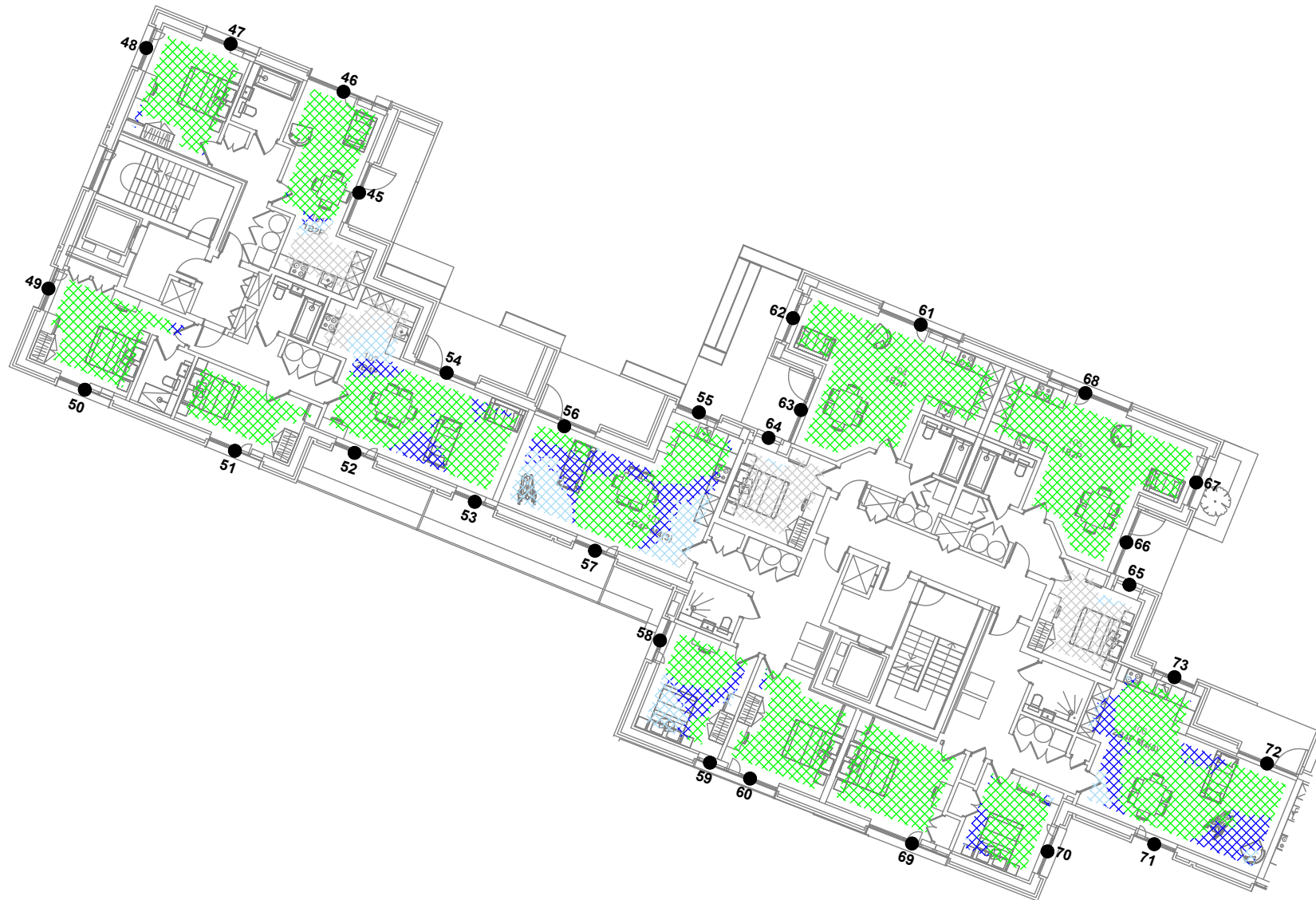
Drawing Title: Daylight Provision Contours

Scale: Do not scale

Drawing No: 2 of 8

Rev. .

Rev	Date	Details of revision



Key:

 200 lux and above 150 lux to 199 lux 100 lux to 149 lux Below 100 lux Window reference

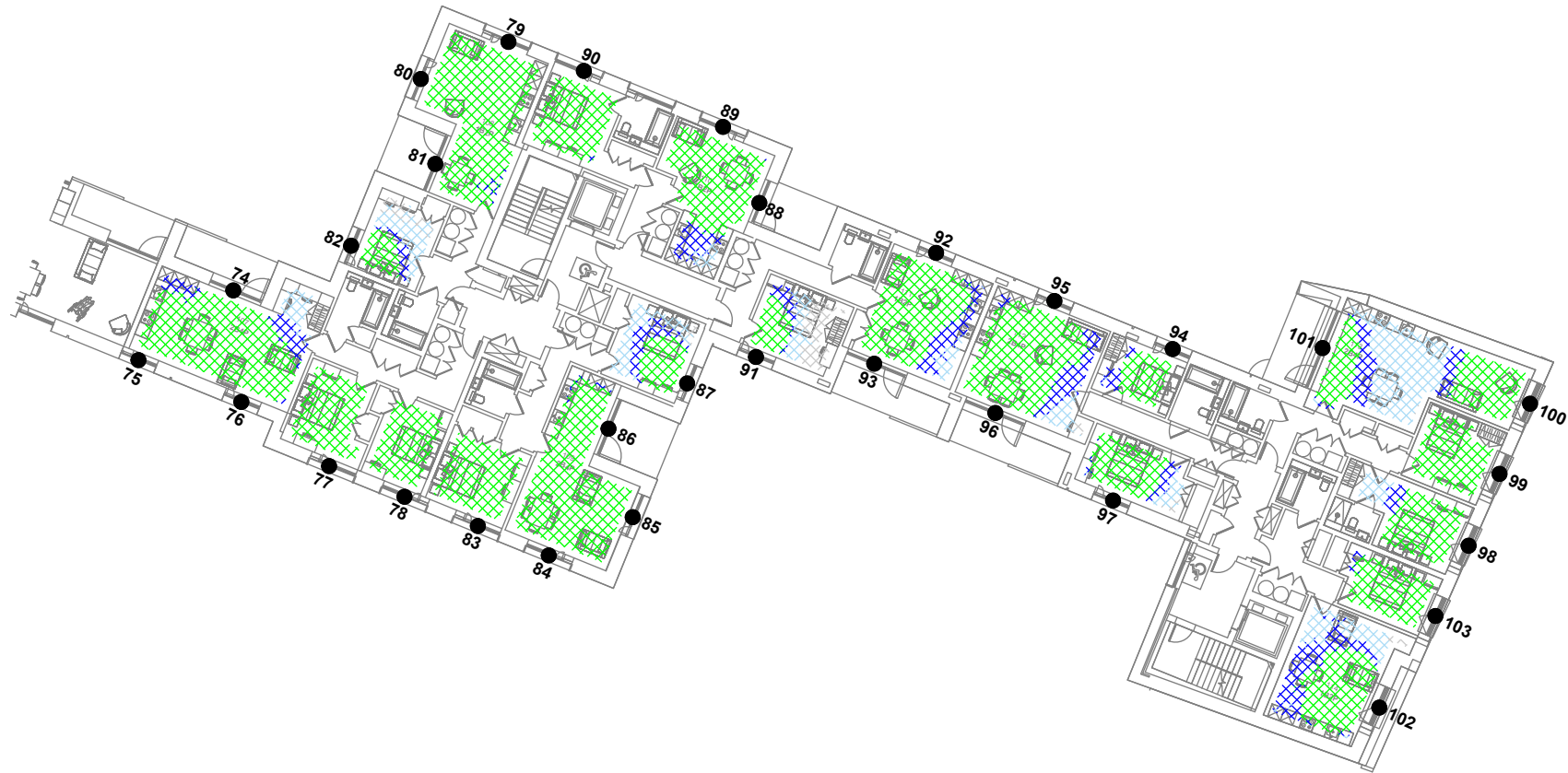
Drawing Title: Daylight Provision Contours

Scale: Do not scale

Drawing No: 3 of 8

Rev. .

Rev	Date	Details of revision



Key:

 200 lux and above 150 lux to 199 lux 100 lux to 149 lux Below 100 lux Window reference

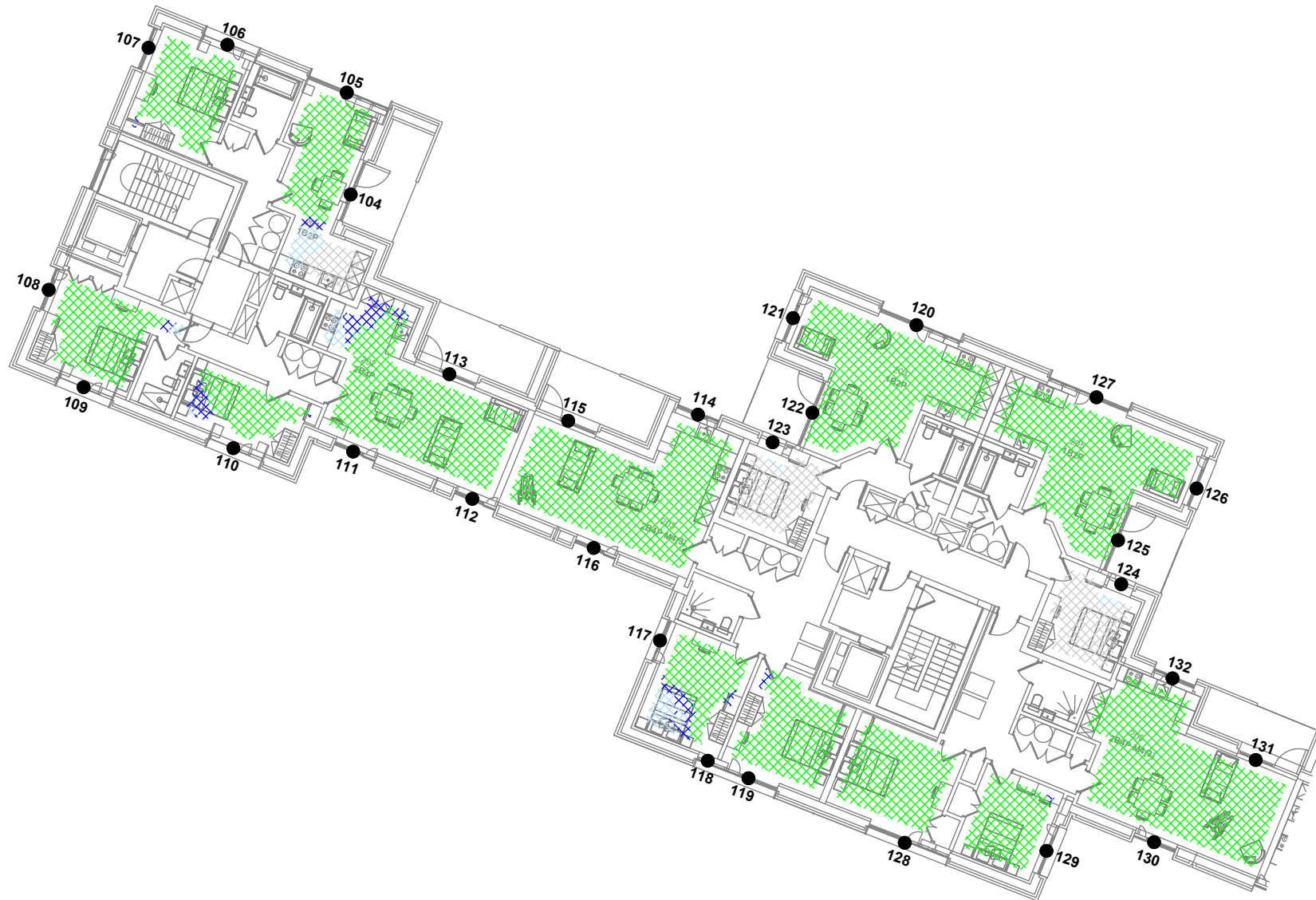
Drawing Title: Daylight Provision Contours

Scale: Do not scale

Drawing No: 4 of 8

Rev. .

Rev	Date	Details of revision



Key:

 200 lux and above 150 lux to 199 lux 100 lux to 149 lux Below 100 lux Window reference

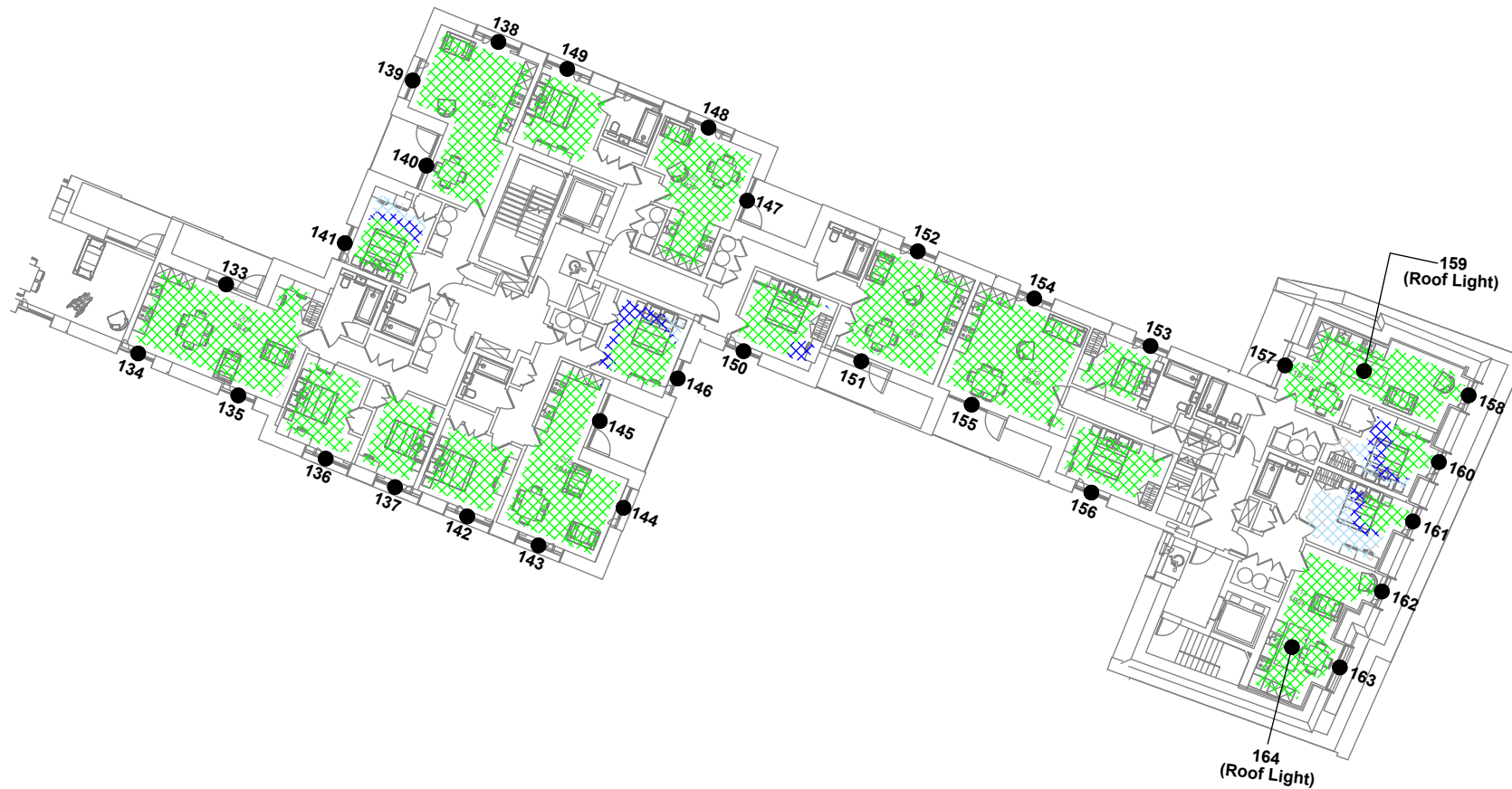
Drawing Title: Daylight Provision Contours

Scale: Do not scale

Drawing No: 5 of 8

Rev. .

Rev	Date	Details of revision



Key:

 200 lux and above 150 lux to 199 lux 100 lux to 149 lux Below 100 lux Window reference

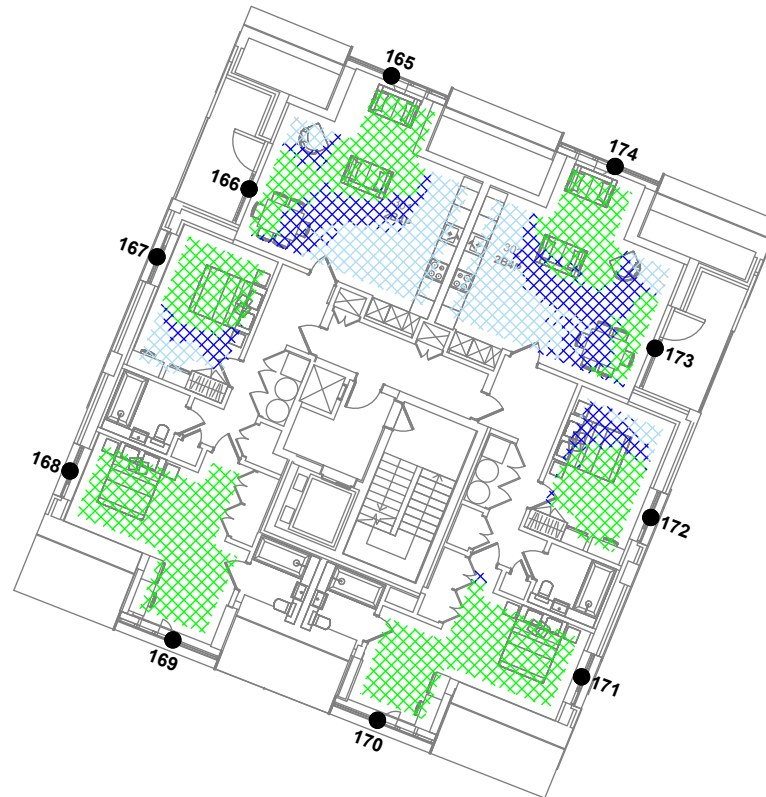
Drawing Title: Daylight Provision Contours

Scale: Do not scale

Drawing No: 6 of 8

Rev. .

Rev	Date	Details of revision



Key:

 200 lux and above

 150 lux to 199 lux

 100 lux to 149 lux

 Below 100 lux

 Window reference

Drawing Title: Daylight Provision Contours

Scale: Do not scale

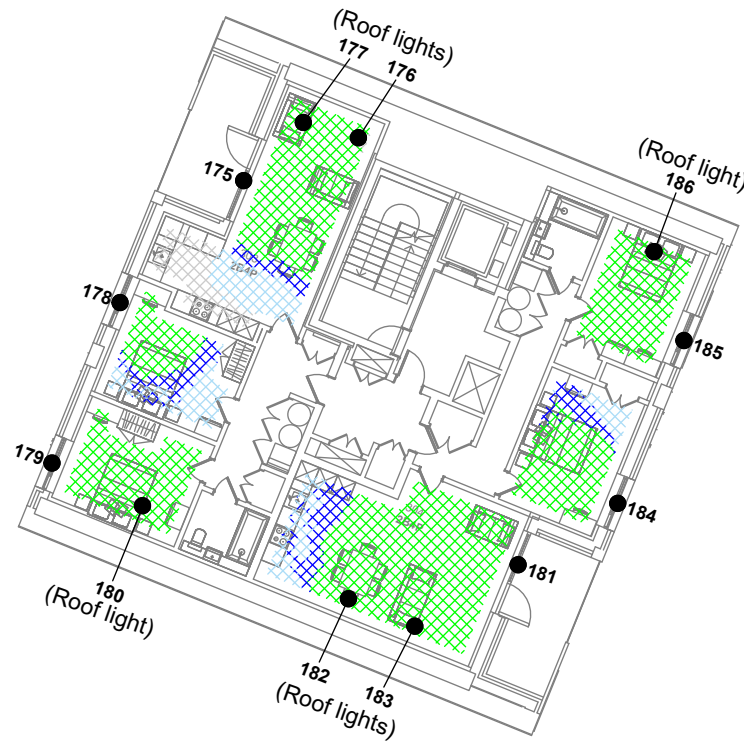
Drawing No: 7 of 8

Rev. -

Rev	Date	Details of revision



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Key:

200 lux and above

150 lux to 199 lux

100 lux to 149 lux

Below 100 lux

Window reference

Drawing Title: Daylight Provision Contours

Scale: Do not scale

Drawing No: 8 of 8

Rev. .

Rev	Date	Details of revision



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APPENDIX 3

EXPOSURE TO SUNLIGHT DATA

Appendix 3 - Sunlight Exposure

9 and 10 High Street, Hitchin Hertfordshire SG5 1BH

Reference	Room Use	Target Sunlight Exposure	Sunlight Exposure Achieved	At least one room meets Sunlight Exposure Target
<u>Block 1 and 2 (Unit 1)</u>				
<u>Ground Floor</u>				
Window 1	Bedroom	1.5 hours	0 hours	Yes
Windows 2 & 3	Living/Dining/Kitchen	1.5 hours	7.3 hours	
<u>Block 1 and 2 (Unit 2)</u>				
<u>Ground Floor</u>				
Windows 4 & 5	Living/Dining/Kitchen	1.5 hours	6.5 hours	Yes
Window 6	Bedroom	1.5 hours	5 hours	
<u>Block 1 and 2 (Unit 3)</u>				
<u>Ground Floor</u>				
Windows 7 to 9	Living/Dining/Kitchen	1.5 hours	0 hours	Yes
Window 10	Bedroom	1.5 hours	0 hours	
Windows 11 & 12	Bedroom	1.5 hours	4.1 hours	
<u>Block 1 and 2 (Unit 4)</u>				
<u>Ground Floor</u>				
Windows 13 & 14	Living/Dining/Kitchen	1.5 hours	8.8 hours	Yes
Windows 15 & 16	Bedroom	1.5 hours	0 hours	
<u>Block 3 and 4 (Unit 5)</u>				
<u>Ground Floor</u>				
Window 17	Bedroom	1.5 hours	5.5 hours	Yes
Windows 18 & 19	Living/Dining/Kitchen	1.5 hours	7 hours	
<u>Block 3 and 4 (Unit 6)</u>				
<u>Ground Floor</u>				
Window 20	Living/Dining/Kitchen	1.5 hours	5.3 hours	Yes
Window 21	Bedroom	1.5 hours	6.8 hours	
Window 22	Bedroom	1.5 hours	6.8 hours	
<u>Block 3 and 4 (Unit 7)</u>				
<u>Ground Floor</u>				
Window 23	Bedroom	1.5 hours	6.8 hours	Yes
Windows 24 to 26	Living/Dining/Kitchen	1.5 hours	9.3 hours	
<u>Block 3 and 4 (Unit 8)</u>				
<u>Ground Floor</u>				
Windows 27 to 29	Living/Dining/Kitchen	1.5 hours	0 hours	No
Window 30	Bedroom	1.5 hours	0 hours	

Appendix 3 - Sunlight Exposure

9 and 10 High Street, Hitchin Hertfordshire SG5 1BH

Reference	Room Use	Target Sunlight Exposure	Sunlight Exposure Achieved	At least one room meets Sunlight Exposure Target
<u>Block 3 and 4 (Unit 9)</u>				
<u>Ground Floor</u>				
Window 31	Bedroom	1.5 hours	0 hours	Yes
Window 32	Bedroom	1.5 hours	0 hours	
Windows 33 & 34	Living/Dining/Kitchen	1.5 hours	3.5 hours	
<u>Block 3 and 4 (Unit 10)</u>				
<u>Ground Floor</u>				
Window 35	Bedroom	1.5 hours	4.4 hours	Yes
Window 36	Bedroom	1.5 hours	0 hours	
Windows 37 & 38	Living/Dining/Kitchen	1.5 hours	6.5 hours	
<u>Block 3 and 4 (Unit 11)</u>				
<u>Ground Floor</u>				
Window 39	Living/Dining/Kitchen	1.5 hours	0 hours	Yes
Window 40	Bedroom	1.5 hours	4.3 hours	
Window 41	Bedroom	1.5 hours	4.2 hours	
<u>Block 3 and 4 (Unit 12)</u>				
<u>Ground Floor</u>				
Window 42	Bedroom	1.5 hours	4.3 hours	Yes
Window 43	Bedroom	1.5 hours	4.3 hours	
Window 44	Living/Dining/Kitchen	1.5 hours	4.3 hours	
<u>Block 1 and 2 (Unit 101)</u>				
<u>First Floor</u>				
Windows 45 & 46	Living/Dining/Kitchen	1.5 hours	0 hours	No
Windows 47 & 48	Bedroom	1.5 hours	1.3 hours	
<u>Block 1 and 2 (Unit 102)</u>				
<u>First Floor</u>				
Windows 49 & 50	Bedroom	1.5 hours	6.8 hours	Yes
Window 51	Bedroom	1.5 hours	6.8 hours	
Windows 52 to 54	Living/Dining/Kitchen	1.5 hours	6.3 hours	
<u>Block 1 and 2 (Unit 103)</u>				
<u>First Floor</u>				
Windows 55 to 57	Living/Dining/Kitchen	1.5 hours	5.3 hours	Yes
Windows 58 & 59	Bedroom	1.5 hours	4.8 hours	
Window 60	Bedroom	1.5 hours	7 hours	

Appendix 3 - Sunlight Exposure

9 and 10 High Street, Hitchin Hertfordshire SG5 1BH

Reference	Room Use	Target Sunlight Exposure	Sunlight Exposure Achieved	At least one room meets Sunlight Exposure Target
<u>Block 1 and 2 (Unit 104)</u>				
<u>First Floor</u>				
Windows 61 to 63	Living/Dining/Kitchen	1.5 hours	0 hours	No
Window 64	Bedroom	1.5 hours	0 hours	
<u>Block 1 and 2 (Unit 105)</u>				
<u>First Floor</u>				
Window 65	Bedroom	1.5 hours	0 hours	Yes
Windows 66 to 68	Living/Dining/Kitchen	1.5 hours	2.8 hours	
<u>Block 1 and 2 (Unit 106)</u>				
<u>First Floor</u>				
Window 69	Bedroom	1.5 hours	7.1 hours	Yes
Window 70	Bedroom	1.5 hours	3.8 hours	
Windows 71 to 73	Living/Dining/Kitchen	1.5 hours	5.5 hours	
<u>Block 3 and 4 (Unit 107)</u>				
<u>First Floor</u>				
Windows 74 to 76	Living/Dining/Kitchen	1.5 hours	5.9 hours	Yes
Window 77	Bedroom	1.5 hours	6.8 hours	
Window 78	Bedroom	1.5 hours	6.5 hours	
<u>Block 3 and 4 (Unit 108)</u>				
<u>First Floor</u>				
Windows 79 to 81	Living/Dining/Kitchen	1.5 hours	0.3 hours	No
Window 82	Bedroom	1.5 hours	0 hours	
<u>Block 3 and 4 (Unit 109)</u>				
<u>First Floor</u>				
Window 83	Bedroom	1.5 hours	6.8 hours	Yes
Windows 84 to 86	Living/Dining/Kitchen	1.5 hours	9.5 hours	
Window 87	Bedroom	1.5 hours	3.8 hours	
<u>Block 3 and 4 (Unit 110)</u>				
<u>First Floor</u>				
Windows 88 & 89	Living/Dining/Kitchen	1.5 hours	0 hours	No
Window 90	Bedroom	1.5 hours	0 hours	
<u>Block 3 and 4 (Unit 111)</u>				
<u>First Floor</u>				
Window 91	Bedroom	1.5 hours	3.8 hours	Yes
Windows 92 & 93	Living/Dining/Kitchen	1.5 hours	1.8 hours	

Appendix 3 - Sunlight Exposure

9 and 10 High Street, Hitchin Hertfordshire SG5 1BH

Reference	Room Use	Target Sunlight Exposure	Sunlight Exposure Achieved	At least one room meets Sunlight Exposure Target
<u>Block 3 and 4 (Unit 112)</u>				
<u>First Floor</u>				
Window 94	Bedroom	1.5 hours	0 hours	Yes
Windows 95 & 96	Living/Dining/Kitchen	1.5 hours	1.8 hours	
Window 97	Bedroom	1.5 hours	6.2 hours	
<u>Block 3 and 4 (Unit 113)</u>				
<u>First Floor</u>				
Window 98	Bedroom	1.5 hours	4.3 hours	Yes
Window 99	Bedroom	1.5 hours	4.3 hours	
Windows 100 & 101	Living/Dining/Kitchen	1.5 hours	4.3 hours	
<u>Block 3 and 4 (Unit 114)</u>				
<u>First Floor</u>				
Window 102	Living/Dining/Kitchen	1.5 hours	4.3 hours	Yes
Window 103	Bedroom	1.5 hours	4.3 hours	
<u>Block 1 and 2 (Unit 201)</u>				
<u>Second Floor</u>				
Windows 104 & 105	Living/Dining/Kitchen	1.5 hours	0.8 hours	No
Windows 106 & 107	Bedroom	1.5 hours	1.3 hours	
<u>Block 1 and 2 (Unit 202)</u>				
<u>Second Floor</u>				
Windows 108 & 109	Bedroom	1.5 hours	6.3 hours	Yes
Window 110	Bedroom	1.5 hours	6.1 hours	
Windows 111 to 113	Living/Dining/Kitchen	1.5 hours	6.3 hours	
<u>Block 1 and 2 (Unit 203)</u>				
<u>Second Floor</u>				
Windows 114 to 116	Living/Dining/Kitchen	1.5 hours	5.8 hours	Yes
Windows 117 & 118	Bedroom	1.5 hours	4.8 hours	
Window 119	Bedroom	1.5 hours	7 hours	
<u>Block 1 and 2 (Unit 204)</u>				
<u>Second Floor</u>				
Windows 120 to 122	Living/Dining/Kitchen	1.5 hours	0 hours	No
Window 123	Bedroom	1.5 hours	0 hours	
<u>Block 1 and 2 (Unit 205)</u>				
<u>Second Floor</u>				
Window 124	Bedroom	1.5 hours	0 hours	Yes
Windows 125 to 127	Living/Dining/Kitchen	1.5 hours	3.5 hours	

Appendix 3 - Sunlight Exposure

9 and 10 High Street, Hitchin Hertfordshire SG5 1BH

Reference	Room Use	Target Sunlight Exposure	Sunlight Exposure Achieved	At least one room meets Sunlight Exposure Target
<u>Block 1 and 2 (Unit 206)</u>				
<u>Second Floor</u>				
Window 128	Bedroom	1.5 hours	7.1 hours	Yes
Window 129	Bedroom	1.5 hours	4.2 hours	
Windows 130 to 132	Living/Dining/Kitchen	1.5 hours	5.8 hours	
<u>Block 3 and 4 (Unit 207)</u>				
<u>Second Floor</u>				
Windows 133 to 135	Living/Dining/Kitchen	1.5 hours	6.5 hours	Yes
Window 136	Bedroom	1.5 hours	6.8 hours	
Window 137	Bedroom	1.5 hours	6.5 hours	
<u>Block 3 and 4 (Unit 208)</u>				
<u>Second Floor</u>				
Windows 138 to 140	Living/Dining/Kitchen	1.5 hours	1.3 hours	No
Window 141	Bedroom	1.5 hours	0 hours	
<u>Block 3 and 4 (Unit 209)</u>				
<u>Second Floor</u>				
Window 142	Bedroom	1.5 hours	6.8 hours	Yes
Windows 143 to 145	Living/Dining/Kitchen	1.5 hours	9.5 hours	
Window 146	Bedroom	1.5 hours	4 hours	
<u>Block 3 and 4 (Unit 210)</u>				
<u>Second Floor</u>				
Windows 147 & 148	Living/Dining/Kitchen	1.5 hours	0 hours	No
Window 149	Bedroom	1.5 hours	0 hours	
<u>Block 3 and 4 (Unit 211)</u>				
<u>Second Floor</u>				
Window 150	Bedroom	1.5 hours	3.8 hours	Yes
Windows 151 & 152	Living/Dining/Kitchen	1.5 hours	3.8 hours	
<u>Block 3 and 4 (Unit 212)</u>				
<u>Second Floor</u>				
Window 153	Bedroom	1.5 hours	0 hours	Yes
Windows 154 & 155	Living/Dining/Kitchen	1.5 hours	3.8 hours	
Window 156	Bedroom	1.5 hours	6.5 hours	
<u>Block 3 and 4 (Unit 213)</u>				
<u>Second Floor</u>				
Windows 157 to 159	Living/Dining/Kitchen	1.5 hours	9.5 hours	Yes
Window 160	Bedroom	1.5 hours	4.4 hours	

Appendix 3 - Sunlight Exposure

9 and 10 High Street, Hitchin Hertfordshire SG5 1BH

Reference	Room Use	Target Sunlight Exposure	Sunlight Exposure Achieved	At least one room meets Sunlight Exposure Target
<u>Block 3 and 4 (Unit 214)</u>				
<u>Second Floor</u>				
Window 161	Bedroom	1.5 hours	4.4 hours	Yes
Windows 162 to 164	Living/Dining/Kitchen	1.5 hours	9.5 hours	
<u>Block 1 and 2 (Unit 301)</u>				
<u>Third Floor</u>				
Windows 165 & 166	Living/Dining/Kitchen	1.5 hours	0 hours	Yes
Window 167	Bedroom	1.5 hours	1.3 hours	
Windows 168 & 169	Bedroom	1.5 hours	7.3 hours	
<u>Block 1 and 2 (Unit 302)</u>				
<u>Second Floor</u>				
Windows 170 & 171	Bedroom	1.5 hours	9.5 hours	Yes
Window 172	Bedroom	1.5 hours	4.1 hours	
Windows 173 & 174	Living/Dining/Kitchen	1.5 hours	1.8 hours	
<u>Block 3 and 4 (Unit 303)</u>				
<u>Second Floor</u>				
Windows 175 to 177	Living/Dining/Kitchen	1.5 hours	3.5 hours	Yes
Window 178	Bedroom	1.5 hours	1.3 hours	
Windows 179 & 180	Bedroom	1.5 hours	9.4 hours	
<u>Block 3 and 4 (Unit 304)</u>				
<u>Third Floor</u>				
Windows 181 to 183	Living/Dining/Kitchen	1.5 hours	9.5 hours	Yes
Window 184	Bedroom	1.5 hours	4.1 hours	
Windows 185 & 186	Bedroom	1.5 hours	4.1 hours	